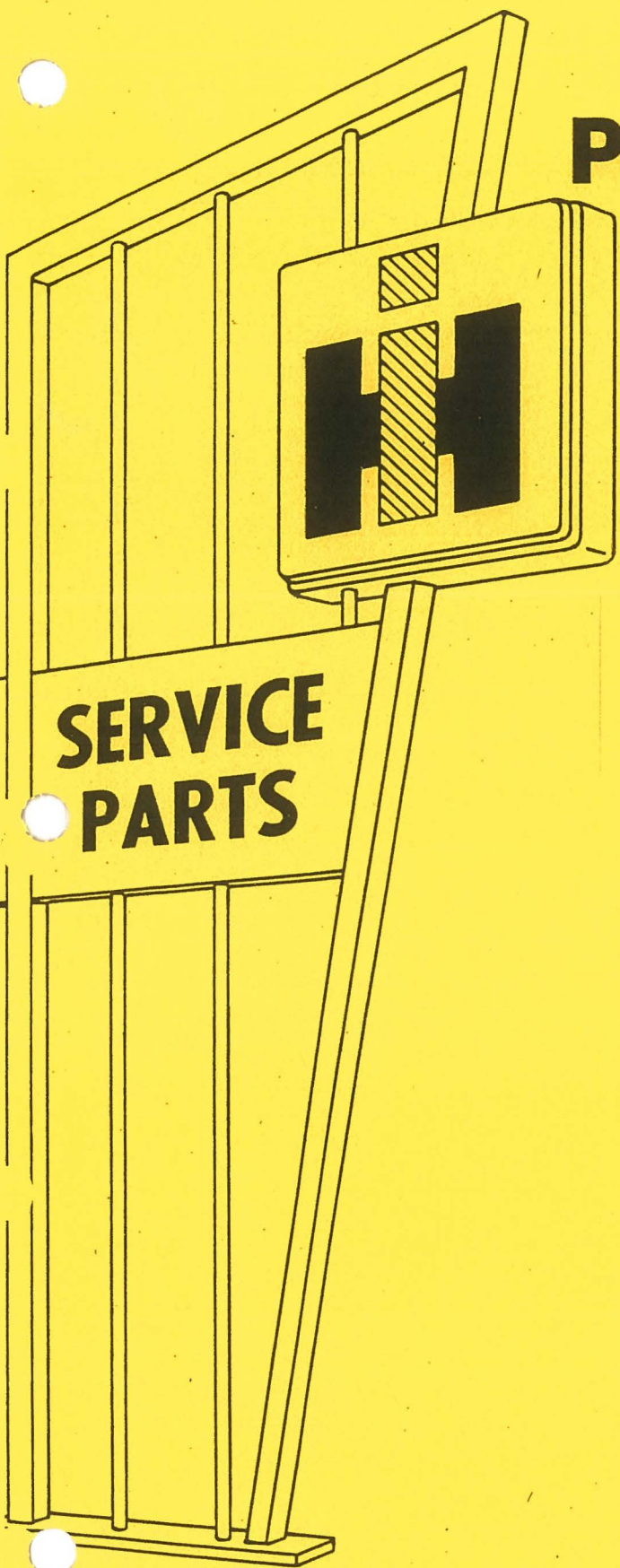


PARTS CATALOG



TC-96D

TD-20 SERIES B

**CRAWLER TRACTOR
And
TRACTOR EQUIPMENT**

3 IN UNITED STATES OF AMERICA

INTERNATIONAL HARVESTER COMPANY • 401 NORTH MICHIGAN AVE. • CHICAGO, ILLINOIS 60611, U. S. A.

IMPORTANT
Check Your Stock of TC-96D Catalogs
and Order Number of Revisions Required.

This is a Partial Revision
Insert this Page in Front of Present Title Page
(Do Not Remove or Destroy Present Title Page)

REFER TO THE FOLLOWING PAGE FOR INSTRUCTIONS
FOR THIS REVISION.

PARTIAL REVISION NO. 7
TO
TD-20 SERIES B
CRAWLER TRACTOR
AND
TRACTOR EQUIPMENT
FORM
TC-96D

Following is a list of revised and/or supplementary pages. Remove and destroy the old pages with corresponding page numbers and insert additional new pages sent herewith.

*33	*163A	*269
*34	167	*270
*35	*168	*273
36	169	274
93	*170	289
*94	195	*290
97	*196	*291
*98	*212A	*292
*98A	212B	311
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*99	*228	317
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*106	*235	*320
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*114	*237	322
151	*238	326A%
*152	*239	326B%
*159	*240	#347
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*161	*254	
162	*255	
163	*256	

* - The asterisk indicates pages revised or added.

% - Supplement to numerical index.

- New and displaced parts list. (Replaces Old Pages 347 and 348.)

Due to a continuous program of research and development, some procedures, specifications and parts may be altered in a constant effort to improve machines.

Periodic revisions may be made to this publication and mailed automatically to distributors. It is recommended that customers contact their distributor or dealer for information on the latest revision.

(THIS CATALOG INCLUDES REVISIONS 1, 2, 3 AND 4)

**TD-20 SERIES B
CRAWLER TRACTOR
AND
TRACTOR EQUIPMENT**

**FORM
TC-96D**

OCTOBER, 1967

*(Supersedes FORMS TC-96, TC-96A,
TC-96B and TC-96C which should
be destroyed)*

The Importance of ADEQUATE PARTS and SERVICE

The wise purchaser of a new machine gives consideration to the following factors:

1. *Original quality*
2. *Availability of service parts*
3. *Availability of adequate service facilities*

In many cases the machine becomes the only means of performing certain tasks that must be done in a limited period of time. Wear is to be expected and under extreme conditions even breakage of parts may occur. However, the user can still be assured of getting his work done on time if service parts and adequate service facilities are available.

Foresighted International Harvester dealers make every effort to provide good service and maintain a completely adequate stock of service parts.

When in need of parts, always give the International Construction Equipment distributor or dealer your serial numbers. We suggest that you write these serial numbers in the spaces provided below, for ready reference when parts are required.

CHASSIS SERIAL NO. _____
(Stamped on the model plate attached to the left-hand seat side sheet)

ENGINE SERIAL NO. _____
(Stamped on the right side of the engine crankcase toward the rear)

BULLGRADER SERIAL NO. _____
(Stamped on name plate located on top right-hand corner in back of blade)

BULLDOZER SERIAL NO. _____
(Stamped on name plate located on top right-hand corner in back of blade)

110 CABLE CONTROL UNIT SERIAL NO. _____
(Stamped on name plate on right-hand dust cover)

20 B-260 CABLE CONTROL UNIT SERIAL NO. _____
(Stamped on name plate on left-hand side cover)

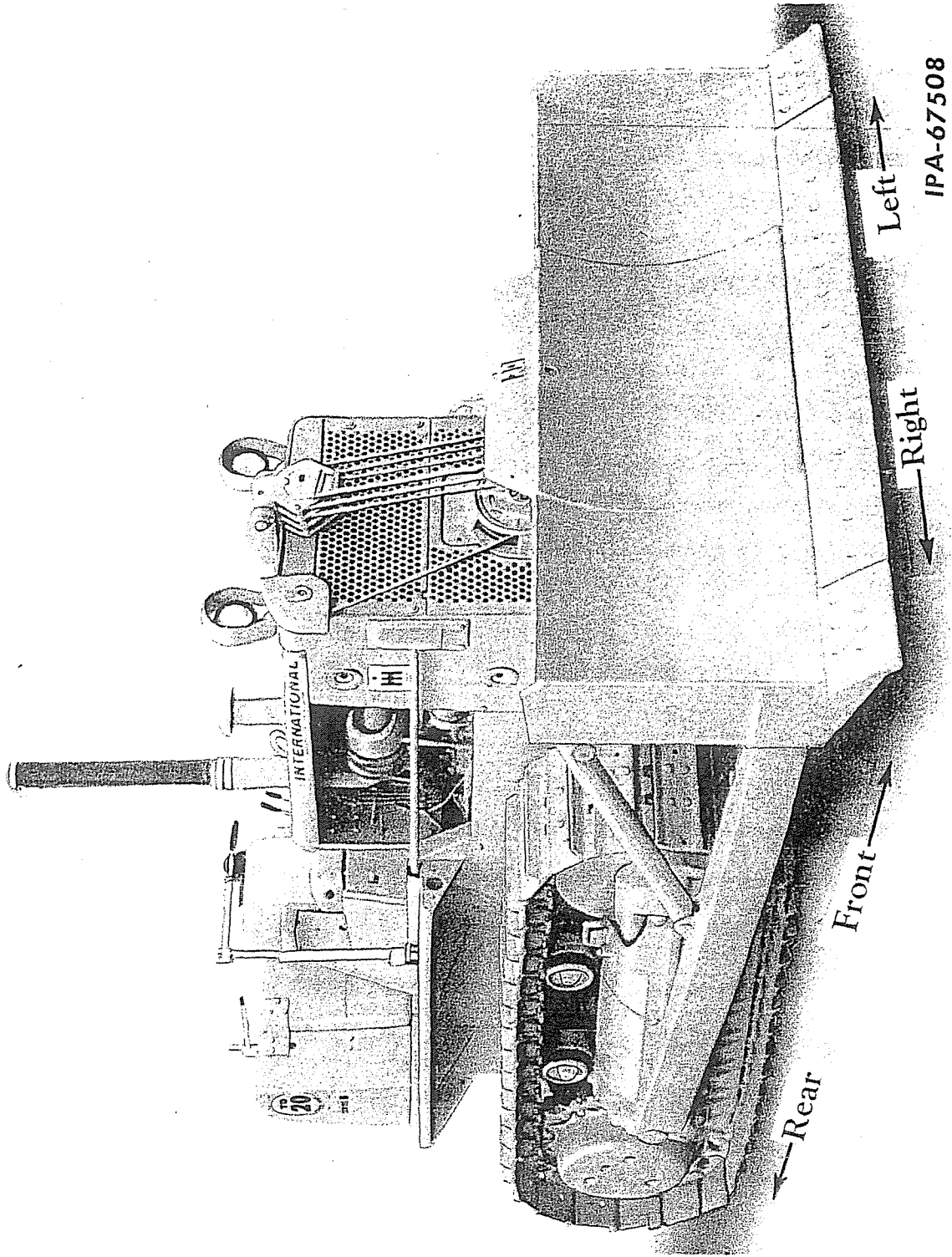
20 B-260S CABLE CONTROL UNIT SERIAL NO. _____
(Stamped on name plate on left-hand side cover)

INSTRUCTIONS FOR ORDERING PARTS

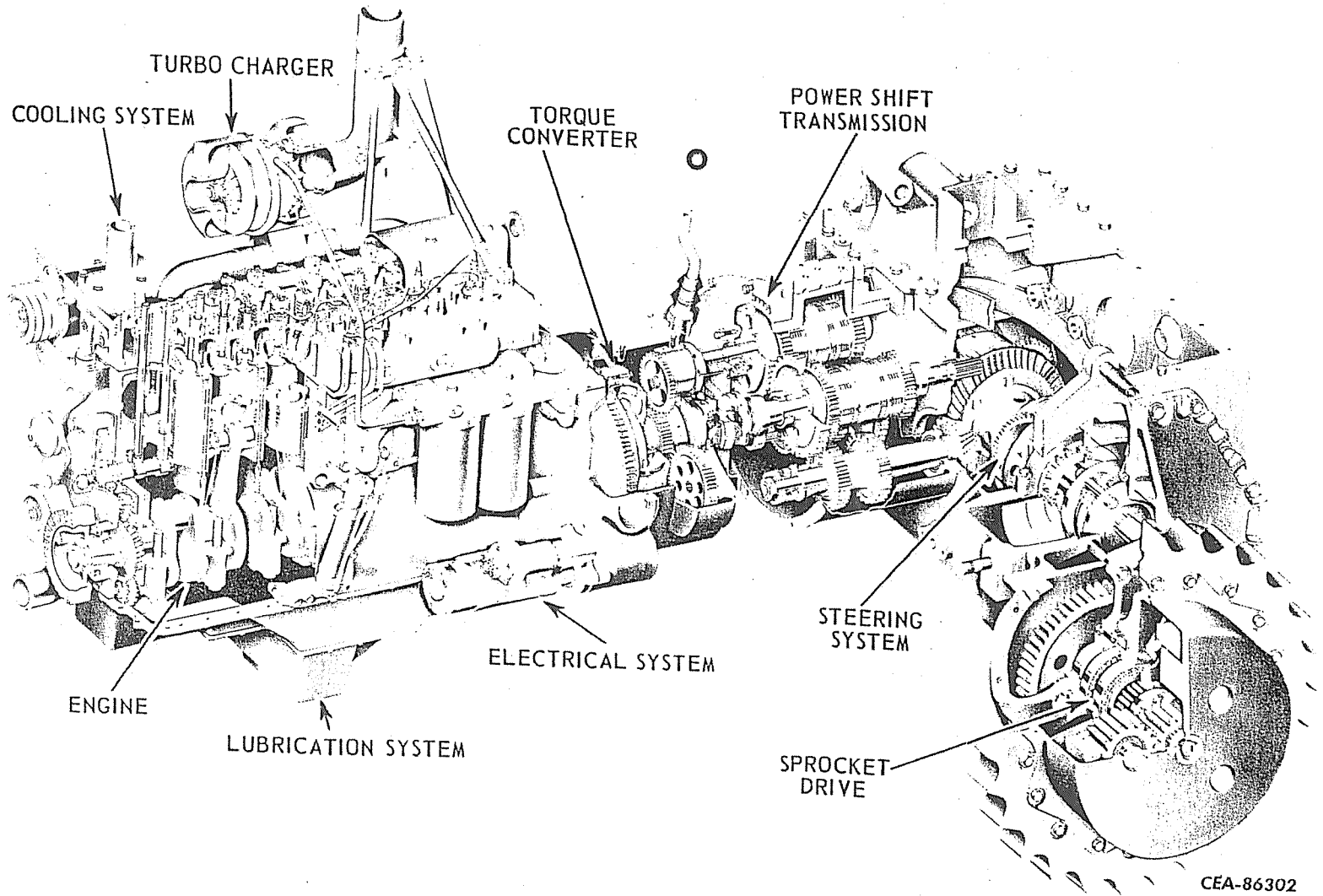
- (a) All parts orders should be sent to the control district office or parts depot when so instructed. Give complete address, state the county and railroad station (when shipping point is different than post office), also whether shipment is to go by parcel post, express, truck, or freight.
- (b) When ordering parts, give the IH part number, including suffix or prefix letters. To facilitate identification of these parts, "Complete Serial Numbers" (including letters and numerals) assigned to machines, if any, should be furnished.
- (c) Parts should be ordered on the standard parts order blank. The parts should be arranged in sequence by part numbers to facilitate service on orders at the control district office or parts depot.
- (d) Claims for shortage or error in the handling of an order for parts must be made upon receipt of goods.

It is the policy of International Harvester Company to improve its products whenever it is possible and practical to do so.

We reserve the right to make changes or add improvements in the design or construction of parts at any time without incurring the obligation to install such changes on products previously delivered.



TD 20 Series B Crawler Tractor equipped with cable operated bulldozer



Cutaway view of Line Power For TD 20 Series B Powershift Crawler Tractor

INTRODUCTION

This catalog contains a list of parts for the following:

CRAWLER TRACTORS

TD-20 (Series B)	Power Shift
TD-20 (Series B)	Sideboom

These crawler tractors have a six-cylinder 4-1/2 x 4-1/2 inch turbocharged diesel engine.

CABLE OPERATED BULLGRADER AND BULLDOZERS

Model 20B D-1	Bulldozer
Model 20B D-3	Bulldozer
Model 20B G-1	Bullgrader
Model 20B G-3	Bullgrader

HYDRAULIC OPERATED BULLGRADERS AND BULLDOZERS

Model 20B D-2	Bulldozer
Model 20B G-2	Bullgrader

CABLE CONTROL UNITS

Model 110	Single drum front mounted
Model 20-260	Double drum rear mounted
Model 20-260S	Single drum rear mounted

Refer to paragraph 9 for key to model numbers and letters.

Following is a brief summary of the system used in compiling this catalog. It is to your advantage to carefully study this summary.

This catalog is printed in a double column page format, and is divided into four sections---Introductory Pages, Indexes to Units, Illustrations and Parts Lists, and Numerical Index.

(1) INDEXES. Two types of indexes are used. The index to units alphabetically lists all of the units by page number. The numerical index at the back of the catalog lists all part numbers (excluding standard fasteners) giving the page number where the part is listed.

NOTE - Refer frequently to the Index to Units to save time of locating the proper unit.

(2) ILLUSTRATIONS. Parts in this catalog are illustrated by the "exploded view" method. Individual parts in each illustration are shown where they belong in relation to one another. Reference numbers only are shown in each illustration. These numbers correspond with numbers in the Reference Number column in the accompanying list of parts. Parts in illustrations without reference numbers are the same as duplicate parts with reference numbers.

CAUTION: Reference numbers should not be used when ordering parts. Always use IH part numbers or description when ordering.

(3) METHOD OF LISTING. The parts list of each classification is divided into units. Parts are listed in order according to reference number shown in the illustration, followed by a full description based upon the "noun first" method---i. e., the noun name of the part is listed first then the modifying descriptive information which serves to specifically identify the item. For example: SHAFT w/two PLUGS ASSEMBLY, valve lever. Parts not shown in illustrations appear at end of list in alphabetical sequence by noun name. Parts listed will work on all units covered in this catalog unless a serial number or other qualifying designation is given for purpose of identification.

Throughout this catalog the term "Front" indicates the radiator end. Whenever the terms "Right" or "Left" are used it should be understood to mean from a rear position looking toward the radiator end.

MANUFACTURERS PART NUMBERS ARE LISTED IN BRACKETS FOLLOWING THE DESCRIPTION OF THE PART.

(4) NUMBER REQUIRED. In this new double-column catalog format the single "No. Req'd." column is eliminated and the quantity used of each item is shown in parenthesis (4) following the description of the item. Where no quantity is indicated it should be understood to mean that only one (1) is required.

In many parts lists it is possible to include more than one assembly or attachment. The assemblies or attachments are listed at the beginning of the parts lists with the letters A, B, C, etc., preceding the part number of the assembly or attachment. The number required information is shown in parenthesis following the description of the parts. When letters (A, B, C, etc.) are shown without a quantity it should be understood to mean only one (1) is required. Parts without letters after the description indicate the part is used for all assemblies or attachments listed in the heading.

(5) ASSEMBLIES AND ATTACHMENTS. Wherever possible the component parts of assemblies or attachments are shown in the "exploded views" by use of boxes, brackets or arrows. Component parts of assemblies or attachments are listed by one of the following methods.

(a) The listings are fully covered by descriptions for simple assemblies and attachments.

(b) When four or more parts are contained in the assemblies or attachments the listing of components immediately follows the description with the wording "(Composed of-)."

INTRODUCTION - Continued

(c) Assemblies or attachments consisting of many parts shows the assembly or attachment number at the beginning of the unit list, followed by the listing of the components.

Exceptions to the above methods are explained by footnotes in the text.

Individual parts of an assembly which are not available for service are marked with a symbol §. In some instances, such parts are listed with a notation giving the information which is to be used for ordering.

(6) MISCELLANEOUS PARTS. Standard bolts, screws, nuts, etc. --- are not identified by a reference number. These parts are known as COMMON HARDWARE items and appear in abbreviated nomenclature and are shown indented under the major items with which they are used. They should be ordered as listed, since they are not component parts of the pieces they attach. Hardware parts identified with part numbers have been designed for a specific usage. Standard hardware parts should not be substituted for them.

WARNING: Attaching parts especially made for their location should never be substituted with regular standard parts.

The following rules are established to govern the listing of attaching parts:

The part number for Common Hardware items is eliminated. However, Design Hardware items will continue to be listed by part number and description.

All Carriage, Machine and Plow BOLTS; NUTS; Cap, Machine and Set SCREWS, will be considered furnished with National Coarse Thread unless otherwise specified. The number of threads per inch will be eliminated.

All NUTS will be considered "hex." unless otherwise specified.

All WASHERS will be considered "Plain" unless otherwise specified. The "ID", "OD" and "No." identity will be eliminated. The inside dimension will be listed first, followed by the outside diameter and the thickness.

All lock WASHERS will be considered "Medium" type unless specified as "Light" or "Heavy."

All cotter PINS will be considered "Extended-Prong" type unless otherwise specified.

All groove PINS will be considered "Standard Groove" unless otherwise specified.

All common RIVETS will be considered "Annealed" unless otherwise specified.

All countersunk-head tubular RIVETS will be considered "Copper-Plated Steel" unless otherwise specified.

All oval-head tubular RIVETS will be considered "Brass."

Standard bolts used in International Harvester Products are manufactured under standards known as Unified National Coarse Thread (U. N. C.) and Unified National Fine Thread (U. N. F.) with the number of threads per inch for various diameters as follows:

Diameter of Bolt	No. of Threads per inch (U.N.C.)	No. of Threads per inch (U.N.F.)
1/4"	20	28
5/16"	18	24
3/8"	16	24
7/16"	14	20
1/2"	13	20
9/16"	12	18
5/8"	11	18
3/4"	10	16
7/8"	9	14
1"	8	14
1-1/8"	7	12
1-1/4"	7	12
1-3/8"	6	12
1-1/2"	6	12

(7) ABBREVIATIONS. The abbreviations used in this catalog are explained in the list of abbreviations on page 6.

(8) SERIAL NUMBERS.

(A) CRAWLER TRACTORS:

Crawler Tractor	Engine	Chassis
	Starting Serial Number	Starting Serial Number
TD-20 (Series B) Power Shift	TD-20BPM 510	TD-20BP 4001
TD-20 (Series B) Sideboom	TD-20BPSM 2680	TD-20BPS 6110

The engine serial numbers are stamped on the right side of the engine crankcase toward the rear.

The chassis serial numbers are stamped on the model plate attached to the left hand seat side sheet.

No attempt is made at the factory to have the engine and chassis serial numbers correspond.

INTRODUCTION - Continued

(B) BULLGRADERS AND BULLDOZERS:

Following is a list of starting serial numbers for these units.

<u>Model</u>	<u>Starting Serial Number</u>
20B D-1 Bulldozer	TD-20B D-1 3501
20B D-2 Bulldozer	TD-20B D-2 3501
20B D-3 Bulldozer	TD-20B D-3 3501
20B G-1 Bullgrader	TD-20B G-1 3501
20B G-2 Bullgrader	TD-20B G-2 3501
20B G-3 Bullgrader	TD-20B G-3 3501

Serial numbers for Bulldozer equipment start at 3501 and run consecutively upwards. Serial numbers for Bullgrader equipment start at 3501 and run consecutively upwards.

The serial numbers are stamped on the name plate on the back of the blade at the top of the right hand corner.

<u>Number Code</u>	<u>Letter Code</u>
1 - Using front mounted cable control unit. (cable operated)	
2 - Hydraulic operated.	G - Bullgrader
3 - Using rear mounted cable control unit. (cable operated)	D - Bulldozer

(C) CABLE CONTROL UNITS:

Following is a list of starting serial numbers for these units.

<u>Model</u>	<u>Starting Serial Number</u>
110 Single Drum Front Cable Control Unit	110 801
20-260 Double Drum Rear Cable Control Unit	20-260 501
20-260S Single Drum Rear Cable Control Unit	20-260S 501

The serial numbers for 110 Single Drum Cable Control Unit are stamped on the name plate on the right hand dust cover.

The serial numbers for 20-260S Single Drum Cable Control Unit are stamped on the name plate on the left hand end cover.

The serial numbers for 20-260 Double Drum Cable Control Unit are stamped on the name plate on the left hand end cover.

Customer should be urged to supply the serial numbers, for the units listed above, when ordering parts.

LIST OF ABBREVIATIONS

A period after the abbreviation is used only when the abbreviation form spells a common English word.

<p>adj adjustable</p> <p>al aluminum</p> <p>ast alloy steel</p> <p>amp ampere, amperes</p> <p>anl annealed</p> <p>approx approximately</p> <p>assy assembly</p> <p>att attachment</p> <p>bd-hd binding head</p> <p>b-hd button head</p> <p>brg bearing</p> <p>brs brass</p> <p>brz bronze</p> <p>cd-pltd cadmium plated</p> <p>cd-pltd-stl cadmium plated steel</p> <p>C-Z cadmium or zinc plated</p> <p>cr-pltd chromium plated</p> <p>cr-pltd-stl chromium plated steel</p> <p>CI cast iron</p> <p>csk countersunk</p> <p>csk-hd countersunk head</p> <p>cl-rec-hd clutch recess head</p> <p>com common</p> <p>cone-pt cone point</p> <p>cont continued</p> <p>cop copper</p> <p>cpl copper plated</p> <p>cot. cotter</p> <p>c-pin cotter pin</p> <p>crs corrosion-resistant-steel (stainless)</p> <p>cr-rec-hd cross recess head</p> <p>cre corrosion resisting</p> <p>crg carriage</p> <p>cup-pt cup point</p> <p>cyl cylinder, cylinders</p> <p>deg degree</p> <p>dia diameter</p> <p>dld drilled</p> <p>dld-f/c-pin drilled for cotter pin</p> <p>dld-f/lkg-wire drilled for locking wire</p> <p>dog-pt dog point</p> <p>ext external</p> <p>f/ for</p> <p>fem female</p> <p>fil-hd fillister head</p> <p>fin-nk fin neck</p> <p>f-csk-hd flat countersunk head</p> <p>f-fil-hd flat fillister head</p> <p>f-hd flat head</p> <p>f-pt flat point</p> <p>flex. flexible</p> <p>fltd fluted</p> <p>ft foot, feet</p> <p>ga gauge</p> <p>hd head</p> <p>hdls headless</p> <p>hex. hexagon</p> <p>hex-hd hexagon head</p> <p>hex-soc-hd hexagon socket head</p> <p>hp horsepower</p> <p>hv heavy</p> <p>hyd hydraulic</p> <p>ID inside diameter</p> <p>in. inch, inches</p> <p>int internal</p>	<p>lb pound, pounds</p> <p>lentil-hd lentil head</p> <p>LH left hand</p> <p>lkg locking</p> <p>LP Gas Liquefied Petroleum Gas</p> <p>lub lubrication</p> <p>mach. machine</p> <p>med medium</p> <p>MI malleable iron</p> <p>NC National Coarse (thread)</p> <p>NF National Fine (thread)</p> <p>ni nickel</p> <p>ni-pltd-stl nickel plated steel</p> <p>No. number</p> <p>NPT National pipe thread</p> <p>OC outside circumference</p> <p>OD outside diameter</p> <p>O/S oversize</p> <p>ov-hd oval head</p> <p>oz ounce, ounces</p> <p>parkerized-stl parkerized steel</p> <p>pkg package</p> <p>pltd plated</p> <p>pt point</p> <p>PTO power take-off</p> <p>rd-end round end</p> <p>rd-hd round head</p> <p>rd-pt round point</p> <p>reg regular</p> <p>RH right hand</p> <p>RPM revolutions per minute</p> <p>SAE Society of Automotive Engineers</p> <p>sf semi-finished</p> <p>slt slotted</p> <p>slt-hd slotted head</p> <p>slt-bd-hd slotted binding head</p> <p>slt-fil-hd slotted fillister head</p> <p>slt-f-hd slotted flat head</p> <p>slt-hex-hd slotted hexagon head</p> <p>slt-pan-hd slotted pan head</p> <p>slt-rd-hd slotted round head</p> <p>slt-truss-hd slotted truss head</p> <p>sq square</p> <p>sq-hd square head</p> <p>sq-nk square neck</p> <p>std standard</p> <p>std-hd standard head</p> <p>stl steel</p> <p>str straight</p> <p>T teeth</p> <p>tap. tapping</p> <p>thd thread</p> <p>UNC Unified Coarse (thread)</p> <p>UNF Unified Fine (thread)</p> <p>U/S undersize</p> <p>unfin unfinished</p> <p>wb-hd wagon box head</p> <p>w/ with</p> <p>w/brz with bronze</p> <p>w/hex. with hexagon</p> <p>w/o without</p> <p>zn zinc</p> <p>zn-ct zinc coated</p> <p>zn-pltd zinc plated</p>
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QUICK REFERENCE FILTER ELEMENTS AND BELTS FOR MODEL TD-20 SERIES B CRAWLER TRACTOR

ELEMENTS

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TD-20 BPM 510 to 2526		306 353 R91
Primary fuel filter element w/gasket (Not for machines equipped with water separator attachment)		
TD-20 BPM 2527 up		349 280 R91
Primary fuel filter element w/gasket (For machines equipped with water separator attachment)		609 409 C91
Final fuel filter element w/gasket		
TD-20 BPM 510 to 2526		304 101 R91
Final fuel filter element w/gasket		
TD-20 BPM 2527 up		323 960 R91

AIR CLEANER

Not heavy duty		
Air cleaner element (Donaldson)		613 986 C91
or		or
Air cleaner element (Airmaze)		702 244 C91
TD-20 BP 4001 to 6136		
TD-20 BPS 6110 to 6136		
Inner air cleaner element		606 861 C91
Outer air cleaner element		606 860 C91
TD-20 BP 6137 up		
TD-20 BPS 6137 up		
Heavy Duty		
Air cleaner element		610 029 C91

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ELEMENTS - Continued

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Hydraulic tank filter element	336 670 R91

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Fan and generator belt set	326 998 R11
Fan and alternator belt set	670 741 C1

DIESEL ENGINE

BASIC SERVICE ENGINE (DT-429)

for

TD-20 (Series B) CRAWLER TRACTOR

349 342 R91 Basic Service Diesel Engine (See NOTE)

(Consists of -

Camshaft and Related Parts

Connecting Rods, Pistons and Cylinder
Sleeves

Crankcase

Crankcase Front Cover, Plate, Idler Gear
and Related Parts

Crankshaft and Related Parts

Cylinder Head, Valve Housing, Valves and
Related Parts

Injection Pump Drive

Oil Pan

Oil Pump)

REPLACEMENT SERVICE ENGINE (DT-429)

for

TD-20 (Series B) CRAWLER TRACTOR

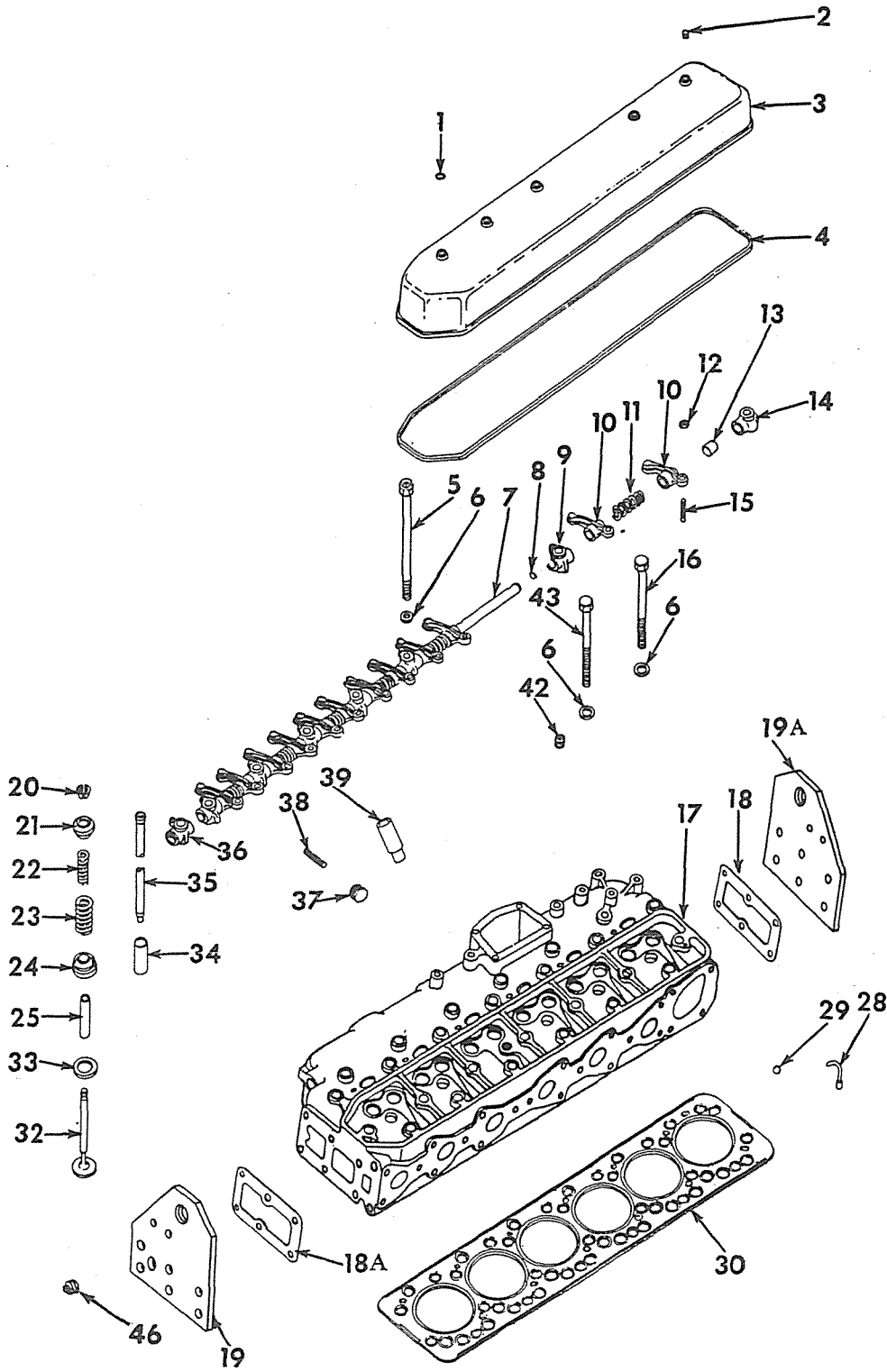
701 129 C91 ENGINE, replacement (Model TD-20 (Series B) with
Turbocharger and Roosa-Master fuel injection pump)
(Diesel engine complete from water pump to flywheel
inclusive) (See NOTE)

NOTE: When ordering a Service Engine, give complete
Serial number (including letters and numerals)
shown on crankcase of engine to be replaced.



DIESEL ENGINE

CYLINDER HEAD, VALVE COVER, VALVES AND VALVE LEVER ASSEMBLY



IPB-10738 E



DIESEL ENGINE

CYLINDER HEAD, VALVE COVER, VALVES AND VALVE LEVER ASSEMBLY - CONTINUED

- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27



DIESEL ENGINE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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CYLINDER HEAD, VALVE COVER, VALVES AND VALVE LEVER ASSEMBLY - CONTINUED

1	116 103	GASKET, 3/8" annular (4) 3/8 x 2-1/4" hex-hd cap SCREW (4)
2	444 655	PLUG, 1/4" sq-soc-hd pipe
3	345 078 R2	COVER, cylinder head (will work for 332 250 R1)
4	337 302 R1	GASKET, cylinder head cover
5	601 943 C2	BOLT, cylinder head 9-7/8" long (used with cover 345 078 R2) (7)
5	338 706 R1	BOLT, cylinder head (used with cover 332 250 R1) (7)
6	39 422 D	WASHER, cylinder head bolt (26)
7	326 839 R21	SHAFT, w/two PLUG, 109 544 R1 valve lever
8	109 544 R1	PLUG, expansion (2)
9	326 841 R1	BRACKET, valve lever (5)
10	326 837 R21	ARM ROCKER w/BUSHING, 326 838 R3 NUT, 133 093 R1 and SCREW, 16 067 DA, valve (12)
11	133 642 R1	SPRING, shaft (6)
12	133 093 R1	NUT, lock (12)
13	326 838 R3	BUSHING, valve lever (12)
14	326 840 R1	BRACKET, valve lever front
15	16 067 DA	SCREW, adjusting (12)
16	601 944 C2	BOLT, cylinder head 7-1/2" long (used with cover 345 078 R2) (7)
16	338 705 R1	BOLT, cylinder head (used with cover 332 250 R1) (7)
17	345 129 R93	HEAD ASSEMBLY, cylinder (Composed of - 6 BALL 16 016 R1 1 BUSHING 116 485 12 GUIDE 341 059 R1 § 1 HEAD 6 INSERT 345 015 R1 6 INSERT 610 272 C1 1 PLUG 444 667 10 PLUG 444 679 1 PLUG 444 577 6 SLEEVE 326 503 R1 18 STUD 250 450 R1 12 TUBE 326 833 R1)
18	330 421 R1	GASKET, front end plate
18A	315 817 R1	GASKET, rear end plate
19	607 339 C21	EYE w/PLUG, 444 667, rear lifting 3/8 x 1-1/8" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
19A	330 420 R2	EYE, front lifting
20	60 437 R1	LOCK, retainer (24)
21	341 076 R1	RETAINER, valve spring (12)
22	133 472 R1	SPRING, valve inner (12)
23	133 473 R1	SPRING, valve outer (12)
24	337 375 R91	ROTOCOIL (12)
25	341 059 R1	GUIDE, valve (12)
26	345 015 R1	INSERT, intake valve seat (together with 345 016 R1 will work for 326 887 R1) (6)
26	349 042 R1	INSERT, intake valve seat (.005" oversize) (6)
26	349 043 R1	INSERT, intake valve seat (.015" oversize) (6)



DIESEL ENGINE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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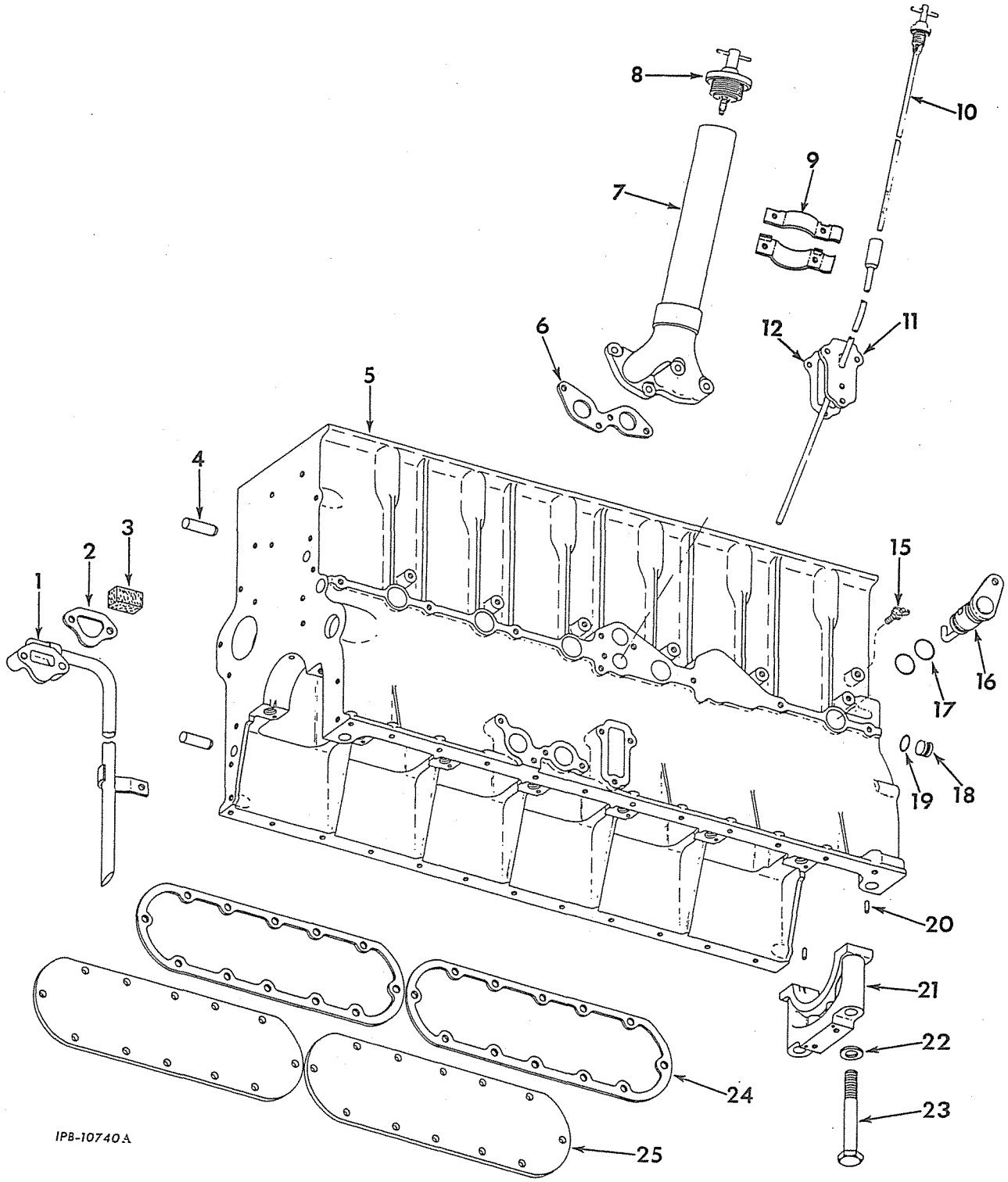
CYLINDER HEAD, VALVE COVER, VALVES AND VALVE LEVER ASSEMBLY - CONTINUED

27	601 864 C1	VALVE, intake (6)
28	326 833 R1	TUBE, jet (12)
29	16 016 R1	BALL, steel (1/2" dia-grade 3) (6)
30	341 117 R4	GASKET, cylinder head
32	341 057 R2	VALVE, exhaust (6)
33	610 272 C1	INSERT, exhaust valve seat (6)
33	609 033 C1	INSERT, exhaust valve seat (.005" oversize) (6)
33	609 034 C1	INSERT, exhaust valve seat (.015" oversize) (6)
34	911 776 R2	TAPPET, valve (12)
35	341 055 R91	ROD, push (12)
36	330 016 R1 444 655	BRACKET, valve lever rear PLUG
37	444 679	PLUG, 1" csk pipe (10)
38	250 450 R1	STUD, manifold (18)
39	326 503 R1	SLEEVE, nozzle (6)
42	444 667	PLUG, 1/2" csk pipe
43	601 945 C2	BOLT, cylinder head 7" long (used with HEAD, 345 129 R91 and COVER, 345 078 R2) (12)
43	327 197 R1	BOLT, cylinder head (used with COVER, 332 250 R1 and HEAD, 345 129 R91) (14)
43	601 944 C2	BOLT, cylinder head (7-1/2" long) (used with HEAD, 345 129 R92 or 345 129 R93 and COVER, 345 078 R2) (12)
46	444 667	PLUG, 1/2" pipe
	330 422 R91	BRACKET, stack support
	116 485	BUSHING, reducing (1 x 1/4NPT) (intake manifold end)

§ - Not Furnished Separately.

DIESEL ENGINE

CRANKCASE



IPB-10740A

DIESEL ENGINE

CRANKCASE - CONTINUED



DIESEL ENGINE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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CRANKCASE - CONTINUED

1	326 644 R11	TUBE, breather 3/8 x 3/4" hex-hd cap SCREW 3/8 x 1-1/2" hex-hd cap SCREW (2) 3/8" lock WASHER (3)
2	326 647 R1	GASKET, breather elbow
3	328 763 R1	ELEMENT, breather
4	19 843 R1	DOWEL (4)
5	670 542 C91	CRANKCASE ASSEMBLY, less sleeves (See Note) (Composed of - 1 BEARING 326 619 R1 6 BEARING 326 620 R1 14 BOLT 326 617 R1 7 CAP 349 087 R2 § 1 CRANKCASE 14 DOWEL 19 842 R1 4 DOWEL 19 843 R1 2 DOWEL 258 917 R1 1 ELEMENT 328 763 R1 2 "O" RING 352 221 R1 1 PAMPHLET 1 019 062 R1 1 PLUG 445 684 1 PLUG 9 409 949 8 PLUG 50 410 DA 2 PLUG 326 618 R1 1 PLUG 326 864 R2 14 WASHER 39 422 D)
6	326 962 R1	GASKET, oil filler elbow (2)
7	332 206 R91	TUBE, oil filler 3/8 x 1" hex-hd cap SCREW (2) 3/8 x 2-1/2" hex-hd cap SCREW (2) 3/8" lock WASHER (4)
8	303 761 R91	CAP, oil filler
9	337 310 R1	CLIP, oil level gauge to filler (2) 3/8" NUT (2) 3/8 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
10	349 037 R91	GAUGE, oil level
11	326 807 R11	TUBE w/FLANGE, oil level gauge 3/8 x 3/4" hex-hd cap SCREW (3) 3/8" lock WASHER (3)
12	326 809 R1	GASKET, flange
15	31 729 D	COCK, water jacket drain
16	330 201 R11	TUBE, piston cooling (6) 3/8 x 3/4" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
17	601 141 C1	"O" RING, 1-1/16 x 1-1/4 x 3/32" (12)
18	326 618 R1	PLUG, oil gallery (2)
19	352 221 R1	"O" RING (9/16 x 3/4 x 3/32") (2)
20	19 842 R1	DOWEL (14)
21	349 087 R2	CAP, main bearing (7)
22	39 422 D	WASHER (14)
23	326 617 R1	BOLT, bearing cap (14)
24	332 214 R1	GASKET, push rod cover (2)
25	326 642 R1	COVER, push rod (2) 3/8 x 3/4" hex-hd cap SCREW (19) 3/8" lock WASHER (19)
	362 120 R1	CLIP (4)



DIESEL ENGINE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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CRANKCASE - CONTINUED

258 917 R1	DOWEL, cylinder head (2)
120 702	ELBOW, water jacket drain
615 467 C1	INSERT, crankcase (X)
445 684	PLUG, 1/8" sq-hd pipe
9 409 949	PLUG, 3/4NPT sq sock
50 410 DA	PLUG, 1/8" pipe (8)
326 864 R2	PLUG, gear oil spray

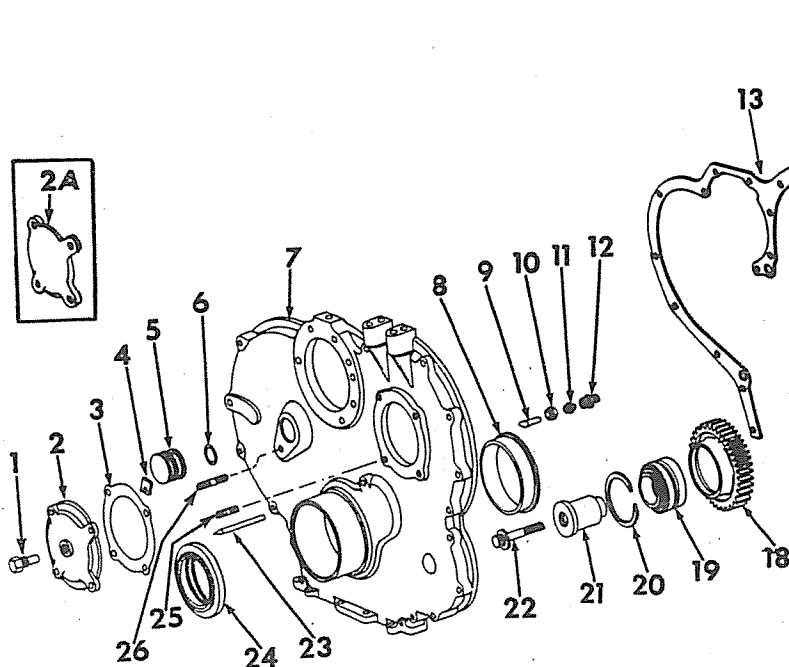
NOTE: When Ordering Sleeveless Crankcase the Cylinder Sleeve Package, 609 285 C22, When Necessary, must be Ordered Separately.

X - As Required.
§ - Not Furnished Separately.

DIESEL ENGINE



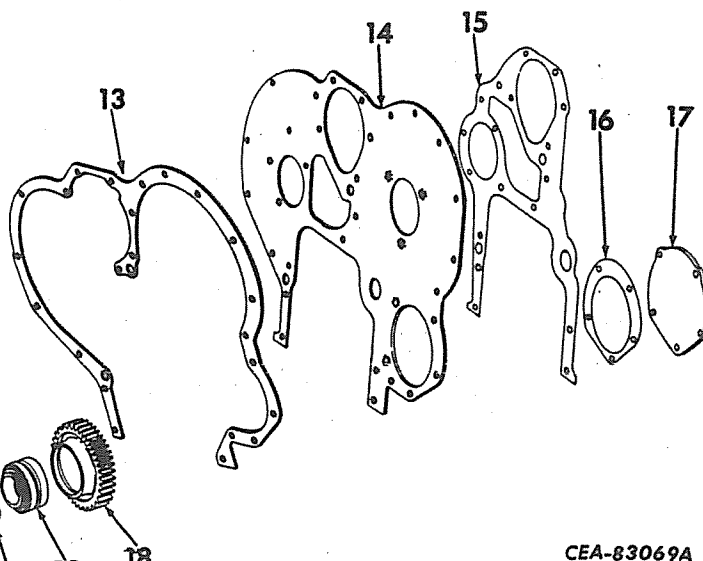
CRANKCASE FRONT COVER



DIESEL ENGINE



CRANKCASE FRONT COVER - CONTINUED



CEA-83069A

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	606 792 C91	BUTTON, thrust
2	341 521 R1	COVER, injection pump 3/8NF NUT (4) 3/8" lock WASHER (4)
2A	326 581 R1	COVER, injection pump (used on units equipped with International RD fuel injection pump) 3/8NF NUT (4) 3/8" lock WASHER (4) 13/32 x 13/16" x 16 ga WASHER (4)
3	326 582 R1	GASKET, injection pump cover
4	344 004 R1	FLANGE, tachometer adapter 3/8NF NUT 3/8" lock WASHER
5	341 209 R1	PLUG, front cover tachometer hole (*)
6	619 218 C1	"O" RING, 1 x 1-1/4 x 1/8" (*)
7	326 626 R21	COVER ASSEMBLY, front (Composed of - § 1 COVER 1 DEFLECTOR 250 908 R1 1 POINTER 326 627 R1 1 STUD 24 909 D 4 STUD 277 016 R1) 3/8" NUT (9) 7/16 x 1-1/4" hex-hd cap SCREW (2) 3/8 x 2-1/2" hex-hd cap SCREW (10) 3/8 x 3" hex-hd cap SCREW (2) 3/8" lock WASHER (12) 7/16" lock WASHER (2)
8	250 908 R1	DEFLECTOR, crankcase oil
9	326 623 R2	TUBE, gear jet spray
10	278 041 R1	NUT

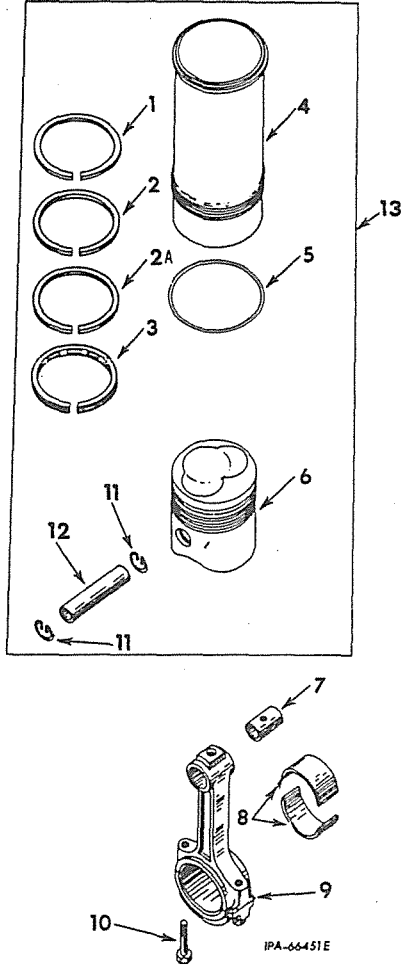
REF. NO.	I. H. PART NUMBER	DESCRIPTION
11	278 040 R2	SLEEVE
12	278 039 R1	CONNECTOR
13	607 464 C1	GASKET, crankcase front cover
14	326 621 R31	PLATE w/five NUT, 264 723 R1, front 3/8 x 1" hex-hd cap SCREW (7) 3/8" lock WASHER (7)
15	326 622 R2	GASKET, front plate
16	326 831 R1	GASKET, cover
17	326 830 R1	COVER, hydraulic pump hole 3/8" NUT (3) 3/8 x 1" hex-hd cap SCREW (2) 3/8 x 2-3/4" hex-hd cap SCREW (3) 3/8" lock WASHER (5)
18	326 624 R1	GEAR, idler
19	610 300 C91	BEARING, idler
20	252 862 R1	RING, idler snap
21	326 625 R1	SHAFT, idler
22	332 393 R1	BOLT, idler
23	326 627 R1	POINTER, timing
24	346 738 R91	OIL SEAL, crankcase front
25	277 016 R1	STUD, injection pump cover (4)
26	24 909 D	STUD, tachometer flange
	264 723 R1	NUT, spline (5)
	273 469	PLUG, pipe

§ - Not Furnished Separately.
* - Not Used With Tachometer Drive.



DIESEL ENGINE

CONNECTING ROD AND PISTON



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	615 459 C1	RING, piston (first compression) (6)
2	615 690 C1	RING, piston (second compression) (6)
2A	326 959 R1	RING, piston (third compression) (6)
3	347 068 R91	RING, oil (6)
4		SLEEVE, cylinder (order PACKAGE 609 285 C22 or 349 290 R95)
5	326 967 R2	RING, cylinder sleeve packing (18)
6	345 416 R3	PISTON (6)
7	317 505 R1	BUSHING, upper end rod (6)
8	337 265 R11	BEARING, upper and lower rod (standard)-(6)
8	341 532 R11	BEARING, upper and lower rod (.002" undersize) (6)



DIESEL ENGINE

CONNECTING ROD AND PISTON - CONTINUED

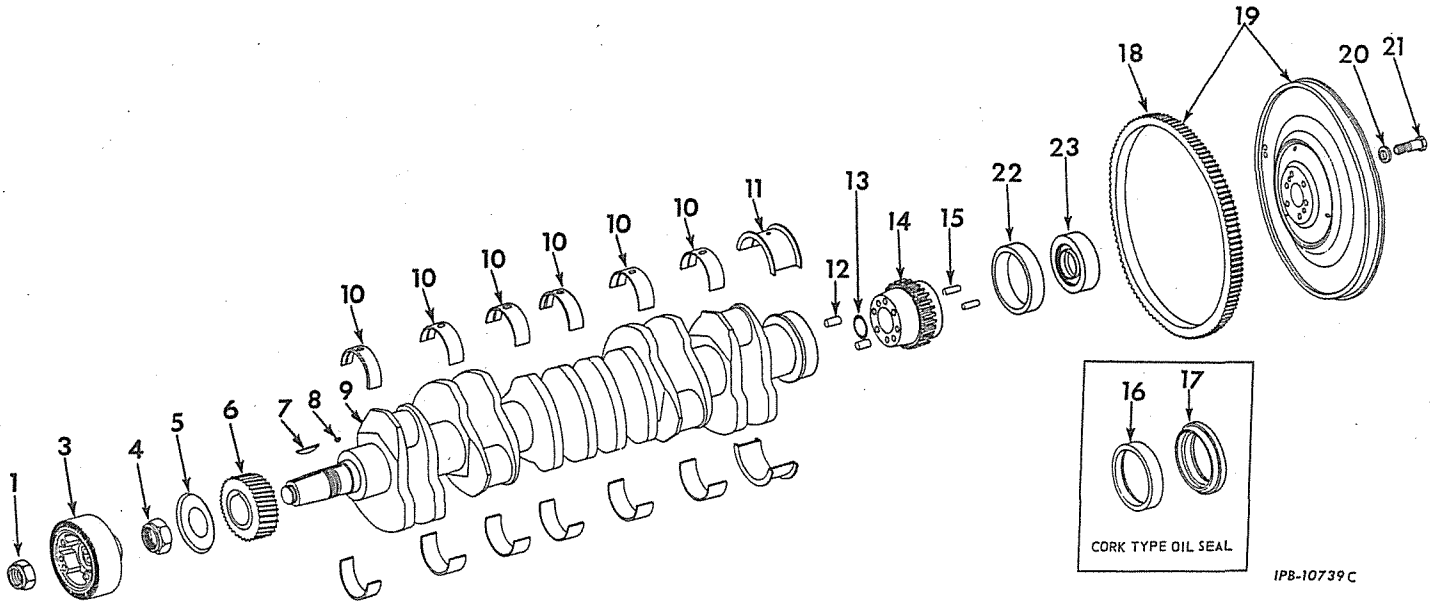
REF. NO.	I. H. PART NUMBER	DESCRIPTION
8	341 533 R11	BEARING, upper and lower rod (.010" undersize) (6)
8	341 534 R11	BEARING, upper and lower rod (.020" undersize) (6)
8	341 535 R11	BEARING, upper and lower rod (.030" undersize) (6)
9	601 015 C11	ROD w/two BOLT, 601 016 C1 and BUSHING, 317 505 R1, connecting (6)
10	601 016 C1	BOLT, connecting rod (12)
11	326 874 R1	RETAINER, piston pin (12)
12	326 873 R1	PIN, piston (6)
13	349 290 R95	PACKAGE, piston w/sleeve field service (6) (Consists of - 1 PIN 326 873 R1 1 PISTON 345 416 R3 2 RETAINER 326 874 R1 1 RING 326 959 R1 1 RING 347 068 R91 1 RING 615 459 C1 1 RING 615 690 C1 1 PACKAGE 609 285 C22)
347 654 R92		PACKAGE, piston ring field service (consists of six RING, 326 959 R1, six RING, 347 068 R91, six RING, 615 459 C1 and six RING, 615 690 C1)
609 285 C22		PACKAGE, cylinder sleeve field service (6) (Consists of - 3 RING 326 967 R2 1 SHIM 670 539 C1 1 SHIM 349 104 R3 § 1 SLEEVE 1 PAMPHLET, instruction 1 019 124 R2)
349 104 R3		SHIM, cylinder sleeve (.002") (6)
670 539 C1		SHIM, cylinder sleeve (.004") (X)
601 262 C1		SHIM, cylinder sleeve (.0063") (X)
601 263 C1		SHIM, cylinder sleeve (.008") (X)
601 264 C1		SHIM, cylinder sleeve (.010") (X)
601 265 C1		SHIM, cylinder sleeve (.0159") (X)
601 266 C1		SHIM, cylinder sleeve (.0201") (X)
601 967 C1		SHIM, cylinder sleeve (.032") (X)
609 016 C1		SHIM, cylinder sleeve (.064") (X)

§ - Not Furnished Separately.
X - As Required.



DIESEL ENGINE

CRANKSHAFT, VIBRATION DAMPER, FLYWHEEL AND RELATED PARTS



IPB-10739 C

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	612 039 C1	NUT, crankshaft
3	343 619 R92	DAMPER, crankshaft
4	307 945 R1	NUT, gear
5	250 749 R2	FLINGER, oil
6	326 857 R1	GEAR, crankshaft
7	118 002	KEY, 3/8 x 2-1/8" Woodruff
8	124 554	KEY, 5/16 x 1" Woodruff
9	CRANKSHAFT (standard) TD-20BPM 501 to 2580	
	(Order the following parts -	
	6 BOLT 601 199 C1	
	1 CRANKSHAFT w/ bearings 349 348 R91	
	1 DRAWING, rework IZG-7236	
	6 WASHER 259 360 R1)	
9	349 348 R91	CRANKSHAFT w/BEARINGS, (standard) TD-20BPM 2581 up TD-20BPSM 2680 up
	(Composed of -	
	6 BEARING 332 028 R91	
	1 BEARING 332 031 R91	
	6 BEARING 337 265 R11	
	§ 1 CRANKSHAFT	
	2 PIN 19 875 R1	
	6 PLUG 50 410 DA	
	1 TAG, instruction 1 019 155 R1)	



DIESEL ENGINE

CRANKSHAFT, VIBRATION DAMPER, FLYWHEEL AND RELATED PARTS - CONTINUED

REF. NO.	I. H. PART NUMBER	DESCRIPTION
9		CRANKSHAFT, (renewal) TD-20BPM 510 to 2580
	(Order the following parts -	
	6 BOLT 601 199 C1	
	1 CRANKSHAFT w/ bearings 349 352 R91	
	1 DRAWING, rework IZG-7236	
	6 WASHER 259 360 R1)	
9	349 352 R91	CRANKSHAFT w/BEARINGS (renewal) TD-20BPM 2581 up TD-20BPSM 2680 up
	(Consists of CRANKSHAFT w/six connecting rod BEARING, six main BEARING, one thrust BEARING, two dowel PIN, 19 875 R1, six pipe PLUG, 50 410 DA, instruction TAG, 1 019 155 R1 dowel installation DRAWING, IZG-7372)	
10	332 028 R91	BEARING, upper and lower main (standard) (6)
10	332 035 R91	BEARING, upper and lower main (.002" undersize) (6)
10	332 042 R91	BEARING, upper and lower main (.010" undersize) (6)
10	332 049 R91	BEARING, upper and lower main (.020" undersize) (6)
10	332 056 R91	BEARING, upper and lower main (.030" undersize) (6)
11	332 031 R91	BEARING, upper and lower thrust (standard)
11	332 038 R91	BEARING, upper and lower thrust (.002" undersize)
11	332 045 R91	BEARING, upper and lower thrust (.010" undersize)
	§ - Not Furnished Separately	



DIESEL ENGINE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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CRANKSHAFT, VIBRATION DAMPER, FLYWHEEL AND RELATED PARTS - CONTINUED

11	332 052 R91	BEARING, upper and lower thrust (.020" undersize)
11	332 059 R91	BEARING, upper and lower thrust (.030" undersize)
12	19 875 R1	PIN, dowel (2)
13	321 736 R1	"O" RING, 2-1/2 x 2-3/4 x 1/8" (2)
14	326 973 R31	GEAR, w/two DOWEL, 19 875 R1 power take-off
	327 198 R1	BOLT (6) TD-20BPM 510 to 2580 TD-20BPM 510 to 2580
		1/2 LOCKWASHER TD-20BPM 510 to 2580
14	601 197 C11	GEAR w/two DOWEL, 19 875 R1 power take-off TD-20BPM 2581 up
15	19 875 R1	DOWEL (2)
16		SEAL, rear oil (order PACKAGE, 701 064 C91) TD-20BPM 510 to 2943 TD-20BPSM 2680 to 2943
17		SEAL, auxiliary rear oil (order PACKAGE, 701 064 C91) TD-20BPM 510 to 2943 TD-20BPSM 2680 to 2943
18	278 896 R1	GEAR, ring
19	326 952 R41	FLYWHEEL w/GEAR, 278 896 R1 (order FLYWHEEL, 345 203 R11 and DEFLECTOR, 345 284 R1) TD-20BPM 510 to 896
19	345 203 R11	FLYWHEEL w/GEAR, 278 896 R1 TD-20BPM 897 to 2580
19	601 198 C11	FLYWHEEL w/GEAR, 278 896 R1 TD-20BPM 2581 up TD-20BPSM 2680 up
20	259 360 R1	WASHER (6) TD-20BPM 2581 up (6) TD-20BPSM 2680 up
20	326 865 R1	PLATE, lock (2) TD-20BPM 510 to 2580
21	601 199 C1	BOLT (6) TD-20BPM 2581 up (6) TD-20BPSM 2680 up
	327 200 R1	BOLT (4) TD-20BPM 510 to 2580
22	347 913 R1	SLEEVE, oil seal wear TD-20BPM 2944 up TD-20BPSM 2944 up
23		SEAL, rear oil (order package 601 673 C91) TD-20BPM 2944 up TD-20BPSM 2944 up
	665 447 R1	BOLT (part of PACKAGE, 701 064 C91)



DIESEL ENGINE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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CRANKSHAFT, VIBRATION DAMPER, FLYWHEEL AND RELATED PARTS - CONTINUED

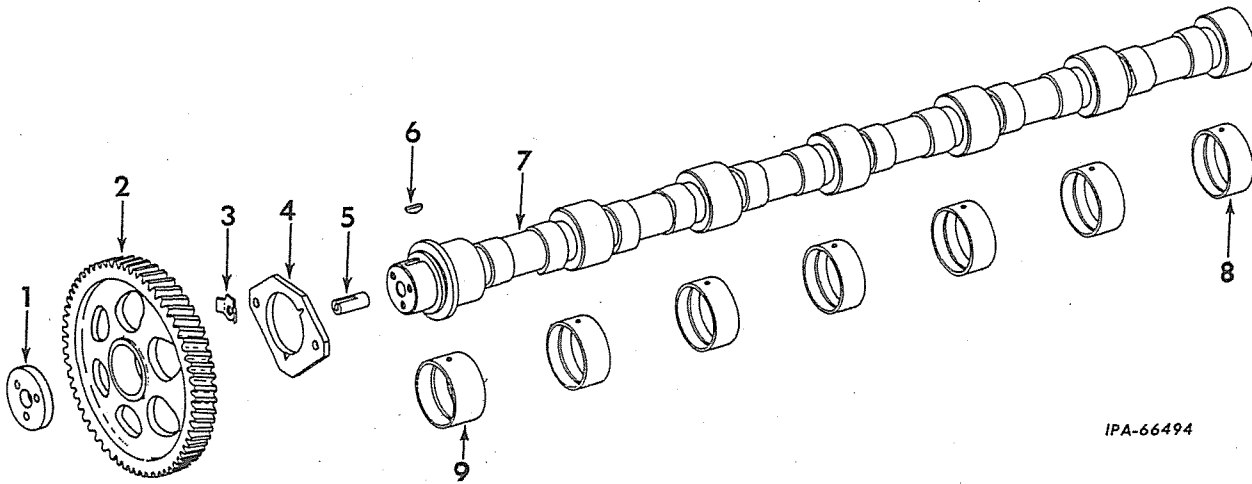
318 424 R1		GASKET, oil seal retainer (part of PACKAGE, 701 064 C91)
701 064 C91		PACKAGE, rear oil seal (conversion) TD-20BPM 510 to 2943 TD-20BPSM 2680 to 2943 (Composed of - 8 BOLT 665 447 R1 1 DRAWING, camshaft rear oil seal installation IZG 6788 1 GASKET 318 424 R1 §1 OIL SEAL 1 RETAINER 349 297 R1 1 SLEEVE 347 913 R1
601 673 C91		PACKAGE, crankshaft rear oil seal field service (double lip type) (consists of oil seal and SLEEVE 347 913 R1) TD-20BPM 2944 up TD-20BPSM 2944 up
50 410 DA		PLUG, pipe (6)
349 297 R1		RETAINER, oil seal (also listed and illustrated with "Front Engine support and Flywheel Housing") TD-20BPM 2944 up TD-20BPSM 2944 up

§ - Not Furnished Separately.



DIESEL ENGINE

CAMSHAFT AND GEAR



IPA-66494

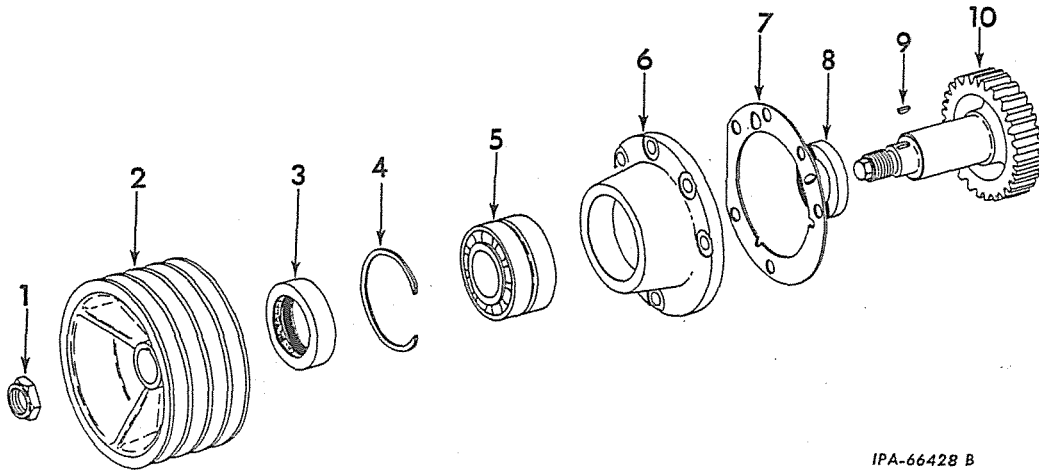
REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	315 778 R1	RETAINER, camshaft gear 3/8NF x 1-1/8" hex-hd cap SCREW w/lock WASHER (3)
2	326 868 R2	GEAR, camshaft
3	277 788 R1	LOCK, bolt (2) 3/8 x 1-1/4" hex-hd cap SCREW (2)
4	326 867 R1	PLATE, camshaft thrust

REF. NO.	I. H. PART NUMBER	DESCRIPTION
5	330 306 R1	SLEEVE, tachometer drive
6	124 551	KEY, 1/4 x 7/8" Woodruff
7	332 409 R21	CAMSHAFT w/SLEEVE, 330 306 R1
8	326 620 R1	BEARING, camshaft intermediate (6)
9	326 619 R1	BEARING, camshaft front



DIESEL ENGINE

AUXILIARY DRIVE



IPA-66428 B

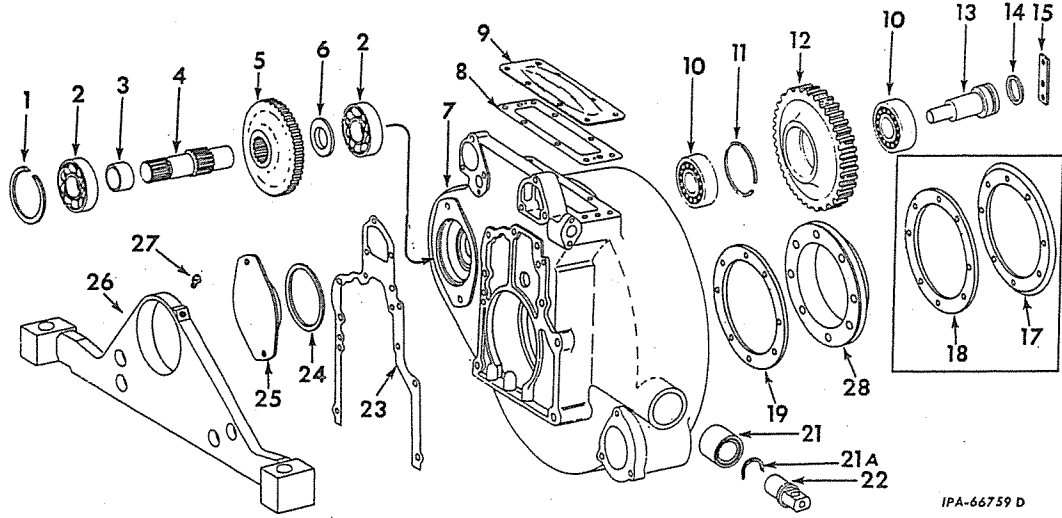
REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	18 615 R1	NUT, Esna
2	326 632 R1	PULLEY, auxiliary drive
3	610 318 C91	OIL SEAL, drive
4	376 915 R1	RING, bearing snap
5	338 358 R91	BEARING, auxiliary drive
6	332 218 R1	HOUSING, auxiliary drive

REF. NO.	I. H. PART NUMBER	DESCRIPTION
6	341 349 R92	HOUSING ASSEMBLY, auxiliary drive (Composed of -
	1	BEARING 338 358 R91
	1	GEAR 341 348 R1
	1	HOUSING 332 218 R1
	1	OIL SEAL 610 318 C91
	1	RING 376 915 R1
	1	RING 332 219 R1)
		3/8 x 1" hex-hd cap SCREW
		3/8 x 3-1/4" hex-hd cap SCREW (5)
		3/8" lock WASHER (6)
7	326 641 R1	GASKET, auxiliary drive housing
8	332 219 R1	RING, wear
9	124 549	KEY, 3/16 x 3/4"
10	341 348 R1	GEAR, auxiliary drive



DIESEL ENGINE

FRONT ENGINE SUPPORT AND FLYWHEEL HOUSING



IPA-66759 D



DIESEL ENGINE

FRONT ENGINE SUPPORT AND FLYWHEEL HOUSING - CONTINUED

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	326 668 R1	RING, snap
2	ST 202	BEARING, power take-off shaft (2)
3	326 667 R1	SPACER, power take-off gear
4	341 456 R1	SHAFT, power take-off
5	326 664 R2	GEAR, power take-off
6	326 665 R1	WASHER, thrust
7	601 227 C91	HOUSING w/two BUSHING, 333 707 R92, PLUG, 349 373 R1, two BOLT, 321 872 R1 and PLUG, 70 129 R1, flywheel 3/8 x 2" hex-hd cap SCREW (4) 3/8 x 2-1/4" hex-hd cap SCREW (3) 1/2 x 2" hex-hd cap SCREW (6) 3/8" lock WASHER (7) 1/2" lock WASHER (6) PLUG, core hole BOLT (2)
	70 129 R1	PLUG, core hole
	321 872 R1	BOLT (2)
8	326 653 R1	GASKET, power take-off housing
9	326 652 R2	COVER, flywheel housing top (Not used with power take-off) 3/8 x 1" hex-hd cap SCREW (2) 1/2 x 1-1/4" hex-hd cap SCREW (6) 3/8" lock WASHER (2) 1/2" lock WASHER (6)
10	ST 200	BEARING, power take-off idler ball (2)
11	460 552 R1	RING, snap
12	326 662 R1	GEAR, power take-off idler
13	326 661 R1	SHAFT, power take-off idler gear
14	290 987 R1	"O" RING, 1-3/4 x 2 x 1/8"
15	326 655 R1	PLATE, lock
	321 872 R1	BOLT (3)
17		DEFLECTOR, oil (order PACKAGE, 701 064 C91) BOLT (8)
	214 168 R1	TD-20BPM 510 to 896
	214 168 R1	DEFLECTOR, oil (order PACKAGE, 701 064 C91) BOLT (8)
		TD-20BPM 897 to 2943
		TD-20BPSM 2680 to 2943

REF. NO.	I.H. PART NUMBER	DESCRIPTION
18		PLATE, oil seal face (order PACKAGE, 701 064 C91)
		TD-20BPM 510 to 2943
		TD-20BPSM 2680 to 2943
19	318 424 R1	GASKET, oil seal retainer
21	333 707 R92	BUSHING, mounting (2)
21A	604 792 C1	SPACER, engine trunnion mounting shaft TD-20BP 5125 up TD-20BPSM 2680 up
22	330 881 R2	SHAFT, trunnion mounting (2) 3/4 x 3-1/4" hex-hd cap SCREW (2)
23	332 300 R1	GASKET, flywheel housing
24	22 414 R1	"O" RING, 5 x 5-1/4 x 1/8"
25	326 650 R11	COVER, power take-off drive 5/8 x 1-1/4" hex-hd cap SCREW (2)
26	330 277 R11	SUPPORT, engine front 3/4 x 4" hex-hd cap SCREW (2) WASHER (2)
	271 027 R1	WASHER (2)
27	126 121	FITTING, 1/8" lubrication
28	349 297 R1	RETAINER, oil seal TD-20BPM 2944 up
	214 168 R1	BOLT (8)
	263 717 R91	CLIP (2)
	273 469	PLUG, pipe
	349 373 R1	PLUG, cup
	11 002 VA	WASHER (2)
	665 447 R1	BOLT, retainer (part of PACKAGE, 701 064 C91) (8)
	701 064 C91	PACKAGE, oil seal wear TD-20BPM 510 to 2943 TD-20BPSM 2680 to 2943
		(Composed of -
	8	BOLT 665 447 R1
	1	DRAWING, crankshaft rear oil seal installation IZG 6788
	1	GASKET 318 424 R1
	1	OIL SEAL
	1	RETAINER 349 297 R1
	1	SLEEVE 347 913 R1)

§ - Not Furnished Separately.

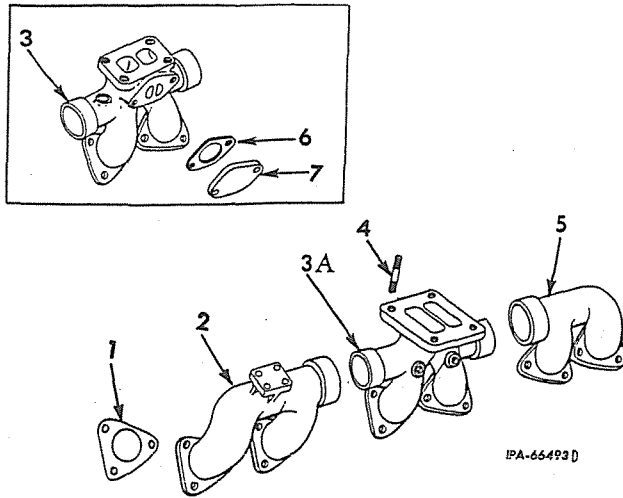


DIESEL ENGINE



MEMORANDA

EXHAUST MANIFOLD



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	315 791 R1	GASKET, exhaust manifold (6)
2	315 790 R2 250 451 R1	MANIFOLD, rear exhaust NUT, exhaust manifold stud (6)
3	337 193 R1 250 451 R1	MANIFOLD, center exhaust (for Schwitzer Turbocharger) NUT, exhaust manifold stud (6) TD-20BPM 510 to 3090 TD-20BPSM 2680 to 3090
3A	601 142 C1 250 451 R1	MANIFOLD, center exhaust (for Solar Turbocharger) NUT, exhaust manifold stud (6) TD-20BPM 3091 to 4757 TD-20BPSM 3091 to 4757
3A	670 081 C1 250 451 R1	MANIFOLD, center exhaust (for Airesearch Turbocharger) NUT, exhaust manifold stud (6) TD-20BPM 4758 up TD-20BPSM 4758 up
4	256 333 R1	STUD, exhaust manifold (4)
5	315 789 R1 250 451 R1	MANIFOLD, front exhaust NUT, exhaust manifold stud (6)
6	337 195 R1	GASKET, plate cover TD-20BPM 510 to 3090 TD-20BPSM 2680 to 3090
7	337 194 R1 304 451 R1	PLATE, cover NUT, 3/8" (2) TD-20BPM 510 to 3090 TD-20BPSM 2680 to 3090
	444 577	PLUG, center exhaust manifold pipe (2)

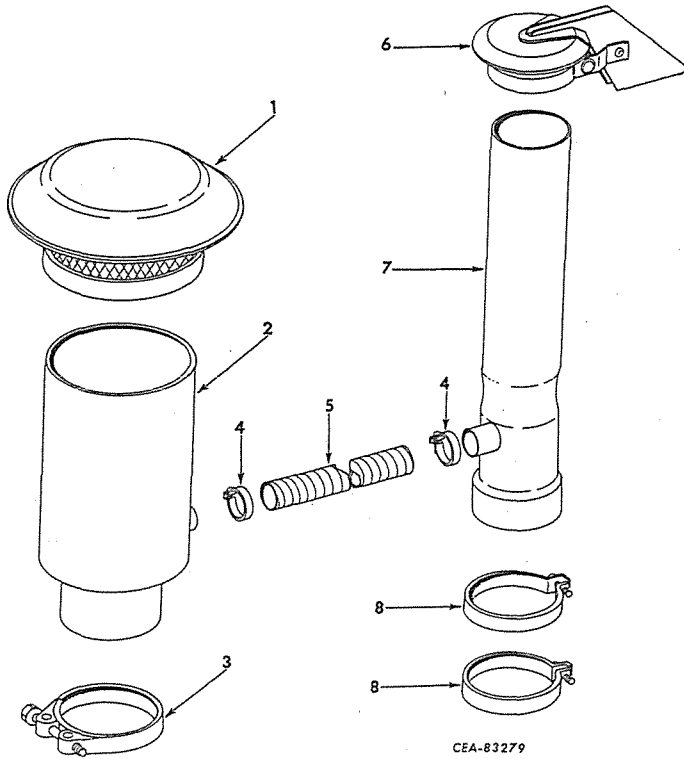


FUEL SYSTEM



MEMORANDA

AIR PRE-CLEANER
(Accessory Sales Inc.)



CEA-83279

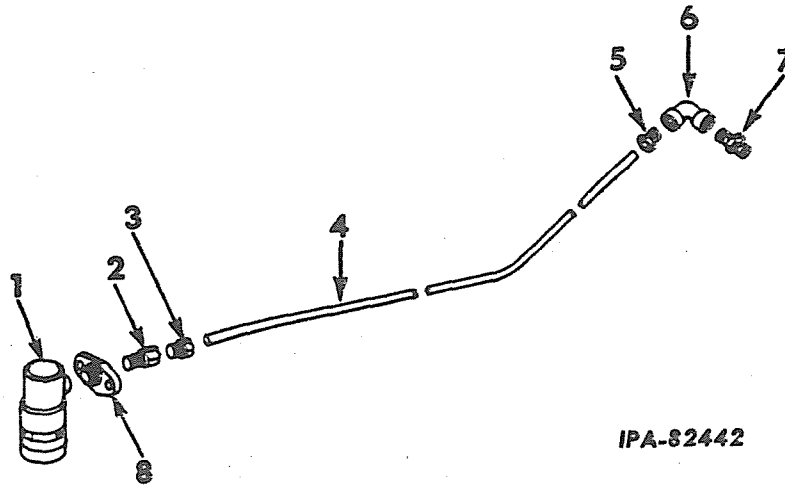
REF. NO.	I. H. PART NUMBER	DESCRIPTION
609 726 C91		ATTACHMENT, air pre-cleaner (See NOTE 3) (For use only on machines equipped with United Specialties Air Cleaner)
		(Consists of the following parts -
1	610 340 C91	CAP, pre-cleaner (52001)
2	610 341 C91	PRE-CLEANER, air intake (52002)
3	271 288 R91	CLAMP, pre-cleaner (52003)
4	606 838 C91	CLAMP, tube (51005) (2)
5	606 836 C1	TUBE, 1-1/2" ID x 22" long (metal) (51004)
6	610 210 C91	CAP, exhaust rain
7	610 342 C91	ASPIRATOR, exhaust (52006)
8	336 613 R91	CLAMP, aspirator (52007) (2)

NOTE 3 - Field Application - Order through Regular Service Parts Channels.



FUEL SYSTEM

FILTER SERVICE INDICATOR



FUEL SYSTEM

FILTER SERVICE INDICATOR - CONTINUED

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	346 666 R91	INDICATOR, dry type air cleaner filter service TD-20BP 4001 to 23053 TD-20BPS 6110 to 23053
1	366 078 C1	INDICATOR, dry type air cleaner filter service TD-20BP 23054 up TD-20BPS 23054 up
2	59 939 D	BODY, 1/8" hi duty TD-20BP 4001 to 6111 TD-20BPS 6110 to 6111
2	606 999 C1	CONNECTOR, air cleaner filter indicator tube (at indicator) TD-20BP 6112 up TD-20BPS 6112 up
3	36 092 D	NUT, 1/8" hi-duty TD-20BP 4001 to 6111 TD-20BPS 6110 to 6111
3	606 925 C1	NUT, air cleaner filter indicator tube TD-20BP 6112 up TD-20BPS 6112 up
	606 926 C1	SLEEVE
4	703 109 C91	TUBE w/two NUT, 606 925 C1 and two SLEEVE, 606 926 C1, air cleaner filter indicator (1/8" OD x 70" long) (together with ELBOW, 610 040 C1 and CONNECTOR, 606 999 C1, will work for 604 166 C1) (standard)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
4	612 650 C11	TUBE w/two NUT, 606 925 C1 and two SLEEVE, 606 926 C1, air cleaner filter indicator (1/8" OD x 30" long) (furnished as part of heavy duty air cleaner ATTACHMENTS.) TD-20BPM 4758 up TD-20BPSM 4758 up
5	36 092 D	NUT, 1/8" hi-duty TD-20BP 4001 to 6111 TD-20BPS 6110 to 6111
5	606 925 C1	NUT, air cleaner filter indicator tube TD-20BP 6112 up TD-20BPS 6112 up
	606 926 C1	SLEEVE
6	19 717 R1	ELBOW, air cleaner filter indicator tube (at air cleaner) TD-20BP 4001 to 6111 TD-20BPS 6110 to 6111
6	610 040 C1	ELBOW, air cleaner filter indicator tube (at air cleaner) TD-20BP 6112 up TD-20BPS 6112 up
7	317 972 R91	NIPPLE and FILTER, (at air cleaner)
8	284 874 C1	FLANGE, air cleaner filter No. 12 NUT (2) No. 12 x 1" SCREW (2) No. 12 lock WASHER (2)
	273 716 R91	CLIP, air cleaner filter indicator



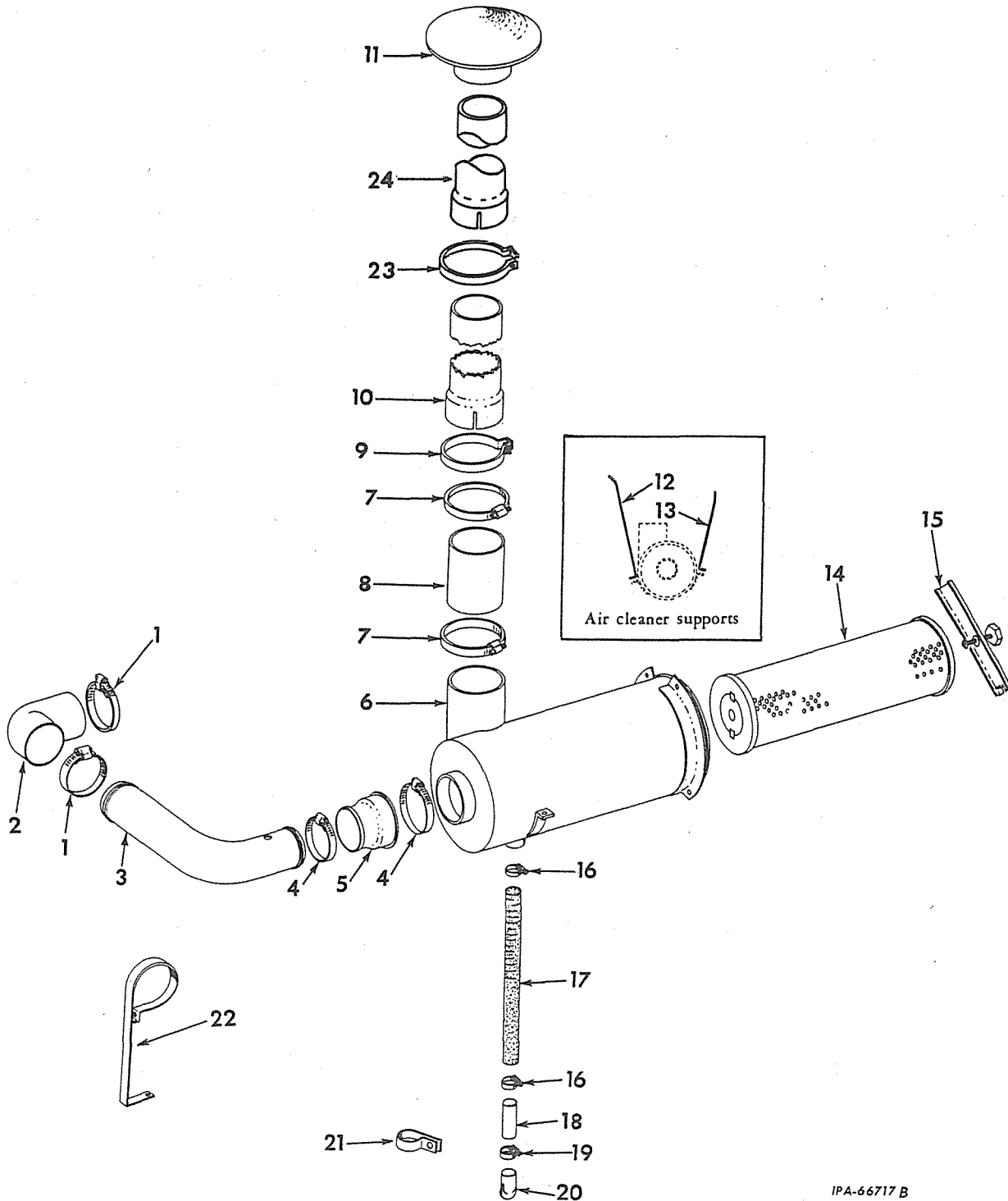
FUEL SYSTEM



FUEL SYSTEM

AIR CLEANER AND CONNECTIONS
 (United Specialties) (Not Heavy Duty) (Dry Type)
 TD-20BP 4001 to 6136
 TD-20BPS 6110 to 6136

AIR CLEANER AND CONNECTIONS - CONTINUED
 (United Specialties) (Not Heavy Duty) (Dry Type)
 TD-20BP 4001 to 6136
 TD-20BPS 6110 to 6136





FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
AIR CLEANER AND CONNECTIONS - CONTINUED (United Specialties) (Not Heavy Duty) (Dry Type) TD-20BP 4001 to 6136 TD-20BPS 6110 to 6136		
1	347 364 R91	CLAMP, tube to turbocharger elbow (2)
2	170 954 R1	ELBOW, air cleaner to turbocharger tube
3	337 796 R11	TUBE, air cleaner to turbocharger
4	347 364 R91	CLAMP, tube (air cleaner to turbocharger tube) (2)
5	327 092 R1	CONNECTOR, air cleaner to tube (optional with 603 508 C1)
5	603 508 C1	CONNECTOR, air cleaner to tube (optional with 327 092 R1)
6		BODY (order 336 975 R92)
7	327 094 R91	CLAMP, air intake hose (2) TD-20BP 4422 up (2) TD-20BPS 6110 up
8	334 129 R1	HOSE, air cleaner intake TD-20BP 4422 up TD-20BPS 6110 up
9	333 908 R91	CLAMP, air intake tube (2) TD-20BP 4001 to 4421
9	333 908 R91	CLAMP, air intake extension tube (part of ATTACHMENT, 345 671 R92) TD-20BP 4422 up TD-20BPS 6110 up
10	334 434 R1	TUBE, air intake (5" ID x 17" long) TD-20BP 4001 to 4421
10	337 527 R1	TUBE, air intake extension (5" ID x 40" long) (part of ATTACHMENT, 337 530 R92) TD-20BP 4001 to 4421
10	345 672 R1	TUBE, air intake extension (5" ID x 26" long) (part of ATTACHMENT, 345 671 R92) TD-20BP 4422 up TD-20BPS 6110 up
11	272 808 R91	CAP, air stack
12	334 446 R1	SUPPORT, air cleaner inner 7/16" NUT 7/16 x 1" hex-hd cap SCREW (2) 7/16" lock WASHER (2) 15/32 x 59/64" x 16 ga WASHER
13	334 984 R1	SUPPORT, air cleaner outer TD-20BP 4001 to 5132
13	603 173 C1	SUPPORT, air cleaner outer TD-20BP 5133 up TD-20BPS 6110 up 7/16" NUT 7/16 x 7/8" hex-hd cap SCREW 7/16 x 1" hex-hd cap SCREW 7/16" lock WASHER (2) 15/32 x 59/64" x 16 ga WASHER
14	613 986 C91	ELEMENT, filter (Donaldson No. P10-7989) (optional with 702 244 C1)
14	702 244 C1	ELEMENT, filter (Airmaze 202147) (optional with 613 986 C91)
15	319 853 R91	BAR, retainer
16	274 086 R91	CLAMP, dust unloader hose (2)
17	347 373 R1	HOSE, dust unloader
18	603 421 C1	TUBE, dust unloader



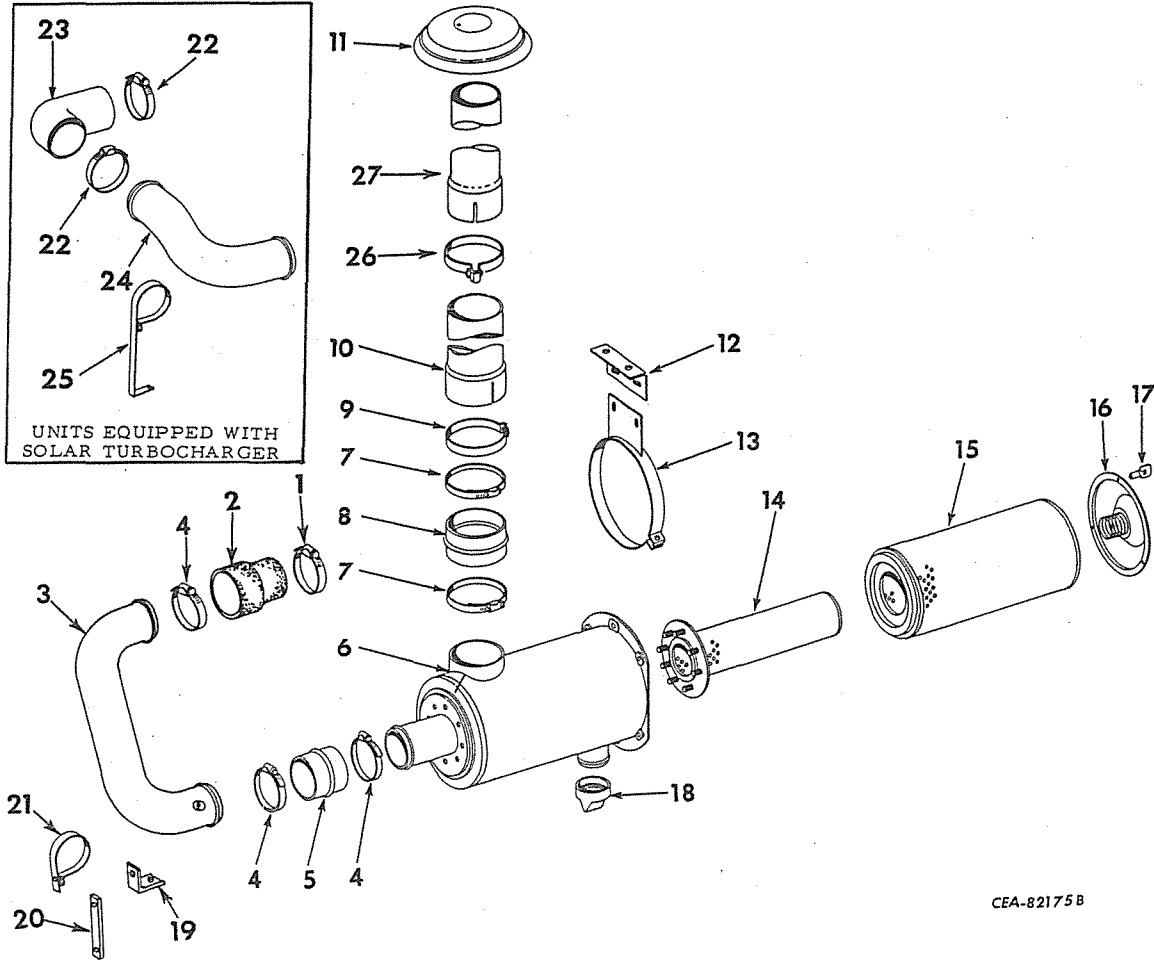
FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
AIR CLEANER AND CONNECTIONS - CONTINUED (United Specialties) (Not Heavy Duty) (Dry Type) TD-20BP 4001 to 6136 TD-20BPS 6110 to 6136		
19	274 085 R91	CLAMP, unloader dust cleaner
20	324 194 R1	UNLOADER, cleaner dust
21	322 499 R1	CLIP, dust unloader tube 3/8" NUT 3/8 x 1-1/8" hex-hd cap SCREW 3/8" lock WASHER
22	345 559 R2	SUPPORT, air cleaner to turbocharger tube 3/8" NUT 3/8 x 5/8" hex-hd cap SCREW (used with SUPPORT, 345 559 R2) 3/8 x 1-1/8" hex-hd cap SCREW 3/8 x 1-1/4" hex-hd cap SCREW (used with 345 559 R1) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER
23	612 804 C1	CLAMP, exhaust extension tube (part of ATTACHMENT, 337 530 R92 and 345 671 R92)
24	612 802 C1	TUBE, exhaust extension (part of ATTACHMENT, 345 671 R92) TD-20BP 4422 up TD-20BPS 6110 up
24	612 803 C1	TUBE, exhaust extension (part of ATTACHMENT, 337 530 R92) TD-20BP 4001 to 4421
	337 530 R92	ATTACHMENT, air intake extension (consists of TUBE, 337 527 R1, TUBE, 612 803 C1 and CLAMP, 612 804 C1) (see NOTE 3) TD-20BP 4001 to 4421
	345 671 R92	ATTACHMENT, air intake extension (consists of TUBE, 345 672 R1, CLAMP, 333 908 R91, TUBE, 612 802 C1 and CLAMP, 612 804 C1) (see NOTES 1 and 3) TD-20BP 4422 up TD-20BPS 6110 up
	336 975 R92	CLEANER w/BAR, 319 853 R91, ELEMENT, 613 986 C91 and GASKET, 324 654 R1, air (N-110D2) 3/8 x 1-1/8" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
	324 654 R1	GASKET, element seal
	41 174 D	SPACER, air cleaner to turbocharger tube support (used with SUPPORT, 345 559 R1)
	607 769 C91	PACKAGE, air cleaner field service TD-20BP 4001 to 6136 TD-20BPS 6110 to 6136 (Consists of - 1 BRACE 603 374 C1 1 BRACKET 607 750 C91 1 BRACKET 607 753 C11 1 CLEANER 606 510 C91 1 CONNECTOR 603 508 C1 1 ELBOW 170 954 R1 1 HOSE 607 504 C1 1 PAMPHLET, installation and rework instructions 1 085 079 R1 1 SUPPORT 607 503 C1 1 TUBE 325 783 R1 1 TUBE 604 390 C11)
NOTE 1 - Factory Application - Order on Machine Order Form. NOTE 3 - Field Application - Order through Regular Service Parts Channels.		



FUEL SYSTEM

AIR CLEANER AND CONNECTIONS
 (Donaldson) (Not Heavy Duty) (Dry Type)
 TD-20BP 6137 up
 TD-20BPS 6137 up



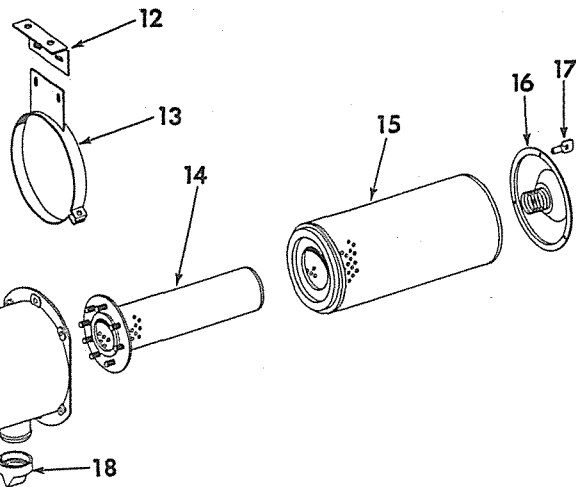
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REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	397 257 R91	CLAMP, air cleaner turbo tube (*)
2	219 344 R1	ADAPTER, air cleaner turbo tube (*)
3	703 188 C1	TUBE, air cleaner to turbocharger (*)
4	347 364 R91	CLAMP, air cleaner turbo tube (3 used with Airesearch Turbocharger; 2 used with Solar Turbocharger)
5	603 508 C1	CONNECTOR, air cleaner turbocharger
6		BODY (Not Furnished Separately)
7	327 094 R91	CLAMP, air cleaner intake hose (2)
8	607 504 C1	HOSE, air cleaner intake
9	333 908 R91	CLAMP, air intake tube (part of ATTACHMENT, 345 671 R92)



FUEL SYSTEM

AIR CLEANER AND CONNECTIONS — CONTINUED
 (Donaldson) (Not Heavy Duty) (Dry Type)
 TD-20BP 6137 up
 TD-20BPS 6137 up



REF. NO.	I.H. PART NUMBER	DESCRIPTION
10	345 672 R1	TUBE, air intake extension (5" ID x 26" long) (part of ATTACHMENT, 345 671 R92)
11	603 957 C91	CAP, air stack
12	607 753 C11	BRACKET, air cleaner hood mounting 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
13	607 750 C91	BRACKET, air cleaner clamp 1/2" NUT (2) 3/8" NUT 1/2 x 1-1/4" hex-hd cap SCREW (2) 3/8 x 1-1/2" hex-hd cap SCREW 3/8" lock WASHER 1/2" lock WASHER (2) 9/16 x 1-1/4" x 12 ga WASHER (4)

(*) - Used on units equipped with Airesearch Turbocharger.



FUEL SYSTEM



MEMORANDA

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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AIR CLEANER AND CONNECTIONS - CONTINUED
 (Donaldson) (Not Heavy Duty) (Dry Type)
 TD-20BP 6137 up
 TD-20BPS 6137 up

14	606 861 C91	ELEMENT, inner (PIO-5941) 3/8 NUT (8) 3/8" lock WASHER (8)
15	606 860 C91	ELEMENT, outer (6001C44)
16	606 862 C91	COVER, element (PIO-5948)
17	606 863 C1	NUT, cover (PIO-3513) (3)
18	383 734 R1	VALVE, dust vacuator (PIO-3198)
19	315 122 R1	ANGLE, tube support clamp
20	768 068 C1	BAR, tube support clamp 3/8" NUT (3) 3/8 x 7/8" hex-hd cap SCREW (3) 3/8 x 1-1/2" hex-hd cap SCREW 3/8" lock WASHER (4) 13/32 x 13/16" x 16 ga WASHER (3)
21	616 264 C1	CLAMP, air cleaner to turbo tube support
22	347 364 R91	CLAMP, air cleaner turbo tube elbow (2) (%)
23	170 954 R1	ELBOW, air cleaner turbo tube (%)
24	604 390 C11	TUBE, air cleaner to turbocharger (%)
25	607 503 C1	SUPPORT, air cleaner to turbo tube (%) 3/8" NUT 3/8 x 5/8" hex-hd cap SCREW 3/8 x 1-1/8" hex-hd cap SCREW 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER
26	612 804 C1	CLAMP, exhaust extension tube (part of ATTACHMENT, 345 671 R92)
27	612 802 C1	TUBE, exhaust extension (part of ATTACHMENT, 345 671 R92)
	345 671 R92	ATTACHMENT, air intake extension (consists of TUBE, 345 672 R1, CLAMP, 333 908 R91, TUBE, 612 802 C1 and CLAMP, 612 804 C1) (see NOTES 1 and 3)
	606 510 C91	CLEANER ASSY, air (FWG-12-0007) (Composed of - § 1 BODY 1 COVER 606 862 C91 1 ELEMENT 606 861 C91 1 ELEMENT 606 860 C91 3 NUT 606 863 C1 1 VALVE 383 734 R1) 3/8 x 1-1/8" hex-hd cap SCREW (6) 3/8" lock WASHER (6)

(%) - Used on units equipped with Solar Turbocharger.

§ - Not Furnished Separately.

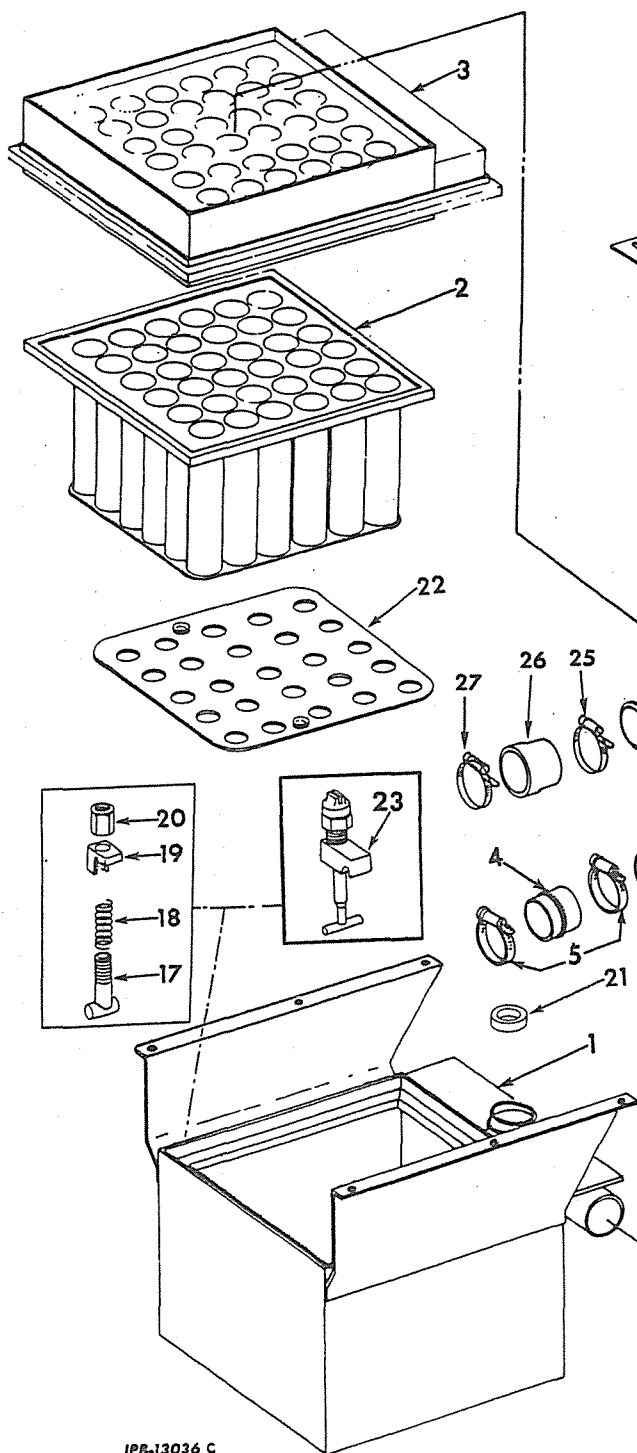
NOTE 1 - Factory Application - Order on Machine Order Form.

NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



FUEL SYSTEM

AIR CLEANER AND CONNECTIONS (Farr) (Heavy Duty) (Dry Type)

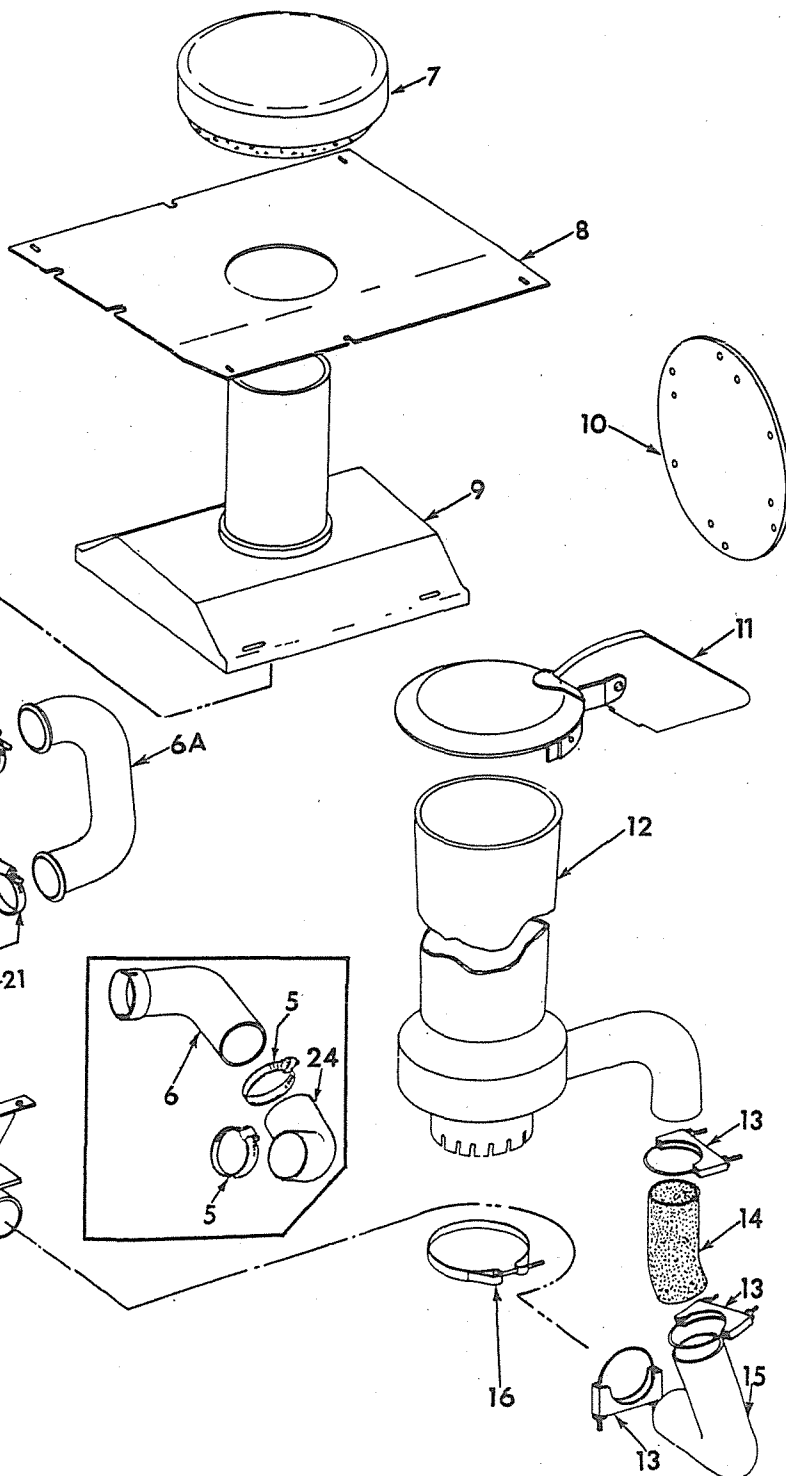


IPB-13036 C



FUEL SYSTEM

AIR CLEANER AND CONNECTIONS - CONTINUED (Farr) (Heavy Duty) (Dry Type)





FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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AIR CLEANER AND CONNECTIONS - CONTINUED
(Farr) (Heavy Duty) (Dry Type)

		Parts without letters after the description indicates the part is used for all ATTACHMENTS listed below. Letters A and B are used to identify separate ATTACHMENTS.
A	607 744 C94	ATTACHMENT, heavy duty air cleaner (for units equipped with Schwitzer or Solar turbocharger) (see NOTE 3)
B	703 206 C92	ATTACHMENT, heavy duty air cleaner (for units equipped with Airesearch turbocharger) (see NOTE 3)
1	610 028 C91	HOUSING ASSY, air cleaner (C-24735) (Composed of - 4 BOLT 610 995 C1 1 GASKET 610 988 C1 4 NUT 610 994 C1 4 PLUG 1 017 951 R1 1 PLATE 610 990 C91 4 RETAINER 610 993 C1 4 SPRING 610 999 C1)
2	610 029 C91	ELEMENT, air cleaner (C-12 233GR 20)
3	610 031 C92	PANEL, rotonamic (B-24734)
4	309 992 R1	CONNECTOR, air cleaner to turbocharger
5	347 364 R91	CLAMP, air cleaner to turbocharger tube (Not Furnished as Part of Attachments) (2)
6	607 739 C1	TUBE, air cleaner to turbocharger (Attachment A)
6A	616 258 C1	TUBE, air cleaner to turbocharger (Attachment B)
7	610 037 C91	CAP, air intake (L-38027-4)
8	610 034 C1	PANEL, removable (B-25938) 3/8 x 3/4" hex-hd cap SCREW (6)
9	610 030 C91	ADAPTER, w/Gasket 615 352 C1, intake (C-24750)
10	610 038 C1	PLATE, cover (L-25877) 3/8" NUT (6) 3/8 x 1-1/4" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
11	702 218 C1	CAP, aspirator rain (A-31920)
12	702 217 C1	ASPIRATOR, air cleaner (B-31921)
13	327 494 R91	CLAMP, exhaust (2-1/4" ID) (L-5780-18)(3)
14	609 812 C1	HOSE, exhaust flexible metal (2" ID x 14" long) (Attachment A)
14	609 813 C1	HOSE, exhaust flexible metal (2" ID x 6" long) (Attachment B)
15	327 481 R1	ELBOW, exhaust (L-5734-1)
16	610 996 C91	CLAMP, aspirator (A-29554-GR2)
17	610 995 C1	BOLT, retainer tee (4) (order four FASTENER, 702 420 C1)
18	610 999 C1	SPRING, retainer (4) (order four FASTENER, 702 420 C1)
19	610 993 C1	RETAINER, hook panel (4) (order four FASTENER, 702 420 C1)
20	610 994 C1	NUT, retainer tee bolt (4) (order four FASTENER, 702 420 C1) 5/16" lock WASHER (8)
21	610 988 C1	GASKET, aspirator tube (L-18865-2)



FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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AIR CLEANER AND CONNECTIONS - CONTINUED
(Farr) (Heavy Duty) (Dry Type)

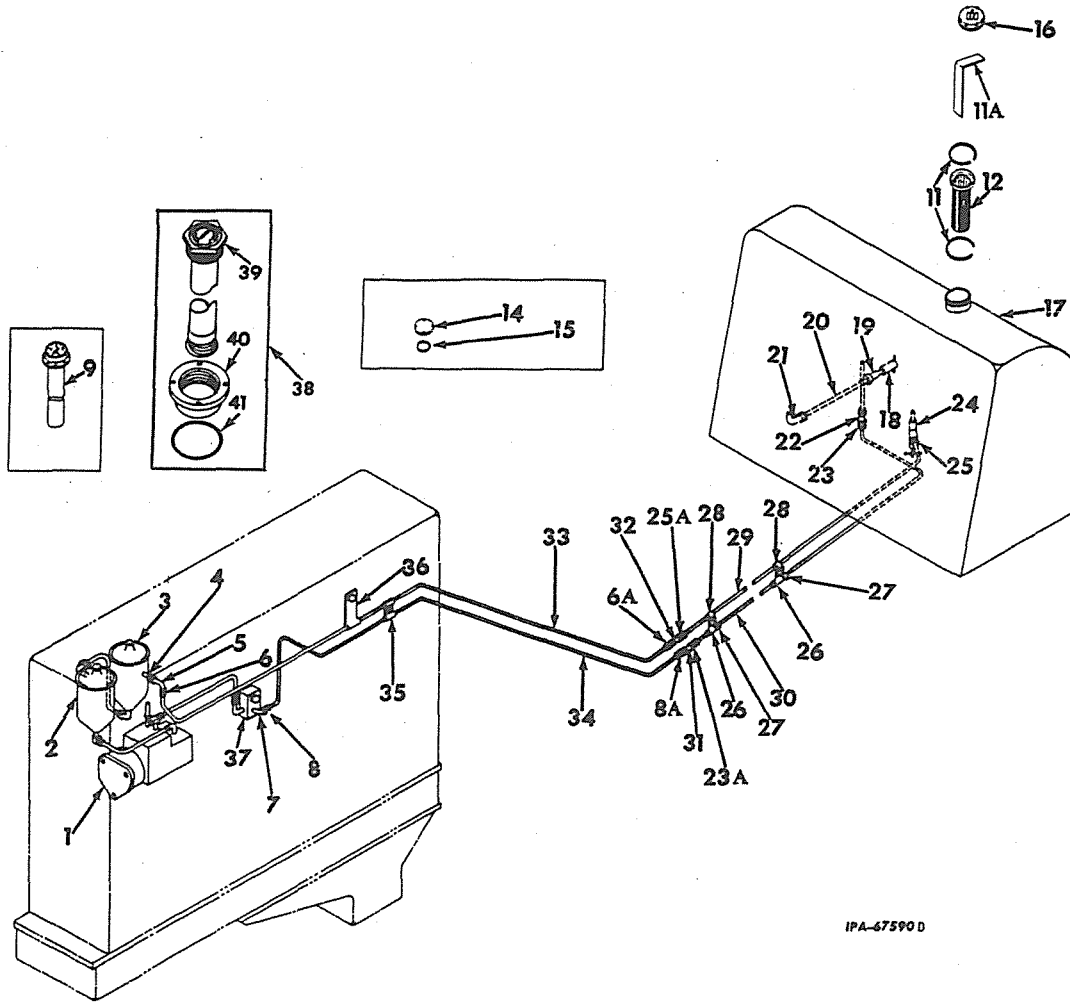
22	610 990 C91	PLATE, lower (B-24751)
23	702 420 C1	FASTENER, cam type (A-34051) (4)
24	170 954 R1	ELBOW, air cleaner turbo tube (Not Furnished as Part of Attachment) (For use with Schwitzer or Solar Turbocharger)
25	397 257 R1	CLAMP, air cleaner turbo tube (Not Furnished as Part of Attachment)
26	219 344 R1	ADAPTER, air cleaner turbo tube (Not Furnished as Part of Attachment)
27	347 364 R91	CLAMP, air cleaner turbo tube (Not Furnished as Part of Attachment)
	277 736 R1	BODY, turbo oil inlet tube connector (Attachment B) (*)
	364 408 R1	CLIP, air cleaner filter indicator tube (mount on air cleaner cover plate bolt)
	615 352 C1	GASKET, intake adapter (L-26592)
	253 660 R1	GASKET, turbo oil inlet tube flange (Attachment B) (*)
	277 738 R1	NUT, turbo oil inlet tube (Attachment B) (*)
	1 085 104 R1	PAMPHLET, heavy duty air cleaner instructions (Attachment A)
	1 085 357 R1	PAMPHLET, heavy duty air cleaner instructions (Attachment B)
	2 752 940 R1	PRODUCT GRAPHIC, air cleaner instruction (for units painted IH yellow)
	2 752 941 R1	PRODUCT GRAPHIC, air cleaner instruction (for units painted other than IH yellow)
	609 811 C1	SUPPORT, exhaust stack center
	277 737 R1	SLEEVE, turbo oil inlet tube (Attachment B) (*)
	612 650 C11	TUBE w/two NUT, 606 925 C1 and two SLEEVE, 606 926 C1, air cleaner filter indicator (also listed and illustrated with "Filter Service Indicator")
	703 424 C1	TUBE, turbo oil inlet (Attachment B) (*)

(*) - Listed and illustrated with "Turbocharger and Piping".
NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



FUEL SYSTEM

FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE
(Used on Units Equipped with Roosa-Master Fuel Injection Pump)
TD-20BP 4001 to 5908



IPA-67590D

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	336 983 R91	PUMP ASSEMBLY, fuel injection (DCGFC-627-18AJ) (2300 RPM) (See NOTE) Roosa-Master 3/8" NUT (2) 3/8" lock WASHER (2)
	142 619 H	WASHER
2		FILTER, final (for components see list of parts under details of "Primary and Final Filters")
3		FILTER, primary (for components see list of parts under details of "Primary and Final Filters")
4	119 920	NIPPLE, fuel pipe (at filter) TD-20BP 4001 to 4426
4	142 275	NIPPLE, fuel pipe (1/4 x 1") (at filter) TD-20BP 4427 to 5908
5	20 095 R1	ELBOW, front fuel supply pipe
6	19 987 R1	NUT, front fuel supply pipe (2) TD-20BP 4001 to 4426

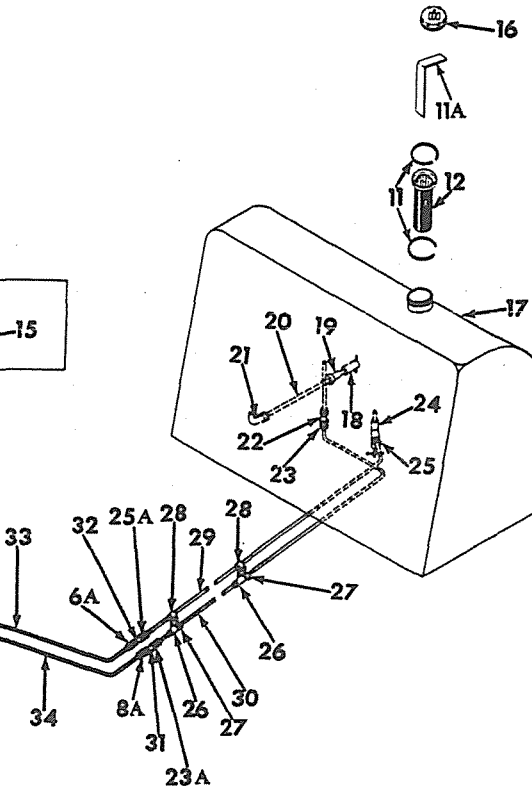
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(Rev. No. 6 9-69)



FUEL SYSTEM

FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE - CONTINUED
(Used on Units Equipped with Roosa-Master Fuel Injection Pump)
TD-20BP 4001 to 5908



REF. NO.	I. H. PART NUMBER	DESCRIPTION
6	37 288 H	NUT, front fuel supply pipe TD-20BP 4427 up
6A	265 067 R1	NUT, front fuel supply pipe TD-20BP 4427 up
7	37 167 D	ELBOW, front fuel return pipe (at anchor block on engine)
8	19 986 R1	NUT, front fuel return pipe (2) TD-20BP 4001 to 4426
8	37 165 D	NUT, front fuel return pipe TD-20BP 4427 up
8A	265 205 R1	NUT, front fuel return pipe TD-20BP 4427 up

NOTE - Refer to Roosa Master Fuel Injection Pump Parts Catalog PU-70 When Ordering Detail Parts For Complete Pumps

NOTE 1 - Factory Application - Order On Machine Order Form.

NOTE 3 - Field Application - Order Through Regular Service Parts Channels.

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FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE - CONTINUED
(Used on Units Equipped with Roosa-Master Fuel Injection Pump)
TD-20BP 4001 to 5908

9	333 875 R91	GAUGE, fuel level (optional with 612 792 C91) 1/4 x 5/8" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
10	334 522 R91	ATTACHMENT, fuel tank level gauge (Consists of GAUGE 333 875 R91 or 612 792 C91) (See NOTES 1 and 3)
11	317 943 R1	RING, fuel strainer snap (one used with strainer 316 672 R91 and two used with strainer 316 672 R92)
11A	611 409 C1	STICK, dip (used with strainer 316 672 R92 only)
12	624 478 C1	STRAINER, fuel (together with two RING 317 943 R1 and DIP STICK 611 409 C1 will work for 316 672 R91)
13	611 411 C91	ATTACHMENT, fuel strainer (consists of strainer 624 478 C1, two RING 317 943 R1 and DIP STICK 611 409 C1) (See NOTE 3)
14	267 082 R1	COVER, fuel gauge mounting ring 1/4 x 1/2" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
15	266 622 R1	GASKET, fuel gauge mounting ring cover
16	701 922 C1	CAP, fuel tank (will work for CAP, 305 798 R11)
17	703 338 C92	TANK w/SUPPORT CAP, 305 798 R11, two RING, 317 943 R1 STRAINER, 624 478 C1 and STICK, 611 409 C1 fuel 5/8" NUT (12) 5/8 x 1-1/2" hex-hd cap SCREW (4) 5/8 x 1-3/4" hex-hd cap SCREW (8) 21/32 x 1-15/16" x 13 ga WASHER (8)
	479 814 R1	WASHER, hardened (16)
18	31 729 D	VALVE, fuel tank drain
19	187 396	COUPLING, fuel tank drain valve
20	12 989 R1	PIPE, fuel tank drain
21	111 316	ELBOW, fuel tank drain
22	42 406 D	CONNECTOR, rear return pipe TD-20BP 4001 to 4426
22	56 597 D	CONNECTOR, rear return pipe TD-20BP 4427 to 5908
23	19 986 R1	NUT, rear return pipe (2) TD-20BP 4001 to 4426
23	37 165 D	NUT, rear return pipe TD-20BP 4427 to 5908
23A	265 205 R1	NUT, rear return pipe TD-20BP 4427 to 5908
24	324 054 R91	VALVE, fuel shut-off
25	19 987 R1	NUT, rear fuel supply pipe (2) TD-20BP 4001 to 4426
25	37 288 H	NUT, rear fuel supply pipe TD-20BP 4427 to 5908
25A	265 205 R1	NUT, rear fuel return pipe TD-20BP 4427 to 5908
26	299 902 R1	CLAMP, fuel return pipe (1) TD-20BP 4001 to 4426 (2) TD-20BP 4427 to 5908
27	279 087 R1	SPACER, return pipe clamp (2)



FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE - CONTINUED
(Used on Units Equipped with Roosa-Master Fuel Injection Pump)
TD-20BP 4001 to 5908

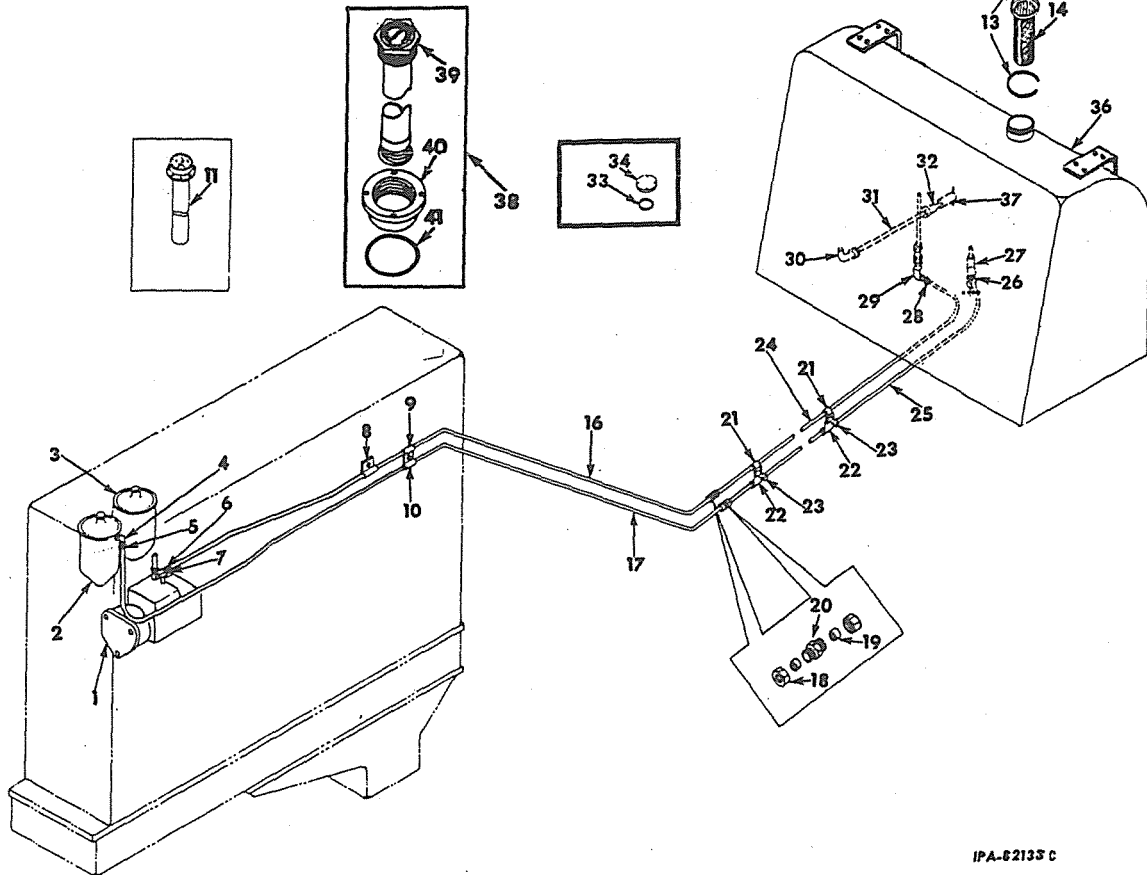
28	311 500 R1	CLAMP, fuel supply pipe (1) TD-20BP 4001 to 4426 (2) TD-20BP 4427 to 5908
		3/8 x 1-3/4" hex-hd cap SCREW (1) TD-20BP 4001 to 4426 (2) TD-20BP 4427 to 5908
		3/8" lock WASHER (1) TD-20BP 4001 to 4426 (2) TD-20BP 4427 to 5908
29	334 022 R1	PIPE, rear fuel supply
30	334 025 R1	PIPE, rear fuel return
31	603 867 C1	UNION, fuel return pipe flex
32	603 868 C1	UNION, fuel supply pipe
33	338 035 R1	PIPE, front supply fuel
34	338 036 R1	PIPE, front fuel return
35	66 362 D	CLAMP, fuel link (at engine oil filter) (2)
	272 941 R1	CUSHION, fuel line (2)
	262 038 R1	NUT, fuel line speed
	114 356 R1	SCREW, 1/4 x 7/8" mach
36	66 360 D	CLAMP, front fuel supply pipe (on front bolt of engine oil filter housing mounting bolt)
37	341 520 R1	BLOCK, fuel return (also listed and illustrated with "Fuel Injection Piping") 3/8 x 1-1/4" hex-hd cap SCREW 3/8" lock WASHER
38	612 792 C91	GAUGE ASSY, fuel level (optional with 333 875 R91) (Consists of - 1 ADAPTER 612 794 C1 1 GAUGE 615 271 C1 1 RING 301 913 C1)
39	615 271 C1	GAUGE, fuel level (part of 612 792 C91) 1/4 x 5/8" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
40	612 794 C1	ADAPTER, fuel level gauge mounting (used with GAUGE 612 792 C91)
41	301 913 R1	RING, adapter sealing, 2 x 2 x 3/32" (used with GAUGE 612 792 C91)
	305 799 R1	RING, sealing (used with CAP, 305 798 C11)
	265 066 R1	SLEEVE, fuel supply pipe (2)
	265 204 R1	SLEEVE, fuel return pipe flex (2)

NOTE 1 - Factory Application - Order On
Machine Order Form.
NOTE 3 - Field Application - Order Through
Regular Service Parts Channels.



FUEL SYSTEM

FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE
 (Used on Units Equipped with International R. D. Fuel Injection Pump)
 TD-20BP 5909 to 20185
 TD-20BPS 6110 to 20185



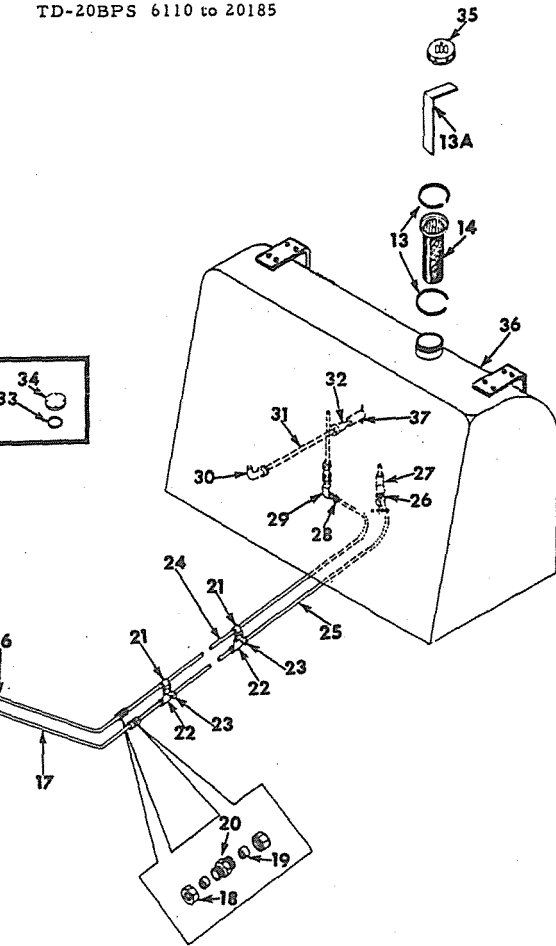
IPA-62133 C

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	339 200 R91	PUMP, fuel injection (see NOTE A) 3/8 x 1-1/8" hex-hd cap SCREW (3) 3/8" lock WASHER (3) 13/32 x 13/16" x 16 ga WASHER (3) Order the following parts - 1 PACKAGE 609 448 C91 1 PACKAGE 609 449 C91 1 PUMP (see NOTE B) † 610 489 C91)
2		FILTER, primary (for components see list of parts under details of "Primary and Final Filters")
3		FILTER, final (for components see list of parts under details of "Primary and Final Filters")
4	42 411 D	CONNECTOR, fuel supply pipe to filter TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
4	606 618 C1	ELBOW, 90° front fuel supply pipe TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185



FUEL SYSTEM

FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE - CONTINUED
 (Used on Units Equipped with International R. D. Fuel Injection Pump)
 TD-20BP 5909 to 20185
 TD-20BPS 6110 to 20185



REF. NO.	I. H. PART NUMBER	DESCRIPTION
5	37 165 D	NUT, front fuel supply pipe TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
5	265 205 R1	NUT, front fuel supply pipe TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
6	265 204 R1	SLEEVE
6	37 165 D	NUT, front fuel return pipe TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111

NOTE A - Refer to International Model R. D. Fuel Injection Pump Parts Catalog PU-67A When Ordering Detail Parts For Complete Pumps.
 NOTE B - Pumps Listed With Symbol (f) Are Not Available Under Part Numbers Shown. Order Basic Pump and Necessary Parts As Shown in The Parts Catalog PU-70. Also Refer To The PU-70 Catalog For Detail Parts On All Roosa-Master Pumps.



FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE - CONTINUED
 (Used on Units Equipped with International R. D. Fuel Injection Pump)
 TD-20BP 5909 to 20185
 TD-20BPS 6110 to 20185

6	265 205 R1	NUT, front fuel return pipe TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
	265 204 R1	SLEEVE
7	38 026 DM	CONNECTOR, front fuel return pipe TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
7	606 819 C1	CONNECTOR, front fuel return pipe TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
8	299 902 R1	CLAMP, front fuel return pipe (on front bolt of engine oil filter housing mounting bolt)
9	299 902 R1	CLAMP, fuel return pipe 3/8" NUT 3/8 x 5/8" hex-hd cap SCREW 3/8" lock WASHER
10	299 902 R1	CLAMP, fuel supply pipe
11	333 875 R91	GAUGE, fuel level (optional with 612 792 C91) (use with TANK, 612 774 C91) 1/4 x 5/8" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
13	317 943 R1	RING, fuel strainer snap (one used with STRAINER 316 672 R91 and two used with STRAINER 316 672 R92)
13A	611 409 C1	STICK, dip (used with STRAINER 316 672 R92 only)
14	624 478 C1	STRAINER, fuel (together with two RING 317 943 R1 and DIP STICK 611 409 C1 will work for 316 672 R91)
16	604 879 C1	PIPE, front fuel return (see NOTE C) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
16	607 988 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, front fuel return TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
17	604 878 C1	PIPE, front fuel supply (see NOTE D) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
17	607 986 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, front fuel supply TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
18	265 205 R1	NUT, 3/8" pipe flex (4)
19	265 204 R1	SLEEVE, 3/8" pipe flex (4)
20	603 867 C1	UNION, 3/8" pipe (2)
21	299 902 R1	CLAMP, fuel return pipe (2) 3/8 x 1-3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
22	299 902 R1	CLAMP, fuel supply pipe (2)
23	279 087 R1	SPACER, return pipe clamp (2)
24	607 515 C1	PIPE, rear fuel return (see NOTE C) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111



FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE - CONTINUED
 (Used on Units Equipped with International R. D. Fuel Injection Pump)
 TD-20BP 5909 to 20185
 TD-20BPS 6110 to 20185

24	607 987 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, rear fuel return TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
25	607 514 C1	PIPE, rear fuel supply (see NOTE D) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
25	607 985 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, rear fuel supply TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
26	37 165 D	NUT, rear fuel supply pipe TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
26	265 205 R1	NUT, rear fuel supply pipe TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
	265 204 R1	SLEEVE
27	606 528 C91	VALVE, fuel shut-off TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
27	606 928 C91	VALVE, fuel shut-off TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
28	37 165 D	NUT, rear fuel return pipe
29	42 406 D	ELBOW, 90° rear fuel return pipe (at fuel tank) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
29	333 774 R1	ELBOW, 90° rear fuel return pipe (at fuel tank) TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185

NOTE C - To Update Machines equipped With Front Fuel Return PIPE, 604 879 C1 and Rear Fuel Return PIPE, 607 515 C1, Serial Nos. TD-20BP 5909 to 6111 and TD-20BPS 6110
 (Order the following parts -
 1 CONNec-
 TOR 606 819 C1
 1 ELBOW 333 774 R1
 1 TUBE 607 987 C1
 1 TUBE 607 988 C11)

NOTE D - To Update Machines equipped With Front Fuel Supply PIPE, 607 514 C1 Serial Nos. TD-20BP 5909 to 6111, and TD-20BPS 6110
 (Order the following parts -
 1 ELBOW 606 618 C1
 1 TUBE 607 985 C11
 1 TUBE 607 986 C11
 1 VALVE 606 928 C91)

NOTE 1 - Factory Application - Order On Machine Order Form.



FUEL SYSTEM



MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE - CONTINUED
 (Used on Units Equipped with International R. D. Fuel Injection Pump)
 TD-20BP 5909 to 20185
 TD-20BPS 6110 to 20185

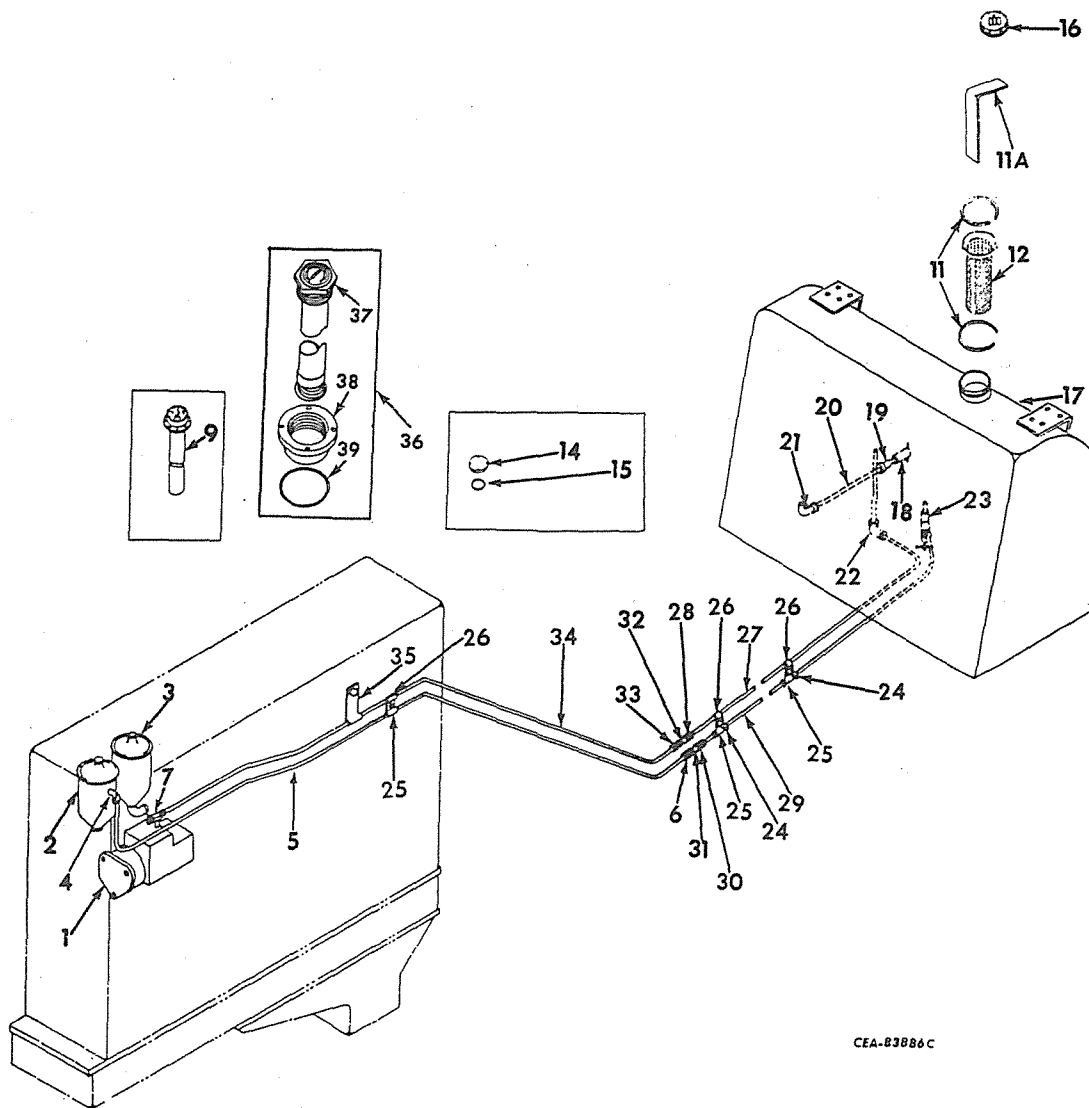
30	111 316	ELBOW, fuel tank drain
31	12 989 R1	PIPE, fuel tank drain
32	187 396	COUPLING, fuel tank drain valve
33	266 622 R1	GASKET, fuel gauge mounting ring cover (use with TANK, 612 774 C91)
34	267 082 R1	COVER, fuel gauge mounting ring (use with TANK, 612 774 C91) 1/4 x 1/2" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
35	701 922 C1	CAP, fuel tank (will work for CAP, 305 798 R11)
36	703 338 C92	TANK w/SUPPORT, CAP, 701 922 C1, two RING, 317 943 R1, STRAINER, 624 478 C1 and STICK, 611 409 C1, fuel (will work for TANK, 612 774 C91) 5/8" NUT (12) 5/8 x 1-1/2" hex-hd cap SCREW (4) 5/8 x 1-3/4" hex-hd cap SCREW (8)
	479 814 R1	WASHER, hardened (16)
37	31 729 D	VALVE, fuel tank drain
38	612 792 C91	GAUGE ASSY, fuel level (optional with 333 875 R91) (use with TANK, 612 774 C91) (Consists of - 1 ADAPTER 612 794 C1 1 GAUGE 615 271 C1 1 RING 301 913 C1)
39	615 271 C1	GAUGE, fuel level (part of 612 792 C91) 1/4 x 5/8" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
40	612 794 C1	ADAPTER, fuel level gauge mounting (used with GAUGE, 612 792 C91)
41	301 913 R1	RING, adapter sealing, 2 x 2 x 3/32" (used with GAUGE, 612 792 C91)
	611 411 C91	ATTACHMENT, fuel strainer (consists of STRAINER, 624 478 C1, two RING, 317 943 R1 and DIP STICK, 611 409 C1) (see NOTE 3)
	305 799 R1	RING, sealing (used with CAP, 305 798 R11)
	285 048 R1	SHIM, fuel tank mounting (X)

NOTE 3 - Field Application - Order Through
 Regular Service Parts Channels.
 X - As Required.



FUEL SYSTEM

FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE
 (Used on Units Equipped with Roosa-Master Fuel Injection Pump)
 TD-20BP 20186 Up
 TD-20BPS 20186 up



CEA-83886C

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	610 489 C91 †	PUMP ASSEMBLY, fuel injection Roosa-Master (DCGFC-627-20AJY) (2300 RPM) (See NOTE) 3/8" NUT (2) 3/8" lock WASHER (2)
	142 619 H	WASHER
2		FILTER, primary (for components see list of parts under details of "Primary and Final Filters")
3		FILTER, final (for components see list of parts under details of "Primary and Final Filters")
4	606 618 C1	ELBOW, 90° front fuel supply pipe (at filter)
5	607 986 C11	TUBE w/two SLEEVE, 265 204 R1 and two NUT, 265 205 R1, front supply fuel

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FUEL SYSTEM

FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE - CONTINUED
 (Used on Units Equipped with Roosa-Master Fuel Injection Pump)
 TD-20BP 20186 Up
 TD-20BPS 20186 up

REF. NO.	I.H. PART NUMBER	DESCRIPTION
6	265 205 R1 265 204 R1	NUT, front fuel supply pipe (2) SLEEVE (2)
7	610 082 C1	CONNECTOR, front fuel (return hose (at pump end) (used with HOSE 613 776 C91)
7	606 929 C1	CONNECTOR, front fuel return tube (at pump end) (used with TUBE 616 045 C11)

NOTE - Pumps Listed With Symbol (†) Are Not Available Under Part Numbers Shown. Order Basic Pump and Necessary Parts As Shown In The Parts Catalog PU-70. Also Refer To The PU-70 Catalog For Detail Parts On All Roosa-Master Pumps

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FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE - CONTINUED (Used On Units Equipped With Roosa-Master Fuel Injection Pump) TD-20BP 20186 Up TD-20BPS 20186 Up		
9	333 875 R91	GAUGE, fuel level (optional with 612 792 C91) (use with TANK, 612 774 C91) TD-20BP 20186 to 21304 TD-20BPS 20186 to 21304 1/4 x 5/8" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
11	317 943 R1	RING, fuel strainer snap (one used with STRAINER 316 672 R91 and two used with STRAINER, 624 478 C1) (furnished with TANK ASSY, 703 338 C91 and ATTACHMENT, 611 411 C91)
11A	611 409 C1	STICK, dip (used with STRAINER, 316 672 R92 only) (furnished with TANK ASSY, 703 338 C92 and ATTACHMENT, 611 411 C91)
12	624 478 C1	STRAINER, fuel (together with two RING, 317 943 R1 and DIP STICK, 611 409 C1 will work for 316 672 R91) (furnished with TANK ASSY, 703 338 C92 and ATTACHMENT, 611 411 C91)
14	267 082 R1	COVER, fuel gauge mounting ring (used with fuel TANK, 612 774 C91) 1/4 x 1/2" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
15	266 622 R1	GASKET, fuel gauge mounting ring cover (used with fuel TANK, 612 774 C91)
16	701 922 C1	CAP, fuel tank (will work for CAP, 305 798 R11)
17	703 338 C92	TANK w/SUPPORT, CAP, 701 922 C1, two RING, 317 943 R1, STRAINER, 624 478 C1 and STICK, 611 409 C1, fuel (will work for TANK, 612 774 C91) 5/8" NUT (12) 5/8 x 1-1/2" hex-hd cap SCREW (4) 5/8 x 1-3/4" hex-hd cap SCREW (8) 479 814 R1 WASHER, hardened (16)
18	31 729 D	VALVE, fuel tank drain
19	187 396	COUPLING, fuel tank drain valve
20	12 989 R1	PIPE, fuel tank drain
21	111 316	ELBOW, fuel tank drain
22	333 774 R1	ELBOW, 90° rear return pipe (at fuel tank)
23	606 928 C91	VALVE, fuel shut-off
24	279 087 R1	SPACER, return pipe clamp (2)
25	299 902 R1	CLAMP, fuel supply pipe (3)
26	299 902 R1	CLAMP, fuel return pipe (3) 3/8" NUT (3) 3/8 x 1-3/4" hex-hd cap SCREW (3) 3/8" lock WASHER (3) 3/8 x 5/8" hex-hd cap SCREW
27	607 987 C11	TUBE w/two SLEEVE, 265 204 R1 and two NUT, 265 205 R1, rear fuel return
28	265 205 R1 265 204 R1	NUT, rear fuel return pipe (2) SLEEVE (2)
29	607 985 C11	TUBE, w/two SLEEVE, 265 204 R1 and two NUT, 265 205 R1, rear fuel supply
30	265 205 R1 265 204 R1	NUT, rear fuel supply pipe (2) SLEEVE (2)
31	603 867 C1	UNION, fuel supply pipe
32	603 867 C1	UNION, fuel return pipe flex



FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
FUEL TANK PIPING, FUEL STRAINER AND FUEL GAUGE - CONTINUED (Used On Units Equipped With Roosa-Master Fuel Injection Pump) TD-20BP 20186 Up TD-20BPS 20186 Up		
33	265 205 R1 265 204 R1	NUT, front fuel return pipe (2) SLEEVE (2)
34	616 045 C11	TUBE, w/two SLEEVE, 265 204 R1 and two NUT, 265 205 R1, front fuel return (together with connector 606 929 C1 will work for 611 141 C11)
35	299 902 R1	CLAMP, front fuel return pipe (on front bolt of engine oil filter housing mounting bolt)
36	612 792 C91	GAUGE ASSY, fuel level (optional with GAUGE 333 875 R91) (use with TANK, 612 774 C91) TD-20BP 20186 to 21304 TD-20BPS 20186 to 21304 (Consists of - 1 ADAPTER 612 794 C1. 1 GAUGE 615 271 C1 1 RING 301 013 C1)
37	615 271 C1	GAUGE, fuel level (part of 612 792 C91) TD-20BP 20186 to 21304 TD-20BPS 20186 to 21304 1/4 x 5/8" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
38	612 794 C1	ADAPTER, fuel level gauge mounting (used with GAUGE, 612 792 C91) TD-20BP 20186 to 21304 TD-20BPS 20186 to 21304
39	301 913 R1	RING, adapter sealing, 2 x 2 x 3/32" (used with GAUGE, 612 792 C91) TD-20BP 20186 to 21304 TD-20BPS 20186 to 21304
611 411 C91		ATTACHMENT, fuel strainer (consists of STRAINER, 624 478 C1, two RING, 317 943 R1 and DIP STICK, 611 409 C1) (see NOTE 3) TD-20BP 20186 to 21304 TD-20BPS 20186 to 21304
308 575 R1		CLAMP, fuel return hose (on upper front bolt on injection tube clamp (used with HOSE 613 776 C91)
610 707 C1		COUPLING, hose to front fuel return tube (used with HOSE 613 776 C91 and TUBE 611 141 C11)
613 776 C91		HOSE w/FITTING, 3/8 ID x 14" long pump to front fuel return tube (used with TUBE 611 141 C11)
305 799 R1		RING, sealing (use w/CAP, 305 798 R11) TD-20BP 20186 to 22642 TD-20BPS 20186 to 22642
285 048 R1		SHIM, fuel tank mounting (X)
331 859 R11		SHEET, LH fuel tank support cover 3/8" NUT (2) 3/8 x 1" hex-hd cap SCREW (cd or zn-pltd) (3) 3/8" lock WASHER (3) 13/32 x 13/16" x 16 ga. WASHER (3)
331 860 R1		SHEET, RH fuel tank support cover 3/8" NUT (4) 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4) 13/32 x 13/16" x 16 ga. WASHER (4)
NOTE 3 - Field Application - Order Through Regular Service Parts Channels. X - As Required.		



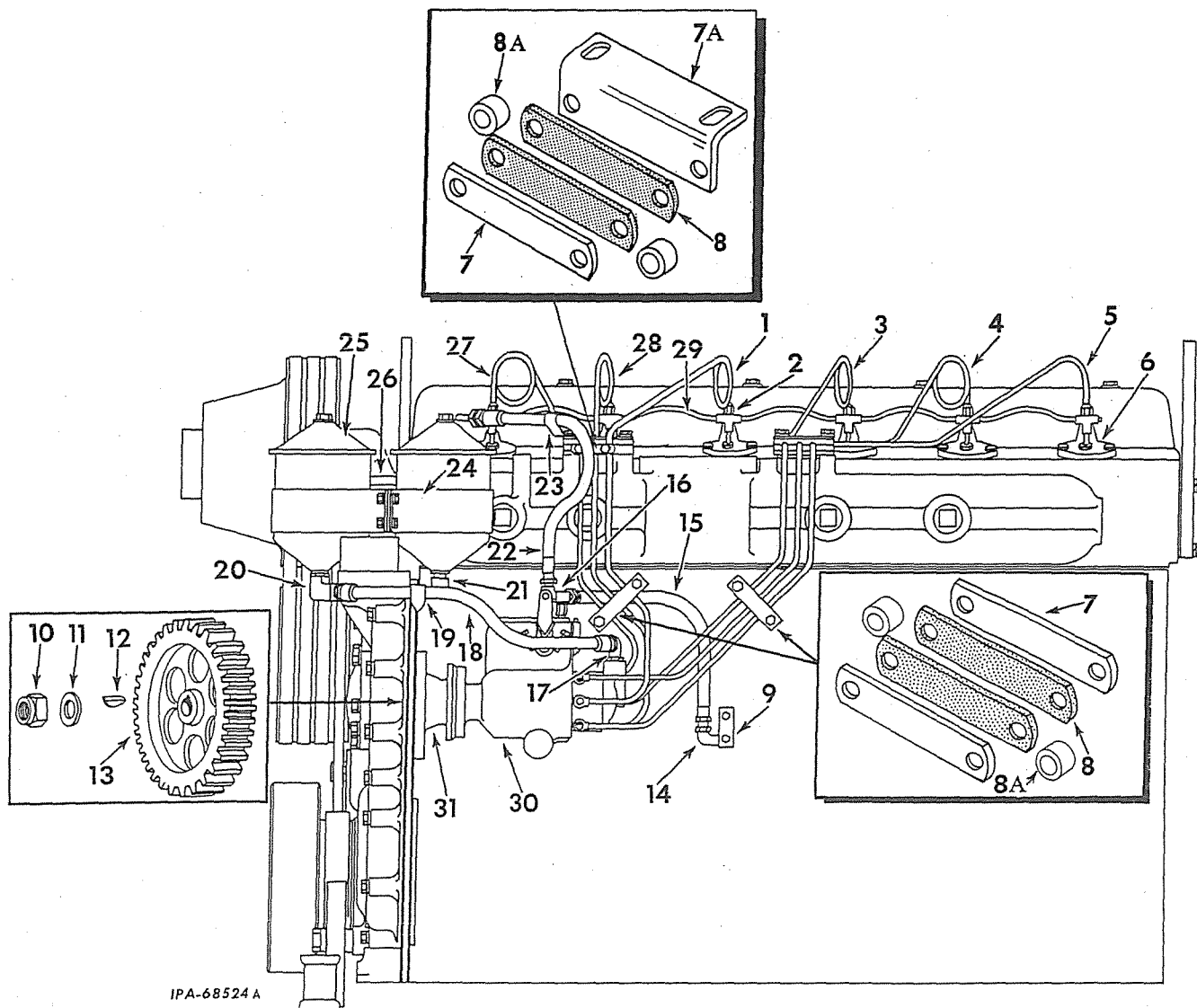
FUEL SYSTEM

FUEL INJECTION PUMP, PIPES AND CONNECTIONS
 (Used on Units Equipped with Roosa-Master Fuel Injection Pump)
 TD-20BPM 510 to 2527



FUEL SYSTEM

FUEL INJECTION PUMP, PIPES AND CONNECTIONS - CONTINUED
 (Used on Units Equipped with Roosa-Master Fuel Injection Pump)
 TD-20BPM 510 to 2527



IPA-68524 A

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	607 271 C11	PIPE, injection No. 3
2	250 617 R1 250 610 R2	NUT, injection pipe (6) SLEEVE, injection pipe (6)
3	341 489 R11	PIPE, injection No. 4
4	341 490 R11	PIPE, injection No. 5
5	341 491 R11	PIPE, injection No. 6
6	344 039 R91	HOLDER, nozzle (for components see list of parts under details of "Nozzle Holder") (6) 3/8 x 1-3/4" hex-hd cap SCREW (12)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
7	278 834 R2	CLAMP, injection pipe (7) 3/8" NUT (4) 3/8 x 1-1/2" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
7A	601 444 C1	BRACKET, injection pipe clamp 3/8 x 1-1/4" hex-hd cap SCREW (2) 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (4)
8	601 296 C1	PAD, injection pipe clamp (together with two SPACER, 601 297 C1) (will work for 328 999 R1) (8)
8A	601 297 C1	SPACER, injection pipe clamp pad (for use with two PAD, 601 296 C1) (will work for 328 999 R1) (8)



FUEL SYSTEM



MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FUEL INJECTION PUMP, PIPES AND CONNECTIONS - CONTINUED
 (Used on Units Equipped with Roosa-Master Fuel Injection Pump)
 TD-20BPM 510 to 2527

9	341 520 R1	BLOCK, fuel return (also listed and illustrated with "Fuel Tank Piping") 3/8 x 1-1/4" hex-hd cap SCREW 3/8" lock WASHER
10	19 899 R1	NUT, 5/8NF lock
11	341 508 R1	WASHER, injection pump gear
12	124 546	KEY, woodruff
13	341 395 R2	GEAR, injection pump 3/8 x 1-1/8" hex-hd cap SCREW (3) 13/32 x 13/16 x 16 ga WASHER (3)
14	9 402 836	ELBOW, 1/8 NPT to 7/16NF
15	343 987 R91	HOSE w/FITTINGS, fuel return (HOSE, 1/4" ID x 11-1/2" long including FITTINGS)
16	603 676 C1	TEE, fuel return
17	9 402 838	ELBOW (into pump)
18	343 887 R91	HOSE w/FITTINGS, filter to pump (HOSE 3/8" ID x 17-1/2" long including FITTINGS)
19	341 208 R1	CLIP, flexible hose 13/32 x 13/16 x 16 ga. WASHER
20	444 068	ELBOW (out of final filter)
21	65 834 D	ELBOW (out of auxiliary filter)
22	343 986 R91	HOSE w/FITTINGS, fuel leakoff (HOSE 1/4" ID x 13" long including FITTINGS)
23	38 100 D	CLIP, leakoff hose 13/32 x 13/16 x 16 ga. WASHER
24	341 205 R11	BRACKET, fuel filter 3/8 x 7/8" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
25	278 062 R91	FILTER ASSEMBLY, fuel (for components see list of parts under details of "Primary and Final Fuel Filters") (2)
26	341 207 R11 22 510 D	TUBE, auxiliary to final filter ELBOW (into final filter)
27	607 269 C11	PIPE, injection No. 1
28	607 270 C11	PIPE, injection No. 2
29	341 212 R91	MANIFOLD, fuel leakoff
30	336 983 R91	PUMP ASSEMBLY, fuel injection (DCGFC-627-18AJ) (2300 RPM) (See NOTE) Roosa-Master 3/8" NUT (2) 3/8" lock WASHER
	142 619 H	WASHER
	113 934 H	WASHER
31		DRIVE ASSEMBLY, injection pump (for components see list of parts under details of "Injection Pump Drive")
	9 409 931	ELBOW, 1/8 NPT straight
	336 980 R1	SLEEVE, hex-hd (6)
	915 500 R1	SLEEVE, rubber (6)
	279 673 R91	SEAL, injection pump torque screw wire

NOTE - Refer To Roosa-Master Fuel Injection Pump Parts Catalog PU-70 When Ordering Detail Parts For Complete Pumps.



MEMORANDA



MEMORANDA



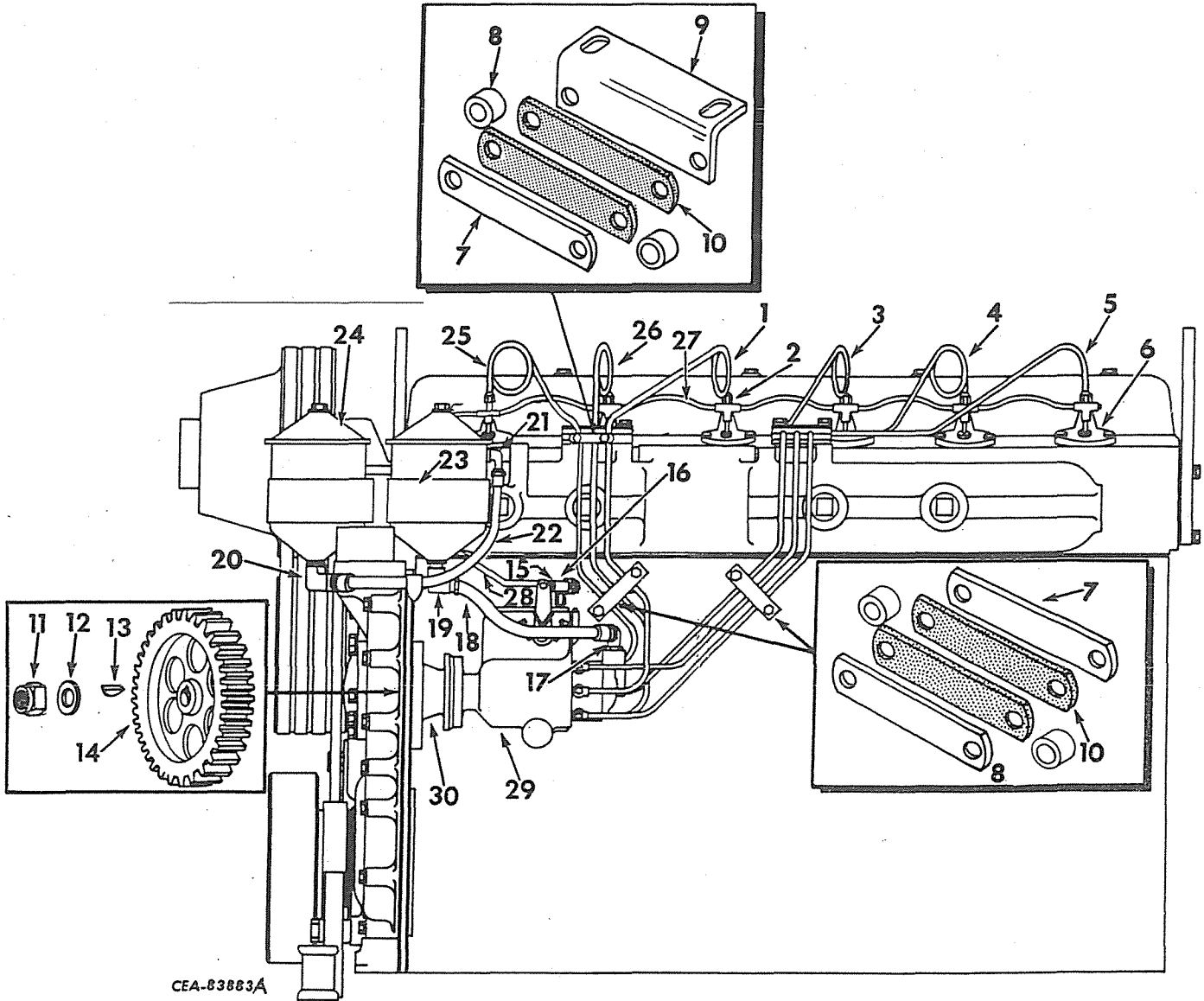
FUEL SYSTEM



FUEL SYSTEM

FUEL INJECTION PUMP, PIPES AND CONNECTIONS
 (Used on Units Equipped with Roosa-Master Fuel Injection Pump)
 TD-20BPM 3317 to 5252
 TD-20BPSM 3317 to 5252

FUEL INJECTION PUMP, PIPES AND CONNECTIONS - CONTINUED
 (Used on Units Equipped with Roosa-Master Fuel Injection Pump)
 TD-20BPM 3317 to 5252
 TD-20BPSM 3317 to 5252



CEA-83883A



FUEL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
FUEL INJECTION PUMP, PIPES AND CONNECTIONS - CONTINUED (Used on Units Equipped with Roosa-Master Fuel Injection Pump) TD-20BPM 3317 to 5252 TD-20BPSM 3317 to 5252		
1	607 271 C11	PIPE, injection No. 3
2	250 617 R1 250 610 R2	NUT, injection pipe (6) SLEEVE, injection pipe (6)
3	341 489 R11	PIPE, injection No. 4
4	341 490 R11	PIPE, injection No. 5
5	341 491 R11	PIPE, injection No. 6
6	610 716 C91 364 879 R1	HOLDER, nozzle (for components see list of parts under details of "Nozzle Holder") (6) 3/8 x 1-3/4" hex-hd cap SCREW (12) "O" RING (7/8 x 1-1/16 x 3/32") (6)
7	278 834 R2	CLAMP, injection pipe (7) 3/8" NUT (4) 3/8 x 1-5/8" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
8	601 297 C1	SPACER, injection pipe clamp pad (8)
9	601 444 C1	BRACKET, injection pipe clamp 3/8 x 1-1/4" hex-hd cap SCREW (2) 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (4)
10	601 296 C1	PAD, injection pipe clamp (8)
11	19 899 R1	NUT, 5/8NF lock
12	341 508 R1	WASHER, injection pump gear
13	124 546	KEY, woodruff
14	341 395 R2	GEAR, injection pump 3/8 x 1-1/8" hex-hd cap SCREW (3)
15	606 885 C1	CONNECTOR (pump end)
16	603 676 C1	TEE, fuel return
17	9 402 838	ELBOW (into pump)
18	610 522 C91	HOSE w/FITTINGS, filter to pump (HOSE 3/8" ID x 9-1/2" long including FITTINGS)
19	444 042	ELBOW, filter outlet (final filter)
20	444 042	ELBOW, filter outlet (primary filter)
21	333 934 R1	ELBOW, filter inlet (final filter)
22	610 521 C91	HOSE w/FITTINGS, primary to final filter (HOSE 3/8" ID x 15" long including FITTINGS)
23	601 445 C21	BRACKET, fuel filter 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
24		FILTER ASSEMBLY, fuel (for components see list of parts under details of "Primary and Final Fuel Filters") (2)
25	607 269 C11	PIPE, injection No. 1
26	607 270 C11	PIPE, injection No. 2
27	609 062 C91 336 980 R1 915 500 R1	FUEL LEAKOFF MANIFOLD SLEEVE (6) SLEEVE, rubber (6)
28	609 063 C11 915 499 R1 915 500 R1	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, leakoff to injection pump NUT (2) SLEEVE (2)



FUEL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
FUEL INJECTION PUMP, PIPES AND CONNECTIONS - CONTINUED (Used on Units Equipped with Roosa-Master Fuel Injection Pump) TD-20BPM 3317 to 5252 TD-20BPSM 3317 to 5252		
29	610 489 C91 †	PUMP ASSEMBLY, fuel injection Roosa-Master (DCGFC-627-20AJY) (2300 RPM) (See NOTE)
30		DRIVE ASSEMBLY, pump (for components see list of parts under details of "Injection Pump Drive") 3/8 x 1-1/4" hex-hd cap SCREW (3) 3/8" WASHER (3)
	279 673 R91	SEAL, injection pump torque screw
	606 049 C1	UNION (leakoff end)

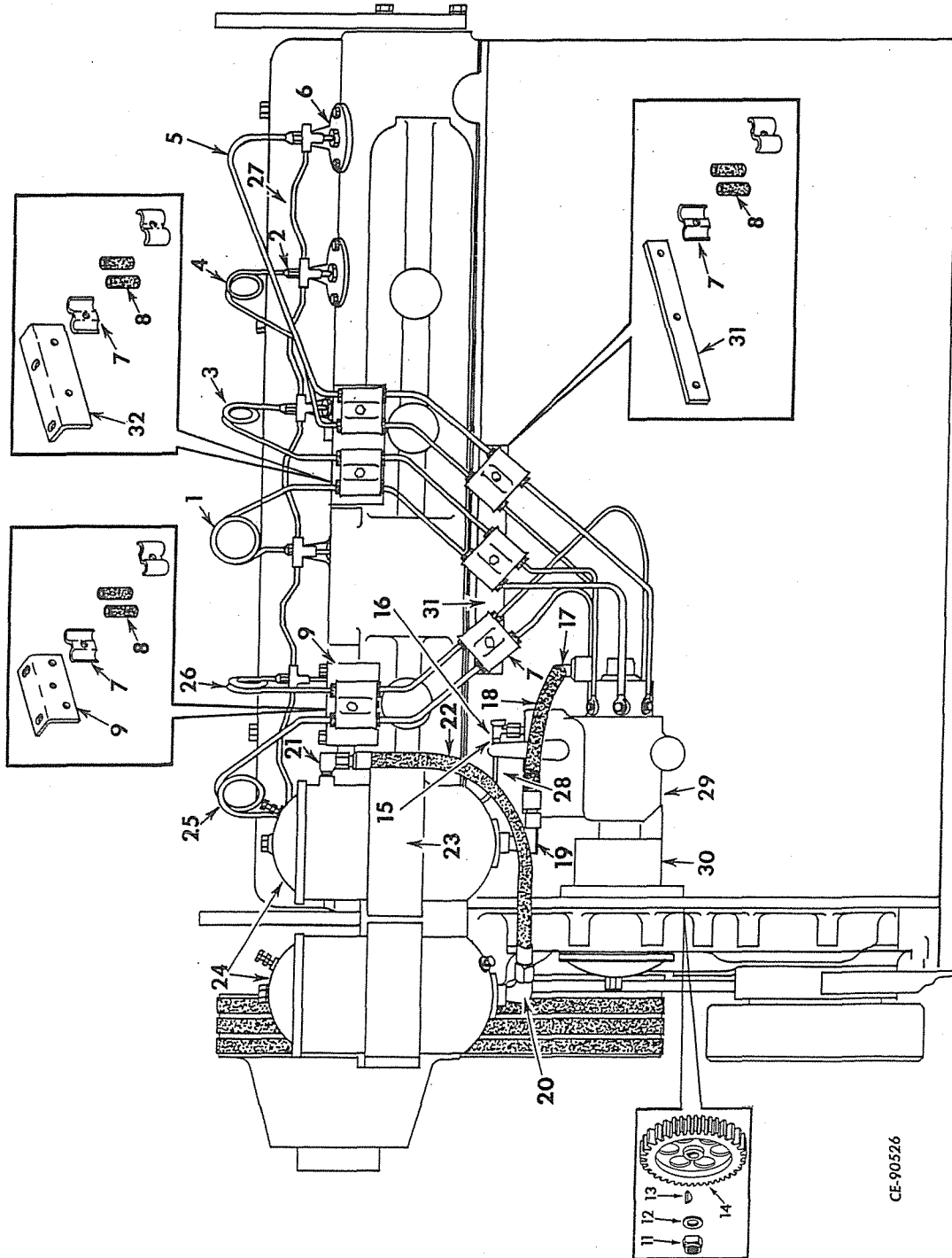
NOTE - Pumps Listed With Symbol (†) Are Not Available Under Part Numbers Shown. Order Basic Pump and Necessary Parts As Shown in The Parts Catalog PU-70. Also Refer to The PU-70 Catalog For Detail Part On All Roosa-Master Pumps.

FUEL SYSTEM

FUEL SYSTEM

FUEL INJECTION PUMP, PIPES AND CONNECTIONS
 TD-20PM 5253 up
 TD-20PSM 5253 up

FUEL INJECTION PUMP, PIPES AND CONNECTIONS - CONTINUED
 TD-20PM 5253 up
 TD-20PSM 5253 up



CE-90526



FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FUEL INJECTION PUMP, PIPES AND CONNECTIONS - CONTINUED
 TD-20PM 5253 up
 TD-20PSM 5253 up

1	701 039 C1	PIPE, injection No. 3
2	250 617 R1 250 610 R2	NUT, injection pipe (6) SLEEVE, injection pipe (6)
3	701 040 C1	PIPE, injection No. 4
4	701 041 C1	PIPE, injection No. 5
5	701 042 C1	PIPE, injection No. 6
6		HOLDER, nozzle (for components see list of parts under details of "Nozzle Holder") (6) 3/8 x 1-3/4" hex-hd cap SCREW (12)
7	701 155 C1	CLAMP, injection pipe (12)
8	258 079 C1	GROMMET, injection line (12)
9	601 444 C2	BRACKET, injection pipe clamp 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 1/4NF x 1-1/8" hex-hd cap SCREW 1/4" plain WASHER 1/4" lock WASHER
11	19 899 R1	NUT, 5/8NF lock
12	341 508 R1	WASHER, injection pump gear
13	124 546	KEY, woodruff
14	341 395 R2	GEAR, injection pump 3/8 x 1-1/8" hex-hd cap SCREW (3)
15	606 885 C1	CONNECTOR (pump end)
16	603 676 C1	TEE, fuel return
17	9 402 838	ELBOW (into pump)
18	610 522 C91	HOSE w/FITTINGS, filter to pump (HOSE 3/8" ID x 9-1/2" long including FITTINGS)
19	444 042	ELBOW, filter outlet (final filter)
20	444 042	ELBOW, filter outlet (primary filter)
21	333 934 R1	ELBOW, filter inlet (final filter)
22	610 521 C91	HOSE w/FITTINGS, primary to final filter (HOSE 3/8" ID x 15" long including FITTINGS)
23	601 445 C21	BRACKET, fuel filter 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
24		FILTER ASSY, fuel (for components see list of parts under details of "Primary and Final Fuel Filters") (2)
25	701 037 C1	PIPE, injection No. 1
26	701 038 C1	PIPE, injection No. 2
27	670 091 C11 915 499 R1 915 500 R1	FUEL LEAKOFF MANIFOLD w/NUT, 915 499 R1 and SLEEVE, 915 500 R1 NUT (2) SLEEVE (2)



FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FUEL INJECTION PUMP PIPES AND CONNECTIONS - CONTINUED
 TD-20PM 5253 up
 TD-20PSM 5253 up

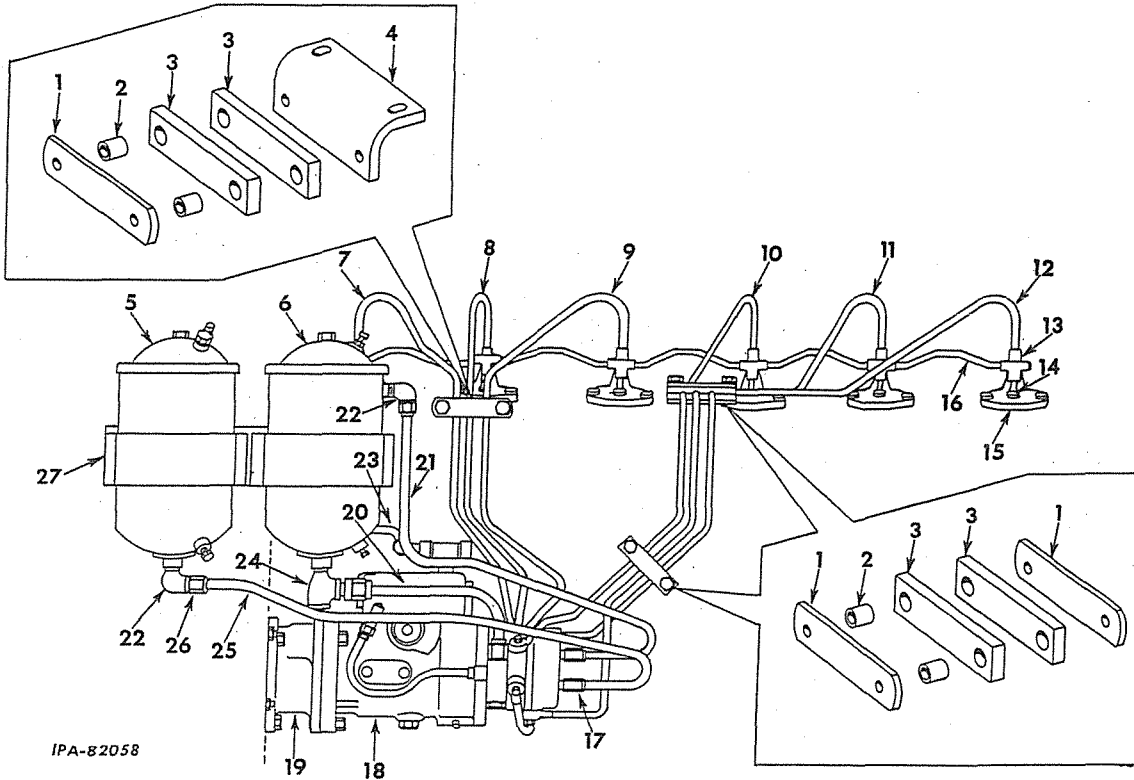
28	609 063 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, leakoff to injection pump TD-20PM 5223 to 6243 TD-20PMS 5223 to 6243
28	670 717 C91	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, leakoff to injection pump TD-20PM 6244 up TD-20PMS 6244 up
29	610 489 C91 (+)	PUMP ASSY, fuel injection (DCGFC-627-1AL) (2500 RPM) (see NOTE) 3/8" NUT (2) 3/8" lock WASHER (2) WASHER (2)
30		DRIVE ASSY, pump (for components see list of parts under details of "Injection Pump Drive") SLEEVE (6) SLEEVE, rubber (6)
31	670 227 C1	BRACKET, injection pipe clamp-center 1/4NF x 1-1/8" hex-hd cap SCREW (3) 1/4" plain WASHER (3) 1/4" lock WASHER (3)
32	670 228 C1	BRACKET, injection pipe clamp-rear upper 1/4NF x 1-1/8" hex-hd cap SCREW (2) 1/4" plain WASHER (2) 1/4" lock WASHER (2)
	612 180 C1	GASKET, fuel line connector (12)
	279 673 R91	SEAL, injection pump torque screw
	606 049 C1	UNION (leakoff end)

NOTE - Pumps Listed With (+) Are Not Available Under Part Numbers Shown - Order Basic Pump And Necessary Parts As Shown In The Parts Catalog PU-70. Also Refer To The PU-70 Catalog For Detail Parts On All Roosa-Master Pumps.

FUEL SYSTEM



FUEL INJECTION PUMP, PIPES AND CONNECTIONS
 (Used on Units Equipped with "International R. D. Fuel Injection Pump")
 TD-20BPM 2517 to 3316



FUEL SYSTEM

FUEL INJECTION PUMP, PIPES AND CONNECTIONS - CONTINUED
 (Used on Units Equipped with "International R. D. Fuel Injection Pump")
 TD-20BPM 2517 to 3316

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	278 834 R2	CLAMP, pipe (5) 3/8" NUT (2) 3/8 x 1-1/4" hex-hd cap SCREW (2) 3/8 x 1-1/2" hex-hd cap SCREW (4) 3/8" lock WASHER (6)
2	601 297 C1	SPACER, clamp (6)
3	601 296 C1	PAD, pipe clamp (6)
4	601 444 C1	BRACKET, pipe clamp 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
5	606 380 C91	FILTER, primary fuel (for components see list of parts under details of "Primary and Final Fuel Filter") 5/16" NUT (4) 5/16 x 1" hex-hd cap SCREW (4) 11/32 x 11/16" x 16 ga WASHER (4) 5/16" lock WASHER (4)
6	338 371 R91	FILTER, final fuel (for components see list of parts under details of "Primary and Final Fuel Filter") 5/16" NUT (4) 5/16 x 1" hex-hd cap SCREW (4) 11/32 x 11/16" x 16 ga WASHER (4) 5/16" lock WASHER (4)
7	601 438 C11	PIPE, injection No. 1

REF. NO.	I. H. PART NUMBER	DESCRIPTION
8	601 439 C11	PIPE, injection No. 2
9	601 440 C11	PIPE, injection No. 3
10	601 441 C11	PIPE, injection No. 4
11	601 442 C11	PIPE, injection No. 5
12	601 443 C11	PIPE, injection No. 6
13	250 617 R1 250 610 R2	NUT, injection pipe (6) SLEEVE, injection pipe (6)
14	336 980 R1 915 500 R1	SLEEVE, hex-hd (6) SLEEVE (6)
15	341 671 R91	HOLDER, nozzle (for components see list of parts under details of "Nozzle Holder") (6) 3/8 x 1-3/4" hex-hd cap SCREW (12)
16	601 432 C91	MANIFOLD, fuel leakoff
17	606 619 C1	CONNECTOR, pump end (2)



FUEL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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FUEL INJECTION PUMP, PIPES AND CONNECTIONS - CONTINUED
 (Used on Units Equipped with "International R. D. Fuel Injection Pump")
 TD-20BPM 2517 to 3316

18	339 200 R91	PUMP ASSY, fuel injection (see NOTE A) 3/8 x 1-1/8" hex-hd cap SCREW (3) 3/8" lock WASHER (3) Order the following parts - 1 PACKAGE 609 448 C91 1 PACKAGE 609 449 C91 1 PUMP See NOTE B † 610 489 C91)
19		DRIVE ASSY, pump (for components see list of parts under "Injection Pump Drive")
20	610 208 C1	HOSE w/Fitting, final filter to injection pump
	333 773 R1	CONNECTOR (at filter)
21	601 771 C11	PIPE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, pump to final filter
22	606 618 C1	ELBOW, filter end (2)
23	601 436 C1 252 374 R1 19 984 R1 89 863 H	TUBE, leakoff manifold to pump ELBOW (pump end) NUT, connector (3) UNION (leakoff end)
24	444 259	TEE, 3/8" pipe - filter final 3/8" sq-soc pipe PLUG
	444 042	ELBOW, 3/8NPT (install in tee)
25	601 770 C11	PIPE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, primary filter to pump
26	265 205 R1 265 204 R1	NUT, pipe (6) SLEEVE, pipe nut (6)
27	601 445 C11	BRACKET, fuel filter 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
	127 095 R1	CLAMP, leakoff manifold return tube 3/8" NUT 3/8 x 3/4" hex-hd cap SCREW 13/32 x 13/16" x 16 ga WASHER
	601 437 C1 341 660 R1	SUPPORT, clamp SLEEVE

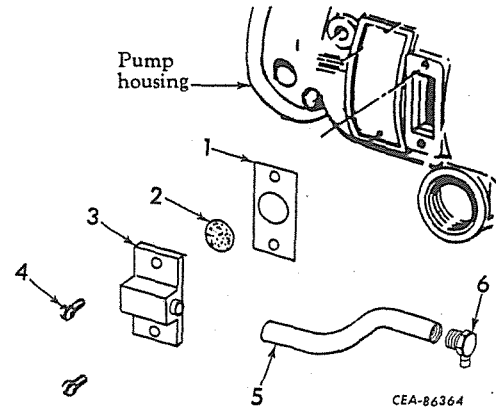
NOTE A - Refer to International Model R. D. Fuel Injection Pump Parts Catalog PU-67A When Ordering Detail Parts For Complete Pumps.

NOTE B - Pumps Listed With Symbol (†) Are Not Available Under Part Numbers Shown. Order Basic Pump and Necessary Parts As Shown In The Parts Catalog PU-70. Also Refer To The PU-70 Catalog For Detail Parts On All Roosa-Master Pumps.



FUEL SYSTEM

RETURN FUEL BY-PASS
 (Roosa-Master) (Hartford Machine Screw Co.)
 TD-20BPM 510 to 2526



REF. NO.	I.H. PART NUMBER	DESCRIPTION
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	606 847 C91	KIT, return fuel by-pass system (See NOTE) (Consists of the following parts -
1	610 953 C1	GASKET, timing and return oil fitting (15522)
2	610 955 C1	SCREEN, return oil (16460)
3	610 951 C91	FITTING, timing and return oil (15517)
4		SCREW, No. 8 x 5/16" slt-ov-hd (timing line cover) (10584) (2)
5	610 952 C1	HOSE, return oil (15521)
6	610 954 C91	FITTING, inlet (16463)
	610 950 C91	CONNECTOR, return line (13212) (top of transfer pump)

NOTE - Parts For Reference Numbers 1 to 6 Are Also Listed And Illustrated In Roosa-Master Fuel Injection Pump Parts Catalog PU-70.



FUEL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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FIELD CONVERSION PACKAGE (ENGINE)

(For converting engines equipped with International Model "R.D." Fuel Injection Pumps to Roosa-Master Fuel Injection Pumps)
 TD-20BPM 2527 to 3316
 TD-20BPSM 268J to 3316

609 448 C91		PACKAGE, engine field conversion (less fuel injection pump) (Chassis conversion PACKAGE, 609 449 C91 must be used in conjunction with this package) (see NOTE)
		(Consists of -
1		BUTTON, thrust 606 792 C91
7		CLAMP, injection pipe 278 834 R2
4		3/8" NUT
2		3/8 x 3/4" cap SCREW
2		3/8 x 1-1/4" cap SCREW
6		3/8 x 1-5/8" cap SCREW
10		3/8" lock WASHER
1		CONNECTOR (at tee) 606 885 C1
1		COVER, injection pump gear 341 521 R1
4		3/8NF NUT
4		3/8" lock WASHER
1		DRIVE, Roosa-Master injection pump 613 518 C91
3		3/8 x 1-1/4" cap SCREW
3		13/32 x 13/16" x 16" ga WASHER
2		ELBOW, fuel filter outlet 444 042
1		ELBOW, final filter 333 934 R1
1		ELBOW (in pump) 9 402 838
1		GASKET, injection pump gear cover 326 582 R1
1		HOSE, primary to final filter 610 521 C91
1		HOSE, final filter to injection pump 610 522 C91
6		NUT, injection pipe 260 617 R1
1		NUT, tube 915 499 R1
8		PAD, injection pipe 601 296 C1
1		PIPE, injection (Cylinder No. 1) 607 269 C11
1		PIPE, injection (Cylinder No. 2) 607 270 C11
1		PIPE, injection (Cylinder No. 3) 607 271 C11
1		PIPE, injection (Cylinder No. 4) 341 489 R11
1		PIPE, injection (Cylinder No. 5) 341 490 R11
1		PIPE, injection (Cylinder No. 6) 341 491 R11
6		SLEEVE, injection pipe 250 610 R2
1		SLEEVE, tube nut 915 500 R1
8		SPACER, injection pipe clamp 601 297 C1
1		TEE, fuel return (at pump) 603 676 C1
1		TUBE, leakoff to injection pump 609 063 C11
1		UNION (at leakoff manifold) 606 049 C1)

NOTE: All parts listed in this conversion package are listed and illustrated throughout this catalog.



FUEL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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FIELD CONVERSION PACKAGE (CHASSIS)

(For use in conjunction with Engine Conversion PACKAGE, 609 448 C91 when converting engines equipped with International Model "R.D." Fuel Injection Pumps to Roosa-Master Fuel Injection Pumps)
 TD-20BPM 2527 to 3316
 TD-20BPSM 2527 to 3316

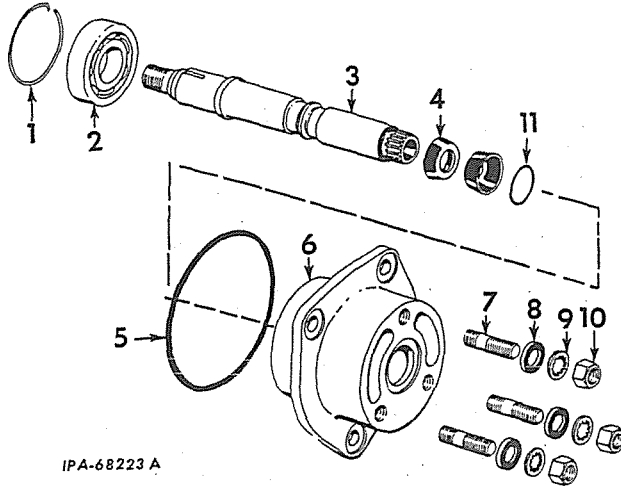
609 449 C91		PACKAGE, chassis field conversion (see NOTE)
		(Consists of -
1		ADJUSTER, hydraulic decelerator 611 140 C92
1		CLAMP, fuel return tube (front) 299 902 R1
1		CLAMP, fuel return hose 308 575 R1
1		CONNECTOR, front fuel return hose 610 082 R1
1		COUPLING, hose to front fuel return tube 610 707 C1
1		HOSE, pump to front fuel return tube 606 031 C91
1		PAMPHLET 1 085 199 R1
1		PLUG, 3/8" sq.-hd. (in tee at base of final filter) 20 972 R1
1		PLUG, fuel oil filter pressure gauge button 432 577
1		ROD, governor control linkage 611 134 C1
1		ROD, governor control (front) 611 135 C11
1		CLEVIS, adjustable rod end 104 037
1		ROD, decelerator pick-up lever 611 139 C1
1		SHAFT, governor control cross 611 137 C91
1		TUBE, fuel return (front) 611 141 C11
1		UNION, tube (at pump) 603 676 C1)

NOTE: All parts listed in the conversion package are listed and illustrated throughout this catalog.



FUEL SYSTEM

INJECTION PUMP DRIVE
(Roosa-Master, Hartford Machine Screw Co.)
TD-20BPM 510 to 2526



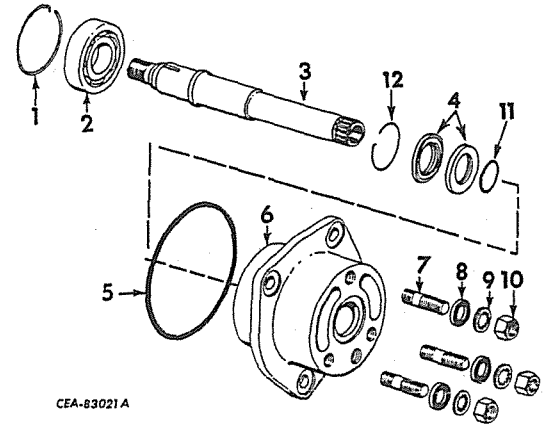
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REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	346 876 R1	RING, bearing retainer (15905)
2	ST 287	BEARING, drive shaft (15255)
3	346 875 R91	SHAFT w/"O" RING, 368 030 R1, drive (15845)
4	313 288 R1	SEAL, drive shaft (10453) (2)
5	346 895 R1	SEAL, mounting adapter (15689)
6	619 762 C1	ADAPTER, mounting (together with three 3/8 x 1-1/4" hex-hd cap SCREW, will work for ADAPTER, 606 833 C1) (17990)
7	324 688 R1	STUD, mounting (10505) (3)
8	142 619 H	WASHER, stud (3)
9		WASHER, stud (3/8" internal tooth lock) (10525) (3)
10		NUT, mounting stud 3/8" (3)
11	368 030 R1	"O" RING, drive shaft (12406)



FUEL SYSTEM

INJECTION PUMP DRIVE
(Roosa-Master, Hartford Machine Screw Co.)
TD-20BPM 3317 Up
TD-20 BPSM 3317 Up



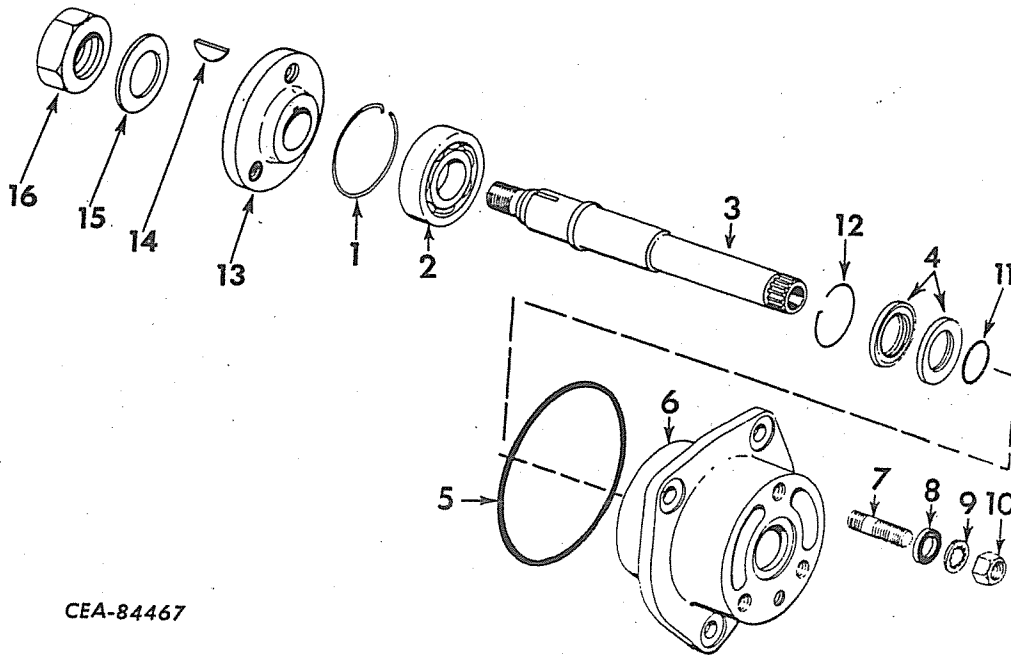
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REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	346 876 R1	RING, bearing retainer (15905)
2	ST 287	BEARING, drive shaft
3	606 832 C91	SHAFT w/"O" RING, 368 030 R1, drive (16602)
4	372 762 R91	SEAL, drive shaft (16605) (2)
5	346 895 R1	SEAL, mounting adapter (15689)
6	619 762 C1	ADAPTER, mounting (together with three 3/8 x 1-1/4" hex-hd cap SCREW, will work for 606 833 C1) (17990)
	142 619 H	3/8" NUT (3) 3/8 x 1-1/4" hex-hd cap SCREW (3) 3/8" internal-tooth lock WASHER (3) 13/32 x 13/16 x 16 ga WASHER (3) WASHER (3)
7	324 688 R1	STUD, mounting (10505) (3)
8	142 619 H	WASHER, stud (3)
9		WASHER, stud (3/8" internal tooth lock) (3)
10		NUT, 3/8" mounting stud (3)
11	368 030 R1	"O" RING, drive shaft (12406)
12	273 026 R1	RING, seal retainer snap



FUEL SYSTEM

INJECTION PUMP DRIVE
 (Roosa-Master, Hartford Machine Screw Co.)
 (Part of Package 609 448 C91)



CEA-84467

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	613 518 C91	DRIVE ASSEMBLY, injection pump (Consists of the following parts -
1	346 876 R1	RING, bearing retainer (15905)
2	ST 287	BEARING, drive shaft (15255)
3	615 151 C91	SHAFT w/"O" RING, 368 030 R1, drive (17067)
4	372 762 R91	SEAL, drive shaft (16605) (2)
5	346 895 R1	SEAL, mounting adapter (15689)
6	615 152 C1	ADAPTER, mounting (17069)
7	324 688 R1	STUD, mounting (10505) (3)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
8	142 619 H	WASHER, stud (10500) (3)
9		WASHER, stud (3/8" internal tooth lock) (10525) (3)
10		NUT, 3/8" mounting stud (10510) (3)
11	368 030 R1	"O" RING, drive shaft (12406)
12	273 026 R1	RING, seal retainer snap (16604)
13	615 153 C1	HUB, drive (17068)
14	106 750	KEY, drive hub (10274)
15	615 143 C1	WASHER, drive hub (15256)
16	19 899 R1	NUT, drive hub (17099)



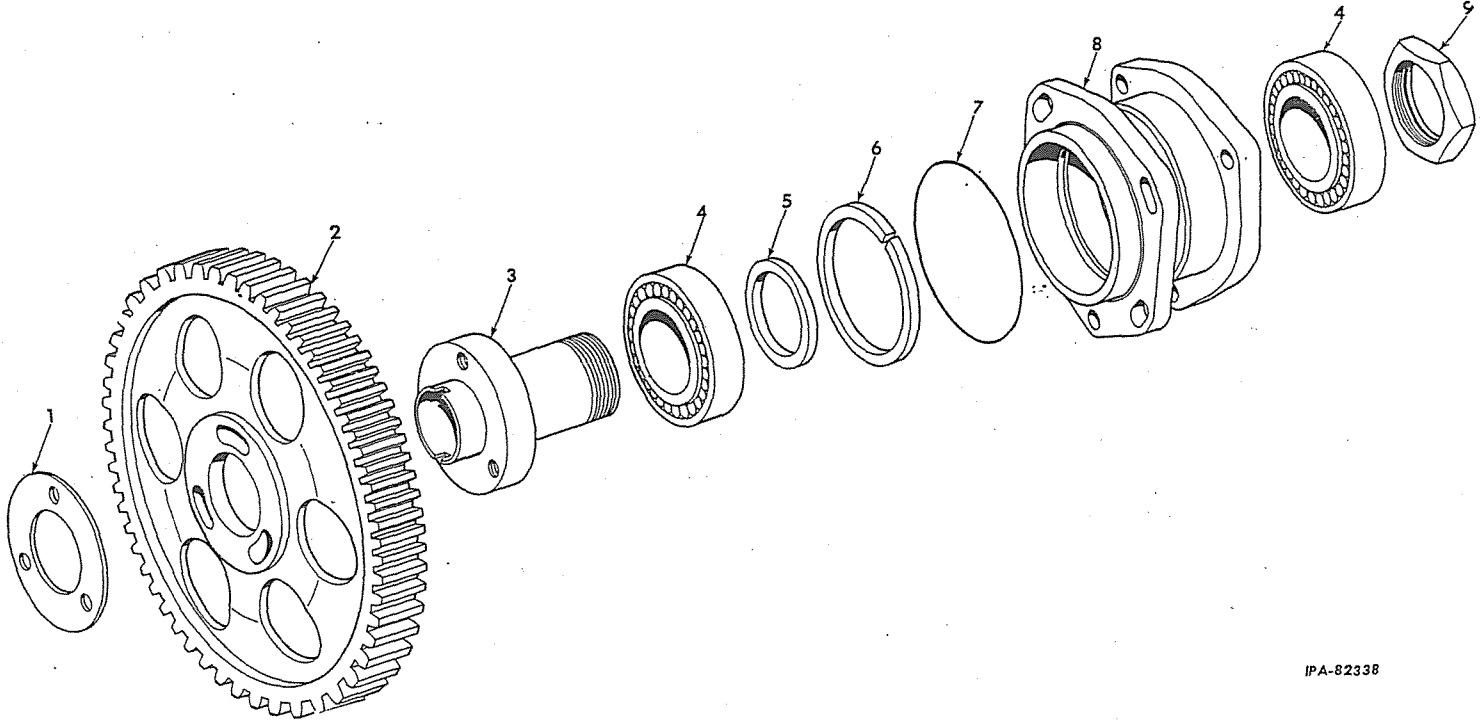
FUEL SYSTEM

INJECTION PUMP DRIVE - CONTINUED
 (Roosa - Master, Hartford Machine Screw Co.)
 (Part of Package 609 448 C91)



FUEL SYSTEM

FUEL INJECTION PUMP DRIVE
 (For use on Units Equipped with International R. D. Fuel Injection Pump)
 TD-20BPM 2527 to 3316
 TD-20BPSM 2680 to 3316



IPA-82338

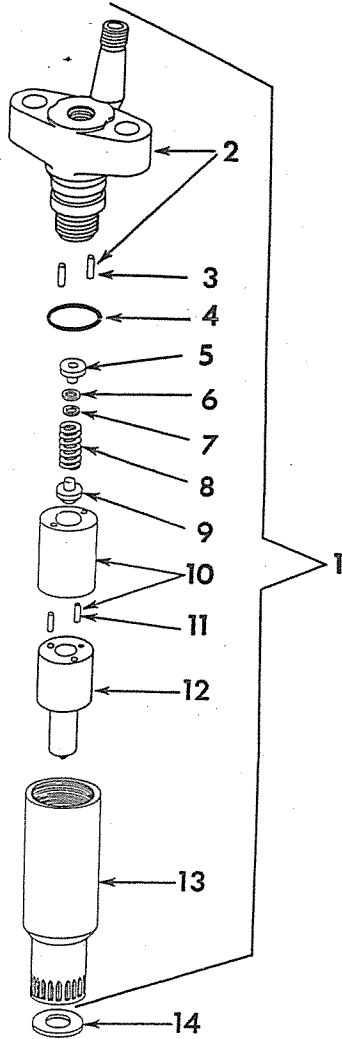
REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	337 178 R1	WASHER, gear
2	328 558 R2 425 475	GEAR, injection pump drive SCREW, w/ext-tooth lock WASHER 1-3/8NF x 1-1/8" hex-hd mach (3)
3	601 431 C1	HUB, injection pump drive
4	606 268 C91	BEARING ASSY, injection pump drive hub double roller
5		SPACER, bearing (Furnished as part of Bearing)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
6		RING, snap (Furnished as part of Bearing)
7	610 411 C1	"O" RING, 3-1/2 x 3-3/4 x 1/8"
8	601 430 C1	HOUSING, injection pump drive 3/8 x 1-1/8" hex-hd cap SCREW (3) 13/32 x 13/16" x 16 ga WASHER (3)
9	19 870 R1	NUT, injection pump drive hub

FUEL SYSTEM



NOZZLE HOLDER
(1H)



IPA-67446A

FUEL SYSTEM



REF. NO.	I. H. PART NUMBER	DESCRIPTION
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NOZZLE HOLDER - CONTINUED
(1H)

1	344 039 R91	NOZZLE AND HOLDER ASSY (6 for NOZZLE AND HOLDER A) (order HOLDER ASSY, 610 716 C91)
2	337 273 R11	BODY w/two PIN, 19 855 R1, nozzle holder (6)
3	19 855 R1	PIN, plain spiral (12)
4	364 879 R1	"O" RING, dust seal (7/8 x 1-1/16 x 3/32") (not part of HOLDER ASSY, 341 671 R91 or 344 039 R91) (6)
5	326 694 R1	SEAT, nozzle spring upper (6)
6	326 689 R1	SHIM, nozzle adjusting (.002") (X)
6	326 690 R1	SHIM, nozzle adjusting (.003") (X)
6	326 691 R1	SHIM, nozzle adjusting (.005") (X)
6	326 692 R1	SHIM, nozzle adjusting (.010") (X)
7	326 688 R1	SHIM, nozzle spring wear (6)
8	326 687 R1	SPRING, nozzle (6)
9	326 686 R1	SEAT, nozzle spring lower (6)
10	337 274 R11	RETAINER w/two PIN, 347 606 R1, nozzle spring (6)
11	347 606 R1	PIN, plain spiral (12)
12	346 554 R91	NOZZLE (optional with 702 101 C1) (6 for NOZZLE and HOLDER A)
12	702 101 C1	NOZZLE (optional with 346 554 R91) (6 for NOZZLE and HOLDER A)
12	346 623 R91	NOZZLE (optional with 702 102 C1) (6 for NOZZLE and HOLDER B)
12	702 102 C1	NOZZLE (optional with 346 623 R91) (6 for nozzle and holder B)
13	326 685 R1	NUT, nozzle holder (6)
14	601 076 C1	GASKET, nozzle (6)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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Parts without letters after the description indicate the part is used for all injection nozzle and holder assy listed below. Letters A and B are used to identify separate nozzle and holder assy.

A	Service parts for injection NOZZLE AND HOLDER ASSY (used on units equipped with Roosa-Master Fuel Injection Pumps) TD-20BPM 510 to 2526	
B	Service parts for injection NOZZLE AND HOLDER ASSY (used on units equipped with International RD Fuel Injection Pumps) TD-20BPM 2527 to 3316 TD-20BPSM 2680 to 3316	

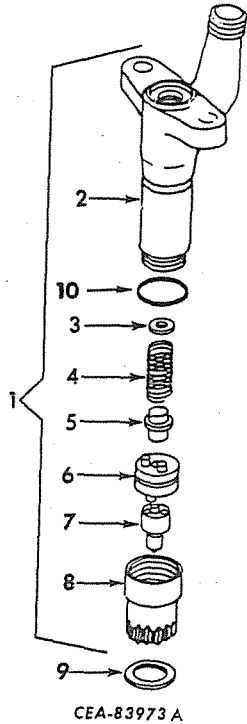
1	341 671 R91	NOZZLE AND HOLDER ASSY (6 for NOZZLE AND HOLDER B) (order HOLDER ASSY, 610 717 C91)
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X - As Required.



FUEL SYSTEM

NOZZLE HOLDER
(Robert Bosch Corp.)



REF. NO.	I. H. PART NUMBER	DESCRIPTION
		Parts without letters after the description indicate the part is used for all injection nozzle and holder assy listed below. Letters A and B are used to identify separate nozzle and holder assy.
A		Service parts for injection NOZZLE AND HOLDER ASSY (used on units equipped with Roosa-Master Fuel Injection Pumps) TD-20BPM 3317 up TD-20BPSM 3317 up
B		Service parts for injection NOZZLE AND HOLDER ASSY (used on units equipped with International RD Fuel Injection Pumps) TD-20BPM 2527 to 3316 TD-20BPSM 2680 to 3316
1	610 717 C91	NOZZLE AND HOLDER, 615 103 C91 (0-432-291-002) will work for NOZZLE AND HOLDER, 341 671 R91) (6 for NOZZLE AND HOLDER B)
1	610 716 C91	NOZZLE AND HOLDER, 615 103 C91 (0-432-291-001) (will work for NOZZLE AND HOLDER ASSY, 344 039 R91) (6 for NOZZLE AND HOLDER A)
2		BODY, holder (Not Furnished Separately)
3	615 109 C1	SHIM (.077) (2-430-100-035) (X)
3	615 110 C1	SHIM (.075) (2-430-100-034) (X)
3	615 111 C1	SHIM (.073) (2-430-100-033) (X)
3	615 112 C1	SHIM (.071) (2-430-100-032) (X)



FUEL SYSTEM

NOZZLE HOLDER - CONTINUED
(Robert Bosch Corp.)

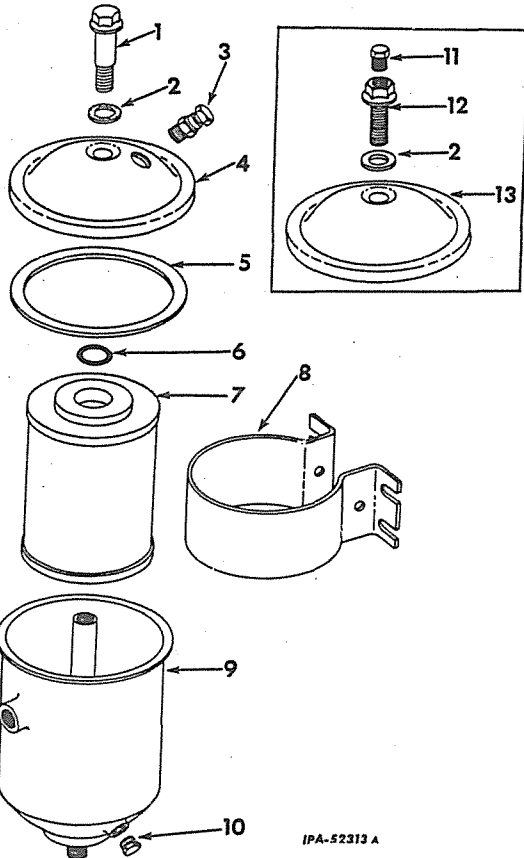
REF. NO.	I. H. PART NUMBER	DESCRIPTION
3	615 113 C1	SHIM (.069) (2-430-100-030) (X)
3	615 114 C1	SHIM (.067) (2-43-100-029) (X)
3	615 115 C1	SHIM (.065) (2-430-100-028) (X)
3	615 116 C1	SHIM (.063) (2-430-100-026) (X)
3	615 117 C1	SHIM (.061) (2-430-100-025) (X)
3	615 118 C1	SHIM (.059) (2-430-100-024) (X)
3	615 119 C1	SHIM (.057) (2-430-100-023) (X)
3	615 120 C1	SHIM (.055) (2-430-100-021) (X)
3	615 121 C1	SHIM (.053) (2-430-100-020) (X)
3	615 122 C1	SHIM (.051) (2-430-100-018) (X)
3	615 123 C1	SHIM (.049) (2-430-100-017) (X)
3	615 124 C1	SHIM (.047) (2-430-100-016) (X)
3	615 125 C1	SHIM (.045) (2-430-100-015) (X)
3	615 126 C1	SHIM (.043) (2-430-100-013) (X)
3	615 127 C1	SHIM (.041) (2-430-100-012) (X)
3	615 128 C1	SHIM (.039) (2-430-100-011) (X)
4	615 105 C1	SPRING (2-433-124-016) (6)
5	615 106 C1	SEAT, spring lower (2-433-124-016) (6)
6	615 107 C1	PLATE, intermediate (2-430-136-021) (6)
7	606 401 C91	NOZZLE (DLL-145S258) (6 for NOZZLE and HOLDER A)
7	606 402 C91	NOZZLE (DLL-145S259) (6 for NOZZLE and HOLDER B)
8	615 108 C1	NUT, nozzle cap (2-433-317-276) (6)
9	601 076 C1	GASKET, nozzle (Not Furnished as part of NOZZLE AND HOLDER ASSY) (6)
10	364 879 R1	"O" RING, dust seal 7/8 x 1-1/16 x 3/32" (Not Furnished As Part of Nozzle and Holder Assy) (6)
615 103 C91	HOLDER ASSY, nozzle (0-431-213-001) (6) (Composed of -	
	§ 1 BODY	
	1 NUT	615 108 C1
	1 PLATE	615 107 C1
	1 SEAT	615 106 C1
	X SHIM	615 109 C1
	1 SPRING	615 105 C1)

X - As Required.
§ - Not Furnished Separately.

FUEL SYSTEM



PRIMARY AND FINAL FUEL FILTERS
(NOT INCREASED CAPACITY)
(Fram Corporation) (For use on Units Equipped with
Roosa-Master Fuel Injection Pumps)
TD-20BPM 510 to 2526



IPA-52313 A

FUEL SYSTEM



PRIMARY AND FINAL FUEL FILTERS - CONTINUED
(NOT INCREASED CAPACITY)
(Fram Corporation) (For use on Units Equipped with
Roosa-Master Fuel Injection Pumps)
TD-20BPM 510 to 2526

REF. NO.	I.H. PART NUMBER	DESCRIPTION
3	39 677 DA	BLEEDER, fuel filter (X-138555) (2 for FILTER B)
4	603 941 C91	COVER, fuel filter (X-138557) (2 for FILTER B)
5	304 102 R1	GASKET, element cover (2)
6	306 777 R1	"O" RING, 9/16 x 3/4 x 3/32" (110960) (2)
7	304 101 R91	PACKAGE, final fuel filter element field service (consists of ELEMENT and GASKET, 304 102 R1) (FILTER A)
7	306 353 R91	PACKAGE, primary fuel filter element field service (consists of ELEMENT and GASKET, 304 102 R1) (FILTER B)
8	306 780 R1	STRAP, bracket (not furnished as part of fuel filter assembly) (111741) (2) 1/4" sq NUT (2) 1/4 x 3" rd-hd slt mach SCREW (2) 1/4" lock WASHER (2)
9	306 775 R91	BODY (2640) (2 for FILTER A)
9		BODY (not furnished separately) (2 for FILTER B)
10	258 995 R1	PLUG, fuel filter drain (2 for FILTER A)
10	610 383 C1	PLUG, fuel filter drain (2 for FILTER B)
11	306 778 R1	PLUG, vent (104018) (2 for FILTER A)
12	368 492 R1	SCREW, vent cap (104258) (2 for FILTER A)
13	306 776 R91	COVER (2639) (2 for FILTER A)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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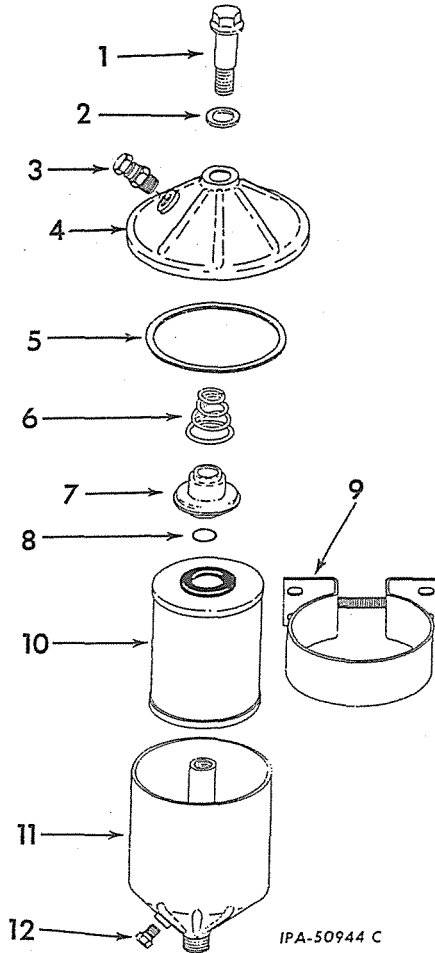
Parts without letters after the description indicate the part is used for all filters listed below. Letters "A" and "B" are used to identify separate filters.

A	306 399 R91	FILTER ASSEMBLY, final fuel (order final fuel FILTER 347 066 R91) 5/16" NUT (4) 5/16 x 1" hex-hd cap SCREW (4) 5/16" lock WASHER (4) 11/32 x 11/16" x No. 16 ga WASHER (8)
B	601 508 C91	FILTER ASSEMBLY, less STRAP, 306 780 R1, primary fuel (order FILTER ASSY, 610 932 C91) 5/16" NUT (4) 5/16 x 1" hex-hd cap SCREW (4) 5/16" lock WASHER (4) 11/32 x 11/16" x No. 16 ga WASHER (8)
1	321 822 R1	SCREW, fuel filter retaining cap (101395) (2 for FILTER B)
2	368 493 R1	GASKET, vent cap screw (151376) (2)



FUEL SYSTEM

PRIMARY AND FINAL FUEL FILTERS
(NOT INCREASED CAPACITY)
(Purolator Products Inc.) (For Use on Units Equipped with
Roosa-Master Fuel Injection Pumps)
TD-20BPM 510 to 2526



REF. NO.	I.H. PART NUMBER	DESCRIPTION
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Parts without letters after the description indicate the part is used for all filters listed below. Letters "A" and "B" are used to identify separate filters.

A	347 066 R91	FILTER ASSEMBLY, final fuel (less BRACKET) (together with BRACKET, 304 104 R91 will work for final fuel FILTER, 278 062 R91 or 306 399 R91) 5/16" NUT (4) 5/16 x 1" hex-hd cap SCREW (4) 5/16" lock WASHER (4) 11/32 x 11/16 x 16" ga WASHER (8)
B	610 932 C91	FILTER ASSEMBLY, primary fuel (less BRACKET) (together with BRACKET, 304 104 R91 will work for primary fuel FILTER, 278 062 R91 or 601 508 C91) 5/16" NUT (4) 5/16 x 1" hex-hd cap SCREW (4) 5/16" lock WASHER (4) 11/32 x 11/16 x 16" ga WASHER (8)



FUEL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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PRIMARY AND FINAL FUEL FILTERS - CONTINUED
(NOT INCREASED CAPACITY)
(Purolator Products Inc.) (For Use on Units Equipped with
Roosa-Master Fuel Injection Pumps)
TD-20BPM 510 to 2526

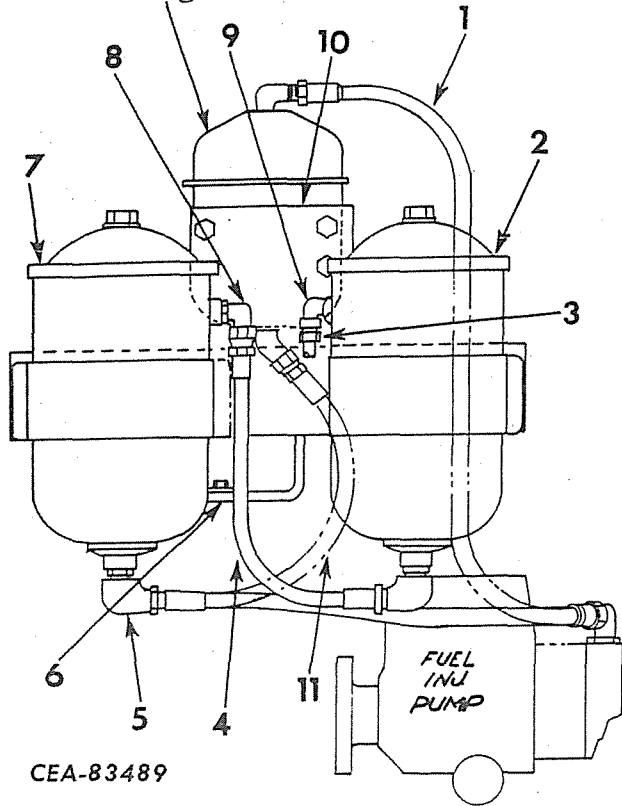
1	321 727 R1	SCREW, retaining (FILTER A)
1	368 333 R1	SCREW, retaining (37171-6) (FILTER B)
2	368 334 R1	GASKET, retaining (37172) (2)
3	39 677 DA	BLEEDER (15002)
4	321 720 R91	COVER and BUSHING (54529) (8)
5	304 102 R1	GASKET, element cover (19954-5) (2)
6	321 721 R1	SPRING, retaning (33263-1) (2)
7	321 722 R1	RETAINER, gasket (6654062) (2)
8	355 966 R1	GASKET, "O" ring retainer (54537) (2)
9	304 104 R91	BRACKET, fuel filter (not furnished as part of fuel filter assemblies) (2)
10	304 101 R91	PACKAGE, final fuel filter field service (consists of ELEMENT and GASKET, 304 102 R1) (FILTER A)
10	306 353 R91	PACKAGE, primary fuel filter element field service (consists of ELEMENT and GASKET, 304 102 R1) (FILTER B)
11	304 100 R91	CASE (37163-15) (FILTER A)
11		CASE (not furnished separately) (FILTER B)
12	258 995 R1	PLUG, fuel filter drain (7600) (2)
	603 945 C1	NUT, flat speed (FILTER B)

FUEL SYSTEM



PRIMARY AND FINAL FUEL FILTERS
(INCREASED CAPACITY)
(For use on Units Equipped with Roosa-Master Fuel Injection
Pump)
TD-20BPM 510 to 2526

Watchdog fuel filter



CEA-83489

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	609 700 C91	ATTACHMENT, increased capacity fuel filter (see NOTE 3) (Consists of the following parts -
1	343 749 R91	HOSE w/FITTINGS, watchdog fuel filter outlet (HOSE, 3/8" ID x 23" long including FITTINGS) (Not part of attachment)
2	606 380 C91	FILTER, primary fuel (for components see list of parts under details of "Primary and Final Fuel Filters")
3	37 288 H	NUT, front fuel supply tube
4	343 748 R91	HOSE w/FITTINGS, primary to final filter (3/8" ID x 10-1/2" long including FITTINGS)
5	444 068 443 990	ELBOW, filter outlet (2) NIPPLE, filter outlet reducing
6	609 703 C11	BRACKET, fuel filter 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
7	338 371 R91	FILTER, final fuel (for components see list of parts under details of "Primary and Final Fuel Filters")

FUEL SYSTEM



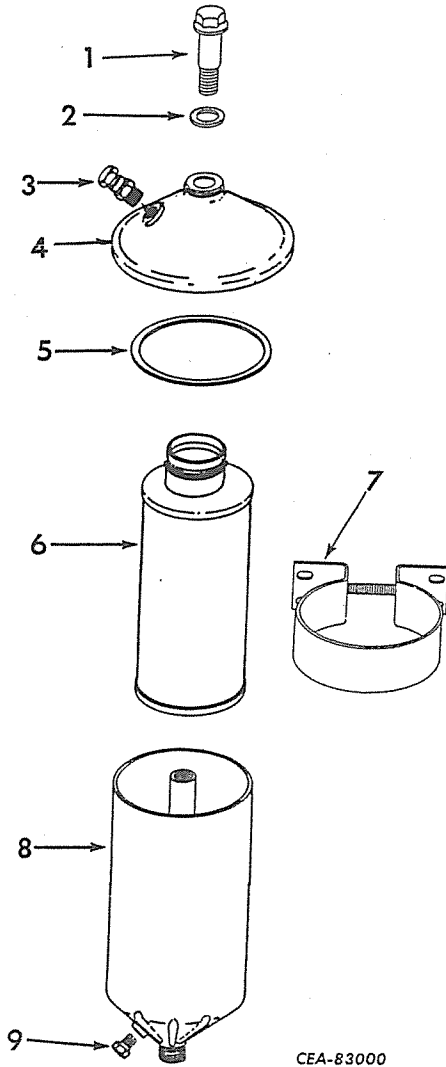
REF. NO.	I.H. PART NUMBER	DESCRIPTION
PRIMARY AND FINAL FUEL FILTERS - CONTINUED (INCREASED CAPACITY) (For use on Units Equipped with Roosa-Master Fuel Injection Pump) TD-20BPM 510 to 2526		
8	9 402 838 444 028	ELBOW, final filter inlet BUSHING, final filter inlet reducing
9	40 876 D	ELBOW, inlet (primary filter)
10	609 704 C1	PLATE, mounting 5/16 x 3/4" hex-hd cap SCREW (4)
11	343 887 R91	HOSE w/FITTINGS, watchdog fuel filter inlet (3/8" ID x 17-1/2" long including FITTINGS) (Not part of attachment)

NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



FUEL SYSTEM

PRIMARY AND FINAL FUEL FILTERS
(INCREASED CAPACITY)
(Fram Corporation) (For Units Equipped with International
R. D. Fuel Injection Pumps)
TD-20BPM 2527 to 3316
(Also for Units with Roosa-Master Fuel Injection Pumps)
TD-20BPM 3317 up



FUEL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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PRIMARY AND FINAL FUEL FILTERS - CONTINUED
(INCREASED CAPACITY)
(Fram Corporation) (For Units Equipped with International
R. D. Fuel Injection Pumps)
TD-20BPM 2517 to 3316
(Also for Units with Roosa-Master Fuel Injection Pumps)
TD-20BPM 3517 up

B	338 371 R91	FILTER ASSY, final fuel 5/16" NUT (4) 5/16 x 3/4" hex-hd cap SCREW (4) 5/16" lock WASHER (4) WASHER (4)
	615 031 R1	
1	321 822 R1	SCREW, 7/16NF x 1.635" hex-hd cap (filter cover screw) (101395)
2	368 493 R1	GASKET, cover screw (151376)
3	39 677 DA	VALVE, bleeder (138555)
4	321 823 R91	COVER, filter case (143919)
5	297 349 R1	GASKET, filter case cover (58452)
6	349 280 R91	PACKAGE, primary fuel filter element (cotton) (consists of ELEMENT and GASKET, 297 349 R1 (Filter A))
6	323 960 R91	PACKAGE, final fuel filter element (paper) (consists of ELEMENT and GASKET, 297 349 R1)(Filter B)
6	609 409 C91	PACKAGE, primary fuel filter element (consists of Element and Gasket, 297 349 R1) (for machines equipped with water separator element attachment)
7	234 447 R1 610 382 C1	STRAP, bracket BOLT, 1/4 x 3-1/4" slit-rd-hd cd-pltd strap (151392) 1/4" NUT 1/4" lock WASHER
8		BODY (Not Furnished Separately)
9	610 383 C1	PLUG, fuel filter drain (151728) (not part of ATTACHMENT, 609 407 C91)
9	134 519	VALVE, drain (part of ATTACHMENT, 609 407 C91)
	609 407 C91	ATTACHMENT, water separator primary element (see NOTES 1 and 3) Consists of - § 1 ELEMENT 1 GASKET 297 349 R1 1 PAMPHLET, installation 1 085 196 R1 1 VALVE 134 519 1 PRODUCT GRAPHIC 2 753 386 R1)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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Parts without letters after the description indicates the part is used for all filters listed below: Letters "A" and "B" are used to identify separate filters.

A	606 380 C91	FILTER ASSY, primary fuel 5/16" NUT (4) 5/16 x 3/4" hex-hd cap SCREW (4) 5/16" lock WASHER (4) WASHER (4)
	615 031 R1	

§ - Not Furnished Separately.

NOTE 1 - Factory Application - Order on Machine Order Form.
NOTE 3 - Field Application Order Through Regular Service Parts Channels.

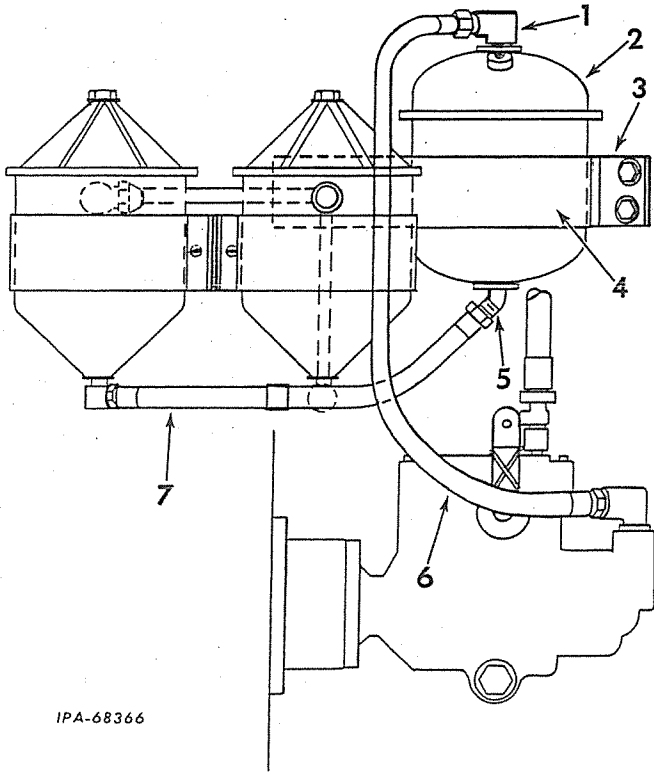
FUEL SYSTEM



MEMORANDA



WATCHDOG FUEL FILTER
 (Used on Units Equipped With Roosa-Master Fuel Injection
 Pump)
 TD-20BPM 510 to 2526



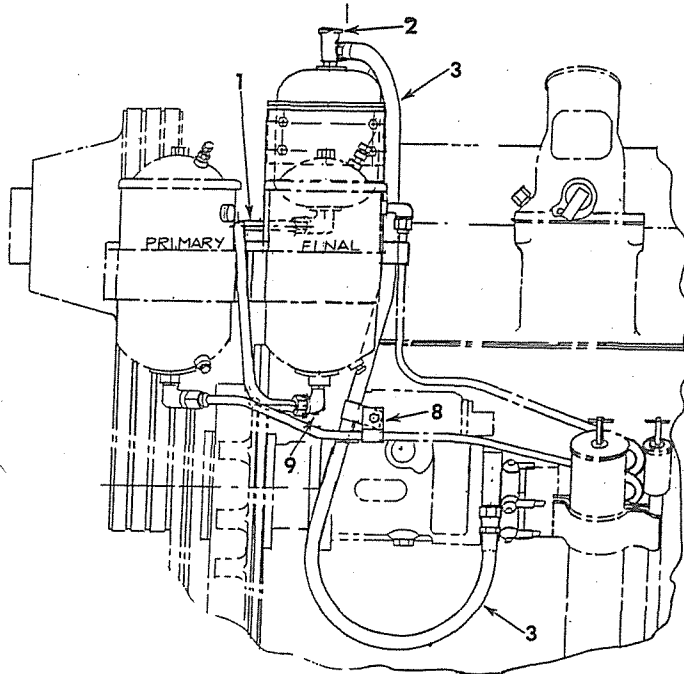
IPA-68366

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	444 040	ELBOW, fuel filter outlet
2	277 025 R94	FILTER, watchdog fuel
3	345 375 R92	BRACKET, watchdog fuel filter mounting 3/8 x 7/8" hex-hd cap SCREW (3) 3/8" lock WASHER (3)
4	304 104 R91	BRACKET, fuel filter 5/16NF x 1/2" hex-hd cap SCREW (4) 5/16" lock WASHER (4) 11/32 x 11/16 x 16 ga WASHER (4)
5	9 402 825	ELBOW, fuel filter inlet
6	343 749 R91	HOSE w/FITTINGS, watchdog fuel filter outlet (HOSE, 3/8" ID x 23" long including FITTINGS)
7	343 887 R91	HOSE w/FITTINGS, watchdog fuel filter inlet (HOSE, 3/8" ID x 17-1/2" long including FITTINGS)



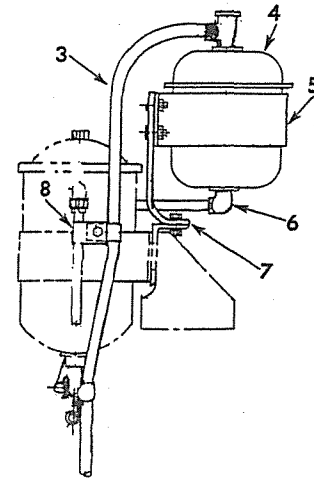
FUEL SYSTEM

WATCHDOG FUEL FILTER
 (For use on units equipped with International R. D. Fuel Injection Pump)
 TD-20BPM 2527 to 3316
 TD-20BPSM 2680 to 3316



FUEL SYSTEM

WATCHDOG FUEL FILTER - CONTINUED
 (For use on units equipped with International R. D. Fuel Injection Pump)
 TD-20BPM 2527 to 3316
 TD-20BPSM 2680 to 3316



CEA-83508

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	611 129 C11 265 205 R1 265 204 R1	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, final filter to watchdog filter NUT, tube (2) SLEEVE, tube nut (2)
2	444 259	TEE, 3/8" pipe
3	611 130 C91	HOSE w/FITTINGS, filter outlet
4	343 893 R93	FILTER, watchdog fuel
5	304 104 R91	BRACKET, filter 5/16 x 1-1/8" hex-hd cap SCREW (2) 5/16" NUT (2) 5/16" lock WASHER (2) 11/32 x 11/16" x 16 ga WASHER (2)
6	606 618 C1	ELBOW, watchdog filter inlet
7	609 971 C1	SUPPORT, fuel filter bracket 5/16" NUT (2) 5/16 x 3/4" hex-hd cap SCREW (2) 5/16" lock WASHER (2)

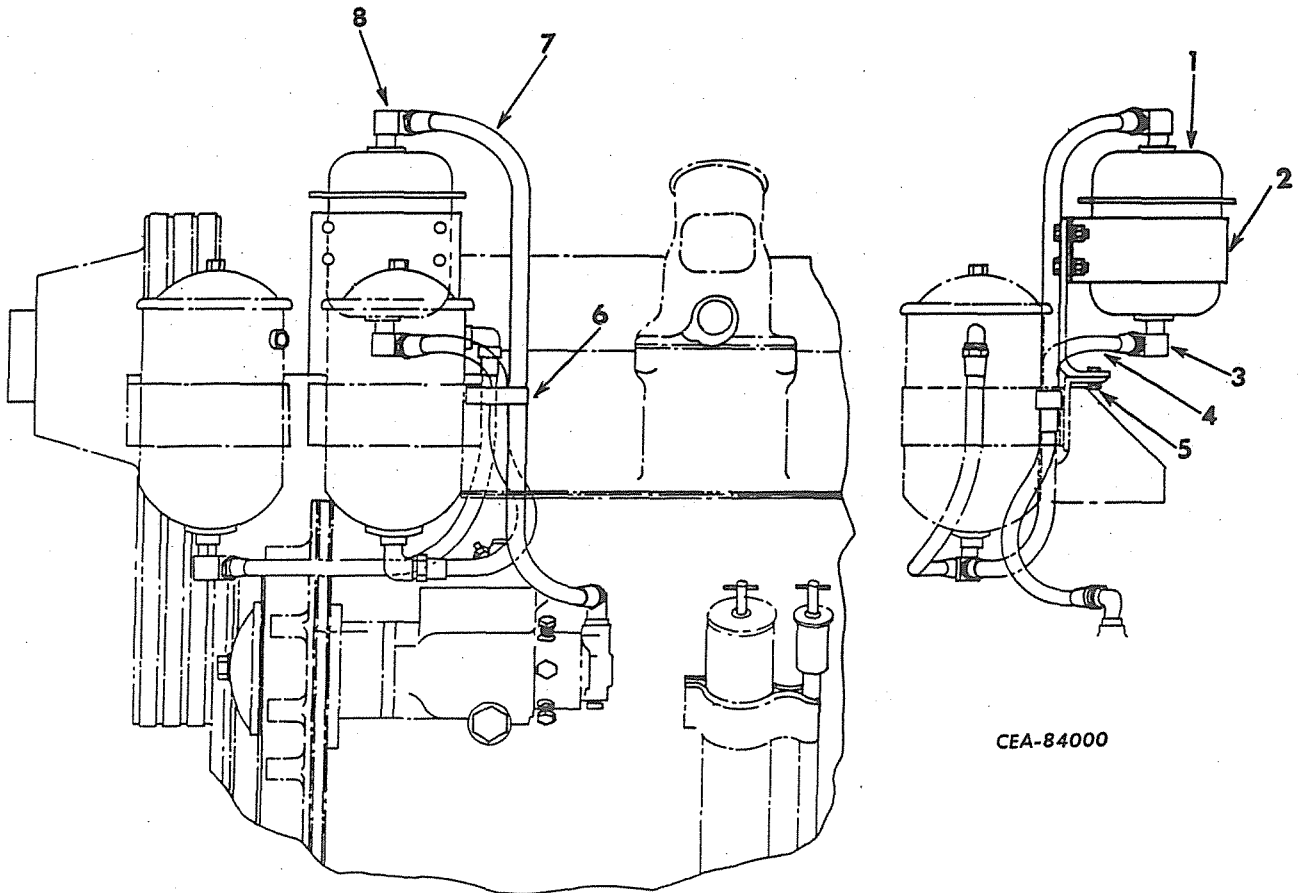
REF. NO.	I. H. PART NUMBER	DESCRIPTION
8	308 581 R1	CLAMP, watchdog outlet hose (2) 3/8" NUT (2) 3/8 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 11/16" x 16 ga WASHER (2)
9	606 296 C1 444 028	ELBOW, filter pressure tube BUSHING, watchdog filter outlet reducer
	299 902 R1	CLAMP, fuel filter tube (2)
	321 552 R1	CLIP, pressure gauge tube
	611 131 C11 915 499 R1 915 500 R1	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, fuel pressure gauge (also listed and illustrated with "Instruments and Instrument Panel") NUT, tube (2) SLEEVE, tube nut (2)
	616 118 C1	BAR, stiffener 5/16" NUT (2) 5/16 x 1-1/8" hex-hd cap SCREW (4) 5/16" lock WASHER (2) 11/32 x 11/16" x 16 ga WASHER (2)
	99 046 H	WASHER (2)

FUEL SYSTEM

FUEL SYSTEM

WATCHDOG FUEL FILTER
 (For use on Units Equipped with Roosa-Master Fuel Injection Pump)
 TD-20BPM 3317 up
 TD-20BPSM 3317 up

WATCHDOG FUEL FILTER - CONTINUED
 (For use on Units Equipped with Roosa-Master Fuel Injection Pump)
 TD-20BPM 3317 up
 TD-20BPSM 3317 up



CEA-84000

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	343 893 R93	FILTER, watchdog fuel
2	304 104 R91	BRACKET, fuel filter 5/16" NUT (2) 5/16 x 1-1/8" hex-hd cap SCREW (2) 5/16" lock WASHER (2) 11/32 x 11/16" x 16 ga WASHER (2)
3	333 934 R1	ELBOW, watchdog filter inlet
4	610 521 C91	HOSE w/ FITTINGS, final filter to watchdog filter (HOSE, 3/8" ID x 15" long including FITTINGS)
5	609 971 C1	SUPPORT, fuel filter bracket 3/8" NUT (2) 3/8 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
6	315 411 R1	CLAMP, watchdog filter to pump hose (mount on final filter mounting bolt)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
7	610 622 C91	HOSE w/ FITTINGS, watchdog filter to pump (HOSE, 3/8" ID x 24" long including FITTINGS)
8	444 042	ELBOW, watchdog filter outlet
	616 118 C1	BAR, stiffener 5/16" NUT (2) 5/16 x 1-1/8" hex-hd cap SCREW (2) 5/16" lock WASHER (2) 11/32 x 11/16" x 16 ga WASHER (2)
	99 046 H	WASHER (2)



MEMORANDA

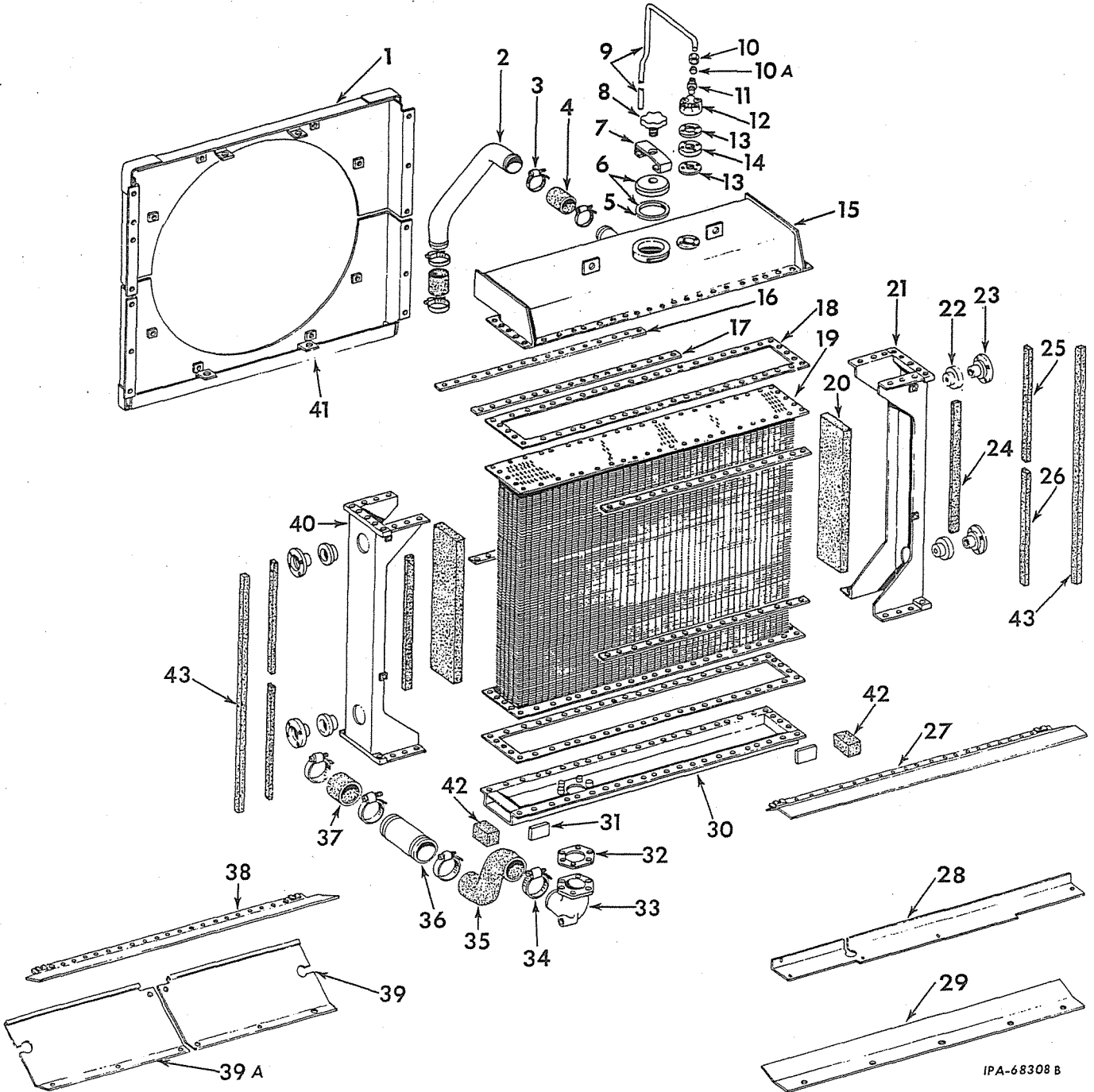


MEMORANDA



COOLING SYSTEM

RADIATOR AND CONNECTIONS
(Regular) (Woods) (Short Core) (Armored)



COOLING SYSTEM

RADIATOR AND CONNECTIONS - CONTINUED
(Regular) (Woods) (Short Core) (Armored)



COOLING SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
RADIATOR AND CONNECTIONS (Regular) (Woods) (Short Core) (Armored)		
		Parts without letters after the description indicates the part is used for all items listed below; Letter "A" through "G" are used to identify separate items.
A		Service parts for Radiator and Connections (regular) (Not Used With Sideboom Crawler Tractors)
B	343 150 R91	ATTACHMENT, woods short core radiator (for use on machines equipped with front cable control unit radiator guard ATTACHMENT, 334 307 R91) (Not Used With Sideboom Crawler Tractors) (see NOTE 3) (order ATTACHMENT, 343 157 R91)
C	343 157 R91	ATTACHMENT, short core radiator (for use on machines equipped with front cable control unit, radiator guard ATTACHMENT, 334 307 R91) (Not Used With Sideboom Crawler Tractors) (+)
D	343 145 R91	TD-20BP 4001 to 22000 ATTACHMENT, woods radiator (for use on machines equipped with radiator guard, 334 405 R91 or radiator guard ATTACHMENTS 334 509 R91 or 334 510 R91) (Not Used With Sideboom Crawler Tractors) (see NOTE 3)
E	341 788 R91	ATTACHMENT, radiator (armored core) (for use on machines equipped with radiator Guard, 334 405 R91 or radiator guard ATTACHMENTS, 334 502 R91, 334 509 R91, 334 510 R91) (Not Used With Sideboom Crawler Tractors) (see NOTE 3)
F	341 791 R91	ATTACHMENT, radiator (short core armored) (for use on machines equipped with radiator guard ATTACHMENT, 334 307 R91) (Not Used With Sideboom Crawler Tractors) (see NOTE 3) (order ATTACHMENT, 343 157 R91) TD-20BP 4001 to 22000
G		Service parts for Radiator and Connections (Used With Sideboom Crawler Tractors)
H	612 516 C91	ATTACHMENT, short core radiator (for use on machines equipped with front cable control unit, radiator guard ATTACHMENT, 334 307 R91) (Not Used With Sideboom Crawler Tractors) (+) TD-20BP 22001 up
1	343 107 R11	SHROUD, upper fan 3/8NF x 1/2" hex-hd cap SCREW (6) 3/8" lock WASHER (6) 13/32 x 13/16" x 16 ga WASHER (6)
2	325 519 R1	PIPE, radiator inlet
3	279 028 R91	CLAMP, radiator inlet hose (4)
4	407 012 R1	HOSE, radiator inlet (2-1/2 x 3/16 x 3" long) (2) (*)
5	259 598 R2	GASKET, radiator cap
6	259 599 R91	CAP w/GASKET, 259 598 R2, radiator
7	259 603 R91	CLAMP, radiator cap
8	262 603 R12	HANDLE, radiator cap clamp
9	343 106 R1	PIPE, radiator overflow (Service Parts A and G; Attachments D and E)
9	343 118 R1	PIPE, radiator overflow (Attachments B, C, F and H)
10	120 131	NUT, radiator overflow pipe coupling
10A	120 130	SLEEVE, radiator over flow pipe
11	324 005 R1	BODY, radiator over flow tube connector (optional w/BODY, 95 552 R1)
11	95 552 R1	BODY, radiator over flow tube connector (optional w/BODY, 324 005 R1)



COOLING SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
RADIATOR AND CONNECTIONS - CONTINUED (Regular) (Woods) (Short Core) (Armored)		
12	612 558 C1	HOUSING, radiator pressure valve 3/8 x 1-1/2" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
13	320 391 R1	GASKET, radiator pressure valve (2)
14	321 149 R92	VALVE, pressure w/o RING, 252 707 R1
15	343 097 R91	TANK, upper radiator
16	343 104 R1	BAR, upper tank mounting
17	343 105 R1	STIFFENER, core (4) 3/8" NUT (60) 3/8 x 7/8" hex-hd cap SCREW (20) 3/8 x 1" hex-hd cap SCREW (24) 3/8 x 1-1/8" hex-hd cap SCREW (56) 3/8" lock WASHER (100)
18	343 103 R1	GASKET, radiator core (2)
19	346 810 R91	CORE, radiator (short core) (armored) (ATTACHMENT F) (order CORE 343 112 R91 or 610 460 C91 together with suction FAN, 3 370 371 R91)
19	619 738 C1	CORE, radiator (optional with 610 459 C91) (regular radiator) (Service Parts A)
19	619 737 C1	CORE, short radiator (2" core) (Attachment B, C, F and H)
19	343 126 R91	CORE, short radiator (Attachment B) (order CORE, 343 112 R91 or 610 460 C91)
19	343 128 R91	CORE, radiator (woods radiator)(Attachment D)
19	346 809 R91	CORE, radiator (armored core) (Attachment E and G)
20	343 141 R1	SNUBBER, radiator core (2 for Service Parts A and G; 2 for Attachments D and E)
20	343 152 R1	SNUBBER, radiator core (2 for Attachments B, C, F and H)
21	343 082 R91	CHANNEL w/SNUBBER, 343 141 R1, LH (Service Parts A and G; Attachments D and E) TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000
21	611 107 C91	CHANNEL w/SNUBBER, 343 141 R1, LH (Service Parts A and G; Attachments D and E) TD-20BP 22001 up TD-20BPS 22001 up
21	343 113 R91	CHANNEL w/SNUBBER, 343 152 R1, LH (Attachment B, C, F and H)
22	274 287 R2	MOUNTING, radiator rubber (4)
23	311 218 R1	BRACKET, radiator mounting (4)
	616 373 C1	BOLT, radiator mounting (16) 13/32 x 13/16" x 16 ga WASHER (4)
24	343 142 R1	SEAL, side channel (2)
25	343 137 R1	SEAL, upper side channel
26	343 138 R1	SEAL, lower side channel (2 for Service Parts A and G; 2 for Attachments D and E) (6 for Attachments B, C, F and H)
27	343 120 R11	BAFFLE, radiator top air (Attachments B, C, F and H)
		(+) - Attachment No Longer Available Service Parts Will Be Furnished.
		(*) - Part Number And Price Covers One Foot of Hose - Furnished Only In Three Foot Lengths.
		NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



COOLING SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
RADIATOR AND CONNECTIONS - CONTINUED (Regular) (Woods) (Short Core) (Armored)		
28	343 121 R1	BAFFLE, radiator bottom air (Attachment B and C) TD-20BP 4001 to 5327 (Order the following parts - 1 BAFFLE 345 657 R1 1 BAFFLE 345 658 R11)
28	345 657 R1	BAFFLE, LH bottom radiator air rear (Attachments B, C, F and H) TD-20BP 5328 Up 3/8 x 5/8" hex-hd cap SCREW (3) 3/8" lock WASHER (3) 13/32 x 13/16" x 16 ga WASHER (3)
28	345 658 R11	BAFFLE, RH radiator air rear (Attachments B, C, F and H) TD-20BP 5328 up 3/8 x 5/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER (2)
29	337 773 R1	BAFFLE, radiator bottom air front (Attachments B, C, F and H) 3/8 x 5/8" hex-hd cap SCREW (5) 3/8" lock WASHER (5) 13/32 x 13/16" x 16 ga WASHER (5)
30	343 101 R92	TANK, lower radiator
31	343 143 R1	SEAL, lower tank (2 for Service Parts A) TD-20B 4001 to 5327
31	345 638 R1	SEAL, lower tank (2) TD-20B 5328 up TD-20BPS 6110 up
32	325 517 R1	GASKET, radiator outlet elbow
33	343 090 R1	ELBOW, radiator outlet 3/8 x 1-1/8" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
34	391 671 R91	CLAMP, radiator outlet hose (4 for Service Parts A and G; 4 for Attachments D and E; 2 for Attachments B, C, F and H)
35	343 119 R1	HOSE, radiator outlet (Attachments B, C, F and G)
36	325 518 R1	PIPE, radiator outlet (Service Parts A and G; Attachments D and E)
37	407 015 R1	HOSE, radiator outlet (3 x 3/16 x 2-1/2" long *) (2)
38	343 109 R11	BAFFLE, radiator top air (not used on unit equipped with "Rear Mounted Cable Control Unit")
39	343 088 R1	BAFFLE, radiator bottom air (Service Parts A) TD-20BP 4001 to 5327 (Order the following parts - 1 BAFFLE 345 651 R1 1 BAFFLE 345 652 R11)
39	612 512 C1	BAFFLE, LH bottom radiator air (Service Parts A and G; Attachments D and E) TD-20BP 5328 up TD-20BPS 6110 up 3/8 x 5/8" hex-hd cap SCREW (3) 3/8" lock WASHER (3) 13/32 x 13/16" x 16 ga WASHER (3)
39A	611 099 C11	BAFFLE, RH bottom radiator air (Service Parts A and G; Attachments D and E) TD-20BP 5328 up TD-20BPS 6110 up 3/8 x 5/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER (2)



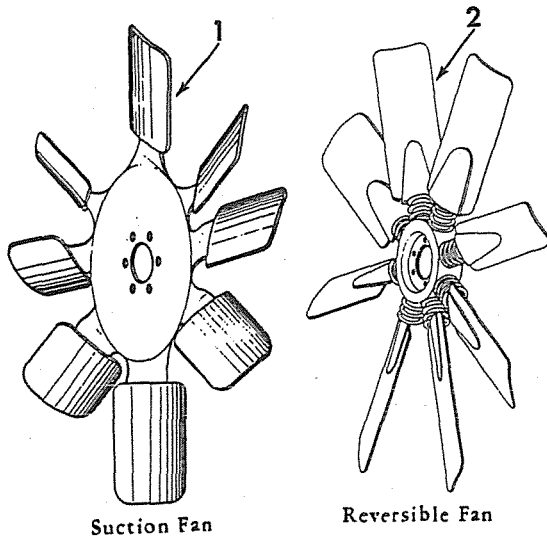
COOLING SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
RADIATOR AND CONNECTIONS - CONTINUED (Regular) (Woods) (Short Core) (Armored)		
40	343 083 R91	CHANNEL w/SNUBBER, 343 141 R1, RH (Service Parts A and G; Attachments D and E) TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000
40	611 108 C91	CHANNEL w/SNUBBER, 343 141 R1, RH (Service Parts A and G; Attachments D and E) TD-20BP 22001 up TD-20BPS 22001 up
40	343 114 R91	CHANNEL w/SNUBBER, 343 152 R1, RH (Attachments B, C, F and H)
41	343 108 R11	SHROUD, lower fan (Service Parts A and G; Attachments D and E) 3/8NF x 1/2" hex-hd cap SCREW (6) 3/8" lock WASHER (6) 13/32 x 13/16" x 16 ga WASHER (6)
41	343 122 R11	SHROUD, fan lower (Attachments B, C, F and H) 3/8NF x 1" hex-hd cap SCREW (6) 3/8" lock WASHER (6) 13/32 x 13/16" x 16 ga WASHER (2 used with mounting bracket) (6)
42	345 635 R1	SEAL, lower tank (2 for Service Parts A and G) TD-20BP 5328 up TD-20BPS 6110 up
43	345 637 R1	SEAL, lower tank (2 for Attachments B, C, F and H) TD-20BP 5328 up
	285 247 R91	ADAPTER, radiator inlet (Attachments B, C and F)
	274 239 R1	CLIP, overflow pipe (2)
	111 316	ELBOW, radiator drain valve (in water pump housing (Service Parts A and G; Attachments D and E)
	327 393 R1	GROMMET, oil cooler radiator (2 for Attach- ments B, C, F and H)
	444 660	PLUG, radiator outlet elbow
	343 596 R91	RADIATOR, oil to air (Attachments B, C, F and H) 3/8NF x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4) 13/32 x 13/16" x 16 ga WASHER (4)
	252 707 R1	"O" RING, 3/4 x 15/16 x 3/32" radiator pressure valve
		* - Part Number And Price Covers One Foot Of Hose. Furnished Only In Three Foot Lengths.



COOLING SYSTEM

FAN AND FAN GUARD



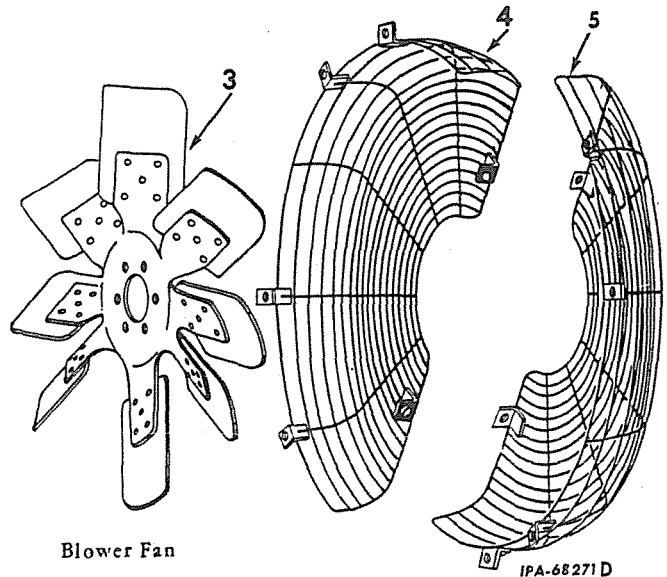
Suction Fan

Reversible Fan



COOLING SYSTEM

FAN AND FAN GUARD - CONTINUED



Blower Fan

IPA-68271 D

REF. NO.	I.H. PART NUMBER	DESCRIPTION
		Parts without letters after the description indicate the part is used for all attachments listed below: Letters "A" thru "E" are used to identify separate attachments.
A	331 913 R91	ATTACHMENT, fan guard (see NOTES 1 and 3)
B	341 933 R91	ATTACHMENT, reversible fan (should be used with fan guard ATTACHMENT, 331 913 R91) (see NOTE 3)
C	343 567 R91	ATTACHMENT, blower fan (should be used with fan guard ATTACHMENT, 331 913 R91) (Not used with sideboom crawler tractors) (Not for use w/machines equipped with front cable control unit)
D		Service parts for suction Fan (regular) (Not used with sideboom crawler tractor)
E		Service parts for blower Fan (used with sideboom crawler tractors) (Not used on machine equipped with front cable control unit)

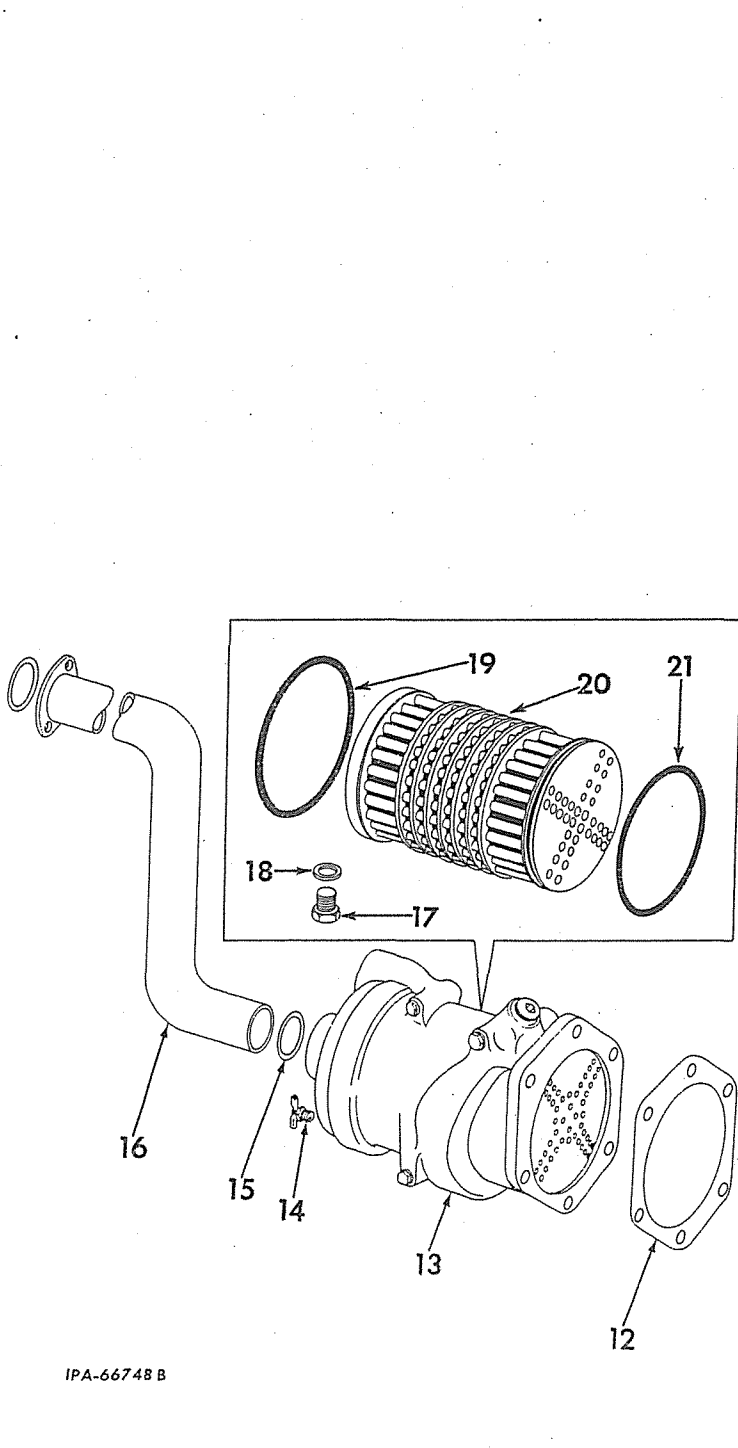
REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	337 371 R91	FAN, suction (30" dia) (Schwitzer) (Attachment D) 1/2 x 1-1/4" hex-hd cap SCREW (6) 1/2" lock WASHER (6)
2	347 189 R91	FAN, reversible (Hubber) (Attachment B) 1/2 x 1-3/4" hex-hd cap SCREW (6) 1/2" lock WASHER (6)
3	343 567 R91	FAN, blower (30" dia) (Schwitzer) (Attachments C and E) 1/2 x 1-1/4" hex-hd cap SCREW (6) 1/2" lock WASHER (6)
4	616 297 C1	GUARD, L.H. fan (Attachment A) 3/8" NUT (2) 3/8 x 7/8" hex-hd cap SCREW (10) 3/8" lock WASHER (10) 13/32 x 13/16" x 16 ga WASHER (8)
5	616 298 C1	GUARD R.H. Fan (Attachment A)

NOTE 1 - Factory Application - Order On Machine Order Form.
NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



COOLING SYSTEM

WATER PUMP, OIL COOLER, THERMOSTATS AND RELATED PARTS

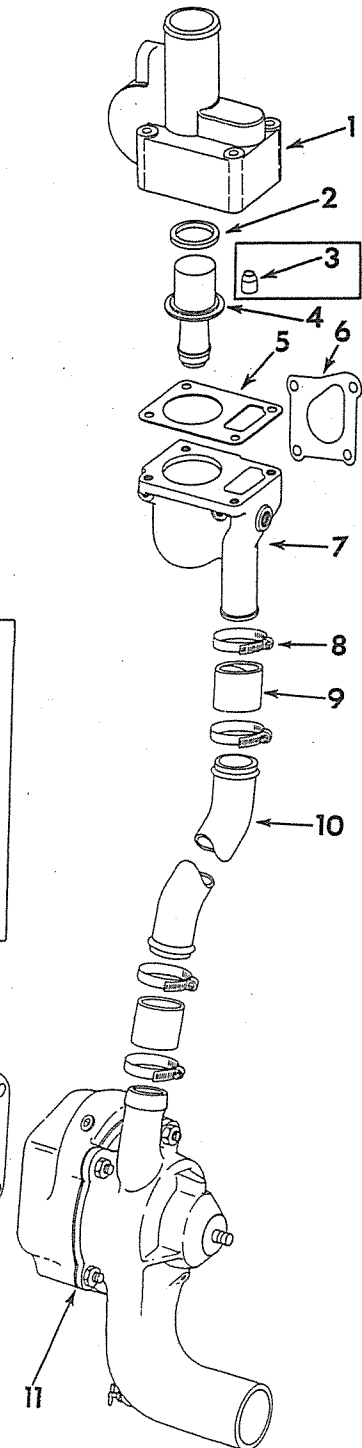


IPA-66748 B



COOLING SYSTEM

WATER PUMP, OIL COOLER, THERMOSTATS AND RELATED PARTS - CONTINUED





COOLING SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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WATER PUMP, OIL COOLER, THERMOSTATS AND RELATED PARTS - CONTINUED

1	330 456 R21	HOUSING w/PLUG, 444 667 thermostat 3/8 x 3-1/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
2	310 947 R91	RING, thermostat seal
3	278 988 R12	VALVE, vent TD-20BPM 501 to 3642 TD-20BPSM 2680 to 3642
4	324 391 R91	THERMOSTAT (180° to 195°) (optional w/ THERMOSTAT 625 095 C1)
4	625 095 C1	THERMOSTAT (180° to 202°) (optional w/ THERMOSTAT 324 391 R91)
5	330 457 R1	GASKET, thermostat housing
6	326 988 R1	GASKET, water outlet housing
7	337 176 R1	HOUSING, water outlet 3/8 x 1-1/4" hex-hd cap SCREW 3/8 x 3-1/2" hex-hd cap SCREW (3) 3/8" lock WASHER (4)
8	279 024 R91	CLAMP, hose (4)
9	407 003 R1	HOSE, 1-1/2 x 2-3/8 x 3/16" by-pass tube(*)
10	337 175 R1	TUBE, thermostat by-pass
11		PUMP, water (for components see list of parts under details of "Water Pump and Pulley")
12	349 254 R1	GASKET, water pump housing
13	343 792 R92	COOLER ASSEMBLY, oil (also listed and illustrated with "Oil Cooler, Filters, Piping and Related Parts") (Composed of - 1 CORE 347 587 R91 1 GASKET 347 585 R1 § 1 HOUSING 1 "O" RING 347 589 R1 1 "O" RING 347 590 R1 1 PLUG 347 584 R1) 3/8 x 4-3/4" hex-hd cap SCREW 3/8 x 6-1/2" hex-hd cap SCREW (2) 3/8" lock WASHER (3) 13/32 x 13/16" x 16 ga WASHER (3)
14	31 729 D	COCK, drain
15	259 099 R1	"O" RING, 2-1/8 x 2-3/8 x 1/8" (2)
16	326 985 R11	TUBE, cooler to flywheel housing 3/8 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
17	347 584 R1	PLUG, drain
18	347 585 R1	GASKET, cooler drain plug
19	347 590 R1	SEAL, housing
20	347 587 R91	CORE, exchanger
21	347 589 R1	SEAL, core
	444 667	PLUG, 1/2" pipe (2)
	444 661	PLUG, 3/8" pipe

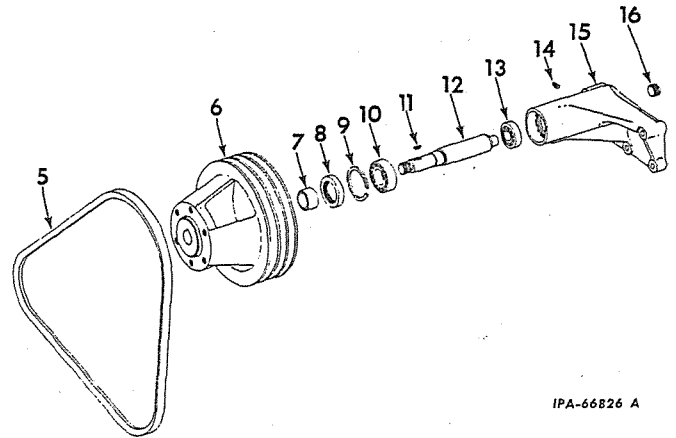
* - Part Number And Price Covers One Foot
Of Hose. Furnished Only In Three Foot
Lengths.

§ - Not Furnished Separately.



COOLING SYSTEM

FAN BEARING HOUSING, PULLEY AND FAN AND GENERATOR



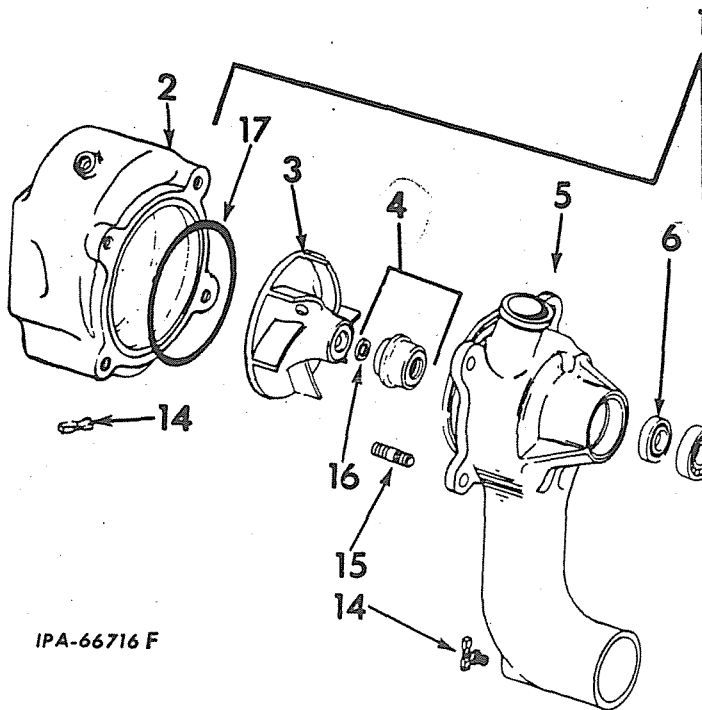
IPA-66826 A

REF. NO.	I. H. PART NUMBER	DESCRIPTION
5	670 741 C1	BELT, fan and "Alternator" (Set of 3)
5	326 998 R11	BELT, fan and "Generator" (Set of 3)
6	601 361 C1	PULLEY, fan TD-20BPM 501 to 4137
	19 256 R1	NUT, Esna TD20BPM 501 to 4137
6	612 205 C1	PULLEY, fan TD-20BPM 4138 up
	18 615 R1	NUT, Esna TD-20BPM 4138 up
7	326 996 R1	SLEEVE, seal TD-20BPM 501 to 4137
8	327 134 R91	OIL SEAL, fan TD-20BPM 501 to 4137
9	641 207 R1	RING, snap
10	ST-213	BEARING, fan, front TD-20BPM 501 to 4137
10	615 350 C91	BEARING, fan, front TD-20BPM 4138 up
11	124 549	KEY, 3/16 x 3/4" Woodruff (used with SHAFT, 601 307 C1 and 612 199 C1)
12	601 307 C1	SHAFT, fan drive pulley TD-20BPM 501 to 4137
12	612 199 C1	SHAFT, fan drive pulley TD-20BPM 4138 up
13	ST-368	BEARING, fan rear
14	444 655	PLUG, 1/4" sq-hd pipe
15	330 419 R1	HOUSING, fan bearing (order PACKAGE, 612 209 C91) TD-20BPM 501 to 4137 3/8 x 2" hex-hd cap SCREW (3) 3/8 x 2-3/4" hex-hd cap SCREW 3/8" lock WASHER (4)
15	612 198 C1	HOUSING, fan bearing TD-20BPM 4138 up 3/8 x 2" hex-hd cap SCREW (3) 3/8 x 2-3/4" hex-hd cap SCREW 3/8" lock WASHER (4)
16	273 469	PLUG, 3/4" cork pipe
	612 209 C91	PACKAGE, fan bearing housing field service TD-20BPM 501 to 4137 (Consists of - 1 BEARING 313 026 R91 1 BEARING 615 350 C91 1 HOUSING 612 198 C1 1 KEY 124 549 1 NUT 18 615 R1 1 PLUG 444 655 1 PLUG 273 469 1 PULLEY 612 205 C1 1 RING 641 207 R1 1 SHAFT 612 199 C1)

COOLING SYSTEM



WATER PUMP AND PULLEY

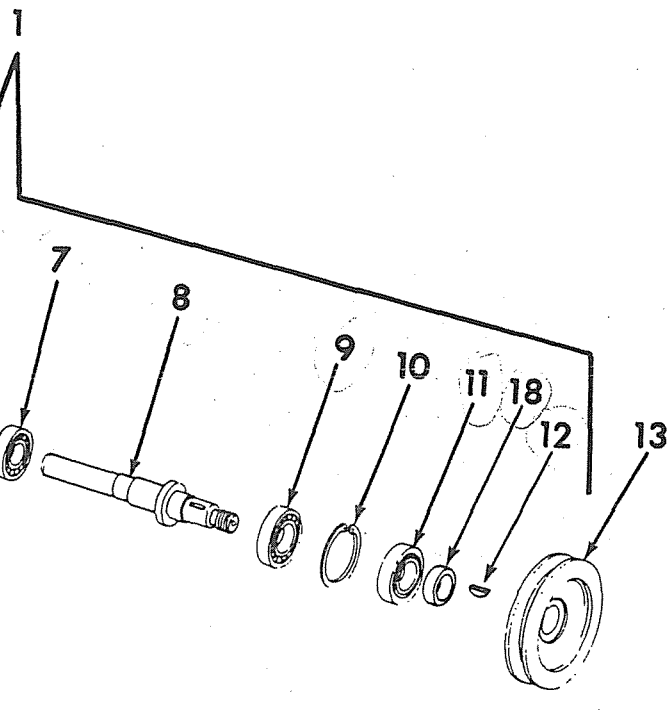


IPA-66716 F

COOLING SYSTEM



WATER PUMP AND PULLEY - CONTINUED



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	612 105 C91	PUMP ASSY, water (less volute housing) (will work for Pump Assy 341 507 R91, 341 507 R92 and 341 507 R93) 3/8 x 1-1/4" hex-hd cap SCREW (6) 3/8" lock WASHER (6) 13/32 x 13/16" x 16 ga WASHER (6) Consists of the following parts -
2	330 312 R11	HOUSING, water pump volute (used with Pump Assy 341 507 R91 and 341 507 R92; order Package 349 256 R91)
2	349 255 R11	HOUSING w/COCK, 31 729 D, and four STUD, 273 050 R1, water pump volute (used with Pump Assy 341 507 R93 and 612 105 C91) (*)
3	332 304 R1	IMPELLER
4	701 331 C91	PACKAGE, water pump seal (Consists of Seal and Seat 265 164 C91)
5		HOUSING, water pump (Not Furnished Separately)
6	338 394 R91	OIL SEAL, water pump rear
7	606 562 C91	BEARING, rear (used with Pump Assy 341 507 R91)
7	ST 286	BEARING, rear (used with Pump Assy 341 507 R92, 341 507 R93 and 612 105 C91)
8	341 503 R1	SHAFT, water pump

REF. NO.	I. H. PART NUMBER	DESCRIPTION
9	606 561 C91	BEARING, front (used with Pump Assy 341 507 R91)
9	ST 287	BEARING, front (used with Pump Assy 341 507 R92, 341 507 R93 and 612 105 C91)
10	513 047 R1	RING, snap (used with Pump Assy 341 507 R91 and 341 507 R92)
10	456 736 R1	RING, snap (used with Pump Assy 341 507 R93 and 612 105 C91)
11	327 321 R91	OIL SEAL, water pump front (used with Pump Assy 341 507 R91 and 341 507 R92)
11	347 235 R91	OIL SEAL, water pump front (used with Pump Assy 341 507 R93 and 612 105 C91)
12	124 545	KEY, (1/8 x 5/8") woodruff
13	341 505 R1 19 263 R1	PULLEY, water pump (*) NUT, Esna stop
14	31 729 D	COCK, drain (2)
15	273 050 R1	STUD, water pump housing volute (4)
16	265 164 C91	SEAT, water pump seal
17	252 735 R1	"O" RING, 5 x 5-1/4 x 1/8" (*)
18	341 504 R1	RING, water pump seal wear (used with Pump Assy 341 507 R91 and 341 507 R92)

(*) - Not Furnished As Part of Pump Assy.



COOLING SYSTEM



MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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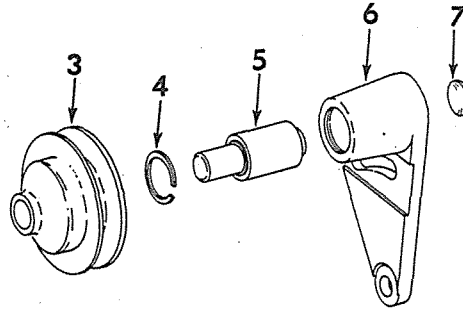
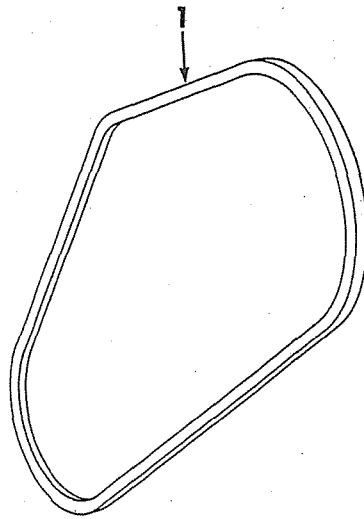
WATER PUMP AND PULLEY - CONTINUED

18	345 394 R1	RING, water pump seal wear (used with Pump Assy 341 507 R93 and 612 105 C91)
	349 256 R91	PACKAGE, water pump volute housing field service (Consists of Gasket 349 254 R1, and Housing 349 255 R11) (used with Pump Assy 341 507 R91 and 341 507 R92)
	609 460 C91	PACKAGE, water pump field service (used with Pump Assy, 341 507 R92, R93 and 612 105 C91, not used with 341 507 R91) (Consists of -
		1 BEARING ST 286
		1 BEARING ST 287
		1 GASKET 349 254 R1
		1 IMPELLER 332 304 R1
		1 KEY 124 545
		1 NUT 19 263 R1
		1 "O" RING 252 735 R1
		1 OIL SEAL 338 394 R91
		1 OIL SEAL 347 235 R91
		1 PACKAGE 701 331 C91
		1 RING 456 736 R1
		1 RING 345 394 R1
		1 SHAFT 341 503 R1)
	444 624	PLUG, pipe 3/8" (optional with 444 824) (2)
	444 824	PLUG, pipe 3/8" (optional with 444 624) (2)



COOLING SYSTEM

WATER PUMP BELT AND IDLER



IPA-66408A

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	328 502 R1	BELT, water pump
3	328 501 R1	PULLEY, idler
4	327 316 R1	RING, idler snap
5		BEARING, idler (order PACKAGE, 609 090 C91)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
6	341 616 R1	BRACKET, water pump idler 7/16 x 1-1/4" hex-hd cap SCREW (2) 7/16" lock WASHER 7/16" external tooth lock WASHER 15/32 x 59/64 x 16 ga WASHER
7	172 547	PLUG, 1-1/16" expansion
	609 090 C91	PACKAGE, bearing and pulley field service (Consists of idler BEARING AND PULLEY, 328 501 R1)



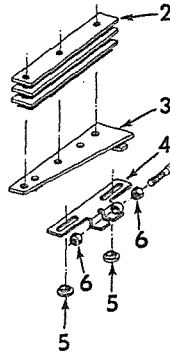
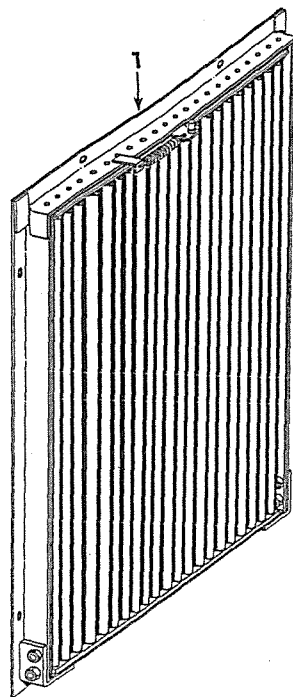
COOLING SYSTEM

WATER PUMP BELT AND IDLER - CONTINUED



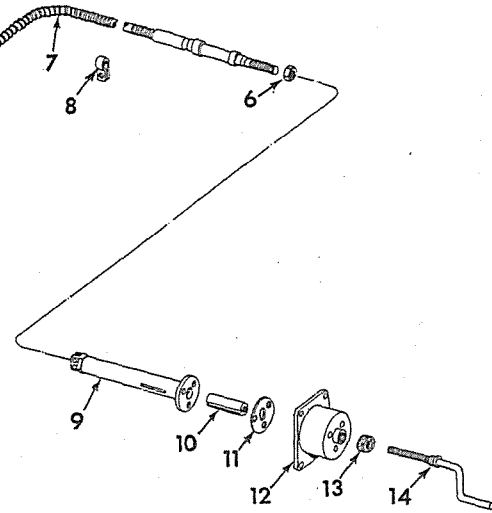
COOLING SYSTEM

RADIATOR SHUTTER
(Not for use with outboard fan)



COOLING SYSTEM

RADIATOR SHUTTER - CONTINUED
(Not for use with outboard fan)



IPA-68254

REF. NO.	I. H. PART NUMBER	DESCRIPTION
334 587 R91		ATTACHMENT, radiator shutter (for tractors equipped with standard radiator GUARD, 334 405 R91 or hydraulic radiator GUARD, 334 500 R91) (see NOTE 3)
337 781 R91		ATTACHMENT, radiator shutter (for tractors equipped with rear cable control units) (Not Used With Sideboom Crawler Tractors) (see NOTE 3)
1	603 665 C91	SHUTTER, radiator 3/8 x 5/8" hex-hd cap SCREW (12) 3/8" lock WASHER (12) 13/32 x 13/16 x 1/16" WASHER (12)
2	337 679 R1	SPACER, actuator mounting (4)
3	345 777 R91	PLATE, actuator 3/8 x 1-3/8" hex-hd cap SCREW (3) 5/16 x 1-1/8" hex-hd cap SCREW 3/8" lock WASHER (3) 5/16" lock WASHER
4	334 494 R91	ACTUATOR, shutter
5	334 061 R1	GUIDE, actuator shutter (2) 3/8 x 7/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
6		NUT, 1/4NF iam (3)
7	609 754 C91	ROD, radiator shutter control 5/16" NUT (2) 5/16 x 1-1/8" hex-hd cap SCREW (2) 1/4" lock WASHER (3) 5/16" lock WASHER (2) 1/4" NUT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
8	27 385 D	CLIP, shutter control rod (2) 3/8" NUT (2) 3/8 x 3/4" slit-mach SCREW (2) 3/8" lock WASHER (2)
9	337 669 R11	GUIDE, shutter control crank 3/8 x 1" hex-hd cap SCREW (3) 3/8" lock WASHER (3)
10	337 673 R1	PLUG, travel
11	337 676 R1	SPACER, shutter control crank
12	337 672 R1	BRACKET, shutter control crank mounting 3/8" NUT (4) 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
13	277 184 R1	BOOT
14	337 674 R11	CRANK, shutter control
	334 496 R1	BLOCK, tapping (12)
	337 683 R1	STIFFENER, vertical door

NOTE 3 - Field Application - Order through Regular Service Parts Channels.



MEMORANDA

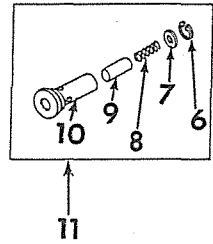
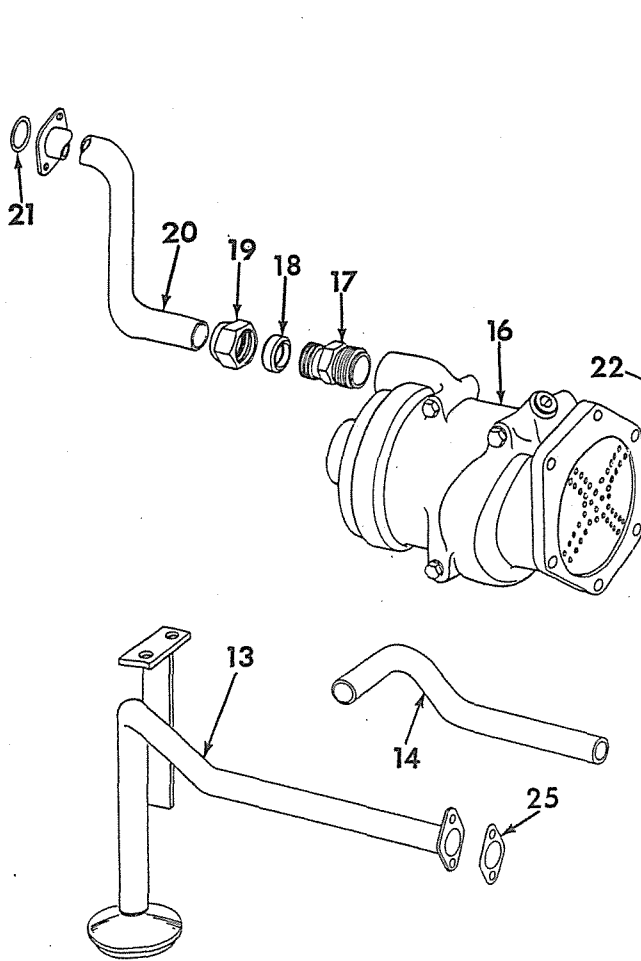


MEMORANDA



LUBRICATION SYSTEM

OIL COOLER, FILTERS, PIPING AND RELATED PARTS



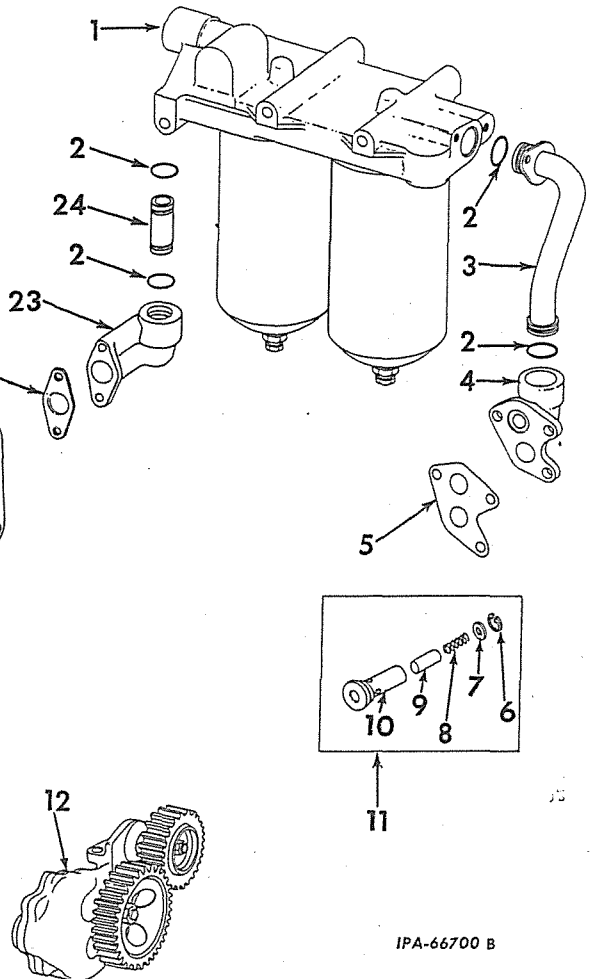
IPA-66700 B

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1		FILTER ASSEMBLY, lubricating oil (for components see list of parts under details of "Lubricating Oil Filters")
2	343 396 R2	"O" RING (1.110 x 1.390 x .140) (5)
3	332 606 R11	TUBE, oil filter to pressure regulating valve elbow
4	345 194 R1	ELBOW, oil gallery inlet (will work for ELBOW 332 411 R1) 3/8 x 1" hex-hd cap SCREW (3) 3/8" lock WASHER (3)
5	328 686 R1	GASKET, oil gallery inlet elbow (used w/ ELBOW 332 411 R1)
5	345 193 R1	GASKET, oil gallery inlet elbow (used w/ ELBOW 345 194 R1)
6		RING, pressure regulating valve snap (Not Furnished Separately)
7		SEAT, pressure regulating valve spring (Not Furnished Separately)
8		SPRING, pressure regulating valve (Not Furnished Separately)
9		VALVE, pressure regulating (Not Furnished Separately)



LUBRICATION SYSTEM

OIL COOLER, FILTERS, PIPING AND RELATED PARTS - CONTINUED



REF. NO.	I. H. PART NUMBER	DESCRIPTION
10		HOUSING, pressure regulating valve (Not Furnished Separately)
11	341 195 R91	VALVE ASSEMBLY, pressure regulating
12		PUMP ASSEMBLY, oil (for components see list of parts under details of "Oil Pump")
13	612 251 C11	TUBE, oil pump inlet 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
14	345 196 R1	TUBE, oil pump outlet
16	343 792 R92	COOLER, oil (also listed and illustrated with "Water Pump, Oil Cooler, Thermostats and Related Parts") 3/8 x 4-3/4" hex-hd cap SCREW 3/8 x 6-1/2" hex-hd cap SCREW (2) 3/8" lock WASHER (3) 13/32 x 13/16" x 16 ga WASHER (3)
17	310 154 R1	CONNECTOR, cooler to flywheel housing tub
18	338 700 R91	FERRULE and RING, seal
19	279 472 R91	NUT and COLLAR



LUBRICATION SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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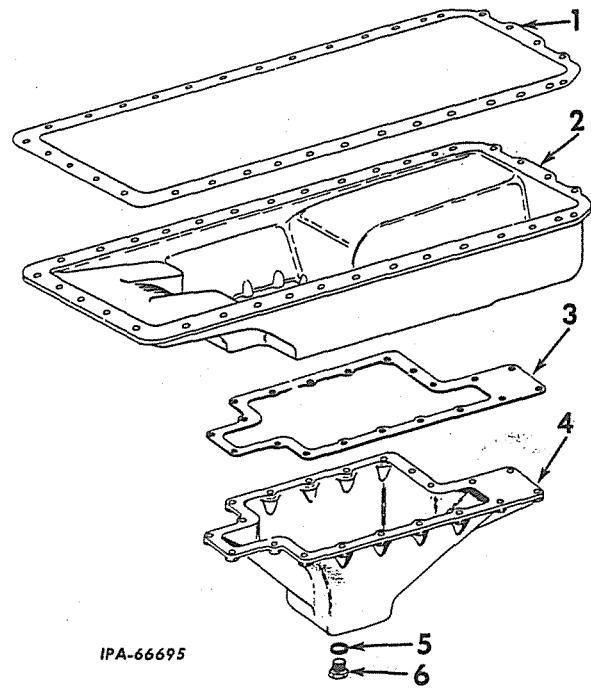
OIL COOLER, FILTERS, PIPING AND RELATED PARTS - CONTINUED

0	326 781 R11	TUBE, cooler to flywheel housing 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
1	350 818 R1	"O" RING, 1 x 1-1/4 x 1/8"
2	332 414 R1	GASKET, oil outlet elbow
3	332 413 R1	ELBOW, flywheel housing to filter 3/8 x 1" hex-hd cap SCREW 3/8 x 4-1/2" hex-hd cap SCREW 3/8" lock WASHER (2)
4	332 605 R1	TUBE, elbow to filter
5	607 130 C2	GASKET, inlet tube
	328 797 R1	CLAMP, oil tube (2) 3/8" NUT 3/8 x 1-1/8" hex-hd cap SCREW 3/8" lock WASHER
	267 788 R91	CLIP, battery cable
	330 046 R1	CLIP, oil inlet tube 3/8" NUT 3/8 x 3/4" hex-hd cap SCREW 3/8" lock WASHER
	343 396 R2	"O" RING, oil outlet tube
	332 394 R1	SUPPORT, oil inlet tube 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)



LUBRICATION SYSTEM

OIL PAN

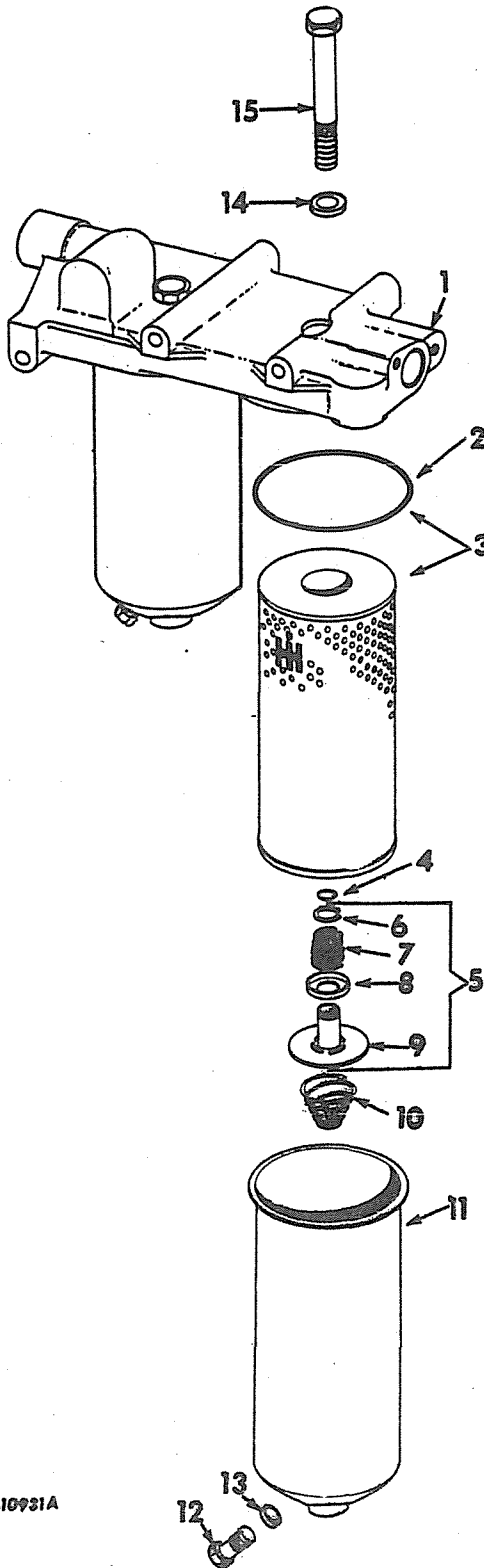


REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	341 391 R1	GASKET, oil pan
2	345 413 R1	PAN, upper oil 3/8 x 1-1/8" hex-hd cap SCREW (35) 3/8" lock WASHER (35)
3	328 936 R1	GASKET, oil pan
4	345 414 R11	PAN w/GASKET, 3 405 H and PLUG, 445 096, lower oil 3/8 x 1-1/8" hex-hd cap SCREW (20) 3/8" lock WASHER (20)
5	3 405 H	GASKET, drain plug
6	445 096	PLUG, oil pan drain



LUBRICATION SYSTEM

LUBRICATING OIL FILTER



IPB-10931A



LUBRICATION SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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LUBRICATING OIL FILTER - CONTINUED

1	332 387 R2	HEADER, oil filter TD-20BPM 510 to 762 (Order the following parts - 1 HEADER 345 443 R1 1 PACKAGE 345 450 R91)
1	345 443 R1	HEADER, oil filter TD-20BPM 763 up TD-20BPSM 2680 up
	444 678	PLUG, pipe 3/8 x 7-1/2" hex-hd cap SCREW (3)
2	602 997 C1	GASKET, oil filter case (2)
3	602 998 C91	PACKAGE, oil filter element field service (Consists of ELEMENT and GASKET, 602 997 C1) (2)
4	324 653 R1	RING, oil filter case retaining bolt seal (2)
5	332 579 R91	VALVE ASSY, by-pass (2)
6	154 665 R1	RETAINER, by-pass valve spring (2)
7	308 458 R1	SPRING, by-pass valve (2)
8	19 854 D	WASHER, by-pass valve (2)
9	332 580 R1	CUP, element seating (2)
10	308 422 R1	SPRING, element retainer (2)
11	345 438 R92	CASE, oil filter (together with PACKAGE, 345 450 R91, will work for 332 577 R11 and 332 577 R21) (2)
12	445 078	PLUG, drain (2)
13	119 937	GASKET, drain plug (2)
14	59 657 D	WASHER, copper (2) TD-20BPM 510 to 762
14	345 441 R1	WASHER, copper (2) TD-20BPM 763 up (2) TD-20BPSM 2680 up
15	345 235 R1	BOLT, oil filter case retaining (used on units where filter case is bolted from bottom) (2) TD-20BPM 510 to 762
15	345 440 R1	BOLT, oil filter case retaining (2) TD-20BPM 763 up (2) TD-20BPSM 2680 up
	345 450 R91	PACKAGE, lubricating oil filter case field service TD-20BPM 510 to 762 (Consists of - 2 BOLT 345 440 R1 2 CASE 345 438 R92 2 GASKET 119 937 1 PAMPHLET, oil filter header reworking 1 019 156 R1 2 PLUG 445 078 2 RING 324 653 R1 2 WASHER 345 441 R1)



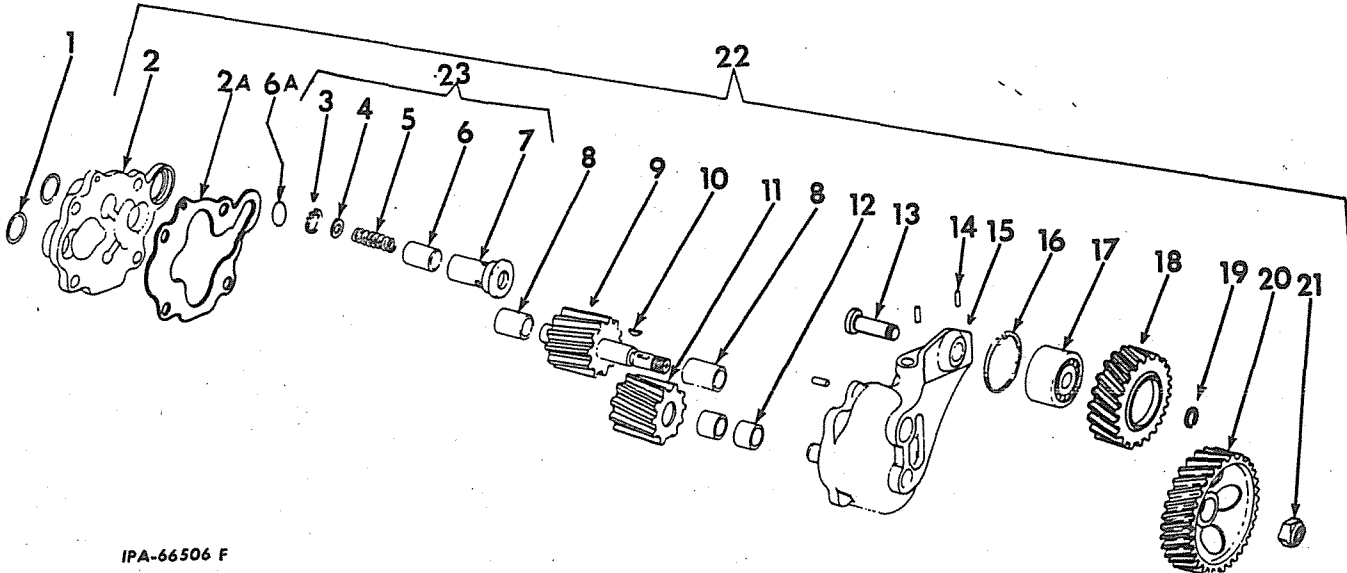
LUBRICATION SYSTEM



LUBRICATION SYSTEM

OIL PUMP

OIL PUMP - CONTINUED



IPA-66506 F

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	343 396 R2	"O" RING, inlet and discharge (1-1/8 x 1-3/8 x 1/8") (2)
2	326 772 R11	COVER w/Bushing, 345 292 R1, oil pump (order Pump Assy, 670 275 C92)
2	349 064 R11	COVER w/Bushing, 345 292 R1, oil pump (part of Pump 349 066 R92, 607 125 C92 and 670 275 C92)
2A	349 065 R1	GASKET, oil pump cover (part of Pump 349 066 R92, 607 125 C92 and 670 275 C92)
3		RING, snap (Not Furnished Separately)
4		SEAT, spring (Not Furnished Separately)
5		SPRING, safety valve (Not Furnished Separately)
6		BODY, safety valve (Not Furnished Separately)
6A	349 055 R2	"O" RING (.799 x 1.005 x .103) (used with Valve Assy 345 161 R91)
7		HOUSING, safety valve (Not Furnished Separately)
8	345 292 R1	BUSHING, drive shaft (2)
9	326 765 R12	SHAFT, oil pump drive
10	124 545	KEY, 1/8 x 5/8" Woodruff
11	326 767 R21	GEAR w/two Bushing, 326 768 R1, oil pump idler
12	326 768 R1	BUSHING, idler gear (2)
13	326 769 R2	SHAFT, oil pump idler (order Pump Assy, 670 275 C92)
13	670 277 C2	SHAFT, oil pump idler (part of Pump, 670 275 C92)
14	19 841 R1	PIN, dowel (3)
15	332 375 R11	BODY w/BUSHING, 345 292 R1 and three Pin, 19 841 R1, oil pump (order Pump Assy, 670 275 C92)
15	349 063 R12	BODY w/BUSHING, 345 292 R1 and three PIN, 19 841 R1, oil pump (order PUMP ASSY, 670 275 C92)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
15	670 276 C11	BODY w/BUSHING, 345 292 R1 and PIN, 19 841 R1, oil pump (part of PUMP, 670 275 C92)
16	376 219 R1	RING, snap
17	51 791 H	BEARING, drive idler
18	326 770 R1	GEAR, oil pump drive idler
19	21 800 R1	NUT, idler gear shaft (LH Thd.) (used with SHAFT, 670 277 C2)
19	19 849 R1	NUT, idler gear shaft (used with Shaft, 326 769 R2)
19	21 800 R1	NUT, idler gear shaft (used with SHAFT, 670 277 C2)
20	326 771 R1	GEAR, oil pump drive (order PUMP ASSY, 670 275 C92)
20	601 905 C1	GEAR, oil pump drive (part of Pump, 607 125 C92 and 670 275 C92)
21	19 263 R1	NUT, esna lock
22	332 417 R92	PUMP ASSY, oil (order PUMP ASSY, 670 275 C92)
22	670 275 C92	PUMP ASSY, oil (together with two BOLTS, 345 921 R1 and WASHERS, 670 278 C1, will work for PUMP ASSEMBLIES, 332 417 R92, 349 066 R91 and 607 125 C92) 3/8 x 1-1/4" hex-hd cap SCREW (2) (used with PUMP ASSEMBLIES, 332 417 R92, 349 066 R92 and 607 125 C92) 3/8" WASHER (2) 3/8 x 1-1/2" BOLT (2) (used with PUMP ASSEMBLY, 670 275 C92)
	670 278 C1	
	354 921 R1	
23	337 187 R91	VALVE ASSY, safety (part of Pump, 332 417 R92)
23	345 161 R91	VALVE ASSY, safety (part of PUMP, 349 066 R92, 607 125 C92 and 670 675 C92)



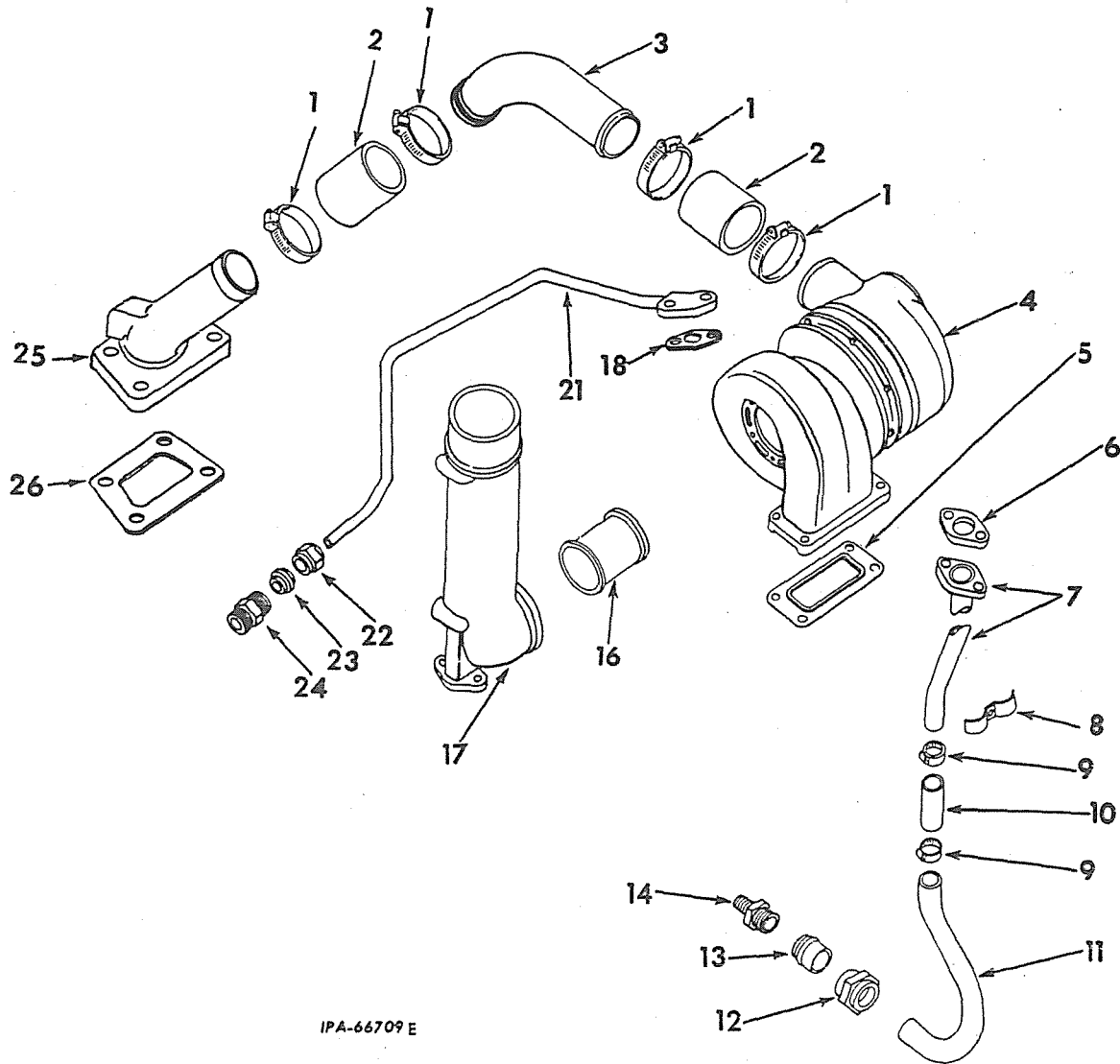
TURBOCHARGER

TURBOCHARGER AND PIPING
 (Schwitzer)
 TD-20BPM 510 to 3090
 TD-20BPSM 2680 to 3090



TURBOCHARGER

TURBOCHARGER AND PIPING - CONTINUED
 (Schwitzer)
 TD-20BPM 510 to 3090
 TD-20BPSM 2680 to 3090



IPA-66709 E

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	606 236 C91	CLAMP, hose (4)
2	303 831 R1	HOSE, crossover tube (2)
3	341 216 R1	TUBE, air crossover
4		TURBOCHARGER (for components see list of parts under details of "Turbocharger") NUT, 3/8" (4)
5	265 429 R1	GASKET
6	253 664 R1	GASKET, flange

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REF. NO.	I.H. PART NUMBER	DESCRIPTION
7	337 191 R11	TUBE, oil drain 3/8 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER
8	140 587	CLIP, turbocharger oil drain tube (2) 3/8" NUT 3/8 x 3/4" hex-hd cap SCREW 3/8" lock WASHER
9	333 710 R91	CLAMP, hose (2)
10	328 682 R1	HOSE, turbocharger oil drain
11	337 192 R2	TUBE, turbocharger oil drain lower

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(Rev. No. 6 9-69)



TURBOCHARGER



MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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TURBOCHARGER AND PIPING - CONTINUED
(Schwitzer)
TD-20BPM 510 to 3090
TD-20BPSM 2680 to 3090

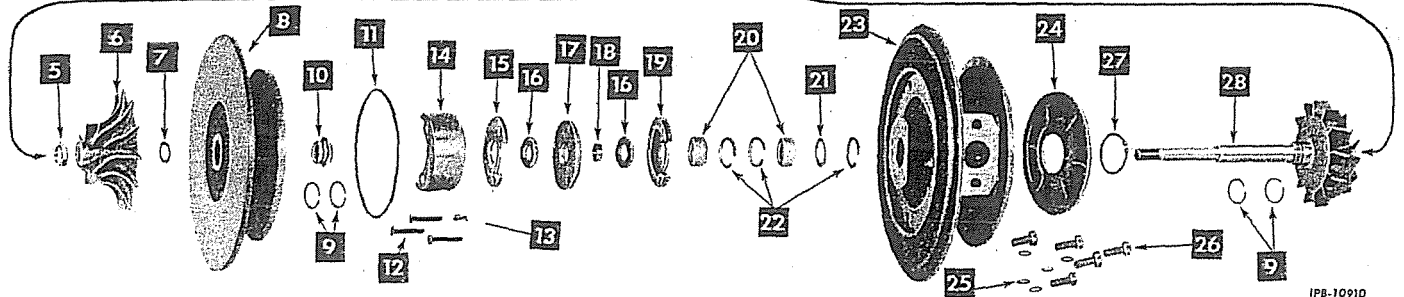
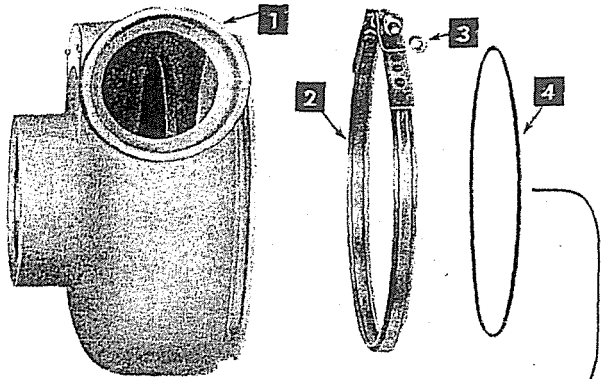
12	333 755 R1	NUT
13	333 754 R1	SLEEVE
14	324 693 R1	BODY, connector
16	601 125 C1	SLEEVE, turbocharger exhaust
17	337 180 R1	ELBOW, turbocharger exhaust
18	253 660 R1	GASKET, flange
21	332 604 R21	TUBE, oil inlet 3/8 x 1-1/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
22	277 738 R1	NUT
23	277 737 R1	SLEEVE
24	277 736 R1	BODY, connector
25	341 214 R2	ELBOW, crossover (together w/PLUG, 444 576, will work for ELBOW, 341 214 R1) (Also used for "Ether Injector Attachment") 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
	444 576	PLUG, 1/4" sq-hd pipe (Not used w/"Ether Injector Attachment")
26	328 767 R1	GASKET, elbow
	328 990 R1	CLIP, turbocharger oil inlet tube 13/32 x 13/16 x 16 ga WASHER
	326 856 R2	SUPPORT, center exhaust stack 1/2" NUT 1/2 x 3/4" hex-hd cap SCREW 1/2 x 1" hex-hd cap SCREW 1/2" lock WASHER (2) 1/2" plain WASHER
	337 181 R91	SUPPORT, exhaust stack 1/2 x 1" hex-hd cap SCREW (4) 1/2" plain WASHER (2) 1/2" lock WASHER (4)
	326 559 R1	SUPPORT, turbocharger 5/16" NUT 5/16 x 2" hex-hd cap SCREW 5/16" lock WASHER 5/16 x 3/4" x 16 ga WASHER (2)
	337 216 R1	SUPPORT, turbocharger oil drain



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TURBOCHARGER

TURBOCHARGER
(Schwitzer) (Model 4D-355)
TD-20BPM 510 to 3090
TD-20BPSM 2680 to 3090



IPB-10910

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	343 933 R91	TURBOCHARGER ASSEMBLY (C-140034) (order TURBOCHARGER ASSY, 610 672 C91) (Consists of the following parts -
1	347 202 R1	COVER, turbocharger compressor (L-140036)
2	347 203 R91	CLAMP, compressor cover (140342)
3		NUT (Not Furnished Separately)
4	347 333 R1	"O" RING, compressor cover (B-139265)
5	19 850 R1	LOCKNUT, compressor wheel (C-125638)
6	347 224 R1	WHEEL, compressor (B-13847)
7	347 208 R1	SHIM, .003" compressor wheel (C-125648) (X)
7	347 209 R1	SHIM, .005" compressor wheel (C-125649) (X)
7	347 210 R1	SHIM, .010" compressor wheel (C-125650) (X)
8	347 211 R1	PLATE, compressor back (A-135954)
9	313 156 R1	RING, piston (C-125647) (4)
10	347 226 R1	SLEEVE, flinger (B-135796)
11	347 330 R1	"O" RING, back plate (C-136890)
12	347 214 R1	SCREW, oil deflector hex-hd cap (C-137008) (3)
13	347 215 R1	PLATE, bolt lock (C-137017)
14	347 213 R1	DEFLECTOR, oil (B-137126)
15	347 216 R1	RETAINER, front oil (B-137124)

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TURBOCHARGER

TURBOCHARGER - CONTINUED
(Schwitzer) (Model 4D-355)
TD-20BPM 510 to 3090
TD-20BPSM 2680 to 3090

REF. NO.	I. H. PART NUMBER	DESCRIPTION
16	347 217 R1	RING, thrust (C-135955) (2)
17	347 218 R1	BEARING, thrust (B-135915)
18	347 219 R1	SLEEVE, spacer (C-137016)
19	347 220 R1	RETAINER, rear oil (B-137095)
20	324 312 R1	BUSHING, bearing housing (B-135619) (2)
21	324 313 R1	WASHER, bearing thrust (C-135620)
22	321 985 R1	RING, snap (C-134058) (3)
23	347 222 R1	HOUSING, bearing (L-135924)
24	347 221 R1	BACKPLATE, turbine (B-135947)
25	347 332 R1	WASHER (C-102528) (5)
26	347 331 R1	BOLT (C-6213) (5)
	347 212	WIRE, lock 16-1/2" long monel (159399) (X)
27	457 505 R1	RING, plate retaining (C-129533)
28	347 225 R91	WHEEL and SHAFT, turbine (A-138992)
29	347 206 R1	RING, nozzle (.116" gap) (140035)
30	347 205 R91	CLAMP, housing (140351)
31	34 204 R1	HOUSING, turbine (L-135802)
		X - As Required

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TURBOCHARGER

MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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TURBOCHARGER—Continued
(Schwitzer) (Model 4D-355)
TD-20BPM 510 to 3090
TD-20BPSM 2680 to 3090

347 207 R91 CORE ASSEMBLY, turbocharger replaceable
(A-140668)

- (Consists of the following parts -
- | | | |
|---|-----------|--------------|
| 1 | BACKPLATE | 347 221 R1 |
| 1 | BEARING | 347 218 R1 |
| 3 | BOLT | 347 214 R1 |
| 5 | BOLT | 347 331 R1 |
| 2 | BUSHING | 324 312 R1 |
| 1 | DEFLECTOR | 347 213 R1 |
| 1 | HOUSING | 347 222 R1 |
| 1 | LOCKNUT | 19 850 R1 |
| 1 | "O" RING | 347 330 R1 |
| 1 | PLATE | 347 211 R1 |
| 1 | PLATE | 347 215 R1 |
| 1 | RETAINER | 347 216 R1 |
| 1 | RETAINER | 347 220 R1 |
| 3 | RING | 321 985 R1 |
| 4 | RING | 313 156 R1 |
| 1 | RING | 457 505 R1 |
| X | SHIM | 347 208 R1 |
| 1 | SLEEVE | 347 219 R1 |
| 1 | SLEEVE | 347 226 R1 |
| 1 | WASHER | 324 313 R1 |
| 2 | WASHER | 347 217 R1 |
| 5 | WASHER | 347 332 R1 |
| 1 | WHEEL | 347 224 R1 |
| 1 | WHEEL | 347 225 R91 |
| X | WIRE | 347 212 R1) |

(f) - Also Listed And Illustrated With
"Turbocharger And Piping".

X - As Required.



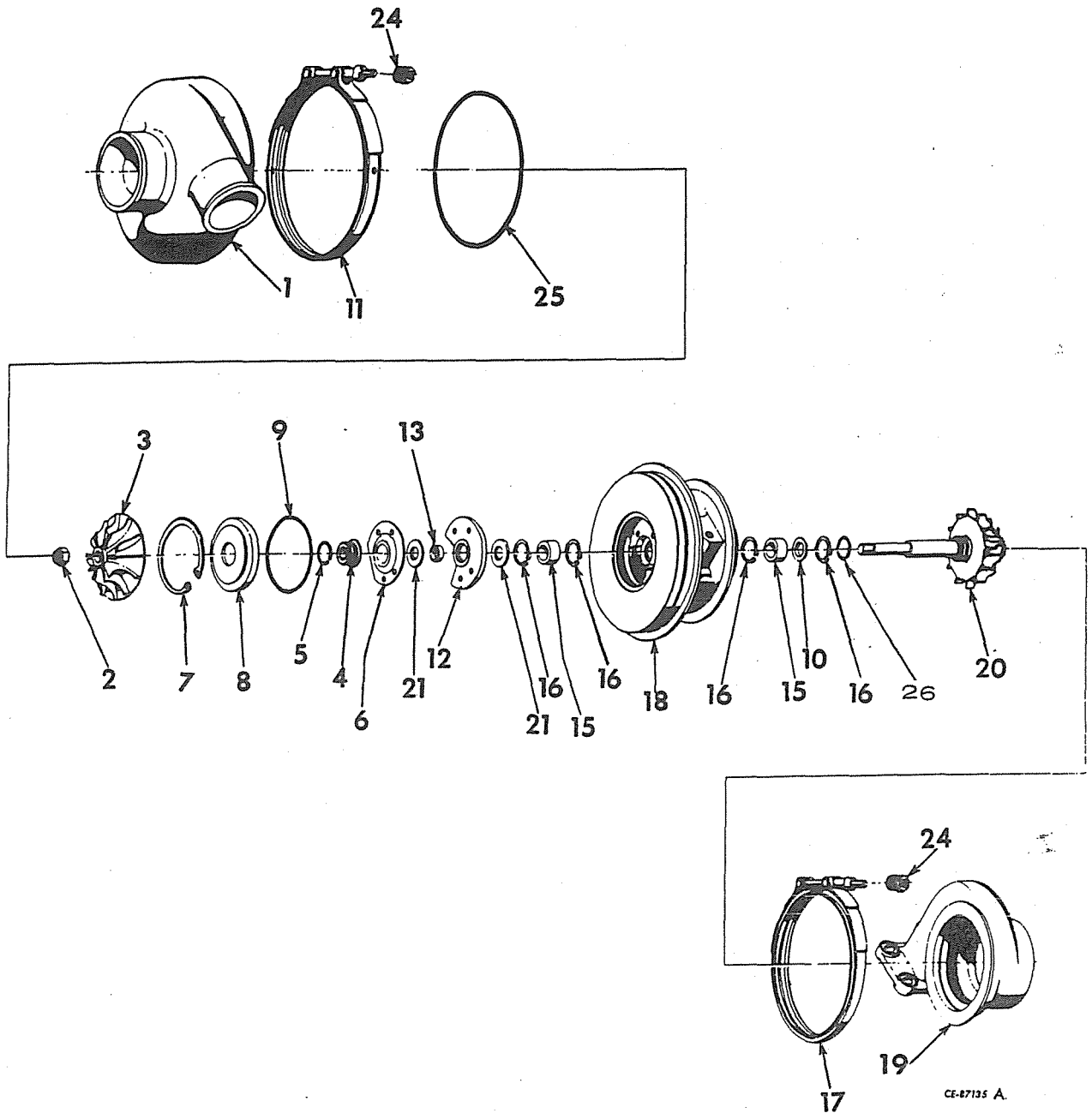
TURBOCHARGER

TURBOCHARGER
(Schwitzer) (Model 4LE-304)
TD-20 BPM 510 to 3090
TD-20 BPSM 2680 to 3090



TURBOCHARGER

TURBOCHARGER - CONTINUED
(Schwitzer) (Model 4 LE-304)
TD-20BPM 510 to 3090
TD-20BPSM 2680 to 3090



REF. NO.	I. H. PART NUMBER	DESCRIPTION
	610 672 C91	TURBOCHARGER ASSY (C-144719) (will work for TURBOCHARGER ASSY, 343 933 R91) (Consists of the following parts -
1	615 327 C1	COVER, compressor (L-144765)
2	615 340 C1	NUT, wheel lock (C-141073)
3	615 341 C1	WHEEL, compressor (A-144766)

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REF. NO.	I. H. PART NUMBER	DESCRIPTION
4	615 342 C1	SLEEVE, flinger (B-139817)
5	313 156 R1	RING, piston (C-125647)
6	615 335 C1	DEFLECTOR, oil (B-143331)
7	615 332 C1	RING, snap (C-127305)
8	615 333 C1	INSERT, flinger (B-142066)

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TURBOCHARGER



MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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TURBOCHARGER - CONTINUED
(Schwitzer) (Model 4 LE-304)
TD-20 BPM 510 to 3090
TD-20 BPSM 2680 to 3090

9	615 334 C1	RING, insert flinger (C-143000)
10	615 337 C1	SLEEVE, oil control (B-142229)
11	615 328 C91	CLAMP w/LOCKNUT, compressor housing (140355)
12	615 336 C1	BEARING, thrust (B-144333)
13	615 344 C1	SPACER, sleeve (C-139572)
15	615 338 C1	BUSHING, housing (B-138363) (2)
16	313 147 R1	RING, bushing snap (C-130282) (4)
17	615 330 C91	CLAMP w/LOCKNUT, turbine housing (140353)
18	615 339 C1	HOUSING, core (B-144219)
19	619 419 C1	HOUSING, turbine (148446)
20	702 917 C1	WHEEL and SHAFT, turbine (146429)
21	615 343 C1	RING, thrust (C-144334) (2)
24		NUT, clamp lock (not furnished separately)
25	615 331 C1	RING, cover seal (B-142228)
26	619 418 C1	RING, piston (142114)

615 325 C91	CORE ASSY, replaceable (145972)	
	(Composed of -	
	1	BEARING 615 336 C1
	2	BUSHING 615 338 C1
	1	DEFLECTOR 615 335 C1
	1	HOUSING 619 419 C1
	1	INSERT 615 333 C1
	1	NUT 615 340 C1
	4	RING 313 147 R1
	1	RING 313 156 R1
	1	RING 615 331 C1
	1	RING 615 332 C1
	1	RING 615 334 C1
	1	RING 619 418 C1
	2	RING 615 343 C1
	1	SLEEVE 615 337 C1
	1	SLEEVE 615 342 C1
	1	SPACER 615 344 C1
	1	WHEEL 615 341 C1
	1	WHEEL and SHAFT 702 917 C1)



MEMORANDA



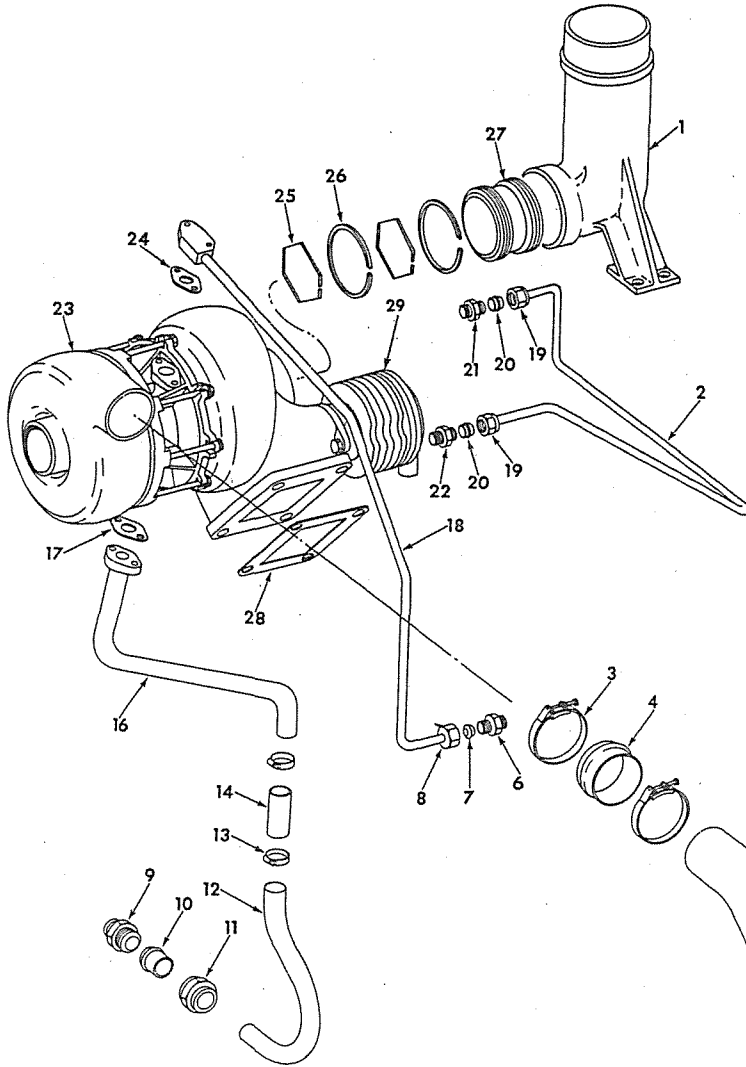
MEMORANDA



TURBOCHARGER

TURBOCHARGER AND PIPING

(Solar)
TD-20BPM 3091 to 4076 except 3992 to 4066 and 4075
TD-20BPSM 3091 to 4076 except 3992 to 4066 and 4075



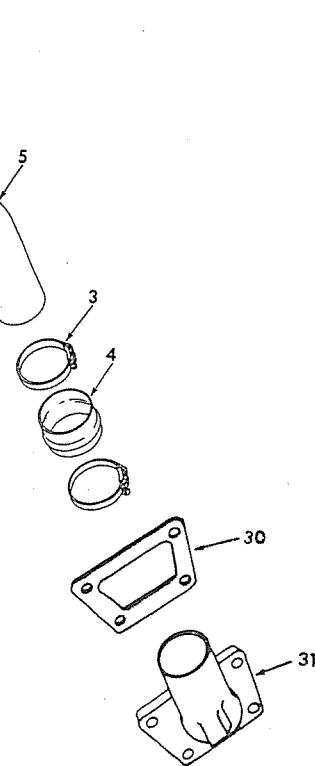
CEA-83824B



TURBOCHARGER

TURBOCHARGER AND PIPING - CONTINUED

(Solar)
TD-20BPM 3091 to 4076 except 3992 to 4066 and 4075
TD-20BPSM 3091 to 4076 except 3992 to 4066 and 4075





TURBOCHARGER

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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TURBOCHARGER AND PIPING - CONTINUED

(Solar)

TD-20BPM 3091 to 4076 except 3992 to 4066 and 4075
 TD-20BPSM 3091 to 4076 except 3992 to 4066 and 4075

1	601 149 C1 304 451 R1	ELBOW, turbocharger exhaust NUT (4) 3/8NF x 1-5/8" hex-hd cap SCREW (4)
2	601 175 C2	TUBE, waste gate sensor (See NOTE)
3	615 139 C1	CLAMP, hose (4)
4	601 145 C1	HOSE, air crossover (2-3/4" ID x 2-1/4" long) (2)
5	601 144 C1	TUBE, air crossover
6	277 736 R1	BODY, connector
7	277 737 R1	SLEEVE
8	277 738 R1	NUT
9	324 693 R1	BODY, connector
10	333 754 R1	SLEEVE
11	333 755 R1	NUT
12	337 192 R2	TUBE, turbocharger oil drain lower
13	333 710 R91	CLAMP, hose (2)
14	328 682 R1	HOSE, turbocharger drain (1" ID x 2-1/2" long)
16	601 148 C11	TUBE, turbocharger oil drain upper 3/8 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
17	253 664 R2	GASKET, flange
18	601 146 C12	TUBE, oil inlet 3/8 x 1-3/4" hex-hd cap SCREW (2) 3/8" lock WASHER
19	278 041 R1	NUT, connector (2)
20	278 040 R2	SLEEVE, connector (2)
21	278 039 R1	BODY, connector (1/8NPT)
22	279 982 R1	BODY, connector (1/4NPT)
23		TURBOCHARGER (for components see list of parts under details of "Turbocharger")
	304 451 R1	NUT (4)
24	253 664 R2	GASKET, flange
25	347 184 R91	SEAL, turbocharger exhaust sleeve (2)
26		Not Furnished Separately
27	345 382 R1	SLEEVE, turbocharger exhaust
28	265 429 R1	GASKET
29		CONTROL ASSY, waste gate (for components see list of parts under details of "TURBOCHARGER (Solar) (Model TC-4A)")
30	328 767 R1	GASKET, elbow
31	601 143 C2 444 576	ELBOW, air inlet (together w/PLUG, 444 576, will work for ELBOW, 607 347 C11) (Also used for "Ether Injector Attachment") 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4) PLUG, 1/4" sq-hd pipe (Not used w/"Ether Injector Attachment")



TURBOCHARGER

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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TURBOCHARGER AND PIPING - CONTINUED

(Solar)

TD-20BPM 3091 to 4076 except 3992 to 4066 and 4075
 TD-20BPSM 3091 to 4076 except 3992 to 4066 and 4075

328 990 R1	CLIP, turbocharger oil inlet tube 13/32 x 13/16" x 16 ga WASHER
140 587	CLIP, turbocharger oil drain tube 3/8" NUT 3/8 x 3/4" hex-hd cap SCREW 3/8" lock WASHER
601 176 C1	CLIP, tube
337 216 R1	SUPPORT turbocharger oil drain

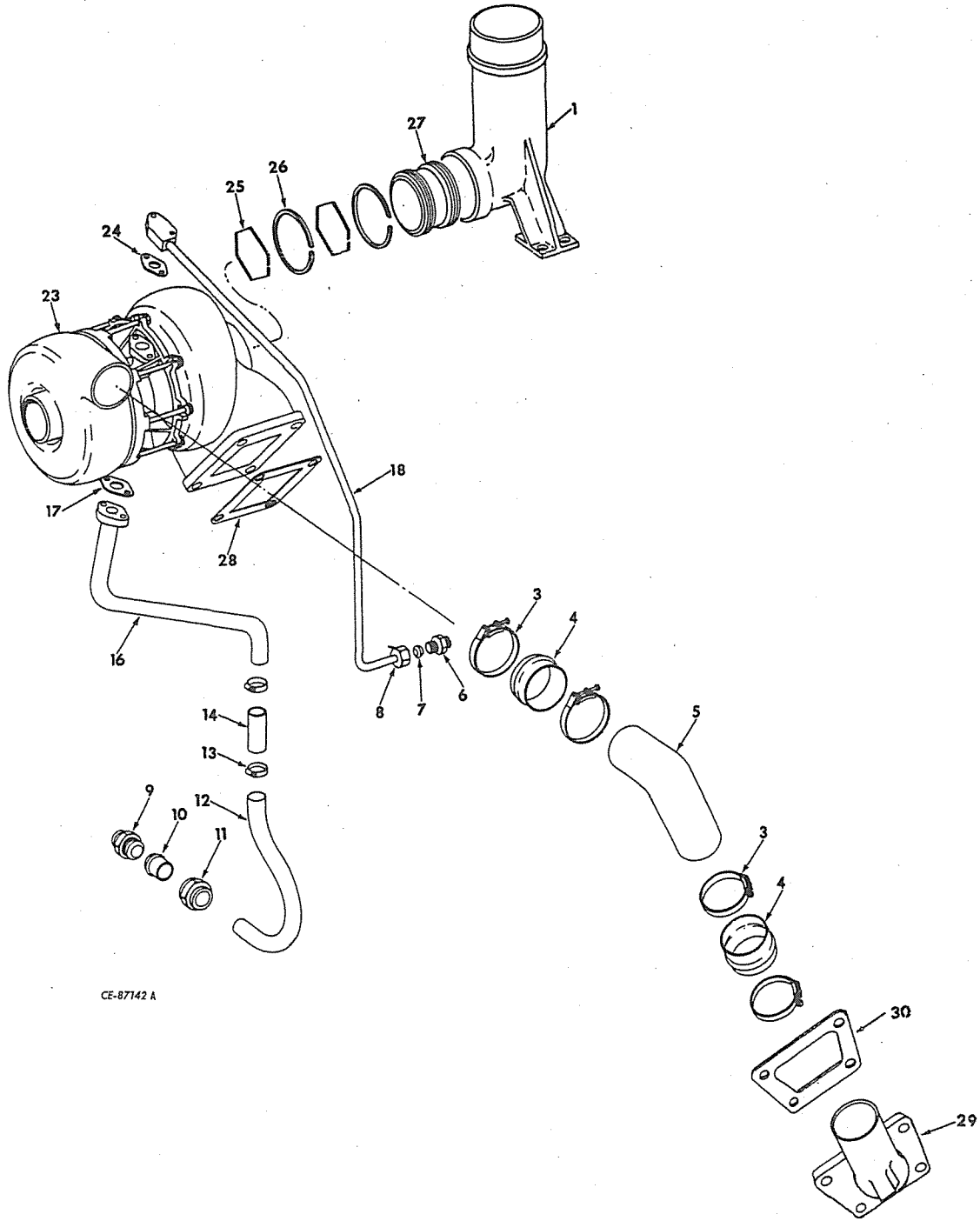
NOTE: Not Required When Turbocharger Assy, 900 000 C93 Is Modified By Removal Of Waste Gate Control Assy, 900 085 C91. Pipe PLUG, 117 244 Should Be Mounted In The Cylinder Head At The Sensor Tube Location.



TURBOCHARGER

TURBOCHARGER AND PIPING (Solar)

TD-20BPM 4077 to 4757 also 3992 to 4066 and 4075
TD-20BPSM 4077 to 4757 also 3992 to 4066 and 4075



CE-87142 A



TURBOCHARGER

TURBOCHARGER AND PIPING - CONTINUED (Solar)

TD-20BPM 4077 to 4757 also 3992 to 4066 and 4075
TD-20BPSM 4077 to 4757 also 3992 to 4066 and 4075



TURBO-CHARGER



MEMORANDA

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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TURBOCHARGER AND PIPING - CONTINUED
(Solar)

TD-20BPM 4077 to 4757 also 3992 to 4066 and 4075
TD-20BPSM 4077 to 4757 also 3992 to 4066 and 4075

1	601 149 C1 304 451 R1	ELBOW, turbocharger exhaust NUT (4) 3/8NF x 1-5/8" hex-hd cap SCREW (4)
3	615 139 C1	CLAMP, hose (4)
4	601 145 C1	HOSE, air crossover (2)
5	601 144 C1	TUBE, air crossover
6	277 736 R1	BODY, connector
7	277 737 R1	SLEEVE
8	227 738 R1	NUT
9	324 693 R1	BODY, connector
10	333 754 R1	SLEEVE
11	333 755 R1	NUT
12	337 192 R2	HOSE, turbocharger oil drain
13	333 710 R91	CLAMP, hose (2)
14	337 192 R2	TUBE, turbocharger drain lower
16	601 148 C11	TUBE, turbocharger oil drain upper 3/8 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
17	253 664 R2	GASKET, flange
18	601 146 C12	TUBE, oil inlet 3/8 x 1-3/4" hex-hd cap SCREW (2) 3/8" lock WASHER
23	304 451 R1	TURBOCHARGER (for components see list of parts under details of "Turbocharger") NUT (4)
24	253 664 R2	GASKET, flange
25	347 184 R91	SEAL, turbocharger exhaust sleeve (2)
26		Not Furnished Separately
27	345 382 R1	SLEEVE, turbocharger exhaust
28	265 429 R1	GASKET
29	601 143 C2 444 576	ELBOW, air inlet (together w/PLUG, 444 576, will work for ELBOW, 607 347 C11) (Also used for "Ether Injector Attachment") 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4) PLUG, 1/4" sq-hd pipe (Not used w/"Ether Injector Attachment")
30	328 767 R1 328 990 R1 140 587 601 176 C1 337 216 R1	GASKET, elbow CLIP, turbocharger oil inlet tube 13/32 x 13/16" x 16 ga WASHER CLIP, turbocharger oil drain tube 3/8" NUT 3/8 x 3/4" hex-hd cap SCREW 3/8" lock WASHER CLIP, tube SUPPORT, turbocharger oil drain



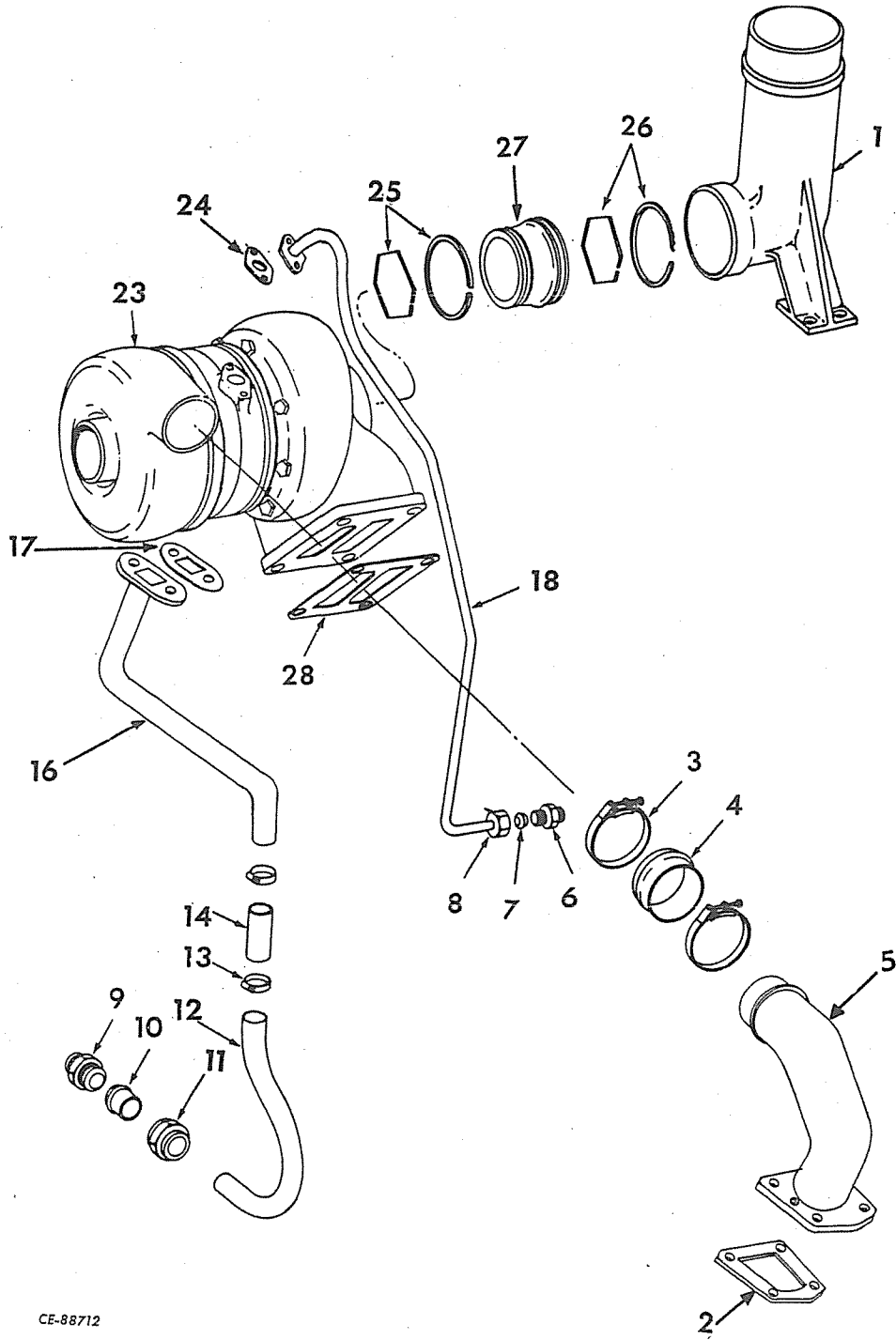
TURBOCHARGER

TURBOCHARGER AND PIPING
(Airesearch)
TD-20BPM 4758 up
TD-20BPSM 4758 up



TURBOCHARGER

TURBOCHARGER AND PIPING - CONTINUED
(Airesearch)
TD-20BPM 4758 up
TD-20BPSM 4758 up



CE-88712



TURBOCHARGER

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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TURBOCHARGER AND PIPING - CONTINUED

(Airesearch)
 TD-20BPM 4758 up
 TD-20BPSM 4758 up

1	601 149 C1 304 451 R1	ELBOW, turbocharger exhaust NUT (4) 3/8NF x 1-5/8" hex-hd cap SCREW (4)
2	328 767 R1	GASKET, air crossover elbow
3	274 087 R91	CLAMP, hose (2)
4	670 040 C1	HOSE, air crossover
5	701 132 C1	TUBE, air crossover 3/8 x 1-1/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
6	277 736 R1	BODY, connector
7	277 737 R1	SLEEVE
8	227 738 R1	NUT
9	324 693 R1	BODY, connector
10	333 754 R1	SLEEVE
11	333 755 R1	NUT
12	337 192 R2	TUBE, turbocharger oil drain lower
13	333 710 R91	CLAMP, hose (2)
14	328 682 R1	HOSE, turbocharger oil drain
16	701 134 C1	TUBE, turbocharger oil drain upper 3/8 x 1-3/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
17	670 079 C1	GASKET, oil drain tube flange
18	703 424 C1	TUBE, oil inlet 5/16 x 1" hex-hd cap SCREW (2) 5/16" lock WASHER
23	304 451 R1	TURBOCHARGER (for components see list of parts under details of "Turbocharger") NUT (4)
24	253 660 R1	GASKET, oil inlet tube flange
25	702 299 C1	SEAL, turbocharger exhaust sleeve (turbo end)
26	347 184 R91	SEAL, turbocharger exhaust sleeve (elbow end)
27	670 080 C1	SLEEVE, turbocharger exhaust
28	670 073 C1	GASKET, turbocharger
	328 990 R1	CLIP, turbocharger oil inlet tube 13/32 x 13/16" x 16 ga WASHER
	140 587	CLIP, turbocharger oil drain tube 3/8" NUT 3/8 x 3/4" hex-hd cap SCREW 3/8" lock WASHER
	444 576	PLUG, 1/4" pipe (crossover tube)
	337 216 R1	SUPPORT, turbocharger oil drain



MEMORANDA

TURBO-CHARGER

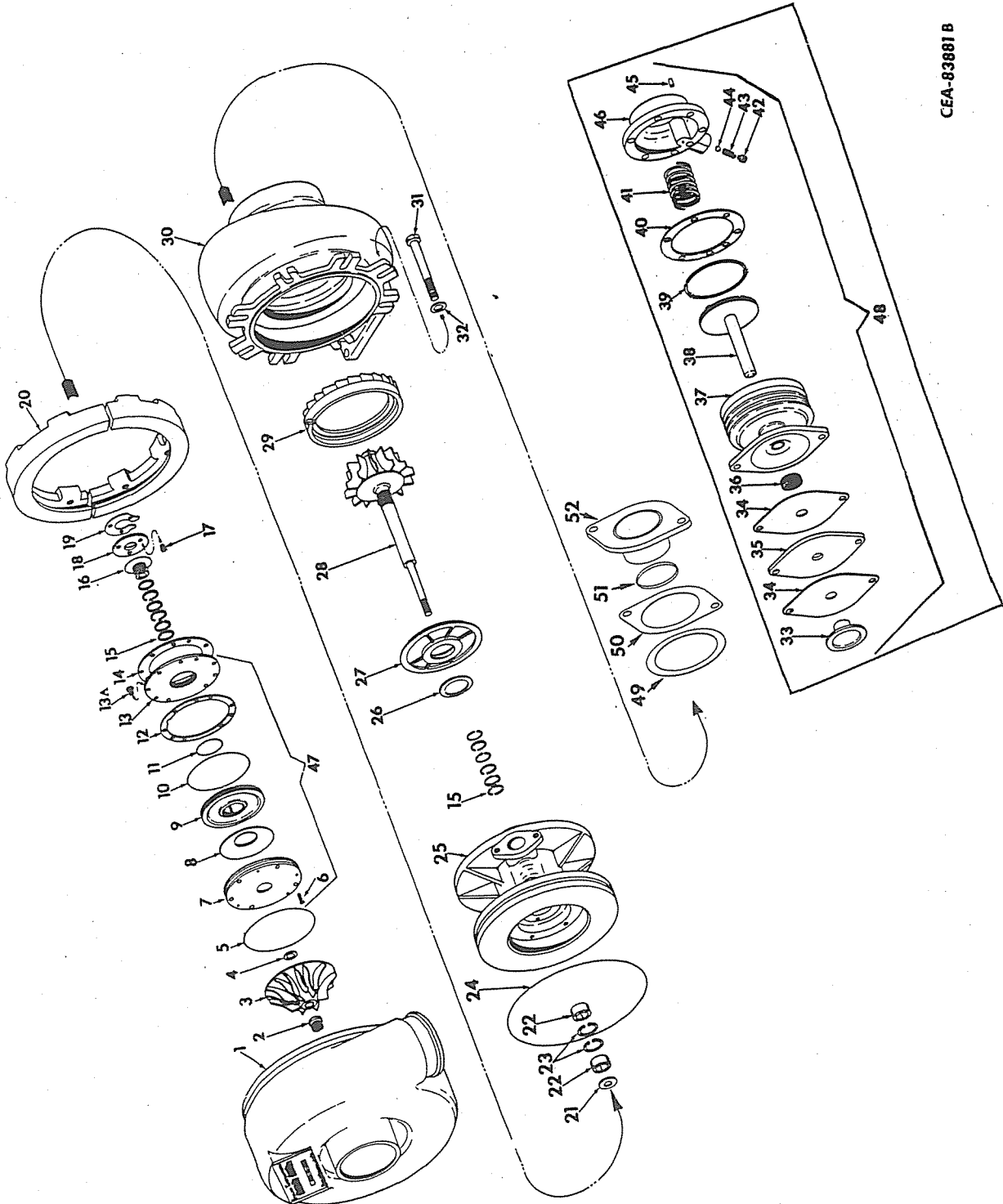


TURBOCHARGER
 (Solar) (Model TC-4A)
 TD-20BPM 3091 to 4076 except 3992 to 4066 and 4075
 TD-20BPSM 3091 to 4076 except 3992 to 4066 and 4075

TURBO-CHARGER



TURBOCHARGER - CONTINUED
 (Solar) (Model TC-4A)
 TD-20BPM 3091 to 4076 except 3992 to 4066 and 4075
 TD-20BPSM 3091 to 4076 except 3992 to 4066 and 4075



CEA-83881B



TURBOCHARGER

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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TURBOCHARGER - CONTINUED

(Solar) (Model TC-4A)

TD-20BPM 3091 to 4076 except 3992 to 4066 and 4075

TD-20BPSM 3091 to 4076 except 3992 to 4066 and 4075

	900 000 C93	TURBOCHARGER ASSY (order TURBOCHARGER, conversion PACKAGE, 701 136 C92) (Consists of the following parts -
1	900 017 C91	HOUSING, compressor
2	900 030 C1	LOCK NUT, wheel
3	900 032 C1	WHEEL, compressor
4	900 116 C1	SHIM, compressor wheel (.002") (X)
4	900 012 C1	SHIM, compressor wheel (.005") (X)
4	900 115 C1	SHIM, compressor wheel (.010") (X)
5	900 316 C1	"O" RING, brake housing
6	900 022 C2	SCREW (6)
7		HOUSING, piston (Not Furnished Separately)
8	900 078 C1	WASHER, belleville spring
9	900 083 C1	PISTON, brake
10	900 080 C1	"O" RING, piston
11	900 079 C1	"O" RING, brake cover
12	900 019 C2	GASKET, brake cover
13	900 074 C2	PLATE, brake cover
13A	900 081 C2	SCREW (3)
14	900 020 C2	GASKET, brake
15	900 010 C1	RING, piston type seal (12)
16	900 029 C1	SLINGER, seal
17	900 021 C1	SCREW (3)
18	900 046 C92	BEARING, thrust
19	900 318 C1	SPACER, oil deflector (used on HOUSING, 900 016 C93)
20	900 003 C1	RETAINER, compressor housing (saw-cut)
21	900 028 C1	WASHER, thrust ring
22	900 009 C1	BEARING, core housing (2)
23	868 442 R1	RING, bearing retainer (2)
24	900 018 C1	"O" RING, cover
25	900 016 C94	HOUSING w/SLEEVE AND SPACER, bearing support
26	900 158 C1	SHIM, backplate (.005") (X)
26	900 159 C1	SHIM, backplate (.010") (X)
26	900 160 C1	SHIM, backplate (.020") (X)
27	900 014 C1	BACKPLATE, turbine
28	900 023 C91	WHEEL, turbine
29	900 005 C1	RING, turbine nozzle
30	900 007 C1	HOUSING, turbine
31		SCREW, 5/16 x 3-1/4" hex-hd cap (8)
32		WASHER, 11/32 x 11/16 x 16 ga (8)
33	900 096 C1	VALVE, control *
34	900 098 C1	SHIELD, control valve (2) *
35	900 099 C1	GASKET, shield *
36	900 100 C1	RING, piston wiper *
37	900 086 C91	HOUSING w/BUSHING, control *
	900 041 C1	NUT (2) * 3/8 x 1-1/2" hex-hd SCREW (2) *
38	900 092 C91	PISTON, control *
39	900 336 C1	RING, piston *



TURBOCHARGER

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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TURBOCHARGER - CONTINUED

(Solar) (Model TC-4A)

TD-20BPM 3091 to 4076 except 3992 to 4066 and 4075

TD-20BPSM 3091 to 4076 except 3992 to 4066 and 4075

40	900 101 C1	GASKET, cover *
41	900 110 C1	SPRING, piston *
42	900 105 C1	SCREW, control adjusting *
43	900 104 C1	SPRING, control adjusting *
44	900 103 C1	BALL, control adjusting *
45		DOWEL (Not Furnished Separately) *
46	900 106 C91	COVER w/DOWEL, control *
	900 108 C1	BOLT (6) *
	900 107 C1	WASHER (6) *
47	900 071 C92	BRAKE ASSY, compressor wheel includes Ref. Nos. 5 to 13A)
48	900 085 C91	CONTROL ASSY, waste gate (includes Ref. Nos. 33 to 46 inclusive) *
49	900 164 C1	RING, adapter
50	900 165 C1	GASKET, adapter
51	900 166 C1	GASKET, adapter
52	900 163 C1	ADAPTER, turbine housing
	900 041 C1	NUT, 3/8" lock (2) 3/8 x 1-1/4" hex-hd cap SCREW (2)
	900 305 C91	CORE ASSY, replaceable (order conversion service PACKAGE, 701 136 C92)
	701 136 C92	PACKAGE, turbo conversion service (Solar to Airesearch) TD-20BPM 3091 to 4757 TD-20BPSM 3091 to 4757 (Consists of -
	2	CLAMP 615 139 C1
	2	CLAMP 274 087 R91
	2	CLAMP 309 693 R91
	1	CLIP 328 990 R1
	1	GASKET 253 660 R1
	6	GASKET 315 791 R1
	1	GASKET 670 073 C1
	1	GASKET 670 079 C1
	1	HOSE 219 344 R1
	1	HOSE 601 145 C1
	1	HOSE 670 040 C1
	1	MANIFOLD 670 081 C1
	4	NUT 304 451 R1
	1	PAMPHLET, installation 1 085 318 R1
	1	PLUG 444 576
	2	PLUG 444 577
	1	SEAL 347 184 R91
	1	SEAL 702 299 C1
	1	SLEEVE 277 737 R1
	1	SLEEVE 670 080 C1
	1	TUBE 670 084 C1
	1	TUBE 701 133 C1
	1	TUBE 701 134 C1
	1	TUBE 701 135 C1
	1	TURBOCHARGER 702 300 C91)

* - On Orders For Waste Gate CONTROL ASSY (Ref. No. 48) Or Component Parts (Ref. Nos. 33 Thru 46) Furnish The Following Parts:

1	ADAPTER	900 163 C1
1	GASKET	900 165 C1
1	GASKET	900 166 C1
1	RING	900 164 C1
2	NUT	900 041 C1
2	SCREW, 3/8 x 1-1/4" hex-hd)	

§ - Not Furnished Separately.
X - As Required.

TURBO-CHARGER

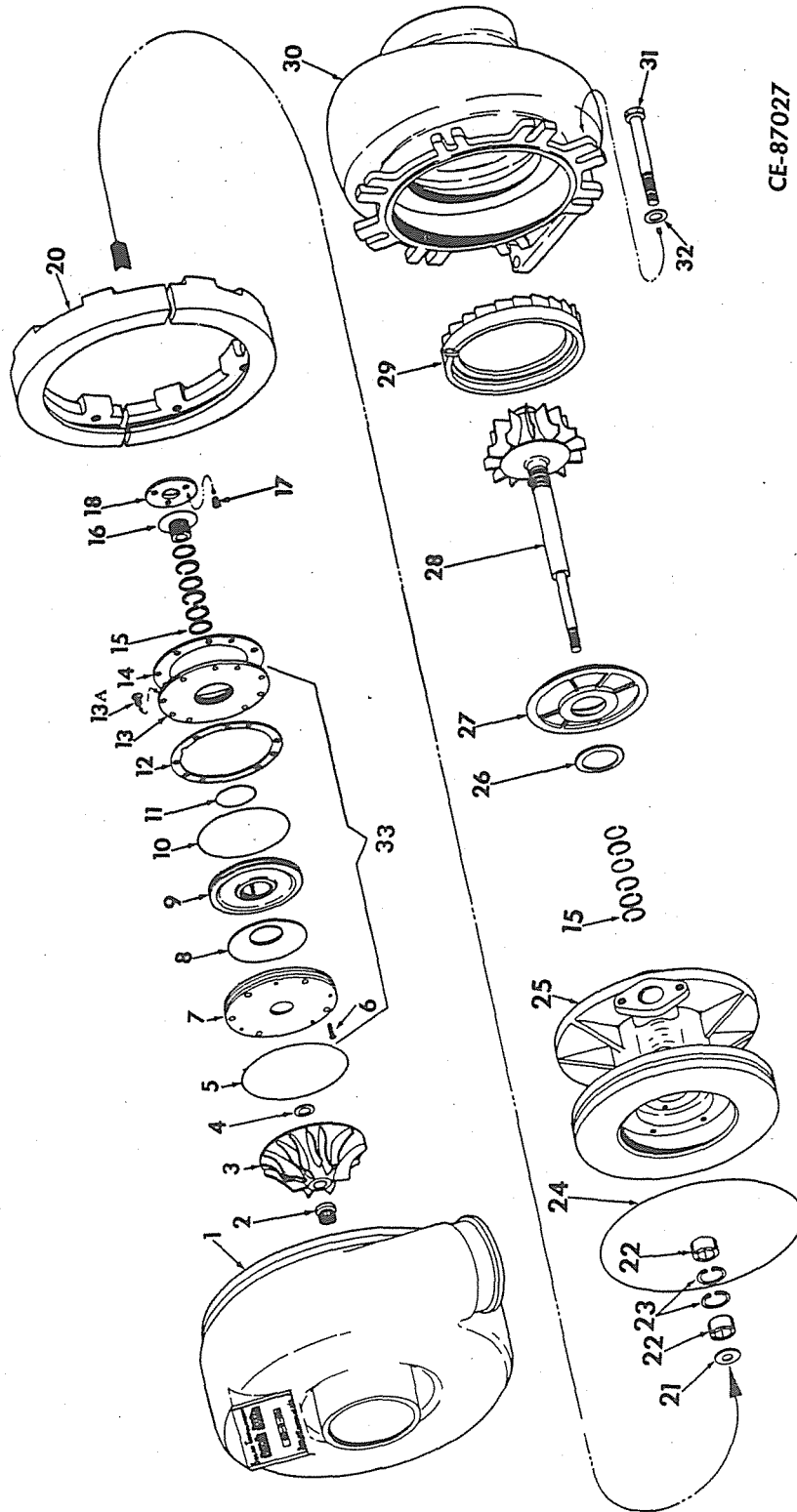


TURBOCHARGER
 (Solar) (Model TC-4K)
 TD-20BPM 4077 to 4757 also 3992 to 4066 and 4075
 TD-20BPSM 4077 to 4757 also 3992 to 4066 and 4075

TURBO-CHARGER



TURBOCHARGER - CONTINUED
 (Solar) (Model TC-4K)
 TD-20BPM 4077 to 4757 also 3992 to 4066 and 4075
 TD-20BPSM 4077 to 4757 also 3992 to 4066 and 4075



CE-87027



TURBOCHARGER

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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TURBOCHARGER - CONTINUED

(Solar) (Model TC-4K)
 TD-20BPM 4077 to 4757 also 3992 to 4066 and 4075
 TD-20BPSM 4077 to 4757 also 3992 to 4066 and 4075

	900 327 C91	TURBOCHARGER ASSY (order TURBOCHARGER, CONVERSION PACKAGE, 701 136 C92) (Consists of the following parts -
1	900 333 C91	HOUSING, compressor
2	900 030 C1	LOCK NUT, wheel
3	900 331 C1	WHEEL, compressor
4	900 116 C1	SHIM, compressor wheel (.002") (X)
4	900 012 C1	SHIM, compressor wheel (.005") (X)
4	900 115 C1	SHIM, compressor wheel (.010") (X)
5	900 316 C1	"O" RING, brake housing
6	900 022 C2	SCREW (6)
7		HOUSING, piston (Not Furnished Separately)
8	900 078 C1	WASHER, belleville-spring
9	900 083 C1	PISTON, brake
10	900 080 C1	"O" RING, piston
11	900 079 C1	"O" RING, brake cover
12	900 019 C2	GASKET, brake cover
13	900 074 C2	PLATE, brake cover
13A	900 081 C2	SCREW (3)
14	900 020 C2	GASKET, brake
15	900 010 C1	RING, piston type seal (12)
16	900 029 C1	SLINGER, seal
17	900 021 C1	SCREW (3)
18	900 046 C92	BEARING, thrust
20	900 003 C1	RETAINER, compressor housing (saw-cut)
21	900 028 C1	WASHER, thrust ring
22	900 009 C1	BEARING, core housing (2)
23	868 442 R1	RING, bearing retainer (2)
24	900 018 C1	"O" RING, cover
25	900 016 C94	HOUSING w/SLEEVE and SPACER, bearing support
26	900 158 C1	SHIM, backplate (.005") (X)
26	900 159 C1	SHIM, backplate (.010") (X)
26	900 160 C1	SHIM, backplate (.020") (X)
27	900 014 C1	BACKPLATE, turbine
28	900 023 C91	WHEEL, turbine
29	900 328 C1	RING, turbine nozzle
30	900 007 C1	HOUSING, turbine
31		SCREW, 5/16 x 3-1/4" hex-hd cap (8)
32		WASHER, 11/32 x 11/16" x 16 ga (8)



TURBOCHARGER

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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TURBOCHARGER - CONTINUED

(Solar) (Model TC-4K)
 TD-20BPM 4077 to 4757 also 3992 to 4066 and 4075
 TD-20BPSM 4077 to 4757 also 3992 to 4066 and 4075

33	900 071 C92	BRAKE ASSY, compressor wheel (Includes Ref. Nos. 5 to 13A)
	900 340 C91	CORE ASSY, replaceable (order conversion service PACKAGE, 701 136 C92)
	701 136 C92	PACKAGE, turbo conversion service (Solar to Airesearch) TD-20BPM 3091 to 4757 TD-20BPSM 3091 to 4757 (Consists of -
		2 CLAMP 615 139 C1
		2 CLAMP 274 087 R91
		2 CLAMP 309 693 R91
		1 CLIP 328 990 R1
		1 GASKET 253 660 R1
		6 GASKET 315 791 R1
		1 GASKET 670 073 C1
		1 GASKET 670 079 C1
		1 HOSE 219 344 R1
		1 HOSE 601 145 C1
		1 HOSE 670 040 C1
		1 MANIFOLD 670 081 C1
		4 NUT 304 451 R1
		1 PAMPHLET, installation 1 085 318 R1
		1 PLUG 444 576
		2 PLUG 444 577
		1 SEAL 347 184 R91
		1 SEAL 702 299 C1
		1 SLEEVE 277 737 R1
		1 SLEEVE 670 080 C1
		1 TUBE 670 084 C1
		1 TUBE 701 133 C1
		1 TUBE 701 134 C1
		1 TUBE 701 135 C1
		1 TURBO-CHARGER 702 300 C91)

X - As Required.



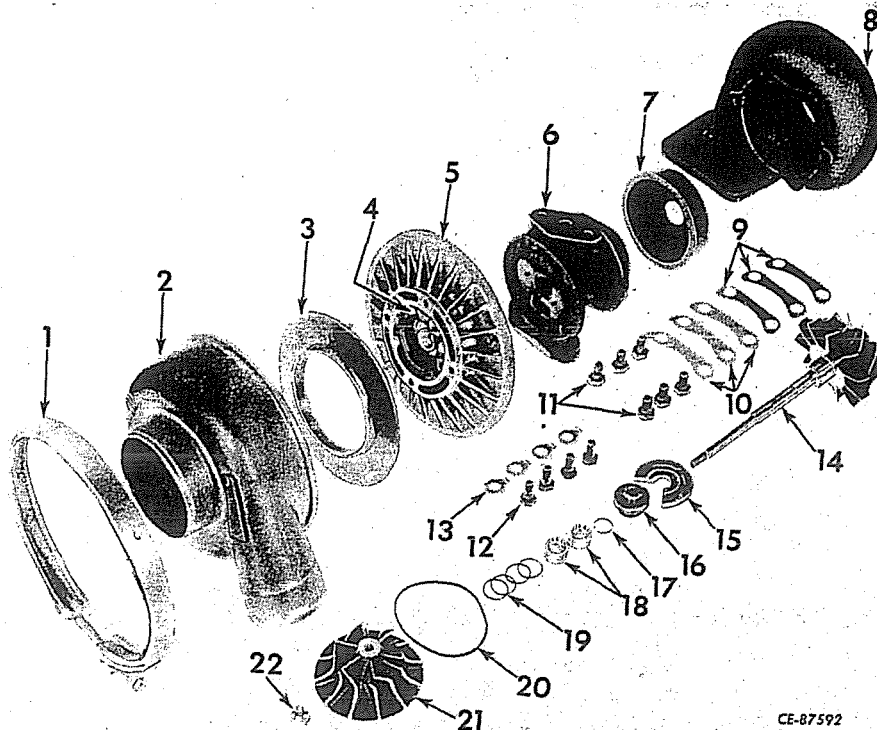
TURBOCHARGER

TURBOCHARGER
 (Airesearch) (Model TO-576)
 TD-20BPM 4758 up
 TD-20BPSM 4758 up



TURBOCHARGER

TURBOCHARGER - CONTINUED
 (Airesearch) (Model TO-476)
 TD-20BPM 4758 up
 TD-20BPSM 4758 up



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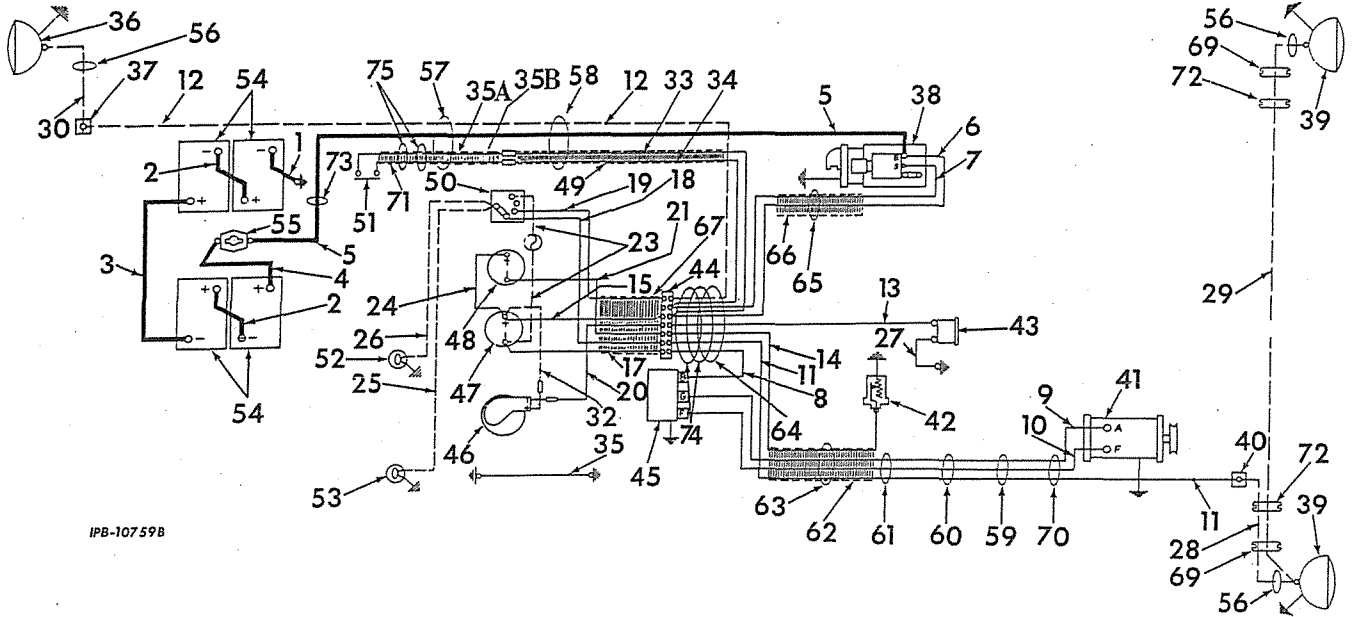
REF. NO.	I. H. PART NUMBER	DESCRIPTION
	702 300 C91	TURBOCHARGER ASSY (Consists of the following parts -
1	702 327 C91	CLAMP "V" Band (400500-600)
2	619 377 C1	HOUSING, compressor (47324-7) (together with WHEEL 619 376 C1 and DIFFUSER 619 378 C1, will work for HOUSING 615 736 C1)
3	619 378 C1	DIFFUSER, compression side (407325-7) (together with WHEEL 619 376 C1 and HOUSING 619 377 C1, will work for DIFFUSER 615 937 C1)
4	615 747 C1	SPRING, thrust collar (406765-2)
5	615 744 C1	BACKPLATE, impeller (407088)
6	702 330 C1	HOUSING, center (order HOUSING, 702 626 C1, WHEEL and SHAFT, 702 625 C1 and RING, 619 010 C1)
6	702 626 C1	HOUSING, center (407285-4) (together with WHEEL and SHAFT, 702 625 C1 and RING, 619 010 C1, will work for HOUSING, 702 330 C1)
7	615 743 C1	SHROUD, turbine wheel (407069)
8	615 738 C1	HOUSING, turbine (407263-33)
9	615 740 C1	PLATE, housing clamp (406908-1) (3)
10	615 739 C1	PLATE, housing lock (406909) (3)
11		SCREW, 5/16 x 1/2" hex-hd cap (6)
12		SCREW, 1/4 x 5/8" hex-hd cap (4)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
13	625 675 C1	PLATE, backplate lock (407684) (2)
14	703 329 C1	WHEEL and SHAFT, turbine (order WHEEL and SHAFT, 702 625 C1, HOUSING, 702 626 C1 and RING, 619 010 C1)
14	702 625 C1	WHEEL and SHAFT, turbine (407276-6) (together with HOUSING, 702 626 C1 and RING, 619 010 C1, will work for WHEEL and SHAFT, 702 329 C1)
15	615 748 C1	BEARING, thrust (406907)
16	615 745 C1	COLLAR, thrust (406906)
17	615 746 C1	RING, thrust piston (403818-9)
18	615 749 C1	BEARING, housing journal (406902) (2)
19	21 519 R1	RING, retainer (400227) (4)
20	343 847 R1	RING, backplate seal (400424)
21	619 376 C1	WHEEL, impeller (407323-7) (together with HOUSING 619 377 C1 and DIFFUSER 619 378 C1, will work for WHEEL 615 742 C1)
22	615 741 C1	NUT, impeller lock (400544)
	702 861 C91	CENTER HOUSING and ROTATING ASSY (includes Ref. Nos. 4 thru 7 and 12 thru 22) (407439-137) (together with 619 377 C1 HOUSING and 619 378 C1 DIFFUSER, will work for CENTER HOUSING and ROTATING ASSY, 702 328 C92)
	619 010 C1	RING, turbine shaft (403818-10)



ELECTRICAL SYSTEM

ELECTRIC STARTING AND LIGHTING
TD-20BP 4001 to 5322



IPB-10759B

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	334 601 R91	STRAP, negative terminal on battery to ground
2	253 738 R91	CABLE, battery to battery (short) (2)
3	337 698 R91	CABLE, battery to battery (long)
4	325 583 R91	CABLE, battery to master switch
5	334 602 R91	CABLE, master switch to "B" terminal on solenoid
6		CABLE, terminal strip to "B" terminal on solenoid (red) (order 325 860 R91)
7		CABLE, terminal strip to "S" terminal on solenoid (violet) (order 325 860 R91)
8	358 584 R91	CABLE, terminal strip to "B" terminal on regulator
9		CABLE, "A" terminal on generator to "G" terminal on regulator (brown) (order 334 761 R91)
10		CABLE, "F" terminal on generator to "F" terminal on regulator (blue) (order 334 761 R91)
11		CABLE, terminal strip to front light junction block (green) (order 334 761 R91)
12	358 581 R91	CABLE, terminal strip to rear light junction block
13	341 873 R91	CABLE, terminal strip to hour meter pressure switch
14		CABLE, terminal strip to torque converter oil temperature sending unit (orange) (order 334 761 R91)
15		CABLE, terminal strip to positive (+) terminal on ammeter (red) (order 334 759 R91)



ELECTRICAL SYSTEM

ELECTRIC STARTING AND LIGHTING - CONTINUED
TD-20BP 4001 to 5322

REF. NO.	I. H. PART NUMBER	DESCRIPTION
17		CABLE, terminal strip to negative (-) terminal on ammeter (pink) (order 334 759 R91)
18		CABLE, terminal strip to light switch (front light) (green) (order 334 759 R91)
19		CABLE, terminal strip to light switch (rear light) (white) (order 334 759 R91)
20		CABLE, terminal strip to negative (-) terminal on hourmeter (yellow) (order 334 759 R91)
21		CABLE, terminal strip to torque converter oil temperature gauge (orange) (order 334 759 R91)
23	275 276 R91	HOUSING w/two CABLES, fuse (negative terminal on ammeter to light switch)
24	62 859 D	CABLE, positive (+) terminal on ammeter to torque converter oil temperature gauge)
25		CABLE, light switch to RH instrument panel light (part of LIGHT, 327 118 R91)
26		CABLE, light switch to LH instrument panel light (part of LIGHT, 327 117 R91)
27	341 874 R91	CABLE, hourmeter pressure switch to ground (also listed with "Electric Hourmeter")
28	358 111 R92	CABLE, junction block to RH front light
29	358 118 R92	CABLE, RH to LH front light
30	62 862 D	CABLE, rear light junction block to rear light
32	267 811 R91	CABLE, positive (+) terminal on ammeter to positive (+) terminal on hourmeter



ELECTRICAL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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ELECTRIC STARTING AND LIGHTING - CONTINUED
TD-20BP 5001 to 5322

33		CABLE, starting switch to terminal strip (red) (order 338 058 R91)
34		CABLE, starting switch to terminal strip (violet) (order 338 058 R91)
35	341 935 R91	CABLE, instrument panel grounding No. 10 NUT (2) No. 10 x 3/4" hex-hd cap SCREW No. 10 lock WASHER No. 10 internal and external tooth lock WASHER (2)
35A		CABLE, starting switch to connector (red) (order 338 057 R91)
35B		CABLE, starting switch to connector (violet) (order 338 057 R91)
36		LIGHT ASSEMBLY, rear light (Hobbs MI-2705) (for components see list of parts under details of "Headlight and Rear Light") 1/2" NUT 1/2" lock WASHER WASHER, light upper WASHER, light lower
	330 717 R1	
	330 718 R1	
37	42 915 D	BLOCK, rear light junction (mount on LH seat side sheet SPACER, junction block No. 10NF NUT No. 10NF x 1" slt-rd-hd mach SCREW No. 10 lock WASHER
	354 260 R1	
38		MOTOR, cranking (for components see list of parts under details of "Cranking Motor") 5/8 x 1-1/2" hex-hd cap SCREW (3) 5/8" lock WASHER (3)
39		LIGHT ASSEMBLY, headlight (Hobbs MI-2705) (for components see list of parts under details of "Headlights and Rear Lights") (2) 1/2" NUT (2) 1/2" lock WASHER (2) WASHER, light upper (2) WASHER, light lower (2)
	330 717 R1	
	330 718 R1	
40	42 915 D	BLOCK, front light junction (mount on fan shroud) SPACER, junction block No. 10NF NUT No. 10 x 1" slt-rd-hd mach SCREW No. 10 lock WASHER
	354 260 R1	
41		GENERATOR ASSEMBLY (24 volt) (for components see list of parts under details of "Generator")
42		UNIT, torque converter oil temperature sending (also listed with "Instruments and Instrument Panel")
43	132 244 R91	SWITCH, pressure (also listed with "Electric Hourmeter")
44	324 788 R91	STRIP, feed through terminal No. 8 NUT No. 8 x 3/8" slt-rd-hd mach SCREW (3) No. 8 x 7/8" slt-rd-hd mach SCREW No. 8 lock WASHER (4) No. 8 internal-tooth lock WASHER



ELECTRICAL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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ELECTRIC STARTING AND LIGHTING - CONTINUED
TD-20BP 4001 to 5322

45		REGULATOR ASSEMBLY, voltage (24 volt) (for components see list of parts under details of "Voltage Regulator") 1/4 x 1-1/8" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
46	610 821 C91	HOURLMETER (also listed with "Hourmeter")
47	702 284 C1	AMMETER (also listed with "Instruments and Instrument Panel")
48		GAUGE, torque converter oil temperature. (also listed with "Instruments and Instrument Panel")
49	338 058 R91	HARNES, starting switch cable (on dash)
50		SWITCH, lighting (for components see list of parts under details of "Lighting Switch") 11/16" internal-tooth lock WASHER
51	334 702 R91	SWITCH, starting safety TD-20BP 4001 to 5322 (Order the following parts - 1 BUTTON 604 838 C11 1 SPRING 604 840 C1 1 SUPPORT 700 392 C1 1 SUPPORT 604 841 C91 1 SWITCH 700 395 C91 5/8" internal tooth lock WASHER
52		LIGHT, LH instrument panel (order PACKAGE, 603 467 C91)
53		LIGHT, RH instrument panel (order PACKAGE, 603 467 C91)
54		BATTERY, dry charged (12 volt) (Prestolite 4-A9Y-CD)
55		SWITCH, master (for components see list of parts under details of "Master Switch") 1/4" NUT 1/4 x 3/4" hex-hd cap SCREW 1/4" lock WASHER
56	263 514 R91	CLIP, light cable (mount on light bracket bolt) (3)
57	278 688 R1	CLIP, master switch cable (on LH bolt seat frame support crossbar)
58	278 688 R1	CLIP, starting master cable harness (on LH upper bolt securing torque converter housing)
59	362 120 R1	CLIP (on generator bracket lower mounting bolt)
60	362 120 R1	CLIP (on front bottom bolt of engine tappets rear cover)
61	362 120 R1	CLIP (on rear bottom bolt of engine tappets rear cover)
62	334 761 R91	HARNES, regulator to generator
63	263 717 R91	CLIP (on RH front bolt of power take-off cover)
64	263 716 R91	CLIP (on dash inner bolt of pressure tubes clamp)



ELECTRICAL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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ELECTRIC STARTING AND LIGHTING - CONTINUED TD-20BP 4001 to 5322

65	263 717 R91	CLIP (on LH front bolt of pwer take-off cover)
66	325 860 R91	HARNESS, cranking motor
67	334 759 R91	HARNESS, instrument panel (less Ref. Nos. 33, 34, and 49)
69	338 065 R1	GROMMET, front light calbe (on radiator guard top) (2)
70	362 120 R1	CLIP (on generator rear mounting bolt)
71	338 057 R92	HARNESS, safety switch cable
72	59 995 R1	GROMMET, front light cable (on radiator guard top rear stiffener) (2)
73	308 581 R1	CLIP, master switch cable
74		CLIP (welded) (Not Furnished Separately)
75		CLIP, (welded) (Not Furnished Separately)
	337 555 R91	ATTACHMENT, electric lighting (see NOTE 3) (Composed of -
	2	BLOCK 42 915 D
	3	BRACKET 331 145 R91
	1	CABLE 358 111 R92
	1	CABLE 358 118 R92
	1	CABLE 358 581 R91
	1	CABLE 62 862 D
	3	CLIP 263 514 R91
	1	FUSE 120 151
	1	GROMMET 109 390
	2	GROMMET 59 995 R1
	2	GROMMET 338 065 R1
	1	HOUSING 275 276 R91
	1	KNOB 373 326 R1
	§ 2	LIGHT, panel
	3	LIGHT 327 189 R91
	1	NUT 57 312 D
	1	SCREW 373 327 R1
	2	SPACER 354 260 R1
	1	SWITCH (Delco-Remy No. 1994053)
	3	WASHER 330 717 R1
	3	WASHER 330 718 R1)
	142 450	BULB, instrument panel (12 volt)
	193 093	BULB, instrument panel (24 volt)
	120 151	FUSE, lighting switch (15 amp)
	109 390	GROMMET, rear light cable (on fuel tank support cover)
	341 859 R1	GROMMET, starting safety switch harness (on LH side of front frame)
	603 467 C91	PACKAGE, panel light field service (less bulbs) (Consists of DASH LIGHT, WASHER, 273 405 R1, and GROMMET, 273 406 R1) (X)
	273 406 R1	GROMMET, panel light mounting
	273 405 R1	WASHER, panel light mounting

§ - Not Furnished Separately.

X - As Required.

NOTE 3 - Field Application - Order Through Regular Service Parts Channels.

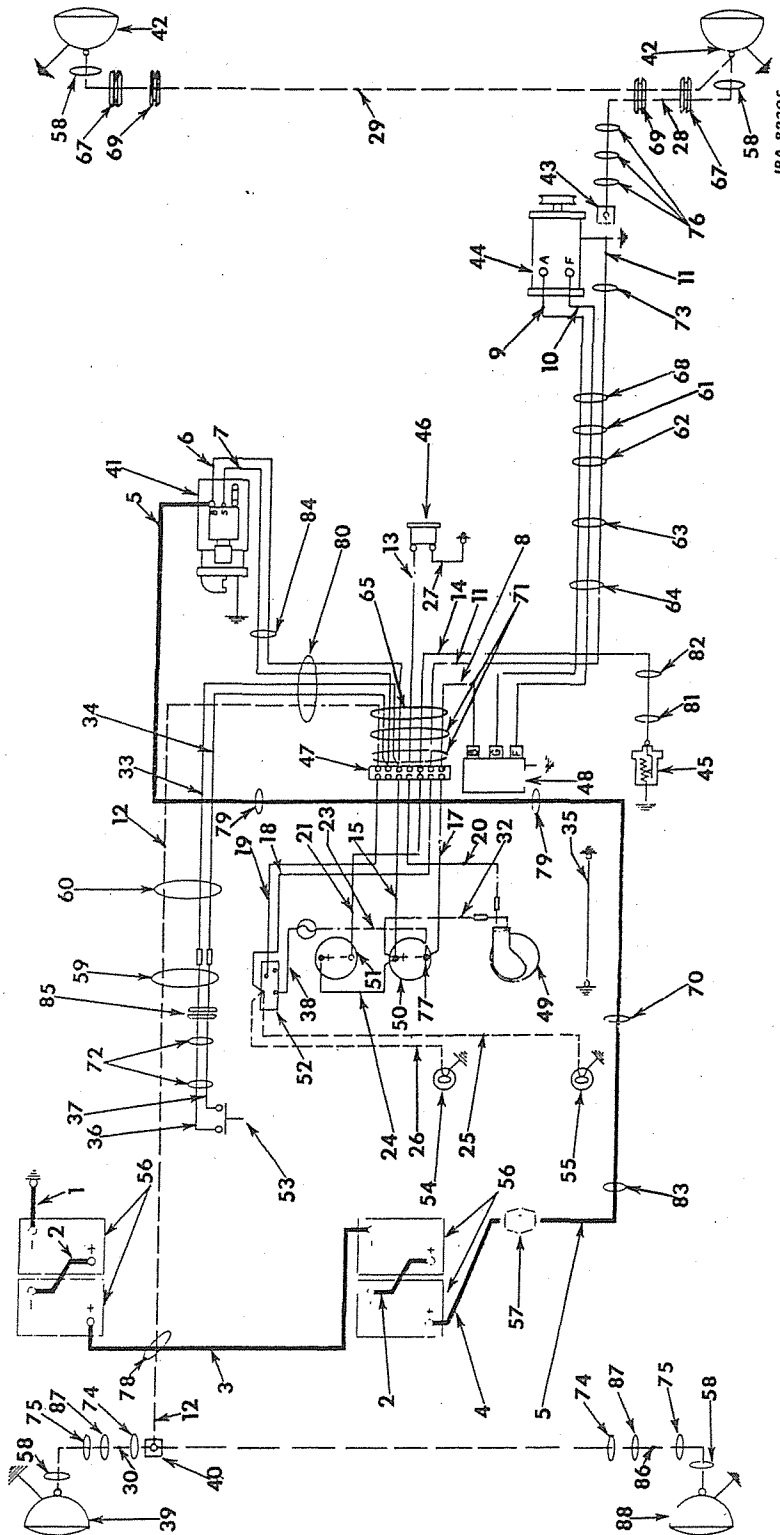


MEMORANDA



ELECTRICAL SYSTEM

ELECTRIC STARTING AND LIGHTING
TD-20BP 5323 to 22994
TD-20BPS 6110 to 22994



ELECTRICAL SYSTEM

ELECTRIC STARTING AND LIGHTING - CONTINUED
TD-20BP 5323 to 22994
TD-20BPS 6110 to 22994



ELECTRICAL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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ELECTRIC STARTING AND LIGHTING - CONTINUED
 TD-20BP 5323 to 22994
 TD-20BPS 6110 to 22994

1	334 601 R91	STRAP, negative terminal on battery to ground
2	253 738 R91	CABLE, battery to battery (short) (2)
3	337 698 R91	CABLE, battery to battery (long)
4	345 583 R91	CABLE, battery to master switch
5	345 582 R91	CABLE, master switch to "B" terminal on solenoid
6		CABLE, terminal strip to "B" terminal on solenoid (red) (order 325 860 R91)
7		CABLE, terminal strip to "S" terminal on solenoid (violet) (order 325 860 R91)
8	358 584 R91	CABLE, terminal strip to "B" terminal on regulator
9		CABLE, "A" terminal on generator to "G" terminal on regulator (brown) (order 334 761 R91)
10		CABLE, "F" terminal on generator to "F" terminal on regulator (blue) (order 334 761 R91)
11		CABLE, terminal strip to front light junction block (green) (order 334 761 R91)
12	358 581 R91	CABLE, terminal strip to rear light junction block
13	341 873 R91	CABLE, terminal strip to hourmeter pressure switch (yellow)
14		CABLE, terminal strip to torque converter oil temperature sending unit (orange) (order 334 761 R91)
15		CABLE, terminal strip to positive (+) terminal on ammeter (red) (order 334 759 R91)
17		CABLE, terminal strip to negative (-) terminal on ammeter (pink) (order 334 759 R91)
18		CABLE, terminal strip to light switch (front light) (green) (order 334 759 R91)
19		CABLE, terminal strip to light switch (rear light) (white) (order 334 759 R91)
20		CABLE, terminal strip to negative (-) terminal on hourmeter (yellow) (order 334 759 R91)
21		CABLE, terminal strip to torque converter oil temperature gauge (orange) (order 334 759 R91)
23	604 892 C91	CABLE, negative (-) terminal on ammeter to fuse housing
24	604 871 C91	CABLE, positive (+) terminal on ammeter to torque converter oil temperature gauge (used with temperature GAUGE, 336 125 R92)
24	611 487 C91	CABLE, positive (+) terminal on ammeter to torque converter oil temperature gauge (used with temperature GAUGE, 610 720 C91)
25		CABLE, light switch to RH instrument panel light (part of panel light)
26		CABLE, light switch to LH instrument panel light (part of panel light)
27	341 874 R91	CABLE, hourmeter pressure switch to ground (also listed with "Electric Hourmeter")



ELECTRICAL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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ELECTRIC STARTING AND LIGHTING - CONTINUED
 TD-20BP 5323 to 22994
 TD-20BPS 6110 to 22994

28	358 111 R92	CABLE, junction block to RH front light
29	358 118 R92	CABLE, RH to LH front light
30	62 862 D	CABLE, rear light junction block to rear light
32	267 811 R91	CABLE, positive (+) terminal on ammeter to positive (+) terminal on hourmeter
33		CABLE, starting switch to terminal strip (red) (order 338 058 R91)
34		CABLE, starting switch to terminal strip (violet) (order 338 058 R91)
35	341 935 R91	CABLE, instrument panel grounding No. 10 x 3/4" hex-hd cap SCREW No. 10 NUT (2) No. 10 lock WASHER No. 10 internal external tooth lock WASHER (2)
36		CABLE, starting switch to connector (red) (order 338 057 R92)
37		CABLE, starting switch to connector (violet) (order 338 057 R92)
38	604 893 C91	CABLE, fuse housing to light switch
39		LIGHT ASSY, rear light (Hobbs MI-2705) (for components see list of parts under details of "Headlight and Rear Light") 1/2NF NUT 1/2" lock WASHER WASHER, light upper WASHER, light lower
40	42 915 D	BLOCK, rear light junction (mount on LH seat side sheet)
	354 260 R1	SPACER, junction block No. 10NF NUT No. 10NF x 1" slt-rd-hd mach SCREW No. 10 lock WASHER
41		MOTOR, cranking (for components see list of parts under details of "Cranking Motor") 5/8 x 1-1/2" hex-hd cap SCREW (3)
42		LIGHT ASSY, headlight (Hobbs MI-2705) (for components see list of parts under details of "Headlights and Rear Lights") (2) 1/2NF NUT (2) 1/2" lock WASHER (2) WASHER, light upper (2) WASHER, light lower (2)
	600 658 C1	
43	42 915 D	BLOCK, front light junction (mount on fan shroud)
	354 260 R1	SPACER, junction block No. 10NF NUT No. 10 x 1" slt-rd-hd mach SCREW No. 10 lock WASHER
44		GENERATOR ASSY (24 volt) (for components see list of parts under details of "Generator")
45		UNIT, torque converter oil temperature sending (also listed with "Instruments and Instrument Panel")
46	132 244 R91	SWITCH, pressure (also listed with "Electric Hourmeter")



ELECTRICAL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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ELECTRIC STARTING AND LIGHTING - CONTINUED

TD-20BP 5323 to 22994
TD-20BPS 6110 to 22994

47	324 788 R91	STRIP, feed through terminal No. 8 NUT No. 8 x 3/8" slit-rd-hd mach SCREW (3) No. 8 x 7/8" slit-rd-hd mach SCREW No. 8 lock WASHER (4) No. 8 internal-tooth lock WASHER
48		REGULATOR ASSY, voltage (24 volt) (for components see list of parts under details of "Voltage Regulator") 1/4 x 1-1/8" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
49	610 821 C91	HOURLMETER (also listed with "Hourmeter")
50	702 284 C1	AMMETER (also listed with "Instruments and Instrument panel")
51		GAUGE, torque converter oil temperature (also listed with "Instruments and Instrument Panel")
52	606 298 C91	SWITCH, lighting 7/16" internal-tooth lock WASHER
	606 299 C91	KNOB, lighting switch
53	334 702 R91	SWITCH, starting safety TD-20BP 5323 to 20702 TD-20BP 6110 to 20702 (Ordering the following parts - 1 BUTTON 604 838 C11 1 SPRING 604 840 C1 1 SUPPORT 700 392 C1 1 SUPPORT 604 841 C91 1 SWITCH 700 395 C91) 5/8" internal tooth lock WASHER
53	700 395 C91	SWITCH, starting safety 5/8" internal tooth lock WASHER TD-20BP 20703 up TD-20BPS 20703 up
54		LIGHT, LH instrument panel (order PACKAGE, 603 467 C91)
55		LIGHT, RH instrument panel (order PACKAGE, 603 467 C91)
56		BATTERY, dry charged (12 volt) (Prestolite 4-A9Y-CD)(Globe-Union) (4)
57		SWITCH, master (for components see list of parts under details of "Master Switch") 1/4" NUT 1/4 x 3/4" hex-hd cap SCREW 1/4" lock WASHER
58	263 514 R91	CLIP, light cable (mount on light bracket bolt) (4)
59	263 717 R91	CLIP, starting switch upper cables (on LH rear bolt of seat frame support cross bar)
60	362 120 R1	CLIP, starting switch lower cable (on bolt securing fuel lines clamp to LH fender)
61	362 120 R1	CLIP (on generator bracket top rear mounting bolt)
62	362 120 R1	CLIP (on top rear bolt of engine push rod front cover)
63	362 120 R1	CLIP (on third from front top bolt of engine push rod rear cover)



ELECTRICAL SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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ELECTRIC STARTING AND LIGHTING - CONTINUED

TD-20BP 5323 to 22994
TD-20BPS 6110 to 22994

64	362 120 R1	CLIP (on top rear bolt of engine push rod rear cover)
65	263 716 R91	CLIP (on dash inner bolt of pressure tubes clamp)
67	338 065 R1	GROMMET, front light cable (on radiator guard top) (2)
68	263 717 R91	CLIP (on generator rear mounting bolt)
69	59 995 R1	GROMMET, front light cable (on radiator guard top rear stiffener) (2)
70	616 282 C1	CLIP, master switch to cranking motor cable (on bottom bolt of brake pedal bracket)
71		CLIP (welded) (Not Furnished Separately)
73	366 460 R91	CLIP, front light cable (on RH front top stud of water pump)
74	362 120 R1	CLIP, rear light cable (on bottom bolt of seat side sheet) (2)
75	362 120 R1	CLIP, rear light cable (on top inner bolt of fuel tank) (2)
76	362 120 R1	CLIP, RH front light cable (on RH bottom, center and top fan shroud mounting bolt) (3)
77	604 872 C91	INSULATOR, negative (-) terminal on ammeter (on tractors w/o lighting)
78	278 688 R1	CLIP, battery to battery long cable (on LH bolt of battery box support channel)
78	263 717 R91	CLIP, terminal strip to rear light junction block cable (on LH bolt of battery box support channel)
79	604 388 C91	CLIP, master switch to cranking motor cable (on LH and RH upper bolts of torque converter housing and gear selector housing) (3)
80	263 717 R91	CLIP, starting switch and cranking motor cable harness (on LH front bolt of power take-off cover)
81	366 460 R1	CLIP, oil temperature sending unit to terminal strip cable (on RH upper bolt of torque converter housing)
82	263 717 R91	CLIP, oil temperature sending unit to terminal strip cable (on RH rear bolt of torque converter housing)
83	267 787 R91	CLIP, master switch to cranking motor cable (on RH bottom bolt of seat frame support cross bar)
84	267 788 R91	CLIP, solenoid to terminal strip cable (on rear bolt of engine oil filter header)
85	341 859 R1	GROMMET, starting safety switch harness (on LH side of front frame)
86	358 566 R91	CABLE, rear light junction block to RH rear auxiliary light (part of Attachment, 604 048 C91)
87	362 120 R1	CLIP, cable (on top rear bolt of seat side sheet) (2)
88	338 814 R91	LIGHT, auxiliary rear flood (part of Attachment, 604 048 C91) (optional with 327 189 R91)
88	327 189 R91	LIGHT, auxiliary rear flood (part of Attachment, 604 048 C91) (optional with 338 814 R91)



ELECTRICAL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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ELECTRIC STARTING AND LIGHTING - CONTINUED
 TD-20BP 5323 to 22994
 TD-20BPS 6110 to 22994

604 891 C91	ATTACHMENT, electric lighting (see NOTES 1 and 3)	
	(Composed of -	
2	BLOCK	42 915 D
3	BRACKET	331 145 R91
1	CABLE	358 111 R92
1	CABLE	358 118 R91
1	CABLE	358 581 R91
1	CABLE	62 862 D
1	CABLE	604 892 C91
1	CABLE	604 893 C91
3	CLIP	263 514 R91
1	CLIP	264 164 R91 (%)
6	CLIP	362 120 R1
1	CLIP	366 460 R1
1	FUSE	120 151
2	GROMMET	59 995 R1
1	GROMMET	109 390
2	GROMMET	338 064 R1 (%)
2	GROMMET	338 065 R1
1	HOUSING	376 852 R91
1	KNOB	606 299 C91
1	LIGHT	338 814 R91
§2	LIGHT, panel	
2	SPACER	354 260 R1
1	SWITCH	606 298 C91)
142 450	BULB, instrument panel (12 volt)	
193 093	BULB, instrument panel (24 volt)	
104 937	CORK, No. 1 (rear lamp mounting bracket bolt holes) (8)	
120 151	FUSE, lighting switch (part of Attachment, 604 891 C91)	
109 390	GROMMET, rear light cable (on fuel tank support cover) (part of Attachment, 604 891 C91)	
338 058 R91	HARNESS, starting switch cable (consists of Ref. Nos. 33 and 34)	
334 761 R91	HARNESS, regulator to generator (consists of Ref. Nos. 9, 10, 11 and 14)	
325 860 R91	HARNESS, cranking motor (consists of Ref. Nos. 6 and 7)	
334 759 R91	HARNESS, instrument panel (consists of Ref. Nos. 15, 17, 18, 19, 20 and 21)	
338 057 R92	HARNESS, safety switch cable (consists of Ref. Nos. 36 and 37)	
617 259 C1	GROMMET, harness	
603 467 C91	PACKAGE, panel light field service (less bulbs) (consists of DASH LIGHT, WASHER, 273 405 R1 and GROMMET, 273 406 R1) (X)	
273 406 R1	GROMMET, panel light mounting	
273 405 R1	WASHER, panel light mounting	

NOTE 1 - Factory Application - Order On Machine Order Form.

NOTE 3 - Field Application - Order Through Regular Service Parts Channels.

§ - Not Furnished Separately.

% - Not Used On the TD-20B.

X - As Required.

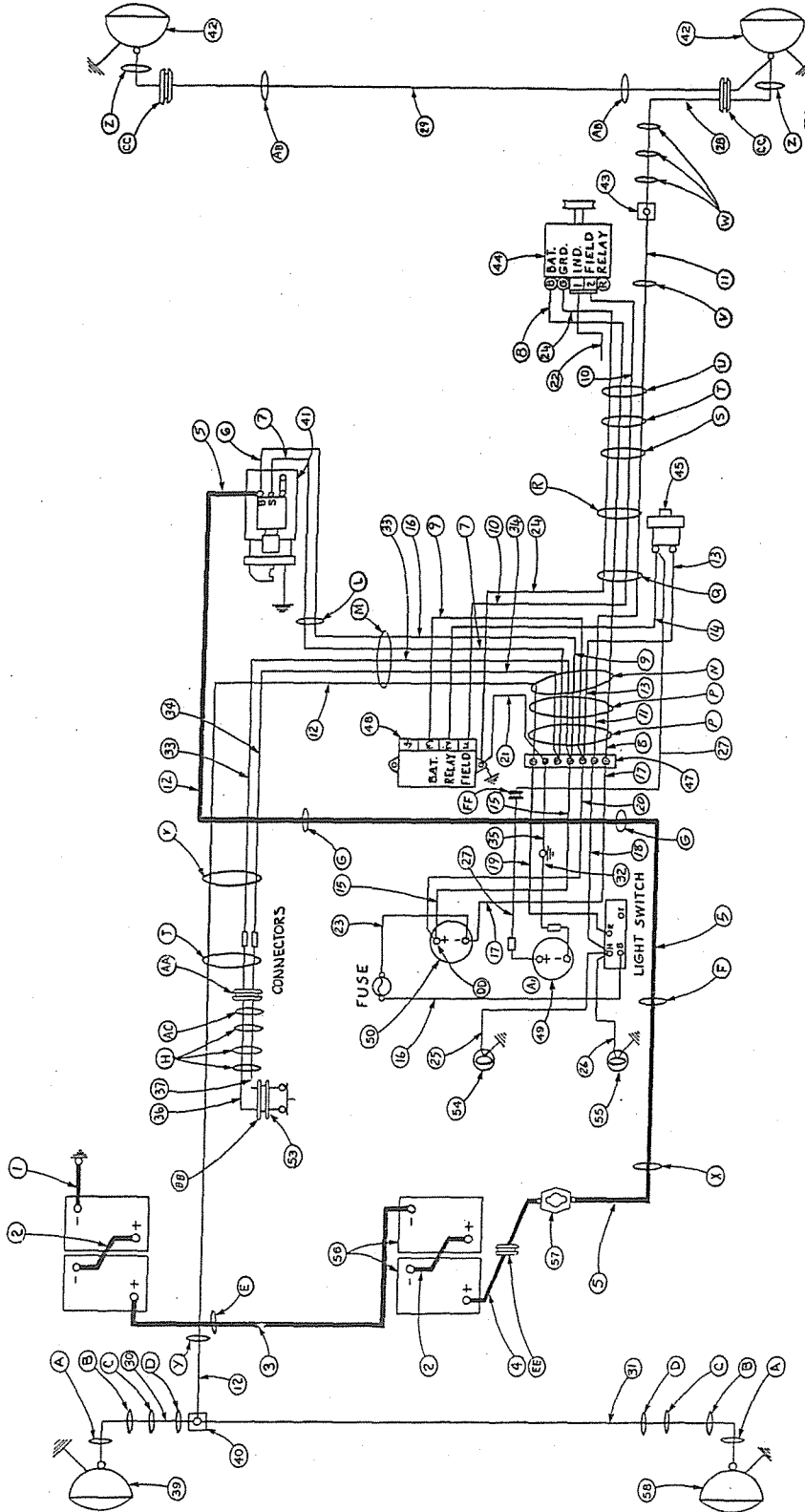


MEMORANDA



ELECTRICAL SYSTEM

ELECTRIC STARTING AND LIGHTING
TD-20BP 22995 up
TD-20BPS 22995 up



ELECTRICAL SYSTEM

ELECTRIC STARTING AND LIGHTING - CONTINUED
TD-20BP 22995 up
TD-20BPS 22995 up



ELECTRICAL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
ELECTRIC STARTING AND LIGHTING - CONTINUED		
TD-20BP 22995 up		
TD-20BPS 22995 up		
1	334 601 R91	STRAP, negative terminal on battery to ground
2	253 738 R91	CABLE, battery to battery (short) (2)
3	337 698 R91	CABLE, battery to battery (long)
4	345 583 R91	CABLE, battery to master switch
5	345 582 R91	CABLE, master switch to "B" terminal on solenoid
6		CABLE, terminal strip to "B" terminal on solenoid (red) (order HARNESS, 325 860 R91)
7		CABLE, terminal strip to "S" terminal on solenoid (white) (order HARNESS, 325 860 R91)
8		CABLE, terminal strip to "B" terminal on alternator (brown) (order HARNESS, 624 383 C1)
9		CABLE, "A" terminal on regulator to "G" terminal on regulator (orange) (order HARNESS, 624 383 C1)
10		CABLE, "F" terminal on regulator to "F" terminal on alternator (green) (order HARNESS, 624 383 C1)
11		CABLE, terminal strip to front light junction block (green) (order HARNESS, 624 383 C1)
12	358 581 R91	CABLE, terminal strip to rear light junction block
13		CABLE, terminal strip to engine oil pressure switch (yellow) (order HARNESS, 624 383 C1)
14		CABLE, No. 2 terminal strip on regulator to engine oil pressure switch (blue) (order HARNESS, 624 383 C1)
15		CABLE, terminal strip to positive (+) terminal on ammeter (red) (order HARNESS, 624 382 C1)
16		CABLE, fuse housing to "B" terminal on light switch (orange) (order HARNESS, 624 382 C1)
17		CABLE, terminal strip to negative (-) terminal on ammeter (brown) (order HARNESS, 624 382 C1)
18		CABLE, terminal strip to light switch (front light) (green) (order HARNESS, 624 382 C1)
19		CABLE, terminal strip to light switch (rear light) (blue) (order HARNESS, 624 382 C1)
20		CABLE, terminal strip to positive (+) terminal on hourmeter (yellow) (order HARNESS, 624 382 C1)
21		CABLE, terminal strip regulator L. H. mounting bolt (order HARNESS, 624 383 C1)
22		CABLE, No. 1 terminal on alternator to dummy cable (order HARNESS, 624 382 C1)
23	604 892 C91	CABLE, negative (-) terminal on ammeter to fuse housing
24		CABLE, "G" terminal on alternator to bolt on regulator (order HARNESS, 624 383 C1)



ELECTRICAL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
ELECTRIC STARTING AND LIGHTING - CONTINUED		
TD-20BP 22995 up		
TD-20BPS 22995 up		
25	327 117 R91	CABLE, light switch to L. H. instrument panel light
26	327 117 R91	CABLE, light switch to R. H. instrument panel light
27	271 066 R92	CABLE, positive on hourmeter to pressure switch
28	358 111 R92	CABLE, junction block to RH front light
29	358 111 R92	CABLE, RH to LH front light
30	62 862 D	CABLE, rear light junction block to rear light
31	358 566 R91	CABLE, rear lamp junction block to RH rear lamp
32	271 065 R91	CABLE, hourmeter to ground (on Instrument Panel)
33		CABLE, starting switch to terminal strip (red) (order HARNESS, 338 058 R91)
34		CABLE, starting switch to terminal strip (white) (order HARNESS, 338 058 R91)
35		CABLE, terminal strip to ground screw on panel
36		CABLE, starting switch to connector (order HARNESS, 338 057 R92)
37		CABLE, starting switch to connector (order HARNESS, 338 057 R92)
39		LIGHT ASSY, rear light (Hobbs MI-2705) (for components see list of parts under details of "Headlight and Rear Light") 1/2NF NUT 1/2" lock WASHER 330 717 R1 330 718 R1 WASHER, light upper WASHER, light lower
40	42 915 D	BLOCK, rear light junction (mount on LH seat side sheet)
	354 260 R1	SPACER, junction block No. 10NF NUT No. 10NF x 1" slt-rd-hd mach SCREW No. 10 lock WASHER
41		MOTOR, cranking (for components see list or parts under details of "Cranking Motor") 5/8 x 1-1/2" hex-hd cap SCREW (3)
42		LIGHT ASSY, headlight (Hobbs MI-2705) (for components see list of parts under details of "Headlights and Rear Lights") (2) 1/2NF NUT (2) 1/2" lock WASHER (2) 600 658 C1 WASHER, light upper (2) WASHER, light lower (2)
43	42 915 D	BLOCK, front light junction (mount on fan shroud)
	354 260 R1	SPACER, junction block No. 10NF NUT No. 10 x 1" slt-rd-hd mach SCREW No. 10 lock WASHER
44		ALTERNATOR ASSY (24 volt) (for components see list of parts under details of "Alternator")
45		UNIT, engine oil pressure switch
47	324 788 R91	STRIP, feed through terminal No. 8 NUT No. 8 x 3/8" slt-rd-hd mach SCREW (3) No. 8 x 7/8" slt-rd-hd mach SCREW No. 8 lock WASHER (4) No. 8 internal-tooth lock WASHER



ELECTRICAL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
ELECTRIC STARTING AND LIGHTING - CONTINUED TD-20BP 22995 up TD-20BPS 22995 up		
48		REGULATOR ASSY, voltage (24 volt) (for components see list of parts under details of "Voltage Regulator") 1/4 x 1" hex-hd cap SCREW (2) 1/4" lock WASHER (2)
49	610 821 C91	HOURMETER TD-20BP 22995 to 23053 TD-20BPS 22995 to 23053
49	624 552 C91	HOURMETER TD-20BP 23054 up TD-20BPS 23054 up
50	702 284 C1	AMMETER (also listed with "Instruments and Instrument panel")
52	606 298 C91	SWITCH, lighting
	606 299 C91	7/16" internal-tooth lock WASHER KNOB, lighting switch
53	700 395 C91	SWITCH, starting safety 5/8" internal tooth lock WASHER
54		LIGHT, LH instrument panel (order PACKAGE, 603 467 C91)
55		LIGHT, RH instrument panel (order PACKAGE, 603 467 C91)
56		BATTERY, dry charged (12 volt) (Prestolite 4-A9Y-CD) (4)
57		SWITCH, master (for components see list of parts under details of "Master Switch") 1/4" NUT 1/4 x 3/4" hex-hd cap SCREW 1/4" lock WASHER
58	338 814 R91	LIGHT, auxiliary rear flood (part of Attachment, 604 048 C91) (optional with 327 189 R91)
	327 189 R91	LIGHT, auxiliary rear flood (part of Attachment, 604 048 C91) (optional with 338 814 R91)
A.	263 514 R91	CLIP, light cable (mount on light bracket bolt) (4)
B.	362 120 R1	CLIP, on top inner bolt on front of fuel tank (2)
C.	362 120 R1	CLIP, on top of rear bolt of side sheet (2)
D.	362 120 R1	CLIP, on bottom rear bolt of seat side sheet
E.	278 688 R91	CLIP, on tapped block on LH bolt of battery box support channel
F.	616 282 C1	CLIP, on bottom bolt of brake pedal bracket
G.	604 388 R1	CLIP, (on RH and LH upper bolts on T. C. housing)
H.		CLIP, (welded) (not furnished separately)
J.	263 717 R91	CLIP, on LH rear bolt of seat frame support cross bar
K.	362 120 R1	CLIP, on bolt securing fuel lines clamp to LH fender
L.	267 788 R91	CLIP, on bolt of engine of engine oil filter header



ELECTRICAL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
ELECTRIC STARTING AND LIGHTING - CONTINUED TD-20BP 22995 up TD-20BPS 22995 up		
M.	263 717 R91	CLIP, on LH front bolt of P. T. O. cover
N.	263 716 R91	CLIP, on inner bolt of pressure tubes clamp on dash
P.		CLIP, (welded) (not furnished separately)
Q.	362 120 R1	CLIP, on top rear bolt of engine push rod rear cover
R.	362 120 R1	CLIP, top front bolt of engine push rod rear cover
S.	362 120 R1	CLIP, top rear bolt of engine push rod front cover
T.	362 120 R1	CLIP, on 2nd. from front to bolt of engine push rod front cover
U.	263 717 R91	CLIP, on alternator bracket rear mounting bolt
V.	366 460 R1	CLIP, on RH front top stud of water pump
W.	362 120 R1	CLIP, on RH bottom center and top fan shroud mounting bolts (3)
X.	267 787 R91	CLIP, on RH bottom bolt of seat frame support cross bar
Y.	263 717 R91	CLIP, on LH bolt of battery box support channel
Z.	263 717 R91	CLIP, on lamp swivel bolt (2)
AB.		CLIP, (welded) (not furnished separately)
AC.	604 388 C91	CLIP, between service cover and housing assy. of gear selector lower rear bolt
AD.	363 444 R1	CLIP, on upper mounting bolt of flang on oil cooler tube to flywheel housing
AA.	341 859 R1	GROMMET, on rear of LH side of frame
BB.	617 259 C1	GROMMET, on starting safety switch lock cam bracket
CC.	338 065 R1	GROMMET, on sides of radiator guard top header
	603 467 C91	PACKAGE, panel light field service (less bulbs) (consists of DASH LIGHT, WASHER, 273 405 R1 and GROMMET, 273 406 R1) (X)
	273 406 R1	GROMMET, panel light mounting
	273 405 R1	WASHER, panel light mounting
DD.	604 872 C91	GROMMET, insulator (on + terminal of ammeter)
EE.	112 745	GROMMET on RH side sheet
FF.	117 966	GROMMET, on dash (used w/T. C. oil temp. capillary tube)
	142 450	BULB, instrument panel (12 volt)
	193 093	BULB, instrument panel (24 volt)
	104 937	CORK, No. 1 (rear lamp mounting bracket bolt holes) (8)
	120 151	FUSE, lighting switch (part of Attachment, 604 891 C91)
	338 058 R91	HARNES, starting switch cable (consists of Ref. Nos. 33 and 34)
		X - As Required.



ELECTRICAL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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ELECTRIC STARTING AND LIGHTING - CONTINUED

TD-20BP 22995 up
TD-20BPS 22995 up

624 383 C1	HARNESS, regulator to generator (consists of Ref. Nos. 8, 9, 10, 11, 13, 14, 21, 22, and 24)	
325 860 R91	HARNESS, cranking motor (consists of Ref. Nos. 6 and 7)	
624 382 C1	HARNESS, instrument panel (consists of Ref. Nos. 15, 16, 17, 18, 19, 20 and 35)	
338 057 R92	HARNESS, safety switch cable (consists of Ref. Nos. 36 and 37)	
604 891 C91	ATTACHMENT, electric lighting (see NOTES 1 and 3)	
	(Composed of -	
2	BLOCK	42 915 D
3	BRACKET	331 145 R91
1	CABLE	358 111 R92
1	CABLE	358 118 R91
1	CABLE	358 581 R91
1	CABLE	62 862 D
1	CABLE	604 892 C91
1	CABLE	604 893 C91
3	CLIP	263 514 R91
1	CLIP	264 164 R91 (%)
6	CLIP	362 120 R1
1	CLIP	366 460 R1
1	FUSE	120 151
2	GROMMET	59 995 R1
1	GROMMET	109 390
2	GROMMET	338 064 R1 (%)
2	GROMMET	338 065 R1
1	HOUSING	376 852 R91
1	KNOB	606 299 C91
1	LIGHT	338 814 R91
§ 2	LIGHT, panel	
2	SPACER	354 260 R1
1	SWITCH	606 298 C91)

NOTE 1 - Factory Application - Order On Machine Order Form.

NOTE 3 - Field Application - Order Through Regular Service Parts Channels.

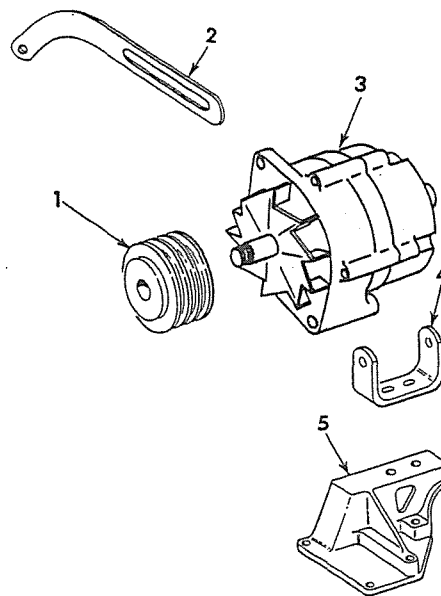
§ - Not Furnished Separately.
% - Not Used On The TD-20B.



ELECTRICAL SYSTEM

ALTERNATOR AND CONNECTIONS

TD-20 BPM 6295 up
TD-20BPSM 6295 up



CE-94644

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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1	670 739 C1	PULLEY, alternator
2	670 738 C1	BRACE, alternator 1/2 x 1-1/4" hex-hd cap SCREW 1/2" lock WASHER WASHER, flat
	200 835	
3		ALTERNATOR ASSY (for components see list of parts under details of "Alternator") 1/2 x 1-3/4" hex-hd cap SCREW (2) 1/2" NUT (2) 1/2" lock WASHER (2)
4	670 737 C1	BRACKET, alternator 1/2" lock WASHER (2) 1/2" NUT (2) 1/2 x 1-1/4" hex-hd cap SCREW
5	670 736 C1	BASE, alternator mounting 3/8 x 1-1/4" hex-hd cap SCREW (3) 3/8 x 2-1/4" hex-hd cap SCREW (2) 3/8" lock WASHER (5)
	670 741 C1	BELT, alternator
	263 717 R91	CLIP, cable harness
		MOTOR, cranking (for components see list of parts under details of "Cranking Motor") 5/8 x 1-3/4" hex-hd cap SCREW (3) 5/8" lock WASHER (3)



MEMORANDA



MEMORANDA

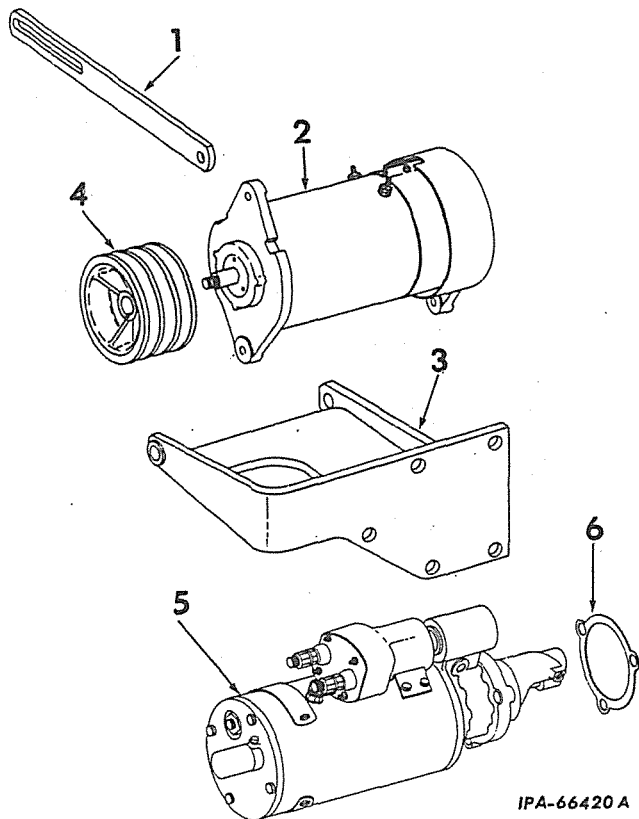


ELECTRICAL SYSTEM



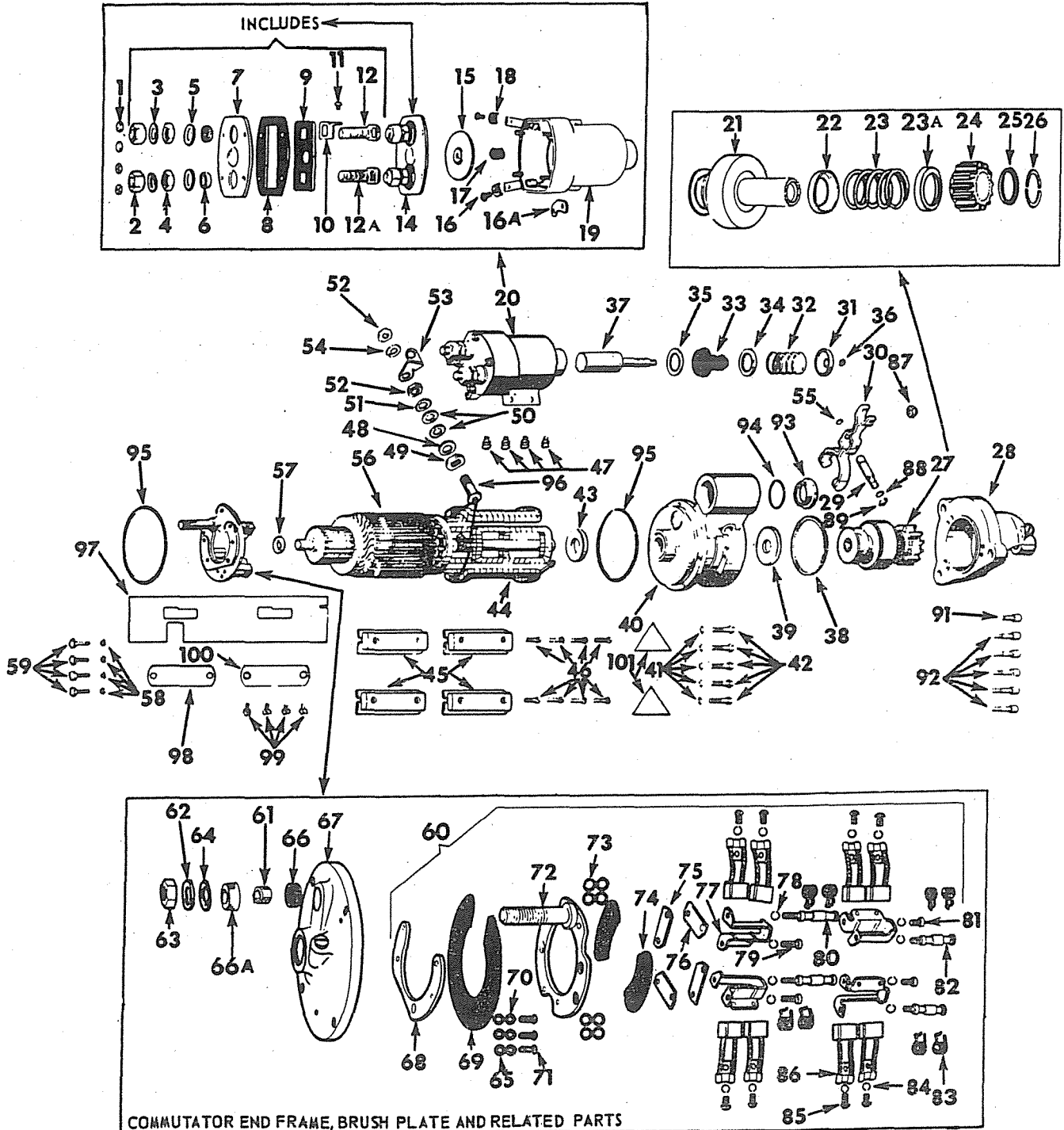
MEMORANDA

GENERATOR, CRANKING MOTOR AND CONNECTIONS
 TD-20BPM 510 to 6294
 TD-20BPSM 2680 to 6294



IPA-66420A

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	326 557 R1	ARM, adjusting 3/8 x 1" hex-hd cap SCREW 3/8" lock WASHER
2		GENERATOR ASSEMBLY (Delco-Remy 1105233) (for components see list of parts under details of "GENERATOR") 1/2NF NUT (2) 1/2NF x 1-3/4" hex-hd cap SCREW (2) 3/8 x 3" hex-hd cap SCREW 1/2" lock WASHER (2) 3/8" lock WASHER 13/32 x 13/16" x 16 ga WASHER
3	323 991 R91	BRACKET, generator mounting 3/8 x 1-1/4" hex-hd cap SCREW (5) 3/8" lock WASHER (5)
4	326 550 R1	PULLEY, generator
5		MOTOR ASSEMBLY, cranking (Delco-Remy No. 1113920) (for components see list of parts under details of "Cranking Motor") 5/8 x 1-1/2" hex-hd cap SCREW (3)
6	304 573 R1	GASKET, cranking motor



ILLUSTRATIONS ARE OF TYPICAL PARTS ONLY.

IPA-67074 B



ELECTRICAL SYSTEM

REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
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CRANKING MOTOR - CONTINUED

	1113920	MOTOR ASSY, cranking (24 volt) 5/8 x 1-1/2" hex-hd cap SCREW (3) 5/8" lock WASHER (3)
1	1948656	NUT and lock WASHER, terminal plate attaching (4)
2	453285	NUT, terminal stud (7/16" thick) (2)
3	9421427	WASHER, terminal stud lock (4)
4	453287	NUT, terminal stud (5/16" thick) (2)
5	1904998	WASHER, terminal stud (2)
6	1944836 1942969	BUSHING, terminal stud insulation (2) WASHER, terminal stud insulation (2)
7	1945409	PLATE, terminal
8	1906053	GASKET, terminal plate
9	1931673	STRIP, terminal stud insulation
10	1906051	SUPPORT, terminal
11	1840633	SCREW, coil lead terminal attaching
12	1906047	STUD, terminal (17/64" thick head)
12A	1906049	STUD, terminal (13/64" thick head)
14	1945400	TERMINAL PLATE ASSY (Includes Ref. Nos. 2 thru 12A)
15	1954861	DISC, contact (on push rod)
16	1915717	SCREW, terminal (2)
16A	1909829	STRAP, ground
17	1945402	SPRING, contact (on push rod)
18	1878503	CLIP, terminal (2)
19	1945399	CASE and COIL ASSY
20	1119832	SWITCH ASSY, solenoid
21		GEAR and SHAFT, motor drive (order 1945487)
22	1957264	CUP, motor drive spring retainer (lipped)
22	1918714	CUP, motor drive spring retainer (not lipped)
23	1943242	SPRING, motor drive meshing
23A	1957177	CUP, motor drive spring retainer (lipped)
23A	1918714	CUP, motor drive spring retainer (not lipped)
24	1948533	PINION, motor drive
25	1945490	CUP, motor drive pinion stop
26	1966651	PACKAGE, motor drive split washer
27	1945487	DRIVE ASSY, motor
28	1957847	HOUSING, drive (Composed of - 1 BUSHING 1942258 1 PLUG 453465 1 PLUG 273913 1 WICK 1916439)
29	1945472	SHAFT, lever
30	1945484	LEVER, shift
31	1942282	RETAINER, spring (13/32" hole)
32	1942260	SPRING, shift lever
33	1942257	BOOT
34	1942256	RETAINER, spring (1-13/64" hole)
35	807736	WASHER, retainer spring
36	9415235	"O" RING, retainer snap
37	1945480	PLUNGER
38	1945476	GASKET (between lever housing and drive housing)
39	1911644	WASHER, brake (between lever housing and motor drive)
40	1947262	HOUSING, lever (Composed of - 1 BUSHING 1923484 1 OIL SEAL 1918047 1 PLUG 453465 1 WICK 1916439)



ELECTRICAL SYSTEM

REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
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CRANKING MOTOR - CONTINUED

41	9421423	WASHER, lever housing attaching screw lock (5)
42	1914869	SCREW, lever housing attaching (5)
43	1936466	WASHER, space (between lever housing and armature)
44	1945496	COIL ASSY, field (4 coils)
45	1934478	SHOE, pole (4)
46	1913960	SCREW, pole shoe (8)
47	1930611	SCREW w/lock WASHER, switch attaching (4)
48		GASKET, terminal stud (furnished as part of PACKAGE, 1965472)
49	1965472	PACKAGE, insulating terminal stud (includes Ref. Nos. 48 and 49)
50	1922457	WASHER, insulating terminal stud (2)
51	811912	WASHER, terminal stud
52	9414418	NUT, terminal stud (2)
53	1945468	CONNECTOR, terminal to switch
54	9421427	WASHER, terminal stud lock
55	1921805	"O" RING, shift lever (1/2" dia)
56	1945500	ARMATURE
57	1914842	WASHER, commutator end thrust
58	9421423	WASHER, commutator end frame attaching
59	1914869	SCREW, commutator end frame attaching
60	1946753	PLATE ASSY (less brushes) (Consists of Ref. Nos. 68 to 83, Ref. Nos. 65, 70, 71, 84, 85 and 86 not included)
61	1946765	BUSHING, insulating stud commutator end
62	9421427	WASHER, terminal stud commutator end lock
63	9414418	NUT, terminal stud commutator end (5/16" thick)
64	30205	WASHER, terminal stud commutator end
65	810794	WASHER, brush plate assembly attaching screw (3)
66	1909531	"O" RING, commutator end terminal stud
66A		Not Used
67	1945514	FRAME, commutator end (Composed of - 1 BUSHING 38273 1 PLUG 103893 1 PLUG 453465 1 WICK 1916439)
68	1874847	PLATE, brush holder support (brass)
69	1909523	PLATE, insulating brush
70	453844	WASHER, brush plate assembly attaching screw lock (3)
71	9417096	SCREW, brush plate assembly attaching (3)
72	1946754	PLATE w/STUD, brush
73	1913080	BUSHING, washer insulating brush holder screw (8)
74	1965093	PLATE, insulating brush holder (2)
75	1874848	PLATE, brush holder space (2 hole for insulating brush) (2)
76	1874851	PLATE, brush holder space (2 hole for ground brush) (2)
77	1909521	HOLDER, brush (4)
78	453435	WASHER, brush holder screw lock (8)
79	453339	SCREW, brush holder (short - ground brush) (2)

Always Give Cranking Motor Number When
Ordering Parts.

ELECTRICAL SYSTEM



MEMORANDA



REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
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CRANKING MOTOR - CONTINUED

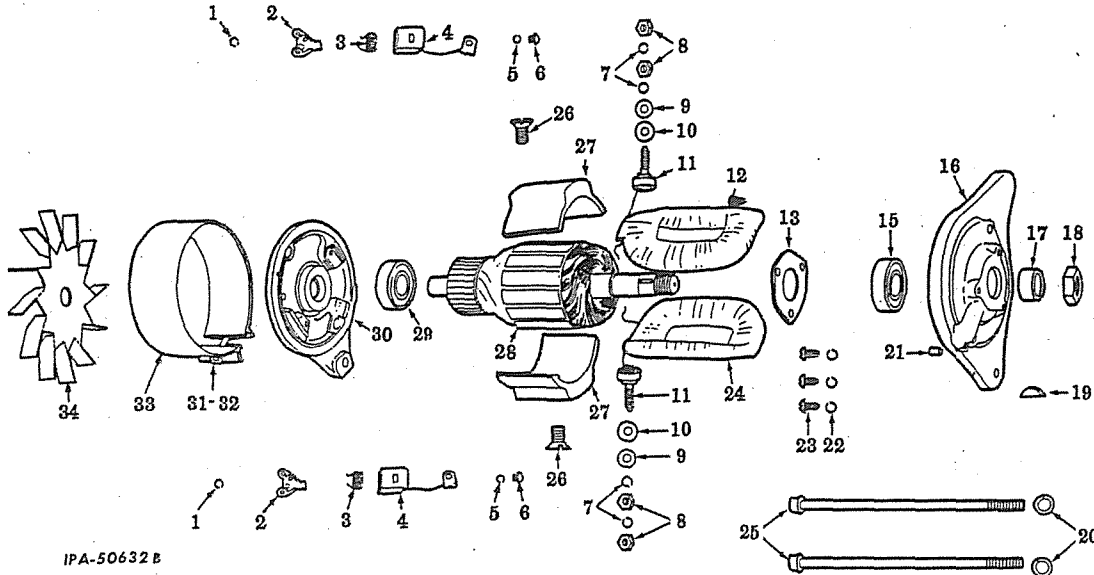
80	1914642	SCREW, brush holder (long - ground brush) (2)
81	453468	SCREW, brush holder (short-insulating brush) (2)
32	1928500	SCREW, brush holder (long - insulating brush) (2)
83	1861785	SPRING, brush (8)
84	453844	WASHER, brush lead attaching screw lock (8)
85	453418	SCREW, brush lead attaching (8)
86	1906986	BRUSH (8)
87	9412305	NUT, plunger rod guide adjusting
88	1914373	"O" RING, shift lever (15/64" dia)
89	9415235	RING, lever shaft snap
91	1948537	SCREW, drive housing attaching (5/16 x 55/64")
92	1948536	SCREW, drive housing attaching (5/16 x 1-1/2") (5)
93	1945356	PLUG, lever housing
94	1916320	GASKET, lever housing plug
95	1916272	"O" RING (on lever housing and commutator end) (2)
96	1950561	STUD, terminal
97	1945479	INSULATOR, commutator end field coil
98	1945477	GASKET, cover plate (2)
99	1964570	SCREW, cover plate (4)
100	1945478	PLATE, cover (2)
101	1914873	INSULATION, field coil drive end (2)
	38273	BUSHING (commutator end)
	1923484	BUSHING, lever housing
	1942258	BUSHING, drive end
	812410	BUSHING, motor drive
	1918047	OIL SEAL, lever housing
	103893	PLUG, expansion (commutator end)
	453465	PLUG, pipe (commutator end)
	453465	PLUG, pipe (drive end)
	453465	PLUG, lever housing pipe
	1955303	PLUG, oil reservoir felt
	273913	PLUG, pipe (drive end) (1/16"NPTF)
	1916439	WICK, drive end
	1916439	WICK, lever housing
	1916439	WICK, commutator end

Always Give Cranking Motor Number When Ordering Parts.



ELECTRICAL SYSTEM

GENERATOR
(Delco-Remy)
TD-20BPS 510 to 2694
TD-20 BPSM 2680 to 2694



ILLUSTRATIONS ARE OF TYPICAL PARTS ONLY.



ELECTRICAL SYSTEM

GENERATOR - CONTINUED
(Delco-Remy)
TD-20BPS 510 to 2694
TD-20BPSM 2680 to 2694

REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
	1105233	GENERATOR ASSEMBLY, 24 volt
1		NOT USED
2	1878183	ARM, brush (2)
3	1856993	SPRING, brush (2)
4	1932506	BRUSH (2)
5	1904377	WASHER, brush lead attaching lock (2)
6	132688	SCREW, brush lead attaching (2)
7	1904661	WASHER, terminal stud lock (4)
8	121743	NUT, terminal stud (4)
9	1881409	WASHER, terminal stud plain (2)
10	1902746	WASHER, insulation terminal stud (2)
11	1858751	STUD, terminal (2)
12	1930237	COIL, RH field
13	1935923	PLATE, ball bearing retainer drive end
15	907056	BEARING, drive end ball
16	1934553	FRAME, drive end
17	1934554	COLLAR, outside drive end space
18	443344	NUT, drive end shaft
19	124548	KEY, drive end (Woodruff)
20	120638	WASHER, thru bolt lock (2)
21	809062	PIN, drive end dowel
22	1880781	WASHER, ball bearing retainer plate screw drive end lock (3)
23	1904370	SCREW, ball bearing retainer plate drive end (3)

REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
24	1930236	COIL, LH field
25	809763	BOLT, thru (2)
26	1883864	SCREW, pole shoe (2)
27	1918004	SHOE, pole (2)
28	1963848	ARMATURE
29	907058	BEARING, commutator end ball
30	1938207	FRAME, commutator end
31	1934816	NUT, cover band
32	132926	SCREW, cover band
33	1879530	BAND, cover
34	1937227	FAN
	1885090	BUSHING, terminal stud insulation (2)
	200362	CLIP, terminal to brush
	1929959	CLAMP, bearing retainer
	1913689	COLLAR, fan
	1945119	COVER, commutator end
	427261	KEY, commutator end (Woodruff)
	1911324	NUT, fan attaching
	809062	PIN, commutator end dowel
	131238	SCREW, field frame
	132100	SCREW, cover attaching (3)
	1913688	SPACER, fan collar
	120380	WASHER, field frame screw lock
	1872618	WASHER, drive end shaft nut plain
	809945	WASHER, commutator end space
	1880781	WASHER, cover attaching lock (3)
	1913743	WASHER, fan attaching lock

Always Give GENERATOR Number When Ordering Parts.



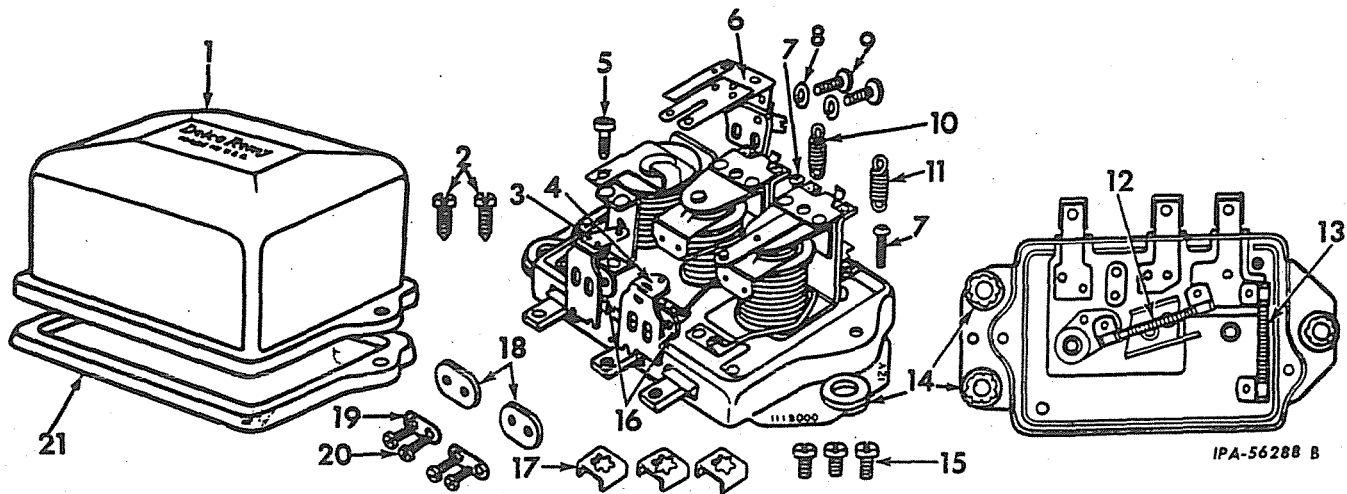
ELECTRICAL SYSTEM



ELECTRICAL SYSTEM

VOLTAGE REGULATOR
(Delco-Remy)
TD-20BPS 4001 to 22994
TD-20BPSM 6110 to 22994

VOLTAGE REGULATOR - CONTINUED
(Delco-Remy)
TD-20BPS 4001 to 22994
TD-20BPSM 6110 to 22994



ILLUSTRATIONS ARE OF TYPICAL PARTS ONLY.

REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
	1119233	REGULATOR ASSEMBLY, voltage (24 volt)
1	1931886	COVER
2	1943385	SCREW, cover (2)
3	1878517	CONTACT and SUPPORT, voltage regulator
4	1933239	CONTACT and SUPPORT, current regulator
5	1912159	SCREW, relay armature adjusting
6	1939646	ARMATURE, relay
7	1922408	SCREW, regulator armature adjusting (2)
8	1904377	WASHER, armature screw relay lock (2)
9	1924764	SCREW, relay armature attaching (2)
10	1912176	SPRING, current regulator armature
11	1923517	SPRING, voltage regulator armature
12	1910182	RESISTOR, "F" terminal to ground
13	1910182	RESISTOR, "F" terminal to relay
14	1879663	GROMMET, in base (rubber) (3)

REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
15	1878502	SCREW, terminal (3)
16	1878507	WASHER, insulator regulator contact attaching screw (2)
17	1878503	CLAMP, terminal (3)
18	1922599	INSULATOR, regulator contact attaching screw (2)
19	1878505	WASHER, regulator contact attaching screw lock (2)
20	1878516	SCREW, regulator contact attaching (4)
21	1931887	GASKET, cover
	1933941	LEAD, ground
	124818	NUT, shock mount attaching (3)
	1911034	SHOCK, mount (4 hole)
	1911028	SHOCK, mount (3 hole)
	273484	SCREW, shock mount attaching (3)
	1874495	WASHER, mount attaching screw lock (3)

Always Give VOLTAGE REGULATOR NUMBER When Ordering Parts.



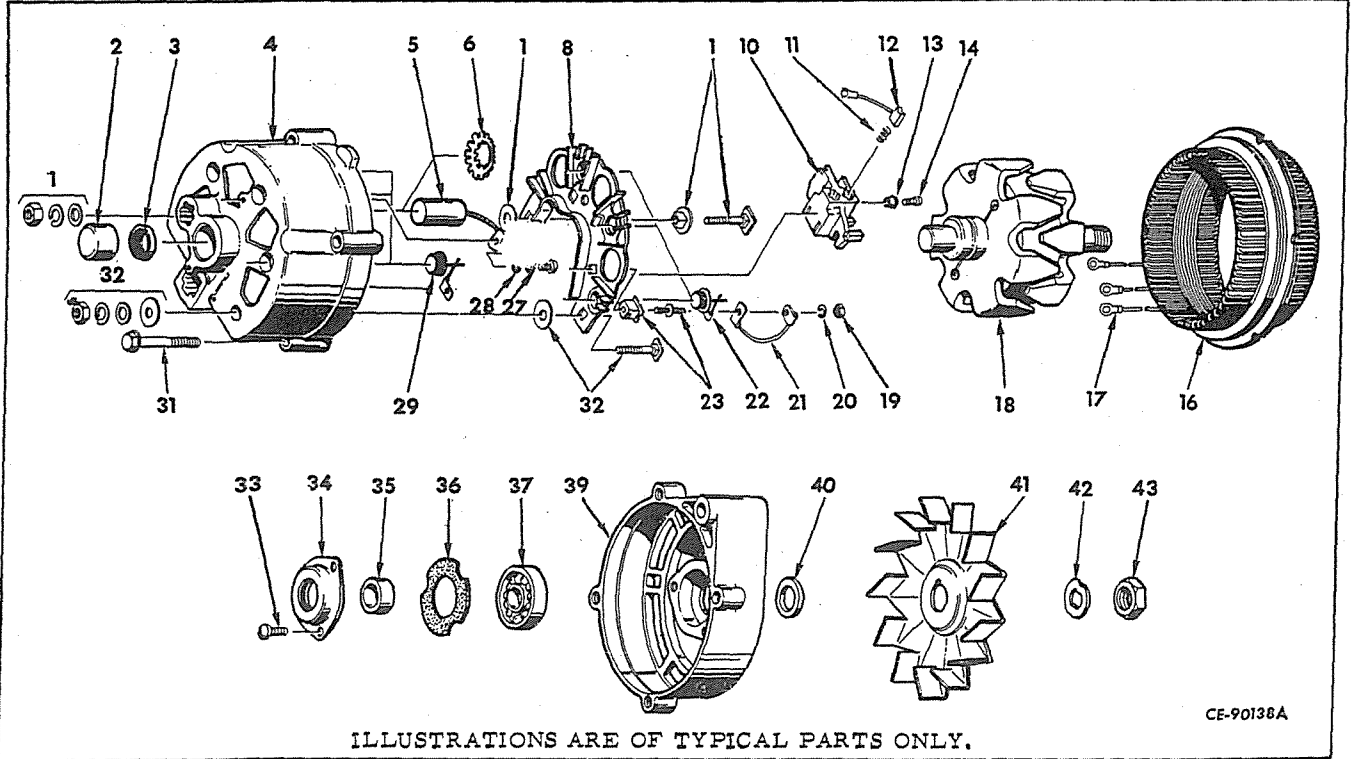
ELECTRICAL SYSTEM

ALTERNATOR
(Delco-Remy)
TD-20BPM 2695 up
TD-20BPSM 2695 up



ELECTRICAL SYSTEM

ALTERNATOR - Continued
(Delco-Remy)
TD-20BPM 2695 up
TD-20BPSM 2695 up



ILLUSTRATIONS ARE OF TYPICAL PARTS ONLY.

CE-90138A

REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
	1100062	ALTERNATOR ASSY (Consists of the following parts -
1	1971705	PACKAGE, relay terminal
2	7451782	BEARING, slip ring end roller
3	1961323	SEAL, slip ring and roller bearing
4	1971702	FRAME ASSY, slip ring end (Composed of -
	1	BEARING 7451782
	1	BUSHING 1969062
	1	CAPACITOR 1959455
	§ 1	FRAME
	3	PACKAGE 1964354
	1	RING 1969056
	1	SEAL 1961323
	1	SPRING 1960750)
5	1959455	CAPACITOR
6	1960750	SPRING, capacitor retaining
8	1971703	SINK w/three PACKAGE, 1959834 and three PACKAGE 1964353, heat
10	1964682	HOLDER w/two BRUSH and SPRING 1964117, brush
11	1964117	SPRING, brush (2)
12		BRUSH (Not Furnished Separately)

REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
13	9419392	WASHER, brush holder screw (2)
14	1957501	SCREW, brush holder attaching (2)
16	1971220	STATOR w/three CLIP 1959532
17	1959532	CLIP, stator terminal (3)
18	1971260	ROTOR w/SEAL 1969042
19	453434	NUT, divide junction terminal (3)
20	9419392	WASHER, diode junction terminal lock (3)
21	1969073	CONNECTOR, relay terminal to diode junction
22	1964353	PACKAGE, positive diode (3)
23	1959834	PACKAGE, diode junction terminal (3)
26	1916336	SCREW, capacitor terminal and heat sink attaching (3)
27	9419392	WASHER, capacitor terminal and heat sink attaching screw lock (3)
28	815540	WASHER, capacitor terminal and heat sink attaching screw (3)
29	1964354	PACKAGE, negative diode (3)
		§ - Not Furnished Separately.



ELECTRICAL SYSTEM

REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
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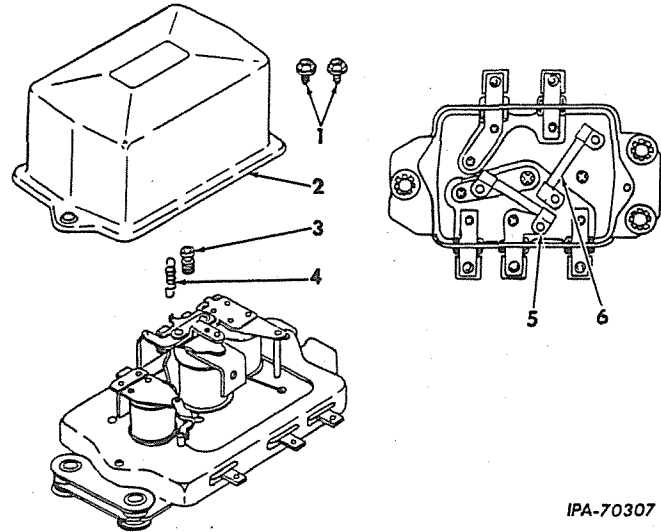
ALTERNATOR - Continued
(Delco-Remy)
TD-20BPM 2695 up
TD-20BPSM 2695 up

31	1956975	BOLT, thru (4)
32	1971704	PACKAGE, battery terminal
33	1965104	SCREW, ball bearing retainer plate attaching (3)
34	1961867	PLATE, ball bearing retainer
35	1969042	SEAL, rotor shaft
36	1955663	GASKET, ball bearing retainer plate
37	907940	BALL BEARING
38	1970384	COLLAR, shaft (inside)
39	1969066	FRAME, drive end
40	1969046	COLLAR, shaft (outside)
41	1969069	FAN and BAFFLE, alternator
42	1905406	WASHER, shaft nut
43	9418881	NUT, shaft
	1969062	BUSHING, slip ring and mounting
	1969055	DAMPENER, heat sink
	1969052	INSULATOR, capacitor terminal and heat sink attaching screw (3)
	1955664	PLATE, felt retainer (drive end)
	1959045	PIN, dowel
	1969056	PLUG, slip ring end expansion
	453468	SCREW, ground
	453435	WASHER, lock
	1970722	SEAL, relay terminal
	1969070	SHIELD, drive end frame dust
	1969068	SHROUD, drive end frame
	274937	SCREW, retaining
	1955660	WASHER, felt (drive end)



ELECTRICAL SYSTEM

VOLTAGE REGULATOR
(Delco-Remy)
TD-20BP 22995 up
TD-20BPS 22995 up



IPA-70307

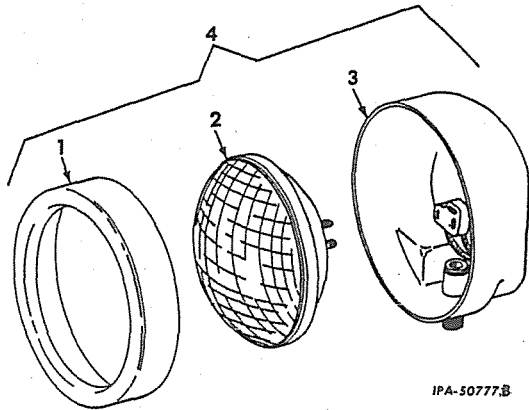
REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
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	1119518	REGULATOR ASSY, voltage (consists of Ref. Nos. 1 thru 6) 1/4" NUT (2) 1/4" lock WASHER (2)
1	1943386	SCREW, cover attaching (2)
2		COVER, regulator (not furnished separately)
3	1958148	SCREW, adjusting
4	1958137	SPRING, adjusting screw
5	1956235	RESISTOR
6	1960347	RESISTOR



ELECTRICAL SYSTEM

HEADLIGHT, REAR LIGHT AND RH AUXILIARY REAR LIGHT
(Hobbs)

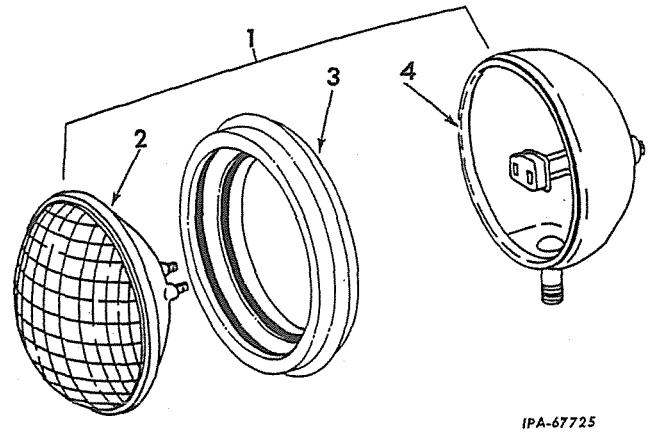


REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	313 957 F1	RETAINER, light (4491) (4)
2	273 560	UNIT, sealed (4)
3		SHELL (Not Furnished Separately) (4)
4	327 189 R91	HEADLIGHT, REAR LIGHT AND RH AUXILIARY REAR LIGHT ASSY (optional with 338 814 R91) (M1-2705) (4) 1/2NF NUT (4) 1/2" lock WASHER (4) 9/16 x 1-1/4 x 12 ga WASHER, upper (4) 600 658 C1 WASHER, lower (4)



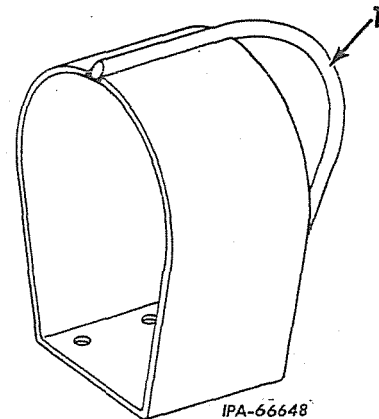
ELECTRICAL SYSTEM

HEADLIGHT, REAR LIGHT AND RH AUXILIARY REAR LIGHT
(Guide Lamp)



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	338 814 R91	HEADLIGHT, REAR LIGHT AND RH AUXILIARY REAR LIGHT ASSY (Consists of RETAINER, 336 896 R1, SHELL and UNIT, 272 062 R91) (optional with 327 189 R91) (899591) (4) 1/2NF NUT (4) 1/2" lock WASHER (4) 9/16 x 1-1/4 x 12 ga WASHER, upper (4) 600 658 C1 WASHER, lower (4)
2	273 560	UNIT, sealed (4)
3	336 896 R1	RETAINER, light (5941604) (4)
4		SHELL (Not Furnished Separately) (4)

HEADLIGHT AND REAR LIGHT BRUSH GUARD

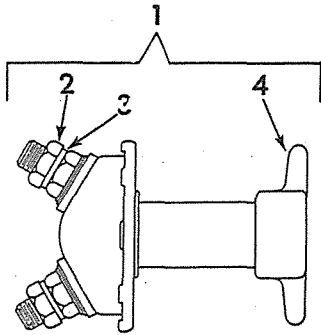


REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	330 714 R11	GUARD, headlight and rear light (3) 7/16 x 7/8" hex-hd cap SCREW (12) 7/16" lock WASHER (12)



ELECTRICAL SYSTEM

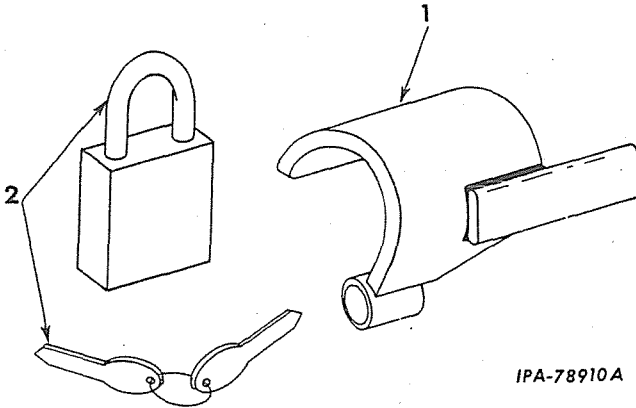
MASTER SWITCH (Delco-Remy)



IPA-60759

REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
1	1996495	SWITCH ASSY, master (order 1996496)
1	1996496	SWITCH ASSY, master (will work for 1966495) 1/4" NUT 1/4 x 3/4" hex-hd cap SCREW 1/4" lock WASHER
2	453787	NUT, terminal (2)
3	9421425	WASHER, terminal nut lock (2)
4	1886953 132110 9422354	KNOB, control SCREW, knob attaching WASHER, knob attaching screw lock

MASTER SWITCH LOCK, AND PADLOCK W/KEYS



IPA-78910A

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	314 751 R31	LOCK, master switch 1/4" NUT 1/4 x 1-3/8" hex-hd cap SCREW 1/4" lock WASHER 1/4" flat WASHER (2)
	314 753 R1	SPACER, master switch lock
	16 558 R1	WASHER, master switch lock flat
2	276 678 R91	PADLOCK w/Keys



ELECTRICAL SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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R. H. AUXILIARY REAR LIGHT

604 048 C91	ATTACHMENT, RH rear auxiliary light (not used on units equipped with 110, 260 single-drum or 260 double drum cable control units) (see NOTES 1 and 3) (Consists of the following parts -
331 145 R91	BRACKET, auxiliary rear light (*) 7/16 x 7/8" hex-hd cap SCREW (4) 7/16" lock WASHER (4)
358 566 R91	CABLE, rear light junction block to RH rear auxiliary light (#)
263 514 R91	CLIP, cable (on front inner bolt of rear light bracket) (#)
362 120 R1	CLIP, cable (on top inner bolt on RH of front of fuel tank) (#)
362 120 R1	CLIP, cable (on top and bottom bolts of rear RH seat side sheets) (#) (2)
338 814 R91	LIGHT, auxiliary rear flood (optional with 327 189 R91) (%)
327 189 R91	LIGHT, auxiliary rear flood (optional with 338 814 R91) (%) 1/2NF NUT 1/2" lock WASHER
330 717 R1	WASHER, upper light mounting
330 718 R1	WASHER, lower light mounting

% - Also Listed And Illustrated With "Head-light, Rear Light And RH Auxiliary Rear Light."

* - Also Listed And Illustrated With "Head-light, Rear Light And Auxiliary Rear Light Bracket."

- Also Listed And Illustrated With "Electric Starting And Lighting."

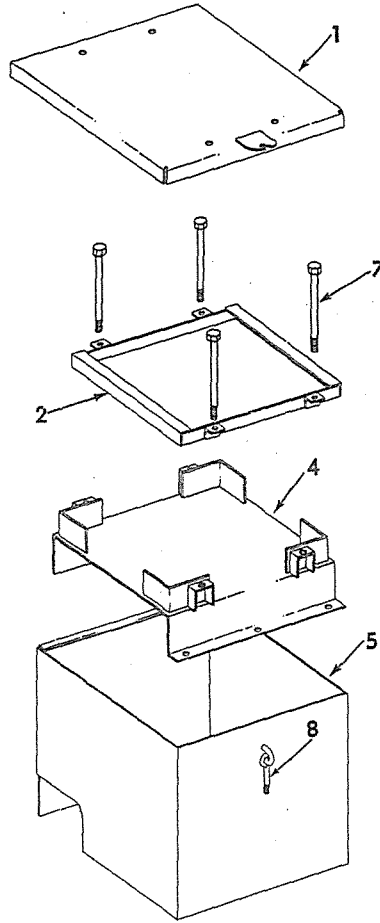
NOTE 1 - Factory Application - Order On Machine Order Form.

NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



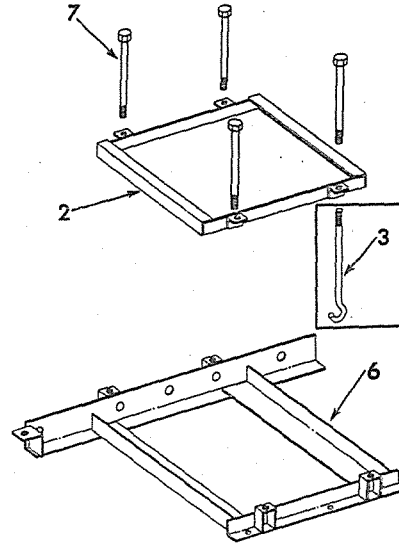
ELECTRICAL SYSTEM

BATTERY BOX, SUPPORT AND RELATED PARTS



ELECTRICAL SYSTEM

BATTERY BOX, SUPPORT AND RELATED PARTS - CONTINUED



IPA-68491B

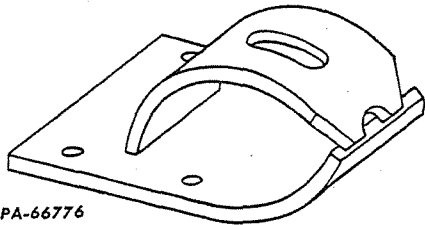
REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	330 936 R11 331 127 R1	COVER, battery box NUT, 3/8" wing
2	334 880 R21	FRAME, battery hold down (2)
3	325 260 R1 331 127 R1	HOOK, battery hold down (8) TD-20BP 4001 to 5368 NUT, 3/8" wing (8)
4	330 937 R11	SUPPORT, battery TD-20BP 4001 to 5368 (Order the following parts - 4 BOLT 20 141 R1 1 SUPPORT 603 486 C91 4 WASHER, 3/8" lock 4 WASHER, 7/16" flat)
4	603 486 C91	SUPPORT, battery TD-20BP 5369 up TD-20BPS 6110 up
5	331 799 R91	BOX, battery w/ROD 316 908 R1 3/8 x 7/8" hex-hd cap SCREW (5) 3/8" lock WASHER (5) 13/32 x 13/16" x 16 ga flat WASHER (5)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
6	338 000 R91	SUPPORT, battery TD20BP 4001 to 5368 (Order the following parts - 4 BOLT 20 141 R1 1 SUPPORT 603 485 C91 4 WASHER, 3/8" lock 4 WASHER, 7/16" flat)
6	603 485 C91	SUPPORT, battery TD-20BP 5369 up TD-20BPS 6110 up
7	20 141 R1	BOLT, battery hold down (8) TD-20BP 5369 up (8) TD-20BPS 6110 up 3/8" lock WASHER (8) 7/16" flat WASHER (8)
8	316 908 R1	ROD, battery box latch



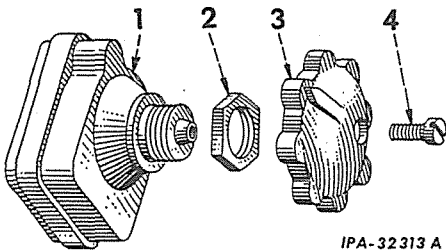
ELECTRICAL SYSTEM

HEADLIGHT AND REAR LIGHT BRACKET



REF. NO.	I. H. PART NUMBER	DESCRIPTION
331 145 R91		BRACKET, headlight and rear light (not used with headlight and rear light brush guard) (3) 7/16 x 7/8" hex-hd cap SCREW (12) 7/16" lock WASHER (12)

LIGHTING SWITCH (Delco-Remy) (For Units Equipped With Roosa-Master Fuel Injection Pump) TD-20BP 4001 to 5908

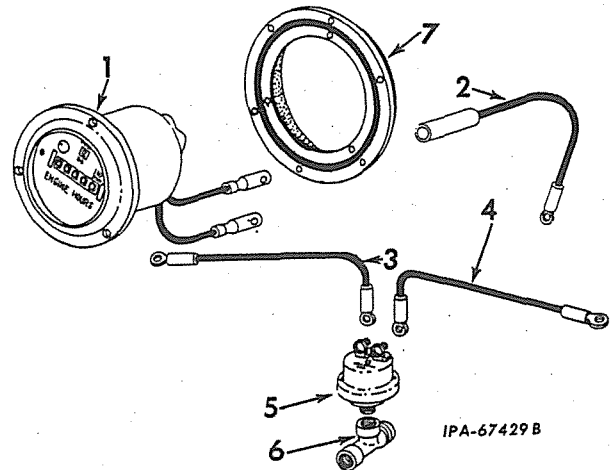


REF. NO.	DELCO-REMY NUMBER	DESCRIPTION
1	1 994 053	SWITCH, lighting 11/16" internal tooth lock WASHER
2	1 882 012	NUT, lighting switch mounting
3	1 930 685	KNOB, lighting switch
4	1 864 099	SCREW, lighting switch knob mounting No. 8 cd-pltd lock WASHER



ELECTRICAL SYSTEM

HOURMETER



REF. NO.	I. H. PART NUMBER	DESCRIPTION
		Parts without letters after the description indicates the part is used for all hourmeters listed below; Letters A, B and C are used to identify separate hourmeters.
A		Service Parts for Hourmeter TD-20BP 4495 to 23053 TD-20BPS 6110 to 23053
B	337 554 R91	ATTACHMENT, electric hourmeter (see NOTE 3) TD-20BP 4001 to 4494
C		Service Parts for Hourmeter TD-20BP 23054 up TD-20BPS 23054 up
1	624 552 C91	HOURMETER (24 volt) (Hourmeter C)
1	610 821 C91	HOURMETER (24 volt) (Hourmeter A and B) No. 6 NUT (3) No. 6 x 1/2" slt-rd-hd SCREW (3) No. 6 lock WASHER (3)
2	267 811 R91	CABLE, positive terminal on ammeter to positive terminal on hourmeter
3	341 874 R91	CABLE, pressure switch to ground 5/16" internal-external tooth lock WASHER
4	341 873 R91	CABLE, terminal strip to pressure switch
5	277 748 R91	SWITCH, pressure (optional with 132 244 R91)
5	132 244 R91	SWITCH, pressure (optional with 277 748 R91)
6	16 898 R1	TEE, 1/8" male and 1/8" female x 7/16" female TD-20BP 4001 to 4341
6	444 253	TEE, 1/8" pipe (pressure switch) TD-20BP 4342 up TD-20BPS 6110 up
7	264 674 R91	DAMPENER, hourmeter vibration (Hourmeter A and C) No. 6 x 1/2" slt-rd-hd mach SCREW (3) No. 6 lock WASHER (3)
	105 422	ELBOW, 90° street

NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



MEMORANDA



MEMORANDA



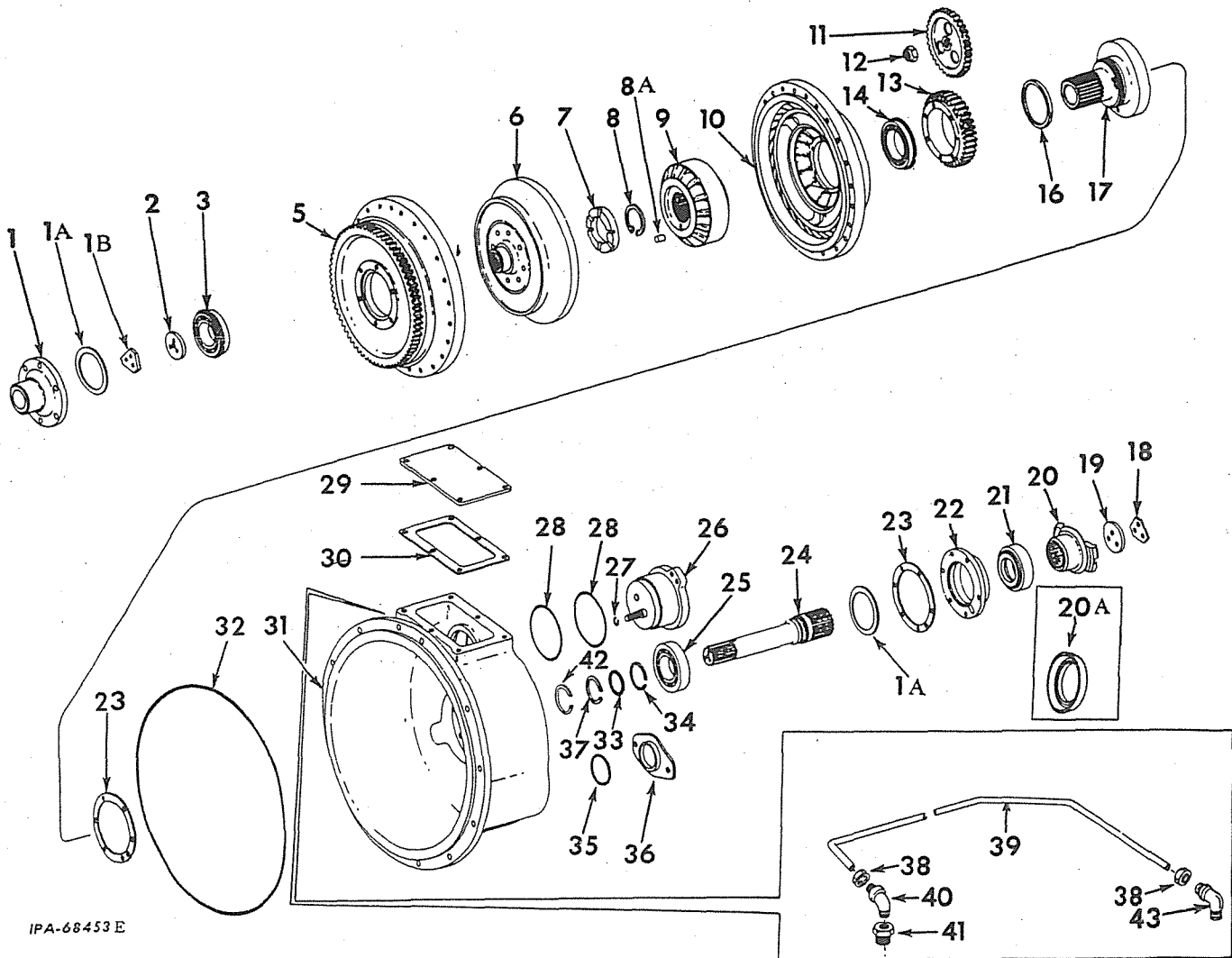
TORQUE CONVERTER

TORQUE CONVERTER AND RELATED PARTS
(Rockford)



TORQUE CONVERTER

TORQUE CONVERTER AND RELATED PARTS - CONTINUED
(Rockford)



IPA-68453 E

REF. NO.	I. H. PART NUMBER	DESCRIPTION
		Parts without letters after description indicates the part is used for all torque Converters listed below. Letters A and B are used to identify separate torque Converters
A	343 685 R92	CONVERTER ASSY, torque (D-30800500-8) (order CONVERTER, 610 253 C92)
B	610 253 C92	CONVERTER ASSY, torque (D-30831000-2) (will work for CONVERTER, 343 685 R92) TD-20BP 4001 to 23013 TD-20BPS 6110 to 23013 (Consists of the following parts - 7/16 x 1-1/4" hex-hd cap SCREW (12) 7/16" lock WASHER (12))
C	619 822 C91	CONVERTER ASSY, torque (D-31237500-9) TD-20BP 23014 up TD-20BPS 23014 up 7/16 x 1-1/4" hex-hd cap SCREW (12) 7/16" lock WASHER (12)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	324 089 R1	HUB, input drive (D-30557900-5) 3/8 x 1" hex-hd cap SCREW (6) 3/8" heavy lock WASHER (6)
1A	338 972 R1	SHIM, impeller hub or shaft bearing retainer (.005") (A-30659500-0) (X)
1A	347 089 R1	SHIM, impeller hub or shaft bearing retainer (.010") (A-30682700-7) (X)
1A	347 090 R1	SHIM, impeller hub or shaft bearing retainer (.020") (A-30682800-5) (X)
1B	610 256 C1	PLATE, locking (A-30847200) 5/16 x 3/4" hex-hd cap SCREW (3)
2	324 088 R1	WASHER, flange retainer (A-30560300-3) BOLT, 5/16 x 3/4" hex-hd locking (3)
3	606 260 C91	BEARING, turbine hub ball
5	336 774 R2	HOUSING, converter drive (R-30612000-7)
6	606 249 C92	TURBINE (B-31127200-9)
7	324 085 R2	SPACER, converter (B-30682600-9)
8	641 207 R1	RING, internal snap (A-30438200-5)
		X - As Required.



TORQUE CONVERTER

REF. NO.	I. H. PART NUMBER	DESCRIPTION
TORQUE CONVERTER AND RELATED PARTS - CONTINUED (Rockford)		
8A	17 132 R1	PIN, 1/4 x 1" roll A-302073
9	336 772 R92	STATOR w/PIN, 17 132 R1 and RING, 641 207 R1 (A-30679000-7)
10	336 969 R91	IMPELLER, converter (R-30611600-5)
11	603 634 C1	GEAR, input drive (C-30715200-9) (together with PUMP, 603 632 C91 will work for GEAR, 338 971 R1)
12	19 263 R1	NUT (A-30659300-5)
13	324 074 R1	GEAR, accessory drive (C-30567400-4)
	9 409 021	BOLT, 5/16NF x 1-1/4" hex-hd locking (7)
14	606 608 C91	BEARING, impeller hub
16	324 062 R2	RING, ground sleeve hub seal (A-30798700-8)
17	324 061 R1	HUB, ground sleeve (39 T) (R-30559800-5)
18	324 071 R2	FLATE, output flange locking (A-30691600-8) 5/16 x 3/4" hex-hd cap SCREW (3)
19	324 072 R2	WASHER, flange retainer (A-30691700-6)
20	347 111 R91	FLANGE w/SHIELD, 347 091 R1, output (B-30683900-2) (order PACKAGE, 610 259 C91) (Converter A)
20	610 257 C91	FLANGE w/SHIELD, 347 091 R1, output (B-30855900-4) (Converter B) (order FLANGE 619 734 C1)
20	619 734 C1	FLANGE, output (C30856000-2) (will work for FLANGE, 610 257 C91) (Converter B)
20A	347 091 R1	SHIELD, dust (B-30683800-4) (used with FLANGE, 347 111 R91 and 610 257 C91)
21	324 067 R92	SEAL, output shaft bearing (A-30560700-A) (Converter A)
21	333 996 R92	SEAL, output shaft bearing (L-415003) (Converter B and C)
22	343 696 R1	RETAINER, output shaft bearing (C-30663400-7) (order PACKAGE, 610 259 C91) (Converter A)
22	610 254 C1	RETAINER, output shaft bearing (C-30700200-6) (Converter B and C) 3/8 x 1-7/8" hex-hd cap SCREW (6) 3/8" heavy lock WASHER (6)
23	324 069 R1	GASKET, output shaft bearing retainer (B-30560200-5) (2)
24	606 248 C1	SHAFT, turbine output (D-30802600-4)
25	606 265 C91	BEARING, ball (output shaft)
26	603 632 C91	PUMP, input (C-30714700-9) (together with GEAR, 603 634 C1 will work for PUMP, 338 969 R91) (torque Converter A and B) 3/8 x 1-3/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
26	603 642 C91	PUMP, input (C-30714800-7) (Torque Converter C) TD-20BP 23014 up TD-20BPS 23014 up 3/8 x 1-3/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
27	338 965 R1	RING, snap (pump drive gear) (A-30659200-7)
28	336 970 R1	"O" RING, input pump (4-3/8 x 4-5/8 x 1/8") (2)
29	324 091 R1	COVER, pump inspection (B-30531200-1) 3/8 x 3/4" hex-hd cap SCREW (6) 3/8" heavy lock WASHER (6)
30	324 092 R2	GASKET, pump inspection cover (B-31323900-6)
31	343 695 R1	HOUSING, converter (R-30664100-2)
	9 409 225	BOLT, 5/16 x 1-3/4" hex-hd locking (24)
32	321 988 R1	"O" RING, converter housing sealing (not furnished as part of torque converter assembly)
33	324 065 R1	RING, piston hook type seal (output shaft) (A-30294300-6)
34	336 971 R1	RING, external snap (output shaft) (A-30639800-9)
35	343 927 R1	"O" RING, power take-off cover (5 x 5-1/4 x 1/8")



TORQUE CONVERTER

REF. NO.	I. H. PART NUMBER	DESCRIPTION
TORQUE CONVERTER AND RELATED PARTS - CONTINUED (Rockford)		
36	326 650 R11	COVER, power take-off (C-30670300-0) 5/8 x 1" hex-hd cap SCREW (2) 5/8" lock WASHER (2)
37	606 258 C1	RING, snap turbine hub (A-30751200-4)
38	37 165 D	NUT, converter vent pipe (*) TD-20BP 4427 to 6111 (2) TD-20BPS 6110 to 6111
38	265 205 R1	NUT, converter vent tube (*) (2) TD-20BP 6112 up (2) TD-20BPS 6112 up
	265 204 R1	SLEEVE (2)
39	345 516 R1	PIPE, converter vent (*) (see NOTE) TD-20BP 4427 to 6111 TD-20BPS 6110 to 6111
39	612 771 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, converter vent (*) TD-20BP 6112 up TD-20BPS 6112 up
40	37 323 D	ELBOW, converter vent pipe (*) TD-20BP 4427 to 6111 TD-20BPS 6110 to 6111
40	606 845 C1	ELBOW, converter vent pipe (*) TD-20BP 6112 up TD-20BPS 6112 up
41	144 047	BUSHING, converter vent pipe reducer (1/4 x 3/4") (on converter) (*) TD-20BP 4427 up TD-20BPS 6110 up
42	606 258 C1	RING, snap, turbine hub (B-30799700-7)
43	606 845 C1	ELBOW, converter vent pipe (*) TD-20BP 21207 up TD-20BPS 21207 up
	338 738 R1	BREATHER, filter (A-30644900-0)
	299 902 R1	CLAMP, converter vent pipe (on 2nd bolt from right side front of planetary inspection cover) (*) TD-20BP 4427 to 6111 TD-20BPS 6110 to 6111
	299 902 R1	CLAMP, converter vent pipe (on right front corner bolt at planetary inspection cover) (*) TD-20BP 6112 up TD-20BPS 6112 up
	610 259 C91	PACKAGE, output flange field service (A-30902100-4) (Converter A) (Consists of - 1 FLANGE 619 734 C1 1 GASKET 324 069 R1 1 PLATE 324 071 R2 1 RETAINER 610 254 C1 1 SEAL 333 996 R92 1 WASHER 324 072 R2)
	603 569 C1	PLUG, input pump body (al) (used on PUMP, 338 969 R91) (A-30716800-5)
NOTE - To Update Machines Equipped With Converter Vent PIPE, 345 516 R1 Serial Nos. TD-20BP 4427 to 6111, and TD-20BPS 6110 to 6111 (Order the following parts - 1 BREATHER 324 042 R91 2 ELBOW 606 845 C1 1 ELBOW 105 423 1 PIPE 616 238 C1 1 TUBE 612 771 C11		
* - Not Furnished As Part Of Torque Converter Assembly.		



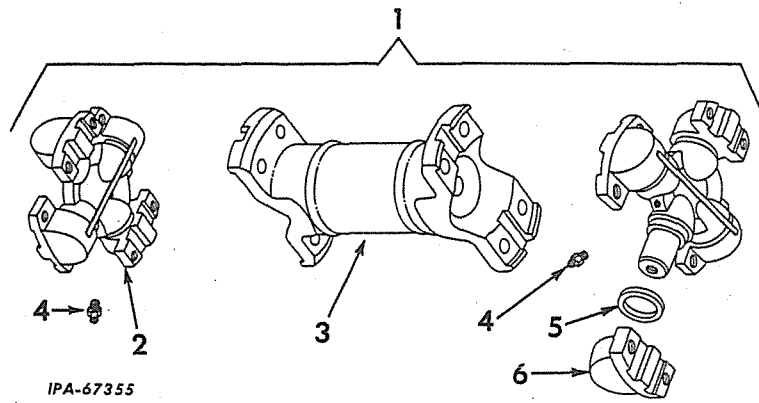
TORQUE CONVERTER



TORQUE CONVERTER

"U" JOINT
(Mechanics)

"U" JOINT - CONTINUED
(Mechanics)



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	325 326 R91 31 634 HA	JOINT ASSEMBLY, double universal (2A-16588-1) BOLT (8) 3/8" lock WASHER (8)
2	327 204 R91	SPIDER w/BEARINGS (114-6102A) (2)
3	327 203 R91	TUBE (42-16588-1)
4	110 146 R91	FITTING, 1/4" straight lubrication (Alemite 1792B) (optional with 102 467 H) (2)

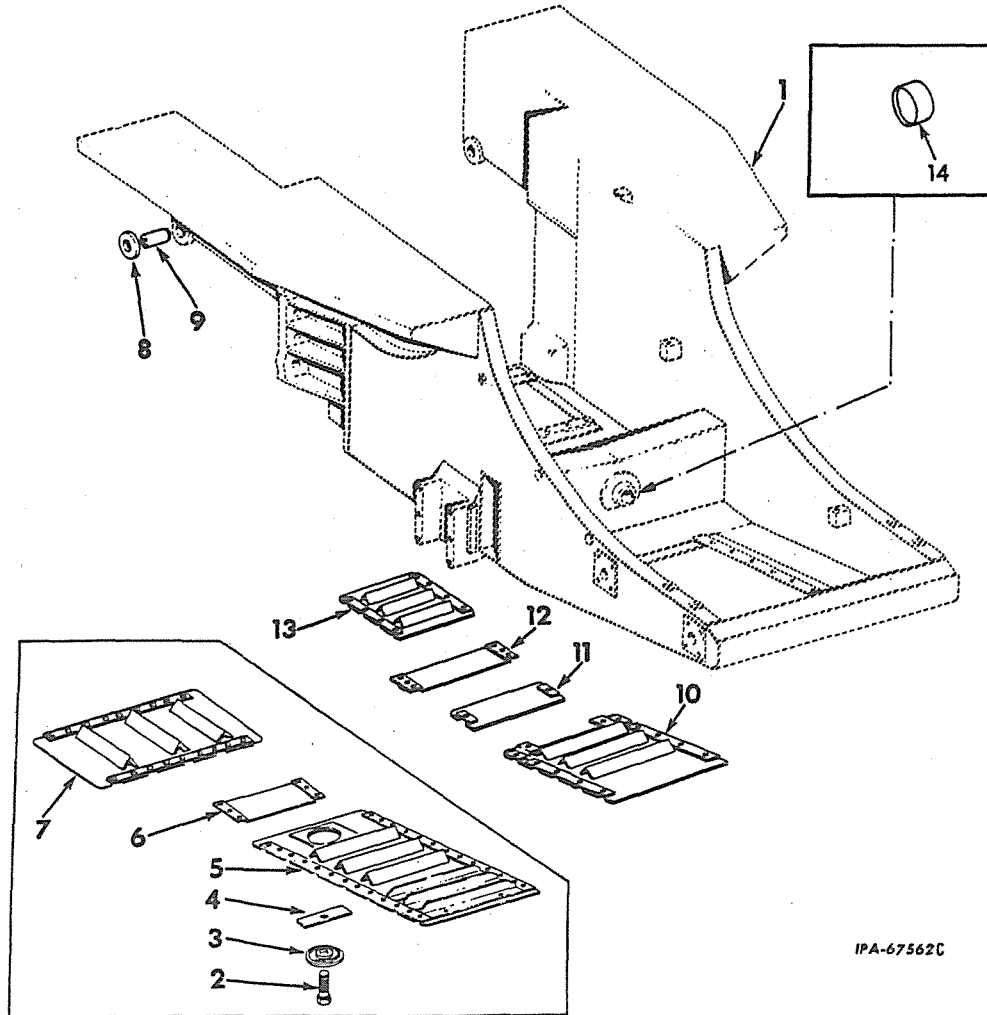
REF. NO.	I. H. PART NUMBER	DESCRIPTION
4	102 467 H	FITTING, 1/4" straight lubrication (Lincoln 5042) (optional with 110 146 R91) (2)
5	116 485 R1	WASHER, cork (8487 J) (8)
6		Not Furnished Separately.
	37 479 HA	BOLT, hex-hd (3/8NF x 3/4") (3544J) (8) 3/8" external-tooth lock WASHER (8)
	37 335 H	SHIELD, dust (3542J) (8)

FRAME

FRONT FRAME
(Not Used With Sideboom Crawler Tractors)

FRAME

FRONT FRAME - CONTINUED
(Not Used With Sideboom Crawler Tractors)



IPA-67562C

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	331 854 R91	FRAME, front TD-20BP 4001 to 4976 (Order the following parts - 1 FRAME 603 435 C91 1 SHAFT 603 283 C1 2 PLATE 603 282 C1)
	1 017 865 R1	CAP, plastic (4)
	1 017 861 R1	CAP, plastic (4)
1	607 603 C91	FRAME w/two BUSHING 603 284 C1, front (together with DOOR 331 901 R13, DOOR 334 394 R11, DOOR 604 978 C11, DOOR 607 607 C11 and SPACER 251 146 R1 will work for 603 435 C91) TD-20BP 4977 up 1-1/4NF NUT (lower frame mounting) (4) TD-20BP 4001 to 20274 1-1/2NF NUT (upper frame mounting) (4) TD-20BP 4001 to 20274 3/4 x 5" hex-hd cap SCREW (2)
20 694 R1		BOLT, rear frame to front frame (Large) (will work for 1-1/2" NUT and STUD 334 882 R2) (4) TD-20BP 20275 to 22364 BOLT, 1-1/4" x 3" rear frame to front frame (Small) (will work for 1-1/4" NUT and STUD 334 836 R2) (4) TD-20BP 20275 to 22364

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	23 389 R1	BOLT, front frame (4) TD-20BP 22365 up
	23 388 R1	BOLT, front frame (4) TD-20BP 22365 up
	620 140 C1	WASHER, hardened (4) TD-20BP 22365 up
	610 141 C1	WASHER, hardened (4) TD-20BP 22365 up
	1 017 865 R1	CAP, plastic (4) TD-20BP 4977 to 5345
	1 017 861 R1	CAP, plastic (4) TD-20BP 4977 to 5345
2		SCREW, 1/2 x 1-1/4" hex-hd cap (%)
3	67 574 DC	COVER w/SUPPORT, 42 877 DB, hand hole (%)
4	42 877 DB	SUPPORT, hand hole cover (%)
		(%) - Used with FRAME, 331 854 R91 and FRAME, 603 435 C91.

FRAME



MEMORANDA



REF. NO.	I.H. PART NUMBER	DESCRIPTION
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FRONT FRAME- CONTINUED
 (Not Used With Sideboom Crawler Tractors)

5	334 386 R12	DOOR, front frame bottom front (%) 5/8 x 1" hex-hd cap SCREW (14)
6	334 394 R11	DOOR, front frame bottom center (%) 5/8 x 1" hex-hd cap SCREW (8)
7	334 403 R12	DOOR, front frame bottom rear (%) 5/8 x 1" hex-hd cap SCREW (10)
8	325 656 R1	RETAINER, dowel (2)
9	325 914 R2	DOWEL, front frame to rear frame (2)
10	607 607 C11	DOOR, front frame front (*) 5/8 x 1-1/8" hex-hd cap SCREW (10)
11	604 978 C11	DOOR, oil pan (*) 5/8 x 1-1/8" hex-hd cap SCREW (2)
12	334 394 R21	DOOR, front frame center (*) 3/4 x 1-1/4" hex-hd cap SCREW (4)
13	331 901 R13	DOOR, front frame rear (*) 5/8 x 1-1/8" hex-hd cap SCREW (8)
14	603 284 C1	BUSHING, equalizer bar pivot shaft support (2)
	251 146 R1	SPACER, hydraulic line bracket (*) 1/2 x 2-1/2" hex-hd cap SCREW
	604 021 C1	TREAD, safety walk (4)

(%) - Used With FRAME, 331 854 R91 and
 FRAME, 603 435 C91.

(*) - Used with FRAME, 607 603 C91.



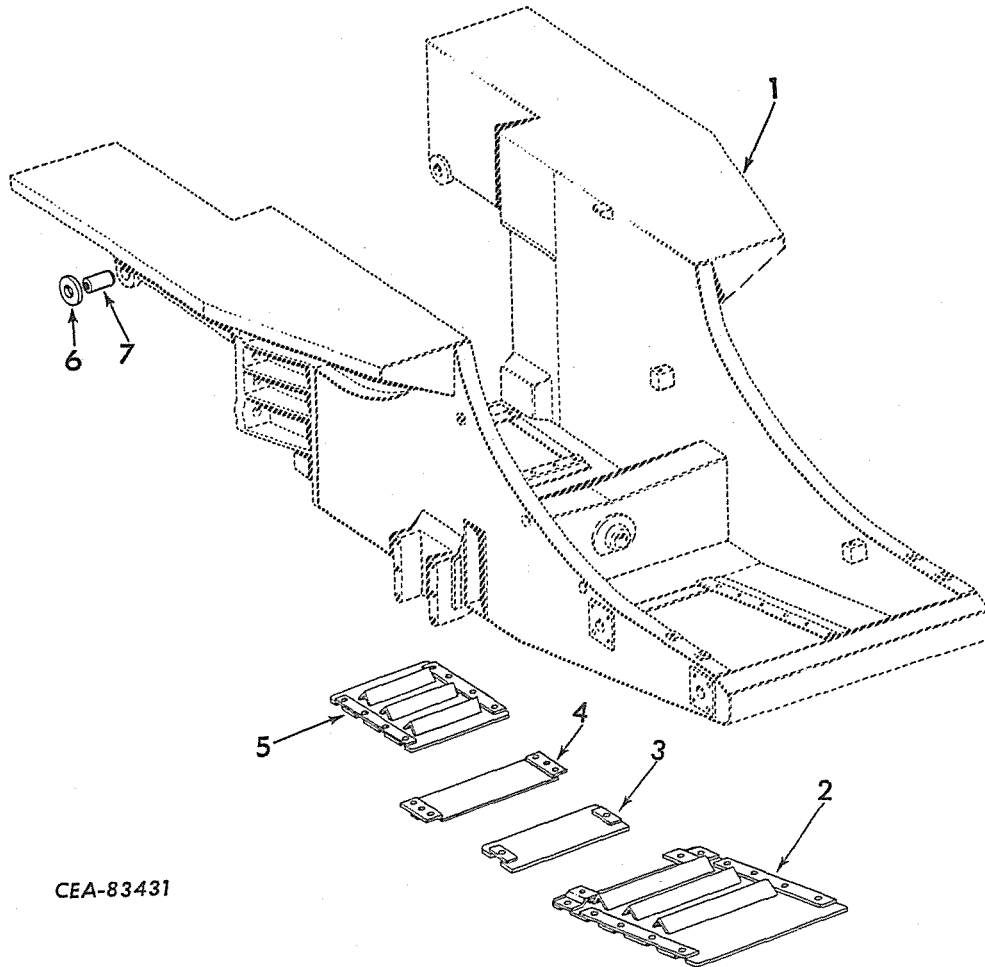
FRAME

FRONT FRAME
(Used With Sideboom Crawler Tractors)



FRAME

FRONT FRAME - CONTINUED
(Used With Sideboom Crawler Tractors)



CEA-83431

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	607 611 C91	FRAME, front 3/4 x 5" hex-hd cap SCREW (2)
	20 694 R1	BOLT, rear frame to front frame (Large) (will work for 1-1/2" NUT and STUD 334 882 R2) (4) TD-20BPS 6110 to 22364
		BOLT, 1-1/4" x 3" rear frame to front frame (Small) (will work for 1-1/4" NUT and STUD 334 836 R2) (4) TD-20BPS 6110 to 22364
	23 389 R1	BOLT, front frame (4) TD-20BPS 22365 up
	23 388 R1	BOLT, front frame (4) TD-20BPS 22365 up
	620 140 C1	WASHER, hardened (4) TD-20BPS 22365 up
	610 141 C1	WASHER, hardened (4) TD-20BPS 22365 up

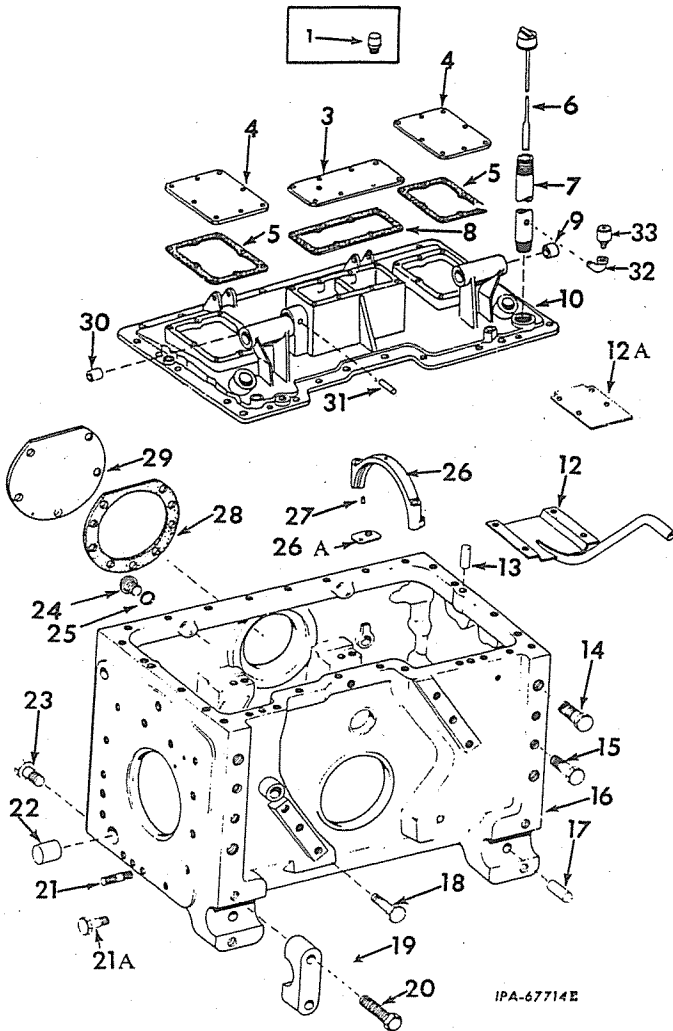
REF. NO.	I.H. PART NUMBER	DESCRIPTION
2	607 607 C11	DOOR, front frame front 5/8 x 1-1/8" hex-hd cap SCREW (10)
3	604 978 C11	DOOR, oil pan 5/8 x 1-1/8" hex-hd cap SCREW (2)
4	334 394 R21	DOOR, front frame center 3/4 x 1-1/4" hex-hd cap SCREW (4)
5	331 901 R13	DOOR, front frame rear 5/8 x 1-1/8" hex-hd cap SCREW (8)
6	325 656 R1	RETAINER, dowel (2)
7	325 914 R2	DOWEL, front frame to rear frame (2)
	604 021 C1	TREAD, safety walk (X)

X - As Required.

FRAME



REAR FRAME



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	470 921 R91	FILTER w/ELEMENT, breather TD-20BP 4001 to 4215
3	325 833 R1	COVER, planetary inspection (for tractors TD-20BP 4001 to 4425, order COVER, 325 833 R1, FITTING, 38 026 DM, NUT, 37 165 D and TUBE, 341 890 R1) (for tractors TD-20BP 4426 to 21206 and TD-20BPS 6110 to 21206, order COVER, 325 833 R1, BREATHER, 324 042 R91, ELBOW, 105 423 and ELBOW, 606 845 C1) TD-20BP 21207 up TD-20BPS 21207 up 3/8 x 1" hex-hd cap SCREW (8) 3/8" lock WASHER (8)
4	325 831 R1	COVER, brake inspection (2) 3/8 x 1" hex-hd cap SCREW (8) 3/8" lock WASHER (8)
5	325 832 R1	GASKET, brake inspection cover (2)

FRAME



REAR FRAME - CONTINUED

REF. NO.	I. H. PART NUMBER	DESCRIPTION
6	609 956 C11	ROD, rear frame oil level
7	616 238 C1	PIPE, rear frame oil level rod (together with BREATHER, 324 042 R91, ELBOW, 105 423 and ELBOW, 606 845 C1, will work for PIPE, 1-1/4 x 27" long)
8	325 834 R1	GASKET, planetary inspection cover
9	279 247 R1	BUSHING, pivot brake (4)
10	334 917 R51	COVER w/four BUSHING, 279 247 R1, two BUSHING, 345 974 R2 and two PIN, 103 741, rear frame
	336 405 R1	SCREW, 3/4 x 1-3/4" twelve point counter-bore (3)
	340 729 R1	SCREW, 5/8 x 1-3/4" twelve point counter-bore (2) 5/8 x 5/8" hex-soc-set SCREW (4) 5/8 x 1-3/4" hex-hd cap SCREW (21) 3/4 x 1-3/4" hex-hd cap SCREW (5)
12	334 882 R11	PIPE, rear frame sump (see NOTE A)
12A	611 207 C1	PLATE, rear frame sump tube (see NOTE B)
	321 872 R1	3/8 x 3/4" hex-hd cap SCREW (4)
	604 673 R1	PLATE, rear frame sump plate lock (4)
13	250 868 R1	PIN, rear frame to cover dowel (4)
14	20 694 R1	BOLT, rear frame to front frame (Large) (will work for 1-1/2" NUT and STUD 334 982 R2) (4)
15		BOLT, 1-1/4" x 3" rear frame to front frame (Small) (will work for 1-1/4" NUT and STUD 334 836 R2) (4)
16	611 057 C91	FRAME, rear (see NOTE B) (Composed of - 8 BOLT 19 988 R1 2 CAP 345 626 R11 2 CAP 611 062 C1 1 DOWEL 323 395 R1 2 DOWEL 325 825 R1 §1 FRAME 4 PIN 250 868 R1 2 PLUG 21 502 R1 1 PLUG 271 647 R1 12 STUD 334 983 R1)

NOTE A - TD-20BP 4001 to 20180, except 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178, and 20179.
TD-20BPS 6110 to 20180, except 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178, and 20179.

NOTE B - TD-20BP 20181 up, also 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178, and 20179.
TD-20BPS 20181 up, also 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178, and 20179.

§ - Not Furnished Separately.

FRAME



REF. NO.	I.H. PART NUMBER	DESCRIPTION
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REAR FRAME - CONTINUED

16	334 459 R93	FRAME, rear (see NOTE A) (order the following parts - 1 ADAPTER 285 235 R91 4 BOLT 336 519 R1 4 BOLT 20 694 R1 12 BOLT 20 695 R1 6 BOLT 20 833 R1 4 BOLT 1-1/4 x 3" 1 CONNECTOR 606 673 C1 1 CONNECTOR 606 819 C1 1 ELBOW 105 422 2 ELBOW 606 845 C1 2 ELBOW 610 473 C1 1 FRAME 611 057 C91 1 PLATE 611 207 C1 4 PLATE 604 673 C1 2 RETAINER 325 436 R3 2 RING 350 667 R1 1 TEE 610 041 C1 2 TEE 610 472 C1 1 TUBE 611 001 C21 1 TUBE (LH) 611 006 C11 1 TUBE (RH) 611 007 C11 1 TUBE (LH) 611 008 C11 1 TUBE (RH) 611 009 C11 1 TUBE 612 773 C11)
17	323 395 R1	DOWEL, pivot shaft
18	20 833 R1	BOLT, rear frame to transmission case (will work for 3/4" NUT and STUD 57 382 D) (6)
19	345 732 R1	CAP, pivot shaft (2) (see NOTE A)
19	611 062 C1	CAP, pivot shaft (2) (see NOTE B)
20	19 988 R1	BOLT, 1-1/4 x 5" (8)
21	334 983 R1	STUD, rear frame to sprocket drive carrier (12)
21A	336 519 R1	BOLT, rear frame to sprocket drive carrier (4)
22	325 825 R1	DOWEL, sprocket drive carrier (2)
23	20 695 R1	BOLT, drawbar mounting (will work for 1-1/4 NUT and STUD 253 173 R5) (12)
24	11 749 R1	PLUG, mounting hole (used on FRAME, 334 459 R91 only) (2)
25	142 756	GASKET, 1-1/4" annular (used only on FRAME, 334 459 R91) (2)
26	345 626 R11	CAP, planet carrier bearing (2) (Composed of - §1 CAP 3 PIN 325 411 R1 4 SHIM 345 641 R1 5 SHIM 345 642 R1 1 INSTALLATION INSTRUCTIONS IZG-6592) 5/8 x 4-3/4" hex-hd cap SCREW (4)
26A	345 641 R1	SHIM (.010") (4)
26A	345 642 R1	SHIM (.003") (5)
27	325 411 R1	PIN, bearing cap dowel (6)
28	325 429 R1	GASKET, rear power take-off cover plate
29	253 174 R2	PLATE, rear power take-off cover 5/8 x 1" hex-hd cap SCREW (5)
30	325 415 R1	BUSHING, push rod lever shaft TD-20 BP 4101 to 4667 (Order the following parts - 2 BEARING 368 372 R91 2 BUSHING 345 974 R2 1 DRAWING IZG-6749 4 RACE 306 970 R1)

FRAME



REF. NO.	I.H. PART NUMBER	DESCRIPTION
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REAR FRAME - CONTINUED

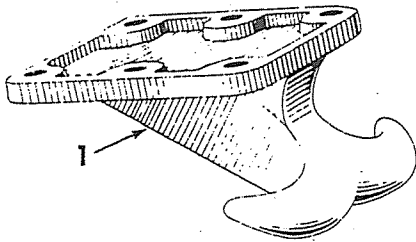
30	345 974 R2	BUSHING, push rod lever shaft (2) TD-20BP 4668 up (2) TD-20BPS 6110 up
31	103 741	PIN, steering brake adjusting aligning (2)
32	105 423	ELBOW, rear frame breather (used with PIPE, 616 238 C1)
33	324 042 R91	BREATHER, rear frame (used with PIPE, 616 238 C1)
	325 425 R2	CLIP, rear frame oil level rod (see NOTE A) 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
	104 940	CORK, No. 4 (X)
	106 623	CORK, No. 8 (X)
	117 928	CORK, No. 14 (X)
	21 502 R1	PLUG, brake fork adjusting hole (2)
	271 647 R1	PLUG, drain

NOTE A - TD-20BP 4001 to 20180, except 20162, 20164,
20166, 20167, 20169, 20170, 20172, 20173,
20175, 20176, 20178, and 20179.
TD-20BPS 6110 to 20180, except 20162, 20164,
20166, 20167, 20169, 20170, 20172, 20173,
20175, 20176, 20178, and 20179.
(X) - As Required.

FRAME



FRONT PULL HOOK

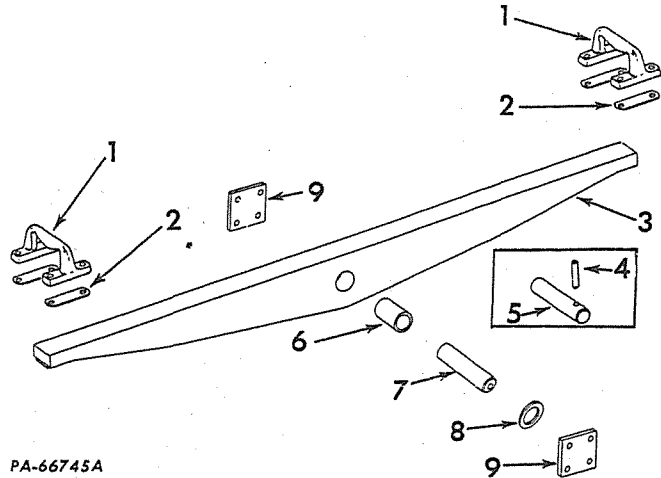


IPA-67563



FRAME

EQUALIZER BAR
(Not Used With Sideboom Crawler Tractors)



PA-66745A

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	334 517 R91	ATTACHMENT, front pull hook (Consists of HOOK, 5 980 D) (See NOTES 1 and 3)
1	5 980 D	HOOK, front pull 7/8" NUT (6) 7/8 x 2" hex-hd cap SCREW (6)

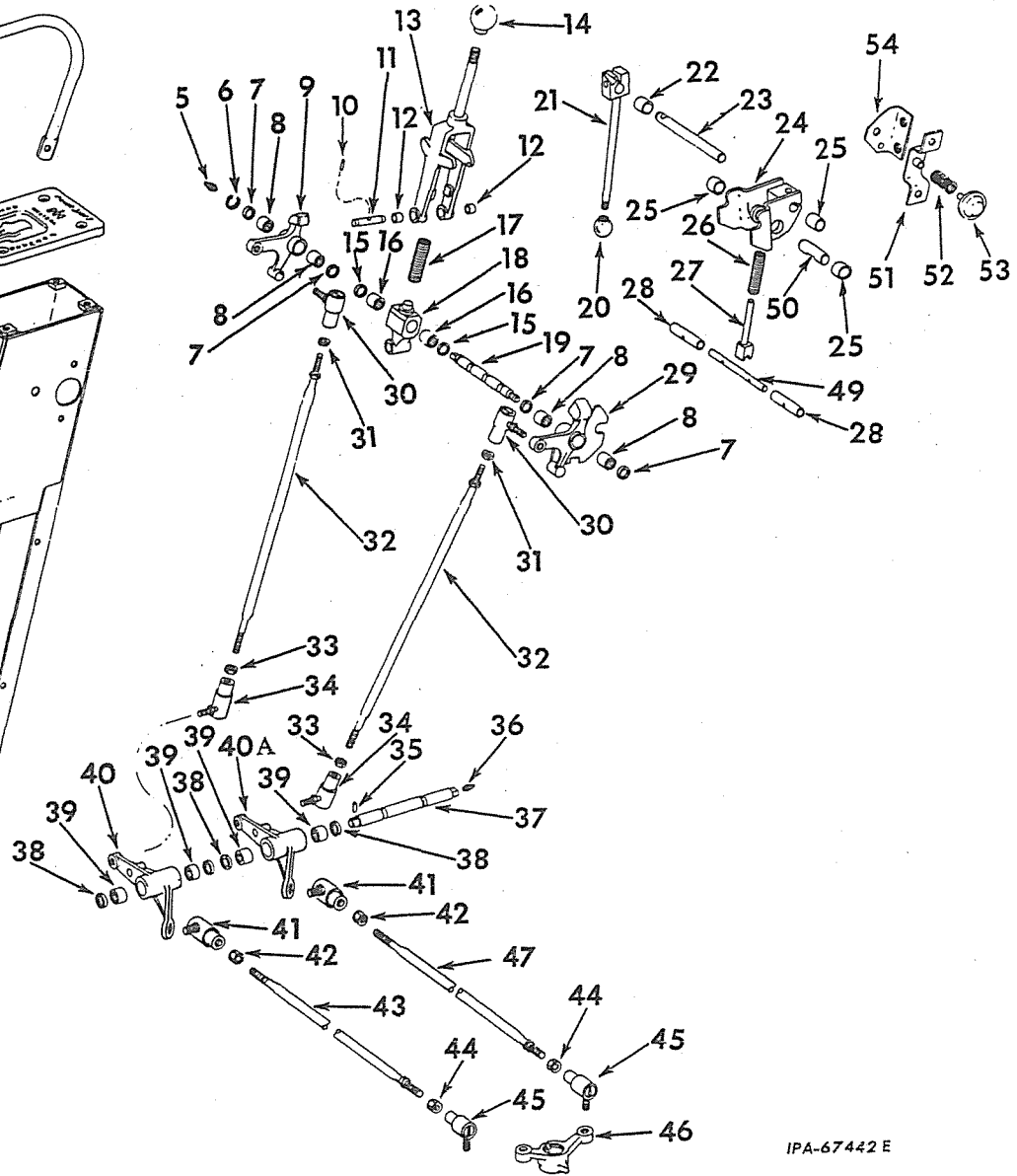
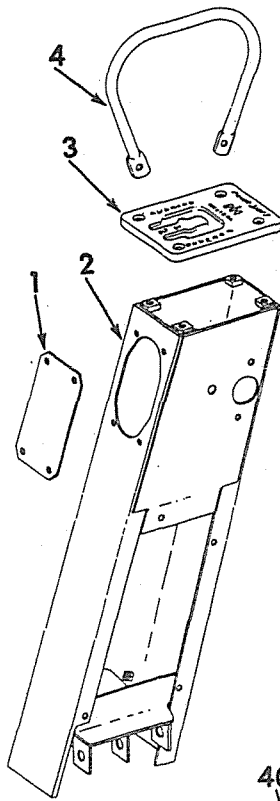
REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	330 688 R3	BRACKET, equalizer bar rebound (2) 5/8 x 1-3/4" hex-hd cap SCREW (8) 5/8" lock WASHER (8)
2	330 692 R1	SHIM, equalizer bar rebound bracket (.049") (X)
3	334 892 R92	BAR w/ BUSHING, 334 897 R2 equalizer (order PACKAGE, 607 967 C91)
3	607 967 C91	PACKAGE, equalizer bar field service (consists of BUSHING, 334 897 R2 two pad 334 178 R1 and two pads 603 321 C1)
4	341 700 R1	PIN, equalizer bar pivot shaft locking (used with SHAFT, 334 898 R1) TD-20BP 4001 to 4976 also (+)
5	334 898 R1	SHAFT, equalizer bar pivot TD-20BP 4001 to 4976 also (+)
6	334 897 R2	BUSHING, pivot shaft
7	603 283 C1	SHAFT, equalizer bar pivot TD-20BP 4977 up except (+)
8	604 556 C1	SPACER, equalizer
9	603 282 C1	PLATE, equalizer bar pivot shaft retaining TD-20B 4977 up except (+)
	334 178 R1	PAD, equalizer bar wear (1/4") (part of PACKAGE, 607 967 C91)
	603 321 C1	PAD, equalizer bar wear (1/2") (part of PACKAGE, 607 967 C91)
	603 280 C1	HUB, equalizer bar pivot shaft

NOTE 1 - Factory Application - Order on Machine Order Form.
NOTE 3 - Field Application - Order Through Regular Service Parts Channels.
(+) - 5143, 5144, 5145, and 5148
X - As Required.



TRANSMISSION

GEAR SELECTOR LEVER AND RELATED PARTS
TD-20BP 4001 to 22000
TD-20BPS 6110 to 22000



IPA-67442 E

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	334 670 R1	PLATE, gear selector linkage access cover (2) 3/8 x 5/8" hex-hd cap SCREW (8) 3/8" lock WASHER (8)
2	334 654 R11	HOUSING w/two BUSHING, 304 483 R1, gear selector controls 7/16 x 1-1/8" hex-hd cap SCREW (4) 7/16" lock WASHER (4)
3	331 719 R1	GATE, gear selector hand lever (Not for use with sideboom crawler tractors) TD-20BP 4001 to 4605 (Order the following parts - 1 GATE 331 719 R2 1 PLATE 603 745 C91)



TRANSMISSION

GEAR SELECTOR LEVER AND RELATED PARTS - CONTINUED
TD-20BP 4001 to 22000
TD-20BPS 6110 to 22000

REF. NO.	I. H. PART NUMBER	DESCRIPTION
3	331 719 R2	GATE, gear selector hand lever (Not for use with sideboom crawler tractors) TD-20BP 4606 to 22000 3/8 x 3/4" f-csk-hd SCREW (4)
3	331 718 R2	GATE, gear selector hand lever (for sideboom crawler tractors) TD-20BPS 6110 to 22000 3/8 x 3/4" f-csk-hd SCREW (4)
4	334 664 R1	GUARD, gear selector hand lever 7/16 x 3/4" hex-hd cap SCREW (2) 7/16" lock WASHER (2)



TRANSMISSION

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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GEAR SELECTOR LEVER AND RELATED PARTS - CONTINUED
 TD-20BP 4001 to 22000
 TD-20BPS 6110 to 22000

5	109 461	FITTING, shaft lubrication TD-20BP 5210 up TD-20BPS 6110 up
5	66 584 D	FITTING, 3/16" straight drive type lubrication TD-20BP 4001 to 5209
6	269 174 R1	RING, selector lever shaft snap
7	336 181 R91	SEAL, bellcrank (4)
8	336 180 R91	BEARING, bellcrank (4)
9	334 632 R21	BELLCRANK w/two BEARING, 336 180 R91 and two SEAL, 336 181 R91, LH selector hand lever
10	20 081 R1	PIN, spirol (3/32 x 3/4")
11	327 895 R2	PIN, gear selector hand lever to hub
12	604 167 C1	BUSHING, lever (2)
13	334 629 R41	LEVER w/two BUSHING, 604 167 C1, gear selector hand
14	264 055 R2	BALL, gear selector hand lever
15	336 181 R91	SEAL, hub (2)
16	336 180 R91	BEARING, hub (2)
17	69 806 D	SPRING, hand lever return
18	334 631 R11	HUB w/two BEARING, 336 180 R91 and two SEAL, 336 181 R91, gear selector hand lever
19	345 508 R2	SHAFT, selector lever hub and bellcrank 7/16" NUT 7/16" lock WASHER
20	307 839 R1	BALL, safety lock lever
21	334 648 R91	LEVER, safety lock 7/16NF x 1-1/4" hex-hd cap SCREW 7/16" lock WASHER
22	304 483 R1	BUSHING, safety lock shaft (2)
23	331 940 R1	SHAFT, safety lock lever
24	331 945 R91	CAM w/two BUSHING, 327 466 R1, safety lock 7/16NF x 1-1/4" hex-hd cap SCREW 7/16" lock WASHER
25	327 466 R1	BUSHING, safety lock cam (2)
26	331 953 R2	SPRING, safety lock
27	327 912 R3	GUIDE, spring
28	331 949 R1	SPACER, guide (2) 1/8 x 3/4" cotter PIN (2)
29	334 633 R21	BELLCRANK w/two BEARING, 336 180 R91 and two SEAL, 336 181 R91, RH selector hand lever
30	347 638 R91	JOINT, selector hand lever ball (RH thread) (2) 3/8" internal tooth lock WASHER (2)
31		NUT, 3/8NF (2)
32	604 322 C91	LINK, upper hand lever (2)
33		NUT, 3/8NF (LH thread) (2)
34	347 639 R91	JOINT, selector hand lever ball (LH thread) (2) 3/8" internal tooth lock WASHER (2)
36	66 584 D	FITTING, 3/16" straight drive type
36	109 461	FITTING, shaft lubrication (2) TD-20BP 5210 up (2) TD-20BPS 6110 up



TRANSMISSION

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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GEAR SELECTOR LEVER AND RELATED PARTS - CONTINUED
 TD-20BP 4001 to 22000
 TD-20BPS 6110 to 22000

35	364 436 R1	PIN, spiral (3/16 x 1")
37	345 509 R2	SHAFT, lower bellcrank
38	336 181 R91	SEAL, bellcrank (4)
39	336 180 R91	BEARING, bellcrank (4)
40	338 185 R11	BELLCRANK w/two BEARING, 336 180 R91 lower rear and two SEAL, 336 181 R91, gear selector
40A	338 185 R11	BELLCRANK w/two BEARING, 336 180 R91 and two SEAL, 336 181 R91, gear selector lower front
41	347 639 R91	JOINT, selector lever lower ball (LH thread) (2) 3/8" internal tooth lock WASHER (2)
42		NUT, 3/8NF (LH thread) (2)
43	604 319 C91	LINK, forward gear selector lower
44		NUT, 3/8NF (2)
45	347 638 R91	JOINT, selector lever lower ball (RH thread) (2) 3/8" internal tooth lock WASHER (2)
46	338 067 R2	LEVER, transmission speed selector 3/8" NUT 3/8 x 2" hex-hd cap SCREW 3/8" lock WASHER
47	604 318 C91	LINK, lower gear selector reverse
49	331 948 R2	SHAFT, guide
50	327 910 R2	SHAFT, safety lock
51	334 667 R11	SUPPORT, starter button TD-20BP 4001 to 20075 TD-20BPS 6110 to 20075 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
51	604 841 C91	SUPPORT, starter button TD-20BP 20076 up TD-20BPS 20076 up 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
52	334 666 R1	SPRING, push button TD-20BP 4001 to 20075 TD-20BPS 6110 to 20075
52	604 840 C1	SPRING, push button TD-20BP 20076 up TD-20BPS 20076 up
53	334 665 R11	BUTTON, starting switch push TD-20BP 4001 to 20075 TD-20BPS 6110 to 20075
53	604 838 C11	BUTTON, starting switch push TD-20BP 20076 up TD-20BPS 20076 up
54	334 669 R11	SUPPORT, starter switch TD-20BP 4001 to 6444 TD-20BPS 6110 to 6444 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
54	604 837 C11	SUPPORT, starter switch TD-20BP 6445 to 20702 TD-20BPS 6445 to 20702 (Order the following parts - 1 SWITCH 700 395 C91 1 SUPPORT 700 392 C1)
54	700 392 C1	SUPPORT, starter switch TD-20BP 20703 up TD-20BPS 20703 up 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga. flat WASHER (2)
3	044 436 R1	"O" RING, transmission case upper (2-5/8 x 3 x 3/16")

TRANSMISSION



MEMORANDA



REF. NO.	I.H. PART NUMBER	DESCRIPTION
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GEAR SELECTOR LEVER AND RELATED PARTS - CONTINUED
 TD-20BP 4001 to 22000
 TD-20BPS 6110 to 22000

703 264 C91 PACKAGE, transmission controls field improvement
 TD-20BP 4001 to 22000
 TD-20BPS 6110 to 22000

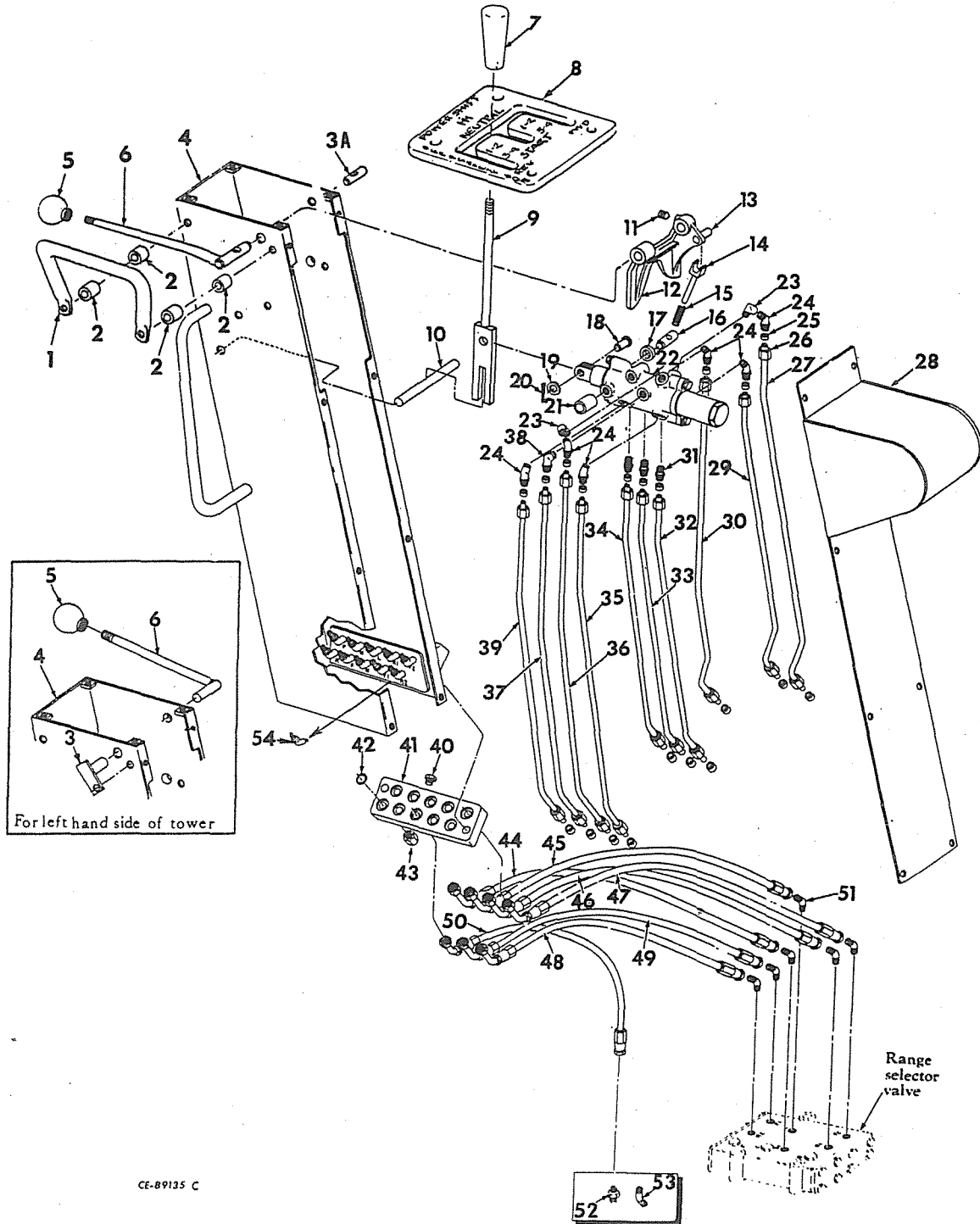
(Composed of -

- 1 ADAPTER, neutral hose
(not used on TD-20 Series B tractors) 9 409 910
- 1 ELBOW, neutral hose 307 858 R1
- 6 ELBOW, range selector valve 9 402 824
- 1 GASKET, hydraulic valve spacer 616 302 C1
- 1 GROMMET, switch harness 617 259 C1
- 1 HARNESS, starting switch 338 057 R92
- 1 MANIFOLD w/HOSES, selector valve (for components see list of parts under details of "Hydraulic Transmission Controls and Related Parts" TD-20BP 22001 up; TD-20BPS 22001 up)
- 2 3/8 x 1-1/4" hex-hd cap SCREW
- 2 3/8" lock WASHER
- 1 PLUG, decelerator drain tube inlet (in torque converter housing) 444 613
- 3 PLUG, range selector valve 444 652
- 10 RING, selector valve manifold sealing 355 966 R1
- 5 RING, selector valve sealing 379 181 R1
- 1 RING, selector valve sealing 574 069 R1
- 1 SPACER, hydraulic valve 616 301 C1
- 8 BOLT, valve spacer 617 028 C1
- 8 5/16" long WASHER
- 1 SWITCH, starting 700 395 C91
- 1 TOWER ASSY, hydraulic control (for components see list of parts under details of "Hydraulic Transmission Controls and Related Parts" TD-20BP 22001 up; TD-20BPS 22001 up)
- 1 VALVE ASSY, range selector (for components see list of parts under details of "Range Selector Valve" TD-20BP 22001 up; TD-20BPS 22001 up) 700 021 C91
- 3 3/8 x 2-1/2" hex-hd cap SCREW
- 3 3/8" lock WASHER)



TRANSMISSION

HYDRAULIC TRANSMISSION CONTROLS AND RELATED PARTS
 TD-20BP 22001 to 22895
 TD-20BPS 22001 to 22895



CE-89135 C



TRANSMISSION

HYDRAULIC TRANSMISSION CONTROLS AND RELATED PARTS - CONTINUED
 TD-20BP 22001 to 22895
 TD-20BPS 22001 to 22895



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
HYDRAULIC TRANSMISSION CONTROLS AND RELATED PARTS - CONTINUED TD-20BP 22001 to 22895 TD-20BPS 22001 to 22895		
		TOWER, hydraulic transmission control (Consists of the following parts - except as noted -
1	334 644 R1	GUARD, pilot control valve lever 7/16 x 1-7/8" hex-hd cap SCREW (2) (L.H. side of Tower) 1/2 x 1-1/8" x 14 ga flat WASHER (forward end only) (2) 7/16" lock WASHER (2) 7/16 x 2-3/4" hex-hd cap SCREW (R.H. side of Tower)
2	17 527 D	SPACER, lever guard (2)
3	700 036 C1	SHAFT, safety lock (for L.H. side of Tower)
3A	620 048 C1	SHAFT, safety lock (for R.H. side of Tower)
4	700 033 C3	HOUSING w/JUNCTION BLOCK, control tower 7/16 x 1-1/8" hex-hd cap SCREW (4) 7/16" lock WASHER (4)
5	307 839 R1	KNOB, safety lock lever
6	700 035 C1	LEVER, safety lock
7	347 768 R1	HANDLE, pilot control valve lever
8	617 258 C1	GATE, gear shift lever 3/8 x 3/4" flat-hd SCREW (4)
9	700 032 C1	LEVER, pilot control valve
10	617 112 C1	PIN, pilot control valve lever pilot 3/8 x 3/4" hex-hd cap SCREW 3/8" lock WASHER
11	617 256 C1	SCREW, safety lock lever set (2)
12	700 034 C1	BRACKET w/PIN, 616 270 C1, safety lock cam
13	616 270 C1	PIN, safety lock cam bracket
14	327 912 R3	GUIDE, safety lock spring
15	331 953 R2	SPRING, safety lock
16	327 910 R2	SHAFT, safety lock pivot
17	617 068 C1	BUSHING, safety lock pivot
18	27 128 H	PIN, rod end
19	52 917 R1	WASHER, pilot control valve lever
20	103 384	PIN, 1/8 x 3/4" cotter
21	617 113 C1	SPACER, pilot control valve (4)
22	700 030 C92	VALVE ASSY, pilot control (for components see list of parts under details of "Pilot Control Valve") 3/8 x 1-5/8" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
23	9 409 931	ELBOW, 1/8 x 90° street (pilot control valve) (R1 and F1 positions) (2)
24	615 307 C1	ELBOW, pilot control valve (R1, F1, F2, R2, F and R positions) (6)
25	915 500 R1	SLEEVE, tube (2)
26	915 499 R1	NUT, tube (20)
27	617 095 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "R1" position on pilot valve to "R1" position on junction block
28	700 037 C1	COVER, control tower housing 3/8 x 3/4" hex-hd cap SCREW (8) 3/8" lock WASHER (8)
29	617 094 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "F2" position on pilot valve to "F2" position on junction block
30	616 267 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "R" position on pilot valve to "R" position on junction block



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
HYDRAULIC TRANSMISSION CONTROLS AND RELATED PARTS - CONTINUED TD-20BP 22001 to 22895 TD-20BPS 22001 to 22895		
31	606 885 C1	CONNECTOR, pilot control valve (P, M and L positions) (3)
32	617 096 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "L" position on pilot control valve to "L" position on junction block
33	617 096 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "M" position on pilot control valve to "M" position on junction block
34	617 096 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "P" position on pilot control valve to "P" position on junction block
35	617 098 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "R2" position on pilot control valve to "R2" position on junction block
36	617 106 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "F1" position on pilot control valve to "F1" position on junction block
37	617 097 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "N" position on pilot control valve to "N" position on junction block
38	319 615 R1	ELBOW, pilot control valve ("N" position)
39	616 266 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "F" position on pilot control valve to "F" position on junction block.
40	444 613	PLUG, 1/8" sq-hd pipe (*)
41	703 250 C1	MANIFOLD, transmission selector valve (*) 3/8 x 1-1/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
42	355 966 R1	"O" RING, 7/16 x 5/8 x 3/32" (*) (10)
43	9 403 370	CAP, 5/16" hex-hd (*) (3)
44	702 432 C2	HOSE w/FITTINGS, "M" position on manifold-to "M" position on transmission range selector valve (*)
45	702 432 C2	HOSE w/FITTINGS, "L" position on manifold-to "L" position on transmission range selector valve (*)
46	702 432 C2	HOSE w/FITTINGS, "R1" position on manifold-to "R1" position on transmission range selector valve (*)
47	702 432 C2	HOSE w/FITTINGS, "F2" position on manifold-to "F2" position on transmission range selector valve (*)
48	702 432 C2	HOSE w/FITTINGS, "R2" position on manifold-to "R2" position on transmission range selector valve (*)
49	702 432 C2	HOSE, w/FITTINGS, "F1" position on manifold-to "F1" position on transmission range selector valve (*)
50	702 434 C2	HOSE w/FITTINGS, "N" position on manifold-to-hi-lo shifter housing on transmission (*)
51	9 402 824	ELBOW, range selector valve (5/16 x 45°) (*) (6)
52		NOT USED
53	307 858 R1	ELBOW, neutral hose (in hi-lo shifter housing) (*)
54	615 307 C1	ELBOW, junction block tower (10) TD-20BP 22266 to 22895 TD-20BPS 22266 to 22895
	327 273 R91	STRAP, hose (*) (2)

* - Not part of Tower Assy.

TRANSMISSION

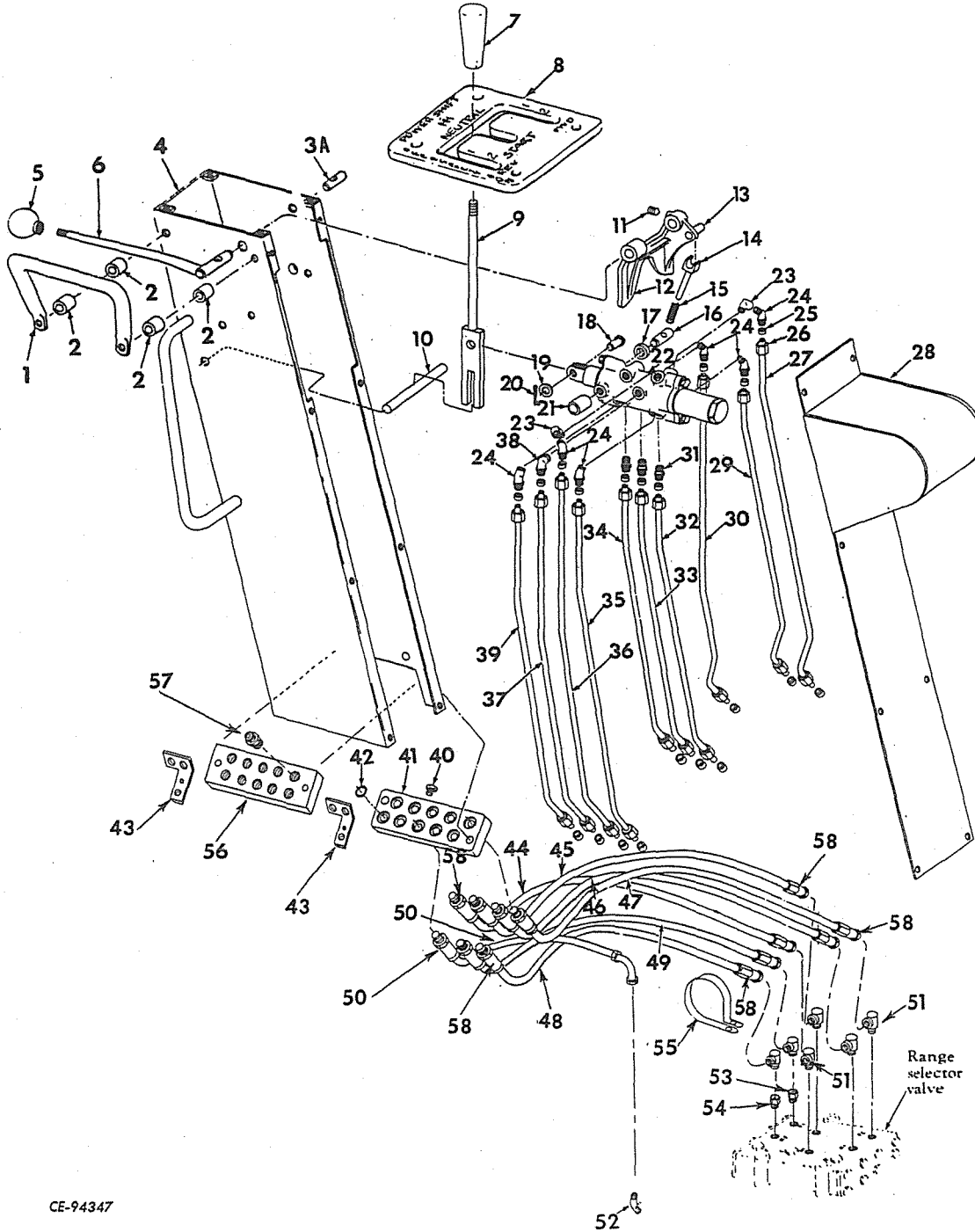


HYDRAULIC TRANSMISSION CONTROLS AND RELATED PARTS - CONTINUED
TD-20BP 22896 up
TD-20BPS 22896 up

TRANSMISSION



HYDRAULIC TRANSMISSION CONTROLS AND RELATED PARTS - CONTINUED
TD-20BP 22896 up
TD-20BPS 22896 up



CE-94347



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC TRANSMISSION CONTROLS AND RELATED PARTS - CONTINUED
TD-20BP 22896 up
TD-20BPS 22896 up

		TOWER, hydraulic transmission control (Consists of the following parts - except as noted -
1	334 644 R1	GUARD, pilot control valve lever 1/2 x 1-1/8" x 14 ga flat WASHER (2) 7/16" lock WASHER (2) 7/16 x 2-3/4" hex-hd cap SCREW
2	17 527 D	SPACER, lever guard (2)
3A	620 048 C1	SHAFT, safety lock
4	620 366 C1	HOUSING, control tower 7/16 x 1-1/8" hex-hd cap SCREW (2) 7/16" lock WASHER (2)
5	307 839 R1	KNOB, safety lock lever
6	700 035 C1	LEVER, safety lock
7	347 768 R1	HANDLE, pilot control valve lever
8	617 258 C1	GATE, gear shift lever 3/8 x 3/4" flat-hd SCREW (4)
9	700 032 C1	LEVER, pilot control valve
10	617 112 C1	PIN, pilot control valve lever pilot 3/8 x 3/4" hex-hd cap SCREW 3/8" lock WASHER
11	617 256 C1	SCREW, safety lock lever set (2)
12	700 034 C1	BRACKET w/PIN, 616 270 C1, safety lock cam
13	616 270 C1	PIN, safety lock cam bracket
14	327 912 R3	GUIDE, safety lock spring
15	331 953 R2	SPRING, safety lock
16	327 910 R2	SHAFT, safety lock pivot
17	617 068 C1	BUSHING, safety lock pivot
18	27 128 H	PIN, rod end
19	52 917 R1	WASHER, pilot control valve lever
20	103 384	PIN, 1/8 x 3/4" cotter
21	617 113 C1	SPACER, pilot control valve (4)
22	700 030 C92	VALVE ASSY, pilot control (for components see list of parts under details of "Pilot Control Valve") 3/8 x 1-5/8" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
23	9 409 931	ELBOW, 1/8 x 90° street (pilot control valve) (R1 and F1 positions) (2)
24	615 307 C1	ELBOW, pilot control valve (R1, F1, F2, R2, F and R positions) (6)
25	915 500 R1	SLEEVE, tube (20)
26	915 499 R1	NUT, tube (20)
27	620 373 C91	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "R1" position on pilot valve to "R1" position on junction block
28	700 037 C1	COVER, control tower housing 3/8 x 3/4" hex-hd cap SCREW (8) 3/8" lock WASHER (8)



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC TRANSMISSION CONTROLS AND RELATED PARTS - CONTINUED
TD-20BP 22896 up
TD-20BPS 22896 up

29	620 371 C91	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "F2" position on pilot valve to "F2" position on junction block
30	620 385 C91	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "R" position on pilot valve to "R" position on junction block
31	606 885 C1	CONNECTOR, pilot control valve (P, M and L positions) (3)
32	620 375 C91	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "L" position on pilot control valve to "L" position on junction block
33	620 375 C91	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "M" position on pilot control valve to "M" position on junction block
34	620 375 C91	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "P" position on pilot control valve to "P" position on junction block
35	620 379 C91	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "R2" position on pilot control valve to "R2" position on junction block
36	620 381 C91	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "F1" position on pilot control valve to "F1" position on junction block
37	620 377 C91	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "N" position on pilot control valve to "N" position on junction block
38	319 615 R1	ELBOW, pilot control valve ("N" position)
39	620 383 C91	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, "F" position on pilot control valve to "F" position on junction block
40	444 613	PLUG, 1/8" sq-hd pipe (*)
41	620 369 C1	MANIFOLD, transmission selector valve (*) 3/8 x 1-1/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
42	355 966 R1	"O" RING, 7/16 x 5/8 x 3/32" (*) (10)
43	620 387 C1	BRACKET, tower manifold (2) 1/4 x 3/4" hex-hd cap SCREW (2) 7/16 x 7/8" hex-hd cap SCREW (2) 1/4" lock WASHER (2) 7/16" lock WASHER (2)
44	625 899 C91	HOSE w/two FITTINGS, 317 767 R91, "M" position on manifold to "M" position on transmission range selector valve (Hose 3/16" ID x 30" long including fittings) (*)
44		HOSE w/o FITTINGS cut length 3/16" ID x 28" long cut from bulk hose 319 705 R1 (*)
45	625 899 C91	HOSE w/two FITTINGS, 317 767 R91, "L" position on manifold to "L" position on transmission range selector valve (Hose 3/16" ID x 30" long including fittings) (*)
45		HOSE w/o FITTINGS, cut length 3/16" ID x 28" long cut from bulk hose 319 705 R1 (*)

* - Not part of Tower Assy.



TRANSMISSION



MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC TRANSMISSION CONTROLS AND RELATED PARTS - CONTINUED
 TD-20BP 22896 up
 TD-20BPS 22896 up

46	625 899 C91	HOSE w/two FITTINGS, 317 767 R91, "R1" position on manifold to "R1" position on transmission range selector valve (Hose 3/16" ID x 30" long including fittings) (*)
46		HOSE w/o FITTINGS, cut length 3/16" ID x 25" long cut from bulk hose 319 705 R1 (*)
47	625 899 C91	HOSE w/two FITTINGS, 317 767 R91, "F2" position on manifold to "F2" position on transmission range selector valve (Hose 3/16" ID x 30" long including fittings) (*)
47		HOSE w/o FITTINGS cut length 3/16" ID x 28" long cut from bulk hose 319 705 R1 (*)
48	625 899 C91	HOSE, w/two FITTINGS 317 767 R91, "R2" position on manifold to "R2" position on transmission range selector valve (Hose 3/16" ID x 30" long including fittings) (*)
48		HOSE, w/o FITTINGS length 3/16" ID x 28" long cut from bulk hose 319 705 R1 (*)
49	625 899 C91	HOSE, w/two FITTINGS 317 767 R91, "F1" position on manifold to "F1" position on transmission range selector valve (Hose 3/16" ID x 30" long including fittings) (*)
49		HOSE, w/o FITTINGS cut length 3/16" ID x 28" long cut from bulk hose 319 705 R1 (*)
50	619 687 C1	HOSE w/FITTINGS, "N" position on manifold-to-hi-lo shifter housing on transmission (*)
51	307 989 R91	ELBOW, range selector valve (5/16" x 45°) (*) (6)
52	307 858 R1	ELBOW, neutral hose (in hi-lo shifter housing) (*)
53	443 998	ADAPTER, range selector valve (in "F1" port)
54	443 998	ADAPTER, range selector valve (in "R2" port)
55	308 872 R1	CLAMP, hose (regulator valve spacer mounting bolt)
56	620 368 C1	MANIFOLD, tower
57	606 885 C1	CONNECTOR, tower manifold (10)
58	317 767 R91	FITTING, male pipe (used w/HOSE 619 682 C91) (12)
	327 273 R91	STRAP, hose (*) (2)
	319 705 R1	HOSE, 3/16" bulk (X) (*)

* - Not part of Tower Assy.
 X - Order Cut Length As Required.



MEMORANDA

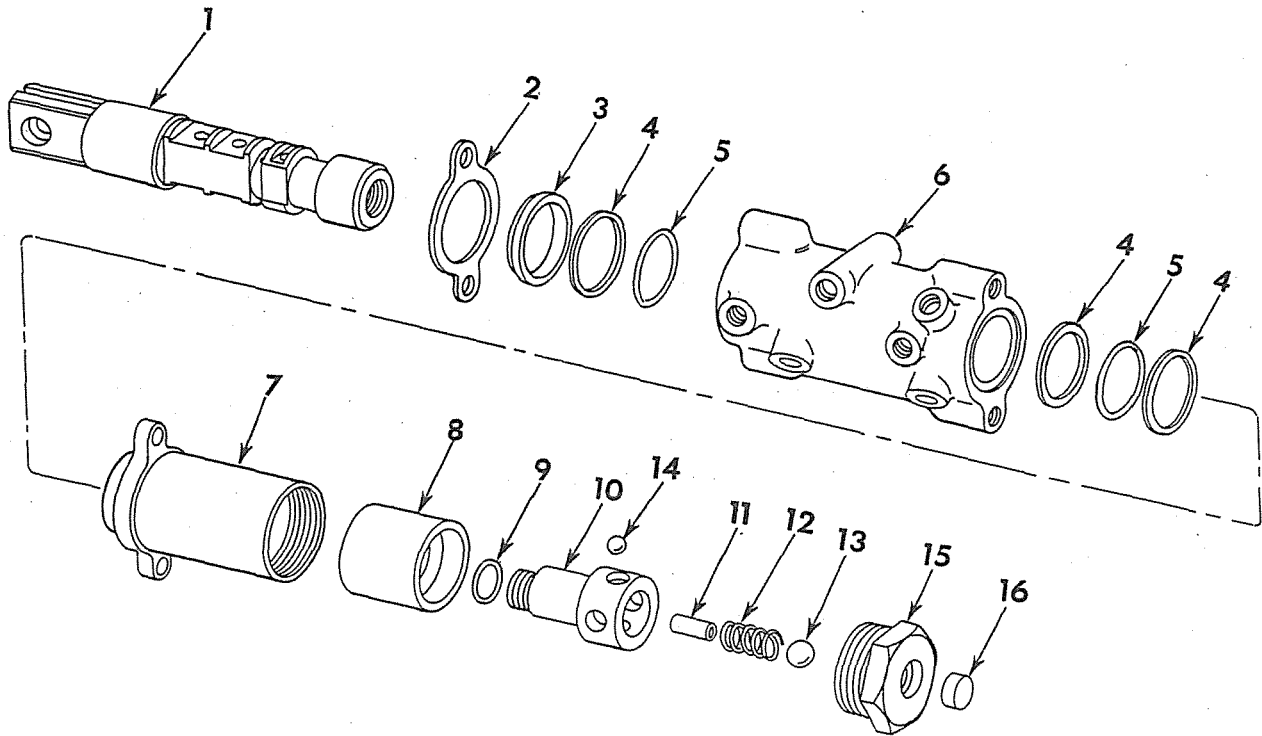


MEMORANDA

TRANSMISSION



PILOT CONTROL VALVE
 TD-20BP 22001 up
 TD-20BPS 22001 up



CE-89097

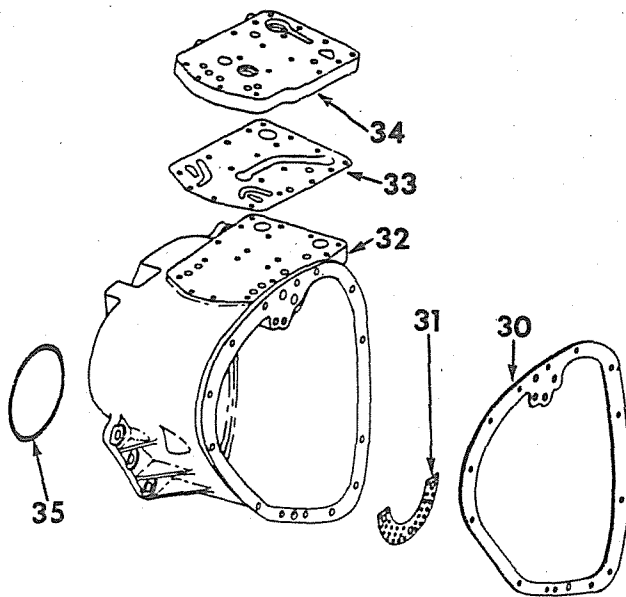
REF. NO.	I.H. PART NUMBER	DESCRIPTION
	700 030 C92	VALVE ASSY, pilot control (Consists of the following parts -
1	617 007 C1	SPOOL, valve
2	617 051 C1	RETAINER, spool seal 5/16 x 5/8" hex-hd cap SCREW (2)
3	617 020 C1	RING, spool wiper
4	617 522 C1	RING, back-up (3)
5	356 005 R1	"O" RING, 1-1/8 x 1-3/8 x 1/8" (2)
6		BODY, valve (Not Furnished Separately)
7	617 046 C1	HOUSING, detent
	616 268 C1	BOLT (2)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
8	617 018 C1	SLEEVE, detent
9	369 384 R1	"O" RING, .414 x .558 x .072
10	617 016 C1	EXTENSION, valve spool
11	17 145 R1	PIN, indexing ball stop
12	624 355 C1	SPRING, indexing
13	16 014 R1	BALL, indexing
14	16 011 R1	BALL, poppet (4)
15	616 269 C11	CAP w/PLUG, 376 429 R1, housing
16	376 429 R1	PLUG, cap



TRANSMISSION

HIGH-LOW SHIFTER LEVER, TRANSMISSION CASE AND COVER



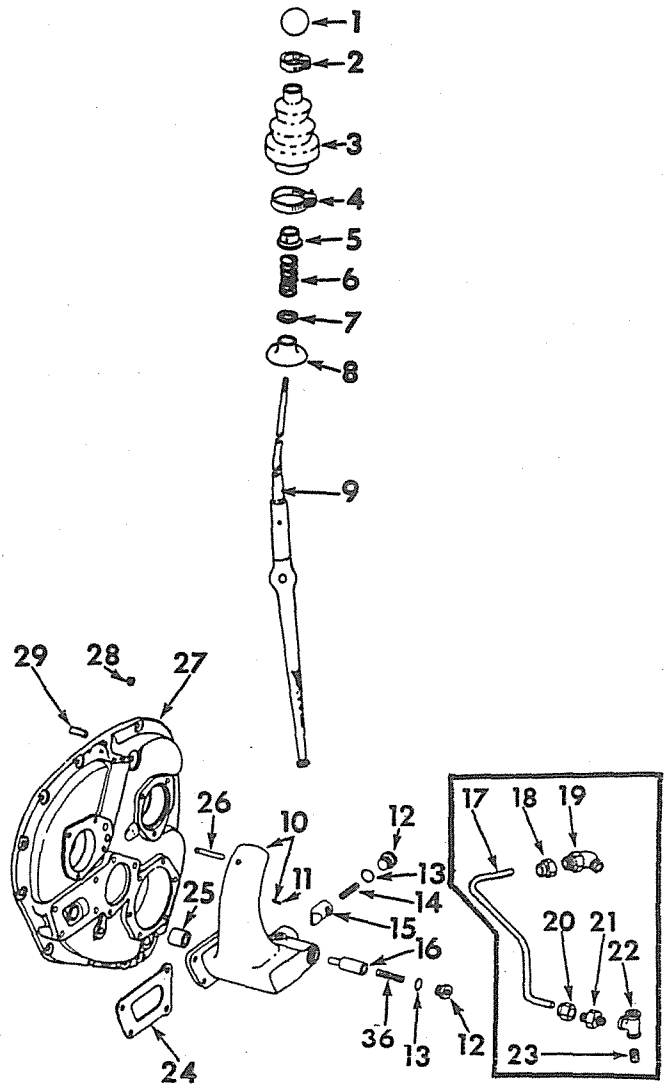
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REF. NO.	I. H. PART NUMBER	DESCRIPTION
331 863 R91		TRANSMISSION ASSY (consists of all parts listed under "Transmission" except "Gear Selector Lever and Related Parts" and "Hydraulic Test Connections") (not for sideboom crawler tractors) (order PACKAGE, 703 281 C91) TD-20BP 4001 to 6301 3/4" NUT (6)
609 962 C91		TRANSMISSION ASSY (consists of all parts listed under "Transmission" except "Gear Selector Lever and Related Parts" and "Hydraulic Test Connections") (not for sideboom crawler tractors) (order PACKAGE, 703 281 C91) TD-20BP 6302 to 20258 3/4" NUT (6)



TRANSMISSION

HIGH-LOW SHIFTER LEVER, TRANSMISSION CASE AND COVER - CONTINUED



REF. NO.	I. H. PART NUMBER	DESCRIPTION
331 862 R91		TRANSMISSION ASSY (consists of all parts listed under "Transmission" except "Gear Selector Lever and Related Parts" and "Hydraulic Test Connections") (for sideboom crawler tractors) (order PACKAGE, 703 282 C91) TD-20BPS 6110 to 6301 3/4" NUT (6)
609 961 C91		TRANSMISSION ASSY (consists of all parts listed under "Transmission" except "Gear Selector Lever and Related Parts" and "Hydraulic Test Connections") (for sideboom crawler tractors) (order PACKAGE, 703 282 C91) TD-20BPS 6302 to 20258 3/4" NUT (6)

TRANSMISSION



REF. NO.	PART NUMBER	DESCRIPTION
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HIGH-LOW SHIFTER LEVER, TRANSMISSION CASE AND COVER - CONTINUED

331 863 R92		TRANSMISSION ASSY (consists of all parts listed under "Transmission" except "Gear Selector Lever and Related Parts" and "Hydraulic Test Connections") (not for sideboom crawler tractors) (Order PACKAGE, 703 281 C91) TD-20BP 20259 to 20764 except 20746, 20747, 20748, and 20750 to 20762 3/4" NUT (6) TD-20BP 4001 to 20180 except 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179
20 833 R1		BOLT, 3/4 x 1-3/4" (6) TD-20BP 20181 up, also 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178, and 20179
331 862 R92		TRANSMISSION ASSY (consists of all parts listed under "Transmission" except "Gear Selector Lever and Related Parts" and "Hydraulic Test Connections") (for sideboom crawler tractors) (order PACKAGE, 703 282 C91) TD-20BPS 20259 to 20764 except 20746, 20747, 20748, and 20750 to 20762 3/4" NUT (6) TD-20BPS 6110 to 20180 except 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179
208 331 R1		BOLT, 3/4 x 1-3/4" (6) TD-20BPS 20181 up, also 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179
331 863 R93		TRANSMISSION ASSY (consists of all parts listed under "Transmission" except "Gear Selector Lever and Related Parts" and "Hydraulic Test Connections") (not for sideboom crawler tractors) TD-20BP 20765 to 22000 also 20746, 20747, 20748 and 20750 to 20762 (Order the following part - 1 PACKAGE 703 281 C91)
20 833 R1		BOLT, mounting (6)
703 276 C92		TRANSMISSION ASSY (consists of all parts listed under TRANSMISSION except "Gear Selector lever and Related Parts" and "Hydraulic Test Connections") (Not for sideboom crawler tractors) TD-20BP 22001 to 23013 (Order the following parts - 1 CONNECTOR 9 402 714 1 CONNECTOR 9 402 713 1 CONNECTOR 875 239 C1 1 HOSE 619 826 C91 1 NIPPLE 190 752 1 RING 297 459 R1 1 TEE 186 553 1 TRANSMISSION 703 276 C94)
703 276 C94		TRANSMISSION ASSY (consists of all parts listed under TRANSMISSION except "Gear Selector Lever and Related Parts" and "Hydraulic Test Connections") (Not for sideboom crawler tractors) TD-20BP 23014 up

TRANSMISSION



REF. NO.	I.H. PART NUMBER	DESCRIPTION
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HIGH-LOW SHIFTER LEVER, TRANSMISSION CASE AND COVER - CONTINUED

331 862 R93		TRANSMISSION ASSY (consists of all parts listed under "Transmission" except "Gear Selector Lever and Related Parts" and "Hydraulic Test Connections") (for sideboom crawler tractors) TD-20BPS 20765 to 22000 also 20746, 20747, 20748 and 20750 to 20762 (Order the following part - 1 PACKAGE 703 282 C91)
20 833 R1		BOLT, mounting (6)
703 277 C92		TRANSMISSION ASSY (consists of all parts listed under TRANSMISSION except "Gear Selector Lever and Related Parts" and "Hydraulic Test Connections") (For sideboom crawler tractors) TD-20BPS 22001 to 23013 (Order the following parts - 1 CONNECTOR 9 402 714 1 CONNECTOR 9 402 713 1 CONNECTOR 875 239 C1 1 HOSE 619 826 C91 1 NIPPLE 190 752 1 RING 297 459 R1 1 TEE 186 553 1 TRANSMISSION 703 277 C94)
703 277 C94		TRANSMISSION ASSY (consists of all parts listed under TRANSMISSION except "Gear Selector Lever and Related Parts" and "Hydraulic Test Connections") (For sideboom crawler tractors) TD-20BPS 23014 up
1	264 055 R2	BALL, shifter lever
2	252 977 R91	CLAMP, shifter lever boot upper
3	325 029 R1	BOOT, high low shifter lever
4	274 088 R91	CLAMP, shifter lever boot lower
5	252 852 R1	STOP, swivel cap spring
6	104 076	RIVET, 3/16 x 1-5/8"
6	252 844 R1	SPRING, swivel cap
7	256 141 R1	WASHER, swivel cap spring
8	325 028 R1	CAP, shifter swivel
9	334 724 R1	LEVER, high low shifter
10	334 708 R11	HOUSING w/PIN, 141 152, high low shifter 7/16 x 1-1/4" hex-hd cap SCREW (4) 7/16" lock WASHER (4)
11	141 152	PIN, 3/16 x 9/16" dowel
12	18 524 R1	PLUG, 1-1/4" sq-soc (2)
13	142 756	GASKET, 1-1/4" annular (2)
14	269 908 R1	SPRING, poppet
15	325 026 R2	POPPET, high low shifter
16	325 027 R1	LOCK, poppet
17	609 506 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1 shifter lock (together with CONNECTOR, 606 819 C1 and ELBOW, 606 845 C1 will work for 334 725 R2) TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000



TRANSMISSION

REF. NO.	I.H. PART NUMBER	DESCRIPTION
HIGH-LOW SHIFTER LEVER, TRANSMISSION CASE AND COVER - CONTINUED		
18	37 165 D	NUT, 3/8" TD-20BP 4001 to 6111 TD-20BPS 6110 to 6111
18	915 499 R1 915 500	NUT SLEEVE TD-20BP 6112 to 22000 TD-20BPS 6112 to 22000
19	37 323 D	ELBOW, 3/8" TD-20BP 4001 to 6111 TD-20BPS 6110 to 6111
19	606 845 C1	ELBOW TD-20BP 6112 to 22000 TD-20BPS 6112 to 22000
20	37 165 D	NUT, 3/8" TD-20BP 4001 to 6111 TD-20BPS 6110 to 6111
20	915 499 R1 915 500 R1	NUT SLEEVE TD-20BP 6112 to 22000 TD-20BPS 6112 to 22000
21	38 026 DM	CONNECTOR, 3/8" TD-20BP 4001 to 6111 TD-20BPS 6110 and 6111
21	606 819 C1	CONNECTOR, shifter lock tube TD-20BP 6112 to 22000 TD-20BPS 6112 to 22000
22	218 239	TEE, 3/8 x 1/4 x 1/4" reducing pipe TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000
23	334 809 R1	NIPPLE, 1/4 x 1-3/8" (shifter lock tube) TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000
24	325 647 R1	GASKET, high low shifter housing
25	298 401 R1	BUSHING, high low shifter shaft (2)
26	306 025 R2	SHAFT, shifter lever
27	331 776 R11	COVER ASSEMBLY, transmission (Composed of - 1 BUSHING 298 401 R1 § 1 COVER 2 DOWEL 125 860 2 PLUG 444 873 1 PLUG 273 469 7/16" NUT (12) PLUG, 3/4" pipe 7/16 x 1-3/4" hex-hd cap SCREW (12) 7/16" lock WASHER (12)
27	273 469	
28	444 873	PLUG, 1/2" hex-soc-hd pipe (cd or zn pltd) (2)
29	125 860	DOWEL, 3/4 x 1-1/2" (2)
30	334 709 R2	GASKET, transmission cover
31	325 616 R1 15 210 D	SCREEN, transmission case oil return 3/8 x 3/4" hex-hd cap SCREW (3) 3/8" lock WASHER (3) 13/32 x 13/16" x 1699. WASHER (3)
32	334 706 R21	CASE w/BUSHING, 298 401 R1, four PLUG, 444 873, two PLUG, 9 409 949 and SCREEN, 325 080 R1, transmission TD-20BP 4001 to 23013 TD-20BPS 6110 to 23013
	444 873	PLUG, 1/2" hex-soc-hd pipe (cd or zn-pltd) (4)
	9 409 949	PLUG, 3/4" NPT (2)



TRANSMISSION

REF. NO.	I.H. PART NUMBER	DESCRIPTION
HIGH-LOW SHIFTER LEVER, TRANSMISSION CASE AND COVER - CONTINUED		
32	334 706 R11	CASE, transmission TD-20BP 23014 up TD-20BPS 23014 up (Order the following parts - 1 CONNECTOR 9 402 714 1 CONNECTOR 9 402 713 1 CONNECTOR 875 239 C1 1 HOSE 619 826 C91 1 NIPPLE 190 752 1 RING 297 459 R1 1 TEE 186 553 1 CASE 334 848 R21)
33	325 041 R1	GASKET, hydraulic valve spacer TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000
33	616 302 C1	GASKET, hydraulic valve spacer TD-20BP 22001 up TD-20BPS 22001 up
34	325 030 R1	SPACER, hydraulic valve TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000
34	616 301 C1	SPACER, hydraulic valve TD-20BP 22001 up TD-20BPS 22001 up
	617 048 C1	BOLT, spacer (8) 5/16" lock WASHER (8)
35	610 418 C1	"O" RING, transmission case lower (8-1/2 x 9 x 1/4")
36	302 426 R1	SPRING, poppet lock
	610 702 C91	VALVE, main regulator (for components see list of parts under details of "Main Regulator Valve") 3/8 x 4-1/4" hex-hd cap SCREW (11) 3/8" lock WASHER (11)
	603 744 C91	VALVE, range selector (for components see list of parts under details of "Range Selector Valve") TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000 5/16 x 4" hex-hd cap SCREW (8) 5/16 x 4-1/4" hex-hd cap SCREW (2) 5/16" lock WASHER (8)
	700 021 C91	VALVE, range selector (for components see list of parts under details of "Range Selector Valve") TD-20BP 22001 up TD-20BPS 22001 up 3/8 x 2-1/2" hex-hd cap SCREW (3) 3/8" lock WASHER (3)
	278 026 R1	WIRE, bulk locking (14 ga) (customer must specify length required) (X)
	611 261 C91	PACKAGE, transmission field improvement TD-20BP 4001 to 20764, except 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 6110 to 20764, except 20746, 20747, 20748 and 20750 to 20762 (Consists of - 1 HOUSING 609 516 C1 1 PACK ASSY 610 753 C91 1 PACK ASSY 610 754 C91 1 RING 257 642 R1 1 SEAL 610 025 C91 2 WASHER 611 259 C1 1 YOKE 609 517 C11)
		X - As Required § - Not Furnished Separately.



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
HIGH-LOW SHIFTER LEVER, TRANSMISSION CASE AND COVER - CONTINUED		

703 281 C92	PACKAGE, transmission field service TD-20BP 4001 to 22000	
	(Consists of -	
1	ADAPTER, neutral hose	9 409 910
1	CONNECTOR, pump inlet tee	9 402 713
1	CONNECTOR, pump inlet tee	9 402 714
1	CONNECTOR, regulator drain	875 239 C1
6	ELBOW, range selector valve	9 402 824
1	GROMMET, starting safety switch harness	617 259 C1
1	HARNESSES, starting safety switch	338 057 R92
1	HOSE, regulator drain to torque converter pump	619 826 C91
1	MANIFOLD w/HOSE, selector valve (for components see list of parts under details of "Hydraulic Transmission Controls and Related Parts" TD-20BP 4001 to 22000)	
1	PLUG, decelerator 444 613 drain tube (in torque converter housing)	
1	RING, connector sealing	297 594 R1
10	RING, selector valve manifold sealing	355 966 R1
1	SWITCH, starting	700 395 C91
1	TEE, pump inlet reducer	186 553
1	TOWER ASSY, hydraulic control (for components see list of parts under details of "Hydraulic Transmission Controls and Related Parts" TD-20BP)	
1	TRANSMISSION ASSY (for components see list of "High-Low Shifter Lever, Transmission Case and Cover")	703 276 C94



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
HIGH-LOW SHIFTER LEVER, TRANSMISSION CASE AND COVER - CONTINUED		

703 282 C92	PACKAGE, transmission field service TD-20BPS 6110 to 22000	
	(Consists of -	
1	ADAPTER, neutral hose	9 409 910
1	CONNECTOR, pump inlet tee	9 402 713
1	CONNECTOR, pump inlet tee	9 402 714
1	CONNECTOR, regulator drain	875 239 C1
6	ELBOW, range selector valve	9 402 824
1	GROMMET, starting safety switch harness	617 259 C1
1	HARNESSES, starting safety switch	338 057 R92
1	HOSE, regulator drain to torque converter pump	619 826 C91
1	MANIFOLD w/HOSE, selector valve (for components see list of parts under details of "Hydraulic Transmission Controls and Related Parts" TD-20BPS 6110 to 22000)	
1	PLUG, decelerator 444 613 drain tube (in torque converter housing)	
1	RING, connector sealing	186 553
10	RING, selector valve manifold sealing	355 966 R1
1	SWITCH, starting	700 395 C91
1	TEE, pump inlet reducer	186 553
1	TOWER ASSY, hydraulic control (for components see list of parts under details of "Hydraulic Transmission Controls and Related Parts" TD-20BPS 6110 to 22000)	
1	TRANSMISSION ASSY (for components see list of "High-Low Shifter Lever, Transmission Case and Cover")	703 277 C94



MEMORANDA

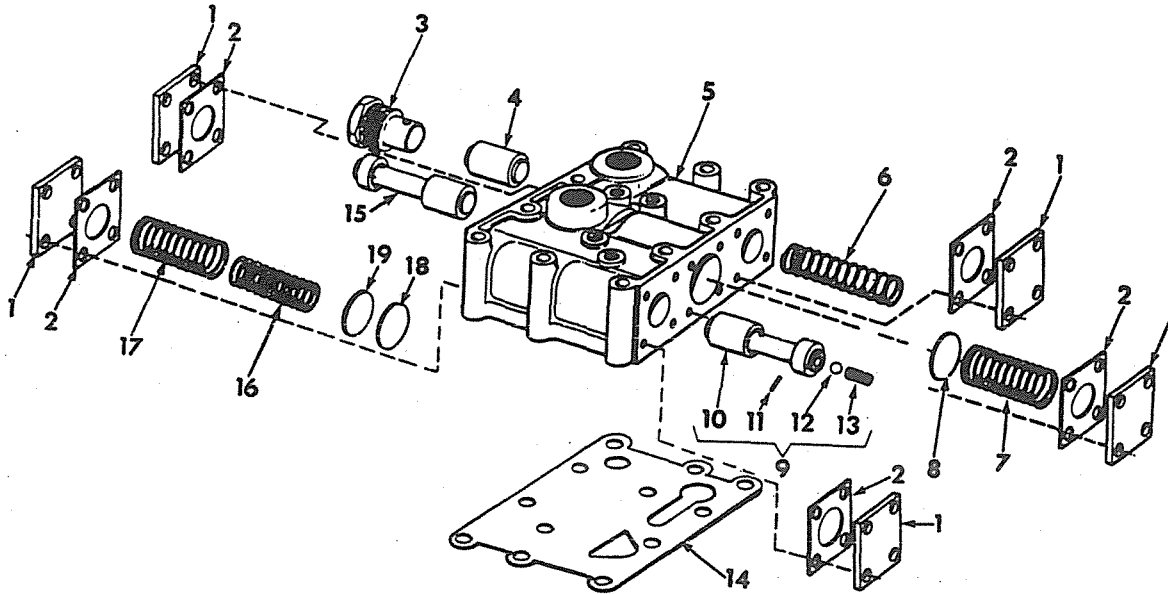


MEMORANDA



TRANSMISSION

MAIN REGULATOR VALVE
(Rockford)



IPA-66252 H

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	610 702 C91	VALVE ASSY, main regulator (includes Refs 1 to 19 and PLUG, 444 613 except Ref 14) (will work for VALVE, 321 976 R91) (C-309295-00-4)
		3/8 x 4-1/2" hex-hd cap SCREW (10)
		3/8" lock WASHER (11)
1	279 987 R1	3/8 x 5-1/2" hex-hd cap SCREW
	321 991 R1	SPACER, hose clamp
		COVER, valve (A-300306) (5)
		5/16 x 3/4" hex-hd cap SCREW w/lock WASHER (20)
2	321 992 R1	GASKET, valve cover (A-300308) (5)
3	343 556 R1	PLUG (A-306587)
4	321 994 R1	VALVE, lubricating pressure regulator (A-303280)
5		BODY, main regulator valve (Not Furnished Separately)
6	336 103 R1	SPRING, lubricating valve (A-305966)
7	610 703 C1	SPRING, by-pass valve (A-30929100-3)
8	321 997 R1	WASHER (A-300305)
9	338 651 R94	VALVE ASSY, main spool (A-306707)
10		VALVE, main spool (Not Furnished Separately)
11	20 139 R1	PIN, main spool valve (A-306706)
12	346 509 R1	BALL, main spool valve (A-303641)
13	347 243 R1	SPRING, main spool valve (A-306946)



TRANSMISSION

MAIN REGULATOR VALVE - CONTINUED
(Rockford)

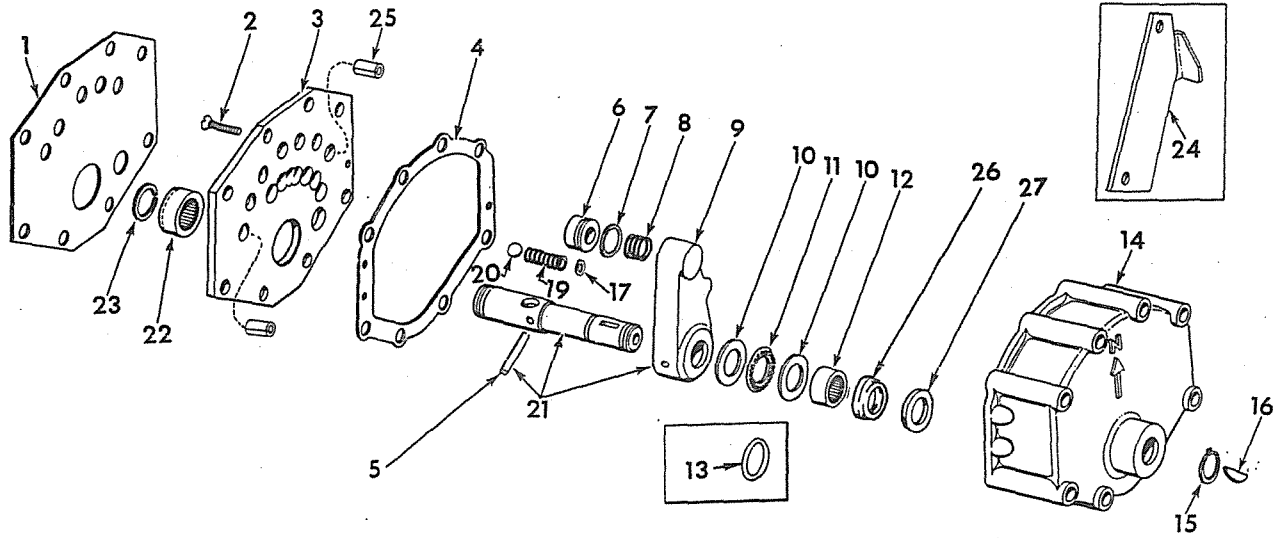
REF. NO.	I. H. PART NUMBER	DESCRIPTION
14	325 040 R2	GASKET, main valve body (not furnished as part of main regulator valve)
15	321 998 R1	VALVE, by-pass (A-300304)
16	324 299 R1	SPRING, main pressure regulator (inner) (A-305698)
17	606 512 C1	SPRING, main regulator (A-30579500-7)
18	606 506 C1	WASHER, spring (A-30795700-1) (X)
19	321 997 R1	WASHER, spring (A-300305) (X)
	444 613	PLUG, 1/8" (NPT) sq-hd pipe (3)

X - As Required.



TRANSMISSION

RANGE SELECTOR VALVE
(Rockford)
TD-20BP 4001 to 22000
TD-20BPS 6110 to 22000



CE-90442

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	603 744 C92	VALVE ASSY, range selector (D-307345) (Consists of following parts -
1	324 021 R1	GASKET, valve plate (C-305859)
2		SCREW, 1/4 x 3/4" fl-hd
3	603 745 C91	PLATE, w/two ROLL PIN, 20 348 R1 and BEARING, 10 026 R (B-30776100-7)
4	324 019 R1	GASKET, range selector valve (C-300425)
5		PIN (Not Furnished Separately)
6	324 009 R1	WIPER, range selector valve (A-305508)
7	347 641 R1	"O" RING, wiper (3/4 x 7/8 x 1/16")
8	324 010 R1	SPRING, valve wiper (A-300238)
9		VALVE (Not Furnished Separately)
10	324 004 R2	WASHER, thrust (A-300220) (2)
11	324 105 R91	BEARING, thrust needle (A-300221)
12	276 578 R91	BEARING (A-300270)
13	324 030 R1	"O" RING, shaft (3/4 x 1 x 1/8") (A-300276) (order SEAL, 615 851 C1 and WASHER, 615 850 C1)
14	324 003 R1	COVER, range selector valve (D-306512)
15	516 010 R1	RING, snap (A-300660)
16	124 549	KEY (Woodruff No. 9)
17	324 013 R1	RETAINER, spring (A-302443)



TRANSMISSION

RANGE SELECTOR VALVE - CONTINUED
(Rockford)
TD-20BP 4001 to 22000
TD-20BPS 6110 to 22000

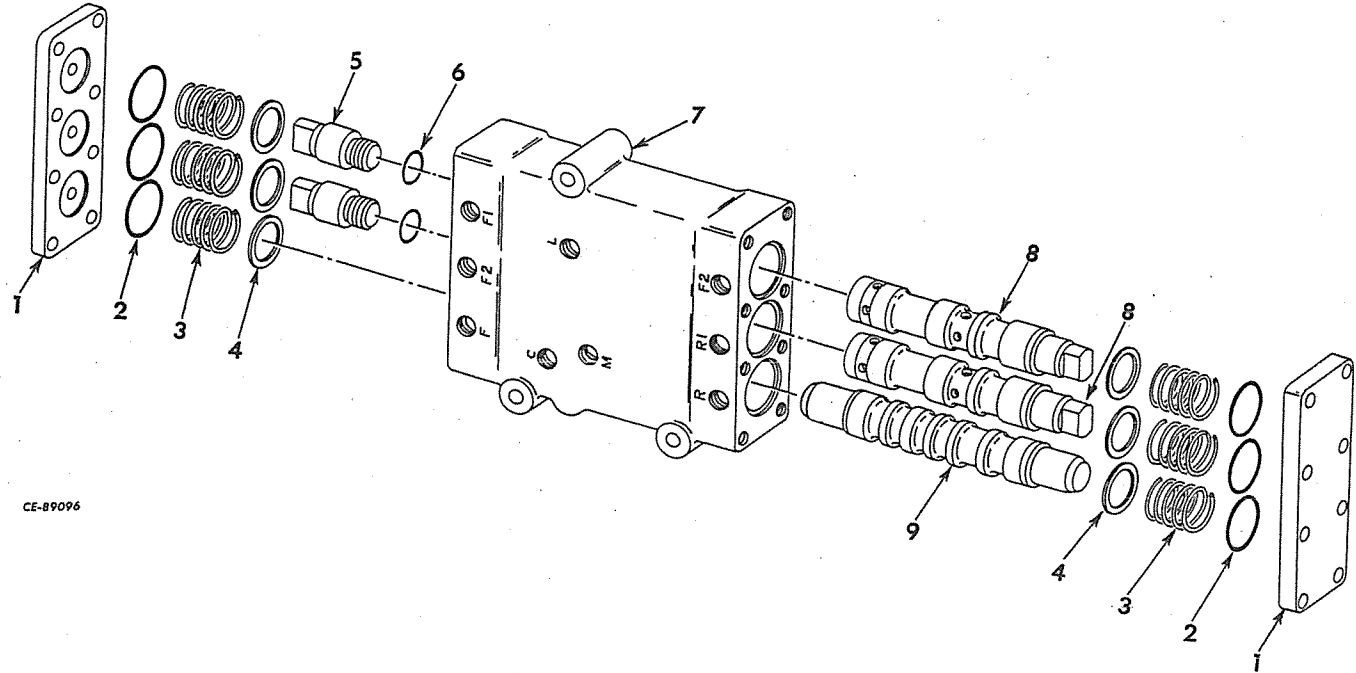
REF. NO.	I. H. PART NUMBER	DESCRIPTION
19	324 012 R1	SPRING, detent (A-302413)
20	13 722 D	BALL, 7/32" dia detent spring
21	324 006 R92	SHAFT w/PIN and VALVE, range selector valve (A-305438)
22	10 026 R	BEARING, plate needle (A-300272)
23	324 022 R1	RING, piston hook type (A-305443)
24	331 950 R11	INDICATOR, selector (Not Furnished) as Part of Valve Assy (see NOTE)
25	20 348 R1	PIN, roll (2)
26	615 851 C1	SEAL, shaft
27	615 850 C1	WASHER, seal backup

NOTE: Used Only On Tractors Equipped With Range Selector Valve Cover, 324 003 R1, Without "N" Marking.

TRANSMISSION



RANGE SELECTOR VALVE
 TD-20BP 22001 up
 TD-20BPS 22001 up



CE-89096



TRANSMISSION

RANGE SELECTOR VALVE - CONTINUED
 TD-20BP 22001 up
 TD-20BPS 22001 up

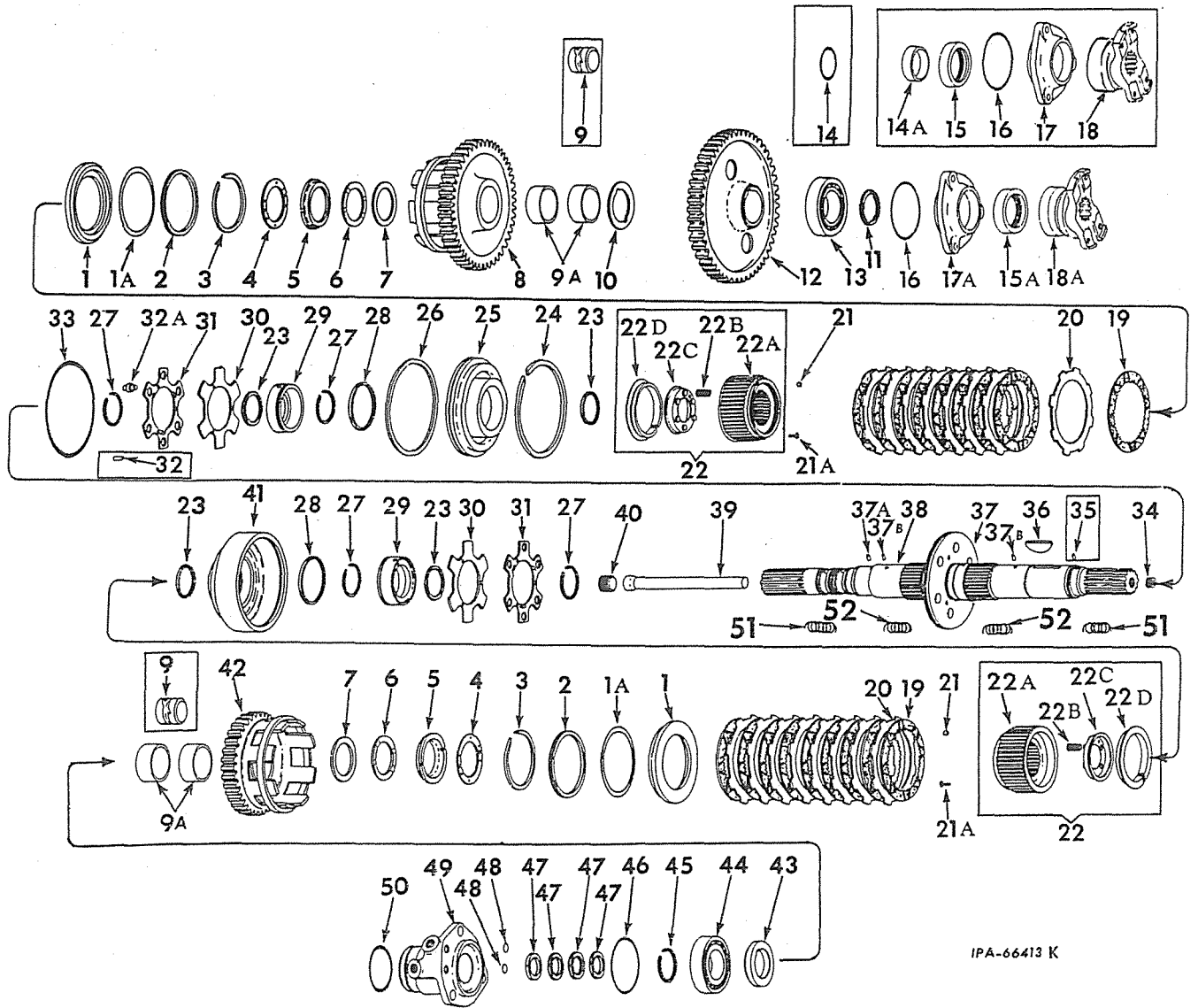
REF. NO.	I. H. PART NUMBER	DESCRIPTION
	700 021 C91	VALVE ASSY, range selector
	379 181 R1	"O" RING, 5/8 x 3/4 x 1/16" (valve mounting) (5)
	574 069 R1	"O" RING, 3/4 x 7/8 x 1/16" (valve mounting)
	444 652	PLUG, 1/8" NPT sq-soc-pipe (in F, C and R parts of valve top) (3) (Consists of the following parts -
1	617 242 C1	COVER, body end (2) 5/16 x 7/8" hex-hd cap SCREW (16) 5/16" lock WASHER (16)
2	370 943 R1	"O" RING, 1-1/8 x 1-1/4 x 1/16" (6)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
3	617 240 C1	SPRING, spool centering (6)
4	617 241 C1	SPACER, spring (6)
5	617 239 C1	PLUG, spool (2)
6	369 751 R1	"O" RING, .351 x .495 x .072 (2)
7		BODY, valve (Not Furnished Separately)
8		SPOOL, forward and reverse (2) (Not Furnished Separately)
9		SPOOL (Not Furnished Separately)



TRANSMISSION

FORWARD CLUTCH PACK AND RELATED PARTS
(Rockford)



IPA-66413 K

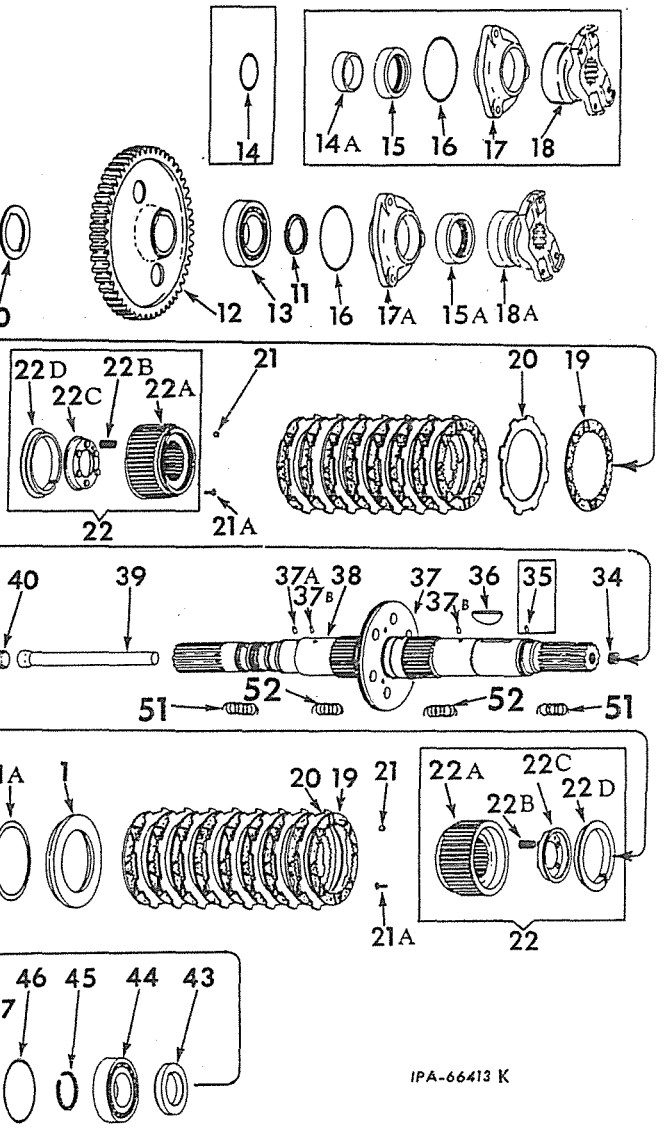
REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	627 187 C1	RETAINER, snap ring (B-31353700-3) (Part of HUB ASSY, 627 185 C91) (X)
1	327 175 R1	PLATE, clutch backing (C-305271) (Part of PACK ASSY, 610 753 C92 Order HUB ASSY, 627 185 C91) (2)
1A	627 186 C1	RETAINER, snap ring (B-31345100-7) (Part of HUB ASSY, 627 185 C91) (X)
2	327 146 R1	RING, snap (internal) (A-305266) (2)
3	327 177 R1	RING, snap (external) (A-303478) (2)
4	619 053 C1	RETAINER, clutch hub (B-31143600-0) (4)
5	327 148 R1	SPACER, clutch (B-30447100-6) (Used with PACK ASSY, 347 558 R91, 610 554 C91 and 610 096 C91) (2)

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TRANSMISSION

FORWARD CLUTCH PACK AND RELATED PARTS - CONTINUED
(Rockford)



REF. NO.	I.H. PART NUMBER	DESCRIPTION
5	610 803 C1	SPACER, clutch (B-30918300-2) (Used with PACK ASSY, 610 753 C92) (2)
6	327 149 R1	WASHER, thrust (A-30347700-4) (Used with PACK ASSY, 347 558 R91, 610 554 C91 and 610 096 C91) (2)
6	610 804 C1	WASHER, thrust (A-30918400-0) (Used with PACK ASSY, 610 753 C92) (2)
7	327 150 R1	SPACER, washer (A-30447600-5) (Used with PACK ASSY, 347 558 R91, 610 554 C91 and 610 096 C91) (2)

(X) - As Required.

PRINTED IN UNITED STATES OF AMERICA



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FORWARD CLUTCH PACK AND RELATED PARTS - CONTINUED
(Rockford)

7	610 802 C1	SPACER, washer (A-30876300-2) (Used with PACK ASSY, 610 753 C92) (2)
8	336 514 R91	GEAR w/BUSHING, 610 006 C1, second speed drive (B-30626000-1) TD-20BP 4001 to 20764, except 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 6110 to 20764, except 20746, 20747, 20748 and 20750 to 20762
8	610 801 C91	GEAR, clutch - second speed drive (C-30897600-0) TD-20BP 20765 up, also 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 20765 up, also 20746, 20747, 20748 and 20750 to 20762
9	610 006 C1	BUSHING (2) TD-20BP 4001 to 20764, except 20746, 20747, 20748 and 20750 to 20762 (2) TD-20BPS 6110 to 20764, except 20746, 20747, 20748 and 20750 to 20762
9A	610 766 C91	BEARING, roller (4) TD-20BP 20765 up, also 20746, 20747, 20748 and 20750 to 20762 (4) TD-20BPS 20765 up, also 20746, 20747, 20748 and 20750 to 20762 (2) TD-20BPS 20765 up, also 20746, 20747, 20748 and 20750 to 20762
10	325 635 R1	WASHER, second gear thrust (used with PACK ASSY, 347 558 R91, 610 554 C91 and 610 096 C91)
10	611 260 C1	WASHER, second gear thrust (used with PACK ASSY, 610 753 C92)
11	327 063 R1	RING, forward clutch shaft front bearing snap
12	611 257 C1	GEAR, reverse drive
13	ST 295	BEARING, forward clutch shaft front
14	610 414 C1	"O" RING, rotor (2 x 2-3/8 x 3/16) (used with SEAL and ROTOR, 327 064 R92)
14A	610 027 C1	SLEEVE, oil seal wear (used with OIL SEAL 619 585 C91) TD-20BP 4001 to 20258 TD-20BPS 6110 to 20258
15	619 585 C91	OIL SEAL, clutch shaft (together with HOUSING, 609 518 C1, RING, 257 642 R1 and SLEEVE, 610 027 C1, will work for SEAL and ROTOR, 327 064 R92) TD-20BP 4001 to 20258 TD-20BPS 6110 to 20258
15A	619 586 C91	OIL SEAL, clutch shaft TD-20BP 20259 up TD-20BPS 20259 up
16	257 642 R1	"O" RING, forward clutch shaft oil seal housing (4-1/4 x 4-1/2 x 1/8")



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FORWARD CLUTCH PACK AND RELATED PARTS - CONTINUED
(Rockford)

17	609 518 C1	HOUSING, oil seal (together with RING 257 642 R1, OIL SEAL 619 585 C91 and SLEEVE 610 027 C1 will work for HOUSING, 325 637 R2) TD-20BP 4001 to 20258 TD-20BPS 6110 to 20258 7/16 x 1-1/4" hex-hd cap SCREW (3) 7/16" lock WASHER (3)
17A	609 516 C1	HOUSING, oil seal TD-20BP 20259 up TD-20BPS 20259 up 7/16 x 1-1/8" hex-hd cap SCREW (3) 7/16" lock WASHER (3)
18	325 638 R2	YOKE, transmission drive (Not Furnished as part of TRANSMISSION ASSY) TD-20BP 4001 to 20258 TD-20BPS 6110 to 20258
18A	609 517 C21	YOKE, transmission drive (Not Furnished as part of TRANSMISSION ASSY) TD-20BP 20259 up TD-20BPS 20259 up
19	702 962 C1	PLATE, internal splined (18) (18 PLATES, 702 962 C1 will work for PLATES 327 173 R1) (See NOTE)
19	327 173 R1	PLATE, internal splined (C-30576500-0) (18) (order 18 PLATES 702 962 C1) (See NOTE)
20	327 174 R1	PLATE, external splined (C-305459) (16)
21	327 178 R1	PIN, dowel (A-305195) (2)
21A	346 674 R1	BOLT, 5/16NF x 13/16" hex-hd (special) (A-30658800-5) (4)
22	627 185 C91	HUB ASSY, w/BACKING PLATE (B-31347700-2) (together with four RETAINER, 619 053 C1 will work for HUB, 346 645 R91 and HUB 702 676 C1) (2) (Consists of - § 1 HUB 3 PIN 327 178 R1 § 1 PLATE 1 RING 327 177 R1 1 RING 327 146 R1 1 RETAINER 627 186 C1 1 RETAINER 627 187 C1
22A		HUB (Not Furnished Separately)
22B		SPRING (Not Furnished Separately)
22C		RETAINER (Not Furnished Separately)
22D		RETAINER (Not Furnished Separately)
23	327 157 R2	"O" RING (piston hook type) (A-30248200-5) (4)
24	327 166 R1	RING, snap (internal) (A-30347400-1)
25	327 162 R1	PISTON, clutch (C-30344400-4)
26	327 163 R1	"O" RING (lathe cut) (A-30351100-0)
27	327 161 R2	"O" RING (piston hook type) (A-303471) (2)
28	327 160 R1	RING, snap (external) (A-30347000-9) (4)
29	625 869 C1	PISTON, accelerating (C-31254200-4) (2)
30	327 156 R1	VALVE, disc (C-30444100-0) (2)
31	327 155 R1	DISC, reinforcing (C-304442) (Used with PACK ASSY, 347 558 R91) (2)
31	625 868 C1	DISC, reinforcing (31305900-8) (used with PACK ASSY, 625 778 C91)
31	610 486 C1	DISC, reinforcing (C-30877500-6) (Used with PACK ASSY, 610 554 C91 and 610 096 C91 and 610 753 C92) (2)
32	327 154 R1	PIN, dowel (A-304437) (Used with PACK ASSY, 347 558 R91) (3)
32A	610 485 C1	PIN, guide (A-30812600-2) (Used with PACK ASSY, 610 554 C91, 610 096 C91 and 610 753 C92) (3)

NOTE: Do Not Intermix Clutch Plate 702 962 C1 with Displaced 327 173 R1 Clutch Plates in Any One Clutch Pack Assembly.



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FORWARD CLUTCH PACK AND RELATED PARTS - CONTINUED (Rockford)

33	327 164 R1	"O" RING (A-30347300-3)
34	324 236 R1	PLUG, 3/8" pipe (A-305714)
34	347 553 R1	PLUG, 1/2" pipe (A-30699300-7) TD-20BP 4001 to 20258 TD-20BP 20259 up
35	17 135 R1	PIN, forward clutch shaft roll (Used with SEAL and ROTOR 327 064 R92)
36	20 020 D	KEY, reverse drive gear
37	603 523 C91	PLATE, separator (C-304439) (order PACKAGE, 610 880 C91) TD-20BP 4001 to 20258 TD-20BPS 6110 to 20258
37	610 484 C1	PLATE, separator (C-30877700-2) TD-20BP 20259 to 23041 TD-20BPS 20259 to 23041
37	625 867 C1	PLATE, separator (C-31254100-6) TD-20BP 23042 up TD-20BPS 23042 up
37A	141 128	PIN, forward clutch shaft dowel
37B	17 164 R1	PIN, forward clutch shaft roll (A-30355300-2) (Used with SHAFT, 610 774 C91) (2) TD-20BP 20765 up, also 20746, 20747, 20748 and 20750 to 20762 (2) TD-20BPS 20765 up, also 20746, 20747, 20748 and 20750 to 20762
38	327 153 R91	SHAFT ASSY, clutch (C-305724) TD-20BP 4001 to 6301 TD-20BPS 6110 to 6301 (Order the following parts - 2 DISC 610 486 C1 1 HOUSING 609 516 C1 3 PIN 610 485 C1 1 RING 327 164 R1 1 RING 327 163 R1 1 RING 257 642 R1 1 SEAL 619 586 C91 1 SHAFT 610 483 C91 1 YOKE 609 517 C21)
38	610 762 C91	SHAFT ASSY, clutch (C-30804800-8) TD-20BP 6302 to 20258 TD-20BPS 6302 to 20258 (Order the following parts - 2 DISC 610 486 C1 1 HOUSING 609 516 C1 3 PIN 610 485 C1 1 RING 327 164 R1 1 RING 327 163 R1 1 RING 257 642 R1 1 SEAL 619 586 C91 1 SHAFT 610 483 C91 1 YOKE 609 517 C21)
38	610 483 C91	SHAFT ASSY, clutch (C-30878700-1) (Used with PACK ASSY, 610 096 C91) TD-20BP 20259 to 20764 except 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 20259 to 20764 except 20746, 20747, 20748 and 20750 to 20762 (Composed of - 1 PLATE 610 484 C1 1 PLUG 347 553 R1 1 PLUG 347 554 R1 2 RING 327 160 R1)



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FORWARD CLUTCH PACK AND RELATED PARTS - CONTINUED (Rockford)

38	610 774 C91	SHAFT ASSY, clutch (C-30918200-4) (Used with PACK ASSY, 610 753 C92) TD-20BP 20765 to 23041, also 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 20765 to 23041 also 20746, 20747, 20748 and 20750 to 20762 (Composed of - 2 PIN 17 164 R1 1 PLATE 610 484 C1 1 PLUG 347 553 R1 1 PLUG 347 554 R1 2 RING 327 160 R1 § 1 SHAFT)
38	625 866 C91	SHAFT ASSY, clutch (C-31309600-0) (Used with PACK ASSY, 625 778 C91) TD-20BP 23042 up TD-20BPS 23042 up (Composed of - 2 PIN 17 164 R1 1 PLATE 625 867 C1 1 PLUG 347 553 R1 1 PLUG 347 554 R1 2 RING 327 160 R1 § 1 SHAFT)
39		TUBE (Not Furnished Separately)
40	347 554 R1	PLUG, 3/4" pipe (A-30700400-2)
41	327 165 R1	HOUSING, piston (D-30344000-2)
42	336 515 R91	GEAR w/BUSHING, 610 006 C1, first speed drive (B-30626300-5) TD-20BP 4001 to 20764 except 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 6110 to 20764 except 20746, 20747 20748 and 20750 to 20762
42	610 800 C91	GEAR, clutch (First speed drive) (C-30896600-1) TD-20BP 20765 up, also 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 20765 up, also 20746, 20747, 20748 and 20750 to 20762
43	325 634 R1	WASHER, first gear thrust (Used with PACK ASSY, 347 558 R91, 610 554 C91 and 610 096 C91)
43	611 259 C1	WASHER, first gear thrust (Used with PACK ASSY, 610 753 C91)
44	272 976 R91	BEARING, forward clutch shaft rear
45	327 058 R1	RING, forward clutch shaft rear bearing snap
46	259 246 R1	"O" RING, forward clutch shaft hydraulic manifold (large) 3-7/8 x 4-1/8 x 1/8"
47	327 090 R1	RING, forward clutch shaft rear sealing (4)
48	350 667 R1	"O" RING, forward clutch shaft hydraulic manifold (small) (11/16 x 7/8 x 3/32") (2)
49	325 639 R1	MANIFOLD, forward clutch shaft hydraulic PLUG, 3/8" hex-soc-hd pipe (cd or zn-pltd) (2) 7/16 x 1-1/4" hex-hd cap SCREW (3) 7/16" lock WASHER (3)

§ - Not Furnished Separately.



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FORWARD CLUTCH PACK AND RELATED PARTS - CONTINUED (Rockford)

50	3 044 436 R1	"O" RING, transmission case upper (2-5/8 x 3 x 13/16")
51	625 662 C1	SPRING, compression (outer) (A-31295100-7) (6) TD-20BP 23042 up TD-20BPS 23042 up
52	625 663 C1	SPRING, compression (inner) (A-3295200-5) (6) TD-20BP 23042 up TD-20BPS 23042 up
347 558 R91	PACK ASSY, final clutch (forward) (D-30705000-5) TD-20BP 4001 to 6301 TD-20BPS 6110 to 6301 (Order the following parts - 1 HOUSING 609 516 C1 1 PACK ASSY 610 753 C92 1 RING 257 642 R1 1 SEAL 619 586 C91 1 YOKE 609 517 C21)	
610 554 C91	PACK ASSY, final clutch (forward) (D-30805100-2) TD-20BP 6302 to 20258 TD-20BPS 6302 to 20258 (Order the following parts - 1 HOUSING 609 516 C1 1 PACK ASSY 610 753 C92 1 RING 257 642 R1 1 SEAL 619 586 C91 1 YOKE 609 517 C21)	
610 096 C91	PACK ASSEMBLY, final clutch (forward) (D-30879500-4) (order PACK ASSY, 625 778 C91) TD-20BP 20259 to 20764 except 20746, 20747, 20748, and 20750 to 20762 TD-20BPS 20259 to 20764 except 20746, 20747, 20748 and 20750 to 20762	
625 778 C91	PACK ASSEMBLY, final clutch (forward) (D-31330500-5) (will work for 347 558 R91, 610 554 C91, 610 096 C91 and 610 753 C92) TD-20BP 23042 up TD-20BPS 23042 up (Composed of - 4 BOLT 346 674 R1 4 BEARING 610 766 C91 2 DISC 625 868 C1 1 GEAR 610 801 C91 1 GEAR 610 800 C91 1 HOUSING 327 165 R1 2 HUB 627 185 C91 4 "O" RING 327 157 R2 2 "O" RING 327 161 R2 1 "O" RING 327 163 R1 1 "O" RING 327 164 R1 3 PIN 610 485 C1 2 PIN 327 178 R1 2 PISTON 625 869 C1 1 PISTON 327 162 R1 18 PLATE 702 962 C1 16 PLATE 327 174 R1 2 RETAINER 327 176 R1 4 RETAINER 619 053 C1 2 RING 327 146 R1 2 RING 327 160 R1 1 RING 327 166 R1 2 RING 327 177 R1 1 SHAFT 625 866 C91 2 SPACER 610 803 C1 2 SPACER 610 802 C1 6 SPRING 625 662 C1 6 SPRING 625 663 C1 2 VALVE 327 156 R1 2 WASHER 610 804 C1)	



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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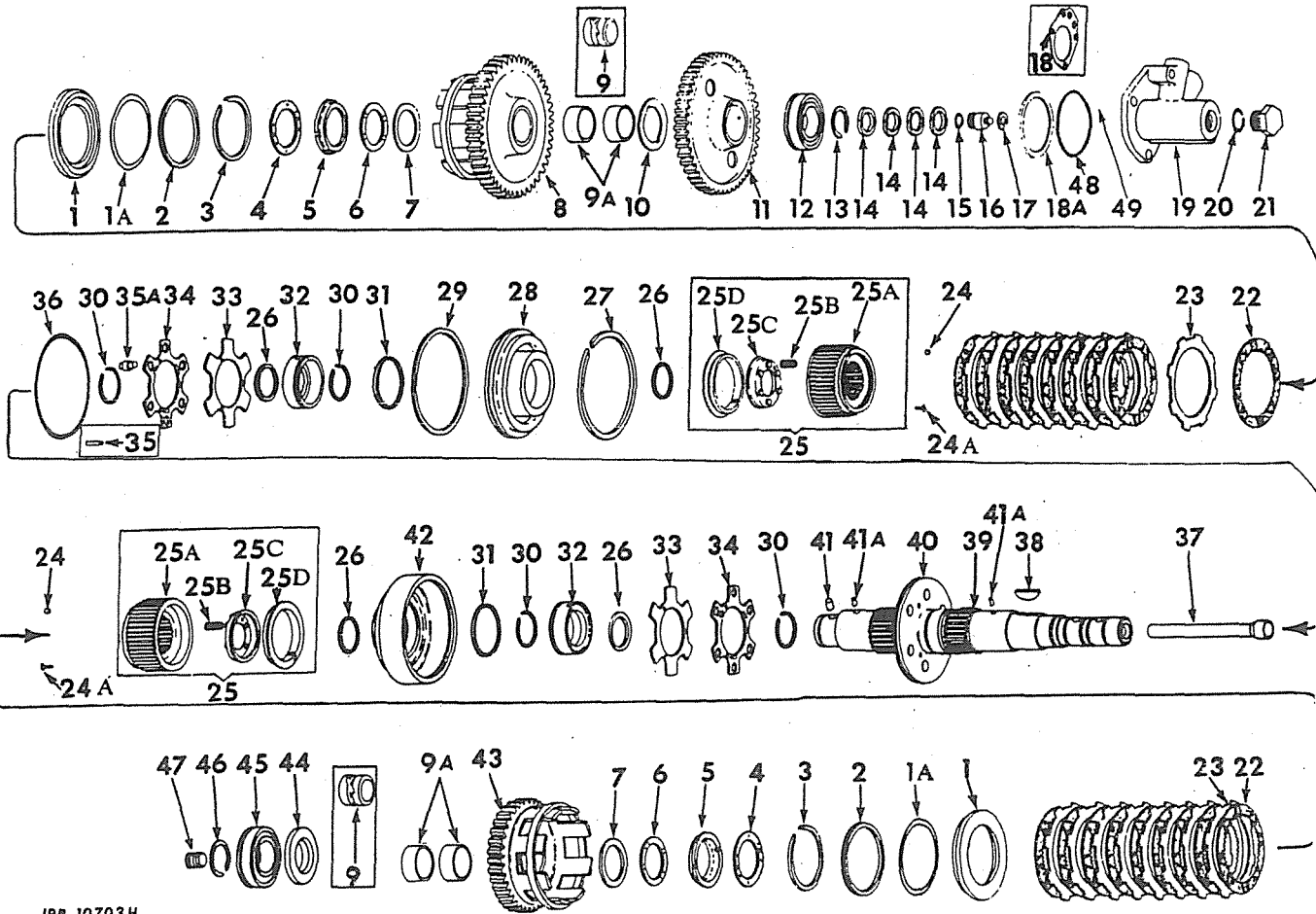
FORWARD CLUTCH PACK AND RELATED PARTS - CONTINUED (Rockford)

610 753 C92	PACK ASSEMBLY, final clutch (forward) (D-3114700-9) (order PACK ASSY, 625 778 C91) TD-20BP 20765 to 23041 also 20746, 20747 and 20748 and 20750 to 20762 TD-20BPS 20765 to 23042 also 20746, 20747, and 20750 to 20762
610 880 C91	KIT, separator plate field service (A 31077400-5) TD-20BP 4001 to 20258 TD-20BPS 6110 to 20258 (Consists of - 2 DISC 610 486 C1 3 PIN 610 485 C1 1 PLATE 610 484 C1 1 RING 327 164 R1 1 RING 327 163 R1)



TRANSMISSION

REVERSE CLUTCH PACK AND RELATED PARTS
(Rockford)



IPB-10703H

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	627 187 C1	RETAINER, clutch backing (B-31353700-3) (Part of HUB ASSY, 627 185 C91) (X)
1	327 175 R1	PLATE, clutch backing (C-305271) (Part of PACK ASSY, 610 754 C92) (Order HUB ASSY, 627 185 C91) (2)
1A	627 186 C1	RETAINER, snap ring (B-31345100-7) (X)
2	327 146 R1	RING, snap (internal) (A-305266) (2)
3	327 177 R1	RING, snap (external) (A-303478) (2)
4	619 053 C1	RETAINER, clutch hub (B-31143600-0) (4)
5	327 148 R1	SPACER, clutch (B-30447100-6) (Used with PACK ASSY, 347 559 R91 and 610 555 C91) (2)
5	610 803 C1	SPACER, clutch (B-30918300-2) (Used with PACK ASSY, 610 754 C92) (2)
6	327 149 R1	WASHER, thrust (A-30347700-4) (Used with PACK ASSY, 347 559 R91 and 610 555 C91) (2)
6	610 804 C1	WASHER, thrust (A-30918400-0) (Used with PACK ASSY, 610 754 C92) (2)
7	327 150 R1	SPACER, washer (A-30447600-5) (Used with PACK ASSY, 347 559 R91 and 610 555 C91) (2)
7	610 802 C1	SPACER, washer (A-30876300-2) (Used with PACK ASSY, 610 754 C92) (2)

PRINTED IN UNITED STATES OF AMERICA



TRANSMISSION

REVERSE CLUTCH PACK AND RELATED PARTS - CONTINUED
(Rockford)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
8	336 514 R91	GEAR w/BUSHING, 610 006 C1, second speed drive (B-30626000-1) TD-20BP 4001 to 20764, except 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 6110 to 20764, except 20746, 20747, 20748 and 20750 to 20762
8	610 801 C91	GEAR, clutch - second speed drive (C-30897600-0) TD-20BP 20765 up, also 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 20765 up, also 20746, 20747, 20748 and 20750 to 20762
9	610 006 C1	BUSHING (2) TD-20BP 4001 to 20764, except 20746, 20747, 20748 and 20750 to 20762 (2) TD-20BPS 6110 to 20764, except 20746, 20747, 20748 and 20750 to 20762

(X) - As Required.

PRINTED IN UNITED STATES OF AMERICA

(Rev. No. 6 9-69)



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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REVERSE CLUTCH PACK AND RELATED PARTS - CONTINUED (Rockford)

9A	610 766 C91	BEARING, roller (4) TD-20BP 20765 up, also 20746, 20747, 20748 and 20750 to 20762 (4) TD-20BPS 20765 up, also 20746, 20747, 20748 and 20750 to 20762
10	325 635 R1	WASHER, second gear thrust (Used with PACK ASSY, 347 559 R91 and 610 555 C91)
10	611 260 C1	WASHER, second gear thrust (Used with PACK ASSY, 610 754 C91)
11	611 258 C1	GEAR, reverse driven
12	327 067 R91	BEARING, reverse clutch shaft front
13	327 068 R1	RING, reverse clutch shaft front bearing snap
14	325 059 R1	RING, reverse clutch shaft sealing (4)
15	574 069 R1	"O" RING, tachometer drive plug (3/4 x 7/8 x 1/16") (optional with 587 579 R1) (Used with SHAFT ASSY, 336 517 R91)
15	587 579 R1	"O" RING, tachometer drive plug (3/4 x 7/8 x 1/16") (optional with 574 069 R1) (Used with SHAFT ASSY, 336 517 R91)
15	347 641 R1	"O" RING, tachometer drive plug (3/4 x 7/8 x 1/16") (Used with SHAFT ASSY, 610 763 C91)
16	324 253 R2	PLUG, tachometer drive (A-305837)
17	324 252 R1	RING, reverse clutch shaft seal snap (A-305838)
18	325 643 R1	SHIM, reverse clutch shaft (heavy) (X) TD-20BP 4001 to 5351
18	325 644 R1	SHIM, reverse clutch shaft (medium) (X) TD-20BP 4001 to 5351
18	325 645 R1	SHIM, reverse clutch shaft (light) (X) TD-20BP 4001 to 5351
18A	345 835 R1	SHIM, reverse clutch shaft (heavy) (X) TD-20BP 5352 up (X) TD-20BPS 6110 up
18A	345 834 R1	SHIM, reverse clutch shaft (medium) (X) TD-20BP 5352 up (X) TD-20BPS 6110 up
19	325 642 R1	MANIFOLD, reverse clutch shaft hydraulic TD-20BP 4001 to 5352 (Order the following parts - 1 MANIFOLD 604 669 C1 1 PLUG 604 667 C1 1 RING 307 915 R1 2 RING 350 667 R1 1 RING 313 337 R1 3 SHM (heavy) 345 835 R1 3 SHM (medium) 345 834 R1)
19	325 642 R2	MANIFOLD, reverse clutch shaft hydraulic TD-20BP 5353 to 6140 TD-20BPS 6110 to 6140 (Order the following parts - 1 MANIFOLD 604 669 C1 1 PLUG 604 667 C1 1 RING 307 915 R1)
19	604 669 C1	MANIFOLD, reverse clutch shaft hydraulic TD-20BP 6141 up
	444 698	PLUG, 3/8" hex-soc pipe (cd or zn-pltd) (2) TD-20BPS 6141 up 7/16 x 1-1/4" hex-hd cap SCREW (2) 7/16 x 2-1/4" hex-hd cap SCREW 7/16 x 3-1/2" hex-hd cap SCREW 7/16" lock WASHER (4)
20	296 247 R1	RING, reverse clutch shaft hydraulic manifold plug sealing TD-20BP 4001 to 6140 TD-20BPS 6110 to 6140
20	307 915 R1	RING, reverse clutch shaft hydraulic manifold plug sealing TD-20BP 6141 up TD-20BPS 6141 up



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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REVERSE CLUTCH PACK AND RELATED PARTS - CONTINUED (Rockford)

21	9 410 363	PLUG, reverse clutch shaft hydraulic manifold TD-20BP 4001 to 6140 TD-20BPS 6110 to 6140
21	604 667 C1	PLUG, reverse clutch shaft hydraulic manifold TD-20BP 6141 up TD-20BPS 6141 up
22	702 962 C1	PLATE, Internal splined (30718400-2) (18) (18 PLATES 702 962 C1) (will work for PLATE, 327 173 R1) (See NOTE)
22	327 173 R1	PLATE, Internal splined (C-30576500-0) (18) (order 18 PLATES, 702 962 C1) (See NOTE)
23	327 174 R1	PLATE, external splined (C-305459) (16)
23	327 178 R1	PIN, dowel (A-305195) (2)
24A	346 674 R1	BOLT, 5/16NF x 13/32" hex-hd (special) (A-306588) (2)
25	627 185 C91	HUB ASSY, w/BACKING PLATE (B-31347700-2) (together with four RETAINER, 619 053 C1 will work for HUB, 346 645 R91 and HUB, 702 676 C1) (Consists of - § 1 HUB 3 PIN 327 178 R1 § 1 PLATE 1 RING 327 177 R1 1 RING 327 146 R1 1 RETAINER 627 186 C1 1 RETAINER 627 187 C1)
25A		HUB (Not furnished separately)
25B		SPRING, piston return (Not furnished separately)
25C		RETAINER, spring (Not furnished Separately)
25D		RETAINER, plate (Not furnished separately)
26	327 157 R2	"O" RING (piston hook type) (A-302482) (4)
27	327 166 R1	RING, snap (internal)(A-303474)
28	327 162 R1	PISTON, clutch (C-303444)
29	327 163 R1	"O" RING (lathe cut) (A-30351100-0)
30	327 160 R1	RING, snap (external) (A-303470) (4)
31	327 161 R2	"O" RING (piston) (A-303471) (2)
32	625 869 C1	PISTON, accelerating (C-31254200-4) (2)
33	327 156 R1	VALVE, disc (C-304441) (2)
34	327 155 R1	DISC, reinforcing (C-304442) (Used with PACK ASSY, 347 559 R91) (2)
34	610 486 C1	DISC, reinforcing (C-30877500-6) (Used with PACK ASSY, 610 555 C91 and 610 754 C92) (2)
34	625 868 C1	DISC, reinforcing (C-31305900-8) (Used with PACK ASSY, 625 799 C1) (2)
35	327 154 R1	PIN, dowel (A-304437) (Used with PACK ASSY, 347 559 R91) (3)
35A	610 485 C1	PIN, guide (A-30812600-2) (Used with PACK ASSY, 610 555 C91 and 610 754 C92) (3)
36	327 164 R1	"O" RING (A-30347300-3)
37		TUBE (Not Furnished Separately)
38	20 020 D	KEY, reverse driven gear
39	336 517 R91	SHAFT ASSY, clutch (C-305805) (order PACKAGE, 610 879 C91) TD-20BP 4001 to 6301 TD-20BPS 6110 to 6301
39	610 763 C91	SHAFT ASSY, clutch (C-30877800-0) TD-20BP 6302 to 20764 except 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 6302 to 20764 except 20746, 20747, 20748 and 20750 to 20762 (Composed of - 1 "O" RING 347 641 R1 1 PLATE 610 484 C1 1 PLUG 324 253 R1 1 PLUG 347 553 R1 2 RING 327 160 R1 1 RING 324 252 R1 § 1 TUBE)

NOTE: Do Not Intermix Clutch Plate 702 962 C1 with Displaced 327 173 R1 Clutch Plates in Any One Clutch Pack Assembly.

X - As Required.
§ - Not Furnished Separately.



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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REVERSE CLUTCH PACK AND RELATED PARTS - CONTINUED (Rockford)

39	610 805 C91	SHAFT ASSY, clutch (C-30921600-0) (Used with PACK ASSY, 610 754 C92) TD-20BP 20765 to 23041, also 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 20765 to 23041, also 20746, 20747, 20748 and 20750 to 20762 (Composed of - 1 "O"RING 347 647 R1 2 PIN 17 164 R1 1 PLATE 610 484 C1 1 PLUG 345 253 R2 1 PLUG 347 553 R1 2 RING 327 160 R1 1 RING 324 252 R1 § 1 SHAFT)
39	625 871 C91	SHAFT ASSY, clutch (C-31309200-9) (Used with PACK ASSY, 625 779 C91) TD-20BP 23042 up TD-20BPS 23042 up (Composed of - 1 PLATE 625 867 C1 1 PIN 17 164 R1 1 PIN 625 865 C1 1 PLUG 347 554 C1 2 RING 327 160 R1 § 1 SHAFT)
40	336 517 R91	PLATE, separator (C-304439) (Order PACKAGE, 610 880 C91) TD-20BP 4001 to 6301 TD-20BPS 6110 to 6301
40	610 484 C1	PLATE, separator (C-30877700-2) TD-20BP 6302 to 23041 TD-20BPS 6302 to 23041
40	625 867 C1	PLATE, separator (C-31254100-6) TD-20BP 23042 up TD-20BPS 23042 up
41	141 128	PIN, reverse clutch shaft dowel
41	625 865 C1	PIN, reverse clutch shaft dowel (A-31329900-0) (Part of SHAFT, 625 871 C91)
41A	17 164 R1	PIN, reverse clutch shaft roll (A-30355300-2) (Use with SHAFT, 610 805 C91) (2) TD-20BP 20765 up, also 20746, 20747, 20748 and 20750 to 20762 (2) TD-20BPS 20765 up, also 20746, 20747, 20748 and 20750 to 20762
42	327 165 R1	HOUSING, piston (D-303440)
43	336 515 R91	GEAR w/BUSHING, 610 006 C1, first speed drive (B-30626300-5) TD-20BP 4001 to 20764 except 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 6110 to 20764 except 20746, 20747, 20748 and 20750 to 20762
43	610 800 C91	GEAR, clutch (first speed drive) (C-30896600-1) TD-20BP 20765 up, also 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 20765 up, also 20746, 20747, 20748 and 20750 to 20762
44	325 634 R1	WASHER, first gear thrust (Used with PACK ASSY, 347 559 R91 and 610 555 C91)
44	611 259 C1	WASHER, first gear thrust (Used with PACK ASSY, 610 754 C92)



TRANSMISSION

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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REVERSE CLUTCH PACK AND RELATED PARTS - CONTINUED (Rockford)

45	272 976 R91	BEARING, reverse clutch shaft rear
46	327 058 R1	RING, reverse clutch shaft rear bearing snap
47	347 553 R1	PLUG, 1/2" pipe (A-306993)
47	347 554 R1	PLUG, 3/4" pipe (A-30700400-2) (Part of SHAFT ASSY, 625 871 C91)
48	354 836 R1	RING, reverse clutch shaft hydraulic manifold sealing (3-1/4 x 3-1/2 x 1/8") TD-20BP 5353 up
49	350 667 R1	RING, reverse clutch shaft hydraulic manifold sealing (11/16 x 7/8 x 3/32") (2) TD-20BP 5353 up (2) TD-20BPS 6110 up
50	625 662 C1	SPRING, compression (outer) (A-31295100-) TD-20BP 23042 up TD-20BPS 23042 up
51	625 663 C1	SPRING, compression (inner) (A-31295200-5 TD-20BP 23042 up TD-20BPS 23042 up
	347 559 R91	PACK ASSY, final clutch (reverse) (D-30705500-4) (Part of TRANSMISSION, 331 862 R91 and 331 863 R91) (Order PACKAGE, 610 754 C92) TD-20BP 4001 to 6301 TD-20BPS 6110 to 6301
	610 555 C91	PACK ASSY, final clutch (reverse) (D-30880000-2) (Order PACKAGE, 625 779 C91) TD-20BP 6302 to 20764, except 20746, 20747, 20748, 20750 to 20762 TD-20BPS 6302 to 20764, except 20746, 20747, 20748, 20750 to 20762
	610 754 C92	PACK ASSY, final clutch (reverse) (D-31146500-9) (Order PACKAGE, 625 779 C91) TD-20BP 20765 to 23042, also 20746, 20747, 20748 and 20750 to 20762 TD-20BPS 20765 to 23042, also 20746, 20747, 20748 and 20750 to 20762

§ - Not Furnished Separately.



TRANSMISSION



MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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REVERSE CLUTCH PACK AND RELATED PARTS - CONTINUED
(Rockford)

625 779 C91 PACK ASSY, final clutch (reverse)
(D-3130000-6) (will work for 347 559 R91,
610 555 C91 and 610 754 C92)
TD-20BP 23042 up
TD-20BPS 23042 up

- (Composed of -
- | | | |
|----|----------|--------------|
| 4 | BEARING | 610 766 C91 |
| 4 | BOLT | 346 674 R1 |
| 2 | DISC | 625 868 C1 |
| 1 | GEAR | 610 801 C91 |
| 1 | GEAR | 610 800 C91 |
| 1 | HOUSING | 327 165 R1 |
| 2 | HUB | 627 185 C91 |
| 4 | "O" RING | 327 157 R2 |
| 2 | "O" RING | 327 161 R2 |
| 1 | "O" RING | 327 163 R1 |
| 1 | "O" RING | 327 164 R1 |
| 3 | PIN | 610 485 C1 |
| 2 | PIN | 327 178 R1 |
| 2 | PISTON | 625 869 C1 |
| 1 | PISTON | 327 162 R1 |
| 18 | PLATE | 702 962 C1 |
| 16 | PLATE | 327 174 R1 |
| 2 | RETAINER | 327 176 R1 |
| 4 | RETAINER | 619 053 C1 |
| 2 | RING | 327 146 R1 |
| 2 | RING | 327 160 R1 |
| 1 | RING | 327 166 R1 |
| 2 | RING | 327 177 R1 |
| 1 | SHAFT | 625 871 C91 |
| 2 | SPACER | 610 803 C1 |
| 2 | SPACER | 610 802 C1 |
| 6 | SPRING | 625 662 C1 |
| 6 | SPRING | 625 663 C1 |
| 2 | VALVE | 327 156 R1 |
| 2 | WASHER | 610 804 C1) |

610 879 C91 KIT, clutch shaft field service (A-31005700-5)
TD-20BP 4001 to 6301
TD-20BPS 6110 to 6301

- (Consists of -
- | | | |
|---|-------|--------------|
| 2 | DISC | 610 486 C1 |
| 3 | PIN | 610 485 C1 |
| 1 | RING | 327 164 R1 |
| 1 | RING | 327 163 R1 |
| 1 | SHAFT | 610 763 C91) |

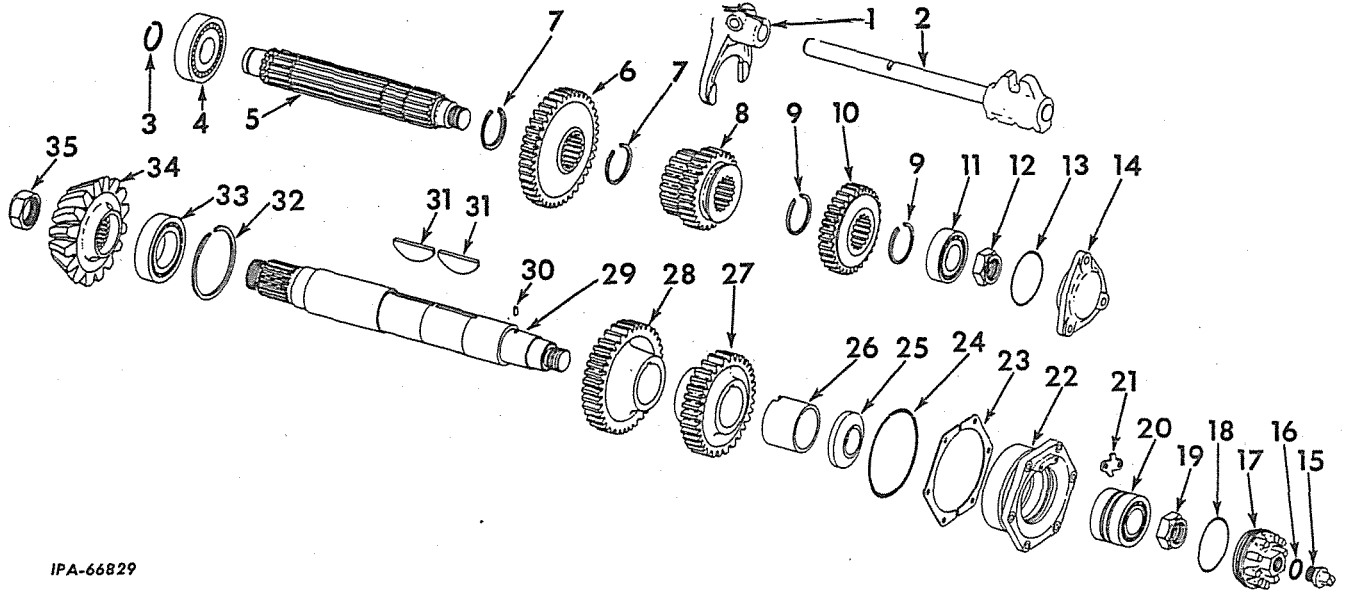
610 880 C91 PACKAGE, separator plate field service
TD-20BP 4001 to 6301
TD-20BPS 6110 to 6301

- (Consists of -
- | | | |
|---|-------|--------------|
| 2 | DISC | 610 486 C1 |
| 3 | PIN | 610 485 C1 |
| 1 | PLATE | 610 484 C1 |
| 1 | RING | 327 164 R1 |
| 1 | RING | 327 163 R1) |



TRANSMISSION

BEVEL PINION SHAFT, SPLINE SHAFT AND RELATED PARTS



IPA-66829



TRANSMISSION

BEVEL PINION SHAFT, SPLINE SHAFT AND RELATED PARTS - CONTINUED

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	325 837 R1 454 522 R1	FORK, high low shifter NUT, Esna 1/2 x 2-1/4" hex-hd cap SCREW
2	325 648 R11 327 058 R1	SHAFT, high low shifter RING, spline shaft rear bearing snap
4	272 146 R91	BEARING, spline shaft rear
5	325 627 R1	SHAFT, spline
6	334 720 R1	GEAR, first speed driven (42T)
7	327 059 R1	RING, first speed driven gear snap (2)
8	331 393 R1	GEAR, high and low speed driving (for sideboom crawler tractors)
8	334 714 R1	GEAR, high and low speed driving (not for sideboom crawler tractors)
9	327 059 R1	RING, second speed driven gear snap (2)
10	334 721 R1	GEAR, second speed driven (29T)
11	327 062 R91	BEARING, spline shaft front
12	19 754 R1	NUT, spline shaft
13	259 246 R1	"O" RING, spline shaft bearing cap (3-3/4 x 4 x 1/8")
14	325 631 R1	CAP, spline shaft bearing 7/16 x 1-1/4" hex-hd cap SCREW (3) 7/16" lock WASHER (3)
15	269 909 R2	PLUG, bevel pinion shaft front bearing retainer
16	269 910 R1	GASKET, bevel pinion shaft front bearing retainer plug
17	325 626 R1	RETAINER, bevel pinion shaft front bearing
18	610 411 C1	"O" RING, bevel pinion shaft front bearing retainer (3-1/2 x 3-3/4 x 1/8")
19	19 754 R1	NUT, bevel pinion shaft front
20	327 077 R91	BEARING, bevel pinion shaft front
21	325 007 R1	LOCK, bevel pinion shaft front bearing retainer 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
22	334 716 R2	CAGE, pinion shaft bearing 7/16 x 1-1/2" hex-hd cap SCREW (6) 7/16" lock WASHER (6)
23	334 717 R1	SHIM, bevel pinion shaft medium (x)
23	334 718 R1	SHIM, bevel pinion shaft light (x)
23	334 719 R1	SHIM, bevel pinion shaft extra light (x)
24	610 416 C1	"O" RING, bevel pinion shaft bearing cage (5-5/8 x 6-1/8 x 1/4")
25	325 622 R1	SPACER, bevel pinion shaft front
26	334 715 R1	SPACER, bevel pinion shaft rear
27	331 395 R1	GEAR, high range driven (for sideboom crawler tractors)
27	334 713 R1	GEAR, high range driven (not for sideboom crawler tractors)
28	331 394 R1	GEAR, low range driven (for sideboom crawler tractors)
28	334 712 R1	GEAR, low range driven (not for sideboom crawler tractors)
29	334 710 R1	SHAFT, bevel pinion
30	141 127	PIN, 5/32 x 5/16" dowel
31	12 484 R1	KEY, high and low range driven gear (2)
32	327 060 R1	RETAINER, rear bearing bevel pinion
33	327 057 R91	BEARING, pinion gear
34	325 611 R1	PINION, bevel (*)
35	19 858 R1	NUT, bevel pinion retainer
	334 087 R1	GEAR, drive bevel (*)
	325 613 R91	GEAR, 334 087 R1 and PINION, 325 611 R1, drive bevel (matched set) (*)

(*) - Also Listed And Illustrated With "Steering Planetary Drive."
x - As Required.



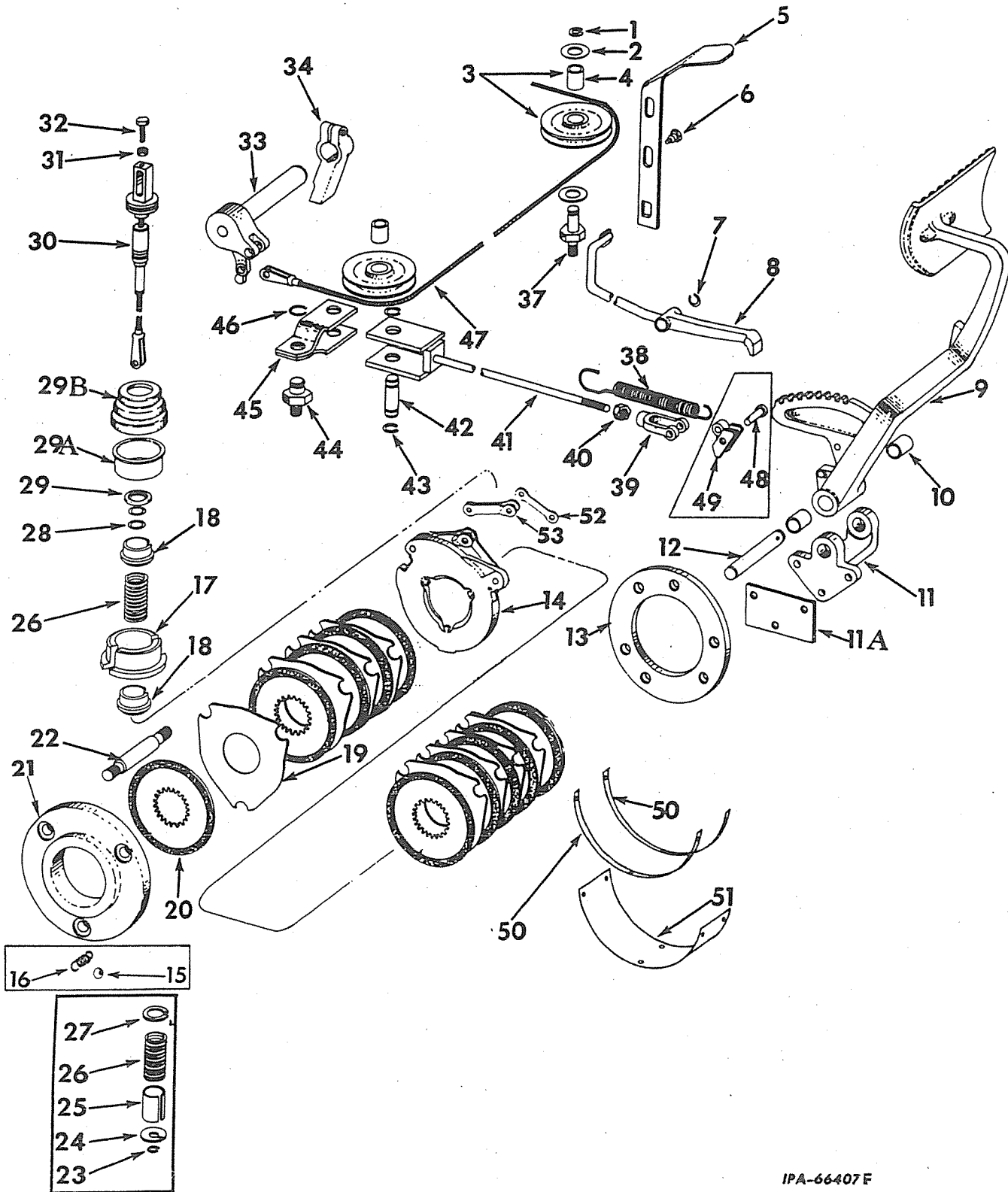
BRAKES AND CONTROLS



BRAKES AND CONTROLS

BRAKES AND CONTROLS

BRAKES AND CONTROLS - CONTINUED



IPA-66407 F



BRAKES AND CONTROLS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
BRAKES AND CONTROLS - CONTINUED		
1	631 530 R1	RING, snap
2	452 971 R1	SPACER, idler pulley (2)
3	325 558 R11	PULLEY w/BUSHING, 307 434 R1, foot brake actuating cable (2)
4	307 434 R1	BUSHING, pulley (2)
5	334 400 R21	LEVER, brake pawl operating TD-20BP 4001 to 5323
5	604 198 C1	LEVER, brake pawl operating TD-20BP 5324 up TD-20BPS 6110 up
6	603 475 C1	GUIDE, manual brake pawl (2) 1/4" NUT (2) 1/4" lock WASHER (2)
	300 657 R1	WASHER, brake pawl lever guide
7	324 110 R1	RING, gear
8	334 401 R22	PAWL, manual brake pedal
9	345 585 R91	PEDAL w/two BUSHING, 325 180 R1, brake
10	325 180 R1	BUSHING, brake pedal (2)
11	325 569 R1	BRACKET, brake pedal mounting 1/2" NUT (3) 1/2 x 1-3/4" hex-hd cap SCREW (3) 1/2" lock WASHER (3)
11A	345 568 R1	SPACER, brake pedal mounting bracket
12	325 570 R1 576 484 R1	SHAFT, brake pedal PIN, 3/16 x 1-3/4" roll
13	334 864 R2	RING, brake back up (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411
13	609 806 C1	RING, brake back up (2) TD-20BP 20412 up (2) TD-20BPS 20412 up
14	619 911 C91	DISC, actuating (together w/six SPRING, 619 731 C1 and ten BALL, 16 028 R1 will work for disc 369 080 R91 and DISC, 610 846 C92) (2)
15	16 028 R1	BALL, chrome steel (7/8" dia grade 2) (10)
16	619 731 C1	SPRING, extension (6)
17	609 773 C11	LOCK, brake cable return spring retainer (2) TD-20BP 20412 up (2) TD-20BPS 20412 up
18	609 772 C1	RETAINER, brake cable return spring (4) TD-20BP 20412 up (4) TD-20BPS 20412 up
19	327 186 R1	DISC, intermediate (See NOTE) (16 used with BRAKE, 327 121 R91 TD-20BP 4001 to 20411 TD-20BPS 6110 to 20411) (20 used with BRAKE, 610 316 C92 TD-20BP 20412 up TD-20BPS 20412 up)
20	327 187 R92	DISC, middle (See NOTE) (20 used with BRAKE, 327 121 R91 TD-20BP 4001 to 20411 TD-20BPS 6110 to 20411) (24 used with BRAKE, 610 316 C92 TD-20BP 20412 up TD-20BPS 20412 up)
21	337 758 R1	RING, brake retaining LH



BRAKES AND CONTROLS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
BRAKES AND CONTROLS - CONTINUED		
21	337 759 R1	RING, brake retaining RH 3/4NF NUT (6) 5/32 x 1-3/8" cotter PIN (6)
22	338 264 R1	STUD, brake (will work for 334 865 R1) (6) TD-20BP 4001 to 20411 (6) TD-20BPS 6110 to 20411
	338 263 R1	SPACER, brake stud (used only on STUD, 334 865 R1) (6)
22	609 808 C2	STUD, brake (6) TD-20BP 20412 up (6) TD-20BPS 20412 up
23	324 113 R1	RING, snap (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411
24	325 273 R1	RETAINER, brake cable return spring (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411
25	325 270 R1	GUIDE, brake cable return spring (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411
26	341 945 R2	SPRING, brake cable return (2)
27	325 271 R1	RETAINER, brake cable return spring (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411
28	324 112 R1	"O" RING, brake actuating cable guide (1 x 1-1/4 x 1/8") (4) TD-20BP 4001 to 20411 (4) TD-20BPS 6110 to 20411 (2) TD-20BP 20412 up (2) TD-20BPS 20412 up
29	324 103 R91	SEAL, brake actuating cable guide (2)
29A	338 276 R2	SLEEVE, brake guide boot (2)
29B	338 277 R3	BOOT, brake cable (2)
30	325 767 R93	CABLE ASSEMBLY, brake actuating (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411 (Order the following parts - 1 BOLT 609 771 C1 1 CABLE 609 805 C91 1 LOCK 609 773 C11 1 NUT, 7/16" 1 PIN 27 128 H 2 RETAINER 609 772 C1) 1/8 x 1" cotter PIN (4) 3/32 x 1-1/8" cotter PIN (2)
	84 727 H	PIN, rod end (2)
	98 724 H	PIN, rod end (2)
30	609 805 C91	CABLE, brake actuating (2) TD-20BP 20412 up (2) TD-20BPS 20412 up 1/8 x 1" cotter PIN (4) PIN, rod end (2) PIN, rod end (2)
	27 128 H	PIN, rod end (2)
	98 724 H	PIN, rod end (2)
31		NUT, 3/8" (used with BOLT, 338 009 R1) (2)
31		NUT, 7/16" (used with BOLT, 609 771 C1) (
32	338 009 R1	BOLT, brake cable adjusting (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411 3/8" NUT
32	609 771 C2	BOLT, brake actuating cable (2) TD-20BP 20412 up (2) TD-20BPS 20412 up 7/16" NUT
33	325 768 R91	BELLCRANK, LH brake actuating
33	325 769 R91	BELLCRANK, RH brake actuating



BRAKES AND CONTROLS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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BRAKES AND CONTROLS - CONTINUED

34	334 872 R1	LEVER, pivot brake pick-up (2) 1/2 x 1-3/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
	117 979	KEY, 5/16 x 1-1/8" (Woodruff No. C) (2)
37	325 559 R1	SHAFT, foot brake actuating cable pulley stud
38	272 536 R1	SPRING, brake pedal return
39	104 039 103 498	CLEVIS, short adjustable PIN, rod end 1/8 x 1" cotter PIN
40		NUT, 1/2NF
41	334 027 R91	YOKE, brake pulley pull rod
42	325 567 R1	SHAFT, pulley
43	631 530 R1	RING, snap (2)
44	325 562 R1	STUD, pulley support
45	330 705 R91	SUPPORT, pulley
46	631 530 R1	RING, snap
47	325 771 R92	CABLE w/two PIN, foot brake actuating 1/8 x 1" cotter PIN (2) 3/32 x 1-1/8" cotter PIN (2)
	84 727 H	PIN, rod end
48	103 498	PIN, 1/2" rod end TD-20BP 4001 to 4430 1/8 x 1" cotter PIN
49	345 562 R91	ADAPTER, brake pedal clevis TD-20BP 4001 to 4430
50	337 757 R1	GASKET, pivot brake oil sump (4)
51	337 756 R1	SUMP, pivot brake oil (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411
	603 347 C1	BOLT (12)
	16 558 R1	WIRE, locking (order 278 026 R1) WASHER (12)
51	609 807 C1	SUMP, pivot brake oil (2) TD-20BP 20412 up (2) TD-20BPS 20412 up
	603 347 C1	BOLT (12)
	16 558 R1	WIRE, locking (order 278 027 R1) WASHER (12)
52	369 237 R1	LINK, plain actuating (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411
53	369 236 R91	LINK, yoke actuating (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411
327 121 R91		BRAKE ASSY w/EIGHT DISC 327 186 R1 ten DISC, 327 187 R92 and DISC ASSY, 619 911 C91 (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411 (Order the following parts - 1 BOLT 609 771 C1 1 BOOT 338 277 R3 1 BRAKE ASSY 610 316 C92 1 BUSHING 345 974 R2 1 CABLE 609 805 C91 1 LOCK 609 773 C11 1 NUT, 7/16" 1 PIN 27 128 H 2 RETAINER 609 772 C1 2 RING 324 112 R1 1 RING 609 806 C1 1 SEAL 324 103 R91



BRAKES AND CONTROLS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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BRAKES AND CONTROLS - CONTINUED

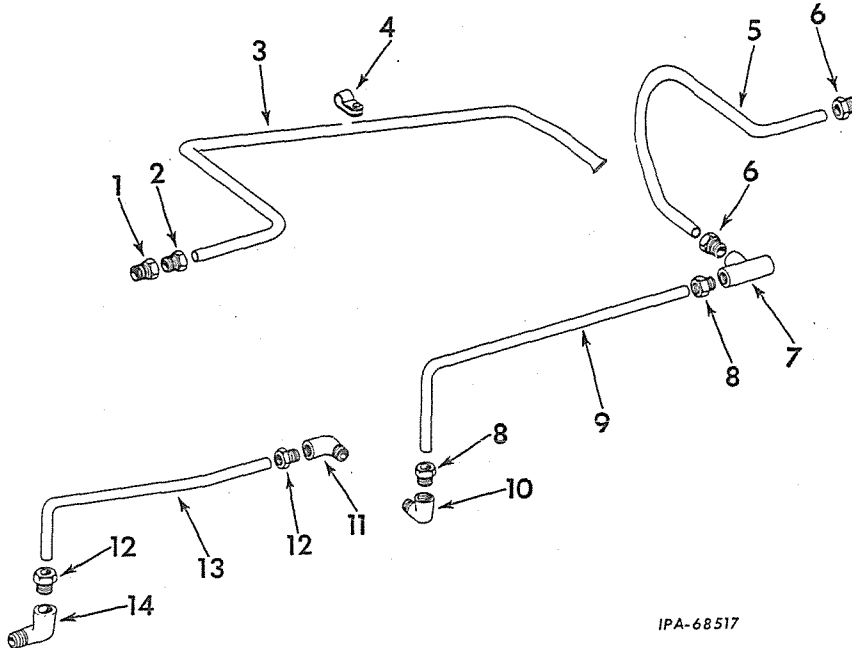
327 121 R91		BRAKE ASSY w/EIGHT DISC 327 186 R1 ten DISC, 327 187 R92 and DISC ASSY, 619 911 C91 - Continued (2) TD-20BP 4001 to 20411 (2) TD-20BPS 6110 to 20411 (Order the following parts - Continued 1 SLEEVE 338 276 R2 3 STUD 609 808 C1 1 SUMP 609 807 C1)
619 925 C91		BRAKE w/ten DISC, 327 186 R1, twelve DISC, 327 187 R92 and DISC, 619 911 C91 (2) TD-20BP 20412 up (2) TD-20BPS 20412 up
345 974 R2		BUSHING, push rod lever shaft (2)
273 347		FITTING, brake actuating bellcrank lubrication (Alemite 1669B) (2)
126 152		FITTING, lubrication, brake pedal
369 238 R1		STUD (4) TD-20BP 4001 to 20411 (4) TD-20BPS 6110 to 20411 3/8"NF jam NUT (4)
278 026 R1		WIRE, lock bulk (No. 14 ga) (customer must specify length required) (for sump, 337 756 R1)
278 027 R1		WIRE, lock bulk (No. 16 ga) (customer must specify length required) (for sump, 609 807 C1)

NOTE: Each group of brake disc's are as shown in illustration made up of 5 intermediate disc ref. 19 and 6 middle disc ref. 20 for one side of machine as shown for brake 619 925 C91 (4 intermediate disc ref. 19 and 5 middle disc ref. 20 for one side of machine are required for brake 327 121 R91)



BRAKES AND CONTROLS

OIL COOLING BRAKE PIPING
TD-20BP 4001 to 4215



IPA-68517

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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1	39 584 D	CONNECTOR, sprocket drive vent tube (2)
2	37 165 D	NUT, sprocket drive vent tube (2)
3	331 759 R1	TUBE, LH sprocket drive vent
3	331 760 R1	TUBE, RH sprocket drive vent
4	255 007 R1	CLAMP, sprocket drive vent tube (2) 1/4" NUT (2) 3/8 x 1/2" hex-hd cap SCREW (2) 1/4 x 3/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 1/4" lock WASHER (2)
5	341 997 R1	TUBE, regulator to tee (will work for 337 789 R1)
6	37 165 D	NUT, regulator to tee tube (2)
7	252 628 R1	TEE, regulator to main frame tube
8	37 165 D	NUT, tee to left side of rear main frame tube (2)
8	37 165 D	NUT, tee to right side of rear main frame tube (2)



BRAKES AND CONTROLS

OIL COOLING BRAKE PIPING - CONTINUED
TD-20BP 4001 to 4215

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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9	337 791 R1	TUBE, tee to rear main frame (2)
10	37 167 D	ELBOW, 3/8" x 90° (left side of rear main frame tube)
10	37 167 D	ELBOW, 3/8" x 90° (right side of rear main frame tube)
11	37 167 D	ELBOW, 3/8" x 90° (sprocket drive oil inlet tube on main frame) (2)
12	37 165 D	NUT, sprocket drive oil inlet tube (4)
13	331 757 R1	TUBE, LH sprocket drive oil inlet
13	331 758 R1	TUBE, RH sprocket drive oil inlet
14	336 934 R1	ELBOW, sprocket drive oil inlet restrictor (inside main frame side) (2)
	37 167 D	ELBOW, 3/8" x 90° regulator to tee tube (at regulator) (used only with TUBE, 337 789 R



BRAKES AND CONTROLS

OIL COOLING BRAKE PIPING

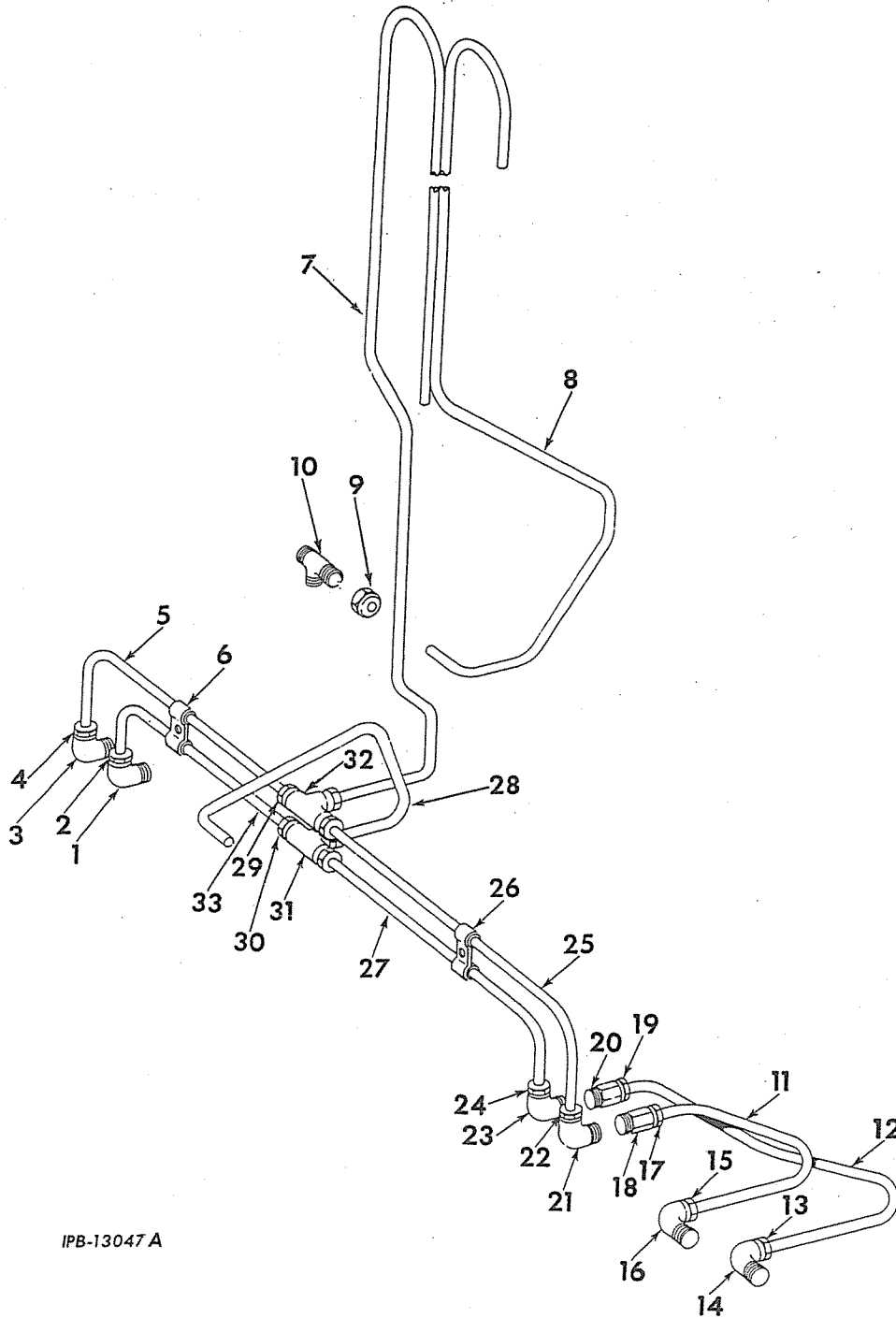
TD-20BP 4216 to 20180
TD-20BPS 6110 to 20180 except 20162, 20164, 20166,
20167, 20169, 20170, 20172, 20173, 20175, 20176,
20178 and 20179



BRAKES AND CONTROLS

OIL COOLING BRAKE PIPING - CONTINUED

TD-20BP 4216 to 20180
TD-20BPS 6110 to 20180 except 20162, 20164, 20166,
20167, 20169, 20170, 20172, 20173, 20175, 20176,
20178 and 20179



IPB-13047 A



BRAKES AND CONTROLS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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OIL COOLING BRAKE PIPING - CONTINUED

TD-20BP 4216 to 20180
 TD-20BPS 6110 to 20180 except 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179

1	37 167 D	ELBOW, right side of rear main frame tube TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
1	606 930 C1	ELBOW, right side of rear main frame tube TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
2	37 165 D	NUT, elbow to right side of rear main frame tube TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
2	265 205 R1	NUT, elbow to right side of rear main frame tube TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE
3	37 167 D	ELBOW, sprocket drive vent tube (inside main frame) TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
3	606 930 C1	ELBOW, sprocket drive vent tube (inside main frame) TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
4	37 165 D	NUT, sprocket drive vent tube elbow TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
4	265 205 R1	NUT, sprocket drive vent tube elbow TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE
5	341 998 R1	TUBE, RH lower sprocket drive vent (see NOTE 1) TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
5	607 977 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, RH lower sprocket drive vent TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
6	66 362 D	CLAMP, RH main frame vent tube (2) TD-20BP 4216 to 20180 except (*) TD-20BPS 6110 to 20180 except (*)
	272 941 R1	CUSHION, RH main frame vent tube clamp (3)
	262 038 R1	NUT, RH main frame vent tube clamp speed 1/4 x 7/8" hex-hd cap SCREW
7	341 999 R1	TUBE, upper sprocket drive vent (see NOTE 1) TD-20BP 4216 to 6111 TD-20BPS 4110 to 6111
7	612 780 C11	TUBE w/NUT, 265 205 R1 and SLEEVE, 265 204 R1, upper sprocket drive vent TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)



BRAKES AND CONTROLS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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OIL COOLING BRAKE PIPING - CONTINUED

TD-20BP 4216 to 20180
 TD-20BPS 6110 to 20180 except 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179

8	341 890 R1	TUBE, main frame vent (see NOTE 3) TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
8	612 772 C11	TUBE w/NUT, 265 205 R1 and SLEEVE, 265 204 R1, rear frame vent TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*) (order BREATHER, 324 042 R91, ELBOW 105 423 and ELBOW, 606 845 C1 listed and illustrated w/REAR FRAME)
9	37 165 D	NUT, main frame vent tube tee (used with TUBE, 341 890 R1) TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
9	265 205 R1	NUT, main frame vent tube tee (used with TUBE, 612 772 C11) TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE
10	68 182 DM	TEE, main frame vent tube (used with TUBE, 341 890 R1) TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
10	610 472 C1	TEE, main frame vent tube (used with TUBE, 612 772 C11) TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
11	607 982 C11	TUBE w/two NUT, 265 205 R1, and two SLEEVE, 265 204 R1, RH and LH sprocket drive vent (together with ELBOW, 606 930 C1 and CONNECTOR, 606 929 C1, will work for TUBE, 341 793 R1) (2) TD-20BP 4216 to 20180 except (*) TD-20BPS 6110 to 20180 except (*)

NOTE 1 - To Update Machines Equipped With RH and LH Lower Sprocket Vent TUBE, 341 998 R1, and Upper Sprocket Vent TUBE, 341 999 R1 Serial Nos TD-20BP 4216 to 6111 and TD-20BPS 6110 to 6111
 (Order The Following Parts -
 2 ELBOW 606 930 C1
 1 TEE 606 933 C1
 2 TUBE 607 977 C11
 1 TUBE 612 780 C11)

NOTE 3 - To Update Machines Equipped With Rear Frame Vent TUBE, 341 890 R1 Serial Nos. TD-20BP 4216 to 6111 and TD-20BPS 6110 to 6111
 (Order the following parts -

1 BREATHER 324 042 R91
 2 ELBOW 606 845 C1
 1 ELBOW 105 423
 1 PIPE 616 238 C1
 1 TUBE 612 771 C1
 (*) - 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179



BRAKES AND CONTROLS



BRAKES AND CONTROLS

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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OIL COOLING BRAKE PIPING - CONTINUED

TD-20BP 4216 to 20180
 TD-20BPS 6110 to 20180 except 20162, 20164, 20166,
 20167, 20169, 20170, 20172, 20173, 20175, 20176,
 20178 and 20179

12	607 983 C11	TUBE, w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, RH and LH brake cooling oil (together with ELBOW, 606 931 C1 and CONNECTOR, 606 929 C1, will work for TUBE, 341 795 R1) (2) TD-20BP 4216 to 20180 except (*) TD-20BPS 6110 to 20180 except (*)
13	37 165 D	NUT, RH and LH brake cooling oil tube (2) TD-20BP 4216 to 6111 (2) TD-20BPS 6110 to 6111
13	265 205 R1	NUT, RH and LH brake cooling oil tube (2) TD-20BP 6112 to 20180 except (*) (2) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE (2)
14	336 934 R1	ELBOW, brake cooling oil inlet restrictor (2) TD-20BP 4216 to 6111 (2) TD-20BPS 6110 to 6111
14	606 931 C1	ELBOW, brake cooling oil inlet restrictor (2) TD-20BP 6112 to 20180 except (*) (2) TD-20BPS 6112 to 20180 except (*)
15	37 165 D	NUT, sprocket drive vent tube (2) TD-20BP 4216 to 6111 (2) TD-20BPS 6110 to 6111
15	265 205 R1	NUT, sprocket drive vent tube (2) TD-20BP 6112 to 20180 except (*) (2) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE (2)
16	37 167 D	ELBOW, sprocket drive oil inlet tube (on main frame) (2) TD-20BP 4216 to 6111 (2) TD-20BPS 6110 to 6111
16	606 930 C1	ELBOW, sprocket drive oil inlet tube (on main frame) (2) TD-20BP 6112 to 20180 except (*) (2) TD-20BPS 6112 to 20180 except (*)
17	37 165 D	NUT, RH and LH sprocket drive vent tube connector (2) TD-20BP 4216 to 6111 (2) TD-20BPS 6110 to 6111
17	265 205 R1	NUT, RH and LH sprocket drive vent tube connector (2) TD-20BP 6112 to 20180 except (*) (2) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE (2)
18	39 584 D	CONNECTOR, RH and LH sprocket drive vent tube (2) TD-20BP 4216 to 6111 (2) TD-20BPS 6110 to 6111
18	606 929 C1	CONNECTOR, RH and LH sprocket drive vent tube (2) TD-20BP 6112 to 20180 except (*) (2) TD-20BPS 6112 to 20180 except (*)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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OIL COOLING BRAKE PIPING - CONTINUED

TD-20BP 4216 to 20180
 TD-20BPS 6110 to 20180 except 20162, 20164, 20166,
 20167, 20169, 20170, 20172, 20173, 20175, 20176,
 20178 and 20179

19	37 165 D	NUT, RH and LH brake cooling oil tube connector (2) TD-20BP 4216 to 6111 (2) TD-20BPS 6110 to 6111
19	265 205 R1	NUT, RH and LH brake cooling oil tube connector (2) TD-20BP 6112 to 20180 except (*) (2) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE (2)
20	39 584 D	CONNECTOR, RH and LH brake cooling oil tube (2) TD-20BP 4216 to 6111 (2) TD-20BPS 6110 to 6111
20	606 929 C1	CONNECTOR, RH and LH brake cooling oil tube (2) TD-20BP 6112 to 20180 except (*) (2) TD-20BPS 6112 to 20180 except (*)
21	37 167 D	ELBOW, LH sprocket drive vent tube (inside main frame) TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
21	606 930 C1	ELBOW, LH sprocket drive vent tube (inside main frame) TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
22	37 165 D	NUT, LH sprocket drive vent tube elbow TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
22	265 205 R1	NUT, LH sprocket drive vent tube elbow TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE
23	37 167 D	ELBOW, LH brake cooling oil tube TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
23	606 930 C1	ELBOW LH brake cooling oil tube TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
24	37 165 D	NUT, LH brake cooling oil tube elbow TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
24	265 205 R1	NUT, LH brake cooling oil tube elbow TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE

(*) - 20162, 20164, 20166, 20167, 20169,
 20170, 20172, 20173, 20175, 20176,
 20178 and 20179



BRAKES AND CONTROLS

REF. NO.	I.H. PART NUMBER	DESCRIPTION
OIL COOLING BRAKE PIPING - CONTINUED		
TD-20BP 4216 to 20180		
TD-20BPS 6110 to 20180 except 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179		
25	341 998 R1	TUBE, LH lower sprocket drive vent (see NOTE 1) TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
25	607 977 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, LH lower sprocket drive vent TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
26	66 362 D	CLAMP, LH main frame vent tube (2) TD-20BP 4216 to 20180 except (*)
	272 941 R1	CUSHION, LH main frame vent tube clamp (2)
	262 038 R1	NUT, LH main frame vent tube clamp speed 1/4 x 7/8" hex-hd cap SCREW
27	337 791 R1	TUBE, LH brake cooling oil lower (see NOTE 2) TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
27	607 976 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, LH brake cooling oil lower TD-20BP 6112 to 20180 except (*) TD-20BP 6110 to 20180 except (*)
28	341 997 R1	TUBE, regulator to tee (see NOTE 2) TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
28	612 779 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, regulator to tee TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
29	37 165 D	NUT, sprocket drive vent tube tee (3) TD-20BP 4216 to 6111 (3) TD-20BPS 6110 to 6111
29	265 205 R1	NUT, sprocket drive vent tube tee (3) TD-20BP 6112 to 20180 except (*) (3) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE (3)
30	37 165 D	NUT, brake cooling oil tube tee (3) TD-20BP 4216 to 6111 (3) TD-20BPS 6110 to 6111
30	265 205 R1	NUT, brake cooling oil tube tee (3) TD-20BP 6112 to 20180 except (*) (3) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE (3)
31	252 628 R1	TEE, brake cooling oil tube TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
31	606 933 C1	TEE, brake cooling oil tube TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)



BRAKES AND CONTROLS

REF. NO.	I.H. PART NUMBER	DESCRIPTION
OIL COOLING BRAKE PIPING - CONTINUED		
TD-20BP 4216 to 20180		
TD-20BPS 6110 to 20180 except 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179		
32	252 628 R1	TEE, sprocket drive vent tube TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
32	606 933 C1	TEE, sprocket drive vent tube TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
33	337 791 R1	TUBE, RH brake cooling oil lower TD-20BP 4216 to 6111 TD-20BPS 6110 to 6111
33	607 976 C11	TUBE w/two NUT, 265 205 R1 and SLEEVE, 265 204 R1, RH brake cooling oil lower TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
NOTE 1 - To Update Machines Equipped With RH and LH Lower Sprocket Vent Tube, 341 998 R1, and Upper Sprocket Vent Tube, 341 999 R1, Serial Nos TD-20BP 4216 to 6111, and TD-20BPS 6110 to 6111 (Order The Following Parts - 2 ELBOW 606 930 C1 1 TEE 606 933 C1 2 TUBE 607 977 C11 1 TUBE 612 780 C11)		
NOTE 2 - To Update Machines Equipped With Regulator To Tee TUBE, 341 997 R1 and LH and RH Brake Cooling Oil Lower TUBE, 337 791 R1, Serial Nos TD-20BP 4216 to 6111 and TD-20BPS 6110 to 6111 (Order The Following Parts - 1 CONNEC- TOR 606 929 C1 2 ELBOW 606 930 C1 1 TEE 606 933 C1 1 TUBE 612 779 C11 2 TUBE 607 976 C11)		
(*) - 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179		

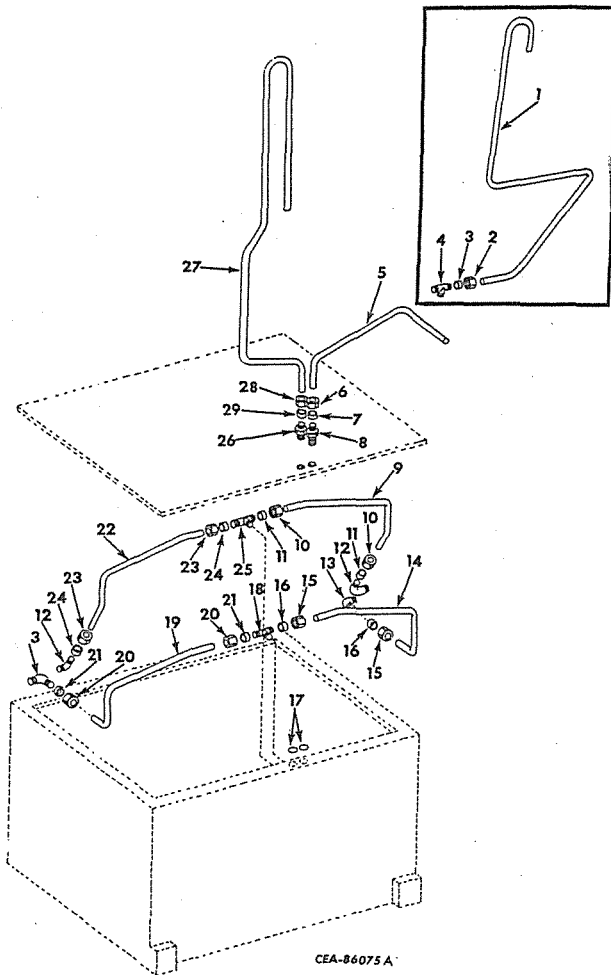


BRAKES AND CONTROLS

OIL COOLING BRAKE PIPING

TD-20BP 20181 up, also 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178, and 20179

TD-20BPS 20181 up, also 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178, and 20179



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	612 772 C11	TUBE w/NUT, 265 205 R1 and SLEEVE, 265 204 R1, rear frame vent TD-20BP 20181 to 21206 also 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179 TD-20BPS 20181 to 21206 also 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179 (order BREATHER, 324 042 R91, ELBOW, 105 423 and ELBOW, 606 845 C1 listed and illustrated w/REAR FRAME)



BRAKES AND CONTROLS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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OIL COOLING BRAKE PIPING - CONTINUED

TD-20BP 20181 up, also 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178, and 20179

TD-20BPS 20181 up, also 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178, and 20179

2	265 205 R1	NUT (used with TUBE, 612 772 C11)
3	265 204 R1	SLEEVE (used with TUBE, 612 772 C11)
4	610 472 C1	TEE, main frame vent tube (used with TUBE, 612 772 C11)
5	612 773 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1 regulator to rear main frame cover
6	915 499 R1	NUT (2)
7	915 500 R1	SLEEVE (2)
8	606 673 C1	CONNECTOR, regulator to rear main frame cover tube
9	611 007 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, RH sprocket drive vent
10	265 205 R1	NUT (2)
11	265 204 R1	SLEEVE (2)
12	606 845 C1	ELBOW, sprocket drive vent tube (inside main frame) (2)
13	610 473 C1	ELBOW, brake cooling oil inlet restrictor (inside of main frame) (2)
14	611 009 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, RH brake cooling oil
15	265 205 R1	NUT (2)
16	265 204 R1	SLEEVE (2)
17	350 667 R1	RING, 11/16 x 7/8 x 3/32" vent and oil port sealing (2)
18	610 472 C1	TEE, brake cooling oil inlet (inside main frame)
19	611 008 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, LH brake cooling oil
20	265 205 R1	NUT (2)
21	265 204 R1	SLEEVE (2)
22	611 006 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, LH sprocket drive vent
23	265 205 R1	NUT (2)
24	265 204 R1	SLEEVE (2)
25	610 472 C1	TEE, sprocket drive vent tube (inside main frame)
26	606 819 C1	CONNECTOR, sprocket drive vent tube
27	611 001 C21	TUBE w/NUT, 265 205 R1 and SLEEVE, 265 204 R1, sprocket drive vent
28	265 205 R1	NUT
29	265 204 R1	SLEEVE



MEMORANDA



MEMORANDA



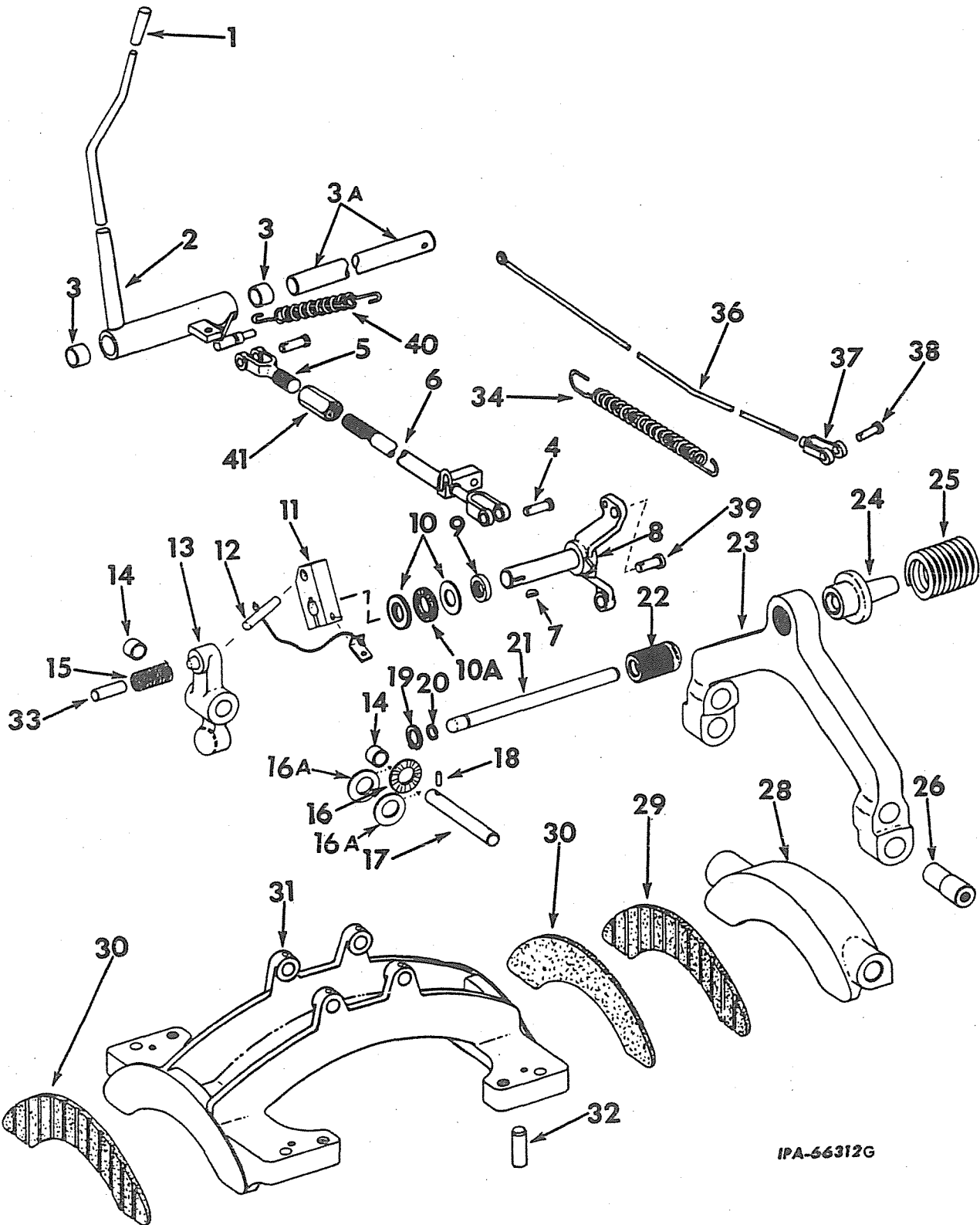
STEERING SYSTEM



STEERING SYSTEM

STEERING PLANETARY AND CONTROLS

STEERING PLANETARY AND CONTROLS - CONTINUED



IPA-66312G



STEERING SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
STEERING PLANETARY AND CONTROLS - CONTINUED		
1	619 404 C1	HANDLE, steering hand lever (2)
2	334 868 R91	LEVER w/two BUSHING, 307 434 R1, LH steering hand TD-20BP 4001 to 5323 1/2" jam NUT 1/2 x 1-1/2" hex-hd cap SCREW
2	603 113 C92	LEVER w/two BUSHING, 604 151 C1, LH steering hand TD-20BP 5324 up TD-20BPS 6110 up
2	334 869 R91	LEVER w/two BUSHING, 307 434 R1, RH steering hand TD-20BP 4001 to 5323 1/2" jam NUT 1/2 x 1-1/2" hex-hd cap SCREW
2	603 114 C92	LEVER w/two BUSHING, 604 151 C1, RH steering hand TD-20BP 5324 up TD-20BPS 6110 up
3	307 434 R1	BUSHING, hand lever (4) TD-20BP 4001 to 5323
3	604 151 C1	BUSHING, hand lever (4) TD-20BP 5324 up (4) TD-20BPS 6110 up
3A	325 474 R1 553 050 R1	SHAFT, hand lever PIN, 1/4 x 1-3/4" roll
4	103 498	PIN, 1/2" rod end (4) 1/8 x 1" cotter PIN (4)
5	338 019 R11	ROD, steering brake pull (short) (2) 3/4NF NUT (2)
6	345 501 R91	ROD, RH steering brake pull (long)
6	345 500 R91 20 097 R1	ROD, LH steering brake pull (long) NUT, 3/4" jam (LH thread) (2)
7	124 552	KEY, lever bellcrank push rod (Woodruff No. 13) (2)
8	334 870 R91	LEVER, LH bellcrank push rod outer
8	334 871 R91	LEVER, RH bellcrank push rod outer
9	324 014 R91	SEAL, bellcrank push rod lever (2)
10	325 155 R1	WASHER, bellcrank thrust TD-20BP 4001 to 4667 (Order the following parts - 2 BEARING 368 372 R91 2 BUSHING 345 974 R1 1 DRAWING IZG 6 740 4 RACE 306 970 R1)
10	306 970 R1	RACE, brake fork push rod bellcrank bearing (4) TD-20BP 4668 up (4) TD-20BPS 6110 up
10A	368 372 R91	BEARING, brake fork push rod bellcrank needle (2) TD-20BP 4668 up (2) TD-20BPS 6110 up
11	325 182 R1	LEVER, bellcrank push rod LH 1/2 x 2" hex-hd cap SCREW 1/2" lock WASHER
11	325 183 R1	LEVER, bellcrank push rod RH 1/2 x 2" hex-hd cap SCREW 1/2" lock WASHER
12	325 443 R93	ROD and ANCHOR, bellcrank push (2)
13	325 441 R11	BELLCRANK w/two BUSHING, 325 180 R1, brake fork push rod (2) TD-20BP 4001 to 20928 (2) TD-20BPS 6110 to 20928 (Order the following parts - 1 BELLCRANK 612 732 C11 2 BEARING 368 372 R91 4 RACE 306 970 R1)
13	612 732 C11	BELLCRANK w/two BUSHING, 325 180 R1, brake fork push rod (2) TD-20BP 20929 up (2) TD-20BPS 20929 up



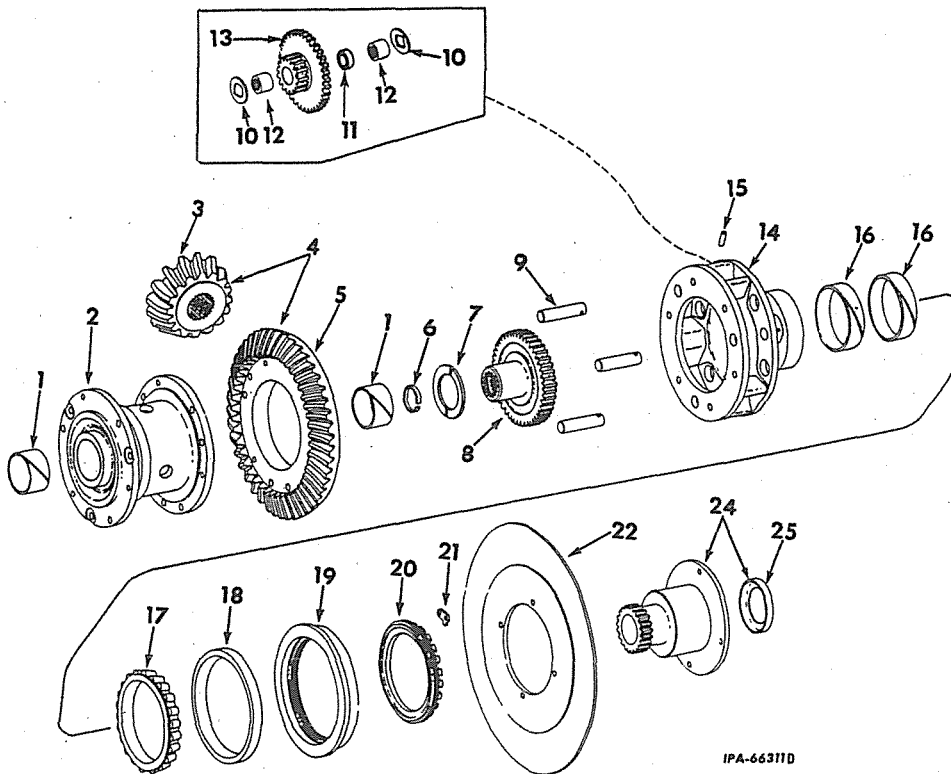
STEERING SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
STEERING PLANETARY AND CONTROLS - CONTINUED		
14	325 180 R1	BUSHING, bellcrank (4)
15	338 024 R1	SPRING, push rod compression
16	325 155 R1	WASHER, brake fork push rod thrust (4) TD-20BP 4001 to 20928 (4) TD-20BPS 6110 to 20928 (Order the following parts - 2 BEARING 368 372 R91 4 RACE 306 970 R1)
16	368 372 R91	BEARING, brake fork push rod bellcrank needle (4) TD-20BP 20929 up (4) TD-20BPS 20929 up
16A	306 970 R1	RACE, brake fork push rod bellcrank bearing (8) TD-20BP 20929 up (8) TD-20BPS 20929 up
17	325 442 R1	SHAFT, bellcrank (2)
18	441 012 R1	PIN, 1/4 x 7/8" roll (2)
19	321 985 R1	RING, bellcrank snap (2)
20	154 665 R1	RING, brake fork push rod snap (2)
21	325 438 R2	ROD, brake fork push (2)
22	345 667 R2	SCREW, brake shoe adjusting (2)
23	325 435 R1	FORK, brake (2)
24	325 436 R3	RETAINER, brake pressure spring (2)
25	338 133 R2	SPRING, brake pressure (2)
26	325 173 R3	PIN, clutch fork (short) (4)
26	334 899 R3	PIN, brake fork (long) (4)
28	325 171 R12	SHOE w/LINING, brake
29	331 911 R21	LINING, brake (part of PACKAGE, 331 910 R91) (2)
30	331 911 R21	LINING, brake shoe back up (part of PACKAGE, 331 910 R91) (2)
31	325 433 R12	SHOE w/LINING and four DOWEL, 250 868 R1, back up brake 5/8 x 2-1/4" hex-hd cap SCREW (4)
32	250 868 R1	DOWEL, back-up brake shoe (4)
33	325 448 R1	STIFFENER, lever return spring
34	331 988 R1	SPRING, boost piston return (2)
36	334 874 R11	ROD, steering booster valve operating (2) 3/8NF jam NUT (2) 3/32 x 3/4" cotter PIN (2)
37	104 038	CLEVIS, steering booster valve operating rod end (2)
38	114 785	PIN, 3/8" rod end (2) 3/32 x 3/4" cotter PIN (2)
39	33 557 V	PIN, bellcrank push rod lever front (2) 1/8 x 1" cotter PIN (2)
40	331 989 R1	SPRING, hand lever return (2) TD-20BP 4001 to 4350
40	345 599 R1	SPRING, hand lever return (2) TD-20BP 4351 to 22891 (2) TD-20BPS 6110 to 22891
40	620 300 C1	SPRING, hand lever return (2) TD-20BP 22892 up (2) TD-20BPS 22892 up
41	338 017 R1	TURNBUCKLE (2)
	331 910 R91	PACKAGE, brake shoe lining field service (Consists of four LINING, 331 911 R21, thirty-two RIVET, 19 685 R1 and sixteen RIVET, 20 077 R1)
	345 772 R91	PACKAGE, oversize brake fork pin field service (consists of rework DRAWING, IZG-6672 and PIN, 345 771 R1) (X)
	345 771 R1	PIN, brake fork (oversize) (part of PACKAGE, 345 772 R91)
	324 000 R1	RING, brake fork pin snap (4)
	20 077 R1	RIVET, brake shoe (3/16 x 1" tubular) (16)
	19 685 R1	RIVET, brake shoe (32)
X - As Required.		

STEERING SYSTEM



STEERING PLANETARY DRIVE



IPA-66311D

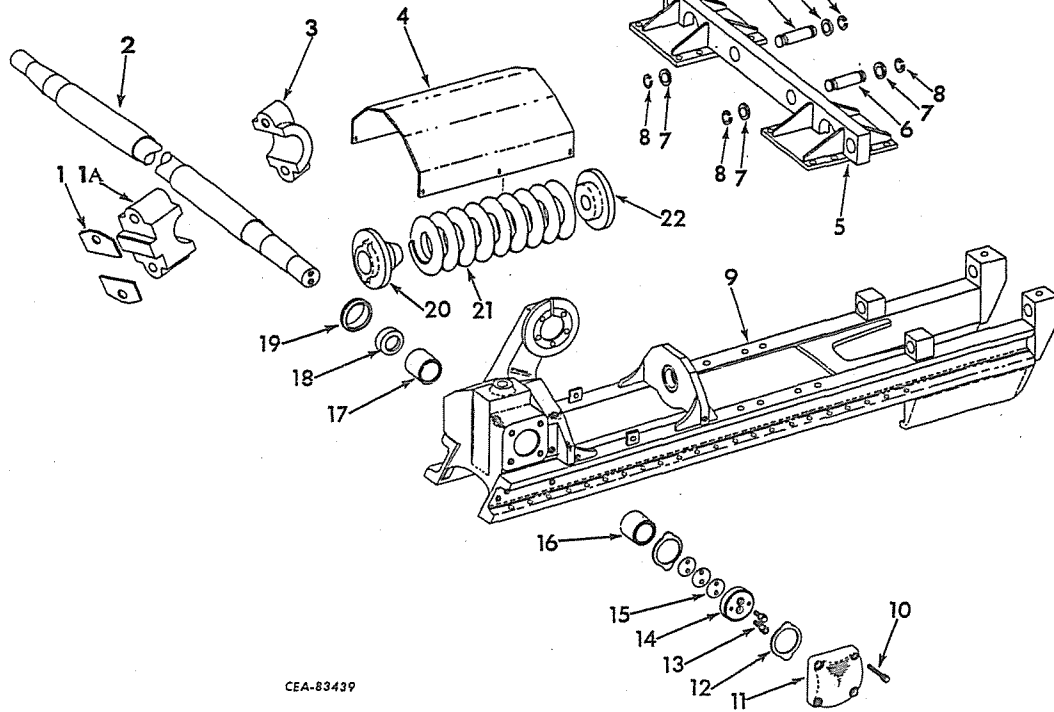
REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	604 222 C1	BUSHING, bevel gear carrier (2)
2	334 085 R11	CARRIER w/two BUSHING, 604 222 C1, bevel gear
	325 324 R1	BOLT, bevel gear dowel (6)
	325 166 R1	BOLT, planet carrier dowel (3)
	330 912 R1	BOLT, bevel gear carrier (3)
	454 522 R1	NUT, 1/2" lock (12)
3	325 611 R1	PINION, drive bevel
4	325 613 R91	GEAR, 334 087 R1, w/PINION, 325 611 R1, drive bevel (matched set)
5	334 087 R1	GEAR, drive bevel
6	325 314 R1	RING, sprocket drive pinion shaft gear snap (2)
7	325 323 R1	WASHER, bevel gear carrier thrust (2)
8	325 313 R1	GEAR, sprocket drive pinion shaft (2)
9	325 316 R1	SHAFT, planet cluster gear (6)
10	612 733 C2	WASHER, steering planet cluster gear thrust (will work for 325 154 R1 and 325 155 R1) (12)
11	325 317 R2	SPACER, planter cluster gear needle bearing (6)
12	321 981 R91	BEARING, planet cluster gear (12)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
13	325 315 R1	GEAR, planet cluster (6)
14	334 086 R21	CARRIER, w/two BUSHING, 604 223 C1, planet gear (2)
15	617 937 R1	PIN, planet gear cluster shaft (6)
16	604 223 C1	BUSHING, planet carrier (4)
17	197 606 R1	CONE, planet carrier roller bearing (2)
18	197 605 R1	CUP, planet carrier roller bearing (2)
19	325 319 R1	CAGE, planet carrier bearing (2)
20	325 320 R1	NUT, planet carrier bearing adjusting (2)
21	325 158 R1	LOCK, planet carrier bearing adjusting nut (2)
		1/4 x 9/16" hex-hd cap SCREW (4)
		1/4" lock WASHER (4)
22	325 161 R1	DISC, brake (2)
	325 162 R1	BOLT, brake disc dowel (8)
	17 234 R1	NUT, dowel bolt (8)
24	700 294 C91	HUB w/RING, 325 432 R1 (2)
25	325 432 R1	RING, sun gear and brake hub oil collector (2)

TRACK DRIVE



TRACK FRAME, SPRING, CROSSBAR AND RELATED PARTS
(Used With Sideboom Crawler Tractors)



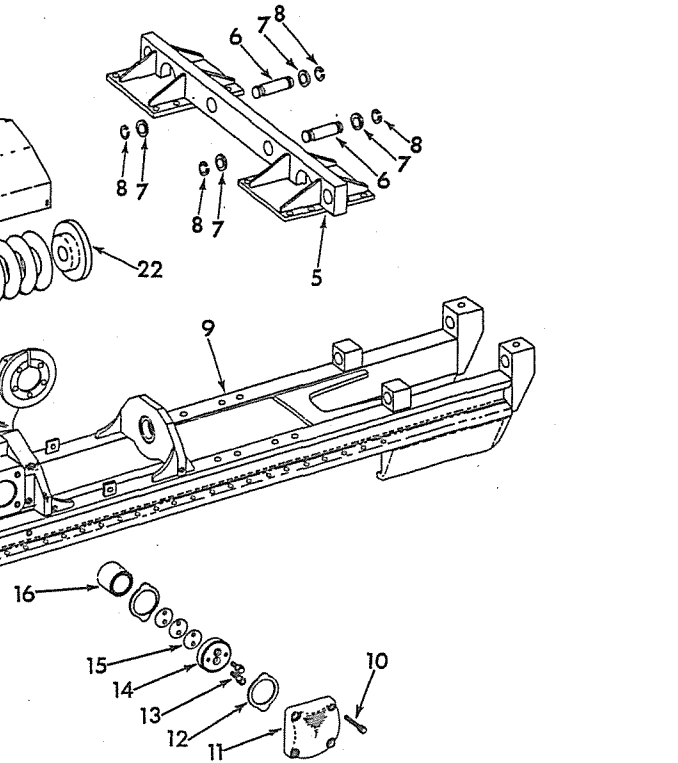
CEA-83439

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	334 964 R1	SHIM, pivot shaft spacer (.060") (X)
1	334 965 R1	SHIM, pivot shaft spacer (.054") (X)
1	334 966 R1	SHIM, pivot shaft spacer (.048") (X)
1	334 967 R1	SHIM, pivot shaft spacer (.042") (X)
1A		SPACER, pivot shaft (order 334 961 R91)
2	334 388 R2	SHAFT, track frame pivot
3		CAP, pivot shaft (order 334 961 R91)
4	334 336 R11	COVER, track frame rear (2) 1/2 x 1" hex-hd cap SCREW (12) 1/2" lock WASHER (12) 17/32 x 1-1/16" x 13 ga WASHER (12)
5	607 597 C11	CROSSBAR, rigid 1 x 2-1/4" hex-hd cap SCREW (16)
6	337 701 R1	PIN, rigid bar (2)
7	338 158 R1	RING, rigid bar wear (4)
8	338 157 R1	RING, pin retainer (4)
9	607 618 C91	FRAME w/BUSHING, 330 590 R2 and BUSHING, 334 424 R2, LH track
9	607 619 C91	FRAME w/BUSHING, 330 590 R2 and BUSHING, 334 424 R2, RH track
10	330 563 R1	BOLT, pivot shaft cover (8)
11	334 423 R2	COVER, pivot shaft (2)

TRACK DRIVE



TRACK FRAME, SPRING, CROSSBAR AND RELATED PARTS - CONTINUED
(Used With Sideboom Crawler Tractors)



REF. NO.	I.H. PART NUMBER	DESCRIPTION
12	334 428 R1	PLATE, pivot shaft wear (4)
13	330 564 R1	BOLT, track frame thrust plate (4)
14	334 390 R1	PLATE, track frame thrust (2)
15	331 990 R1	SHIM, track frame pivot shaft (.060") (X)
15	331 991 R1	SHIM, track frame pivot shaft (.105") (X)
15	334 391 R1	SHIM, track frame pivot shaft (.007") (12)
15	334 392 R1	SHIM, track frame pivot shaft (.333") (4)
15	334 393 R1	SHIM, track frame pivot shaft (.002") (4)
16	330 590 R2	BUSHING, pivot shaft outer (2)
17	334 424 R2	BUSHING, pivot shaft inner (2)
18		SLEEVE (Not Furnished Separately)
19	341 921 R92	SEAL w/SLEEVE, oil (2)
20	325 936 R1	SEAT, track spring rear (2)
21	325 934 R1	SPRING, track (2)
22	325 935 R1	SEAT, track spring front (2)
	334 961 R91	CAP and SPACER, pivot shaft (2)
	19 991 R1	BOLT, pivot shaft cap (4)
	270 835 R1	PLUG, track frame pivot bracket filler (2)

TRACK DRIVE

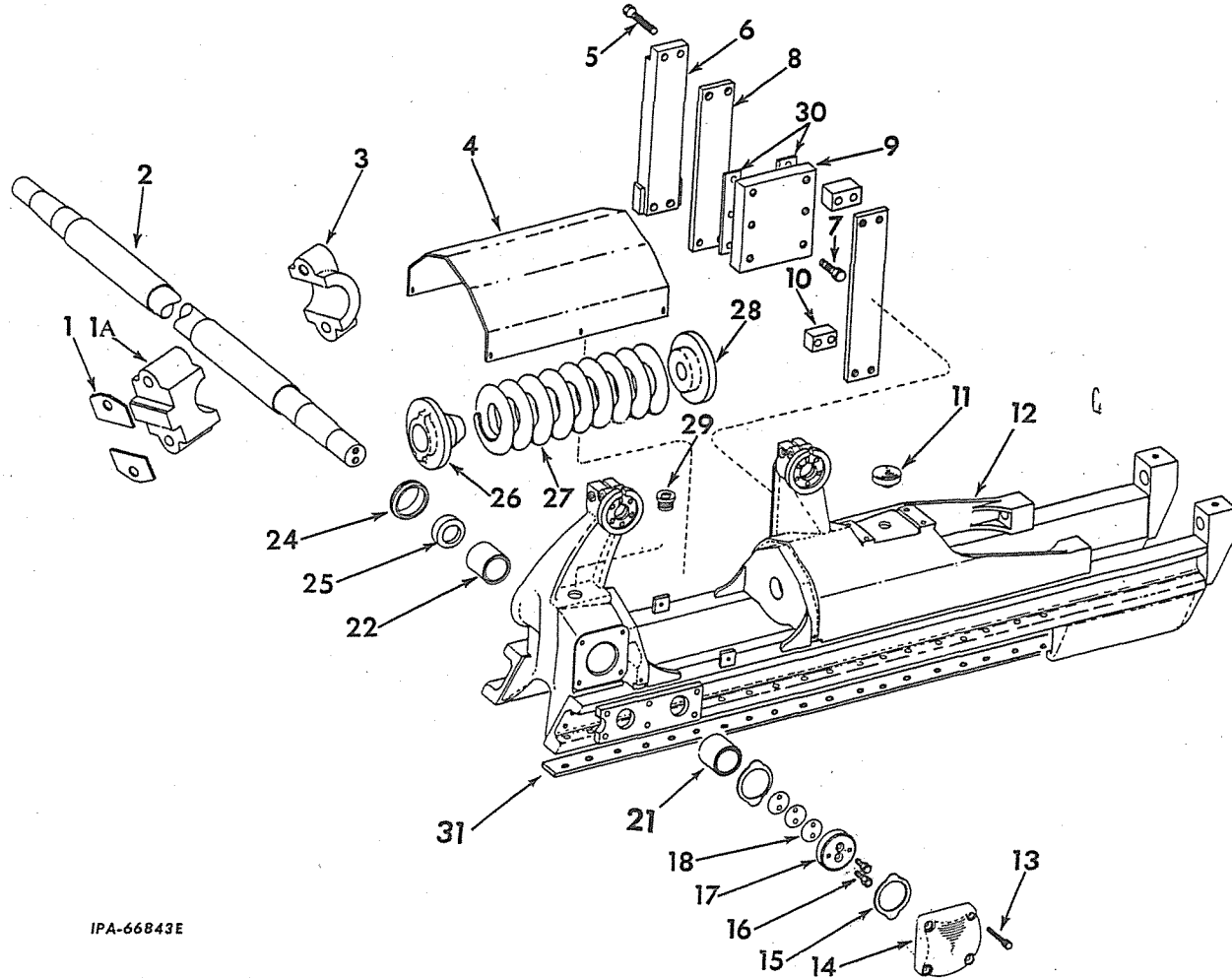


TRACK FRAME, SPRING, PIVOT SHAFT AND RELATED PARTS
(Not Used With Sideboom Crawler Tractors)
TD-20BP 4001 to 6434

TRACK DRIVE



TRACK FRAME, SPRING, PIVOT SHAFT AND RELATED PARTS - CONTINUED
(Not Used With Sideboom Crawler Tractors)
TD-20BP 4001 to 6434



IPA-66843E

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	334 964 R1	SHIM, pivot shaft spacer (.060)
1	334 965 R1	SHIM, pivot shaft spacer (.054)
1	334 966 R1	SHIM, pivot shaft spacer (.048)
1	334 967 R1	SHIM, pivot shaft spacer (.042)
1A	334 967 R1	SPACER, pivot shaft (order 334 961 R91)
2	334 388 R2	SHAFT, track frame pivot
3	334 336 R11	CAP, pivot shaft (order 334 961 R91)
4	334 336 R11	COVER, track frame rear (2) 1/2 x 1" hex-hd cap SCREW (12) 1/2" lock WASHER (12) 17/32 x 1-1/16 x 13 ga WASHER (12)
5	330 562 R1	BOLT, track frame guide retainer (8) (use with RETAINER, 334 421 R11)
5	17 198 R1	BOLT, track frame guide retainer (1"NF x 5") (use with RETAINER, 611 238 C11) (8)
5		SCREW, 1" NF x 4-3/4" hex-hd cap (4 required only when RETAINER, 611 238 C11 is furnished for RETAINER, 334 421 R11)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
6	611 238 C11	RETAINER, track frame guide (2) (together with four 1" NF x 4-3/4" hex-hd cap SCREW will work for RETAINER, 334 421 R11)
7	330 565 R1	BOLT, track frame guide plate (12) (use with PLATE, 334 399 R1)
7		SCREW, 7/8NF x 3-1/4" hex-hd cap (12) (use with PLATE, 611 295 C1)
7		SCREW, 7/8NF x 3" hex-hd cap (6 required only when PLATE, 611 295 C1 is furnished for PLATE, 334 399 R1)
8	334 418 R1	PLATE, track frame guide wear (4)
9	611 295 C1	PLATE, track frame guide (2) (together with six 7/8NF x 3" hex-hd cap SCREW and two SPACER, 616 184 C1 will work for PLATE, 334 399 R1)



TRACK DRIVE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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TRACK FRAME, SPRING, PIVOT SHAFT AND RELATED PARTS - CONTINUED
(Not Used With Sideboom Crawler Tractors)
TD-20BP 4001 to 6434

10	334 419 R1	SPACER, track frame guide (4) use with PLATE, 334 399 R1)
10	616 184 C1	SPACER, track frame guide (use with PLATE, 611 295 C1) (4)
11	8 493 DA	PAD, equalizer bar (2)
12	334 198 R93	FRAME w/BUSHING, 330 590 R2 and BUSHING, 334 424 R2, LH track order PACKAGE, 607 965 C91
12	334 199 R93	FRAME w/BUSHING, 330 590 R2 and BUSHING, 334 424 R2, RH track order PACKAGE, 607 966 C91
13	330 563 R1	BOLT, pivot shaft cover (8)
14	334 423 R1	COVER, pivot shaft (2)
15	334 428 R1	PLATE, pivot shaft wear (4)
16	330 564 R1	BOLT, track frame thrust plate (4)
17	334 390 R1	PLATE, track frame thrust (2)
18	331 990 R1	SHIM, track frame pivot shaft (.060) (X)
18	331 991 R1	SHIM, track frame pivot shaft (.105) (X)
18	334 392 R1	SHIM, track frame pivot shaft (.003) (4)
18	334 391 R1	SHIM, track frame pivot shaft (.007) (12)
18	334 393 R1	SHIM, track frame pivot shaft (.002) (4)
21	330 590 R1	BUSHING, pivot shaft outer (2)
22	334 424 R1	BUSHING, pivot shaft (2)
24	336 633 R92	SEAL, pivot shaft oil (2) TD-20BP 4001 to 5232
24	341 921 R92	SEAL w/SLEEVE, oil (2) TD-20BP 5233 to 6434
25		SLEEVE (Not Furnished Separately)
26	325 936 R1	SEAT, track spring rear (2)
27	325 934 R1	SPRING, track (2)
28	325 935 R1	SEAT, track spring front (2)
29	270 835 R1	PLUG, track frame pivot bracket filler (2)
30	604 012 C1	SHIM, track frame guide plate (light) (.030) (X)
30	604 013 C1	SHIM, track frame guide plate (medium) (.060) (X)
30	604 014 C1	SHIM, track frame guide plate (heavy) (.120) (X)
31	345 613 R1	SPACER, track roller shaft bracket (4)
	334 961 R91	CAP and SPACER, pivot shaft (2)
	19 991 R1	BOLT, pivot shaft cap (4)
	607 965 C92	PACKAGE, LH track frame field service TD-20BP 4001 to 6434 (Consists of - 2 BAR 620 121 C1 1 BOLT 271 685 4 BOLT 20 660 R1 2 BOLT, 5/8 x 1-1/2 4 BOLT, 5/8 x 1-5/8 12 BOLT, 1/2NF x 1-1/2 4 BOLT, 3/4 x 1-7/8 1 CAP 624 462 C1 2 CONE ST 2 044 2 CUP ST 972 1 FORK 703 323 C1 1 FRAME 607 927 C92 1 IDLER 325 952 R21 2 IDLER 607 922 C91 1 KEY 117 985 2 NUT 18 583 R1 2 "O" RING 310 926 R1 1 PAD 603 321 C1 X PACKAGE 604 186 C91



TRACK DRIVE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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TRACK FRAME, SPRING, PIVOT SHAFT AND RELATED PARTS - CONTINUED
(Not Used With Sideboom Crawler Tractors)
TD-20BP 4001 to 6434

607 965 C92	PACKAGE, LH track frame field service - Continued TD-20BP 4001 to 6434 (Consists of - Continued X PACKAGE 606 625 C91 1 PACKAGE 606 132 C91 4 PIN 19 838 R1 1 PISTON 607 917 C1 2 RETAINER 607 906 C1 2 RETAINER 607 907 C1 2 RING 606 936 C1 1 ROD 607 964 C1 1 SCRAPER 607 919 C1 1 SCRAPER 607 021 C1 1 SCREW 607 920 C2 1 SEAL 607 918 C1 1 SHAFT 607 903 C1 6 SHIM 620 123 C1 X SHIM (0075") 607 904 C1 X SHIM (.030) 607 905 C1 2 STOP 612 539 C1 12 WASHER (1/2") 2 WASHER 331 994 R1 1 VALVE 613 523 C92)
607 966 C92	PACKAGE, RH track frame field service TD-20BP 4001 to 6434 (Consists of - 2 BAR 620 121 C1 1 BOLT 271 685 4 BOLT 20 660 R1 2 BOLT, 5/8 x 1-1/2 4 BOLT, 5/8 x 1-5/8 12 BOLT, 1/2NF x 1-1/2 4 BOLT, 3/4 x 1-7/8 1 CAP 624 462 C1 2 CONE ST 2 044 2 CUP ST 972 1 FORK 703 323 C1 1 FRAME 607 928 C92 1 IDLER 325 952 R21 2 IDLER 607 922 C91 1 KEY 117 985 2 NUT 18 583 R1 2 "O" RING 310 926 R1 1 PAD 603 321 C1 X PACKAGE 604 186 C91 X PACKAGE 606 625 C91 1 PACKAGE 606 132 C91 4 PIN 19 838 R1 1 PISTON 607 917 C1 2 RETAINER 607 906 C1 2 RETAINER 607 907 C1 2 RING 606 036 C1 1 ROD 607 964 C1 1 SCRAPER 607 919 C1 1 SCRAPER 607 921 C1 1 SCREW 607 920 C2 1 SEAL 607 918 C1 1 SHAFT 607 903 C1 6 SHIM 620 123 C1 X SHIM (0075") 607 904 C1 X SHIM (.030) 607 905 C1 2 STOP 612 539 C1 12 WASHER (1/2") 2 WASHER 331 994 R1 1 VALVE 613 523 R92

X - As Required.



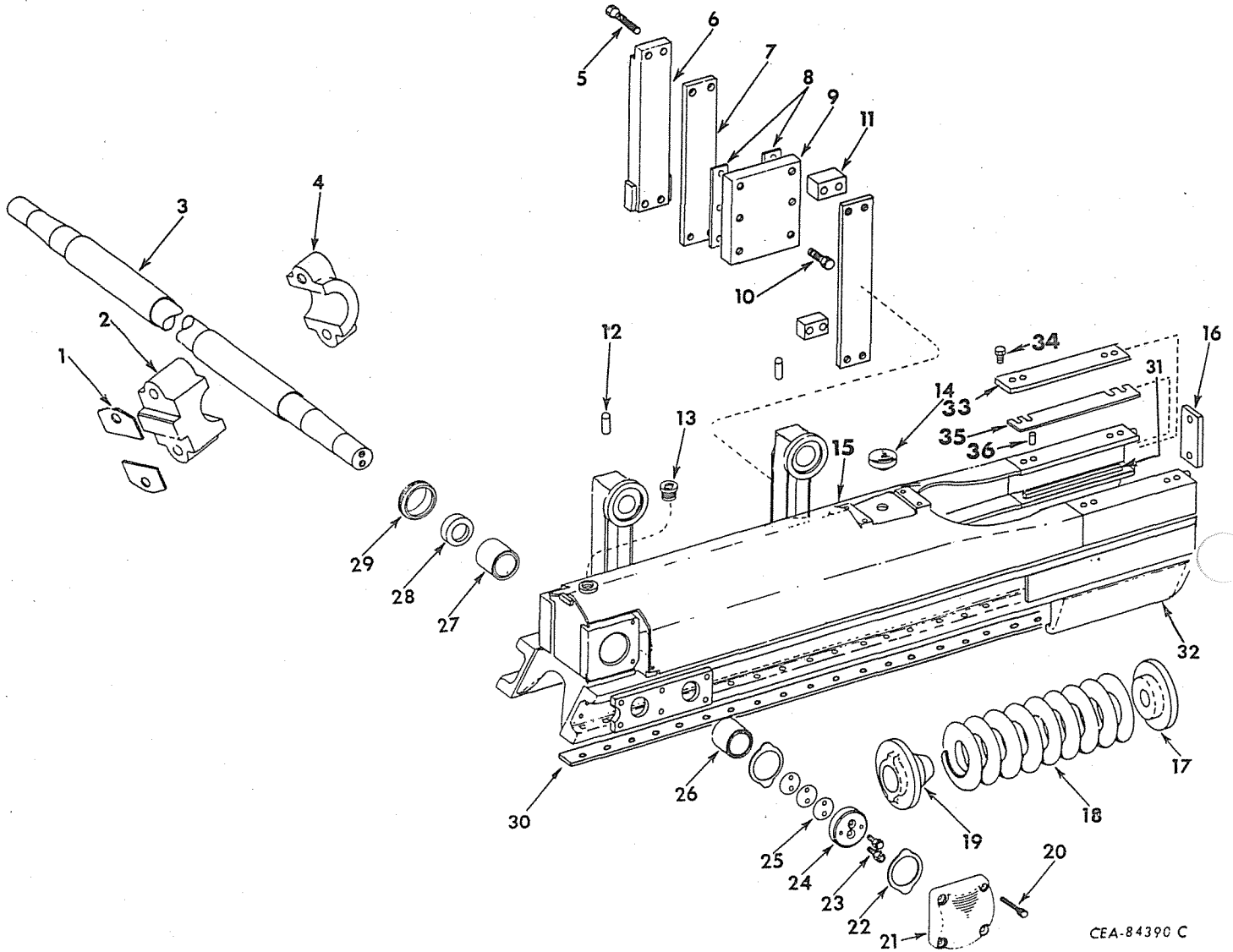
TRACK DRIVE

TRACK FRAME, SPRING, PIVOT SHAFT AND RELATED PARTS
(Not Used With Sideboom Crawler Tractors)
TD-20BP 6435 up



TRACK DRIVE

TRACK FRAME, SPRING, PIVOT SHAFT AND RELATED PARTS-CONTINUED
(Not Used With Sideboom Crawler Tractors)
TD-20BP 6435 up



CEA-84390 C



TRACK DRIVE

REF. NO.	I.H. PART NUMBER	DESCRIPTION
TRACK FRAME, SPRING, PIVOT SHAFT AND RELATED PARTS - CONTINUED (Not Used With Sideboom Crawler Tractors) TD-20BP 6435 up		
1	334 964 R1	SHIM, pivot shaft spacer (.060) (X)
1	334 965 R1	SHIM, pivot shaft spacer (.054) (X)
1	334 966 R1	SHIM, pivot shaft spacer (.048) (X)
1	334 967 R1	SHIM, pivot shaft spacer (.042) (X)
2		SPACER, pivot shaft (order 334 961 R91)
3	334 388 R2	SHAFT, track frame pivot
4		CAP, pivot shaft (order 334 961 R91)
5	17 198 R1	BOLT, track frame guide retainer (1NF x 5") (8) (use with RETAINER, 611 238 C11)
5	330 562 R1	BOLT, track frame guide retainer (8) (use with RETAINER, 334 421 R11)
5		SCREW, 1NF x 4-3/4" hex-hd cap (4 required only when RETAINER, 611 238 C11 is furnished for RETAINER, 334 421 R11)
6	611 238 C11	RETAINER, track frame guide (2) (together with four 1NF x 4-3/4" hex-hd cap SCREW will work for RETAINER, 334 421 R11)
7	334 418 R1	PLATE, track frame guide wear (4)
8	604 012 C1	SHIM, track frame guide plate (light) (.030) (X)
8	604 013 C1	SHIM, track frame guide plate (medium) (.060) (X)
8	604 014 C1	SHIM, track frame guide plate (heavy) (.120) (X)
9	611 295 C1	PLATE, track frame guide (2) (together with six 7/8NF x 3" hex-hd cap SCREW and two SPACER, 616 184 C1 will work for PLATE, 334 399 R1)
10	330 565 R1	BOLT, track frame guide plate (12) (use with PLATE, 334 399 R1)
10		SCREW, 7/8NF x 3-1/4" hex-hd cap (12) (use with PLATE, 611 295 C1)
10		SCREW, 7/8NF x 3" hex-hd cap (6 required only when PLATE, 611 295 C1 is furnished for PLATE, 334 399 R1)
11	334 419 R1	SPACER, track frame guide (4) (use with PLATE, 334 399 R1)
11	616 184 C1	SPACER, track frame guide (4) (use with PLATE, 611 295 C1)
12	141 239	PIN, dowel (2)
13	270 835 R1	PLUG, track frame pivot bracket filler (2)
14	8 493 DA	PAD, equalizer bar (2)
15	607 927 C91	FRAME w/BUSHING, 607 931 C1 and BUSHING, 607 932 C1 LH track TD-20BP 6435 to 22646 (Order the Following Parts - 2 BAR 620 121 C1 4 BOLT 26 060 R1 1 FRAME 607 927 C92 4 PIN 19 838 R1 6 SHIM 620 123 C1)
15	607 927 C92	FRAME w/BUSHING, 607 931 C1 and BUSHING, 607 932 C1 LH track TD-20BP 22647 up
16	607 928 C91	FRAME w/BUSHING, 607 931 C1 and BUSHING, 607 932 C1 RH track TD-20BP 6435 to 22646 (Order the following parts - 2 BAR 620 121 C1 4 BOLT 26 060 R1 1 FRAME 607 928 C92 4 PIN 19 838 R1 6 SHIM 620 123 C1)
16	607 928 C92	FRAME w/BUSHING, 607 931 C1 and BUSHING, 607 932 C1 RH track TD-20BP 22647 up



TRACK DRIVE

REF. NO.	I.H. PART NUMBER	DESCRIPTION
TRACK FRAME, SPRING, PIVOT SHAFT AND RELATED PARTS - CONTINUED (Not Used With Sideboom Crawler Tractors) TD-20BP 6435 up		
16	612 539 C1	STOP, front idler (4) 3/4 x 1-7/8" hex-hd cap SCREW (8)
17	325 935 R1	SEAT, track spring front (2)
18	325 934 R1	SPRING, track (2)
19	325 936 R1	SEAT, track spring rear (2)
20	330 563 R1	BOLT, pivot shaft cover (8)
21	334 423 R1	COVER, pivot shaft (2)
22	334 428 R1	PLATE, pivot shaft wear (4)
23	330 564 R1	BOLT, track frame thrust plate (4)
24	334 390 R1	PLATE, track frame thrust (2)
25	331 990 R1	SHIM, track frame pivot shaft (.060) (X)
25	331 991 R1	SHIM, track frame pivot shaft (.105) (X)
25	334 392 R1	SHIM, track frame pivot shaft (.003) (X)
25	334 391 R1	SHIM, track frame pivot shaft (.007) (X)
25	334 393 R1	SHIM, track frame pivot shaft (.002) (X)
26	607 931 C1	BUSHING, pivot shaft outer (2)
27	607 932 C1	BUSHING, pivot shaft inner (2)
28		SLEEVE (Not Furnished Separately)
29	341 921 R92	SEAL w/SLEEVE, oil
30	345 613 R1	SPACER, track roller shaft bracket (4)
31	703 599 C1	PACKAGE, track frame front idler guide and wear bar service consists of, Idler Bar Guide and Wear, IZG 8809 Guide and Wear Bar Installation, IZG 7408 Weld Instruction
32	607 957 C2	BRACKET, front idler guide (2)
33	620 121 C1	BAR, front idler guide and wear (upper) (2) TD-20BP 22647 up
34	20 660 R1	BOLT, 5/8 x 1-5/8" (Front Idler Guide and Wear Bar) (4) TD-20BP 22647 up
35	620 123 C1	SHIM, front idler guide and wear bar (6) TD-20BP 22647 up
36	19 838 R1	PIN, front idler guide and wear bar (4) TD-20BP 22647 up
	334 961 R91	CAP and SPACER, pivot shaft (2)
	19 991 R1	BOLT, pivot shaft cap (4)

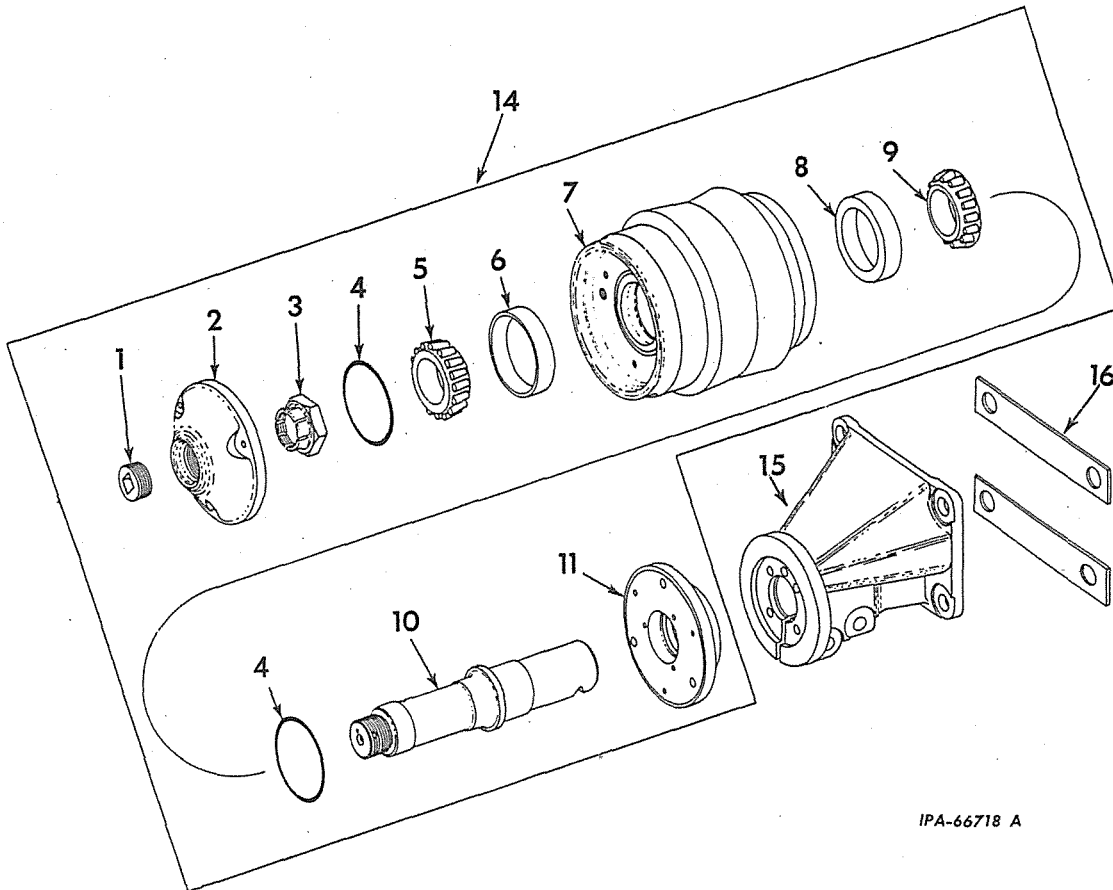
X - As Required.

-158-
TRACK DRIVE

-158-
TRACK DRIVE

TRACK IDLER
TD-20BP 4001 to 6434
TD-20BPS 6110 to 6434

TRACK IDLER - CONTINUED
TD-20BP 4001 to 6434
TD-20BPS 6110 to 6434



IPA-66718 A

REF. NO.	I.H. PART NUMBER	DESCRIPTION
		Parts without letters after the description indicate the part is used for all Track Idlers listed below: Letters A and B are used to identify separate Track Idlers.
A		IDLER, track (Not used with sideboom crawler tractors) (4)
B		IDLER, track (used with sideboom crawler tractors) (2)
1	271 647 R1	PLUG, cap (4 for Idler A, 2 for Idler B)
2	325 974 R1	CAP (4 for Idler A, 2 for Idler B) 7/16 x 1-1/4" hex-hd cap SCREW (12 for Idler A, 6 for Idler B) 7/16" lock WASHER (12 for Idler A, 6 for Idler B)
3	325 973 R1	NUT (4 for Idler A, 2 for Idler B) 5/32 x 2-1/8" cotter PIN (4 for Idler A, 2 for Idler B)
4	301 314 R1	"O" RING, sealing (4-3/8 x 4-5/8 x 1/8") (8 for Idler A, 4 for Idler B)
5	56 934 D	CONE, outer bearing (4 for Idler A, 2 for Idler B)
6	105 497 H	CUP, outer bearing (4 for Idler A, 2 for Idler B)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
7	325 970 R91	IDLER (4 for Idler A, 2 for Idler B)
8	105 497 H	CUP, inner bearing (4 for Idler A, 2 for Idler B)
9	327 195 R91	CONE, inner bearing (4 for Idler A, 2 for Idler B)
10	325 972 R1	SHAFT (4 for Idler A, 2 for Idler B)
11	327 193 R91	OIL SEAL (4 for Idler A, 2 for Idler B) 7/16 x 1-1/4" hex-hd cap SCREW (12 for Idler A, 6 for Idler B) 7/16" lock WASHER (12 for Idler A, 6 for Idler B)
14	325 976 R91	IDLER ASSY, track (4 for Idler A, 2 for Idler B) 5/8" NUT (8 for Idler A, 4 for Idler B) 5/8 x 4-1/4" hex-hd cap SCREW (8 for Idler A, 4 for Idler B)
15	325 975 R1	SUPPORT, track idler (2 for Idler B) 3/4 x 1-5/8" hex-hd cap SCREW (8)
16	604 024 C1	SHIM, track idler support (10 for Idler B)



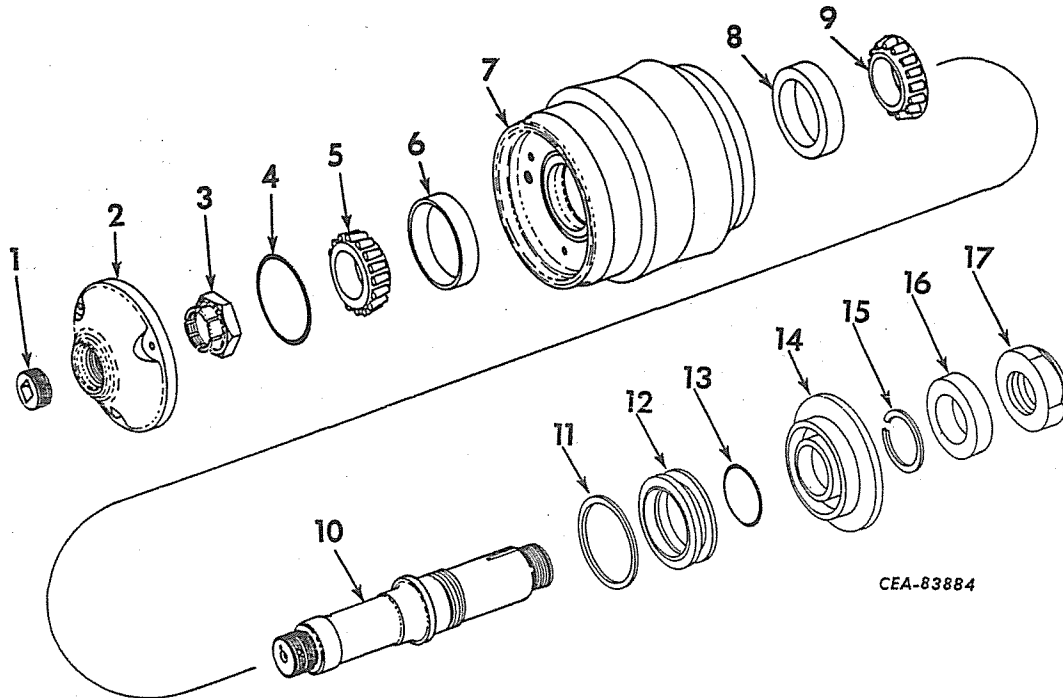
TRACK DRIVE

TRACK IDLER
 TD-20BP 6435 up
 TD-20BPS 6435 up



TRACK DRIVE

TRACK IDLER - CONTINUED
 TD-20BP 6435 up
 TD-20BPS 6435 up



CEA-83884

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	607 922 C91	IDLER ASSY, track (4) (Consists of Ref. Nos. 1 thru 15)
1	271 647 R1	PLUG, cap (4)
2	325 974 R1	CAP (4) 7/16 x 1-1/4" hex-hd cap SCREW (12) 7/16" lock WASHER (12)
3	325 973 R1	NUT (4) 5/32 x 2-1/8" cotter PIN (4)
4	301 314 R1	"O" RING (4-3/8 x 4-5/8 x 1/8") (4)
5	56 934 D	CONE, outer bearing (4)
6	105 497 H	CUP, outer bearing (4)
7	607 923 C91	IDLER (4)
8	105 497 H	CUP, inner bearing (4)
9	327 195 R91	CONE, inner bearing (4)
10	607 925 C1	SHAFT (4)
11	607 926 C1	RETAINER, seal (4)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
12	604 186 C91	OIL SEAL w/PAMPHLET, 1 019 247 R1 metal face type track idler (4)
12	606 132 C91	PACKAGE, track idler oil seal field service (consists of two WASHER, two BAND, two WIPER and PAMPHLET, 1 019 085 R1)
12	606 625 C91	PACKAGE, reunitionization field service (consists of fifty plastic retainer bands (X))
13	310 936 R1	"O" RING (2-1/4 x 2-1/2 x 1/8") (4)
14	607 907 C2	RETAINER, seal (4)
15	606 936 C1	RING, snap (4)
16	331 994 R1	WASHER, track idler (4)
17	18 583 R1	NUT, Esna (4)

X - As Required.

TRACK DRIVE

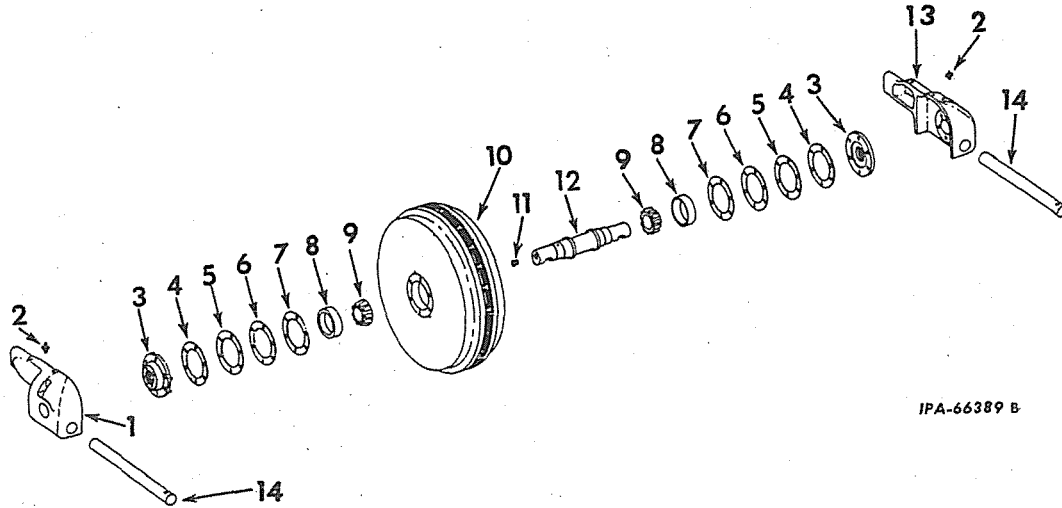


FRONT IDLER
 TD-20BP 4001 to 6434
 TD-20BPS 6110 to 6434

TRACK DRIVE



FRONT IDLER - CONTINUED
 TD-20BP 4001 to 6434
 TD-20BPS 6110 to 6434



IPA-66389 B

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	325 960 R1	GUIDE, RH front idler (2)
2	109 461	FITTING, 1/8" idler guide lubrication (4)
3	327 192 R91	SEAL, oil (4) 1/2NF x 1-1/2" hex-hd cap SCREW (24) 1/2" lock WASHER (24)
4	325 954 R1	SHIM, bearing retainer (.023) (8)
5	325 955 R1	SHIM, bearing retainer (.007) (8)
6	325 956 R1	SHIM, bearing retainer (.003) (8)
7	325 957 R1	SHIM, bearing retainer (.002) (8)
8	ST 972	CUP, front idler shaft roller bearing (4)
9	ST 2 045	CONE, front idler shaft roller bearing (4)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
10	325 952 R11	IDLER, front (2)
11	270 835 R1	PLUG, lubrication (2)
12	325 953 R1	SHAFT, front idler (2)
13	325 959 R1	GUIDE, LH front idler (2)
14	325 941 R1	ROD, front idler guide (4) 1/2 x 3-3/4" hex-hd cap SCREW (4) 5/8 x 1" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
	334 426 R11	COVER, cross plate lubrication fitting (2) 7/16 x 1-5/8" hex-hd cap SCREW (2) 7/16" lock WASHER (2)



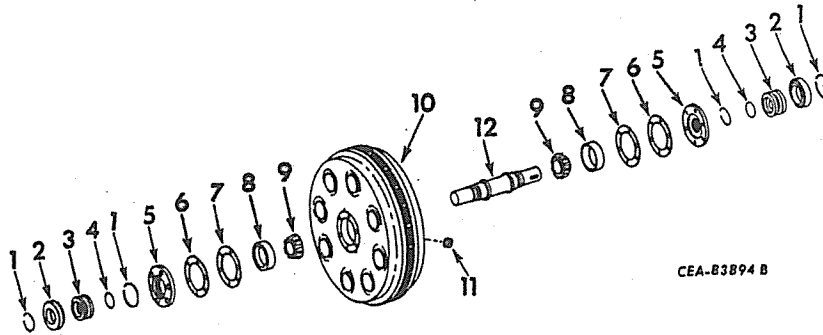
TRACK DRIVE

FRONT IDLER
 TD-20BP 6435 up
 TD-20BPS 6435 up



TRACK DRIVE

FRONT IDLER - CONTINUED
 TD-20BP 6435 up
 TD-20BPS 6435 up



CEA-83894 B

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	606 936 C1	RING, snap (4)
2	607 907 C2	RETAINER, seal (2) TD-20BP 6435 to 22928 TD-20BPS 6435 to 22928
2	620 119 C1	RETAINER, seal (2) TD-20BP 22929 up TD-20BPS 22929 up
3	604 186 C91	OIL SEAL w/PAMPHLET, 1 019 247 R1 metal face type front idler (4)
3	606 132 C91	PACKAGE, front idler oil seal field service (consists of two WASHER, two BAND, two WIPER and PAMPHLET, 1 019 085 R1)
3	606 625 C91	PACKAGE, reunitization field service (consists of fifty plastic retainer bands (X))
4	293 726 R1	"O" RING (2-1/4 x 2-1/2 x 1/8") (2)
5	607 906 C1	RETAINER, front idler bearing (2) TD-20BP 6435 to 22000 TD-20BPS 6435 to 22000 (Remove PLATE, 607 913 C1 and order RETAINER, 620 134 C1, RETAINER, 620 119 C1 and CAP, 624 462 C1)
5	616 334 C1	RETAINER, front idler bearing TD-20BP 22001 to 22928 TD-20BPS 22001 to 22928 (order RETAINER, 620 134 C1, RETAINER 620 119 C1 and CAP, 624 462 C1)
5	620 134 C1	RETAINER, front idler bearing TD-20BP 22929 up TD-20BPS 22929 up 1/2NF x 1-1/2" hex-hd cap SCREW (12) 1/2" lock WASHER (12)

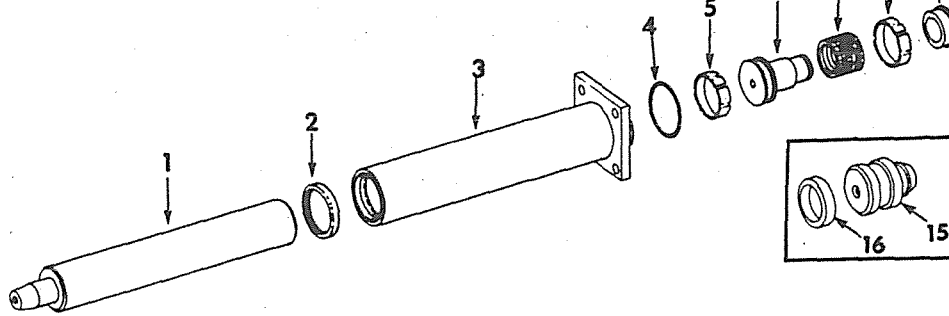
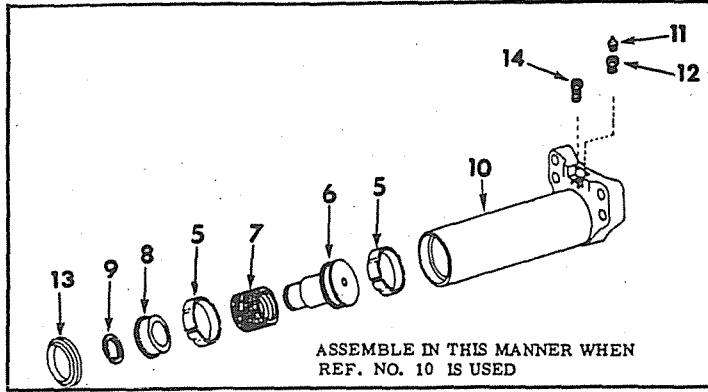
REF. NO.	I.H. PART NUMBER	DESCRIPTION
6	607 905 C1	SHIM, bearing retainer (.030) (2)
7	607 904 C1	SHIM, bearing retainer (.0075) (X)
8	ST 972	CUP, front idler shaft roller bearing (4)
9	ST 2 045	CONE, front idler shaft roller bearing (4)
10	325 952 R21	IDLER, front (2)
11	270 835 R1	PLUG, lubrication (2)
12	607 903 C2	SHAFT, front idler (together with 2 RING, 606 936 C1 will work for SHAFT, 607 903 C1) (2)
	624 927 C91	PACKAGE, front idler oil seal field improvement (contains parts for one side of tractor only) TD-20BP 6435 to 22868 TD-20BPS 6435 to 22868 (Composed of - 1 PACKAGE 624 926 C91 1 SHAFT 607 903 C2 2 RING 606 936 C1)
	624 926 C91	PACKAGE, front idler oil seal field improvement (contains parts for one side of tractor only) TD-20BP 22869 to 22928 TD-20BPS 22869 to 22928 (Composed of - 2 RETAINER 620 134 C1 2 RETAINER 620 119 C1 2 CAP 624 462 C1)

X - As Required.

TRACK DRIVE



HYDRAULIC TRACK ADJUSTING CYLINDER
 TD-20BP 4001 to 6434
 TD-20BPS 6110 to 6434



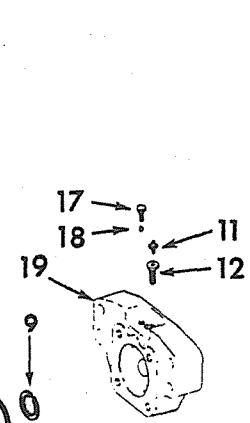
IPA-66218 G

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	325 961 R1	ROD, hydraulic track adjusting (Not used with sideboom Crawler Tractors) (2)
1	607 623 C1	ROD, hydraulic track adjuster (used with sideboom Crawler Tractors) (2)
2	327 196 R91	SEAL, hydraulic track adjuster cylinder (2)
3	325 962 R11	CYLINDER, hydraulic track adjusting (2) TD-20BP 4001 to 5205 (Order the following parts - 1 CYLINDER 700 173 C1 1 FITTING 109 461 1 SCRAPER 607 919 C1 1 VALVE 319 628 R91 1 VALVE 700 171 C91)
3	604 311 C91	CYLINDER, hydraulic track adjuster (Not used with sideboom Crawler Tractors) (2) TD-20BP 5206 to 6434 (Order the following parts - 1 CYLINDER 700 173 C1 1 FITTING 109 461 1 SCRAPER 607 919 C1 1 VALVE 319 628 R91 1 VALVE 700 171 C91)
	264 239 R1	BOLT, mounting (8) TD-20BP 4001 to 5205
	432 695 R1	BOLT, mounting (8) TD-20BP 5206 to 6434
3	607 624 C11	CYLINDER, hydraulic track adjuster (Used with sideboom Crawler Tractors) (2) (Order the following parts - 1 CYLINDER 700 178 C1 1 FITTING 109 461 1 SCRAPER 607 919 C1 1 VALVE 319 628 R91 1 VALVE 700 171 C91)
	432 695 R1	BOLT, mounting (8)

TRACK DRIVE



HYDRAULIC TRACK ADJUSTING CYLINDER - CONTINUED
 TD-20BP 4001 to 6434
 TD-20BPS 6110 to 6434



REF. NO.	I. H. PART NUMBER	DESCRIPTION
4	604 312 C1	"O" RING, hydraulic track adjusting cross plate (Used with CYLINDER, 325 962 R11 and CYLINDER, 604 311 C91) (2)
5	325 965 R1	RING, hydraulic track adjusting piston wear (4) (Not Required when Ref. 15 is used)
6	325 964 R1	BODY, hydraulic track adjusting piston (Order BODY, 607 917 C1 and SEAL, 607 918 C1) (2) (Not Required when Ref. 15 is used)
7	325 966 R91	PACKING, hydraulic track adjusting piston (2) (Not Required when Ref. 15 is used)
8	325 967 R1	END, hydraulic track adjusting piston (2) (Not Required when Ref. 15 is used)
9	555 570 R1	RING, hydraulic track adjusting body snap (2) (Not Required when Ref. 15 is used)
10	700 173 C1	CYLINDER w/PLATE, hydraulic track adjuster (together with FITTING 109 461, SCRAPER 607 919 C1, VALVE 319 628 R91 and VALVE 700 171 C91 will work for CYLINDERS 325 962 R11 and 604 311 C91 (Not used with sideboom Crawler Tractors) (2)
10	700 178 C1	CYLINDER w/PLATE, hydraulic track adjuster (together with FITTING 109 461, SCRAPER 607 919 C1, VALVE 319 628 R91 and VALVE 700 171 C91 (Used with sideboom Crawler Tractors) (2)
11	109 461	FITTING, 1/8" crossplate lubrication (Used with CYLINDER 700 173 C1) (2)



TRACK DRIVE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC TRACK ADJUSTING CYLINDER - CONTINUED
 TD-20BP 4001 to 6434
 TD-20BPS 6110 to 6434

12	319 628 R91	VALVE, crossplate lubrication inlet check (Used with CYLINDER 700 173 C1) (2)
13	607 919 C1	SCRAPER, hydraulic track adjuster rod (Used with CYLINDER 700 173 C1) (2)
14	700 171 C91	VALVE, hydraulic track adjuster relief (Used with CYLINDER 700 173 C1) (2)
15	607 917 C1	BODY, hydraulic track adjusting piston (together with SEAL 607 918 C1, replaces reference numbers 5 thru 9) (2)
16	607 918 C1	SEAL, hydraulic track adjusting piston body (together with BODY 607 917 C1, replaces reference numbers 5 thru 9) (2)
17	311 070 R1	BOLT, cross plate vent (2)
18	16 012 R1	BALL, cross plate vent (3/8" dia Grade 2) (2)
19	325 968 R1	PLATE, front idler guide cross (2) TD-20BP 4001 to 5205 (Order the following parts - 4 BOLT 432 695 R1 1 PLATE 604 310 C1 1 RING 604 312 C1)
19	604 310 C1	PLATE, front idler guide cross (2) TD-20BP 5206 up (Order the following parts - except side boom tractors 1 CYLINDER 700 173 C1 1 FITTING 109 461 1 VALVE 319 628 R91 1 VALVE 700 171 C91) (Order the following parts - for side boom tractors 1 CYLINDER 700 178 C1 1 FITTING 109 461 1 VALVE 319 628 R91 1 VALVE 700 171 C91) 3/4 x 3-1/2" hex-hd cap SCREW (8)
603 172 C1		EXTENSION, hydraulic track adjusting piston body (not used with sideboom Crawler Tractors (2) TD-20BP 5401 to 6434



MEMORANDA



MEMORANDA

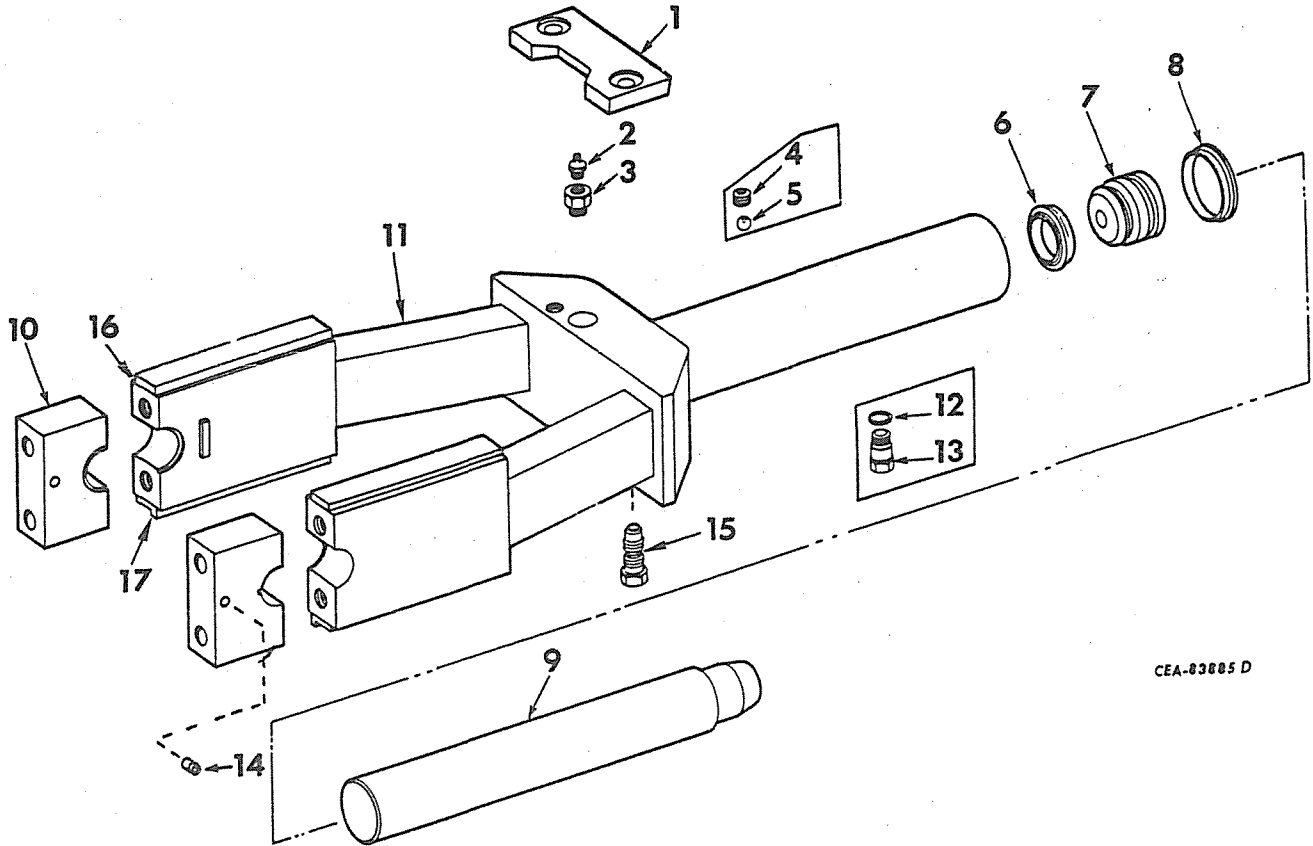


MEMORANDA



TRACK DRIVE

HYDRAULIC TRACK ADJUSTING FORK AND
RELATED PARTS
TD-20BP 6435 up
TD-20BPS 6435 up



CEA-83885 D

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	607 921 C1	SCRAPER, front idler (2) 5/8 x 1-1/2" hex-hd cap SCREW (4)
2	109 461	FITTING, 1/8" hydraulic track adjusting piston lubrication (2)
3	319 628 R91	BALL, crossplate lubrication inlet check (2)
4	607 920 C2	SCREW, hydraulic trash adjuster ball retainer (2) TD-20BP 6435 to 22497 TD-20BPS 6435 to 22497
5	16 012 R1	BALL, cross plate vent (2) TD-20BP 6345 to 22497 TD-20BPS 6345 to 22497
6	607 918 C1	SEAL, hydraulic track adjuster piston (2)
7	607 917 C1	PISTON, hydraulic track adjusting (2)
8	607 919 C1	SCRAPER, hydraulic track adjuster piston (2)
9	607 964 C1	ROD, hydraulic track adjusting (2)
10	609 943 C21	CAP w/PIN, 19 756 R1, front idler fork (2) TD-20BP 6435 to 22928 (2) TD-20BPS 6435 to 22928 (PIN, 19 756 R1 not required when cap is used with RETAINER, 607 906 C1)
10	624 462 C1	CAP, front idler fork TD-20BP 22929 up TD-20BPS 22929 up 7/8 x 3-3/4" hex-hd cap SCREW (4)



TRACK DRIVE

HYDRAULIC TRACK ADJUSTING FORK AND
RELATED PARTS - CONTINUED
TD-20BP 6435 up
TD-20BPS 6435 up

REF. NO.	I.H. PART NUMBER	DESCRIPTION
11	609 942 C92	FORK w/two CAP 609 943 C21, front idler (2) TD-20BP 6435 to 22000 (2) TD-20BPS 6435 to 22000 (Order the following parts - 1 FORK 703 323 C91 1 CAP 624 462 C1 2 RETAINER 620 119 C1 2 RETAINER 620 134 C1 1 VALVE 700 171 C1)
11	703 297 C91	FORK w/two CAP, 609 943 C1 front idler (2) TD-20BP 22001 to 22497 (2) TD-20BPS 22001 to 22497 117 985 KEY, 1/4 x 1-1/2" Woodruff (2) 7/8NF x 3-3/4" hex-hd cap SCREW (8) (Order the following parts - 1 FORK 703 323 C91 1 CAP 624 462 C1 2 RETAINER 620 119 C1 2 RETAINER 620 134 C1 1 VALVE 700 171 C1)
11	703 324 C91	FORK w/two CAP, 609 943 C1 front idler (2) TD-20BP 22498 to 22928 (2) TD-20BPS 22498 to 22928 7/8NF x 3-3/4" hex-hd cap SCREW (Order the following parts - 1 FORK 703 323 C91 1 CAP 624 462 C1 2 RETAINER 620 119 C1 2 RETAINER 620 134 C1 1 VALVE 700 171 C1)



TRACK DRIVE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC TRACK ADJUSTING FORK AND
RELATED PARTS - CONTINUED

TD-20BP 6435 up
TD-20BPS 6435 up

11	703 323 C91	FORK, front idler TD-20BP 22929 up TD-20BPS 22929 up
12	613 948 C1	WASHER, relief valve (Use with FORK, 609 942 C92) (2)
12	612 617 C1	WASHER, adjuster relief valve (2) TD-20BP 22001 to 22497 TD-20BPS 22001 to 22497
13	613 523 C92	VALVE w/WASHER, 613 948 C1 hydraulic track adjuster relief (2) TD-20BP 22001 to 22497 TD-20BPS 22001 to 22497 (When VALVE, 613 523 C92 is used with FORK, 609 942 C91 the WASHER, 613 948 C1 furnished w/VALVE should be removed and replaced with WASHER 612 617 C1) (2)
14	19 756 R1	PIN, spring (3/16 x 1/2") (use only with CAP, when RETAINER, 607 906 C1 is not used) (2)
15	700 171 C91	VALVE, hydraulic track adjuster relief and ball check TD-20BP 22498 up TD-20BPS 22498 up
16	607 915 C1	PLATE, wear (Part of PACKAGE 620 319 C91)
16	620 319 C91	PACKAGE, front idler fork and wear plate service (Consists of, Plate WEAR 607 915 C1, IZG 8999 front idler fork wear bar location and, IZG 7408 weld instructions) (each PACKAGE contains one bar)
17	620 318 C91	PACKAGE, front idler guide bar service (Consists of, guide wear bar, IZG 8999 front idler wear bar location, and IZG 7408 weld instructions) (each PACKAGE contains one bar)
	624 841 C91	PACKAGE, front idler block and cap (Consists of BLOCK, front idler SHAFT, CAP, 624 462 C1, 2 BOLT, 7/8 x 3-3/4" and print of fork assy.)



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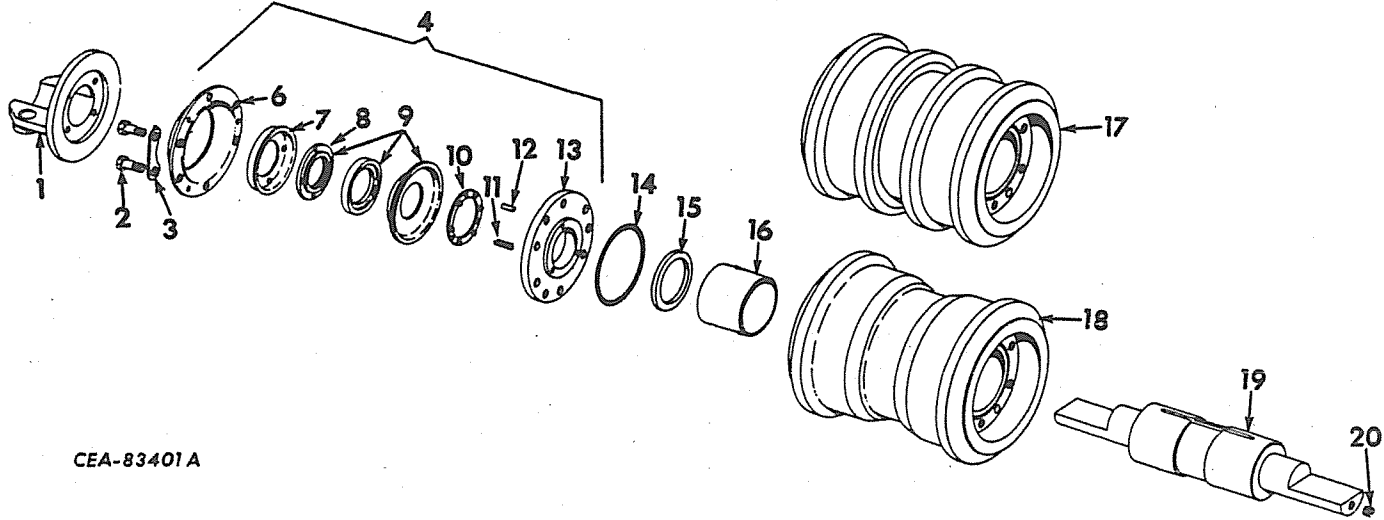


MEMORANDA



TRACK DRIVE

TRACK ROLLER
TD-20BP 4001 to 6434
TD-20BPS 6110 to 6434



CEA-83401A

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	325 942 R92	ROLLER and SHAFT ASSEMBLY, track (single flange) (6)
	325 943 R92	ROLLER and SHAFT ASSEMBLY, track (double flange) (6 for TD-20BP) (8 for TD-20BPS) (Consists of the following parts -
1	268 301 R1	BRACKET, track roller shaft (not part of track roller and SHAFT ASSY 325 942 R92 or 325 943 R92 (24 for TD-20BP) (28 for TD-20BPS) 3/4 x 2" hex-hd cap SCREW (48 for TD-20BP) (56 for TD-20BPS)
2		SCREW, track roller bushing retainer (1/2 x 1-3/8" hex-hd cap) (144 for TD-20BP) (168 for TD-20BPS)
3	261 622 R1	PLATE, track roller bushing retainer screw lock (72 for TD-20BP) (84 for TD-20BPS)
4	270 828 R91	OIL SEAL, track roller ("D" type) (24 for TD-20BP) (28 for TD-20BPS)
6	273 146 R1	SHIELD, outer (#) (24)
6	346 682 R1	SHIELD, outer (*) (24 for TD-20BP) (28 for TD-20BPS)
7	273 143 R1	PLATE, top (#) (24)
9	402 585	RIVET, 1/4 x 9/16" (72)
7	346 683 R91	PLATE, top (*) (24 for TD-20BP) (28 for TD-20BPS)
	9 402 585	RIVET, 1/4 x 9/16" (72 for TD-20BP) (84 for TD-20BPS)
3	273 142 R1	GASKET, stator rotor (#) (24)
3	346 685 R1	GASKET, stator rotor (*) (24 for TD-20BP) (28 for TD-20BPS)
9	273 144 R91	ROTOR w/GASKET, 273 142 R1, stator (#) (24)
9	346 684 R91	ROTOR w/GASKET, 346 685 R1, stator (*) (24 for TD-20BP) (28 for TD-20BPS)
10	346 686 R1	HOLDER, spring (*) (24 for TD-20BP) (28 for TD-20BPS)



TRACK DRIVE

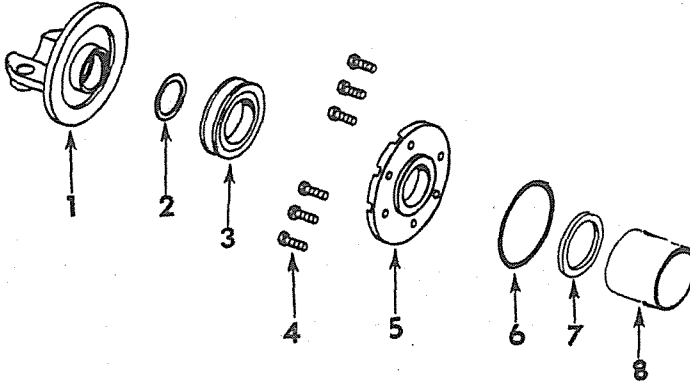
TRACK ROLLER - CONTINUED
TD-20BP 4001 to 6434
TD-20BPS 6110 to 6434

REF. NO.	I. H. PART NUMBER	DESCRIPTION
11	273 145 R1	SPRING (#) (144)
11	346 681 R1	SPRING (*) (144 for TD-20BP) (168 for TD-20BPS)
12	275 573 R1	PIN, anchor (72 for TD-20BP) (84 for TD-20BPS)
13	270 514 R2	PLATE, retainer (24 for TD-20BP) (28 for TD-20BPS)
14	270 513 R1	RING, sealing (24 for TD-20BP) (28 for TD-20BPS)
15	261 918 R2	WASHER, thrust (24 for TD-20BP) (28 for TD-20BPS)
15	341 877 R1	WASHER, thrust (.015" oversize) (X)
16	305 449 R2	BUSHING, track roller (24 for TD-20BP) (28 for TD-20BPS)
16	305 544 R1	BUSHING, track roller (.030" oversize) (X)
17	305 442 R92	ROLLER, with two BUSHING, 305 449 R2 track (double flange) (6 for TD-20BP) (8 for TD-20BPS)
18	305 441 R92	ROLLER, with two BUSHING, 305 449 R2 track (single flange) (6)
19	325 950 R92	SHAFT, track roller (12 for TD-20BP) (14 for TD-20BPS)
20	270 835 R1	PLUG, track roller lubrication (12 for TD-20BP) (14 for TD-20BPS)
	606 250 C91	PACKAGE, oil seal field service (*) (Consists of -
	2	HOLDER 346 686 R1
	6	PIN 275 573 R1
	2	PLATE 346 683 R91
	6	RIVET 9 402 585
	2	ROTOR 346 684 R91
	2	SHELL 346 682 R1
	12	SPRING 346 681 R1)
		X - As Required.
		(#) - Used On Units Equipped With "C" Type Seals.
		(*) - Used On Units Equipped With "D" Type Seals.



TRACK DRIVE

TRACK ROLLER
TD-20BP 6435 up
TD-20BPS 6435 up



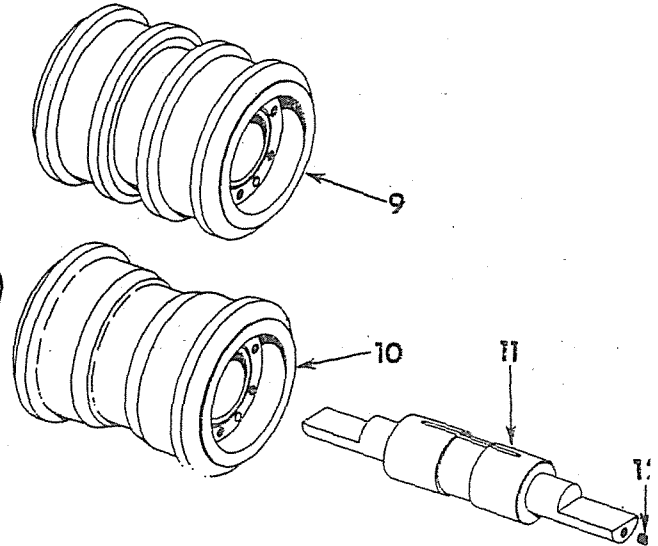
CEA-83413

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	604 922 C91	ROLLER and SHAFT ASSY, track (single flange) (6)
	604 923 C91	ROLLER and SHAFT ASSY, track (double flange) (6 for TD-20BP) (8 for TD-20BPS) (Consists of the following parts -
1	604 924 C1	BRACKET, track roller shaft (24 for TD-20BP) (28 for TD-20BPS)
	19 885 R1	PIN, coiled spring (24 for TD-20BP) (28 for TD-20BPS) 3/4 x 2-3/4" hex-hd cap SCREW (48 for TD-20BP) 3/4 x 2-1/2" hex-hd cap SCREW (56 for TD-20BPS)
2	843 797 R1	"O" RING (2-3/8 x 2-5/8 x 1/8") (24 for TD-20BP) (28 for TD-20BPS)
3	604 186 C91	OIL SEAL w/PAMPHLET, 1 019 247 R1 metal face type track roller (4)
3	606 132 C91	PACKAGE, track roller oil seal field service (consists of two WASHER, two BAND, two WIPER and PAMPHLET, 1 019 085 R1)
3	606 625 C91	PACKAGE, reunitionization field service (consists of fifty plastic retainer bands) (X)



TRACK DRIVE

TRACK ROLLER - CONTINUED
TD-20BP 6435 up
TD-20BPS 6435 up



REF. NO.	I.H. PART NUMBER	DESCRIPTION
4	345 707 R1	BOLT, bushing retainer (144 for TD-20BP) (168 for TD-20BPS)
5	331 710 R2	RETAINER, bushing (24 for TD-20BP) (28 for TD-20BPS)
6	270 513 R1	RING, sealing (24 for TD-20BP) (28 for TD-20BPS)
7	261 918 R2	WASHER, thrust (24 for TD-20BP) (28 for TD-20BPS)
7	341 877 R1	WASHER, thrust (.015" oversize) (X)
8	305 449 R2	BUSHING, track roller (24 for TD-20BP) (28 for TD-20BPS)
8	305 544 R1	BUSHING, track roller (.030" oversize) (X)
9	305 442 R92	ROLLER, with two BUSHING, 305 449 R2 track (double flange) (6 for TD-20BP) (8 for TD-20BPS)
10	305 441 R92	ROLLER, with two BUSHING, 305 449 R2 track (single flange) (6)
11	325 950 R92	SHAFT, track roller (12 for TD-20BP) (14 for TD-20BPS)
12	270 835 R1	PLUG, track roller lubrication (12 for TD-20BP) (14 for TD-20BPS)

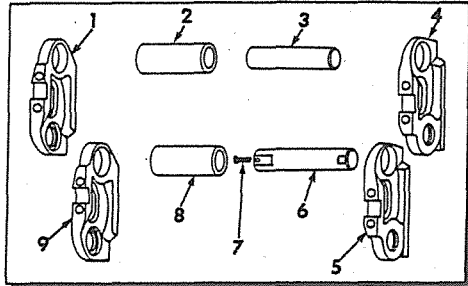
X - As Required.

§ - Not Furnished Separately.

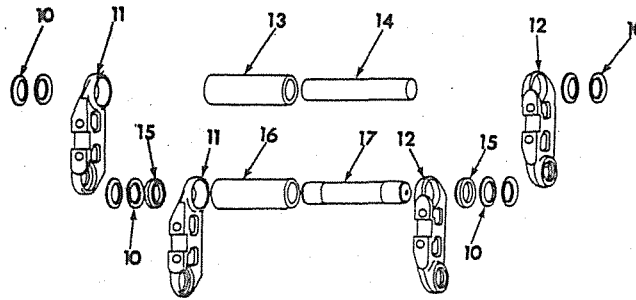
TRACK DRIVE



TRACK CHAIN, AND TRACK CHAIN WITH SHOES



CI-81028A



TRACK DRIVE



TRACK CHAIN AND TRACK CHAIN WITH SHOES - CONTINUED

REF. NO.	I. H. PART NUMBER	DESCRIPTION
Parts without letters after the description indicate the part is used for all Track Assemblies listed below; Letters A, B, C and D are used to identify separate Track Assemblies.		
A	334 427 R92	TRACK ASSY, less shoes (not used with sideboom crawler tractors) (2) TD-20BP 4001 to 22000 (Order the following parts - 160 BOLT 616 207 C1 160 NUT 616 209 C1 1 TRACK 703 143 C91)
B	325 460 R92	TRACK ASSY, less shoes (used with sideboom crawler tractors) (2) TD-20BPS 6110 to 22000 (Order the following parts - 172 BOLT 616 208 C1 172 NUT 616 209 C1 1 TRACK 703 142 C91)
C	703 142 C91	TRACK ASSY, less shoes (used with sideboom crawler tractors) (2) TD-20BPS 22001 up
D	703 143 C91	TRACK ASSY, less shoes (not used with sideboom crawler tractors) (2) TD-20BP 22001 up
1	325 464 R2	LINK, RH master track (track A and B)
2	325 467 R1	BUSHING, track link (39 for track A; 42 for track B)
3	325 465 R1	PIN, link (39 for track A; 42 for track B)
4	325 463 R2	LINK, LH master track (track A and B)
5	325 461 R2	LINK, LH track (39 for track A; 42 for track B)
6	325 466 R1	PIN, track link master (track A and B)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
7	617 942 R1	PIN, master pin lock (track A and B)
8	325 468 R1	BUSHING, track link master (track A and B)
9	325 462 R2	LINK, RH track (39 for track A; 42 for track B)
10	616 203 C1	SEAL, track chain bushing (160 for track D; 172 for track C)
11	616 202 C1	LINK, track RH (40 for track D; 43 for track C)
12	616 201 C1	LINK, track LH (40 for track D; 43 for track C)
13	325 467 R1	BUSHING, track chain (39 for track D; 42 for track C)
14	325 465 R1	PIN, track chain (39 for track D; 42 for track C)
15	616 205 C1	SPACER, master link (2)
16	325 468 R1	BUSHING, master (track C and D)
17	616 206 C1	PIN, master (track C and D)
345 676 R94		CHAIN, track assembly w/shoes (20" clipped corner) (not used with sideboom crawler tractors) (*) (Composed of - 160 BOLT 616 207 C1 160 NUT 616 209 C1 40 SHOE 316 873 R2 1 TRACK 703 143 C91)



TRACK DRIVE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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TRACK CHAIN, AND TRACK CHAIN WITH SHOES - CONTINUED

345 677 R94 CHAIN, track assembly w/shoes (22" clipped corner) (not used with sideboom crawler tractors) (*)
 (Composed of -
 160 BOLT 616 207 C1
 160 NUT 616 209 C1
 40 SHOE 316 874 R2
 1 TRACK 703 143 C91)

345 678 R94 CHAIN, track assembly w/shoes (24" clipped corner) (not used with sideboom crawler tractors) (*)
 (Composed of -
 160 BOLT 616 207 C1
 160 NUT 616 209 C1
 40 SHOE 316 875 R2
 1 TRACK 703 143 C91)

(*) - Above Chains Service One Side of Tractor. Order Two of Above Assemblies to Service Both Sides of Tractor.

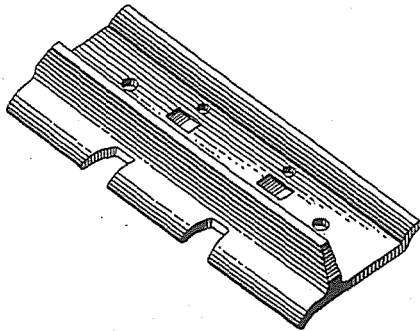


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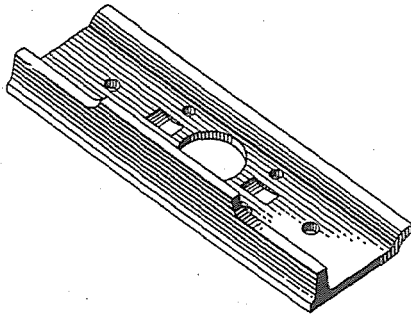


TRACK DRIVE

TRACK SHOES



Clipped corner

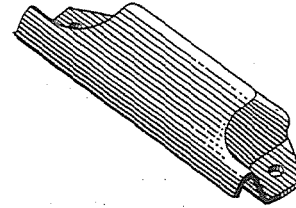


Center lug ice grouser

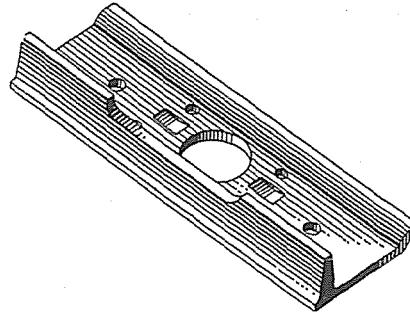


TRACK DRIVE

TRACK SHOES - CONTINUED



Street plate



End lug ice grouser

IPA-78102

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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CLIPPED CORNER

316 873 R2		SHOE, track 20" (Standard) (80) (*)
316 874 R2		SHOE, track 22" (Standard) (Also part of ATTACHMENT 345 966 R93) (86) (+) (80) (*)
316 875 R2		SHOE, track 24" (Part of ATTACHMENT 345 967 R93 and ATTACHMENT 607 636 C92) (86)
616 208 C1		BOLT, track shoe (320) TD-20BP 4001 to 22000 (344) TD-20BPS 6110 to 22000
616 207 C1		BOLT, track shoe (320) TD-20BP 22001 up (344) TD-20BPS 22001 up
616 209 C1		NUT, track shoe bolt (320) TD-20BP 4001 up (344) TD-20BPS 6110 up
345 966 R93		ATTACHMENT, track shoe (Includes 80 SHOES 316 874 R2, 320 BOLT 616 207 C1 and 320 NUT 616 209 C1) (See NOTES 1 and 3) (*)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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CLIPPED CORNER - Continued

345 967 R93		ATTACHMENT, track shoe (Includes 80 SHOE 316 875 R2, 320 BOLT 616 207 C1 and 320 NUT 616 209 C1) (See NOTES 1 and 3) (*)
607 636 C92		ATTACHMENT, track shoe (Includes 86 SHOES 316 875 R2, 344 BOLT 616 207 C1 and 344 NUT 616 209 C1) (See NOTES 1 and 3) (+)

STREET PLATE

46 686 DA		SHOE, track 14" (Part of ATTACHMENT 256 301 R91 and ATTACHMENT 609 635 C91) (*)
302 947 R1		SPACER, street plate (80 used with ATTACHMENT 609 635 C91) 3/4"NF x 1-3/4" hex-hd cap SCREW (80 used with ATTACHMENT 256 301 R91) 3/4"NF x 2-1/4" hex-hd cap SCREW (80 used with ATTACHMENT 609 635 C91) 3/4"NF NUT (80 used with ATTACHMENT 256 301 R91 and 609 635 C91)

(+) - For Sideboom Crawler Tractor.
 (*) - Not For Sideboom Crawler Tractor.
 NOTE 1 - Factory Application - Order on Machine Order Form.
 NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



TRACK DRIVE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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TRACK SHOES - CONTINUED

STREET PLATE - Continued

- 256 301 R91 ATTACHMENT, track (Half Set) (Includes 40 SHOES 46 686 DA, 80 3/4"NF NUT, and 80 3/4NF x 1-3/4" hex-hd cap SCREW) (See NOTE 3) (*)
TD-20BP 4001 to 5050
- 609 635 C91 ATTACHMENT, track (Half Set) (Includes 40 SHOES 46 686 DA, 80 3/4"NF NUT, 80 3/4NF x 2-1/4" hex-hd cap SCREW and 80 SPACER 302 947 R1) (See NOTES 1 and 3) (*)
TD-20BP 5051 up

STAGGERED LUG GROUSER

- 604 957 C1 SHOE, track center lug grouser 20" (40)
(Part of ATTACHMENT 603 419 C93) (*)
- 604 958 C1 SHOE, track end lug grouser 20" (40) (Part of ATTACHMENT 603 419 C93) (*)
- 616 208 C1 BOLT, track shoe
(320) TD-20BP 4001 to 22000
- 616 207 C1 BOLT, track shoe
(320) TD-20BP 22001 up
- 616 209 C1 NUT, track shoe bolt
(320) TD-20BP 4001 up
- 603 419 C93 ATTACHMENT, staggered lug grouser
(Includes 40 SHOES, 604 957 C1, 40 SHOES, 604 958 C1, 320 BOLT, 616 207 C1, and 320 NUT, 616 209 C1)
(See NOTES 1 and 3) (*)
- 604 914 C93 PACKAGE, track shoe nut and bolt field service
TD-20BP 4001 to 22000
TD-20BPS 6110 to 22000
(Consists of -
352 BOLT 616 208 C1
352 NUT 616 209 C1
1 KEG)
- 624 689 C91 PACKAGE, track shoe nut and field service
TD-20BP 22001 up
TD-20BPS 22001 up
(Consists of -
336 BOLT 616 207 C1
336 NUT 616 209 C1
1 KEG)

(*) - Not For Sideboom Crawler Tractor
NOTE 1 - Factory Application - Order On Machine Order Form.
NOTE 3 - Field Application - Order Through Regular Service Parts Channels.

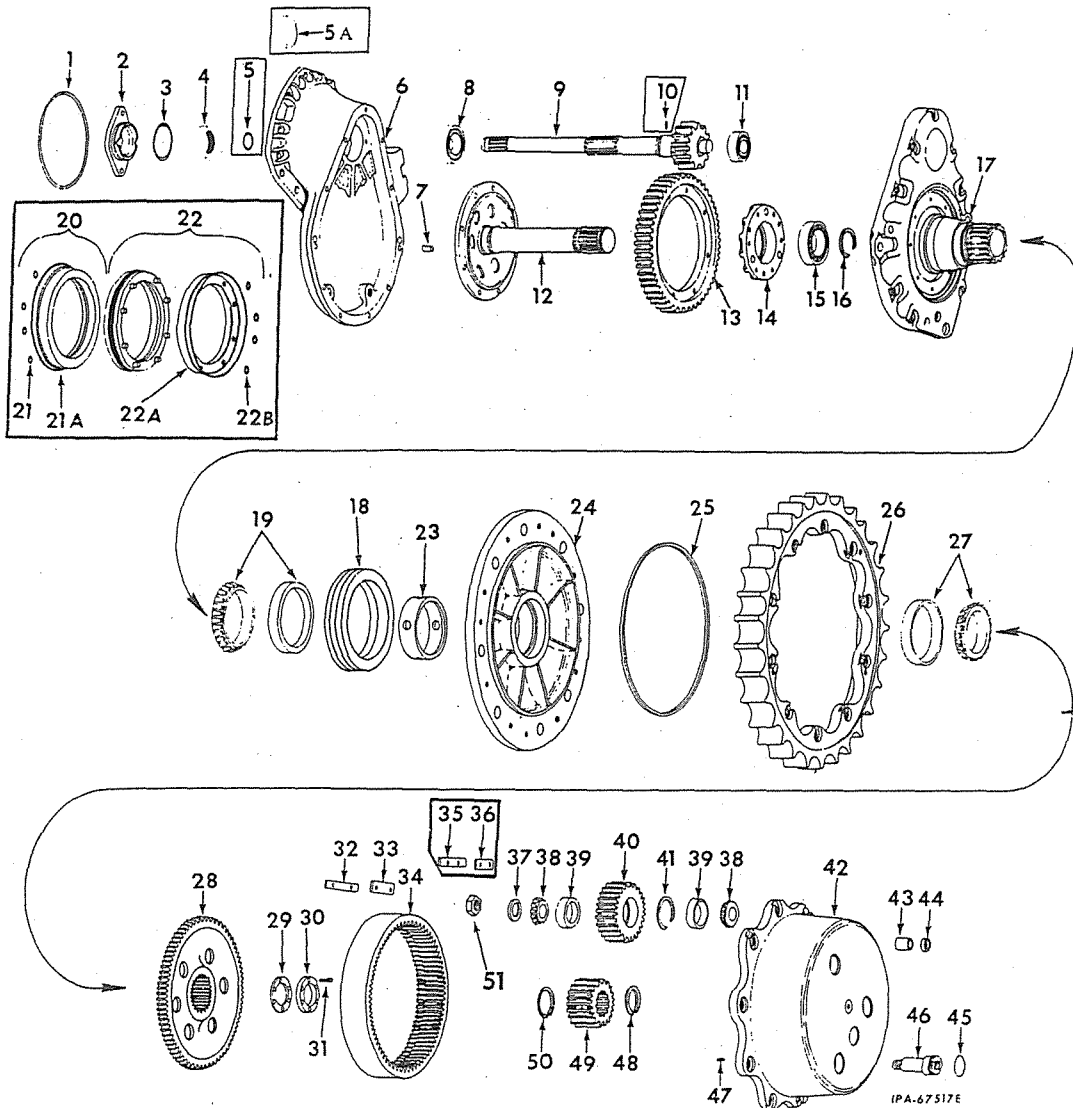


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FINAL DRIVE



SPROCKET DRIVE AND SPROCKET



FINAL DRIVE



SPROCKET DRIVE AND SPROCKET - CONTINUED

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	324 045 R1	RING, sprocket drive carrier sealing (2)
2	325 847 R3	RETAINER, pinion gear oil seal (2) 1/2 x 1-1/4" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
3	610 412 C1	"O" RING, pinion gear seal retainer (4-5/8 x 4-7/8 x 1/8") (2)
4	610 870 C91	OIL SEAL, pinion gear (together with sleeve 610 871 C1 will work for OIL SEAL, 327 107 R92) (2)
4	610 869 C91	OIL SEAL, pinion gear (2) TD-20BP 4001 to 20539 TD-20BP 20540 up

REF. NO.	I. H. PART NUMBER	DESCRIPTION
5	327 110 R1	"O" RING, pinion gear (2-1/2 x 2-11/16 x 3/32") (used with oil seal 327 107 R92)
5A	610 871 C1	SLEEVE, wear (used with oil seal 610 870 C91 and PINION 334 442 R1)
6	334 894 R31	CARRIER, w/two DOWEL 334 131 R1 and three SCREW, 604 584 C1, L.H. sprocket drive (together with two SEALING RING 319 922 R1 or 360 610 R1 will work for 334 894 R21)



FINAL DRIVE

REF. NO.	I.H. PART NUMBER	DESCRIPTION
SPROCKET DRIVE AND SPROCKET - CONTINUED		
6	334 895 R31	CARRIER, w/two DOWEL 334 131 R1 and three SCREW, 604 584 C1, RH sprocket drive (together with two SEALING RING 319 922 R1 or 360 610 R1 will work for 334 895 R21)
	336 521 R1	NUT, sprocket drive carrier (12)
	336 519 R1	BOLT, sprocket drive carrier (16)
	336 520 R1	BOLT, sprocket drive carrier (2)
7	334 131 R1	DOWEL, sprocket drive carrier (4)
8	271 780 R91	BEARING, pinion gear inner (2)
9	611 480 C1	PINION, sprocket drive (together with SEAL 610 869 C91 will work for PINION 334 442 R1 (2)
10	141 129	DOWEL, pinion seal driving (used with PINION 334 442 R1) (2)
11	271 771 R91	BEARING, pinion gear outer (2)
12	612 784 C92	CARRIER, sprocket drive gear (together with three snap RING, 331 879 R1 will work for CARRIER, 331 876 R92) (2) TD-20BP 21075 up (2) TD-20BPS 21075 up
	325 291 R1	BOLT, sprocket drive gear dowel (10)
	454 522 R1	NUT, 1/2" Esna stop (20) 1/2 x 2-1/4" hex-hd cap SCREW (10)
13	325 849 R1	GEAR, sprocket drive (2)
14	325 904 R1	RETAINER, bull gear bearing (2) 1/2 x 1-1/4" hex-hd cap SCREW (12)
15	327 108 R91	BEARING, sprocket drive gear (2)
16	327 103 R1	RING, sprocket drive gear bearing retainer snap (2) TD-20BP 4001 to 21074 (2) TD-20BPS 6110 to 21074
16	331 879 R1	RING, sprocket drive gear bearing retainer snap (2) TD-20BP 21075 up (2) TD-20BPS 21075 up
17	331 874 R21	COVER w/three SCREW, 604 585 C1, sprocket drive (2) (order COVER, 331 874 R31 together with thirteen mounting BOLT, 271 615) BOLT, mounting (26) SCREW, ov-pt puller (6) TD-20BP 4001 to 21050 TD-20BPS 6110 to 21050.
	327 974 R1	BOLT, mounting (26)
	604 585 C1	SCREW, ov-pt puller (6)
17	331 874 R31	COVER w/three SCREW, 604 585 C1, sprocket drive (2) BOLT, mounting (26) SCREW, ov-pt puller (6) TD-20BP 21051 to 22000 TD-20BPS 21051 to 22000
	271 615	BOLT, mounting (26)
	604 585 C1	SCREW, ov-pt puller (6)
17	616 129 C11	COVER w/three SCREW, 604 585 C1, sprocket drive (2) TD-20BP 22001 up (2) TD-20BPS 22001 up
18	606 598 C92	SEAL, sprocket drive outer (quad ring type) (optional with SEAL, 702 659 C91) (2) TD-20BP 22001 up (2) TD-20BPS 22001 up
18	702 659 C92	SEAL, sprocket drive SEAL (metal fact type) (optional with SEAL, 606 598 C92) (2) TD-20BP 22001 up (2) TD-20BPS 22001 up
18	606 876 C92	KIT, sprocket drive outer seal rebuilding (Consists of two rubber quad RINGS and installation PAMPHLET, 1 085 294 R1) (Service Kit for SEAL, 606 598 C92) TD-20BP 22001 up TD-20BPS 22001 up
18	702 547 C1	KIT, sprocket drive outer seal rebuilding (Consists of two rubber RING and installation PAMPHLET, 1 085 367 R1) (Service Kit for SEAL, 702 659 C91) TD-20BP 22001 up TD-20BPS 22001 up



FINAL DRIVE

REF. NO.	I.H. PART NUMBER	DESCRIPTION
SPROCKET DRIVE AND SPROCKET - CONTINUED		
19	338 261 R91	BEARING, sprocket drive inner (2)
20	324 026 R92	PLATE ASSEMBLY, wear (2) TD-20BP 4001 to 22000 (2) TD-20BPS 6110 to 22000
21	347 278 R1	"O" RING, oil seal (.242 x .386 x .072) (8) TD-20BP 4001 to 22000 (8) TD-20BPS 6110 to 22000
21A	347 277 R1	GASKET, wear plate snap-on (2) TD-20BP 4001 to 22000 (2) TD-20BPS 6110 to 22000
22	324 025 R92	OIL SEAL ASSEMBLY (2) TD-20BP 4001 to 22000 (2) TD-20BPS 6110 to 22000
22A	347 275 R1	GASKET, oil back up (2) TD-20BP 4001 to 22000 (2) TD-20BPS 6110 to 22000
22B	347 276 R1	"O" RING, oil seal (.242 x .386 x .072") (8) TD-20BP 4001 to 22000 (8) TD-20BPS 6110 to 22000
23	331 881 R1	SPACER, sprocket drive bearing (2)
24	331 875 R1	CARRIER, sprocket (2) TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000
24	616 126 C1	CARRIER, sprocket TD-20BP 22001 up TD-20BPS 22001 up
25	327 130 R1	RING, planet carrier sealing (2)
26	325 905 R21	SPROCKET w/three SCREW, 604 585 C1 (no cut-away) (2)
26	327 703 R21	SPROCKET w/three SCREW, 604 585 C1 (cut-away) (2)
27	338 998 R91	BEARING, sprocket carrier outer (2)
28	331 877 R1	HUB, sprocket drive ring gear (2)
29	331 882 R1	SHIM, bearing retainer (.0149) (X)
29	331 883 R1	SHIM, bearing retainer (.0070) (X)
29	331 884 R1	SHIM, bearing retainer (.0040) (X)
30	331 880 R1	PLATE, bearing retainer (2)
31	338 997 R1	BOLT, bearing retainer plate (12)
32	325 858 R1	LOCK, retainer plate bolt (6) 1/2 x 1" hex-hd cap SCREW (12)
33	325 857 R1	PLATE, sprocket drive ring gear retaining (6)
34	334 886 R1	GEAR, sprocket drive ring (2)
35	325 290 R1	PLATE, planet gear shaft bolt lock (6) TD-20BP 4001 to 21082 (6) TD-20BPS 6110 to 21082
	631 558 R1	3/8 x 1" hex-hd cap SCREW (6) SCREW, hex-hd cap (6)
36	325 289 R1	PLATE, planet gear shaft clamp (6) TD-20BP 4001 to 21082 (6) TD-20BPS 6110 to 21082
37	325 286 R1	SPACER, planet gear bearing (6)
38	327 122 R91	CONE, planet gear roller bearing (12)
39	327 123 R1	CUP, planet gear roller bearing (12)
40	334 888 R1	GEAR, planet (6)
41	325 901 R1	RING, planet gear bearing snap (6)
42	325 908 R31	CARRIER w/three SCREW, 604 585 C1, planet gear (2) TD-20BP 4001 to 21082 (2) TD-20BPS 6110 to 21082 (Order the following parts - 1 CARRIER 612 687 C11 3 NUT 19 256 R1 3 RING 382 432 R1 3 SHAFT 612 686 C1)

X - As Required.



FINAL DRIVE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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SPROCKET DRIVE AND SPROCKET - CONTINUED

42	612 687 C11	CARRIER w/three SCREW, 604 585 C1, planet gear (2) TD-20BP 20183 up (2) TD-20BPS 20183 up 3/4 x 3-1/2" hex-hd cap SCREW (type 4) (16) 3/4 x 2" hex-hd cap SCREW (type 4) (24) 604 585 C1 SCREW, 5/8 x 1-1/2" oval-pt puller (6)
43	325 906 R1	DOWEL, sprocket (8)
43	325 906 R1	DOWEL, planet carrier (8)
44	325 907 R1	WASHER, dowel (16)
45	382 432 R1	"O" RING, planet gear shaft (2 x 2-1/4 x 1/8") (Used w/SHAFT, 612 686 C1) (3)
45	343 922 R1	"O" RING, planet gear shaft (2-1/8 x 2-3/8 x 1/8") (Used w/SHAFT, 616 233 C1) (3)
46	325 902 R1	SHAFT, planet gear (6) TD-20BP 4001 to 21082 (6) TD-20BPS 6110 to 21082 (Order the following parts for standard shaft - 1 SHAFT 612 686 C1 1 NUT 19 256 R1 1 RING 382 432 R1) (Order the following parts for Oversize Shaft - 3 SHAFT 616 233 C1 3 NUT 19 256 R1 3 RING 343 922 R1 1 RING 327 130 R1 1 Planet gear Carrier and Shaft Drawing - IZG 8588 1 Planet Gear Carrier rework drawing - IZG 8589
46	616 233 C1	SHAFT, planet gear (oversize) (Refer to Planet Gear Shaft, 325 902 R1 for ordering procedure for oversize shaft) (6) TD-20BP 4001 to 21082 (6) TD-20BPS 6110 to 21082
46	612 686 C1	SHAFT, planet gear (6) TD-20BP 21083 up (6) TD-20BPS 21083 up
47	141 199	DOWEL, planet shaft (6)
48	327 104 R1	RING, sun gear retainer snap (2) TD-20BP 4001 to 21074 (2) TD-20BPS 6110 to 21074
48	331 879 R1	RING, sun gear retainer snap (2) TD-20BP 21075 up (2) TD-20BPS 21075 up
49	331 878 R2	GEAR, sun (2)
50	331 879 R1	RING, sun gear retainer snap (2)
51	19 256 R1	NUT, planet gear shaft (Esna) (6) TD-20BP 21083 up (6) TD-20BPS 21083 up
	325 999 R92	ATTACHMENT, cut-away sprocket (Consists of two SPROCKET, 327 703 R21 and six SCREW, 604 585 C1) (*)
	272 925 R1	GASKET, oil level plug (2)
	18 524 R1	PLUG, 1-1/4" sq-soc oil level (2)
	270 835 R1	PLUG, drain (6)
	604 584 C1	SCREW, oval point puller (6)



FINAL DRIVE

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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SPROCKET DRIVE AND SPROCKET - CONTINUED

	604 585 C1	SCREW, oval point puller (12)
	337 795 R1	RING, sprocket drive vent port sealing (2) TD-20BP 4001 to 20171 TD-20BPS 6110 to 20171
	337 795 R1	RING, brake cooling port sealing (2) TD-20BP 4001 to 20171 TD-20BPS 6110 to 20171
	319 922 R1	RING, sprocket drive vent port sealing (2) (optional with 360 610 R1) TD-20BP and TD-20BPS 20172 up
	360 610 R1	RING, sprocket drive vent port sealing (2) (optional with 319 922 R1) TD-20BP and TD-20BPS 20172 up
	319 922 R1	RING, brake cooling port sealing (2) (optional with 360 610 R1) TD-20BP and TD-20BPS 20172 up
	360 610 R1	RING, brake cooling port sealing (2) (optional with 360 610 R1) TD-20BP and TD-20BPS 20172 up

(*) - Attachment No. Longer Available.
Service Parts will be Furnished.



MEMORANDA

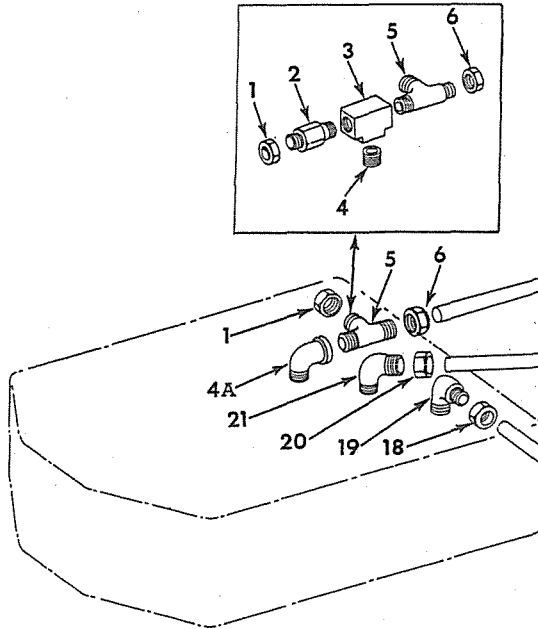


MEMORANDA



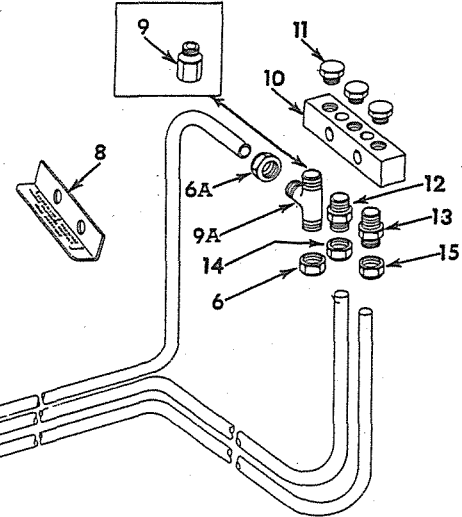
HYDRAULIC SYSTEM

HYDRAULIC TEST CONNECTIONS
 TD-20BP 4259 Up
 TD-20BPS 6110 Up



HYDRAULIC SYSTEM

HYDRAULIC TEST CONNECTIONS - CONTINUED
 TD-20BP 4259 Up
 TD-20BPS 6110 Up



IPB-13048 A

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	37 165 D	NUT, 20 psi test tube connector (for regulator test outlet connector) TD-20BP 4259 to 6111 TD-20BPS 6110 to 6111
1	265 205 R1	NUT, 20 psi test tube connector (for regulator test outlet connector) TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
	265 204 R1	SLEEVE
1	915 499 R1	NUT, 20 psi test tube connector (for regulator test outlet connector) TD-20BP 20181 up and also (*) TD-20BPS 20181 up and also (*)
	915 500 R1	SLEEVE
2	39 584 D	CONNECTOR, 20 psi test tube (on regulator test outlet tee) TD-20BP 4259 to 6111 TD-20BPS 6110 to 6111
2	606 929 C1	CONNECTOR, 20 psi test tube (on regulator test outlet tee) TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
3	9 409 935	TEE, regulator test outlet TD-20BP 4259 to 20180 except (*) TD-20BPS 6110 to 20180 except (*)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
4	443 976	NIPPLE, 20 psi test tube (regulator to regulator test outlet tee) TD-20BP 4259 to 20180 except (*) TD-20BPS 6110 to 20180 except (*)
4A	105 422	ELBOW, 1/8" x 90° street TD-20BP 20181 up and also (*) TD-20BPS 20181 up and also (*)
5	39 254 D	TEE, lubrication oil pressure gauge lower pipe (on regulator test outlet tee) TD-20BP 4259 to 6111 TD-20BPS 6110 to 6111
5	610 041 C1	TEE, lubrication oil pressure gauge lower tube (on regulator test outlet tee) TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
5	610 041 C1	TEE, regulator to rear main frame tee tube TD-20BP 20181 up and also (*) TD-20BPS 20181 up and also (*)
6	29 898 D	NUT, 20 psi test connector tube (2) TD-20BP 4259 to 6111 (2) TD-20BPS 6110 to 6111

(*) - 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179.



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
HYDRAULIC TEST CONNECTIONS - CONTINUED		
TD-20BP 4259 Up		
TD-20BPS 6110 Up		
6	915 499 R1	NUT, 200 psi test connector tube (2) TD-20BP 6112 up (2) TD-20BPS 6112 up
	915 500 R1	SLEEVE (2)
7	345 630 R2	TUBE, 200 psi test connection (see NOTE) TD-20BP 4259 to 6111 TD-20BPS 6110 to 6111
7	609 505 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1 200 psi test connection (order TUBE, 612 769 C11 and TUBE, 612 770 C11) TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
7	612 770 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, 200 psi test connection TD-20BP 20181 up and also (*) TD-20BPS 20181 up and also (*)
8		PLATE, hydraulic test pressure check (Not Furnished Separately)
9	29 901 D	CONNECTOR, 200 psi test tube (at pressure check manifold) TD-20BP 4259 to 6111 TD-20BPS 6110 to 6111
9	606 885 C1	CONNECTOR, 200 psi test tube (at pressure check manifold) TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
9A	610 041 C1	TEE, lubrication oil pressure gauge lower tube (in pressure check manifold) TD-20BP 20181 up and also (*) TD-20BPS 20181 up and also (*)
10	334 445 R1	MANIFOLD, pressure check 5/16 x 1-3/8" hex-hd cap SCREW (2) 5/16" lock WASHER (2)
11	444 614	PLUG, pressure check manifold (1/8" NPT) (3)
12	29 901 D	CONNECTOR, 80 psi test tube (at pressure check manifold) TD-20BP 4259 to 6111 TD-20BPS 6110 to 6111
12	606 885 C1	CONNECTOR, 80 psi test tube (at pressure check manifold) TD-20BP 6112 up TD-20BPS 6112 up
13	39 254 D	TEE, 200 psi test tube (at pressure check manifold) TD-20BP 4259 to 4850
13	29 901 D	CONNECTOR, 200 psi test tube (at pressure check manifold) TD-20BP 4851 to 6111 TD-20BPS 6110 to 6111
13	606 885 C1	CONNECTOR, 200 psi test tube (at pressure check manifold) TD-20BP 6112 up TD-20BPS 6112 up
14	29 898 D	NUT, 80 psi test tube connector (for pressure check inlet manifold connector) TD-20BP 4259 to 6111 TD-20BPS 6110 to 6111
14	915 499 R1	NUT, 80 psi test tube connector (for pressure check inlet manifold connector) TD-20BP 6112 up TD-20BPS 6112 up
	915 500 R1	SLEEVE



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
HYDRAULIC TEST CONNECTIONS - CONTINUED		
TD-20BP 4259 Up		
TD-20BPS 6110 Up		
15	29 898 D	NUT, 200 psi test tube connector (for pres sure check inlet manifold connector) TD-20BP 4259 to 6111 TD-20BPS 6110 to 6111
15	915 499 R1	NUT, 200 psi test tube connector (for pres sure check inlet manifold connector) TD-20BP 6112 up TD-20BPS 6112 up
	915 500 R1	SLEEVE
16	609 503 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, 200 psi test connec tion (together with CONNECTOR, 606 885 and ELBOW, 319 615 R1 will work for 345 628 R2) TD-20BP 4259 to 22757 TD-20BPS 6110 to 22757
16	624 399 C91	TUBE w/two NUT 915 499 R1 and two SLE 915 500 R1, 200 psi test TD-20BP 22758 up TD-20BPS 22758 up
17	609 504 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 519 500 R1, 80 psi test connect (together with CONNECTOR, 606 885 C1 and ELBOW, 319 615 R1, will work for 345 629 R1)
18	29 898 D	NUT, 200 psi test tube connector (for regu tor outlet elbow) TD-20BP 4259 to 6111 TD-20BPS 6110 to 6111
18	915 499 R1	NUT, 200 psi test tube connector (for regu tor outlet elbow) TD-20BP 6112 up TD-20BPS 6112 up
	915 500 R1	SLEEVE
19	319 615 R1	ELBOW, 80 psi test tube (at pressure regulator)
20	29 898 D	NUT, 80 psi test tube elbow (for regulator outlet elbow) TD-20BP 4259 to 6111 TD-20BPS 6110 to 6111
20	915 499 R1	NUT, 80 psi test tube elbow (for regulator outlet elbow) TD-20BP 6112 up TD-20BPS 6112 up
	915 500 R1	SLEEVE
21	319 615 R1	ELBOW, 80 psi test tube (regulator outlet)
NOTE - To Update Machines Equipped With 200 psi test Connection Tube, 345 630 R2, Serial Nos. TD-20BF 4259 to 6111 and TD-20BPS 6110 6111 (Order the following parts- 1 CONNEC- TOR 606 885 C1 1 TEE 610 041 C1 1 TUBE 609 500 C11 1 TUBE 612 769 C11 1 TUBE 612 770 C11 1 UNION 606 049 C1		
(*) - 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178, and 20179.		



HYDRAULIC SYSTEM

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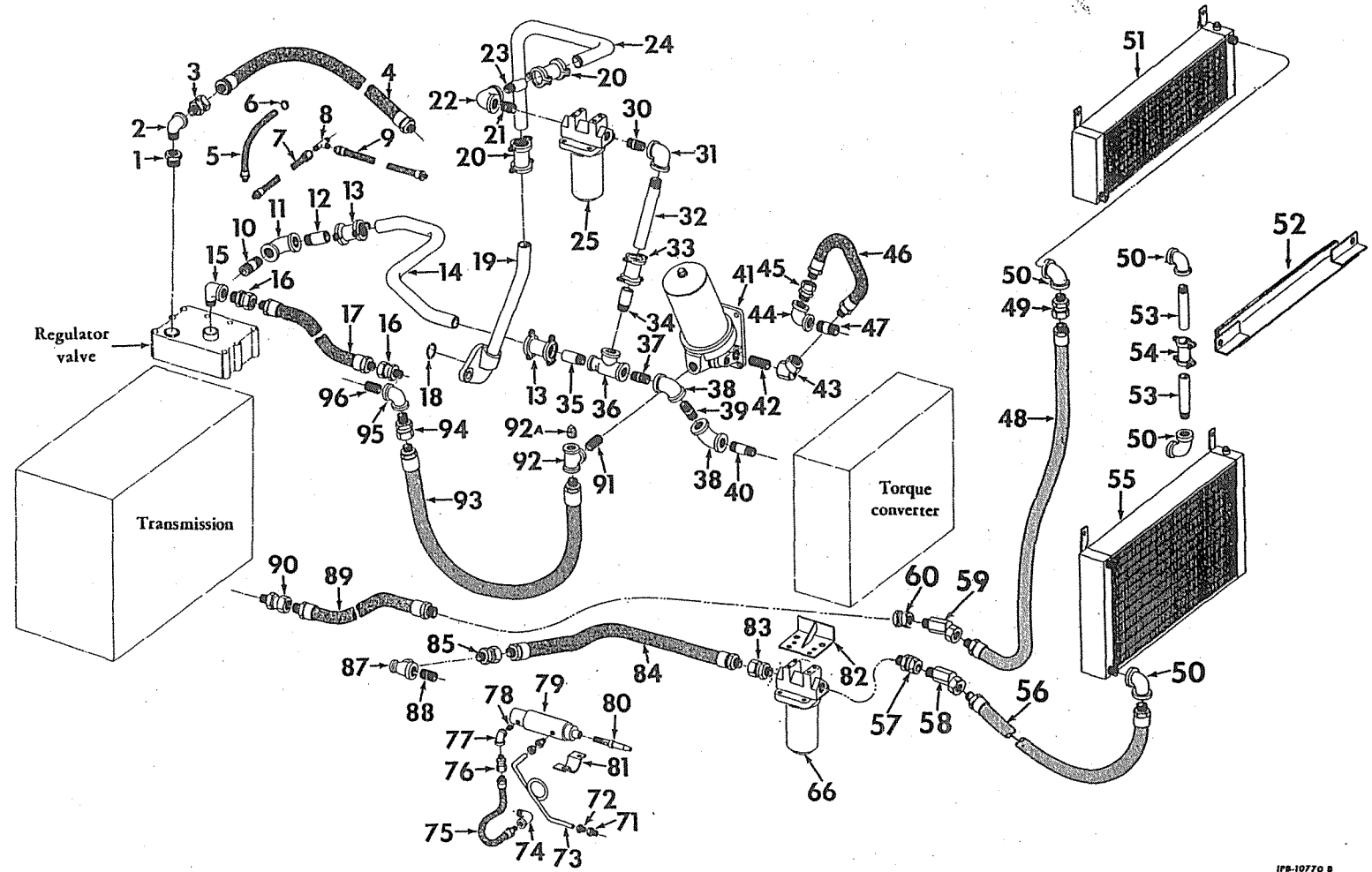


HYDRAULIC SYSTEM

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HYDRAULIC LINES AND CONNECTIONS
TD-20BP 4001 to 4252

HYDRAULIC LINES AND CONNECTIONS - CONTINUED
TD-20BP 4001 to 4252



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HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED
TD-20BP 4001 to 4252

1	144 056	BUSHING, thermo by-pass to regulator hose (at regulator)
2	141 621	ELBOW, thermo by-pass to regulator hose (at regulator) (3/4" x 90° street)
3	102 729 R1	ADAPTER, thermo by-pass to regulator hose
4	603 553 C91	HOSE w/two FITTING, 319 753 R91, lube regulator inlet (HOSE, 5/8" ID x 80" long including FITTINGS)
4		HOSE w/o FITTINGS, cut length 5/8" ID x 76-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe (Aeroquip No. 4412-12-12) (2)
	314 798 R1	CLIP, hose
5	338 918 R91	HOSE w/FITTINGS, steering booster drain (HOSE, 3/8" ID x 7-1/4" long including FITTINGS) (2)
6	140 585	CLIP, hose
7	336 784 R91	HOSE w/FITTINGS, steering booster to booster (HOSE, 3/8" ID x 16" long including FITTINGS)
8	9 403 098	TEE, booster to booster hose
9	336 783 R91	HOSE w/FITTINGS, steering booster to pressure filter (HOSE, 3/8" ID x 45" long including FITTINGS)
10	192 082	NIPPLE, pressure regulator suction pipe elbow (3/4 x 1-3/8")
11	144 129	ELBOW, pressure regulator suction pipe (3/4" x 90°)
12	325 697 R1	NIPPLE, pressure regulator suction pipe
13	324 168 R91	JOINT w/two SEAL, 346 565 R1 and two RETAINER, 346 566 R1, pressure regulator suction pipe (2)
14	325 994 R1	PIPE, pressure regulator suction
15	297 581 R91	ELBOW, converter inlet regulator (1/4" x 90° street)
16	102 729 R1	ADAPTER, regulator to torque converter hose (2)
17	610 569 C91	HOSE w/two FITTING, 319 753 R91, regulator to torque converter (HOSE, 5/8" ID x 29" long including FITTINGS)
17		HOSE w/o FITTINGS, cut length 5/8" ID x 25-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe (Aeroquip No. 4412-12-12) (2)
18	355 965 R1	"O" RING, rear frame sump elbow sealing (15/16 x 1-3/16 x 1/8")
19	325 977 R11	PIPE, rear frame sump lower (Order the following parts -
		1 CLAMP 314 798 R1
		1 NUT, 3/8"
		1 SCREW, 3/8 x 3/4" hex-hd cap
		1 WASHER, 3/8" lock
		1 DRAWING, installation
		1ZG 6 819
		1 NIPPLE 296 476 R1
		1 "O" RING 355 965 R1
		1 PIPE 341 988 R11
		2 SCREW, 1/2 x 2" hex-hd cap
		1 PIPE 345 507 R1
		1 SUPPORT 345 554 R1)



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED
TD-20BP 4001 to 4252

20	324 168 R91	JOINT w/two SEAL, 346 565 R1 and two RETAINER, 346 566 R1, rear frame sump pipe (2)
21	127 878	NIPPLE, suction filter inlet (1 x 1-1/2")
22	179 535	ELBOW, suction filter inlet (3/4 x 1")
23	325 697 R1	NIPPLE, sump upper pipe
24	334 807 R1	PIPE, rear frame sump lower (Order the following parts -
		1 CLAMP 314 798 R1
		1 NUT, 3/8"
		1 SCREW, 3/8 x 3/4" hex-hd cap
		1 WASHER, 3/8" lock
		1 DRAWING, installation
		1ZG 6 819
		1 NIPPLE 296 476 R1
		1 "O" RING 355 965 R1
		1 PIPE 341 988 R11
		2 SCREW, 1/2 x 2" hex-hd cap
		1 PIPE 345 507 R1
		1 SUPPORT 345 554 R1)
25		FILTER ASSY, suction (for components see list of parts under details of "Safety and Suction Filter")
		3/8 x 7/8" hex-hd cap SCREW (3)
		3/8" lock WASHER (3)
		13/32 x 13/16" x 16 ga WASHER (3)
30	127 874	NIPPLE, suction filter outlet (1 x 1-1/2")
31	217 986	ELBOW, suction filter outlet (3/4 x 1")
32	325 993 R1	NIPPLE, suction filter to tee upper
33	324 168 R91	JOINT w/two SEAL, 346 565 R1 and two RETAINER, 346 566 R1, suction filter upper and lower nipple
34	325 697 R1	NIPPLE, suction filter to tee lower
35	325 697 R1	NIPPLE, suction filter reducing tee
36	218 259	TEE, suction
37	127 874	NIPPLE, suction filter reducing tee (1 x 1-1/2")
38	119 100	ELBOW, pump inlet (1" x 90°) (2)
39	190 570	NIPPLE, pump inlet elbow to elbow (1 x 2")
40	219 352	NIPPLE, pump inlet (1 x 3-1/2")
41		FILTER ASSY, pressure (for components see list of parts under details of "Pressure Filter")
		1/2 x 1-1/4" hex-hd cap SCREW (4)
		1/2" lock WASHER (4)
42	219 657	NIPPLE, pressure filter inlet
43	338 959 R91	ELBOW, pressure filter inlet (3/4" x 45°)
44	144 129	ELBOW, pump outlet
45	102 729 R1	ADAPTER, pump outlet to pressure filter
46	702 199 C91	HOSE w/two FITTING, 319 753 R91, pump to pressure filter (HOSE, 5/8" ID x 17" long including FITTINGS)
46		HOSE w/o FITTINGS, cut length 5/8" ID x 13-5/8" long cut from bulk HOSE 319 710 R1
	319 753 R91	FITTING, male pipe (2)
47	192 082	NIPPLE, pump outlet



HYDRAULIC SYSTEM



HYDRAULIC SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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REF. NO.	I.H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED
TD-20BP 4001 to 4252

HYDRAULIC LINES AND CONNECTIONS - CONTINUED
TD-20BP 4001 to 4252

48	603 563 C91	HOSE w/two FITTING, 319 753 R91, oil cooler outlet (HOSE, 5/8" ID x 74" long including FITTINGS)
48	319 753 R91	HOSE w/o FITTINGS, cut length 5/8" ID x 70-5/8" long cut from bulk HOSE 319 710 R1 FITTING, male pipe (Aeroquip No. 4412-12-12) (2)
49	102 729 R1	ADAPTER, upper radiator outlet
50	119 099	ELBOW, oil to air radiator (3/4" x 90") (4)
51	338 993 R92	COOLER, oil to air 3/8 x 7/8" hex-hd cap SCREW (4) 13/32 x 13/16" x 16 ga WASHER (4) 3/8" lock WASHER (4)
52	343 147 R91	BAFFLE, w/SEAL, 343 154 R1, dust 3/8 x 1" hex-hd cap SCREW (2) 13/32 x 13/16" x 16 ga WASHER (2) 3/8" lock WASHER (2)
53	327 702 R2	NIPPLE, radiator to radiator (2)
54	324 168 R91	JOINT w/two SEAL, 346 565 R1, and two RETAINER, 346 566 R1, radiator to radiator nipple
55	338 994 R92	COOLER, lower oil to air 3/8 x 7/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER (2)
56	603 563 C91	HOSE w/two FITTING, 319 753 R91, safety filter to oil cooler inlet (HOSE, 5/8" ID x 74" long including FITTINGS)
56	319 753 R91	HOSE w/o FITTINGS, cut length 5/8" ID x 70-5/8" long cut from bulk HOSE, 319 710 R1 FITTING, male pipe (Aeroquip No. 4412-12-12) (2)
57	336 182 R1	ADAPTER, oil cooler inlet hose
58	296 406 R91	ELBOW, oil cooler inlet hose
59	296 406 R91	ELBOW, oil cooler outlet hose
60	606 291 C91	ADAPTER, oil cooler outlet hose to lube regulator inlet hose
66		FILTER ASSY, safety (for components see list of parts under details of "Safety and Suction Filters") 7/16 x 3/4" hex-hd cap SCREW (2) 7/16" lock WASHER (12)
71	606 885 C1	CONNECTOR, decelerator drain tube (one used with TUBE, 616 104 C11, two used with TUBE, 607 989 C11)
71	29 901 D	CONNECTOR, decelerator drain pipe (used with PIPE, 341 990 R1) (2)
71	9 410 372	CONNECTOR, decelerator drain pipe (used with PIPE, 334 801 R1) (2)
71	319 615 R1	ELBOW, decelerator drain tube (one used with TUBE, 616 104 C11)
72	915 499 R1	NUT, decelerator drain tube (used with TUBE, 616 104 C11 and TUBE, 607 989 C11) (2)
	915 500 R1	SLEEVE (Used with TUBE, 616 104 C11 and TUBE, 607 989 C11) (2)
72	29 898 D	NUT, decelerator drain pipe (used with PIPE, 341 990 R1) (2)
72	9 410 610	NUT, decelerator drain pipe (used with PIPE, 334 801 R1) (2)

73	334 801 R1	PIPE, decelerator drain (order TUBE, 616 104 C11, CONNECTOR, 606 885 C1 and ELBOW, 319 615 R1)
73	341 990 R1	PIPE, decelerator drain (order TUBE, 616 104 C11, CONNECTOR, 606 885 C1 and ELBOW, 319 615 R1)
73	607 989 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, decelerator drain (order TUBE, 616 104 C11 and ELBOW, 319 615 R1)
73	616 104 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, decelerator drain (Together with ELBOW, 319 615 R1 will work for TUBE, 607 989 C11) also, (together with CONNECTOR, 606 885 C1 and ELBOW, 319 615 R1 will work for PIPE, 341 990 R1 and PIPE, 334 801 R1)
74	111 316	ELBOW, decelerator cylinder hose
75	336 782 R91	HOSE w/FITTING, decelerator cylinder (HOSE, 1/2" ID x 14-1/2" long including FITTINGS)
76	333 761 R1	ADAPTER, decelerator cylinder hose
77	144 128	ELBOW, decelerator cylinder
78	192 067	NIPPLE, decelerator cylinder
79	610 739 C91	CYLINDER w/SPRING, 610 740 C1 decelerator (For Service Parts use KIT, 338 399 R91)
	128 145	SPACER, decelerator cylinder (3) 3/8 x 1-1/8" hex-hd cap SCREW 3/8" lock WASHER
80	345 544 R91	ADJUSTER, hydraulic decelerator 7/16" jam NUT
81	325 680 R1	CLAMP, decelerator cylinder 3/8" NUT (2) 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
82	334 804 R11	BRACKET, safety filter 7/16 x 3/4" hex-hd cap SCREW (4) 7/16" lock WASHER (4)
83	336 182 R1	ADAPTER, safety filter to torque converter (at safety filter)
84	603 558 C91	HOSE w/two FITTING, 319 753 R91, safety filter to torque converter (HOSE, 5/8" ID x 53" long including FITTINGS)
84	319 753 R91	HOSE w/o FITTINGS, cut length 5/8" ID x 49-5/8" long cut from bulk HOSE, 319 710 R1 FITTING, male pipe (Aeroquip No. 4412-12-12) (2)
85	102 729 R1	ADAPTER, safety filter to torque converter hose (at torque converter)
87	336 258 R1	TEE, torque converter outlet reducing
88	192 082	NIPPLE, torque converter outlet (3/4 x 1-3/8")



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED
TD-20BP 4001 to 4252

89	603 554 C91	HOSE w/two FITTINGS, 319 753 R91, fly-wheel housing (HOSE, 5/8" ID x 28" long including FITTINGS)
89		HOSE w/o FITTING, cut length 5/8" ID x 24-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe (Aeroquip No. 4412-12-12) (2)
90	102 729 R1	ADAPTER, flywheel housing to transmission hose (on transmission housing)
91	192 470	NIPPLE, pressure filter outlet (3/4 x 1-3/8")
92	144 086	TEE, pressure filter outlet
92A	444 595	PLUG, pressure filter outlet tee
93	336 779 R91	HOSE w/FITTING, pressure filter to regulator (HOSE, 3/4" ID x 28" long including FITTINGS)
94	102 729 R1	ADAPTER, pressure filter to regulator hose
95	144 129	ELBOW, inlet regulator (3/4" x 90°)
96	192 470	NIPPLE, inlet regulator (3/4 x 1-3/8")
	279 025 R91	CLAMP, steering booster drain hose (2)
	325 715 R1	CLAMP, thermo by-pass hose (4) 1/4 x 1-3/4" hex-hd cap SCREW (2) 1/4" lock WASHER (2)
	16 588 R1	WASHER, 17/64 x 5/8" x 18 ga (2)
	274 221	FERRULE, decelerator drain pipe (used with PIPE, 334 801 R1) (2)
	338 399 R91	KIT, decelerator cylinder (used for DECELERATOR, 338 383 R91) (Composed of - § 1 "O" RING, large § 1 "O" RING, small § 2 RING, piston § 1 RING, retaining § 1 SCRAPER, rod)
	324 184 R91	KIT, decelerator cylinder (used for DECELERATOR, 327 467 R91) (Composed of - § 2 KEY, internal § 1 "O" RING, piston seal § 2 "O" RING, end cover § 1 PACKING, rod § 2 PACKING, piston § 1 RING, rod gland snap § 1 SCRAPER, rod)
	325 716 R1	PAD, thermo by-pass hose clamp (4)
	343 154 R1	SEAL, baffle dust
	346 565 R1	SEAL, flexmaster (12)
	610 740 C1	SPRING, compression
	346 566 R1	RETAINER, flexmaster seal (12)

§ - Not Furnished Separately.



MEMORANDA



HYDRAULIC SYSTEM

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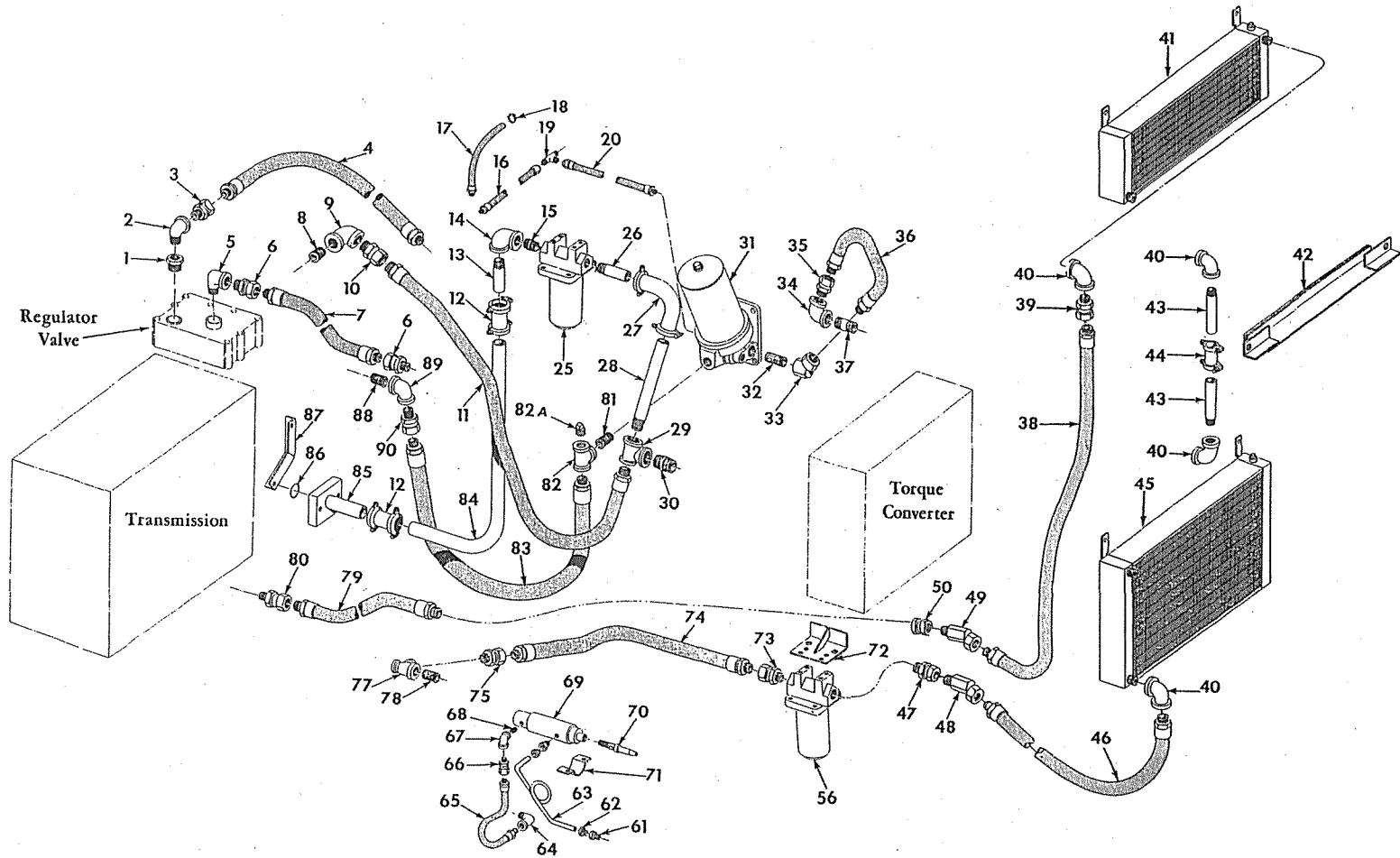
HYDRAULIC LINES AND CONNECTIONS
TD-20BP 4253 to 5691



HYDRAULIC SYSTEM

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HYDRAULIC LINES AND CONNECTIONS - CONTINUED
TD-20BP 4253 to 5691



IPB-10955 A



HYDRAULIC SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
HYDRAULIC LINES AND CONNECTIONS - CONTINUED TD-20BP 4253 to 5691		
1	144 056	BUSHING, thermo by-pass to regulator hose (at regulator)
2	141 621	ELBOW, thermo by-pass to regulator hose (at regulator) (3/4" x 90° street)
3	102 729 R1	ADAPTER, thermo by-pass to regulator hose
4	603 553 C91	HOSE w/two FITTING, 319 753 R91, lube regulator inlet (HOSE, 5/8" ID x 80" long including FITTINGS)
4		HOSE w/o FITTINGS, cut length 5/8" ID x 76-5/8" long cut from bulk HOSE 319 710 R1
	314 798 R1	CLIP, hose
	319 753 R91	FITTING, male pipe (Aeroquip No. 4412-12-12) (2)
5	144 113	ELBOW, converter inlet regulator (1/4" x 90° street)
6	102 729 R1	ADAPTER, regulator to torque converter hose (2)
7	610 569 C91	HOSE w/two FITTING, 319 753 R91, regulator to torque converter (HOSE, 5/8" ID x 29" long including FITTINGS)
7		HOSE w/o FITTINGS, cut length 5/8" ID x 25-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe (Aeroquip No. 4412-12-12) (2)
8	192 082	NIPPLE, regulator drain at transmission housing elbow
9	144 129	ELBOW, regulator drain at transmission housing
10	102 729 R1	ADAPTER, regulator drain at transmission housing swivel
11	603 560 C91	HOSE w/two FITTING, 319 753 R91, regulator drain to torque converter pump tee (HOSE, 5/8" ID x 48" long including FITTINGS) (order PACKAGE, 700 169 C91)
	319 753 R91	FITTING, male pipe
12	324 168 R91	JOINT w/two SEAL, 346 565 R1 and two RETAINER, 346 566 R1, rear frame sump pipe (2)
13	296 476 R1	NIPPLE, sump upper pipe
14	179 535	ELBOW, suction filter inlet (3/4 x 1")
15	127 878	NIPPLE, suction filter inlet (1 x 1-1/2")
16	336 784 R91	HOSE w/FITTING, steering booster to booster (HOSE, 3/8" ID x 16" long including FITTINGS)
17	338 918 R91	HOSE w/FITTING, steering booster drain (HOSE, 3/8" ID x 7-1/4" long including FITTINGS) (2)
18	140 585	CLIP, hose
19	9 403 098	TEE, booster to booster hose
20	336 783 R91	HOSE w/FITTING, steering booster to pressure filter (HOSE, 3/8" ID x 45" long including FITTINGS)



HYDRAULIC SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
HYDRAULIC LINES AND CONNECTIONS - CONTINUED TD-20BP 4253 to 5691		
21		FILTER ASSY, suction (for components see list of parts under details of "Safety and Suction Filter") 3/8 x 7/8" hex-hd cap SCREW (3) 3/8" lock WASHER (3) 13/32 x 13/16" x 16 ga WASHER (3)
26	322 933 R1	NIPPLE, suction filter outlet
27	347 319 R91	ELBOW, suction filter outlet
28	345 531 R1	NIPPLE, suction filter to tee
29	179 623	TEE, suction
30	190 751	NIPPLE, pump inlet
31		FILTER ASSY, pressure (for components see list of parts under details of "Pressure Filter") 1/2 x 1-1/4" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
32	219 657	NIPPLE, pressure filter inlet
33	338 959 R91	ELBOW, pressure filter inlet (3/4" x 45°)
34	144 129	ELBOW, pump outlet (3/4" x 90°)
35	102 729 R1	ADAPTER, pump outlet to pressure filter
36	702 199 C91	HOSE w/two FITTING, 319 753 R91, pump to pressure filter (HOSE, 5/8" ID x 17" long including FITTINGS)
36		HOSE w/o FITTINGS, cut length 5/8" ID x 13-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe (2)
37	192 082	NIPPLE, pump outlet
38	603 563 C91	HOSE w/two FITTING, 319 753 R91, oil cooler outlet (HOSE, 5/8" ID x 74" long including FITTINGS)
38		HOSE w/o FITTINGS, cut length 5/8" ID x 70-5/8" long cut from bulk HOSE 319 710 R1
	319 753 R91	FITTING, male pipe (Aeroquip No. 4412-12-12) (2)
39	102 729 R1	ADAPTER, upper radiator outlet
40	119 099	ELBOW, oil to air radiator (3/4" x 90°) (4)
41	338 993 R92	COOLER, oil to air 3/8 x 7/8" hex-hd cap SCREW (4) 13/32 x 13/16" x 16 ga WASHER (4) 3/8" lock WASHER (4)
42	343 147 R91	BAFFLE w/SEAL, 343 154 R1, dust 3/8 x 1" hex-hd cap SCREW (2) 13/32 x 13/16" x 16 ga WASHER (2) 3/8" lock WASHER (2)
43	327 702 R2	NIPPLE, radiator to radiator (2)
44	324 168 R91	JOINT w/two SEAL, 346 565 R1 and two RETAINER, 346 566 R1, radiator to radiator nipple
45	338 994 R92	COOLER, lower oil to air 3/8 x 7/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER (2)
46	603 563 C91	HOSE w/two FITTING, 319 753 R91, safety filter to oil cooler inlet (HOSE, 5/8" ID x 74" long including FITTINGS)
46		HOSE w/o FITTINGS, cut length 5/8" ID x 70-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe (Aeroquip No. 4412-12-12) (2)



HYDRAULIC SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED
TD-20BP 4253 to 5691

47	336 182 R1	ADAPTER, oil cooler inlet hose
48	296 406 R91	ELBOW, oil cooler inlet hose
49	296 406 R91	ELBOW, oil cooler outlet hose
50	606 291 C91	ADAPTER, oil cooler outlet hose to lube regulator inlet hose
56		FILTER ASSY, safety (for components see list of parts under details of "Safety and Suction Filter") 7/16 x 3/4" hex-hd cap SCREW (2) 7/16" lock WASHER (12)
61	606 885 C1	CONNECTOR, decelerator drain tube (one used with TUBE, 616 104 C11, two used with TUBE, 607 989 C11)
61	29 901 D	CONNECTOR, decelerator drain pipe (used with PIPE, 341 990 R1) (2)
61	9 410 372	CONNECTOR, decelerator drain pipe (used with PIPE, 334 801 R1) (2)
61	319 615 R1	ELBOW, decelerator drain tube (one used with TUBE, 616 104 C11)
62	915 499 R1	NUT, decelerator drain tube (used with TUBE, 616 104 C11 and TUBE, 607 989 C11) (2)
	915 500 R1	SLEEVE, (used with TUBE, 616 104 C11 and TUBE, 607 989 C11) (2)
62	29 898 D	NUT, decelerator drain pipe (used with PIPE, 341 990 R1) (2)
62	9 410 610	NUT, decelerator drain pipe (used with PIPE, 334 801 R1) (2)
63	334 801 R1	PIPE, decelerator drain (order TUBE, 616 104 C11, CONNECTOR, 606 885 C1 and ELBOW, 319 615 R1)
63	341 990 R1	PIPE, decelerator drain (order tube, 616 104 C11, CONNECTOR, 606 885 C1 and ELBOW, 319 615 R1)
63	607 989 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, decelerator drain (order TUBE, 616 104 C11 and ELBOW, 319 615 R1)
63	616 104 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, decelerator drain (Together with ELBOW, 319 615 R1 will work for TUBE, 607 989 C11) also, (together with CONNECTOR, 606 885 C1 and ELBOW, 319 615 R1 will work for PIPE, 341 990 R1 and PIPE, 334 801 R1)
64	111 316	ELBOW, decelerator cylinder hose
65	336 782 R91	HOSE w/FITTINGS, decelerator cylinder (HOSE, 1/2" ID x 14-1/2" long including FITTINGS)
66	333 761 R1	ADAPTER, decelerator cylinder hose
67	144 128	ELBOW, decelerator cylinder
68	192 067	NIPPLE, decelerator cylinder
69	610 739 C91	CYLINDER w/SPRING, 610 740 C1 decelerator (For Service Parts use KIT, 338 399 R91)
	128 145	SPACER, decelerator cylinder (3) 3/8 x 1-1/8" hex-hd cap SCREW 3/8" lock WASHER
70	611 140 C92	ADJUSTER, cylinder decelerator 7/16" jam NUT



HYDRAULIC SYSTEM

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED
TD-20BP 4253 to 5691

71	325 680 R1	CLAMP, decelerator cylinder 3/8" NUT (2) 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
72	334 804 R11	BRACKET, safety filter 7/16 x 3/4" hex-hd cap SCREW (4) 7/16" lock WASHER (4)
73	336 182 R1	ADAPTER, safety filter to torque converter (at safety filter)
74	603 558 C91	HOSE w/two FITTING, 319 753 R91, safety filter to torque converter (HOSE, 5/8" ID x 53" long including FITTINGS)
74		HOSE w/o FITTINGS, cut length 5/8" ID x 49-5/8" long cut from bulk HOSE 319 710 R1 319 753 R91 FITTING, male pipe (Aeroquip No. 4412-12-12) (2)
75	102 729 R1	ADAPTER, safety filter to torque converter hose (at torque converter)
77	336 258 R1	TEE, torque converter outlet reducing
78	144 613	NIPPLE, torque converter outlet (3/4 x 1-3/8")
79	603 554 C91	HOSE w/two FITTING, 319 753 R91, flywheel housing (HOSE, 5/8" ID x 28" long including FITTINGS)
79		HOSE w/o FITTINGS, cut length 5/8" ID x 24-5/8" long cut from bulk HOSE, 319 710 R1 319 753 R91 FITTING, male pipe (Aeroquip No. 4412-12-12) (2)
80	102 729 R1	ADAPTER, flywheel housing to transmission hose (on transmission housing)
81	192 470	NIPPLE, pressure filter outlet (3/4 x 1-3/8")
82	144 086	TEE, pressure filter outlet
82A	444 595	PLUG, pressure filter outlet tee
83	336 779 R91	HOSE w/FITTINGS, pressure filter to regulator (HOSE, 3/4" ID x 28" long including FITTINGS)
84	345 507 R1	PIPE, rear frame sump upper
85	341 988 R11	PIPE, rear frame sump lower 1/2 x 2" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
86	355 965 R1	"O" RING, rear frame sump elbow sealing (15/16 x 1-3/16 x 1/8")
87	345 554 R1	SUPPORT, sump to suction filter tube clamp (mount on transmission and cover mounting flange)
88	192 470	NIPPLE, inlet regulator (3/4 x 1-3/8")
89	144 129	ELBOW, inlet regulator (3/4" x 90°)
90	285 247 R91	ADAPTER, pressure filter to regulator hose
	279 025 R91	CLAMP, steering booster drain hose (2)
	308 576 R1	CLAMP, regulator to converter hose (2) SPACER, regulator to converter hose clamp 3/8 x 2-1/4" long obtain locally 3/8 x 3-1/4" hex-hd cap SCREW 3/8" lock WASHER 13/32 x 13/16" x 16 ga WASHER



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED
TD-20BP 4253 to 5691

- 308 576 R1 CLAMP, thermo by-pass hose (on frame) (4)
3/8 x 7/8" hex-hd cap SCREW(2)
3/8" lock WASHER (2)
13/32 x 13/16" x 16 ga WASHER (2)
- 314 798 R1 CLAMP, sump to suction filter tube
3/8" NUT
3/8 x 3/4" hex-hd cap SCREW
3/8" lock WASHER
- 274 221 FERRULE, decelerator drain pipe (used with
PIPE, 334 801 R1) (2)
- 338 399 R91 KIT, decelerator cylinder (used for
DECELERATOR, 338 383 R91 and
610 739 C91)
(Composed of -
§ 1 "O" RING, large
§ 1 "O" RING, small
§ 2 RING, piston
§ 1 RING, retaining
§ 1 SCRAPER, rod)
- 324 184 R91 KIT, decelerator cylinder (used for
DECELERATOR, 327 467 R91)
(Composed of -
§ 2 KEY, internal
§ 1 "O" RING, piston seal
§ 2 "O" RING, end cover
§ 1 PACKING, rod
§ 2 PACKING, piston
§ 1 RING, rod gland snap
§ 1 SCRAPER, rod)
- 325 716 R1 PAD, thermo by-pass hose clamp (4)
- 343 154 R1 SEAL, baffle dust
- 346 565 R1 SEAL, flexmaster (12)
- 610 740 C1 SPRING, compression
- 346 566 R1 RETAINER, flexmaster seal (12)



MEMORANDA

§ - Not Furnished Separately



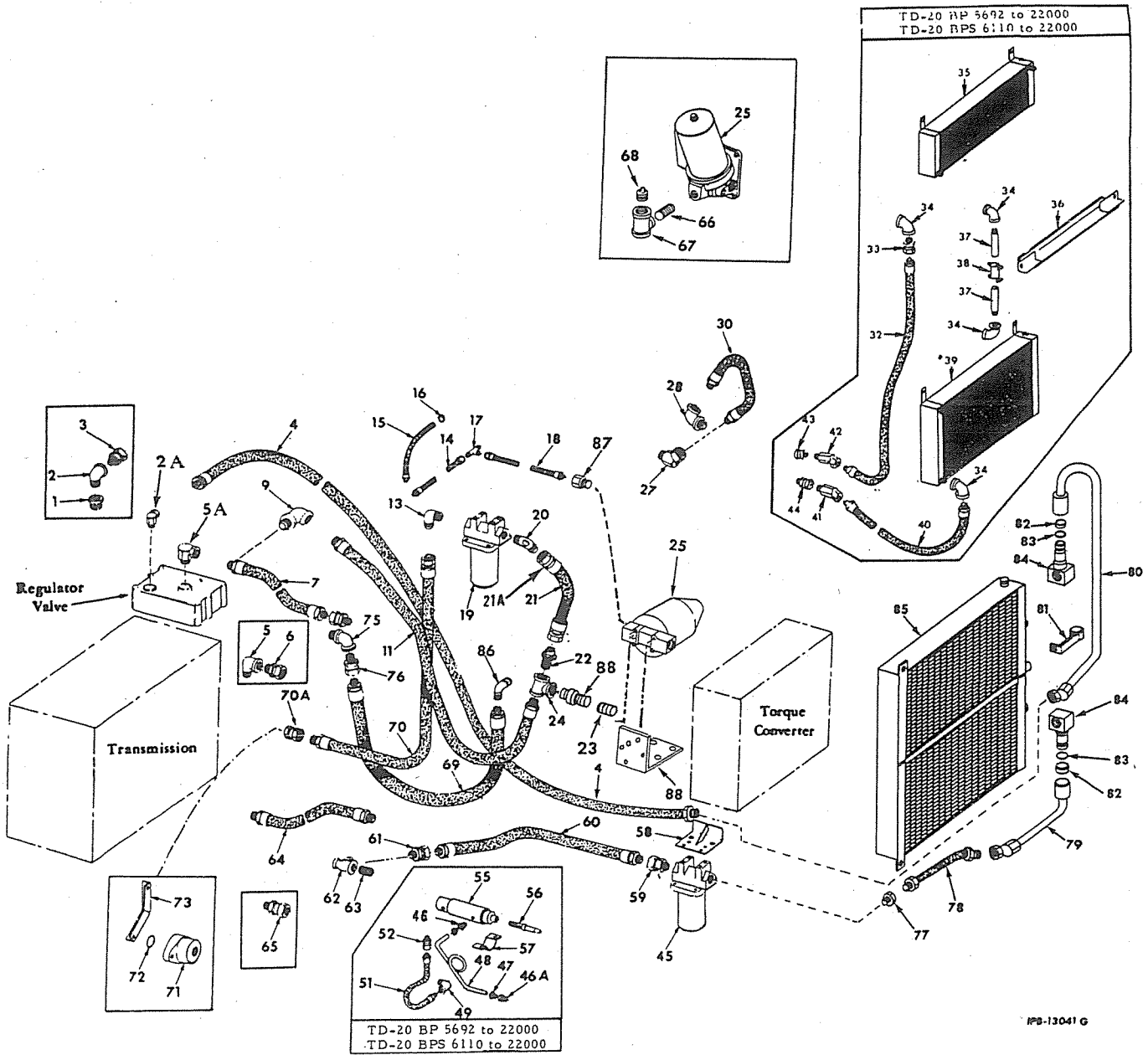
HYDRAULIC SYSTEM



HYDRAULIC SYSTEM

HYDRAULIC LINES AND CONNECTIONS
TD-20BP 5692 Up
TD-20BPS 6110 Up

HYDRAULIC LINES AND CONNECTIONS - CONTINUED
TD-20BP 5692 Up
TD-20BPS 6110 Up





HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED

TD-20BP 5692 Up
TD-20BPS 6110 Up

1	144 056	BUSHING, thermo by-pass to regulator hose (at regulator) TD-20BP 5692 to 20271 TD-20BPS 6110 to 20271
2	141 621	ELBOW, thermo by-pass to regulator hose (at regulator) (3/4" x 90° street) TD-20BP 5692 to 20271 TD-20BPS 6110 to 20271
2A	336 503 R91	ELBOW, thermo by-pass to regulator hose (at regulator) (3/4" x 90°) TD-20BP 20272 up TD-20BPS 20272 up
3	102 729 R1	ADAPTER, thermo by-pass to regulator hose TD-20BP 5692 to 20271 TD-20BPS 6110 to 20271
4	610 563 C91	HOSE w/two FITTING, 319 753 R91, oil cooler to lube regulator inlet (HOSE 5/8" ID x 126" long including fittings) TD-20BP 22001 up TD-20BPS 22001 up
4		HOSE w/o FITTINGS, cut length, 5/8" ID x 122-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe hose (2)
5	144 113	ELBOW, connector inlet regulator (3/4" x 90°) TD-20BP 5692 to 20271 TD-20BPS 6110 to 20271
5A	297 581 R91	ELBOW, connector inlet regulator (3/4" x 90°) TD-20BP 20272 up TD-20BPS 20272 up
6	102 729 R1	ADAPTER, regulator to torque converter hose (2) TD-20BP 5692 to 20271 TD-20BPS 6110 to 20271
7	610 569 C91	HOSE w/two FITTING, 319 753 R91, regulator to torque converter (HOSE 5/8" ID x 29" long including FITTINGS)
7		HOSE w/o FITTINGS, cut length 5/8" ID x 25-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe (2)
9	297 581 R91	ELBOW, regulator drain at transmission housing (3/4" x 90°) TD-20BP 5692 to 21070 TD-20BPS 6110 to 21070
9	293 351 R91	ELBOW, regulator drain at transmission housing (1/2" x 90° swivel) TD-20BP 21071 to 23013 TD-20BPS 21071 to 23013
9	875 239 C1	CONNECTOR, regulator drain at transmission TD-20BP 23014 up TD-20BPS 23014 up
11	603 560 C91	HOSE w/two FITTING, 319 753 R91, regulator drain to torque converter pump tee (HOSE, 5/8" ID x 48" long including FITTINGS) (order PACKAGE, 700 169 C91) TD-20BP 5692 to 21070 TD-20BPS 6110 to 21070
	319 753 R91	FITTING, male pipe (use with HOSE, 603 560 C91) (2)
11	702 205 C91	HOSE w/two FITTING, 347 957 R91, regulator drain to torque converter pump tee (HOSE, 5/8" ID x 53" long including FITTINGS) TD-20BP 21071 to 23013 TD-20BPS 21071 to 23013



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED

TD-20BP 5692 Up
TD-20BPS 6110 Up

11	619 826 C91	HOSE w/FITTING, 313 509 R91 and FITTING 319 786 R91 regulator drain to torque converter pump tee. (HOSE 7/8" ID x 50" long including fittings) TD-20BP 23014 up TD-20BPS 23014 up
11		HOSE w/o FITTINGS, cut length 7/8" ID x 45-3/4" long cut from bulk HOSE, 319 711 R1
	319 786 R91	FITTING, swivel
	313 509 R91	FITTING, swivel
13	9 402 870	ELBOW, suction filter inlet (1-1/4" x 90°)
14	702 066 C91	HOSE w/FITTING, 317 769 R91 and FITTING, 319 751 R91, booster to booster pressure (HOSE, 5/16" ID x 16" long including FITTINGS)
14		HOSE w/o FITTINGS, cut length 5/16" ID x 13-5/8" long cut from bulk HOSE, 319 707 R1
	317 769 R91	FITTING, female pipe
	319 751 R91	FITTING, male pipe
15	702 064 C91	HOSE w/FITTING, 317 769 R91, booster drain (HOSE, 5/16" ID x 7-1/4" long including FITTING) (2)
15		HOSE w/o FITTING, cut length 5/16" ID x 6" long cut from bulk HOSE, 319 707 R1
	317 769 R91	FITTING, female pipe (2)
16	279 025 R91	CLAMP, hose
17	9 403 098	TEE, booster to booster hose
18	702 065 C91	HOSE w/FITTING 317 769 R91 and FITTING 319 751 R91 pressure filter to booster pressure (HOSE 5/16" ID x 45" long including FITTINGS) TD-20BP 5692 to 22757 TD-20BPS 6110 to 22757
18		HOSE w/o FITTINGS, cut length 5/16" ID x 42-3/8" long cut from bulk HOSE 319 707 R1
	319 751 R91	FITTING, male pipe
	317 769 R91	FITTING, female pipe
18	702 062 C91	HOSE w/FITTING 317 769 R91 and FITTING 319 751 R91 pressure filter to booster pressure (HOSE 5/16" ID x 42" long including FITTINGS) TD-20BP 22758 up TD-20BPS 22758 up
18		HOSE w/o FITTINGS cut length 5/16" ID x 39-3/8" long cut from bulk HOSE 319 707 R1
	319 751 R91	FITTING, male pipe
	317 769 R91	FITTING, female pipe
19		FILTER ASSY, suction (for components see list of parts under details of "Safety and Suction Filter") 1/2 x 7/8" hex-hd cap SCREW (3) 1/2" lock WASHER (3) 17/32 x 1-1/16" x 13 ga flat WASHER (3)
20	9 402 831	ELBOW, suction filter outlet 1-1/4" x 45° TD-20BP 5692 to 21166 TD-20BPS 6110 to 21166
20	9 402 714	CONNECTOR, suction filter outlet TD-20BP 21167 up TD-20BPS 21167 up
21	702 060 C91	HOSE w/two FITTINGS, 313 228 R91, suction filter to converter tee (order HOSE, 702 272 C91 and CONNECTOR, 9 402 714) TD-20BP 5692 to 21166 TD-20BPS 6110 to 21166
21	702 272 C91	HOSE w/FITTING, 313 228 R91 and FITTING, 702 273 C91 suction filter to converter tee (HOSE, 1-1/8" ID x 12-1/2" including FITTINGS)



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED
 TD-20BP 5692 Up
 TD-20BPS 6110 Up



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED
 TD-20BP 5692 Up
 TD-20BPS 6110 Up

21		HOSE w/o FITTINGS, 1-1/8" ID x 8-3/8" cut from bulk HOSE, 319 712 R1 TD-20BP 21167 up TD-20BPS 21167 up
21A	702 273 C91	FITTING, 90° swivel (use with HOSE, 702 272 C91) TD-20BP 21167 up TD-20BPS 21167 up
21B	313 228 R91	FITTING, swivel (use with HOSE, 702 060 C91) (2) TD-20BP 5692 to 21166 (2) TD-20BPS 6110 to w1166
21B	313 228 R91	FITTING, swivel (use with HOSE, 702 272 C91) TD-20BP 21167 up TD-20BPS 21167 up
22	313 505 R1	ADAPTER, suction filter to converter hose (at tee) TD-20BP 5692 to 23013 TD-20BPS 6110 to 23013
22	9 402 714	CONNECTOR, converter pump inlet (at tee) TD-20BP 23014 up TD-20BPS 23014 up
23	190 751	NIPPLE, pump inlet TD-20BP 5692 to 23013 TD-20BPS 6110 to 23013
23	190 752	NIPPLE, pump inlet TD-20BP 23014 up TD-20BPS 23014 up
24	179 623	TEE, suction reducing (1 x 3/4 x 1" NPT) TD-20BP 5692 to 21070 TD-20BPS 6110 to 21070
24	179 624	TEE, suction filter reducing TD-20BP 21071 to 23014 TD-20BPS 21071 to 23014
24	186 553	TEE, suction filter reducing TD-20BP 23014 up TD-20BPS 23014 up
25		FILTER ASSY, pressure (for components see list of parts under details of "Pressure Filter")
27	296 406 R91	ELBOW, pressure filter inlet (3/4" x 45°) TD-20BP 5692 to 22757 TD-20BPS 6110 to 22757
27	619 717 C1	ELBOW, pressure filter inlet TD-20BP 22758 up TD-20BPS 22758 up
28	144 113	ELBOW, pump outlet (3/4" x 90°) TD-20BP 5692 to 22757 TD-20BPS 6110 to 22757
28	619 670 C1	ELBOW, pump outlet TD-20BP 22757 up TD-20BPS 22757 up
30	702 199 C91	HOSE w/two FITTINGS 319 753 R91 pump to pressure filter (HOSE 5/8" ID x 17" long including FITTINGS) TD-20BP 5692 to 22757 TD-20BPS 6110 to 22757
30		HOSE w/o FITTINGS cut length 5/8" ID x 13-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe (2)
30	702 635 C91	HOSE w/two FITTINGS 100 798 R91 pump to pressure filter (HOSE 5/8" ID x 21" long including FITTINGS) TD-20BP 22758 up TD-20BPS 22758 up
30		HOSE w/o FITTINGS cut length 5/8" ID x 17-1/4" long cut from bulk HOSE 319 710 R1
	100 798 R91	FITTING, male pipe (2)
32	603 563 C91	HOSE w/two FITTING, 319 753 R91, oil cooler outlet (HOSE, 5/8" ID x 74" long including FITTINGS) TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000

32		HOSE w/o FITTING, cut length 5/8" ID x 70-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe (2)
33	102 729 R1	ADAPTER, upper radiator outlet TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
34	119 099	ELBOW, oil to air radiator (3/4" x 90°) (4) TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
35	338 993 R92	RADIATOR, oil to air TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000 3/8 x 7/8" hex-hd cap SCREW (4) 13/32 x 13/16 x 16 ga WASHER (4) 3/8" lock WASHER (4)
36	343 147 R91	BAFFLE w/SEAL, 343 153 R1, dust TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000 3/8 x 1" hex-hd cap SCREW (2) 13/32 x 13/16" x 16 ga WASHER (2) 3/8" lock WASHER (2)
37	327 702 R2	NIPPLE, radiator to radiator (2) TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
38	324 168 R91	JOINT w/two SEAL, 346 565 R1 and two RETAINER, 346 566 R1, radiator to radiator nipple TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
39	338 994 R92	COOLER, lower oil to air TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000 3/8 x 7/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER (2)
40	603 563 C91	HOSE w/two FITTING, 319 753 R91, safety filter to oil cooler inlet (HOSE, 5/8" ID x 74" long including FITTINGS) TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
40		HOSE w/o FITTINGS, cut length 5/8" ID x 70-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe (2)
41	296 406 R91	ELBOW, oil cooler inlet hose (3/4" x 45°) TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
42	296 406 R91	ELBOW, oil cooler outlet hose (3/4" x 45°) TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
43	606 291 C91	ADAPTER, oil cooler outlet hose to lube regulator inlet hose TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
44	336 182 R1	ADAPTER, oil cooler inlet hose TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
45		FILTER ASSY, safety (for components see list of parts under details of "Safety and Suction Filter") 7/16 x 3/4" hex-hd cap SCREW (2) 7/16" lock WASHER (12)

(%) - Also Furnished As Part of Short Core Radiator Attachments, 612 516 C91.



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED

TD-20BP 5692 Up
TD-20BPS 6110 Up

46	606 885 C1	CONNECTOR, decelerator drain tube (one used with TUBE, 616 104 C11, two used with TUBE, 607 989 C11) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
46	29 901 D	CONNECTOR, decelerator drain pipe (used with PIPE, 341 990 R1) (2) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
46	9 410 372	CONNECTOR, decelerator drain pipe (used with PIPE, 334 801 R1) (2) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
46A	319 615 R1	ELBOW, decelerator drain tube (one used with TUBE, 616 104 C11) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
47	915 499 R1	NUT, decelerator drain tube (used with TUBE, 616 104 C11 and TUBE, 607 989 C11) (2) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
	915 500 R1	SLEEVE, (used with TUBE, 616 104 C11 and TUBE, 607 989 C11) (2)
47	29 898 D	NUT, decelerator drain pipe (used with PIPE, 341 990 R1) (2) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
47	9 410 610	NUT, decelerator drain pipe (used with PIPE, 334 801 R1) (2) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
48	334 801 R1	PIPE, decelerator drain (order TUBE, 616 104 C11, CONNECTOR, 606 885 C1 and ELBOW, 319 615 R1) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
48	341 990 R1	PIPE, decelerator drain (order TUBE, 616 104 C11, CONNECTOR, 606 885 C1 and ELBOW, 319 615 R1) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
48	607 989 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, decelerator drain TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000 (order TUBE, 616 104 C11 and ELBOW, 319 615 R1)
48	616 104 C11	TUBE w/two NUT 915 499 R1 and two SLEEVE, 915 500 R1, decelerator drain (Together with ELBOW, 319 615 R1 will work for TUBE, 607 989 C11) also (together with CONNECTOR, 606 885 C1 and ELBOW, 319 615 R1 will work for PIPE, 341 990 R1 and PIPE, 334 801 R1) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
49	9 402 865	ELBOW, decelerator cylinder hose (1/2" x 90°) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
51	324 818 R91	HOSE w/two FITTING 103 393 R91, decelerator cylinder (Hose 13/32" ID x 15" long including Fittings) (together with two Elbow 9 402 865, will work for Adapter 333 761 R1, Elbow 111 316, Elbow 144 128, Hose 336 782 R91 and Nipple 192 067) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED

TD-20BP 5692 Up
TD-20BPS 6110 Up

51	103 393 R91	HOSE, w/o Fittings cut length 13/32" ID x 11-3/4" long cut from bulk Hose 319 708 R FITTING, female swivel hose (2)
52	9 402 865	ELBOW, decelerator cylinder hose (1/2" x 90°) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
55	610 739 C91	CYLINDER w/SPRING, 610 740 C1 decelerator (For Service parts use KIT, 338 399 R91) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
	128 145	SPACER, decelerator cylinder (3) 3/8 x 1-1/8" hex-hd cap SCREW 3/8" lock WASHER
56	611 140 C92	ADJUSTER, cylinder decelerator 7/16NF jam NUT TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
57	325 680 R1	CLAMP, decelerator cylinder 3/8" NUT (2) 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
58	334 804 R11	BRACKET, safety filter 7/16 x 3/4" hex-hd cap SCREW (4) 7/16" lock WASHER (4)
59	336 182 R1	ADAPTER, safety filter inlet
60	603 558 C91	HOSE w/two FITTING, 319 753 R91, safety filter to torque converter (HOSE, 5/8" ID x 53" long including FITTINGS)
60	319 753 R91	HOSE w/o FITTINGS, cut length 5/8" ID x 49-5/8" long cut from bulk HOSE, 319 710 R1 FITTING, male pipe (2)
61	102 729 R1	ADAPTER, safety filter to torque converter hose
62	336 258 R1	TEE, torque converter outlet reducing (1/4 x 3/4 x 3/4")
63	192 082	NIPPLE, torque converter outlet (3/4 x 1-1/2")
64	603 554 C91	HOSE w/two FITTING, 319 753 R91, flywheel housing (HOSE, 5/8" ID x 28" long including FITTINGS)
64	319 753 R91	HOSE w/o FITTINGS, cut length 5/8" ID x 24-5/8" long cut from bulk HOSE, 319 710 R1 FITTING, male pipe (2)
65	102 729 R1	ADAPTER, flywheel housing to transmission hose (on transmission housing)
66	192 470	NIPPLE, pressure filter outlet 3/4 x 1-3/8" TD-20BP 5692 to 22757 TD-20BPS 6110 to 22757
67	144086	TEE, pressure filter outlet (3/4 x 3/4 x 3/4 NPT) TD-20BP 5692 to 22757 TD-20BPS 6110 to 22757
68	20 960 R1	PLUG, pressure filter outlet TD-20BP 5692 to 22757 TD-20BPS 6110 to 22757
69	336 779 R91	HOSE w/FITTINGS, pressure filter to regulator (HOSE, 3/4" ID x 28" long including FITTINGS) (order PACKAGE, 700 169 C91) TD-20BP 5692 to 21070 TD-20BPS 6110 to 21070



HYDRAULIC SYSTEM



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC LINES AND CONNECTIONS - CONTINUED

HYDRAULIC LINES AND CONNECTIONS - CONTINUED

TD-20BP 5692 Up
TD-20BPS 6110 Up

TD-20BP 5692 Up
TD-20BPS 6110 Up

69	702 206 C1	HOSE w/FITTINGS, pressure filter to regulator (HOSE 3/4" ID x 28" long including FITTINGS) TD-20BP 21071 to 22757 TD-20BPS 21071 to 22757
69	702 635 C91	HOSE w/FITTINGS 100 798 R91 filter to transmission (HOSE 5/8" ID x 21" long including FITTINGS) TD-20BP 22758 up TD-20BPS 22758 up
69		HOSE w/o FITTINGS cut length 5/8" ID x 17-1/4" long cut from bulk HOSE, 319 710 R1
	100 798 R91	FITTING, male pipe (2)
70	702 059 C91	HOSE w/FITTING, 313 228 R91 and FITTING, 317 934 R91, sump to suction filter (HOSE, 1-1/8" ID x 43" long including FITTINGS)
70		HOSE w/o FITTINGS, cut length 1-1/8" ID x 39-1/2" long cut from bulk HOSE, 319 712 R1
	313 228 R91	FITTING, female pipe
	317 934 R91	FITTING, male pipe
70A	285 235 R91	ADAPTER, sump to suction filter hose
71	604 832 C1	MANIFOLD, rear frame sump lower (*) 1/2 x 1-5/8" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
72	355 965 R1	"O" RING, rear frame sump elbow sealing (*) (15/16 x 1-3/16 x 1/8") (mount on transmission and cover mounting flange)
73	345 554 R1	SUPPORT, sump to suction filter tube clamp TD-20BP 5692 to 20377
75	144 113	ELBOW, inlet regulator (3/4" x 90°) TD-20BP 5692 to 21070 TD-20BPS 6110 to 21070
75	9 402 867	ELBOW, regulator inlet TD-20BP 21071 up TD-20BPS 21071 up
76	296 406 R91	ELBOW, pressure filter to regulator hose TD-20BP 5692 to 21070 TD-20BPS 6110 to 21070
76	9 402 828	ELBOW, pressure filter to regulator hose TD-20BP 21071 up TD-20BPS 21071 up
77	144 056	ADAPTER, 1" to 3/4" reducing pipe TD-20BP 22001 up TD-20BPS 22001 up
78	603 550 C91	HOSE w/two FITTINGS, 319 753 R91, safety filter to oil cooler tube (HOSE, 5/8" ID x 40" long including FITTINGS) TD-20BP 22001 up TD-20BPS 22001 up
78		HOSE w/o FITTINGS, cut length 5/8" ID x 36-5/8" long cut from bulk HOSE, 319 710 R1
	319 753 R91	FITTING, male pipe hose (2)
79	611 104 C11	TUBE, oil cooler lower TD-20BP 22001 up TD-20BPS 22001 up
80	611 103 C11	TUBE, oil cooler upper TD-20BP 22001 up TD-20BPS 22001 up

81	611 074 C1	CLAMP, upper oil cooler pipe TD-20BP 22001 up TD-20BPS 22001 up 7/16 x 1" hex-hd cap SCREW 7/16" lock WASHER
82	613 945 R91	SEAL, oil cooler pipe (optional with 564 808 R91) (2) TD-20BP 22001 up (2) TD-20BPS 22001 up
82	564 808 R91	SEAL, oil cooler pipe (optional with 613 945 R91) (2) TD-20BP 22001 up (2) TD-20BPS 22001 up
83	369 908 R1	RING, elbow sealing (optional with 321 957 R1) (2) TD-20BP 22001 up (2) TD-20BPS 22001 up
83	321 957 R1	RING, elbow sealing (optional with 369 908 R1) (2) TD-20BP 22001 up (2) TD-20BPS 22001 up
84	611 079 C1	ELBOW, oil cooler (2) TD-20BP 22001 up (2) TD-20BPS 22001 up
85	610 565 C91	COOLER, transmission oil TD-20BP 22001 up TD-20BPS 22001 up
	312 565 R1	BUSHING, hinge (2)
	11 002 VA	WASHER (special) (2)
	270 711 R1	SHIM, hinge (†)
		1/2 x 1-1/2" hex-hd cap SCREW (hinge side) (2)
		7/16 x 1" hex-hd cap SCREW (lock side) (2)
		1/2" NUT (2)
		7/16" lock WASHER (2)
86	619 717 C1	ELBOW, filter outlet TD-20BP 22758 up TD-20BPS 22758 up
87	444 000	ADAPTER, filter outlet steering booster hose TD-20BP 22758 up TD-20BPS 22758 up
88	620 388 C1	BRACKET, pressure filter mounting TD-20BP 22758 up TD-20BP 22758 up
89	9 402 713	CONNECTOR, pump inlet tee
	314 798 R1	CLAMP, pressure filter to regulator hose
	140 585	CLIP, steering booster drain hose (2)
	308 576 R1	CLAMP, lube regulator inlet hose (on safety filter)
	308 576 R1	CLAMP, by-pass hose (on frame) (5) 3/8 x 3/4" hex-hd cap SCREW (3) 3/8" lock WASHER (3) 13/32 x 13/16" x 16 ga WASHER (3)
	314 798 R1	CLAMP, sump to suction filter tube 3/8" NUT 3/8 x 3/4" hex-hd cap SCREW 3/8" lock WASHER
	317 262 R1	CLAMP, safety filter to oil cooler hose

(†) - As Required.

(*) - TD-20BP 5692 to 20180 except 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20176, 20178 and 20179 also
TD-20BPS 5692 to 20180 except 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20176, 20178 and 20179.



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
HYDRAULIC LINES AND CONNECTIONS - CONTINUED		
TD-20BP 5692 Up		
TD-20BPS 6110 Up		
314 798 R1		CLAMP, safety filter to oil cooler hose (2) 3/8 x 3/4" hex-hd cap SCREW 1/2 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER 1/2" lock WASHER (2)
600 859 C1		CLAMP, regulator inlet hose and safety filter to cooler hose (2) 3/8 x 2" hex-hd cap SCREW 3/8" lock WASHER 3/8" NUT
274 221		FERRULE, decelerator drain pipe (used with PIPE, 334 801 R1) (2) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
319 707 R1		HOSE, 5/16" ID bulk (X)
319 708 R1		HOSE, 13/32" ID bulk (X)
319 710 R1		HOSE, 5/8" ID bulk (X)
319 712 R1		HOSE, 1-1/8" ID bulk (X)
603 553 C91		HOSE w/two FITTING, 319 753 R91, tube regulator inlet (HOSE, 5/8" ID x 80" long including FITTINGS) TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000 HOSE w/o FITTINGS, cut length, 5/8" ID x 76-5/8" long cut from bulk HOSE, 319 710 R1 CLIP, hose
314 798 R1		FITTING, male pipe hose (2)
319 753 R91		KIT, decelerator cylinder (used for DECELERATOR, 338 383 R91 and 610 739 C91) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000 (Composed of - § 1 "O" RING, large § 1 "O" RING, small § 2 RING, piston § 1 RING, retaining § 1 SCRAPER, rod)
338 399 R91		ADAPTER, decelerator cylinder hose (used only with HOSE, 336 782 R91) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
111 316		ELBOW (3/8" x 90° street) decelerator cylinder hose (used only with HOSE, 336 782 R91) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
144 128		ELBOW (3/8" x 90°) decelerator cylinder hose (used only with HOSE, 336 782 R91) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
192 067		NIPPLE (3/8 x 1" pipe) decelerator cylinder hose (used only with HOSE, 336 782 R91) TD-20BP 5692 to 22000 TD-20BPS 6110 to 22000
324 184 R91		KIT, decelerator cylinder (used for DECELERATOR, 327 467 R91) TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000 (Composed of - § 2 KEY, internal § 1 "O" RING, piston seal § 2 "O" RING, end cover § 1 PACKING, rod § 2 PACKING, piston § 1 RING, rod gland snap § 1 SCRAPER, rod)
343 153 R1		SEAL, baffle dust TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
346 565 R1		SEAL, flexmaster (2) TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
610 740 C1		SPRING, compression
346 566 R1		RETAINER, flexmaster seal (2) TD-20BP 5692 to 22000 also (%) TD-20BPS 6110 to 22000
20 972		PLUG, pressure filter inlet opening (3/8" NPTF)



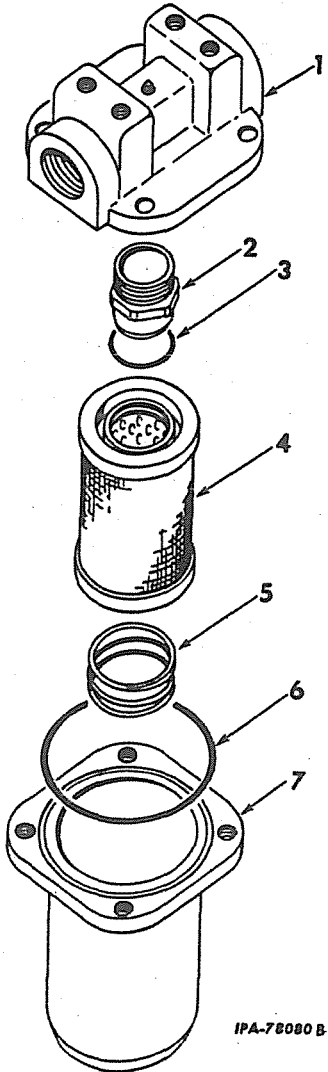
HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
HYDRAULIC LINES AND CONNECTIONS - CONTINUED		
TD-20BP 5692 Up		
TD-20BPS 6110 Up		
700 169 C91		PACKAGE, pressure filter to regulator hose field service TD-20BP 5692 to 21070 TD-20BPS 6110 to 21070 (Composed of - 1 BUSHING 144 042 \$ 1 CONNECTOR 9 402 711 1 ELBOW 293 351 R91 \$ 1 ELBOW 347 522 R91 1 ELBOW 9 402 828 1 ELBOW 9 402 868 1 HOSE 702 206 C1 1 HOSE 702 205 C91 1 TEE 179 624 \$ 1 TEE 616 115 C1 \$ 1 ADAPTER 347 521 R91) Hinged Oil Cooler Improvement Package TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000
703 389 C91		PACKAGE, hinged oil cooler field improvement TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000 (Consists of - § 3 BLOCK § 2 BRACKET 1 PAMPHLET installation instruction) § 2 STOP) ALSO - (Order the Following Parts - 1 BAFFLE 611 099 C11 1 BAFFLE 612 512 C1 2 BUSHING 312 565 R1 1 CLAMP 611 074 C1 2 CLAMP 600 859 C1 1 COOLER 610 565 C91 2 ELBOW 611 079 C1 1 HOSE 603 550 C91 1 HOSE 610 563 C91 1 NUT, 3/8" 2 NUT, 1/2" 1 REDUCER 144 056 2 RING 369 908 R1 1 SCREW, 3/8 x 2" hex-hd cap 2 SCREW, 1/2 x 1-1/2" hex-hd cap 3 SCREW, 7/16" x 1" hex-hd cap 2 SEAL 613 945 R91 4 SHIM 270 711 R1 1 TUBE 611 103 C11 1 TUBE 611 104 C11 2 WASHER 11 002 VA 1 WASHER, 3/8" lock 2 WASHER, 1/2" lock 3 WASHER, 7/16" lock 2 WASHER, 15/32 x 15/16" x 16 ga) \$ - Not used on this machine. (X) - Order Cut Length As Required. § - Not Furnished Separately. (%) - Also Furnished as Part of Short Core Radiator Attachment, 612 516 C91

HYDRAULIC SYSTEM



SAFETY FILTER
(Ripley)



HYDRAULIC SYSTEM



SAFETY FILTER - CONTINUED
(Ripley)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
C	610 795 C91	FILTER ASSY, safety (ODIH-1000-A) will work for 324 704 R91 and 346 820 R91 1/2 x 7/8" hex-hd cap SCREW (3) 1/2" lock WASHER (3) 17/32 x 1-1/16" x 13 ga WASHER (3)
1		HEAD, filter (Not Furnished Separately)
2	346 823 R1	FITTING (ODIH-1006) (Filter B)
3	708 560 R1	"O" RING, 1-5/16 x 1-9/16 x 1/8" (Filter B and Filter C)
4	321 029 R91	ELEMENT, filter (Filter A) (Order the following parts - 1 ELEMENT 346 821 R91 1 FITTING 346 823 R1 1 SPRING 346 822 R1)
4	346 821 R91	ELEMENT w/"O" RING, 708 560 C1, filter (5062) (Filter B and C)
5	346 822 R1	SPRING (ODIH-1005) (Filter B and Filter C)
6	354 836 R1	"O" RING, 3-1/4 x 3-1/2 x 1/8"
7		BODY, filter (Not Furnished Separately)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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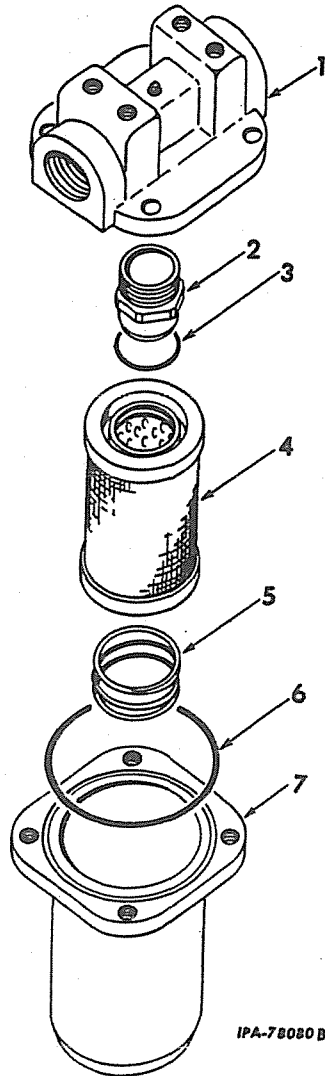
Parts without letters after the description indicates the part is used for all filter assemblies listed below: Letters A, B, and C are used to identify separate filter assemblies.

A	324 704 R91	FILTER ASSY, safety (ODIH-1000-100) (order FILTER 610 795 C91) 3/8 x 7/8" hex-hd cap SCREW (4) 3/8" lock WASHER (4) 13/32 x 13/16" x 16 ga WASHER (4)
B	346 820 R91	FILTER ASSY, safety (ODIH-1000-100) (order FILTER 610 795 C91) 3/8 x 7/8" hex-hd cap SCREW (4) 3/8" lock WASHER (4) 13/32 x 13/16" x 16 ga WASHER (4)



HYDRAULIC SYSTEM

SUCTION FILTER
(Ripley)



IPA-78080B



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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SUCTION FILTER - CONTINUED
(Ripley)

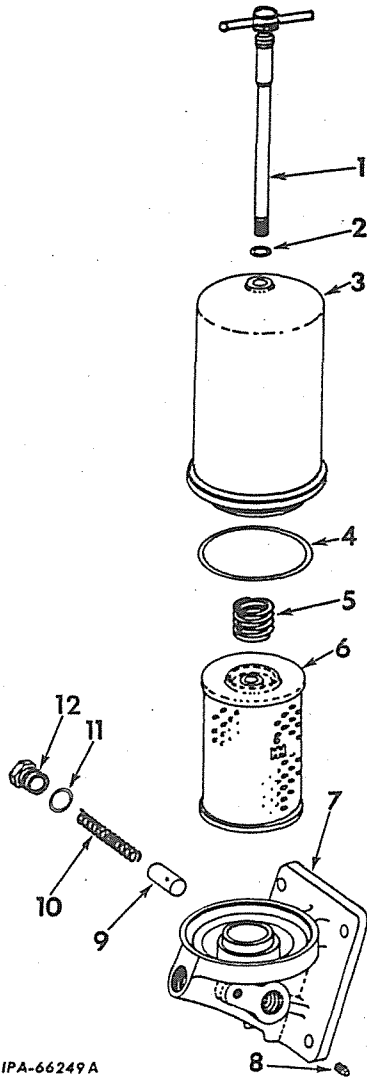
Parts without letters after the description indicates the part is used for all filter assemblies listed below: Letters A, B, and C are used to identify separate filter assemblies.

A	324 704 R91	FILTER ASSY, suction (ODIH-1000-100) (order FILTER, 346 820 R91) 3/8 x 7/8" hex-hd cap SCREW (4) 3/8" lock WASHER (4) 13/32 x 13/16" x 16 ga WASHER (4)
B	346 820 R91	FILTER ASSY, suction (ODIH-1000-100) (w work for 324 704 R91) TD-20BP 4001 to 5691 3/8 x 7/8" hex-hd cap SCREW (4) 3/8" lock WASHER (4) 13/32 x 13/16" x 16 ga WASHER (4)
C	606 327 C91	FILTER ASSY, suction (ODIH-1220-100) TD-20BP 5692 up TD-20BPS 6110 up 1/2 x 7/8" hex-hd cap SCREW (3) 1/2" lock WASHER (3) 17/32 x 1-1/16" x 13 ga WASHER (3)
1		HEAD, filter (Not Furnished Separately)
2	346 823 R1	FITTING (ODIH-1006) (Filter B)
3	708 560 R1	"O" RING, 1-5/16 x 1-9/16 x 1/8" (Filter B and Filter C)
4	321 029 R91	ELEMENT, filter (Filter A) (Order the following parts - 1 ELEMENT 346 821 R91 1 FITTING 346 823 R1 1 SPRING 346 822 R1)
4	346 821 R91	ELEMENT w/"O" RING, 708 560 R1, filter (5062) (Filter B)
4	606 390 C91	ELEMENT w/"O" RING, 708 560 R1, filter (5222) (Filter C)
5	346 822 R1	SPRING (ODIH-1005) (Filter B and Filter C)
6	354 836 R1	"O" RING, 3-1/4 x 3-1/2 x 1/8" (Filter A and Filter B)
6	257 642 R1	"O" RING, 4-1/4 x 4-1/2 x 1/8" (Filter C)
7		BODY, filter (Not Furnished Separately)



HYDRAULIC SYSTEM

PRESSURE FILTER
 TD-20BP 4001 to 22757
 TD-20BPS 6110 to 22757



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	700 318 C1	BOLT, shell hold down (Order PRESSURE FILTER CONVERSION KIT 619 693 C91)
2	252 739 R1	"O" RING, shell hold down bolt (1/2 x 11/16 x 3/32")
3	325 709 R1	CASE, oil filter (Order PRESSURE FILTER CONVERSION KIT 619 693 C91)
4	138 466 R1	"O" RING, oil filter case (5-1/8 x 5-3/8 x 1/8")
5	325 708 R1	SPRING, oil filter shell



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
PRESSURE FILTER - CONTINUED		
TD-20BP 4001 to 22757		
TD-20BPS 6110 to 22757		

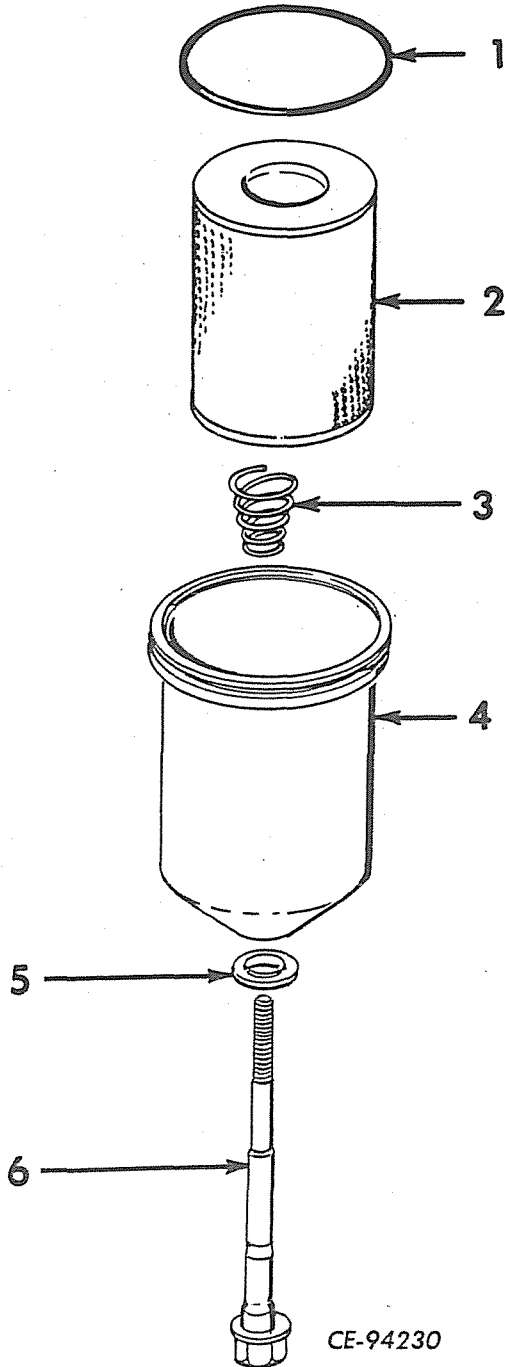
6	381 256 *R91	ELEMENT, pressure filter (Together with RING 138 466 R1 will work for ELEMENT PACKAGE 612 713 C92)
7	325 706 R1	BASE, oil filter (Order OIL FILTER BASE PACKAGE 620 204 C91) 1/2 x 1-1/4" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
8	445 673	PLUG, 3/8" pipe (2) TD-20BP 4001 to 4850 (1) TD-20BP 4851 to 22757 (1) TD-20BPS 6110 to 22757
9	61 261 VA	PISTON, relief valve (1) TD-20BPS 6110 up
10	603 366 C1	SPRING, relief valve (Order PRESSURE FILTER CONVERSION KIT 619 693 C91)
11	3 405 H	GASKET, relief valve plug
12	61 263 VA	PLUG, relief valve
	119 933	REDUCER, filter inlet TD-20BP 4851 to 22757 TD-20BPS 6110 to 22757
	620 204 C91	PACKAGE, oil filter base (Consists of BASE, and PRESSURE FILTER CONVERSION KIT 619 693 C91)



-192A-

HYDRAULIC SYSTEM

PRESSURE FILTER CONVERSION KIT
 (Deluxe Products Corp.)
 TD-20BP 4001 to 22757
 TD-20BPS 6110 to 22757



CE-94230



-192A-

HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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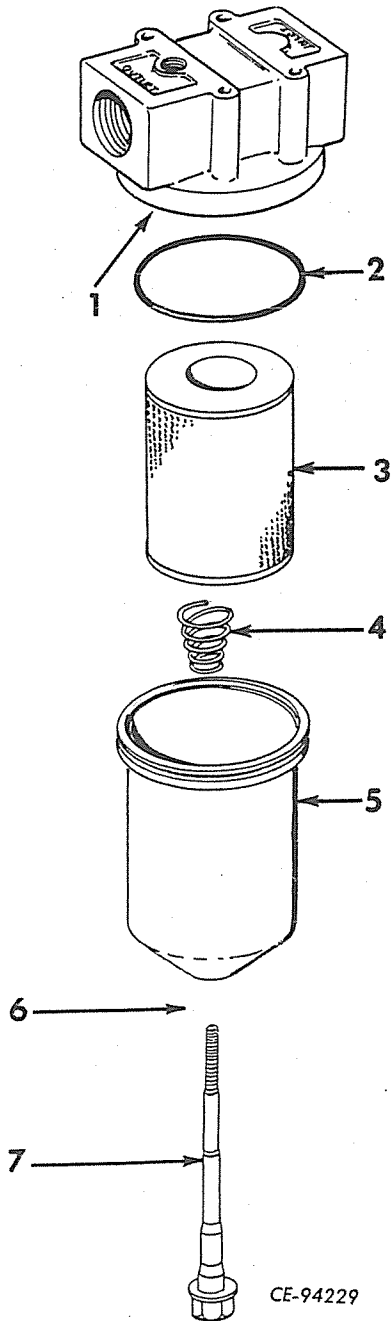
PRESSURE FILTER CONVERSION KIT - CONTINUED
 (Deluxe Products Corp.)
 TD-20BP 4001 to 22757
 TD-20BPS 6110 to 22757

619 693 C91	142 127 R1	PRESSURE FILTER CONVERSION KIT WASHER, flat (4) 3/8 x 1-1/4" hex-hd cap SCREW (4) Consists of the following parts -
1	138 466 R1	"O" RING, 5-1/8 x 5-3/8 x 1/8"
2	381 256 R91	ELEMENT, oil filter (320 680)
3	615 444 C1	SPRING, oil filter compression (321 589)
4	619 811 C1	BODY, oil filter (327 519)
5	619 814 C1	WASHER, oil filter body bolt (327 515)
6	619 813 C1	BOLT, oil filter hold down (327 577)



HYDRAULIC SYSTEM

PRESSURE FILTER
(Deluxe Products Corp.)
TD-20BP 22758 Up
TD-20BPS 22758 Up



CE-94229



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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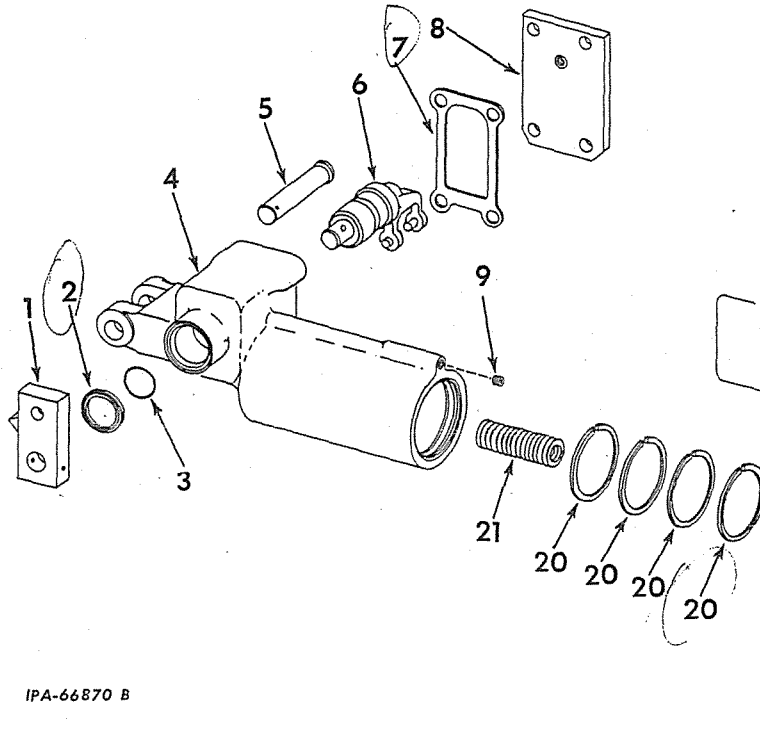
PRESSURE FILTER - CONTINUED
(Deluxe Products Corp.)
TD-20BP 22758 Up
TD-20BPS 22758 Up

619 692 C91	FILTER ASSY, pressure	13/32 x 13/16" x 16 ga WASHER (4) 3/8 x 1-1/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4) Consists of the following parts -
1	BASE, oil filter (Not Furnished Separately)	
2	343 912 R1	"O" RING, 5 x 5-1/2 x 1/4"
3	381 256 R91	ELEMENT, oil filter (320 680)
4	615 444 C1	SPRING, oil filter compression (321 589)
5	619 810 C1	BODY, oil filter (321 339)
6	619 814 C1	WASHER, oil filter body bolt (327 515)
7	619 812 C1	BOLT, oil filter hold down (321 333)



HYDRAULIC SYSTEM

HYDRAULIC STEERING BOOSTER AND RELATED PARTS

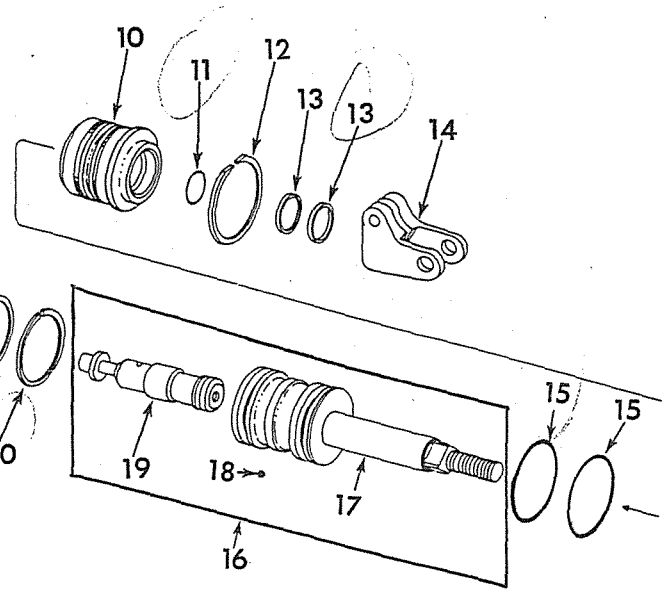


IPA-66870 B



HYDRAULIC SYSTEM

HYDRAULIC STEERING BOOSTER AND RELATED PARTS - CONTINUED



REF. NO.	I.H. PART NUMBER	DESCRIPTION
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Parts without letters after the description indicates the part is used for all booster assemblies listed below: Letters "A" and "B" are used to identify separate booster assemblies.

A -	334 810 R91	BOOSTER ASSEMBLY, LH hydraulic
B -	334 811 R91	BOOSTER ASSEMBLY, RH hydraulic
1	331 973 R91 17 084 R1	LEVER, valve operating fork (2) PIN, 1/8 x 1-1/4" roll (2)
2	277 181 R91	SEAL and WIPER, valve operating fork (2)
3	369 908 R1	"O" RING, valve operating fork (13/16 x 1 x 3/32") (2)
4	334 812 R1	HOUSING, LH booster (Booster A)
4	334 813 R1	HOUSING, RH booster (Booster B)
5	53 703 H	PIN, booster pivot rear (2) 1/8 x 1" cotter PIN (2)
6	334 820 R11	FORK, LH valve operating
6	334 821 R11	FORK, RH valve operating
7	334 818 R1	GASKET, housing cover (2)
8	334 822 R11	COVER, booster housing (2) 3/8 x 3/4" hex-hd cap SCREW (8) 3/8" lock WASHER (8)
9	444 571	PLUG, 1/8" sq-hd pipe (4)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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10	334 817 R1	SUPPORT, piston rod (2)
11	350 818 R1	"O" RING, piston rod (1 x 1-1/4 x 1/8") (2)
12	336 497 R1	RING, piston rod support snap (2)
13	277 181 R91	SEAL and WIPER, piston rod (4)
14	331 974 R1	CLEVIS, hydraulic booster piston (2) 7/16 x 1-1/4" hex-hd cap SCREW (2) 7/16" lock WASHER (2)
15	379 961 R1	"O" RING, piston rod support (2-1/16 x 2-1/4 x 3/32") (4)
16	341 881 R91	PACKAGE, booster piston and valve field service (2)
17		PISTON (Not Furnished Separately)
18	341 922 R1	BALL, piston booster (2)
19		VALVE, booster piston (Not Furnished Separately)
20	272 259 R1	RING, piston sealing (8)
21	331 975 R1	SPRING, piston valve return (2)



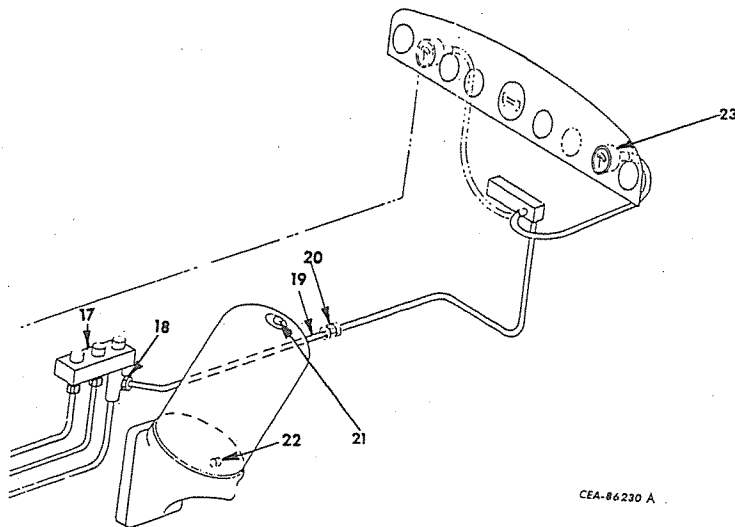
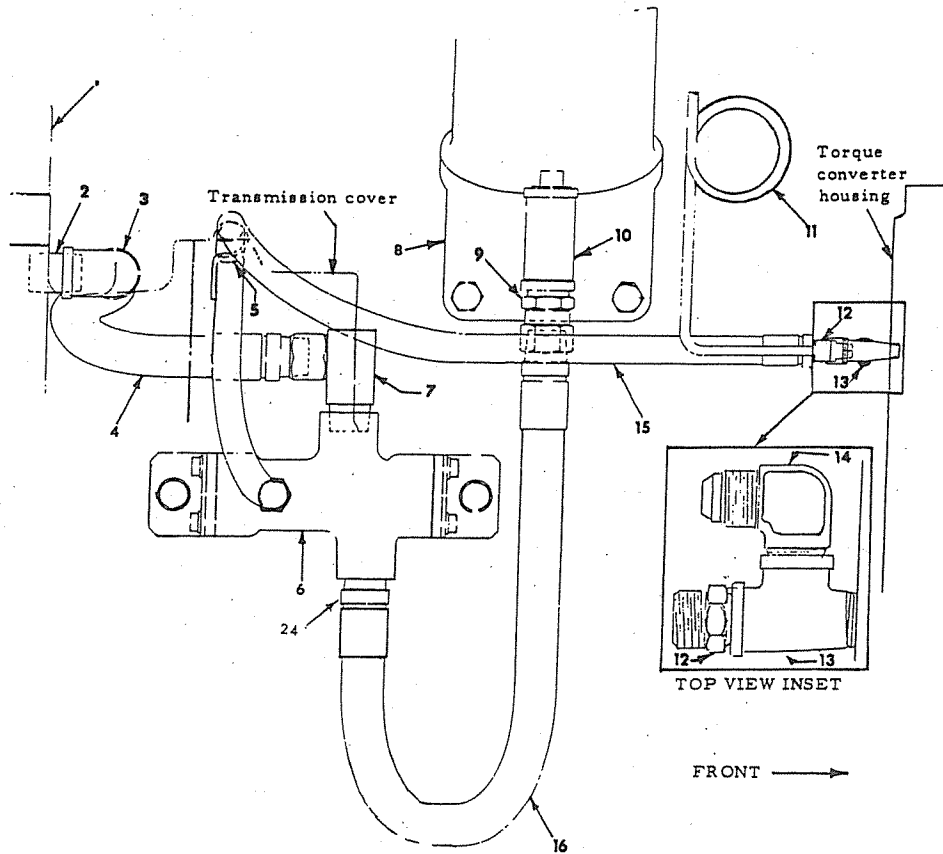
HYDRAULIC SYSTEM



HYDRAULIC SYSTEM

HYDRAULIC STEERING PRESSURE BOOSTER ATTACHMENT
TD-20BP 20412 Up

HYDRAULIC STEERING PRESSURE BOOSTER ATTACHMENT - CONTINUED
TD-20BP 20412 Up



CEA-86230 A



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC STEERING PRESSURE BOOSTER ATTACHMENT
TD-20BP 20412 Up

	609 857 C92	ATTACHMENT, hydraulic steering pressure booster (See NOTE 3)
1		VALVE, main regulator (*)
2		NIPPLE, inlet regulator (*)
3		ELBOW, inlet regulator (*)
4	702 207 C1	HOSE w/FITTINGS, regulator valve to transmission case (HOSE, 3/4" ID x 16" long including FITTINGS) TD-20BP 21071 up TD-20BPS 21071 up
4	338 620 R91	HOSE w/FITTINGS, regulator valve to transmission case (HOSE, 3/4" ID x 16" long including FITTINGS) TD-20BP 20412 to 21070 TD-20BPS 20412 to 21070
5	343 310 R1	CLIP, regulator drain hose (mounted on transmission cover bolt)
6		VALVE ASSY, hydraulic pressure regulator (For components see list of parts under details of "Hydraulic Pressure Regulator Valve") 1/2 x 7/8" hex-hd cap SCREW (2) 1/2" lock WASHER (2) 17/32 x 1-1/16" x 13 ga flat WASHER (2)
7	297 581 R91	ELBOW, regulator valve to transmission case hose
8		FILTER ASSY, pressure (*)
9	102 729 R1	ADAPTER, pressure filter to regulator valve hose
10		TEE, pressure filter outlet (*)
11		PIPE, decelerator drain (*)
12	606 685 C1	CONNECTOR, regulator valve drain hose (in tee)
13	444 253	TEE, regulator valve drain hose (in converter housing drain)
14	610 407 C1	ELBOW, regulator valve drain hose
15	702 065 C91	HOSE w/FITTING, 317 769 R91 and FITTING, 319 751 R91 regulator valve to drain (hose 5/16" ID x 45" long including FITTINGS)
15		HOSE w/o FITTINGS, cut length 5/16" ID x 42-3/8" long cut from bulk hose 319707 R1
	317 769 R91	FITTING, female pipe
	319 751 R91	FITTING, male pipe
16	702 206 C1	HOSE w/FITTINGS, pressure filter to regulator valve (Hose 3/4" ID x 28" long including FITTINGS) TD-20BP 21071 up TD-20BPS 21071 up
16	336 779 R91	HOSE w/FITTINGS, pressure filter to regulator valve (Hose, 3/4" ID x 28" long including FITTINGS) TD-20BP 20412 to 21070 TD-20BPS 20412 to 21070
17		MANIFOLD, pressure check (*)
18	610 041 C1	TEE, clutch oil pressure gauge lower pipe (Mounted at 200 lbs pressure check manifold) TD-20BP 20412 to 22757



HYDRAULIC SYSTEM

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC STEERING PRESSURE BOOSTER ATTACHMENT - CONTINUED
TD-20BP 20412 Up

19	609 861 C11	PIPE w/two SLEEVE, 915 500 R1 and two NUT, 915 499 R1, clutch oil pressure gauge lower
	915 499 R1	NUT (2)
	915 500 R1	SLEEVE (2)
20	606 049 C1	UNION, upper to lower clutch oil pressure gauge pipe
21	700 318 C1	BOLT, pressure filter hold down
22	20 972 R1	PLUG, 3/8" sq-hd pipe (Mounted in pressure filter base)
23	702 258 C2	GAUGE, transmission clutch oil pressure
24	9 410 206	ADAPTOR, pressure regulator inlet TD-20BP 21071 up TD-20BPS 21071 up
	297 459 R1	RING, pressure regulator inlet adaptor seal TD-20BP 21071 up TD-20BPS 21071 up
	319 707 R1	HOSE, 5/16" ID bulk (X)

(X) - Order Cut Length As Required.
(*) - Not Furnished As Part of Attachment.
NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



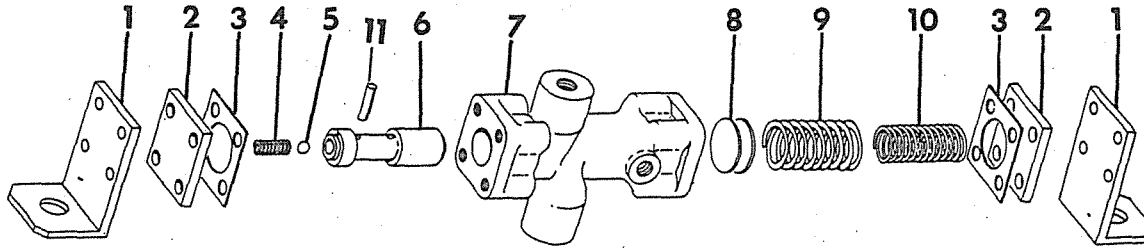
HYDRAULIC SYSTEM



HYDRAULIC SYSTEM

HYDRAULIC PRESSURE REGULATING VALVE.
 (Part of Hydraulic Steering Pressure Booster
 Attachment, 609 857 C91)
 TD-20BP 20412 Up

HYDRAULIC PRESSURE REGULATING VALVE - CONTINUED
 (Part of Hydraulic Steering Pressure Booster
 Attachment, 609 857 C91)
 TD-20BP 20412 Up



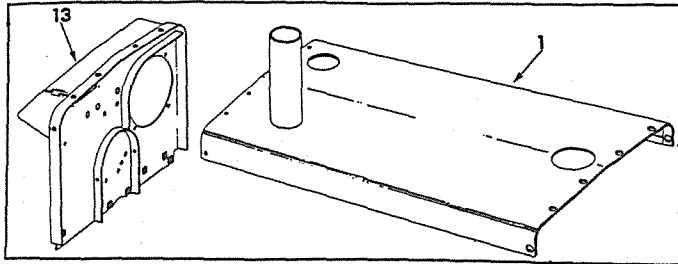
CEA-86074A

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	609 860 C1	SUPPORT, valve (2) 5/16 x 7/8" hex-hd cap SCREW (8) 5/16" lock WASHER (8)
2	321 991 R1	COVER, valve (2)
3	321 992 R1	GASKET, cover (2)
4	347 243 R1	SPRING, valve spool
5	346 509 R1	BALL, valve spool

REF. NO.	I. H. PART NUMBER	DESCRIPTION
6	338 651 R94	VALVE w/BALL, 346 509 R1, PIN, 20 139 R1 and SPRING, 347 243 R1
7	609 859 C1	HOUSING, regulator valve
8	321 997 R1	WASHER (7)
9	324 300 R1	SPRING, valve outer
10	324 299 R1	SPRING, valve inner
11	20 139 R1	PIN, valve

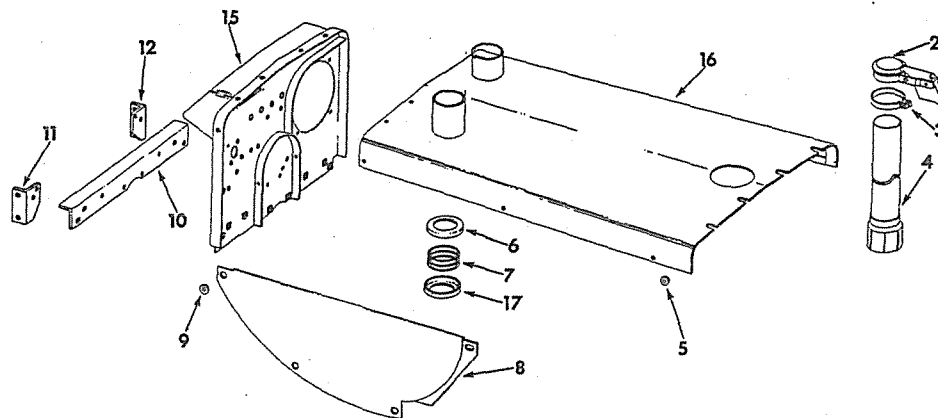
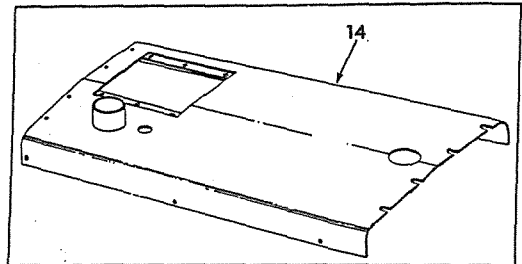
HOOD AND ENGINE SIDE SHEETS

HOOD, DASH, EXHAUST RAIN CAP AND ENGINE SIDE SHEETS



HOOD AND ENGINE SIDE SHEETS

HOOD, DASH, EXHAUST RAIN CAP AND ENGINE SIDE SHEETS - CONTINUED



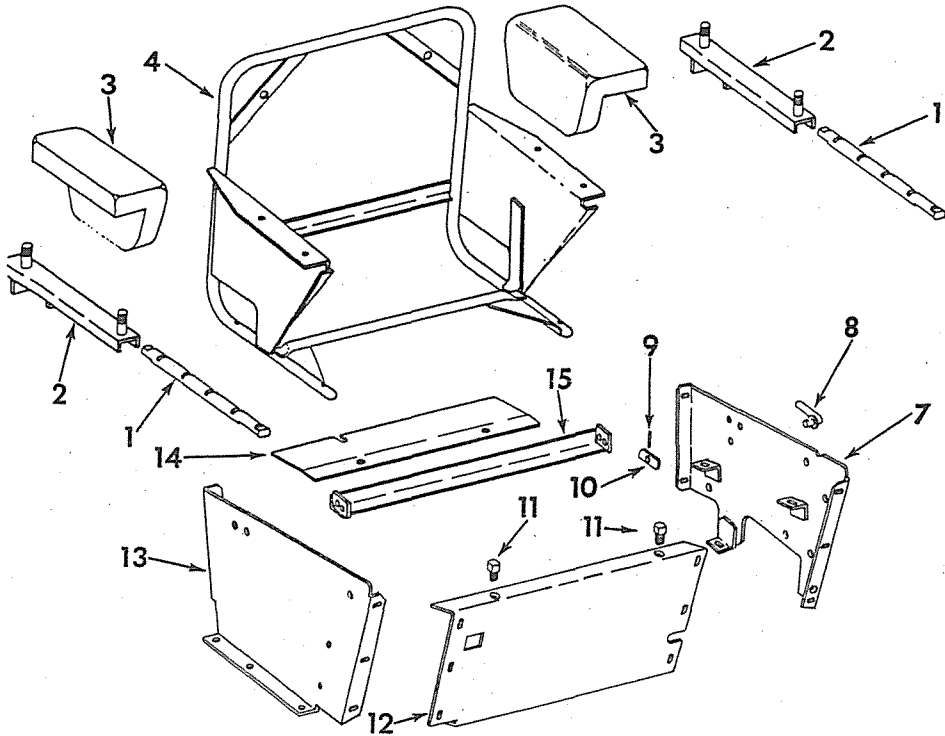
IPA-68295B

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	334 429 R23	HOOD (HOOD, 334 429 R22 order HOSE 334 129 R1 and two CLAMP, 327 094 R91) (HOOD, 334 429 R23 order HOOD, 607 511 C11 and TUBE 604 908 C1) (Not used with air cleaner ATTACHMENT 607 744 C91) TD-20BP 4001 to 6136 TD-20BPS 6110 to 6136 1/2 x 1-1/8" hex-hd cap SCREW (6) 1/2 x 1-1/4" hex-hd cap SCREW (4) 1/2" external tooth lock WASHER (10) 17/32 x 1-1/16" x 13 ga WASHER (4) 433 659 R1 WASHER, rear side holes (2)
2	333 913 R91	CAP, exhaust rain
3	336 613 R91	CLAMP, exhaust tube (2)
4	337 519 R11	TUBE, exhaust TD-20BP 4001 to 6252 TD-20BPS 6110 to 6252
4	604 908 C1	TUBE, exhaust extension TD-20BP 6253 up TD-20BPS 6253 up
5	334 951 R1	WASHER, engine side sheet pilot (4)
6	337 526 R1	RETAINER, spring (2)
7	320 568 R1	SPRING, exhaust baffle
8	334 985 R21	SHEET, LH engine side
8	334 986 R21	SHEET, RH engine side
	19 508 R1	NUT, 5/8" esna stop (2) 5/8 x 1" hex-hd cap SCREW (6) 5/8 x 1-5/8" hex-hd cap SCREW (2)
9	334 951 R1	WASHER, engine side sheet pilot (8)
10	334 437 R1	SUPPORT, dash

REF. NO.	I.H. PART NUMBER	DESCRIPTION
11	334 439 R1	BRACKET, RH dash support 5/8" NUT (2) 5/8 x 1-1/2" hex-hd cap SCREW (2)
12	334 438 R1	BRACKET, LH dash support 5/8" NUT (2) 5/8 x 1-1/2" hex-hd cap SCREW (2)
13	334 435 R11	DASH TD-20BP 4001 to 6136 1/2 x 1-1/2" hex-hd cap SCREW (4) 1/2 x 1-1/8" hex-hd cap SCREW (4) 1/2" lock WASHER (8)
14	607 737 C11	HOOD (for use with air cleaner attachment 607 744 C93) 1/2 x 1-1/8" hex-hd cap SCREW (6) 1/2 x 1-1/4" hex-hd cap SCREW (4) 1/2" external tooth lock WASHER (10) 17/32 x 1/16" x 13 ga WASHER (4) 433 659 R1 WASHER, rear side holes (2)
15	607 512 C11	DASH TD-20BP 6137 up TD-20BPS 6137 up 1/2" x 1-1/2" hex-hd cap SCREW (4) 1/2 x 1-1/8" hex-hd cap SCREW (4) 1/2" lock WASHER (8)
16	607 511 C11	HOOD TD-20BP 6137 up TD-20BPS 6137 up 1/2 x 1-1/8" hex-hd cap SCREW (6) 1/2 x 1-1/4" hex-hd cap SCREW (4) 1/2" external tooth lock WASHER (10) 17/32 x 1/16" x 13 ga WASHER (4) 433 659 R1 WASHER, rear side holes (2)
17	337 526 R1	RETAINER, spring

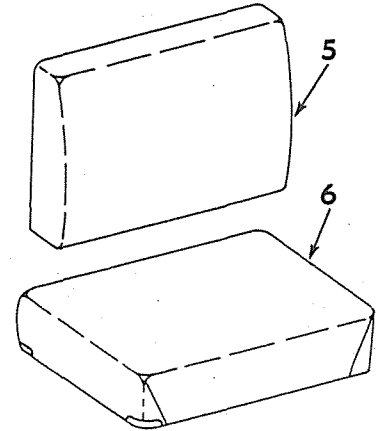
SEAT, PLATFORMS AND SUPPORTS

SEAT AND SUPPORTS
 TD-20BP 4001 to 5323



SEAT, PLATFORMS AND SUPPORTS

SEAT AND SUPPORTS - CONTINUED
 TD-20BP 4001 to 5323



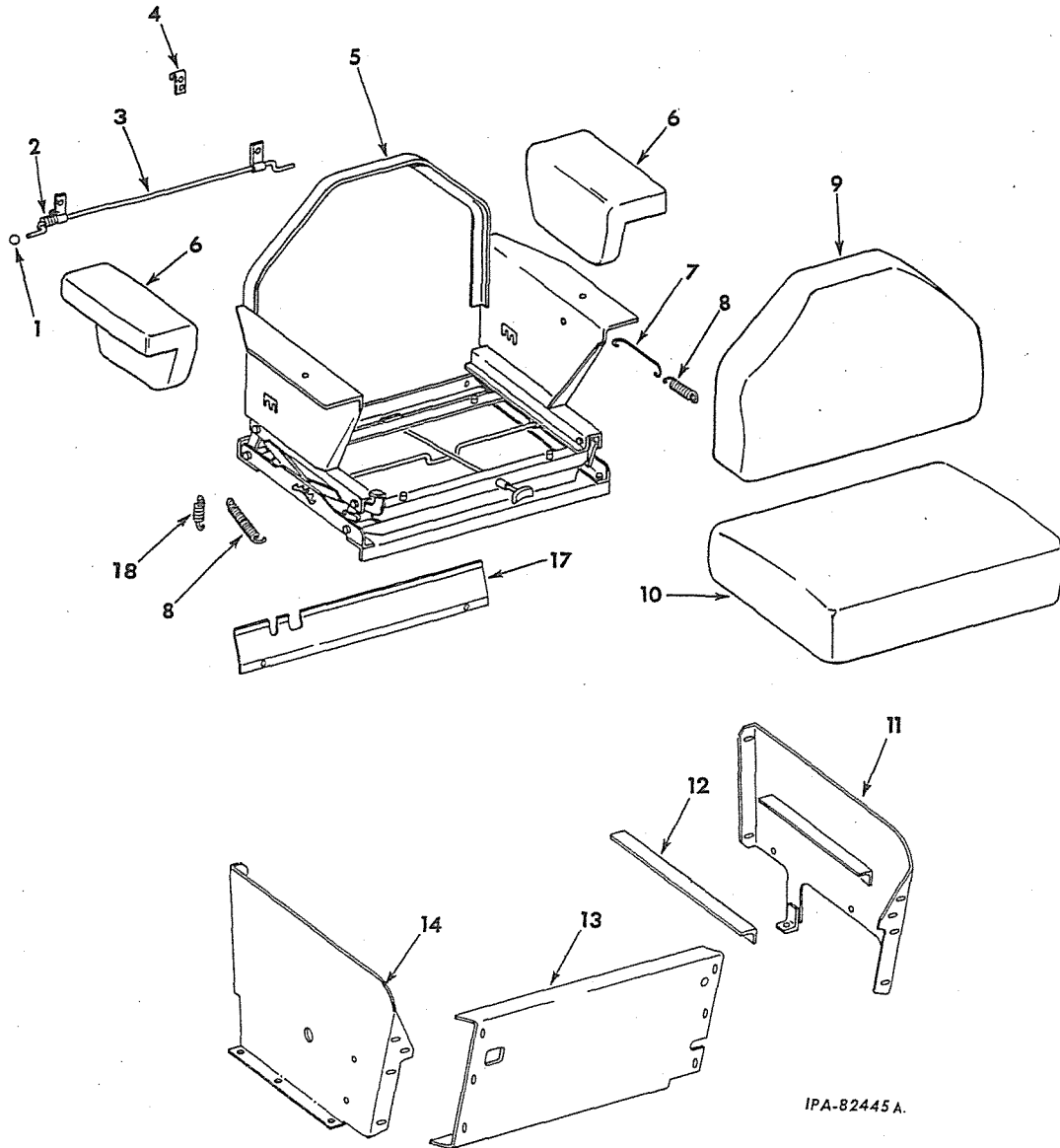
IPA-68298 A

REF. NO.	I.H. PART NUMBER	DESCRIPTION
307 316 R1		RAIL, seat frame slide (2) 5/16" NUT (4) 5/16 x 1-1/4" hex-hd cap SCREW (4) 5/16" lock WASHER (4) 11/32 x 11/16 x 16 ga thick WASHER (4)
316 954 R91		CHANNEL, seat frame slide (2)
324 126 R91		CUSHION, seat side (2) 5/16 x 1-1/4" hex-hd cap SCREW (6) 5/16" lock WASHER (6) 11/32 x 11/16 x .065" thick WASHER (6)
316 951 R92		FRAME, seat 5/16" NUT (4) 5/16" lock WASHER (4)
327 119 R91		CUSHION, seat back 5/16 x 3/4" hex-hd cap SCREW (2) 5/16" lock WASHER (2) 11/32 x 11/16 x 16 ga thick WASHER (2)
322 943 R91		CUSHION, seat bottom
334 132 R11		SHEET, LH seat side 3/8 x 7/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16 x 16 ga thick WASHER (2)
320 647 R11		HANDLE, seat lock cam
17 145 R1		PIN, 3/16 x 3/4" roll

REF. NO.	I.H. PART NUMBER	DESCRIPTION
10	320 648 R1	CAM, seat lock
11	270 986 R1	GUIDE, seat cushion bottom (2) 3/8" NUT (2) 3/8" lock WASHER (2)
12	330 542 R1	SUPPORT, front seat 3/8" NUT (6) 3/8 x 7/8" hex-hd cap SCREW (10) 3/8" lock WASHER (10) 13/32 x 13/16 x 16 ga thick WASHER (8)
13	334 342 R11	SHEET, RH seat side 3/8 x 7/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16 x 16 ga thick WASHER (2)
14	316 966 R2	BAFFLE, air 1/4NF NUT (2) 1/4NF x 1/2" hex-hd cap SCREW (2) 1/4" lock WASHER (2)
15	316 962 R91	SUPPORT, rear seat 3/8" NUT (4) 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
	331 952 R1	STIFFENER, seat side sheet 7/16" NUT 7/16 x 7/8" hex-hd cap SCREW 7/16" lock WASHER
	318 329 R1	WASHER, seat lock cam spring

SEAT, PLATFORMS AND SUPPORTS

SEAT, AIR BAFFLES, SIDE SHEETS AND SUPPORT
 TD-20BP 5324 Up
 TD-20BPS 6110 Up



IPA-82445A.

SEAT, PLATFORMS AND SUPPORTS

SEAT, AIR BAFFLES, SIDE SHEETS AND SUPPORT - CONTINUED
 TD-20BP 5324 Up
 TD-20BPS 6110 Up

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	148 689 R1	KNOB, plastic (2)
2	603 909 C1	SPRING, rod torsion
3	603 908 C91	ROD w/SPRING, 603 909 C1, cushion adjuster 1/4 x 3/4" cr-rec-hd SCREW (2) 1/4" lock WASHER (2) 1/4 x 9/16" x 16 ga WASHER (2)
4	603 907 C1	CLIP, back cushion (30605) (2) 1/4 x 3/4" cr-rec-hd SCREW (4) 1/4" lock WASHER (4)

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REF. NO.	I.H. PART NUMBER	DESCRIPTION
5	702 468 C91	BASE and FRAME, seat 7/16 x 7/8" hex-hd cap SCREW (4) 7/16" lock WASHER (4) 15/32 x 59/64" x 16 ga WASHER (4)
6	702 471 C1	CUSHION, seat side (2) 5/16 x 3/4" hex-hd cap SCREW (4) 5/16" lock WASHER (4)
7	603 912 C1	EXTENSION, spring wire
8	383 296 R1	SPRING, linage (2)
9	702 470 C1	CUSHION, seat back
10	702 469 C1	CUSHION, seat bottom

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SEAT, PLATFORMS AND SUPPORTS

MEMORANDA

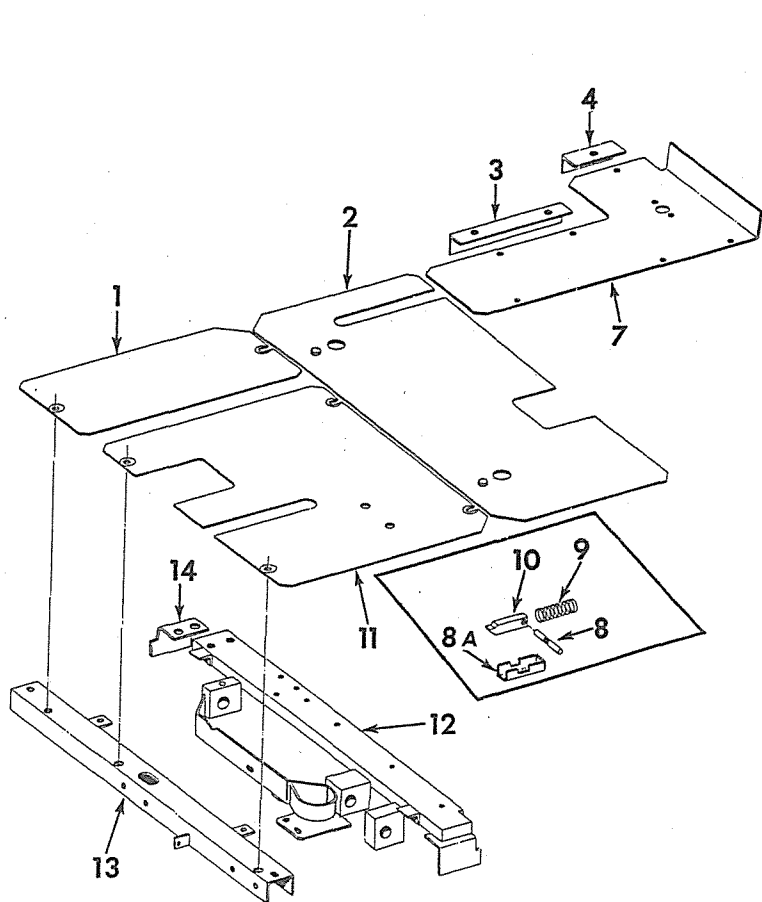
REF. NO.	L.H. PART NUMBER	DESCRIPTION
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SEAT, AIR BAFFLES, SIDE SHEETS AND SUPPORT - CONTINUED
 TD-20BP 5324 Up
 TD-20BPS 6110 Up

- | | | |
|----|-------------|--|
| 11 | 603 110 C41 | SHEET, LH seat side (Together with BRACKET, 611 491 C1 will work for SHEET, 603 110 C21)
3/8" NUT (2)
3/8 x 7/8" hex-hd cap SCREW (2)
3/8" lock WASHER (2)
13/32 x 13/16" x 16 ga WASHER (2) |
| 12 | 331 952 R1 | STIFFENER, seat side sheet
7/16" NUT
7/16 x 7/8" hex-hd cap SCREW
7/16" lock WASHER |
| 13 | 345 907 R2 | SUPPORT, front seat
3/8" NUT (4)
7/16" NUT (4)
3/8 x 7/8" hex-hd cap SCREW (6)
7/16 x 7/8" hex-hd cap SCREW (4)
3/8" lock WASHER (6)
13/32 x 13/16" x 16 ga WASHER (6)
7/16" lock WASHER (4)
15/32 x 59/64" x 16 ga WASHER (4) |
| 14 | 604 150 C21 | SHEET, RH seat side (Together with BRACKET, 611 492 C1 will work for SHEET, 604 150 C11)
3/8" NUT (2)
3/8 x 7/8" hex-hd cap SCREW (2)
3/8" lock WASHER (2)
13/32 x 13/16" x 16 ga WASHER (2) |
| 17 | 345 916 R11 | BAFFLE, rear air
3/8 x 9/16" hex-hd cap SCREW (2)
3/8" lock WASHER (2) |
| 18 | 603 913 C1 | SPRING, linkage arm |
| | 611 491 C1 | BRACKET, LH seat side sheet mounting
(Required with SHEET, 603 110 C31 to replace SHEET, 603 110 C21) |
| | 611 492 C1 | BRACKET, RH seat side sheet mounting
(Required with SHEET, 604 150 C21 to replace SHEET, 604 150 C11) |

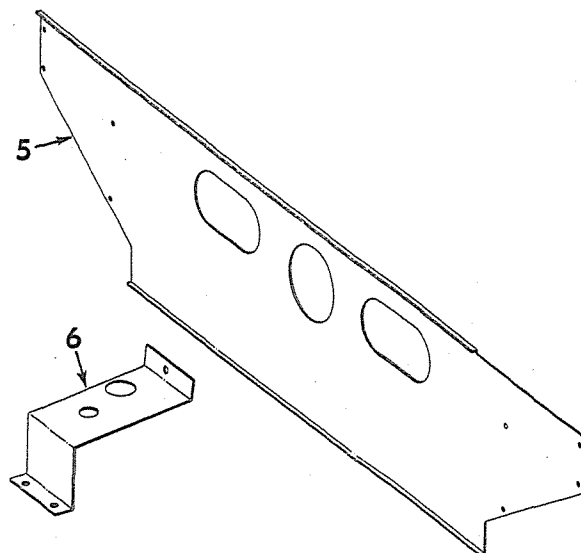
SEAT, PLATFORMS AND SUPPORTS

PLATFORMS AND SUPPORTS



SEAT, PLATFORMS AND SUPPORTS

PLATFORMS AND SUPPORTS - CONTINUED



IPB-10952B

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	334 011 R1	PLATFORM, RH front 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16 x 16 ga WASHER
2	609 743 C11	PLATFORM ASSY, rear (will work for 334 881 R21) TD-20BP 4167 up TD-20BPS 6110 up
3	334 046 R11	ANGLE, rear platform front support 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
4	334 344 R11	ANGLE, rear platform rear support 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
5	337 539 R11	SHEET, rear cover 3/8" NUT (6) 3/8 x 7/8" hex-hd cap SCREW (2) 3/8 x 1-1/8" hex-hd cap SCREW (6) 3/8" lock WASHER (8) 13/32 x 13/16 x 16 ga WASHER (6)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
6	334 013 R1	HOUSING, hydraulic hose and battery cable 3/8 x 7/8" hex-hd cap SCREW (3) 3/8" lock WASHER (3) 13/32 x 13/16" x 16 ga WASHER (3)
7	334 343 R1	PLATFORM, rear 3/8 x 3/4" hex-hd cap SCREW (5) 3/8" lock WASHER (5)
8	278 509 R1	SPRING, rear platform latch (used with rear platform 334 881 R21) (2)
8A	278 506 R1	BODY, latch (used with rear platform 334 881 R21) (2)
9	278 508 R1	PIN, rear platform latch (used with rear platform 334 881 R21) (2)
10	278 507 R1	PLUNGER, rear platform latch (used with rear platform 334 881 R21) (2)
11	334 010 R2	PLATFORM, LH front 3/8 x 3/4" hex-hd cap SCREW (3) 3/8" lock WASHER (4) 13/32 x 13/16 x 16 ga WASHER 3/8 x 1" hex-hd cap SCREW
	613 058 C1	WASHER, pinned platform retainer 7/16" WASHER



SEAT, PLATFORMS AND SUPPORTS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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PLATFORMS AND SUPPORTS - CONTINUED

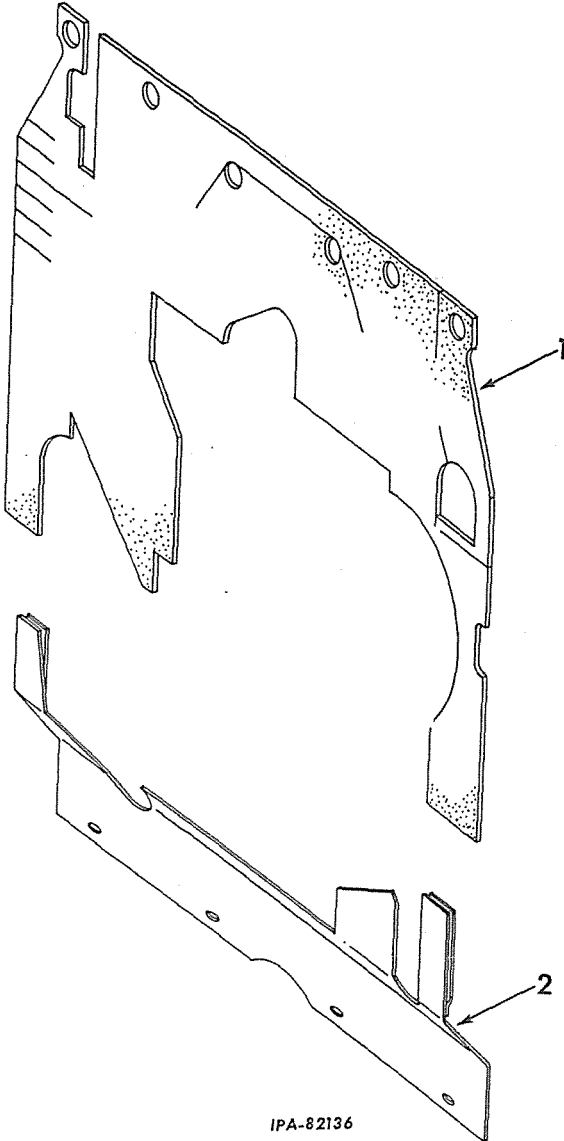
12	334 001 R91	BAR, platform support (order BAR, 604 835 C91 and DRAWING, 334 881 R21) TD-20BP 4001 to 4166
12	334 001 R93	BAR, platform support TD-20BP 4001 to 4166
12	604 835 C91	BAR, platform support TD-20BP 4167 to 22891 TD-20BPS 6110 to 22891
12	620 306 C1	BAR, platform support TD-20BP 22892 up TD-20BPS 22892 up 1/2" NUT (2) 1/2 x 1-1/8" hex-hd cap SCREW (2) 1/2 x 1-1/4" hex-hd cap SCREW (2) 1/2" lock WASHER (4) 17/32 x 1-1/16" x 13 ga WASHER (2)
13	334 008 R22	CHANNEL, platform support 3/8 x 7/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER (2)
14	325 593 R1	BRACKET, platform support bar 1/2" NUT (2) 1/2 x 1-1/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
	316 966 R2	BAFFLE, air 1/4NF NUT (2) 1/4NF x 1/2" hex-hd cap SCREW (2) 1/4" lock WASHER (2)



MEMORANDA

SEAT, PLATFORMS AND SUPPORTS

**TORQUE CONVERTER AND TRANSMISSION
AIR BAFFLES**



SEAT, PLATFORMS AND SUPPORTS

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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**TORQUE CONVERTER AND TRANSMISSION
AIR BAFFLES - CONTINUED**

1	345 881 R2	BAFFLE, air (top) (Baffle A) TD-20BP 5406 up (Baffle A) BPS 6110 up
1	344 038 R1	BAFFLE, air (top) (Baffle A) (Baffle B) 1/2 x 1-3/4" hex-hd cap SCREW (2) 1/2 x 1-3/8" hex-hd cap SCREW (2) 9/16 x 1-1/4" x 12 ga WASHER (4) 1/2" lock WASHER (4)
2	345 880 R1	BAFFLE, air (bottom) (Baffle A) TD-20BP 5406 up (Baffle A) TD-20BPS 6110 up
2	344 037 R11	BAFFLE, air (bottom) (Baffle A) TD-20BP 4681 to 5405 (Baffle B) TD-20BP 4001 to 4680 3/8 x 1/2" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
	345 589 R1	STIFFENER, bottom air baffle (Baffle B) 3/8 x 7/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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Parts without letters after the description indicates the part is used for all baffles listed below: Letters A and B are used to identify separate baffles.

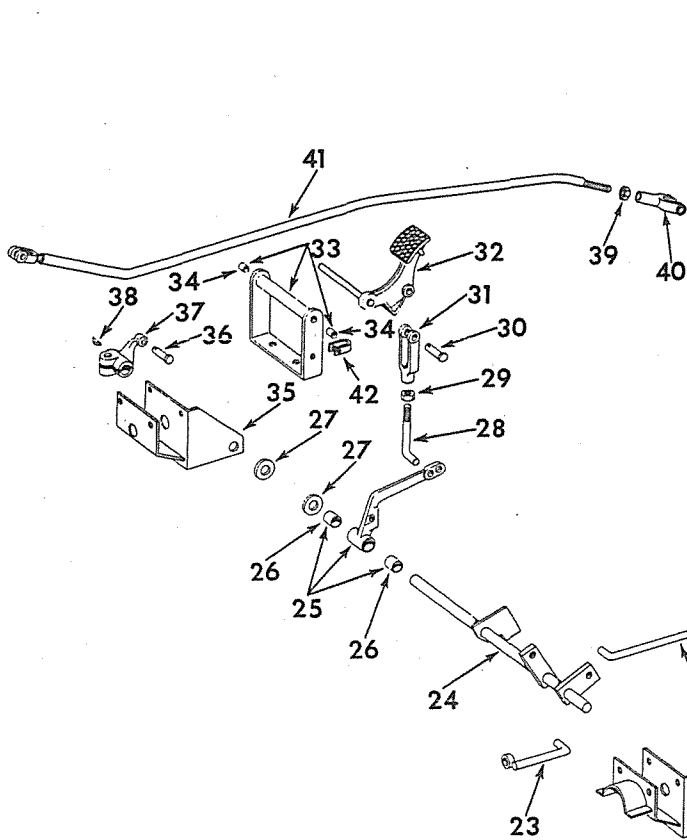
A		Service parts for torque converter air BAFFLES TD-20BP 4681 up TD-20BPS 6110 up
B	345 590 R91	ATTACHMENT, transmission air baffles (see NOTE 3) TD-20BP 4001 to 4680

NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



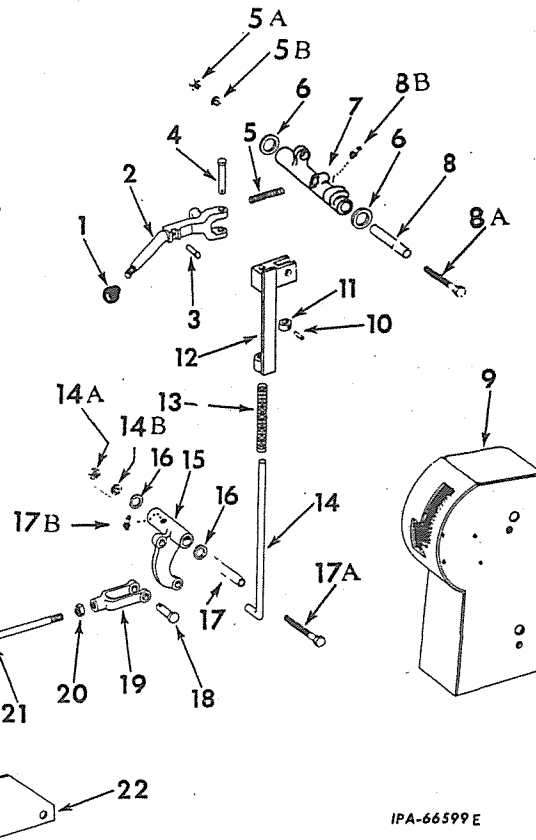
ENGINE CONTROLS

ENGINE CONTROLS AND DECELERATOR



ENGINE CONTROLS

ENGINE CONTROLS AND DECELERATOR - CONTINUED



IPA-66599E

REF. NO.	I. H. PART NUMBER	DESCRIPTION
		Parts without letters after the description indicate the part is used for all controls listed below. Letters A, B and C are used to identify separate controls.
		CONTROL, engine and decelerator (for use on units equipped with Roosa-Master Fuel Injection Pump) TD-20BP 4001 to 5908
		CONTROL, engine and decelerator (for use on units equipped with International RD Fuel Injection Pump) TD-20BP 5909 to 20185 TD-20BPS 6110 to 20185
		CONTROL, engine and decelerator (for use on units equipped with Roosa-Master Fuel Injection Pump) TD-20BP 20186 up TD-20BPS 20186 up
264 097 R2		BALL, hand lever
334 733 R11		LEVER w/PAWL, 251 846 R1, hand 3/32 x 5/8" cotter PIN
251 846 R1		PAWL, hand lever
262 704 R1		PIN, hand lever
261 650 R1		SPRING, hand lever

REF. NO.	I. H. PART NUMBER	DESCRIPTION
5A		NUT, 7/16"
5B		WASHER, 7/16" lock
6	327 462 R1	BUSHING, hand lever hub (used with HUB, 334 618 R21) (2)
6	604 646 C1	WASHER, hand lever hub (used with HUB, 604 648 C1) (2)
7	334 618 R21	HUB, hand lever TD-20BP 4001 to 20433 TD-20BPS 6110 to 20433 (Order the following parts - 2 BUSHING 327 462 R1 1 HUB 604 648 C1 1 PLUG 103 865)
7	604 648 C1	HUB, hand lever TD-20BP 20434 up TD-20BPS 20434 up
8	327 901 R1	SPACER, hand lever hub (used with HUB, 334 618 R21)
8	334 675 R1	SPACER, hand lever hub (used with HUB, 604 648 C1)
8A	16 252 R1	BOLT, hand lever hub
8B	109 462	FITTING, 1/8" x 90° hand lever hub lubrication (used with HUB, 604 648 C1)
9	330 834 R92	HOUSING, governor control 7/16 x 1-1/8" hex-hd cap SCREW (4) 7/16" lock WASHER (4)



ENGINE CONTROLS

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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ENGINE CONTROLS AND DECELERATOR - CONTINUED

10	142 507	PIN, 3/16 x 7/8" groove
11	331 150 R1	STOP, trunnion spring
12	334 622 R92	TRUNNION
13	341 703 R2	SPRING, trunnion
14	334 621 R1	ROD, trunnion
14A		NUT, 7/16" slit (used with BOLT, 345 511 R1) 1/16 x 3/4" cotter PIN
14A		NUT, 7/16" (used with BOLT, 16 252 R1)
14B	338 222 R1	WASHER, engine control bellcrank bolt (used with BOLT, 345 511 R1)
14B		WASHER, 7/16" lock (used with BOLT, 16 252 R1)
15	334 624 R11	BELLCRANK, engine control TD-20BP 4001 to 20433 TD-20BPS 6110 to 20433 (Order the following parts - 1 BELLCRANK 604 647 C1 2 BUSHING 327 462 R1 1 PLUG 103 865)
15	604 647 C1	BELLCRANK, engine control TD-20BP 20434 up TD-20BPS 20434 up
16	327 462 R1	BUSHING, engine control bellcrank (used with BOLT, 345 511 R1) (2)
16	604 646 C1	WASHER, engine control bellcrank (used with BOLT, 16 252 R1) (2)
17	327 901 R1	SPACER, engine control bellcrank (used with BOLT, 345 511 R1)
17	334 675 R1	SPACER, engine control bellcrank (used with BOLT, 16 252 R1)
17A	345 511 R1	BOLT, engine control bellcrank TD-20BP 4001 to 20433 TD-20BPS 6110 to 20433 (Order the following parts - 1 BOLT 16 252 R1 1 FITTING 109 462 1 NUT, 7/16" 1 SPACER 334 675 R1 1 WASHER, 7/16" lock 2 WASHER 604 646 C1)
17A	16 252 R1	BOLT, engine control bellcrank TD-20BP 20434 up TD-20BPS 20434 up
17B	66 584 D	FITTING, engine control bellcrank lubrication TD-20BP 4001 to 5209
17B	109 461	FITTING, engine control bellcrank lubrication (used with BOLT, 345 511 R1) TD-20BP 5210 to 20433 TD-20BPS 6110 to 20433
17B	109 462	FITTING, engine control bellcrank lubrication (used with BOLT, 16 252 R1) TD-20BP 20434 up TD-20BPS 20434 up
18	103 498	PIN, 1/2" rod end 1/8 x 3/4" cotter PIN
19	104 039	CLEVIS, adjusting rod end short
20		NUT, 1/2NF
21	334 095 R1	ROD, governor control linkage (Control A)
21	604 875 C1	ROD, governor control linkage (Control B)
21	611 134 C1	ROD, governor control linkage (Control C)
22	330 904 R92	BRACKET, governor control cross shaft RH TD-20BP 4001 to 22418 TD-20BPS 4001 to 22418
22	330 902 R92	BRACKET, governor control cross shaft LH TD 20BP 22419 up TD-20BPS 22419 up 3/8" NUT (4) 3/8 x 3/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
23	611 231 C92	GUIDE, decelerator TD-20BP 4001 to 22418 TD-20BPS 4001 to 22418 1-1/8 x 3/4" cotter PIN



ENGINE CONTROLS

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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ENGINE CONTROLS AND DECELERATOR - CONTINUED

24	334 092 R21	SHAFT, governor control cross (Control A)
24	604 877 C91	SHAFT, governor control cross (Control B)
24	611 137 C91	SHAFT, governor control cross (Control C)
25	330 905 R21	LEVER w/two BUSHING, 341 987 R1, decelerator 3/32 x 7/8" cotter PIN (2)
26	341 987 R1	BUSHING, decelerator lever (2)
27	518 568 R1	WASHER, flat (2)
28	334 626 R1	ROD, decelerator pick-up lever (Controls A and B)
28	611 139 C1	ROD, decelerator pick-up lever (Control C)
29		NUT, 1/2NF
30	103 498	PIN, 1/2" rod end 1/8 x 3/4" cotter PIN (2)
31	116 538	CLEVIS, short adjusting rod end
32	338 044 R91	PEDAL, decelerator
	324 653 R1	RING, snap
	355 476 R1	WASHER
33	331 214 R91	REST w/two BUSHING, 327 465 R1, decel- erator pedal 1/2" NUT (2) 1/2 x 1-1/8" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
34	327 465 R1	BUSHING, support decelerator pedal (2)
35	330 902 R92	BRACKET, governor control cross shaft LH 3/8" NUT (4) 3/8 x 3/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
36	103 498	PIN, 1/2" rod end 1/8 x 3/4" cotter PIN
37	334 093 R1	LEVER, governor control 3/32 x 7/8" cotter PIN (2) 7/16" NUT 7/16 x 1-3/4" hex-hd cap SCREW 7/16" lock WASHER WASHER (2)
	270 711 R1	WASHER, governor control lever
	518 568 R1	
38	124 549	KEY, woodruff
39		NUT, 5/16NF
40	104 037	CLEVIS, adjusting rod end
	103 495	PIN, rod end 3/32 x 1/2" cotter PIN
41	338 008 R11	ROD, governor front (Control A)
41	604 876 C11	ROD, governor control front (Control B)
41	611 135 C11	ROD, governor control front (Control C)
42	338 045 R1	LATCH, decelerator pedal 1/8 x 7/8" cotter PIN
	331 182 R1	BUSHING, cross shaft (2) TD-20 4001 to 4350
	103 865	PLUG, 1/8" pipe (used only when BELL- CRANK, 604 647 C1 or HUB, 604 648 C1, is furnished to replace BELLCRANK, 334 624 R11, or HUB, 334 618 R21)
	334 220 R1	SPRING, decelerator pedal return
	334 620 R92	TRUNNION ASSY, engine governor control (Composed of - 1 PIN 142 507 1 ROD 334 621 R1 1 SPRING 341 703 R1 1 STOP 331 150 R1 1 TRUNNION 334 622 R92)
	103 498	PIN, 1/2" rod end 1/8 x 3/4" cotter PIN (2)



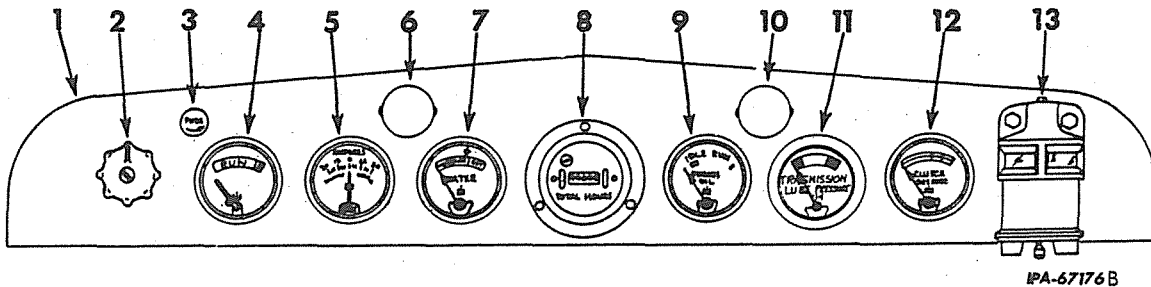
-206-
INSTRUMENTS AND
INSTRUMENT PANEL

INSTRUMENTS AND INSTRUMENT PANEL
(For Units Equipped with Roosa-Master Fuel Injection Pumps)
TD-20BP 4001 to 5908



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INSTRUMENTS AND
INSTRUMENT PANEL

INSTRUMENTS AND INSTRUMENT PANEL - CONTINUED
(For Units Equipped with Roosa-Master Fuel Injection Pumps)
TD-20BP 4001 to 5908



PA-67176B

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	337 578 R1	PANEL, instrument TD-20BP 4001 to 5046 (Order the following parts - 1 DAMPENER 264 674 R91 1 PANEL 603 418 C1 3 SCREW, No. 6 x 1/2" hex-hd cap 3 WASHER, No. 6 lock)
1	603 418 C1	PANEL, instrument (used only with Roosa-Master fuel injection pumps) TD-20BP 5047 to 5908
2		SWITCH, lighting (for components see list of parts under details of "Lighting Switch")
3		FUSE, lighting switch (15 amp) (also listed with "Electric Starting and Lighting")
4	619 817 C91	GAUGE, torque converter oil temperature (together with INSULATOR, 604 872 C91 and TEE, 218 251 will work for GAUGE, 610 720 C1, GAUGE, 336 125 R92, SENDING UNIT 610 721 C91, and SENDING UNIT 336 126 R91) (*)
	604 872 C91	INSULATOR, Torque Converter Oil Temperature Gauge
	218 251	TEE, Torque Converter Outlet Reducing
5	702 284 C1	AMMETER (will work for AMMETER 269 467 R92)
6		LIGHT, instrument panel LH (also listed with "Electric Starting and Lighting")
7	702 222 C1 144 034	GAUGE, engine water temperature REDUCER, engine water temperature gauge
8		HOURMETER (also listed and illustrated with "Hourmeter")
9	702 027 C1	GAUGE, engine oil pressure
	9 402 745	ADAPTER, engine oil pressure gauge
	30 402 D	ELBOW, 90° male pipe (engine oil pressure gauge tube) (at engine)
	606 243 C91	HOSE w/FITTING, 336 240 R91 and FITTING, 336 690 R91, engine oil pressure gauge to junction block (HOSE, 1/4" ID x 13-1/2" long including FITTINGS) (Aeroquip No. A-255604-4-13-1/2) HOSE w/o FITTINGS (1/4" ID x 12-1/4" long cut from bulk HOSE No. 338 653 R1)
	29 898 R1	NUT, engine oil pressure gauge tube (2)
	341 996 R1	TUBE, engine oil pressure gauge
10		LIGHT, instrument panel RH (Also listed with "Electric Starting and Lighting")

REF. NO.	I. H. PART NUMBER	DESCRIPTION
11	432 577	PLUG, 2-9/16" button TD-20BP 4001 to 4850
11	702 257 C1	GAUGE, transmission lube oil pressure TD-20BP 4851 to 5908
	9 402 745	ADAPTER, transmission lube oil pressure gauge
	29 901 D	CONNECTOR, transmission lube oil pressure gauge pipe (at junction block)
	263 717 R91	CLIP, lower lube oil pressure gauge pipe (at clutch pipe) TD-20BP 4857 to 5908
	606 243 C91	HOSE, transmission lube oil pressure gauge
	29 898 D	NUT, upper and lower lube oil pressure gauge pipe (4) TD-20BP 4857 to 5908
	39 254 D	TEE, lower lube oil pressure gauge pipe (at regulator) TD-20BP 4857 to 5908
12	324 661 R91	GAUGE, clutch oil pressure TD-20BP 4001 to 4772
12	619 739 C91	GAUGE, clutch oil pressure TD-20BP 4773 to 5908
	9 402 745	ADAPTER, clutch oil pressure gauge
	308 523 R1	CLIP
	30 402 D	ELBOW, clutch oil pressure outlet on pressure outlet on pressure regulator main body TD-20BP 4001 to 4426
	606 243 C91	HOSE w/FITTING, 336 240 R91 and FITTING, 336 690 R91, clutch oil pressure gauge to junction block (HOSE, 1/4" ID x 13-1/2" long w/FITTINGS) HOSE w/o FITTINGS (1/4" ID x 12-1/4" long cut from bulk HOSE No. 338 653 R1)
	369 987 R1	NUT, clutch oil pressure upper and lower tube body (for 1/4" OD tubing) (4)
	29 898 D	NUT, clutch oil pressure gauge upper and lower tube (4)
	444 814	PLUG (1/8" NPT) auxiliary filter inlet tee TD-20BP 4427 to 5908
	16 898 R1	TEE, lower clutch pressure gauge pipe (at pressure filter) TD-20BP 4427 to 5908
	341 994 R1	TUBE, clutch oil pressure gauge upper
	603 302 C1	TUBE, clutch oil pressure gauge lower
	89 863 H	UNION, clutch oil pressure gauge pipe TD-20BP 4857 to 5908

(X) - Order Cut Length As Required.

INSTRUMENTS AND
INSTRUMENT PANEL



MEMORANDA



REF. NO.	I. H. PART NUMBER	DESCRIPTION
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INSTRUMENTS AND INSTRUMENT PANEL - CONTINUED
 (For Units Equipped With Roosa-Master Fuel Injection Pumps)
 TD-20BP 4001 to 5908

13		INDICATOR, air cleaner filter (also listed and illustrated with "Filter Service Indicator") No. 12 NUT (2) No. 12 x 3/4" hex-hd cap SCREW (2) No. 12 lock WASHER (2)
334 445 R1		BLOCK, pressure gauge junction 5/16" NUT (2) 5/16 x 1-3/8" hex-hd cap SCREW (2) 5/16" lock WASHER (2)
278 834 R2		CLAMP, pressure tubes 1/4 x 1-1/4" hex-hd cap SCREW (2) 1/4" lock WASHER (2) 1/4" FLAT WASHER (2)
308 523 R1		CLAMP, clutch oil pressure lower tube (on rear LH side of frame) 3/8 x 5/8" hex-hd cap SCREW 3/8" lock WASHER
336 240 R91		FITTING, swivel hose (Aeroquip No. 4797-4) (2)
336 690 R91		FITTING, male pipe hose (Aeroquip No. 4738-2-4) (2)
120 302		GROMMET, air cleaner indicator tube (on dash)
117 966		GROMMET, oil pressure hose (on dash) (3)
300 646 R1		GROMMET, water temperature gauge tube (on dash)
338 653 R1		HOSE, bulk, 1/4" (X)
298 000 R1		MOUNT, vibration (4) 1/4NF x 1" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
278 836 R2		PAD, pressure tube clamp rubber (2)



INSTRUMENTS AND INSTRUMENT PANEL

INSTRUMENTS AND INSTRUMENT PANEL

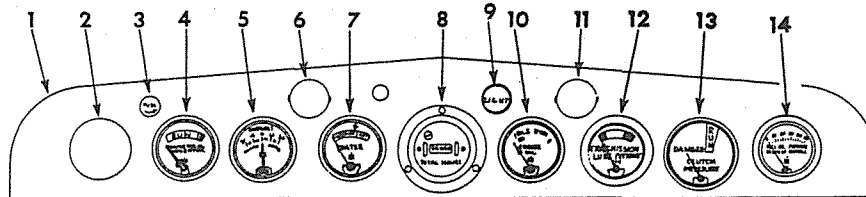
(For Units Equipped with International R. D. Fuel Injection Pumps)
 TD-20BP 5909 to 20185
 TD-20BPS 6110 to 20185



INSTRUMENTS AND INSTRUMENT PANEL

INSTRUMENTS AND INSTRUMENT PANEL - CONTINUED

(For Units Equipped with International R. D. Fuel Injection Pumps)
 TD-20BP 5909 to 20185
 TD-20BPS 6110 to 20185



IPA-67566 C

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	703 492 C1 298 000 R1	PANEL, instrument MOUNT, instrument panel vibration (4) 1/4NF x 1" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
2	432 577	PLUG, button (on panel)
3	120 151	FUSE, lighting switch (also listed with "Electric Starting and Lighting")
4	619 718 C91 604 872 C91 218 251	GAUGE, torque converter oil temperature (Together with INSULATOR, 604 872 C91 and TEE, 218 251 will work for GAUGE, 610 720 C1, GAUGE 336 125 R92, SENDING UNIT 610 721 C91 and SENDING UNIT 336 126 R91) INSULATOR, Torque Converter Oil Temperature Gauge TEE, Torque Converter Outlet Reducing
5	702 284 C1	AMMETER (also listed with "Electric Starting and Lighting") (will work for AMMETER 269 467 R2)
6		LIGHT, instrument panel LH (order PACKAGE, 603 467 C91) (also listed with "Electric Starting and Lighting")
7	702 222 C1	GAUGE, engine water temperature
8	610 821 C91 264 674 R91	HOURLMETER, electric (for list of component parts see "Hourmeter") DAMPENER, hourmeter vibration (also listed and illustrated with "Hourmeter")
9	606 298 C91	SWITCH, lighting
10	702 027 C1 9 402 745 443 998 603 624 C1 29 901 D 606 885 C1 20 337 R1 20 338 R1 444 163 30 402 D	GAUGE, engine oil pressure ADAPTER, engine oil pressure gauge ADAPTER, engine oil pressure gauge pipe elbow (optional with 603 624 C1) ADAPTER, engine oil pressure gauge pipe elbow (optional with 443 998) CONNECTOR, engine oil pressure gauge upper tube (at junction block) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111 CONNECTOR, engine oil pressure gauge upper tube (at junction block) TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185 ELBOW, 90° street (optional with 444 163 and 20 338 R1) ELBOW, 90° street (optional with 20 337 R1 and 444 163) ELBOW, 90° street (optional with 20 337 R1 and 20 338 R1) ELBOW, engine oil pressure gauge pipe (at engine) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
	319 615 R1	ELBOW, engine oil pressure gauge pipe (at engine) TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	606 243 C91	HOSE, engine oil pressure gauge to junction block (HOSE, 1/4" ID x 13-1/2" long including FITTINGS)
	29 898 D	NUT, engine oil pressure gauge pipe (2) TD-20BP 5909 to 6111 (2) TD-20BPS 5909 To 6111
	915 499 R1	NUT, engine oil pressure gauge pipe (2) TD-20BP 6112 to 20185 (2) TD-20BPS 6112 to 20185
	915 500 R1 607 999 C11	SLEEVE (2) TUBE, w/two SLEEVE, 915 500 R1 and two NUT, 915 499 R1, engine oil pressure gauge (together with ELBOW, 319 615 R1 and CONNECTOR, 606 885 C1, will work for 341 996 R1)
11		LIGHT, instrument panel RH (order PACKAGE, 603 467 C91) (also listed with "Electric Starting and Lighting")
12	702 257 C1 9 402 745 263 717 R91	GAUGE, transmission lube oil pressure ADAPTER, transmission lube oil pressure gauge CLIP, lower lube oil pressure gauge pipe (at clutch pipe)
	29 901 D	CONNECTOR, transmission lube oil pressure gauge pipe (at junction block) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
	606 885 C1	CONNECTOR, transmission lube oil pressure gauge pipe (at junction block) TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
	606 243 C91	HOSE, transmission lube oil pressure gauge (HOSE, 1/4" ID x 13-1/2" long including FITTINGS)
	29 898 D	NUT, lower lube oil pressure gauge pipe (2) TD-20BP 5909 to 6111 (2) TD-20BPS 6110 To 6111
	915 499 R1	NUT, lower lube oil pressure gauge pipe (2) TD-20BP 6112 to 20185 (2) TD-20BPS 6112 to 20185
	915 500 R1	SLEEVE (2)
	29 898 D	NUT, upper lube oil pressure gauge pipe (2) TD-20BP 5909 to 6111 (2) TD-20BPS 6110 to 6111
	915 499 R1	NUT, upper lube oil pressure gauge pipe (2) TD-20BP 6112 to 20185 (2) TD-20BPS 6112 to 20185
	915 500 R1	SLEEVE (2)

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INSTRUMENTS AND
INSTRUMENT PANEL

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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INSTRUMENTS AND INSTRUMENT PANEL - CONTINUED
(For Units Equipped With International R. D. Fuel Injection Pumps)
TD-20BP 5909 to 20185
TD-20BPS 6110 to 20185

12	702 257 C1	GAUGE, transmission lube oil pressure - Continued
	603 305 C1	TUBE, lube oil pressure gauge upper (see NOTE 2) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
	609 500 C11	TUBE w/two NUT, 915 499 R1, and two SLEEVE, 915 500 R1, lube oil pressure gauge upper TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
	603 306 C1	TUBE, lube oil pressure gauge lower (see NOTE 2) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
	609 501 C11	TUBE w/two NUT, 915 499 R1, and two SLEEVE, 915 500 R1, lube oil pressure gauge lower (order TUBE, 612 769 C11 and TUBE, 612 770 C11) TD-20BP 6112 to 20180 except (*) TD-20BPS 6112 to 20180 except (*)
	612 769 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1 lube oil pressure gauge lower TD-20BP 20181 up and also (*) TD-20BPS 20181 up and also (*)
	89 863 H	UNION, lube oil pressure gauge pipe TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
	606 049 C1	UNION, lube oil pressure gauge pipe TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
13	619 739 C91	GAUGE, clutch oil pressure
	9 402 745	ADAPTER, clutch oil pressure gauge
	29 901 D	CONNECTOR, clutch oil pressure gauge upper tube (at junction block) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
	606 885 C1	CONNECTOR, clutch oil pressure gauge upper tube (at junction block) TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
	308 523 R1	CLAMP, lower clutch oil pressure gauge pipe (on frame)
	606 243 C91	HOSE, clutch oil pressure gauge to junction block (HOSE, 1/4" ID x 13-1/2" long including FITTINGS) SCREW, 3/8 x 5/8" hex-hd cap (used with CLAMP, 308 523 R1)
	29 898 D	NUT, upper clutch oil pressure gauge tube (2) TD-20BP 5909 to 6111 (2) TD-20BPS 6110 to 6111
	915 499 R1	NUT, upper clutch oil pressure gauge tube (2) TD-20BP 6112 to 20185 (2) TD-20BPS 6112 to 20185
	915 500 R1	SLEEVE (2)
	29 898 D	NUT, lower clutch oil pressure gauge tube (2) TD-20BP 5909 to 6111 (2) TD-20BPS 6110 to 6111
	915 499 R1	NUT, lower clutch oil pressure gauge tube (2) TD-20BP 6112 to 20185 (2) TD-20BPS 6112 to 20185
	915 500 R1	SLEEVE (2)
		WASHER, 3/8" lock (used with CLAMP, 308 523 R1)
	16 898 R1	TEE, lower clutch pressure gauge pipe TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111

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INSTRUMENTS AND
INSTRUMENT PANEL

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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INSTRUMENTS AND INSTRUMENT PANEL - CONTINUED
(For Units Equipped With International R. D. Fuel Injection Pumps)
D-20BP 5909 to 20185
TD-20BPS 6110 to 20185

	319 615 R1	ELBOW, lower clutch pressure gauge pipe (will work for TEE, 610 000 C1 and PLUG, 444 814) TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
	341 994 R1	TUBE, clutch oil pressure gauge upper (see NOTE 1) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
	607 997 C11	TUBE, w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, clutch oil pressure gauge upper TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
	603 302 C1	TUBE, clutch oil pressure gauge lower (see NOTE 1) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
	607 998 C11	TUBE w/two NUT, 915 499 R1, and two SLEEVE, 915 500 R1, clutch oil pressure gauge lower TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
	89 863 H	UNION, clutch oil pressure gauge pipe TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
	606 049 C1	UNION, clutch oil pressure gauge pipe TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
14	384 203 R91	GAUGE, fuel oil pressure
	9 402 745	ADAPTER, fuel oil pressure gauge
	444 026	BUSHING, reducer (3/8" NPT to 1/8" NPT) (at bottom of tee on final filter)
	368 523 R1	CLIP, fuel oil pressure gauge lower tube (on front bolt of oil filter header)
	29 901 D	CONNECTOR, fuel oil pressure lower tube to fuel filter TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
	606 885 C1	CONNECTOR, fuel oil pressure lower tube to fuel filter TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
	29 901 D	CONNECTOR, fuel oil pressure gauge upper tube (at junction block) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
		NOTE 1 - To Update Machines Equipped With Clutch Oil Pressure Upper TUBE, 341 994 R1 and Lower TUBE, 603 302 C1, Serial Nos. TD-20BP 5909 to 6111 and TD-20BPS 6110 (Order the following parts - 1 CONNec- TOR 606 885 C1 1 TEE 610 000 C1 1 TUBE 607 997 C11 1 TUBE 607 998 C11 1 UNION 606 049 C1)
		NOTE 2 - To Update Machines Equipped With Lube Oil Pressure Gauge Upper TUBE, 603 305 C1 and Lower TUBE, 603 306 C1, Serial Nos TD-20BP 5909 to 6111 and TD-20BPS 6110 to 6111 (Order the following parts - 1 CONNec- TOR 606 885 C1 1 TEE 610 041 C1 1 TUBE 609 500 C11 1 TUBE 612 769 C11 1 TUBE 612 770 C11 1 UNION 606 049 C1)
		(*) - 20162, 20164, 20166, 20167, 20169, 20170, 20172, 20173, 20175, 20176, 20178 and 20179

INSTRUMENTS AND
INSTRUMENT PANEL



MEMORANDA



REF. NO.	I.H. PART NUMBER	DESCRIPTION
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INSTRUMENTS AND INSTRUMENT PANEL - CONTINUED
 (For Units Equipped With International R.D. Fuel Injection Pumps)
 TD-20BP 5909 to 20185
 TD-20BPS 6110 to 20185

336 651 R91	GAUGE, fuel oil pressure - Continued
606 885 C1	CONNECTOR, fuel oil pressure gauge upper tube (at junction block) TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
117 966	GROMMET, fuel oil pressure gauge hose (on top right hand of dash)
606 243 C91	HOSE, fuel oil pressure gauge to junction block (HOSE, 1/4" ID x 13-1/2" long including FITTINGS)
29 898 D	NUT, fuel oil pressure upper tube (2) TD-20BP 5909 to 6111 (2) TD-20BPS 6110 to 6112
915 499 R1	NUT, fuel oil pressure upper tube (2) TD-20BP 6112 to 20185 (2) TD-20BPS 6112 to 20185
915 500 R1	SLEEVE (2)
29 898 D	NUT, fuel oil pressure lower tube (2) TD-20BP 5909 to 6111 (2) TD-20BPS 6110 to 6111
915 499 R1	NUT, fuel oil pressure lower tube (2) TD-20BP 6112 to 20185 (2) TD-20BPS 6112 to 20185
915 500 R1	SLEEVE (2)
604 890 C1	TUBE, fuel oil pressure upper (see NOTE 3) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
609 502 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, fuel oil pressure TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
604 887 C1	TUBE, lower fuel oil pressure (see NOTE 3) TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
607 990 C11	TUBE, w/two NUT, 915 499 R1, and two SLEEVE, 915 500 R1, lower fuel oil pressure TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
89 863 H	UNION, upper to lower fuel oil pressure tube TD-20BP 5909 to 6111 TD-20BPS 6110 to 6111
606 049 C1	UNION, upper to lower fuel oil pressure tube TD-20BP 6112 to 20185 TD-20BPS 6112 to 20185
275 131 R1	BLOCK, pressure gauge junction 5/16 x 1-3/8" hex-hd cap SCREW (2) 5/16" NUT (2) 5/16" lock WASHER (2)
278 834 R2	CLAMP, pressure gauge tube 1/4 x 1-1/4" hex-hd cap SCREW (2) 1/4" lock WASHER (2) 1/4" flat WASHER
278 836 R2	PAD, pressure gauge tube clamp (2)
603 467 C91	PACKAGE, panel light field service (less bulb) (consists of DASH LIGHT, WASHER 273 405 R1 and GROMMET 273 406 R1) (X)
273 406 R1	GROMMET, panel light mounting
273 405 R1	WASHER, panel light mounting

X - As Required.

NOTE 3 - To Update Machines Equipped With Fuel Pressure Lower TUBE, 604 887 C1 and Upper TUBE, 604 890 C1, serial Nos. TD-20BP 5909 to 6111, and TD-20BPS 6110 (Order the following parts -
 2 CONNEC-
 TOR 606 885 C1
 1 TUBE 607 990 C11
 1 TUBE 609 502 C11
 1 UNION 606 049 C1)



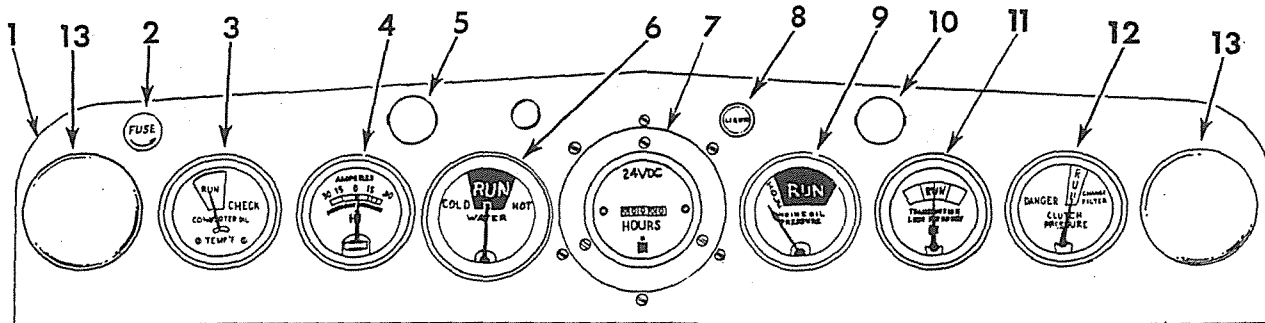
INSTRUMENTS AND INSTRUMENT PANEL

INSTRUMENTS PANEL AND PANEL HOUSING
(Used on Units Equipped with Roosa-Master Fuel Injection Pump)
TD-20BP 20186 to 22757
TD-20BPS 20186 to 22757



INSTRUMENTS AND INSTRUMENT PANEL

INSTRUMENTS PANEL AND PANEL HOUSING - CONTINUED
(Used on Units Equipped with Roosa-Master Fuel Injection Pump)
TD-20BP 20186 to 22757
TD-20BPS 20186 to 22757



CE-84474 A

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	703 492 C1 298 000 R1	PANEL, instrument MOUNT, instrument panel vibration 1/4NF x 1" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
	604 888 C11	HOUSING, instrument panel 3/8 x 3/4" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
2	376 852 R91 120 151	HOUSING, fuse (also listed with "Electric Starting and Lighting") FUSE, lighting switch
3	619 817 C91	GAUGE, torque converter oil temperature (together with INSULATOR, 604 872 C91 and TEE, 218 251 will work for GAUGE 610 720 C1, GAUGE 336 125 R92, SENDING UNIT 610 721 C91 and SENDING UNIT 336 126 R91)
	604 872 C91	INSULATOR, Torque Converter Oil Temperature Gauge
	218 251	TEE, Torque Converter Outlet Reducing
4	702 284 C1	AMMETER (also listed with "Electric Starting and Lighting")(will work for AMMETER 269 467 R92)
5		LIGHT, instrument panel LH (order PACKAGE, 603 467 C91) (also listed with "Electric Starting and Lighting")
6	702 222 C1 300 646 R1	GAUGE, engine water temperature GROMMET, engine water temperature tube (on dash)
7	610 821 C91	HOURLMETER, electric (also listed with "Electric Starting and Lighting")
	264 674 R91	DAMPENER, hourmeter vibration
	114 794	NIPPLE, pipe junction block to tee
	444 253	TEE, pressure switch
	277 748 R91	SWITCH, pressure (optional with 132 244 R91)
	132 244 R91	SWITCH, pressure (optional with 277 748 R91) No. 6 x 1/2" hex-hd cap SCREW (6) No. 6 lock WASHER (6)
8	606 298 C91	SWITCH, lighting
9	702 027 C1 9 402 745 606 885 C1	GAUGE, engine oil pressure ADAPTER, engine oil pressure gauge CONNECTOR, engine oil pressure gauge upper tube (at junction block)
	117 966	GROMMET, rubber
	610 709 C1	ELBOW, engine oil pressure gauge pipe (at engine)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	606 243 C91	HOSE, engine oil pressure gauge to junction block (HOSE, 1/4" ID x 13-1/2" long including FITTINGS)
	114 794	NIPPLE, oil pressure tube to engine
	915 499 R1	NUT, engine oil pressure gauge pipe (2)
	915 500 R1	SLEEVE (2)
	607 999 C11	TUBE w/two SLEEVE, 915 500 R1 and two NUT, 915 499 R1 engine oil pressure gauge
10		LIGHT, instrument panel RH (order PACKAGE, 603 467 R91) (also listed with "Electric Starting and Lighting")
11	702 257 C1 9 402 745 263 717 R91	GAUGE, transmission lube oil pressure ADAPTER, 1/8 x 7/16NF CLIP, lower lube oil pressure gauge pipe (one at clutch pipe) (one at pressure filter base) (2)
	606 885 C1	CONNECTOR, transmission lube oil pressure gauge pipe at junction block
	117 966	GROMMET, rubber
	606 243 C91	HOSE, transmission lube oil pressure gauge
	915 499 R1	HOSE, 1/4" ID x 13-1/2" long including FITTINGS
	915 500 R1	NUT, lower lube pressure gauge pipe (2)
	915 499 R1	SLEEVE (2)
	915 499 R1	NUT, upper lube oil pressure gauge pipe (2)
	915 500 R1	SLEEVE (2)
	609 500 C11	TUBE w/two NUT 915 499 R1 and two SLEEVE, 915 500 R1 LUBE, oil pressure gauge upper
	612 769 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1 lube oil pressure gauge lower
	606 049 C1	UNION, lube oil pressure gauge pipe
12	619 739 C91 9 402 745 606 885 C1	GAUGE, clutch oil pressure ADAPTER, clutch oil pressure gauge CONNECTOR, clutch lube oil pressure gauge pipe (at junction block)
	117 966	GROMMET, rubber
	606 243 C91	HOSE, clutch oil pressure gauge to junction block (HOSE, 1/4" ID x 13-1/2" long including FITTINGS)
	308 523 R1	CLAMP, clutch oil pressure lower pipe (on frame)
	607 997 C11	3/8 x 5/8" hex-hd cap SCREW 3/8" lock WASHER TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, clutch pressure gauge upper



INSTRUMENTS AND INSTRUMENT PANEL

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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INSTRUMENTS PANEL AND PANEL HOUSING - CONTINUED
 (Used on Units Equipped with Roosa-Master Fuel Injection Pump)
 TD-20BP 20186 to 22757
 TD-20BPS 21086 to 22757

12	619 739 C91	GAUGE, clutch oil pressure (continued)	
	607 998 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, clutch oil pressure gauge lower	
	915 499 R1	NUT, upper clutch oil pressure gauge tube (2)	
	915 500 R1	SLEEVE (2)	
	915 499 R1	NUT, lower clutch oil pressure gauge tube (2)	
	915 500 R1	SLEEVE (2)	
	319 615 R1	ELBOW, lower clutch pressure gauge pipe (will work for TEE, 610 000 C1 and PLUG, 444 814)	
	606 049 C1	UNION, clutch oil pressure gauge pipe	
	13	432 577	PLUG, button (on instrument panel) (2)
		275 131 R1	BLOCK, pressure gauge junction 5/16 x 1-3/8" hex-hd cap SCREW (2) 5/16" NUT (2) 5/16" lock WASHER (2)
142 450		BULB (12 volt) (on instrument panel)	
193 093		BULB (24 volt) (on instrument panel)	
278 834 R2		CLAMP, pressure gauge tube clamp (2) 1/4 x 1-1/4" hex-hd cap SCREW (2) 1/4" lock WASHER (2) 1/4" flat WASHER (2)	
20 337 R1		ELBOW, 90° street (optional with 444 163 and 20 338 R1) (engine oil pressure tube)	
444 163		ELBOW, 90° street (optional with 20 337 R1 and 20 338 R1) (engine oil pressure tube)	
20 338 R1		ELBOW, 90° street (optional with 20 337 R1 and 444 163) (engine oil pressure tube)	
278 836 R2		PAD, pressure gauge tube clamp (2)	
603 467 C91		PACKAGE, panel light field service (less bulb) (consists of DASH LIGHT, WASHER 273 405 R1, and GROMMET 273 406 R1)	
273 406 R1		GROMMET, panel light mounting	
273 405 R1		WASHER, panel light mounting	



MEMORANDA



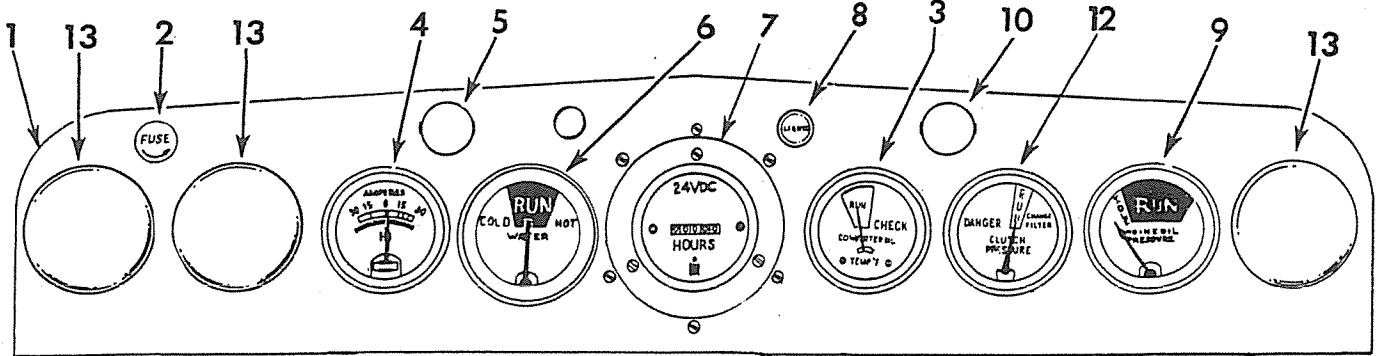
INSTRUMENTS AND INSTRUMENT PANEL

INSTRUMENTS PANEL AND PANEL HOUSING
(Used on Units Equipped with Roosa-Master Fuel Injection Pump)
TD-20BP 22758 Up
TD-20BPS 22758 Up



INSTRUMENTS AND INSTRUMENT PANEL

INSTRUMENTS PANEL AND PANEL HOUSING - CONTINUED
(Used on Units Equipped with Roosa-Master Fuel Injection Pump)
TD-20BP 22758 Up
TD-20BPS 22758 Up



CE-94367

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	703 492 C1	PANEL, instrument
	298 000 R1	MOUNT, instrument panel vibration
	604 888 C11	HOUSING, instrument panel
2	376 852 R91	HOUSING, fuse (also listed with "Electric Starting and Lighting")
	120 151	FUSE, lighting switch
3	619 817 C91	GAUGE, torque converter oil temperature (together with INSULATOR, 604 872 C91 and TEE, 218 251 will work for GAUGE 610 720 C1, GAUGE 336 125 R92, SENDING UNIT 610 721 C91 and SENDING UNIT 336 126 R91) (*)
	604 872 C91	INSULATOR, Torque Converter Oil Temperature Gauge
	218 251	TEE, Torque Converter Outlet Reducing
4	702 284 C1	AMMETER (also listed with "Electric Starting and Lighting") (will work for AMMETER 269 467 R92)
5		LIGHT, instrument panel LH (order PACKAGE, 603 467 C91) (also listed with "Electric Starting and Lighting")
6	702 222 C1	GAUGE, engine water temperature
	300 646 R1	GROMMET, engine water temperature tube (on dash)
7	610 821 C91	HOURLY METER, electric (also listed with "Electric Starting and Lighting") TD-20BP 22758 to 23053 TD-20BPS 22758 to 23053
7	624 552 C91	HOURLY METER, electric (also listed with "Electric Starting and Lighting") TD-20BP 23054 up TD-20BPS 23054 up
	264 674 R91	DAMPENER, hourmeter vibration
	114 794	NIPPLE, pipe junction block to tee
	444 253	TEE, pressure switch
	277 748 R91	SWITCH, pressure (optional with 132 244 R91)
	132 244 R91	SWITCH, pressure (optional with 277 748 R91) No. 6 x 1/2" hex-hd cap SCREW (6) No. 6 lock WASHER (6)
8	606 298 C91	SWITCH, lighting
9	702 027 C1	GAUGE, engine oil pressure
	9 402 745	ADAPTER, engine oil pressure gauge
	606 885 C1	CONNECTOR, engine oil pressure gauge upper tube (at junction block)
	117 966	GROMMET, rubber

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	610 709 C1	ELBOW, engine oil pressure gauge pipe (at engine)
	606 243 C91	HOSE, engine oil pressure gauge to junction block (HOSE, 1/4"ID x 13-1/2" long including FITTINGS)
	114 794	NIPPLE, oil pressure tube to engine
	915 499 R1	NUT, engine oil pressure gauge pipe (2)
	915 500 R1	SLEEVE (2)
	624 401 C91	TUBE w/two SLEEVE, 915 500 R1 and two NUT, 915 499 R1 engine oil pressure gauge
10		LIGHT, instrument panel RH (order PACKAGE, 603 467 R91) (also listed with "Electric Starting and Lighting")
12	619 739 C91	GAUGE, clutch oil pressure
	9 402 745	ADAPTER, clutch oil pressure gauge
	606 885 C1	CONNECTOR, clutch lube oil pressure gauge pipe (at junction block)
	117 966	GROMMET, rubber
	606 243 C91	HOSE, clutch oil pressure gauge to junction block (HOSE, 1/4"ID x 13-1/2" long including FITTINGS)
	308 523 R1	CLAMP, clutch oil pressure lower pipe (on frame)
		3/8 x 5/8" hex-hd cap SCREW
		3/8" lock WASHER
	624 403 C91	TUBE, w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, clutch pressure gauge upper
	263 716 R91	CLIP, capillary tubes
	610 041 C1	TEE, clutch oil pressure gauge lower pipe
	609 861 C11	TUBE w/two NUT, 915 499 R1 and two SLEEVE, 915 500 R1, clutch oil pressure gauge lower
	915 499 R1	NUT, upper clutch oil pressure gauge tube (2)
	915 500 R1	SLEEVE (2)
	915 499 R1	NUT, lower clutch oil pressure gauge tube (2)
	915 500 R1	SLEEVE (2)
	606 049 C1	UNION, clutch oil pressure gauge pipe
	319 615 R1	ELBOW, pressure check manifold inlet
13	432 577	PLUG, button (on instrument panel) (3)
	334 445 R1	BLOCK, pressure gauge junction
		5/16 x 1-3/8" hex-hd cap SCREW (2)
		5/16" NUT (2)
		5/16" lock WASHER (2)



**INSTRUMENTS AND
INSTRUMENT PANEL**

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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INSTRUMENTS PANEL AND PANEL HOUSING - CONTINUED
 (Used on Units Equipped with Roosa-Master Fuel Injection Pump)
 TD-20BP 22758 Up
 TD-20BPS 22758 Up

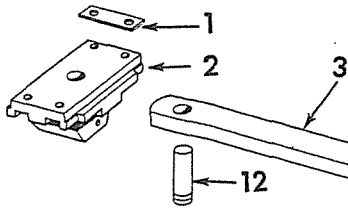
142 450		BULB (12 volt) (on instrument panel)
193 093		BULB (24 volt) (on instrument panel)
278 834 R2		CLAMP, pressure gauge tube clamp (2) 1/4 x 1-1/4" hex-hd cap SCREW (2) 1/4" lock WASHER (2) 1/4" flat WASHER (2)
20 337 R1		ELBOW, 90° street (optional with 444 163 and 20 338 R1) (engine oil pressure tube)
444 163		ELBOW, 90° street (optional with 20 337 R1 and 20 338 R1) (engine oil pressure tube)
20 338 R1		ELBOW, 90° street (optional with 20 337 R1 and 444 163) (engine oil pressure tube)
300 646 R1		GROMMET, torque converter oil temperature gauge (on dash)
278 836 R2		PAD, pressure gauge tube clamp (2)
603 467 C91		PACKAGE, panel light field service (less bulb) (consists of DASH light, WASHER 273 405 R1, and GROMMET 273 406 R1)
273 406 R1		GROMMET, panel light mounting
273 405 R1		WASHER, panel light mounting



MEMORANDA

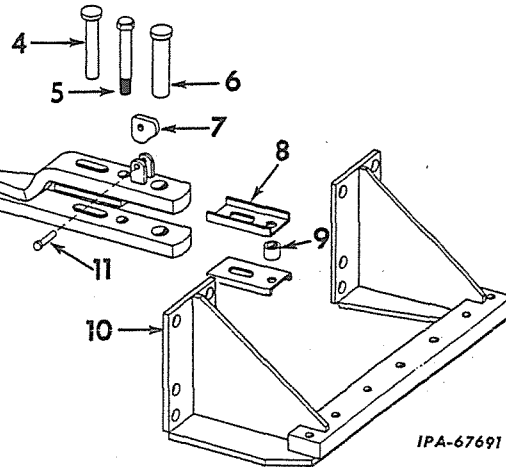
DRAWBAR

SWINGING DRAWBAR



DRAWBAR

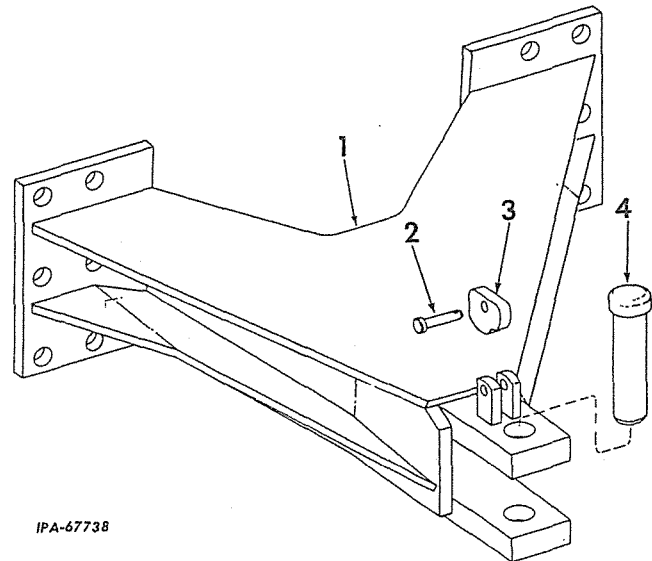
SWINGING DRAWBAR - CONTINUED



IPA-67691

REF. NO.	I. H. PART NUMBER	DESCRIPTION
Parts without letters after the description indicates the part is used for all Attachments listed below. Letters "A" and "B" are used to identify separate Attachments)		
A	334 501 R91	ATTACHMENT, swinging drawbar (for use on units other than low mount) (see NOTES 1 and 3)
B	604 944 C91	ATTACHMENT, swinging drawbar (for use on units equipped with Lo-mounted rear cable control unit only) (see NOTES 1 and 3)
1	334 251 R1	SPACER, drawbar pivot bracket (2)
2	334 232 R2	BRACKET, drawbar pivot 3/4 x 1-3/4" hex-hd cap SCREW (4)
3	334 244 R11	DRAWBAR (Attachment A)
3	603 130 C91	DRAWBAR (Attachment B)
4	325 096 R1	PIN, drawbar clevis (not part of Attachment)
5	18 282 R1	BOLT (Attachment A) 1-1/4NF NUT
5	26 162 R1	BOLT (Attachment B) 1-1/4NF NUT
6	279 071 R1	PIN, drawbar stop (Attachment A) 1/4 x 2-1/4" cotter PIN
6	278 116 R1	PIN, drawbar stop (Attachment B)
7	278 112 R1	CAM, drawbar clevis pin lock (not part of Attachment)
8	278 114 R1	PLATE, drawbar clevis wear (2)
9		SPACER, drawbar upper jaw 2 x 2.78 long (obtain locally)
10	334 245 R91	BRACKET, drawbar guide (Attachment A)
	20 695 R1	BOLT 1-1/4 x 2-1/2" hex-hd (12)
10	603 129 C91	BRACKET, drawbar guide (Attachment B)
	20 695 R1	BOLT 1-1/4 x 2-1/2" hex-hd (12)
11	33 558 V	PIN, clevis to cam lock (not part of Attachment) 1/8 x 3/4" cotter PIN
12	334 235 R1	PIN, drawbar pivot 1/2 x 3-3/4" hex-hd cap SCREW 1/2" lock WASHER
	278 115 R1	PLATE, drawbar stop pin lock (Attachment B) 1/2 x 1-1/4" hex-hd cap SCREW 1/2" lock WASHER

RIGID DRAWBAR (STANDARD FOR CRAWLER TRACTORS) (Heavy Duty Rigid Drawbar for Sideboom Crawler Tractor)



IPA-67738

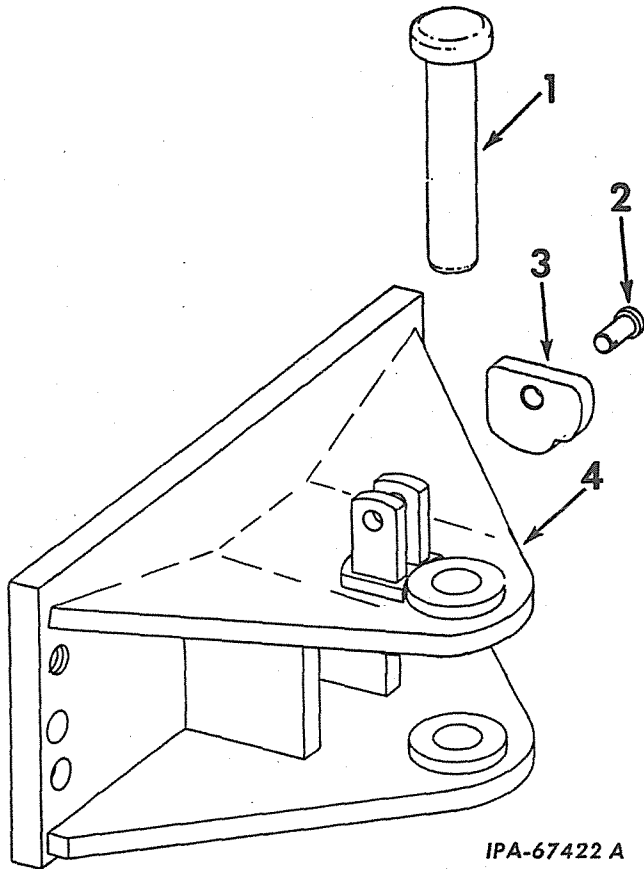
REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	334 408 R91	DRAWBAR
	20 695 R1	BOLT, drawbar mounting (will work for 1-1/4" NUT and STUD 253 173 R5, (10)
2	33 558 V	PIN, clevis cam lock 1/8 x 3/4" cotter PIN
3	278 112 R1	CAM, drawbar clevis pin lock
4	325 096 R1	PIN, drawbar clevis

NOTE 1 - Factory Application - Order On Machine Order Form.
NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



DRAWBAR

RIGID DRAWBAR (NOT HEAVY DUTY)
(For Sideboom Crawler Tractor)

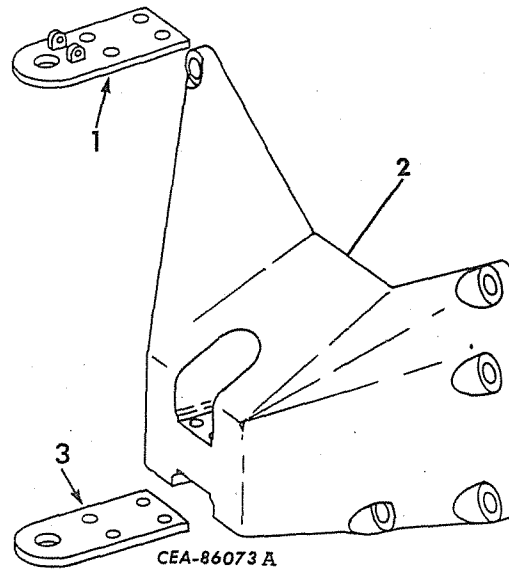


REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	325 096 R1	PIN, drawbar clevis
2	33 558 V	PIN, clevis cam locking 1/8 x 3/4" cotter PIN
3	278 112 R1	CAM, clevis pin locking
4	603 324 C91	DRAWBAR 7/8 x 2-1/4" hex-hd cap SCREW (4) 7/8 x 3" hex-hd cap SCREW (2)
	603 368 C1	WASHER, 5/16" ID x 2" OD (2)



DRAWBAR

COUNTERWEIGHT DRAWBAR
(Not Used With Side Boom Crawler Tractors)



REF. NO.	I.H. PART NUMBER	DESCRIPTION
	612 719 C91	ATTACHMENT, counterweight Drawbar (consists of the following parts) (See NOTES 1 and 2)
1	612 716 C91	CLEVIS, upper drawbar 1 x 7-1/2" hex-hd cap SCREW (4) 1" NUT (4)
2	612 714 C1	DRAWBAR, counterweight
	19 988 R1	BOLT, drawbar counterweight (6)
	20 557 R1	SCREW (2)
3	612 715 C91	CLEVIS, lower drawbar

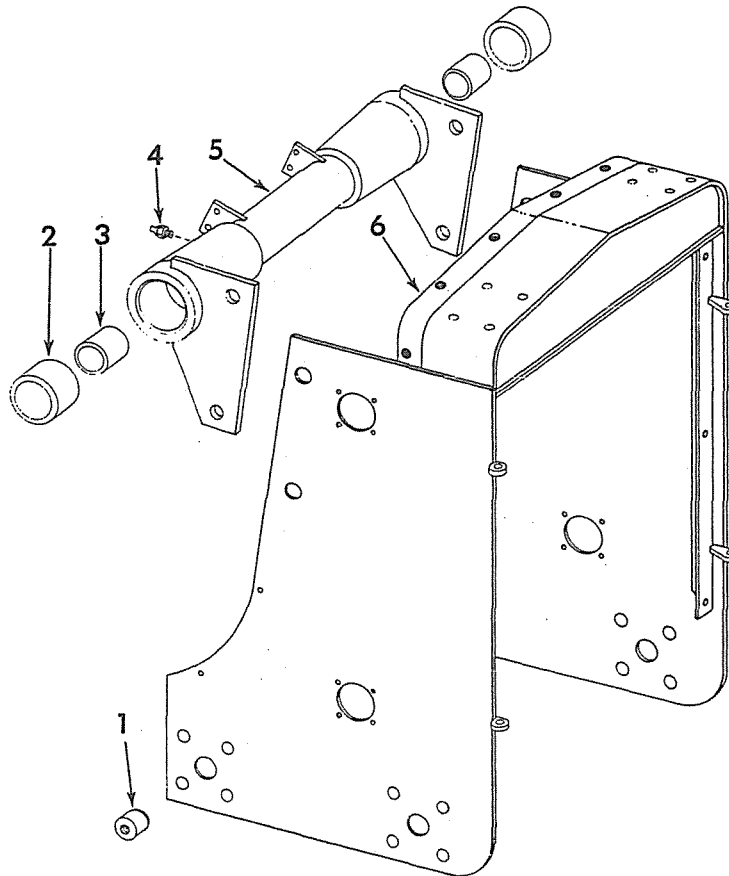
NOTE 1 - Factory Application - Order On Machine Order Form.

NOTE 2 - Field Application - Order On Machine Order Form.



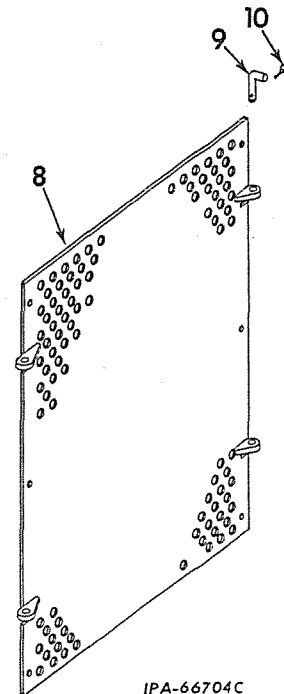
RADIATOR GUARD

RADIATOR GUARD AND DOOR
(Regular Units) or (Hydraulic Bullgraders and Bulldozers)
(Also Used With Sideboom Crawler Tractors)



RADIATOR GUARD

RADIATOR GUARD AND DOOR - CONTINUED
(Regular Units) or (Hydraulic Bullgraders and Bulldozers)
(Also Used With Sideboom Crawler Tractors)



IPA-66704C

REF. NO.	I. H. PART NUMBER	DESCRIPTION
(X) - KEY TO UNITS -		
A -		Service parts for radiator guard (regular units) (not hydraulic type)
B -	334 509 R91	ATTACHMENT, hydraulic radiator guard (for bulldozers and bullgraders) (See NOTE 3)
(X) - Letters of these units correspond with those shown following the description of the parts in the list below and identifies the unit for which the part is used. Items without letters after the description indicates the part is used for all units.		
1	334 407 R1	DOWEL (not included as part of Attachment) (4)
	330 567 R1	BOLT, dowel retainer (4)
2	289 255 R1	BUSHING, crosstube outer (2 for Unit B)
3	345 971 R1	BUSHING, crosstube inner (2 for Unit B)
4	126 152	FITTING, 1/8" crosstube lubrication (Lincoln 5200) (optional with 271 283) (2 for Unit B)
4	271 283	FITTING, 1/8" crosstube lubrication (Alemite 1688B) (optional with 126 152) (2 for Unit B)
5		CROSSTUBE (Not Furnished Separately)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
6	334 405 R91	GUARD w/SUPPORT, radiator (Unit A) TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000 (Order the following parts - 1 DOOR 611 277 C11 1 GUARD 334 405 R92 4 PIN 373 025 R91 4 PIN 612 915 C1)
6	334 500 R91	GUARD w/SUPPORT and CROSSTUBE (not part of attachment) (Unit B) TD-20BP 4001 to 22000 (Order the following parts - 1 DOOR 611 277 C11 1 GUARD 334 500 R92 4 PIN 373 025 R91 4 PIN 612 915 C1)
6	334 405 R92	GUARD w/SUPPORT, radiator (Unit A) TD-20BP 22001 up TD-20BPS 22001 up
6	334 500 R92	GUARD w/SUPPORT and CROSSTUBE (not part of attachment) (Unit B) TD-20BP 22001 up
NOTE 3 - Field Application - Order through Regular Service Parts Channels.		



RADIATOR GUARD

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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RADIATOR GUARD AND DOOR - CONTINUED
 (Regular Units) or (Hydraulic Bullgraders and Bulldozers)
 (Also Used With Sideboom Crawler Tractors)

- | | | |
|----|-------------|--|
| 8 | 334 511 R11 | DOOR, radiator guard (not part of attachment)
5/8 x 1-1/2" hex-hd cap SCREW (6) |
| | 334 908 R1 | 5/8" lock WASHER (6)
WASHER, pilot (6)
TD-20BP 4001 to 22000
TD-20BPS 6110 to 22000 |
| 8 | 611 277 C11 | DOOR, radiator guard (not part of attachment)
TD-20BP 22001 up
TD-20BPS 22001 up |
| 9 | 612 915 C1 | PIN, door latch
(4) TD-20BP 22001 up
(4) TD-20BPS 22001 up |
| 10 | 373 025 R91 | PIN, door latch pin retainer
(4) TD-20BP 22001 up
(4) TD-20BPS 22001 up |
| | 104 942 | CORK, No. 6 (grommet hole on radiator guard) (2) |
| | 336 238 R1 | PLUG, cap (2 for Unit B) |
| | 700 357 C91 | PACKAGE, radiator guard door field improvement (for machines equipped with perforated guard door)
TD-20BP 4001 to 22000
TD-20BPS 6110 to 22000

(Consists of -
§ 4 BLOCK
§ 4 HINGE
4 PIN 612 915 C1
4 PIN 373 025 R91) |

§ - Not Furnished Separately.

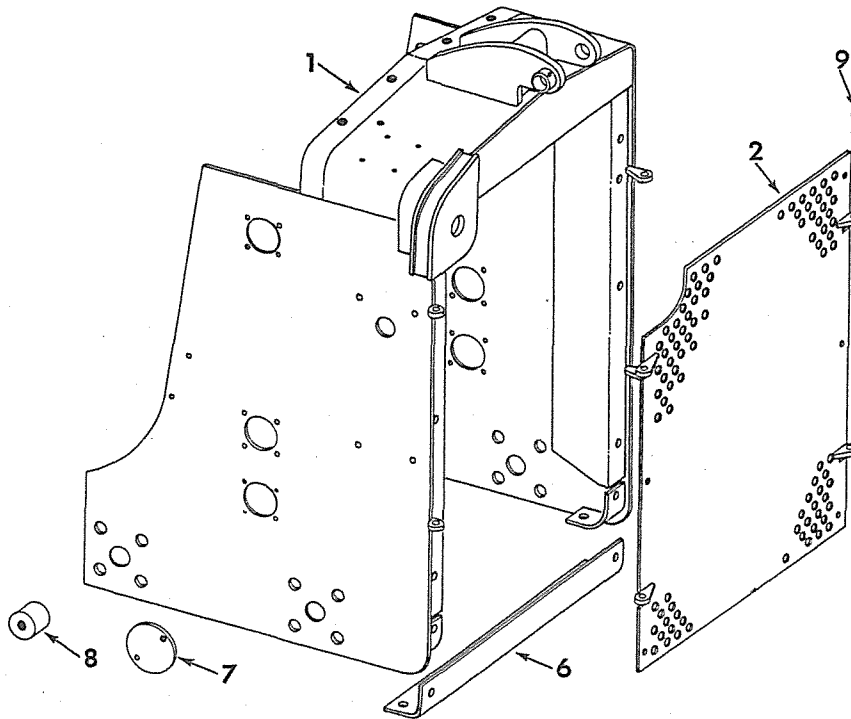


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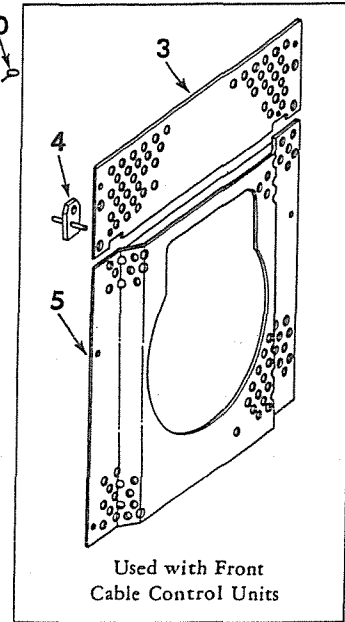
RADIATOR GUARD

RADIATOR GUARD
(Cable) (Not Used With Sideboom Crawler Tractors)



RADIATOR GUARD

RADIATOR GUARD - CONTINUED
(Cable) (Not Used With Sideboom Crawler Tractors)



IPA-67656 A

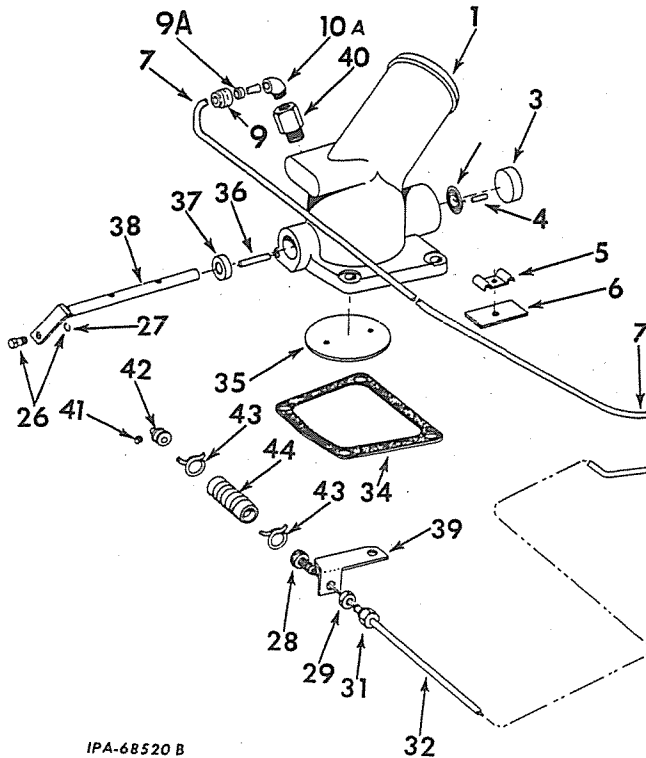
REF. NO.	I.H. PART NUMBER	DESCRIPTION
Parts without letters after the description indicates the parts is used for all attachments. Letters "A" and "B" are used to identify separate attachments.		
A -	334 307 R91	ATTACHMENT, radiator guard (for front mounted cable control unit) (for units equipped with short core radiator attachment or short core woods radiator ATTACHMENTS)
B -	334 510 R91	ATTACHMENT, radiator guard (for rear mounted cable control units) (See NOTES 1 and 3)
1	334 308 R92	GUARD, radiator (Attachment A)
1	334 308 R91	GUARD, radiator (Attachment B) TD-20BP 4001 to 22000 (Order the following parts - 1 DOOR 700 351 C1 1 GUARD 700 350 C1 4 PIN 373 025 R91 4 PIN 612 915 C1)
1	700 350-C1	GUARD, radiator (Attachment B) TD-20BP 22001 up 7/8 x 1-1/2" hex-hd cap SCREW (16)
2	334 511 R11	DOOR, radiator guard (Attachment B) 5/8 x 1-1/2" hex-hd cap SCREW (6) 5/8" lock WASHER (6)
	334 908 R1	WASHER, pilot (6) TD-20BP 4001 to 22000
2	700 351 C1	DOOR, radiator guard (Attachment B) TD-20BP 22001 up
3	324 327 R1	DOOR, radiator guard upper (Attachment A) 5/8 x 1-1/4" hex-hd cap SCREW (4) 5/8" lock WASHER (4)
	334 908 R1	WASHER, pilot (4)
4	334 904 R11	PLATE, latch (for mounting lower radiator guard door) (Attachment A)
	334 906 R1	BOLT, latch plate (2) 1/2" hex-slt NUT (2) 1/8 x 1-1/4" cotter PIN (2) 17/32 x 1-1/16" x 13 ga WASHER (2)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
5	334 513 R11	DOOR, radiator guard lower (Attachment A)
6	334 324 R11	ANGLE, radiator guard lower 5/8" NUT (2) 5/8 x 1-1/4" hex-hd cap SCREW (2) 5/8 x 1-1/2" hex-hd cap SCREW (2)
7	334 299 R1	PLATE, radiator mounting hole cover 3/8 x 3/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
8	334 407 R1	DOWEL (Not included as part of Attachment) (4)
	330 567 R1	BOLT, dowel retainer (4)
9	612 915 C1	PIN, door latch (Attachment B) (4) TD-20BP 22001 up
10	373 025 R91	PIN, door latch pin retainer (Attachment B) (4) TD-20BP 22001 up
	343 120 R11	BAFFLE, radiator top air (Attachment A)
	700 357 C91	PACKAGE, radiator guard door field improvement (for machines equipped with perforated guard door) TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000 (Consists of - § 4 BLOCK § 4 HINGE 4 PIN 612 915 C1 4 PIN 373 025 R91)
§ - Not Furnished Separately.		
NOTE 1 - Factory Application - Order on Machine Order Form.		
NOTE 3 - Field Application - Order through Regular Service Parts Channels.		

MISCELLANEOUS
(For Crawler Tractors)



AIR SHUT-OFF AND ETHER INJECTOR

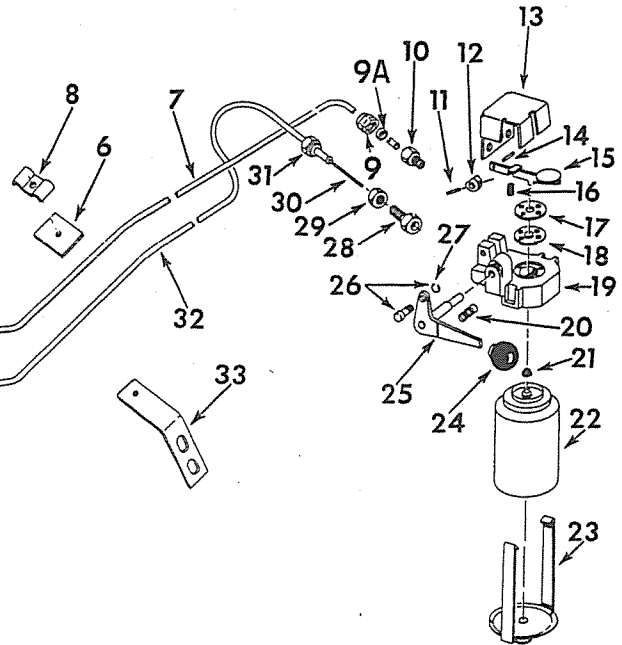


IPA-68520 B

MISCELLANEOUS
(For Crawler Tractors)



AIR SHUT-OFF AND ETHER INJECTOR - CONTINUED



REF. NO.	I. H. PART NUMBER	DESCRIPTION
Parts without letters after the description indicate the parts are used for all "Air Shut-Off and Ether Injector" Attachments listed below. Letters "A" and "B" are used to identify separate attachments.		
A	325 998 R92	ATTACHMENT, air Shut-Off and Ether Injector (for Schwitzer turbocharger) (order ATTACHMENT, 604 847 C92)
B	604 847 C91	ATTACHMENT, Air Shut-Off and Ether Injector (for Solar turbocharger) (order ATTACHMENT, 604 847 C92)
1	341 215 R1	ELBOW, air crossover (Attachment A)
1	601 180 C1	ELBOW, air crossover (Attachment B) (order ELBOW, 601 143 C2 and PLUG, 444 576)
1	601 143 C2	ELBOW, air inlet (together w/PLUG, 444 576 will work for ELBOW, 601 180 C1) (Attachment B)
2	323 986 R1	SPRING, air shut-off valve
3	151 162 R1	PLUG, cup
4	17 172 R1	PIN, 1/8 x 7/16" roll
5	327 709 R1	CLIP, control cable (2)
	262 038 R1	NUT, speed 1/4 x 3/4" hex-hd cap SCREW
6	269 986 R1	FELT, clip (4)

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(REV. NO. 1 1-68)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
7	345 666 R1	TUBE, pressure TD-20BPM 501 to 4757 TD-20BPSM 2680 to 4757 (together with ELBOW 324 468 H, will work for 337 708 R1) (Order the following parts - 1 TUBE 345 666 R21 1 ELBOW 322 296 C1 1 CONNECTOR 322 292 C1 1 REDUCER 443 998)
7	345 666 R21	TUBE, w/two NUT 681 180 C1 and two SLEEVE 681 181 C1 TD-20BPM 4758 up TD-20BPSM 4758 up
8	327 709 R1 262 038 R1	CLIP, cable and pressure tube NUT, speed 1/4 x 3/4" hex-hd cap SCREW
9	25 038 HA	NUT, pressure tube connector (2) TD-20BPM 510 to 4757 (2) TD-20BPSM 2680 to 4757
9	681 180 C1	NUT, pressure tube connector (2) TD-20BPM 4758 up (2) TD-20BPSM 4758 up
9A	681 181 C1	SLEEVE, pressure tube (2) TD-20BPM 4758 up (2) TD-20BPSM 4758 up

PRINTED IN UNITED STATES OF AMERICA

MISCELLANEOUS
(For Crawler Tractors)



REF. NO.	I. H. PART NUMBER	DESCRIPTION
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AIR SHUT-OFF AND ETHER INJECTOR - CONTINUED

10	36 521 D	CONNECTOR, pressure tube TD-20BPM 510 to 4757 TD-20BPSM 2680 to 4757
10	322 292 C1	CONNECTOR, pressure tube TD-20BPM 4758 up TD-20BPSM 4758 up
10A	36 521 D	CONNECTOR (used with TUBE, 337 708 R1)
10A	32 468 H	ELBOW, pressure tube TD-20BPM 510 to 4757 TD-20BPSM 2680 to 4757
10A	322 296 C1	ELBOW, pressure tube TD-20BPM 4758 up TD-20BPSM 4758 up
11	17 283 R1	PIN, 3/32 x 5/8" roll
12	299 991 R1	CAM, injector prohibitor
13	315 239 R1	SHIELD, injector
14	17 132 R1	PIN, injector lever roll
15	315 240 R11	LEVER, injector body
16	299 986 R1	SPRING, injector lever return
17	309 978 R1	RETAINER, diaphragm No. 6 x 3/8" pan-hd SCREW (4)
18	309 973 R91	DIAPHRAGM
19	299 979 R1	BODY, injector
20	299 988 R1	SPRING, detent
21	331 785 R1	GASKET, injector body
22		FLUID, ether starting (pressurized) (not furnished as part of attachment (order Part No. 1213 from Precision Specialties Division, 199 East 2nd St., Mineola, N. Y. 11501)
23	60 878 DX	BAIL, starting fluid container
24	307 839 R1	BALL, air control lever
25	299 989 R11	LEVER, air control
26	64 283 DBX	SWIVEL w/RETAINER, 363 881 R1, control lever (2) No. 8 x 3/16" fil-hd SCREW (2)
27	363 881 R1	RETAINER, swivel (2)
28	345 578 R91	MOUNT, air shut-off control (at dash)
29	604 830 C1	NUT, jam (2)
30	345 579 R1	CABLE, air shut-off control
31	681 180 R1 681 181 R1	NUT, air shut-off control (2) SLEEVE, air shut-off control (2)
32	337 707 R1	TUBE, air shut-off connector
33	337 706 R1	BRACKET, cable and pressure tube 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER (2)
34	328 767 R1	GASKET, air crossover elbow
35	299 995 R1	VALVE, air shut-off and ether No. 8 x 7/16" rd-slt-hd mach SCREW w/lock WASHER (2)
36	17 053 R1	PIN, 1/4 x 1-3/8" roll

MISCELLANEOUS
(For Crawler Tractors)



REF. NO.	I. H. PART NUMBER	DESCRIPTION
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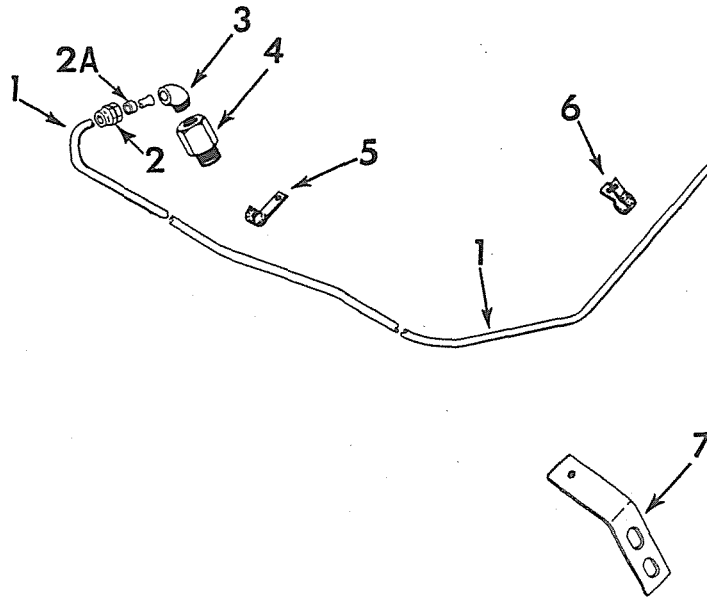
AIR SHUT-OFF AND ETHER INJECTOR - CONTINUED

37	336 687 R91	SEAL, air shut-off shaft
38	299 993 R11	SHAFT, air shut-off
39	341 807 R2 615 029 R1	BRACKET, control cable WASHER, 3/8" flat
40	269 635 R91	NOZZLE, ether injection
41		SCREW, No. 8 x 3/16" cup-pt set
42	345 580 R1	MOUNT, air shut-off control boot
43	215 761 R1	CLAMP, shut-off control boot (2)
44	345 581 R1	BOOT, air shut-off control
	299 978 R91	INJECTOR ASSEMBLY, air shut-off and ether (Composed of -
		1 BALL 307 839 R1
		1 BODY 299 979 R1
		1 CAM 299 991 R1
		1 DIAPHRAGM 309 973 R91
		1 GASKET 331 785 R1
		1 LEVER 299 989 R11
		1 LEVER 315 240 R11
		1 PIN 17 132 R1
		1 PIN 17 283 R1
		1 RETAINER 309 978 R1
		1 SPRING 299 986 R1
		1 SPRING 299 988 R1)
		3/8 x 7/8" hex-hd cap SCREW (2)
		3/8" lock WASHER (2)
	315 236 R1	PLATE, ether starting instruction (mount on dash)
	117 244	PLUG, 1/4" sq-hd pipe (cd or zn-pltd)
	143 997	PLUG, 1/4" sq-soc pipe (cd or zn-pltd) (2)
	443 998	REDUCER, pressure tube (in injector) TD-20BPM 4758 up TD-20BPSM 4758 up

MISCELLANEOUS EQUIPMENT
(For Crawler Tractors)



ETHER INJECTOR

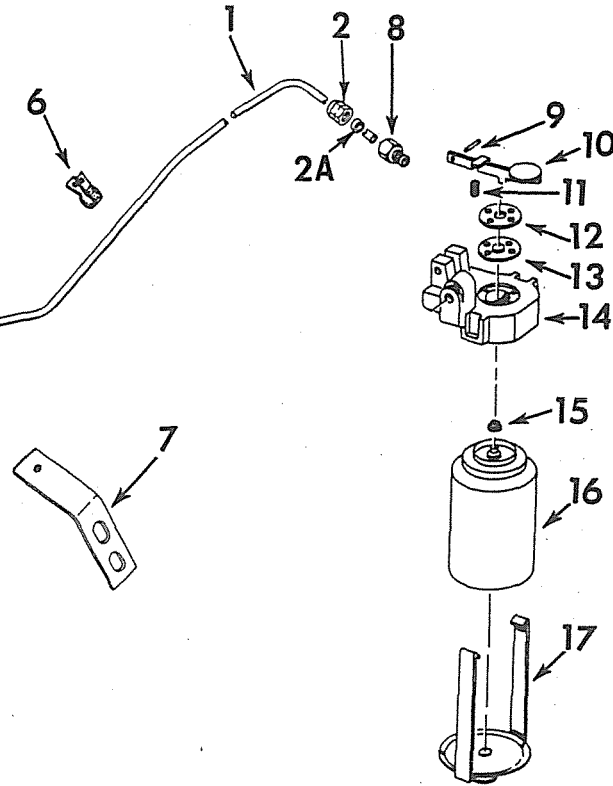


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MISCELLANEOUS EQUIPMENT
(For Crawler Tractors)



ETHER INJECTOR - CONTINUED



REF. NO.	I. H. PART NUMBER	DESCRIPTION
	604 847 C92	ATTACHMENT, ether injector (will work for ATTACHMENTS 325 998 R92 and 604 847 C91) (see NOTES 1 and 3)
1	345 666 R1	TUBE, pressure TD-20BPM 501 to 4757 TD-20BPSM 2680 to 4757 (Order the following parts - 1 TUBE 345 666 R21 1 ELBOW 322 296 C1 1 CONNECTOR 322 292 C1 1 REDUCER 443 998)
	345 666 R21	TUBE, w/two NUT 681 180 C1 and two SLEEVE 681 181 C1 TD-20BPM 4758 up TD-20BPSM 4758 up
2	25 038 HA	NUT, pressure tube connector (2) TD-20BPM 510 to 4757 (2) TD-20BPSM 2680 to 4757
2	681 180 C1	NUT, pressure tube connector (2) TD-20BPM 4758 up (2) TD-20BPSM 4758 up
2A	681 181 C1	SLEEVE, pressure tube (2) TD-20BPM 4758 up (2) TD-20BPSM 4758 up
3	32 468 H	ELBOW, pressure tube TD-20BPM 510 to 4757 TD-20BPSM 2680 to 4757
3	322 296 C1	ELBOW, pressure tube TD-20BPM 4758 up TD-20BPSM 4758 up

REF. NO.	I. H. PART NUMBER	DESCRIPTION
4	269 635 R91	NOZZLE, ether injection
5	276 596 R91	CLIP, pressure tube TD-20BPM 510 to 4757 TD-20BPSM 2680 to 4757 3/8 x 1/2" hex-hd cap SCREW 3/8" lock WASHER
5	308 523 R1	CLIP, pressure tube TD-20BPM 4758 up TD-20BPSM 4758 up 3/8 x 1/2" hex-hd cap SCREW 3/8" lock WASHER
6	101 977 R1	CLIP, pressure tube
	262 038 R1	NUT, speed 1/4 x 3/4" hex-hd cap SCREW
7	337 706 R1	BRACKET, pressure tube 3/8 x 3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER (2)
8	36 521 D	CONNECTOR, pressure tube TD-20BPM 510 to 4757 TD-20BPSM 2680 to 4757
8	322 292 C1	CONNECTOR, pressure tube TD-20BPM 4758 up TD-20BPSM 4758 up

NOTE 1 - Factory Application - Order on Machine Order Form.
NOTE 3 - Field Application - Order Through Regular Service Parts Channels.

MISCELLANEOUS EQUIPMENT
(For Crawler Tractors)



REF. NO.	I. H. PART NUMBER	DESCRIPTION
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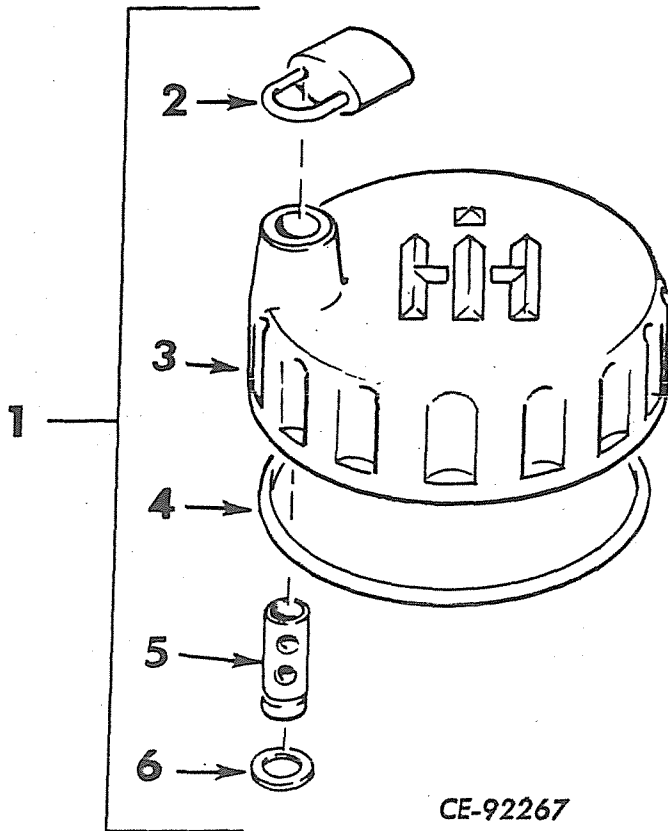
ETHER INJECTOR - CONTINUED

9	17 132 R1	PIN, injector lever roll
10	315 240 R11	LEVER, injector body
11	299 986 R1	SPRING, injector lever return
12	309 978 R1	RETAINER, diaphragm No. 6 x 3/8" pan-hd SCREW (4)
13	309 973 R91	DIAPHRAGM
14	299 979 R1	BODY, injector
15	331 785 R1	GASKET, injector body
16		FLUID, ether starting (pressurized) (not furnished as part of attachment) (order Part No. 1213 from Precision Specialties Division, 199 East 2nd Street, Mineola, N. Y. 11501)
17	60 878 DX	BAIL, starting fluid container
	612 798 C91	INJECTOR ASSEMBLY, ether (Composed of -
		1 BODY 299 979 R1
		1 DIAPHRAGM 309 973 R91
		1 GASKET 331 785 R1
		1 LEVER 315 240 R11
		1 PIN 17 132 R1
		1 RETAINER 309 978 R1
		1 SPRING 299 986 R1)
		3/8 x 7/8" hex-hd cap SCREW (2)
		3/8" lock WASHER (2)
	443 998	REDUCER, pressure tube (in injector) TD-20BPM 4758 up TD-20BPSM 4758 up

MEMORANDA



LOCKING CAP



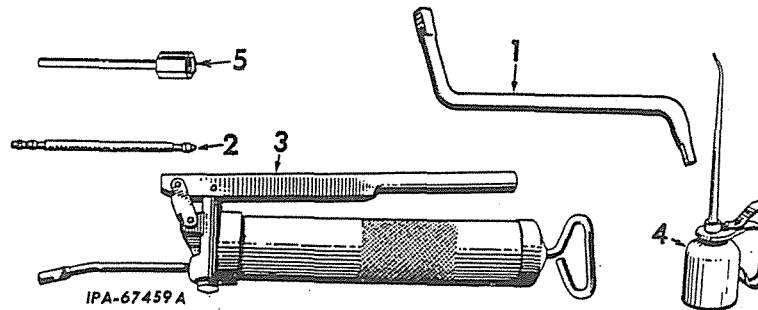
REF. NO.	I. H. PART NUMBER	DESCRIPTION
	701 980 C91	ATTACHMENT, locking cap (used with CAP, 701 922 C1, only) (See NOTE)
1	701 980 C91	CAP, outer locking
2		PADLOCK w/KEYS (not furnished separately)
3		CAP, outer locking (not furnished separately)
4	309 056 R1	RING, retaining (optional with 300 027 R1)
4	300 027 R1	RING, retaining (optional with 309 056 R1)
5		PIN, locking cap (not furnished separately)
6	23 221 R1	RING, retaining

NOTE: Factory or Field Application -
 Order on Machine Order Form.



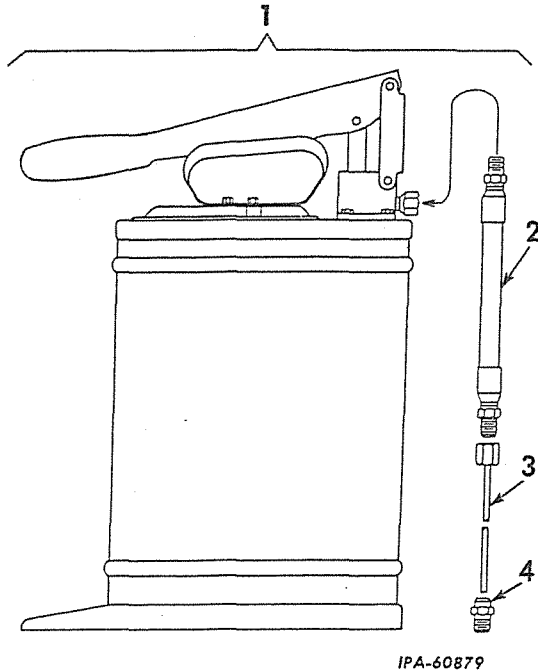
MISCELLANEOUS
(For Crawler Tractors)

TOOLS



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	304 910 R2	WRENCH, socket plug
2	619 581 C91	EXTENSION, flexible grease gun
3	999 677 R91	LUBRICATOR, hand (15 oz. size)

LUBRICATOR
(Tank type) (Stewart-Warner)
TD-20BP 4001 to 21412
TD-20BPS 6110 to 21412



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	310 533 R91	LUBRICATOR w/ADAPTER, 310 536 R1, HOSE, 53 207 D and TUBE, 310 535 R91 ASSEMBLY, tank type bucket (7552)
2	53 207 D	HOSE (3 ft. long) (317865-3)
3	310 535 R91	TUBE (G-324461)
4	310 536 R1	ADAPTER (324464)

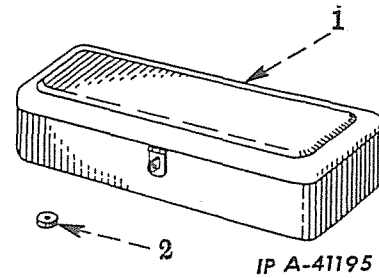


MISCELLANEOUS
(For Crawler Tractors)

TOOLS - CONTINUED

REF. NO.	I. H. PART NUMBER	DESCRIPTION
4	271 406 R91	CAN, pressure oil
5	310 944 R91	NOZZLE, lubricator tank
	349 047 R1	PLATE, special exhaust manifold cover (used for testing turbocharger calibrations)

TOOL BOX AND PADLOCK W/KEYS



REF. NO.	I. H. PART NUMBER	DESCRIPTION
A	331 937 R91	ATTACHMENT, tool box (see NOTES 1 and 3)
B	276 678 R91	ATTACHMENT, padlock w/KEYS (consists of Padlock w/KEYS) (see NOTES 1 and 3)
1	325 479 R91	BOX, tool (Attachment A) 3/8" NUT (4) 3/8 x 1-1/8" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
2		SPACER, tool box (3/8 x .46 long - obtain locally) (4 for Attachment A)

Parts without letters after the description indicate the part is used for all Tool Boxes and Padlocks listed below. Letters A and B are to identify separate Tool Boxes and Padlocks.

NOTE 1 - Factory Application - Order On Machine Order Form.
NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



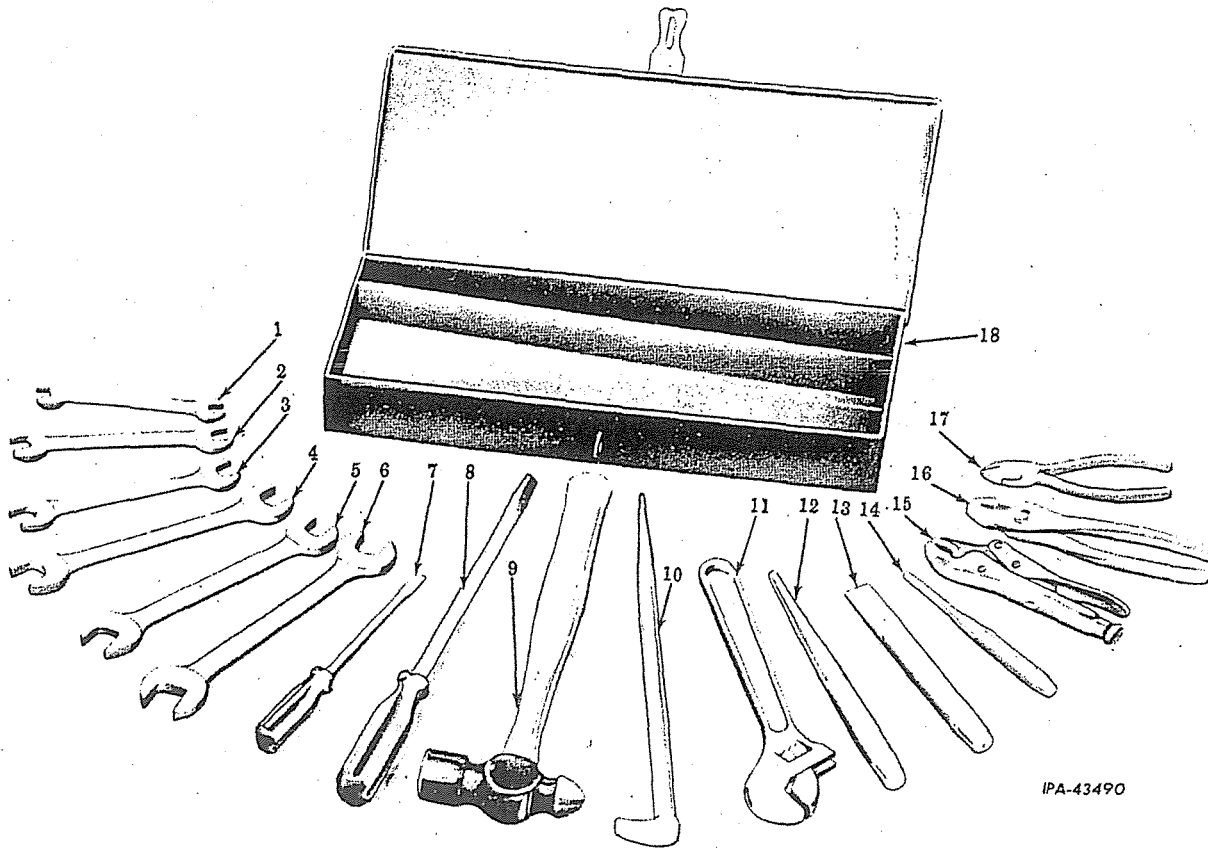
MISCELLANEOUS

TOOL SET
(Owatonna Tool Co.)



MISCELLANEOUS

TOOL SET - CONTINUED
(Owatonna Tool Co.)



IPA-43490

REF. NO.	OWATONNA NUMBER	DESCRIPTION
		TOOL SET (consists of seventeen tools and tool box) (also see "Tools" listed in Miscellaneous Equipment Section of Catalog) (See NOTE) (IH Part Number 276 820 R91)
1	E-1416	WRENCH, end (7/16 x 1/2")
2	E-1820	WRENCH, end (9/16 x 5/8")
3	E-2022	WRENCH, end (5/8 x 11/16")
4	E-2426	WRENCH, end (3/4 x 13/16")
5	E-2628	WRENCH, end (13/16 x 7/8")
6	E-3032	WRENCH, end (15/16 x 1")
7	SS-83	SCREWDRIVER (1/4" shank)
8	SS-123	SCREWDRIVER (3/8" shank)
9	BP-32	HAMMER (ball peen)
10	PB-32	BAR, pry (9/16" rd. x 16" long)
11	DA-12	WRENCH (12" adjustable)
12	TP-24	PUNCH (5/16" bit x 10" long)
13	CC-24	CHISEL (7/8" bit x 8" long)

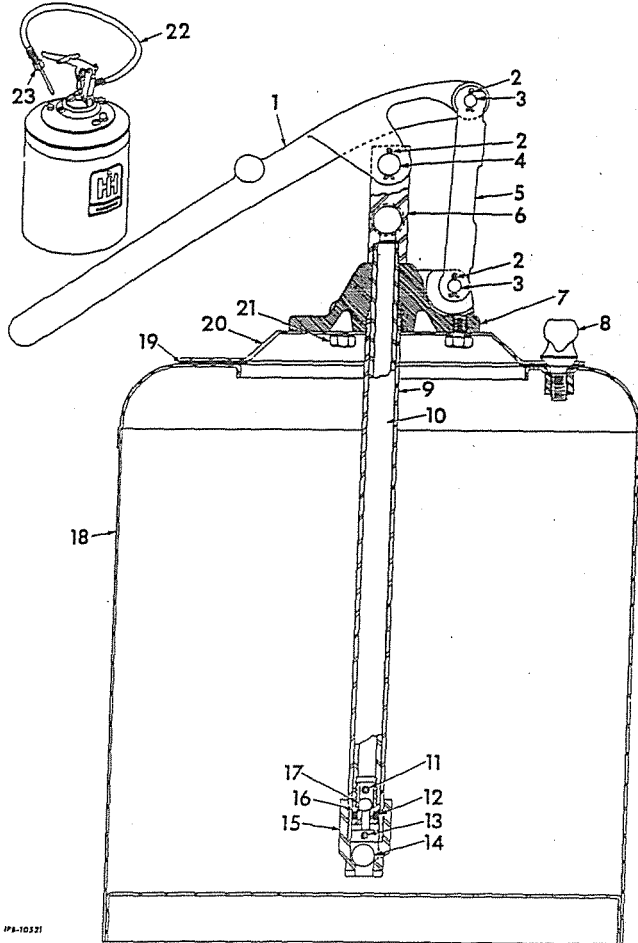
REF. NO.	OWATONNA NUMBER	DESCRIPTION
14	PP-6	PUNCH (3/16" bit x 10" long)
15	719	WRENCH, vise grip (7")
16	712-A	PLIER (slip joint, 8")
17	700-B	CUTTER, diagonal (6")
18	H-190	BOX, tool

NOTE - Order individual tools and complete tool sets from Service Tools, Inc., 1901 So. Indiana Ave., Chicago, Illinois, 60616



MISCELLANEOUS

LUBRICATOR
(Tank Type) (Lincoln Engineering Co.)
TD-20BP 21413 up
TD-20 BPS 21413 up



PA-10321



MISCELLANEOUS

REF. I. H. PART DESCRIPTION
NO. NUMBER

LUBRICATOR - CONTINUED
(Tank Type) (Lincoln Engineering Co.)
TD-20BP 21413 up
TD-20BPS 21413 up

11	53 200 D	PIN, piston (11174)
12	53 203 D	PACKING, piston (34078)
13	53 201 D	PIN, foot valve (11175)
14	16 014 R1	BALL, check (66030)
15	53 199 D	BODY, foot valve (11173)
16	53 198 D	PISTON, plunger (11172)
17	39 659 D	BALL, pump check (66011)
18	53 209 D	CONTAINER w/GASKET, 278 919 R1 and three SCREW, 55 479 D (81241)
19	278 919 R1	GASKET, container cover (38084)
20	310 924 R91	COVER, container (91777)
21		SCREW, 1/4 x 7/16" hex-hd cap (3) 1/4" internal-tooth lock WASHER (3)
22	53 207 D	HOSE, lubricator (3 ft. long) (79036)
23	310 944 R91	NOZZLE, lubricator (700329)

REF. I. H. PART DESCRIPTION
NO. NUMBER

	309 015 R91	LUBRICATOR ASSY (consists of the following parts) (700225)
1	55 482 D	HANDLE, lever (40214)
2		PIN, 3/32 x 1/2" cotter (3)
3	40 638 D	PIN, toggle (10472) (2)
4	40 635 D	PIN, handle (10326)
5	277 153 R1	TOGGLE (45744)
6	53 202 D	OUTLET, pump (11551)
7	310 923 R1	BODY, pump (40481)
8	55 479 D	SCREW, container cover (11225) (3)
9	53 206 D	TUBE, pump (62100)
10	53 205 D	ROD, piston (62099)



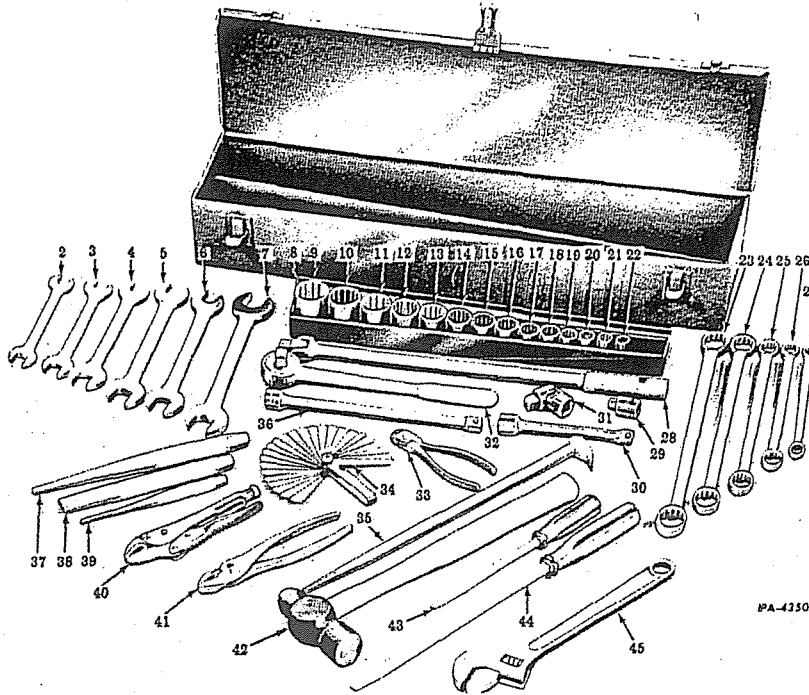
MISCELLANEOUS



MISCELLANEOUS

TOOL SET
(Owatonna Tool Co.)

TOOL SET - CONTINUED
(Owatonna Tool Co.)



PA-42503

REF. NO.	OWATONNA NUMBER	DESCRIPTION
		TOOL SET (consists of forty-three tools and tool box) (also see "Tools" listed in Miscellaneous Equipment Section of catalog) (IH Part Number 276 821 R91) (See NOTE)
1	H-391	BOX, tool
2	E-1416	WRENCH, end (7/16 x 1/2")
3	E-1820	WRENCH, end (9/16 x 5/8")
4	E-2022	WRENCH, end (5/8 x 11/16")
5	E-2426	WRENCH, end (3/4 x 13/16")
6	E-2628	WRENCH, end (13/16 x 7/8")
7	E-3032	WRENCH, end (15/16 x 16 x 1")
8	195	TRAY
9	140	SOCKET (1-1/4")
10	138	SOCKET (1-3/16")
11	136	SOCKET (1-1/8")
12	134	SOCKET (1-1/16")
13	132	SOCKET (1")
14	130	SOCKET (15/16")
15	128	SOCKET (7/8")
16	126	SOCKET (13/16")
17	124	SOCKET (3/4")
18	122	SOCKET (11/16")
19	120	SOCKET (5/8")
20	118	SOCKET (9/16")
21	116	SOCKET (1/2")
22	114	SOCKET (7/16")
23	B-3032	WRENCH, box (15/16 x 1")
24	B-2628	WRENCH, box (13/16 x 3/4")
25	B-2024	WRENCH, box (5/8 x 3/4")
26	B-1820	WRENCH, box (9/16 x 5/8")
27	B-1416	WRENCH, box (7/16 x 1/2")

REF. NO.	OWATONNA NUMBER	DESCRIPTION
28	H-177	HANDLE, flex
29	D-1612	ADAPTER (1/2" female, 3/8" male)
30	H-172	EXTENSION (6")
31	H-189	JOINT, universal
32	H-163	RATCHET (reversible)
33	700-B	CUTTER, diagonal (6")
34	861	GAUGE, feeler (25 blades)
35	PB-43	BAR, pry (9/16" rd x 16" long)
36	H-173	EXTENSION (10")
37	TP-24	PUNCH (5/16" bit x 10" long)
38	CC-24	CHISEL (7/8" bit x 8" long)
39	PP-6	PUNCH (3/16" bit x 7" long)
40	719	WRENCH, vise grip (7")
41	712-A	PLIER (slip joint, 8")
42	BP-32	HAMMER (ball peen)
43	SS-83	SCREWDRIVER (1/4" shank)
44	SS-123	SCREWDRIVER (3/8" shank)
45	DA-12	WRENCH (12" adjustable)
		NOTE - Order individual tools and complete tool sets from Service Tools, Inc., 1901 So. Indiana Ave., Chicago, Illinois, 60616



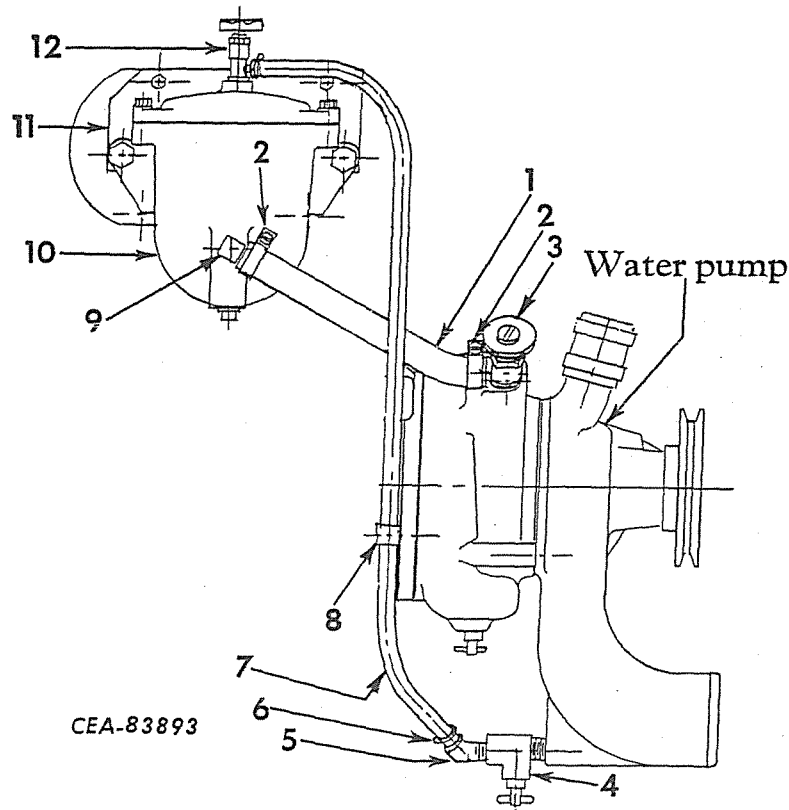
MISCELLANEOUS

WATER CONDITIONER
(Perry)



MISCELLANEOUS

WATER CONDITIONER
(Perry)



REF. NO.	I. H. PART NUMBER	DESCRIPTION
	609 549 C91	ATTACHMENT, water conditioner (See NOTES 1 and 3)
1	609 705 C1	HOSE, water pump to conditioner (5/8" ID)
2	274 085 R91	CLAMP, pump to conditioner hose (2)
3	610 789 C91	VALVE, water pump outlet
4	444 150	TEE, 3/8" pipe (optional with 444 259)
4	444 259	TEE, 3/8" pipe (optional with 444 150)
5	610 788 C1	ELBOW, conditioner outlet
6	279 025 R91	CLAMP, conditioner outlet hose (2)
7	606 530 C1	HOSE, 3/8" ID conditioner outlet

REF. NO.	I. H. PART NUMBER	DESCRIPTION
8	308 575 R1	CLAMP, outlet hose support
9	171 807 R1	ELBOW, 90° conditioner inlet
10	428 541 R91	CONDITIONER, water (For components see list of parts under detail of "WATER CONDITIONER") 1/2" NUT (2) 1/2 x 1-1/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
11	609 706 C1	BRACKET, water conditioner mounting 3/8 x 1-1/8" hex-hd cap SCREW (3)
12	321 840 C91	VALVE, conditioner outlet
	1 085 273 R1	PAMPHLET, installation instruction

NOTE 1 - Factory Application - Order on Machine Order Form.
NOTE 3 - Field Application - Order Through Regular Service Parts Channels.

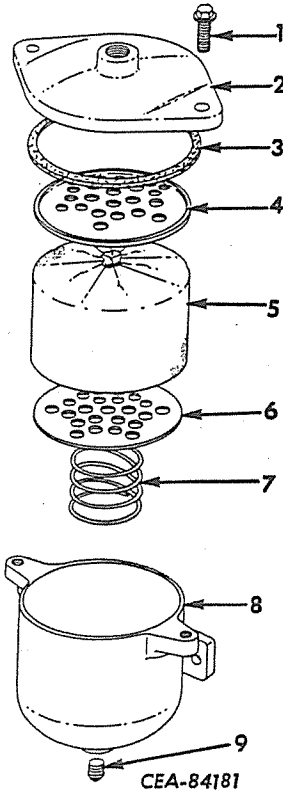


MISCELLANEOUS



MEMORANDA

WATER CONDITIONER
(Part of Attachment 609 549 C91)



REF. NO.	I.H. PART NUMBER	DESCRIPTION
	428 541 R91	CONDITIONER ASSY, water (consists of the following parts -
1	313 586 R91	BOLT w/lock WASHER (2)
2	237 358 R1	COVER, water filter
3	237 361 R1	GASKET, water filter cover
4	237 363 R1	PLATE, upper
5	237 364 R91	CARTRIDGE, water filter
6	237 362 R1	PLATE, lower
7	237 360 R1	SPRING, cartridge support
8		BODY (Not Furnished Separately)
9	444 577	PLUG, drain 1/4"

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MISCELLANEOUS
(For Crawler Tractors)

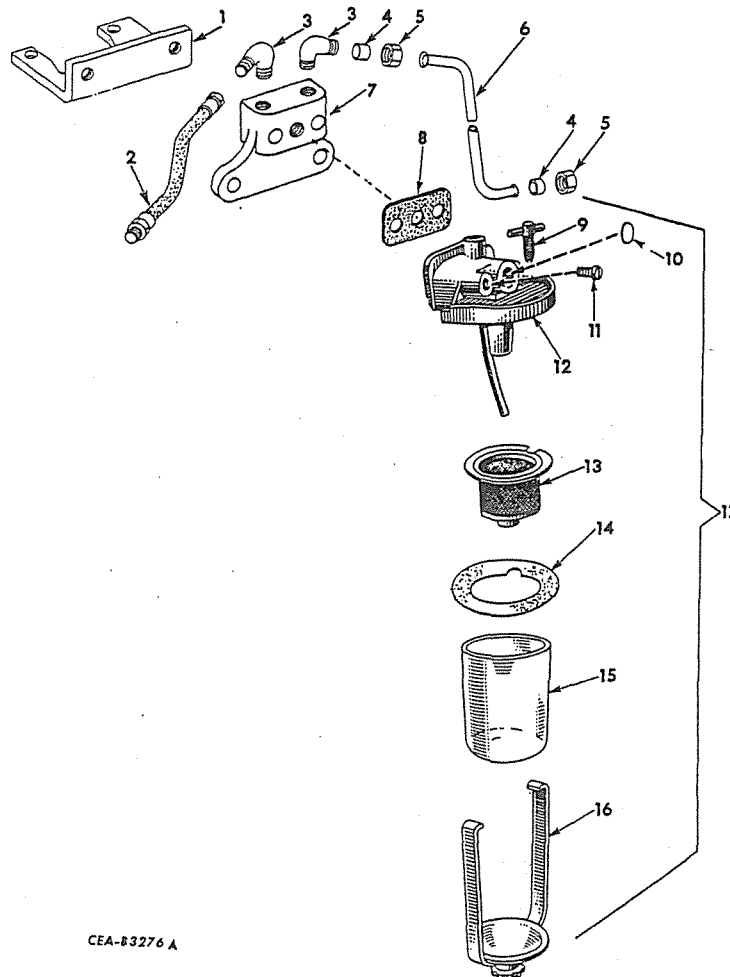


-227-
MISCELLANEOUS
(For Crawler Tractors)



WATER TRAP

WATER TRAP - CONTINUED



CEA-83276 A

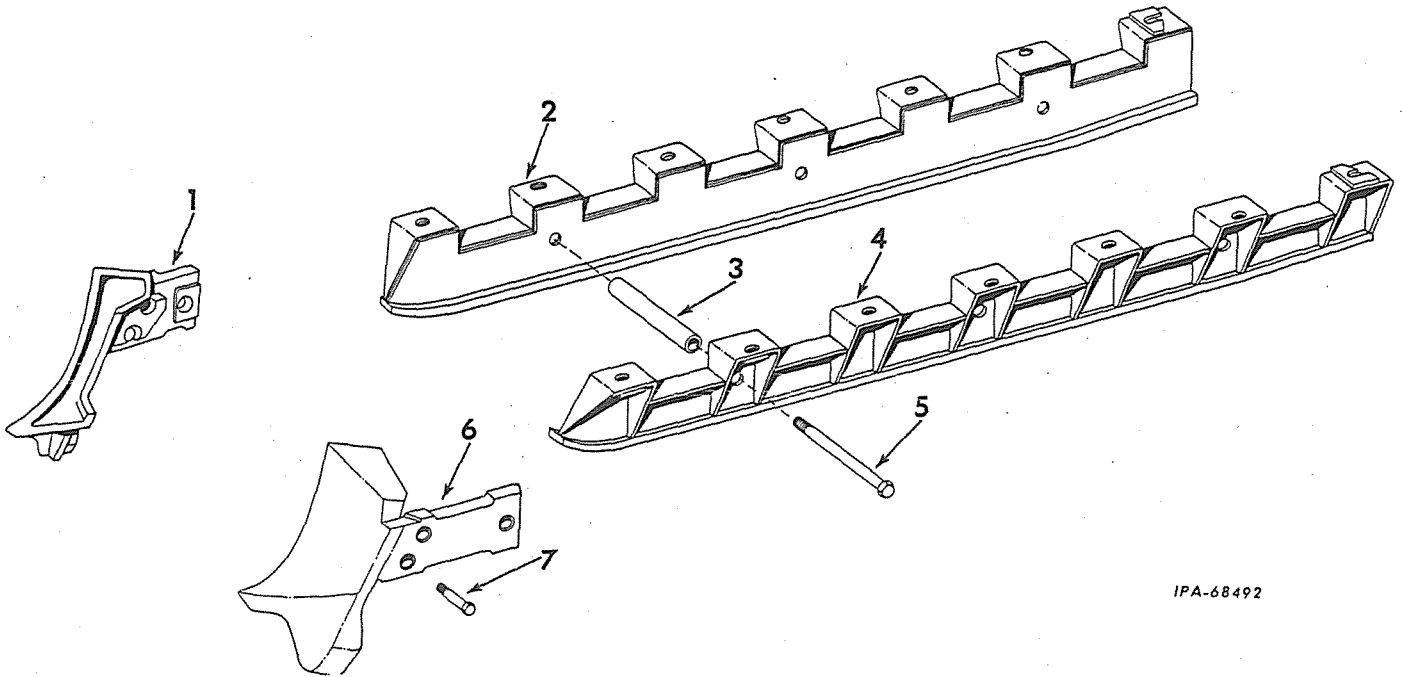
REF. NO.	I.H. PART NUMBER	DESCRIPTION
	609 980 C91	ATTACHMENT, water trap (*)
1	609 629 C1	SUPPORT, water trap bracket 3/8 x 7/8" hex-hd cap SCREW (2) 3/8 x 1-1/8" hex-hd cap SCREW (2) 3/8" lock WASHER (4)
2	610 609 C91	HOSE w/FITTINGS, water trap to primary filter (13" long)
3	9 402 838	ELBOW, water trap (2)
4	265 204 R1	SLEEVE, tubing (2)
5	265 205 R1	NUT, tubing sleeve (2)
6	609 631 C11	TUBE w/two NUT, 265 205 R1 and two SLEEVE, 265 204 R1, front fuel supply
7	9 311 D	BRACKET, water trap mounting
8	51 527 DC	GASKET, water trap
9	279 173 R1	SCREW, water trap drain

REF. NO.	I.H. PART NUMBER	DESCRIPTION
10	24 805 D	PLUG, 3/8" brs expansion (type No. 1)
11	60 871 DA	SCREW, water trap vent
12	251 380 R91	TOP w/drain PIPE and PLUG, 24 805 D, water trap
13	251 348 R91	SCREEN, water trap
14	260 708 R2	GASKET, water trap bowl
15	60 877 D	GLASS, water trap
16	60 878 DX	BAIL w/thumb SCREW, water trap
17	251 355 R91	TRAP ASSY, water 1/2 x 3" hex-hd cap SCREW 1/2" lock WASHER

(*) - Attachment no longer available. Service parts only will be furnished.

TRACK ROLLER AND SPROCKET ROCK SHIELD

TRACK ROLLER AND SPROCKET ROCK SHIELD - CONTINUED



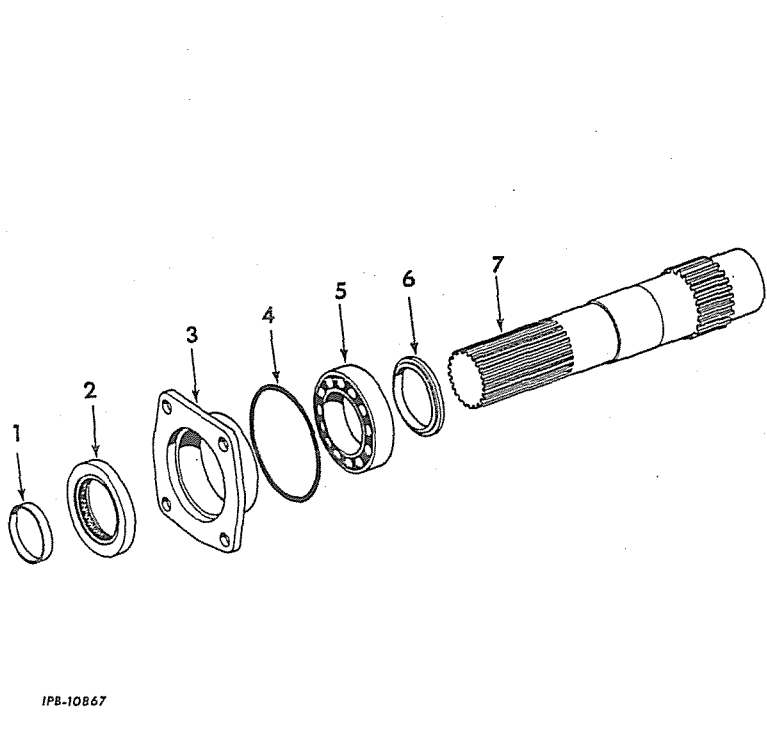
IPA-68492

REF. NO.	I.H. PART NUMBER	DESCRIPTION
		Parts without letters after the description indicate the part is used for all attachments listed below: Letters "A" and "B" are used to identify separate Attachments.
A	334 514 R92	ATTACHMENT, track roller and sprocket rock shield (Not used with sideboom crawler tractors) (see NOTES 1 and 3)
B	609 665 C92	ATTACHMENT, track roller and sprocket rock shield (used with sideboom crawler tractors) (see NOTES 1 and 3)
1	331 992 R1	DEFLECTOR, LH sprocket rock outer (Attachment A)
	338 025 R1	BOLT, sprocket shield (3/4 x 2-1/2" long)
	330 558 R1	BOLT, sprocket rock deflector (2)
1	331 993 R1	DEFLECTOR, RH sprocket rock outer (Attachment A)
	338 025 R1	BOLT, sprocket shield (3/4 x 2-1/2" long)
	330 558 R1	BOLT, sprocket rock deflector (2)
1	334 300 R1	DEFLECTOR, LH inner and RH outer, sprocket rock (2 for Attachment B)
	330 558 R1	BOLT, sprocket rock deflector (6)
2	616 484 C1	SHIELD, LH track roller (2 for Attachment A) (together with 14 BOLTS 223 451, 7 SPACERS 616 481 C1, 7 BOLTS 22 965 R1, 28 WASHERS 39 422 D, and 8 NUTS 220 081 will work for SHIELD 334 515 R1)
	223 451	BOLT, (3/4 x 1-3/4" long) (14)
	39 422 D	WASHER, (14)
2	616 482 C1	SHIELD, LH track roller (2 for Attachment B) (together with 16 BOLTS 223 450, 8 SPACERS 616 481 C1, 8 BOLTS 22 965 R1, 32 WASHERS 39 422 D and 8 NUTS 220 081 will work for SHIELD 325 797 R1)
	223 450	BOLT, (3/4 x 2" long) (16)
	39 422 D	WASHER (16)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
3	616 481 C1	SPACER, track roller shield (14)
	39 422 D	3/4" NUT (14)
	22 965 R1	WASHER (28)
		BOLT, (3/4 x 13-1/4" long) (14)
4	616 485 C1	SHIELD, RH track roller (2 for Attachment A) (together with 14 BOLTS 223 451, 7 SPACERS 616 481 C1, 7 BOLTS 22 965 R1, 28 WASHERS 39 422 D and 8 NUTS 220 081 will work for SHIELD 334 516 R1)
	223 451	BOLT, (3/4 x 1-3/4" long) (14)
	39 422 D	WASHER (14)
4	616 483 C1	SHIELD, RH track roller (2 for Attachment B) (together with 16 BOLTS 223 450, 8 SPACERS 616 481 C1, 8 BOLTS 22 965 R1, 32 WASHERS 39 422 D and 8 NUTS 220 081, will work for SHIELD 325 798 R1)
	223 450	BOLT, (3/4 x 2" long) (16)
	39 422 D	WASHER (16)
5	22 965 R1	BOLT, track roller shield spacer (16) (together with 1 SPACER 616 481 C1, 1 NUT 220 081 and 2 WASHERS 39 422 D will work for BOLT 281 186 R1)
	220 081	NUT, (16)
	39 422 D	WASHER, (16)
6	334 300 R1	DEFLECTOR, LH sprocket rock inner (Attachment A)
6	334 301 R1	DEFLECTOR, RH inner and LH outer, sprocket rock (2 for Attachment B)
6	334 301 R1	DEFLECTOR, RH sprocket rock inner (Attachment A)
7	330 558 R1	BOLT, sprocket shield (3/4 x 3-3/4" long) (6 for LH and RH sprocket rock inner-Attachment A) (6 for RH inner and LH outer-Attachment B)
		NOTE 1 - Factory Application - Order On Machine Order Form.
		NOTE 3 - Field Application - Order Through Regular Service Parts Channels.

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MISCELLANEOUS
 (For Crawler Tractors)

POWER TAKE-OFF
 (Not Used With Sideboom Crawler Tractors)

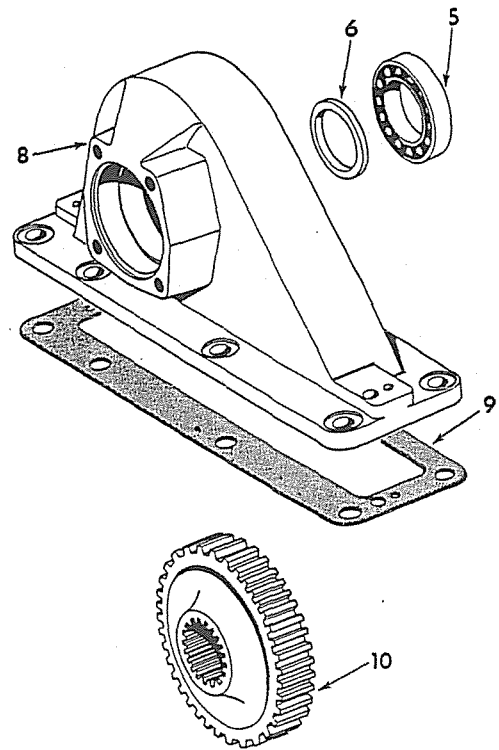


IPB-10867

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	338 097 R91	ATTACHMENT, power take-off (see NOTE 2)
1		SLEEVE, power take-off wear (order 331 749 R91)
2		OIL SEAL, power take-off (order 331 749 R91)
3	331 747 R1	RETAINER, power take-off seal 3/8 x 7/8" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
4	610 411 C1	"O" RING (3-1/2 x 3-3/4 x 1/8") (power take-off housing sealing)
5	ST 201	BEARING, power take-off drive shaft (2)
6	326 665 R1	WASHER, thrust (2)
7	331 748 R1	SHAFT, power take-off drive

-229-
MISCELLANEOUS
 (For Crawler Tractors)

POWER TAKE-OFF - CONTINUED
 (Not Used With Sideboom Crawler Tractors)



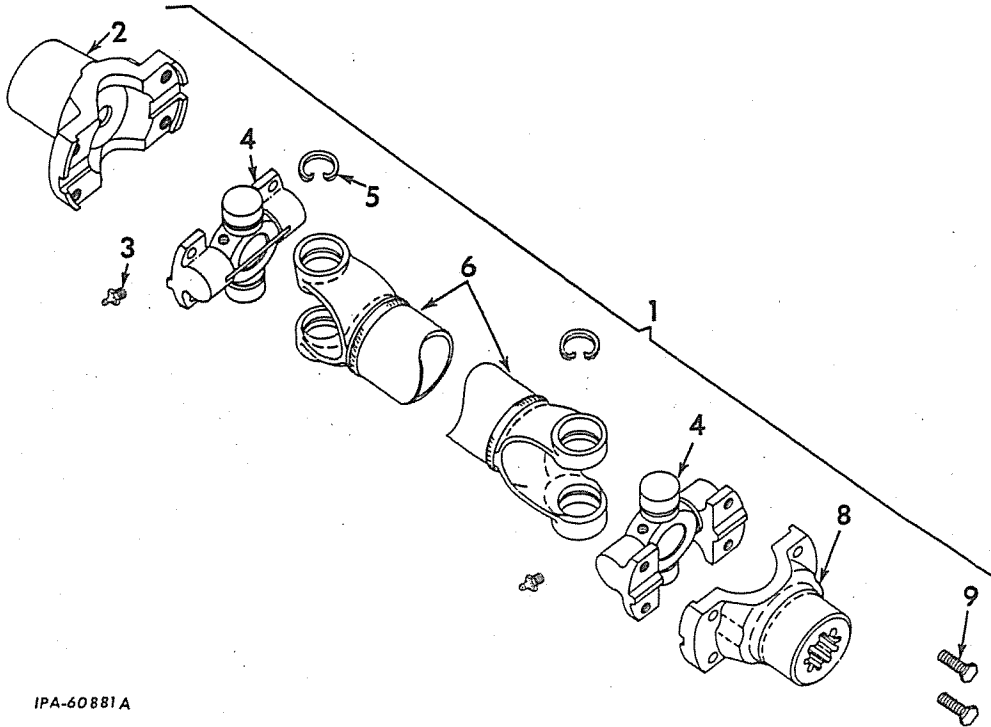
REF. NO.	I.H. PART NUMBER	DESCRIPTION
8	334 581 R11	HOUSING w/two PIN, 141 283, power take-off 3/8 x 1" hex-hd cap SCREW (2) 1/2 x 1-1/4" hex-hd cap SCREW (6) 3/8" lock WASHER (2) 1/2" lock WASHER (6)
9	326 653 R1	GASKET, power take-off housing
10	334 582 R11	GEAR w/two WASHER, 326 665 R1, power take-off
	331 749 R91	OIL SEAL w/SLEEVE
1	019 082 R1	PAMPHLET, installation instruction
	604 946 C1	SHIELD, power take-off shaft 5/8 x 1-5/8" hex-hd cap SCREW (2) 5/8" NUT (2) 21/32 x 1-5/16" x 13 ga flat WASHER (4)

NOTE 2 - Field Application - Order On
 Machine Order Form.



MISCELLANEOUS
(For Crawler Tractors)

POWER TAKE-OFF ADAPTER
(Mechanics) (Not Used With Sideboom Crawler Tractors)



IPA-60881A



MISCELLANEOUS
(For Crawler Tractors)

POWER TAKE-OFF ADAPTER - CONTINUED
(Mechanics) (Not Used With Sideboom Crawler Tractors)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
Parts without letters after the description indicate the part is used for all Attachments listed below; Letters A and B are used to identify separate Attachments.		
A	331 763 R91	ATTACHMENT, power take-off adapter (for use on units equipped with power take-off ATTACHMENT, 338 097 R91, and hi-mounted rear cable control unit) (see NOTES 1 and 2)
B	604 943 C91	ATTACHMENT, power take-off adapter (for use on units equipped with power take-off ATTACHMENT, 338 097 R91 and lo-mounted rear cable control unit) (see NOTES 1 and 2)
1	336 037 R91	"U" JOINT ASSY (2A-16902-2) (Attachment A) 5/8 x 1-1/4" hex-hd cap SCREW
1	606 469 C91	"U" JOINT ASSY (2A-18546-1) (Attachment B) 1/2 x 1" hex-hd cap SCREW 1/2" NUT
2	321 222 R91	YOKE, fitting (116-17247J) (Attachment A)
2	610 831 C91	YOKE and washer fitting (116-21032J) (Attachment B)
3	110 146 R91	FITTING, lubrication (optional with 102 467 H) (Lincoln No. 5042) (2)
3	102 467 H	FITTING, lubrication (optional with 110 146 R91) (Alemite No. 1792D) (2)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
4	317 722 R91	SPIDER w/BEARINGS (114-5132-A) (2)
5	97 710 H	RING, snap (5785-J) (4)
6	324 917 R1	TUBE (42-16902-2) (Attachment A)
6	610 832 C91	TUBE (42-18546-1) (Attachment B)
8	317 708 R1	YOKE, fitting (16781-J)
9	37 479 HA	BOLT, 3/8NF x 27/32" (3544-J) (8)
	605 779 C11	ANGLE, rear sheet mounting (2 for Attachment B) 5/8 x 2" hex-hd cap SCREW (2)
1	019 082 R1	PAMPHLET, installation instruction (Attachment A)
	305 109 R91	RETAINER and SEAL (12408-J) (8)
	605 775 C11	SHEET, LH rear cover (Attachment B)
	605 776 C11	SHEET, RH rear cover (Attachment B)
		3/8" NUT (5) 3/8 x 7/8" hex-hd cap SCREW (6) 3/8 x 1-1/8" hex-hd cap SCREW (5) 3/8" lock WASHER (11) 13/32 x 13/16" x 16 ga WASHER (5)
	37 335 H	SHIELD, dust (3542-J) (8)

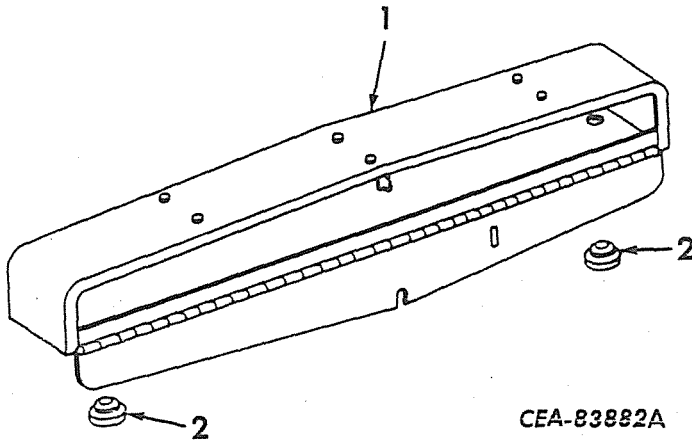
NOTE 1 - Factory Application - Order On Machine Order Form.

NOTE 2 - Field Application - Order on Machine Order Form.



MISCELLANEOUS

INSTRUMENT PANEL GUARD

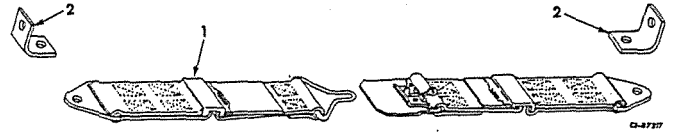


REF. NO.	I.H. PART NUMBER	DESCRIPTION
	607 775 C91	ATTACHMENT, instrument panel guard (see NOTES 1 and 3)
1	607 776 C91	GUARD w/two BUMPER, 607 785 C1, instrument 1/4NF NUT (4) 1/4" lock WASHER (8)
	607 786 C1	STUD, instrument guard mounting (4)
	16 559 R1	WASHER (4)
2	607 785 C1	BUMPER, instrument guard cover (2)



MISCELLANEOUS

SAFETY SEAT BELT
TD-20BP 5324 up
TD-20BPS 6110 up



REF. NO.	I.H. PART NUMBER	DESCRIPTION
	703 107 C91	ATTACHMENT, safety seat belt (consists of BELT, 702 248 C1, two BRACKET, 616 166 C1 and installation PAMPHLET, 1 085 320 R1) (see NOTES 1 and 3)
1	702 248 C1	BELT, seat 1/2" NUT (2) 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
2	616 166 C1	BRACKET, seat belt hold down (2) 7/16 x 1-1/8" hex-hd cap SCREW (2)

NOTE 1 - Factory Application - Order On Machine Order Form.
NOTE 3 - Field Application - Order Through Regular Service Parts Channels.

MISCELLANEOUS
(For Crawler Tractors)

MISCELLANEOUS
(For Crawler Tractors)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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GASKET SET

345 289 R93	GASKET SET, crankcase Includes the following:	
51 527 DC	GASKET,	water trap
607 130 C2	GASKET,	oil pump inlet tube
304 573 R1	GASKET,	cranking motor
318 424 R1	GASKET,	oil seal face plate
326 582 R1	GASKET,	injection pump cover
326 622 R2	GASKET,	front plate
607 464 C1	GASKET,	front cover
326 641 R1	GASKET,	auxiliary drive housing
326 647 R1	GASKET,	breather elbow
326 653 R1	GASKET,	power take-off housing
326 809 R1	GASKET,	oil lever gauge tube flange
326 831 R1	GASKET,	hydraulic pump hole cover
326 962 R1	GASKET,	oil filler elbow
349 254 R1	GASKET,	water pump
326 988 R1	GASKET,	water outlet housing
328 700 R1	GASKET,	water inlet elbow
328 936 R1	GASKET,	oil pan - lower
330 457 R1	GASKET,	thermostat housing
332 214 R1	GASKET,	push rod cover (2)
332 300 R1	GASKET,	flywheel housing
332 414 R1	GASKET,	oil outlet elbow
341 391 R1	GASKET,	oil pan - upper
345 193 R1	GASKET,	oil gallery inlet elbow
350 818 R1	"O" RING,	cooler to flywheel housing
350 818 R1	"O" RING,	breather pipe
352 221 R1	"O" RING,	oil gallery plug (2)
252 735 R1	"O" RING,	cover equipment drive
252 735 R1	"O" RING,	water pump bearing housing
259 099 R1	"O" RING,	tube oil cooler outlet (2)
290 987 R1	"O" RING,	idler shaft hole plug
308 459 R1	"O" RING,	filter bolt (2)
321 736 R1	"O" RING,	power take-off drive (2)
343 396 R2	"O" RING,	lubricating pump tube (4)
346 895 R1	"O" RING,	injection pump
372 821 R1	"O" RING,	piston cooling tube (12)
59 657 D	WASHER,	filter bolt (2)
119 937	WASHER,	filter drain (2)

345 290 R91 GASKET SET, cylinder head
Includes the following:

253 660 R1	GASKET,	turbo oil inlet
253 664 R2	GASKET,	turbo oil drain
265 429 R1	GASKET,	turbocharger
315 791 R1	GASKET,	exhaust manifold (6)
315 817 R1	GASKET,	end plate - rear
328 767 R1	GASKET,	air cross over elbow
330 421 R1	GASKET,	cylinder head front plate
337 195 R1	GASKET,	cover plate
337 302 R1	GASKET,	cylinder head cover
341 117 R3	GASKET,	cylinder head
601 076 C1	GASKET,	nozzle (6)
364 879 R1	"O" RING,	dust seal (6)
915 500 R1	SLEEVE,	leakoff tube (6)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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GASKET SET - CONTINUED

604 742 C92	PACKAGE, transmission gasket field service (Consists of 80 Gaskets and Rings as follows -	
142 756	GASKET,	poppet spring plug sealing (1-1/4" annular) (2)
269 910 R1	GASKET,	bevel pinion shaft front bearing retainer plug
321 992 R1	GASKET,	main regulator valve cover (5)
324 019 R1	GASKET,	range selector valve
324 021 R1	GASKET,	valve plate
325 040 R2	GASKET,	main regulator valve
325 041 R1	GASKET,	hydraulic valve spacer
325 647 R1	GASKET,	high-low shifter
334 709 R2	GASKET,	transmission case cover
616 302 C1	GASKET,	hydraulic valve spacer
610 414 C1	RING,	forward clutch shaft seal sealing
257 642 R1	RING,	oil seal housing sealing
259 246 R1	RING,	large hydraulic manifold seal
259 246 R1	RING,	spline shaft bearing cap sealing
283 857 R1	RING,	transmission case upper sealing
610 411 C1	RING,	bevel pinion shaft front bearing sealing
307 915 R1	RING,	reverse clutch hydraulic manifold plug sealing
324 022 R1	RING,	needle bearing retainer and sealing
350 684 R1	RING,	range selector valve shaft sealing
325 059 R1	RING,	reverse clutch shaft sealing (4)
610 416 C1	RING,	bevel pinion shaft bearing cage sealing
610 418 C1	RING,	transmission case lower sealing
327 090 R1	RING,	forward shaft sealing (4)
327 157 R2	RING,	piston and piston housing sealing (reverse clutch shaft) (4)
327 157 R2	RING,	piston and piston housing sealing (forward clutch pack) (4)
327 161 R2	RING,	accelerator piston sealing (forward clutch pack) (2)
327 161 R2	RING,	accelerator piston sealing (reverse clutch shaft) (2)
327 163 R1	RING,	clutch piston sealing (forward clutch pack)
327 163 R1	RING,	clutch piston sealing (reverse clutch shaft)
327 164 R1	RING,	piston housing sealing (forward clutch pack)
327 164 R1	RING,	piston housing sealing (reverse clutch shaft)
347 641 R1	RING,	range selector valve wiper sealing
350 667 R1	RING,	small hydraulic manifold seal (2)
350 667 R1	RING,	reverse clutch shaft hydraulic manifold sealing (2)
354 836 R1	RING,	reverse clutch shaft hydraulic manifold sealing
355 966 R1	RING,	selector valve manifold sealing (10)
379 181 R1	RING,	range selector valve sealing (5)
574 069 R1	RING,	range selector valve sealing (2)
345 834 R1	SHIM,	clutch shaft medium (3)
345 835 R1	SHIM,	clutch shaft heavy (3)
615 851 C1	SEAL,	range selector shaft
615 850 C1	WASHER,	seal backup



MISCELLANEOUS
(For Crawler Tractors)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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PRODUCT GRAPHICS

603 290 C92	PACKAGE, product identification product graphic (for tractors painted IH yellow) (Consists of -	
	§ 2 PRODUCT GRAPHIC, "IH" monogram	
	§ 1 PRODUCT GRAPHIC, "IH" monogram	
	§ 5 PRODUCT GRAPHIC, International	
	§ 2 PRODUCT GRAPHIC, "250" Model symbol	
	§ 2 PRODUCT GRAPHIC, "250B" Model Symbol	
	§ 2 PRODUCT GRAPHIC, "TD-20" Model symbol	
	§ 2 PRODUCT GRAPHIC, "Series B"	
	§ 1 PRODUCT GRAPHIC, "I.H.C. of Canada"	
604 743 C91	PACKAGE, torque converter gasket field service (for power shift crawler tractors) (Consists of 18 Gaskets and Rings as follows -	
324 069 R1	GASKET, output shaft bearing retainer (2)	
324 092 R2	GASKET, pump inspection cover	
321 988 R1	RING, torque converter to flywheel housing sealing	
324 062 R1	RING, hub sealing	
324 065 R1	RING, output shaft sealing (piston hook type)	
336 970 R1	RING, input pump sealing (2)	
343 927 R1	RING, power take-off cover sealing	
338 972 R1	SHIM, impeller hub (.005") (3)	
347 089 R1	SHIM, impeller hub (.010") (3)	
347 090 R1	SHIM, impeller hub (.020") (3)	
604 921 C92	PACKAGE, instructional product graphic (for tractors painted I.H. yellow) (Consists of -	
	§ 1 PRODUCT GRAPHIC, generator warning	
	§ 2 PRODUCT GRAPHIC, lubricating oil filter instructions	
	§ 1 PRODUCT GRAPHIC, primary fuel filter	
	§ 1 PRODUCT GRAPHIC, final fuel filter	
	§ 1 PRODUCT GRAPHIC, fuel priming procedure (TD-15B and L-175)	
	§ 1 PRODUCT GRAPHIC, fuel tank drain	
	§ 1 PRODUCT GRAPHIC, on-off master switch	
	§ 1 PRODUCT GRAPHIC, oil pressure warning	
	§ 1 PRODUCT GRAPHIC, parking brake instructions	
	§ 1 PRODUCT GRAPHIC, engine start warning	
	§ 1 PRODUCT GRAPHIC, shifter safety lock	
	§ 1 PRODUCT GRAPHIC, travel direction change	
	§ 1 PRODUCT GRAPHIC, air cleaner instructions (TD-15B and L-175)	
	§ 1 PRODUCT GRAPHIC, air cleaner instructions (TD-20B and L-250)	
	§ 1 PRODUCT GRAPHIC, engine running w/tractor stopped	
	§ 1 PRODUCT GRAPHIC, shifting diagram (power shift)	
	§ 1 PRODUCT GRAPHIC, shifting diagram (manual shift) (TD-15B)	
	§ 1 PRODUCT GRAPHIC, fuel pump pressure	
	§ 1 PRODUCT GRAPHIC, seat lock	
	§ 1 PRODUCT GRAPHIC, fuel priming procedure (TD-20B and L-250)	
	§ 1 PRODUCT GRAPHIC, master switch warning	
	§ 2 PRODUCT GRAPHIC, lubricating oil filter instruction TD-15B and L-175	
	§ 1 PRODUCT GRAPHIC, final fuel filter instruction (Roosa Pump)	
	§ 1 PRODUCT GRAPHIC, primary fuel filter instruction (Roosa Pump)	



MISCELLANEOUS
(For Crawler Tractors)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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PRODUCT GRAPHICS - CONTINUED

		The following identification and instructional Product Graphics are available.
2 751 217 R2	PRODUCT GRAPHIC, shifter safety lock TD-20BP 4001 to 22000 TD-20BPS 6110 to 22000	
2 754 077 R1	PRODUCT GRAPHIC, shifter safety lock TD-20BP 22001 up TD-20BPS 22001 up	
2 750 764 R1	PRODUCT GRAPHIC, oil pressure warning and engine shut-down	
2 752 194 R1	PRODUCT GRAPHIC, field adjusting of pivot brake and foot pedal TD-20BP 4001 to 5323 No. 8 x 1/2" rd-hd slt wood SCREW (4)	
2 752 377 R1	PRODUCT GRAPHIC, field adjusting of pivot brake and foot pedal TD-20BP 5324 up TD-20BPS 6110 up No. 8 x 1/2" rd-hd-slt wood SCREW (4)	
2 753 386 R1	PRODUCT GRAPHIC, primary filter	
312 552 R1	PLATE, turbo-charger warning No. 6 x 1/4" rd-hd drive SCREW (4)	

§ - Not Furnished Separately.



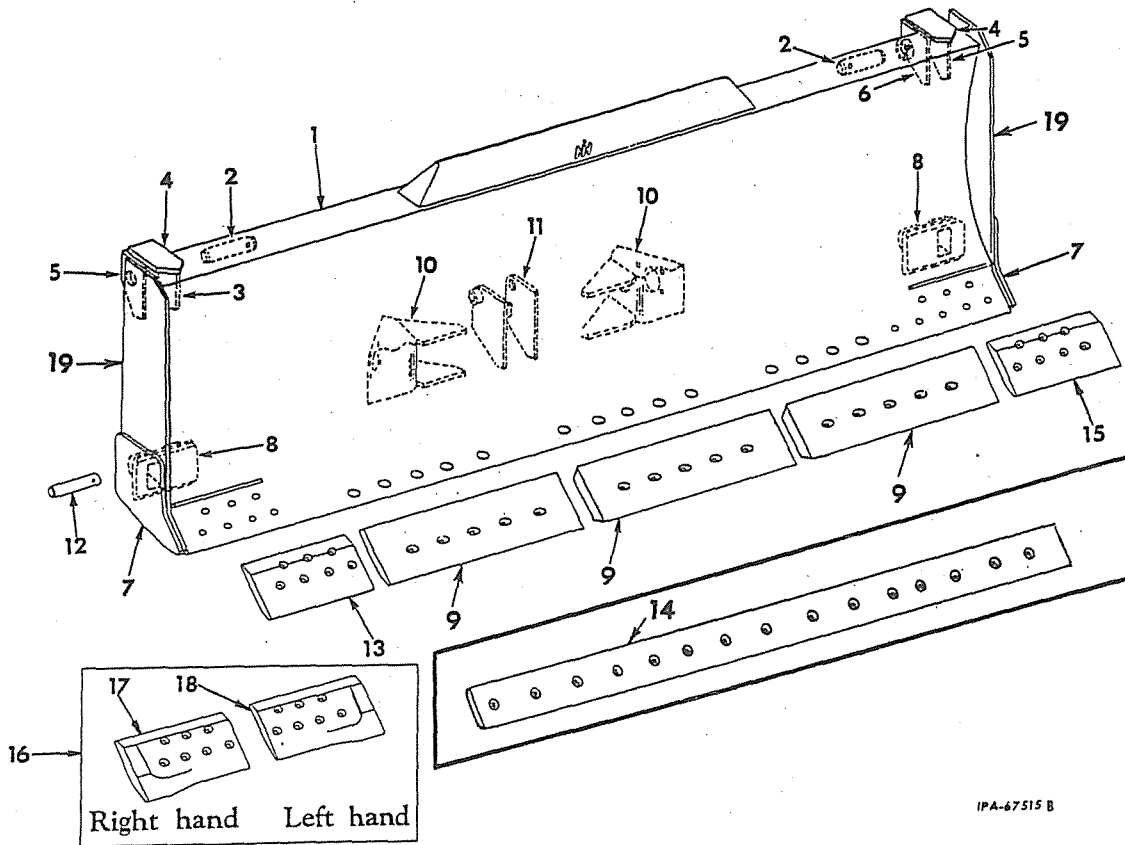
CABLE BULLGRADERS AND BULLDOZERS

BULLDOZER BLADE
(Not Semi "U" Blade) (For Model 20B-D1 and D3)
(Cable)



CABLE BULLGRADERS AND BULLDOZERS

BULLDOZER BLADE - CONTINUED
(Not Semi "U" Blade) (For Model 20B-D1 and D3)
(Cable)



IPA-67515 B

REF. NO.	L.H. PART NUMBER	DESCRIPTION
1	613 019 C91	BLADE w/EDGE and BITS ASSEMBLY, CABLE DOZER (Composed of - 1 BIT 626 006 C1 1 BIT 620 007 C1 § 1 BLADE 23 BOLT 326 301 R1 6 BOLT 326 304 R1 2 BRACKET 320 798 R91 3 EDGE 623 986 C1 2 FITTING 109 461 1 LUG 315 089 R91 1 LUG 315 090 R91 2 LUG 315 091 R1 1 LUG 320 834 R11 2 PLATE 315 084 R1 2 PLATE 315 092 R1 2 SOCKET 320 832 R2)
2	315 506 R1	PIN, upper strut (2) 1/2" stover lock NUT (2) 1/2 x 3-1/4" hex-hd cap SCREW (2)
3	315 090 R91	LUG, upper strut RH
4	315 092 R1	PLATE, strut lug reinforcing (2)
5	315 091 R1	LUG, upper strut (2)

REF. NO.	L.H. PART NUMBER	DESCRIPTION
6	315 089 R91	LUG, upper strut LH
7	315 084 R1	PLATE, end wear (2)
8	320 798 R91	BRACKET, push arm (2)
9	623 986 C1	EDGE, cutting (3)
	326 301 R1	BOLT, (7/8 x 2-3/4" long) (15) 7/8" NUT (15)
10	320 832 R2	SOCKET, diagonal strut (2)
11	320 834 R11	LUG, cable lift
12	309 789 R2	PIN, push arm bracket (2) 1/2" stover lock NUT (2) 1/2 x 3-1/2" hex-hd cap SCREW (2)
13	626 007 C1	BIT, RH end (not heavy duty) (*)
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (4)
	326 304 R1	BOLT, plow (7/8 x 6" long) (3) 7/8" (thick) NUT (7)

(*) - Used On Blade With Seven Bolt Holes.
§ - Not Furnished Separately.



CABLE BULLGRADERS AND BULLDOZERS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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BULLDOZER BLADE - CONTINUED
(Not Serni "U" Blade) (For Model 20B-D1 and D3)
(Cable)

13	298 862 R1	BIT, RH end (not heavy duty) (1)
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (4)
	326 304 R1	BOLT, plow (7/8 x 6" long) (4) 7/8" (thick) NUT (8)
14	298 856 R1	EDGE, cutting (90" long) (order EDGE, 623 986 C1)
	326 301 R1	BOLT (7/8 x 2-3/4" long) (15) 7/8" (thick) NUT (15)
15	626 006 C1	BIT, LH end (not heavy duty) (*)
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (4)
	326 304 R1	BOLT, plow (7/8 x 6" long) (3) 7/8" (thick) NUT (7)
15	298 861 R1	BIT, LH end (not heavy duty) (1)
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (4)
	326 304 R1	BOLT, plow (7/8 x 6" long) (4) 7/8" (thick) NUT (8)
16	335 669 R91	ATTACHMENT, cast-steel end bit (See NOTES 1 and 3) (*)
16	296 231 R91	ATTACHMENT, cast steel end bit (See NOTES 1 and 3) (†)
17	619 566 C1	BIT, RH end (heavy duty) (*)
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (4)
	326 304 R1	BOLT, plow (7/8 x 6" long) (3) 7/8" (thick) NUT (7)
17	299 583 R2	BIT, RH end (heavy duty) (†)
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (4)
	326 304 R1	BOLT, plow (7/8 x 6" long) (4) 7/8" (thick) NUT (8)
18	619 565 C1	BIT, LH end (heavy duty) (*)
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (4)
	326 304 R1	BOLT, plow (7/8 x 6" long) (3) 7/8" (thick) NUT (7)
18	299 582 R2	BIT, LH end (heavy duty) (†)
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (4)
	326 304 R1	BOLT, plow (7/8 x 6" long) (4) 7/8" (thick) NUT (8)
	109 461	FITTING, 1/8" lubrication (2)
19	608 172 C1	CUTTER, side (2)

NOTE 1 - Factory Application - Order On
Machine Order Form.
NOTE 3 - Field Application - Order Through
Regular Service Parts Channels.

(*) - Used on Blade with Seven Bolt Holes.

(†) - Used On Blade With Eight Bolt Holes.



MEMORANDA



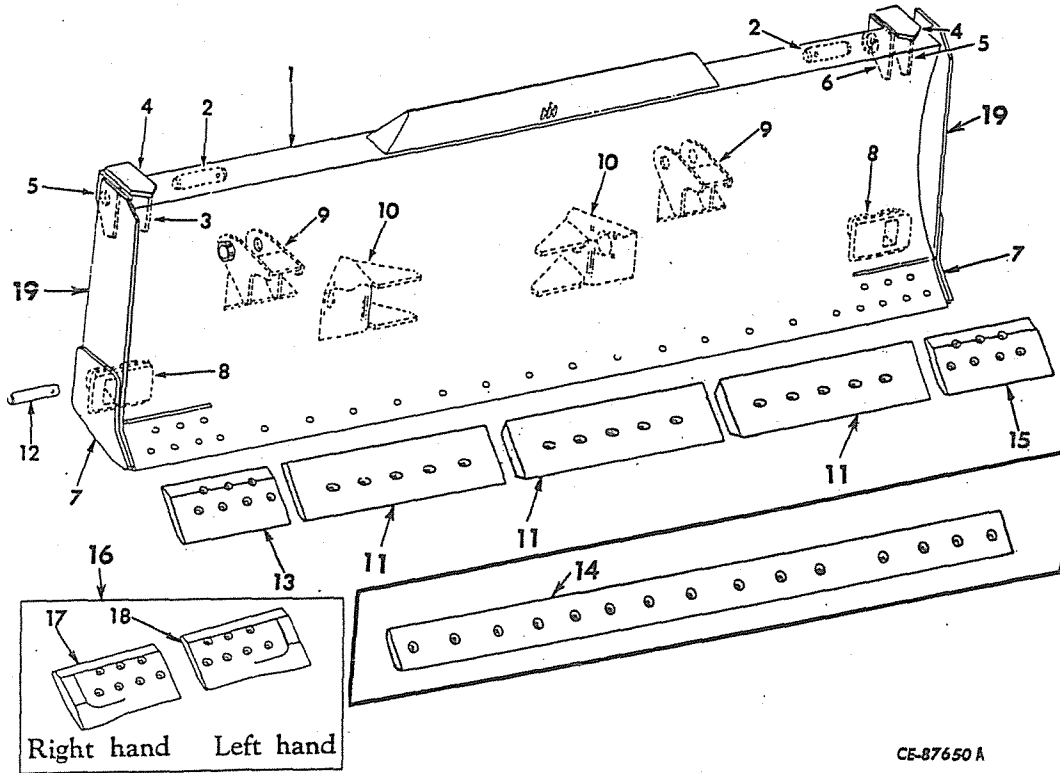
HYDRAULIC BULLGRADERS AND BULLDOZERS

BULLDOZER BLADE
(Not Semi "U" Blade) (For Model 20B-D2)
(Hydraulic)



HYDRAULIC BULLGRADERS AND BULLDOZERS

BULLDOZER BLADE - CONTINUED
(Not Semi "U" Blade) (For Model 20B-D2)
(Hydraulic)



CE-87650 A

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	613 017 C91	BLADE w/EDGE and BITS ASSEMBLY, HYDRAULIC DOZER (Composed of -
	1	BIT 626 006 C1
	1	BIT 626 007 C1
	§ 1	BLADE
	23	BOLT 326 301 R1
	6	BOLT 326 304 R1
	2	BRACKET 320 798 R91
	2	BRACKET 333 381 R91
	3	EDGE 623 986 C1
	2	FITTING 109 461
	1	LUG 315 089 R91
	1	LUG 315 090 R91
	2	LUG 315 091 R1
	2	PLATE 315 084 R1
	2	PLATE 315 092 R1
	2	SOCKET 320 832 R2)
2	315 506 R1	PIN, upper strut (2) 1/2" stover lock NUT (2) 1/2 x 3-1/4" hex-hd cap SCREW (2)
3	315 090 R91	LUG, upper strut RH
4	315 092 R1	PLATE, strut lug reinforcing (2)
5	315 091 R1	LUG, upper strut (2)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
6	315 089 R91	LUG, upper strut LH
7	315 084 R1	PLATE, end wear (2)
8	320 798 R91	BRACKET, push arm (2)
9	333 381 R91	BRACKET, hydraulic (2)
10	320 832 R2	SOCKET, diagonal strut (2)
11	623 986 C1	EDGE, cutting (3)
	326 301 R1	BOLT, (7/8 x 2-3/4" long) (15)
		7/8" (thick) NUT (15)
12	309 789 R2	PIN, push arm bracket (2) 1/2" stover lock NUT (2) 1/2 x 3-1/2" hex-hd cap SCREW (2)
13	626 007 C1	BIT, RH end (not heavy duty) (*)
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (4)
	326 304 R1	BOLT, plow (7/8 x 6" long) (3)
		7/8" (thick) NUT (7)

(*) - Used On Blade With Seven Bolt Holes.

§ - Not Furnished Separately.



HYDRAULIC BULLGRADERS AND BULLDOZERS



MEMORANDA

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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BULLDOZER BLADE - CONTINUED
(Not Semi "U" Blade) (For Model 20B-D2)
(Hydraulic)

13	298 862 R1 326 301 R1 326 304 R1	BIT, RH end (not heavy duty) (f) BOLT, plow (7/8 x 2-3/4" long) (4) BOLT, plow (7/8 x 6" long) (4) 7/8" (thick) NUT (8)
14	298 856 R1 326 301 R1	EDGE, cutting (90" long) (order three EDGE, 623 986 C1) BOLT (7/8 x 2-3/4" long) (15) 7/8" (thick) NUT (15)
15	626 006 C1 326 301 R1 326 304 R1	BIT, LH end (not heavy duty) (*) BOLT, plow (7/8 x 2-3/4" long) (4) BOLT, plow (7/8 x 6" long) (3) 7/8" (thick) NUT (7)
15	298 861 R1 326 301 R1 326 304 R1	BIT, LH end (not heavy duty) (f) BOLT, plow (7/8 x 2-3/4" long) (4) BOLT, plow (7/8 x 6" long) (4) 7/8" (thick) NUT (8)
16	335 669 R91	ATTACHMENT, cast steel end bit (See NOTES 1 and 3) (*)
16	296 231 R91	ATTACHMENT, cast steel end bit (See NOTES 1 and 3) (f)
17	619 566 C1 326 301 R1 326 304 R1	BIT, RH end (heavy duty) (*) BOLT, plow (7/8 x 2-3/4" long) (4) BOLT, plow (7/8 x 6" long) (3) 7/8" (thick) NUT (7)
17	299 583 R2 326 301 R1 326 304 R1	BIT, RH end (heavy duty) (f) BOLT, plow (7/8 x 2-3/4" long) (4) BOLT, plow (7/8 x 6" long) (4) 7/8" (thick NUT) (8)
18	619 565 C1 326 301 R1 326 304 R1	BIT, LH end (heavy duty) (*) BOLT, plow (7/8 x 2-3/4" long) (4) BOLT, plow (7/8 x 6" long) (3) 7/8" (thick) NUT (7)
18	299 582 R2 326 301 R1 326 304 R1	BIT, LH end (heavy duty) (f) BOLT, plow (7/8 x 2-3/4" long) (4) BOLT, plow (7/8 x 6" long) (4) 7/8" (thick) NUT (8)
	109 461	FITTING, 1/8" lubrication (2)
19	608 172 C1	CUTTER, side (2)

NOTE 1 - Factory Application - Order On
Machine Order Form.

NOTE 3 - Field Application - Order Through
Regular Service Parts Channels.

(*) - Used On Blade With Seven Bolt Holes.

(f) - Used On Blade With Eight Bolt Holes.



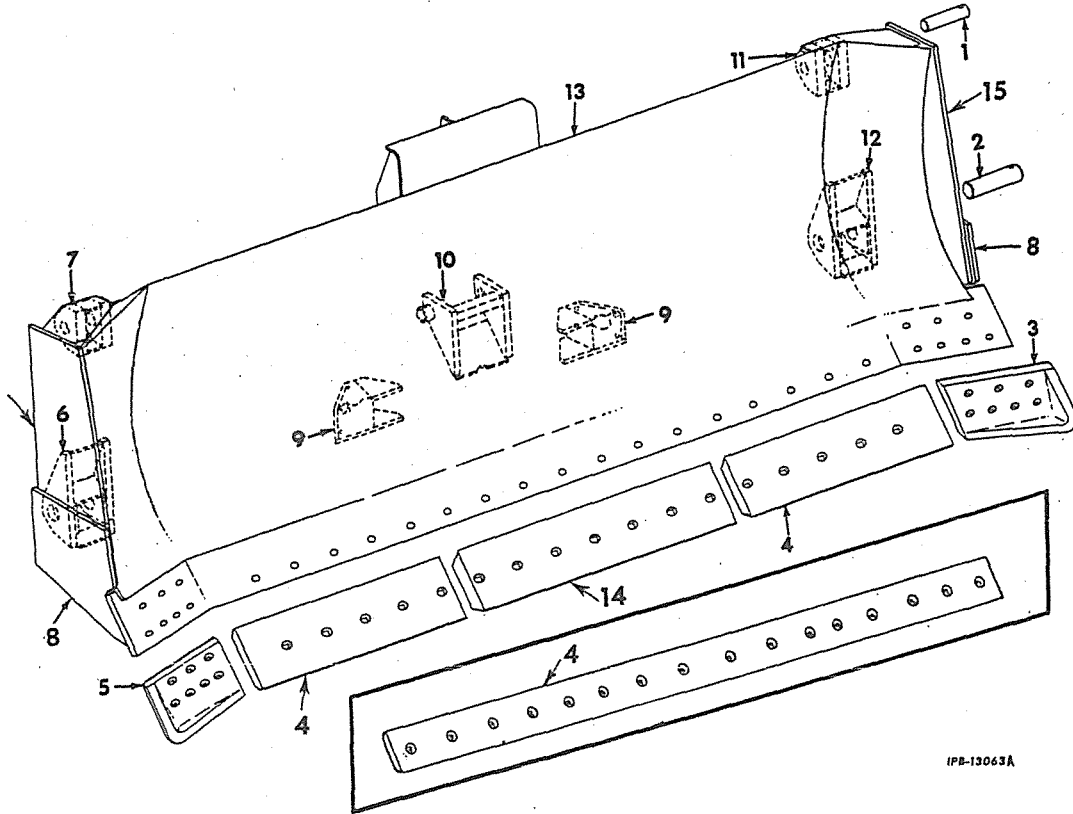
CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

BULLDOZER BLADE
(Semi "U" Blade)
(For Model 20B D-1 and D-3)



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

BULLDOZER BLADE -- CONTINUED
(Semi "U" Blade)
(For Model 20B D-1 and D-3)



REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	315 506 R1 9 413 956	PIN, strut (2) NUT, stover lock (2) 1/2 x 3-1/4" hex-hd cap SCREW (2)
2	608 010 C1 631 191 R1 9 413 960	PIN, pusharm (2) BOLT (2) NUT, stover lock (2)
3	619 567 C1 602 079 C1	BIT, LH end BOLT, No. 3 plow (7) 7/8" NUT (7)
4	623 983 C1 326 301 R1	EDGE, cutting (2) BOLT, No. 3 plow (17) 7/8" NUT (17)
4	608 007 C1	EDGE, cutting (order EDGE 623 984 C1 and two EDGE 623 983 C1)
5	619 568 C1 602 079 C1	BIT, RH end BOLT, No. 3 plow (7) 7/8" NUT (7)
6	605 989 C91	BRACKET, RH push arm
7	605 984 C91	BRACKET, RH upper strut
8	605 969 C1	PLATE, side rub (2)
9	605 996 C1	SOCKET, diagonal strut (2)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
10	608 002 C91	BRACKET, cable lift
11	605 983 C91	BRACKET, LH upper strut
12	605 988 C91	BRACKET, LH push arm
13	608 006 C91	BLADE w/EDGE and BITS ASSY (Composed of -
		1 BIT 619 567 C1
		1 BIT 619 568 C1
		§ 1 BLADE
		1 BRACKET 605 983 C91
		1 BRACKET 605 984 C91
		1 BRACKET 605 988 C91
		1 BRACKET 605 989 C91
		1 BRACKET 608 002 C91
		2 EDGE 623 983 C1
		1 EDGE 623 984 C1
		2 FITTING 109 461
		1 PLATE 605 969 C1
		2 SOCKET 605 996 C1)
14	623 984 C1	EDGE, cutting
15	608 172 C1	CUTTER, side (2)
	109 461	FITTING, lubrication

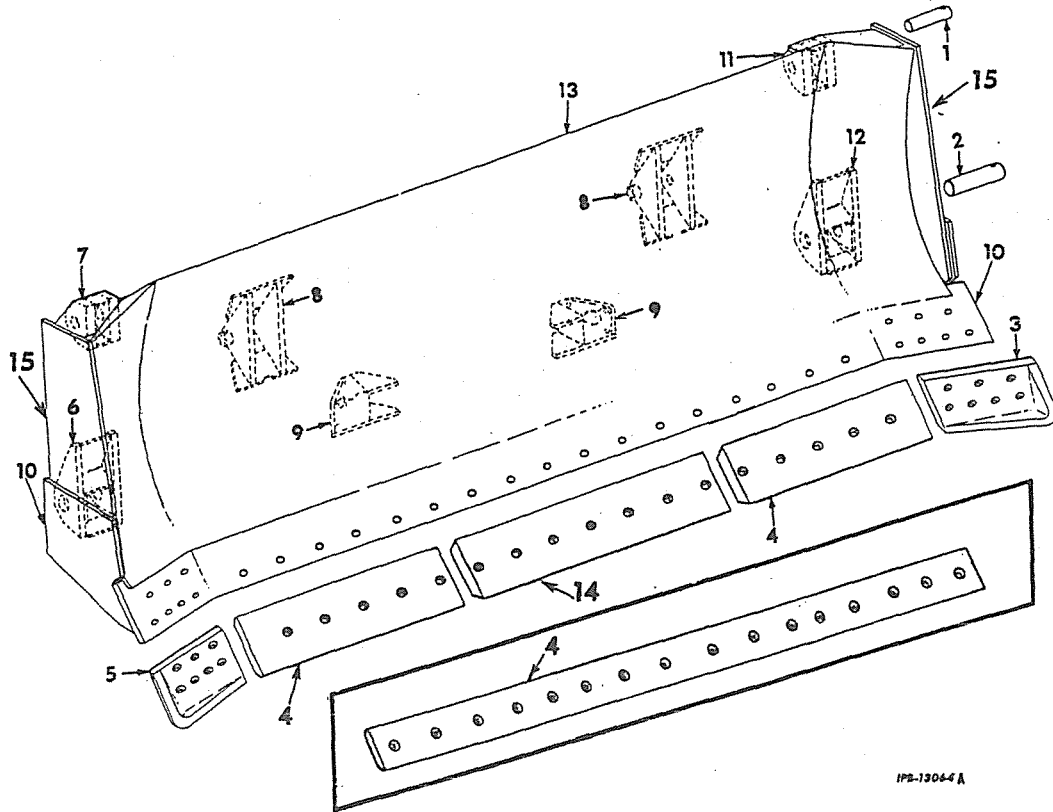
§ - Not Furnished Separately.

-239-
**CABLE AND HYDRAULIC
 BULLGRADERS AND BULLDOZERS**

BULLDOZER BLADE
 (Semi "U" Blade)
 (For Model 20-B D-2)

-239-
**CABLE AND HYDRAULIC
 BULLGRADERS AND BULLDOZERS**

BULLDOZER BLADE - CONTINUED
 (Semi "U" Blade)
 (For Model 20-B D-2)



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	315 506 R1	PIN, strut (2)
	9 413 956	NUT, stover lock (2) 1/2 x 3-1/4" hex-hd cap SCREW (2)
2	608 010 C1	PIN, push arm (2)
	631 191 R1	BOLT (2)
	9 413 960	NUT, stover lock (2)
3	619 567 C1	BIT, LH end
	602 079 C1	BOLT, No. 3 plow (7)
4	623 983 C1	EDGE, cutting (2)
	326 301 R1	BOLT, No. 3 plow (17) 7/8" NUT (17)
4	608 007 C1	EDGE, cutting (order EDGE 623 984 C1 and two EDGE 623 983 C1)
5	619 568 C1	BIT, RH end
	602 079 C1	BOLT, No. 3 plow (7) 7/8" NUT (7)
6	605 989 C91	BRACKET, RH push arm
7	605 984 C91	BRACKET, RH upper strut
8	608 011 C91	BRACKET, hvdraulic lift (2)

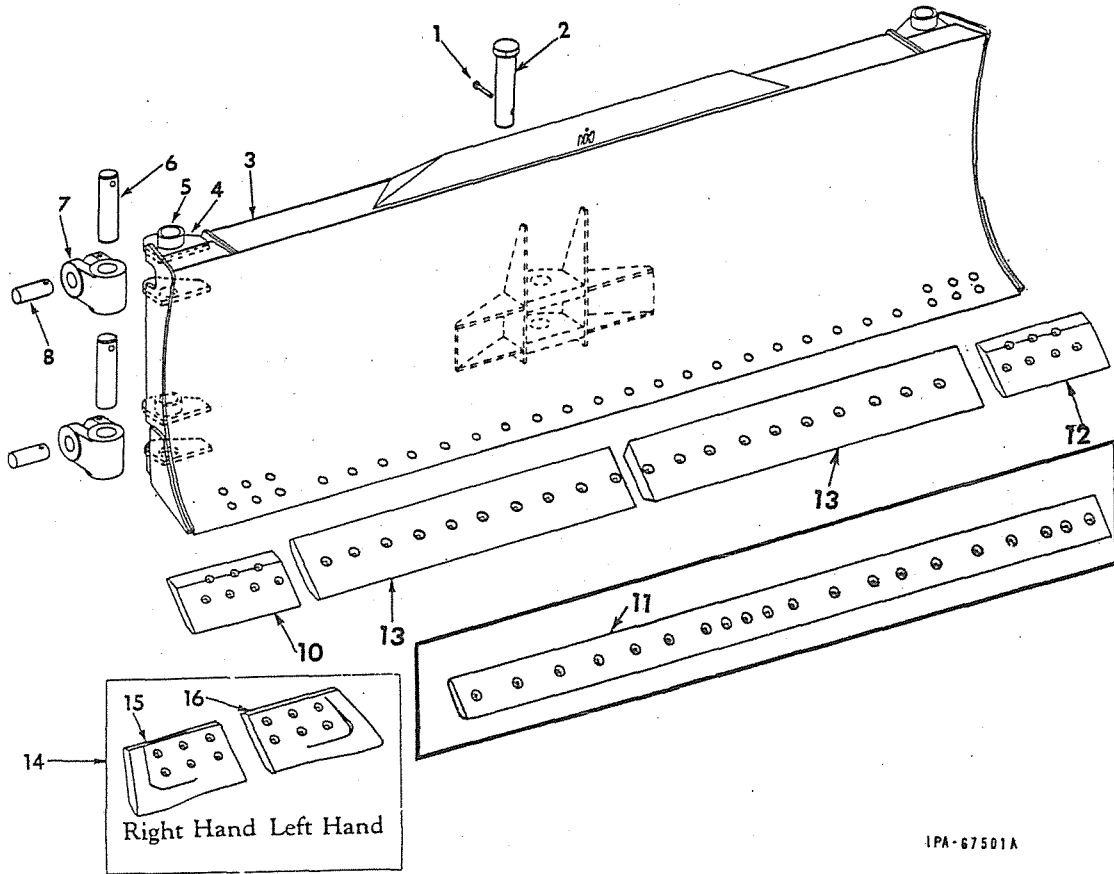
REF. NO.	I. H. PART NUMBER	DESCRIPTION
9	605 996 C1	SOCKET, diagonal strut (2)
10	605 969 C1	PLATE, side rub (2)
11	605 983 C91	BRACKET, LH upper strut
12	605 988 C91	BRACKET, LH push arm
13	608 013 C91	BLADE w/EDGE and BITS ASSY (Composed of -
		1 BIT 619 567 C1
		1 BIT 619 568 C1
	§ 1	BLADE
	2	BRACKET 608 011 C91
	1	BRACKET 605 983 C91
	1	BRACKET 605 984 C91
	1	BRACKET 605 988 C91
	1	BRACKET 605 989 C91
	2	EDGE 623 983 C1
	1	EDGE 623 984 C1
	2	FITTING 109 461
	1	PLATE 605 969 C1
	2	SOCKET 605 996 C1)
14	623 984 C1	EDGE, cutting
15	608 172 C1	CUTTER, side (2)
	109 461	FITTING, lubrication
		§ - Not Furnished Separately.

**CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS**

BULLGRADER BLADE
(Cable and Hydraulic)

**CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS**

BULLGRADER BLADE - Continued
(Cable and Hydraulic)



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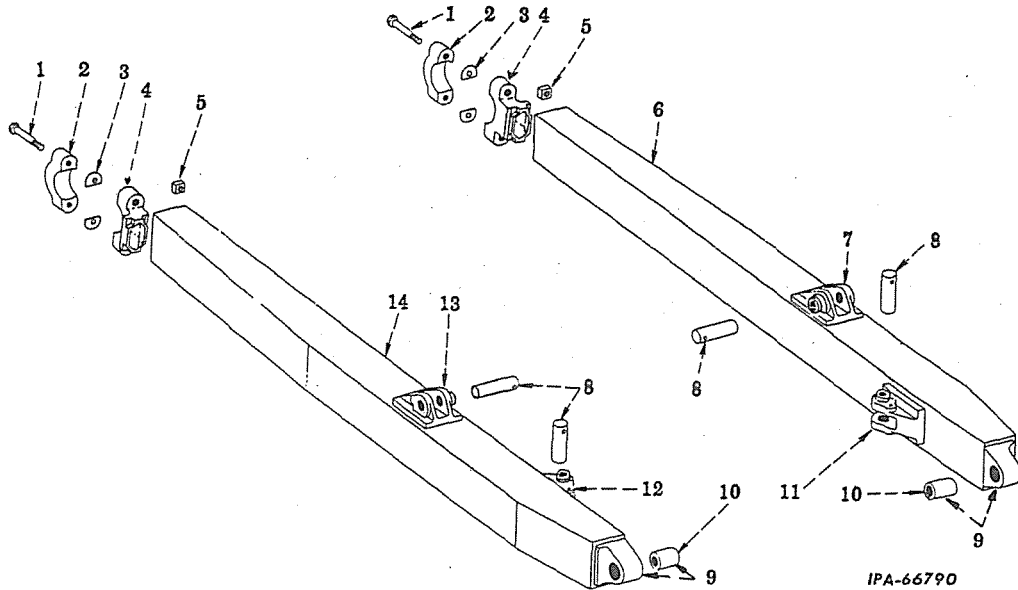
REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	49 127 H	PIN, rod end (1/2 x 2-9/16") 1/8 x 1" cotter PIN
2	600 671 C1	PIN, crosshead clevis
3	333 385 R91	BLADE w/EDGE and BITS ASSEMBLY (Composed of - 1 BIT 626 004 C1 1 BIT 626 005 C1 §1 BLADE 28 BOLT 326 301 R1 6 BOLT 326 303 R1 8 BRACKET 319 442 R2 2 EDGE 623 985 C1 1 PLATE 315 069 R1 1 PLATE 315 070 R1 4 TUBE 289 822 R1)
4	319 442 R1	BRACKET, stud (8)
5	289 822 R1	TUBE, strut bracket locking (4)
6	319 453 R1	PIN, strut swivel (4) 1/2" stover lock NUT (4) 1/2 x 3-1/4" hex-hd cap SCREW (4)
7	319 452 R1	CLEVIS, strut swivel (4)
8	319 454 R1	PIN, strut clevis (4) 7/16" stover lock NUT (4) 7/16 x 4-1/4" hex-hd cap SCREW (4)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
10	626 005 C1	BIT, RH end
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (4)
	326 303 R1	BOLT, plow (7/8 x 4-3/4" long) (3) NUT, 7/8" (thick) (7)
11	298 857 R1	EDGE, cutting (order two EDGE, 623 985 C1)
12	626 004 C1	BIT, LH end
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (4)
	326 303 R1	BOLT, plow (7/8 x 4-3/4" long) (3) NUT, 7/8" (thick) (7)
13	623 985 C1	EDGE, cutting (2)
	326 301 R1	BOLT, plow (7/8 x 2-3/4" long) (20) NUT, 7/8" (thick) (20)
14	342 182 R91	ATTACHMENT, cast steel end bit (See NOTES 1 and 3)
15	619 570 C1	BIT, RH end (heavy duty)
16	619 569 C1	BIT, LH end (heavy duty) 7/8" NUT (14) BOLT, plow (7/8 x 2-3/4" long) (8) BOLT, plow (7/8 x 4-3/4" long) (6) 315 069 R1 PLATE, LH end bit reinforcing 315 070 R1 PLATE, RH end bit reinforcing § - Not Furnished Separately.
		NOTE 1 - Factory Application - Order On Machine Order Form.
		NOTE 3 - Field Application - Order Through Regular Service Parts Channels.



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

BULLDOZER PUSH ARMS
(Not Semi "U" Blade)
(Cable and Hydraulic)



IPA-66790



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

BULLDOZER PUSH ARMS - CONTINUED
(Not Semi "U" Blade)
(Cable and Hydraulic)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	18 307 R1	SCREW 1 x 6" hex-hd cap (4) TD-20BD 1 3501 to # TD-20BD 2 3501 to # TD-20BD 3 3501 to #
1	20 278 R1	SCREW 1 x 6" hex-hd cap (4) TD-20BD 1 # up TD-20BD 2 # up TD-20BD 3 # up
2	290 255 R1	CAP, trunnion bearing (2)
3	290 257 R1	SHIM, trunnion bearing cap (16)
4	290 270 R2	BEARING, trunnion (2)
5	290 256 R2	NUT, trunnion bearing cap (4)
6	333 349 R91	ARM ASSEMBLY, LH push (Composed of - 1 ARM 333 351 R91 1 CAP 290 255 R1 2 NUT 290 256 R2 2 SCREW 20 278 R1 8 SHIM 290 257 R1)
6	333 351 R91	ARM ASSEMBLY, LH push (Composed of - 1 BEARING 290 270 R2 1 BRACKET 333 294 R91 1 BRACKET 333 295 R91 1 PIVOT 320 726 R11)
7	333 295 R91	BRACKET, upper strut LH push arm

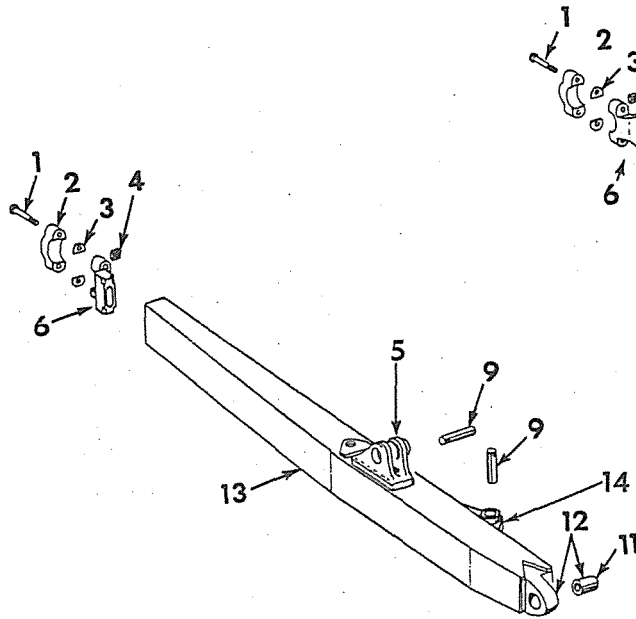
REF. NO.	I.H. PART NUMBER	DESCRIPTION
8	315 103 R1	PIN, strut, bracket (4) 1/2" stover lock NUT (4) 1/2 x 3-3/4" hex-hd cap SCREW (4)
9	320 726 R11	PIVOT w/BUSHING, 290 267 R2 (2)
10	290 267 R2	BUSHING, push arm pivot (2)
11	333 294 R91	BRACKET, diagonal strut LH push arm
12	333 295 R91	BRACKET, diagonal strut RH push arm
13	333 294 R91	BRACKET, upper strut RH push arm
14	333 350 R91	ARM ASSEMBLY, RH push (Composed of - 1 ARM 333 352 R91 1 CAP 290 255 R1 2 NUT 290 256 R2 2 SCREW 20 278 R1 8 SHIM 290 257 R1)
14	333 352 R91	ARM ASSEMBLY, RH push (Composed of - 1 BEARING 290 270 R2 1 BRACKET 333 294 R91 1 BRACKET 333 295 R91 1 PIVOT 320 726 R11)

- Serial Number Not Yet Available.



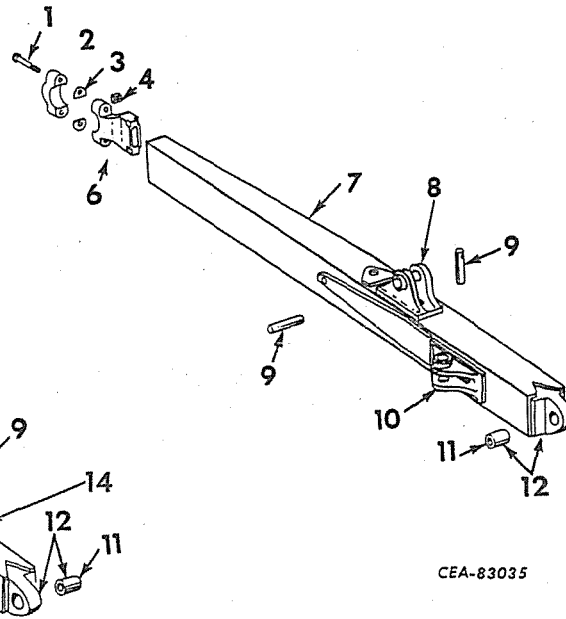
CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

BULLDOZER PUSH ARMS
(Semi "U" Blade)
(Cable and Hydraulic)



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

BULLDOZER PUSH ARMS - CONTINUED
(Semi "U" Blade)
(Cable and Hydraulic)



CEA-83035

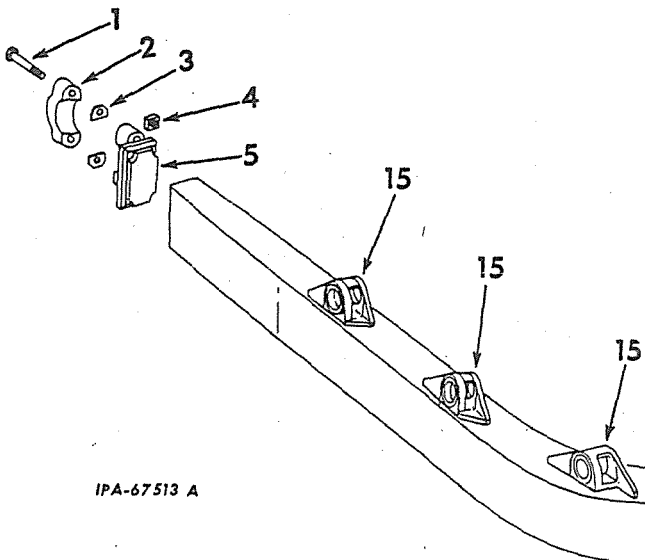
REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	20 278 R1	BOLT, trunnion bearing cap (4)
2	608 031 C1	CAP, trunnion bearing (2)
3	290 257 R1	SHIM, trunnion bearing cap (16)
4	290 256 R2	NUT, trunnion bearing cap (4)
5	608 024 C91	BRACKET, RH push arm upper strut
6	608 030 C1	BEARING, trunnion (2)
7	608 032 C91	ARM ASSY, LH push (Composed of - § 1 ARM 2 BOLT 20 278 R1 1 BEARING 608 030 C1 1 BRACKET 608 023 C91 1 BRACKET 608 027 C91 1 CAP 608 031 C1 2 NUT 290 256 R2 1 PIVOT 290 879 R31 8 SHIM 290 257 R1)
8	608 023 C91	BRACKET, LH push arm upper strut

REF. NO.	I.H. PART NUMBER	DESCRIPTION
9	315 506 R1 9 413 956	PIN, strut bracket (4) NUT, stover lock (4) 1/2 x 3-1/4" hex-hd cap SCREW (4)
10	608 027 C91	BRACKET, LH push arm diagonal strut
11	290 880 R2	BUSHING, pivot (2)
12	290 879 R31	PIVOT w/BUSHING, 290 880 R2 (2)
13	608 033 C91	ARM ASSY, RH push (Composed of - § 1 ARM 1 BEARING 608 030 C1 2 BOLT 20 278 R1 1 BRACKET 608 024 C91 1 BRACKET 608 028 C91 1 CAP 608 031 C1 2 NUT 290 256 R2 1 PIVOT 290 879 R31 8 SHIM 290 257 R1)
14	608 028 C91	BRACKET, RH push arm diagonal strut

§ - Not Furnished Separately.

-243-
CABLE
BULLGRADERS AND BULLDOZERS

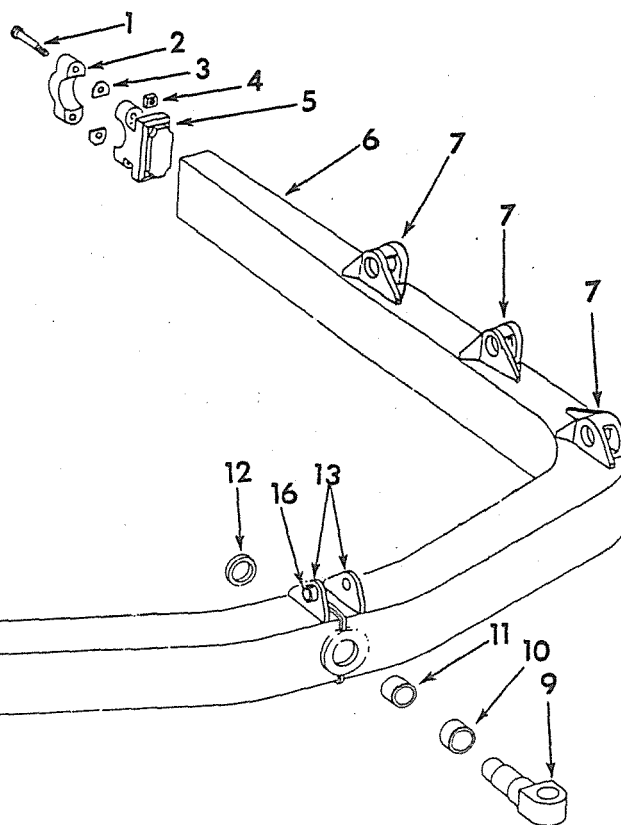
BULLGRADER "C" FRAME
(Cable)



IPA-67513 A

-243-
CABLE
BULLGRADERS AND BULLDOZERS

BULLGRADER "C" FRAME - CONTINUED
(Cable)



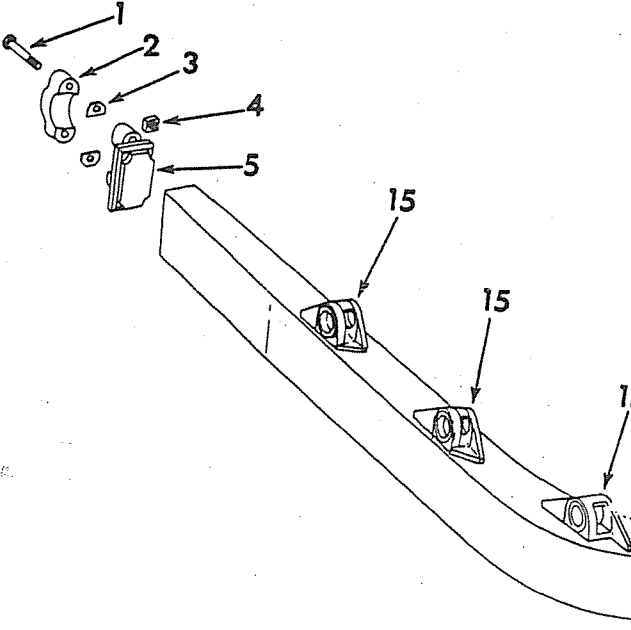
REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	18 307 R1	SCREW 1 x 6" hex-hd cap (4) TD-20BG 1 3501 to # TD-20BG 3 3501 to #
1	20 278 R1	SCREW 1 x 6" hex-hd cap (4) TD-20BG 1 # up TD-20BG 3 # up
2	290 255 R1	CAP, trunnion bearing (2)
3	290 257 R1	SHIM, trunnion bearing cap (16)
4	290 256 R2	NUT, trunnion bearing cap (4)
5	290 245 R2	BEARING, trunnion (2)
6	613 026 C91	"C" FRAME with trunnion bearing CAPS ASSEMBLY, cable (Composed of -
	2	BEARING 290 245 R2
	1	BUSHING 319 470 R1
	1	BUSHING 319 471 R1
	3	BRACKET 294 000 R1
	3	BRACKET 294 001 R1
	2	CAP 290 255 R1
	4	NUT 290 256 R2
	1	PIN 319 468 R2
	2	PLATE 342 203 R1
	1	RETAINER 319 469 R1
	4	SCREW 20 278 R1
	16	SHIM 290 257 R1
	1	TUBE 289 822 R1)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
7	294 000 R1	BRACKET, LH strut (3)
9	620 911 C1	PIN, crosshead swivel (together with BUSHING, 620 912 C1 will work for PIN, 319 468 R1)
10	620 912 C2	BUSHING, crosshead swivel pin (together with PIN, 620 911 C1 will work for BUSHING, 319 470 R1)
11	319 471 R1	BUSHING, cross head swivel pin (small)
12	319 469 R1	RETAINER, cross head swivel pin
13	342 203 R1	PLATE, cable bracket (2)
15	294 001 R1	BRACKET, RH strut (3)
16	289 822 R1	TUBE, locking

- Serial Number Not Yet Available.

HYDRAULIC BULLGRADERS AND BULLDOZERS

BULLGRAKER "C" FRAME
(Hydraulic)

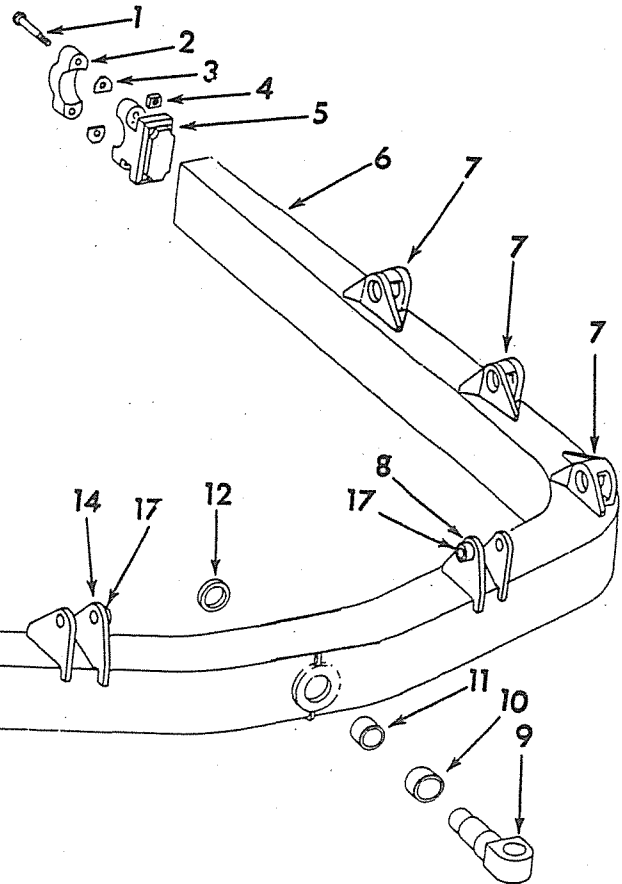


CE-87649

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	18 307 R1	SCREW 1 x 6" hex-hd cap (4) TD-20BG 2 3501 to #
1	20 278 R1	SCREW 1 x 6" hex-hd cap (4) TD-20BG 2 # up
2	290 255 R1	CAP, trunnion bearing (2)
3	290 257 R1	SHIM, trunnion bearing cap (16)
4	290 256 R2	NUT, trunnion bearing cap (4)
5	290 245 R2	BEARING, trunnion (2)
6	613 024 C91	"C" FRAME with trunnion bearing CAPS ASSEMBLY, hydraulic (Composed of - 2 BEARING 290 245 R2 1 BUSHING 319 470 R1 1 BUSHING 319 471 R1 3 BRACKET 294 000 R1 3 BRACKET 294 001 R1 2 CAP 290 255 R1 4 NUT 290 256 R2 1 PIN 319 468 R2 2 PLATE 335 738 R1 2 PLATE 335 739 R1 1 RETAINER 319 469 R1 4 SCREW 20 278 R1 16 SHIM 290 257 R1 2 TUBE 319 463 R1)

HYDRAULIC BULLGRADERS AND BULLDOZERS

BULLGRADER "C" FRAME - CONTINUED
(Hydraulic)



REF. NO.	I. H. PART NUMBER	DESCRIPTION
7	294 000 R1	BRACKET, LH strut (3)
8	335 739 R1	PLATE, hydraulic lift lug outer (2)
9	620 911 C1	PIN, crosshead swivel (together with BUSHING, 620 912 C1 will work for PIN, 319 468 R1)
10	620 912 C2	BUSHING, crosshead swivel pin (together with PIN, 620 911 C1 will work for BUSHING, 319 470 R1)
11	319 471 R1	BUSHING, cross head swivel pin (small)
12	319 469 R1	RETAINER, cross head swivel pin
14	335 738 R1	PLATE, hydraulic lift lug inner (2)
15	294 001 R1	BRACKET, RH strut (3)
17	319 463 R1	TUBE, locking (2)

- Serial Number Not Yet Available.



MEMORANDA



MEMORANDA

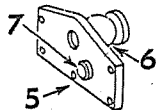
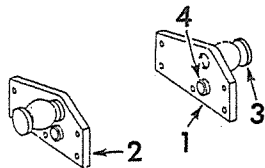


CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS



MEMORANDA

TRUNNIONS (Cable and Hydraulic)



IPA-60883

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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MODEL 20B D-1, 20B D-2 and 20B D-3 CABLE and HYDRAULIC

1	320 786 R91	TRUNNION, 294 552 R1 w/PILOT, 294 555 R1, LH 7/8 x 3" hex-hd cap SCREW (6)
2	320 787 R91	TRUNNION, 294 552 R1, w/PILOT, 294 555 R1, RH 7/8 x 3" hex-hd cap SCREW (6)
3	294 552 R1	TRUNNION (2)
4	294 555 R1	PILOT, trunnion (2)

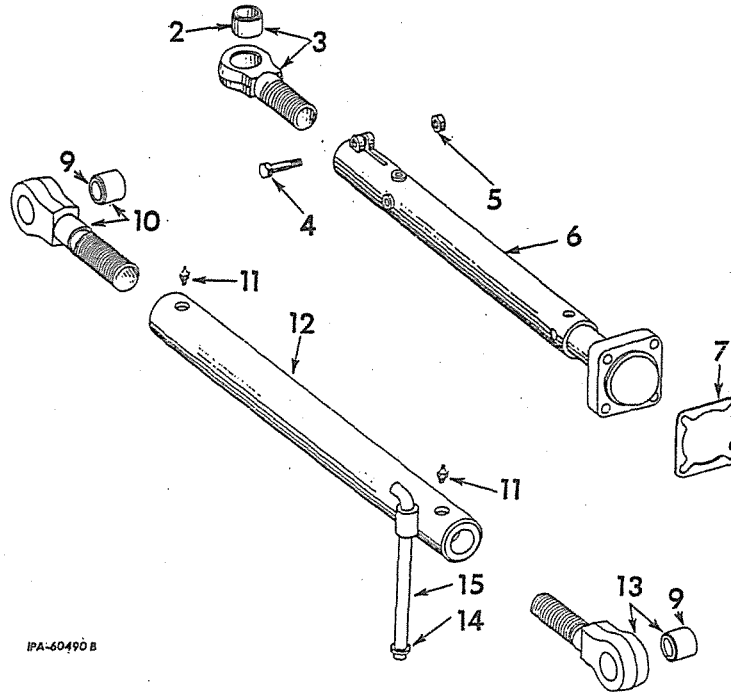
MODEL 20B G-1, 20B G-2, and 20B G-3 CABLE and HYDRAULIC

5	320 733 R91	TRUNNION, 294 552 R1 w/PILOT, 294 555 R1 (2) 7/8 x 3" hex-hd cap SCREW (10)
6	294 552 R1	TRUNNION (2)
7	294 555 R1	PILOT, trunnion (2)



CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS

BULLDOZER STRUTS
(Cable and Hydraulic)



IPA-60490 B



CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS

BULLDOZER STRUTS - CONTINUED
(Cable and Hydraulic)

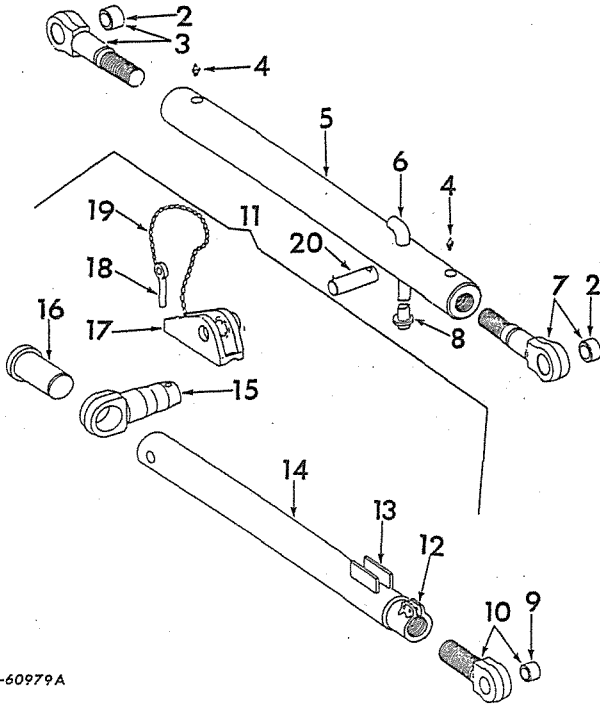
REF. NO.	I. H. PART NUMBER	DESCRIPTION
		Parts without letters after the description indicate the part is used for all Bulldozer Struts listed below: Letters A, B, C and D are used to identify separate Bulldozer Struts.
A		STRUT, bulldozer blade upper (not used on units equipped with Semi "U" Blade)
B		STRUT, bulldozer blade upper (used on units equipped with Semi "U" Blade)
C		STRUT, bulldozer blade diagonal (not used on units equipped with Semi "U" Blade)
D		STRUT, bulldozer blade diagonal (used on units equipped with Semi "U" Blade)
2	290 290 R2	BUSHING, diagonal strut eyebolt (2 for Struts C and D)
3	293 001 R11	EYEBOLT w/BUSHING, 290 290 R2, diagonal strut (2 for Struts C and D)
4		SCREW, 5/8 x 3-1/4" hex-hd cap (2 for S Struts C and D)
5		NUT, 5/8" (2 for Struts C and D)
6	613 200 C11	STRUT, diagonal (2 for Strut C)
6	701 728 C1	STRUT, diagonal (2 for Strut D)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
7	320 764 R1	SHIM, diagonal strut (8 for Struts C and D) 3/4 x 2-3/4" hex-hd cap SCREW (8)
9	290 290 R2	BUSHING, upper strut eyebolt (4 for Struts A and B)
10	309 907 R11	EYEBOLT w/BUSHING, 290 290 R2, upper strut rear (2 for Strut A)
10	608 039 C11	EYEBOLT w/BUSHING, 290 290 R2, upper strut rear (2 for Strut B)
11	109 461	FITTING, 1/8" lubrication (4 for Struts A and B)
12	315 186 R11	BODY, upper strut (2 for Strut A)
12	608 038 C11	BODY, upper strut (2 for Strut B)
13	315 180 R11	EYEBOLT w/BUSHING, 290 290 R2, upper strut front (2 for Strut A)
13	608 040 C11	EYEBOLT w/BUSHING, 290 290 R2, upper strut front (2 for Strut B)
14		COLLAR, locking pin (2 for Struts A and B) (1 x 3/8" long pipe (obtain locally)
15	315 177 R1	PIN, strut locking (2 for Struts A and B)



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

BULLGRADER STRUTS (Cable and Hydraulic)



IPA-60979A

REF. NO.	I. H. PART NUMBER	DESCRIPTION
2	290 290 R2	BUSHING, strut eyebolt (4)
3	309 907 R11	EYEBOLT w/BUSHING, 290 290 R2, upper strut rear (2)
4	109 461	FITTING, 1/8" lubrication (4)
5	315 188 R2	BODY, upper strut (2)
6	323 647 R1	PIN, strut locking (2)
7	315 180 R11	EYEBOLT w/BUSHING, 290 290 R2, upper strut front (2)
8		TUBE, strut locking pin (2) (1 x 3/8" long pipe (obtain locally))
9	290 290 R2	BUSHING, lower strut eyebolt (2)
10	293 001 R11	EYEBOLT w/BUSHING, 290 290 R2, lower strut (2) 5/8" NUT (4) 5/8 x 2-1/2" hex-hd cap SCREW (4)
11	315 479 R92	STRUT ASSEMBLY, lower LH
11	315 480 R92	STRUT ASSEMBLY, lower RH
12	290 283 R2	NUT lower strut (2)
13	323 642 R11	RETAINER, strut lock
14	290 281 R1	BODY, lower strut (2)
15	290 284 R1	TRUNNION (2)



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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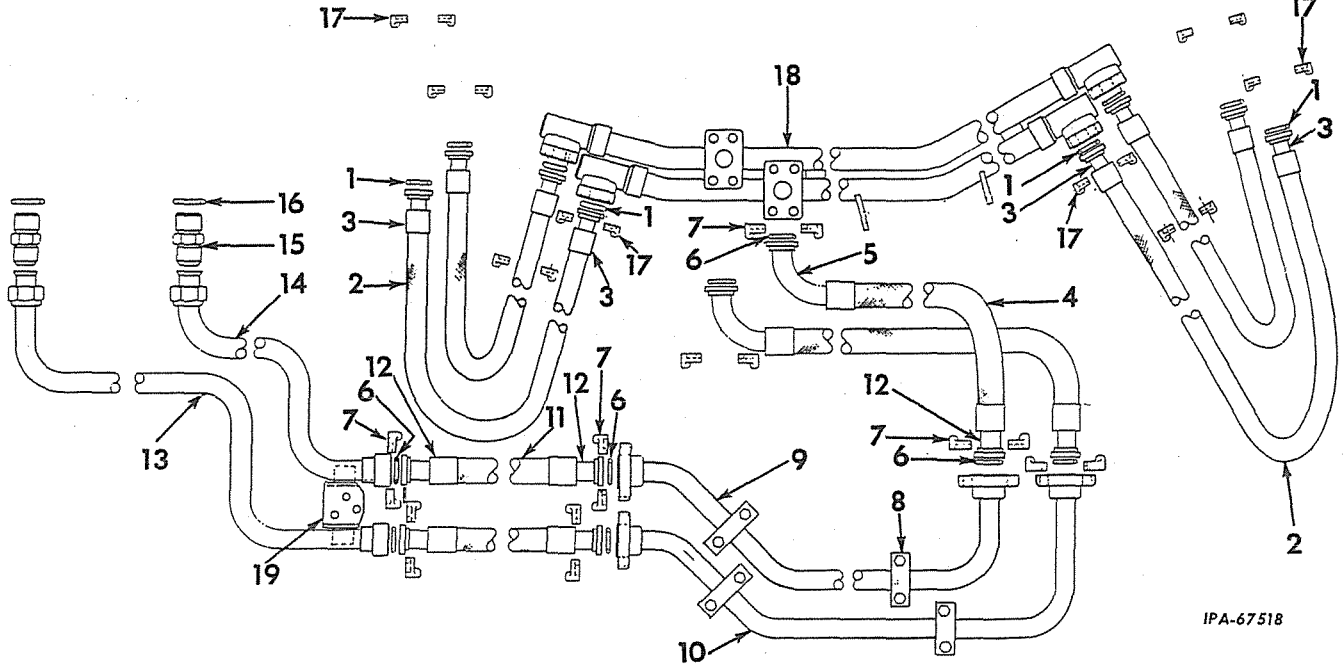
BULLGRADER STRUTS - CONTINUED (Cable and Hydraulic)

16	290 285 R1	PIN, trunnion swivel (2)
17	315 445 R91	BRACKET, lower strut LH
17	315 446 R91	BRACKET, lower strut RH
18	19 643 R1	PIN, trunnion (2)
19	290 287 R2	CHAIN, trunnion pin (2)
20	315 103 R1	PIN, upper strut rear (2) 1/2" stover lock NUT (2) 1/2 x 3" hex-hd cap SCREW (2)



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

HYDRAULIC HOSES AND RELATED PARTS
(TD-20BP 4001 to 4193)



IPA-67518

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	350 818 R1	"O" RING, 1 x 1-1/4 x 1/8" (8)
2	343 519 R91	HOSE w/two FITTING, 306 356 R91 (HOSE, 3/4" ID x 38" long including FITTINGS) (4)
2		HOSE w/o FITTINGS, cut length 35" long cut from bulk Hose No. 313 244 R1.
3	306 356 R91	FITTING, split flange hose (Aeroquip No. 4744-12) (8)
4	343 629 R91	HOSE w/FITTING, 310 920 R91 and FITTING, 313 096 R91 (HOSE, 1" ID x 32" long including FITTINGS) (2)
4		HOSE w/o FITTINGS, cut length 27" long cut from bulk Hose No. 313 245 R1.
5	313 096 R91	FITTING, split flange 90° hose (Aeroquip No. 4790-16S) (2)
6	708 560 R1	"O" RING, 1-5/16 x 1-9/16 x 1/8" (8)
7	295 698 R1	CLAMP-HALF, split flange (16) 3/8 x 1-1/4" hex-hd cap SCREW (32) 3/8" lock WASHER (32)
8	329 509 R1	CLAMP, halves (8) 3/8 x 2-3/4" hex-hd cap SCREW (8) 3/8" lock WASHER (8)
9	333 504 R91	TUBE, raise
10	333 505 R91	TUBE, lower

REF. NO.	I. H. PART NUMBER	DESCRIPTION
11	343 628 R91	HOSE w/two FITTING, 310 920 R91 (HOSE, 1" ID x 29" long including FITTINGS) (2)
11		HOSE w/o FITTINGS, cut length 24-3/4" long cut from bulk Hose No. 313 245 R1.
12	310 920 R91	FITTING, split flange straight hose (Aeroquip No. 4744-16S) (6)
13	333 502 R91	TUBE, lower
14	333 501 R91	TUBE, raise
15	342 489 R1	CONNECTOR, straight thread (2)
16	296 247 R1	"O" RING, 1.171 x 1.403 x .116" (2)
17	283 172 R1	CLAMP-HALF, split flange (16) 3/8 x 1-1/4" hex-hd cap SCREW (32) 3/8" lock WASHER (32)
18	342 446 R91	TUBE, crossover 3/8" NUT (4) 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
19	342 445 R11	BRACKET, hydraulic line 1/2" NUT (2) 3/8 x 1" hex-hd cap SCREW (3) 1/2 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (3) 1/2" lock WASHER (2)
	313 244 R1	HOSE, bulk, 3/4" ID (X)
	313 245 R1	HOSE, bulk, 1" ID (X)
	294 799 R1	WASHER, thrust (Used with TUBE, 342 446 R91) (2)

(X) - Order Cut Length Required.



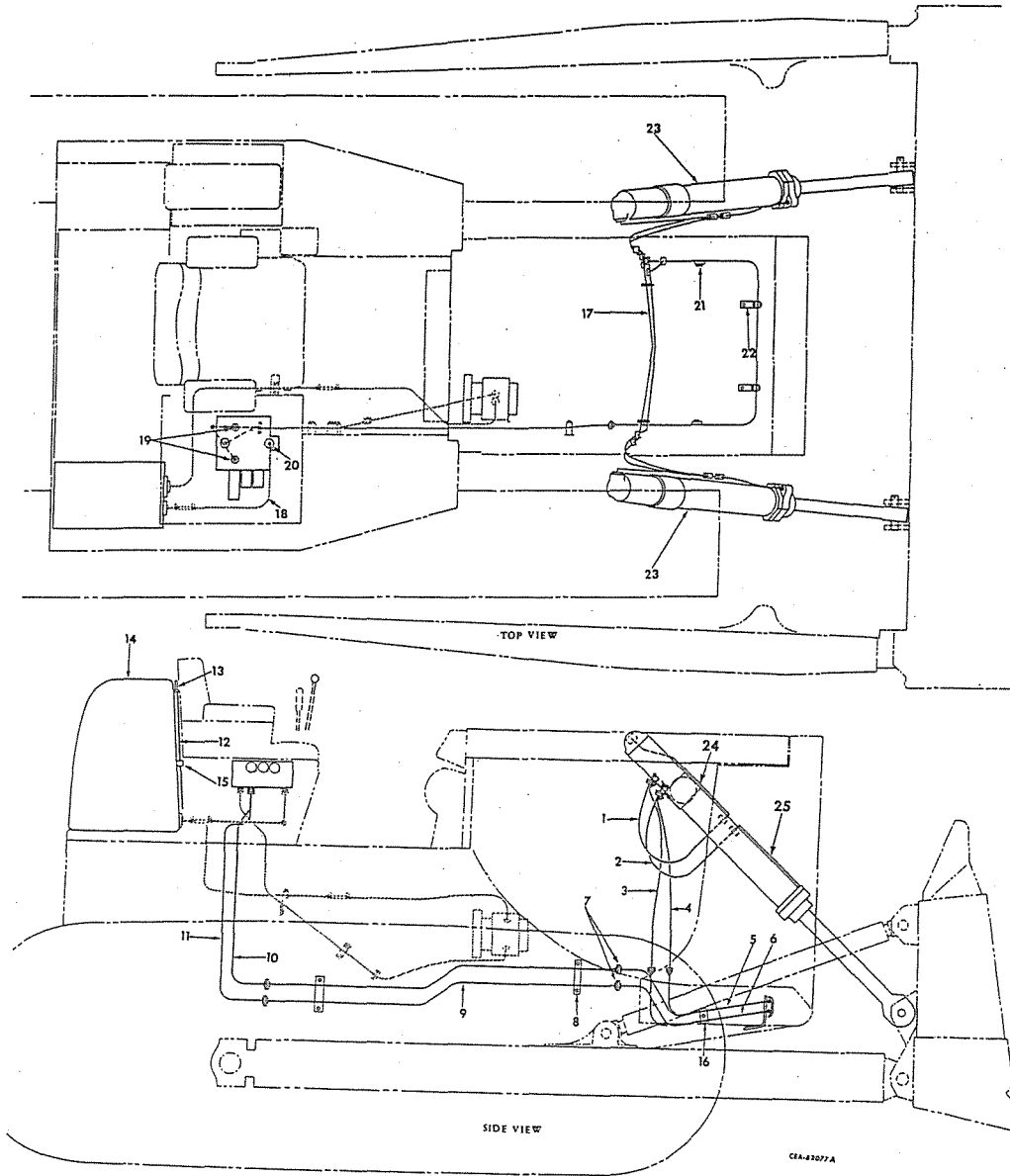
CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

HYDRAULIC HOSES AND RELATED PARTS
TD-20BP 4194 to 5908



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

HYDRAULIC HOSES AND RELATED PARTS — CONTINUED
TD-20BP 4194 to 5908





CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC HOSES AND RELATED PARTS TD-20BP 4194 to 5908

1	343 519 R91	HOSE w/two FITTING, 306 356 R91, upper cylinder (HOSE, 3/4" ID x 38" long including FITTINGS) (2)
1		HOSE, without FITTINGS cut length 35" long cut from bulk HOSE No. 313 244 R1
	380 794 R1	"O" RING, 1 x 1-1/4 x 1/8" (4)
	283 172 R1	CLAMP-HALF, split flange (8)
		3/8 x 1-1/4" hex-hd cap SCREW (16)
		3/8" lock WASHER (16)
	306 356 R91	FITTING, split flange hose (Aeroquip No. 4744-12) (4)
2	343 519 R91	HOSE w/two FITTING, 306 356 R91, lower cylinder (HOSE, 3/4" ID x 38" long including FITTINGS) (2)
2		HOSE without FITTINGS cut length 35" long cut from bulk HOSE No. 313 244 R1
	380 794 R1	"O" RING, 1 x 1-1/4 x 1/8" (4)
	283 172 R1	CLAMP-HALF, split flange (8)
		3/8 x 1-1/4" hex-hd cap SCREW (16)
		3/8" lock WASHER (16)
	306 356 R91	FITTING, split flange hose (Aeroquip No. 4744-12) (4)
3	347 261 R91	HOSE w/FITTING, 310 920 R91 and FITTING, 313 096 R91 tube to crossover tube (HOSE, 1" ID x 29" long including FITTINGS) TD-20BP 4194 to 4851
3		HOSE w/o FITTINGS, cut length 24" long cut from bulk HOSE No. 313 245 R1
3	324 196 R91	HOSE w/FITTING, 324 204 R91 and FITTING, 324 205 R91, tube to crossover tube (HOSE, 1" ID x 38" long including FITTINGS) TD-20BP 4852 to 5908
3		HOSE w/o FITTINGS, cut length 1" ID x 33" long cut from bulk HOSE 313 245 R1
4	347 257 R91	HOSE w/FITTING, 310 920 R91 and FITTING, 313 096 R91, tube to crossover tube (HOSE, 1" ID x 34" long including FITTINGS) TD-20BP 4194 to 4851
4		HOSE w/o FITTINGS, cut length 1" ID x 35" long cut from bulk HOSE No. 313 245 R1
4		HOSE w/o FITTINGS, cut length 1" ID x 29" long cut from bulk HOSE No. 313 245 R1
4	606 887 C91	HOSE w/FITTING, 310 920 R91 and FITTING, 313 096 R91, tube to crossover tube, (HOSE, 1" ID x 40" long including FITTINGS) TD-20BP 4852 to 5908
	324 204 R91	FITTING, split flange straight hose (Aeroquip No. 47440316) (used with HOSE, 324 196 R91)
	324 205 R91	FITTING, split flange 90° hose (Aeroquip No. 479003-16) (used with HOSE, 324 196 R91)
	310 920 R91	FITTING, split flange straight hose (Aeroquip No. 4744-16S) (used with HOSES 347 261 R91, 347 257 R91, and 606 887 C91)
	313 096 R91	FITTING, split flange 90° hose (Aeroquip No. 4790-16S) (used with HOSES 347 261 R91, 347 257 R91 and 606 887 C91)



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC HOSES AND RELATED PARTS - CONTINUED TD-20BP 4194 to 5908

5	333 504 R91	TUBE, raise TD-20BP 4194 to 4851
5	600 633 C91	TUBE, lift (upper) TD-20BP 4852 to 5908
6	333 505 R91	TUBE, lower TD-20BP 4194 to 4851
6	600 634 C91	TUBE, lift (lower) TD-20BP 4852 to 5908
7	295 698 R1	CLAMP-HALF, split flange (16) TD-20BP 4852 to 5908 3/8 x 1-1/4" hex-hd cap SCREW (32) 3/8" lock WASHER (32)
7	329 509 R1	CLAMP-HALVES (16) TD-20BP 4194 to 4851 3/8 x 2-3/4" hex-hd cap SCREW (32) 3/8" lock WASHER (32)
	343 906 R1	"O" RING, 1-5/16 x 1-9/16 x 1/8" (8)
8	600 632 C1	CLAMP, lift tubes (4) TD-20BP 4852 to 5908 3/8 x 3" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
9	347 263 R91	HOSE w/two FITTING, 310 920 R91, at frame (HOSE, 1" ID x 27" long including FITTINGS) TD-20BP 4194 to 4851
9		HOSE w/o FITTINGS, cut length 22-3/4" long cut from bulk HOSE No. 313 245 R1
9	347 259 R91	HOSE w/two FITTING, 310 920 R91, at frame (HOSE, 1" ID x 32" long including FITTINGS) TD-20BP 4194 to 4851
9		HOSE w/o FITTINGS, cut length 27-3/4" long cut from bulk HOSE No. 313 245 R1
9	600 631 C91	TUBE, lift (at frame) TD-20BP 4852 to 5908
	310 920 R91	FITTING, split flange straight hose (Aeroquip No. 4744-16S) (used with HOSE, 347 263 R91 and HOSE, 347 259 R91)
10	333 501 R91	TUBE, raise TD-20BP 4194 to 4851
10	600 629 C91	TUBE, lift (at valve-inboard) TD-20BP 4852 to 5908
11	333 502 R91	TUBE, lower TD-20BP 4194 to 4851
11	600 630 C91	TUBE, lift (at valve-outboard) TD-20BP 4852 to 5908
12	335 345 R1	TUBE, overflow (also listed and illustrated with "Hydraulic Tank")
13	324 042 R91	FILTER, breather
14		TANK ASSY, hydraulic (for components see list of parts under details of "Hydraulic Tank")

CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS



MEMORANDA



REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC HOSES AND RELATED PARTS - CONTINUED
TD-20BP 4194 to 5908

15	299 902 R1	CLIP, overflow tube 3/8 x 1" hex-hd cap SCREW 3/8" NUT 3/8" lock WASHER
16	600 636 C1 600 637 C1	CLAMP, lift tube SPACER 3/8 x 2-1/2" hex-hd cap SCREW (3) 3/8" lock WASHER (3)
17	342 446 R91	TUBE, crossover (2) 3/8" NUT (4) 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
18	346 233 R91	TUBE, return
19	342 489 R1	CONNECTOR, straight (2)
20	296 247 R1 9 410 208 307 915 R1	"O" RING, 1.171 x 1.403 x .116" (2) CONNECTOR, tube (2) "O" RING, 1.475 x 1.711 x .118" (2)
21		VALVE ASSY, hydraulic control (for components see list of parts under details of "Hydraulic Control Valve")
22	600 635 C1 600 637 C1	BRACKET, angle (2) TD-20B 4852 to 5908 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2) SPACER
23		CYLINDER, hydraulic (for components see list of parts under details of "Hydraulic Cylinder") (2)
24	333 361 R91	TUBE, LH hydraulic cylinder head end 3/8 x 1-1/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
24	333 362 R91 343 906 R1	TUBE, RH hydraulic cylinder head end 3/8 x 1-1/8" hex-hd cap SCREW (4) 3/8" lock WASHER (4) "O" RING, 1-5/16 x 1-9/16 x 1/8" (2)
25	333 363 R91	TUBE, LH hydraulic cylinder rod end 3/8 x 3-1/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
25	333 364 R91 343 905 R1	TUBE, RH hydraulic cylinder rod end 3/8 x 3-1/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2) "O" RING, 1-1/8 x 1-3/8 x 1/8" (2)
	342 445 R11	BRACKET, hydraulic line TD-20BP 4194 to 4851 1/2" NUT (2) 3/8 x 1" hex-hd cap SCREW (3) 1/2 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (3) 1/2" lock WASHER (2)
	313 244 R1 313 245 R1	HOSE, 3/4" ID bulk (X) HOSE, 1" ID bulk (X)
	294 799 R1	WASHER, thrust (used with TUBE, 342 446 R91) (2)

(X) - Order Cut Length As Required.



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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HYDRAULIC PIPING
(For Units With Field Conversion Packages,
608 974 C91 and 608 975 C91)
TD-20BP 4001 to 5908

		SERVICE PARTS for PACKAGE, hydraulic blade piping field conversion (to convert Model 20B D-2 crawler tractors from regular hydraulic piping to quick drop type piping)
		SERVICE PARTS for PACKAGE, hydraulic blade piping field conversion (to convert Model 20B G-2 crawler tractors from regular hydraulic piping to quick drop type piping) (Consists of the following parts -
605 608 C1		ANGLE, tube clamp
605 609 C1		CLAMP, tube 3/8" NUT 3/8 x 2-1/4" hex-hd cap SCREW 1/2 x 7/8" hex-hd cap SCREW SPACER, 3/8 x 1-9/64" long obtain locally 3/8" lock WASHER 1/2" lock WASHER
608 701 C91		BRACKET, valve mounting 1/2 x 7/8" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
605 605 C2		CLAMP, tube (2)
605 604 C2		PLATE, spacer (2) 3/8 x 3" hex-hd cap SCREW (2)
266 964 R1		SPACER (2) 3/8" lock WASHER (2)
605 618 C1		CLAMP, tube (2) 3/8 x 3" hex-hd cap SCREW (2)
266 964 R1		SPACER (2)
605 604 C1		PLATE, spacer (2) 3/8" lock WASHER (2)
605 627 C2		CLAMP, tube (4) 3/8" NUT (2) 3/8 x 2" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
605 627 C2		CLAMP, tube (4) 3/8" NUT (2) 3/8 x 2" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
605 628 C1		CLAMP, tube inner (2) 3/8 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
605 629 C1		CLAMP, tube outer (2) 3/8 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
290 045 R1		CLAMP-HALF, split flange (4) 7/16 x 1-1/2" hex-hd cap SCREW (8) 7/16" lock WASHER (8)
295 698 R1		CLAMP-HALF, split flange (30) 3/8 x 1-1/4" hex-hd cap SCREW (60) 3/8" lock WASHER (60)
301 844 R1		CLAMP-HALF, split flange (2) 1/2 x 1-1/2" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
9 410 207		CONNECTOR, tube (2)
IZG-7608		DRAWING, hydraulic lift circuit installation
IZG-7765		DRAWING, frame rework
313 245 R1		HOSE, 1" ID bulk (X)
606 521 C91		HOSE w/FITTING, 310 920 R91 and FITTING, 313 096 R91, upper and lower lift tube (HOSE, 1" ID x 24" long including FITTINGS) (2) HOSE w/o FITTINGS, cut length 19" long, cut from bulk HOSE No. 313 245 R1
310 920 R91		FITTING, split flange straight hose (Aeroquip No. 4744-16S) (2)



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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HYDRAULIC PIPING - CONTINUED
(For Units With Field Conversion Packages,
608 974 C91 and 608 975 C91)
TD-20BP 4001 to 5908

313 096 R91		FITTING, split flange 90° hose (Aeroquip No. 4790-16S) (2)
606 523 C91		HOSE w/two FITTING, 310 920 R91, cylinder to regenerative valve head and rod tube (HOSE, 1" ID x 39" long including FITTINGS) (4)
324 204 R91		HOSE w/o FITTINGS, cut length 34-3/4" long, cut from bulk Hose No. 313 245 R1 FITTING, split flange straight hose (Aeroquip No. 474403-16) (8)
296 247 R1		"O" RING, 1.171 x 1.403 x .116" (4)
343 905 R1		"O" RING, 1-1/8 x 1-3/8 x 1/8" (2) 3/8 x 3-1/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
343 906 R1		"O" RING, 1-5/16 x 1-9/16 x 1/8" (15)
343 906 R1		"O" RING, 1-5/16 x 1-9/16 x 1/8" (2) 3/8 x 1-1/4" hex-hd cap SCREW (8) 3/8" lock WASHER (8)
343 909 R1		"O" RING, 1-1/2 x 1-3/4 x 1/8" (2)
343 921 R1		"O" RING, 1-7/8 x 2-1/8 x 1/8"
9 410 363		PLUG, (at regenerative valve)
9 411 122		TEE, valve
605 600 C91		TUBE, lift (at valve - inboard)
605 601 C91		TUBE, lift cylinder (outboard)
605 602 C91		TUBE, lift (at frame) (upper)
605 603 C91		TUBE, lift (at frame) (lower)
605 610 C91		TUBE, head (LH side)
605 611 C91		TUBE, head (RH side)
605 612 C91		TUBE, rod (LH side)
605 613 C91		TUBE, rod (RH side)
605 619 C91		TUBE, LH upper (Furnished as part of PACKAGE, 608 974 C91)
605 620 C91		TUBE, RH upper (Furnished as part of PACKAGE, 608 974 C91)
605 621 C91		TUBE, LH upper (Furnished as part of PACKAGE, 608 975 C91)
605 622 C91		TUBE, RH upper (Furnished as part of PACKAGE, 608 975 C91)
605 623 C91		TUBE, LH lower (Furnished as part of PACKAGE, 608 974 C91)
605 624 C91		TUBE, RH lower (Furnished as part of PACKAGE, 608 974 C91)
605 625 C91		TUBE, LH lower (Furnished as part of PACKAGE, 608 975 C91)
605 626 C91		TUBE, RH lower (Furnished as part of PACKAGE, 608 975 C91)
608 346 C91		TUBE, upper
608 347 C91		TUBE, lower
605 259 C91		VALVE, quick drop (for components see list of parts under details of "Quick Drop Valve") 7/16" stover lock NUT (3) 7/16 x 5" hex-hd cap SCREW (3)



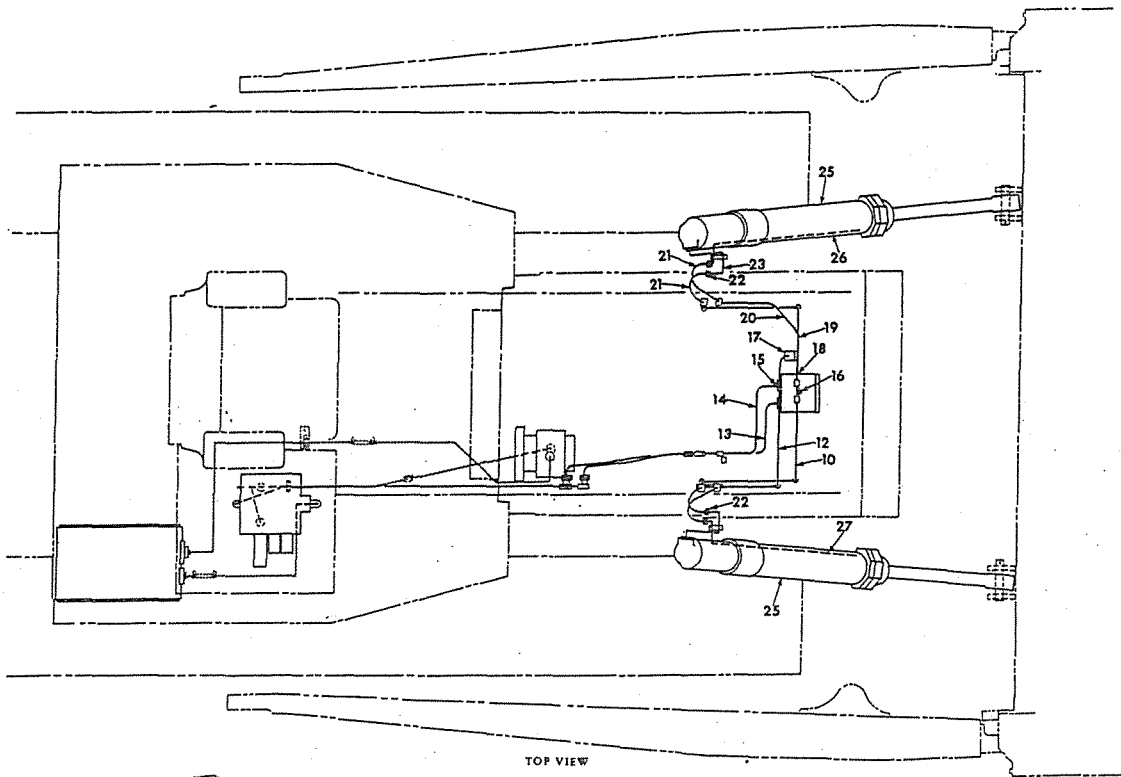
CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

HYDRAULIC HOSES, QUICK DROP VALVE AND RELATED PARTS
TD-20BP 5909 Up

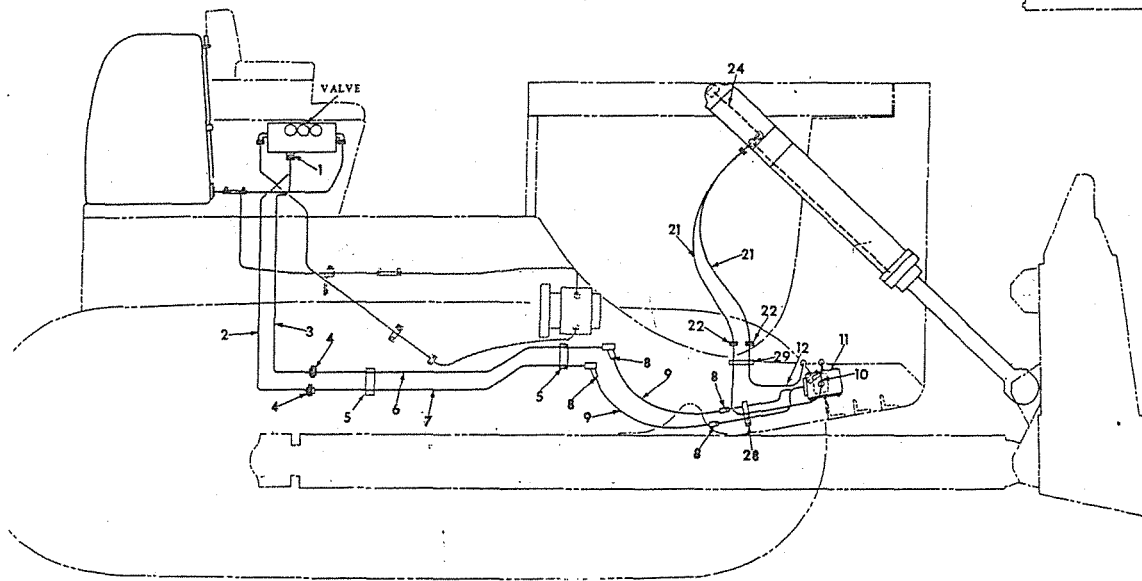


CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

HYDRAULIC HOSES, QUICK DROP VALVE AND RELATED PARTS - CONTINUED
TD-20BP 5909 Up



TOP VIEW



SIDE VIEW

CEA-83410A

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	9 410 207	CONNECTOR, straight thread (2)
	296 247 R1	"O" RING, 1.171 x 1.403 x .116" (2)
2	701 842 C1	TUBE, lift (at valve - inboard)
3	701 843 C1	TUBE, lift (at valve - outboard)
4	295 698 R1	CLAMP-HALF, split flange (4)
		3/8 x 1-1/4" hex-hd cap SCREW (8)
		3/8" lock WASHER (8)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
5	605 605 C2	CLAMP, tube (upper and lower lift tube at frame) (2)
	605 604 C2	PLATE, spacer (2)
		SPACER, 3/8 x 1-9/64" long obtain locally
		3/8 x 3" hex-hd cap SCREW (2)
		3/8" lock WASHER (2)



CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC HOSES, QUICK DROP VALVE AND RELATED PARTS - CONTINUED
TD-20BP 5909 Up

6	701 844 C1	TUBE, upper lift (at frame)
7	701 845 C1	TUBE, lower lift (at frame)
8	295 698 R1 343 906 R1	CLAMP-HALF, split flange (8) "O" RING, 1-5/16 x 1-9/16 x 1/8" (4) 3/8 x 1-1/4" hex-hd cap SCREW (16) 3/8" lock WASHER (16)
9	606 521 C91	HOSE w/FITTING, 310 920 R91 and FITTING, 313 096 R91, upper and lower lift tube (HOSE, 1" ID x 24" long including FITTINGS) (2) HOSE w/o FITTINGS, cut length 19" long, cut from bulk HOSE No. 313 245 R1
	310 920 R91	FITTING, split flange straight hose (at valve) (Aeroquip No. 4744-16S)
	313 096 R91	FITTING, split flange 90° hose (at tube) (Aeroquip No. 4790-16S) (2)
10	605 611 C91	TUBE, RH head
11		VALVE ASSY, quick drop (for components see list of parts under details of "Quick Drop Valve")
12	605 613 C91	TUBE, RH rod
13	608 347 C91	TUBE, lower
14	608 346 C91	TUBE, upper
15	290 045 R1 343 909 R1	CLAMP-HALF, split flange (4) "O" RING, 1-1/2 x 1-3/4 x 1/8" (2) 7/16 x 1-1/2" hex-hd cap SCREW (8) 7/16" lock WASHER (8)
16	9 411 122	TEE
17	295 698 R1	CLAMP-HALF, split flange (2) 3/8 x 1-1/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
18	301 844 R1 343 921 R1	CLAMP-HALF, split flange (2) "O" RING, 1-7/8 x 2-1/8 x 1/8" 1/2 x 1-1/2" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
19	605 610 C91	TUBE, LH head
20	605 612 C91	TUBE, LH rod
21	606 523 C91	HOSE w/two FITTING, 310 920 R91, cylinder to quick drop valve head and rod tube (HOSE, 1" ID x 39" long including FITTINGS) (4)
21		HOSE w/o FITTINGS, cut length 34-3/4" long, cut from bulk HOSE No. 313 245 R1
	310 920 R91	FITTING, split flange straight hose (Aeroquip No. 4744-16S) (used w/HOSE, 606 523 R91)
22	295 698 R1 343 906 R1	CLAMP-HALF, split flange (16) "O" RING, 1-5/16 x 1-9/16 x 1/8" (8) 3/8 x 1-1/4" hex-hd cap SCREW (32) 3/8" lock WASHER (32)
23	605 619 C91	TUBE, LH upper (mounted on cylinder) (for Model 20B D-2)
23	605 621 C91 343 906 R1	TUBE, LH upper (mounted on cylinder) (for Model 20B G-2) "O" RING, 1-5/16 x 1-9/16 x 1/8" 3/8 x 1-1/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
24	605 620 C91	TUBE, RH upper (mounted on cylinder) (for Model 20B D-2)



CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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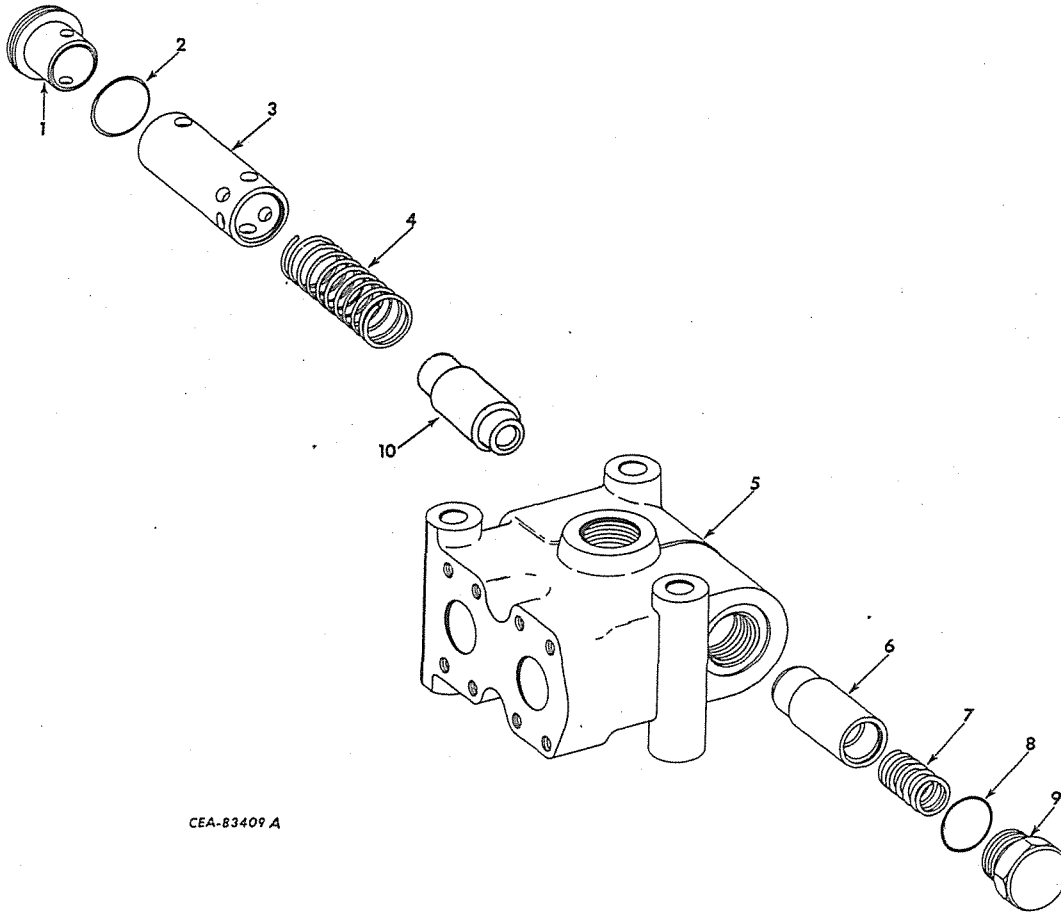
HYDRAULIC HOSES, QUICK DROP VALVE AND RELATED PARTS - CONTINUED
TD-20BP 5909 Up

24	605 622 C91 343 906 R1	TUBE, RH upper (mounted on cylinder) (for Model 20B G-2) "O" RING, 1-5/16 x 1-9/16 x 1/8" 3/8 x 1-1/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
25		CYLINDER, hydraulic (for components see list of parts under details of "Hydraulic Cylinder")
26	605 623 C91	TUBE, LH lower (mounted on cylinder) (for Model 20B D-2)
26	605 625 C91	TUBE, LH lower (mounted on cylinder) (for Model 20B G-2)
	605 628 C1	CLAMP, tube inner
	605 629 C1	CLAMP, tube outer
	343 905 R1	"O" RING, 1-1/8 x 1-3/8 x 1/8" 3/8 x 1" hex-hd cap SCREW 3/8" lock WASHER (3) 3/8 x 3-1/4" hex-hd cap SCREW (2)
27	605 624 C91	TUBE, RH lower (mounted on cylinder) (for Model 20B D-2)
27	605 626 C91	TUBE, RH lower (mounted on cylinder) (for Model 20B G-2)
	605 628 C1	CLAMP, tube inner
	605 629 C1	CLAMP, tube outer
	343 905 R1	"O" RING, 1-1/8 x 1-3/8 x 1/8" 3/8 x 1" hex-hd cap SCREW 3/8 x 3-1/4" hex-hd cap SCREW (2) 3/8" lock WASHER (3)
28	605 608 C1 605 609 C1 266 964 R1	ANGLE, tube clamp CLAMP, tube SPACER 3/8 x 2-1/4" hex-hd cap SCREW 1/2 x 7/8" hex-hd cap SCREW 3/8" NUT 3/8" lock WASHER 1/2" lock WASHER
29	605 604 C2 266 964 R1 605 618 C1	PLATE, spacer (2) SPACER (2) CLAMP, tube (2) 3/8 x 3" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
	608 343 C91	BRACKET, valve mounting 1/2 x 1-1/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2) 1/2" NUT (2)
	605 627 C2	CLAMP, tube (top of cylinder) (4) 3/8" NUT (2) 3/8 x 2" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
	313 245 R1	HOSE, 1" ID bulk (X)

(X) - Order Cut Length As Required.

**CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS**

QUICK DROP VALVE
TD-20BP 5909 Up



CEA-83409 A

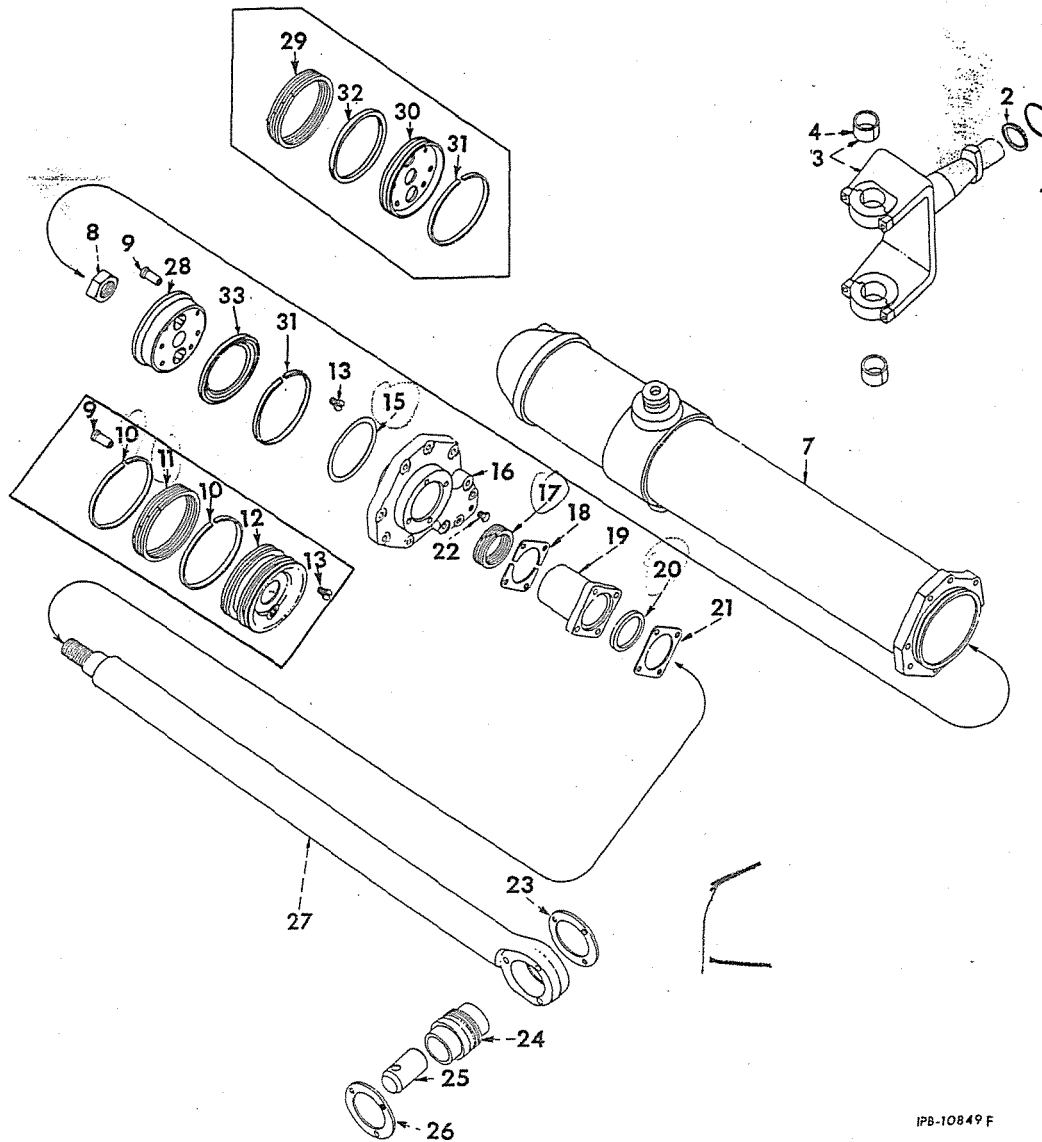
REF. NO.	I. H. PART NUMBER	DESCRIPTION
	656 169 C91	VALVE ASSY, quick drop (will work for VALVE ASSY, 608 341 C91 and VALVE ASSY, 605 259 C91)
	9 413 954	NUT, 7/16" stover lock (3) 7/16 x 5" hex-hd cap SCREW (3) Consists of the following parts -
1	605 261 C1	SLEEVE
2	328 249 R1	"O" RING, 1-5/8 x 1-3/4 x 1/16"
3		SPOOL (Not Furnished Separately)
4	605 263 C2	SPRING, spool (Used with VALVE ASSY, 605 259 C91)
4	656 266 C1	SPRING, spool (Used with VALVE ASSY, 656 169 C91)
5		BODY (Not Furnished Separately)
6	616 514 C1	POPPET (together with SPRING, 300 761 R1 will work for 605 265 C11)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
7	605 264 C1	SPRING, check valve (used with POPPET, 605 265 C1)
7	300 761 R1	SPRING, check valve (used with POPPET, 616 514 C1)
8	296 247 R1	"O" RING, 1.171 x 1.403 x .116"
9	324 605 R1	PLUG
10	656 167 C1	STOP, spool
	296 347 R1	"O" RING, 1.171 x 1.403 x .116"
	9 410 363	PLUG, 1" straight thread (Not part of valve assembly)



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CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS

HYDRAULIC CYLINDERS



IPB-10849F

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	176 916 H1	RING, cord (2)
2	294 799 R1	WASHER, thrust (2)
3	623 401 C1	YOKE and CAP ASSEMBLY, hoist cylinder (2) (Composed of - 2 BUSHING 294 684 R1 2 CAP 2 PIN 19 407 R1 1 YOKE) 5/8 x 2" hex-hd cap SCREW (8) 5/8" external-tooth lock WASHER (8)
4	294 684 R1	BUSHING, hoist yoke and cap (4)
7	333 355 R91	HOUSING, hydraulic cylinder (2)
8	18 489 R1	NUT, stop (2)
9		STEM, relief valve (order 296 590 R91) (4)

PRINTED IN UNITED STATES OF AMERICA



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CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS

HYDRAULIC CYLINDERS - CONTINUED

REF. NO.	I. H. PART NUMBER	DESCRIPTION
10	295 903 R1	RING, piston rod wear (used with PISTON, 295 902 R13) (4)
11	701 777 C1	PACKING, piston (used with PISTON, 295 902 R13) (2)
12		PISTON (Not Furnished Separately)
13		END, relief valve (order 296 590 R91) (4)
14	623 823 C91	PISTON ASSY, hydraulic (will work for PISTON, 295 902 R13 and 612 435 C11) (2) (Composed of - 1 END 1 PISTON 1 RING 625 269 C1 1 RING 295 902 R1 1 STEM 1 VALVE 296 590 R91)
15	22 413 R1	"O" RING, 4-7/8 x 5-1/8 x 1/8" (2)

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(Rev. No. 6 9-69)



CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC CYLINDERS - CONTINUED

16	333 275 R2	CAP, hydraulic cylinder (2) 7/16 x 2-1/4" hex-hd cap SCREW (12) 7/16 x 3-1/4" hex-hd cap SCREW (4)
17	329 299 R91	PACKING, piston rod (2)
18	294 515 R1	SHIM, packing gland (X)
19	333 276 R1	GLAND, hydraulic cylinder packing (2)
20	327 219 R91	SEAL, hydraulic cylinder dust (2)
21	294 516 R1	PLATE, dust seal retainer (2) 1/2 x 1-3/8" hex-hd cap SCREW (8)
22	444 824	PLUG, 3/8" hex-hd drain (4)
23	320 742 R1	PLATE, inner locking (2) 1/2 x 2-1/2" hex-hd cap SCREW (6)
24	321 246 R91	BEARING, piston rod (optional with 321 247 R91) (2)
24	321 247 R91	BEARING, piston rod (optional with 321 246 R91) (2)
25	320 788 R1 9 413 956	PIN, hydraulic cylinder (2) NUT, 1/2" stover lock (2) 1/2 x 3" hex-hd cap SCREW (2)
26	320 741 R1	PLATE, outer locking (2)
27	333 356 R11	ROD ASSEMBLY, piston (2) (Composed of - 1 BEARING 321 246 R91 1 PLATE 320 741 R1 1 PLATE 320 742 R1 § 1 ROD)
28		PISTON (Not Furnished Separately)
29	702 742 C1	PACKING, piston (used with PISTON, 612 435 C11) (2) (See NOTE).
30	612 436 C1	RETAINER, packing (used with PISTON, 612 435 C11) (2) 3/8 x 1/2" hex-soc-hd SCREW (12)
31	295 903 R1	RING, piston rod wear (used with PISTON, 612 435 C11 and 623 823 C91) (2)
32	619 078 C1 9 413 953	ADAPTER, female (used with PISTON, 612 435 C11) (See NOTE) NUT, 3/8" stover lock (2) 3/8 x 2" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16 x 16 ga WASHER (2)
33	625 269 C1 602 819 C91	RING, seal CYLINDER ASSEMBLY, hydraulic (will work for CYLINDER ASSYS, 333 359 R91 and 333 360 R91) (2) (Composed of - 1 CAP 333 275 R2 2 FITTING 109 461 1 GLAND 333 276 R1 1 HOUSING 333 355 R91 1 NUT 18 489 R1 1 "O" RING 343 905 R1 1 "O" RING 343 906 R1 1 "O" RING 343 926 R1 1 PACKING 329 299 R91 1 PAMPHLET, installation 1 019 260 R1 1 PISTON 612 435 C11 1 PLATE 294 516 R1 1 PLUG 444 824 1 ROD 333 356 R11 1 SEAL 327 219 R91 X SHIM 294 515 R1)



CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC CYLINDERS - CONTINUED

19 407 R1	PIN, bushing retainer (4)
333 279 R1	PLATE, clamp mounting (4) 3/8 x 1-3/4" hex-hd cap SCREW (8) 3/8" lock WASHER (8)
296 590 R91	VALVE w/END and STEM, relief (X)
294 799 R1	WASHER, thrust

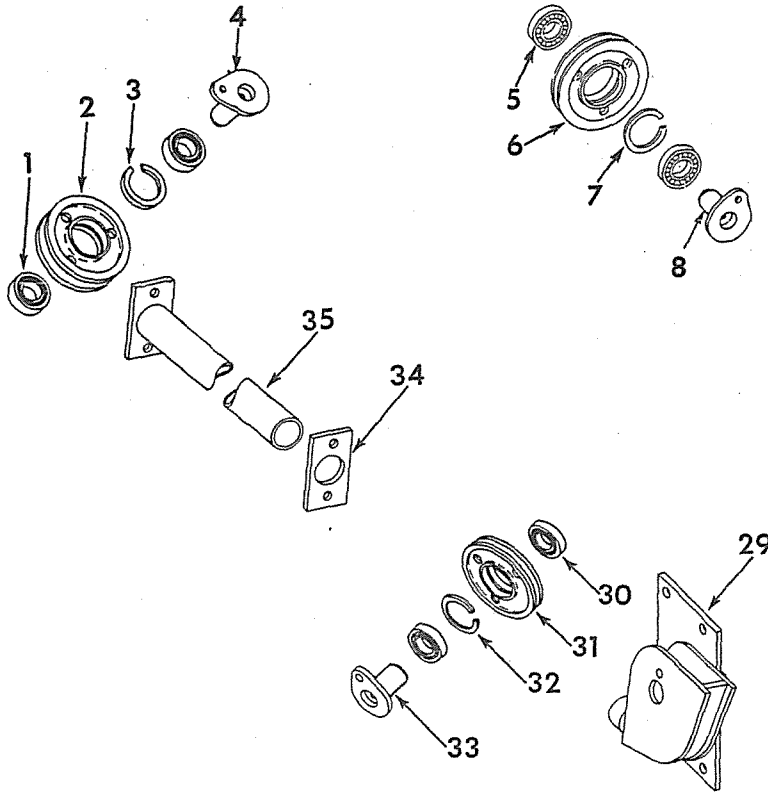
NOTE - Letter "H" must be stamped on adapter. When adapter is not stamped with letter "H" order new ADAPTER, 619 078 C1 and PACKING, 702 742 C1.

X - As Required.
§ - Not Furnished Separately.



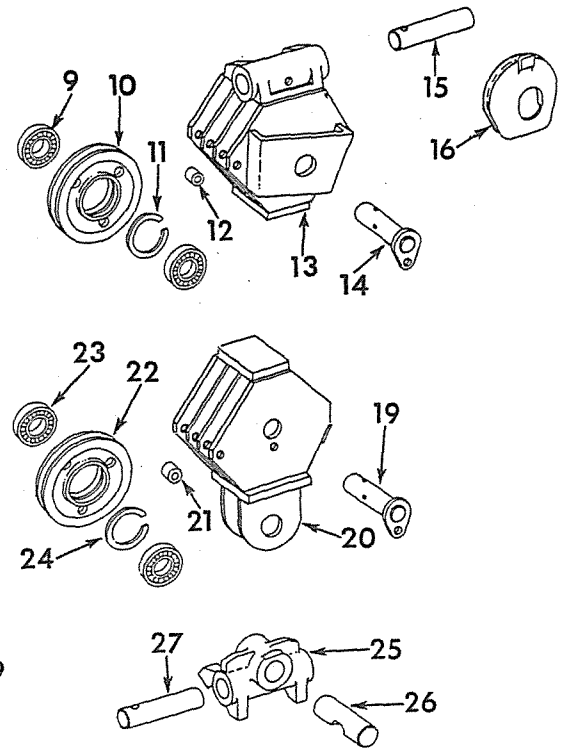
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CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS

SHEAVE BLOCKS AND SHEAVES
(Cable only)



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CABLE AND HYDRAULIC
BULLGRADERS AND BULLDOZERS

SHEAVE BLOCKS AND SHEAVES - CONTINUED
(Cable only)



IPA-66797A

REF. NO.	I.H. PART NUMBER	DESCRIPTION
(X) - KEY TO UNITS -		
A -	SHEAVE BLOCKS AND SHEAVES	(for use with front cable control unit)
B -	SHEAVE BLOCKS AND SHEAVES	(for use with rear cable control unit)
(X) - Letters of these units correspond with those shown following the description of the parts in the list below and identifies the unit for which the part is used. Items without letters after the description indicates the part is used for all units.		
1	ST 596	BEARING, cable control unit adapter sheave (2 for Unit B)
2	294 866 R1	SHEAVE, cable control unit adapter (Unit B)
3	290 358 R1	RING, cable control unit adapter sheave bearing retainer (Unit B)
4	289 273 R11	SHAFT, cable control unit adapter sheave (Unit B) 5/8 x 1" hex-hd cap SCREW
5	ST 596	BEARING, upper corner sheave (2)
6	294 611 R1	SHEAVE, upper corner

REF. NO.	I.H. PART NUMBER	DESCRIPTION
7	290 358 R1	RING, upper corner sheave bearing retainer
8	289 273 R11	SHAFT, corner sheave 5/8 x 7/8" hex-hd cap SCREW
9	ST 596	BEARING, upper sheave block sheave (6)
10	294 611 R1	SHEAVE, upper sheave block (3)
11	290 358 R1	RING, upper sheave block bearing retainer (3)
12	12 576 R1	SPACER, upper sheave block cheek plate 1/2 x 1-9/16" long obtain locally (3) BOLT, 1/2 x 6-3/4" 1/2" NUT
13	333 229 R91	BLOCK, upper sheave
14	309 715 R11	SHAFT, upper sheave block sheave 5/8 x 7/8" hex-hd cap SCREW
15	315 504 R1 9 413 956	PIN, upper sheave block mounting NUT, 1/2" stover lock 1/2 x 3-1/4" hex-hd cap SCREW
16	309 888 R1	LOCK, cable



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS



MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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SHEAVE BLOCKS AND SHEAVES - CONTINUED (Cable only)

19	309 715 R11	SHAFT, lower sheave block sheave 5/8 x 7/8" hex-hd cap SCREW
20	333 232 R91	BLOCK, lower sheave
21	294 610 R1 12 576 R1	SPACER, lower sheave block cheek plate (3) BOLT, 1/2 x 6-3/4" 1/2" NUT
22	294 611 R1	SHEAVE, lower sheave block (3)
23	ST 596	BEARING, lower sheave block sheave (6)
24	290 358 R1	RING, lower sheave block bearing retainer (3)
25	320 896 R1	UNIVERSAL, lower sheave block
26	309 883 R1	PIN, universal lower sheave block
27	315 504 R1 9 413 956	PIN, lower sheave block mounting NUT, 1/2" stover lock 1/2 x 3-1/4" hex-hd cap SCREW
29	333 237 R91	BLOCK, lower corner sheave (Unit B) 3/4 x 1-3/4" hex-hd cap SCREW (4)
30	ST 596	BEARING, side sheave (2 for Unit B)
31	294 611 R1	SHEAVE, lower corner (Unit B)
32	290 358 R1	RING, lower corner sheave bearing retainer (Unit B)
33	289 273 R11	SHAFT, side sheave (Unit B) 5/8 x 7/8" hex-hd cap SCREW
34	333 243 R1	PLATE, tube mounting (Unit B) 1/2" NUT (2) 1/2 x 1-3/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
35	333 431 R11	TUBE, cable guide (used to guide cable from radiator guard to rear mounted cable control unit) (Unit B) 1/2" NUT (2) 1/2 x 1-3/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
	109 461	FITTING, lubrication, 1/8" (used with sheave block shafts) (6)
	109 461	FITTING, 1/8" lubrication (used with upper sheave block)
	109 461	FITTING, 1/8" lubrication (used with corner sheave) (2)
	109 461	FITTING, 1/8" lubrication (used with lower corner sheave) (Unit B)
	109 461	FITTING, 1/8" lubrication (used with cable control unit adapter sheave) (Unit B)
		ROPE, 1/2" x 60' steel (Unit A)
		ROPE, 1/2" x 80' steel (Unit B)
	9 413 956	SPACER, upper corner sheave check plate (Unit A) 1/2 x 1-9/16" long obtain locally NUT, 1/2" stover lock 1/2 x 3" hex-hd cap SCREW 1/2" lock WASHER



MEMORANDA

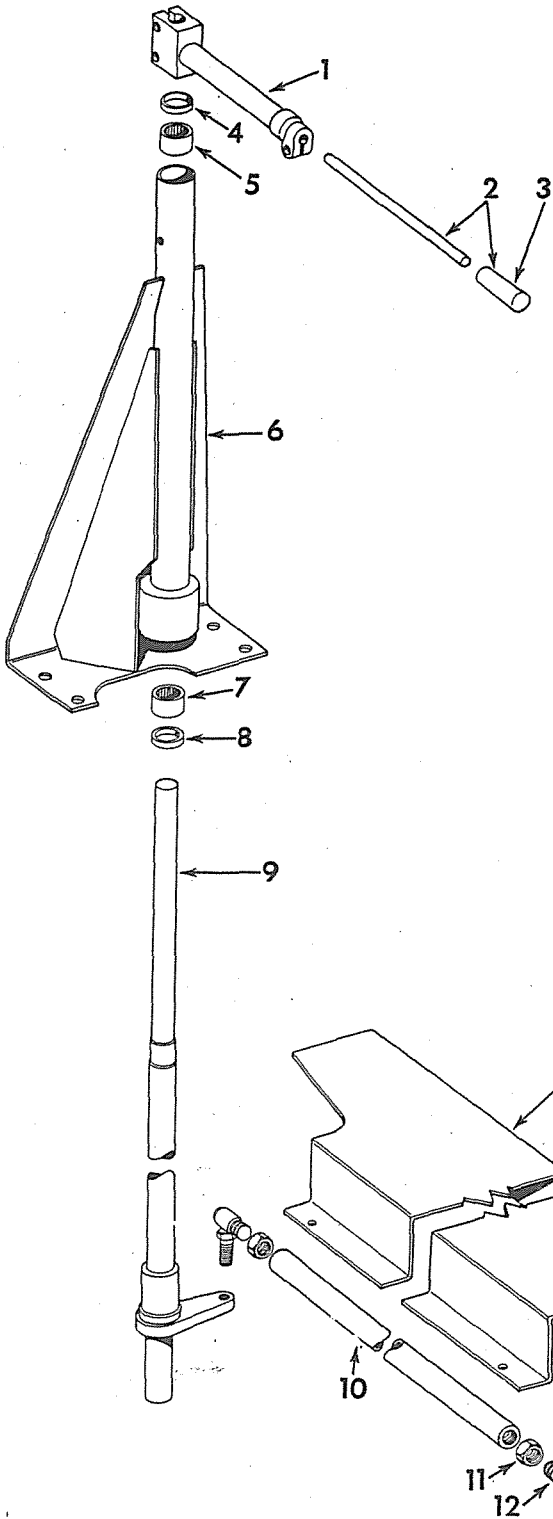


MEMORANDA

CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS



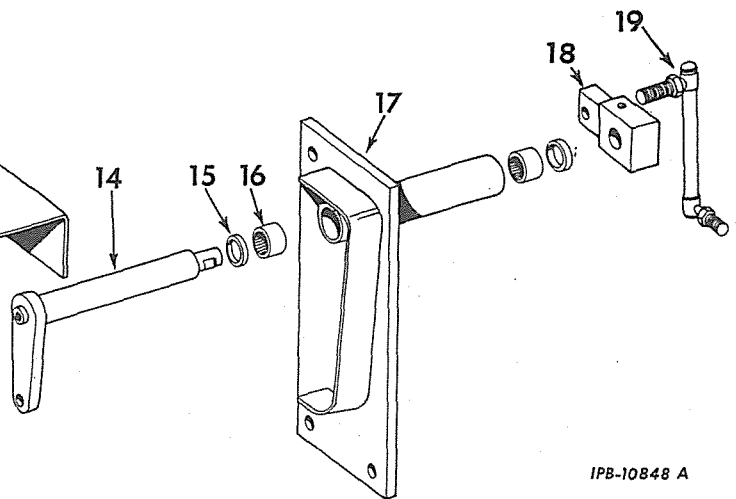
CABLE OPERATING CONTROLS
(Front Mounted)



CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS



CABLE OPERATING CONTROLS - CONTINUED
(Front Mounted)



IPB-10848 A

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CABLE AND HYDRAULIC BULLGRADERS AND BULLDOZERS

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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CABLE OPERATION CONTROLS - CONTINUED
(Front Mounted)

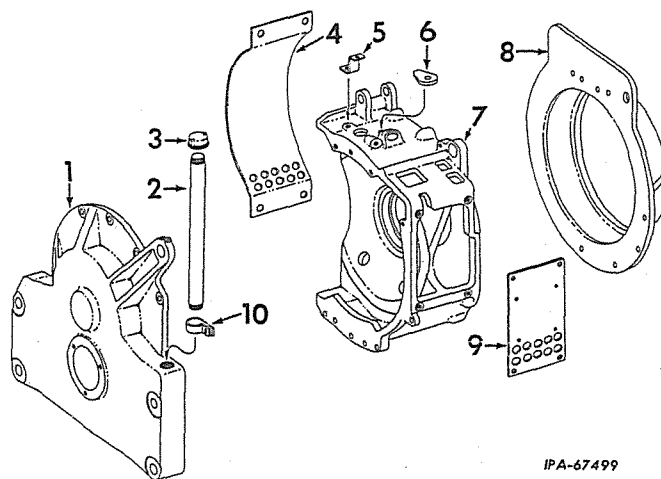
1	319 187 R91	LEVER, tiller 5/8" NUT (2) 5/8 x 2-1/2" hex-hd cap SCREW (2)
2	293 808 R91	SHAFT w/GRIP, 619 405 C1, control 1/2 x 1-1/4" hex-hd cap SCREW 1/2" heavy lock WASHER
3	619 405 C1	GRIP, control
4	287 058 R91	OIL SEAL, tiller bracket
5	298 175 R91	RACE, tiller bracket
6	333 245 R91	BRACKET, tiller control (Composed of - 1/2" NUT (4) 1/2 x 1-1/2" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
7	324 394 R91	BEARING, tiller bracket
8	324 396 R91	OIL SEAL, tiller bracket
9	333 251 R91	SHAFT w/RACE, 284 030 R1, and RACE, 324 395 R1, control
10	333 430 R11	ROD, reach 1/2" NF NUT (2)
11		NUT, 3/4" jam (2)
12	333 845 R91	JOINT, ball (2)
13	333 258 R1	GUARD, reach rod 1/2" NUT (4) 1/2 x 1-1/4" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
14	333 259 R11	SHAFT, front control
15	287 058 R91	OIL SEAL, front control bracket (2)
16	298 175 R91	RACE, outer (2)
17	333 261 R92	BRACKET Front control 3/4 x 1-3/4" hex-hd cap SCREW (3)
18	333 266 R91	LEVER
	295 535 R1	BOLT, lever lock
9	413 952	NUT, 5/16" stover lock
19	333 839 R91	LINK, front 1/2" jam NUT (2)
	109 461	FITTING, 1/8" lubrication (2)
	284 030 R1	RACE, inner upper
	324 395 R1	RACE, inner lower

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MODEL 110 SINGLE DRUM FRONT CABLE CONTROL UNIT



HOUSING



IPA-67499

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	299 601 R2	HOUSING, main 1/2 x 1-1/8" hex-hd cap SCREW (4)
2	286 332 R2	PIPE, oil filler
3	108 689	CAP, 1" pipe - M.I.
4	299 605 R1	COVER, LH perforated side 3/8 x 1/2" hex-hd cap SCREW (4)
5	315 525 R1	BRACKET, brake band spring 3/8 x 3" hex-soc-hd dog pt set SCREW (2) 1/2" jam NUT (2)
6	286 556 R1	WEDGE, cable (3) 3/8 x 1-1/2" hex-hd cap SCREW
7	299 602 R2	HOUSING, gear 1/2 x 1-1/4" hex-hd cap SCREW (6)
8	299 607 R1	COVER, drum 1/2 x 1" hex-hd cap SCREW (8)
9	299 606 R1	COVER, RH perforated side 3/8 x 1/2" hex-hd cap SCREW (4)
10	299 609 R1	CLAMP, oil filler mounting
	273 469	PLUG, csk-hd, 3/4" NPT (3) SCREW, 7/8 x 3-1/2" hex-hd cap (for mounting cable control unit) (4) 15/16 x 1-3/4 x 10 ga WASHER (4)
	278 027 R1	WIRE, locking, bulk (16 ga.) (customer must specify length required) (X)

X - As Required.



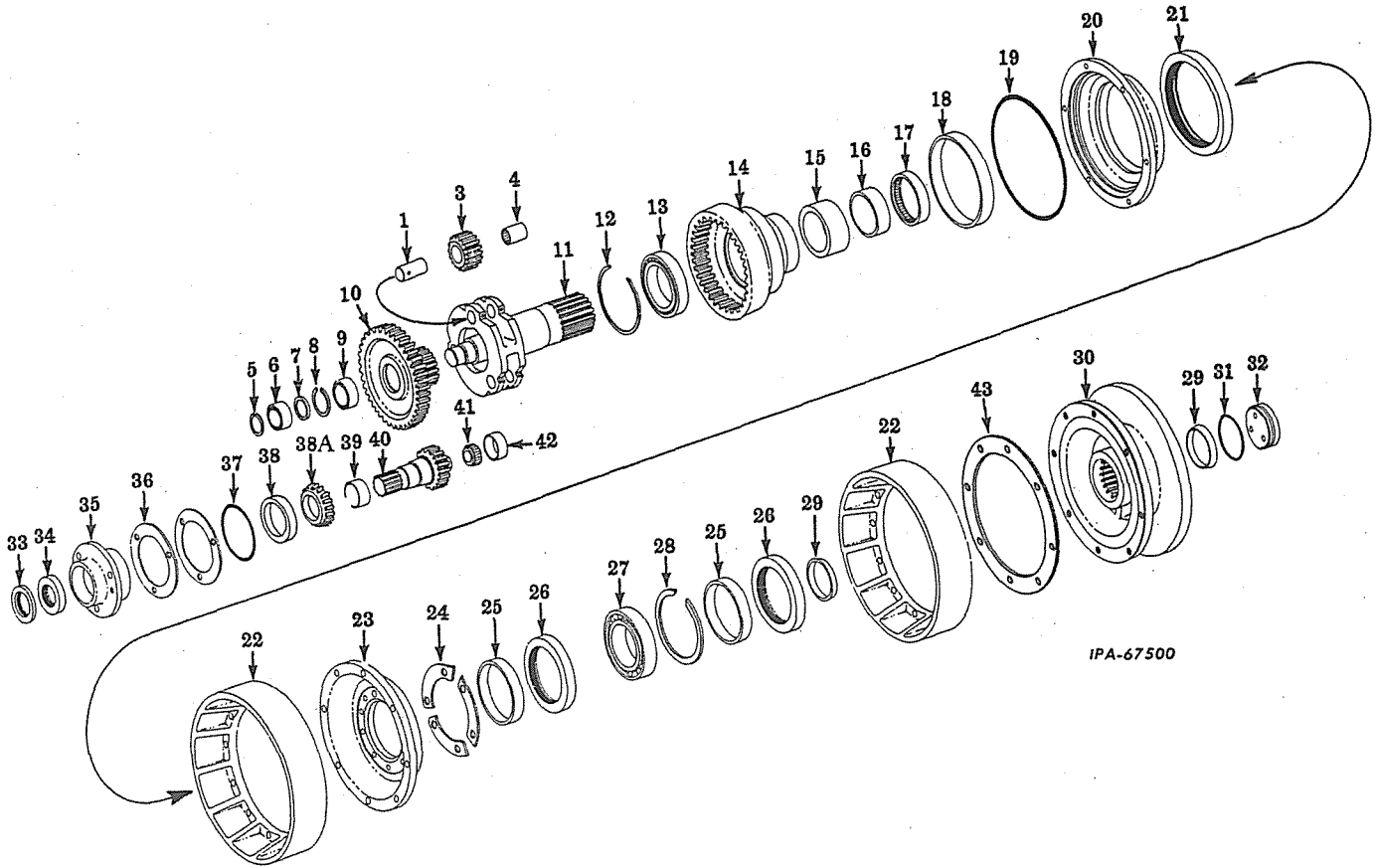
MODEL 110 SINGLE DRUM
FRONT CABLE CONTROL UNIT

TRANSMISSION



MODEL 110 SINGLE DRUM
FRONT CABLE CONTROL UNIT

TRANSMISSION - CONTINUED



IPA-67500

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	299 621 R1	PIN, planet gear (3)
3	299 620 R1	GEAR, planet (3)
4	550 768 R91	BEARING, planet gear needle (3)
5	659 380 R1	RING, main shaft bearing snap
6	ST 291	BEARING, main shaft - outer
7	299 613 R1	SPACER, cluster gear
8	299 612 R1	RING, cluster gear snap
9	ST 214	BEARING, main shaft inner (optional with ST 215)
9	ST 215	BEARING, main shaft inner (optional with ST 214)
10	299 611 R1	GEAR, cluster
11	299 610 R1	SHAFT, main
12	299 616 R1	RING, ring gear snap
13	ST 632	BEARING, ring gear inner
14	299 617 R11	GEAR w/SLEEVE, 317 586 R1 and SLEEVE, 317 588 R1, planetary ring
15	299 614 R1	SPACER, ring gear inner bearing
16	299 615 R1	RACE, ring gear inner bearing
17	299 489 R91	BEARING, ring gear inner

REF. NO.	I.H. PART NUMBER	DESCRIPTION
18	317 586 R1	SLEEVE, oil seal (large)
19	299 618 R1	GASKET, planetary ring gear
20	299 622 R1	SUPPORT, oil seal 3/8 x 1" hex-hd cap SCREW (6)
21		OIL SEAL, seal support (order 308 678 R92)
22	299 627 R1	DRUM, clutch and brake (2) 1/2 x 7/8" hex-hd cap SCREW (16)
23	299 625 R1	MOUNT, clutch drum 1/2 x 1" hex-hd cap SCREW (6)
	187 149	PIN, clutch drum mount dowel (3)
24	299 626 R1	RETAINER, clutch drum mount dowel pin (3)
25	317 588 R1	SLEEVE, oil seal (small) (2)
26		OIL SEAL, ring gear (order 308 679 R92) (2)
27	ST 283A	BEARING, main shaft, main (optional with ST 275)
27	ST 275	BEARING, main shaft, main (optional with ST 283A)
28	300 047 R1	RING, gear housing snap
29	299 630 R1	WEDGE, cable drum (2)
30	299 628 R11	DRUM w/SLEEVE, 317 588 R1, cable
31	299 632 R1	GASKET, cable drum cap

MODEL 110 SINGLE DRUM
FRONT CABLE CONTROL UNIT



MEMORANDA



REF. NO.	I.H. PART NUMBER	DESCRIPTION
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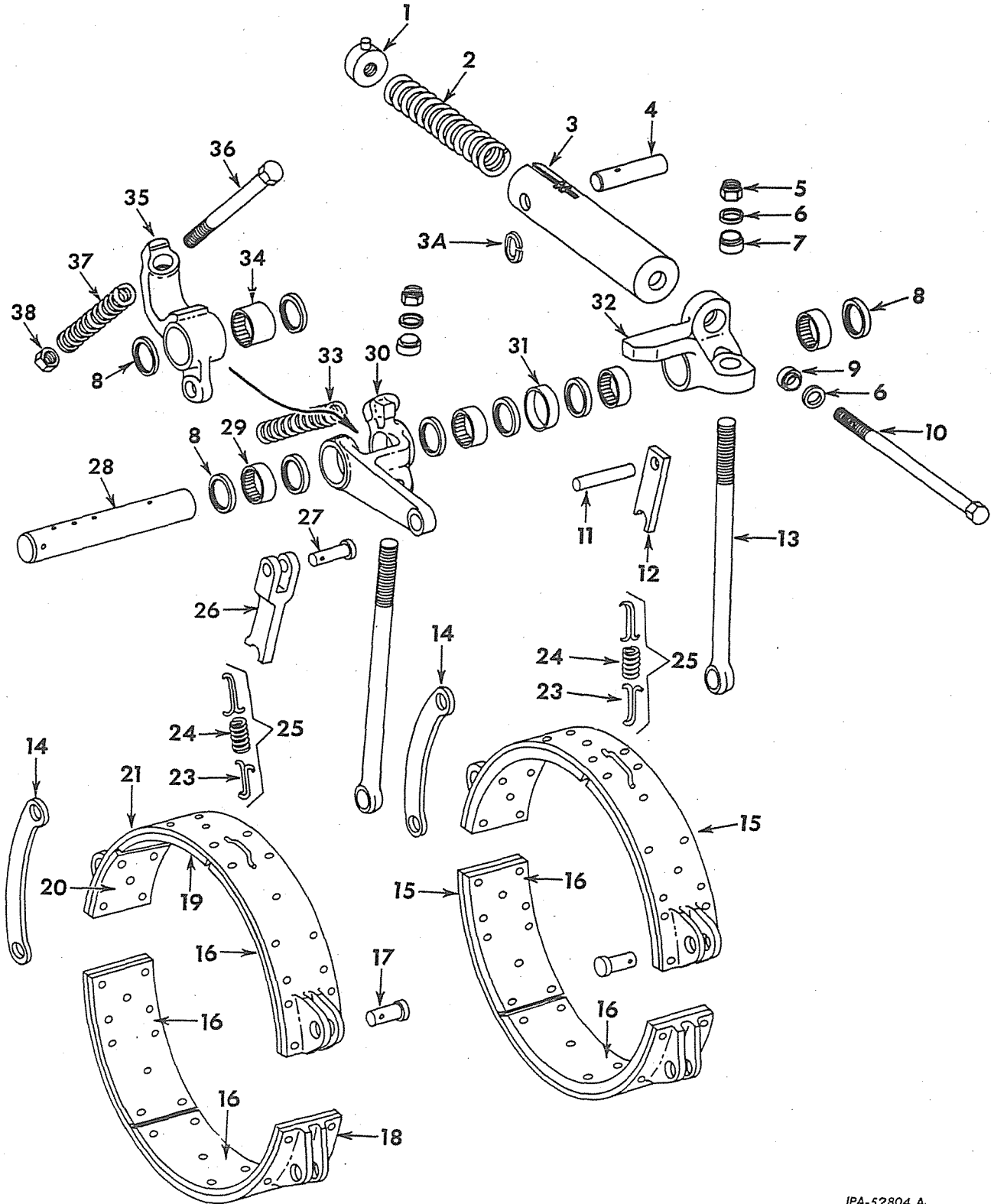
TRANSMISSION - CONTINUED

32	299 631 R1	CAP, cable drum 1/2 x 1-1/4" hex-hd cap SCREW (3)
32	299 496 R1	SEAL, 1/2" dyna (3)
33	299 491 R91	OIL SEAL, power take-off shaft wiper
34		OIL SEAL, power take-off shaft (order 308 677 R92).
35	299 603 R1	CARRIER, power take-off shaft oil seal 3/8 x 3/4" hex-hd cap SCREW (3)
36	308 586 R1	SHIM, power take-off shaft oil seal carrier (.020") (X)
36	308 587 R1	SHIM, power take-off shaft oil seal carrier (.007") (X)
36	308 588 R1	SHIM, power take-off shaft oil seal carrier (.005") (X)
37	299 604 R1	GASKET, power take-off shaft oil seal carrier
38	ST 970	CUP, power take-off shaft bearing
38A	ST 775A	CONE, power take-off shaft bearing
39	317 589 R1	SLEEVE, power take-off shaft oil seal wear
40	299 624 R11	SHAFT, w/wear SLEEVE, 317 589 R1, power take-off
41	371 882 R91	CONE, power take-off shaft end bearing
42	371 883 R1	CUP, power take-off shaft end bearing
43	311 525 R1	GASKET, cable drum
	308 677 R92	PACKAGE, field service (consists of OIL SEAL, and oil seal wear SLEEVE, 317 589 R1) (X)
	308 678 R92	PACKAGE, field service (consists of OIL SEAL and oil seal wear SLEEVE, 317 586 R1) (X)
	308 679 R92	PACKAGE, field service (consists of OIL SEAL and oil seal wear SLEEVE, 317 588 R1) (X)
	308 785 R1	RING, oil collector

X - As Required.

MODEL 110 SINGLE DRUM FRONT CABLE CONTROL UNIT

OPERATING LEVERS AND BRAKE BAND



MODEL 110 SINGLE DRUM FRONT CABLE CONTROL UNIT

OPERATING LEVERS AND BRAKE BAND - CONTINUED



MODEL 110 SINGLE DRUM
FRONT CABLE CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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OPERATING LEVERS AND BRAKE BAND - CONTINUED

1	297 722 R11	BLOCK w/DOWEL, brake spring guide end
2	287 015 R2	SPRING, brake
3	297 720 R11	HOUSING, brake spring
3A.	311 501 R1	RING, pick-up spring retaining
4	299 660 R1	PIN, brake spring housing 1/4 x 1-1/4" cotter PIN
5	454 522 R1	NUT, 1/2" elastic stop (2)
6	297 714 R1	SPACER, adjusting screw (3)
7	298 098 R91	BUSHING, tension rod self-aligning (2)
8	287 058 R91	OIL SEAL, lever bearing (8)
9	298 098 R91	BUSHING, brake adjusting screw
10	297 721 R1	BOLT, brake adjusting
11	299 654 R1	PIN, brake anchor
12	299 653 R1	PAWL, brake anchor
13	299 655 R1	ROD, tension (2)
14	299 648 R1	LINK, brake band connecting (2)
15	299 640 R91	BAND w/two LINING, 299 645 R1 and sixteen RIVET, 21 406 H, brake (2)
16	299 645 R1 21 406 H	LINING, brake and clutch (7) RIVET, 3/16 x 3/8" brass (56)
17	299 650 R1	PIN, brake and clutch band end (8) 1/2 x 1" cotter PIN (8)
18	299 640 R91	BAND, w/two LINING, 299 645 R1 and sixteen RIVET, 130 966 H, clutch
19	299 646 R1 21 406 H	LINING, clutch RIVET, 3/16 x 3/8" brass (5)
20	299 647 R1 21 406 H	LINING, clutch - metallic RIVET, 3/16 x 3/8" brass (5)
21	299 641 R91	BAND, assembly, clutch (Composed of - 1 LINING 299 645 R1 1 LINING 299 646 R1 1 LINING 299 647 R1 18 RIVET 21 406 H)
23	56 476 DA	HOOK, band hold-off spring (2)
24	56 475 D	SPRING, band hold-off
25	56 478 DA	SPRING, 56 475 D w/two HOOK, 56 476 DA, band hold-off
26	299 651 R1	PAWL, clutch anchor
27	299 652 R1	PIN, clutch anchor 1/2 x 1" cotter PIN
28	299 659 R1	SHAFT, operating lever 1/4 x 3" hex-hd cap SCREW 1/4" NUT
29	283 375 R91	BEARING, brake and clutch lever (4)
30	299 657 R1	LEVER, clutch
31	298 274 R1	SPACER, brake lever
32	299 656 R1	LEVER, brake
33	286 611 R1	SPRING, clutch



MODEL 110 SINGLE DRUM
FRONT CABLE CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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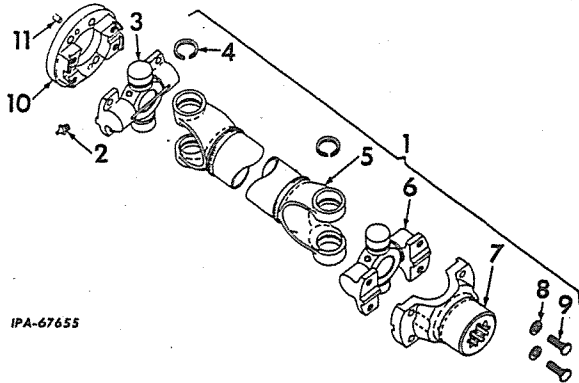
OPERATING LEVERS AND BRAKE BAND - CONTINUED

34	914 455 R91	BEARING, brake release lever
35	299 658 R1	LEVER, brake release
36		SCREW, 5/8 x 4" hex-hd cap
37	287 020 R1	SPRING, brake release
38		NUT, 5/8" jam 21/32 x 15/16 x 13 ga WASHER
	109 461	FITTING, 1/8" straight operating lever shaft lubrication



MODEL 110 SINGLE DRUM FRONT CABLE CONTROL UNIT

ADAPTER UNIT
(Mechanics)

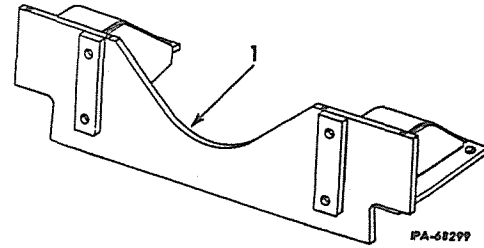


IPA-67655



MODEL 110 SINGLE DRUM FRONT CABLE CONTROL UNIT

MOUNTING BRACKET



PA-68299

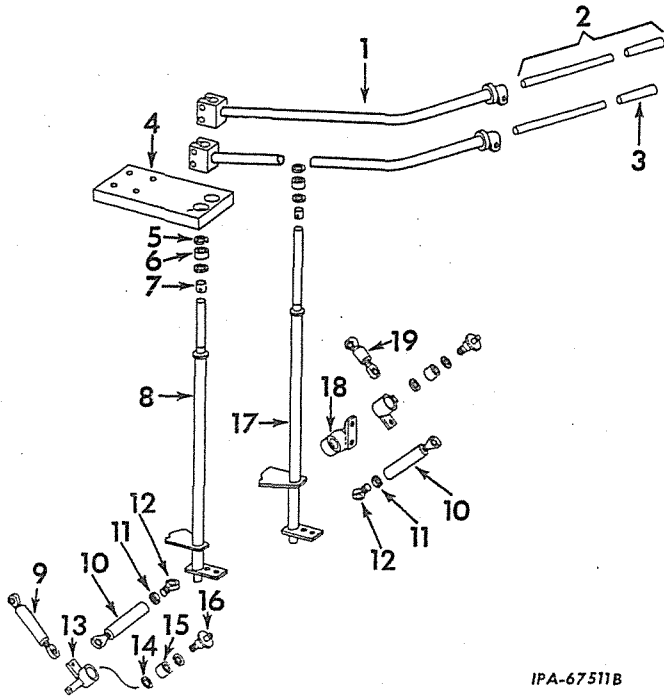
REF. NO.	I.N. PART NUMBER	DESCRIPTION
1	335 745 R91	BRACKET, cable control unit mounting (also listed with "Adapter Unit") 1/8 x 2" hex-hd cap SCREW (4)

REF. NO.	I.N. PART NUMBER	DESCRIPTION
1	343 656 R91	SHAFT w/"U" JOINT ASSEMBLY, power take-off (2A-15568-7) 3/8NF x 1-3/4" hex-hd cap SCREW (4) 3/8" lockWASHER (4)
2	110 146 R91	FITTING, lubrication (Alemite 1792 B) (optional with 102 467 H) (2)
2	102 467 H	FITTING, lubrication (Lincoln 5042) (optional with 110 146 R91) (2)
3	317 721 R92	SPIDER w/BEARING (114-5131-A)
4	97 710 H	RING, snap (5785-J) (4)
5	346 999 R91	TUBE (42-15568-8)
6	317 722 R91	SPICER w/BEARING (114-5132-A)
7	317 708 R1	YOKE, fitting (16781-J)
8		WASHER, 3/8" light lock (4)
9	37 479 HA	BOLT, 3/8NF x 7/8" (3544-J) (4)
10	333 325 R1	FLANGE, adapter 1/2 x 1-1/2" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
11	269 292 R1	DOWEL, adapter (2)
	335 745 R91	BRACKET, cable control unit mounting (also listed and illustrated with "Mounting Bracket")
	305 109 R91	RETAINER and SEAL (12408-J) (8)
	37 335 H	SHIELD, dust (3542-J) (8)



**MODEL 20B-260 DOUBLE DRUM
REAR-CABLE CONTROL UNIT**

**CABLE OPERATING CONTROLS
(Rear Mounted)**



REF. NO.	I.H. PART NUMBER	DESCRIPTION
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Parts without letters after the description indicate the part is used for all cable operating controls listed below. Letters "A" and "B" are used to identify separate cable operating controls.

A		CONTROLS, hi-mounted cable control unit operating
B		CONTROLS, lo-mounted cable control units operating
1	342 491 R11	LEVER, tower tiller (2 for Controls A) 5/8" NUT (4) 5/8 x 2-1/2" hex-hd cap SCREW (4)
1	602 070 C11	LEVER, tower tiller (2 for Controls B) 5/8" NUT (4) 5/8 x 2-1/2" hex-hd cap SCREW (4)
2	293 808 R91	HANDLE w/GRIP, 619 405 C1, tower tiller lever (2) 1/2 x 1-1/4" hex-hd cap SCREW (2) 1/2" heavy lock WASHER (2)
3	619 405 C1	GRIP, tower tiller lever handle (2)
4	333 422 R1	SUPPORT, tower tiller upper (Controls A) 5/8 x 1-3/4" hex-hd cap SCREW (4)
4	308 807 R11	SUPPORT, tower tiller upper (Controls B) 5/8 x 1-1/4" hex-hd cap SCREW (4)
5	287 058 R91	OIL SEAL, tower tiller upper bearing (4)
6	298 175 R91	BEARING, tower tiller upper (2)



**MODEL 20B-260 DOUBLE DRUM
REAR-CABLE CONTROL UNIT**

**CABLE OPERATING CONTROLS - CONTINUED
(Rear Mounted)**

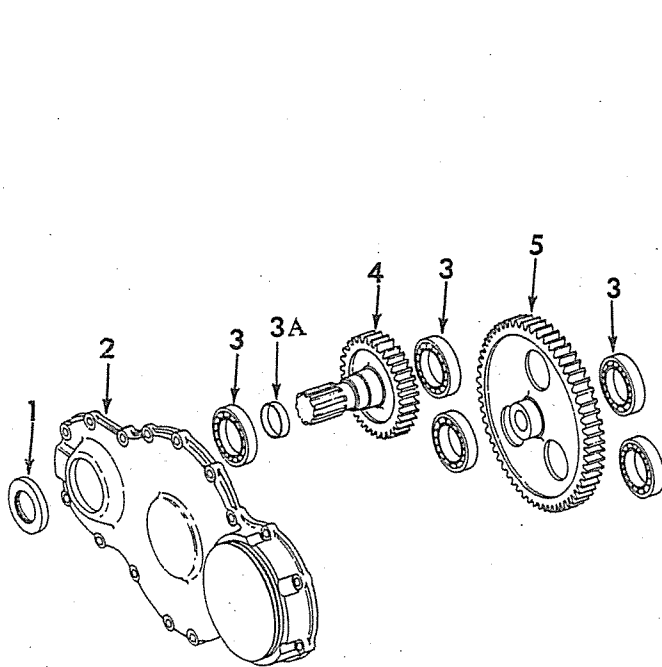
REF. NO.	I.H. PART NUMBER	DESCRIPTION
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7	308 813 R1	RACE, tower tiller post inner (4)
8	333 424 R11	POST w/two RACE, 308 813 R1, RH tower tiller (Controls A)
8	605 770 C91	POST w/two RACE, 308 813 R1, RH tower tiller (Controls B)
9	308 820 R91	LINK, control long 1/2NF NUT (2) 1/2NF x 1-3/4" hex-hd cap SCREW 1/2NF x 1-1/2" hex-hd cap SCREW
10	308 823 R11	SLEEVE, control adjustable (2 for Controls A)
10	605 773 C11	SLEEVE, control adjustable (2 for Controls B)
11		NUT, 1/2" - 20
12	283 442 R91	BEARING, rod end (2)
13	308 815 R91	BELLCRANK, control link (2 for Controls A)
13	605 771 C11	BELLCRANK, control link (2 for Controls B)
14	287 058 R91	OIL SEAL, control link bellcrank bearing (4)
15	914 455 R91	BEARING, control link bellcrank (2)
16	308 818 R11	BOLT, control link bellcrank (2) 3/4" jam NUT (2)
17	333 423 R11	POST w/two RACE, 308 813 R1, LH tower tiller (Controls A)
17	605 767 C91	POST w/two RACE, 308 813 R1, LH tower tiller (Controls B)
18	308 814 R1	BRACKET, left hand bellcrank 1/2" NUT (2) 1/2 x 2" hex-hd cap SCREW (2)
19	308 819 R91	LINK, control, short 1/2NF NUT (2) 1/2NF x 1-3/4" hex-hd cap SCREW 1/2NF x 1-1/2" hex-hd cap SCREW
	109 460	FITTING, lubrication (6)
	102 467 H	FITTING, lubrication (Lincoln 5042) (optional with 110 146 R91) (4)
	110 146 R91	FITTING, lubrication (Alemite 1792BL) (optional with 102 467 H) (4)
	117 175	FITTING, lubrication (4)



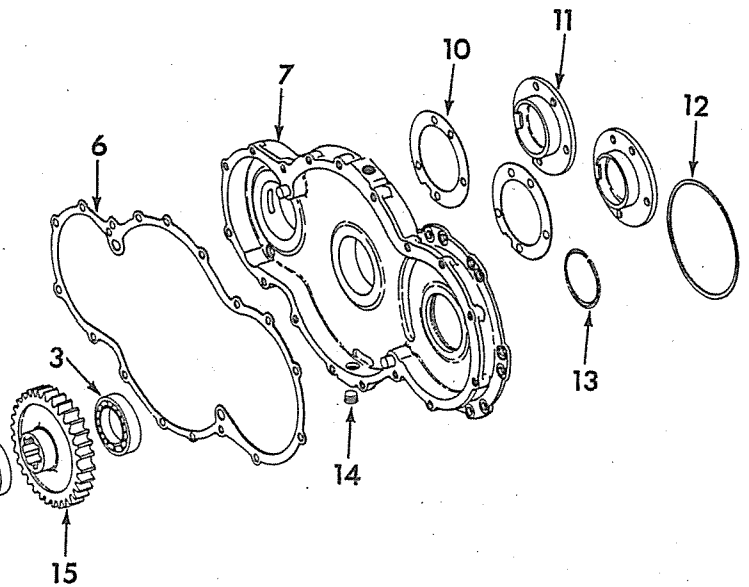
MODEL 20B-260 DOUBLE DRUM
REAR-CABLE CONTROL UNIT

TRANSFER CASE
(For Lo-Mounted Cable Control Unit)



MODEL 20B-260 DOUBLE DRUM
REAR-CABLE CONTROL UNIT

TRANSFER CASE - CONTINUED
(For Lo-Mounted Cable Control Unit)



IPB-10309 B

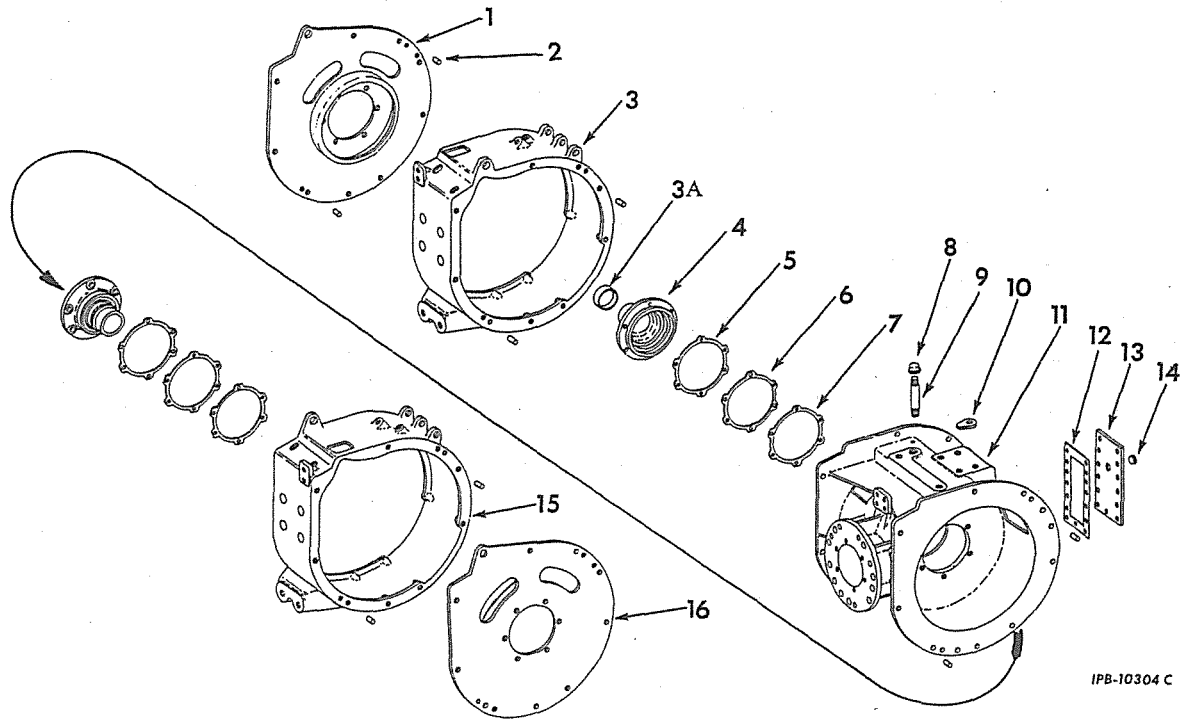
REF. NO.	I.H. PART NUMBER	DESCRIPTION
1		SEAL, pinion gear oil (Furnished as part of PACKAGE, 308 677 R93)
2		COVER, transfer case (order 297 691 R92) 3/8 x 1-1/4" hex-hd cap SCREW (17) 3/8" lock WASHER (17)
3	ST 264	BEARING, ball (6)
3A	299 492 R1	SLEEVE, wear (also furnished as part of PACKAGE, 308 677 R93)
4	297 698 R21	GEAR w/wear SLEEVE, 299 492 R92, transfer case pinion
5	297 697 R2	GEAR, transfer case idler
6	297 694 R1	GASKET, transfer case cover
7		CASE, transfer (order CASE, 297 691 R92) 5/8 x 2-1/2" hex-hd cap SCREW (5) 5/8" NUT (5)
10	297 700 R1	GASKET, transfer case bearing cover (2)
11	297 699 R1	COVER, transfer case bearing (2) 3/8 x 1" hex-hd cap SCREW (12) 3/8" lock WASHER (12)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
12	298 271 R1	GASKET, transfer case cover
13	297 696 R1	RING, pinion drive gear bearing snap
14	273 469	PLUG, 3/4" sq-soc stl pipe (4)
15	297 695 R2	GEAR, transfer case pinion drive
	297 691 R92	CASE w/COVER, GASKET, 297 694 R1 and two PIN
	308 677 R93	PACKAGE, oil seal and wear SLEEVE, 299 492 R1 service
	297 701 R1	PIPE, transfer case oil filler
	119 102	CAP, 3/4" pipe
	444 377	ELBOW, 3/4" x 90° street
	444 612	PLUG, 1/8" auto PIPE
	105 406	NIPPLE, 1/8 x 1-1/2" PIPE
	187 394	COUPLING, 1/8" PIPE
	278 027 R1	WIRE, bulk locking (No. 16 ga) (customer must specify amount required)
		WIRE, locking No. 16 ga-(filler pipe breather hole) (order 278 027 R1)



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MODEL 20B-260 DOUBLE DRUM
REAR-CABLE CONTROL UNIT

HOUSING



IPB-10304 C

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	611 741 C11	SUPPORT w/RING, RH outboard bearing 5/8 x 1" hex-hd cap SCREW (3) 5/8 x 1-1/4" hex-hd cap SCREW (6)
2	286 958 R1	PIN, dowel outer housing (8)
3	297 787 R2	HOUSING, RH outer
3A	307 833 R1	SLEEVE, oil seal wear (2)
4	326 450 R11	QUILL w/SLEEVE, 307 833 R1, drum (Together w/BLOCK, 326 451 R1 and RING, 324 738 R1) (will work for QUILL, 297 783 R21) (2)
	25 125 D	STUD, drum quill (12) 1/2" NUT (12)
5	286 355 R1	SHIM, drum quill (.005) (6 or as required)
6	286 356 R1	SHIM, drum quill (.007) (6 or as required)
7	286 357 R1	SHIM, drum quill (.020) (2 or as required)
8	108 689	CAP, 1" pipe (M1)
9	297 782 R1	PIPE, filler
10	286 556 R1	WEDGE, cable (spare) (6) 3/8 x 1-1/2" hex-hd cap SCREW (2)
11	298 552 R3	HOUSING, main 5/8 x 1-1/4" hex-hd cap SCREW (14)
12	297 781 R1	GASKET, main housing access cover
13	297 780 R1	COVER, main housing access 3/8 x 1" hex-hd cap SCREW (13) 3/8" lock WASHER (13)

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MODEL 20B-260 DOUBLE DRUM
REAR-CABLE CONTROL UNIT

HOUSING - CONTINUED

REF. NO.	I.H. PART NUMBER	DESCRIPTION
14	273 469	PLUG, 3/4" csk-hd pipe
15	297 786 R2	HOUSING, LH outer
16	611 740 C11	SUPPORT w/RING, LH outboard bearing 5/8 x 1" hex-hd cap SCREW (6) 5/8 x 1-1/4" hex-hd cap SCREW (7)
	273 469	PLUG, 3/4" csk-hd pipe
	308 701 R1	RING, inner collector (2)
	278 027 R1	WIRE, filler pipe breather hole locking (order 278 027 R11) WIRE, bulk locking (No. 16 ga) (.0625) (customer must specify amount required)

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(REV. NO. 4 10-68)



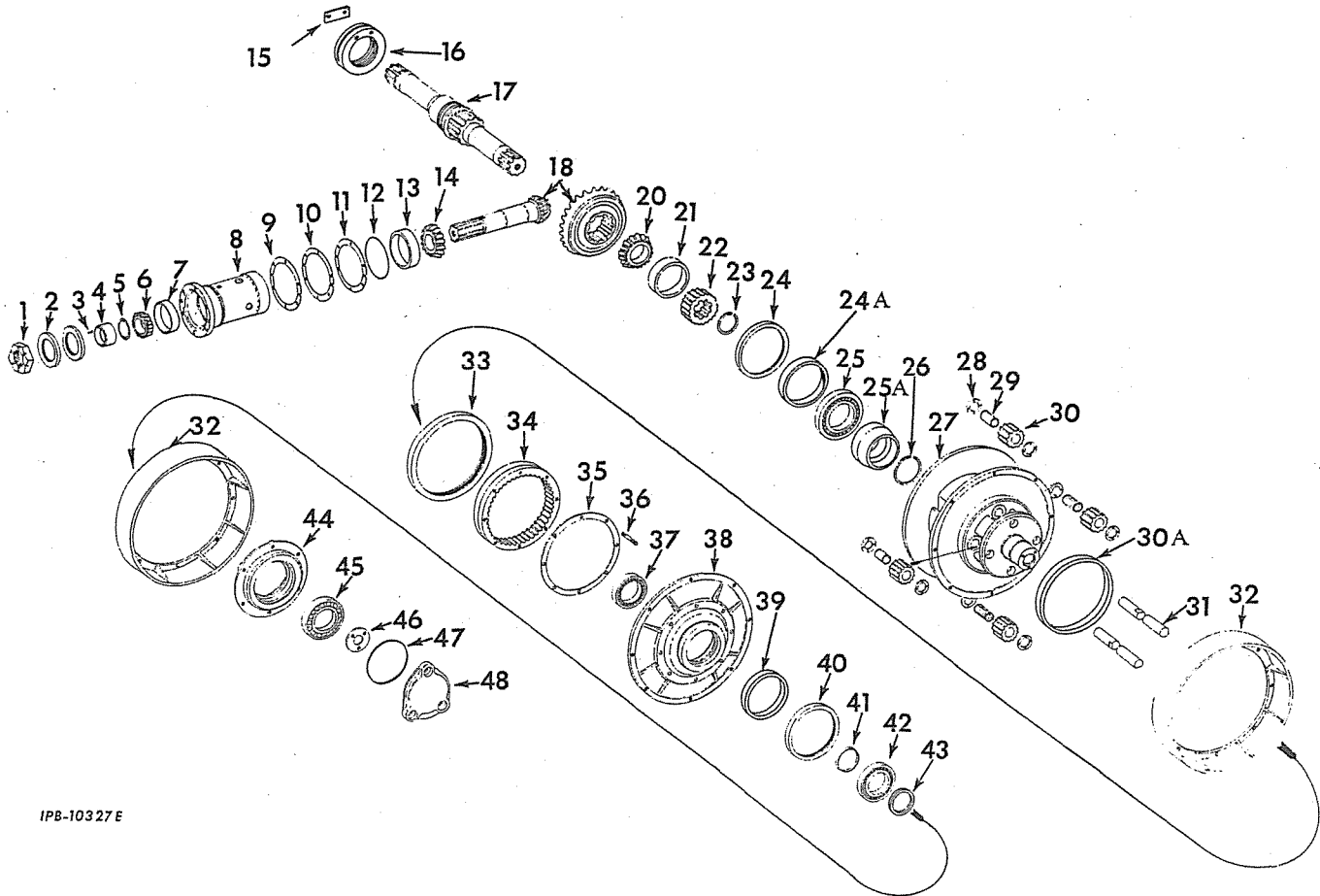
MODEL 20B-260 DOUBLE DRUM REAR-CABLE CONTROL UNIT

TRANSMISSION



MODEL 20B-260 DOUBLE DRUM REAR-CABLE CONTROL UNIT

TRANSMISSION - CONTINUED



IPB-10327E

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	37 608 H	NUT, spiral bevel pinion lock 3/16 x 2-1/2" cotter PIN
2	338 904 R91	OIL SEAL, spiral bevel pinion (2)
3	297 806 R1	KEY, spiral bevel pinion oil seal sleeve
4	297 804 R2	SLEEVE, spiral bevel pinion oil seal
5	297 805 R1	GASKET, spiral bevel pinion oil seal sleeve
6	298 194 R91	CONE, front spiral bevel pinion tapered roller bearing
7	170 254 R1	CUP, front spiral bevel pinion tapered roller bearing
8	333 402 R1	CAGE, pinion 3/8 x 1-1/2" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
9	286 336 R1	SHIM, pinion cage (.005) (6 or as required)
10	286 337 R1	SHIM, pinion cage (.007) (6 or as required)
11	286 338 R1	SHIM, pinion cage (.020) (2 or as required)
12	297 801 R1	GASKET, pinion cage

REF. NO.	I.H. PART NUMBER	DESCRIPTION
13	107 577 R1	CUP, rear spiral bevel pinion tapered roller bearing
14	107 576 R91	CONE, rear spiral bevel pinion tapered roller bearing
15	311 774 R1	PLATE, lock 1/2 x 1" hex-hd cap SCREW (2)
16	311 731 R1	NUT, lock
17	311 728 R1	SHAFT, spiral bevel gear
18	333 403 R91	SHAFT w/GEAR, bevel pinion (matched set)
20	298 197 R91	CONE, spiral bevel gear shaft tapered roller bearing (2)
21	13 390 D	CUP, spiral bevel gear shaft tapered roller bearing (2)
22	286 361 R1	GEAR, sun (20-T) (2)
23	297 811 R1	RING, sun gear snap (2)
24		(Order 323 656 R91)



MODEL 20B-260 DOUBLE DRUM REAR-CABLE CONTROL UNIT

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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TRANSMISSION - CONTINUED

24A	307 833 R1	SLEEVE, oil seal wear (2)
25	298 190 R91	BEARING, cable drum cylindrical roller (2)
25A	326 451 R1	BLOCK, guide (2)
26	297 810 R1	RING, cable drum bearing snap (2)
27	326 306 R11	DRUM w/SLEEVE, 307 832 R1, cable (2)
28	286 514 R1	WASHER, planet pinion gear thrust (16)
29	M 85 097	BEARING, planet pinion gear journal roller (8)
30	286 513 R1	GEAR, planet pinion (8)
30A	307 832 R1	SLEEVE, oil seal wear (2)
31	286 515 R1	SHAFT, planet pinion gear (8) 1/4 x 2-1/2" cotter PIN (8)
32	297 813 R1	DRUM, brake (4) 1/2 x 1-1/8" hex-hd cap SCREW (32)
33		(Order PACKAGE, 323 657 R91)
34	286 981 R1	GEAR, ring (2)
35	286 521 R1	GASKET, ring gear (2)
36	286 520 R1 17 234 R1	STUD, 3/8NF x 2-3/4" ring head (16) NUT, 3/8NF elastic stop (16)
37		BEARING, planetary housing inner (order BEARING, 324 739 R91) (2)
38	326 307 R11	HOUSING w/SLEEVE, 307 833 R1, planetary (2)
39	307 833 R1	SLEEVE, oil seal wear (2)
40		(Order PACKAGE, 323 656 R91)
41		SPACER, planetary housing bearing (order BEARING, 324 739 R91) (2)
42		BEARING, planetary housing outer (order BEARING, 324 739 R91) (2)
43	326 308 R1	SPACER, brake drum hub bearing (2)
44	297 814 R2	HUB, brake drum (2)
45	ST 274	BEARING, brake drum hub (2)
46	297 816 R2	RETAINER, brake drum hub bearing (2) 3/8 x 1" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
47	297 820 R1	GASKET, end cover (2)
48	8 232 DB	COVER, end (2) 1/2 x 1" hex-hd cap SCREW (6)
	324 739 R91	BEARING, planetary housing (consists of Ref. Nos. 37, 41 and 42) (2)
	311 524 R1	GASKET, cable drum (2)
	323 656 R91	PACKAGE, oil seal and wear sleeve service (Consists of OIL SEAL and SLEEVE, 307 833 R1) (X)



MODEL 20B-260 DOUBLE DRUM REAR-CABLE CONTROL UNIT

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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TRANSMISSION - CONTINUED

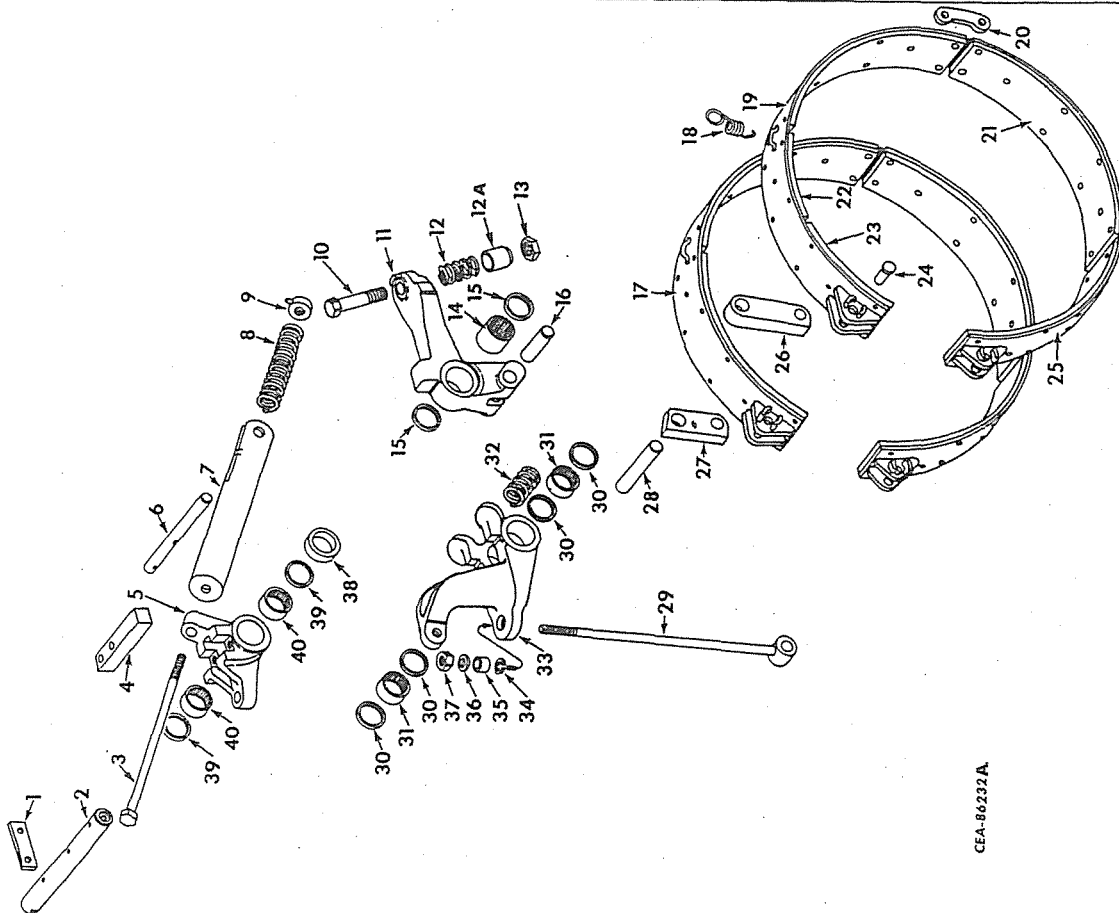
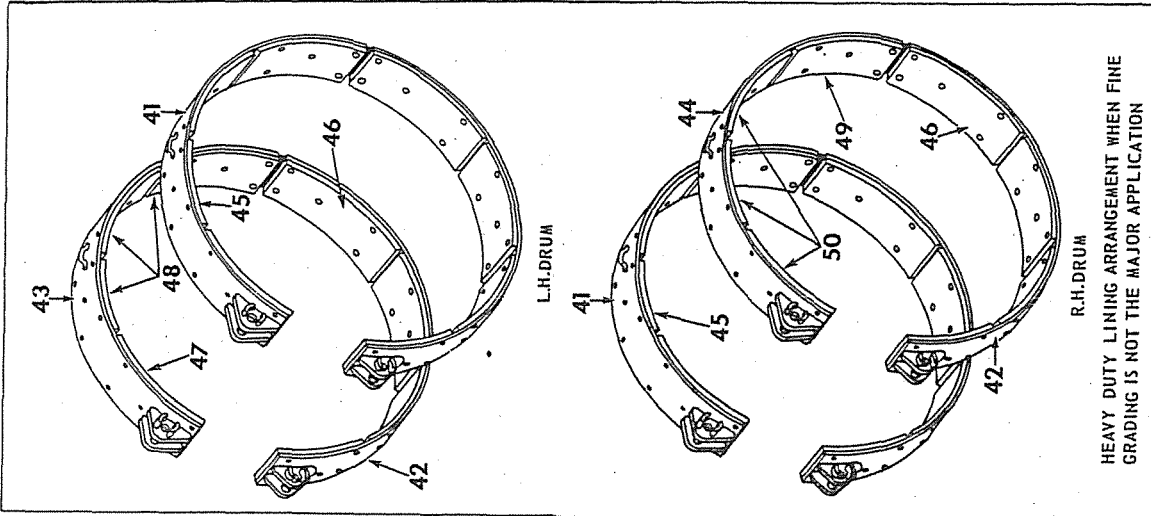
323 657 R91		PACKAGE, oil seal and wear sleeve service (Consists of OIL SEAL and SLEEVE, 307 832 R1) (X)
444 679		PLUG, 1" - 11 - 1/2NPT sq-soc steel pipe (planetary spider) (2)
308 782 R1		SHIM, outer bearing retainer (.020) (2 or as required)
308 783 R1		SHIM, outer bearing retainer (.007) (6 or as required)
308 784 R1		SHIM, outer bearing retainer (.005) (6 or as required)
311 627 R1		SHIM, roller bearing (.005) (X)
311 628 R1		SHIM, roller bearing (.007) (X)

X - As Required.



MODEL 20B-260 DOUBLE DRUM REAR-CABLE CONTROL UNIT

OPERATING LEVERS AND BRAKE BAND



CEA-86232A



MODEL 20B-260 DOUBLE DRUM REAR-CABLE CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
OPERATING LEVERS AND BRAKE BAND - CONTINUED		
1	298 273 R1	PLATE, operating lever shaft lock (2) 5/16 x 5/8" hex-hd cap SCREW (4) 5/16" lock WASHER (4)
2	297 719 R1	SHAFT, operating lever (2)
3	297 721 R1	SCREW, brake adjusting (2)
4	297 716 R1	BAR, brake lever (2) 1/2 x 1-1/2" hex-hd cap SCREW (4)
5	297 715 R2	LEVER, brake (2)
6	297 723 R1	PIN, brake spring housing 3/16 x 1-1/4" cotter PIN (4)
7	297 720 R11	HOUSING, brake spring (2)
8	287 015 R2	SPRING, brake (2)
9	297 722 R11	BLOCK w/DOWEL, brake spring guide end (2)
10	302 264 R1	BOLT, brake release lever (2)
11	297 718 R1 265 923 R1	LEVER, brake release (2) PIN, 3/16 x 1-1/4" roll
12	287 020 R1	SPRING, brake release lever (2) 21/32 x 1-5/16 x .095" WASHER (2)
12A	623 485 C1	STOP, break release lever
13		NUT, 5/8" jam (2)
14	914 455 R91	BEARING, brake release lever needle (2)
15	287 058 R91	OIL SEAL, brake release lever bearing (4)
16	297 709 R1	PIN, clutch anchor upper (2)
17	297 705 R92	BAND w/two LINING, 297 704 R1 and twenty RIVET, 21 407 H, brake (4)
18	309 944 R1	SPRING, extension (4)
19	298 926 R92	BAND w/LINING, 297 704 R1, LINING, 299 714 R1, LINING, 299 715 R1 and twenty RIVET, 21 407 H, LH clutch (upper)
19	299 516 R92	BAND w/LINING, 297 704 R1, LINING, 299 714 R1, LINING, 299 715 R1 and twenty RIVET, 21 407 H, RH clutch (upper)
20	297 706 R1	LINK, brake band connecting (4)
21	297 704 R1 21 407 H	LINING, brake and clutch (7) RIVET, 3/16 x 7/16" (70)
22	299 715 R1 21 407 H	LINING, clutch RIVET, 3/16 x 7/16" (5)
23	299 714 R1 21 407 H	LINING, metallic clutch RIVET, 3/16 x 7/16" (5)
24	297 707 R1	PIN, brake band connecting link (8) 1/8 x 1-3/4" cotter PIN (8)
24	297 707 R1	PIN, brake anchor lower (2) 1/8 x 1-3/4" cotter PIN (2)
24	297 707 R1	PIN, clutch anchor lower (2) 1/8 x 1-3/4" cotter PIN (2)
24	297 707 R1	PIN, tension rod lower (4) 1/8 x 1-3/4" cotter PIN (4)
25	297 705 R92	BAND, w/two LINING, 297 704 R1 and twenty RIVET, 21 407 H, clutch (lower) (2)
26	297 708 R2	PAWL, clutch anchor (2)
27	297 710 R2	PAWL, brake anchor (2).



MODEL 20B-260 DOUBLE DRUM REAR-CABLE CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
OPERATING LEVERS AND BRAKE BAND - CONTINUED		
28	297 711 R1	PIN, brake anchor upper (2)
29	297 712 R2	ROD, tension (4)
30	287 058 R91	OIL SEAL, clutch lever bearing (8)
31	298 175 R91	BEARING, clutch lever needle (4)
32	287 009 R1	SPRING, clutch (2)
33	297 717 R1	LEVER, clutch (2)
34	238 627 R1	RING, clutch lever bushing snap (2)
35	298 098 R91	BUSHING, clutch lever self-aligning (2)
35	298 098 R91	BUSHING, brake lever self-aligning (4)
36	297 714 R1	SPACER, tension rod (6)
37	454 522 R1	NUT, 1/2" elastic stop (4)
38	298 274 R1	SPACER, brake lever (2)
39	287 058 R91	OIL SEAL, brake lever bearing (4)
40	298 175 R91	BEARING, brake lever needle (4)
41	611 643 C91	BAND w/four LINING, 323 562 R1 and twenty RIVET, 21 407 H, brake (*) (4)
42	611 643 C91	BAND w/four LINING, 323 562 R1 and twenty RIVET, 21 407 H, clutch (lower) (*) (2)
43	611 644 C91	BAND w/three LINING, 323 562 R1, one LINING, 299 714 R1 and twenty RIVET, 21 407 H, clutch (upper LH) (*)
44	611 646 C91	BAND w/three LINING, 323 562 R1, one LINING, 299 714 R1 and twenty RIVET, 21 407 H, clutch (upper RH) (*)
45	323 562 R1 21 407 H	LINING, brake (*) (16) RIVET, 3/16 x 7/16" (80)
46	323 562 R1 21 407 H	LINING, clutch (lower) (*) (8) RIVET, 3/16 x 7/16" (40)
47	299 714 R1 21 407 H	LINING, clutch (upper LH) (*) RIVET, 3/16 x 7/16" (5)
48	323 562 R1 21 407 H	LINING, clutch (upper LH) (*) RIVET, 3/16 x 7/16" (15)
49	299 714 R1 21 407 H	LINING, clutch (upper RH) (*) RIVET, 3/16 x 7/16" (5)
50	323 562 R1 21 407 H	LINING, clutch (upper RH) (*) (3) RIVET, 3/16 x 7/16" (15)
	323 560 R91	ATTACHMENT, heavy duty lining (See NOTE 3) (*) (2) (Composed of - 15 LINING 323 562 R1 1 LINING 299 714 R1 90 RIVET 21 407 H) NUT, 1/2" jam (4)
	444 571	PLUG, 1/8" NPT sq-hd pipe (2)
		SCREW, 1/2 x 3" hex-soc ovpt set (4)
		(*) - Used only when fine grading is not the major application. NOTE 3 - Field Application - Order Through Regular Service Parts Channel

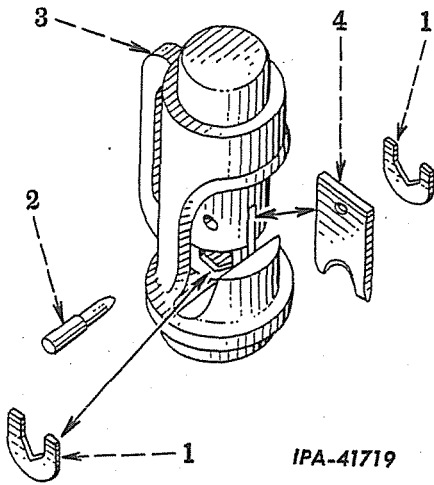


MODEL 20B-260 DOUBLE DRUM REAR-CABLE CONTROL UNIT



MEMORANDA

CABLE CUTTER

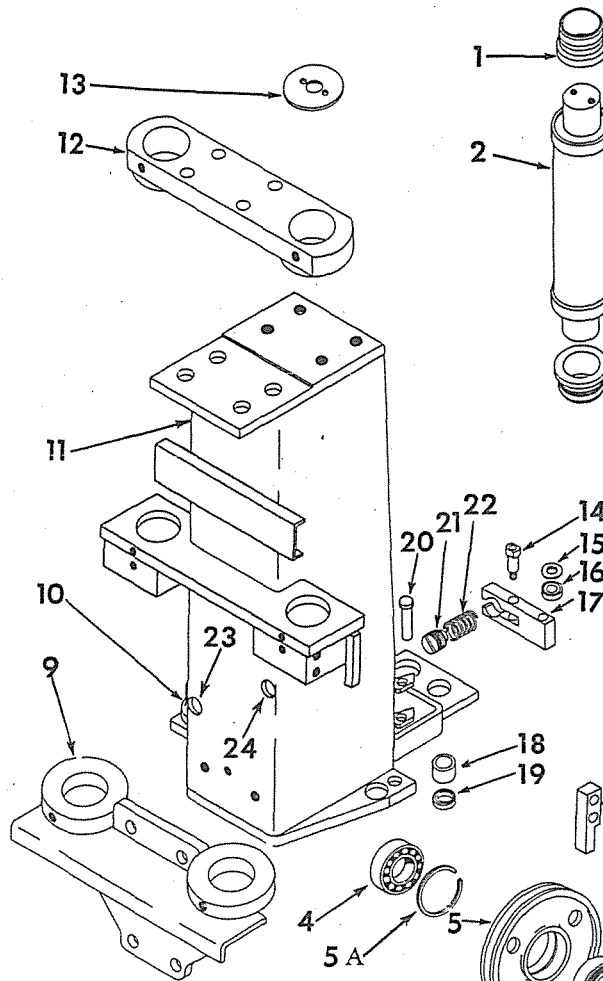


REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	289 203 R1	BLADE, bottom (2)
2	289 204 R1	PIN, top cutting blade locking
3	286 552 R91	CUTTER ASSEMBLY, cable (Composed of -
	1	BLADE 289 202 R1
	2	BLADE 289 203 R1
	1	PIN 265 923 R1
	1	PIN 289 204 R1)
4	289 202 R1	BLADE, top cutting
	265 923 R1	PIN, 3/16 x 1-1/4" roll



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MODEL 20B-260 DOUBLE DRUM
REAR-CABLE CONTROL UNIT

FAIRLEAD

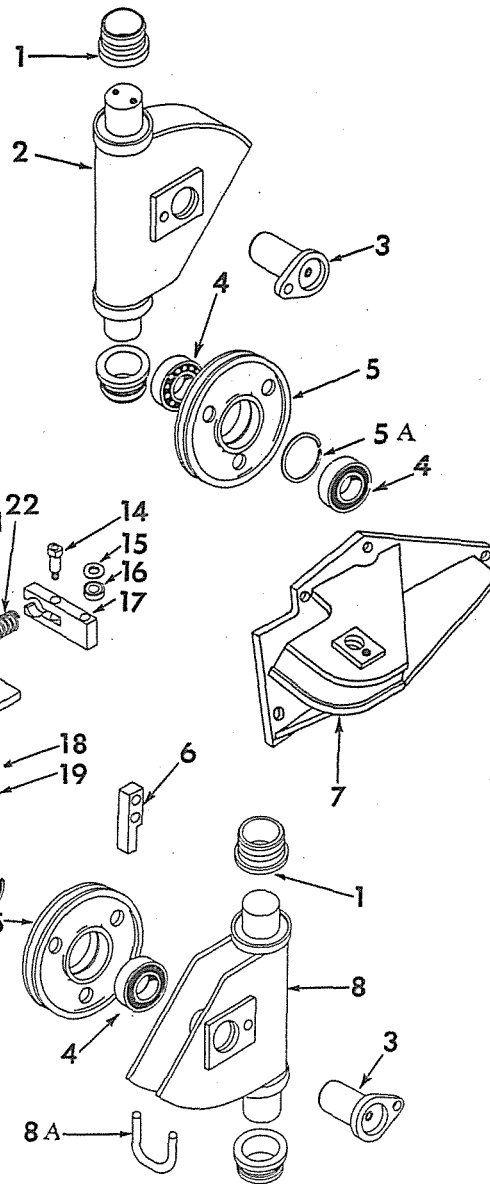


IPA-67510



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MODEL 20B-260 DOUBLE DRUM
REAR-CABLE CONTROL UNIT

FAIRLEAD - CONTINUED



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	286 385 R1	BUSHING, fairlead frame (8)
2	308 770 R91	FRAME, upper fairlead (2)
3	289 273 R11	SHAFT, fairlead sheave (4) 5/8 x 1" hex-hd cap SCREW (4)
4	ST 596	BEARING, fairlead sheave (8)
5	294 866 R1	SHEAVE, fairlead (4)
5A	290 358 R1	RING, sheave bearing retainer (4)
6	326 122 R1	STOP, lower movable sheave 5/8 x 2" hex-hd cap SCREW (2)

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REF. NO.	I. H. PART NUMBER	DESCRIPTION
7	326 114 R91	HOUSING, side sheave 5/8 x 1-3/4" hex-hd cap SCREW (4)
8	308 769 R91	FRAME w/STIFFENER, 308 802 R2, lower fairlead (2)
8A	308 802 R2	STIFFENER, lower, fairlead frame (2)
9	308 765 R11	SUPPORT, tower lower bearing 3/4" NUT (2) 3/4 x 2" hex-hd cap SCREW (4)
10	286 552 R91	CUTTER, cable (for components see list of parts under details of "Cable Cutter")

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(REV. NO. 3 7-68)



**MODEL 20B-260 DOUBLE DRUM
REAR-CABLE CONTROL UNIT**

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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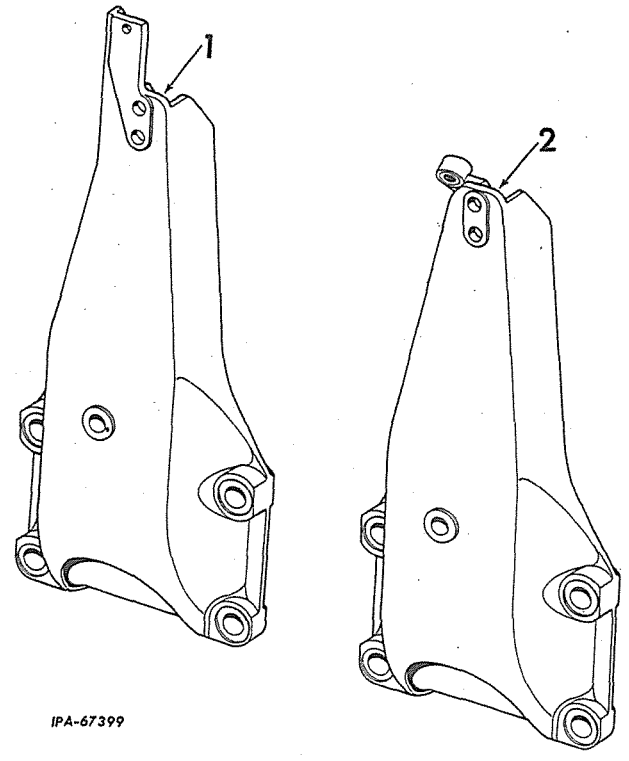
FAIRLEAD - CONTINUED

11	620 720 C91	TOWER w/CUTTER, 286 552 R91 side and fairlead sheave 3/4 x 2" hex-hd cap SCREW (4)
12	308 764 R11	SUPPORT, tower upper bearing 3/4" NUT (4) 3/4 x 2-3/4" hex-hd cap SCREW (4)
13	286 464 R1	SHIELD, fairlead frame bushing dust (2) 1/4 x 1/2" hex-hd cap SCREW (4) 1/4" lock WASHER (4)
14	308 762 R1	SHAFT, tower tiller lockout follower (2) 3/8" NUT (2) 3/8" lock WASHER (2)
15	308 761 R1	WASHER, tower tiller lockout follower thrust (4)
16	309 059 R91	BEARING, tower tiller lockout roller follower (2)
17	308 760 R1	FOLLOWER, tower tiller lockout spring (2)
18	298 175 R91	BEARING, tower tiller support needle (2)
19	287 058 R91	OIL SEAL, tower tiller support bearing (4)
20	309 749 R1	PIN, end (2) 1/8 x 7/8" cotter PIN (2)
21	308 763 R1	ADJUSTMENT, tower tiller lockout spring (2)
22	287 009 R1	SPRING, tower tiller lockout (2)
23		(Screw adjustment hole)
24		(Screw adjustment hole)
109 461		FITTING, lubrication 1/8" (12)
109 462		FITTING, lubrication (2)



**MODEL 20B-260 DOUBLE DRUM
REAR-CABLE CONTROL UNIT**

MOUNTING BRACKET
(For Hi-Mounted Cable Control Unit)



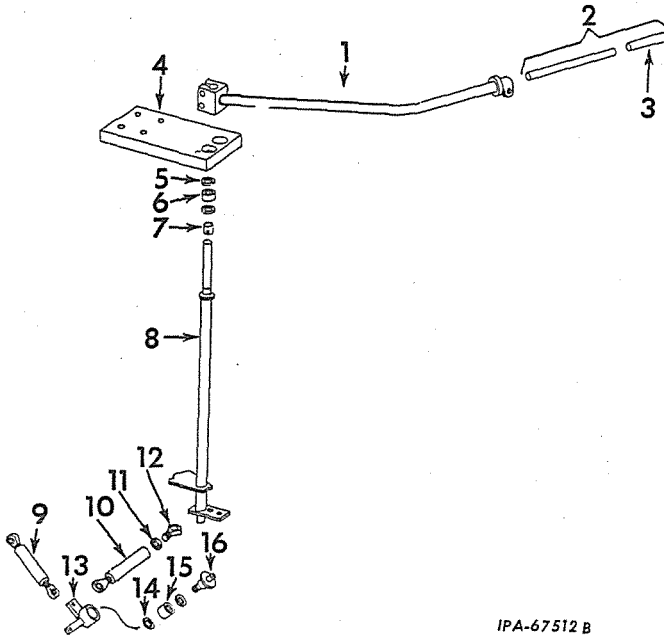
IPA-67399

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	333 408 R2 444 679	BRACKET, L.H. mounting SCREW, 1-1/4 x 3-3/4" hex-hd cap SCREW, 1-1/4 x 3-1/4" hex-hd cap (2)
	18 756 R1	SCREW, 7/8 x 5-3/4" hex-hd cap 7/8 x 2-1/4" hex-hd cap SCREW (2)
2	333 409 R2 20 109 R1	BRACKET, R.H. mounting SCREW, 1-1/4 x 3-3/4" hex-hd cap SCREW, 1-1/4 x 3-1/4" hex-hd cap (2)
	18 756 R1	SCREW, 7/8 x 5-3/4" hex-hd cap 7/8 x 2-1/4" hex-hd cap SCREW (2)



MODEL 20B-260S SINGLE DRUM REAR-CABLE CONTROL UNIT

CABLE OPERATING CONTROLS (Rear Mounted)



IPA-67512 B

REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	342 491 R11	LEVER, tower tiller 5/8" NUT (2) 5/8 x 2-3/4" hex-hd cap SCREW (2)
2	293 808 R91	HANDLE w/GRIP, 619 405 C1, tower tiller lever 1/2 x 1-1/4" hex-hd cap SCREW (2) 1/2" heavy lock WASHER (2)
3	619 405 C1	GRIP, tower tiller lever handle
4	333 422 R11	SUPPORT, tower tiller upper 5/8 x 1-3/4" hex-hd cap SCREW (4)
5	287 058 R91	OIL SEAL, tower tiller upper bearing oil (2)
6	298 175 R91	BEARING, tower tiller upper
7	308 813 R1	RACE, tower tiller post inner (2)
8	333 424 R11	POST w/two RACE, 308 813 R1, tower tiller bowl
9	308 820 R91	LINK, control (long) 1/2NF NUT (2) 1/2NF x 1-3/4" hex-hd cap SCREW 1/2NF x 1-1/2" hex-hd cap SCREW
10	308 823 R11	SLEEVE w/BEARING, control adjustable
11		1/2NF hex NUT (2)
12	283 442 R91	BEARING, rod end
13	308 815 R91	BELLCRANK, control link
14	287 058 R91	OIL SEAL, control link bellcrank bearing oil (2)



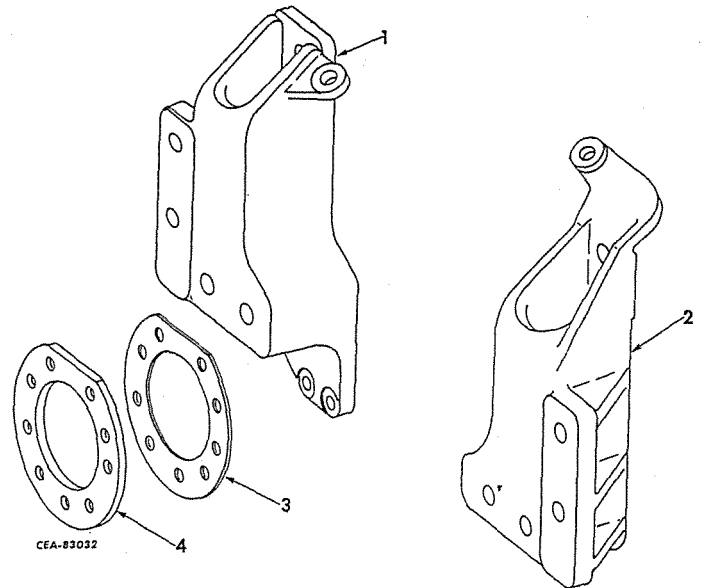
MODEL 20B-260S SINGLE DRUM REAR-CABLE CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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CABLE OPERATING CONTROLS - CONTINUED (Rear Mounted)

15	914 455 R91	BEARING, control link bellcrank
16	308 818 R11	BOLT, control link bellcrank 3/4" jam NUT
	109 460	FITTING, lubrication (3)
	102 467 H	FITTING, lubrication (Lincoln 5042) (optional with 110 146 R91) (2)
	110 146 R91	FITTING, lubrication (Alemite 1792BL) (optional with 102 467 H) (2)
	117 175	FITTING, lubrication (2)

MOUNTING BRACKET (For Lo-Mounted Cable Control Unit)

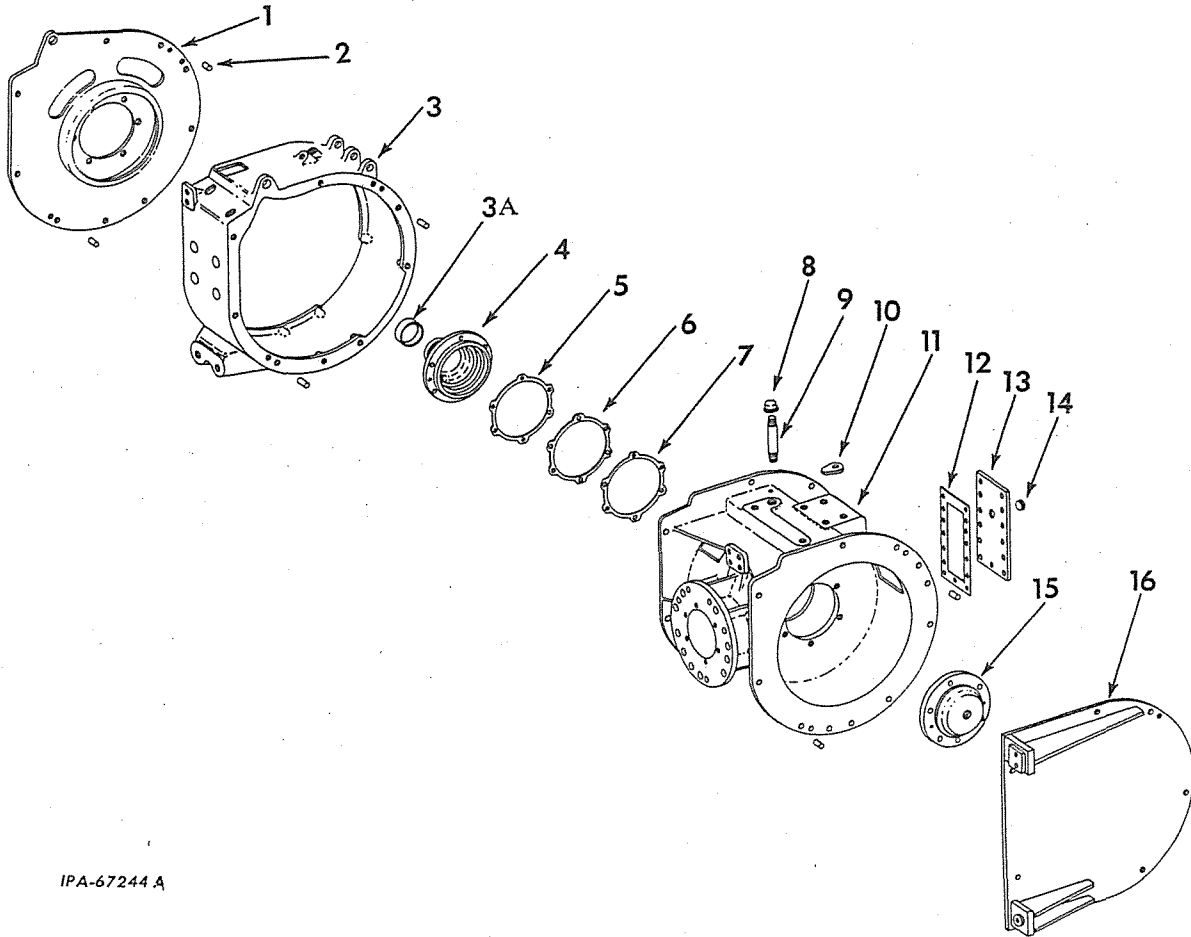


REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	602 066 C1	BRACKET, RH mounting 7/8 x 2-1/4" hex-hd cap SCREW (4) 1-1/4 x 3" hex-hd cap SCREW (2)
2	602 065 C1	BRACKET, LH mounting 7/8 x 2-1/4" hex-hd cap SCREW (4) 1-1/4 x 3" hex-hd cap SCREW (2)
3	325 429 R1	GASKET, adapter plate
4	605 764 C1	PLATE, adapter 5/8 x 1-1/4" hex-hd cap SCREW (9)



MODEL 20B-260S SINGLE DRUM
REAR-CABLE CONTROL UNIT

HOUSING



IPA-67244 A



MODEL 20B-260S SINGLE DRUM
REAR-CABLE CONTROL UNIT

HOUSING - CONTINUED

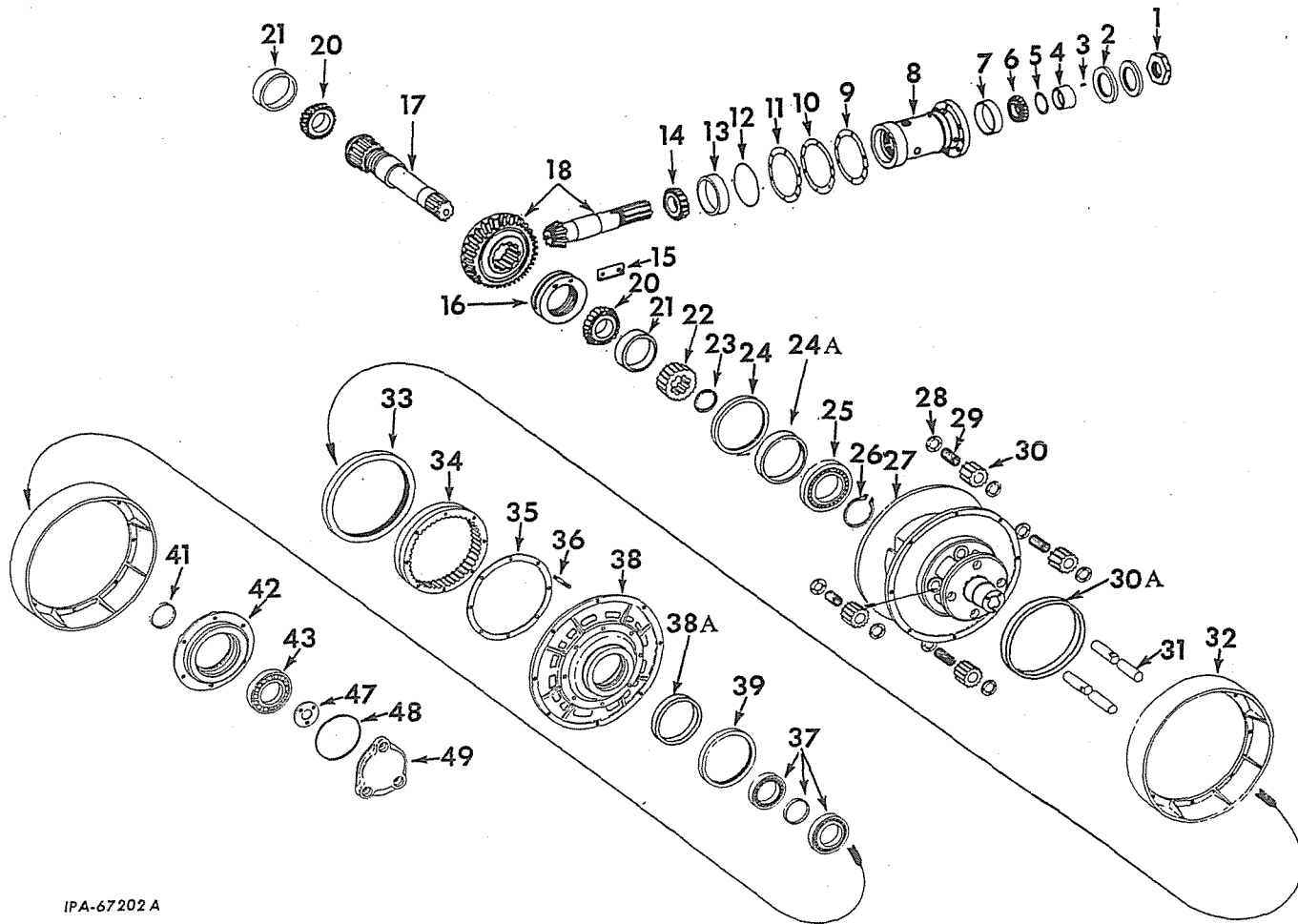
REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	611 741 C11	SUPPORT w/RING, outboard bearing 5/8 x 1" hex-hd cap SCREW (6) 5/8 x 1-1/4" hex-hd cap SCREW (3)
2	286 958 R1	PIN, dowel outer housing (4)
3	297 787 R2	HOUSING, RH outer
3A	307 833 R1	SLEEVE, oil seal wear
4	326 450 R11 25 125 D	QUILL w/SLEEVE, 307 833 R1, drum STUD, drum quill (Together w/BLOCK, 326 451 C1 and RING, 324 738 R1) (will work for QUILL, 297 783 R21) (12) 1/2" NUT (12)
5	286 355 R1	SHIM, drum quill (.005) (6 or as required)
6	286 356 R1	SHIM, drum quill (.007) (6 or as required)
7	286 357 R1	SHIM, drum quill (.020) (2 or as required)
8	108 689	CAP, 1" pipe (MI)
9	297 782 R1	PIPE, filler
10	286 556 R1	WEDGE, cable (spare) (3) 3/8 x 1-1/2" hex-hd cap SCREW
11	298 552 R3	HOUSING, main 5/8 x 1-1/4" hex-hd cap SCREW (7)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
12	297 781 R1	GASKET, main housing access cover
13	297 780 R1	COVER, main housing access 3/8 x 1" hex-hd cap SCREW (13) 3/8" lock WASHER (13)
14	9 409 949	PLUG, 3/4" csk-hd pipe (2)
15	342 029 R1 116 566	COVER w/PLUG, 116 566, main shaft end PLUG, main shaft end cover
16	342 172 R11	PLATE, side cover 5/8" NUT (7) 5/8 x 1-3/4" hex-hd cap SCREW (7)
	342 031 R1	PLATE, dowel pin support (2)
	308 701 R1	RING, inner collector
		WIRE, filler pipe breather hole locking (order 278 027 R1)
	278 027 R1	WIRE, bulk locking (No. 16 ga) (.0625) (customer must specify amount required)



MODEL 20B-260S SINGLE DRUM REAR-CABLE CONTROL UNIT

TRANSMISSION



IPA-67202 A



MODEL 20B-260S SINGLE DRUM REAR-CABLE CONTROL UNIT

TRANSMISSION - CONTINUED

REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	37 608 H	NUT, spiral bevel pinion lock 3/16 x 2-1/2" cotter PIN
2	338 904 R91	OIL SEAL, spiral bevel pinion (2)
3	297 806 R1	KEY, spiral bevel pinion oil seal sleeve
4	297 804 R2	SLEEVE, spiral bevel pinion oil seal
5	297 805 R1	GASKET, spiral bevel pinion oil seal sleeve
6	298 194 R91	CONE, front spiral bevel pinion tapered roller bearing
7	170 254 R1	CUP, front spiral bevel pinion tapered roller bearing
8	333 402 R1	CAGE, pinion 3/8 x 1-1/2" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
9	286 336 R1	SHIM, pinion cage (.005) (6 or as required)
10	286 337 R1	SHIM, pinion cage (.007) (6 or as required)
11	286 338 R1	SHIM, pinion cage (.020) (2 or as required)
12	297 801 R1	GASKET, pinion cage

REF. NO.	I.H. PART NUMBER	DESCRIPTION
13	107 577 R1	CUP, rear spiral bevel pinion tapered roller bearing
14	107 576 R91	CONE, rear spiral bevel pinion tapered roller bearing
15	311 774 R1	PLATE, lock 1/2 x 1" hex-hd cap SCREW (2)
16	311 731 R1	NUT, lock
17	342 036 R1	SHAFT, spiral bevel gear
18	333 403 R91	SHAFT w/GEAR, bevel pinion (matched set)
20	298 197 R91	CONE, spiral bevel gear shaft tapered roller bearing (2)
21	13 390 D	CUP, spiral bevel gear shaft tapered roller bearing (2)
22	286 361 R1	GEAR, sun (20-T)
23	297 811 R1	RING, sun gear snap
24		(Order 323 656 R91)
24A	307 833 R1	SLEEVE, oil seal wear
25	298 190 R91	BEARING, cable drum cylindrical roller



MODEL 20B-260S SINGLE DRUM REAR-CABLE CONTROL UNIT

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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TRANSMISSION - CONTINUED

26	324 738 R1	RING, cable drum bearing snap
27	326 306 R11	DRUM w/SLEEVE, 307 832 R1, cable
28	286 514 R1	WASHER, planet pinion gear thrust (8)
29	M 85 097	BEARING, planet pinion gear journal roller (4)
30	286 513 R1	GEAR, planet pinion (4)
30A	307 832 R1	SLEEVE, oil seal wear
31	286 515 R1 600 584 C1	SHAFT, planet pinion gear (4) PIN, cotter (4)
32	297 813 R1	DRUM, brake (2) 1/2 x 1-1/8" hex-hd cap SCREW (16)
33		(Order 323 657 R91)
34	286 981 R1	GEAR, ring
35	286 521 R1	GASKET, ring gear
36	286 520 R1 17 234 R1	STUD, 3/8NF x 2-3/4" ring head (8) NUT, 3/8NF elastic stop (8)
37	324 739 R21	BEARING, planetary housing
38	326 307 R11	HOUSING w/SLEEVE, 307 833 R1, planetary
38A	307 833 R1	SLEEVE, oil seal wear
39		(Order 323 656 R91)
41	326 308 R1	SPACER, brake drum hub bearing
42	297 814 R2	HUB, brake drum
43	ST 274	BEARING, brake drum hub
47	297 816 R2	RETAINER, brake drum hub bearing 3/8 x 1" hex-hd cap SCREW (3) 3/8" lock WASHER (3)
48	297 820 R1	GASKET, end cover
49	8 232 DB	COVER, end 1/2 x 1" hex-hd cap SCREW (3)
	326 451 R1	BLOCK, guide
	311 524 R1	GASKET, cable drum
	323 657 R91	PACKAGE, oil seal and wear sleeve service (consists of SLEEVE, 307 832 R1 and OIL SEAL)



MODEL 20B-260S SINGLE DRUM REAR-CABLE CONTROL UNIT

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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TRANSMISSION - CONTINUED

323 656 R91		PACKAGE, oil seal and wear sleeve service (Consists of SLEEVE, 307 833 R1, and OIL SEAL) (2)
444 679		PLUG, 1" - 11-1/2NPT sq-soc steel pipe (planetary spider)
308 782 R1		SHIM, outer bearing retainer (.020) (1 or as required)
308 783 R1		SHIM, outer bearing retainer (.007) (3 or as required)
308 784 R1		SHIM, outer bearing retainer (.005) (3 or as required)
311 627 R1		SHIM, roller bearing (.005) (X)
311 628 R1		SHIM, roller bearing (.007) (X)
307 832 R1		SLEEVE, oil seal wear (large)
307 833 R1		SLEEVE, oil seal wear (small) (2)

X - As Required.



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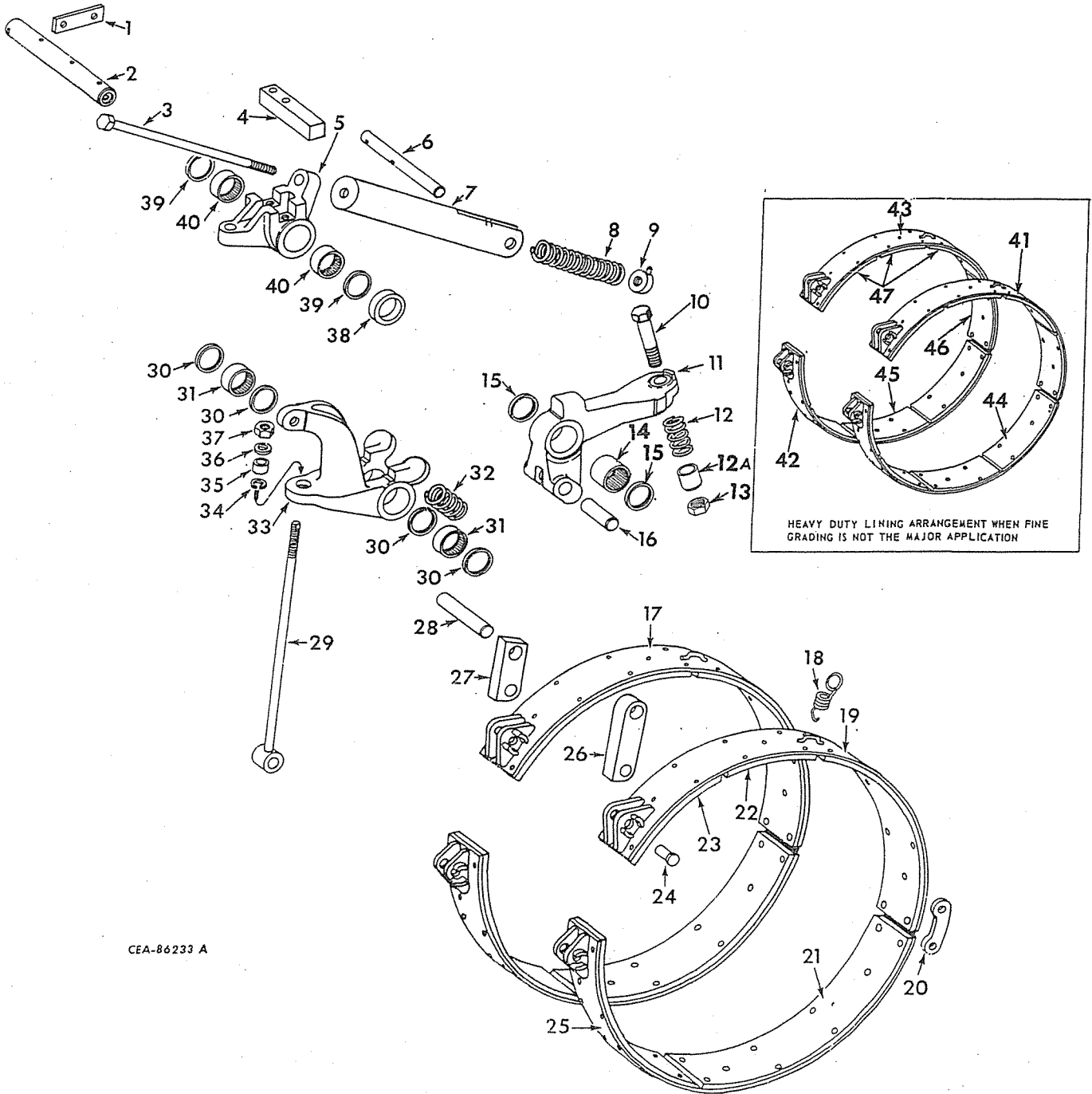
MODEL 20B-260S SINGLE DRUM REAR-CABLE CONTROL UNIT

OPERATING LEVERS AND BRAKE BAND



MODEL 20B-260S SINGLE DRUM REAR-CABLE CONTROL UNIT

OPERATING LEVERS AND BRAKE BAND - CONTINUED



CEA-86233 A



MODEL 20B-260S SINGLE DRUM
REAR-CABLE CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
OPERATING LEVERS AND BRAKE BAND - CONTINUED		
1	298 273 R1	PLATE, operating lever shaft lock 5/16 x 5/8" hex-hd cap SCREW (2) 5/16" lock WASHER (2)
2	297 719 R1	SHAFT, operating lever
3	297 721 R1	SCREW, brake adjusting
4	297 716 R1	BAR, brake lever 1/2 x 1-1/2" hex-hd cap SCREW (2)
5	297 715 R2	LEVER, brake
6	297 723 R1	PIN, brake spring housing 3/16 x 1-1/4" cotter PIN (2)
7	297 720 R11	HOUSING, brake spring
8	287 015 R2	SPRING, brake
9	297 722 R11	BLOCK w/DOWEL, brake spring guide end
10		SCREW, 5/8 x 4" pitman arm stop
11	297 718 R1 265 923 R1	LEVER, brake release PIN, 3/16 x 1-1/4" roll
12	287 020 R1	SPRING, brake release lever 21/32 x 1-5/16 x 13 ga WASHER
12A	623 485 C1	STOP, break release lever
13		NUT, 5/8" jam
14	914 455 R91	BEARING, brake release lever needle
15	287 058 R91	OIL SEAL, brake release lever bearing (2)
16	297 709 R1	PIN, clutch anchor upper
17	297 705 R92	BAND w/two lining, 297 704 R1 and twenty RIVET, 21 407 H, brake (2)
18	309 944 R1	SPRING, extension (2)
19	299 516 R92	BAND w/LINING, 297 704 R1, LINING, 299 714 R1, LINING, 299 715 R1 and twenty RIVET, 21 407 H, RH clutch (upper)
20	297 706 R1	LINK, brake band connecting (2)
21	297 704 R1 21 407 H	LINING, brake and clutch (7) RIVET, 3/16 x 7/16" (70)
22	299 715 R1 21 407 H	LINING, clutch RIVET, 3/16 x 7/16" (5)
23	299 714 R1 21 407 H	LINING, metallic clutch RIVET, 3/16 x 7/16" (5)
24	297 707 R1	PIN, brake band connecting link (4) 1/8 x 1-3/4" cotter PIN (4)
24	297 707 R1	PIN, brake anchor lower 1/8 x 1-3/4" cotter PIN
24	297 707 R1	PIN, clutch anchor lower 1/8 x 3/4" cotter PIN
24	297 707 R1	PIN, tension rod lower (2) 1/8 x 3/4" cotter PIN (2)
25	297 705 R92	BAND w/two LINING, 297 704 R1 and twenty RIVET, 21 407 H, clutch (lower)
26	297 708 R2	PAWL, clutch anchor
27	297 710 R2	PAWL, brake anchor
28	297 711 R1	PIN, brake anchor upper
29	297 712 R2	ROD, tension (2)



MODEL 20B-260S SINGLE DRUM
REAR-CABLE CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
OPERATING LEVERS AND BRAKE BAND - CONTINUED		
30	287 058 R91	OIL SEAL, clutch lever bearing (4)
31	298 175 R91	BEARING, clutch lever needle (2)
32	287 009 R1	SPRING, clutch
33	297 717 R1	LEVER, clutch
34	238 627 R1	RING, clutch lever bushing stop
35	298 098 R91	BUSHING, clutch lever self-aligning
35	298 098 R91	BUSHING, brake lever self-aligning (2)
36	297 714 R1	SPACER, tension rod (3)
37	454 522 R1	NUT, 1/2" elastic stop (2)
38	298 274 R1	SPACER, brake lever
39	287 058 R91	OIL SEAL, brake lever bearing (2)
40	298 175 R91	BEARING, brake lever needle (2)
41	611 643 C91	BAND w/four LINING, 323 562 R1 and twenty RIVET, 21 407 H, brake (*) (2)
42	611 643 C91	BAND w/four LINING, 323 562 R1 and twenty RIVET, 21 407 H, clutch (lower) (*)
43	611 646 C91	BAND w/three LINING, 323 562 R1, one LINING, 299 714 R1 and twenty RIVET, 21 407 H, clutch (upper) (*)
44	323 562 R1 21 407 H	LINING, brake (*) (8) RIVET, 3/16 x 7/16" (40)
45	323 562 R1 21 407 H	LINING, clutch (lower) (*) (4) RIVET, 3/16 x 7/16" (20)
46	299 714 R1 21 407 H	LINING, clutch (upper) (*) RIVET, 3/16 x 7/16" (5)
47	323 562 R1 21 407 H	LINING, clutch (upper) (*) (3) RIVET, 3/16 x 7/16" (15)
	323 560 R91	ATTACHMENT, heavy duty lining (See NOTE 3) (*) (Composed of - 15 LINING 323 562 R1 1 LINING 299 714 R1 90 RIVET 21 407 H)
		NUT, 1/2" jam (2)
	444 571	PLUG, 1/8" NPT sq-hd pipe
		SCREW, 1/2 x 3" hex-soc oval pt set (2)

(*) - Used only when fine Sealing is not the major application.
NOTE 3 - Field Application - Order Through Regular Service Parts Channels

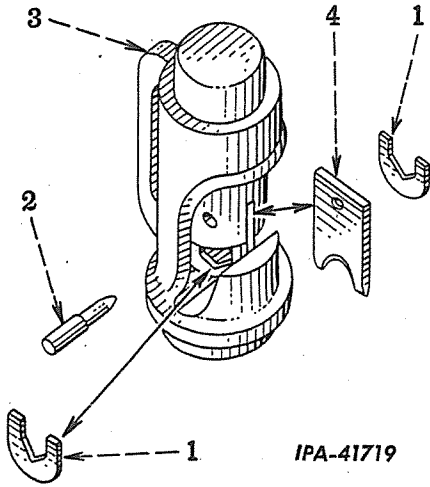


MODEL 20B-260S SINGLE DRUM REAR-CABLE CONTROL UNIT



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CABLE CUTTER

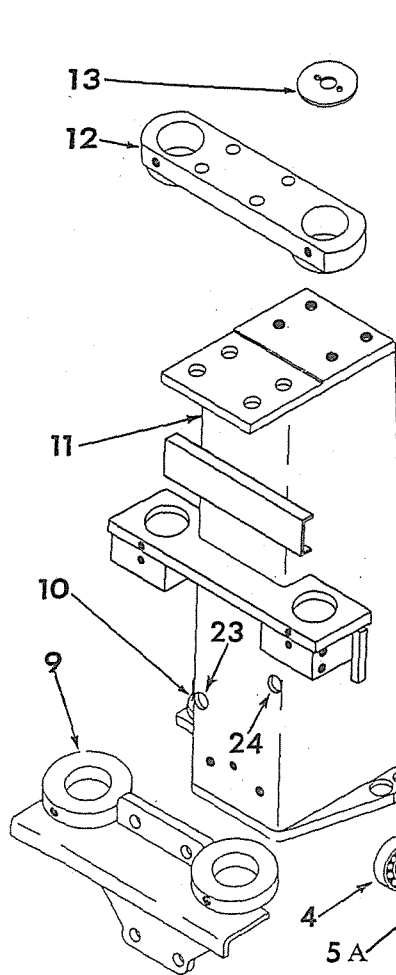


REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	289 203 R1	BLADE, bottom (2)
2	289 204 R1	PIN, top cutting blade locking
3	286 552 R91	CUTTER ASSEMBLY, cable (Composed of - 1 BLADE 289 202 R1 2 BLADE 289 203 R1 1 PIN 265 923 R1 1 PIN 289 204 R1)
4	289 202 R1 265 923 R1	BLADE, top cutting PIN, 3/16 x 1-1/4" roll



MODEL 20B-260S SINGLE DRUM
REAR-CABLE CONTROL UNIT

FAIRLEAD

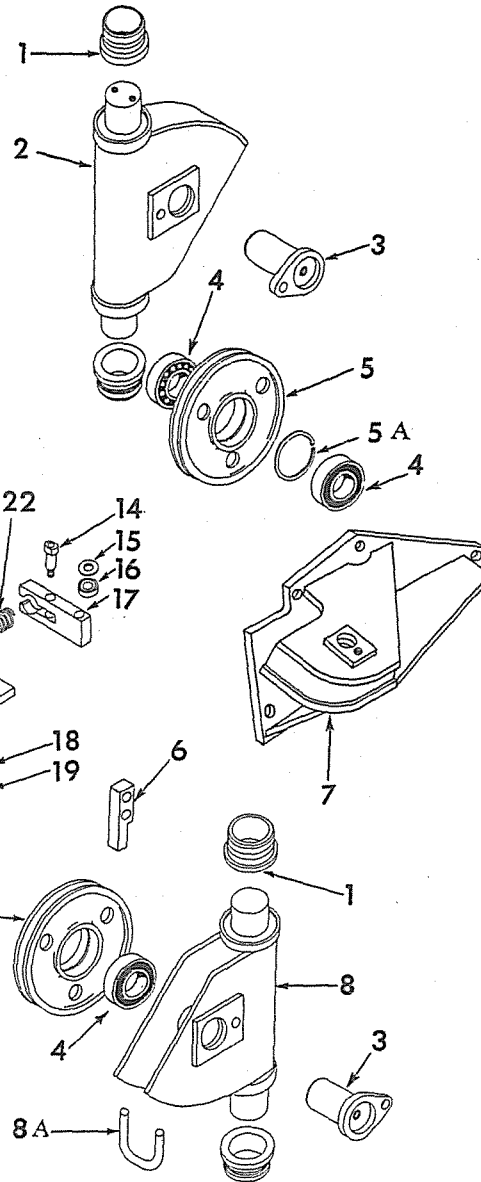


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MODEL 20B-260S SINGLE DRUM
REAR-CABLE CONTROL UNIT

FAIRLEAD - CONTINUED



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	286 385 R1	BUSHING, fairlead frame (4)
2	308 770 R91	FRAME, upper fairlead
3	289 273 R11	SHAFT, fairlead sheave (2) 5/8 x 1" hex-hd cap SCREW (2)
4	ST 596	BEARING, fairlead sheave (8)
5	294 866 R1	SHEAVE, fairlead (4)
5A	290 358 R1	RING, sheave bearing retainer (4)
6	326 122 R1	STOP, lower movable sheave 5/8 x 2" hex-hd cap SCREW (2)

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REF. NO.	I. H. PART NUMBER	DESCRIPTION
7	326 114 R91	BRACKET, side sheave 5/8 x 1-3/4" hex-hd cap SCREW (4)
8	308 769 R91	FRAME w/STIFFENER, 308 802 R2, lower fairlead
8A	308 802 R2	STIFFENER, lower fairlead frame
9	308 765 R11	SUPPORT, tower lower bearing 3/4" NUT (2) 3/4 x 2" hex-hd cap SCREW (4)
10	286 552 R91	CUTTER, cable (for components see list of parts under details of "Cable Cutter")

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**MODEL 20B-260S SINGLE DRUM
REAR-CABLE CONTROL UNIT**



REF. NO.	I. H. PART NUMBER	DESCRIPTION
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FAIRLEAD - CONTINUED

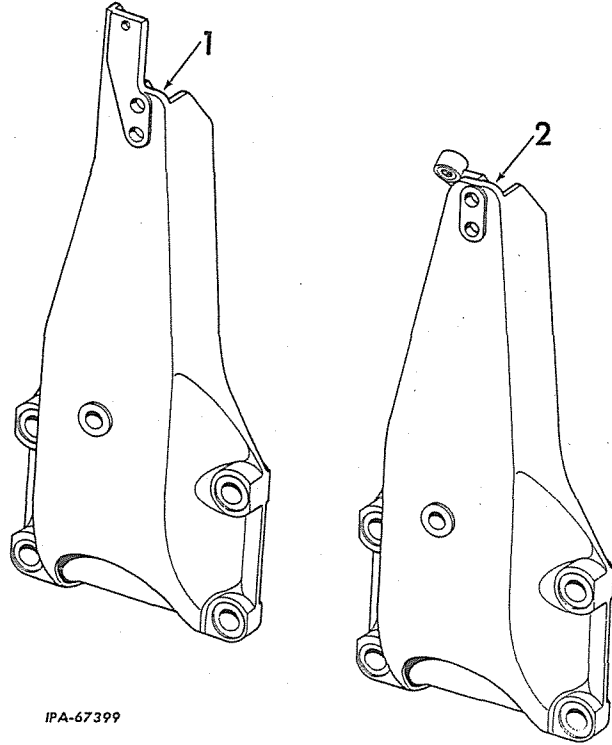
11	620 720 C91	TOWER w/CUTTER, 286 552 R91, sheave 3/4 x 2" hex-hd cap SCREW (4)
12	308 764 R11	SUPPORT, tower upper bearing 3/4" NUT (4) 3/4 x 2-3/4" hex-hd cap SCREW (4)
13	286 464 R1	SHIELD, fairlead frame bushing dust 1/4 x 1/2" hex-hd cap SCREW (2) 1/4" lock WASHER (2)
14	308 762 R1	SHAFT, tower tiller lockout follower 3/8" NUT 3/8" lock WASHER
15	308 761 R1	WASHER, tower tiller lockout follower thrust (2)
16	309 059 R1	BEARING, tower tiller lockout roller follower
17	308 760 R1	FOLLOWER, tower tiller lockout spring
18	298 175 R91	BEARING, tower tiller support needle
19	287 058 R91	OIL SEAL, tower tiller support needle bearing (2)
20	309 749 R1	PIN, rod end 1/8 x 7/8" cotter PIN
21	308 763 R1	ADJUSTMENT, tower tiller lockout spring
22	287 009 R1	SPRING, tower tiller lockout
23		(Screw adjustment hole)
24		(Screw adjustment hole)
ST 596		BEARING, fairlead sheave (4)
109 461		FITTING, lubrication, 1/8" (6)
109 462		FITTING, lubrication

**MODEL 20B-260S SINGLE DRUM
REAR-CABLE CONTROL UNIT**



REF. NO.	I. H. PART NUMBER	DESCRIPTION
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MOUNTING BRACKET



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	333 408 R2	BRACKET, LH mounting SCREW, 1-1/4 x 3-3/4" hex-hd cap SCREW, 1-1/4 x 3-1/4" hex-hd cap (2)
	18 756 R1	SCREW, 7/8 x 5-3/4" hex-hd cap 7/8 x 2-1/4" hex-hd cap SCREW (2)
2	333 409 R2	BRACKET, RH mounting SCREW, 1-1/4 x 3-3/4" hex-hd cap SCREW, 1-1/4 x 3-1/4" hex-hd cap (2)
	18 756 R1	SCREW, 7/8 x 5-3/4" hex-hd cap 7/8 x 2-1/4" hex-hd cap SCREW (2)

MISCELLANEOUS
(For Crawler Tractors)

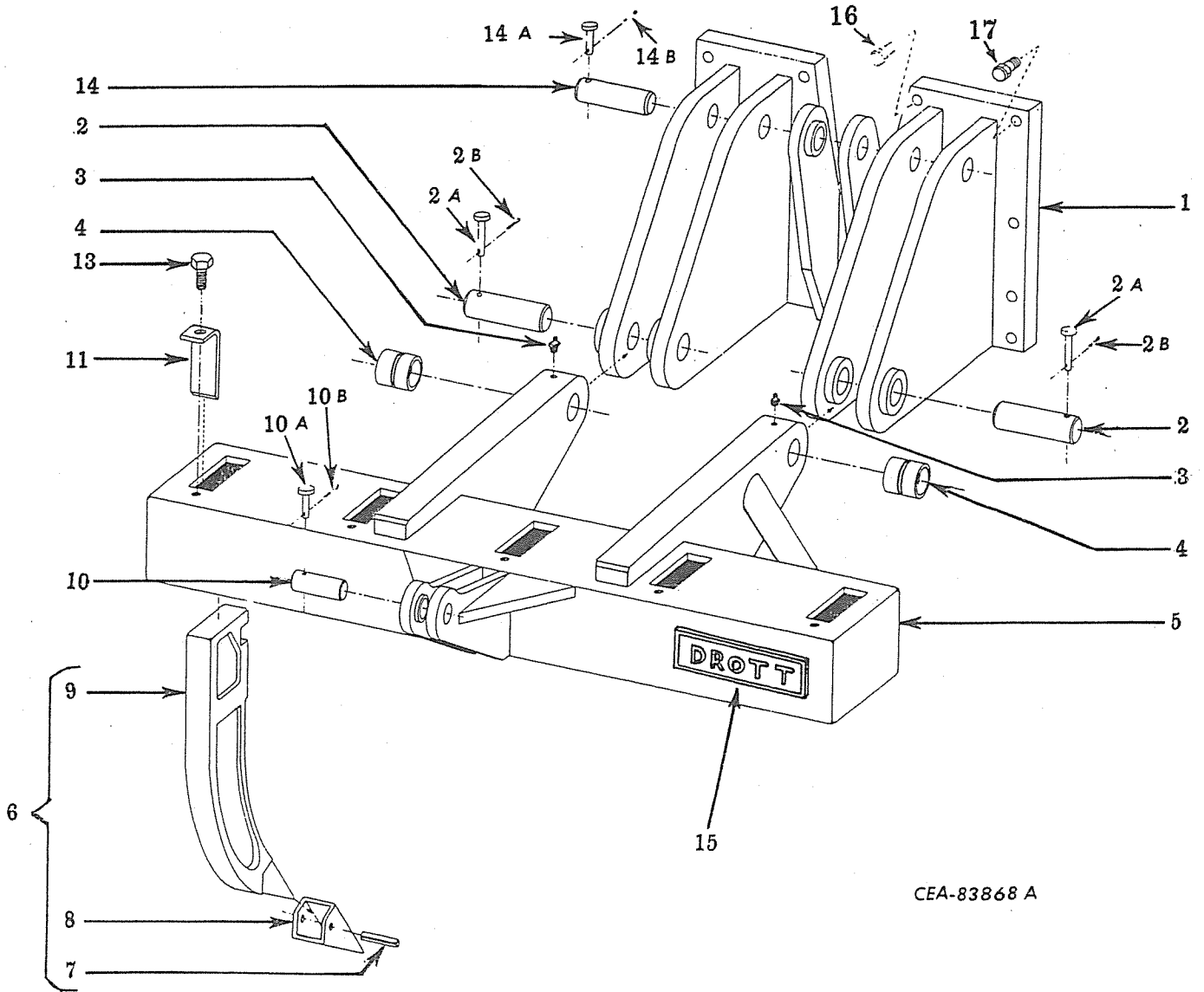


SCARIFER
(Drott)
(Not used with Sideboom Crawler Tractors)

MISCELLANEOUS
(For Crawler Tractors)



SCARIFIER - CONTINUED
(Drott)
(Not used with Sideboom Crawler Tractors)



CEA-83868 A

MISCELLANEOUS
(For Crawler Tractors)



REF. NO.	DROTT PART NUMBER	DESCRIPTION
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SCARIFIER - CONTINUED
(Drott)

(Not used with Sideboom Crawler Tractors)

1	52 394	SCARIFIER ASSY, (order from your I. H. Construction Equipment Distributor as equipment) (see NOTE) HITCH, scarifier
2	42 725	PIN, frame to hitch (2)
2A	10 816	PIN, 1/2 x 3-1/4" clevis (2)
2B	4 627	PIN, 1/8 x 1" cotter (2)
3	12 031	FITTING, grease (2)
4	22 501	BUSHING (4)
5	52 395	FRAME, scarifier (includes Ref. Nos. 4 and 15)
6	200 956	TOOTH, group (includes Ref. Nos. 7 thru 9) (3)
7	7 895	PIN, 17/32 x 3" roll (3)
8	160 160	TIP, replaceable (3)
9	33 064	SHANK, tooth (3)
10	41 777	PIN, cvlinder to frame
10A	10 833	PIN, 5/8 x 3-3/4" clevis
10B	4 627	PIN, 1/8 x 1" cotter
11	63 018	LOCK, tooth (3)
13	2 137	SCREW, 5/8 x 1-1/2NF Gr. 5 cap (3)
14	41 490	PIN, cvlinder to hitch
14A	10 833	PIN, 5/8 x 3-3/4" clevis
14B	4 627	PIN, 1/8 x 1" cotter
15	23 893	NAME PLATE "Drott"
16	2 304	CAPSCREW, 1-1/4 x 2-1/2" NF (2)
17	2 675	CAPSCREW, 1-1/4 x 2-3/4" (14)

NOTE: Domestic Use - Order Drott Parts From Drott Manufacturing Corp., Wausau, Wisconsin Through Your I. H. Construction Equipment Distributor.

Overseas Affiliates And Distributors - Order Through Your Parts Depot.

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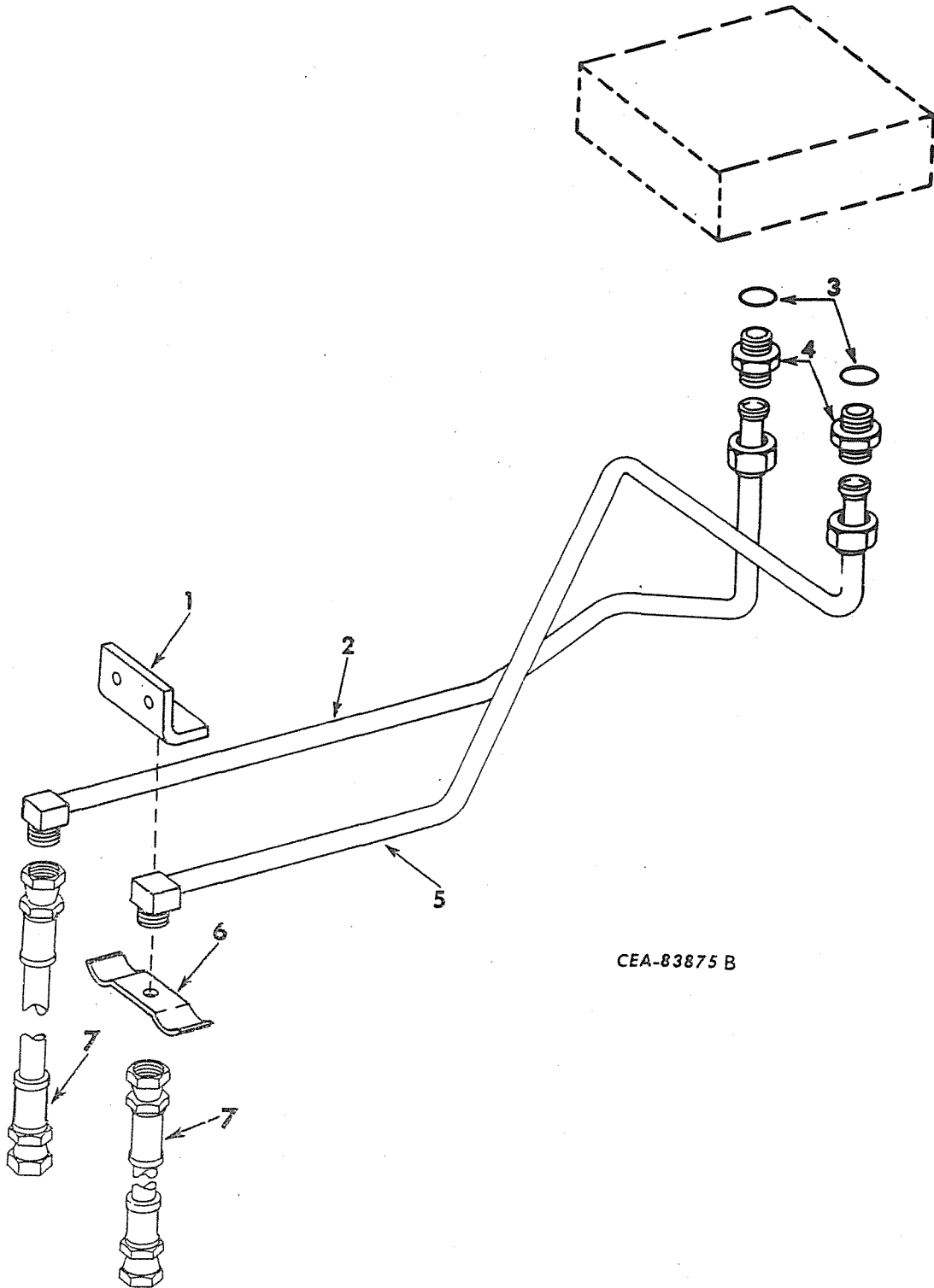
MISCELLANEOUS
(For Crawler Tractors)

SCARIFIER HYDRAULICS
(Not used with Sideboom Crawler Tractors)



MISCELLANEOUS
(For Crawler Tractors)

SCARIFIER HYDRAULICS - CONTINUED
(Not used with Sideboom Crawler Tractors)



CEA-83875 B



MISCELLANEOUS
(For Crawler Tractors)



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REF. NO.	I. H. PART NUMBER	DESCRIPTION
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SCARIFIER HYDRAULICS - CONTINUED
(Not used with Sideboom Crawler Tractors)

	602 411 C91	ATTACHMENT: scarifier hydraulics (use in conjunction with Drott scarifier (Tractor must be equipped with 2040 Hydraulic Control Unit (For use with D-2 with Tilt-3 spool Valve) and Auxiliary Control ATTACHMENT, 602 159 C91) (See NOTES 1 and 2)
1	333 069 R1	BRACKET 1/2" NUT (2) 1/2 x 1-1/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
2	614 318 C1	TUBE, inner
3	296 247 R1	"O" RING (1.171 x 1.403 x 116") (2)
4	380 633 R1	CONNECTOR (2)
5	614 319 C1	TUBE, outer
6	600 859 C1	CLAMP 3/8 x 2-1/2" hex-hd cap SCREW 3/8" lock WASHER
7	338 346 R91	HOSE w/two FITTINGS, 313 375 R91) (2) (Hose 1/2" ID - 26-1/2" long including FITTINGS)
	2 753 005 R2	PRODUCT GRAPHIC SCARIFIER CONTROL (for tractor painted IH yellow)
	2 753 006 R2	PRODUCT GRAPHIC SCARIFIER CONTROL (for tractors painted other than yellow)

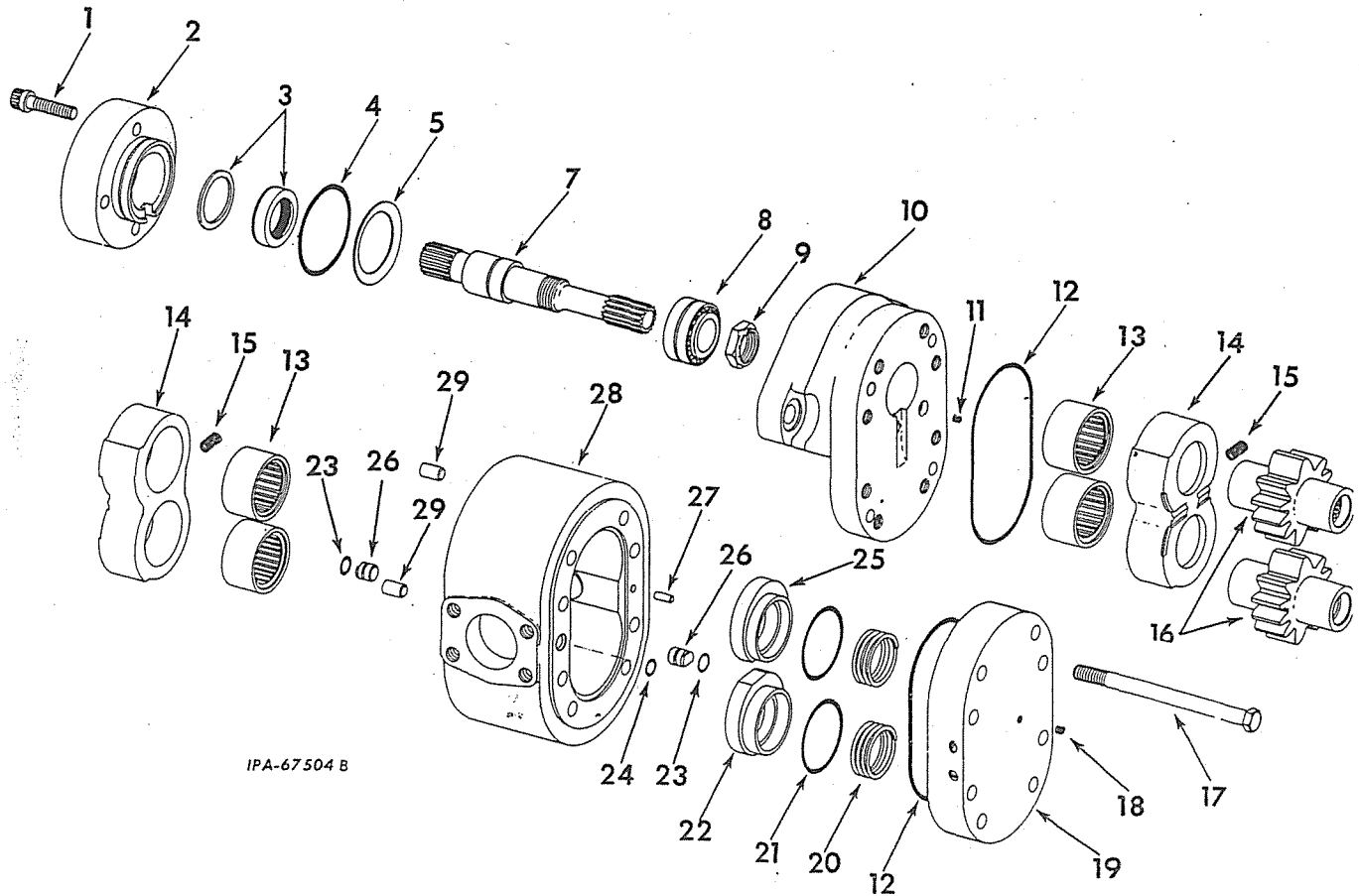
NOTE 1 - Factory Application - Order On
Machine Order Form.

NOTE 2 - Field Application - Order On
Machine Order Form.



-293-
MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

HYDRAULIC PUMP
 (For Model 20B D-2 and G-2)
 (Not used with Trailing Equipment)
 TD-20BP 4001 to 20096



IPA-67504 B

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	329 045 R91	PUMP ASSEMBLY, hydraulic $5/8$ x 2" hex-hd cap SCREW (2) TD-20BP 4001 to 20096 Order the following parts - 1 PUMP 610 730 C91 1 TUBE 611 667 C91
1	328 110 R1	BOLT (4)
2	328 120 R1	PILOT, mounting
3	600 228 C91	PACKAGE, oil seal and spacer field service
4	343 924 R1	"O" RING (2-3/4 x 2-15/16 x 3/32")
5	328 111 R1	WASHER, spring
7	342 038 R12	SHAFT w/SLEEVE, pump
8	328 107 R91	BEARING, shaft
9	20 017 R1	NUT, bearing lock
10	328 126 R11	FLANGE w/PLUG, 328 127 R1, mounting
11	328 127 R1	PLUG, orifice
12	343 942 R1	"O" RING (5-3/8 x 5-5/8 x 1/8") (2)
13	324 905 R91	BEARING, pump (4)
14	328 122 R1	ADAPTER, pump bearing (2)

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MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

HYDRAULIC PUMP - CONTINUED
 (For Model 20B D-2 and G-2)
 (Not used with Trailing Equipment)
 TD-20BP 4001 to 20096

REF. NO.	I.H. PART NUMBER	DESCRIPTION
15	328 112 R1	SPRING, bearing adapter (2)
16	332 905 R91	GEARS, pump (matched set)
17		SCREW, 1/2 x 7" hex-hd cap (8)
18	444 854	PLUG, 1/8" sq-soc pipe
19	328 117 R11	COVER, end
20	328 113 R1	SPRING, seal ring (2)
21	343 939 R1	"O" RING (2-1/2 x 2-3/4 x 1/8") (2)
22	328 118 R1	RING, LH loading seal pressure
23	470 585 R1	"O" RING (1/2 x 11/16 x 3/32") (2)
24	382 997 R1	"O" RING (1/2 x 5/8 x 1/16")
25	328 119 R1	RING, RH loading seal pressure
26	328 116 R1	PLUG (2)
27	357 557 R1	PIN, 1/4 x 5/8" roll
28	329 077 R11	HOUSING w/two PIN, 141 279 and PIN, 357 557 R1, pump
29	141 279	PIN, 1/2 x 3/4" dowel (2)

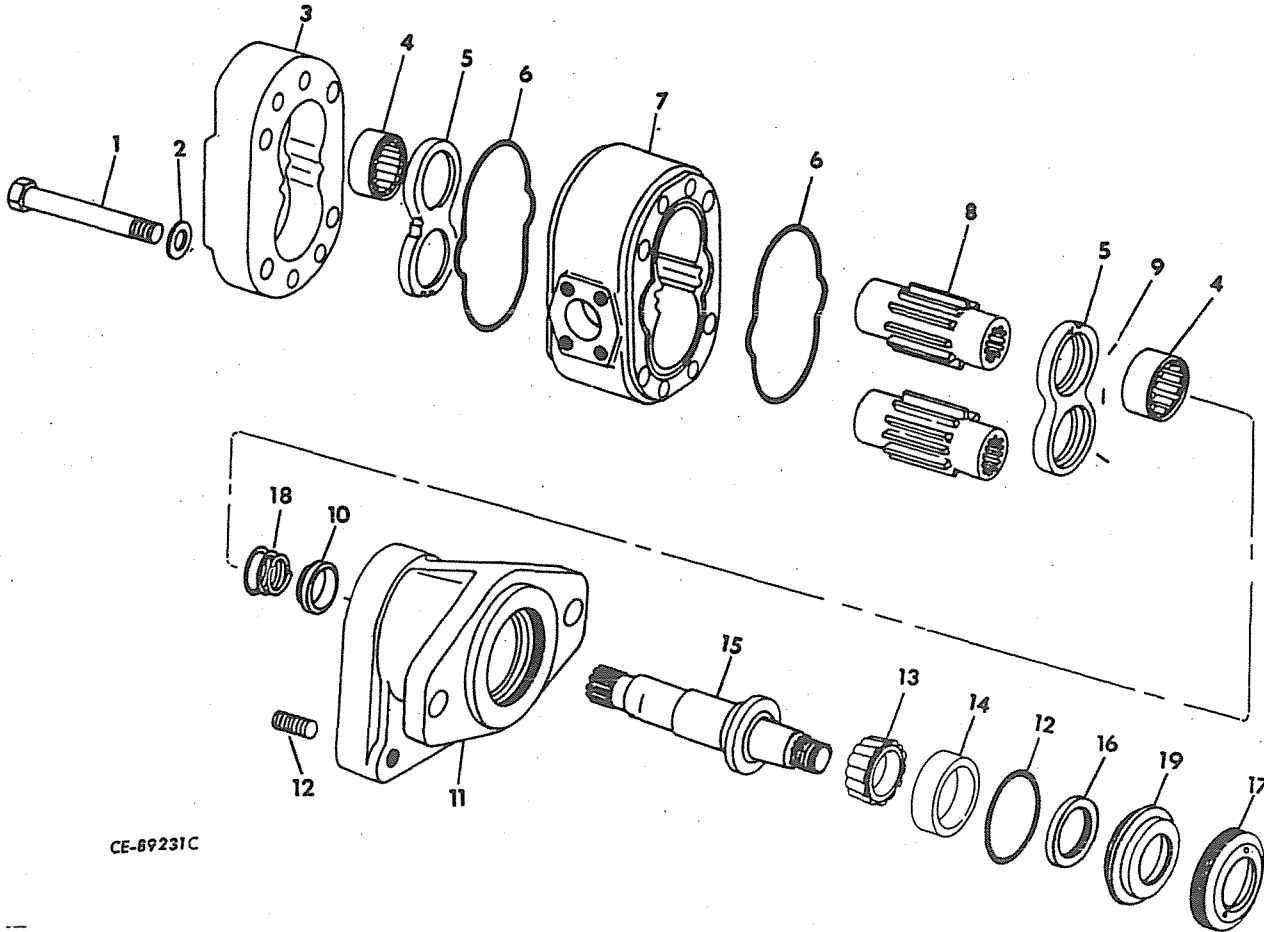
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 (Rev. No. 5 4-69)

**MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT**

HYDRAULIC PUMP - CONTINUED
For Model 20B D-2 and G-2)
Not used with Trailing Equipment)
Commercial Shearing and Stamping Co.)
TD-20BP 20097 Up

**MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT**

HYDRAULIC VALVE - CONTINUED
(For Model 20B D-2 and G-2)
(Not used with Trailing Equipment)
(Commercial Shearing and Stamping Co.)
TD-20BP 20097 Up



CE-89231C

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	610 730 C91	PUMP ASSY, hydraulic (P37X298-BA-SFX30-7) 5/8 x 2" hex-hd cap SCREW (2) (Consists of the following parts -
1		SCREW, 1/2 x 7-1/4" hex-hd cap (8)
2	306 873 C1	WASHER (X144-2) (8)
3	306 885 C1	COVER, port end
4	306 880 C91	BEARING, roller (R-1032) (4)
5	306 886 C1	PLATE, thrust (X1058) (2)
6	343 926 R1	"O" RING, gasket (L-3006-22) (2) (Circle "O" RING, Form to Housing as Shown)
7	610 944 C1	HOUSING, gear (LA-1688-30-47)
8	610 934 C91	SET, drive and driven gear (JA1007M-25)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
9	610 859 C1	SEAL, pocket (K3026-19) (12)
10	306 884 C1	BUSHING, shaft (AG-2010)
11		COVER, front (Not Furnished Separately)
12	384 250 R1	"O" RING (2-3/4 x 3 x 1/8")
13	197 609 R91	CONE, bearing
14	197 608 R1	CUP, bearing
15	306 875 C1	SHAFT, drive (BX1134)
16	306 889 C91	SEAL, oil (X73-37-10)
17	306 891 C1	RING, oil seal retainer (V1072)
18	306 883 C1	SPRING (A 1327-177)
19	306 890 C1	RETAINER, seal (RA1669)
	625 322 C1	PLUG, in cover port end



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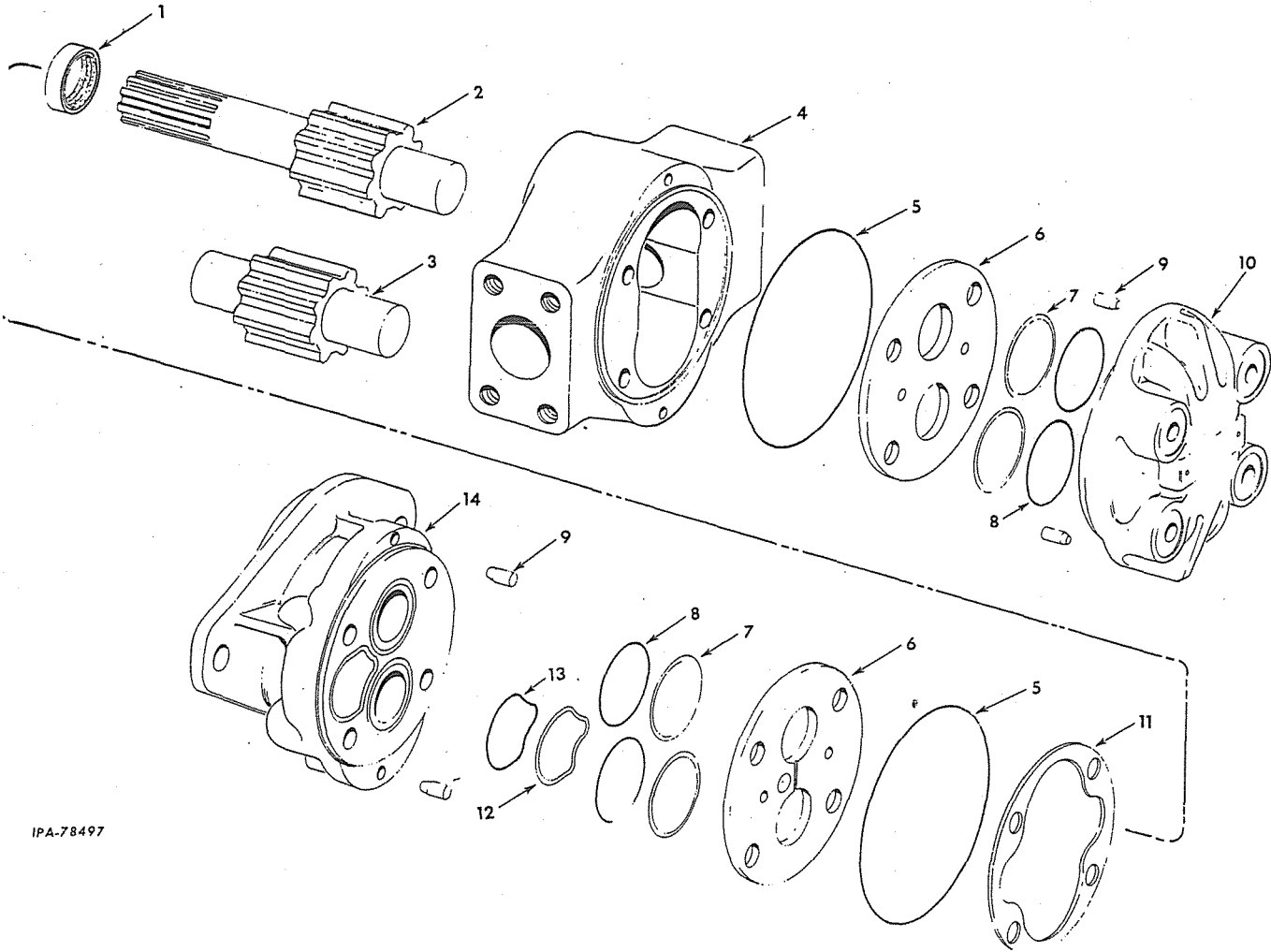


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MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

HYDRAULIC PUMP
(Hydreco)
(For use with Trailing Equipment)



IPA-78497



MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

HYDRAULIC PUMP - CONTINUED
(Hydreco)
(For use with Trailing Equipment)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	603 514 C91	PUMP, hydraulic (2020E22QAL) (consists of the following parts) 5/8 x 1-1/4" hex-hd cap SCREW (2)
1	606 105 C91	OIL SEAL (A907X26)
2	606 109 C1	GEAR, drive (6X2020X16)
3	606 110 C1	GEAR, driven (6X2020X28)
4		HOUSING (Not Furnished Separately)
5	252 735 R1	"O" RING (5 x 5-1/4 x 1/8") (A395X83) (2)
6	606 108 C1	PLATE, wear (12X20X9) (2)
7	606 107 C1	RING, back-up (1-9/16 x 1-3/4 x 3/32") (A404X16) (4)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
8	327 085 R1	"O" RING (A848X29) (4)
9	272 843 R1	PIN, dowel (A550X2) (4)
10	606 104 C91	COVER and BUSHING ASSY (8X20X2)
11	296 937 R1	SHIM (.001" thick) (712X93A) (X)
11	296 938 R1	SHIM (.002" thick) (712X93B) (X)
12	606 111 C1	RING, back-up (A991X2)
13	382 781 R1	"O" RING (1-3/4 x 1-15/16 x 3/32") (A848X32)
14	606 112 C91	ADAPTER and BUSHING ASSY (7X20X25) (X) - As Required



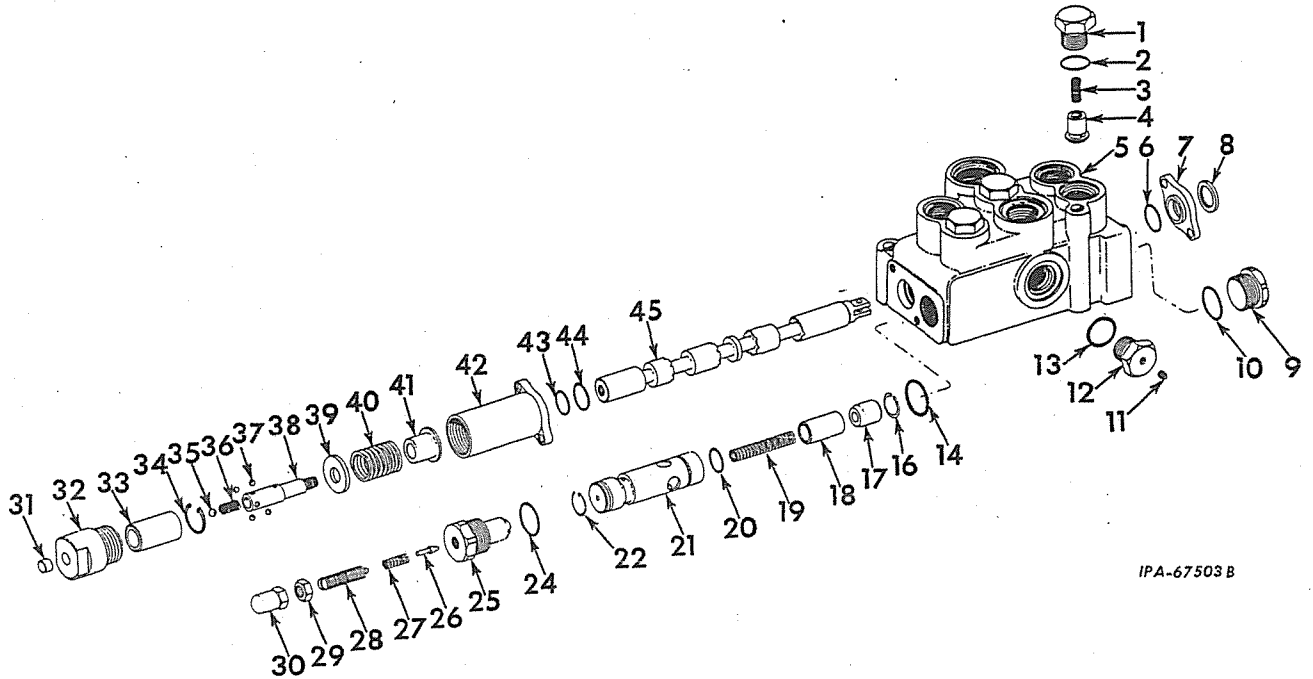
MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

HYDRAULIC VALVE
(Single Spool)



MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

HYDRAULIC VALVE - CONTINUED
(Single Spool)



IPA-67503 B

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	332 975 R94	VALVE ASSEMBLY, hydraulic (Single Spool) (Not used with Trailing Equipment) (For Model 20B D-2 and G-2)
	332 976 R94	VALVE ASSEMBLY, hydraulic (Single Spool) (For use with Trailing Equipment)
9 413 956		1/2" stover lock NUT (3) 1/2 x 3-1/2" hex-hd cap SCREW (2) 1/2 x 6" hex-hd cap SCREW (Consists of the following parts -
1	335 579 R1	CAP, valve (3)
2	296 247 R1	"O" RING (1.171 x 1.403 x .116") (2)
3	335 618 R1	SPRING, valve (3)
4	335 617 R1	PLUNGER, valve (3)
5		Not Furnished Separately
6	350 818 R1	"O" RING (1 x 1-1/4 x 1/8")
7	335 613 R1	PLATE, wiper 5/16 x 1" hex-soc-hd cap SCREW (2)
8	277 181 R91	SEAL, wiper
9	342 016 R1	PLUG, relief valve
10	310 928 R1	"O" RING (1-1/4 x 1-1/2 x 1/8")
11	444 612	PLUG, 1/8" pipe (2)
12	335 633 R1	PLUG, port (2)
13	307 915 R1	"O" RING (1.475 x 1.711 x .118") (2)
14	343 902 R1	"O" RING (1-1/4 x 1-3/8 x 1/16")
16	342 008 R1	RING, poppet retaining
17	342 005 R1	SEAT, valve
18	342 006 R11	POPPET, relief
19	342 004 R1	SPRING, pilot relief
20	343 900 R1	"O" RING (1-1/16 x 1-3/16 x 1/16")
21	342 010 R3	HOUSING, pilot relief

REF. NO.	I. H. PART NUMBER	DESCRIPTION
22	342 007 R1	WIRE, pilot relief
24	252 483 R1	"O" RING (1-1/4 x 1-1/2 x 1/8")
25	342 327 R1	CAP, relief valve
26	342 011 R2	POPPET
27	605 031 C1	SPRING
28	342 014 R1	SCREW, adjusting 17/32 x 1-1/16 x 13 ga copper WASHER (2)
29		NUT, 1/2NF jam
30	342 015 R1	COVER, adjusting screw
31	376 429 R1	FILTER, bronze
32	335 595 R1	CAP
33	342 019 R1	SLEEVE, detent
34	383 878 R1	RING, snap
35	16 014 R1	BALL, 7/16" steel
36	602 014 C1	SPRING, detent
37	17 011 R1	BALL, 11/32" steel (4)
38	602 013 C1	PIN
39	335 598 R2	SPACER, spring
40	335 599 R2	SPRING, centering
41	335 601 R1	HOLDER, spring
42	602 881 C1	HOUSING, detent 5/16 x 1" hex-soc-hd cap SCREW (2)
43	350 818 R1	"O" RING (1 x 1-1/4 x 1/8")
44	347 070 R1	"O" RING (1-5/16 x 1-7/16 x 1/16")
45		Not Furnished Separately
	346 177 R1	SPACER (used with HOUSING, 342 010 R1 only)

**MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT**

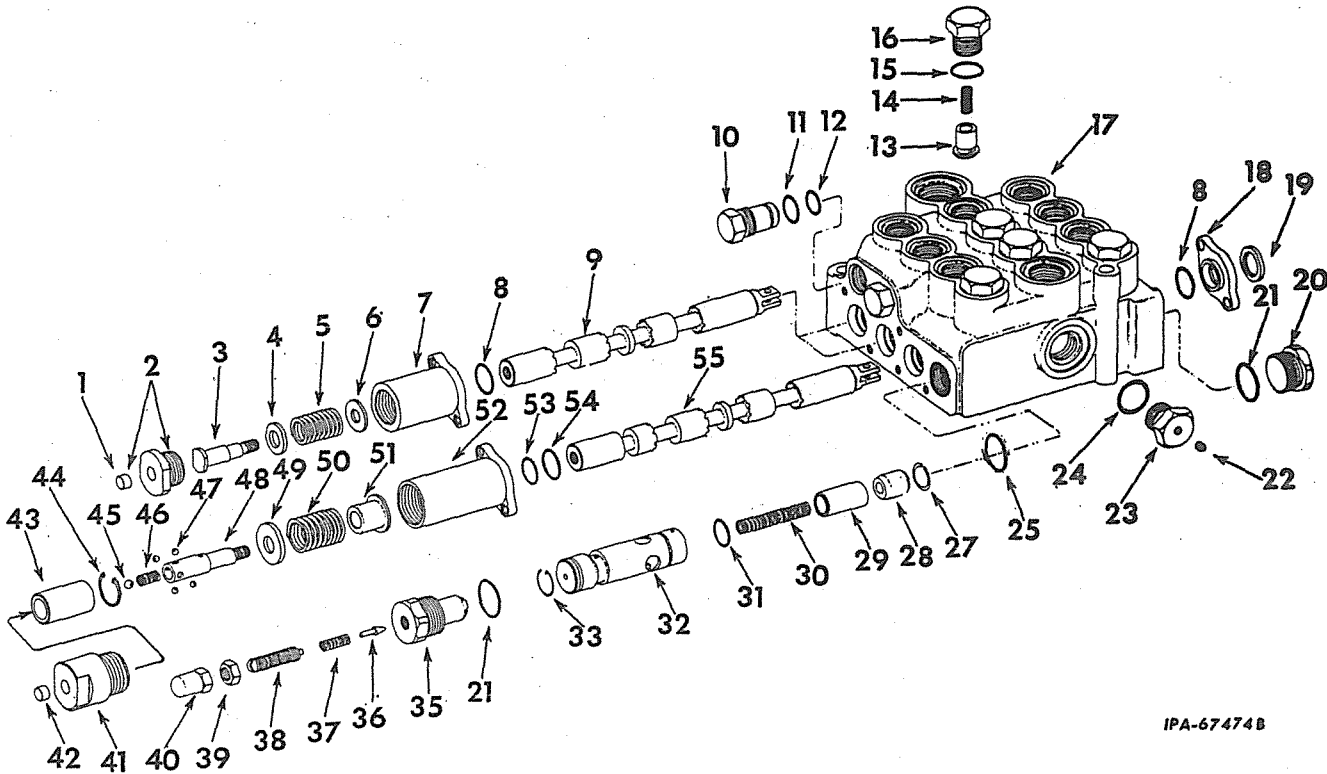


HYDRAULIC CONTROL VALVE
(Triple Spool)
(Not used with Trailing Equipment)

**MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT**



HYDRAULIC CONTROL VALVE - CONTINUED
(Triple Spool)
(Not used with Trailing Equipment)



IPA-67474B

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	346 183 R92	VALVE ASSEMBLY, hydraulic (triple spool) (Not used with Trailing Equipment) (For Model 20B D-2 and G-2)
	346 184 R92	VALVE ASSEMBLY, hydraulic (triple spool) (For use with Trailing Equipment)
9 413 956		1/2" stover lock NUT (3) 1/2 x 3-1/2" hex-hd cap SCREW (2) 1/2 x 6" hex-hd cap SCREW (Consists of the following parts -
1	376 429 R1	FILTER, detent cap bronze (2)
2	335 606 R11	CAP w/FILTER, 376 429 R1, detent (2)
3	335 607 R1	PIN (2)
4	335 608 R2	SPACER (2)
5	335 609 R1	SPRING, centering (2)
6	335 611 R2	SPACER (2)
7	342 002 R1	HOUSING, detent (2) 5/16 x 1" hex-soc-hd cap SCREW (4)
8	350 818 R1	"O" RING (1 x 1-1/4 x 1/8") (4)
9		Not Furnished Separately
10	342 020 R1	PLUG (4)
11	368 269 R1	"O" RING (.924 x 1.156 x .116") (4)
12	364 840 R1	"O" RING (13/16 x 15/16 x 1/16") (4)
13	335 617 R1	PLUNGER, valve (4)
14	335 618 R1	SPRING, valve (4)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
15	296 247 R1	"O" RING (1.171 x 1.403 x .116") (4)
16	335 579 R1	CAP, valve (4)
17		Not Furnished Separately
18	335 613 R1	PLATE, wiper (3) 5/16 x 1" hex-soc-hd cap SCREW (6)
19	277 181 R91	SEAL, wiper (3)
20	342 016 R1	PLUG
21	252 483 R1	"O" RING (1-1/4 x 1-1/2 x 1/8") (2)
22	444 612	PLUG, 1/8" pipe (2)
23	335 633 R1	PLUG, 1-1/4" port (2)
24	307 915 R1	"O" RING (1.475 x 1.711 x .188") (2)
25	343 902 R1	"O" RING (1-1/4 x 1-3/8 x 1/16")
27	342 008 R1	RING, poppet retaining
28	342 005 R1	SEAT, valve
29	342 006 R11	POPPET, relief
30	342 004 R1	SPRING, pilot relief
31	343 900 R1	"O" RING (1-1/16 x 1-3/16 x 1/16")
32	342 010 R3	HOUSING, pilot relief



MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT



MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC CONTROL VALVE - CONTINUED
(Triple Spool)
(Not used with Trailing Equipment)

33	342 007 R1	WIRE, pilot relief
35	342 327 R1	CAP, relief valve
36	342 011 R2	POPPET, pilot
37	605 031 C1	SPRING
38	342 014 R1	SCREW, adjusting 17/32 x 1-1/16 x 13 ga copper WASHER (2)
39		NUT, 1/2NF jam
40	342 015 R1	COVER, adjusting
41	335 595 R1	CAP
42	376 429 R1	FILTER, bronze
43	342 019 R1	SLEEVE, detent
44	383 878 R1	RING, snap
45	16 014 R1	BALL, 7/16" dia. steel
46	602 014 C1	SPRING, detent
47	17 011 R1	BALL, 11/32" dia. (4)
48	602 013 C1	PIN
49	335 598 R2	SPACER, spring
50	335 599 R2	SPRING, centering
51	335 601 R1	HOLDER, spring
52	602 881 C1	HOUSING, detent 5/16 x 1" hex-hd cap SCREW (2)
53	350 818 R1	"O" RING (1 x 1-1/4 x 1/8")
54	347 070 R1	"O" RING (1-5/16 x 1-7/16 x 1/16")
55		Not Furnished Separately.
	346 177 R1	SPACER (used with HOUSING, 342 010 R1 only)
	59 657 D	WASHER, copper (2)

MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

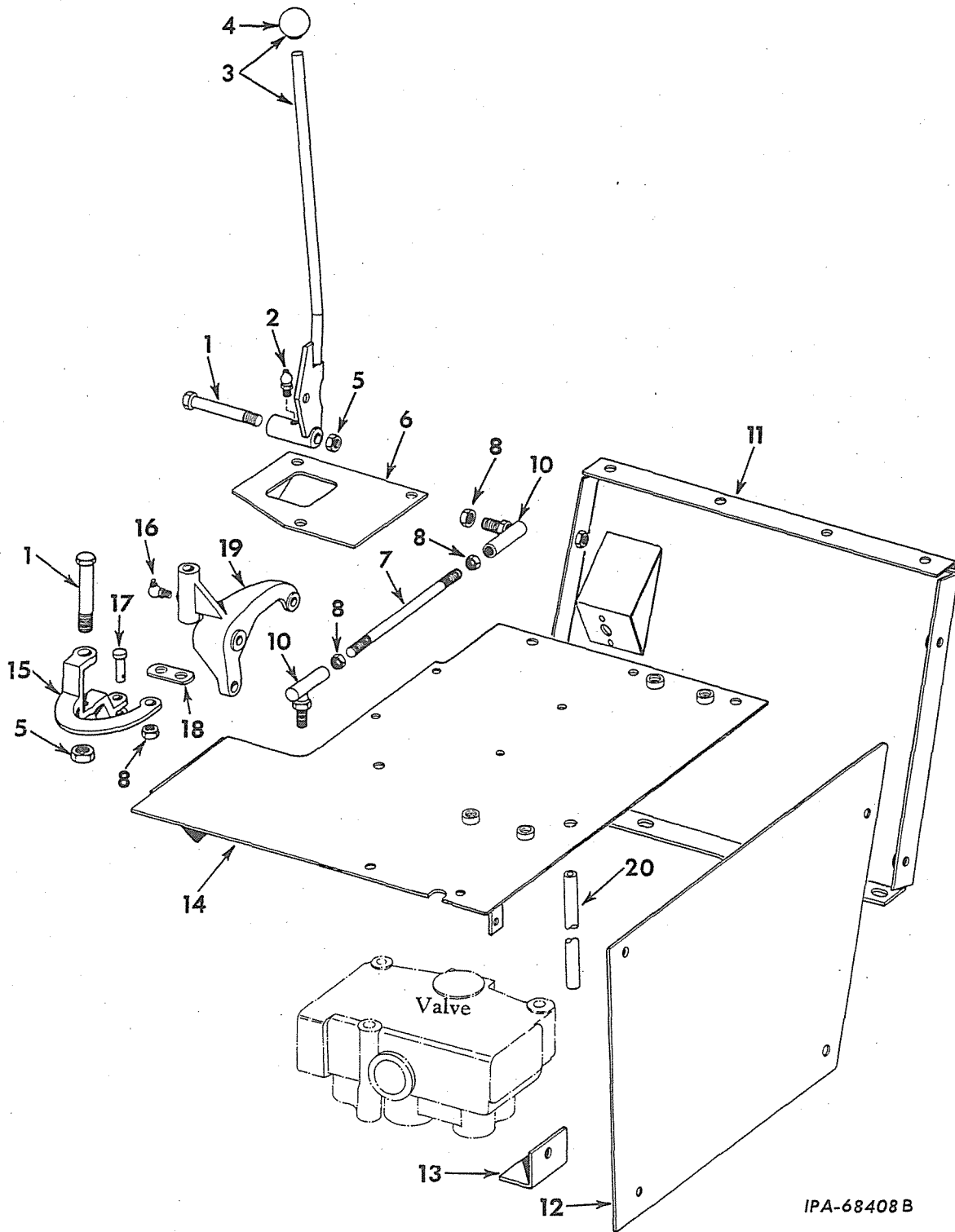


HYDRAULIC CONTROLS
For Use With Single Spool Valve)

MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT



HYDRAULIC CONTROLS - CONTINUED
(For Use With Single Spool Valve)





MODEL 2040 (SERIES B) HYDRAULIC CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC CONTROLS - CONTINUED
(For Use With Single Spool Valve)

1	333 795 R1	BOLT, 1/2NF x 3-15/16" (2)
2	126 152	FITTING, 1/4" straight lubrication
3	333 057 R91	CONTROL w/HANDLE, 264 097 R2, lift and tilt
4	264 097 R2	HANDLE, lift and tilt control
5	9 413 957	NUT, 1/2NF stover lock (2)
6	333 197 R91	BRACKET, control handle 1/2" NUT (3) 1/2 x 1-1/4" hex-hd cap SCREW (3) 1/2" lock WASHER (3)
7	337 817 R1	STUD
8	9 413 957	NUT, 1/2NF stover lock (4)
10	333 805 R1	JOINT, ball (2)
11	333 088 R11	BRACKET, valve support TD-20BP 4001 to 5322
11	602 056 C11	BRACKET, valve support TD-20BP 5323 up 3/8" NUT (2) 1/2" NUT (3) 1/2 x 1-1/4" hex-hd cap SCREW (3) 3/8 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (3) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER (2) 17/32 x 1-1/16" x 13 ga WASHER (3)
12	333 071 R1	PLATE, side cover 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
	615 031 R1	7/8" flat WASHER (4)
13	333 069 R1	ANGLE, side cover mounting 1/2" NUT (2) 1/2 x 1-1/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
14	337 889 R12	PLATE, top TD-20BP 4001 to 5322 1/2" NUT (2) 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
14	602 803 C12	PLATE, top TD-20BP 5323 up 1/2" NUT (2) 3/8" NUT (2) 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2) 3/8 x 3/4" hex-hd cap SCREW (2) 1/2 x 1-1/2" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 17/32 x 1-1/16" x 13 ga WASHER (4)
15	337 816 R2	BELLCRANK
16	109 462	FITTING, 1/8" x 90° lubrication (3)



MODEL 2040 (SERIES B) HYDRAULIC CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC CONTROLS - CONTINUED
(For Use With Single Spool Valve)

17	103 496	PIN, 3/8 x 1-3/32" rod end (2) 3/32 x 3/4" cotter PIN (2) 13/32 x 13/16" x 16 ga WASHER
18	342 490 R1	LINK, valve control (4)
19	337 461 R3	BRACKET, control 1/2 x 1-1/4" hex-hd cap SCREW (3) 1/2" lock WASHER (3)
20	346 200 R1	BAR, support 1/2 x 1-1/2" hex-hd cap SCREW (2) 1/2" lock WASHER (2) TD-20BP 4001 to 20504



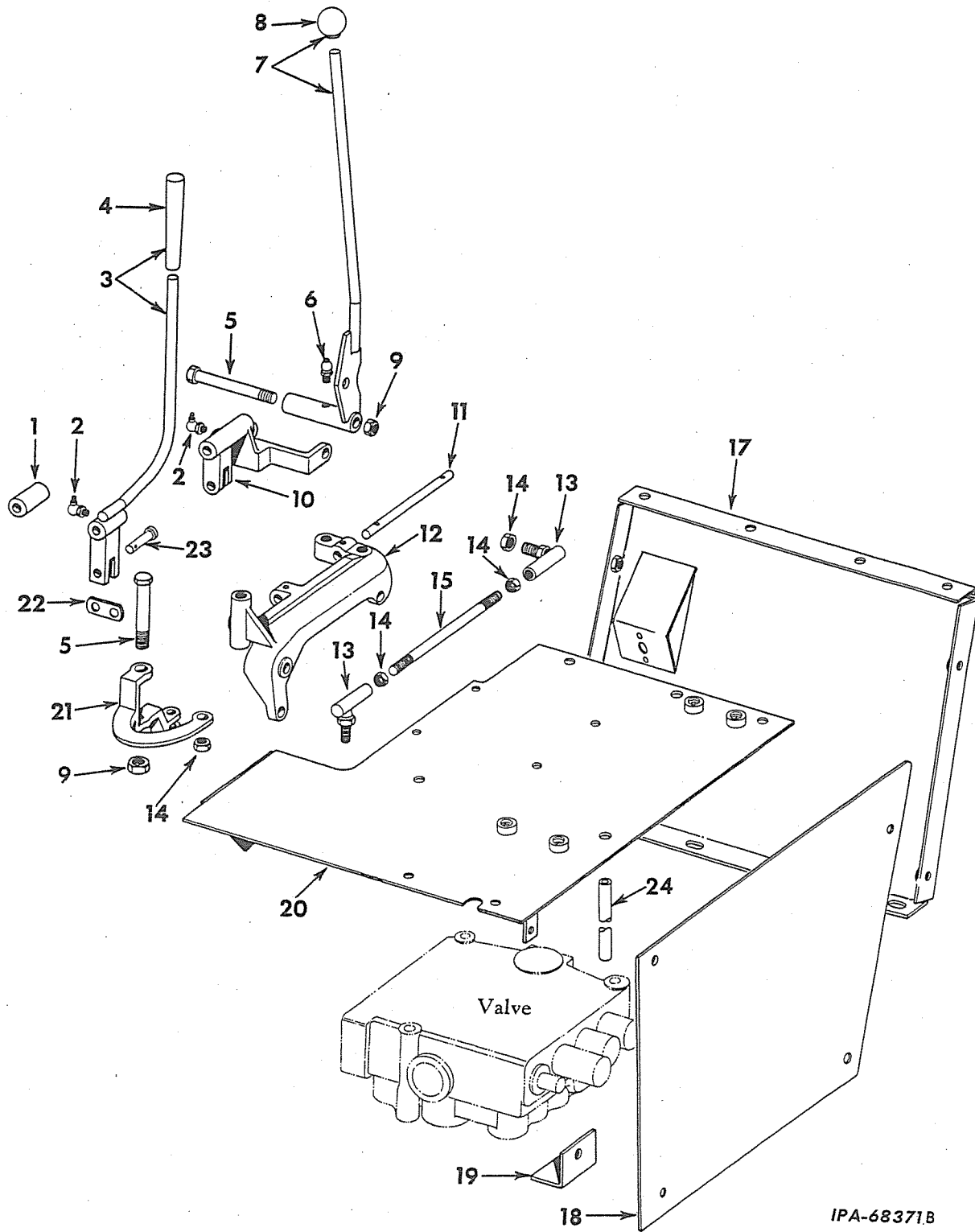
MODEL 2040 (SERIES B) HYDRAULIC CONTROL UNIT



MODEL 2040 (SERIES B) HYDRAULIC CONTROL UNIT

HYDRAULIC CONTROLS
(For Use With Triple Spool)

HYDRAULIC CONTROLS - CONTINUED
(For Use With Triple Spool)



IPA-68371B



MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC CONTROLS - CONTINUED
(For Use With Triple Spool)

Parts without letters after the description indicates the part is used for all controls listed below: Letters "A", "B" and "C" are used to identify separate controls or Attachments.

A-		2040 Hydraulic Control Unit (for use on Model D-2 equipped with ripper and tilt or for Models D-2 or G-2 equipped with ripper or for use with Trailing Equipment)
B-		2040 Hydraulic Control Unit (for use on Model D-2 equipped with tilt)
C-	602 159 C91	ATTACHMENT, auxiliary control (See NOTES 1 and 2)
1	335 567 R1	SPACER (Control B)
2	109 462	FITTING, 1/8" x 90° lubrication (3 for control A; 2 for control B; 1 for Attachment C)
3	335 556 R91	LEVER w/HANDLE, 619 405 C1 (Control A and C)
4	619 405 C1	HANDLE, ripper (Control A and C)
5	333 795 R1	BOLT, 1/2NF x 3-15/16" (2)
6	126 152	FITTING, 1/4" straight lubrication
7	333 057 R91	LEVER w/HANDLE, 264 097 R2, lift and tilt
8	264 097 R2	HANDLE, lift and tilt lever
9	9 413 957	NUT, 1/2NF stover lock (2)
10	337 815 R2	ARM, control (lift and tilt)
11	333 053 R1	SHAFT, main control
12	337 814 R3 318 625 R1	BRACKET, control BOLT, 1/2NF x 2-1/4" (2) 1/2NF jam NUT (2) 1/2 x 1-1/4" hex-hd cap SCREW (3) 1/2" lock WASHER (3)
13	333 805 R1	JOINT, ball (2)
15	337 817 R1	STUD.
16	9 413 957	NUT, 1/2NF stover lock (4)
17	333 088 R11	BRACKET, valve support TD-20BP 4001 to 5322
17	602 056 C11	BRACKET, valve support TD-20BP 5323 up 3/8" NUT (2) 1/2" NUT (3) 1/2 x 1-1/4" hex-hd cap SCREW (3) 3/8 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (3) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER (2) 17/32 x 1-1/16" x 13 ga WASHER (3)
18	333 071 R1 615 031 R1	PLATE, side cover 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4) 7/8" flat WASHER (4)
19	333 069 R1	ANGLE, side cover mounting 1/2" NUT (2) 1/2 x 1-1/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)



MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC CONTROLS - CONTINUED
(For Use With Triple Spool)

20	337 889 R12	PLATE, top TD-20BP 4001 to 5322 1/2" NUT (2) 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
20	602 803 C12	PLATE, top TD-20BP 5322 up 1/2" NUT (5) 3/8" NUT (2) 1/2 x 1" hex-hd cap SCREW (3) 1/2 x 1-1/2" hex-hd cap SCREW (2) 3/8 x 3/4" hex-hd cap SCREW (2) 1/2" lock WASHER (5) 3/8" lock WASHER (2) 17/32 x 1-1/16" x 13 ga WASHER (4)
21	337 816 R2	BELLCRANK
22	342 490 R1	LINK, valve control (12 for Control A; 8 for Control B; 4 for Attachment C)
23	103 496	PIN, rod end (6 for Control A; 4 for Control B; 2 for Attachment C) 3/32 x 3/4" cotter PIN (6 for Control A; 4 for Control B; 2 for Attachment C) 13/32 x 13/16" x 16 ga WASHER (3 for Control A; 2 for Control B; 1 for Attachment C)
24	346 200 R1	BAR, support 1/2 x 1/2" hex-hd cap SCREW (2) 1/2" lock WASHER (2) TD-20BP 4001 to 20504
	333 800 R1	BOLT (2)

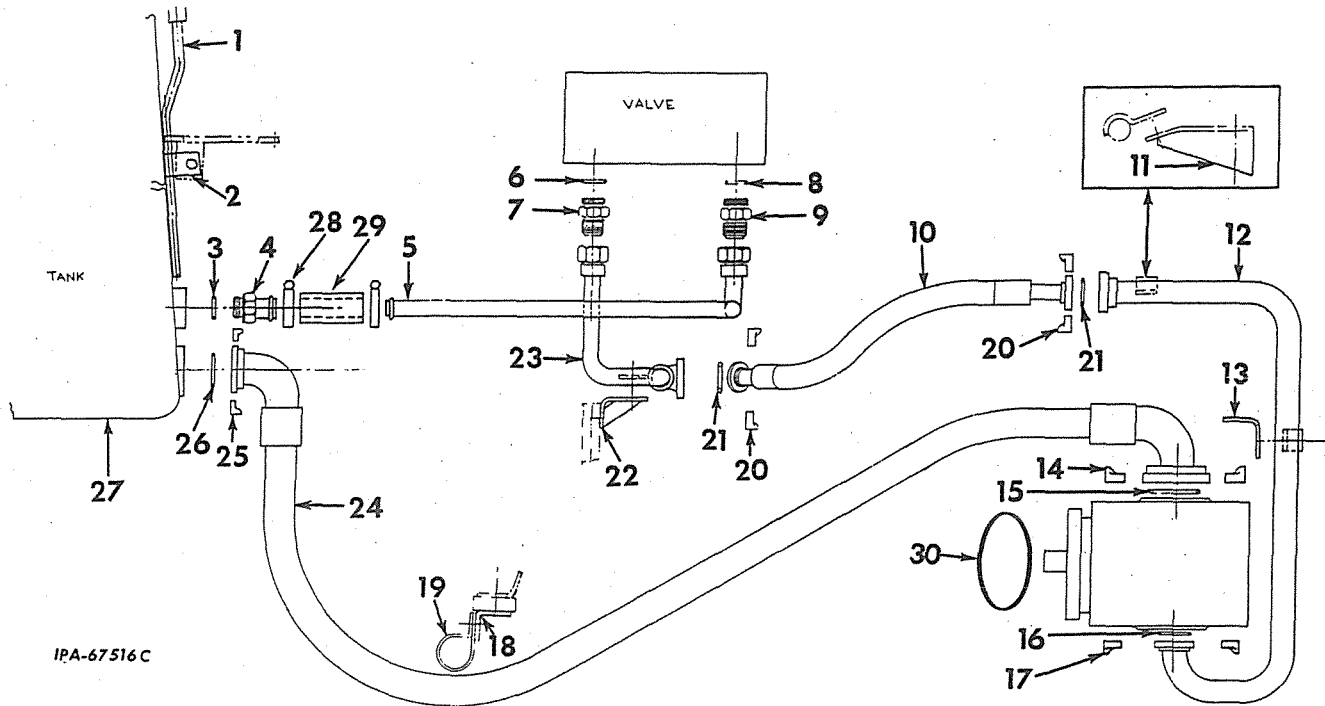
NOTE 1 - Factory Application - Order on Machine Order Form.
NOTE 2 - Field Application - Order On Machine Order Form.

MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT


HYDRAULIC TANK PIPING AND RELATED PARTS
(TD-20 BP 4001 to 4213)

HYDRAULIC TANK PIPING AND RELATED PARTS - CONTINUED
(TD-20 BP 4001 to 4213)



REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	335 345 R1	TUBE, overflow
2	299 902 R1	CLIP, overflow tube (used with PLATE 337 899 R12)
2	335 346 R1	CLIP, overflow tube (used with PLATE, 337 899 R11) 3/8" NUT 3/8 x 1" hex-hd cap SCREW 3/8" lock WASHER
3	307 915 R1	"O" RING, 1-1/2 x 1-3/4 x 1/8"
4	346 235 R1	CONNECTOR, tube
5	346 233 R91	TUBE, return line (for tractors equipped with triple spool valve)
5	346 236 R91	TUBE, return line (for tractors equipped with single spool valve)
6	307 915 R1	"O" RING, 1-1/2 x 1-3/4 x 1/8"
7	9 410 208	CONNECTOR, tube
8	307 915 R1	"O" RING, 1-1/2 x 1-3/4 x 1/8"
9	9 410 208	CONNECTOR, tube
10	343 633 R91	HOSE w/FITTINGS, pump (pressure) (HOSE, 1-1/4" ID x 23" long w/FITTINGS)
11	346 231 R11	BRACKET, tube mounting (upper)
12	346 237 R91	TUBE, pump pressure 1/2" NUT (2) 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
13	346 230 R1	BRACKET, tube mounting (lower)
14	327 302 R1	CLAMP-HALF, split flange (2) (for tractor equipped with single spool valve) 1/2 x 1-3/4" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
15	254 091 R1	"O" RING, 2-3/4 x 3 x 1/8"
16	255 088 R1	"O" RING, 1-7/8 x 2-1/8 x 1/8"
17	301 844 R1	CLAMP-HALF, split flange (2) 1/2 x 1-1/2" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
18	335 350 R1	ANGLE, clip (2) 1/2" NUT 1/2 x 1-1/2" hex-hd cap SCREW 1/2" lock WASHER 17/32 x 1-1/16" x 13 ga WASHER
19	311 511 R1	CLAMP, hose (2) 1/2" NUT (2) 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
20	290 045 R1	CLAMP-HALF, split flange (4) 7/16 x 1-1/2" hex-hd cap SCREW (8) 7/16" lock WASHER (8)
21	707 253 R1	"O" RING, 1-1/2 x 1-3/4 x 1/8" (2)


**MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT**

MEMORANDA

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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HYDRAULIC TANK PIPING AND RELATED PARTS - CONTINUED
 (TD-20 BP 4001 to 4213)

22	342 484 R11	BRACKET, tube clamp 1/2" NUT (2) 7/16 x 2" hex-hd cap SCREW (2) 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
23	346 234 R91	TUBE, pressure line (at valve)
24	336 043 R91	HOSE w/FITTINGS, pump (suction) (HOSE, 2" ID x 80-1/4" long w/FITTINGS)
25	300 525 R1	CLAMP-HALF, split flange (2) 1/2 x 1-1/2" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
26	293 726 R1	"O" RING, 2-1/4 x 2-1/2 x 1/8"
27		TANK ASSEMBLY, hydraulic (for components see list of parts under details of "Hydraulic Tank") 3/8 x 1" hex-hd cap SCREW (3) 1/2 x 1-1/2" hex-hd cap SCREW (4) 3/8" lock WASHER (3) 1/2" lock WASHER (4) 17/32 x 1-1/16" x 13 ga WASHER (4) 9/16 x 1-3/8 x 12 ga WASHER (for shimming tank)
28	327 257 R91	CLAMP, hose
29	327 255 R1	HOSE
30	343 927 R1	"O" RING, 5 x 5-1/4 x 1/8" (for mounting pump)
	307 915 R1	"O" RING, cylinder port (1-1/2 x 1-3/4 x 1/8") (X)
	9 410 363	PLUG, "O" ring (X)

MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

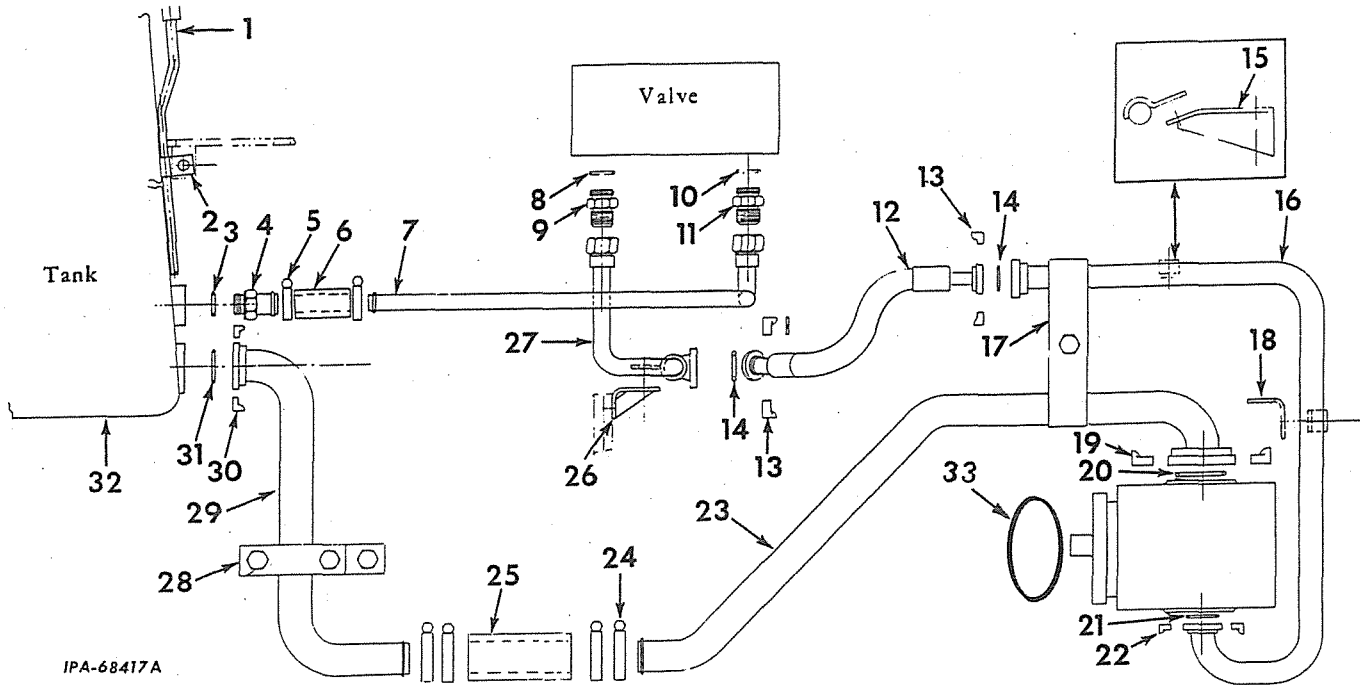


MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT




HYDRAULIC TANK PIPING AND RELATED PARTS
(TD-20BP 4214 to 4851)

HYDRAULIC TANK PIPING AND RELATED PARTS - CONTINUED
(TD-20BP 4214 to 4851)



REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	335 345 R1	TUBE, overflow
2	299 902 R1	CLIP, overflow tube (used with PLATE, 337 889 R12)
2	335 346 R1	CLIP, overflow tube (used with PLATE, 337 889 R11) 3/8" NUT 3/8 x 1" hex-hd cap SCREW 3/8" lock WASHER
3	307 915 R1	"O" RING, 1-1/2 x 1-3/4 x 1/8"
4	346 235 R1	CONNECTOR, tube
5	327 257 R91	CLAMP, hose (2)
6	327 255 R1	HOSE, 1-1/2" ID x 6" long
7	346 233 R91	TUBE, return line (for tractors equipped with triple spool valve)
7	346 236 R91	TUBE, return line (for tractors equipped with single spool valve)
8	307 915 R1	"O" RING, 1-1/2 x 1-3/4 x 1/8"
9	9 410 208	CONNECTOR, tube
10	307 915 R1	"O" RING, 1-1/2 x 1-3/4 x 1/8"
11	9 410 208	CONNECTOR, tube
12	343 633 R91	HOSE w/FITTINGS, pump (pressure) (HOSE, 1-1/4" ID x 23" long w/FITTINGS)
13	290 045 R1	CLAMP-HALF, split flange (4) 7/16 x 1-1/2" hex-hd cap SCREW (8) 7/16" lock WASHER (8)
14	707 253 R1	"O" RING, 1-1/2 x 1-3/4 x 1/8" (2)
15	346 231 R11	BRACKET, tube mounting (upper)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
16	346 237 R91	TUBE, pump pressure (for tractors equipped with triple spool valve) 1/2" NUT (2) 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
16	346 238 R91	TUBE, pump pressure (for tractors equipped with single spool valve) 1/2" NUT (2) 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
17	600 319 C1	CLAMP, tube (2) 1/2" NUT 1/2 x 2-3/4" hex-hd cap SCREW 1/2" lock WASHER
18	346 230 R1	BRACKET, tube mounting (for tractors equipped with triple spool valve) (lower)
18	600 315 C1	BRACKET, tube mounting (for tractors equipped with single spool valve) (lower)
19	327 302 R1	CLAMP-HALF, split flange (for tractor equipped with single spool valve) (2) 1/2 x 1-3/4" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
19	300 525 R1	CLAMP-HALF, split flange (for tractors equipped with triple spool valve) (2) 1/2 x 1-1/2" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
20	384 250 R1	"O" RING, 2-3/4 x 3 x 1/8" (for tractors equipped with triple spool valve)
20	293 726 R1	"O" RING, 2-1/4 x 2-1/2 x 1/8" (for tractors equipped with single spool valve)
21	255 088 R1	"O" RING, 1-7/8 x 2-1/8 x 1/8" (for tractors equipped with triple spool valve)


**MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT**

MEMORANDA

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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**HYDRAULIC TANK PIPING AND RELATED PARTS - CONTINUED
(TD-20BP 4214 to 4851)**

21	707 253 R1	"O" RING, 1-1/2 x 1-3/4 x 1/8" (for tractors equipped with single spool valve)
22	301 844 R1	CLAMP-HALF, split flange (2) 1/2 x 1-1/2" hex-hd cap SCREW SCREW (4) 1/2" lock WASHER (4)
23	600 316 C91	TUBE, front suction (for tractors equipped with triple spool valve)
23	600 317 C91	TUBE, front suction (for tractors equipped with single spool valve)
24	327 079 R91	CLAMP, hose (4)
25	609 493 C1	HOSE, suction (2" ID x 7" long)
26	342 484 R11	BRACKET, tube clamp 1/2" NUT (2) 7/16 x 2" hex-hd cap SCREW (2) 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
27	346 234 R91	TUBE, pressure line (at valve)
28	600 320 C1	CLAMP-HALF, suction tube (three holes)
28	600 321 C1	CLAMP-HALF, suction tube (two holes) 1/2" NUT (3) 1/2 x 1-1/4" hex-hd cap SCREW (3) 1/2" lock WASHER (3)
29	600 318 C91	TUBE, rear suction
30	300 525 R1	CLAMP-HALF, split flange (2) 1/2 x 1-1/2" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
31	293 726 R1	"O" RING, 2-1/4 x 2-1/2 x 1/8"
32		TANK ASSEMBLY, hydraulic (for components see list of parts under details of "Hydraulic Tank") 3/8 x 1" hex-hd cap SCREW (3) 1/2 x 1-1/2" hex-hd cap SCREW (4) 3/8" lock WASHER (3) 1/2" lock WASHER (4) 17/32 x 1-1/16 x 13 ga WASHER (4) 9/16 x 1-3/8" x 12 ga WASHER (for shimming tank) (X)
33	343 927 R1	"O" RING, 5 x 5-1/4 x 1/8" (for mounting pump)
	307 915 R1	"O" RING, cylinder port (1-1/2 x 1-3/4 x 1/8") (X)
	9 410 363	PLUG, "O" ring (X)

X - As Required.



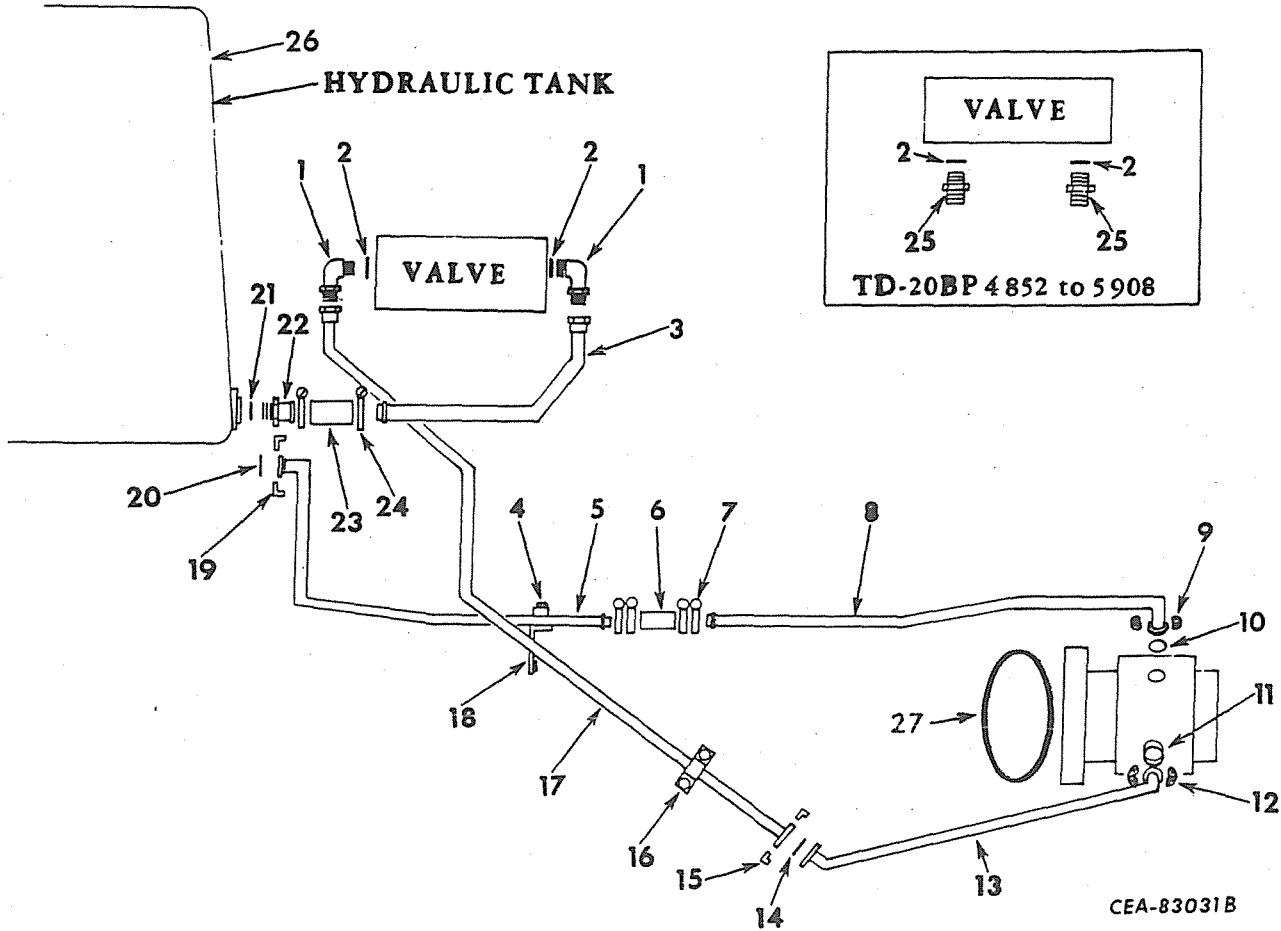
MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

HYDRAULIC TANK PIPING AND RELATED PARTS
TD-20BP 4852 Up



MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

HYDRAULIC TANK PIPING AND RELATED PARTS - CONTINUED
TD-20BP 4852 Up



REF. NO.	I.H. PART NUMBER	DESCRIPTION
1	9 410 982	CONNECTOR, 90° tube (2) TD-20BP 5909 up
2	307 915 R1	"O" RING, 1.475 x 1.711 x .118" (2)
3	605 413 C91	TUBE, return line (for tractors equipped with single spool valve)
3	605 414 C91	TUBE, return line (for tractors equipped with triple spool valve)
4	600 594 C1	CLAMP, suction tube (For Model 20B D-2 and G-2) (Not for Trailing Equipment)
4	602 799 C1	CLAMP, suction tube (For use with Trailing Equipment) 1/2" NUT (2) 1/2 x 1" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
5	600 592 C91	TUBE, rear suction (For Model 20B D-2 and G-2) (Not for Trailing Equipment)
5	602 674 C91	TUBE, rear suction (For use with Trailing Equipment)
6	609 493 C1	HOSE, suction (2" ID x 7" long)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
6	327 255 R1	HOSE, suction (1/2" ID x 6" long) (For use with Trailing Equipment)
7	327 079 R91	CLAMP, suction hose (4)
7	327 257 R91	CLAMP, suction hose (For use with Trailing Equipment) (4)
8	600 595 C91	TUBE, front suction (For Model 20B D-2 and G-2) (Not for Trailing Equipment) TD-20BP 4852 to 20096
8	611 667 C91	TUBE, front suction (For Model 20B D-2 and G-2) (Not for Trailing Equipment) TD-20BP 20097 up
8	600 596 C91	TUBE, front suction (For use with Trailing Equipment)
9	327 302 R1	CLAMP-HALF (2) (For Model 20B D-2 and G-2) (Not for Trailing Equipment) 1/2 x 1-3/4" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
9	301 844 R1	CLAMP-HALF (For use with Trailing Equipment) (2)
10	384 250 R1	"O" RING, 2-3/4 x 3 x 1/8" (For Model 20B D-2 and G-2) (Not for Trailing Equipment)



MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC TANK PIPING AND RELATED PARTS - CONTINUED
TD-20BP 4852 Up

10	343 921 R1	"O" RING, 1-7/8 x 2-1/8 x 1/8" (For use with Trailing Equipment)
11	343 921 R1	"O" RING, 1-7/8 x 2-1/8 x 1/8" (For Model 20B D-2 and G-2) (Not for Trailing Equipment)
11	343 909 R1	"O" RING, 1-1/2 x 1-3/4 x 1/8" (For use with Trailing Equipment)
12	301 844 R1	CLAMP-HALF (2) (For Model 20B D-2 and G-2) (Not for Trailing Equipment) 1/2 x 1-1/2" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
12	290 045 R1	CLAMP-HALF (For use with Trailing Equipment) 7/16 x 1-1/2" hex-hd cap SCREW (4) 7/16" lock WASHER (4)
13	347 566 R91	HOSE w/FITTINGS, pump (pressure) (HOSE, 1-1/4" ID x 22-1/2" long including FITTINGS) (For Model 20B D-2 and G-2) (Not for Trailing Equipment)
13	347 567 R91	HOSE w/FITTINGS, pump (pressure) (HOSE, 1-1/4" ID x 22-1/2" long including FITTINGS) (For use with Trailing Equipment)
14	343 909 R1	"O" RING, 1-1/2 x 1-3/4 x 1/8"
15	290 045 R1	CLAMP-HALF, split flange (2) 7/16 x 1-1/2" hex-hd cap SCREW (4) 7/16" lock WASHER (4)
16	600 598 C1	CLAMP, tube 3/8 x 2-1/2" hex-hd cap SCREW (2) 3/8" lock WASHER (2) 13/32 x 13/16" x 16 ga WASHER (2)
17	600 597 C91	TUBE, pressure (at valve) TD-20BP 4852 to 5908
17	605 415 C91	TUBE, pressure (at valve) TD-20BP 5909 up
18	600 593 C1	BRACKET, suction tube clamp 7/16 x 2" hex-hd cap SCREW (2)
19	300 525 R1	CLAMP-HALF, split flange (2) 1/2 x 1-1/2" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
20	343 923 R1	"O" RING, 2-1/4 x 2-1/2 x 1/8"
21	307 915 R1	"O" RING, 1.475 x 1.711 x .118"
22	346 235 R1	CONNECTOR, tube
23	327 255 R1	HOSE, 1-1/2" ID x 6" long
24	327 257 R91	CLAMP, hose (2)
25	9 410 208	CONNECTOR, tube (2) TD-20BP 4852 to 5908
26		TANK ASSY, hydraulic (for components see list of parts under details of "Hydraulic Tank") 3/8 x 1" hex-hd cap SCREW (3) 1/2 x 1-1/2" hex-hd cap SCREW (4) 3/8" lock WASHER (3) 1/2" lock WASHER (4) 17/32 x 1-1/16" x 13 ga WASHER (4) 9/16 x 1-3/8" x 12 ga WASHER (for shimming tank) (X)
27	343 927 R1	"O" RING, 5 x 5-1/4 x 1/8" (for mounting pump)



MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC TANK PIPING AND RELATED PARTS - CONTINUED
TD-20BP 4852 Up

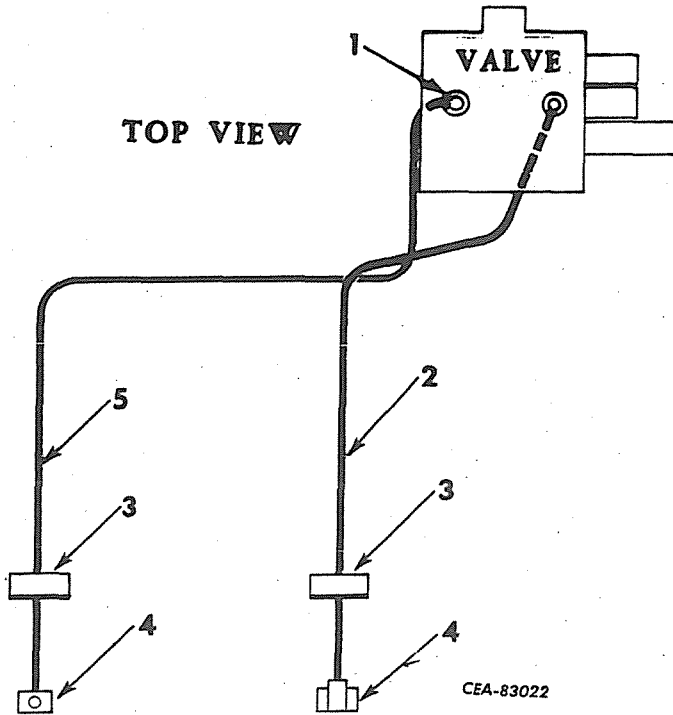
307 915 R1	"O" RING, cylinder port (1-1/2 x 1-3/4 x 1/8") (X)
9 410 363	PLUG, "O" RING (X)

(X) - As Required.



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MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

HYDRAULIC PIPING AND RELATED PARTS
 (For Model 20B D-2 and G-2 with Ripper)



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	9 410 207	CONNECTOR, 1" swivel (2) TD-20BP 4001 to 5908
1	606 470 C1	CONNECTOR, 1" swivel (2) TD-20BP 5909 up
2	602 447 C91	TUBE, head end (valve to lower port) TD-20BP 4001 to 5908
2	605 417 C91	TUBE, head end (valve to lower port) TD-20BP 5909 up
3	602 449 C1	CLAMP, tube (2) 3/8" NUT (4) 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
4	295 698 R1	CLAMP-HALF, split flange (4) 3/8 x 1-1/4" hex-hd cap SCREW (8) 3/8" lock WASHER (8)
5	602 446 C91	TUBE, rod end (valve to upper port) TD-20BP 4214 to 5908
5	605 416 C91	TUBE, rod end (valve to upper port) TD-20BP 5909 up
	602 448 C1	BRACKET, tube support (2) 3/8" NUT (4) 3/8 x 1" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
	296 247 R1	"O" RING, 1.171 x 1.403 x .116" (for use with CONNECTOR, 9 410 207 or 606 470 C1) (2)



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MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

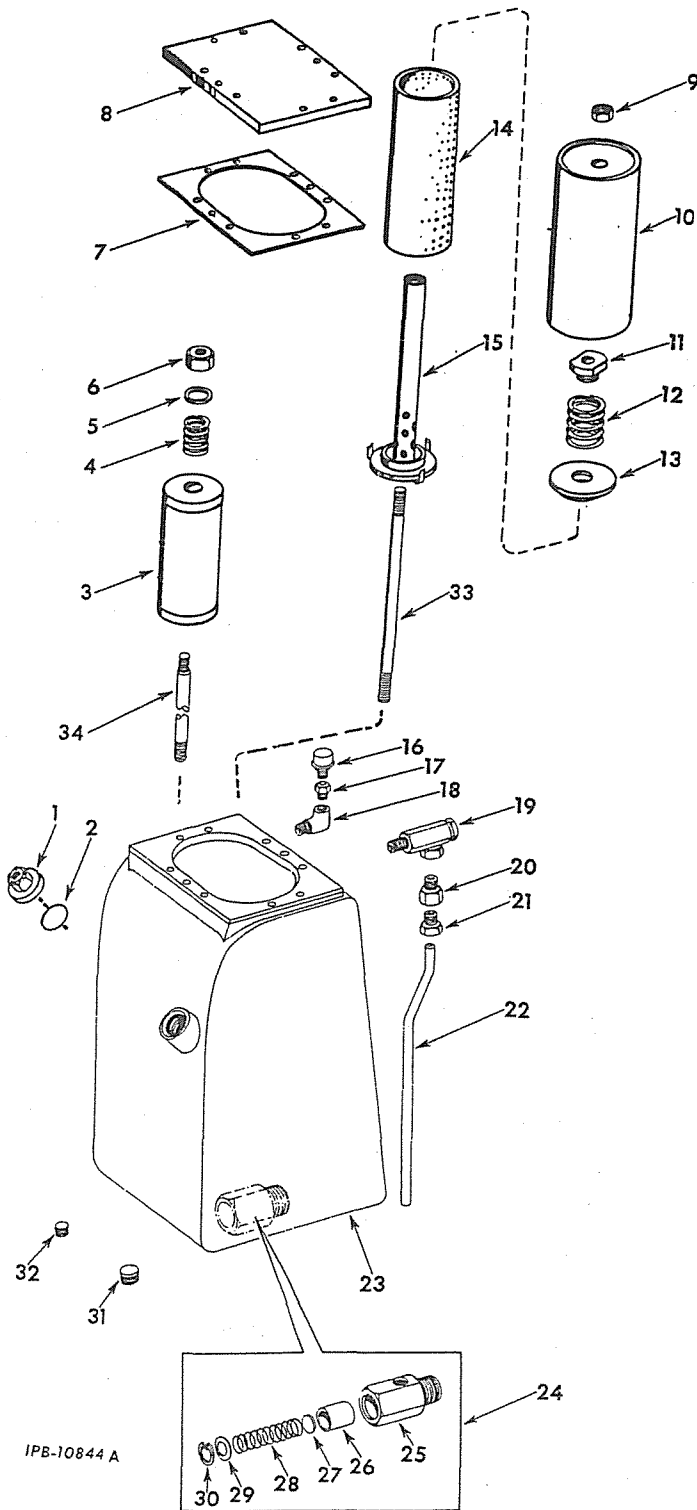
HYDRAULIC PIPING AND RELATED PARTS - CONTINUED
 (For Model 20B D-2 and G-2 with Ripper)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
343 906 R1		"O" RING, 1-5/16 x 1-9/16 x 1/8" (for use with PLUG, 603 517 C1) (2)
603 517 C1		PLUG, flange (2)



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MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

HYDRAULIC TANK AND RELATED PARTS



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MODEL 2040 (SERIES B)
HYDRAULIC CONTROL UNIT

REF. NO.	I.H. PART NUMBER	DESCRIPTION
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HYDRAULIC TANK AND RELATED PARTS - CONTINUED

1	294 118 R2	PLUG, hydraulic oil filler
2	253 172 R1	"O" RING (1.250 x 1.600 x .175")
3	336 527 R91	FILTER
4	250 567 R1	SPRING, suction strainer
5		WASHER, 17/32 x 1-1/16 x .095"
6	454 522 R1	NUT, 1/2" lock
7	335 776 R2	GASKET, cover
8	335 777 R1	COVER, tank 3/8 x 1-1/8" hex-hd cap SCREW (10) 13/32 x 13/16" x 16 ga WASHER (10)
9	17 161 R1	NUT, 3/4" lock
10	335 778 R91	SHROUD
11	335 775 R1	RETAINER, spring
12	605 049 C1	SPRING, compression
13	335 770 R91	SUPPORT, filter
14	336 670 R5	FILTER, element
15	335 769 R92	BASE, filter
16	324 042 R91	FILTER, breather
17	333 811 R91	VALVE, check
18	444 040	ELBOW, 1/4" pipe
19	338 863 R91	VALVE, check
20	42 409 D	CONNECTOR, overflow tube
21	37 165 D	NUT, overflow tube connector
22	335 345 R1	TUBE, overflow
23	335 782 R92	TANK, hydraulic TD-20BP 4001 to 5322
23	602 801 C92	TANK, hydraulic TD-20BP 5323 up
24	335 321 R92	VALVE ASSEMBLY, surge
25	335 320 R1	HOUSING
26	335 322 R2	POPPET
27	321 997 R1	SPACER (X)
28	328 253 R1	SPRING
29		WASHER, 15/16 x 1-3/4 x .134"
30	631 449 R1	RING, snap
31	273 469	PLUG, 3/4" NPT pipe
32	444 557	PLUG, pipe
33	335 764 R1	STUD, return tube filter (mounted on return tube in hydraulic tank)
34	335 768 R1	STUD, strainer
	336 525 R1	WASHER, 3/8" (10)

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(REV. NO. 1 1-68)

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(For Tractor Equipment)



HYDRAULIC TILT

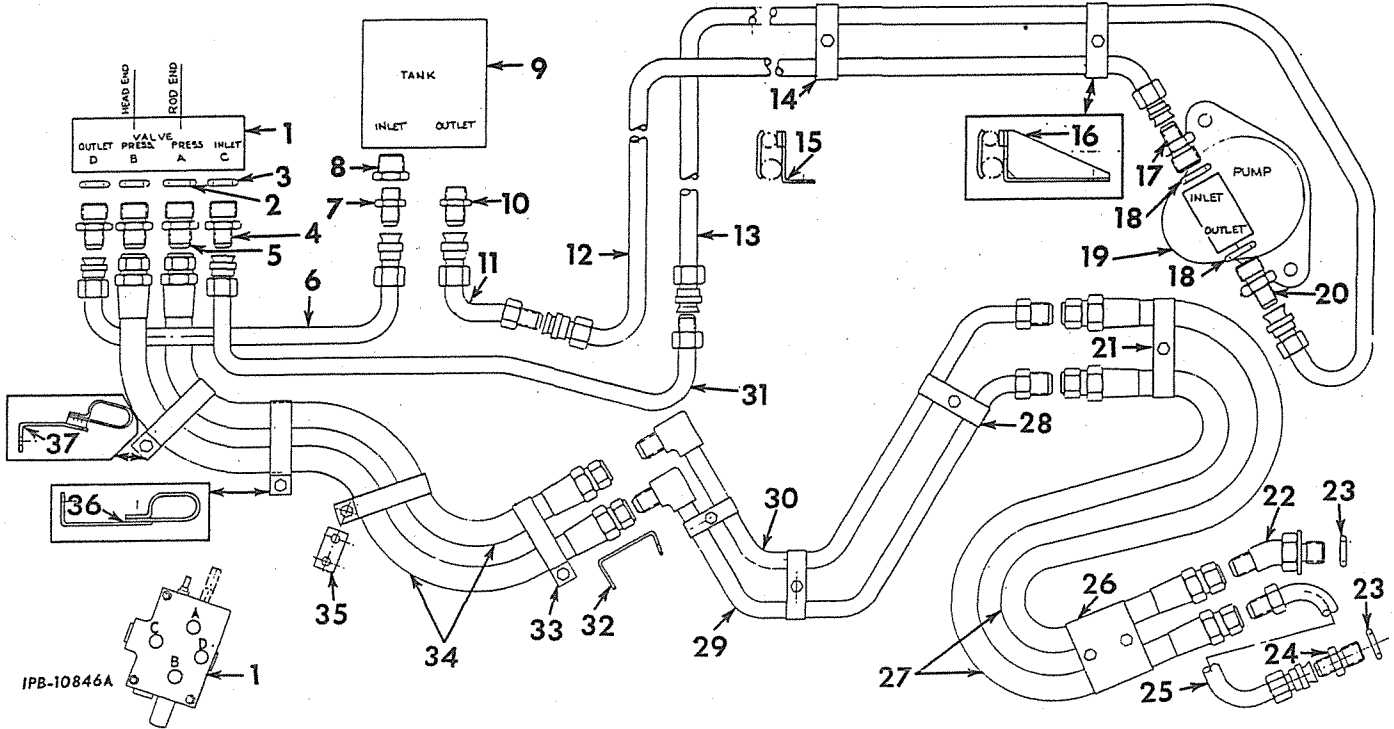
HYDRAULIC PIPING AND RELATED PARTS
(Model 20B D-1 and 20B D-3)
TD-20BP 4001 to 4851

MISCELLANEOUS
(For Tractor Equipment)



HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS - CONTINUED
(Model 20B D-1 and 20B D-3)
TD-20BP 4001 to 4851



REF. NO.	I. H. PART NUMBER	DESCRIPTION
	342 242 R91	ATTACHMENT, hydraulic (used on Model 20B D-1 and 20B D-3) (see NOTE 2)
1	313 578 R91	VALVE, hydraulic (for components see list of parts under details of "Hydraulic Valve") 3/8" NUT (3) 3/8 x 3" hex-hd cap SCREW 3/8" lock WASHER
2	364 885 R1	"O" RING (.755 x .949 x .097") (2)
3	297 459 R1	"O" RING (1.048 x 1.280 x .116")
4	315 044 R1	CONNECTOR, straight boss
5	333 458 R1	CONNECTOR, straight boss
6	342 236 R91	TUBE, valve to tank
7	9 402 711	CONNECTOR, 37° flared tube
8	128 003	BUSHING, reducer
9	275 930 R91	RESERVOIR, oil 3/8 x 3/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
10	9 402 713	CONNECTOR
11	342 492 R92	TUBE, suction (at valve)
12	342 493 R92	TUBE, suction
13	342 498 R91	TUBE, pressure (at valve)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
14	342 432 R2	CLAMP, tube 3/8" NUT 3/8 x 2-1/2" hex-hd cap SCREW 3/8" lock WASHER
15	342 494 R21	BRACKET, tube
16	342 495 R21	BRACKET, tube clamp
17	343 824 R1	CONNECTOR
18	368 269 R1	"O" RING (.924 x 1.156 x .116") (2)
19	333 880 R91	PUMP, hydraulic (for Components see list of parts under details of "Hydraulic Pump") 5/8 x 1-1/4" hex-hd cap SCREW (2)
20	9 410 205	CONNECTOR, straight boss
21	326 239 R1	CLAMP, tapped half
21	326 240 R1	CLAMP, drilled half 1/2 x 1-1/2" hex-hd cap SCREW 1/2" lock WASHER
22	9 411 105	ELBOW, 3/4 x 45° hydraulic
23	570 828 R1	"O" RING (.644 x .818 x .087") (2)
24	9 410 203	CONNECTOR, 3/4" hydraulic
25	326 278 R91	TUBE, cylinder 3/8 x 1-1/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
26	326 239 R1	CLAMP, tapped (2)



MISCELLANEOUS
(For Tractor Equipment)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS - CONTINUED
(Model 20B D-1 and 20B D-3)
TD-20BP 4001 to 4851

26	326 241 R11	GUARD, hose 1/2 x 1-3/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
27	702 426 C91	HOSE w/FITTING, 324 695 R91 and FITTING, 603 925 C91, tube to cylinder (HOSE, 3/8" ID x 111" long including FITTINGS) (2)
27		HOSE w/o FITTINGS, cut length 3/8" ID x 108" long cut from bulk HOSE, 324 658 R1
	324 695 R91	FITTING, female swivel hose (2)
	603 925 C91	FITTING, 90° female swivel hose (2)
28	323 284 R1	CLAMP, tube (3) 3/8" NUT (2) 3/8 x 1-1/2" hex-hd cap SCREW 3/8 x 1-1/4" hex-hd cap SCREW (2) 3/8" lock WASHER (3)
29	342 426 R91	TUBE, hydraulic cylinder (head end)
30	342 425 R91	TUBE, hydraulic cylinder (rod end)
31	342 497 R91	TUBE, pressure (at pump)
32	342 427 R1	BRACKET, tube clamp
33	326 078 R1	CLAMP, hose (4) 3/8" NUT (2) 3/8 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
34	343 587 R91	HOSE w/two FITTING, 103 393 R91 (HOSE, 13/32" ID x 110" long including FITTINGS) (2)
34		HOSE w/o FITTINGS, cut length 13/32" ID x 106-3/4" long cut from bulk Hose No. 319 708 R1 (2)
	103 393 R91	FITTING, swivel hose (4)
35	342 733 R1	PLATE, clamp extension 1/2 x 1-1/2" hex-hd cap SCREW
36	342 428 R1	BRACKET, hose clamp 5/8 x 1-3/4" hex-hd cap SCREW
37	342 732 R11	BRACKET, hose clamp 5/8 x 1-3/4" hex-hd cap SCREW
	289 366 R1	COUPLING, 3/4 x 3/4 x 1" pipe
	326 276 R91	CYLINDER, tilt (for components see list of parts under details of "Tilt Cylinder")
	326 236 R11	GUARD, cylinder tube 1/2" NUT 1/2 x 4-3/4" hex-hd cap SCREW 1/2" lock WASHER 9/16 x 1-3/8" x 12 ga WASHER (2)
	319 708 R1	HOSE, 13/32" ID bulk (X)
	324 658 R1	HOSE, 3/8" ID bulk (X)
	192 084	NIPPLE, 3/4 x 4-1/2" pipe
	252 735 R1	"O" RING (5 x 5-1/4 x 1/8") (pump mounting)
	444 679	PLUG, 1" NPT pipe
	342 443 R11	STICK, dip
	354 868 R93	STRAINER, oil reservoir

(X) - Order Cut Length Required.
NOTE 2 - Field Application - Order On
Machine Order Form.



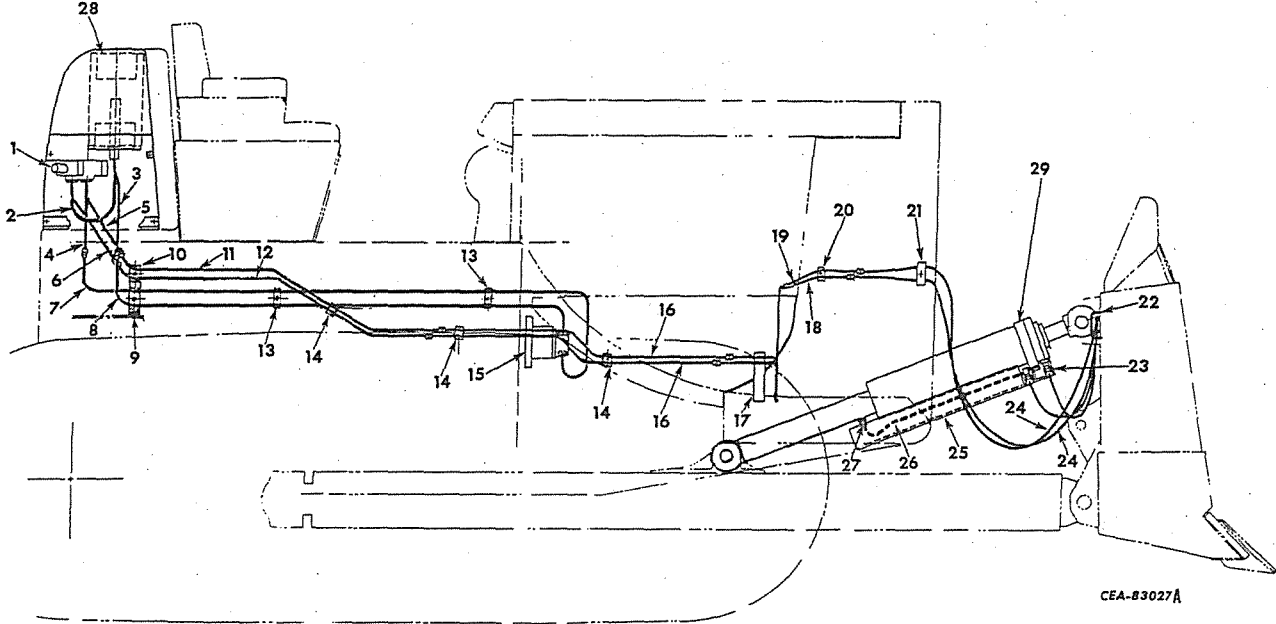
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MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS
(Model 20B D-1 and D-3)
TD-20BP 4852 to 5908



REF. NO.	I. H. PART NUMBER	DESCRIPTION
	602 830 C91	ATTACHMENT, hydraulic tilt (See NOTE 2 (Consists of the following parts also parts listed under "Housing Controls and Related Parts"))
1	313 578 R91	VALVE, control (for components see list of parts under details of "Hydraulic Valve") 3/8" NUT (3) 3/8 x 3" hex-hd cap SCREW (3) 3/8" lock WASHER (3)
2	342 236 R91	TUBE, valve to tank
	128 003	BUSHING, 1 x 3/4" reducing (at tank)
9	402 711	CONNECTOR, 3/4" (at tank)
	315 044 R1	CONNECTOR (at valve)
	297 459 R1	"O" RING, 1.048 x 1.280 x .116" (at valve)
3	600 640 C91	TUBE, suction
	9 402 713	CONNECTOR, 1"
4	600 642 C91	TUBE, pressure
	315 044 R1	CONNECTOR, tube
	297 459 R1	"O" RING, 1.058 x 1.280 x .116"
5	602 805 C91	TUBE
	333 458 R1	CONNECTOR, tube
	364 885 R1	"O" RING, .755 x .949 x .097"
6	602 806 C91	TUBE
	333 458 R1	CONNECTOR, tube
	364 885 R1	"O" RING, .755 x .949 x .097"
7	600 643 C91	TUBE, pressure
8	600 641 C91	TUBE, suction



MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS - Continued
(Model 20B D-1 and D-3)
TD-20BP 4852 to 5908

REF. NO.	I. H. PART NUMBER	DESCRIPTION
9	600 648 C1	BRACKET, pump tube clamp
	342 432 R2	CLAMP, tube (2) 3/8" NUT (2) 3/8 x 1-3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
10	342 494 R22	BRACKET, tube clamp
	342 432 R2	CLAMP, tube (2) 3/4" NUT (2) 3/8 x 1-3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
11	600 645 C91	TUBE
12	600 644 C91	TUBE
13	342 432 R2	CLAMP, tube (2) 3/8" NUT 3/8 x 1-3/4" hex-hd cap SCREW 3/8" lock WASHER
14	323 284 R1	CLAMP, tube (3)
	600 591 C1	SPACER, tube clamp 3/8" NUT (3) 3/8 x 1-3/4" hex-hd cap SCREW (3) 3/8" lock WASHER (3)

NOTE 2 - Field Application - Order On Machine Order Form.



MISCELLANEOUS
(For Tractor Equipment)



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MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS - CONTINUED
(TD-20B D-1 and D-3)
TD-20BP 4852 to 5908

15	333 880 R91	PUMP, hydraulic (for components see list of parts under details of "Hydraulic Pump")
	343 824 R1	CONNECTOR, pump suction
9	410 205	CONNECTOR, 3/4" pump pressure
	252 735 R1	"O" RING, 5 x 5-1/4 x 1/8" pump attaching
	368 269 R1	"O" RING, .924 x 1.156 x .116" connector sealing (2)
		5/8 x 1-1/4" hex-hd cap SCREW (2)
16	600 587 C91	TUBE (at frame) (2)
17	600 590 C1	BRACKET, tube clamp
	323 284 R1	CLAMP, tube
		3/8 x 1" hex-hd cap SCREW
		3/8 x 1-3/4" hex-hd cap SCREW
		3/8" lock WASHER (2)
18	600 589 C91	TUBE
19	600 588 C91	TUBE
20	323 284 R1	CLAMP, tube
	600 591 C1	SPACER, tube clamp
		3/8 x 1-3/4" hex-hd cap SCREW
		3/8" lock WASHER
21	326 240 R1	CLAMP, drilled half
	326 239 R1	CLAMP, tapped half
		1/2 x 1-1/2" hex-hd cap SCREW
		1/2" lock WASHER
22	326 241 R11	GUARD, hose
		1/2 x 1-3/4" hex-hd cap SCREW (2)
		1/2" lock WASHER (2)
	326 239 R1	CLAMP, tapped half (2)
23	9 411 105	ELBOW, 3/4 x 45°
	570 828 R1	"O" RING, .644 x .818 x .087"
24	702 426 C91	HOSE w/FITTING, 324 695 R91 and FITTING, 603 925 C91, tube to cylinder (HOSE, 3/8" ID x 111" long including FITTINGS) (2)
24		HOSE w/o FITTINGS, cut length 3/8" ID x 108" long cut from bulk HOSE 324 658 R1
	324 695 R91	FITTING, female swivel hose (2)
	603 925 C91	FITTING, 90° female swivel hose (2)
25	326 236 R11	GUARD, cylinder tube
		1/2" NUT
		1/2 x 4-3/4" hex-hd cap SCREW
		1/2" lock WASHER
		9/16 x 1-3/8" x 12 ga WASHER (2)
26	326 278 R91	TUBE, cylinder
		3/8 x 1-1/8" hex-hd cap SCREW (2)
		3/8" lock WASHER (2)
27	9 410 203	CONNECTOR, 3/4"
	570 828 R1	"O" RING, .644 x .818 x .087"
28	275 930 R91	RESERVOIR, oil
		3/8 x 3/4" hex-hd cap SCREW (4)
		3/8" lock WASHER (4)
29		CYLINDER ASSY, tilt (For components see list of parts under details of "Tilt Cylinder")
	324 658 R1	HOSE, 3/8" ID bulk (X)
	2 751 906 R1	PRODUCT GRAPHIC, closed hydraulic system
	2 751 907 R1	PRODUCT GRAPHIC, closed hydraulic system (for units painted other than I. H. yellow)
	289 366 R91	COUPLING, 3/4 x 3/4 x 1" pipe
	192 084	NIPPLE, 3/4 x 4-1/2" pipe
	444 678	PLUG, 1" NPT pipe
	342 443 R11	STICK, dip
	354 868 R93	STRAINER, oil reservoir

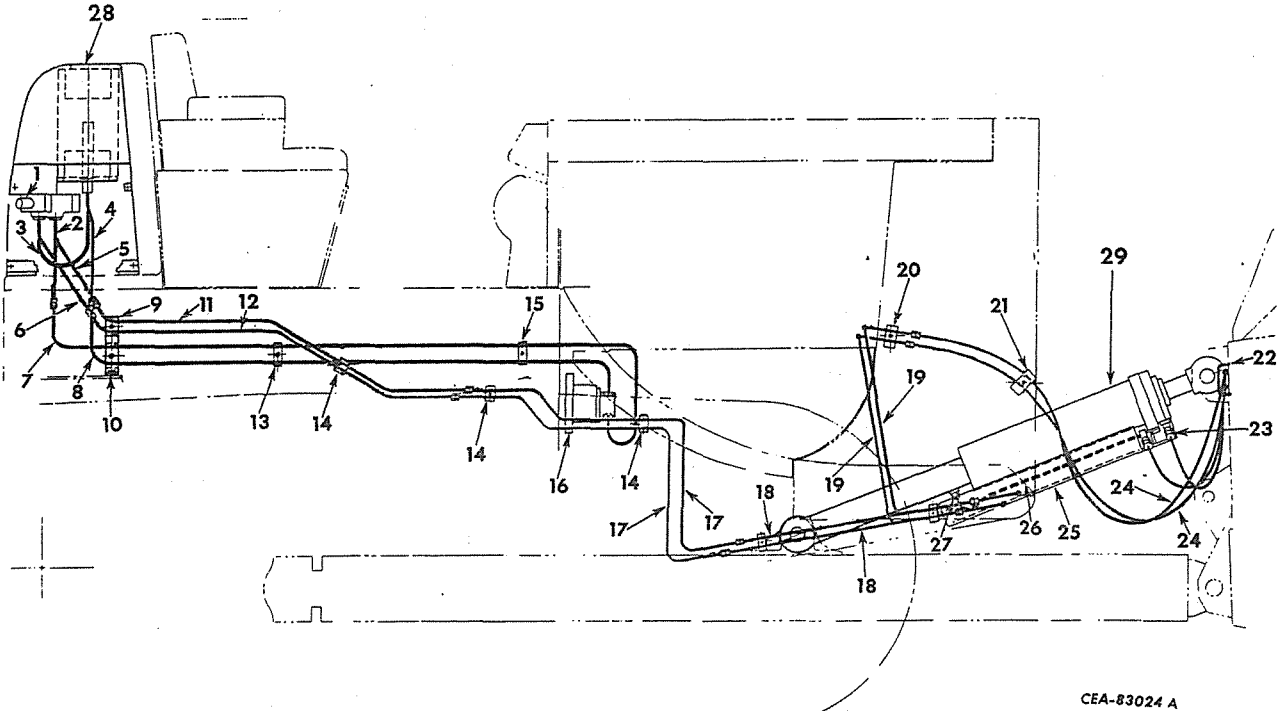
(X) - Order Cut Length As Required.



MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS
(Model 20B D-1 and D-3)
TD-20BP 5909 Up



CEA-83024 A

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	605 679 C91	ATTACHMENT, hydraulic tilt (See NOTE 2) (Consists of the following parts also parts listed under "Housing Controls and Related Parts")
1	313 578 R91	VALVE, control (for components see list of parts under details of "Hydraulic Valve") 3/8" NUT (3) 3/8 x 3" hex-hd cap SCREW (3) 3/8" lock WASHER (3)
2	600 642 C91 315 044 R1 297 459 R1	TUBE, pressure CONNECTOR, tube "O" RING, 1.048 x 1.280 x .116"
3	342 236 R91 128 003 9 402 711 315 044 R1 297 459 R1	TUBE, valve to tank BUSHING, 1 x 3/4" reducing (at tank) CONNECTOR, 3/4" (at tank) CONNECTOR (at valve) "O" RING, 1.048 x 1.280 x .116" (at valve)
4	600 640 C91 9 402 713	TUBE, suction CONNECTOR, 1" (at tank)
5	602 805 C91 333 458 R1 364 885 R1	TUBE CONNECTOR, tube "O" RING, .755 x .949 x .097"
6	602 806 C91 333 458 R1 364 885 R1	TUBE CONNECTOR, tube "O" RING, .755 x .949 x .097"

REF. NO.	I. H. PART NUMBER	DESCRIPTION
7	600 643 C91	TUBE, pressure
8	600 641 C91	TUBE, suction
9	342 494 R22 342 432 R2	BRACKET, tube, clamp CLAMP, tube (2) 3/8" NUT (2) 3/8 x 1-3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
10	600 648 C1 342 432 R2	BRACKET, pump tube clamp CLAMP, tube (2) 3/8" NUT (2) 3/8 x 1-3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
11	600 645 C91	TUBE (at frame)
12	606 644 C91	TUBE (at frame)
13	342 432 R2	CLAMP, tube (2) 3/8" NUT 3/8 x 1-3/4" hex-hd cap SCREW 3/8" lock WASHER

NOTE 2 - Field Application - Order On
Machine Order Form.



MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS - Continued
(Model 20B D-1 and D-3)
TD-20BP 5909 UP



MISCELLANEOUS
(For Tractor Equipment)



MEMORANDA

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS - Continued
(Model 20B D-1 and D-3)
TD-20BP 5909 Up

14	323 284 R1 600 591 C1	CLAMP, tube (6) SPACER (6) 3/8 x 1-3/4" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
15	342 495 R21 342 432 R2	BRACKET, tube clamp CLAMP, tube 3/8" NUT 3/8 x 1-3/4" hex-hd cap SCREW 3/8" lock WASHER
16	333 880 R91 343 824 R1 9 410 205 252 735 R1 368 269 R1	PUMP, hydraulic (for components see list of parts under details of "Hydraulic Pump") CONNECTOR, pump suction CONNECTOR, 3/4" pump pressure "O" RING, 5 x 5-1/4 x 1/8" pump attaching "O" RING, .924 x 1.156 x .116" connector sealing (2) 5/8 x 1-1/4" hex-hd cap SCREW (2)
17	605 681 C91	TUBE (center) (2)
18	605 682 C91	TUBE (front - crossover) (2)
19	605 680 C91	TUBE, LH side (2)
20	259 050 R1 600 591 C1	CLAMP, tube SPACER 3/8" NUT 3/8 x 1-3/4" hex-hd cap SCREW 3/8" lock WASHER
21	326 239 R1 326 240 R1	CLAMP, tapped half CLAMP, drilled half 1/2 x 1-1/2" hex-hd cap SCREW (6) 1/2" lock WASHER
22	326 239 R1 326 241 R11	CLAMP, tapped half (2) GUARD, hose 1/2 x 1-3/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
23	9 411 105	ELBOW, 3/4" x 45° "O" RING, .644 x .818 x .087"
24	702 426 C91	HOSE w/FITTING, 324 695 R91 and FITTING, 603 925 C91, tube to cylinder (HOSE, 3/8" ID x 111" long including FITTINGS) (2)
24		HOSE w/o FITTINGS, cut length 3/8" ID x 108" long cut from bulk HOSE, 324 658 R1
	324 695 R91 603 925 C91	FITTING, female swivel hose (2) FITTING, 90° female swivel hose (2)
25	326 236 R11	GUARD, cylinder tube 1/2 x 4-3/4" hex-hd cap SCREW 1/2" NUT 1/2" lock WASHER 9/16 x 1-3/8" x 12 ga WASHER (2)
26	326 278 R91	TUBE, cylinder 3/8 x 1-1/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
27	9 410 203 570 828 R1	CONNECTOR, 3/4" "O" RING, .644 x .818 x .87"
28	275 930 R91	RESERVOIR, oil 3/8 x 3/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
29		CYLINDER ASSY, tilt (For components see list of parts under details of "Tilt Cylinder")
	324 658 R1	HOSE, 3/8" ID bulk (X)
	2 751 906 R1	PRODUCT GRAPHIC, closed hydraulic system
	2 751 907 R1	PRODUCT GRAPHIC, closed hydraulic system (for units painted other than I. H. yellow)
	289 366 R91 192 084 444 678 342 443 R11 354 868 R93	COUPLING, 3/4 x 3/4 x 1" pipe NIPPLE, 3/4 x 4-1/2" pipe PLUG, 1" NPT pipe STICK, dip STRAINER, oil reservoir

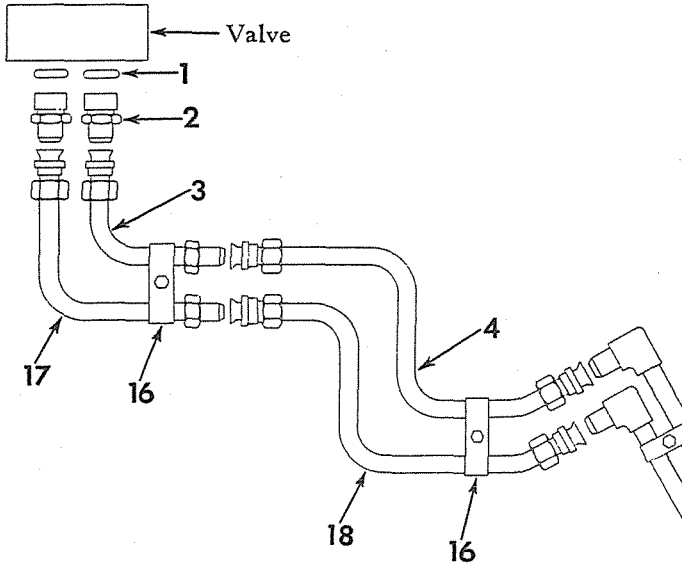
(X) - Order Cut Length As Required.



MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS
(Model 20B D-2)
TD-20BP 4001 to 4851



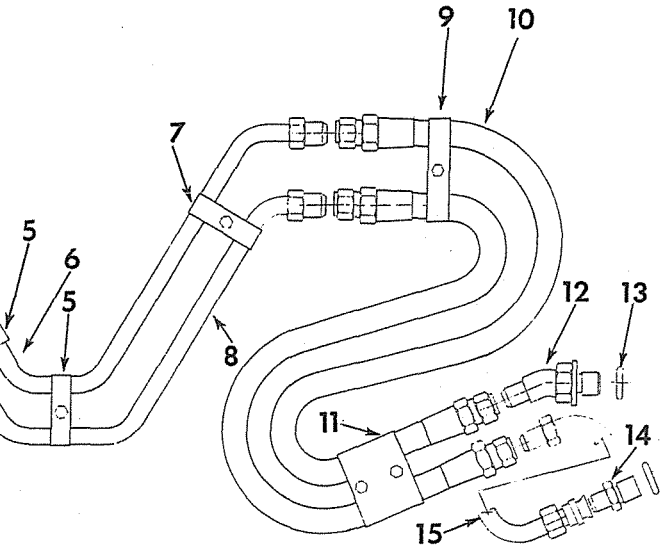
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MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS - CONTINUED
(Model 20B D-2)
TD-20BP 4001 to 4851



REF. NO.	I. H. PART NUMBER	DESCRIPTION
	342 241 R91	ATTACHMENT, hydraulic tilt (see NOTE 2)
1	296 247 R1	"O" RING (1.171 x 1.403 x .116") (2)
2	333 457 R $\frac{3}{8}$	CONNECTOR, straight boss (2)
3	346 210 R91	TUBE, inboard port valve
4	346 208 R91	TUBE, top crossover
5	323 284 R1	CLAMP, tube (2) 3/8 x 1-1/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
6	600 159 C91	TUBE, hydraulic cylinder (rod end)
7	323 284 R1	CLAMP, tube 3/8" NUT 3/8 x 1-1/2" hex-hd cap SCREW 3/8" lock WASHER
8	600 160 C91	TUBE, hydraulic cylinder (head end)
9	326 239 R1	CLAMP, tapped-half (2)
9	326 240 R1	CLAMP, drilled half 1/2 x 1-1/2" hex-hd cap SCREW 1/2" lock WASHER
10	603 926 C91	HOSE w/FITTING, 324 695 R91 and FITTING, 603 925 C91, tube to cylinder (HOSE, 3/8" ID x 96" long including FITTINGS) (2)
10	324 695 R91	HOSE w/o FITTINGS, cut length 3/8" ID x 93" long cut from bulk HOSE, 324 658 R1
	324 695 R91	FITTING, female swivel hose (Aeroquip No. 4721-8-6) (2)
	603 925 C91	FITTING, 90° female swivel hose (Aeroquip No. 190264-8-6) (2)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
11	326 239 R1	CLAMP, tapped (2)
11	326 241 R11	GUARD, hose 1/2 x 1-3/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
12	9 411 105	ELBOW, 3/4" x 45° hydraulic
13	570 828 R1	"O" RING (.644 x .818 x .087") (2)
14	9 410 203	CONNECTOR, 3/4" hydraulic
15	326 278 R91	TUBE, cylinder 3/8 x 1-1/8" cap SCREW (2) 3/8" lock WASHER (2)
16	323 284 R1	CLAMP, tube (2) 3/8" NUT (2) 3/8 x 1-3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
17	346 211 R91	TUBE, outboard port valve
18	346 209 R91	TUBE, lower cross over
	326 276 R91	CYLINDER ASSEMBLY, tilt (for components see list of parts under details of "Tilt Cylinder")
	326 236 R11	GUARD, cylinder tube 1/2" NUT 1/2 x 4-3/4" hex-hd cap SCREW 1/2" lock WASHER 9/16 x 1-3/8" x 12 ga WASHER (2)
	324 658 R1	HOSE, 3/8" ID bulk (X)

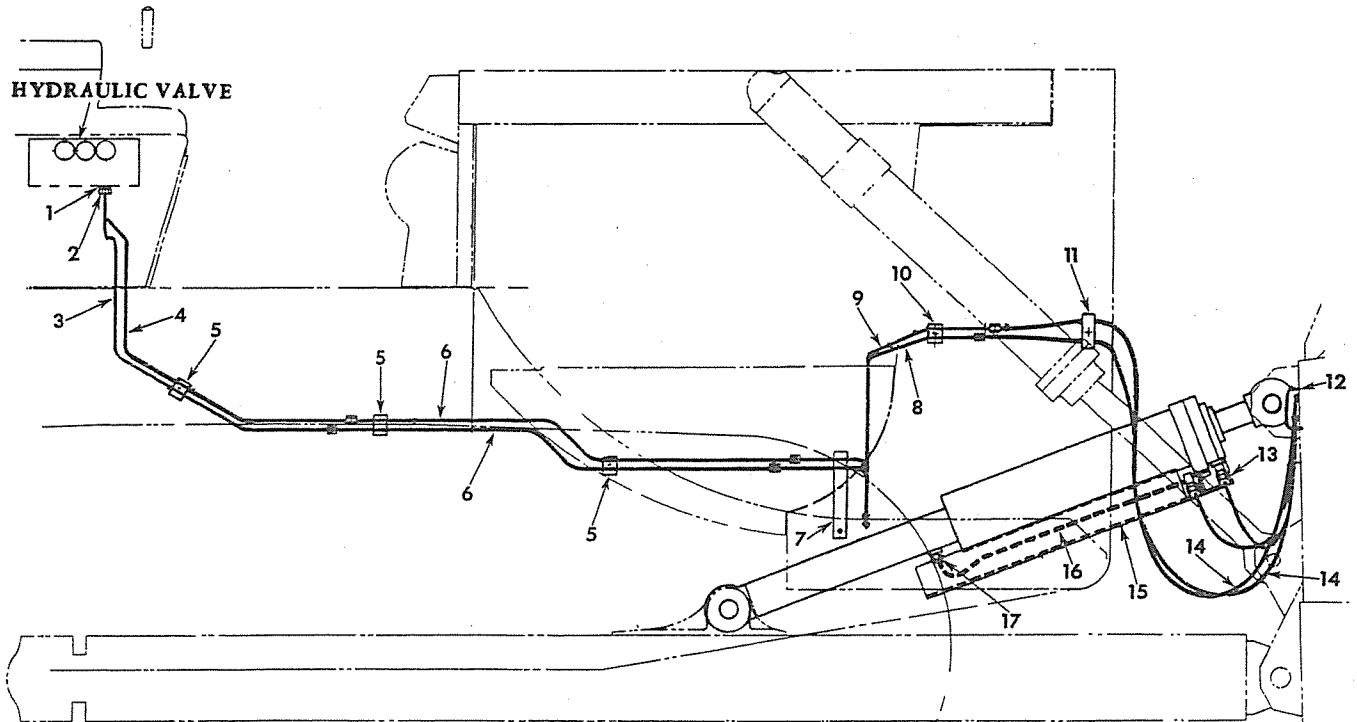
(X) Order Cut Length Required.
NOTE 2 - Field Application - Order on Machine Order Form.



MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS
(Model 20B D-2)
TD-20BP 4852 to 5908



CEA-83023

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	602 828 C91	ATTACHMENT, hydraulic tilt (see NOTE 2)
1	296 247 R1	"O" RING, 1.171 x 1.403 x .116" (2)
2	333 457 R1	CONNECTOR, straight boss (2)
3	600 585 C91	TUBE, inboard valve port
4	600 586 C91	TUBE, outboard valve port
5	323 284 R1 600 591 C1	CLAMP, tube (3) SPACER (3) 3/8 x 1-3/4" hex-hd cap SCREW (3) 3/8" lock WASHER (3)
6	600 587 C91	TUBE, lower crossover (2)
7	323 284 R1 600 590 C1	CLAMP, tube BRACKET, tilt line 3/8 x 1" hex-hd cap SCREW 3/8" lock WASHER
8	600 589 C91	TUBE, hydraulic cylinder - head end
9	600 588 C91	TUBE, hydraulic cylinder - rod end
10	323 284 R1 600 591 C1	CLAMP, tube SPACER 3/8" NUT (2) 3/8 x 1-3/4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
11	326 239 R1 326 240 R1	CLAMP, tapped half CLAMP, drilled half 1/2 x 1-1/2" hex-hd cap SCREW 1/2" lock WASHER



MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS - CONTINUED
(Model 20B D-2)
TD-20BP 4852 to 5908

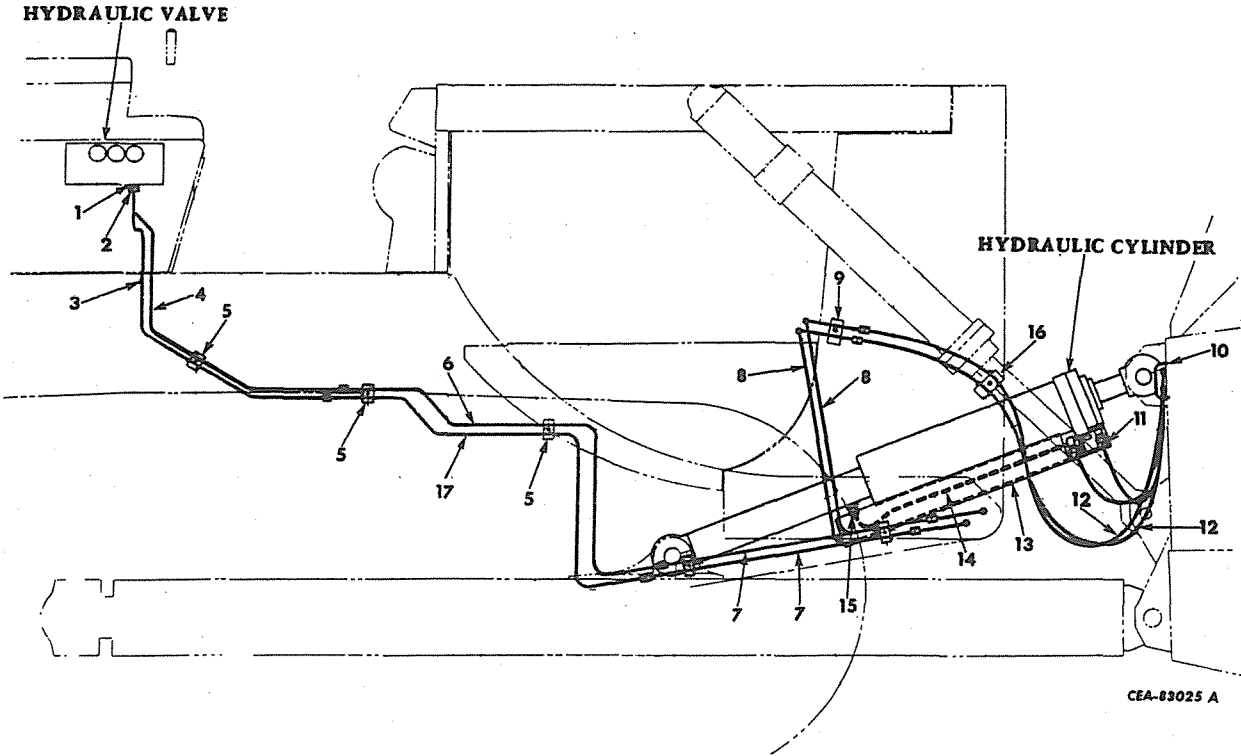
REF. NO.	I.H. PART NUMBER	DESCRIPTION
12	326 239 R1 326 241 R11	CLAMP, tapped (2) GUARD, hose 1/2 x 1-3/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
13	9 411 105 570 828 R1	ELBOW, 3/4" x 45° "O" RING, .644 x .818 x .087"
14	603 926 C91	HOSE w/FITTING, 324 695 R91 and FITTING, 603 925 C91, tube to cylinder (HOSE, 3/8" ID x 96" long including FITTINGS) (2)
14	324 695 R91 603 925 C91	HOSE w/o FITTINGS, cut length 3/8" ID x 93" long cut from bulk HOSE No. 324 658 R1 FITTING, female swivel hose (Aeroquip No. 4721-8-6) (2) FITTING, 90° female swivel hose (Aeroquip No. 190264-8-6) (2)
15	326 236 R11	GUARD, cylinder tube 1/2" NUT 1/2 x 4-3/4" hex-hd cap SCREW 1/2" lock WASHER 9/16 x 1-3/8" x 12 ga WASHER (2)
16	326 278 R91	TUBE, cylinder 3/8 x 1-1/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
17	9 410 203 570 828 R1 324 658 R1	CONNECTOR, 3/4" "O" RING, .644 x .818 x .087" HOSE, 3/8" ID bulk (X)

(X) - Order Cut Length As Required.
NOTE 2 - Field Application - Order on
Machine Order Form.

MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS
(Model 20B D-2)
TD-20BP 5909 Up



MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HYDRAULIC PIPING AND RELATED PARTS - CONTINUED
(Model 20B D-2)
TD-20BP 5909 Up

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	605 677 C91	ATTACHMENT, hydraulic tilt (see NOTE 2)
1	296 247 R1	"O" RING, 1.171 x 1.403 x .116" (2)
2	333 457 R1	CONNECTOR, straight boss (2)
3	600 585 C91	TUBE, inboard port valve
4	600 586 C91	TUBE, outboard port valve
5	323 284 R1 600 591 C1	CLAMP, tube (6) SPACER (6) 3/8 x 1-3/4" hex-hd cap SCREW (6) 3/8" lock WASHER (6)
6	605 681 C91	TUBE, center
7	605 682 C91	TUBE, front crossover (2)
8	605 680 C91	TUBE, hydraulic cylinder - LH side (2)
9	259 050 R1 600 591 C1	CLAMP, tube SPACER 3/8" NUT 3/8 x 1-3/4" hex-hd cap SCREW 3/8" lock WASHER
10	326 239 R1 326 241 R11	CLAMP, tapped (2) GUARD, hose 1/2 x 1-3/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2)
11	9 411 105 570 828 R1	ELBOW, 3/4 x 45° "O" RING, .644 x .818 x .087"

REF. NO.	I.H. PART NUMBER	DESCRIPTION
12	603 926 C91	HOSE w/ FITTING, 324 695 R91 and FITTING, 603 925 C91, tube to cylinder (HOSE, 3/8" ID x 96" long including FITTINGS) (2)
12	324 695 R91 603 925 C91	HOSE w/o FITTINGS, cut length 3/8" ID x 93" long cut from bulk HOSE 324 658 R1 FITTING, female swivel hose (Aeroquip No. 4721-8-6) (2) FITTING, 90° female swivel hose (Aeroquip No. 190264-8-6) (2)
13	326 236 R11	GUARD, cylinder tube 1/2 x 4-3/4" hex-hd cap SCREW 1/2" NUT 1/2" lock WASHER 9/16 x 1-3/8" x 12 ga WASHER (2)
14	326 278 R91	TUBE, cylinder 3/8 x 1-1/8" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
15	9 410 203 570 828 R1	CONNECTOR, 3/4" "O" RING, .644 x .818 x .087"
16	326 239 R1 326 240 R1	CLAMP, tapped half CLAMP, drilled half 1/2 x 1-1/2" hex-hd cap SCREW 1/2" lock WASHER
17	605 681 C91 324 658 R1	TUBE, center HOSE, 3/8" ID bulk (X)

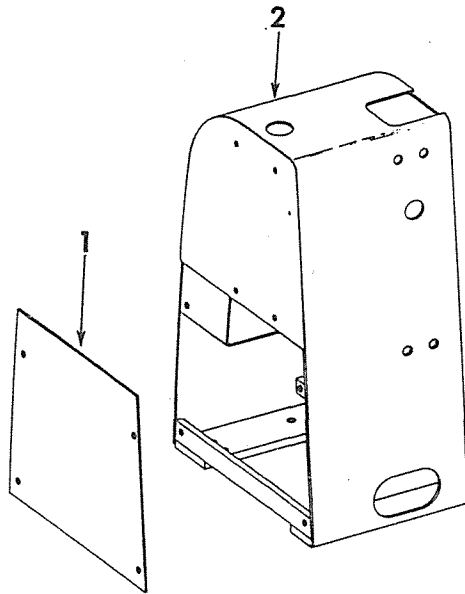
(X) - Order Cut Length As Required.
NOTE 2 - Field Application - Order on Machine Order Form.



MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HOUSING CONTROLS AND RELATED PARTS



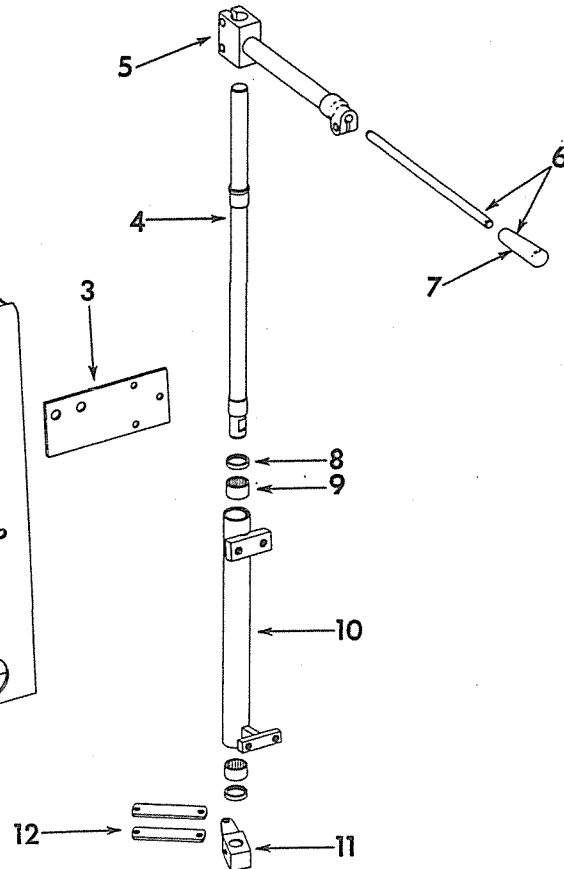
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MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

HOUSING CONTROLS AND RELATED PARTS - Continued



REF. NO.	I. H. PART NUMBER	DESCRIPTION
1	342 226 R1	COVER 3/8 x 3/4" hex-hd cap SCREW (4) 3/8" lock WASHER (4)
2	342 218 R11	HOUSING, tilt control 1/2 x 1" hex-hd cap SCREW (3) 1/2" lock WASHER (3) 17/32 x 1-1/16" x 13 ga WASHER (3)
3	342 239 R1	PLATE, tilt box mounting 3/8 x 1-3/8" hex-hd cap SCREW (3) 1/2 x 1-1/4" hex-hd cap SCREW (2) 3/8" lock WASHER (3) 1/2" lock WASHER (2)
4	342 233 R11	SHAFT w/two RACE, 308 813 R1, tiller
5	319 187 R91	LEVER, tiller 5/8" NUT (2) 5/8 x 2-1/2" hex-hd cap SCREW (2)
6	293 808 R91	HANDLE w/GRIP, 619 405 C1, control 1/2 x 1-1/4" hex-hd cap SCREW 1/2" heavy lock WASHER
7	619 405 C1	GRIP, handle

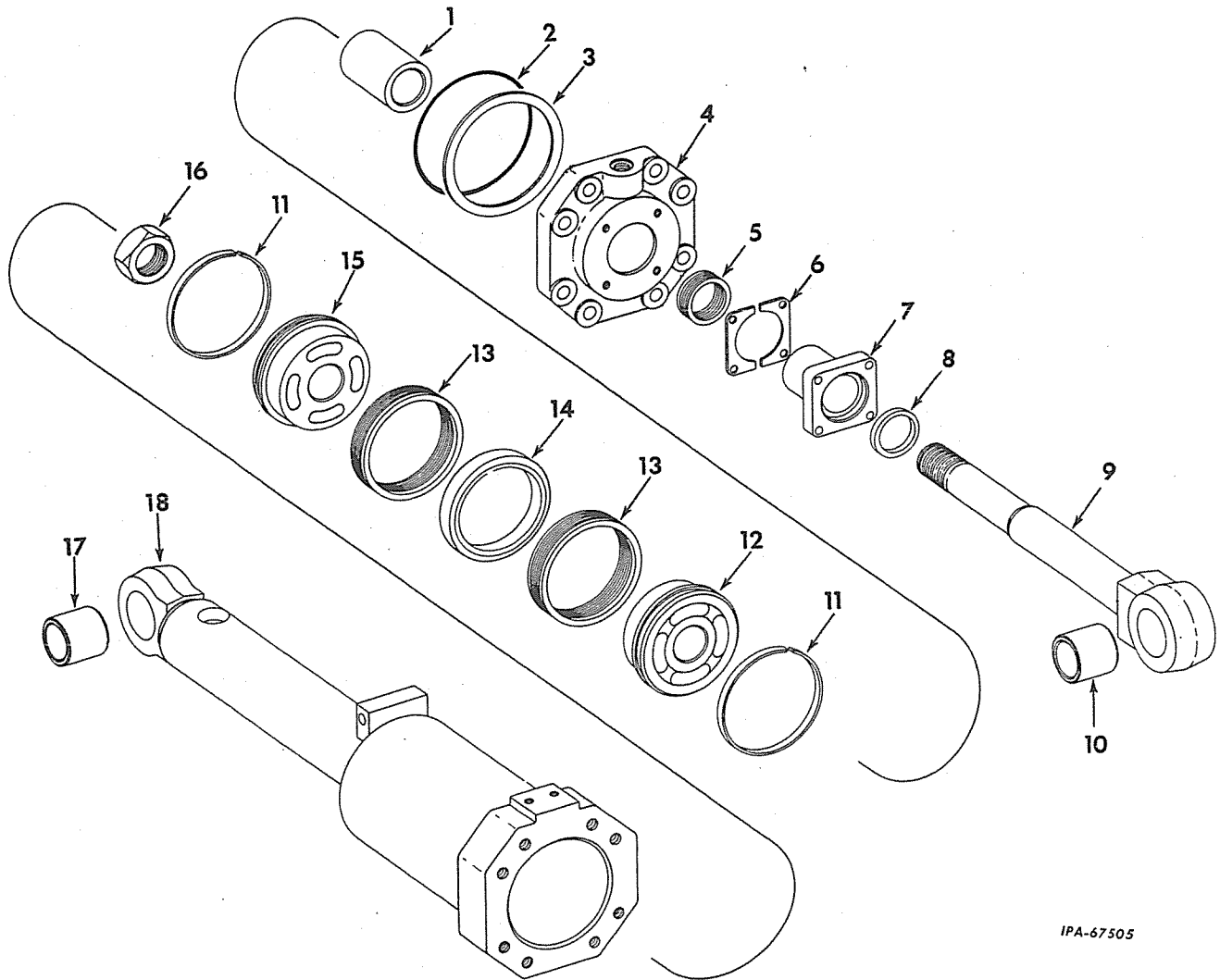
REF. NO.	I. H. PART NUMBER	DESCRIPTION
8	287 058 R91	OIL SEAL, control shaft tube (2)
9	298 175 R91	BEARING, control shaft tube (2)
10	342 228 R11	TUBE, control shaft 1/2" NUT (2) 1/2 x 1-1/4" hex-hd cap SCREW (2) 1/2" lock WASHER (2) 17/32 x 1-1/16" x 13 ga WASHER (2)
11	342 237 R91 295 535 R1	LEVER BOLT, 5/16" locking 5/16" stover lock NUT
12	342 235 R1 103 495	LINK, tilt control (2) PIN, rod end (2) 3/32 x 5/8" cotter PIN (2)
	109 459	FITTING, 1/8" x 30° extra short lubrication
	308 813 R1	RACE, tiller shaft (2)



MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

TILT CYLINDER



IPA-67505

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	326 276 R91	CYLINDER ASSEMBLY, tilt
1	317 169 R1	SPACER, piston rod
2	3 042 933 R1	"O" RING, 6 x 6-1/2 x 1/4"
3	606 419 C1	RING, back up
4	326 277 R1	CAP, cylinder 9/16 x 2-1/4" hex-hd cap SCREW (8)
5	317 226 R91	PACKING, piston rod chevron
6	317 228 R1	SHIM, cylinder cap packing gland (30)
7	317 230 R1	GLAND, cylinder cap packing 1/2 x 2" hex-hd cap SCREW (4) 1/2" lock WASHER (4)
8	290 061 R91	SEAL, piston rod dust



MISCELLANEOUS
(For Tractor Equipment)

HYDRAULIC TILT

TILT CYLINDER - Continued

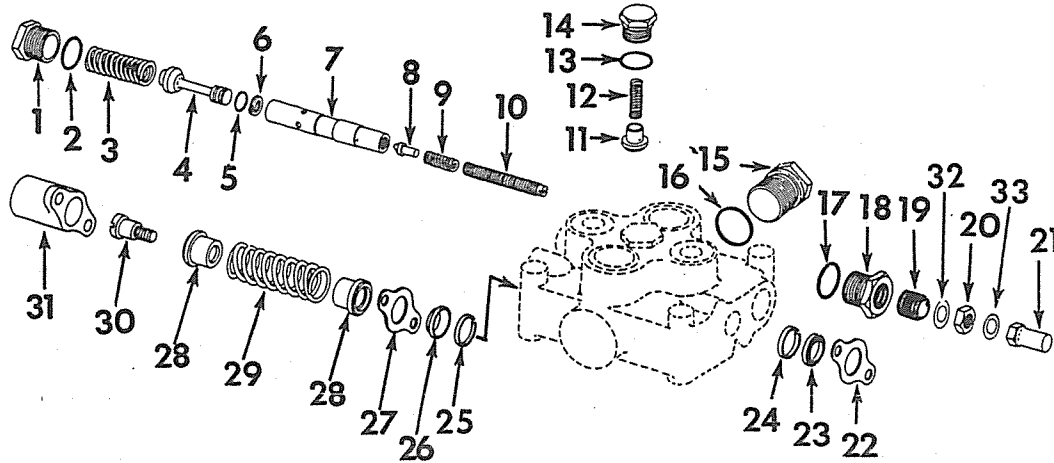
REF. NO.	I. H. PART NUMBER	DESCRIPTION
9	317 162 R91	ROD w/BUSHING, 290 290 R2, piston
10	290 290 R2	BUSHING, piston rod
11	294 495 R1	RING, piston wear (2)
12	317 165 R1	PISTON, split front
13	317 167 R91	PACKING, piston (2)
14	317 168 R1	SPACER, packing
15	317 165 R1	PISTON, split rear
16	18 545 R1	NUT, 1-1/4" elastic stop
17	290 290 R2	BUSHING, cylinder housing
18	317 109 R91	HOUSING w/BUSHING, 290 290 R2, cylinder

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MISCELLANEOUS
 (For Tractor Equipment)



HYDRAULIC TILT

HYDRAULIC VALVE
 (Husco)



-321-
MISCELLANEOUS
 (For Tractor Equipment)



HYDRAULIC TILT

HYDRAULIC VALVE - CONTINUED
 (Husco)

IPA-60884 B

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	313 578 R91	VALVE ASSEMBLY, single plunger hydraulic (3301-4) (Consist of the following parts - 3/8" NUT (3) 3/8 x 3" hex-hd cap SCREW (3) 3/8" lock WASHER (3)
1	310 807 R1	PLUG, relief valve (3339)
2	368 269 R1	"O" RING, 3/4" tubing
3	310 808 R1	SPRING, relief valve poppet (3332A)
4	310 810 R1	POPPET, relief valve (3335)
5	355 967 R1	"O" RING, 1/2 x 3/8 x 1/16"
6	310 811 R1	RING, back-up (3582)
7	310 809 R1	SLEEVE, relief valve (3334)
8	310 812 R1	POPPET, relief valve pilot (3336)
9	310 813 R1	SPRING, relief valve pilot (3333)
10	310 816 R1	SCREW, relief valve adjusting (3337)
11	310 819 R1	POPPET, check valve (3375)
12	310 820 R1	SPRING, check valve poppet (3519)
13	364 885 R1	"O" RING, 5/8" tubing
14	310 821 R1	PLUG, check valve (3376)

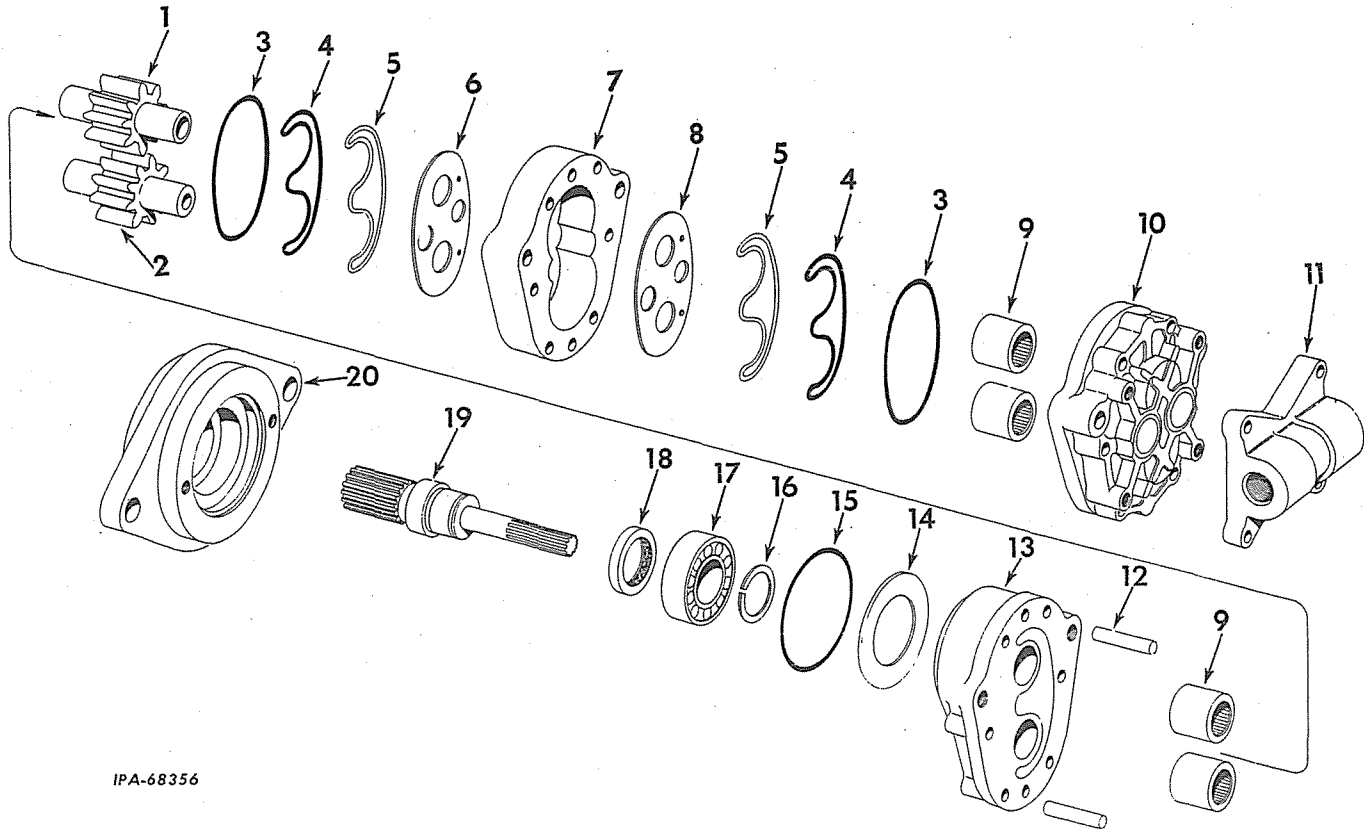
REF. NO.	I. H. PART NUMBER	DESCRIPTION
15	310 850 R1	PLUG, port (3393) (2)
16	297 459 R1	"O" RING, 7/8" tubing (2)
17	368 269 R1	"O" RING, 3/4" tubing
18	310 815 R1	PLUG, relief valve pilot (3340)
19	310 814 R1	SLEEVE, adjusting screw (3338)
20	310 817 R1	NUT, adjusting screw lock (3388)
21	310 818 R1	NUT, adjusting screw castle (3387)
22	310 798 R1	PLATE, seal (detent end) (3326)
23	310 796 R1	SEAL and WIPER, oil (detent end) (3502)
24	310 797 R1	RING, seal support (detent end) (3396)
25	310 797 R1	RING, seal support (eye end) (3396)
26	310 796 R1	SEAL and WIPER, oil (eye end) (3502)
27	310 798 R1	PLATE, float plunger seal (eye end) (3326) 1/4 x 3/8" rd-hd slit mach SCREW (2)
28	310 822 R1	SEAT, standard plunger detent spring (3327) (2)
29	310 823 R1	SPRING, standard plunger detent (3329)
30	310 824 R1	SCREW, standard plunger detent (3328)
31	310 825 R1	CAP, standard plunger detent (3324) 1/4 x 7/8" hex-soc-hd mach SCREW (2)
32	175 683 H1	WASHER
33	175 684 H1	WASHER

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MISCELLANEOUS
(For Tractor Equipment)



HYDRAULIC TILT

HYDRAULIC PUMP
(Webster)



IPA-68356

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	333 880 R91	PUMP, hydraulic (3YDS1-LT) (consists of the following parts)
1	346 786 R1	GEAR, drive (151-32941-9)
2	343 538 R1	GEAR, idler (151-27885-9)
3	215 748 H1	SEAL, retaining plate (151-39196) (2)
4	343 532 R1	RING, sealing (151-27886) (2)
5	343 531 R1	RING, back-up (151-32132) (2)
6	343 533 R1	PLATE, body wear (151-27882-3)
7	346 787 R1	PLATE, gear (151-33131-1)
8	343 534 R1	PLATE, cover wear (151-27882-4)
9	142 928 H	BEARING, needle (4)
10	346 785 R91	COVER w/two BEARING, 142 928 H (150-34454) 5/16 x 2-1/2" hex-hd cap SCREW (6) 3/8 x 4" hex-hd cap SCREW (2) 3/8" lock WASHER (2)

-322-
MISCELLANEOUS
(For Tractor Equipment)



HYDRAULIC TILT

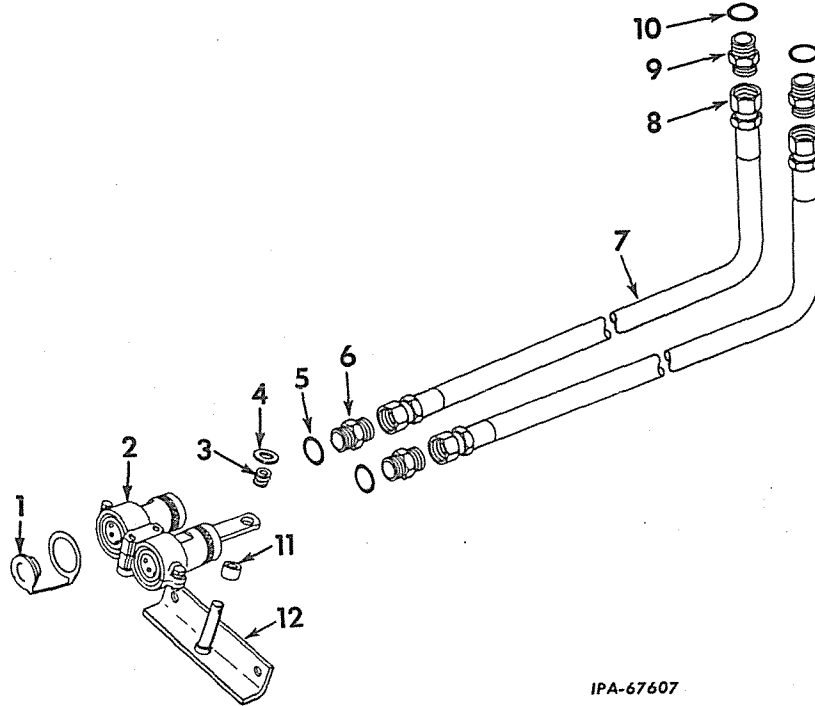
HYDRAULIC PUMP - CONTINUED
(Webster)

REF. NO.	I.H. PART NUMBER	DESCRIPTION
11	346 783 R1	MANIFOLD (151-34493-3) 5/16 x 1" hex-hd cap SCREW (4)
12	346 788 R1	PIN, dowel (151-32235-1) (2)
13	346 789 R91	BODY w/two BEARING, 142 292 H (150-34452)
14	346 791 R1	WASHER, thrust (151-32940)
15	346 798 R1	"O" RING, adapter (3-1/4 x 3-7/16 x 3/32")
16	346 799 R1	RING, retaining (29650-15)
17	ST 213	BEARING, ball (151-27597)
18	346 850 R91	OIL SEAL (151-25996)
19	346 800 R1	SHAFT, drive (151-35305)
20	346 790 R91	ADAPTER w/SEAL, 346 850 R91 (150-35307)
	379 181 R1	"O" RING, cover (5/8 x 3/4 x 1/16") (2)

MISCELLANEOUS
(For Tractor Equipment)

BREAKAWAY COUPLING ATTACHMENT

BREAKAWAY COUPLING PIPING



IPA-67607

REF. NO.	I.H. PART NUMBER	DESCRIPTION
	342 156 R91	ATTACHMENT, breakaway coupling (See NOTE 3)
1	373 220 R1	CAP, dust (2)
2	374 777 R92	COUPLING, hydraulic breakaway (for components see list of parts under details of "Breakaway and Self-Sealing Coupling")
3	353 213 R2	SPRING, breakaway coupling bracket
4		WASHER, 19/32 x 1-3/16" x 13 ga 1/8 x 1" cotter PIN
5	364 885 R1	"O" RING, .755 x .949 x .097" (2)
6	9 410 204	ADAPTER (coupling end) (2)
7	338 862 R91	HOSE w/two FITTING, 100 797 R91 (HOSE, 1/2" ID x 60" long including FITTINGS) (Aeroquip No. A-150203-10-60) (2)
7		HOSE w/o FITTINGS, cut length 1/2" ID x 56-1/4" long cut from bulk Hose No. 319 709 R91

REF. NO.	I.H. PART NUMBER	DESCRIPTION
8	100 797 R91	FITTING, straight swivel hose (Aeroquip No 4411-10) (4)
9	335 349 R1	ADAPTER (valve end) (2)
10	296 247 R1	"O" RING, 1.171 x .1.403 x .116" (2)
11	23 111 H	SPACER, breakaway coupling bracket
12	335 347 R91	BRACKET, breakaway coupling 3/8" NUT (2) 3/8 x 1" hex-hd cap SCREW (2) 3/8" lock WASHER (2)
	308 579 R1	CLAMP-hose 3/8" NUT 3/8 x 1" hex-hd cap SCREW 3/8" lock WASHER
	319 709 R1	HOSE, 1/2" ID bulk (X)

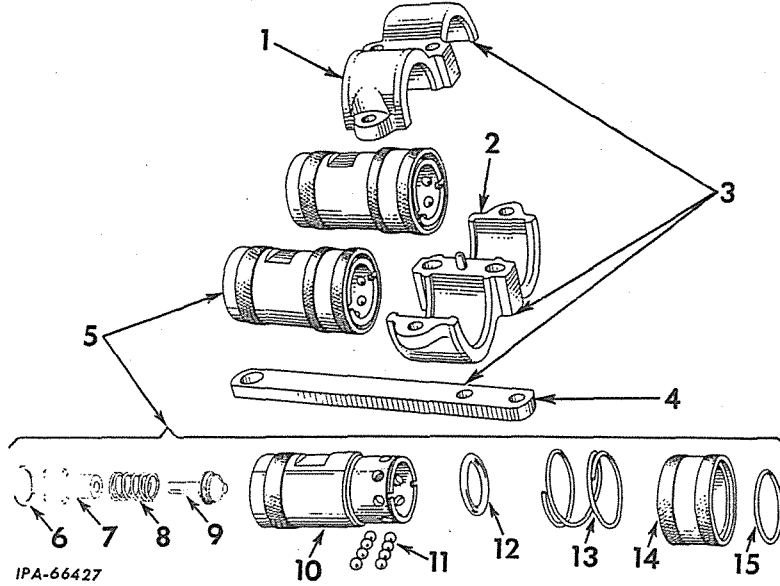
NOTE 3 - Field Application - Order through
Regular Service Parts Channels.
(X) - Order Cut Length Required.

MISCELLANEOUS
(For Tractor Equipment)



BREAK-AWAY COUPLING ATTACHMENT

HYDRAULIC BREAK-AWAY AND SELF SEALING COUPLINGS



IPA-66427

REF. NO.	I. H. PART NUMBER	DESCRIPTION
	374 777 R92	COUPLING ASSEMBLY, break-away (composed of FRAME, 371 110 R91 and two COUPLING, 374 780 R91)
1	371 115 R1	CLAMP, self-sealing coupling frame 1/4 x 3/4" hex-hd cap SCREW (2) 1/4" cd-pltd lock WASHER (2)
2	371 114 R1	FRAME, self-sealing coupling
3	371 110 R91	FRAME ASSEMBLY, self-sealing coupling
4	371 116 R1	BRACKET, self-sealing coupling frame 5/16 x 1-1/2" hex-hd cap SCREW (2)
5	374 780 R92	COUPLING ASSEMBLY, self-sealing female (2)
6	378 043 R1	RETAINER, check valve spring
7	378 043 R1	RETAINER, check valve spring

MISCELLANEOUS
(For Tractor Equipment)



BREAK-AWAY COUPLING ATTACHMENT

HYDRAULIC BREAK-AWAY AND SELF SEALING COUPLINGS - Continued

REF. NO.	I. H. PART NUMBER	DESCRIPTION
8	371 121 R1	SPRING, check valve retaining
9	378 042 R11	VALVE, check
10		BODY, self-sealing coupling - female (order COUPLING, 374 780 R92)
11		BALL, lock (order COUPLING, 374 780 R92)
12	254 691 R1	"O" RING, self-sealing coupling
13		SPRING, lock ball retainer (order COUPLING, 374 780 R92)
14		RETAINER, lock ball (order COUPLING, 374 780 R92)
15		STOP, lock ball retainer (order COUPLING, 374 780 R92)

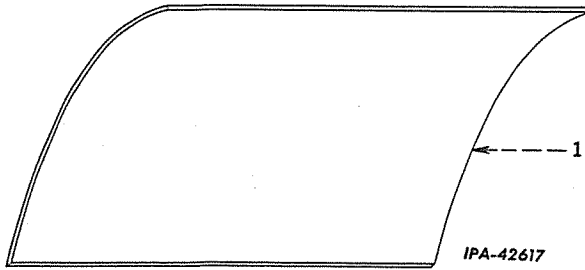


MISCELLANEOUS
(For Tractor Equipment)



MEMORANDA

WELDED PUSH PLATES



REF. NO.	I. H. PART NUMBER	DESCRIPTION
	333 519 R91	ATTACHMENT, blade reinforcing welded push plate (for use on TD-20 Series B bulldozers) (See NOTES 1 and 2)
	335 217 R91	ATTACHMENT, blade reinforcing welded push plate (for use on TD-20 Series B bullgraders) (See NOTES 1 and 2)
1	333 518 R1	PLATE, blade mounted push (used with ATTACHMENT, 333 519 R91)
1	335 216 R1	PLATE, blade mounted push (used with ATTACHMENT, 335 217 R91)

NOTE 1 - Factory Application - Order on Machine Order Form.

NOTE 2 - Field Application - Order on Machine Order Form.



MISCELLANEOUS
(For Tractor Equipment)

REF. NO.	I. H. PART NUMBER	DESCRIPTION
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PRODUCT GRAPHICS

1 001 402 R1		PRODUCT GRAPHIC, oil level (for hi-mounted cable control unit)
1 001 836 R1		PRODUCT GRAPHIC, patent (for hi-mounted cable control unit)
2 751 192 R1		PRODUCT GRAPHIC, cable control unit brake band adjustment
2 751 201 R1		PRODUCT GRAPHIC, brake band adjusting (for hi-mounted cable control unit)
2 752 632 R1		PRODUCT GRAPHIC, brake band adjusting (for lo-mounted cable control unit)
2 752 600 R1		PRODUCT GRAPHIC, oil level (for lo-mounted cable control unit and Model 2040 hydraulic control unit)
2 751 906 R1		PRODUCT GRAPHIC, closed hydraulic system
2 753 001 R2		PRODUCT GRAPHIC, dozer control (triple spool valves)
2 753 175 R2		PRODUCT GRAPHIC, dozer control (single spool valves)
2 754 077 R1		PRODUCT GRAPHIC, shifter safety lock



MEMORANDA



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603 467 C91	98A	263 514 R91	98D				
603 467 C91	98D	263 716 R91	98D				
604 388 C91	98D	263 717 R91	98D				
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624 382 C1	98E	334 761 R91	98A				
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336 782 R91	178	337 781 R91	69	338 959 R91	181	341 874 R91	93
336 782 R91	182	337 791 R1	143	338 965 R1	111	341 874 R91	97
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NEW AND DISPLACED PARTS LIST

NOTE: This list is prepared to assist distributor parts personnel in keeping their inventory records current.

The information on this sheet will not be covered in future revisions, so you may want to retain this copy. Future revisions will include new and displaced parts information for that revision only.

New and displaced parts listed below are new and displaced parts for applications shown on pages listed for this machine, not necessarily new and displaced for other applications for this machine or in the IH system.

The following is a list of new and displaced parts for the Model TD-20B Parts Catalog, Form TC-96D Rev. 7 released since TC-96D Rev. 5 dated September 1969.

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234	626 007 C1	333 384 R1	315	289 366 R91	- - - - -
236	626 007 C1	333 384 R1	313	275 930 R91	- - - - -
235	626 006 C1	333 383 R1	315	275 930 R91	- - - - -
237	626 006 C1	333 383 R1	318	605 681 C91	- - - - -
235	619 566 C1	335 668 R1	320	606 419 C1	327 236 R1
237	619 566 C1	335 668 R1			
235	619 565 C1	335 667 R1			
237	619 565 C1	335 667 R1			
235	608 172 C1	- - - - -			
237	608 172 C1	- - - - -			
238	608 172 C1	- - - - -			
239	608 172 C1	- - - - -			
238	623 983 C1	*608 007 C1			
239	623 983 C1	*608 007 C1			
238	623 984 C1	*608 007 C1			
239	623 984 C1	*608 007 C1			
240	626 005 C1	333 388 C1			
240	626 004 C1	333 387 C1			
240	623 985 C1	*298 857 R1			
240	619 570 C1	342 181 R1			
240	619 569 C1	342 180 R1			

* - For ordering procedure for displaced part shown, refer to this catalog.

- Detail parts for this assembly or attachment are all new and are listed on the page shown in this revision.

MEMORANDA
