

# Parts Book

# 500

## CRAWLER TRACTOR

SERIAL NUMBERS **500 - ALL**



**TC-203A**

**Skidder Tractors,  
500 Crawler Tractors,  
and  
Tractor Equipment**

**Issued 11-'67.**

# 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 and even breakage of parts are to be expected due to operating conditions. 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.

## INSTRUCTIONS FOR ORDERING PARTS

- (a) All parts orders should be sent to the parts depot. 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, "Serial Numbers" 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 parts depot.
- (d) Claims for shortage or error in the handling of an order for parts must be made within 30 days following receipt of shipment.

*All illustrations and descriptive matter in this publication apply to International Harvester products sold under the International, McCormick, or McCormick-International trade name.*

*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.*

## INTRODUCTION

Following is a summary of the system used in compiling this catalog.

This catalog is divided into four separate sections -- Introduction, Index to Units; Illustrations and Parts Lists, and Numerical Index.

The Index to Units will list alphabetically all of the units where the illustration and parts list may be found. NOTE: It is important that you refer frequently to the Index to Units. Failure to do so will result in not being able to locate the proper unit. A numerical Index contains a listing of part numbers (excluding standard fasteners) with the page number where each part is listed and described.

The method of illustrating parts is known as the "Exploded View" method, with individual parts shown in their normal relationship to one another. Reference numbers only are shown, corresponding with numbers in the reference number column in the accompanying list of parts.

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

Parts are listed in order followed by a full description. The noun name of the part is listed first then the descriptive information to identify the item. For example: SHAFT, valve lever. Parts not shown in illustrations appear at the end of list in alphabetical sequence by noun name.

Whenever the terms "right" or "left" and "front" or "rear" are used, it should be understood to mean from a position behind and facing the equipment.

The quantity used of each item is shown in parenthesis (4) following the item. Where no quantity is indicated it will mean only one (1) is required.

Where ever possible the component parts of assemblies or attachments are shown in the "exploded views". 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) The listing of components follows the description with the wording "(Composed of -)"

(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 foregoing are explained by footnotes in the text.

Individual parts of an assembly, not available for service, are marked with a symbol \*. In some instances, parts are listed with a notation giving information for ordering.

Parts known as COMMON HARDWARE items appear in abbreviated nomenclature and are shown indented under the items with which used. They are not component parts of the pieces they attach. WARNING: The part number for Common Hardware is eliminated. Hardware parts identified with part numbers have been designed for a specific usage. Standard parts should not be substituted.

Unless otherwise specified, the following will be considered to be:

- All NUTS - "hex"
- All WASHERS - "Plain". The inside dimension will be listed first, followed by the outside diameter and the thickness.
- All LOCK WASHERS - "Medium"
- All COTTER PINS - "Extended-Prong"
- All GROOVE PINS - "Standard-Groove"
- All COMMON RIVETS - "Annealed"
- All COUNTERSUNK-HEAD TUBULAR RIVETS - "Copper-Plated Steel"
- All OVAL-HEAD TUBULAR RIVETS - "Brass"
- All Carriage, Machine and Plow BOLTS; NUTS, and Cap, Machine and Set SCREWS - with National Coarse Thread.

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

Abbreviations used are explained on the "LIST OF ABBREVIATIONS" page.



# LIST OF ABBREVIATIONS



<p>adj ..... adjust, adjustable</p> <p>amp ..... ampere, amperes</p> <p>&amp; ..... and</p> <p>approx ..... approximately</p> <p>assy ..... assembly</p> <p>att ..... attach, attachment</p> <p>b-hd ..... button head</p> <p>brg ..... bearing</p> <p>bush. .... bushing</p> <p>cd-pltd. .... cadmium plated</p> <p>cr-pltd ..... chromium plated</p> <p>csk ..... countersunk</p> <p>csk-hd ..... countersunk head</p> <p>com ..... common</p> <p>cone-pt ..... cone point</p> <p>cont'd ..... continued</p> <p>cop. .... copper</p> <p>c-pin ..... cotter pin</p> <p>cr-rec-hd ..... cross recess head</p> <p>crg ..... carriage</p> <p>cup-pt ..... cup point</p> <p>cyl ..... cylinder, cylinders</p> <p>dia ..... diameter</p> <p>dld ..... drilled</p> <p>dog-pt ..... dog point</p> <p>ext ..... external</p> <p>f/ ..... for</p> <p>ftg ..... fitting</p> <p>f-csk-hd ..... flat countersunk head</p> <p>f-fil-hd ..... flat fillister head</p> <p>f-hd ..... flat head</p> <p>flex. .... flexible</p> <p>ft ..... foot (or 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 (or inches)</p> <p>int ..... internal</p> <p>lb ..... pound, pounds</p> <p>LH ..... left hand</p> <p>lk-wash. .... lockwasher</p> <p>lub ..... lubrication, lubricating</p> <p>mach ..... machine</p> <p>med ..... medium</p> <p>No. .... number</p> <p>NC ..... National Coarse Thread</p> <p>NF ..... National Fine Thread</p> <p>OD ..... outside diameter</p> <p>opt ..... optional</p> <p>ov-hd ..... oval head</p> <p>oz ..... ounce</p> <p>pkg ..... package</p> <p>pln ..... plain</p> <p>PTO ..... power take-off</p> <p>rd-hd ..... round head</p> <p>reg ..... regular</p> <p>RH ..... right hand</p> <p>RPM ..... revolutions per minute</p> <p>slt ..... slotted</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-rd-hd ..... slotted round head</p> <p>spg ..... spring</p> <p>sq ..... square</p> <p>sq-hd ..... square head</p> <p>std ..... standard</p> <p>std-hd ..... standard head</p> <p>stl ..... steel</p> <p>T ..... teeth</p> <p>thd ..... thread</p> <p>tr-hd ..... truss-head</p> <p>upr ..... upper</p> <p>wb-hd ..... wagon box head</p> <p>wash. .... washer</p> <p>w/ ..... with</p> <p>w/o ..... without</p>
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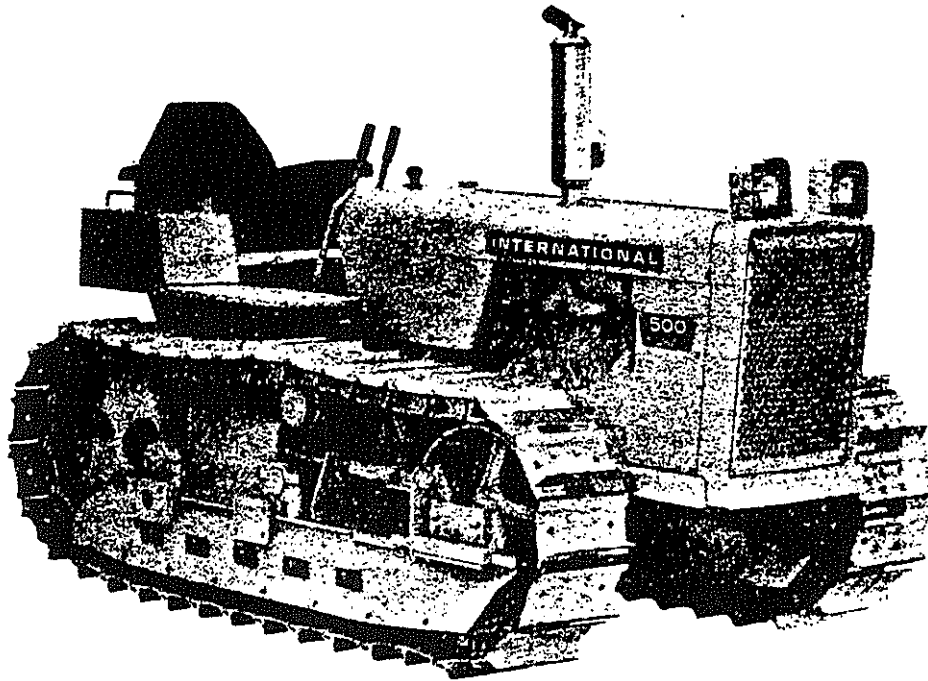
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# CRAWLER TRACTORS

SECTION A  
TC-203



INTERNATIONAL 500

CRAWLER TRACTOR

Built 1965 & Since

## SERIAL NUMBER INFORMATION

**TRACTOR CHASSIS:** Tractors covered by this catalog have been assigned chassis or crawler tractor serial numbers. These numbers begin at 501 for the CRAWLER and 1001 for the SKIDDER. The serial number is stamped on a name plate, located on the right side of the chassis frame, e.g. "501".

A Suffix Letter Code is added to the Chassis serial number as a means of identifying tractors with special features, to facilitate service. This code applies primarily to special features that replace standard parts or units used internally, but also may be used to identify tractors equipped w/one of two or more optional parts wherein identification of said optional parts is deemed necessary to proper servicing. Each suffix letter is stamped on the Chassis Serial Number Plate following the Tractor serial number.

### CHASSIS SUFFIX LETTERS

C  
D  
E  
F  
R  
T

### SPECIAL FEATURES OR OPTIONAL PARTS

Constant Running Power Take-Off  
Transmission Driven Power Take-Off  
38" Track Gauge Width  
68" Track Gauge Width  
Power Shift Reverser  
Torque Amplifier

Example of code letter application "501 DR" is a CRAWLER tractor w/transmission driven pto, 48" track gauge width, and w/Power shift reverser. "1001T" is a SKIDDER tractor w/48" track gauge width w/Torque Amplifier transmission.

**ENGINE:** The engines covered by this catalog have been assigned engine serial numbers, with the model and serial number located on the right side of the engine, stamped into the engine crankcase, e.g. "C-135 - 1500" or "BD-144C/1500".

**NOTE:** No attempt has been made at the factory to have the chassis and engine serial numbers correspond.

**10 & 11 BULLGRADER:** Serial numbers are assigned in consecutive sequence beginning w/number H 1501. The numbers are stamped in the upper right hand corner on the back of the blade and on the top member of the "C" frame to the right of the center line, w/the model designation listed first, e.g. "No. 10-H1501".

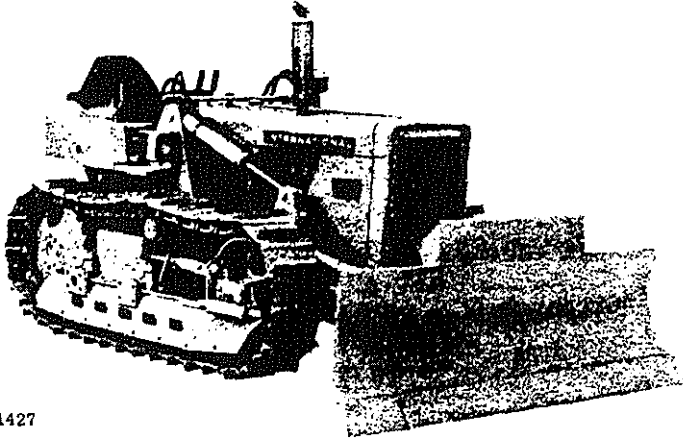
**5G2 BULLGRADER:** Serial numbers located as above for the 10 & 11 Bullgrader, w/serial numbers beginning w/H501.

**5D2 BULLDOZER:** Serial numbers are assigned in consecutive sequence beginning w/number H 501. The numbers are stamped in the upper right hand corner on the back of the blade and on the top front side of the right push arm, with the model designation listed first, e.g. "5D2 - H501".



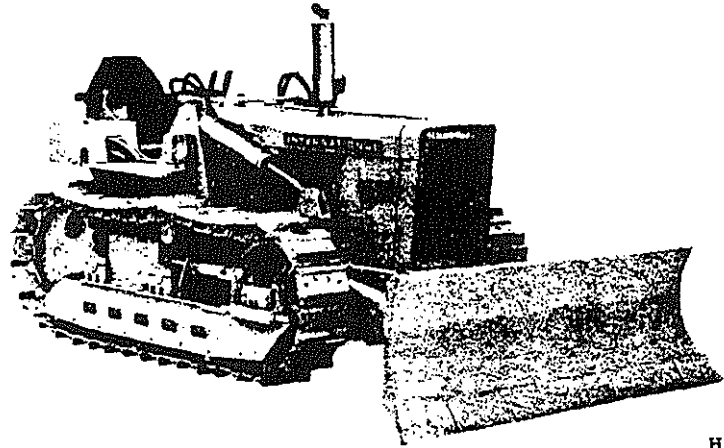
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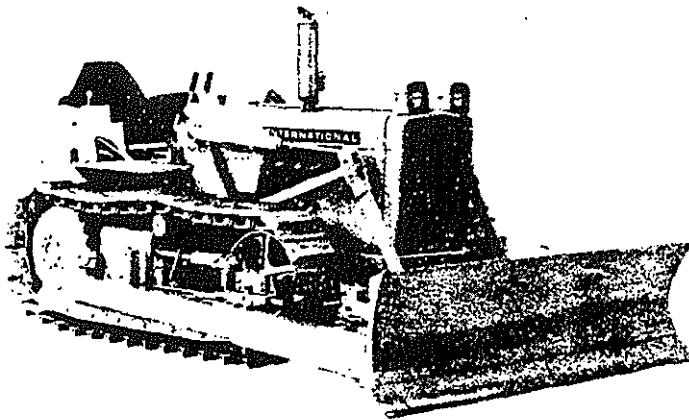
INTERNATIONAL 500  
Crawler Tractor  
w/10 Bullgrader

H 1427



INTERNATIONAL 500  
Crawler Tractor  
w/11 Bullgrader

H 1456



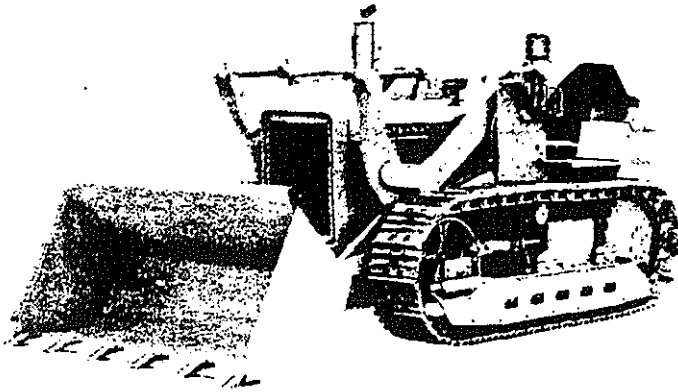
INTERNATIONAL 500  
Crawler Tractor  
w/5G2 Bullgrader

H 1407



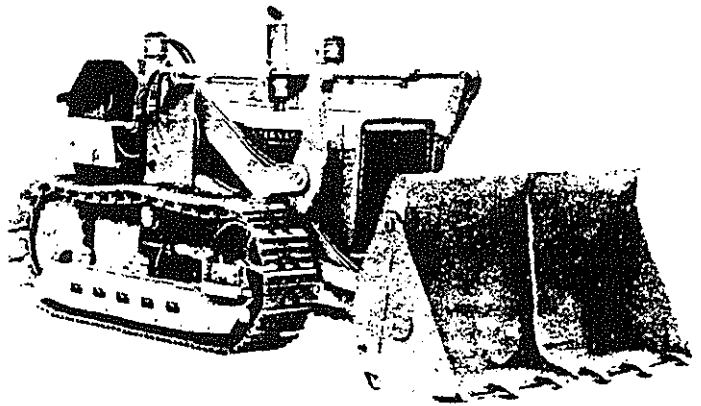
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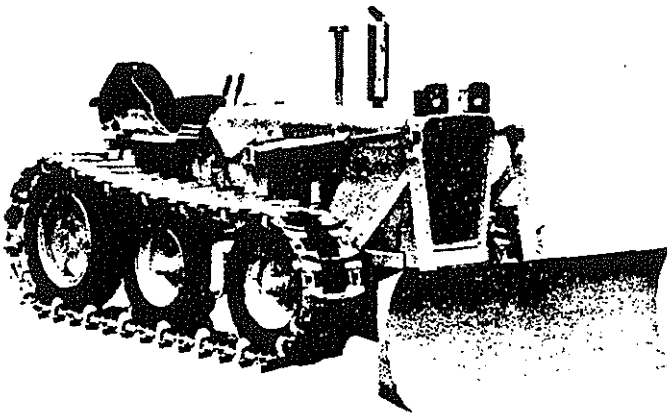
INTERNATIONAL 500  
Crawler Tractor  
w/I. H. Loader &  
Material Bucket

H 1511



INTERNATIONAL 500  
Crawler Tractor  
w/I. H. Loader &  
Drott 4-in-1 Bucket

H 1515



INTERNATIONAL  
Skidder Tractor  
w/5D2 Bulldozer

H 2837





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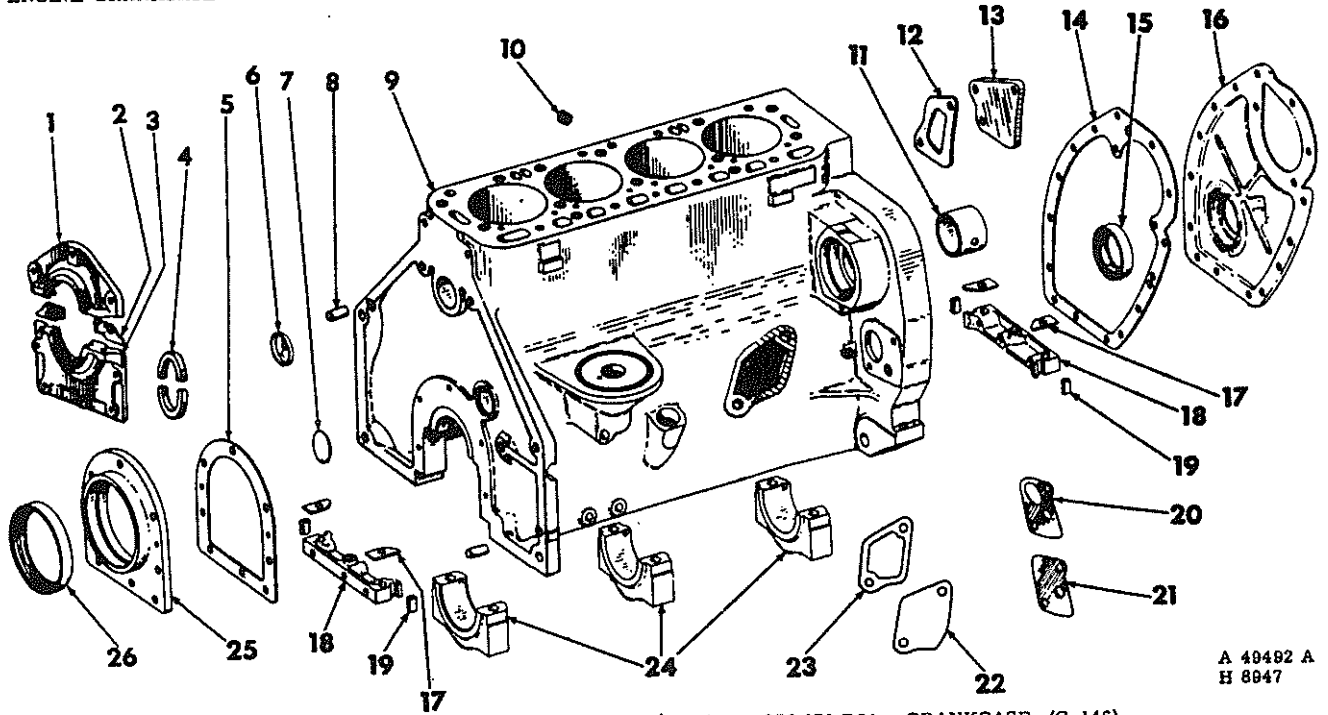


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REF. NO.	PART NUMBER	DESCRIPTION
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ENGINE CRANKCASE

ENGINE CRANKCASE - Continued



A 40492 A  
H 8947

1	6 101 D	RETAINER, crankshaft upr rear seal (C-135)
	179 817	5/16 x 7/8" Type 2 BOLT (3)
	103 320	5/16" lk-WASH. (3)
2	43 447 D	GASKET, seal retainer center (2) (C-135)
3	6 102 D	RETAINER, crankshaft lower rear seal (C-135)
	179 796	1/4 x 7/8" Type 2 BOLT (2)
	179 817	5/16 x 7/8" Type 2 BOLT (5)
	103 319	1/4" lk-WASH. (2)
	103 320	5/16" lk-WASH. (5)
4	24 425 D	SEAL, crankshaft rear felt oil (2) (C-135)
5	43 448 D	GASKET, crankshaft rear seal (C-135)
5	377 997 R1	GASKET, crankshaft rear seal (C-146)
6	172 592	PLUG, 2" dia crankcase core expansion
7	172 576	PLUG, 1-5/8" dia camshaft rear expansion
8	46 923 D	DOWEL, clutch housing (2)
9	373 125 R11	CRANKCASE, (C-135)
		composed of:
	6 Bolt	17 091 R1
	1 Bushing	43 439 DBR
	1 Bushing	375 747 R1
	* 3 Cap	
	* 1 Crankcase	
	2 Dowel	46 923 D
	2 Plug	143 997
	1 Plug	172 576
	1 Plug	172 592
	2 Plug	50 410 DA
	1 Sleeve	365 937 R1
	6 Washer	58 516 H
	50 410 DA	1/8" sq-hd soc-pipe PLUG (2)
	143 997	1/4" sq-hd soc-pipe PLUG (2)

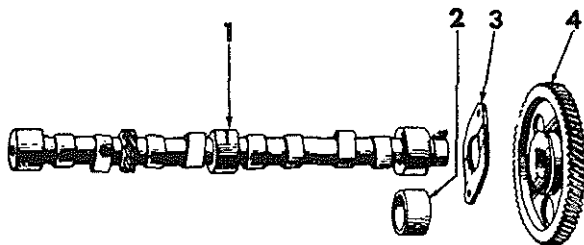
9	379 171 R21	CRANKCASE, (C-146)
		composed of:
	6 Bolt	70 133 R1
	1 Bushing	43 439 DBR
	1 Bushing	375 747 R1
	* 3 Cap	
	* 1 Crankcase	
	2 Dowel	46 923 D
	5 Plug	70 128 R1
	2 Plug	143 997
	1 Plug	172 576
	1 Plug	172 592
	2 Plug	50 410 DA
	1 Sleeve	368 985 R2
	6 Washer	58 516 H
	143 997	1/4" sq-soc-hd pipe PLUG (2)
	103 866	1/4" sq-hd pipe PLUG
	50 410 DA	1/8" sq-hd soc-pipe PLUG (2)
10	103 867	PLUG, water drain (C-135)
11	43 439 DBR	BUSHING, distributor gear
12	46 871 D	GASKET, water passage cover (C-135)
13	367 733 R1	COVER, water passage (opt w/367 735 R11) (C-135)
13	367 735 R11	COVER, water passage (opt w/367 733 R1) (C-135)
	179 839	3/8 x 1" Type 2 BOLT (2)
	103 321	3/8" lk-WASH. (2)
14	46 179 DC	GASKET, crankcase front cover
15	378 193 R91	OIL SEAL, front cover w/RING
16	46 122 DDX	COVER, crankcase front
	179 814	5/16 x 5/8" Type 2 BOLT (11)
	179 837	3/8 x 3/4" Type 2 BOLT
	103 340	11/32 x 11/16 x 16 ga WASH. (11)
	103 341	13/32 x 13/16 x 16 ga WASH.
	103 320	5/16" lk-WASH. (11)
	103 321	3/8" lk-WASH.

\* Not Serviced Separately



REF. NO.	PART NUMBER	DESCRIPTION
<b>ENGINE CRANKCASE</b>		
17	43 446 DA	GASKET, retainer plate (4)
18	6 100 DA	PLATE, front & rear retainer (2)
19	43 445 DA	PLUG, retainer plate felt (4)
20	350 708 R1	GASKET, hyd pump pad cover
21	251 067 R1 179 837 103 321	COVER, hyd pump pad cover 3/8 x 3/4" Type 2 BOLT (2) 3/8" lk-WASH. (2)
22	29 710 D 179 814 103 320	COVER, fuel pump opening 5/16 x 5/8" Type 2 BOLT (2) 5/16" lk-WASH. (2)
23	49 124 D	GASKET, fuel pump opening
24		CAP, crankshaft brg (3)(*) (for C-135 engine order 1 - 373 125 R1, CRANKCASE or for C-146 engine order 1 - 379 171 R1, CRANKCASE)
	17 091 R1 70 133 R1 58 516 H	Brg cap BOLT (6) (C-135) Brg cap BOLT (6) (C-146) Special cap bolt WASH. (6)
25	377 996 R2 179 818 103 320	RETAINER, crankshaft rear seal (C-146) 5/16 x 1" Type 2 BOLT (8) 5/16" lk-WASH. (8)
26	378 040 R91	SEAL, crankshaft rear oil (C-146)

**ENGINE CAMSHAFT**

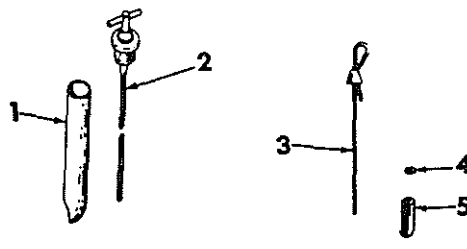


**A 49492 A**

1	353 609 R31	CAMSHAFT ASSEMBLY
2	375 747 R1	BUSHING, camshaft front
3	43 249 D	PLATE, thrust (opt w/374 704 R1)
3	374 704 R1 179 837 103 321	PLATE, thrust (opt w/43 249 D) 3/8 x 3/4" Type 2 BOLT (2) 3/8" lk-WASH. (2)
4	375 712 R1 127 559	GEAR, camshaft (66T) 1/4 x 3/4" Woodruff KEY

REF. NO.	PART NUMBER	DESCRIPTION
<b>VALVE, PUSH ROD AND TAPPET</b>		
<b>H 1490</b>		
1	42 026 D	KEY, valve spg collar (16)
2	42 040 D	SEAT, upr intake spg (4) (opt w/47 278 D)
2	47 278 D	SEAT, upr intake spg (4) (opt w/42 040 D)
3	356 841 R91	ROTATOR, exhaust (4)
4	366 304 R1	SPRING, intake valve (4)
4	368 450 R1	SPRING, exhaust valve (4)
5	356 588 R1	SEAT, valve spg lower (8)
6	356 583 R2	GUIDE, valve (8)
7	386 192 R1	SEAL, valve stem (8)
8	366 302 R2	VALVE, intake (4)
8	366 303 R4	VALVE, exhaust (4)
9	357 548 R1	ROD, valve push (opt w/360 213 R91, ROD)
9	360 213 R91	ROD, valve push (opt w/357 548 R1, ROD)
10	47 384 D	TAPPET, valve (8) (opt w/356 979 R1)
10	356 979 R1	TAPPET, valve (8) (opt w/47 384 D)

**OIL LEVEL DIPSTICK**



**A 49492A  
B 15277**

1	368 985 R2	SLEEVE, dipstick (C-146)
2	375 792 R91	DIPSTICK, oil level (C-146)
3	362 611 R31	DIPSTICK, oil level (Includes 34 259 H, WASH.) (C-135)
4	34 259 H	WASHER, oil level gauge felt (C-135)
5	365 937 R1	SLEEVE, dip stick (C-135)

\* Not Serviced Separately

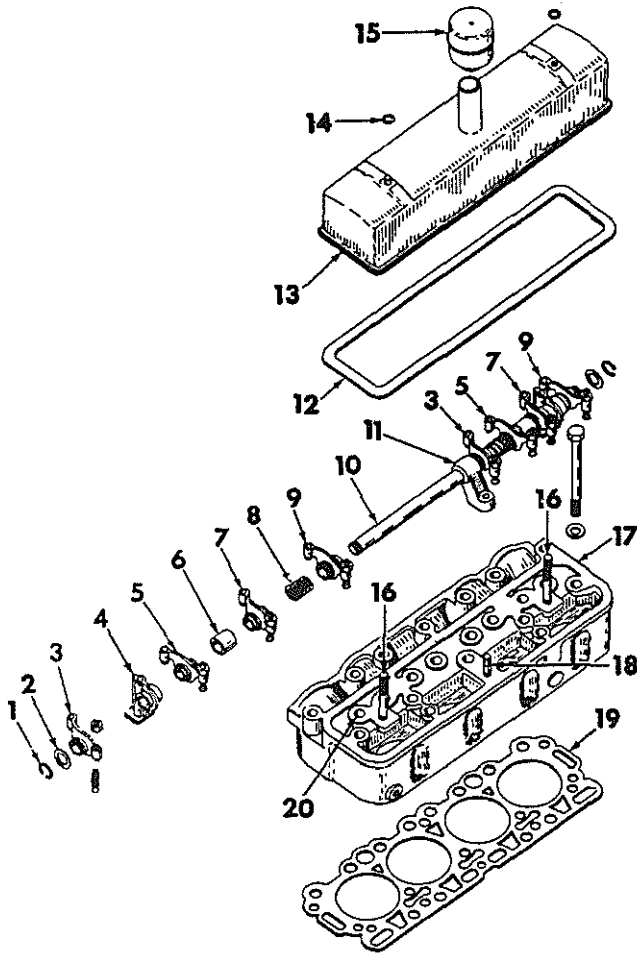


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REF. NO.	PART NUMBER	DESCRIPTION
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CYLINDER HEAD & VALVE LEVERS

CYLINDER HEAD & VALVE LEVERS - Continued



B 15261

1	43 375 D	RING, valve lever shaft snap (2)
2	43 374 D	WASHER, valve lever shaft spg (2)
3	357 291 R92	LEVER, exhaust valve LH (2) (Includes 133 093 R1, NUT & 16 067 DA, SCREW)
4	42 099 DA 103 026 103 321	BRACKET, valve lever shaft end (2) 3/8" -NF NUT (2) 3/8" 1k-WASH. (2)
5	357 292 R92	LEVER, intake valve RH (2) (Includes 133 093 R1, NUT & 16 067 DA, SCREW)
6	43 373 D 365 776 R1	SPACER, valve shaft (2)(opt w/365 776 R1) SPACER, valve shaft (2)(opt w/43 373 D)
7	357 291 R92	LEVER, intake valve LH (2) (Includes 133 093 R1, NUT & 16 067 DA, SCREW)
8	24 541 D	SPRING, valve lever (2)
9	357 292 R92	LEVER, exhaust valve RH (2) (Includes 133 093 R1, NUT & 16 067 DA, SCREW)

10	352 521 R11 172 558	SHAFT w/2 PLUGS, valve lever 9/16" expansion PLUG (2)
11	6 089 DA	BRACKET, center valve lever shaft
12	43 378 DD	GASKET, valve housing
13	367 673 R91 373 899 R1 103 026 103 321	COVER, valve lever Valve housing STUD (2) 3/8" - NF NUT (4) 3/8" 1k-WASHER (2)
14	62 866 D	WASHER, hsg stud nut (2) (opt w/ 357 374 R1)
14	357 374 R1	WASHER, hsg stud nut (2) (opt w/ 62 866 D)
15	367 677 R91	BREATHER, cylinder head
16	373 899 R1	STUD, valve housing (2)
17	366 299 R13	HEAD, cylinder (less valves) (C-135) composed of: 8 Guide 356 583 R2 *1 Head 1 Plug 103 868 2 Stud 373 899 R1 1 Stud 355 373 R1
	364 789 R1 58 516 H	Cylinder head BOLT (9) Cylinder head WASHER (9)
17	379 240 R92	HEAD, cylinder (less valves) (Includes 2 - 373 899 R1, 355 373 R1, STUDS; & 8 - 356 583 R2, GUIDES) (C-146)
	364 789 R1 58 516 H	Head BOLT (14) Head WASHER (14)
17	393 508 R91	HEAD, cylinder (w/valves) (C-135) composed of: 1 Head 366 299 R13 16 Key 42 026 D 8 Seal 386 192 R1 8 Seat 42 040 D 8 Seat 356 588 R1 4 Spring 368 450 R1 4 Spring 366 304 R1 4 Rotor 356 841 R91 4 Valve 366 302 R2 4 Valve 366 303 R4
	364 789 R1 58 516 H	Cylinder head BOLTS (9) Cylinder head WASHER (9)
17	379 038 R95	HEAD w/VALVES, cylinder (C-146) composed of: 1 Head 370 240 R92 16 Key 42 026 D 4 Rotator 356 841 R91 8 Seal 386 192 R1 4 Seat 42 040 D 8 Seat 356 588 R1 4 Spring 366 304 R1 4 Spring 368 450 R1 4 Valve 366 302 R2 4 Valve 366 303 R4
	364 789 R1 58 516 H	Cylinder head BOLT (14) Cylinder head WASHER (14)
18	355 373 R1 103 026	STUD, valve lever shaft oiler 3/8" - NF NUT
19	366 300 R2	GASKET, cylinder head (C-135)
19	383 525 R1	GASKET, cylinder head (C-146)

\* Not Serviced Separately



REF. NO.	PART NUMBER	DESCRIPTION
<b>CYLINDER HEAD &amp; VALVE LEVERS - Continued</b>		
20	378 105 R1	INSERT, exhaust valve seat (std) (4) (C-146 only)
20	378 106 R1	INSERT, exhaust valve seat (.015" over-size) (4) (C-146)
20	378 107 R1	INSERT, exhaust valve seat (.030" over-size) (4) (C-146)

<b>OIL FILTER</b>		
1	13 727 D	GASKET, oil filter retaining bolt
2	63 857 DA	BOLT, oil filter retaining
3	63 856 D	CASE, oil filter
4	376 374 R91	ELEMENT, oil filter
5	13 728 D	GASKET, oil filter case

A 5108 A

REF. NO.	PART NUMBER	DESCRIPTION
<b>ENGINE OIL PUMP</b>		
<b>H 8999</b>		
1	352 057 R1 103 905 112 011	GEAR, oil pump shaft spiral 1/8 x 5/8" Woodruff KEY 1/8 x 7/8" sq-end straight PIN
2	375 789 R91	SHAFT w/GEAR, oil pump
3	46 629 D	LOCK, oil pump screw (+)
4	6 098 DA 179 816 103 320	COVER, oil pump 5/16 x 3/4" Type 2 BOLT (4) 5/16" lk-WASH. (4)
5	368 979 R91 103 386	SCREEN, oil pump (+) 1/8 x 1-1/4" cotter PIN (+)
6	375 786 R1	GASKET, oil pump body cover
7	43 414 DA	SPRING, oil pump pressure
8	357 648 R1	VALVE, oil pressure
9	227 713 R1	GEAR, oil pump idler
10	35 647 H	SHAFT, oil pump idler
	375 785 R91 103 877 179 845	PUMP, lubricating oil (composed of all parts listed unless otherwise noted) 1/8" sq-hd steel pipe PLUG 3/8 x 1-3/4" Type 2 BOLT (2)

\* Not Serviced Separately  
+ Not Part of Oil Pump



# CRAWLER TRACTORS

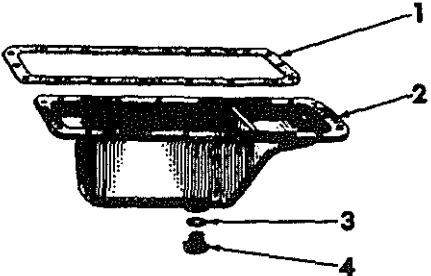


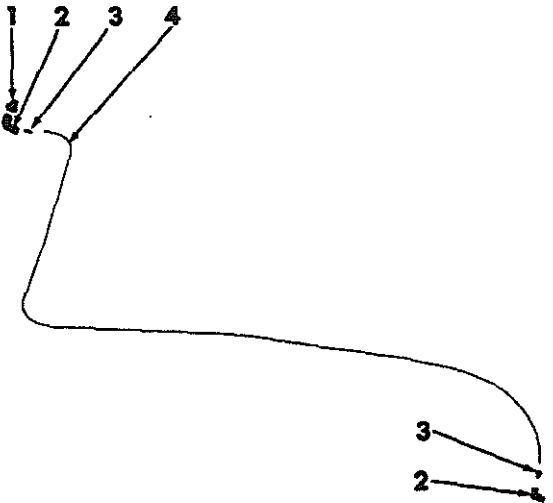
REF. NO.	PART NUMBER	DESCRIPTION
<b>CRANKSHAFT AND CRANKSHAFT BEARINGS</b>		
		A 49494
1	13 456 VA	GEAR, 112T flywheel ring
2	635 093 R11	FLYWHEEL, single stage clutch (Includes GEAR, 13 456 VA) (w/std or torque amplifier transmission)
2	635 094 R11	FLYWHEEL, dual stage clutch (Includes GEAR, 13 456 VA) (w/constant running P.T.O.)
2	675 557 R11	FLYWHEEL, (Includes GEAR, 13 456 VA) (w/Power Shift Reverser)
	635 004 R1	Flywheel BOLT (4)
	20 692 R1	3/8-NF x 2" Type 4 BOLT (4) (Power Shift Reverser)
	614 723 R1	Flywheel bolt LOCK (2)
3	24 550 D	PIN, flywheel dowel
4	367 745 R91	CRANKSHAFT w/BEARINGS (C-135) (std) (consists of 4 connecting rod bearings, 3 crankshaft bearings & pin)
4	367 746 R92	CRANKSHAFT w/BEARINGS (C-135) u/s (consists of 4 connecting rod bearings, 3 crankshaft bearings & pin)
4	375 795 R91	CRANKSHAFT w/BEARINGS (C-146) (std) (consists of 4 connecting rod bearings, 3 crankshaft bearings & crankshaft bushing & pin)
4	375 796 R92	CRANKSHAFT w/BEARING (C-146) u/s (consists of 4 connecting rod bearings, 3 crankshaft bearings & crankshaft bushing & pin)
5	367 777 R11	BEARING, std connecting rod (4) (C-135)
5	368 778 R91	SET, std connecting rod brg (Includes BEARINGS, 367 777 R11) (C-135)
5	375 723 R11	BEARING, std connecting rod (4) (C-146)
5	375 730 R91	SET, std connecting rod brg (Includes BEARINGS, 375 723 R11) (C-146)
5	367 786 R11	BEARING, .002" undersize connecting rod (4) (C-135)
5	377 271 R91	SET, .002" undersize connecting rod brg (Includes BRGS, 367 786 R11) (C-135)
5	375 725 R11	BEARING, .002" undersize connecting rod (4) (C-146)
5	377 273 R91	SET, .002" undersize connecting rod brg (Includes BRGS, 375 725 R11) (C-146)
5	376 646 R11	BEARING, .010" undersize connecting rod (4) (C-135)
5	376 645 R91	SET, .010" undersize connecting rod brg (Includes BRGS, 376 646 R11) (C-135)
5	376 656 R11	BEARING, .010" undersize connecting rod (4) (C-146)

REF. NO.	PART NUMBER	DESCRIPTION
<b>CRANKSHAFT AND CRANKSHAFT BEARINGS - Continued</b>		
5	376 655 R91	SET, .010" undersize connecting rod brg (Includes BRGS, 376 656 R11) (C-146)
5	376 648 R11	BEARING, .020" undersize connecting rod (4) (C-135)
5	376 647 R91	SET, .020" undersize connecting rod brg (Includes BRGS, 376 648 R11) (C-135)
5	376 658 R11	BEARING, .020" undersize connecting rod (4) (C-146)
5	376 657 R91	SET, .020" undersize connecting rod brg (Includes BRGS, 376 658 R11) (C-146)
5	367 785 R11	BEARING, .030" undersize connecting rod (4) (C-135)
5	372 117 R91	SET, .030" undersize connecting rod brg (Includes BRGS, 367 785 R11) (C-135)
5	375 724 R11	BEARING, .030" undersize connecting rod (4) (C-146)
5	375 731 R91	SET, .030" undersize connecting rod brg (Includes BRGS, 375 724 R11) (C-146)
6	46 870 DA 218 211	PINION, 33T crankshaft 1/4 x 3/4" Woodruff KEY
7	368 665 R3 218 211	PULLEY, fan drive 1/4 x 3/4" Woodruff KEY
8	23 174 V	NUT, crankshaft
9	367 749 R11	BEARING, crankshaft front & center std (2) (C-135)
9	375 755 R11	BEARING, crankshaft front & center std (2) (C-146)
9	367 755 R11	BEARING, crankshaft front & center .002" undersize (2) (C-135)
9	375 757 R11	BEARING, crankshaft front & center .002" undersize (2) (C-146)
9	376 650 R11	BEARING, crankshaft front & center .010" undersize (2) (C-135)
9	376 660 R11	BEARING, crankshaft front & center .010" undersize (2) (C-146)
9	376 653 R11	BEARING, crankshaft front & center .020" undersize (2) (C-135)
9	376 663 R11	BEARING, crankshaft front & center .020" undersize (2) (C-146)
9	367 753 R11	BEARING, crankshaft front & center .030" undersize (2) (C-135)
9	375 756 R11	BEARING, crankshaft front & center .030" undersize (2) (C-146)
10	367 750 R11	BEARING, crankshaft rear std (C-135)
10	375 762 R11	BEARING, crankshaft rear std (C-146)
10	367 756 R11	BEARING, crankshaft rear .002" undersize (C-135)
10	375 764 R11	BEARING, crankshaft rear .002" undersize (C-146)
10	376 651 R11	BEARING, crankshaft rear .010" undersize (C-135)
10	376 661 R11	BEARING, crankshaft rear .010" undersize (C-146)
10	376 654 R11	BEARING, crankshaft rear .020" undersize (C-135)
10	376 664 R11	BEARING, crankshaft rear .020" undersize (C-146)



REF. NO.	PART NUMBER	DESCRIPTION
<b>CRANKSHAFT AND CRANKSHAFT BEARINGS - Continued</b>		
10	367 754 R11	BEARING, crankshaft rear .030" undersize (C-135)
10	375 763 R11	BEARING, crankshaft rear .030" undersize (C-146)
11	368 779 R91	SET, std crankshaft brg (Includes BRGS, 367 749 R11 & 367 750 R11) (C-135)
11	375 769 R91	SET, std crankshaft brg (Includes BRGS, 375 755 R11 & 375 762 R11) (C-146)
11	377 272 R91	SET, .002" undersize crankshaft brg (Includes BRGS, 367 755 R11 & 367 756 R11) (C-135)
11	377 274 R91	SET, .002" undersize crankshaft brg (Includes BRGS, 375 757 R11 & 375 764 R11) (C-146)
11	376 649 R91	SET, .010" undersize crankshaft brg (Includes BRGS, 376 650 R11 & 376 651 R11) (C-135)
11	376 659 R91	SET, .010" undersize crankshaft brg (Includes BRGS, 376 660 R11 & 376 661 R11) (C-146)
11	376 652 R91	SET, .020" undersize crankshaft brg (Includes BRGS, 376 653 R11 & 376 654 R11) (C-135)
11	376 662 R91	SET, .020" undersize crankshaft brg (Includes BRGS, 376 663 R11 & 376 664 R11) (C-146)
11	372 118 R91	SET, .030" undersize crankshaft brg (Includes BRGS, 367 753 R11 & 367 754 R11) (C-135)
11	375 770 R91	SET, .030" undersize crankshaft brg (Includes BRGS, 375 756 R11 & 375 763 R11) (C-146)

REF. NO.	PART NUMBER	DESCRIPTION
<b>CRANKCASE OIL PAN</b>		
		
A 49504 D		
1	43 458 DB	GASKET, crankcase pan
2	372 145 R91	PAN, crankcase oil (Includes GASKET, 3 405 H and PLUG, 455 096)
	179 816	5/16 x 3/4" Type 2 BOLT (14)
	179 822	5/16 x 1-1/2" Type 2 BOLT (4)
	103 320	5/16" 1k-WASHER (18)
3	3 405 H	GASKET, drain plug
4	445 096	PLUG, crankcase oil pan drain

<b>OIL PRESSURE GAUGE LINE</b>		
		
H 6819		
1	105 408	COUPLING, 1/8" at gauge
2	36 637 D	ELBOW, 1/8" HI-Duty male pipe (2)
3	36 092 D	NUT, 1/8" HI-Duty tube (2)
4	635 338 R1 636 631 R1	PIPE, oil pressure gauge Oil pressure line LOOM



REF. NO.	PART NUMBER	DESCRIPTION
<b>CONNECTING ROD &amp; CYLINDER SLEEVES (C-135)</b>		
H 8901		
1	367 797 R1	PIN, cylinder piston std (4)
1	367 862 R1	PIN, cylinder piston (.005" oversize) (4)
2	367 798 R1	RING, piston pin retaining (8)
3	388 350 R91	RING, third or bottom groove piston (4)
4	367 801 R1	RING, second groove compression (4)
5	367 860 R1	RING, first or top compression (4)
6		SLEEVE, cylinder (*) (order 1 - 374 477 R94, SLEEVE w/PISTON)
7	367 799 R1	RING, cylinder sleeve packing (4)
8		PISTON, cylinder (*) (order 1 - 374 477 R94, SLEEVE w/PISTON)
9	374,477 R94	SLEEVE ASSEMBLY, cylinder (4) composed of: 1 Pin 367 797 R1 *1 Piston 1 Ring 367 799 R1 1 Ring 367 860 R1 1 Ring 367 801 R1 1 Ring 388 350 R91 *1 Sleeve 2 Ring 367 798 R1
10	367 775 R1	BUSHING, connecting rod (4)
11	367 774 R11	ROD ASSEMBLY, connecting (4) (Includes 363 465 R11, BOLTS & 367 775 R1, BUSHING) (Prior to Engine Serial No. H )
11	396 977 R11	ROD ASSEMBLY, connecting (4) (Includes 363 465 R11 BOLTS & 367 775 R1, BUSHING) (Engine Serial No. H & up)
	363 465 R31	Connecting rod BOLT & NUT (8)
	363 466 R1	Connecting rod bolt NUT (8)
12	367 859 R92	KIT, piston ring replacement (Includes 388 350 R91, 367 801 R1, 367 860 R1, RINGS)
	374 476 R94	SET, piston & sleeve. (Includes 374 477 R93, SLEEVES)

REF. NO.	PART NUMBER	DESCRIPTION
<b>CONNECTING RODS &amp; PISTONS (C-146)</b>		
1	388 446 R2	PISTON, cyl std (NOT high altitude) (4)
1	388 563 R2 <sup>b</sup>	PISTON, cyl std (high altitude) (4)
1	388 554 R2	PISTON, cyl .010" oversize (NOT high altitude) (4)
1	388 564 R2	PISTON, cyl .010" oversize (high altitude) (4)
1	388 555 R2	PISTON, cyl .020" oversize (NOT high altitude) (4)
1	388 565 R2	PISTON, cyl .020" oversize (high altitude) (4)
1	388 556 R2	PISTON, cyl .030" oversize (NOT high altitude) (4)
1	388 566 R2	PISTON, cyl .030" oversize (high altitude) (4)
1	388 557 R2	PISTON, cyl .040" oversize (NOT high altitude) (4)
1	388 567 R2	PISTON, cyl .040" oversize (high altitude) (4)
2	367 797 R1	PIN, piston (4)
2	367 862 R1	PIN, piston (.005" oversize) (4)
3	367 798 R1	RING, piston pin retaining (8)
4	388 558 R92	PACKAGE, std piston (not high altitude) (4) (Includes 388 446 R2, PISTON; 367 797 R1, PIN & 367 798 R1, RINGS)
4	388 568 R92	PACKAGE, std piston (high altitude) (4) (Includes 388 563 R2, PISTON; 367 797 R1, PIN & 367 798 R1, RINGS)
4	388 559 R92	PACKAGE, .010" oversize piston (not high altitude) (4) (Includes 388 554 R2, PISTON; 367 797 R1, PIN & 367 798 R1, RINGS)
4	388 569 R92	PACKAGE, .010" oversize piston (high altitude) (4) (Includes 388 564 R2, PISTON; 367 797 R1, PIN & 367 798 R1, RINGS)

\* Not Serviced Separately



C-135 & C-146  
Gas Engines

# CRAWLER TRACTORS

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION
CONNECTING RODS & PISTONS (C-146) - Continued		
4	388 560 R92	PACKAGE, .020" oversize piston (not high altitude) (4) (Includes 388 555 R2, PISTON; 367 797 R1, PIN & 367 798 R1, RINGS)
4	388 570 R92	PACKAGE, .020" oversize piston (high altitude) (4) (Includes 388 565 R2, PISTON; 367 797 R1, PIN & 367 798 R1, RINGS)
4	388 561 R92	PACKAGE, .030" oversize piston (not high altitude) (4) (Includes 388 556 R2, PISTON; 367 797 R1, PIN & 367 798 R1, RINGS)
4	388 571 R92	PACKAGE, .030" oversize piston (high altitude) (4) (Includes 388 566 R2, PISTON; 367 797 R1, PIN & 367 798 R1, RINGS)
4	388 562 R92	PACKAGE, .040" oversize piston (not high altitude) (4) (Includes 388 557 R2, PISTON; 367 797 R1, PIN & 367 798 R1, RINGS)
4	388 572 R92	PACKAGE, .040" oversize piston (high altitude) (4) (Includes 388 567 R2, PISTON; 367 797 R1, PIN & 367 798 R1, RINGS)
5	388 351 R91	RING, std third groove piston (4)
5	388 352 R91	RING, .020" & .030" oversize third groove piston (4)
5	388 353 R91	RING, .040" overize third groove piston (4)
6	375 810 R1	RING, std second groove (4)
6	375 815 R1	RING, .020" oversize second groove (4)
6	378 263 R1	RING, .030" oversize second groove (4)
6	375 843 R1	RING, .040" oversize second groove (4)
7	359 657 R1	RING, std piston first groove (4)
7	375 814 R1	RING, .020" oversize first groove (4)
7	378 262 R1	RING, .030" oversize first groove (4)
7	375 842 R1	RING, .040" oversize first groove (4)
8	375 845 R92	PACKAGE, std piston ring (Includes 359 657 R1, 375 810 R1 & 388 351 R91, RINGS)
8	375 846 R92	PACKAGE, .020" oversize piston ring (Includes 375 814 R1, 375 815 R1 & 388 352 R91, RINGS)
8	378 267 R92	PACKAGE, .030" oversize piston ring (Includes 378 262 R1, 378 263 R1 & 388 352 R91, RINGS)
8	375 847 R92	PACKAGE, .040" oversize piston ring (Includes 375 842 R1, 375 843 R1 & 388 353 R91, RINGS)
9	367 775 R1	BUSHING, connecting rod (4)
10	375 595 R11	ROD, connecting (4) (Includes 375 732 R1, BOLTS & 367 775 R1, BUSHING) (Prior engine Serial No. H )
10	386 976 R11	ROD, connecting (4) (Includes 375 732 R1, BOLTS & 367 775 R1, BUSHING) (Engine Serial No. H & up)
	375 732 R1	Connecting rod BOLT (8)

REF. NO.	PART NUMBER	DESCRIPTION
ENGINE MANIFOLD		
	H 4254	
1	352 014 R3	GASKET, manifold (2)
2	369 645 R12	MANIFOLD, intake & exhaust (C-135) (Includes 107 317, PINS & 445 684 or 445 671, PLUG)
2	388 584 R11	MANIFOLD, intake & exhaust (C-146) (Includes 445 684 or 455 671, PLUG)
	179 841	3/8 x 1-1/4" Type 2 BOLT (6)
	107 317	3/16 x 1/2" groove PIN (2) (C-135 only)
	455 671	1/8" hdls sq-soc pipe PLUG

\* Not Serviced Separately





**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
<b>GOVERNOR</b>		
1	315 716 R1	ROD, governor connecting (C-135) (+)
1	375 780 R1	ROD, governor connecting (C-146) (+)
	103 024	1/4" - NF NUT (+)
	108 628	1/16 x 7/8" c-PIN (+)
2	104 036	CLEVIS, rod end adjustable (+)
	103 494	1/4" rod end PIN (+)
	137 130	1/16 x 7/16" c-PIN (+)
3	367 709 R11	ROCKSHAFT, governor
4	367 711 R1	FORK, governor rockshaft
	131 970	No. 8 x 1/2" slit-rd-hd SCREW (2)
	106 496	No. 8 lk-WASHER (2)
5	369 686 R2	SPRING, governor (C-135)
5	389 452 R1	SPRING, governor high speed (C-146)
6	46 947 DAXB	LEVER, speed (Includes SHAFT, 46 948 DB)
	114 494	3/8" - NF jam NUT
	114 606	3/8" ext-t lk-WASHER
7	148 345 R91	OIL SEAL, speed change shaft
8	151 341	WASHER, spg lever (2) (opt w/17 081 H)
	17 081 H	WASHER, spg lever (2) (opt w/151 341)
9	51 491 DA	LEVER, spg
10	389 451 R1	SPRING, governor low speed (C-146)
11	357 432 R3	STOP, speed change lever
	12 736 D	Governor SEAL
	114 503	3/8" jam NUT
12	368 564 R1	NECK, oil filler (C-135)

H 1487  
A 49502

REF. NO.	PART NUMBER	DESCRIPTION
<b>GOVERNOR - Continued</b>		
13	368 153 R1	GASKET, oil filler cap (C-135)
14	367 857 R91	CAP, filler (Includes GASKET, 368 153 R1)
15	367 706 R11	HOUSING, governor (C-135)
		composed of:
		2 Bearing 45 753 D
		1 Bushing 46 939 D
		*1 Housing
		1 Neck 368 564 R1
		1 Pin 46 942 D
		1 Pin 49 220 D
		1 Plug 172 531
	179 821	5/16 x 1-3/8" Type 2 BOLT
	179 827	5/16 x 2-1/4" Type 2 BOLT
	179 829	5/16 x 2-3/4" Type 2 BOLT (3)
	103 320	5/16" lk-WASHER (5)
16	45 753 D	BEARING, rockshaft (2)
17	172 531	PLUG, 3/4" expansion
18	45 875 D	GASKET, governor hsg
19	6 340 DBX	HOUSING, governor (C-146)
		composed of:
		2 Bearing 45 753 D
		1 Bushing 46 939 D
		*1 Housing
		1 Pin 46 942 D
		1 Pin 49 220 D
		1 Plug 172 531
	179 821	5/16 x 1-3/8" Type 2 BOLT
	179 827	5/16 x 2-1/4" Type 2 BOLT (2)
	179 829	5/16 x 2-3/4" Type 2 BOLT (2)
	103 320	5/16" lk-WASHER (5)
20	45 942 D	PIN, lever retainer
21	131 487	NUT, 7/16" - NF low crown
22	49 220 D	PIN, governor shaft stop
23	49 219 DA	PIN, governor shaft bumper
24	49 218 DA	SPRING, governor shaft bumper
25	351 778 R1	WEIGHT, governor (2) (opt w/374 710 R1) (C-135)
25	374 710 R1	WEIGHT, governor (2) (opt w/351 778 R1) (C-135)
25	393 750 R1	WEIGHT, governor (2) (C-146)
	46 924 D	Governor weight PIN (2)
	108 628	1/16 x 7/8" c-PIN (2)
26	375 778 R11	PINION, 33T governor
27	49 325 D	SLEEVE, stl thrust (opt w/363 866 R1)
27	363 866 R1	SLEEVE, nylon thrust (opt w/49 325 D)
28	43 481 D	BEARING, thrust ball
29	31 804 DA	BODY, bumper spg
	272 121	7/16" - NF jam NUT
30	28 078 D	SPRING, governor bumper
31	46 939 D	BUSHING, rockshaft
32	43 482 D	SEAL, rockshaft
33	43 483 D	RETAINER, rockshaft seal

+ Not Part of Governor

PRINTED IN CANADA

(Revision



C-135 & C-146  
Gas Engines

# CRAWLER TRACTORS

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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\* Not Serviced Separately

PRINTED IN CANADA

REPRODUCED IN UNITED STATES OF AMERICA



# CRAWLER TRACTORS

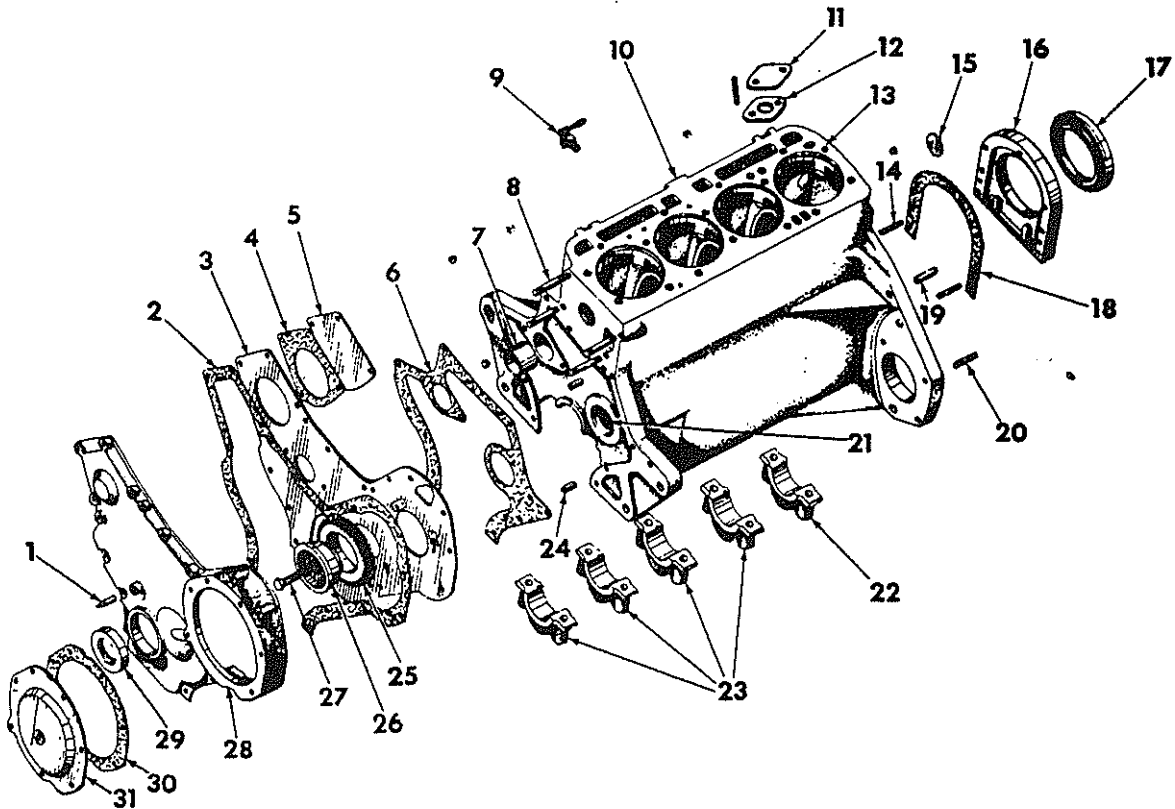


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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CRANKCASE

CRANKCASE - Continued



T 45-1

1	712 064 R1	POINTER, timing
2	708 285 R1	GASKET, front cover
3	709 901 R1	PLATE, front cover
	179 816	5/16 x 3/4" Type 2 BOLT
	703 636 R1	Front plate bolt tab WASH.
	3047 230 R1	Front plate SCREW (2)
4	703 851 R1	GASKET, hyd pump opening
5	703 850 R1	COVER, hyd pump opening
	272 391	5/16 x 2-1/8" Type 2 BOLT
	179 825	5/16 x 1-7/8" Type 2 BOLT (3)
	Q 397	3/4 x 11/32 x 16 ga WASH.
	102 634	5/16" NUT (4)
	103 320	5/16" lk-WASH. (4)
6	709 903 R1	GASKET, front plate
7	703 827 R1	BUSHING, camshaft front
7	703 828 R1	BUSHING, camshaft center
7	703 829 R1	BUSHING, camshaft rear
8	703 832 R1	STUD, water pump (4)
9	106 794	TAP, water drain (opt w/ 707 888 R92)
9	707 888 R92	TAP, water drain (opt w/ 106 794)

10	3040 912 R41	CRANKCASE	
		composed of:	
		1 Bushing	703 827 R1
		1 Bushing	703 828 R1
		1 Bushing	703 829 R1
		1 Plug	172 578
		1 Stud	703 877 R1
		2 Pin	141 287
		4 Cap	706 491 R2
		1 Cap	708 902 R2
		10 Bolt	3061 211 R1
		10 Washer	3061 325 R1
		1 Tube	751 826 R1
		1 Tap	106 794
		or	
		1 Insert	707 888 R92
		16 Insert	751 610 R1
		2 Pin	751 834 R1
		2 Pin	141 244
		3 Plug	141 223
		2 Plug	103 883
		4 Stud	444 691
		1/8" sltd-hdls pipe PLUG (3)	703 832
		Hex soc pipe PLUG (2)	
	103 883		
	444 691		
11	3042 468 R1	COVER, hourmeter drive opening	
	179 791	1/4 x 1/2" Type 2 BOLT (2)	
	103 319	1/4" lk-WASH. (2)	
12	3042 467 R1	GASKET, hourmeter drive opening	
13	751 834 R1	INSERT, 7/16" (16)	
14	141 223	PIN, oil seal retainer dowel (2)	
15	172 578	PLUG, 1-3/4" expansion	

\* NOT SERVICED SEPARATELY.



BD-144C and BD-154T  
Diesel Engine

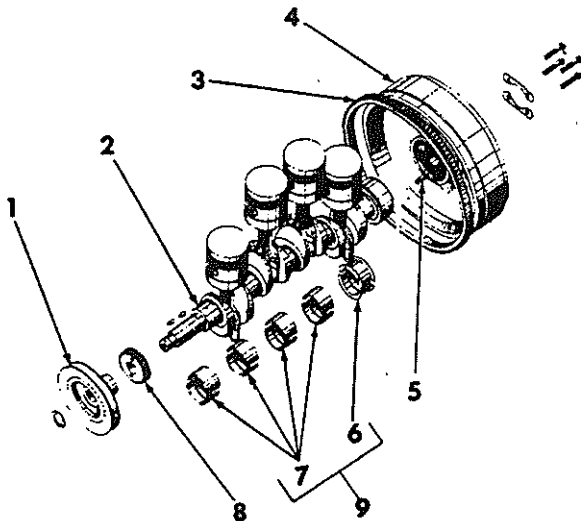
# CRAWLER TRACTORS

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION
CRANKCASE - Continued		
16	708 904 R1 708 732 R1 103 320	RETAINER, crankshaft rear oil seal Oil seal retainer BOLT (7) 5/16" 1k-WASH. (7)
17	3072 092 R91	SEAL, crankshaft rear oil
18	708 907 R1	GASKET, rear oil seal retainer
19	141 287	PIN, dowel (2)
20	703 877 R1	STUD, starter motor
21	751 610 R1	INSERT, 1/2-NF x 1/2" idler gear
22	708 902 R2	CAP, crankshaft rear brg
23	706 491 R2 3061 211 R1 3061 325 R1	CAP, crankshaft brg (4) Brg cap BOLT (10) Brg cap WASH. (10)
24	141 244	PIN, crankcase rear dowel (2)
25	703 852 R1	GEAR, idler
26	703 853 R11	SHAFT, idler gear (Includes 932 039 R1, PIN)
27	181 434	BOLT, 1/2-NF x 1-7/8" Type 2
28	3043 217 R21	COVER, front (opt w/3071 302 R91)
28	3071 302 R91 179 818 179 825 103 320	COVER, front (opt w/3043 217 R21) (Both include 703 844 R91, OIL SEAL, or 709 772 R21 & 712 064 R1, POINTER) 5/16 x 1" Type 2 BOLT (5) 5/16 x 1-7/8" Type 2 BOLT (3) 5/16" 1k-WASH. (8)
29	703 844 R91	SEAL, crankcase front oil (opt w/709 772 R91)
29	709 772 R91	SEAL, crankcase front oil (opt w/703 844 R91)
30	703 849 R1	GASKET, injection pump gear cover
31	3040 312 R1 179 828 179 816 102 634 103 320	COVER, injection pump gear 5/16 x 2-1/2" Type 2 BOLT (6) 5/16 x 3/4" Type 2 BOLT 5/16" NUT (4) 5/16" 1k-WASHER (7)

## FLYWHEEL CRANKSHAFT & BEARINGS



T-45-3A

REF. NO.	PART NUMBER	DESCRIPTION
FLYWHEEL CRANKSHAFT & BEARINGS - Continued		
1	675 532 R1	PULLEY, fan (for 11/16" cog type belt drive only)
1	676 621 R1 218 211 219 755 272 620 138 516	PULLEY, fan (for 3/8" V type belt drive only) 1/4 x 3/4" Woodruff KEY 1" jam NUT (for 11/16" cog type) 1" jam NUT (for 3/8" V type) 1" ext-t 1k-WASHER
2	751 303 R51	CRANKSHAFT, std (Includes 24 550 D, PINS)
2	3067 472 R11	CRANKSHAFT, .015" undersize (Includes 24 550 D, PINS)
2	384 599 R91	PACKAGE, std crankshaft service (Includes connecting rod bearings, front, center & rear bearings with crankshaft & pins)
2	384 600 R91	PACKAGE, undersize crankshaft service (Includes connecting rod bearings, front, center & rear bearings with crankshaft & pins)
3	13 456 VA	GEAR, 112T flywheel ring
4	635 566 R11	FLYWHEEL, power shift reverser (Includes 13 456 VA, GEAR)
4	635 567 R11 20 693 R1 607 183 R1	FLYWHEEL, double stage clutch (Constant Running PTO) (Includes 13 456 VA, GEAR) Flywheel BOLT (4) Flywheel bolt LOCK (2)
4	675 558 R21 362 442 R1 607 183 R1	FLYWHEEL, power shift reverser (Includes 13 456 VA, GEAR) 7/16 - NF x 2" Type 4 BOLT (4) Flywheel bolt LOCK (2)
5	24 550 D	PIN, flywheel dowel (2)
6	708 910 R91	BEARING, std main rear
6	708 915 R91	BEARING, .015" undersize main rear
6	708 911 R91	BEARING, .030" undersize main rear
7	3064 523 R11	BEARING, std front & center (4)
7	3064 525 R11	BEARING, .015" undersize front & center (4)
7	3064 524 R11	BEARING, .030" undersize front & center (4)
8	703 865 218 211	PINION, 33T crankshaft 1/4 x 3/4" Woodruff KEY
9	708 912 R91	SET, crankshaft main brgs (std) (Includes 3064 523 R11 & 708 910 R91, BEARINGS)
9	708 913 R91	SET, crankshaft main brgs (.030" undersize) (Includes 3064 524 R11 & 708 911 R91, BEARINGS)
9	708 914 R91	SET, crankshaft main brgs (.015" undersize) (Includes 3064 525 R11 & 708 915 R91, BEARINGS)

\* Not Serviced Separately

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REPRODUCED IN UNITED STATES OF AMERICA



REF. NO.	PART NUMBER	DESCRIPTION
<b>CYLINDER HEAD</b>		
T-20-135		
1	703 896 R1	GASKET, valve cover
2	364 899 R91	BREATHER, cyl hd
3	3064 720 R11	COVER, valve (opt w/703 894 R21)
3	703 894 R21	COVER, valve (opt w/3064 720 R11)
	179 833	3/8 x 1/2" Type 2 BOLT
	102 635	3/8" NUT (2)
	Q 1 597	13/32 x 3/4 x 16 ga WASH.
	103 321	3/8" lk-WASH. (2)
4		NOZZLE, injection (4) (for components refer to "INJECTION NOZZLE & HOLDER")
	706 077 R1	Nozzle stud WASH. (8)
	103 026	3/8"-NF NUT (8)
5	708 314 R1	HOLDER, pre-combustion chamber (4)
	710 382 R3	Chamber upr GASKET (4)
6	3045 523 R1	CHAMBER, pre-combustion (4)
	710 383 R1	Chamber lower GASKET (4)
7	172 558	PLUG, cyl head expansion
8	3043 824 R12	HEAD ASSEMBLY, cyl (less valves) (BD 144 C)
		composed of:
	4 Guide	704 455 R1
	4 Guide	704 456 R2
	* 1 Head	
	2 Plug	172 558
	4 Stud	703 874 R1
	2 Stud	703 875 R1
	8 Stud	703 876 R2
	103 868	1/2" sq-hd pipe PLUG
	708 331 R1	Cyl hd short BOLT (15)
	708 332 R1	Cyl head long BOLT
	63 116 D	Cyl hd bolt WASH. (16)

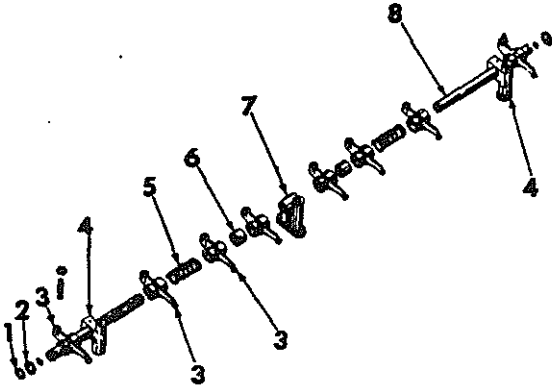
REF. NO.	PART NUMBER	DESCRIPTION
<b>CYLINDER HEAD - Continued</b>		
8	3044 490 R91	HEAD ASSEMBLY, cyl (Less valves) (BD 154 T)
		composed of:
	4 Guide	3044 492 R1
	4 Guide	3044 493 R2
	* 1 Head	
	2 Plug	172 558
	4 Stud	703 874 R1
	2 Stud	703 875 R1
	8 Stud	703 876 R2
	103 868	1/2" sq-hd pipe PLUG
	708 331 R1	Cyl hd short BOLT (15)
	708 332 R1	Cyl hd long BOLT
	63 116 D	Cyl-hd bolt WASH. (16)
8	3040 360 R95	HEAD ASSEMBLY, cyl (w/valves) (BD 144 C)
		composed of:
	8 Cup	704 446 R1
	1 Head	3043 824 R12
	16 Lock	704 443 R1
	8 Spring	710 347 R2
	4 Valve	3040 361 R1
	4 Valve	3043 826 R1
	103 868	1/2" sq-hd pipe PLUG
	708 331 R1	Cyl hd short BOLT (15)
	708 332 R1	Cyl hd long BOLT
	63 116 D	Cyl hd bolt WASH. (16)
6	3044 489 R91	HEAD ASSEMBLY, cyl (w/valves) (BD 154 T)
		composed of:
	8 Cup	3044 176 R1
	8 Cup	3044 491 R1
	1 Head	3044 490 R91
	16 Lock	704 443 R1
	8 Spring	3044 239 R1
	8 Spring	3044 240 R1
	4 Valve	3040 361 R1
	4 Valve	3043 826 R1
	103 868	1/2" sq-hd pipe PLUG
	708 331 R1	Cyl hd short BOLT (15)
	708 332 R1	Cyl hd long BOLT
	63 116 D	Cyl hd bolt WASH. (16)
9	704 162 R1	GASKET, air intake manifold (2)
10	3043 648 R1	MANIFOLD, air intake
	708 297 R1	Banjo WASHER
	181 421	1/2 - NF x 1/2" Type 2 BOLT
	179 841	3/8 x 1-1/4" Type 2 BOLT (L)
	186 279	3/8 x 3-1/8" Type 2 BOLT
	187 491	3/8 x 5-1/2" Type 2 BOLT
	103 321	3/8" lk-WASHER (4)
11	703 883 R6	GASKET, cyl head
	3049 382 R1	Gasket rubber GROMMET (2)
12	703 876 R2	STUD, injection nozzle holder (8)
13	704 455 R1	GUIDE, intake valve stem (4) (BD-144 C)
13	3044 492 R1	GUIDE, intake valve stem (4) (BD-154 T)
14	704 456 R1	GUIDE, exhaust valve stem (4) (BD-144 C)
14	3044 493 R1	GUIDE, exhaust valve stem (4) (BD-154 T)
15	703 875 R1	STUD, valve lever end bracket (2)

\* Not Serviced Separately



REF. NO.	PART NUMBER	DESCRIPTION
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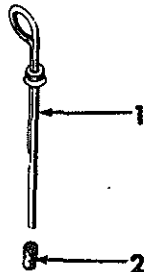
VALVE LEVERS



T-20-135

1	43 375 D	RING, valve lever shaft snap (2)
2	43 374 D	WASHER, valve lever shaft spg (2)
3	706 131 R11 24 564 DA 16 067 DA 133 093 R1	LEVER, valve (8) (includes 24 564 DA, BUSHING) Valve lever BUSHING (8) Lever adj SCREW (8) Adj screw NUT (8)
4	703 886 R2 703 887 R2 442 934 102 635	BRACKET, lever shaft front BRACKET, lever shaft rear 3/16 x 1-1/4" groove PIN (2) 3/8" NUT (2)
5	45 949 D	SPRING, valve lever (2)
6	703 893 R2	SPACER, valve lever (2)
7	703 885 R1	BRACKET, valve lever shaft center
8	703 884 R21 172 528	SHAFT, lever (2) (Includes 172 528, PLUG) 9/16" dia expansion PLUG

OIL LEVEL DIPSTICK

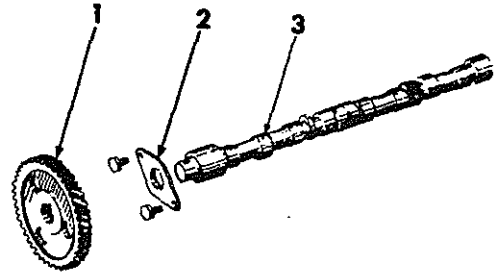


T-20-135

1	706 977 R91	DIPSTICK, oil level
2	751 826 R1	TUBE, oil level dipstick

REF. NO.	PART NUMBER	DESCRIPTION
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CAMSHAFT



T-20-135

3064 086 R91 CAMSHAFT, (composed of all parts listed below unless otherwise noted)

1	3064 085 R1 218 217	GEAR 3/16 x 5/8" Woodruff KEY
2	43 249 D 26 058 D 115 549	PLATE, camshaft thrust Thrust plate SCREW (2) (+) 3/8" int-tooth lk-WASH. (2) (+)
3	3063 934 R1	CAMSHAFT

\* NOT SERVICED SEPARATELY.

+ Not Part of Camshaft Pkg.

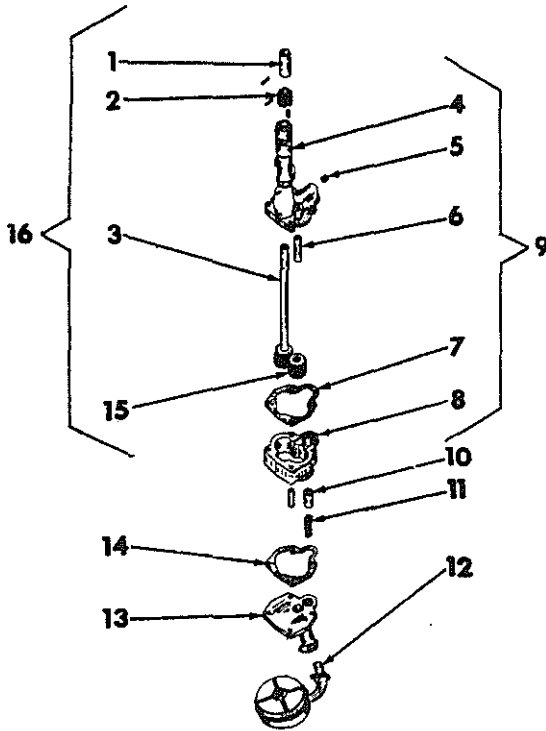


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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CRANKCASE OIL PUMP



H 8708

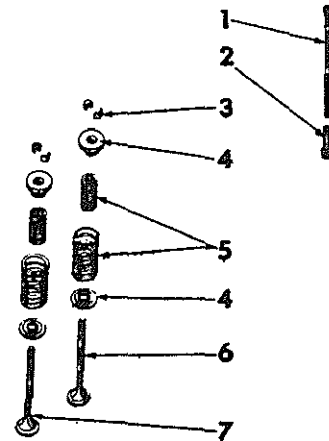
	3043 131 R93	PUMP, oil (composed of all parts listed below, unless otherwise noted)
	179 840	3/8 x 1-1/8" Type 2 BOLT (+)
	115 549	3/8" int-tooth lk-WASH. (+)
1	3042 479 R1 932 204 R1	COUPLING, hourmeter drive Coupling slit-spg PIN (2)
2	704 107 R1 932 204 R1 103 905	PINION, oil pump drive Pinion roll PIN 1/8 x 5/8" Woodruff KEY
3	3042 572 R91	SHAFT, drive
4		BODY, pump (*) (order 1-3042 570 R92, BODY)
5	103 883	PLUG, 1/8" sq-hd pipe
6		SHAFT, gear (*) (order 1-3042 570 R92, BODY)
7	706 628 R1	GASKET, pump body
8		CASE, gear (*) (order 1-3042 570 R92, BODY)
9	3042 570 R92	BODY, oil pump (composed of all parts within the bracket)
10	751 830 R2	BALL, pressure regulating valve
11	751 829 R1	SPRING, regulating valve
12	56 108 D 108 635	SCREEN, oil pump 1/8 x 1-1/8" c-PIN

REF. NO.	PART NUMBER	DESCRIPTION
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CRANKCASE OIL PUMP - Continued

13	751 828 R1	COVER, oil pump
	932 204 R1	Cover slit-spg PIN
	179 826	5/16 x 2" Type 2 BOLT
	179 828	5/16 x 2-1/2" Type 2 BOLT (2)
	179 829	5/16 x 2-3/4" Type 2 BOLT
	102 634	5/16" NUT
	115 548	5/16" int-tooth lk-WASHER (4)
14	711 558 R1	GASKET, pump gear (as req'd)
15	3063 757 R1	GEAR, idler
16	3043 132 R93	BODY ASSEMBLY, oil pump composed of:
	1 Body	3042 570 R92
	1 Gear	3063 757 R1
	1 Key	103 905
	1 Pinion	704 107 R1
	1 Pin	932 204 R1
	1 Shaft	3042 572 R1
	1 Coupling	3042 479 R1

VALVE, PUSH ROD & TAPPET



H 1493  
T-20-135

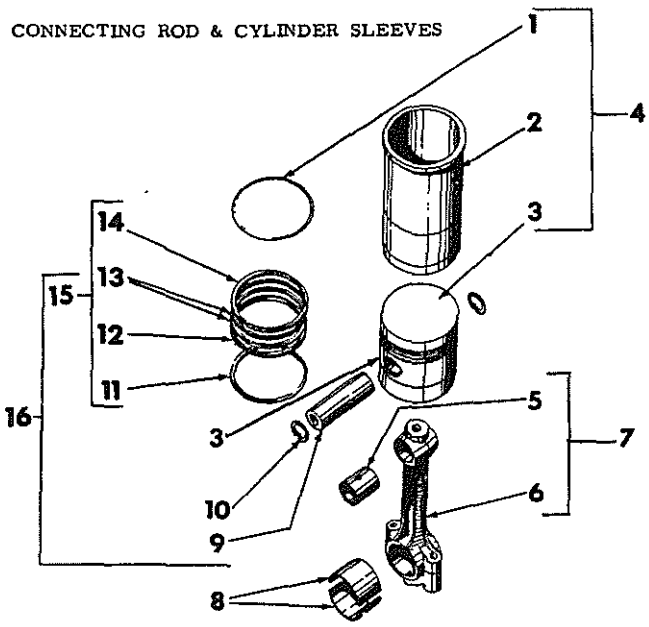
1	704 783 R2	ROD, valve push (8)
2	704 782 R1	TAPPET, valve (8)
3	704 443 R1	LOCK, valve spg (16)
4	704 446 R1	CUP, spg retainer (8) (BD-144C)
4	3044 176 R1	CUP, spg retainer upper (8) (BD-154T)
4	3044 491 R1	CUP, spg retainer lower (8) (BD-154T)
5	710 347 R2	SPRING, valve (8) (BD-144C)
5	3044 239 R1	SPRING, valve, inner (8) (BD-154T)
5	3044 240 R1	SPRING, valve, outer (8) (BD-154T)
6	3043 826 R1	VALVE, exhaust (4)
7	3040 361 R1	VALVE, intake (4)

\* Not Serviced Separately  
+ Not Part of Oil Pump



**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
<b>CONNECTING ROD &amp; CYLINDER SLEEVES</b>		
		
T-45-3A		
1	704 100 R1	RING, cylinder sleeve packing (4)
2	704 092 R1	SLEEVE, cylinder (4) (BD-144 C)
2	3044 481 R3	SLEEVE, cylinder (4) (BD-154 T)
3	704 099 R2	PISTON, cylinder (4) (BD-144 C)
3	3044 486 R2	PISTON, cylinder (4) (BD-154 T)
4	751 603 R92	PACKAGE, piston & sleeve service (4) (Includes 751 605 R92, PISTON ASSEMBLY; 704 100 R1, RING & 704 092 R1, SLEEVE) (BD 144C)
4	3044 878 R92	PACKAGE, piston & sleeve service (4) (Includes 3044 480 R92, PISTON ASSEMBLY; 704 100 R1, RING & 3044 481 R3, SLEEVE) (BD-154T)
5	711 045 R1	BUSHING, piston pin (4) (opt w/3043 611 R1)
5	3043 611 R1	BUSHING, piston pin (4) (opt w/711 045 R1)
6	3061 214 R91	ROD, connecting (4) (Includes 3043 216 R1, BOLTS & 711 045 R1 or 3043 611 R1, BUSHINGS)
	3043 216 R1	Connecting rod BOLT (8)
7	3061 216 R91	SET, connecting rod (Includes 4 - 3061 214 R91, RODS)
8	3070 546 R91	PACKAGE, std connecting rod brg replacement (Includes 4 - 3070 536 R11, BEARINGS)
8	3070 536 R11	BEARING, connecting rod (std) (4)
8	3070 539 R91	PACKAGE, .615" undersize connecting rod brg replacement (Includes 4 - 3070 538 R11, BEARINGS)
8	3070 538 R11	BEARING, .015" undersize rod (4)
8	3070 547 R91	PACKAGE, .030" undersize connecting rod brg replacement (Includes 4 - 3070 537 R11, BEARINGS)
8	3070 537 R11	BEARING, .030" undersize (4)

REF. NO.	PART NUMBER	DESCRIPTION
<b>CONNECTING ROD AND CYLINDER SLEEVES - Continued</b>		
9	704 094 R1	PIN, cylinder piston (std) (4) (BD-144 C)
9	3044 476 R1	PIN, cylinder piston (std) (4) (BD-154 T)
	706 411 R1	PIN, .005" oversize piston (4) (BD-144 C)
9	3044 477 R1	PIN, .005" oversize piston (4) (BD-154 T)
10	704 095R1	RETAINER, piston pin (8)
11	751 606 R91	RING, bottom groove (4) (opt w/3047 733 R91) (BD-144 C)
11	3047 733 R91	RING, bottom groove (4) (opt w/751 606 R91) (BD-144 C)
11		RING, bottom groove (4) (BD-154 T) (for service on Engines prior serial BD-154 T/718 order 1 - 3044 487 R92)
11	3070 103R1	RING, bottom groove (4) (BD-154 T) (for service on Engines with serial BD-154 T/718 & up)
12	704 098 R1	RING, 4th groove (4) (opt w/705 993 R1) (BD-144 C)
12	704 993 R1	RING, 4th groove (4) (opt w/704 098 R1) (BD-144 C)
12		RING, 4th groove (4) (BD-154 T) (for service on Engines prior serial BD-154 T/718 order 1 - 3044 487 R92)
12	3070 103 R1	RING, 4th groove (4) (BD-154 T) (for service on Engines with serial BD-154 T/718 & up)
13	704 097 R1	RING, 2nd & 3rd groove (8) (BD-144 C)
13		RING, 2nd & 3rd groove (8) (BD-154 T) (for service on Engines prior serial BD-154 T/718 order 1 - 3044 487 R92)
13	3070 102 R1	RING, 2nd & 3rd groove (8) (BD-154 T) (for service on Engines with serial BD-154 T/718 & up)
14	704 096 R1	RING, top groove (4) (BD-144 C)
14		RING, top groove (4) (BD-154 T) (for service on Engines prior serial BD-154 T/718 order 1 - 3044 487 R92)
14	3070 101 R1	RING, top groove (4) (BD-154 T) (for service on Engines with serial BD-154 T/718 & up)
15	751 607 R91	PACKAGE, piston ring service (Includes 704 096 R1, 704 097 R1, 704 098 R1, 751 606 R91, RINGS) (BD-144 C)
15	3044 487 R92	PACKAGE, piston ring service (Includes 3070 101 R1, 3070 102 R1, 3070 103 R1, RINGS) (BD-154 T)
16	751 605 R92	PISTON ASSEMBLY, cylinder (4) (BD-144 C) composed of:
		1 Pin 704 094 R1
		1 Piston 704 099 R2
		2 Retainer 704 095 R1
		1 Ring 704 096 R1
		2 Ring 704 097 R1
		1 Ring 704 098 R1
		or 705 993 R1
		1 Ring 751 606 R91
		or 3 047 733 R91
16	3044 480 R92	PISTON ASSEMBLY, cylinder (4) (BD-154 T) composed of:
		1 Pin 3044 476 R1
		1 Piston 3044 486 R2
		2 Retainer 704 095 R1
		1 Ring 3070 101 R1
		2 Ring 3070 102 R1
		2 Ring 3070 103 R1



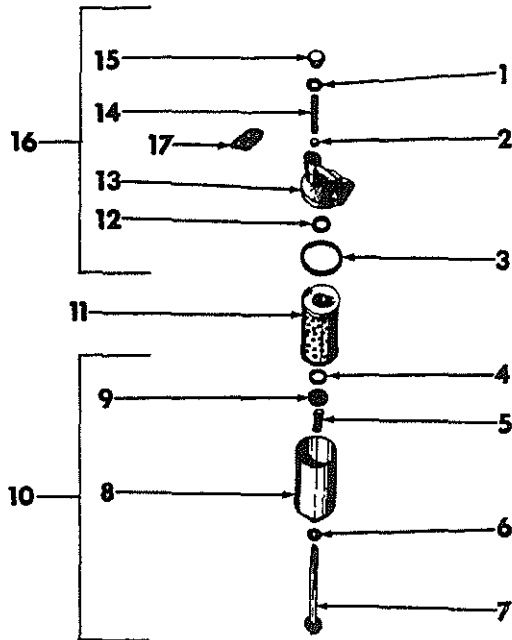


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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ENGINE OIL FILTER (A. C. Delco)

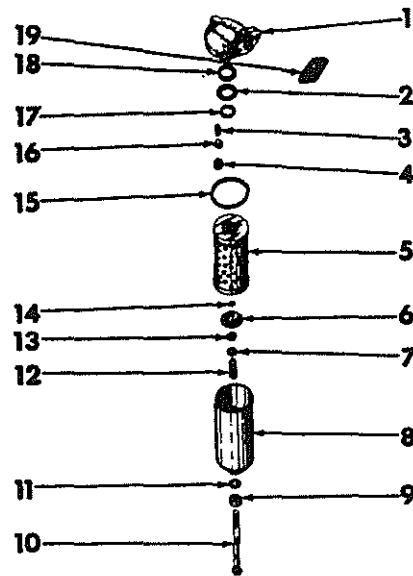


H 1494

	705 612 R91	FILTER, engine oil (opt w/3042 420 R92, 708 548 R91, 3066 851 R91, FILTERS) (Includes parts listed below, unless otherwise noted)
	179 841	3/8 x 1-1/4" Type 2 BOLT (2) (+)
	103 321	3/8" 1k-WASHER (2) (+)
1	705 740 R1	GASKET, valve plug
2	705 743 R1	BALL, relief valve
3	705 744 R1	GASKET, filter head cover
4	705 735 R1	SEAL, lower element
5	705 737 R1	SPRING, element retainer
6	705 733 R1	WASHER, center bolt
7	705 732 R1	BOLT, oil filter center
8	705 736 R1	SHELL, oil filter element
9	705 734 R1	RETAINER, lower seal
10	705 731 R91	SHELL, (Reference No. 's 4 to 9 inclusive)
11	376 364 R91	PACKAGE, filter element service
12	705 735 R1	SEAL, element top
13	705 742 R1	HEAD, oil filter
	179 841	3/8 x 1-1/4" Type 2 BOLT (2) (+)
	103 321	3/8" 1k-WASH. (2) (+)
14	705 741 R1	SPRING, relief valve
15	705 739 R1	PLUG, relief valve
16	705 738 R91	COVER, oil filter head (Reference No. 's 1 to 3 and 11 to 15 inclusive)
17	706 592 R1	GASKET, filter head crankcase (+)

REF. NO.	PART NUMBER	DESCRIPTION
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ENGINE OIL FILTER (Purolator)



H 1494

	708 548 R91	FILTER, engine oil (opt w/3042 420 R92, 705 612 R91 & 3066 851 R91, FILTERS) (Includes parts listed below, unless otherwise noted)
	179 841	3/8 x 1-1/4" Type 2 BOLT (2) (+)
	103 321	3/8" 1k-WASHER (2) (+)
1	707 873 R1	HEAD, oil filter
2	707 868 R1	GUIDE, filter element
3	707 865 R1	SPRING, relief valve
4	707 864 R1	SEAT, relief valve
5	376 364 R91	PACKAGE, filter element service
6	707 871 R1	GUIDE, filter element bottom
7	708 867 R1	WASHER, lower guide
8	707 866 R1	SHELL, oil filter element
9	707 862 R1	COLLAR, center bolt
10	707 872 R1	BOLT, oil filter center
11	707 863 R1	"O" RING, center bolt collar
12	703 789 R1	SPRING, lower element guide
13	703 795 R1	SEAL, center spindle
14	707 869 R1	CIRCLIP, lower element
15	707 859 R1	SEAL, oil filter head
16	707 870 R1	BALL, relief valve
17	707 874 R1	CIRCLIP, filter head
18	707 861 R1	GASKET, filter head
19	706 592 R1	GASKET, oil filter crankcase (+)

\* Not Serviced Separately  
+ Not Part of Oil Filter

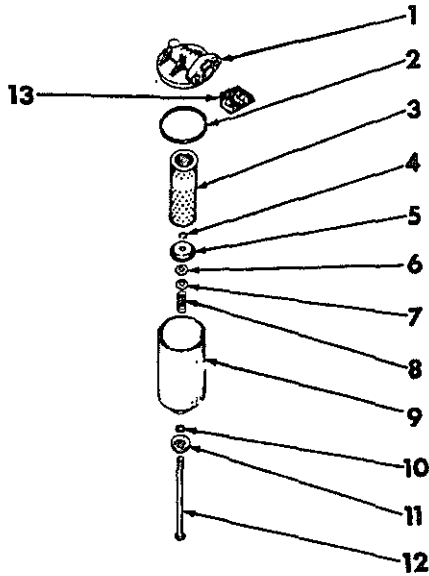


CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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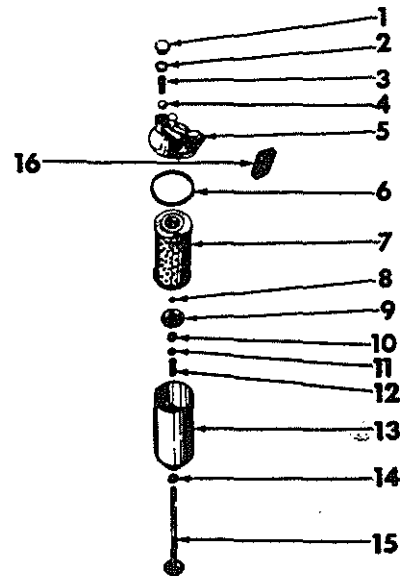
ENGINE OIL FILTER (Purolator)



3066 851 R91	FILTER, engine oil (opt w/705 620 R91, 708 548 R91 & 3042 420 R92, FILTERS) (Includes parts listed below, unless otherwise noted)
179 841	3/8 x 1-1/4" Type 2 BOLT (2) (+)
103 321	3/8" lk-WASHER (2) (+)
1	3069 113 R91 HEAD ASSEMBLY, filter (*)
2	707 859 R1 SEAL, oil filter head
3	376 364 R91 PACKAGE, filter element service
4	707 869 R1 CIRCLIP, lower element
5	3069 108 R1 GUIDE, filter element bottom
6	3069 109 R1 SEAL, center spindle
7	3069 114 R1 WASHER, lower guide
8	703 789 R1 SPRING, lower element guide
9	3069 111 R91 PUMP ASSEMBLY
10	707 863 R1 "O" RING, center bolt collar
11	707 862 R1 COLLAR, center bolt
12	3069 112 R1 BOLT, oil filter center
13	706 592 R1 GASKET, filter head crankcase (+)

REF. NO.	PART NUMBER	DESCRIPTION
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ENGINE OIL FILTER (Tecalemit)



H 1494

3042 420 R92	FILTER, engine oil (opt w/705 612 R91, 3066 851 R91 & 708 548 R91, FILTERS) (Includes parts listed below, unless otherwise noted)
179 841	3/8 x 1-1/4" Type 2 BOLT (2) (+)
103 321	3/8" lk-WASHER (2) (+)
1	PLUG, (Order 1 - 3069 975 R91, HEAD)
2	WASHER, (Order 1 - 3069 975 R91, HEAD)
3	SPRING, (Order 1 - 3069 975 R91, HEAD)
4	BALL, (Order 1 - 3069 975 R91, HEAD)
5	3069 975 R91 HEAD, filter
6	3042 423 R1 RING, container sealing
7	376 364 R91 PACKAGE, element service
8	3065 865 R1 CIRCLIP, center bolt
9	3043 293 R1 PLATE, pressure
10	3042 428 R1 WASHER, felt
11	3043 292 R1 WASHER, pressure plate spg
12	3043 291 R1 SPRING, pressure plate
13	3043 289 R1 CONTAINER
14	3042 425 R1 WASHER, center bolt sealing
15	3069 976 R91 BOLT, center ass'y
16	706 592 R1 GASKET, filter head crankcase (+)

\*Not Part of Oil Filter  
\*Not Serviced Separately



BD-144C & BD-154T  
Diesel Engine

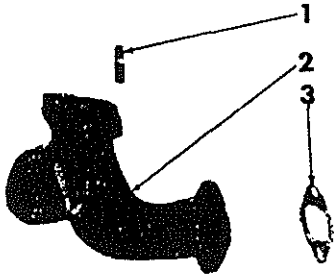
# CRAWLER TRACTORS

SECTION A  
TC-203 A



REF. NO.	PART NUMBER	DESCRIPTION
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## ENGINE MANIFOLD

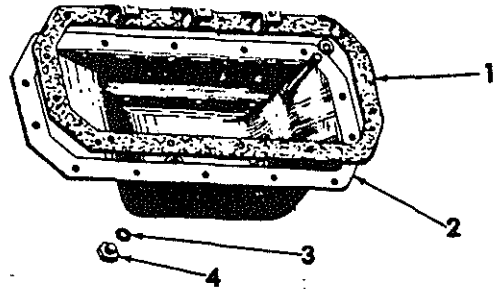


HA 4457

1	704 164 R1 20 229 D	STUD, exhaust manifold (2) Exhaust pipe NUT (2) 3/8" 1k-WASH. (2)
2	3042 719 R11 20 229 D	MANIFOLD, exhaust (Includes 704 164 R1, STUDS) Manifold stud NUT (4)
3	704 165 R2	GASKET, exhaust manifold (2)

REF. NO.	PART NUMBER	DESCRIPTION
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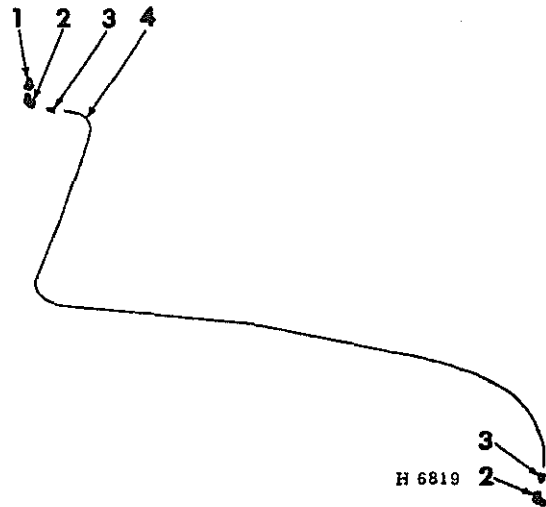
## CRANKCASE OIL PAN



H 8708

1	703 840 R1	GASKET, crankcase oil pan
2	3040 354 R11	PAN, crankcase oil 5/16 x 7/8" Type 2 BOLT (14) 5/16" 1k-WASH. (14)
3	3 405 H	GASKET, drain plug (opt w/3043 644 R1)
3	3043 644 R1	GASKET, drain plug (opt w/3 405 H)
4	359 875 R1	PLUG, oil pan drain

## OIL PRESSURE GAUGE LINE



H 6819

1	105 408	COUPLING, 1/8" at gauge
2	36 637 D	ELBOW, 1/8" Hi-Duty male pipe (2)
3	36 092 D	NUT, 1/8" Hi-Duty tube (2)
4	635 338 R1 636 631 R1	PIPE, oil pressure gauge Oil pressure line LOOM

\* Not Serviced Separately

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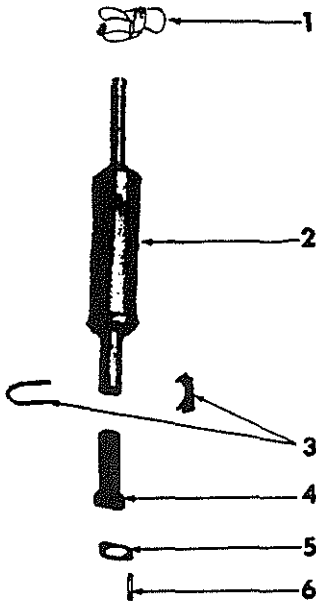
## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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## EXHAUST MUFFLER

(For use on 500 Crawler Tractors Prior to Serial No. H 2370)  
(For use on Skidder Tractors Prior to Serial No. H 1144)



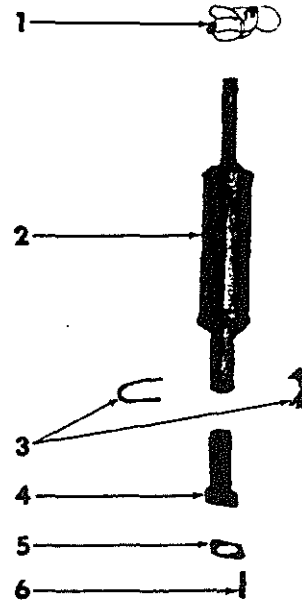
H 4457  
H 5752  
HA 5874

1	265 927 R91	CAP, weather (for 500 Crawler prior to Serial No. H 1782) (for Skidder prior to Serial No. H 1078)
1	319 618 R91	CAP, weather (for 500 Crawler with Serial No. H 1782 and Up) (for Skidder with Serial No. H 1079 and Up)
2		MUFFLER, exhaust pipe (for 500 Crawler prior to Serial No. H 1782) (for Skidder prior to Serial No. H 1079) (order 1 - 676 440 R91, MUFFLER; & 1 - 319 618 R91, CAP)
2	676 440 R91	MUFFLER, exhaust pipe (for 500 Crawler with Serial No. H 1782 and Up) (for Skidder with Serial No. H 1079 and Up)
3	170 572 R91	CLAMP, muffler (Includes 120 368, NUTS & 120 214, 1k-WASHERS)
	120 368	5/16" - NF NUT (2)
	120 214	5/16" 1k-WASHER (2)
4	676 306 R11	PIPE, exhaust
5	368 482 R1	GASKET, exhaust pipe (Gas)
5	704 613 R1	GASKET, exhaust pipe (Diesel)
6	636 431 R1	STUD, exhaust pipe (2) (Gas)
	103 026	3/8" - NF NUT (2)
	Q 1 504	13/32 x 7/8 x 16 ga WASHER (2)
	103 321	3/8" 1k-WASHER (2)
6	704 164 R1	STUD, exhaust pipe (2) (Diesel)
	20 229 D	Exhaust pipe NUT (2)
	Q 1 504	13/32 x 7/8 x 16 ga WASHER (2)
	103 321	3/8" 1k-WASHER (2)

REF. NO.	PART NUMBER	DESCRIPTION
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## EXHAUST MUFFLER

(For use on 500 Crawler Tractors with Serial No. H 2371 and Up)  
(For use on Skidder Tractors Prior to Serial No. H 1144 and Up)



H 4457  
H 5752  
HA 5874

1	283 280 R91	CAP, weather
2	370 644 R92	MUFFLER, exhaust pipe
3	170 571 R91	CLAMP, muffler (Includes 120 368, NUTS & 120 214, 1k-WASHERS)
	120 368	5/16" - NF NUT (2)
	120 214	5/16" 1k-WASHER (2)
4	676 652 R11	PIPE, exhaust
5	368 482 R1	GASKET, exhaust pipe (Gas)
5	704 613 R1	GASKET, exhaust pipe (Diesel)
6	636 431 R1	STUD, exhaust pipe (2) (Gas)
	103 026	3/8" - NF NUT (2)
	Q 1 504	13/32 x 7/8 x 16 ga WASHER (2)
	103 321	3/8" 1k-WASHER (2)
6	704 164 R1	STUD, exhaust pipe (2) (Diesel)
	20 229 D	Exhaust pipe NUT (2)
	Q 1 504	13/32 x 7/8 x 16 ga WASHER (2)
	103 321	3/8" 1k-WASHER (2)

\* Not Serviced Separately

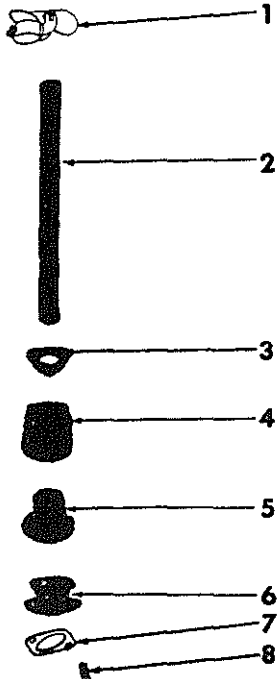
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## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
SPARK ARRESTER					
					
H 5748					
	676 310 R91	PARTS ACCESSORY, spark arrester (composed of all parts listed below)			
1	369 353 R91	CAP, weather			
2	636 158 R1	PIPE, exhaust			
3	636 156 R1	PLATE, exhaust pipe mtg			
	186 317	3/8 - NF x 5 <sup>11</sup> Type 2 BOLT (3)			
	93 082 H	3/8 <sup>11</sup> - NF NUT (3)			
4	353 266 R1	TOP, spark arrester			
5	353 265 R1	BODY, spark arrester			
6	676 386 R91	BASE, spark arrester			
7	368 482 R1	GASKET, exhaust pipe (Gas) (+)			
7	704 613 R1	GASKET, exhaust pipe (Diesel) (+)			
8	636 431 R1	STUD, exhaust pipe (2) (Gas)(+)			
	103 026	3/8 <sup>11</sup> - NF NUT (2)			
	Q 1 504	13/32 x 7/8 x 16 ga WASHER (2)			
	103 321	3/8 <sup>11</sup> 1k-WASHER (2)			
8	704 164 R1	STUD, exhaust pipe (2) (Diesel) (+)			
	20 229 D	Exhaust pipe NUT (2)			
	Q 1 504	13/32 x 7/8 x 16 ga WASHER(2)			
	103 321	3/8 <sup>11</sup> 1k-WASHER (2)			

\* Not Serviced Separately  
+ Not Part of Parts Accessory

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## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION																																																												
<b>FUEL TANK</b>			<b>FUEL TANK - Continued</b>																																																														
			<table border="0"> <tr> <td>8</td> <td>636 929 R1</td> <td>LOCATOR, fuel tank (Skidder, 10 &amp; 11 Bulgrader and Loader)</td> </tr> <tr> <td></td> <td>179 860</td> <td>7/16 x 1-1/4" Type 2 BOLT (2)</td> </tr> <tr> <td></td> <td>271 500</td> <td>7/16" NUT (2)</td> </tr> <tr> <td></td> <td>103 322</td> <td>7/16" 1k-WASHER (2)</td> </tr> <tr> <td>9</td> <td>636 813 R1</td> <td>CLAMP, fuel tank front</td> </tr> <tr> <td></td> <td>186 274</td> <td>5/16 x 5" Type 2 BOLT</td> </tr> <tr> <td></td> <td>179 821</td> <td>5/16 x 1-3/4" Type 2 BOLT</td> </tr> <tr> <td></td> <td>103 320</td> <td>5/16" 1k-WASHER</td> </tr> <tr> <td>10</td> <td>636 811 R1</td> <td>INSULATOR, fuel tank front</td> </tr> <tr> <td>11</td> <td>636 815 R1</td> <td>SPACER, fuel tank clamp</td> </tr> <tr> <td>12</td> <td>635 347 R1</td> <td>BAR, fuel tank front (Not Power Shift Reverser)</td> </tr> <tr> <td></td> <td>186 274</td> <td>5/16 x 5" Type 2 BOLT (2)</td> </tr> <tr> <td></td> <td>179 821</td> <td>5/16 x 1-3/8" Type 2 BOLT</td> </tr> <tr> <td></td> <td>179 816</td> <td>5/16 x 3/4" Type 2 BOLT</td> </tr> <tr> <td></td> <td>103 320</td> <td>5/16" 1k-WASHER (4)</td> </tr> <tr> <td>12</td> <td>675 637 R1</td> <td>BAR, fuel tank front (Power Shift Reverser)</td> </tr> <tr> <td></td> <td>186 272</td> <td>5/16 x 4" Type 2 BOLT (2)</td> </tr> <tr> <td></td> <td>179 816</td> <td>5/16 x 3/4" Type 2 BOLT (3)</td> </tr> <tr> <td></td> <td>179 819</td> <td>5/16 x 1-1/8" Type 2 BOLT (2)</td> </tr> <tr> <td></td> <td>103 320</td> <td>5/16" 1k-WASHER (7)</td> </tr> </table>			8	636 929 R1	LOCATOR, fuel tank (Skidder, 10 & 11 Bulgrader and Loader)		179 860	7/16 x 1-1/4" Type 2 BOLT (2)		271 500	7/16" NUT (2)		103 322	7/16" 1k-WASHER (2)	9	636 813 R1	CLAMP, fuel tank front		186 274	5/16 x 5" Type 2 BOLT		179 821	5/16 x 1-3/4" Type 2 BOLT		103 320	5/16" 1k-WASHER	10	636 811 R1	INSULATOR, fuel tank front	11	636 815 R1	SPACER, fuel tank clamp	12	635 347 R1	BAR, fuel tank front (Not Power Shift Reverser)		186 274	5/16 x 5" Type 2 BOLT (2)		179 821	5/16 x 1-3/8" Type 2 BOLT		179 816	5/16 x 3/4" Type 2 BOLT		103 320	5/16" 1k-WASHER (4)	12	675 637 R1	BAR, fuel tank front (Power Shift Reverser)		186 272	5/16 x 4" Type 2 BOLT (2)		179 816	5/16 x 3/4" Type 2 BOLT (3)		179 819	5/16 x 1-1/8" Type 2 BOLT (2)		103 320	5/16" 1k-WASHER (7)
8	636 929 R1	LOCATOR, fuel tank (Skidder, 10 & 11 Bulgrader and Loader)																																																															
	179 860	7/16 x 1-1/4" Type 2 BOLT (2)																																																															
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12	675 637 R1	BAR, fuel tank front (Power Shift Reverser)																																																															
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	179 816	5/16 x 3/4" Type 2 BOLT (3)																																																															
	179 819	5/16 x 1-1/8" Type 2 BOLT (2)																																																															
	103 320	5/16" 1k-WASHER (7)																																																															
H 7041																																																																	
1	635 343 R92 103 866	TANK, fuel (Includes CAP, 608 603 R91) 1/4" sq-hd tank PLUG (Gas only)																																																															
2	608 603 R91	CAP, fuel tank																																																															
3	636 142 R2 144 817 445 449	PANEL, fuel tank scuttle No. 14 - 10 x 5/8" slt-rd-hd cd-pltd tapping SCREW (4) No. 14 - 10 tapping screw spring NUT (4)																																																															
4	636 814 R1 179 824 179 821 179 822 179 819 102 634 103 320	CLAMP, fuel tank rear (2) 5/16 x 1-3/4" Type 2 BOLT (2) (Crawler) 5/16 x 1-3/8" Type 2 BOLT 5/16 x 1-1/2" Type 2 BOLT 5/16 x 1-1/8" Type 2 BOLT (2) (Skidder) 5/16" NUT (4) 5/16" 1k-WASHER (4)																																																															
5	636 816 R1	SPACER, fuel tank rear clamp (2)																																																															
6	636 812 R1	INSULATOR, fuel tank rear (2)																																																															
6	675 638 R1	INSULATOR, fuel tank front (2) (Power Shift Reverser)																																																															
7	635 348 R31 179 883 102 637 11 002 VA 16 038 R1 103 323	SUPPORT, fuel tank rear 1/2 x 1-1/4" Type 2 BOLT (2) 1/2" NUT 17/32 x 7/8 x 16 ga WASHER (2) 17/32 x 1 x 16 ga WASHER (2) 1/2" 1k-WASHER (2)																																																															



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
MECHANICAL FUEL PUMP (Gas)		
		HX-1
	57 324 DX	PUMP, fuel (A. C. Spark Plug Co. H 5594 549) (Includes 49 124D, GASKET) (composed of all parts listed, unless otherwise noted)
	179 818	5/16 x 1" Type 2 BOLT (2) (+)
	103 320	5/16" 1k-WASHER (2) (+)
1	49 124 D	GASKET, fuel pump
2	59 993 D	ARM, rocker
	36 350 D	Rocker arm PIN
	36 351 D	Rocker arm pin WASHER
3	59 081 DA	SPRING, rocker arm
4	23 511 D	GASKET, mounting
5	59 082 DA	LINK, rocker arm
6	304 139 R91	BODY w/OIL SEAL, 304 141 R1
7	304 156 R1	SPRING, diaphragm
8	59 086 D	RETAINER, diaphragm spg
9	304 138 R91	DIAPHRAGM, fuel pump
10	59 996 D	PLATE, valve
	132 900	Valve plate SCREW
11	59 084 DA	VALVE AND CAGE, intake & outlet

REF. NO.	PART NUMBER	DESCRIPTION
MECHANICAL FUEL PUMP (Gas) - Continued		
12	59 995 D	GASKET, valve & cage (2)
13	59 091 D	COVER, fuel pump
	130 894 H	No. 10-NF x 5/8" sltd-fil-hdSCREW (7)
	122 158	No. 10 1k-WASHER (7)
14	59 090 D	SCREEN, fuel pump
15	59 089 D	GASKET, fuel bowl
16	98 376 R91	BOWL, fuel pump (Includes 59 089 D, GASKET)
17	98 375 R91	BAIL, fuel bowl

## FUEL SEDIMENT BOWL

		H 7172
	614 692 R91	BOWL, fuel sediment (composed of all parts listed below)
1		BODY, fuel strainer (*) (order 1 - 614 692 R91, BOWL)
2	614 694 R1	GASKET, body
3	614 695 R1	GASKET, sediment bowl
4	614 693 R91	FILTER, fuel strainer
5	614 696 R1	BOWL, sediment
6	98 375 R91	BAIL, fuel strainer

\*Not Serviced Separately  
†Not Part of Fuel Pump

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CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
<b>FUEL FILTER (Agglomerator Type) (Diesel)</b>		
H 3387		
	676 640 R91	FILTER, fuel (composed of all parts listed unless otherwise noted)
	179 839	3/8 x 1" Type 2 BOLT (2) (#)
	103 321	3/8" 1k-WASHER (2) (#)
1	3070 771 R1	BOLT, center
2	3044 504 R1	WASHER, center bolt
3	9410 357	PLUG, closing
4	3070 777 R1	WASHER, plug
5	676 726 R1	COVER, filter
6	3044 505 R1	"O" RING
7	3044 507 R1	SEAL, element & bowl
8	3044 506 R91	PACKAGE, filter element (Includes (2) 3044 507 R1, SEALS, 3044 505 R1, "O" RING, & 3044 504 R1, WASHER)
9	3069 610 R1	BOWL, agglomerator
10	3069 612 R91	BASE, less stud
11	3072 559 R1	WASHER, drain
12	3072 558 R1	SCREW, drain screw

REF. NO.	PART NUMBER	DESCRIPTION
<b>FUEL FILTER (Bowl - Less) (Diesel)</b>		
H 6939		
	3043 645 R91	FILTER, fuel (composed of all parts listed unless otherwise noted)
	179 839	3/8 x 1" Type 2 BOLT (2) (#)
	103 321	3/8" 1k-WASHER (2) (#)
1	3044 503 R1	BOLT, filter center
2	3044 504 R1	WASHER, center bolt
3	3044 502 R1	HEAD, filter
4	3044 505 R1	RING, element seal
5	3044 507 R1	RING, head & base sealing (2)
6	3044 506 R91	PACKAGE, filter element (Includes 3044 507 R1, SEALS & 3044 505 R1, "O" RING & 3044 504 R1, WASHER)
7	3048 796 R91	BASE, filter stud

\* Not Serviced Separately  
# Not Part of Fuel Filter



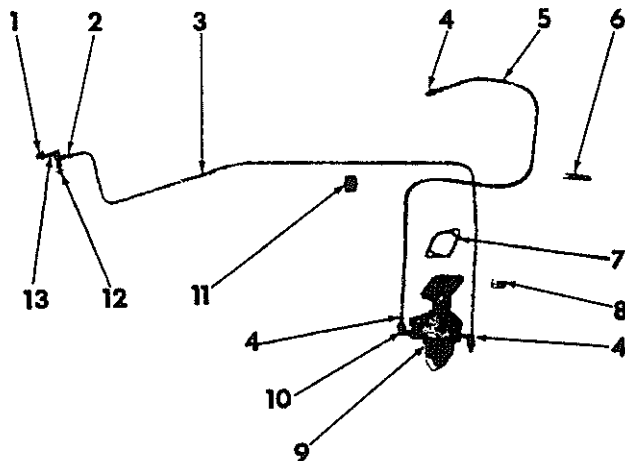


CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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MECHANICAL FUEL PUMP AND LINES  
(Gasoline Tractor Without In-Line Filters Only)

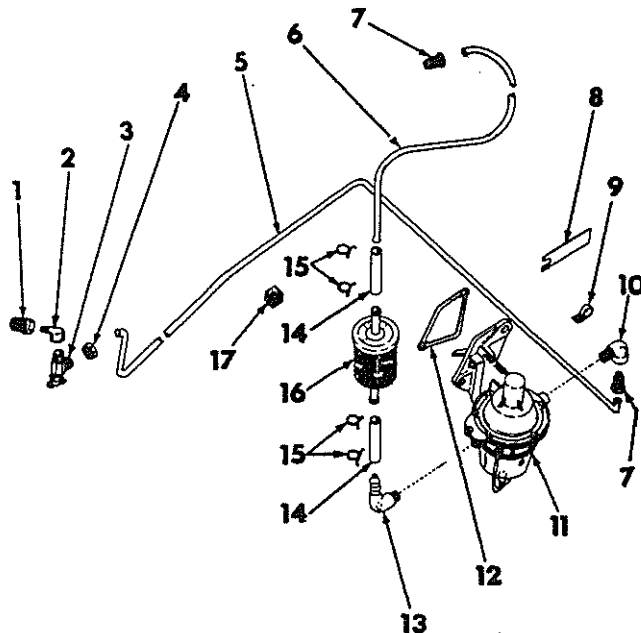


H 6758

1	119 930	BUSHING, reducing
2	114 630 114 631	NUT, fuel shut-off Ball SLEEVE
3	676 069 R1 29 899 D	PIPE, tank to fuel pump Fuel pipe NUT
4	29 899 D	NUT, fuel pipe (3)
5	306 185 R11	PIPE, pump to carburetor fuel (Includes NUTS, 29 899 D)
6	635 678 R1	CLIP, pump to carburetor fuel pipe
7	49 124 D	GASKET, fuel pump
8	140 568	CLIP, tank to pump fuel pipe
9		PUMP, mechanical fuel (Refer to "MECH- ANICAL FUEL PUMP")
	179 818 103 320	5/16 x 1" Type 2 BOLT (2) 5/16" 1k-WASHER (2)
10	24 847 H	ELBOW, pump inlet & outlet (2)
11	635 601 R1	CUSHION, fuel pipe
12	120 900	COCK, fuel tank shut-off
13	9409 931	ELBOW, 1/8 - 90° shut-off cock

REF. NO.	PART NUMBER	DESCRIPTION
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MECHANICAL FUEL PUMP AND LINES  
(Gasoline Tractors With In-Line Filters Only)



HE 178

1	119 930	BUSHING, reducing
2	9409 931	ELBOW, 1/8 - 90° shut-off cock
3	120 900	COCK, fuel tank shut-off
4	114 630 114 631	NUT, fuel shut-off Ball SLEEVE
5	676 069 R1	PIPE, tank to fuel pump
6	676 634 R1	PIPE, fuel
7	29 899 D	NUT, connection (2)
8	635 678 R1	CLIP, pump to carburetor fuel pipe
9	140 568	CLIP, tank to pump
10	24 847 H	ELBOW, fuel pump (inlet)
11		PUMP, mechanical fuel (Refer to "MECH- ANICAL FUEL PUMP")
	179 818 103 320	5/16 x 1" Type 2 BOLT (2) 5/16" 1k-WASHER (2)
12	49 124 D	GASKET, fuel pump
13	676 633 R1	ELBOW, fuel pump (outlet)
14	676 632 R1	HOSE, fuel line (2)
15	210 511 R1	CLAMP, hose (4)
16	920 175 R91	FILTER ASSEMBLY, fuel
17	635 601 R1	CUSHION, fuel pipe

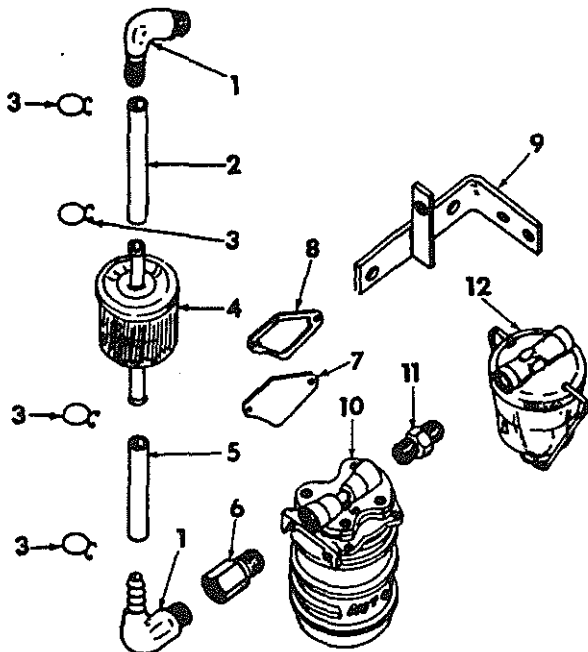


## CRAWLER TRACTORS



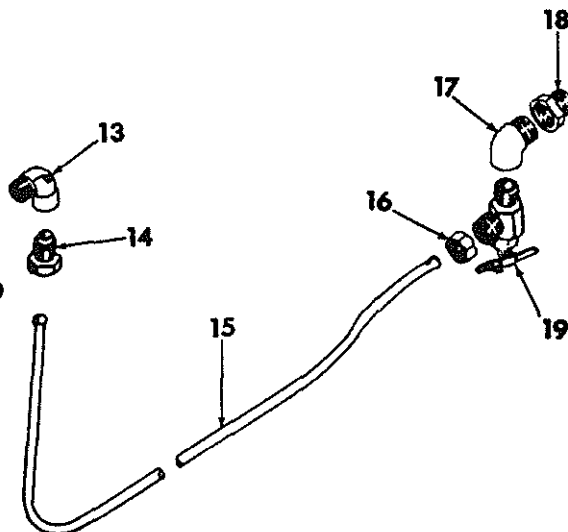
REF. NO.	PART NUMBER	DESCRIPTION
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ELECTRIC FUEL PUMP & LINES  
w/IN LINE FILTER ONLY (Gas)



REF. NO.	PART NUMBER	DESCRIPTION
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ELECTRIC FUEL PUMP & LINES  
w/IN LINE FILTER ONLY (Gas) - Continued



HE 178

1	676 633 R1	ELBOW, fuel (2)
2	676 632 R1	HOSE, fuel line
3	210 511 R1	CLAMP, hose (4)
4	920 175 R91	FILTER ASSEMBLY, fuel
5	676 631 R1	HOSE, fuel line
6	443 998	ADAPTOR, fuel pump outlet
7	29 710 D 179 814 103 320	COVER, crankcase fuel pump opening 5/16 x 5/8" Type 2 BOLT (2) 5/16" 1k-WASHER (2)
8	49 124 D	GASKET, pump opening cover
9	675 700 R91 179 838 103 321	BRACKET, fuel pump support 3/8 x 7/8" Type 2 BOLT (2) 3/8" 1k-WASHER (2)
10	391 586 R91 179 791 103 319	PUMP, electric fuel (for component parts refer to "ELECTRIC FUEL PUMP") 1/4 x 1/2" Type 2 BOLT (2) 1/4" 1k-WASHER (2)
11	443 976	NIPPLE, fuel filter to pump
12	614 692 R91	BOWL, fuel sediment, (for component parts refer to "FUEL SEDIMENT BOWL")

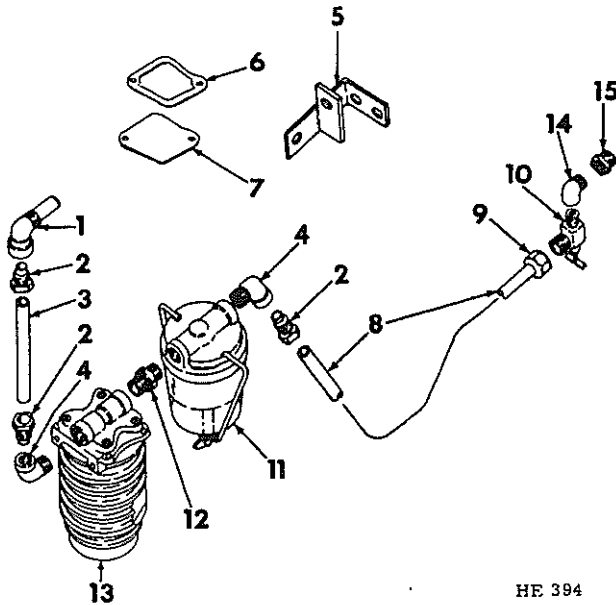
13	24 847 H	ELBOW, fuel inlet
14	29 899 D	NUT, fuel pipe
15	675 721 R1	PIPE, tank to filter fuel
16	114 630 114 631	NUT, 5/16" brass shut-off cock 5/16" brass sleeve
17	9409 931	ELBOW, 1/8 - 90° shut-off cock
18	119 930	BUSHING, 1/4 x 1/8" reducer
19	120 900	COCK, tank shut-off



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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ELECTRIC FUEL PUMP & LINES WITHOUT IN-LINE FILTER  
(Gas)

1	53 796 D	ELBOW, fuel screen
2	29 899 D	NUT, fuel pipe & elbow (3)
3	675 723 R1	PIPE, pump to carburetor fuel
4	24 847 H	ELBOW, pipe brass (2)
5	675 700 R91 179 838 103 321	BRACKET, fuel pump support 3/8 x 7/8" Type 2 BOLT (2) 3/8" 1k-WASHER (2)
6	49 124 D	GASKET, pump opening cover
7	29 710 D 179 814 103 320	COVER, crankcase fuel pump opening 5/16 x 5/8" Type 2 BOLT (2) 5/16" 1k-WASHER (2)
8	675 721 R1	PIPE, tank to filter fuel
9	114 630 114 631	NUT, 5/16" brass shut-off cock 5/16" brass SLEEVE
10	120 900	COCK, tank shut-off
11	614 692 R91	BOWL, fuel sediment (for components refer to "FUEL SEDIMENT BOWL")
12	443 976	NIPPLE, bowl to pump pipe
13	391 586 R91 179 791 103 319	PUMP, electric fuel (for components refer to "ELECTRIC FUEL PUMP") 1/4 x 1/2" Type 2 BOLT (2) 1/4" 1k-WASHER (2)
14	9409 931	ELBOW, 1/8 - 90° shut-off cock
15	119 930	BUSHING, 1/4 x 1/8" reducer

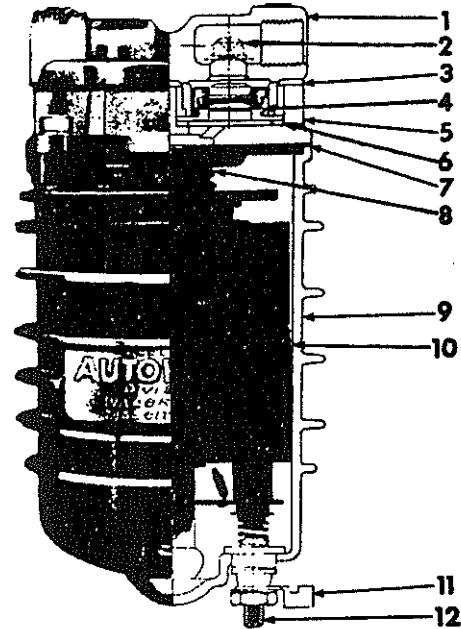
# Vendor Part No.

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REF. NO.	PART NUMBER	DESCRIPTION
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## ELECTRIC FUEL PUMP



H 34

NOTE: For replacement service parts for machines in Canada & the U.S.A., order parts direct from vendor, WALBRO CORPORATION ELECTRIC AUTOPULSE DIVISION, Cass City, Michigan, U.S.A., or MONOHAN SUPPLIES CORP., 87 Coldville Road, Toronto 15, Ontario, Canada.

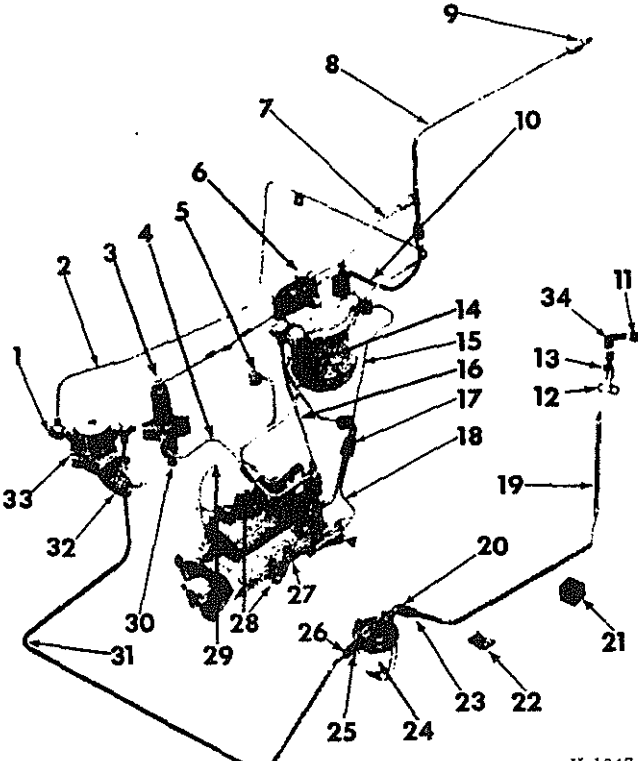
For replacement parts for machines other than in Canada & the U.S.A. order parts from I.H. PARTS DEPOT, P.O. Box 512, BURLINGTON, ONTARIO, CANADA.

391 586 R91	PUMP, 12 volt electric fuel (composed of all parts listed)	
1	25-16	CASTING, valve cap (#)
2	96-523	SCREW & WASHER, cap to valve hsg (4) (#)
3	92-51	GASKET, valve cap (#)
4	176-507	VALVE, pump (#)
5	181-14	CASTING, valve hsg (#)
6	92-28	GASKET, valve (#)
7	936 506 R1	GASKET, body to valve hsg
8	609 157 R1	BELLOWS, short pump
9	936 504 R91	BODY, fuel pump
10	936 503 R91	PUMP, short
11	187-12	CLIP, terminal (#)
12	144-510	POST, terminal (#)
92-510	KIT, valve hsg gasket service (Includes 92-28 & 92-51, GASKET (#))	
936 505 R91	HOUSING, valve (Includes 25-16, CAP 181-114, HOUSING; 92-510, KIT, 96-523 SCREWS & 176-507, VALVE)	



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
FUEL LINES WITH D.P.A. INJECTION PUMP		
		
1	708 296 R1	BOLT, feed pump & fuel filter banjo (5) (opt w/3070 324 R1)
1	3070 324 R1	BOLT, feed pump & fuel filter banjo (5) (opt w/708 296 R1)
	708 297 R1	Banjo bolt WASH. (10)
2	3043 649 R94	PIPE, feed pump to fuel filter
3	3043 647 R1	SCREW, connection (4)
	701 735 R1	Connection screw WASH. (4)
4	708 307 R21	PIPE, No. 1 cyl fuel injection fuel
5	708 308 R31	PIPE, No. 2 cyl fuel injection fuel
6	3043 646 R91	VALVE, filter ball check
	3049 111 R1	Ball check valve WASH.
7	3043 652 R91	PIPE, filter air bleed to return fuel (BD-144C)
8	636 138 R91	PIPE, fuel return
	704 700 R1	Fuel return pipe GROMMET
9	9409 910	CONNECTOR, 5/16" tube to 1/4" pipe cd-pltd fuel return line fuel tank
10	3043 653 R91	PIPE, injectors to return line
11	119 930	BUSHING, 1/8 x 1/8" reducing pipe
12	120 900	COCK, shuf-off
13	114 630	NUT, 5/16" ball sleeve tube

H 1647  
H 6950

REF. NO.	PART NUMBER	DESCRIPTION
FUEL LINES WITH D.P.A. INJECTION PUMP - Continued		
14	179 839 103 321	FILTER, fuel (Refer to "FUEL FILTER") 3/8 x 1" Type 2 BOLT (2) 3/8" 1k-WASH. (2)
15	708 310 R21	PIPE, No. 4 cyl fuel injection fuel
16	3043 650 R93	PIPE, filter to injection pump fuel
17	841 432 R1	CLIP, injection pipe (4)
	841 433 R1	Injection pipe clip PAD (2)
	100 780	Special clip BOLT (2)
	703 700 R1	No. 12 "P" type 1k-NUT (2)
18	708 309 R21	PIPE, No. 3 cyl fuel injection fuel
19	676 070 R2	PIPE, fuel tank to sediment bowl
	29 899 D	5/16" fuel pipe NUT
20	24 847 H	ELBOW, 5/16" - 90° bowl fuel tank pipe
21	635 601 R1	CUSHION, fuel pipe
22	102 077 R1	CLIP, fuel pipe (2)
	179 838	3/8 x 7/8" Type 2 BOLT
	103 321	3/8" 1k-WASH.
	102 635	3/8" NUT
23	29 899 D	NUT, 5/16" brass fuel line
24		BOWL, fuel sediment (Refer to "FUEL SEDIMENT BOWL")
25	29 901 D	CONNECTOR, sediment bowl to pump pipe
26	29 898 D	NUT, 1/4" brass fuel pipe
27		PUMP, fuel injection (Refer to "DPA INJECTION PUMP")
	103 340	11/32 x 11/16 x 16 ga WASH. (3)
	102 634	5/16" NUT (3)
28	707 321 R91	SEAL, governor (2)
29	3043 651 R91	PIPE, injection pump to filter excess
30		NOZZLE, holder & injection (4) (Refer to "INJECTION NOZZLE")
	706 077 R1	Nozzle stud WASH. (8) 3/8" - NF NUT (8)
31	676 071 R11	PIPE, fuel sediment bowl to lift pump
32	3043 370 R1	GASKET, fuel feed pump
33		PUMP, fuel feed (Refer to "FUEL FEED PUMP")
	3063 872 R1	Special pump attaching BOLT (2)
34	9409 931	ELBOW, 1/8 - 90° shut-off cock

\* Not Serviced Separately

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## CRAWLER TRACTORS

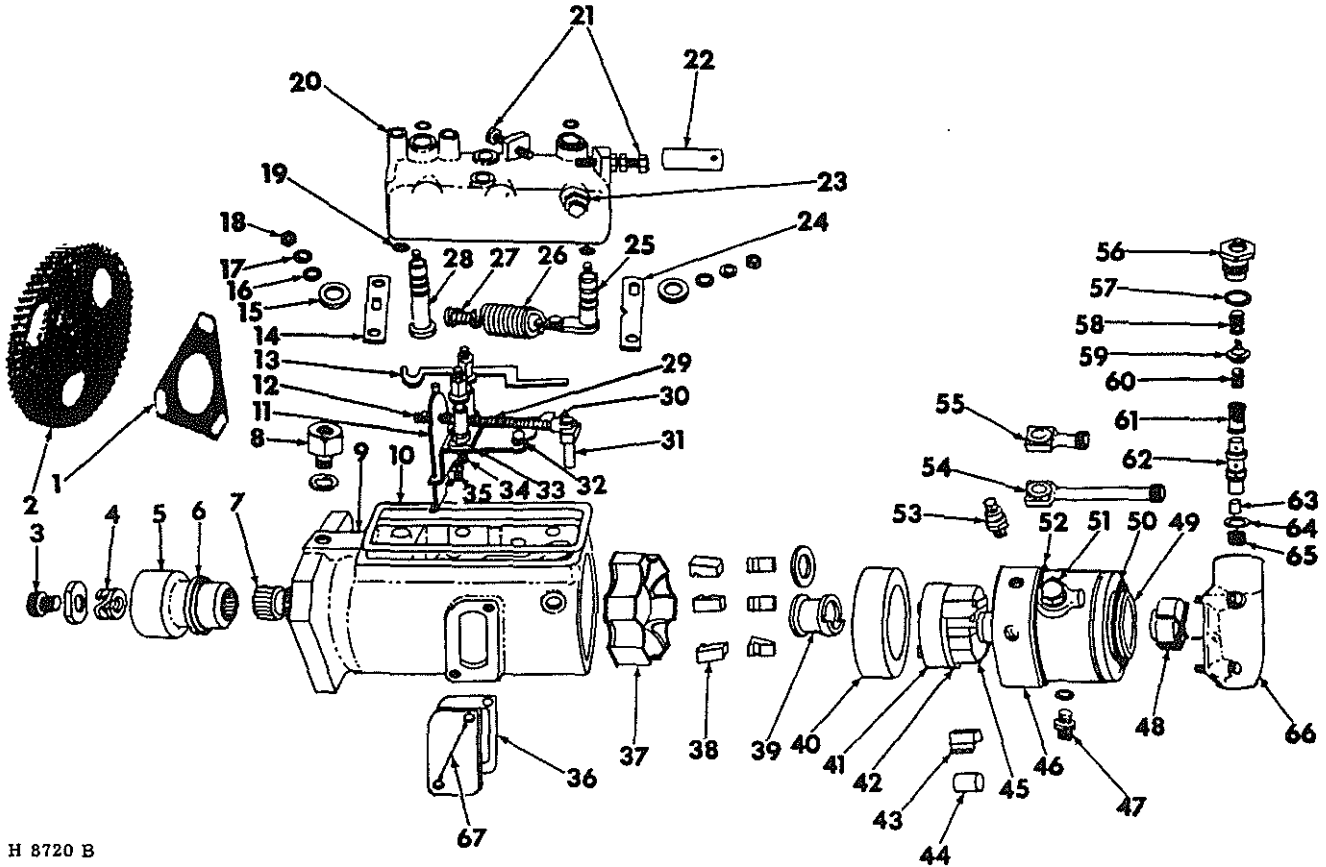


REF. PART NUMBER DESCRIPTION

REF. PART NUMBER DESCRIPTION

## DPA FUEL INJECTION PUMP

## DPA FUEL INJECTION PUMP - Continued



H 8720 B

3041 317 R92	PUMP, DPA fuel injection (BD 144C) (NEW)
	(Includes parts listed unless noted)
3044 494 R92	PUMP, DPA fuel injection (BD 154T) (NEW)
	(Includes parts listed unless noted)
636 810 R91	PUMP, DPA fuel injection (ReNEWed)
	(BD 154T) (Includes parts listed unless noted)
636 222 R92	PUMP, DPA fuel injection (ReNEWed)
	(BD 144C) (Includes parts listed unless noted)
103 340	11/32 x 11/16 x 16 ga WASHER (3) (+)
102 634	5/16" NUT (3) (+)
1	708 289 R1 GASKET, injection pump (+)
2	708 290 R11 GEAR, (+) (Includes PIN, 708 291 R1)
	425 463 5/16 - NF x 3/4" BOLT w/ext-t
	1k-WASHER (3) (+)
	708 291 R1 Gear dowel PIN (+)
3	895 956 H1 SCREW, drive shaft
	895 958 H1 Shaft support WASHER
4	895 957 H1 WASHER, drive shaft screw (BD 144C)
4	3072 520 R1 WASHER, drive shaft screw (BD 154T)
5	3072 521 R1 HUB, drive shaft
6	895 960 H1 OIL SEAL, drive shaft hub
7	3072 518 R1 SHAFT, pump drive
	3072 519 R1 Shaft oil SEAL

8	3043 107 R1 CONNECTOR, housing drain pipe
	3043 093 R1 Shaft oil SEAL
9	3072 545 R1 HOUSING, injection pump (BD 144C)
9	3072 522 R1 HOUSING, injection pump (BD 154T)
10	895 963 H1 GASKET, control cover
11	895 964 H1 ARM, governor control
12	895 977 H1 HOOK, governor linkage
	895 972 H1 Linkage locking NUT
	895 976 H1 Linkage spg WASHER
	895 975 H1 Pivot ball retainer WASHER
13	895 981 H1 BAR, shut-off lever
14	3043 103 R1 LEVER, shut-off
15	895 983 H1 CAP, lever & control shaft dust (2)
16	3043 105 R1 WASHER, shaft plain (BD 144C)
17	705 380 R1 WASHER, lever & control shaft (2)
18	3043 096 R1 NUT, lever & control shaft (2)
19	796 020 R1 SEAL, lever & control shaft (2)
20	3072 525 R1 COVER, control

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+ Not Part of Pump

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## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
DPA FUEL INJECTION PUMP - Continued			DPA FUEL INJECTION PUMP - Continued		
21	3043 097 R1 3043 096 R1 704 777 R1	SCREW, throttle control adjusting (2) Adjusting screw NUT Adjusting screw WASHER	45	3072 499 R1	PLATE, bottom adjusting
22	3064 263 R1	SLEEVE, control cover locking	46	3072 496 R91 795 970 R1 3072 497 R1 3043 089 R1 3072 498 R1	HEAD AND ROTOR, pump distributor Distributor head lk-SCREW Distributor head locating SCREW Distributor head WASHER Locating screw WASHER
23	3069 753 R91 3069 754 R1 3043 100 R1	SCREW, control cover vent Vent screw BODY Vent screw body WASHER	47	3043 094 R1 3043 093 R1 3025 562 R1 3025 563 R1	CONNECTION, radial Connecting screw WASHER (7) Delivery union NUT (4) (BD 154T) Delivery union WASHER (4) (BD 154T)
24	3043 104 R1	ARM, throttle control	48	3072 526 R1 3043 086 R1	ROTOR, transfer pump Transfer rotor BLADE (2)
25	895 984 H1	SHAFT, throttle control	49	895 540 H1 795 960 R1	LINER, transfer pump (BD 144C) LINER, transfer pump (BD 154T)
26	3072 523 R1	SPRING, governor control	50	3043 087 R1 3069 749 R1	SEAL, transfer pump (BD 144C) SEAL, transfer pump (BD 154T)
27	3072 524 R1 895 987 H1	SPRING, idling Idling spg GUIDE	51	3043 090 R1	STUD, fuel connecting (3)
28	895 982 H1	SHAFT, shut-off lever	52	795 965 R1	SEAL, distributor head
29	895 978 H1	SPRING, governor linkage	53	796 048 R91	SCREW, distributor head vent
30	895 979 H1	RETAINER, governor linkage spg	54	795 966 R1	BOLT, long screwed banjo (2)
31	895 980 H1 31 384 789 R1	VALVE, metering (Standard) VALVE, metering (Oversize)	55	3043 091 R1	BOLT, short screwed banjo
32	895 968 H1 895 969 H1 895 970 H1	BRACKET, governor control Control bracket SCREW Bracket screw WASHER	56	3043 083 R1	CONNECTOR, fuel inlet pipe
33	895 966 H1 895 967 H1	PLATE, control bracket keep Keep plate tab WASHER	57	3043 085 R1	WASHER, inlet pipe connector
34	895 971 H1 3043 101 R1 3043 102 R1	STUD, control cover (2) Cover stud NUT (2) Cover stud WASHER (2)	58	795 952 R1	SPRING, retaining sleeve
35	895 965 H1	SPRING, governor control arm	59	3072 493 R1	PLUG, regulating valve
36	3043 109 R1 3043 110 R1 3043 111 R1 705 380 R1	PLATE, housing cover Cover plate GASKET Cover plate SCREW (2) Cover plate WASHER (2)	60	3072 495 R1	SPRING, regulating valve
37	3072 516 R1	RETAINER, governor weight	61	3043 084 R1	FILTER, fuel
38	3072 515 R1	WEIGHT, governor (6)	62	3072 492 R1	SLEEVE, regulating valve
39	3072 517 R1 895 950 H1	SLEEVE, governor weight thrust Weight thrust WASHER	63	795 946 R1	PISTON, regulating valve
40	3072 513 R1 3072 514 R1	CAM, ring Cam locating SCREW	64	795 948 R1	WASHER, regulating valve sleeve
41	3072 511 R1 795 980 R1 3072 512 R1	PLATE, drive Drive plate SCREW (2) (BD 144C) Drive plate SCREW (2) (BD 154T)	65	795 945 R1	SPRING, piston retaining
42	3072 510 R1	PLATE, top adjusting	66	3072 473 R1 3043 082 R1 795 944 R1 795 943 R1	PLATE, injection pump end Pump end plate SCREW (4) (BD 144C) Pump end plate SCREW (4) (BD 154T) Pump end plate PIN
43	795 977 R1	SHOE, cam roller (2)	67	12 736 D 384 804 R91	WIRE, plate lead sealing PACKAGE, seal & gasket
44	795 976 R1	ROLLER, cam (2)			

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+ Not Part of Pump

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## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
FUEL FEED PUMP (Diesel)		
		H 6084
	708 294 R93	PUMP, fuel feed (composed of all parts listed unless otherwise noted)
	3063 872 R1	Special pump attaching BOLT (2) (+)
1	702 953 R1 3044 518 R1	SCREW, filter cover Filter screw GASKET
2	3044 512 R1	COVER, filter
3	3044 511 R1	GASKET, filter cover screw
4	3044 513 R1	SCREEN, pump filter
5	3044 514 R1 132 117 114 648	COVER, feed pump No. 10 - NF x 1/2" slt-fil-hd SCREW (5) Screw spg WASHER (5)
6	702 958 R1	GASKET, valve
7	702 959 R91	VALVE, feed pump (2)
8	702 960 R1 702 961 R1	RETAINER, pump valve Valve retainer SCREW (2)
9	3066 607 R91	DIAPHRAGM, pump
10	708 954 R1	SPRING, diaphragm
11		WASHER, oil seal (for service on engines prior Serial No. on (BD 154T) (2499) & (BD 144C) (4435) (order 1 - 3072 671 R1, WASHER & 1 - 3072 672 R1, SEAL)
11	3072 671 R1	WASHER, oil seal (for service on engines Serial No. on (BD 154T) (2499 & up) & (BD 144C) (4435 & up)

REF. NO.	PART NUMBER	DESCRIPTION
FUEL FEED PUMP (Diesel) - Continued		
12		SEAL, pump (for service on engines prior Serial No. on (BD 154T) (2499) & (BD 144C) (4435) (order 1 - 3072 671 R1, WASHER & 1 - 3072 672 R1, SEAL)
12	3072 672 R1	SEAL, pump (for service on engines Serial No. on (BD 154T) (2499 & up) & (BD 144C) (4435 & up)
13	708 956 R1	SPRING, rocker arm
14	3044 517 R1 3044 515 R1 3062 570 R1 708 957 R1	ARM, rocker Rocker arm PIN Rocker arm pin RETAINER (2) Rocker arm pin WASHER (2)
15	708 963 R1	LINK, rocker arm
16	3044 520 R1	SPRING, priming lever
17	3044 519 R91	PRIMER, body & hand
	3043 370 R1	GASKET, feed pump (+)
	3066 610 R92	KIT, pump repair (less Rocker Arm) (+) composed of:
		2 Clip 702 951 R1
		1 Diaphragm 3066 607 R91
		1 Gasket 702 958 R1
		1 Gasket 3044 511 R1
		1 Gasket 3061 658 R1
		1 Link 708 963 R1
		1 Pin 702 950 R1
		1 Pin 3044 515 R1
		1 Retainer 702 960 R1
		2 Retainer 3062 570 R1
		1 Screen 3044 513 R1
		2 Screw 702 961 R1
		1 Spring 708 956 R1
		2 Valve 702 959 R91
		2 Washer 708 957 R1
		1 Washer 3072 671 R1
		1 Seal 3072 672 R1
		1 Gasket 3044 518 R1
	3066 540 R91	KIT, diaphragm first-air repair (+)
	3044 458 R91	SET, primer parts repair (+)

+ Not Part of Fuel Feed Pump

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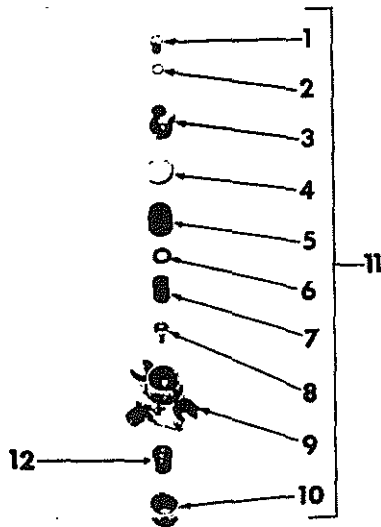


## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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## FUEL INJECTION NOZZLE (Diesel)



H 9046

	3040 870 R93	INJECTION NOZZLE & NOZZLE HOLDER ASSY (4) (composed of all parts unless otherwise noted)
	103 026	3/8" NF NUT (8) (+)
	706 077 R1	3/8" WASHER (8) (+)
1	705 498 R1	STUD, leak-off
2	703 519 R1	WASHER, leak-off stud
3	3066 623 R1	NUT, cap holder
4	706 287 R1	WASHER, joint (2)
5	3066 624 R1	NUT, spring cap
6	895 578 H1	WASHER, shim
7	3066 625 R1	SPRING, cap
8	706 282 R91	SPINDLE ASSEMBLY
9	3066 622 R91	BODY, nozzle holder
10	3066 627 R1	NUT, nozzle cap
11	3072 556 R91	HOLDER ASSY
12	3040 871 R91	NOZZLE, fuel injection (not part of 3072 556 R91)

+Not Part Of Nozzle

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REF. NO.	PART NUMBER	DESCRIPTION
CARBURETOR (C 135 and C 146 Engine) (Zenith)		
A 49497 D		
374 203 R93		CARBURETOR, (C-135) (composed of all parts listed, unless otherwise noted)
50 705 D		Carburetor manifold STUD (2) (+)
114 493		5/16"-NF NUT (2) (+)
115 548		5/16" 1k-WASH. (2) (+)
392 425 R91		CARBURETOR, (C-146) (composed of all parts listed, unless otherwise noted)
50 705 D		Carburetor manifold STUD (2) (+)
114 493		5/16"-NF NUT (2) (+)
115 548		5/16" 1k-WASH. (2) (+)
1	24 520 D	GASKET, carburetor (C-135) (+)
1	382 116 R1	GASKET, carburetor (C-146) (+)
2	13 873 D	NEEDLE, idle adjusting
3	12 472 D	SPRING, idle adjusting

REF. NO.	PART NUMBER	DESCRIPTION
CARBURETOR (C 135 and C 146 Engine) (Zenith) - Continued		
4	369 878 R92	BODY ASSEMBLY, throttle (C-135) composed of: * 1 Body 2 Bushing 368 360 R1 1 Needle 13 873 D 1 Plate 357 144 R1 1 Plug 53 797 D 1 Retainer 376 139 R1 1 Screen 53 796 D 2 Screw 454 415 1 Seal 368 358 R2 1 Shaft 62 170 DA 1 Spacer 54 062 D 1 Spring 12 472 D
4	393 868 R91	BODY ASSEMBLY, throttle (C-146) composed of: * 1 Body 2 Bushing 368 360 R1 1 Needle 13 873 D 1 Plate 393 865 R91 1 Plug 53 797 D 1 Retainer 376 139 R1 1 Screen 53 796 D 2 Screw 454 415 1 Seal 368 358 R2 1 Shaft 393 864 R91 1 Spacer 54 062 D 1 Spring 12 472 D
5	368 360 R1	BUSHING, throttle shaft (2)
6	368 358 R2	SEAL, throttle shaft
7	376 139 R1	RETAINER, throttle shaft seal
8	62 170 DA	SHAFT ASSEMBLY, lever throttle (C-135) (Includes 135 645 H, PIN)
8	393 864 R91	SHAFT ASSEMBLY, lever throttle (C-146) (Includes 135 645 H, PIN)
	135 645 H	Throttle lever taper PIN
9	54 062 D	SPACER, throttle lever
10	53 792 D	WASHER, fuel valve seat
11	274 888 R1	VALVE & SEAT, fuel (C-135)
11	393 869 R91	VALVE & SEAT, fuel (C-146)
12	35 514 D	AXLE, float
13	53 783 D	FLOAT, carburetor
14	369 880 R1	TUBE, idler filler (C-135)
14	393 871 R1	TUBE, idler filler (C-146)
15	369 879 R92	BOWL ASSEMBLY, fuel (C-135) composed of: * 1 Bowl 1 Plug 53 797 D 1 Retainer 42 191 D 1 Tube 369 880 R1 1 Washer 21 210 D
	357 154 R91	Bowl to body SCREW (4)
15	393 870 R91	BOWL ASSEMBLY, fuel (C-146) composed of: * 1 Bowl 1 Plug 377 798 R1 1 Retainer 42 191 D 1 Tube 393 871 R1 1 Washer 21 210 D
	357 154 R91	Bowl to body SCREW (4)

\* Not Serviced Separately  
+ Not Part of Carburetor



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
CARBURETOR (C 135 and C 146 Engine) (Zenith) - Continued					
16	31 860 D 12 433 D	PLUG, main jet passage Passage jet fibre WASH.			
17	20 628 D	JET, main (C-135)			
17	392 923 R1 12 435 D	JET, main (C-146) Main jet WASH.			
18	54 063 D	PLUG, fuel bowl drain			
19	384 327 R91	FILTER, drip plug			
20	53 797 D	PLUG, choke shaft hole (C-135)			
20	377 798 R1	PLUG, choke shaft hole (C-146)			
21	368 355 R91 19 451 R1 454 415	SHUTTER, air Choke shutter SCREW Shutter attaching SCREW (2)			
22	21 210 D	WASHER, choke shaft packing			
23	368 354 R91 22 846 D	JET, main discharge Main discharge jet WASH.			
24	42 191 D	RETAINER, choke shaft packing			
25	369 885 R91  131 958	BRACKET, air shutter (Includes 369 886 R1, CLAMP, 19 404 R1, NUT and 19 403 R1, SCREW) No. 8 x 5/16" sltd-fil-hd SCREW (2)			
26	97 465 H	JET, well vent (C-135)			
26	106 308 H	JET, well vent (C-146)			
27	369 886 R1 19 403 R1 19 404 R1	CLAMP, bracket tube No. 8 x 1/2" sltd-hd cd-pltd SCREW No. 8 cd-pltd sq NUT			
28	368 362 R1	GASKET, bowl to body			
29	369 884 R91 19 451 R1	LEVER & SHAFT, air shutter No. 8 x 3/8" sltd-hd cd-pltd SCREW			
30	357 144 R1	PLATE, throttle valve (C-135)			
30	393 865 R91 454 415	PLATE, throttle valve (C-146) Valve plate SCREW (2)			
31	369 881 R1	VENTURI, (C-135)			
31	393 872 R1	VENTURI, (C-146)			
32	352 604 R1	JET, idling (C-135)			
32	384 863 R1	JET, idling (C-146)			
33	53 797 D	PLUG, throttle shaft hole			
34	53 796 D	ELBOW, fuel screen			

\* Not Serviced Separately  
+ Not Part of Carburetor

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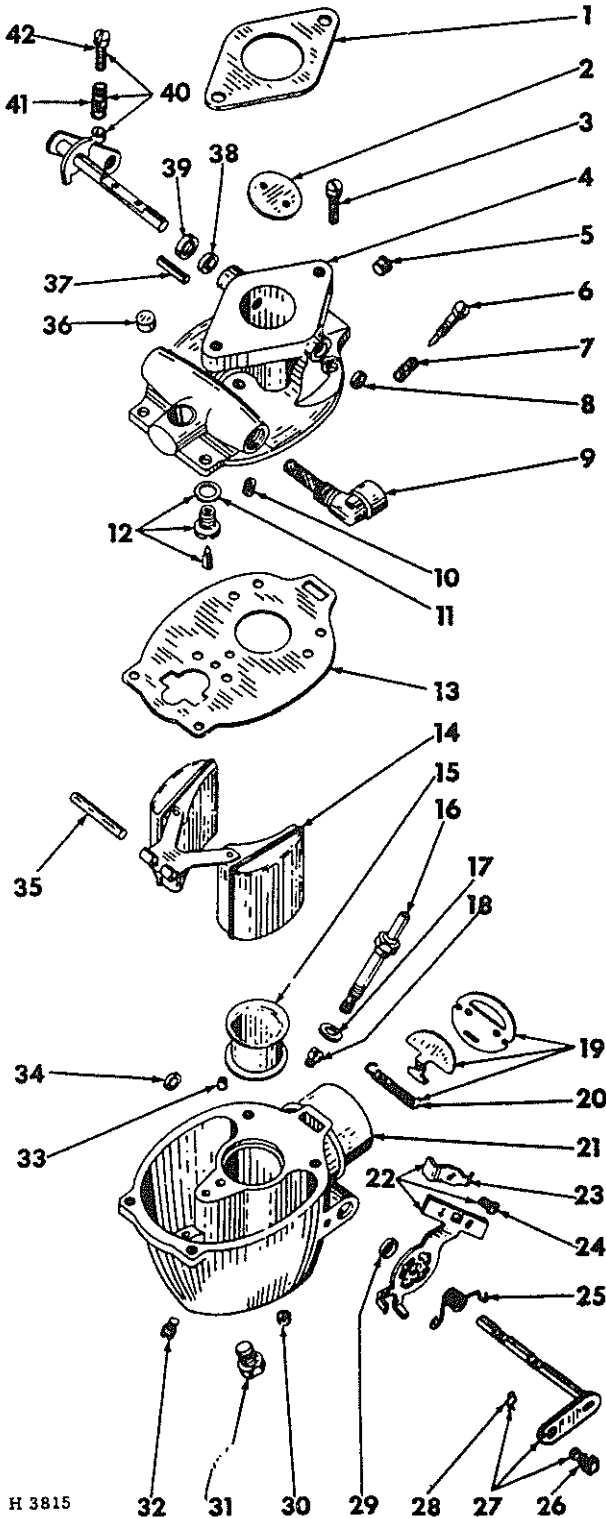


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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CARBURETOR FOR C 135 AND C 146 ENGINE (Marvel-Schebler)



H 3815

+Not Part of Carburetor  
\*Not Serviced Separately

REF. NO.	PART NUMBER	DESCRIPTION
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CARBURETOR FOR C 135 AND C 146 ENGINE (Marvel-Schebler)  
- Continued

396 478 R91	CARBURETOR, (Marvel-Schebler) (for Engine C 135) composed of all parts listed, unless otherwise noted	
59 705 D	Carburetor manifold STUD (2) (+)	
114 493	5/16"- NF NUT (2) (+)	
115 548	5/16" lk-WASHER (2) (+)	
397 341 R91	CARBURETOR, (Marvel-Schebler) (for Engine C 146) composed of all parts listed, unless otherwise noted	
59 705 D	Carburetor manifold STUD (2) (+)	
114 493	5/16"- NF NUT (2) (+)	
115 548	5/16" lk-WASHER (2) (+)	
1	24 520 D GASKET, carburetor (C 135) (+)	
1	382 116 R1 GASKET, carburetor (C 146) (+)	
2	373 389 R1 PLATE, throttle (C 135)	
2	391 677 R1 PLATE, throttle (C 146)	
352 701 R91	Throttle plate SCREW (2)	
3	10 563 R91 SCREW, body to bowl (4)	
4	373 356 R93 BODY ASSEMBLY, (C 135) composed of:	
	*1 Body	373 388 R91
	1 Shaft	373 389 R1
	1 Plate	352 701 R91
	2 Screw	373 400 R1
	1 Plug	69 930 D
	1 Cup	69 931 D
	1 Retainer	373 390 R1
	1 Packing	376 358 R1
	1 Pin	373 401 R1
	1 Plug	
4	391 676 R91 BODY ASSEMBLY, (C 146) composed of:	
	*1 Body	373 388 R91
	1 Shaft	391 677 R1
	1 Plate	352 701 R91
	2 Screw	373 400 R1
	1 Plug	69 930 D
	1 Cup	69 931 D
	1 Retainer	373 390 R1
	1 Packing	376 358 R1
	1 Pin	373 401 R1
	1 Plug	
5	373 400 R1 PLUG, idle drilling	
6	69 923 D SCREW, idle adjusting	
7	69 954 D SPRING, idle adjustment screw	
8	69 930 D CUP, throttle shaft	
9	69 938 D ELBOW, gas inlet	
10	69 929 D JET, idling (C 135)	
10	373 378 R1 JET, idling (C 146)	
11	69 950 D GASKET, float valve seat	
12	382 499 R91 VALVE ASSEMBLY, float	

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## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
CARBURETOR FOR C 135 AND C 146 ENGINE (Marvel-Schebler) - Continued			CARBURETOR FOR C 135 AND C 146 ENGINE (Marvel-Schebler) - Continued		
13	69 952 D	GASKET, body to bowl	33	373 383 R1	VENT, well (C 135)
14	69 919 D	FLOAT & LEVER ASSEMBLY	33	373 384 R1	VENT, well (C 146)
15		VENTURI, (C 135) (*)	34	373 403 R1	CUP, air shutter shaft (C 135)
15	398 515 R1	VENTURI, (C 146)	34	69 930 D	CUP, air shutter shaft (C 146)
16	373 377 R1	NOZZLE, power jet main (C 135)	35	69 920 D	AXLE, float
	391 699 R91	NOZZLE, power jet main (C 146)	36	373 401 R1	PLUG, welch
17	373 361 R1	GASKET, main nozzle	37	376 358 R1	PIN, throttle stop
18	396 978 R1	JET, power (C 135)	38	373 390 R1	PACKING, throttle shaft
18	397 474 R1	JET, power (C 146)	39	69 931 D	RETAINER, throttle shaft packing
19	373 370 R91	SHUTTER ASSEMBLY, air (C 135)	40	373 388 R91	SHAFT ASSEMBLY, throttle
19	391 679 R91	SHUTTER ASSEMBLY, air (C 146)	41	69 953 D	SPRING, throttle stop
	352 701 R91	Shutter assembly SCREW (2)	42	131 979	BOLT, No. 8 - NF x 3/4" fil-hd slt cd-pltd
20	373 371 R1	SPRING, air shutter (C 135)			
21	378 753 R91	BOWL ASSEMBLY, carburetor (C 135) composed of:			
		*1 Bowl			
		1 Vent	373 383 R1		
		1 Strainer	373 387 R1		
		1 Plug	373 404 R1		
		1 Cup	373 403 R1		
21	391 678 R91	BOWL ASSEMBLY, carburetor (C 146) composed of:			
		*1 Bowl			
		1 Vent	373 384 R1		
		1 Strainer	373 387 R1		
		1 Plug	373 404 R1		
		1 Packing	69 924 D		
22	372 372 R91	BRACKET ASSEMBLY, air shutter consists of: 1 - 373 373 R1, CLIP & 1 - 19 548 R91, BOLT)			
	453 666	No. 8 - NF x 3/8" fil-hd cd-pltd BOLT			
23	373 373 R1	CLIP, shutter bracket			
24	19 548 R91	BOLT, 5/16 - NF slt cd-pltd & spring lk-WASHER			
25	373 369 R1	SPRING, air shutter return			
26	373 405 R1	SWIVEL, air shutter shaft			
	455 956 R1	No. 8 - NF x 5/16" slt hex-hd cd-pltd BOLT			
27	373 366 R91	SHAFT & LEVER ASSEMBLY, air shutter			
28	373 406 R1	SPRING, swivel retainer			
29	69 924 D	PACKING, air shutter shaft			
30	373 387 R1	STRAINER, bowl			
31	69 940 D	PLUG, drain			
32	373 404 R1	PLUG, power jet drilling			

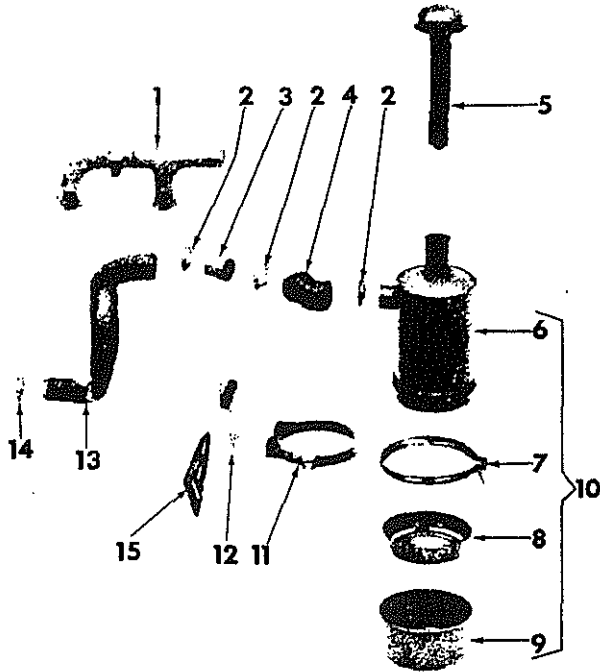


## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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## AIR CLEANER (Wet Type)



H 1573

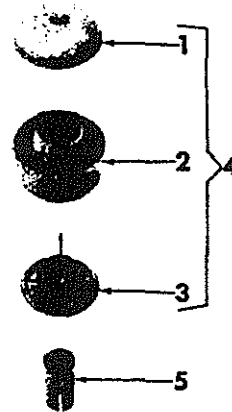
1		MANIFOLD, air intake (Refer to "CYLINDER HEAD") (Diesel)
2	279 026 R91	CLAMP, hose (3)
3	675 517 R1	SPACER, air cleaner pipe (Gas only)
4	676 311 R1	HOSE, air cleaner
5	676 649 R91	CAP, air intake
6		BODY, air cleaner (*) (Order 1 - 675 512 R91, CLEANER)
7	277 719 R91	CLAMP, air cleaner
8	372 488 R1	CUP, air cleaner inner
9	675 513 R91	CUP, air cleaner
10	675 512 R91	CLEANER, air (composed of parts within the bracket)
11	313 980 R91	CLAMP, air cleaner (2) (Includes 225 505, SCREW & 140 687, NUT)
	179 814	5/16 x 5/8" Type 2 BOLT (2)
	179 816	5/16 x 3/4" Type 2 BOLT (2)
	102 634	5/16" NUT (4)
	Q 397	11/32 x 3/4 x 16 ga WASHER (3)
	103 320	5/16" 1k-WASHER (4)

REF. NO.	PART NUMBER	DESCRIPTION
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## AIR CLEANER (Wet Type) - Continued

12	675 385 R21	SUPPORT, air cleaner
	179 814	5/16 x 5/8" Type 2 BOLT (3)
	179 835	3/8 x 5/8" Type 2 BOLT (Diesel only)
	102 634	5/16" NUT (3)
	102 635	3/8" NUT (Diesel only)
	103 320	5/16" 1k-WASHER (3)
	103 321	3/8" 1k-WASHER (Diesel only)
13	636 836 R1	HOSE, air cleaner (Gas only)
14	279 038 R91	CLAMP, hose (Gas-only)
15	676 433 R1	REINFORCEMENT, air cleaner support
	557 950 R1	13/32 x 1 x 7 ga WASHER (2)
	179 841	3/8 x 1-1/4" Type 2 BOLT
	102 635	3/8" NUT (Gas only)
	103 321	3/8" 1k-WASHER
	Q 1 597	13/32 x 3/4 x 16 ga WASHER
	510 579 R1	13/32 x 1-1/4 x 16 ga WASHER

## PRE-CLEANER



H 6772

1	361 412 R91	CAP, pre-cleaner (opt w/362 999 R91)
1	362 999 R91	CAP, pre-cleaner (opt w/361 412 R91)
2	324 517 R91	BODY, pre-cleaner (opt w/363 000 R1)
	363 000 R1	BODY, pre-cleaner (opt w/324 517 R91)
3		SLEEVE, pre-cleaner (*) (for service order 1 - 357 866 R91 or 362 998 R91)
3		SLEEVE, pre-cleaner (*) (for service order 1 - 362 998 R91 or 357 866 R91)
	225 505	1/4 x 1-1/4" sltd-fil-hd SCREW
	140 687	1/4" sq-NUT
4	362 998 R91	PRE-CLEANER, (Includes 1 - 362 999 R91, CAP, 1 - 363 000 R1, BODY) (opt w/357 866 R91)
4	357 866 R91	PRE-CLEANER, (Includes 1 - 361 412 R91, CAP, 1 - 324 517 R91, BODY, 1 - 225 505, SCREW, 1 - 140 687, NUT) (opt w/362 998 R91)
5	636 506 R1	ADAPTER, pre-cleaner mounting

\* Not Serviced Separately

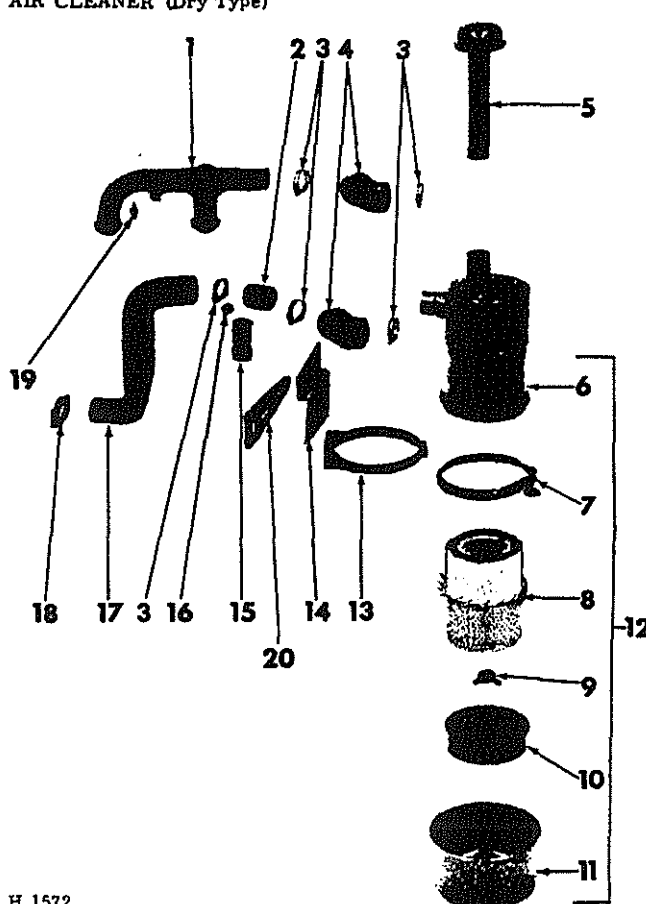
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**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
<b>AIR CLEANER (Dry Type)</b>		
		
H 1572		
1		MANIFOLD, air intake (Refer to "CYLINDER HEAD") (Diesel)
2	675 387 R91	PIPE, air cleaner (Gas only)
3	279 026 R91	CLAMP, hose (3 - Gas) (2 - Diesel)
4	676 311 R1	HOSE, air cleaner
5	676 649 R91	CAP, air intake
6		BODY, air cleaner (*) (Order 1 - 675 379 R92, CLEANER)
7	381 339 R91	CLAMP, air cleaner
8	675 410 R91	ELEMENT
9	381 342 R91	NUT
10	381 345 R91	BAFFLE, air cleaner
11	675 411 R91	CUP, air cleaner
12	675 379 R92	CLEANER, air (composed of all parts within the bracket)

REF. NO.	PART NUMBER	DESCRIPTION
<b>AIR CLEANER (Dry Type) - Continued</b>		
13	675 384 R91	CLAMP, air cleaner (2) (Includes 225 505, SCREW & 140 687, NUT)
	179 814	5/16 x 5/8" Type 2 BOLT (2)
	179 816	5/16 x 3/4" Type 2 BOLT (2)
	Q 397	11/32 x 3/4 x 16 ga WASHER (2)
	102 634	5/16" NUT (4)
	103 320	5/16" 1k-WASHER (4)
14	675 385 R21	SUPPORT, air cleaner
	179 814	5/16 x 5/8" Type 2 BOLT (3)
	179 835	3/8 x 5/8" Type 2 BOLT (Diesel only)
	102 634	5/16" NUT (3)
	102 635	3/8" NUT (Diesel only)
	103 320	5/16" 1k-WASHER
	103 321	3/8" 1k-WASHER (Diesel only)
15	385 106 R91	INDICATOR, air restriction
16	105 410	CAP, 1/8" pipe nipple (Gas only)
17	636 836 R1	HOSE, air cleaner (Gas only)
18	279 038 R91	CLAMP, hose (Gas only)
19	317 972 R91	NIPPLE, filter (Diesel only)
	118 748	5/16" TUBE
	105 414	1/8" - 45° elbow PIPE
20	676 433 R1	REINFORCEMENT, air cleaner support
	557 950 R1	13/32 x 1 x 7 ga WASHER (2)
	179 841	3/8 x 1-1/4" Type 2 BOLT
	102 635	3/8" NUT (Gas only)
	103 321	3/8" 1k-WASHER
	Q 1 597	13/32 x 3/4 x 16 ga WASHER
	510 579 R1	13/32 x 1-1/4 x 16 ga WASHER (Diesel only)

\* Not Serviced Separately



## CRAWLER TRACTORS



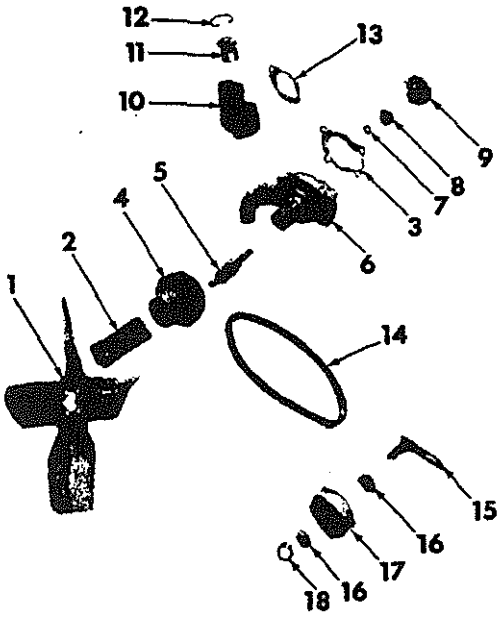
REF. NO.	PART NUMBER	DESCRIPTION
FAN AND WATER PUMP (Diesel Only) (For 11/16" Cog Type Belt Drive Only)		
H 6880A		
H 1364		
		NOTE A: For use on tractors equipped w/5/8" dia water pump bearing spindle
		NOTE B: For use on tractors equipped w/3/4" dia water pump bearing spindle
1	706 749 R91	FAN, suction
1	675 757 R91	FAN, blower
	179 819	5/16 x 1-1/8" Type 2 BOLT (4)
	102 634	5/16" NUT (4)
	103 320	5/16" 1k-WASHER (4)
2	675 531 R1	EXTENSION, fan
	179 818	5/16 x 1" Type 2 BOLT (4)
	103 320	5/16" 1k-WASHER (4)
3	703 816 R1	GASKET, water pump
4	3040 316 R1	PULLEY, water pump (Suction Fan)(Note A)
4	676 746 R1	PULLEY, water pump (Suction Fan)(Note B)
4	675 183 R1	PULLEY, water pump (Blower Fan)(Note A)
4	676 747 R1	PULLEY, water pump (Blower Fan)(Note B)
5		BEARING, spindle (Note A) (order 1 - 676 780 R91, WATER PUMP ASSEMBLY for suction fan equipped tractors) (order 1 - 676 781 R91, WATER PUMP ASSEMBLY for blower fan equipped tractors)
5	3072 459 R91	BEARING, spindle (Note B)
6		BODY, pump (Note A) (order 1 - 676 780 R91, WATER PUMP ASSEMBLY for suction fan equipped tractors) (order 1 - 676 781 R91, WATER PUMP ASSEMBLY for blower fan equipped tractors)
	704 218 R1	Retaining BOLT (Suction Fan)
	103 319	1/4" 1k-WASHER
	102 817	1/4 x 1/2" hcls set SCREW (Blower Fan)
	675 184 R1	Set screw 1k-WIRE (Blower Fan)

REF. NO.	PART NUMBER	DESCRIPTION
FAN AND WATER PUMP (Diesel Only) - Continued (For 11/16" Cog Type Belt Drive Only)		
6	3072 457 R1	BODY, pump (Note B)
7	352 221 R1	"O" RING, pump spindle (Note A)
8	703 822 R91	SEAL, water pump
9	709 909 R2	IMPELLER, water pump
10	703 814 R1	HOUSING, thermostat
	179 818	5/16 x 1" Type 2 BOLT (2)
	179 828	5/16 x 2-1/2" Type 2 BOLT
	103 320	5/16" 1k-WASHER (3)
11	369 322 R91	THERMOSTAT, 170°F
12	257 441 R2	RING, thermostat retaining
13	703 815 R1	GASKET, thermostat housing
14	676 620 R1	BELT, fan drive
15	3040 313 R21	BRACKET, fan belt adjusting pulley
	179 835	3/8 x 5/8" Type 2 BOLT
	Q 1 504	13/32 x 7/8 x 16 ga WASHER
16	3040 303 R11	BEARING, belt pulley adjusting (2)
17	3040 302 R11	PULLEY, adjusting (Includes 3040 303 R11, BEARINGS)
18	3040 306 R1	RING, pulley retaining
	675 759 R91	PARTS ACCESSORY, blower fan (Note A) composed of:
		1 Blade 675 757 R91
		1 Pulley 675 183 R1
		1 Belt 676 644 R1
		1 Belt 676 620 R1
		1 Screw 102 817
		1 Plate 675 714 R91
		1 Plate 675 715 R91
		1 Wire 675 184 R1
		PUMP, water (Note A) (order 1 - 676 780 R91, WATER PUMP ASSEMBLY for suction fan equipped tractors) (order 1 - 676 781 R91, WATER PUMP ASSEMBLY for blower fan equipped tractors)
676 780 R91		WATER PUMP & PULLEY ASSEMBLY, (Note B) (for tractors equipped w/suction fan) composed of:
		1 Bearing 3072 459 R91
		1 Body 3072 457 R91
		1 Seal 703 822 R91
		1 Impeller 709 909 R2
		1 Pulley 676 746 R1
		1 Gasket 703 816 R1
676 781 R91		WATER PUMP & PULLEY ASSEMBLY, (Note B) (for tractors equipped w/blower fan) composed of:
		1 Bearing 3072 459 R91
		1 Body 3072 457 R91
		1 Seal 703 822 R91
		1 Impeller 709 909 R2
		1 Pulley 676 747 R1
		1 Gasket 703 816 R1



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
<b>FAN AND WATER PUMP (Diesel Only) (For 3/8" V-Type Belt Drive Only)</b>		
		
H 6880		
H 1364		
		NOTE A: For use on tractors equipped w/5/8" dia water pump bearing spindle
		NOTE B: For use on tractors equipped w/3/4" dia water pump bearing spindle
1	706 749 R91	FAN, suction
1	675 757 R91	FAN, blower
	179 819	5/16 x 1-1/8" Type 2 BOLT (4)
	102 634	5/16" NUT (4)
	103 320	5/16" 1k-WASHER (4)
2	675 531 R1	EXTENSION, fan
	179 818	5/16 x 1" Type 2 BOLT (4)
	103 320	5/16" 1k-WASHER (4)
3	703 816 R1	GASKET, water pump
4	676 623 R1	PULLEY, water pump (Suction Fan)(Note A)
4	3072 458 R1	PULLEY, water pump (Suction Fan)(Note B)
4	676 624 R1	PULLEY, water pump (Blower Fan)(Note A)
4	676 743 R1	PULLEY, water pump (Blower Fan)(Note B)
5		BEARING, spindle (Note A) (order 1 - 676 782 R91, WATER PUMP ASSEMBLY for suction fan equipped tractors) (order 1 - 676 783 R91, WATER PUMP ASSEMBLY for blower fan equipped tractors)
5	3072 459 R91	BEARING, spindle (Note B)
6		BODY, pump (Note A) (order 1 - 676 782 R91, WATER PUMP ASSEMBLY for suction fan equipped tractors) (order 1 - 676 783 R91, WATER PUMP ASSEMBLY for blower fan equipped tractors)
	704 218 R1	Retaining BOLT (Suction Fan)
	103 319	1/4" 1k-WASHER
	102 817	1/4 x 1/2" hdls set SCREW (Blower Fan)
	675 184 R1	Set screw 1k-WIRE (Blower Fan)
6	3072 457 R1	BODY, pump (Note B)

REF. NO.	PART NUMBER	DESCRIPTION
<b>FAN AND WATER PUMP (Diesel Only) - Continued (For 3/8" V-Type Belt Drive Only)</b>		
7	352 221 R1	"O" RING, pump spindle (Note A)
8	703 822 R91	SEAL, water pump
9	709 909 R2	IMPELLER, water pump
10	703 814 R1	HOUSING, thermostat
	179 818	5/16 x 1" Type 2 BOLT (2)
	179 828	5/16 x 2-1/2" Type 2 BOLT
	103 320	5/16" 1k-WASHER (3)
11	369 322 R91	THERMOSTAT, 170°F
12	257 441 R2	RING, thermostat retaining
13	703 815 R1	GASKET, thermostat housing
14	676 622 R1	BELT, fan drive
15	3040 313 R21	BRACKET, fan belt adjusting pulley
	179 835	3/8 x 5/8" Type 2 BOLT
	Q 1 504	13/32 x 7/8 x 16 ga WASHER
16	392 672 R91	BEARING, belt pulley adjusting (2)
17	676 625 R11	PULLEY, adjusting composed of:
		2 Bearing 392 672 R91
		1 Ring 273 026 R1
		2 Washer 676 639 R1
18	3040 306 R1	RING, pulley retaining
	676 630 R91	PARTS ACCESSORY, blower fan (Note A) composed of:
		1 Blade 675 757 R91
		1 Pulley 676 624 R1
		1 Belt 676 622 R1
		1 Screw 102 817
		1 Plate 675 714 R91
		1 Plate 675 715 R91
		1 Wire 675 184 R1
	676 745 R91	PARTS ACCESSORY, blower fan (Note B) composed of:
		1 Blade 675 757 R91
		1 Pulley 676 743 R1
		1 Plate 675 714 R91
		1 Plate 675 715 R91
		PUMP, water (Note A) (order 1 - 676 782 R91, WATER PUMP ASSEMBLY for suction fan equipped tractors) (order 1 - 676 783 R91, WATER PUMP ASSEMBLY for blower fan equipped tractors)
676 782 R91		WATER PUMP & PULLEY ASSEMBLY (Note B) (for tractors equipped w/ suction fan) composed of:
		1 Bearing 3072 459 R91
		1 Body 3072 457 R91
		1 Seal 703 822 R91
		1 Impeller 709 909 R2
		1 Pulley 3072 458 R1
		1 Gasket 703 816 R1
676 783 R91		WATER PUMP & PULLEY ASSEMBLY (Note B) (for tractors equipped w/ blower fan) composed of:
		1 Bearing 3072 459 R91
		1 Body 3072 457 R91
		1 Seal 703 882 R91
		1 Impeller 709 909 R2
		1 Pulley 676 743 R1
		1 Gasket 703 816 R1





REF. NO.	PART NUMBER	DESCRIPTION
FAN AND WATER PUMP (Gas Engine)		
A 49011		
H 1364		
1	368 556 R1	PIPE, lower by-pass
2	375 061 R91	CLAMP, by-pass hose (2)
3	43 204 D	GASKET, water outlet elbow
4	367 679 R1 179 839 103 321	ELBOW, water outlet 3/8 x 1" Type 2 BOLT (3) 3/8" lk-WASH. (3)
5	369 322 R91	THERMOSTAT, 170°F
6	257 441 R2	RING, thermostat retainer
7	367 680 R1	PIPE, upr by-pass
8	367 681 R1	HOSE, by-pass pipe
9	367 688 R1 181 315 103 319	PULLEY, water pump 1/4-NF x 1" Type 2 BOLT (4) 1/4" lk-WASH. (4)
10	675 530 R1 181 315 103 319	EXTENSION, fan 1/4-NF x 1" Type 2 BOLT (4) 1/4" lk-WASH. (4)
11	706 749 R91	FAN, water pump
11	675 757 R91 179 819 103 320 102 634	FAN, water pump blower 5/16 x 1-1/8" Type 2 BOLT (4) 5/16" lk-WASH. (4) 5/16" NUT (4)

REF. NO.	PART NUMBER	DESCRIPTION
FAN AND WATER PUMP (Gas Engine) - Continued		
12	676 645 R1	BELT, fan & generator drive
13	368 501 R2	HUB, pulley (opt w/392 713 R1)
13	392 713 R1	HUB, pulley (opt w/368 501 R2)
14	102 089 H	RING, front snap
15	ST 644	BEARING, pump (Includes 71 351 R1, SLINGER)
16	71 351 R1	SLINGER, water pump
17		BODY, (*) (order 1 - 367 683 R91, PUMP) (C-135 Engine)
17		BODY, (*) (order 1 - 375 793 R91, PUMP) (C-146 Engine)
18	73 296 R92	SEAL, water pump
19	367 689 R1	IMPELLER, water pump
20	367 683 R91	PUMP, water (Parts within bracket) (C-135 Engine)
20	375 793 R91	PUMP, water (Parts within bracket) (C-146 Engine)
	179 842	3/8 x 1-3/8" Type 2 BOLT
	179 847	3/8 x 2" Type 2 BOLT
	186 278	3/8 x 2-5/8" Type 2 BOLT
	103 321	3/8" lk-WASH. (3)
21	367 687 R1	GASKET, water pump body
22	368 559 R1 179 816 103 320	PLATE, water pump 5/16 x 3/4" Type 2 BOLT (2) 5/16" lk-WASH. (2)
23	375 745 R1	GASKET, water pump plate

\* Not Serviced Separately

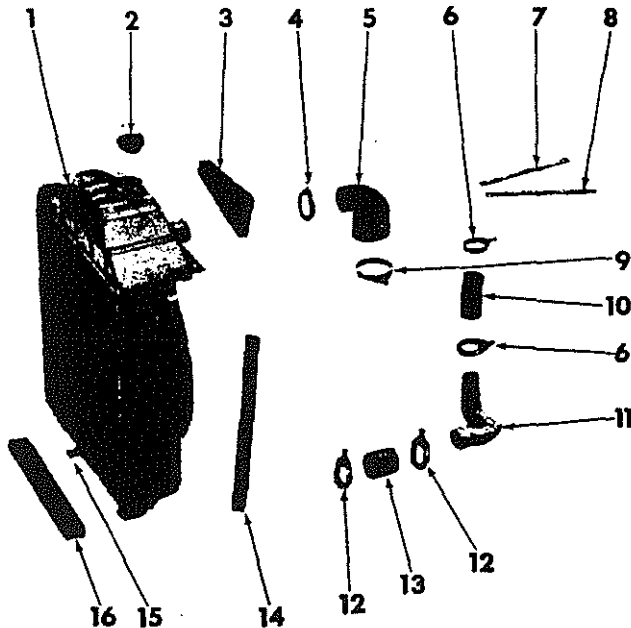


## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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## RADIATOR (Gas Engine)

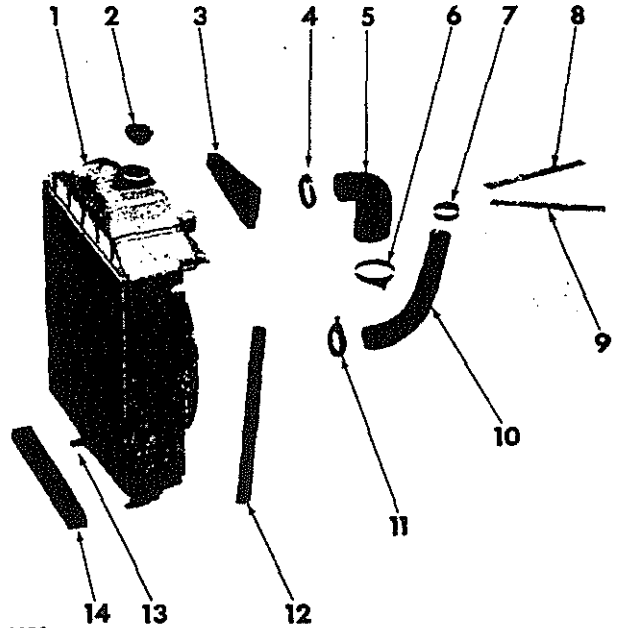


H 6879  
H 1363

1	675 518 R92 179 877 103 323	RADIATOR 1/2 x 5/8" Type 2 BOLT (2) 1/2" 1k-WASHER (2)
2	361 705 R91	CAP, radiator
3	675 850 R1	SEAL, radiator upr (2)
4	29 979 D	CLAMP, radiator inlet hose upr
5	675 524 R1	HOSE, radiator inlet
6	39 142 H	CLAMP, radiator outlet elbow hose upr (2)
7	675 522 R1	STRIP, radiator brace RH
8	675 520 R1 179 838 102 635 103 321	STRIP, radiator brace LH 3/8 x 7/8" Type 2 BOLT (2) 3/8" NUT (2) 3/8" 1k-WASHER (2)
9	39 240 H	CLAMP, radiator inlet hose (lower)
10	676 332 R1	SHOE, radiator outlet elbow upr
11	368 602 R1 103 867	ELBOW, radiator outlet 3/8" sq-hd pipe PLUG
12	55 624 D	CLAMP, radiator outlet elbow hose lower (2)
13	675 526 R1	HOSE, radiator outlet elbow lower
14	675 529 R1	SEAL, radiator side (2)
15	103 647	COCK, radiator drain
16	676 061 R1	SEAL, radiator lower

REF. NO.	PART NUMBER	DESCRIPTION
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## RADIATOR (Diesel Engine)



H 6878  
H 1363

1	675 519 R92 179 877 103 323	RADIATOR 1/2 x 5/8" Type 2 BOLT (2) 1/2" 1k-WASHER (2)
2	361 705 R91	CAP, radiator
3	675 850 R1	SEAL, radiator upr (2)
4	29 979 D	CLAMP, radiator inlet hose upr
5	675 525 R1	HOSE, radiator inlet
6	39 233 H	CLAMP, radiator inlet hose lower
7	39 142 H	CLAMP, radiator outlet hose upr
8	675 523 R1	STRIP, radiator brace RH
9	675 522 R1 179 838 102 635 103 321	STRIP, radiator brace LH 3/8 x 7/8" Type 2 BOLT (2) 3/8" NUT (2) 3/8" 1k-WASHER (2)
10	675 527 R1	HOSE, radiator outlet
11	55 624 D	CLAMP, radiator outlet hose lower
12	675 529 R1	SEAL, radiator side (2)
13	103 647	COCK, radiator drain
14	676 061 R1	SEAL, radiator lower



REF. NO.	PART NUMBER	DESCRIPTION
<b>REVERSER COOLING</b>		
H 1385		
1	676 487 R1	INSULATOR, cooler mounting
2	676 057 R1 179 814 179 816 102 634 668 569 R1 103 320	BRACKET, cooler support (2) 5/16 x 5/8" Type 2 BOLT (2) 5/16 x 3/4" Type 2 BOLT (2) 5/16" NUT (4) 11/32 x 1-1/2 x 11 ga WASHER (2) 5/16" 1k-WASHER (4)
3	676 056 R1 179 821 102 634 103 320	CLAMP, cooler mounting (4) 5/16 x 1-3/8" Type 2 BOLT (4) 5/16" NUT (4) 5/16" 1k-WASHER (4)
4	676 567 R91	COOLER, reverser oil (Gas) (Includes 676 053 R91, HOSES)
5	676 568 R91	COOLER, reverser oil (Diesel) (Includes 676 053 R91, HOSES)
6	676 053 R91	HOSE, inlet & outlet (2)
7	676 052 R11 179 830	SUPPORT, clamp (Diesel) 5/16 x 3" Type 2 BOLT
8	676 050 R1 179 803 109 084 103 319	CLAMP, tube dual (2-Gas, 4-Diesel) 1/4 x 1-3/4" Type 2 BOLT (2-Diesel, 1-Gas) 1/4" NUT (2) 1/4" 1k-WASHER (2)
9	676 051 R1 179 841 102 635 103 321	ANGLE, clamp support 3/8 x 1-1/4" Type 2 BOLT 3/8" NUT 3/8" 1k-WASHER
10	676 046 R11	TUBE, cooler inlet (Gas)
10	676 047 R11	TUBE, cooler inlet (Diesel)
11	9411 107 369 269 R1	ELBOW, 3/4" - 37° cooler tube (2) Elbow "O"RING (2)
12	676 048 R11	TUBE, cooler outlet (Gas)
12	676 049 R11	TUBE, cooler outlet (Diesel)

\* Not Serviced Separately

REF. NO.	PART NUMBER	DESCRIPTION
<b>HEAT SHIELD</b>		
H 4271		
1	635 417 R2 37 998 H 114 503 Q 1597 103 321	BRACKET, heat shield support 3/8 x 1-1/4" Type 2 BOLT 3/8" jam NUT 13/32 x 3/4 x 16 ga WASHER 3/8" 1k-WASHER
2	635 735 R2 113 355	SHEET, heat shield asbestos 3/16 x 3/8" ov-hd tubular RIVET (7)
3	635 736 R93 179 838 179 839 102 635 103 321	SHIELD, heat composed of: 7 Rivet 113 355 1 Sheet 635 735 R2 *1 Shield 3/8 x 7/8" Type 2 BOLT (Gas) 3/8 x 1" Type 2 BOLT (2) (Diesel) 3/8" NUT (2) 3/8" 1k-WASHER (2)
4	635 418 R2	PLATE, heat shield support (Skidder Gas only)
4	675 852 R1 179 838 179 839 102 635 510 579 R1 103 321	PLATE, heat shield support (Crawler Diesel only) 3/8 x 7/8" Type 2 BOLT (2) 3/8 x 1" Type 2 BOLT (2) 3/8" NUT (2) 13/32 x 1-1/4 x 16 ga WASHER (Diesel) 3/8" 1k-WASHER (2)

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**CRAWLER TRACTORS**

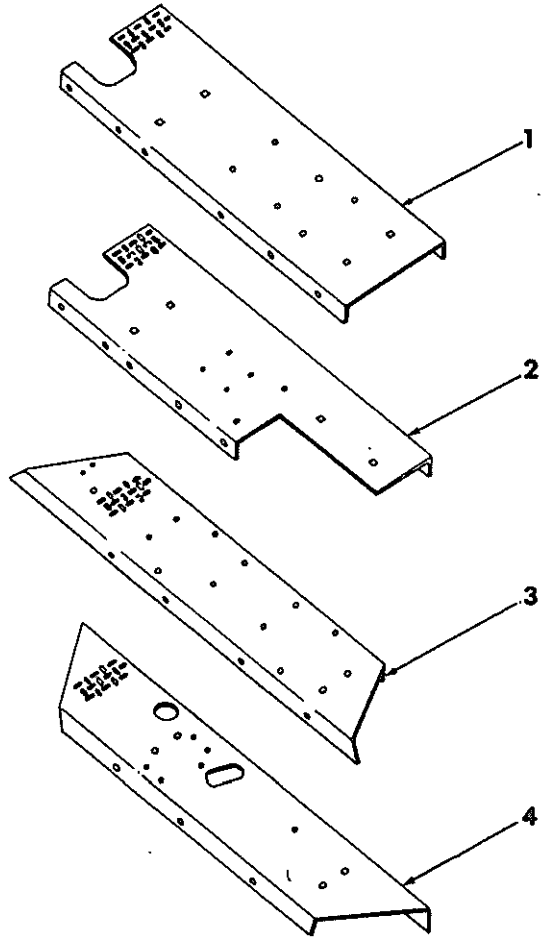
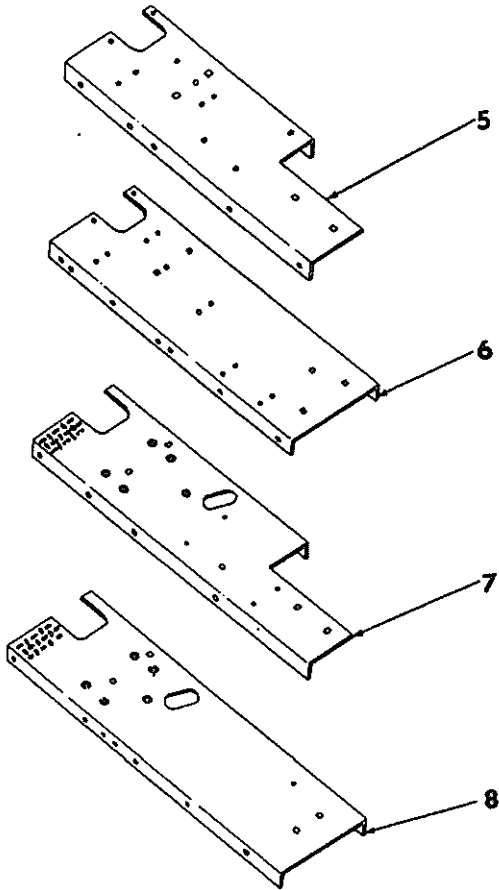


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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FENDERS

FENDERS - Continued



HE 307

1	635 716 R5	FENDER, LH (Crawler less 10 Bullgrader 11 Bullgrader or IH Loader)
	15 434 R1	3/8 x 1-1/4" step BOLT (4)
	102 635	3/8" NUT (4)
	103 321	3/8" 1k-WASHER (4)
1	637 266 R3	FENDER, LH (Crawler w/IH Loader)
	179 841	3/8 x 1-1/4" Type 2 BOLT (2)
	102 635	3/8" NUT (2)
	103 321	3/8" 1k-WASHER (2)
2	635 943 R5	FENDER, LH (Crawler w/10 Bullgrader or 11 Bullgrader)
	15 434 R1	3/8 x 1-1/4" step BOLT (4)
	102 635	3/8" NUT (4)
	103 321	3/8" 1k-WASHER (4)
3	676 214 R1	FENDER, LH (Skidder only)
	179 883	1/2 x 1-1/4" Type 2 BOLT (4)
	102 637	1/2" NUT (4)
	103 323	1/2" 1k-WASHER (4)
4	676 215 R1	FENDER, RH (Skidder only)
	179 883	1/2 x 1-1/4" Type 2 BOLT (4)
	102 637	1/2" NUT (4)
	103 323	1/2" 1k-WASHER (4)

5	676 017 R2	FENDER, RH (Crawler w/10 Bullgrader)
	15 434 R1	3/8 x 1-1/4" step BOLT (4)
	102 635	3/8" NUT (4)
	103 321	3/8" 1k-WASHER (4)
6	675 905 R2	FENDER, RH (Crawler w/IH Loader)
	179 841	3/8 x 1-1/4" Type 2 BOLT (2)
	102 635	3/8" NUT (2)
	103 321	3/8" 1k-WASHER (2)
7	635 717 R5	FENDER, RH (Crawler less 10 Bullgrader 11 Bullgrader or IH Loader)
	15 434 R1	3/8 x 1-1/4" step BOLT (4)
	102 635	3/8" NUT (4)
	103 321	3/8" 1k-WASHER (4)
8	635 944 R6	FENDER, RH (w/11 Bullgrader)
	15 434 R1	3/8 x 1-1/4" step BOLT (4)
	102 635	3/8" NUT (4)
	103 321	3/8" 1k-WASHER (4)



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
ENGINE HOOD AND GRILLE		
1	675 939 R11 180 024 469 668 R1	GRILLE, radiator 3/8 x 1-1/4" Type 2 cd-pltd BOLT (4) 13/32 x 3/4 x 16 ga cd-pltd WASHER (4)
2	635 718 R2	HOUSING, radiator grille (for use on Crawler gas tractors prior to Serial No. H 1842) (for use on Crawler diesel tractors prior to Serial No. H 1996) (for use on Skidder gas tractor prior to Serial No. H 1070) (for use on Skidder diesel tractors prior to Serial No. H 1119)
	179 896 103 323	1/2 x 2" Type 2 BOLT (2) 1/2" lk-WASHER (2)
2	676 441 R1	HOUSING, radiator grille (for use on Crawler gas tractors with Serial No. H 1842 & up) (for use on Crawler diesel tractors with Serial No. H 1996 & up) (for use on Skidder gas tractors with Serial No. H 1070 and up) (for use on Skidder diesel tractors with Serial No. H 1119 and up)
	179 896 103 323	1/2 x 2" Type 2 BOLT (2) 1/2" lk-WASHER (2)
3	635 727 R3 180 120 180 122 469 668 R1	SHEET, hood RH (diesel) 3/8 x 3/4" Type 2 cd-pltd BOLT (2) 3/8 x 1" Type 2 cd-pltd BOLT (2) 13/32 x 3/4 x 16 ga cd-pltd WASHER (4)

HE 4608

REF. NO.	PART NUMBER	DESCRIPTION
ENGINE HOOD AND GRILLE - Continued		
3	635 725 R21 180 018 109 084 103 319	SHEET, hood RH (gas) 1/4 x 5/8" slt-rd-hd SCREW (6) 1/4" NUT (6) 1/4" lk-WASHER (6)
4	635 729 R11	ANGLE, hood support lower
4	636 861 R11 179 837 Q 1 597 102 635 103 321	ANGLE, hood support upper 3/8 x 3/4" Type 2 BOLT (2) 13/32 x 3/4 x 16 ga WASHER (upper) 3/8" NUT (2) 3/8" lk-WASHER (2)
5	635 737 R1 37 998 H 114 503 Q 1 597 103 321	STAY, hood 3/8 x 1-1/4" Type 2 BOLT 3/8" jam NUT (2) 13/32 x 3/4 x 16 ga WASHER 3/8" lk-WASHER
6	636 838 R2	SHEET, hood LH (gas) (Dry-Type Air Cleaner)
6	675 739 R2 180 120 180 122 469 668 R1	SHEET, hood LH (gas) (Wet Type Air Cleaner) 3/8 x 3/4" Type 2 cd-pltd BOLT (2) 3/8 x 1" Type 2 cd-pltd BOLT (2) 13/32 x 3/4 x 16 ga cd-pltd WASHER (4)
6	635 726 R21	SHEET, hood LH (Diesel) (Dry-Type Air Cleaner)
6	675 740 R11 180 018 109 084 103 319	SHEET, hood LH (Diesel) (Wet-Type Air Cleaner) 1/4 x 5/8" Type 2 cd-pltd BOLT (6) 1/4" NUT (6) 1/4" lk-WASHER (6)
7	635 739 R11 443 874 440 502 446 152 110 633 106 497	CATCH, hood (2) No. 10-24 x 1/2" cd-pltd SCREW (2) No. 10 - 24 x 5/8" cd-pltd SCREW (2) 13/64 x 15/32 x 18 ga cd-pltd WASHER (4) No. 10 cd-pltd NUT (4) No. 10 cd-pltd lk-WASHER (4)
8	635 405 R1	SHEET, hood side RH
8	636 704 R1 180 118 23 335 D Q 1 597 469 668 R1 102 635 103 321	SHEET, hood side LH 3/8 x 5/8" Type 2 cd-pltd BOLT (6) .219 I.D. x .410 x 1/32" zn-pltd WASHER (4) 13/32 x 3/4 x 16 ga WASHER (2) 13/32 x 3/4 x 16 ga cd-pltd WASHER (6) 3/8" NUT (6) 3/8" lk-WASHER (6)
9	635 406 R1	CLIP, hood side sheet support (2)
10	635 407 R1 179 814 102 634 103 320	ANGLE, hood side sheet support (2) 5/16 x 5/8" Type 2 BOLT (2) 5/16" NUT (2) 5/16" lk-WASHER (2)
11	635 731 R92	PLATE, radiator grille side LH (Suction Fan)
11	635 732 R92	PLATE, radiator grille side RH (Suction Fan)
11	675 714 R91	PLATE, radiator grille side LH (Blower Fan) (Not Skidder)
11	675 715 R91	PLATE, radiator grille side RH (Blower Fan) (Not Skidder)

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**CRAWLER TRACTORS**

REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
ENGINE HOOD AND GRILLE - Continued					
11	676 235 R91	PLATE, radiator grille side LH (Skidder only when equipped w/Engine Side Plates)			
11	676 236 R91	PLATE, radiator grille side RH (Skidder only when equipped w/Engine Side Plates)			
	179 839	3/8 x 1" Type 2 BOLT (4)			
	180 122	3/8 x 1" Type 2 cd-pltd BOLT (10)			
	469 668 R1	13/32 x 3/4 x 16 ga cd-pltd WASHER (14)			
	510 579 R1	13/32 x 1-1/4 x 16 ga WASHER (4)			
	102 635	3/8" NUT (4)			
	103 321	3/8" lk-WASHER (4)			
12	676 231 R11	PLATE, engine side LH (Skidder only not Blower Fan)			
12	676 232 R11	PLATE, engine side RH (Skidder only not Blower Fan)			
	180 120	3/8 x 3/4" Type 2 cd-pltd BOLT (10)			
	469 668 R1	13/32 x 3/4 x 16 ga WASHER (10)			
13	676 724 R1	SHIELD, mud LH (Crawler w/10 & 11 Bullgrader)			
	180 173	1/2 x 1" Type 2 cd-pltd BOLT			
	120 378	1/2" cd-pltd NUT			
	120 384	1/2" cd-pltd lk-WASHER			
13	676 725 R1	SHIELD, mud RH (Crawler w/10 & 11 Bullgrader)			
	180 173	1/2 x 1" Type 2 cd-pltd BOLT			
	120 378	1/2" cd-pltd NUT			
	120 384	1/2" cd-pltd lk-WASHER			
14	676 230 R91	PARTS ACCESSORY, engine side sheet (Skidder only not applicable to tractors w/Blower Fan) composed of:			
		1 Plate LH	676 231 R11		
		1 Plate RH	676 232 R11		
		10 Bolt	180 120		
		10 Washer	469 668 R1		

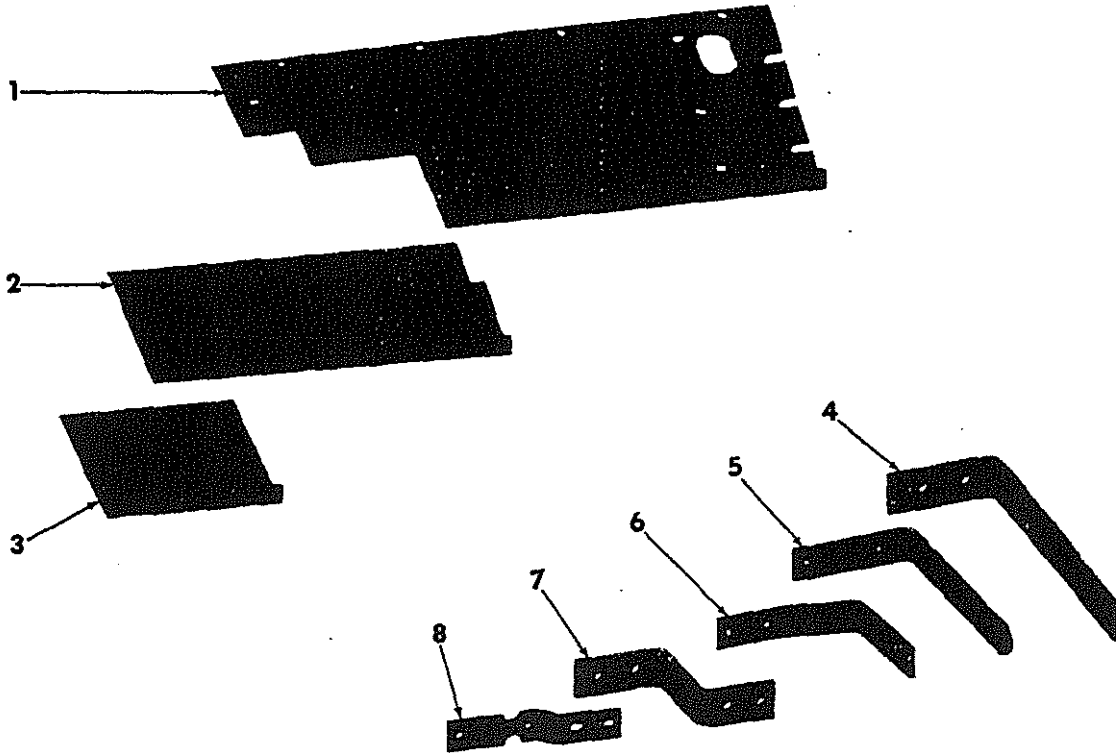
**CRAWLER TRACTORS**

REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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## SIDE MEMBER AND BRACKET

## SIDE MEMBER AND BRACKET - Continued



H 1590

1	636 932 R1	MEMBER, fender side LH (Skidder only)	5	675 906 R1	BRACKET, fender front (2) (Crawler w/ IH Loader)
1	636 933 R1	MEMBER, fender side RH (Skidder only)	20 119 R1	20 119 R1	5/8" - NF x 2" Type 4 BOLT (4)
	180 020	1/4 x 3/4" Type 2 cd-pltd BOLT (7)	225 861	225 861	5/8" NUT (4)
	179 816	5/16 x 3/4" Type 2 BOLT (6)			
	Q 398	11/32 x 7/8 x 16 ga WASHER (6)			
	120 375	1/4" cd-pltd NUT (7)			
	120 380	1/4" cd-pltd lk-WASHER (7)			
	103 320	5/16" lk-WASHER (6)			
2	635 264 R2	MEMBER, fender side LH (Crawler less 10 Bullgrader or 11 Bullgrader)	6	635 260 R1	BRACKET, fender front (2) (Crawler less IH Loader, 10 & 11 Bullgraders)
2	635 265 R2	MEMBER, fender side RH (Crawler less 10 Bullgrader or 11 Bullgrader)	179 861	179 861	7/16 x 1-3/8" Type 2 BOLT (2)
	180 020	1/4 x 3/4" Type 2 cd-pltd BOLT (6)	271 500	271 500	7/16" NUT (2)
	179 816	5/16 x 3/4" Type 2 BOLT (6)	103 322	103 322	7/16" lk-WASHER (2)
	Q 398	11/32 x 7/8 x 16 ga WASHER (6)			
	120 375	1/4" cd-pltd NUT (6)			
	120 380	1/4" cd-pltd lk-WASHER (6)			
	103 320	5/16" lk-WASHER (6)			
3	635 945 R2	MEMBER, fender side LH (Crawler w/10 Bullgrader or 11 Bullgrader)	7	636 935 R1	BRACKET, fender rear (2) (Skidder only)
3	635 946 R2	MEMBER, fender side RH (Crawler w/10 Bullgrader or 11 Bullgrader)	15 436 R1	15 436 R1	1/2 x 1-1/4" step BOLT (2)
	180 020	1/4 x 3/4" Type 2 cd-pltd BOLT (6)	102 637	102 637	1/2" NUT (2)
	179 816	5/16 x 3/4" Type 2 BOLT (6)	103 323	103 323	1/2" lk-WASHER (2)
	Q 398	11/32 x 7/8 x 16 ga WASHER (6)			
	120 375	1/4" cd-pltd NUT (6)			
	120 380	1/4" cd-pltd lk-WASHER (6)			
	103 320	5/16" lk-WASHER (6)			
4	636 934 R1	BRACKET, fender front (2) (Skidder only)	8	635 261 R1	BRACKET, fender rear (2) (Crawler less 10 Bullgrader or IH Loader)
	15 436 R1	1/2 x 1-1/4" step BOLT (6)	179 883	179 883	1/2 x 1-1/4" Type 2 BOLT (4)
	102 637	1/2" NUT (6)	103 323	103 323	1/2" lk-WASHER (4)
	103 323	1/2" lk-WASHER (6)			
			8	676 018 R1	BRACKET, fender rear RH (Crawler w/10 Bullgrader or IH Loader)
				179 841	3/8 x 1-1/4" Type 2 BOLT (2)
				102 635	3/8" NUT (2)
				103 321	3/8" lk-WASHER (2)
			8	635 261 R1	BRACKET, fender rear LH (Crawler w/ 10 Bullgrader or IH Loader)
				179 841	3/8 x 1-1/4" Type 2 BOLT (2)
				102 635	3/8" NUT (2)
				103 321	3/8" lk-WASHER (2)

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Sheet Metal and Grille

# CRAWLER TRACTORS

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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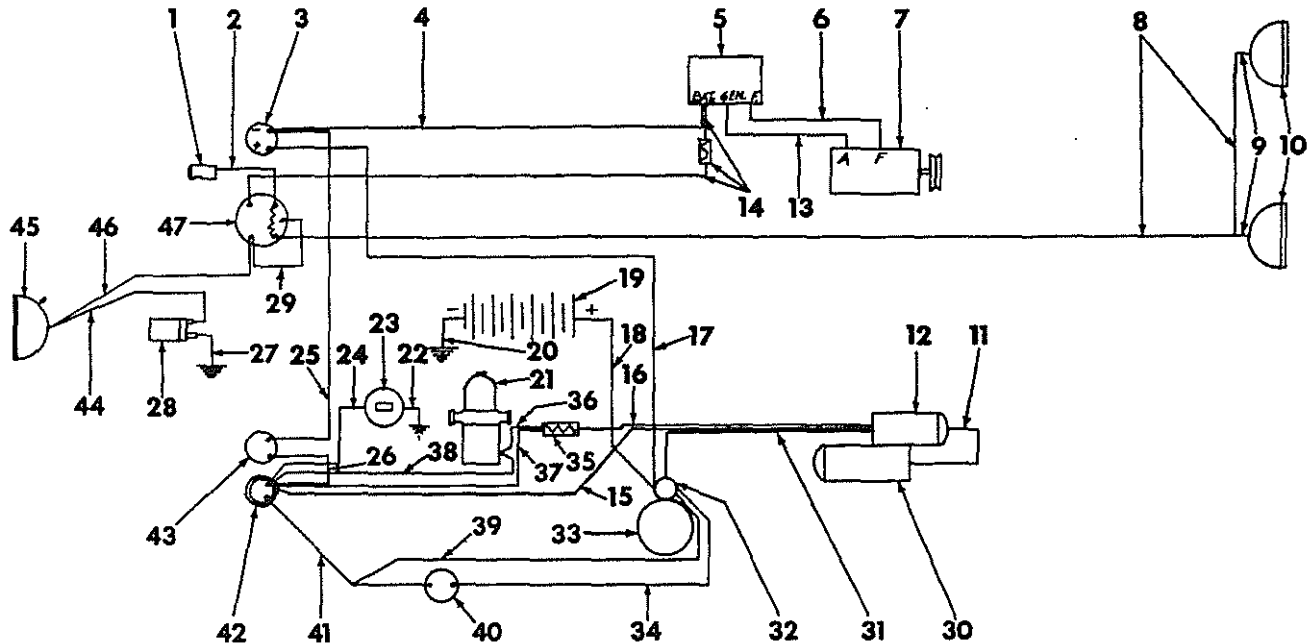


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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WIRING DIAGRAM (Gas)

WIRING DIAGRAM (Gas) - Continued



H 1432

NOTE A: For Service on Crawler Tractor Prior Serial No. H 2048 & for Skidder Prior Serial No. H 1134

NOTE B: For Service on Crawler Tractor Serial No. H 2048 & up & for Skidder Tractor Serial No. H 1134 & up

1	603 467 C91	LAMP, dash (for component parts refer to "DASH LAMP")
2		CABLE, dash lamp to light switch (for service order 1 - 603 467 C91, LAMP)
3	269 467 R92	AMMETER
4		CABLE, ammeter to voltage regulator (*) (NOTE A) (for service order 1 - 675 689 R91, HARNESS)
4		CABLE, ammeter to voltage regulator (*) (NOTE B) (for service order 1 - 676 465 R91, HARNESS)
5	1119 270	REGULATOR, voltage (for component parts refer to "VOLTAGE REGULATOR")
6		CABLE, "F" terminal on voltage regulator to "F" terminal on generator (*) (NOTE A) (for service order 1 - 675 689 R91, HARNESS)
6		CABLE, "F" terminal on voltage regulator to "F" terminal on generator (*) (NOTE B) (for service order 1 - 676 465 R91, HARNESS)
7		GENERATOR, (for component parts refer to "GENERATOR")
8	675 938 R91	CABLE, head light to light switch (for grille mounted lights)
8	676 325 R91 119 702 R1	CABLE, head light to light switch (2) (for Loaders with sub frame mounted lights) Cable CLIP (6)

8	676 023 R91 119 702	CABLE, head light to light switch (2) (for 10 & 11 Bullgraders with sub frame mounted lights) Cable CLIP (4)
8	676 110 R91	CABLE, right headlight to light switch (for canopy mounted lights)
9	675 937 R91	CABLE, headlight (2) (for grille mounted lights)
9	676 109 R91	CABLE, right to left headlight (for canopy mounted lights)
10	675 933 R91	HEADLIGHT (2) (for component parts refer to "HEADLIGHTS & TAIL LIGHTS")
11		CABLE, coil to distributor (for component parts refer to "IGNITION UNIT")
12		COIL, ignition (for component parts refer to "IGNITION UNIT")
13		CABLE, "GEN" terminal on voltage regulator to "A" terminal on generator (*) (NOTE A) (for service order 1 - 675 689 R91, HARNESS)
13		CABLE, "GEN" terminal on voltage regulator to "A" terminal on generator (*) (NOTE B) (for service order 1 - 676 465 R91, HARNESS)
14	636 347 R91 432 644 119 702 R1	CABLE, "BAT" terminal on light switch to "BAT" terminal on voltage regulator (NOTE A) (for service order 1 - 675 689 R91, HARNESS) Fuse HOLDER & CABLE 20 amp FUSE Cable CLIP

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REF. NO.	PART NUMBER	DESCRIPTION
WIRING DIAGRAM (Gas) - Continued		
14		CABLE, "BAT" terminal on light switch to "BAT" terminal on voltage regulator (*) (NOTE B) (for service order 1 - 676 465 R91, HARNESS)
	636 347 R91	Fuse HOLDER & CABLE
	432 644 R1	20 amp FUSE
	119 702 R1	Cable CLIP
15		CABLE, starter button to ignition coil (*) (NOTE B) (for service order 1 - 676 465 R91, HARNESS)
16	676 202 R91	CABLE, resistor to coil (NOTE A)
17		CABLE, solenoid to ammeter positive terminal (*) (NOTE A) (for service order 1 - 675 689 R91, HARNESS)
17		CABLE, solenoid to ammeter positive terminal (*) (NOTE B) (for service order 1 - 676 465 R91, HARNESS)
18	896 063 R91	CABLE, solenoid to battery
19	26-2139-D	BATTERY, dry charged Prestolite (12V) (for U.S. machine)
19	C-4 315	BATTERY, dry charged Electric Storage (12V) (for Canadian machine)
20	181 342 R91	CABLE, battery to ground
21	391 586 R91	PUMP, electric fuel (Refer to "ELECTRIC FUEL PUMP")
22	267 807 R91	CABLE, hourmeter ground
23	324 572 R91	HOURLMETER (opt w/610 820 R91)
23	610 820 C91	HOURLMETER (opt w/324 572 R91)
24		CABLE, hourmeter to ignition (*) (NOTE A) (for service order 1 - 675 689 R91, HARNESS)
24		CABLE, hourmeter to ignition (*) (NOTE B) (for service order 1 - 676 465 R91, HARNESS)
25	636 366 R91	CABLE, positive terminal on ammeter to key switch
26	636 366 R91	CABLE, starter switch to key switch
27	54 578 R11	CABLE, breakaway connector to ground (Refer to "ELECTRIC BREAKAWAY CONNECTOR")
28		SOCKET, breakaway connector (for component parts refer to "ELECTRIC BREAKAWAY CONNECTOR")
29	635 531 R91	CABLE, "TL" terminal on light switch to "RL" terminal on light switch
30		DISTRIBUTOR, ignition (for component parts refer to "DISTRIBUTOR")
31		CABLE, coil to cranking motor (*) (NOTE A) (for service order 1 - 675 689 R91, HARNESS)
31		CABLE, coil to cranking motor (*) (NOTE B) (for service order 1 - 676 465 R91, HARNESS)

REF. NO.	PART NUMBER	DESCRIPTION
WIRING DIAGRAM (Gas) - Continued		
32		SOLENOID, (for component parts refer to "CRANKING MOTOR")
33		MOTOR, cranking (for component parts refer to "CRANKING MOTOR")
34	676 326 R91	HARNESS, safety switch wiring (for Power Shift Reverser)
35	368 573 R91	RESISTOR (NOTE A)
36	675 722 R91	CABLE, fuel pump to resistor (NOTE A)
37		CABLE, resistor to switch (*) (NOTE A) (for service order 1 - 675 689 R91, HARNESS)
38	676 464 R91	CABLE, pump to starter button (NOTE B)
39	675 692 R92	CABLE, white cable in electrical harness to solenoid (Not Power Shift Reverser)
40	675 711 R92	SWITCH, safety (for Power Shift Reverser)
41		CABLE, white starter switch (*) (NOTE A) (for service order 1 - 675 689 R91, HARNESS)
41		CABLE, white starter switch (*) (NOTE B) (for service order 1 - 676 465 R91, HARNESS)
42	393 209 R91	SWITCH, starter (for component parts refer to "STARTER & GLOW PLUG SWITCH")
43	636 365 R91	SWITCH, key (for component parts refer to "KEY SWITCH")
44		CABLE, work & tail to breakaway connector socket (for part No. & application refer to "ELECTRIC BREAKAWAY CONNECTOR")
45	676 166 R91	LIGHT, combination work & tail (for component parts refer to "HEADLIGHTS & TAIL LIGHT")
46	676 216 R91	CABLE, light switch to tail light (for canopy mounted lights)
46	676 167 R91	CABLE, light switch to tail light (for box mounted light)
	704 700 R1	Tail light cable GROMMET
	119 702 R1	Tail light CLIP
	105 244	Tail light CLIP (2)
	113 957	1/4 x 3/4" rd-hd-slt SCREW (Skidder only)
47	371 465 R91	SWITCH, light
	675 689 R91	HARNESS, electrical wiring (*) (NOTE A)
	114 216 R1	Harness cable CLIP (2)
	636 527 R1	Harness cable CLIP
	362 666 R1	Harness cable CLIP (2)
	636 526 R1	Harness cable clip SUPPORT
	676 465 R91	HARNESS, electrical wiring (*) (NOTE B)
	114 216 R1	Harness cable CLIP (2)
	636 527 R1	Harness cable CLIP
	362 666 R1	Harness cable CLIP (2)
	636 526 R1	Harness cable clip SUPPORT

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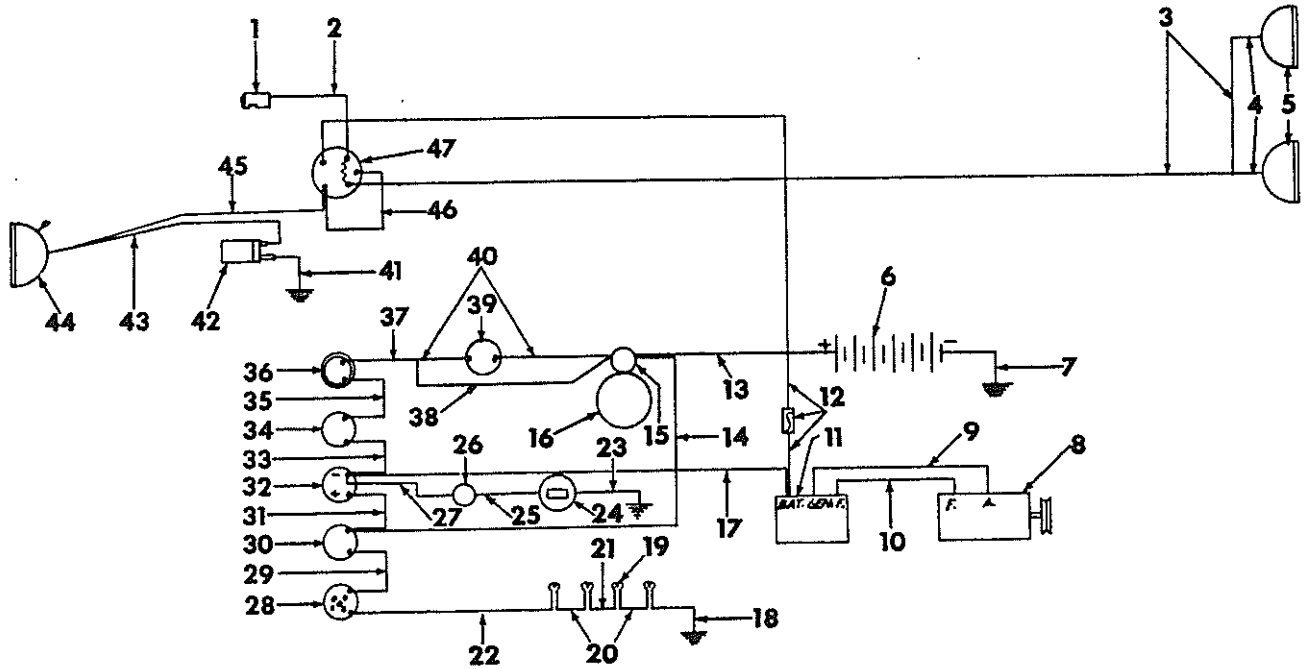


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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WIRING DIAGRAM (Diesel)

WIRING DIAGRAM (Diesel) - Continued



H 1433

1	603 467 C91	LAMP, dash (for component parts refer to "DASH LAMP")	8	GENERATOR (for component parts refer to "GENERATOR")
2		CABLE, dash lamp to light switch (for service order 1 - 603 467 C91, LAMP)	9	CABLE, "A" terminal on generator to "GEN" terminal on voltage regulator (*) (for service order 1 - 675 690 R92, HARNESS)
3	675 938 R91	CABLE, headlight cables to light switch (for grille mounted lights)	10	CABLE, "F" terminal on generator to "F" terminal on voltage regulator (*) (for service order 1 - 675 690 R92, HARNESS)
3	676 110 R91	CABLE, right headlight to light switch (for canopy mounted lights)	11	1119 270 REGULATOR, voltage (for component parts refer to "VOLTAGE REGULATOR")
3	676 023 R91	CABLE, headlight to light switch (2) (for 10 & 11 Bullgraders with sub frame mounted lights)	12	CABLE, "BAT" terminal on light switch to "BAT" terminal on voltage regulator (for service order 1 - 675 690 R92, HARNESS)
	119 702 R1	Cable CLIP (4)		636 347 R91 Fuse HOLDER & CABLE
3	676 325 R91	CABLE, headlight to light switch (2) (for Loaders with sub frame mounted lights)		432 644 20 amp FUSE
	119 702 R1	Cable CLIP (6)		119 702 R1 Cable CLIP
4	675 937 R91	CABLE, headlight (2) (for grille mounted lights)	13	896 063 R91 CABLE, battery to solenoid
4	676 109 R91	CABLE, right to left headlight (for canopy mounted lights)	14	CABLE, solenoid to glow plug switch (*) (for service order 1 - 675 690 R92, HARNESS)
5	675 933 R91	HEADLIGHT (2) (for component parts refer to "HEADLIGHTS & TAIL LIGHT")	15	SOLENOID (for component parts refer to "CRANKING MOTOR")
6	26-2017-D	BATTERY, dry charged Prestolite (12V)	16	MOTOR, cranking (for component parts refer to "CRANKING MOTOR")
7	181 342 R91	CABLE, battery to ground		

\* Not Serviced Separately



REF. NO.	PART NUMBER	DESCRIPTION
WIRING DIAGRAM (Diesel) - Continued		
17		CABLE, negative terminal on ammeter to "BAT" terminal on voltage regulator (*) (for service order 1 - 675 690 R92, HARNESS)
18	3065 071 R2	CABLE, glow plug to ground
19	377 206 R91 3047 624 R1	PLUG, glow (4) (w/3047 624 R1, NUT) Terminal NUT
20	703 898 R1	WIRE, connecting No. 1 to No. 2 & No. 3 to No. 4 glow PLUG
21	703 899 R1	WIRE, connecting No. 2 to No. 3 glow PLUG
22		CABLE, glow plug indicator to glow plug (*) (for service order 1 - 675 690 R92, HARNESS)
23	267 807 R91	CABLE, hourmeter to ground
24	324 572 R91	HOURMETER, opt w/610 820 C91
24	610 820 C91	HOURMETER, opt w/324 572 R91
25		CABLE, hourmeter to pressure switch (for service refer to "HOURMETER")
26	132 244 R91	SWITCH, pressure opt w/277 748 R91
26	277 748 R91	SWITCH, pressure opt w/132 244 R91
27	97 281 HY	CABLE, hourmeter pressure switch to ammeter
28	703 557 R92	INDICATOR, glow plug (opt w/706 685 R93
28	706 685 R93	INDICATOR, glow plug (opt w/703 557 R92 (for component parts refer to "GLOW PLUG INDICATOR")
29	636 520 R91	CABLE, glow plug switch to glow plug indicator
30	393 209 R91	SWITCH, glow plug (for component parts refer to "STARTER AND GLOW PLUG SWITCH")
31		CABLE, glow plug switch to ammeter positive terminal (*) (for service order 1 - 675 690 R92, HARNESS)
32	269 467 R91	AMMETER
33	636 366 R91	CABLE, key switch to negative terminal on ammeter
34	636 365 R91	SWITCH, key ignition (for component parts refer to "KEY IGNITION SWITCH")
35	636 366 R91	CABLE, key switch to starter switch
36	393 209 R91	SWITCH, starter (for component parts refer to "STARTER & GLOW PLUG SWITCH")

REF. NO.	PART NUMBER	DESCRIPTION
WIRING DIAGRAM (Diesel) - Continued		
37		CABLE, white starter switch (*) (for service order 1 - 675 690 R92, HARNESS)
38	675 692 R91	CABLE, white cable in electrical harness to solenoid (Not Power Shift Reverser)
39	675 711 R92	SWITCH, safety (for Power Shift Reverser)
40	676 326 R91	HARNESS, safety switch wiring (for Power Shift Reverser)
41	54 578 R11	CABLE, breakaway connector to ground (Refer to "ELECTRIC BREAKAWAY CONNECTOR")
42		SOCKET, breakaway connector (for component parts refer to "ELECTRIC BREAKAWAY CONNECTOR")
43		CABLE, work & tail to breakaway connector socket (for part No. & application refer to "ELECTRIC BREAKAWAY CONNECTOR")
44	676 166 R91	LIGHT, combination work & tail (for component parts refer to "HEADLIGHTS & TAIL LIGHT")
45	676 216 R91	CABLE, light switch to tail light (for canopy mounted light)
45	676 167 R91	CABLE, light switch to tail light (for box mounted light)
	704 700 R1	Tail light cable GROMMET
	119 702 R1	Tail light CLIP
	105 244	Tail light CLIP (2)
	113 957	1/4 x 3/4" rd-hd-slt SCREW (Skidder only)
46	635 531 R91	CABLE, "TL" terminal on light switch to "RL" terminal on light switch
47	371 465 R91	SWITCH, light
	675 690 R92	HARNESS, electrical wiring (*) (also includes 1 - 636 347 R91, FUSE HOLDER & CABLE & 1 - 432 644, FUSE)
	114 216 R1	Harness cable CLIP (2)
	636 527 R1	Harness cable CLIP
	362 666 R1	Harness cable CLIP (2)

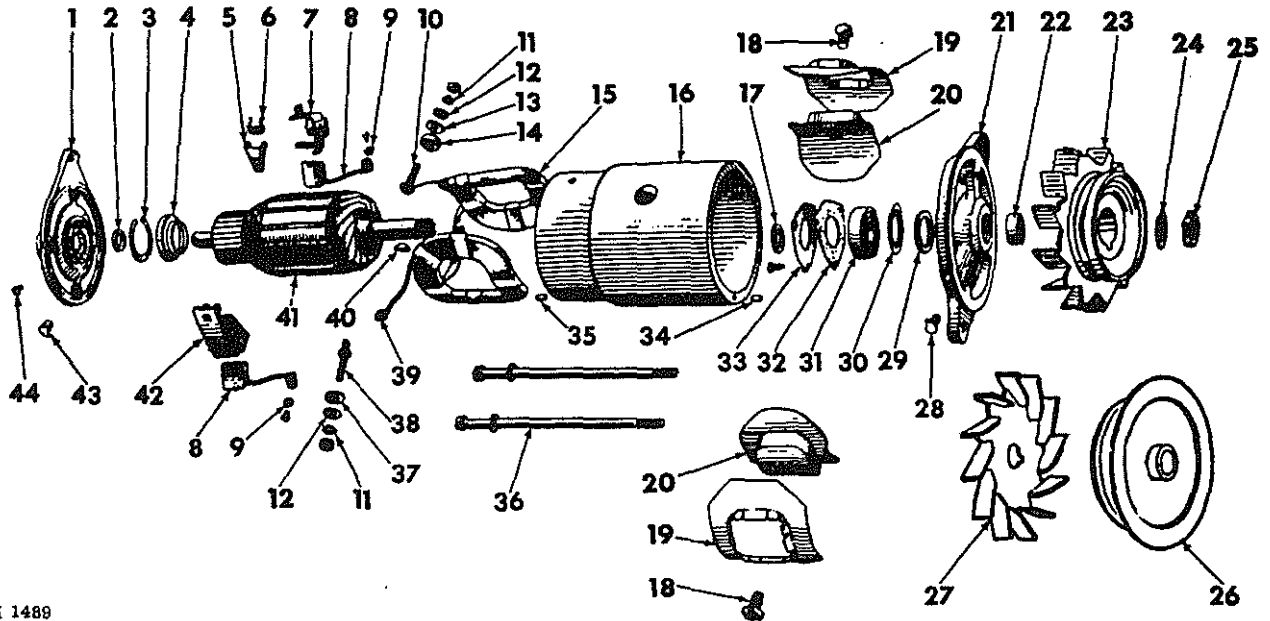
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REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
		GENERATOR (Delco Remy) (Diesel)			GENERATOR (Delco Remy) (Diesel) - Continued



H 1489

NOTE: Always give GENERATOR number when ordering parts

1100 422	GENERATOR (379 105 R91 - 12 Volt) (Note A) (order 1100 449)	8	1932 506 454 458	BRUSH (2) Brush SCREW (2)		
1100 449	GENERATOR (676 627 R91 - 12 Volt) (Note B)	9	456 413	WASHER, brush lead attaching screw lk (2)		
1	1958 435	FRAME, commutator end (Note A) composed of:	10	1921 860	STUD, terminal field (Note A)	
		1 Dowel	809 062	1858 749	STUD & BUSHING, terminal field (Note B)	
		*1 Frame		121 743	Terminal NUT (2)	
		1 Oiler	1880 635	1914 579	Terminal lk-WASHER (2)	
		1 Oil Seal	1945 697	11	1914 579	WASHER, field terminal stud lk (4)
		1 Retainer	1953 202	12	1881 409	WASHER, terminal stud (2) (Note A)
		1 Wick	1947 350	12	826 319	WASHER, terminal stud (2) (Note B)
		1 Plug	1911 097	13	1858 753	WASHER, field terminal stud insulating
1	1951 909	FRAME, commutator end (Note B) composed of:	14	1885 090	BUSHING, field terminal insulating (Note A)	
		1 Dowel	809 062	15	1923 625	COIL, field
		*1 Frame		16		FRAME, generator (*)
		1 Oiler	113 702	17	809 945	WASHER, drive space
		1 Oil Seal	1945 697	18	1913 960	SCREW, pole shoe (2)
		1 Retainer	1952 202	19	1914 491	INSULATOR, field coil (2)
		1 Wick	1947 350	20	1914 618	SHOE, pole (2) (Note A)
		1 Plug	1911 097	20	1931 258	SHOE, pole (2) (Note B)
2	1945 697	SEAL, commutator end oil	21	1958 434	FRAME w/OILER (Note A)	
3	1947 350	WICK, commutator end oil	21	1951 908	FRAME w/OILER (Note B)	
4	1953 202	RETAINER, commutator end oil seal		823 551	Drive end oil WICK	
5	1944 373	ARM, brush (2)	22	1858 603	COLLAR	
6	1908 829	SPRING, brush (2) (Note A)	23	1943 516	FAN & PULLEY, generator (Note A) (1/2" V groove)	
6	1916 324	SPRING, brush (2) (Note B)				
7	1925 378	HOLDER PACKAGE, brush ground				

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Electrical

**CRAWLER TRACTORS**

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
GENERATOR (Delco Remy) (Diesel) - Continued					
24	1941 978	WASHER, drive end shaft nut lk (Note A)			
24	1915 265	WASHER, drive end shaft nut lk (Note B)			
25	1915 172	NUT, drive end shaft			
26	1952 882	PULLEY, generator (Note B) (3/8" V groove) (+)			
27	1944 437	FAN, generator (Note B)(+)			
28	125 609	OILER, drive end			
29	809 961	WASHER, drive end felt			
30	819 104	PLATE, drive end felt retainer			
31	907 503	BEARING, drive end			
32	1912 008	GASKET, drive end retainer plate			
33	1911 263	PLATE, drive end retainer			
	1914 580	Ball brg retaining plate SCREW (3)			
34	809 593	PIN, drive end dowel			
35	809 062	PIN, commutator end dowel			
36	1908 680	BOLT, through (2)			
	8421 424	Through bolt lk-WASHER (2)			
37	1921 362	BUSHING, armature terminal insulating			
38	1921 369	STUD, terminal armature (Note A)			
38	1923 284	STUD, terminal armature (Note B)			
	121 743	Terminal NUT (2)			
	1914 579	Terminal lk-WASHER (2)			
39	200 382	CLIP, terminal to brush			
40	124 545	KEY, 118 x 5/8" Woodruff			
41	1928 952	ARMATURE			
42	1925 379	HOLDER, brush insulated			
43	1911 097	PLUG, commutator end			
44	1880 635	OILER, commutator end (Note A)			
44	113 702	OILER, commutator end (Note B)			

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+Not Part Of Generator

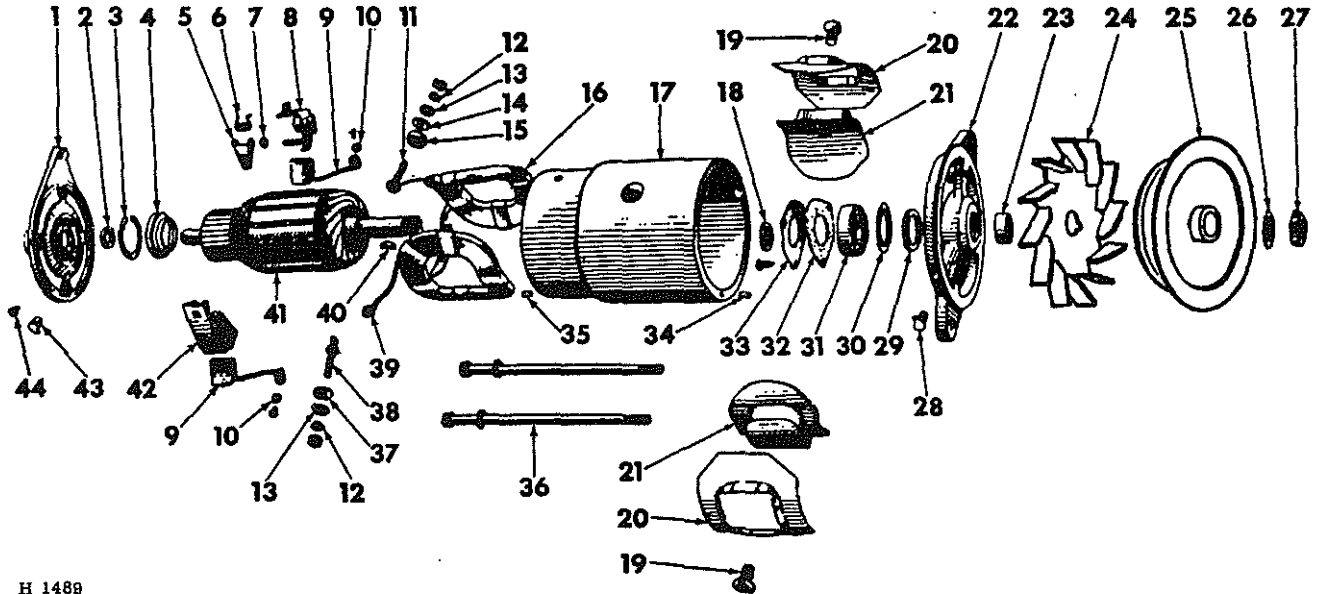
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REF. NO.	PART NUMBER	DESCRIPTION
GENERATOR (Delco Remy) (Gas)		

REF. NO.	PART NUMBER	DESCRIPTION
GENERATOR (Delco Remy) (Gas) - Continued		



H 1489

NOTE: Always give GENERATOR number when ordering parts			12	1914 579	WASHER, field terminal stud lk (4)
1100 409	GENERATOR (376 842 R91 - 12 Volt) (Note A) (order 1100 401)		13	1881 409	WASHER, terminal stud (2)
1100 401	GENERATOR (319 622 R91 - 12 Volt) (Note B)		14	1858 753	WASHER, terminal stud insulating
1	1951 512	FRAME, commutator end composed of:	15	1885 090	BUSHING, field terminal insulating
		1 Dowel 809 062	16	1923 625	COIL, field
		*1 Frame	17		FRAME, generator (*)
		1 Wick 1947 350	18	809 945	WASHER, drive end space
		1 Oiler 125 609	19	1913 960	SCREW, pole shoe (2)
		1 Seal 1945 697	20	1914 491	INSULATOR, field coil (2)
		1 Retainer 1953 202	21	1914 618	SHOE, pole (2)
	1926 216	Commutator wick SUPPORT	22	1953 882 823 551	FRAME w/OILER, drive end Drive end oil WICK
2	1945 697	SEAL, commutator end oil	23	1858 603	COLLAR, drive end space
3	1947 350	WICK, commutator end oil	24	1944 437	FAN, generator (+)
4	1953 202	RETAINER, commutator end oil seal	25	1952 882	PULLEY, generator (3/8" V groove) (+)
5	1944 373	ARM, brush (2)	26	1941 978	LOCKWASHER, drive end shaft (Note A)
6	1908 829	SPRING, brush (2)	26	1915 265	LOCKWASHER, drive end shaft (Note B)
7	1904 368	WASHER, brush arm space (2)	27	1915 172	NUT, drive end shaft
8	1925 378	HOLDER PACKAGE, brush ground	28	125 609	OILER, drive end
9	1932 506	BRUSH (2)	29	809 961	WASHER, drive end felt
	453 360	Brush SCREW (2)	30	819 104	PLATE, drive end felt retainer
10	1914 816	WASHER, brush attaching screw lk (2)	31	907 503	BEARING, drive end
11	1921 860	STUD, terminal field			
	121 743	Terminal NUT (2)			
	1914 579	Terminal lk-WASHER (2)			

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**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
<b>GENERATOR (Delco Remy) (Gas) - Continued</b>		
32	1912 008	GASKET, drive end retainer plate
33	1911 263 1914 580	PLATE, drive end retainer Ball brg retainer plate SCREW (3)
34	809 593	PIN, drive end dowel
35	809 062	PIN, commutator end dowel
36	1908 680 9421 424	BOLT, through (2) Through bolt lk-WASHER (2)
37	1921 362	BUSHING, armature terminal insulating
38	1921 369 121 743 1914 579	STUD, terminal armature Terminal NUT (2) Terminal WASHER (2)
39	200 382	CLIP, terminal to brush
40	124 545	KEY, 1/8 x 5/8" Woodruff
41	1928 952	ARMATURE
42	1925 379	HOLDER, brush insulated
43	125 609	OILER, commutator end
44	1911 097	PLUG, commutator end

REF. NO.	PART NUMBER	DESCRIPTION
<b>VOLTAGE REGULATOR (Delco-Remy)</b>		
H 1488		
	1119 270	REGULATOR, 12 volt voltage (375 055 R91)
1	1119 000	REGULATOR, voltage
2	1931 886	COVER
3	1931 887	GASKET, cover
4	1910 966	PACKAGE, shock mount

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†Not Part of Generator



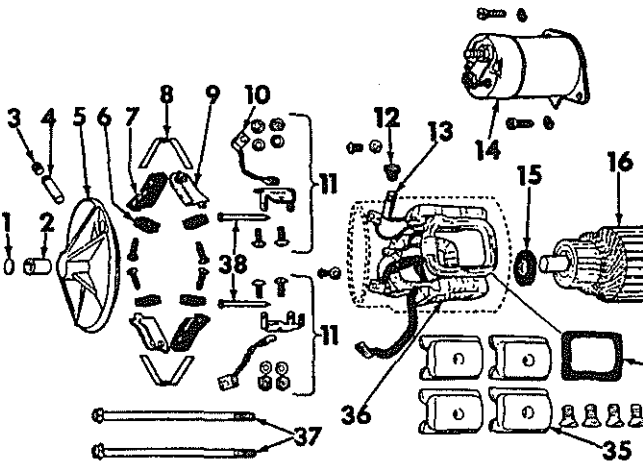


## CRAWLER TRACTORS



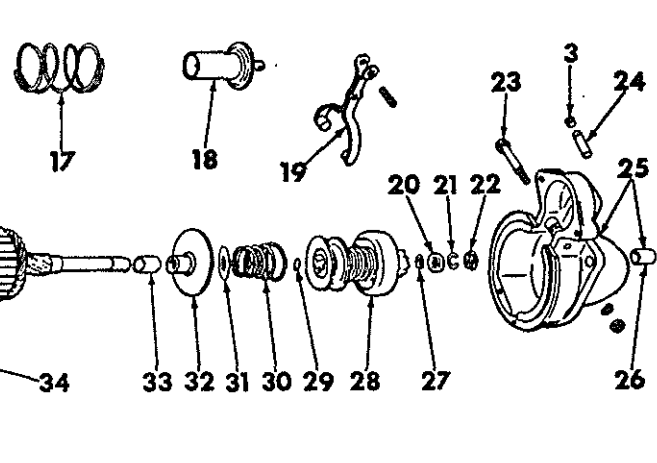
REF. NO.	PART NUMBER	DESCRIPTION
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## CRANKING MOTOR (12 Volt) (Delco-Remy)



REF. NO.	PART NUMBER	DESCRIPTION
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## CRANKING MOTOR (12 Volt) (Delco-Remy) - Continued



H 1614

NOTE: Always give Motor Number when ordering parts.

1107 341	MOTOR, cranking (675 360 R91) (Gas)	10	1926 605	LEAD, brush ground (2)	
636 587 R1	Cranking motor SEAL		274 738	Support attaching SCREW (4)	
179 839	3/8 x 1" Type 2 BOLT (3)		120 361	Support attaching screw NUT (4)	
			453 435	Attaching screw lk-WASH. (4)	
1107 544	MOTOR, cranking (636 788 R91) (Diesel)	11	1928 015	PACKAGE, brush holder support (2)	
636 587 R1	Cranking motor SEAL	12	1955 946	GROMMET, field frame (Diesel)	
179 839	3/8 x 1" Type 2 BOLT (3)	12	1933 765	GROMMET, field frame (Gas)	
120 622	No. 8 cd-pltd hex. NUT	13	1955 947	CONNECTOR, field coil to switch (Diesel)	
114 503	3/8" hex jam NUT		1949 653	Connector attaching SCREW	
121 801	#10 cd-pltd internal tooth lk-WASH.		456 319	Connector attaching screw lk-WASH.	
Q 1 597	13/32 x 3/4 x 16 ga WASH.	14	1114 356	SWITCH, solenoid	
1	810 819	PLUG, expansion (Diesel)	1952 427	Switch GASKET (between switch & housing)	
2	1872 678	BUSHING, commutator end (Diesel)	132 255	Switch attaching SCREW	
3	453 465	PLUG, commutator and drive end pipe (2) (Diesel)	1949 653	Field lead attaching SCREW (Gas)	
4	1919 851	WICK, commutator end (Diesel)	453 468	Field lead attaching SCREW (Diesel)	
5	1940 385	FRAME, commutator end (Diesel)	9421 423	Switch screw lk-WASH.	
	composed of:	274 545	Field screw lk-WASH. (Gas)		
	1 Bushing	453 435	Field screw lk-WASH. (Diesel)		
	* 1 Frame	15	818 265	WASHER, cummutator end spacer (Diesel)	
	1 Plug	16	1939 106	ARMATURE (Diesel)	
	1 Plug	16	1956 422	ARMATURE (Gas)	
	1 Wick	17	1958 679	SPRING, plunger return	
5	1928 966	FRAME, commutator end (Gas)	18	1939 113	PLUNGER, solenoid switch (Diesel)
6	1946 434	BRUSH, (4) (Diesel)	18	1953 041	PLUNGER, solenoid switch (Gas)
	1959 514	Brush attaching SCREW w/lk-WASH. (4)	19	1932 205	LEVER, shift
6	1906 945	BRUSH, (4) (Gas)		455 106	Shift lever attaching PIN
	1926 648	Brush attaching SCREW (4)	20	1928 021	COLLAR, stop
7	1938 587	HOLDER, insulated brush (2)	21	1928 022	RING, retainer
8	1926 622	SPRING, brush (2)	22	1928 023	COLLAR, thrust (Diesel)
9	1926 617	HOLDER, ground brush (2) (Gas)	22	1838 568	COLLAR, thrust (Gas)
9	1940 477	HOLDER, ground brush (2) (Diesel)	23	1832 197	STUD, shift lever
				1953 479	Shift lever stud sealing lk-WASH.
				1926 640	Shift lever screw NUT

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## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
CRANKING MOTOR (12 Volt) (Delco-Remy) - Continued					
24	1916 439	WICK, drive end (Diesel)			
25	1957 226	HOUSING, drive end (Diesel)			
		composed of:			
		1 Bushing		1959 998	
		* 1 Frame			
		1 Plug		453 465	
		1 Wick		1916 439	
	809 593	Dowel PIN			
25	1947 300	HOUSING w/BUSHING, drive end (Gas)			
	809 593	Dowel PIN			
26	1959 998	BUSHING, drive end (Diesel)			
26	1839 345	BUSHING, drive end (Gas)			
27	1867 899	COLLAR, drive end space (Diesel)			
28	1933 838	DRIVE, motor			
29	9413 435	RING, center bearing and drive (Diesel)			
30	1932 209	SPRING, assist (Diesel)			
31	1881 771	WASHER, center bearing and motor drive (Diesel)			
32	820 149	BEARING, center (Diesel)			
	1914 580	Center bearing attaching SCREW (2)			
	1962 276	Center bearing attaching screw lk-WASH. (2)			
33	1938 596	BUSHING, center bearing (Diesel)			
34	1927 853	INSULATOR, field coil (Gas)			
35	1887 021	SHOE, pole (4) (Diesel)			
	1913 960	Pole shoe SCREW (4)			
35	1931 129	SHOE, pole (4) (Gas)			
	1913 100	Pole shoe SCREW (4)			
36	1956 384	COIL, field (Diesel)			
36	1943 504	COIL, field (Gas)			
37	1960 808	BOLT, motor through (2) (Diesel)			
37	1939 970	BOLT, motor through (2) (Gas)			
38	1926 600	PIN, brush holder (2)			

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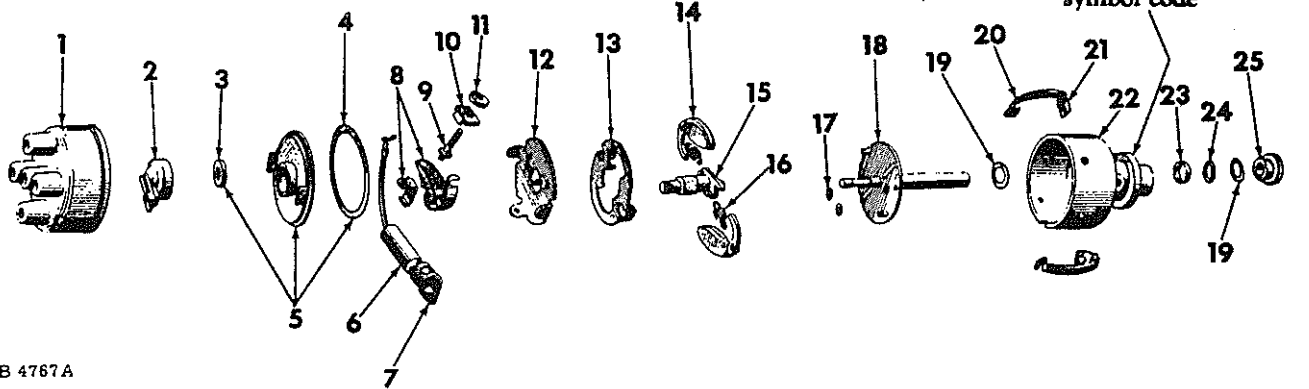


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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DISTRIBUTOR

DISTRIBUTOR - Continued



B 4767A

	375 423 R91	DISTRIBUTOR, battery ignition (C-135)		15	355 724 R91	CAM w/FELT
	381 687 R91	DISTRIBUTOR, battery ignition (C-146)		355 460 R1		Cam oil hole FELT
1	351 693 R92	CAP, distributor		16	375 425 R91	PACKAGE, governor spring (consists of two springs) (C-135)
2	353 896 R91	ROTOR, distributor		16	381 691 R91	PACKAGE, governor spring (consists of two springs) (C-146)
3	353 901 R2	SEAL, breaker cover felt		17	352 293 R1	SPACER, weight arm (4)
4	352 284 R2	GASKET, breaker cover		18	362 474 R91	SHAFT, distributor (C-135)
5	353 900 R11	COVER, breaker		18	381 688 R91	SHAFT, distributor (C-146)
6	353 903 R92	CONDENSER		19	352 298 R1	WASHER, distributor thrust (2)
7	353 905 R1	CLAMP, condenser		20	353 894 R1	SPRING, distributor cap (2)
	131 949	No. 8 x 3/16" cd-pltd slit-fil-hd mach SCREW		21	353 895 R1	SUPPORT, distributor cap spring (2)
	121 841	No. 8 cd-pltd lk-WASH.			121 832	No. 8 x 3/8" cd-pltd rd-hd-slt'd mach SCREW (2)
8	353 172 R91	SET, distributor point			121 841	No. 8 cd-pltd lk-WASH. (2)
	21 394 D	Breaker arm spring WASH. (2)		22	353 898 R11	HOUSING w/SEAL, distributor composed of:
	436 690	No. 8 x 3/16" cd-pltd slit-pan-hd mach SCREW				1 Housing
	120 622	No. 8 cd-pltd breaker arm spring NUT				1 Oil Seal
	121 841	No. 8 cd-pltd lk-WASH.				1 Plug
9	353 907 R1	SCREW, terminal				1 Retainer
	21 394 D	Terminal WASH.				1 Bushing
	120 622	No. 8 cd-pltd NUT (2)				1/8" cd-pltd slit-hd pipe PLUG
	121 841	No. 8 cd-pltd lk-WASH. (2)		125 947		
10	353 906 R1	INSULATOR, spring anchor terminal		23	353 899 R1	RETAINER, distributor shaft oil seal
11	251 538 R1	WASHER, terminal insulating		24	252 739 R1	SEAL, distributor shaft oil
12	352 277 R11	PLATE, breaker		25	353 902 R1	GEAR, distributor (32 teeth)
	121 832	No. 8 x 3/8" cd-pltd slit-rd-hd mach SCREW			354 552 R1	Distributor gear PIN
	121 841	No. 8 cd-pltd lk-WASH.				
13	352 301 R1	GUARD, governor weight			21 372 D	GREASE, distributor magneto 1 oz. tube (not included with distributor) (as required)
	131 954	No. 8 x 1/4" cd-pltd slit-fil-hd mach SCREW (2)				
	121 841	No. 8 cd-pltd lk-WASH.				
14	353 915	ARM AND WEIGHT (2)			373 577 R91	PACKAGE, distributor shaft bushing service (used to replace bushing in distributor housing - 353 898 R11)

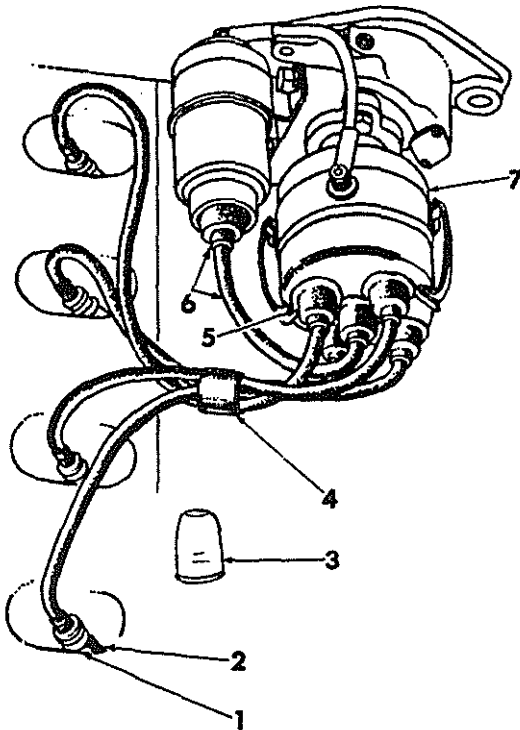
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## CRAWLER TRACTORS

REF. NO.	PART NUMBER	DESCRIPTION
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## SPARK PLUGS AND CABLES



A 23059 C

1	396 499 R91	SPARK PLUG w/GASKET, (light or moderate service) (Champion D-18-Y) (4)
1	379 149 R1	SPARK PLUG w/GASKET, (light or moderate service) (Prestolite 18-82) (4)
1	371 522 R91	SPARK PLUG w/GASKET, (intermediate service) (Champion D-16) (4)
1	397 146 R1	SPARK PLUG w/GASKET, (intermediate service) (Prestolite 18-81) (4)
1	360 942 R91	SPARK PLUG w/GASKET, (normal service) (Champion 8 Com.) (4)
1	353 982 R91	SPARK PLUG w/GASKET, (normal service) (AC-C85) (4)
1	397 141 R1	SPARK PLUG w/GASKET, (normal service) (Prestolite 18-8) (4)
1	359 276 R91	SPARK PLUG w/GASKET, (severe service) (Auto-Lite BT-8) (4)
1	361 688 R91	SPARK PLUG w/GASKET, (severe service) (Champion D-9) (4)
1	353 983 R91	SPARK PLUG w/GASKET, (severe service) (AC-C83) (4)

REF. NO.	PART NUMBER	DESCRIPTION
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## SPARK PLUGS AND CABLES - Continued

1	359 275 R91	SPARK PLUG w/GASKET, (severe service) (Auto-Lite BT-4) (4)
1	397 144 R1	SPARK PLUG w/GASKET, (severe service) (Prestolite 18-3) (4)
1	361 686 R91	SPARK PLUG w/GASKET, (extremely severe service) (Champion D-6) (4)
1	353 986 R91	SPARK PLUG w/GASKET, (extremely severe service) (AC-C81) (4)
1	359 274 R91	SPARK PLUG w/GASKET, (extremely severe service) (Auto-Lite BT-3) (4)
1	397 143 R1	SPARK PLUG w/GASKET, (extremely severe service) (Prestolite 18-2) (4)
2	37 762 H	GASKET, spark plug (4)
3	371 430 R1	INSULATOR, terminal (4)
4	356 695 R92	PACKAGE, ignition cable service (Includes 4 spark plug CABLES, 1 - 356 686 R92 distributor to coil CABLE and 4 - 251 553 R1, NIPPLES)
5	251 553 R1	NIPPLE, distributor cap terminal (4)
6	356 686 R92	CABLE w/TWO NIPPLES, coil to distributor
7		IGNITION UNIT, (Refer to "IGNITION UNIT")

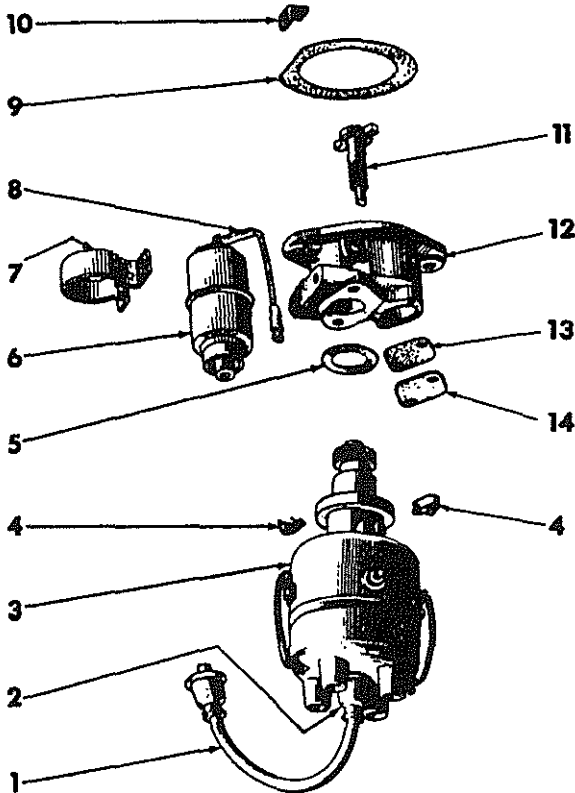


## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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## IGNITION UNIT



A 49505

NOTE A: Ignition unit equipped w/IH Coil  
 NOTE B: Ignition unit equipped w/Delco Remy Coil  
 NOTE C: Ignition unit equipped w/Presto Lite Coil

1	356 686 R92	CABLE, coil to distributor secondary (C 135)
1	356 686 R92	CABLE, coil to distributor secondary (C 146) (Note A)
1	373 167 R91	CABLE, coil to distributor secondary (C 146) (Note B & C) distributor secondary
2	251 553 R1	NIPPLE, coil & distributor terminal (C 135) (2)
2	251 553 R1	NIPPLE, coil & distributor terminal (C 146) (2) (Note A)
2	251 553 R1	NIPPLE, distributor secondary (C 146) (Note B & C)
2	372 875 R1	NIPPLE, coil (C 146) (Note A & B)
3		DISTRIBUTOR, (Refer to "DISTRIBUTOR")

REF. NO.	PART NUMBER	DESCRIPTION
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## IGNITION UNIT - Continued

4	353 937 180 078 120 214	CLAMP, distributor 5/16 x 7/8" Type 2 cd-pltd BOLT (2) 5/16" cd-pltd lk-WASHER (2)
5	353 836 R2	GASKET, distributor
6	151 314 R91	COIL w/CLAMP, ignition (C 135)
6	368 839 R91	COIL, ignition (C 146) (Note A)
6	385 883 R91	COIL w/CLAMP, ignition (C 146) (Note B)
6	396 329 R91	COIL w/CLAMP, ignition (C 146) (Note C)
	132 926	No. 10 x 1-1/4" cd-pltd slt-rd-hd BOLT
	180 073	5/16 x 1/2" cd-pltd Type 2 BOLT (2) (for C 135 & C 146) (Note A)
	120 611	No. 10 cd-pltd NUT
	120 393	11/32 x 11/16 x 16 ga cd-pltd WASHER (2)
	120 217	No. 10 cd-pltd lk-WASHER
	120 214	5/16" cd-pltd lk-WASHER (2)
	131 394	5/16 x 1/2" rd-hd slt BOLT cd-pltd (2) (C 146) (Note B & C)
7	353 889 R1	CLAMP, coil (C 146) (Note A)
8	357 929 R92 120 614 120 217	CABLE, coil to distributor, primary No. 10 cd-pltd NUT (2) No. 10 cd-pltd lk-WASHER (2)
9	46 168 DB	GASKET, distributor drive housing
10	46 868 D	CLIP, distributor mounting
11	353 934 R11	SHAFT, distributor drive
12	363 763 R11 103 883 179 840 179 842 103 321	HOUSING, distributor drive 1/8" cd-pltd slt-hdls pipe PLUG 3/8 x 1-1/8" Type 2 BOLT 3/8 x 1-3/8" Type 2 BOLT 3/8" lk-WASHER
13	363 765 R1	GASKET, housing hole cover
14	363 764 R1 435 429 120 217	COVER, distributor drive hole No. 10 x 9/16" cd-pltd slt-rd-hd BOLT (2) No. 10 cd-pltd lk-WASHER (2)

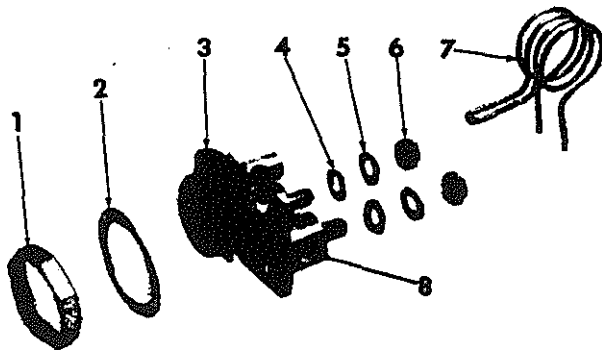


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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**GLOW PLUG INDICATOR**



H 6123

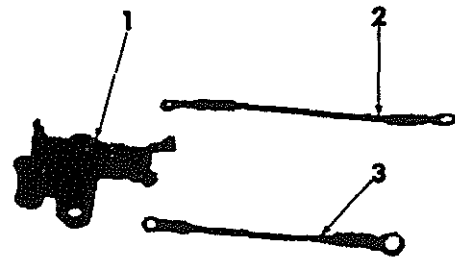
703 557 R92	INDICATOR, glow plug (opt w/706 685 R92) composed of:	
	*1 Body	
	1 Coil	709 467 R1
	2 Lk-Wash.	3043 503 R1
	2 Lk-Wash.	3043 502 R1
	1 Nut	3043 500 R1
	2 Nut	3043 504 R1
	3 Screw	3043 505 R1
	1 Wash.	3043 501 R1

706 685 R93	INDICATOR, glow plug (opt w/703 557 R92) (parts not illustrated) composed of:	
	*1 Body	
	1 Coil	3043 619 R1
	2 Nut	707 483 R1
	1 Nut	707 486 R1
	2 Screw	3062 387 R1
	2 Wash.	707 484 R1
	2 Wash.	705 829 R1
	1 Wash.	707 499 R1

1	3043 500 R1	NUT, indicator mounting
2	3043 501 R1	WASHER, mounting nut
3		BODY, glow plug indicator (*) (order 1-703 557 R92 or 1-706 685 R92, INDICATOR)
4	3043 502 R1	WASHER, coil fixing lk (2)
5	3043 503 R1	WASHER, coil fixing lk (2)
6	3043 504 R1	NUT, coil fixing (2)
7	709 467 R1	COIL, indicator resistance
8	3043 505 R1	SCREW, indicator grub (3)

REF. NO.	PART NUMBER	DESCRIPTION
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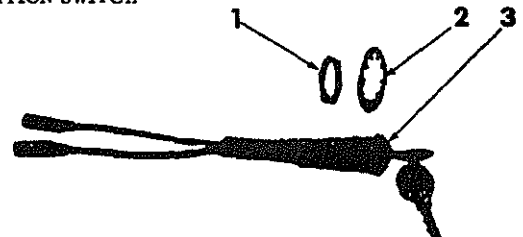
**ELECTRIC BREAKAWAY CONNECTOR (For Tractor equipped w/Rear Light)**



H 5777

1	362 002 R92	SOCKET, breakaway connector
	113 957	1/4 x 3/4" rd-hd mach BOLT (2)
	109 084	1/4" NUT (2)
	103 319	1/4" lk-WASHER (2)
	64 022 H	8-32 x 5/16" cd-pltd slt-fil-hd BOLT (2)
	121 841	#8 med cd-pltd lk-WASHER (2)
2	635 531 R91	CABLE, socket to tail light (not used with canopy or standard seat) (included in 636 320 R91)
2	675 722 R91	CABLE, socket to tail light (used with standard seat) (included in 676 191 R91)
2	676 217 R91	CABLE, socket to tail light (used with canopy) (included in 676 219 R91)
3	54 578 R11	CABLE, socket to ground
	636 320 R91	PARTS ACCESSORY, breakaway connector (Not applicable with canopy or standard seat) (composed of Reference No's 1, 2 and 3)
	676 191 R91	PARTS ACCESSORY, breakaway connector (For use with standard seat) (composed of Reference No's 1, 2 and 3)
	676 219 R91	PARTS ACCESSORY, breakaway connector (For use with canopy) (composed of Reference No's 1, 2 and 3)

**KEY IGNITION SWITCH**



H 7053

1	365 502 R1	NUT, switch mounting
2	125 793	WASHER, 3/16" int-tooth cd-pltd switch
3	636 365 R91	SWITCH, key ignition (Includes 2 KEYS)

\* NOT SERVICED SEPARATELY.

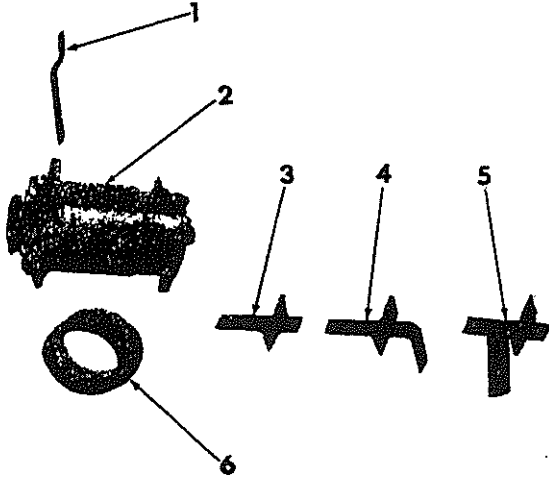


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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GENERATOR DRIVE (Gas)

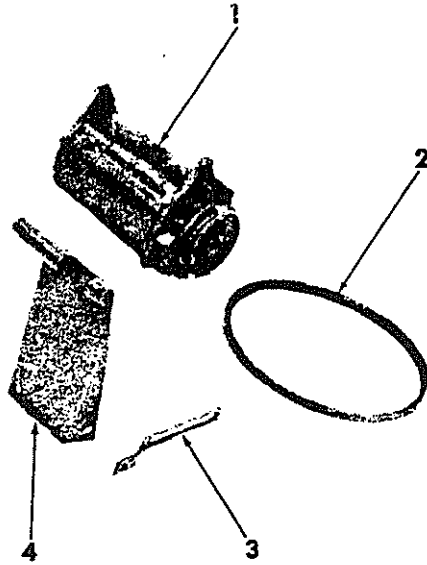


H 1454

1	368 574 R3 179 816 103 320	BRACE, generator adjusting 5/16 x 3/4" Type 2 BOLT 5/16" 1k-WASHER
2	179 816 179 817 179 819 Q 398 102 634 103 320 375 673 R1	GENERATOR (Refer to "GENERATOR") 5/16 x 3/4" Type 2 BOLT 5/16 x 7/8" Type 2 BOLT 5/16 x 1-1/8" Type 2 BOLT 11/32 x 7/8 x 16 ga WASHER (2) 5/16" NUT 5/16" 1k-WASHER (3) Generator mtg STUD
3	675 693 R91 179 838 103 321	BRACKET, generator (Crawler) 3/8 x 7/8" Type 2 BOLT (2) 3/8" 1k-WASHER (2)
4	675 700 R91  179 838 103 321	BRACKET, generator & fuel pump support (w/9 gal pump) (used in place of 675 693 R91) 3/8 x 7/8" Type 2 BOLT (2) 3/8" 1k-WASHER (2)
5	370 619 R91 179 838 103 321	BRACKET, generator (Skidder) 3/8 x 7/8" Type 2 BOLT (2) 3/8" 1k-WASHER (2)
6	676 645 R1	BELT, fan & generator

REF. NO.	PART NUMBER	DESCRIPTION
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GENERATOR DRIVE (Diesel)



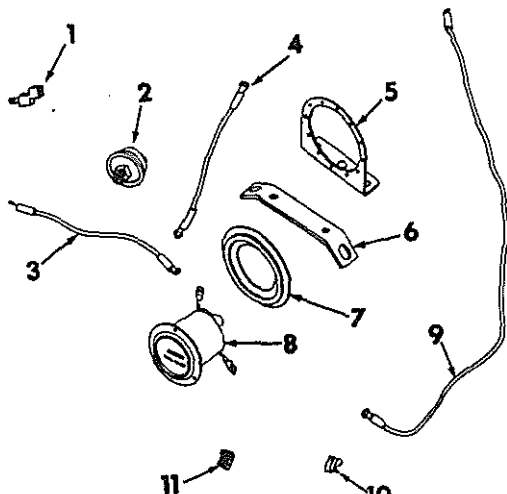
H 1365

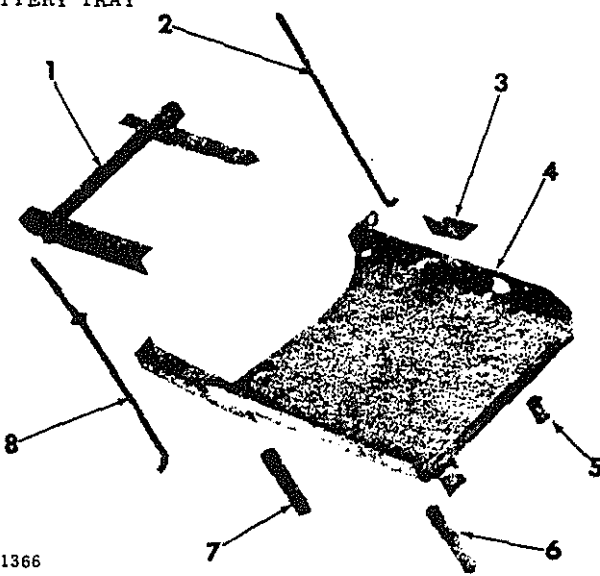
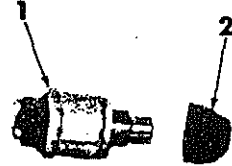
1	179 816 179 826 186 272 Q 398 103 320 102 634	GENERATOR (Refer to "GENERATOR") 5/16 x 3/4" Type 2 BOLT 5/16 x 2" Type 2 BOLT 5/16 x 4" Type 2 BOLT 11/32 x 7/8 x 16 ga WASHER (2) 5/16" 1k-WASHER (3) 5/16" NUT (2)
2	676 644 R1 676 626 R1	BELT, generator drive (Blower Fan) (for 1/2 groove) BELT, generator drive (NOT Blower Fan) (for 3/8 groove)
3	368 574 R3 179 816 103 320	BRACE, generator adjusting 5/16 x 3/4" Type 2 BOLT 5/16" 1k-WASHER
4	675 378 R11 179 814 103 320	BRACKET, generator 5/16 x 5/8" Type 2 BOLT (3) 5/16" 1k-WASHER (3)



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
<b>HOURMETER</b>		
		
	HA 4511	
1	9409 943	TEE, 1/8" pipe (Diesel)
2	132 244 R91	SWITCH, pressure (opt w/277 748 R91 Diesel)
2	277 748 R91	SWITCH, pressure (opt w/132 244 R91 Diesel)
3	636 834 R91	CABLE, pressure switch to hourmeter (Gas & Diesel) (for Crawler Tractor prior Serial No. H 2048 Gas) (for Skidder Tractor prior Serial No. H 1134 Gas) (for Crawler Tractor prior Serial No. H 2051 Diesel) (for Skidder Tractor prior Serial No. H 1132 Diesel)
3	676 465 R91	CABLE HARNESS, pressure switch to hourmeter (Gas) (Refer to "WIRING DIAGRAM") (for Crawler Tractor Serial No. H 2048 & Up) (for Skidder Tractor Serial No. H 1134 & up)
3	675 690 R92	CABLE HARNESS, pressure switch to hourmeter (Diesel) (Refer to "WIRING DIAGRAM") (for Crawler Tractor Serial No. H 2051 & up) (for Skidder Tractor Serial No. H 1132 & up)
4	97 281 HY	CABLE, pressure switch to ammeter (Diesel)
5	635 936 R1 179 798 179 793 109 084 103 319	BRACKET, hourmeter support 1/4 x 1-1/8" Type 2 BOLT 1/4 x 5/8" Type 2 BOLT 1/4" NUT (2) 1/4" 1k-WASHER (2)
6	636 368 R11 179 796 109 084 103 319	BRACKET, hourmeter mounting 1/4 x 7/8" Type 2 BOLT 1/4" NUT 1/4" 1k-WASHER
7	356 737 R91 121 839 131 044	DAMPER, hourmeter vibration No. 6 x 5/16" slt-rd hd SCREW (3) No. 6 1k-WASHER (3)
8	610 820 C91	HOURMETER, (12 Volt)
8	324 572 R91 121 839 131 044	HOURMETER, (6/12 Volt) No. 6 x 5/16" slt-rd hd SCREW (3) No. 6 1k-WASHER (3)
9	267 807 R91	CABLE, hourmeter ground
10	119 702 R1	CLIP, hourmeter cable on heat shield (Diesel)
11	105 244	CLIP, hourmeter cable (Diesel)

REF. NO.	PART NUMBER	DESCRIPTION
<b>BATTERY TRAY</b>		
		
	H 1366	
1	675 685 R91	CLAMP, battery
2	675 687 R1	BOLT, battery hold down front 5/16" NUT 11/32 x 7/8 x 16 ga WASH. 5/16" 1k-WASH.
3	636 594 R1	ANGLE, battery locating (3- Gas) (4 - Diesel)
4	675 390 R91	TRAY, battery 3/8 x 2" Type 2 BOLT 3/8" 1k-WASH.
5	P 23 248	SPACER, tray support, front (2)
6	636 845 R1	SPACER, tray support, rear RH
7	580 883 R1	SPACER, tray support, rear LH
8	675 688 R11	BOLT, battery hold down rear 5/16" NUT 11/32 x 7/8 x 16 ga WASH. 5/16" 1k-WASH.
<b>STARTER AND GLOW PLUG SWITCH</b>		
		
	H 4987	
1	393 209 R91	SWITCH, starting and glow plug (1 used on Gas) (2 used on Diesel)
2	371 487 R1	CAP, switch grey
	373 612 R1	CAP, switch red (Diesel)

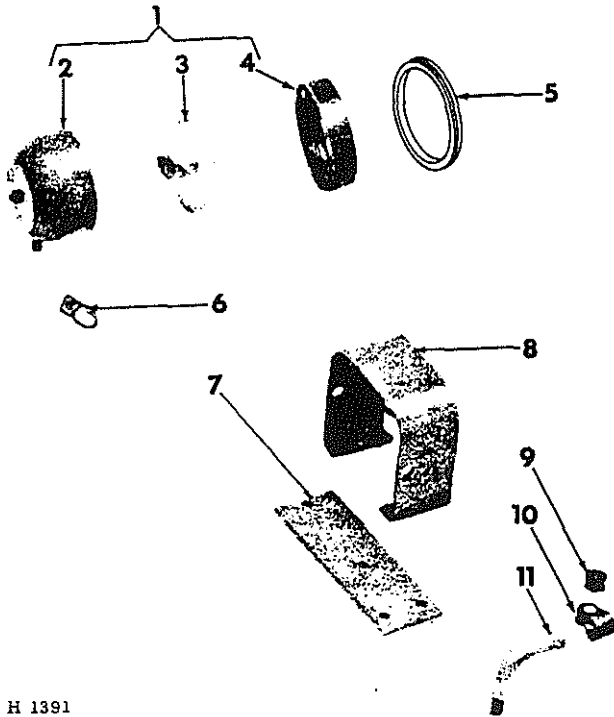




## CRAWLER TRACTORS

REF. NO.	PART NUMBER	DESCRIPTION
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## HEADLIGHT AND TAIL LIGHT (12 Volt)



H 1391

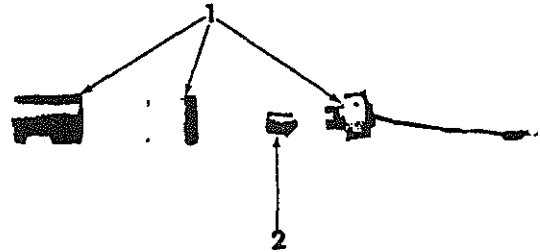
1	675 933 R91	LIGHT, head (2) composed of: *1 Housing 1 Lamp 1 Retainer	676 077 R91 676 078 R1
	120 378	1/2" cd-pltd NUT (4)	
1	676 166 R91	LIGHT, tail composed of: *1 Housing 1 Lamp 1 Lamp 1 Retainer *1 Switch	676 357 R91 454 646 676 078 R1
	271 500	7/16" cd-pltd NUT (2)	
	103 322	7/16" 1k-WASHER (2)	
2		HOUSING, light (order 675 933 R91, for headlight, 675 166 R91, for tail light)	
3	676 077 R91	LAMP, head light (2)	
3	676 357 R91	LAMP, tail light	
4	676 078 R1	RETAINER, light assembly	
5	676 636 R1	GROMMET, tail light	
6	454 646	LAMP, tail light	
7	675 998 R1	BAR, head light guard support (2) (used with Loaders)	
8	675 935 R1	GUARD, tail light (canopy mounted light)	
	179 839	3/8 x 1" Type 2 BOLT (2)	
	102 635	3/8" NUT (2)	
	103 321	3/8" 1k-WASHER (2)	

REF. NO.	PART NUMBER	DESCRIPTION
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## HEADLIGHT AND TAIL LIGHT (12 Volt) - Continued

8	675 934 R91	GUARD, head light (2)
	179 837	3/8 x 3/4" Type 2 BOLT (4) (not used with Loaders)
	179 839	3/8 x 1" Type 2 BOLT (4) (used with Loaders)
	102 635	3/8" NUT (4)
	Q 1 597	13/32 x 3/4 x 16 ga WASHER (4)
	103 321	3/8" 1k-WASHER (4)
9	49 069 D	SPACER, tail light
10	350 920 R1	CLAMP, tail light
11	635 519 R1	BRACKET, tail light
	102 639	5/8" NUT
	103 325	5/8" 1k-WASHER

## DASH LAMP



H 1386

1	603 467 C91	SERVICE PACKAGE (dash lamp less bulb) composed of: 1 Grommet *1 Lamp 1 Washer	273 406 R1 273 405 R1
2	142 450	LAMP, dash	

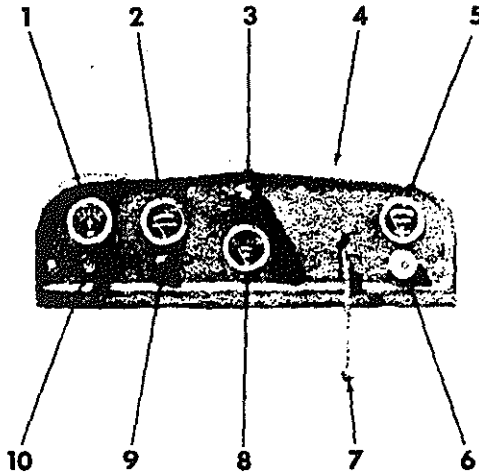


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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INSTRUMENT PANEL (Gas)

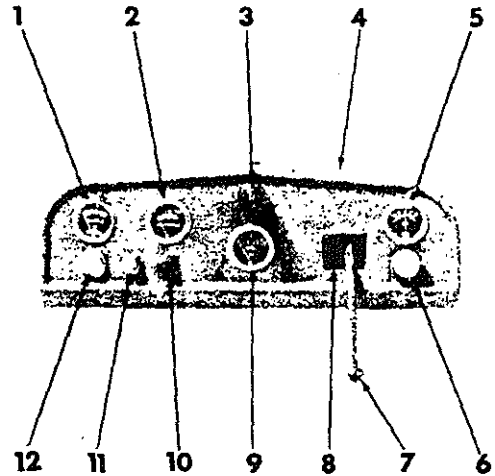


H 1382

1	269 467 R92	AMMETER
2	675 697 R91	GAUGE, oil pressure (Power Shift Reverser only)
3		LIGHT, instrument (Refer to "DASH LAMP")
4	675 640 R11 144 817	PANEL, instrument No. 14 x 5/8" cd-pltd pan-hd slt-tapping SCREW (4)
	445 449 127 741	No. 14 Tapping screw spg NUT (4) 2" stl button PLUG
5		INDICATOR, head (Refer to "HEAT INDICATOR")
6	371 465 R91	SWITCH, 12V lighting
7	635 320 R2 M 92 150 Q 398 103 384	LEVER, throttle control 5/16 x 3/4" std-hd dld PIN 11/32 x 7/8 x 16 ga WASHER 1/8 x 3/4" c-PIN
8	362 039 R94	GAUGE, oil pressure
9	393 209 R91 373 612 R1	BUTTON, starter Starter button red CAP
10	610 989 R91 119 702 R1	CABLE, choke Choke cable CLIP

REF. NO.	PART NUMBER	DESCRIPTION
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INSTRUMENT PANEL (Diesel)



H 1383

1		INDICATOR, heat (Refer to "HEAT INDICATOR")
2	675 697 R91	GAUGE, oil pressure (Power Shift Reverser only)
3		LIGHT, instrument (Refer to "DASH LAMP")
4	675 641 R21 144 817	PANEL, instrument No. 14 x 5/8" cd-pltd pan-hd slt-tapping SCREW (4)
	445 449 127 741	No. 14 tapping screw spg NUT (4) 2" slt button PLUG
5	269 467 R92	AMMETER
6	371 465 R91	SWITCH, 12V lighting
7	635 320 R2 M 92 150 Q 398 103 384	LEVER, throttle control 5/16 x 3/4" std-hd dld PIN 11/32 x 7/8 x 16 ga WASHER 1/8 x 3/4" c-PIN
8	676 472 R1 453 049 109 084 103 319	STOP, lever 1/4 x 3/4" pan-hd-slt cd-pltd BOLT (4) 1/4" NUT (4) 1/4" lk-WASHER (4)
9	362 039 R94	GAUGE, oil pressure
10	393 209 R91 371 487 R1	SWITCH, glow plug Starter button grey CAP
11	393 209 R91	SWITCH, glow plug
12		INDICATOR, glow plug (Refer to "GLOW PLUG INDICATOR")

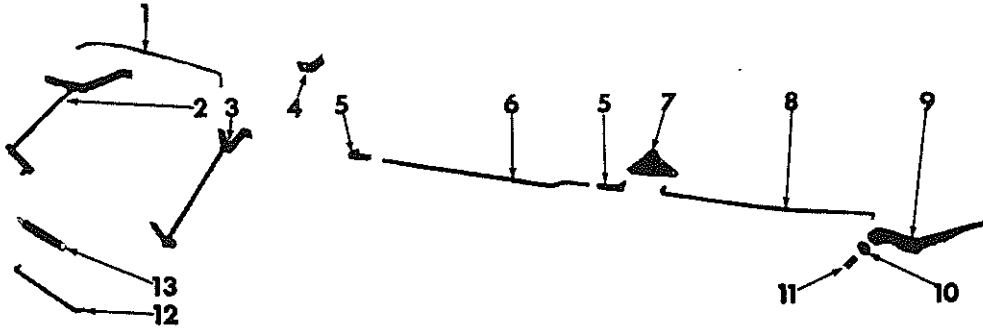


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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THROTTLE CONTROL

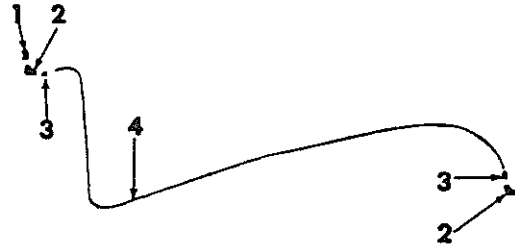
THROTTLE CONTROL - Continued



H 1625  
H 4282

1	676 492 R1 Q 392 103 372	LINK, speed adjusting lever 9/32 x 3/4 x 18 ga WASHER (4) 3/32 x 1/2" c-PIN (4)
2	675 397 R91	ROCKSHAFT, throttle control (Gas)
3	636 136 R91	ROCKSHAFT, throttle control (Diesel)
4	635 331 R1 179 793 109 084 103 319	SUPPORT, rockshaft RH 1/4 x 5/8" Type 2 BOLT (2) 1/4" NUT (2) 1/4" lk-WASHER (2)
5	148 564 103 319	JOINT, type "A" long stl 1/4" ball (2) 1/4" lk-WASHER
6	635 325 R1 103 024	LINK, throttle control rockshaft 1/4" - NF NUT (4)
7	635 322 R11 Q 398 103 384	BELLCRANK, throttle control 11/32 x 7/8 x 16 ga WASHER 1/8 x 3/4" c-PIN
8	635 321 R1 Q 392 103 372	LINK, throttle control lever 9/32 x 3/4 x 18 ga WASHER (2) 3/32 x 1/2" c-PIN (3)
9	635 320 R2 M 82 150 Q 398 103 384	LEVER, throttle control 5/16 x 3/4" std-hd-dld PIN 11/32 x 7/8 x 16 ga WASHER 1/8 x 3/4" c-PIN
10	704 681 R2	WASHER, lever friction (2)
11	3047 323 R1 Q 3 517 Q 392 103 384	SPRING, throttle control lever 1/4 x 2-1/8" std-hd-dld PIN 9/32 x 3/4 x 18 ga WASHER (2) 1/8 x 3/4" c-PIN
12	636 137 R1 Q 392 103 372	LINK, speed adjustment (Diesel) 9/32 x 3/4 x 18 ga WASHER (4) 3/32 x 1/2" c-PIN (4)
13	636 723 R1	SPRING, injection shut-off (Diesel)
13	635 533 R1	SPRING, throttle control linkage (Gas)

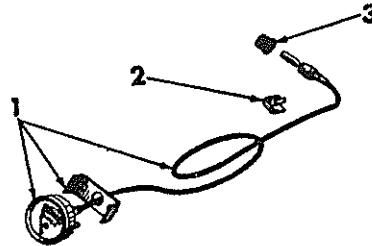
OIL PRESSURE LINE  
(Power Shift Reverser)



H 6819

1	105 408	COUPLING, oil pressure gauge
2	36 637 D	ELBOW, oil pressure line (2)
3	36 092 D	NUT, oil pressure line (2)
4	675 834 R1 636 631 R1	PIPE, oil pressure gauge Oil pressure line LOOM

HEAT INDICATOR



HA 2919

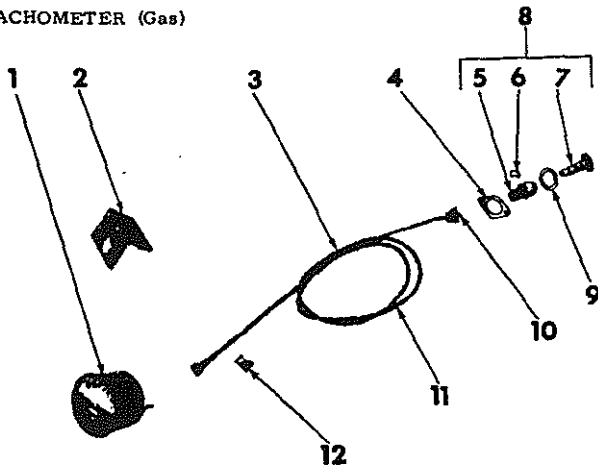
1	272 122 R91 103 089 125 750	INDICATOR, heat (Includes parts listed unless otherwise noted) No. 12 NUT (2) No. 12 ext-tooth lk-WASH. (2)
2	140 776	CLIP, indicator cable (Diesel) (+)
3	51 510 D	BUSHING, indicator reducing

\* Not Serviced Separately  
+ Not Part of Indicator



REF. NO.	PART NUMBER	DESCRIPTION
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TACHOMETER (Gas)

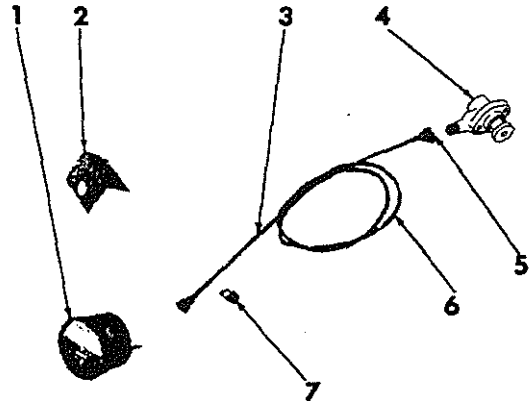


H 5756

	636 169 R91	PARTS ACCESSORY, tachometer (composed of all parts listed)
1	636 174 R91 120 614 120 217	TACHOMETER No. 10 cd-pltd NUT (2) No. 10 cd-pltd lk-WASH. (2)
2	636 172 R1 144 817	BRACKET, tachometer mounting No. 14 x 5/8" slt-rd-hd cd-pltd tapping SCREW (2)
3	138 488 R91	CABLE, tachometer (Includes 138 487 R91, CASING & 138 486 R91, CORE)
4	363 817 R1 435 429 120 217	PLATE, tachometer housing No. 10 x 9/16" cd-pltd rd-hd SCREW (2) No. 10 cd-pltd lk-WASH. (2)
5	369 692 R1	HOUSING, tachometer connection
6	369 693 R1	RETAINER, drive gear
7	369 695 R91	GEAR, tachometer drive
8	369 694 R91	PACKAGE, tachometer drive service (Includes Ref. No. 's 5 to 7)
9	363 814 R1	GASKET, tachometer connection housing
10	138 486 R91	CORE, tachometer cable
11	138 487 R91	CASING, tachometer cable
12	120 521 144 817	CLIP, tachometer cable No. 14 x 5/8" slt-rd-hd cd-pltd tapping SCREW

REF. NO.	PART NUMBER	DESCRIPTION
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TACHOMETER (Diesel)



H 5756

	636 302 R92	PARTS ACCESSORY, tachometer (composed of all parts listed)
1	636 562 R91 120 614 120 217	TACHOMETER No. 10 cd-pltd NUT (2) No. 10 cd-pltd lk-WASH. (2)
2	636 172 R1 144 817	BRACKET, tachometer mounting No. 14 x 5/8" slt-rd-hd cd-pltd tapping SCREW (2)
3	636 588 R91	CABLE, tachometer (Includes 636 590 R91, CASING & 636 589 R91, CORE)
4	3042 474 R91 179 793 179 801 103 319	GEAR, tachometer drive 1/4 x 5/8" Type 2 BOLT 1/4 x 1-1/2" Type 2 BOLT 1/4" lk-WASH. (2)
5	636 589 R91	CORE, tachometer drive
6	636 590 R91	CASING, tachometer drive
7	120 521 144 817	CLIP, tachometer cable No. 14 x 5/8" slt-rd-hd cd-pltd tapping SCREW

\* Not Serviced Separately



Clutch

# CRAWLER TRACTORS

SECTION A  
TC-203A

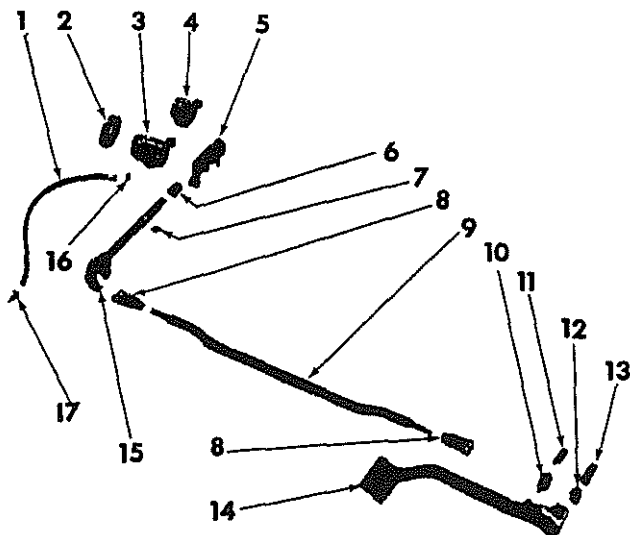


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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**CLUTCH CONTROL**  
(NOT Power Shift Reverser)

**CLUTCH CONTROL**  
(NOT Power Shift Reverser) - Continued



14	635 097 R11 271 568 10 620 P	PEDAL, clutch (includes 635 061 R1, BUSHINGS) 5/8 x 3-1/2" Type 2 BOLT 21/32 x 1-1/2 x 16 ga WASH.
15	635 100 R11	SHAFT, clutch release
16	9402 706	CONNECTOR, lub hose
17	106 649 109 461	ELBOW, 1/8"-45° lub hose 1/8" straight lub-FTG

HA 4310

1	635 698 R91	HOSE, release sleeve lub
2	365 865 R91	BEARING, clutch throw-out
3	635 092 R2	SLEEVE, clutch release (NOT CRPTO)
4	360 501 R2	SLEEVE, clutch release (w/CRPTO)
5	360 503 R1 179 843 103 321	FORK, clutch release 3/8 x 1-1/2" Type 2 BOLT (2) 3/8" lk-WASH. (2)
6	635 091 R1	BUSHING, clutch release shaft (2)
7	635 098 R1	KEY, clutch release fork (2)
8	116 538 114 787 11 002 VA 103 384	CLEVIS, shaft adjustable (2) 1/2 x 1-27/64" rod end dld PIN (2) 17/32 x 7/8 x 16 ga WASH. 1/8 x 3/4" c-PIN (2)
9	635 101 R1 114 496	ROD, clutch release shaft 1/2"-NF jam NUT (2)
10	635 504 R1	SPRING, pedal return
11	635 107 R1 100 751 103 092 106 496	BRACKET, pedal return spg No. 8 1/2" slt-hd SCREW (2) No. 8 NUT (2) No. 8 lk-WASHER (2)
12	635 061 R1	BUSHING, pedal (2)
13	635 109 R1	SPACER, pedal pivot

\* Not Serviced Separately

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Clutch

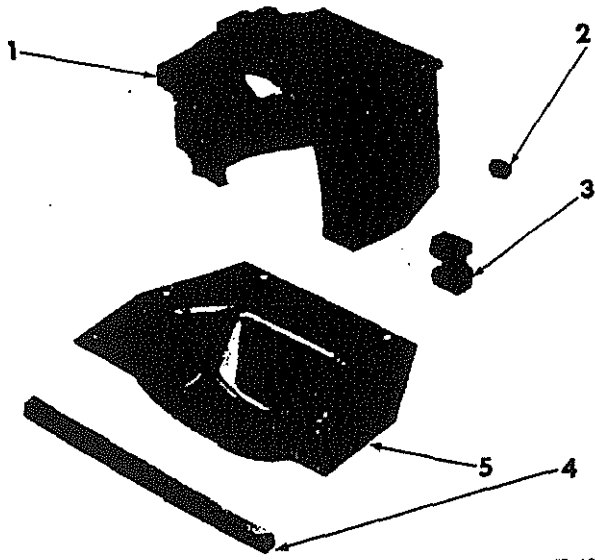
# CRAWLER TRACTORS

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION
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**CLUTCH HOUSING**

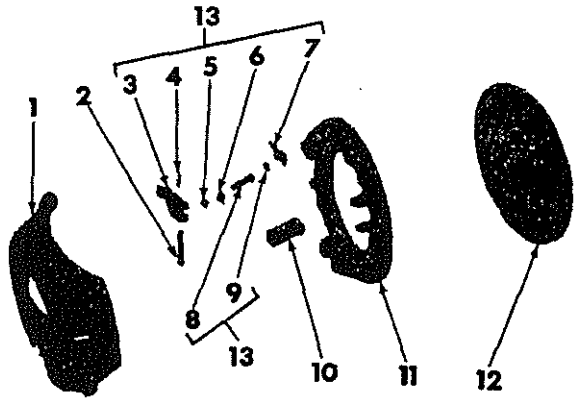


H 4281

1	635 087 R21	HOUSING, (Gas) (Not Power Shift Reverser) (Includes 635 091 R1, BUSHINGS)
1	675 554 R1	HOUSING, (Gas) (Power Shift Reverser) (Not Skidder)
1	635 088 R21	HOUSING, (Diesel) (Not Power Shift Reverser) (Includes 635 091 R1, BUSHINGS)
1	675 555 R1	HOUSING, (Diesel) (Power Shift Reverser) (Not Skidder)
	109 461	1/8" straight lub-FTG
	179 887	1/2 x 1-3/4" Type 2 BOLT (5)
	179 897	1/2 x 4" Type 2 BOLT (2) (Diesel)
	271 568	5/8 x 3-1/2" Type 2 BOLT (4) (Not Power Shift Reverser)
	103 323	1/2" 1k-WASH. (7)
2	635 091 R1	BUSHING, clutch release shaft (2) (Not Power Shift Reverser)
3	635 089 R1	SPACER, clutch housing (2) (Not Power Shift Reverser)
	271 568	5/8 x 3-1/2" Type 2 BOLT (4)
	20 665 R1	5/8 x 4-1/4" Type 4 BOLT (2)
4	636 521 R1	SEAL, housing cover
5	635 090 R21	COVER, clutch housing (Not Power Shift Reverser)
5	675 556 R1	COVER, clutch housing (Power Shift Reverser)
	179 816	5/16 x 3/4" Type 2 BOLT (6)
	103 320	5/16" 1k-WASH. (6)

REF. NO.	PART NUMBER	DESCRIPTION
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**CLUTCH (Heavy Duty - Single Stage) (NOT Power Shift Reverser)**



H 5979

	636 410 R91	COVER, 10" single stage heavy duty (Includes all parts listed below, unless otherwise noted)
	179 817	5/16 x 7/8" Type 2 BOLT (6) (+)
	103 320	5/16" 1k-WASH. (6) (+)
1	102 317 HA	PLATE, clutch back
2	29 774 HB	PIN, lever (3)
	107 762	3/32 x 5/8" c-PIN (3)
	114 494	Lever NUT
3		LEVER, clutch release (*) order 1 - 43919 HEX - PACKAGE)
4	80 950 H	SPRING, lever (3)
5	86 025 H	ROLLER, pivot (6)
6	65 820 H	BLOCK, clutch lever (3)
7	91 941 R1	SPRING, clutch lever (3)
8	52 405 R1	SCREW, lever adjusting (3)
9	52 406 R1	CAP, adjusting screw (3)
10	68 289 H	SPRING, pressure plate (9)
11	102 318 HA	PLATE, clutch pressure
12	675 419 R91	CLUTCH, 10" single stage (Includes FACINGS) (+)
13	43 919 HEX	PACKAGE, clutch release lever service (composed of items 3 to 9 inclusive)
		1 Block 65 820 H
		1 Cap 52 406 R1
		*1 Lever
		1 Spring 80 950 H
		2 Roller 86 025 H
		1 Screw 52 405 R1
		1 Spring 91 941 R1

\* Not Serviced Separately  
+ Not Part of Clutch

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Clutch

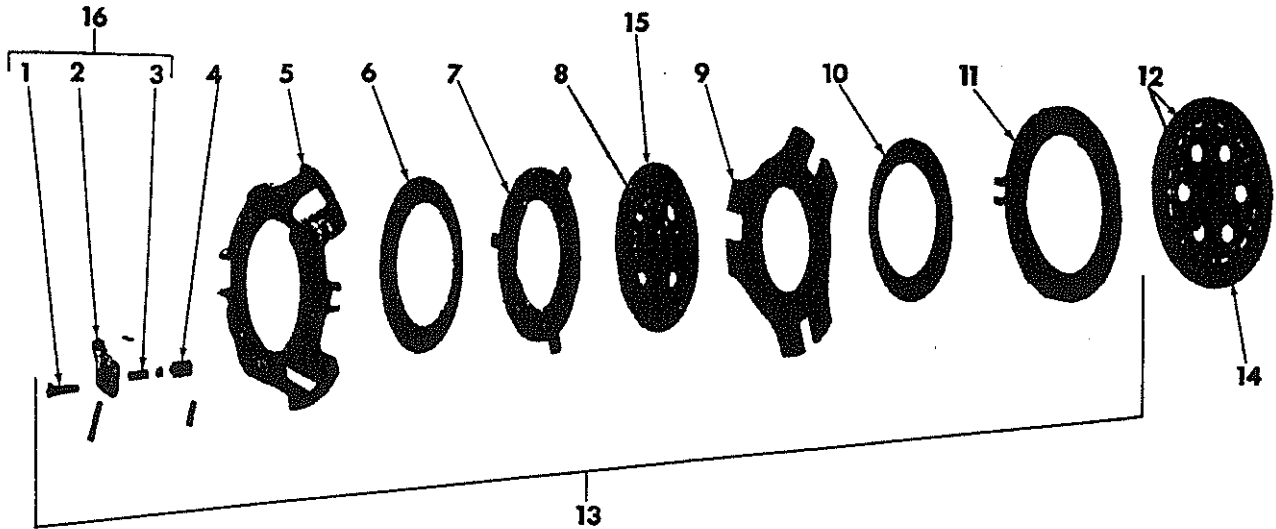
**CRAWLER TRACTORS**SECTION A  
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REF. PART NUMBER DESCRIPTION

CLUTCH (Dual Stage)  
(w/CRPTO Only)

REF. PART NUMBER DESCRIPTION

CLUTCH (Dual Stage)  
(w/CRPTO Only) - Continued

H 4281

635 113 R91	CLUTCH, double stage (composed of all parts listed below unless otherwise noted)	13	635 114 R91	COVER, w/9" clutch composed of:
1	635 495 R1 SCREW, lever adjusting 114 493 5/16"-NF jam NUT			1 Bracket 635 488 R1 3 Clevis 635 496 R1 1 Clutch 635 460 R91 1 Package 635 692 R91 3 Pin 392 503 R1 1 Plate 635 485 R1 1 Plate 635 487 R1 1 Plate 635 489 R1 1 Plate 635 490 R1 1 Plate 635 491 R1 1 Plate 635 491 R1 3 Screw 355 106 R1
2	LEVER, clutch release (*) (order 1 - 635 692 R91, LEVER PACKAGE) 635 493 R1 Clutch lever pivot PIN (3)		179 822 5/16 x 1-1/2" Type 2 BOLT (6) (+) 103 320 5/16" lk-WASH. (6) (+)	
3	635 494 R1 SPRING, clutch lever			14
4	635 496 R1 CLEVIS, lever screw 392 503 R1 Clevis rod-end PIN			PACKAGE, 11" clutch member facing (Includes RIVETS, 61 179 V)
5	635 488 R1 BRACKET, clutch			15
6	635 489 R1 PLATE, front spg clutch			PACKAGE, 9" clutch member facing (Includes RIVETS, 28 754 D)
7	635 491 R1 PLATE, 9" pressure			16
8	635 460 R91 CLUTCH, 9" driven double stage (Includes FACINGS)			635 692 R91 PACKAGE, clutch release lever composed of:
9	635 487 R1 PLATE, flywheel 355 106 R1 Special pressure plate SCREW (3) 114 493 5/16"-NF jam NUT (3)			* 3 Lever 3 Nut 114 493 3 Pin 365 704 R1 3 Pin 635 493 R1 3 Screw 635 495 R1 3 Spring 635 494 R1
10	635 490 R1 PLATE, rear clutch spg			
11	635 485 R1 PLATE, 11" pressure			
12	635 115 R91 CLUTCH, 11" driven member (Includes FACINGS)			

\* Not Serviced Separately  
+ Not Part of Clutch

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Clutch

# CRAWLER TRACTORS

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION	R. F. NO.	PART NUMBER	DESCRIPTION

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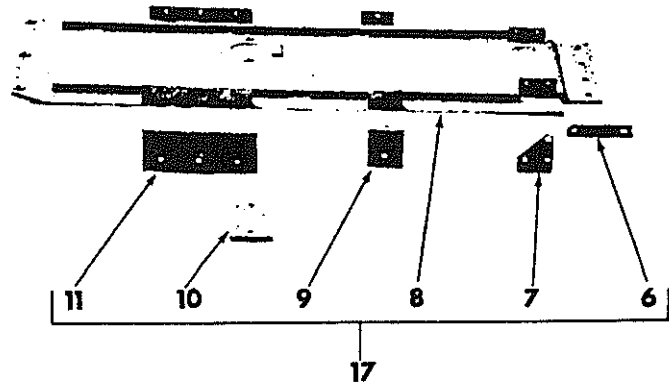
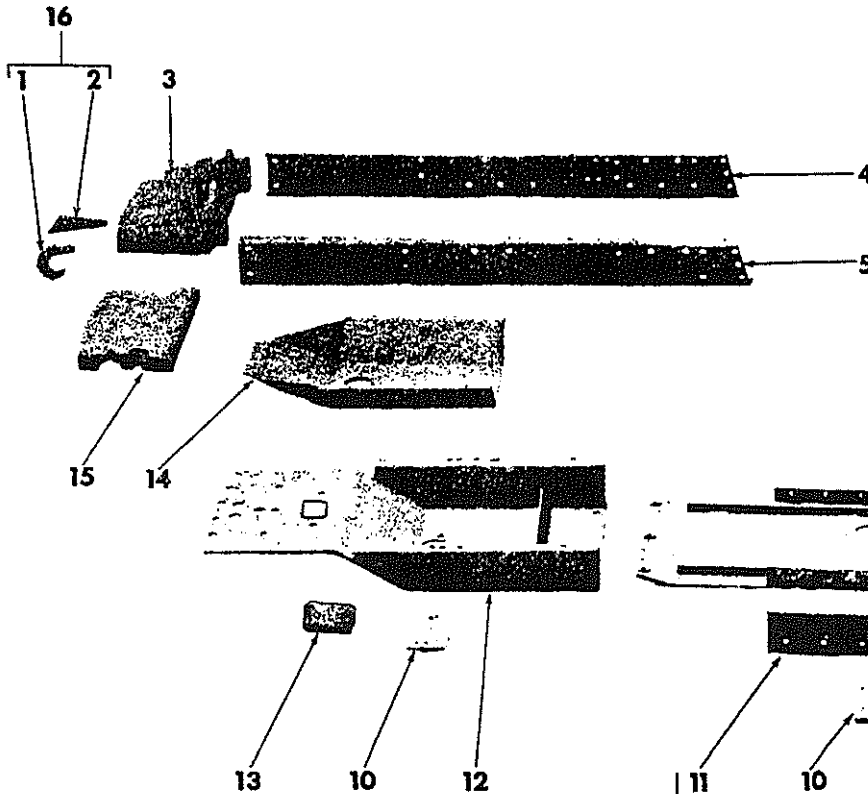


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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MAIN FRAME CHANNELS AND GUARDS

MAIN FRAME CHANNELS AND GUARDS - Continued



H 7063

1	77 850 R2 179 887 179 889 102 637 103 323	HOOK, front tow 1/2 x 1-3/4" Type 2 BOLT (2) 1/2 x 2" Type 2 BOLT 1/2" NUT (3) 1/2" 1k-WASHER
2	635 798 R1 179 885 103 323	BASE, front tow hook 1/2 x 1-1/2" Type 2 BOLT (3) 1/2" 1k-WASHER (3)
3	635 006 R3  676 108 R1 20 727 R1 223 441 19 724 R1	BOLSTER, front (Gas) (for use on Crawler Tractors prior to Serial No. H 1842) (for use on Skidder Tractor prior to Serial No. H 1070) 5/8 x 3-3/32" Type 4 STUD 5/8 x 3" Type 4 BOLT (2) 5/8 x 3-1/4" Type 4 BOLT 5/8" NUT (3)
3	635 007 R3  676 108 R1 676 778 R1 225 861	BOLSTER, front (Diesel) (for use on Crawler Tractors prior to Serial No. H 1996) (for use on Skidder Tractors prior to Serial No. H 1119) 5/8 x 3-3/32" Type 4 STUD (3) 5/8 x 3-3/4" Type 4 STUD 5/8" NUT (4)

3	676 368 R1  676 108 R1 20 727 R1 223 441 19 724 R1	BOLSTER, front (Gas) (for use on Crawler Tractors with Serial No. H 1842 and up) (for use on Skidder Tractors with Serial No. H 1070 and up) 5/8 x 3-3/32" Type 4 STUD 5/8 x 3" Type 4 BOLT (2) 5/8 x 3-1/4" Type 4 BOLT 5/8" NUT (3)
3	676 369 R1  676 108 R1 676 778 R1 225 861	BOLSTER, front (Diesel) (for use on Crawler Tractors with Serial No. H 1996 and up) (for use on Skidder Tractors with Serial No. H 1119 and up) 5/8 x 3-3/32" Type 4 STUD (3) 5/8 x 3-3/4" Type 4 STUD 5/8" NUT (4)
4	636 343 R11 636 941 R11 271 558 20 548 R1	CHANNEL, main frame RH (Crawler) CHANNEL, main frame RH (Skidder) 5/8 x 1-1/2" Type 2 BOLT (3) 5/8 x 1-3/4" Type 2 BOLT (2)
5	635 052 R11 636 940 R11 271 558 20 548 R1	CHANNEL, main frame LH (Crawler) CHANNEL, main frame LH (Skidder) 5/8 x 1-1/2" Type 2 BOLT (3) 5/8 x 1-3/4" Type 2 BOLT (2)

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CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
MAIN FRAME CHANNELS AND GUARDS - Continued		
6	636 134 R1	BRACE, drawbar guide (2) (w/transmission guard)
	179 892	1/2 x 2-3/4" Type 2 BOLT (2)
	271 562	5/8 x 2" Type 2 BOLT (2)
	12 026 R1	17/32 x 1-1/4 x 16 ga WASHER (2)
	102 639	5/8" NUT (2)
	103 323	1/2" 1k-WASHER (2)
6	636 106 R1	BRACE, drawbar guide (2) (w/o transmission guard)
	179 887	1/2 x 1-3/4" Type 2 BOLT (2)
	271 563	5/8 x 2-1/4" Type 2 BOLT (2)
	102 637	1/2" NUT (2)
	103 323	1/2" 1k-WASHER (2)
	102 639	5/8" 1k-WASHER (2)
7	635 690 R1	BRACKET, transmission guard rear (2)
	179 839	3/8 x 1" Type 2 BOLT (4)
	103 321	3/8" 1k-WASHER (4)
8	635 682 R92	GUARD, transmission (Crawler)
8	676 224 R91	GUARD, transmission (Skidder)
	15 073 R1	1/2 x 2" crg BOLT (4)
	179 883	1/2 x 1-1/4" Type 2 BOLT (3)
	179 839	3/8 x 1" Type 2 BOLT(2)
	102 635	3/8" NUT (6)
	102 637	1/2" NUT (4)
	16 038 R1	17/32 x 1 x 11 ga WASHER (3)
	103 323	1/2" 1k-WASHER (7)
	103 321	3/8" 1k-WASHER (12)
9	635 689 R1	BRACKET, transmission guard center (2)
	179 840	3/8 x 1-1/8" Type 2 BOLT (2)
	102 634	3/8" NUT (2)
	103 321	3/8" 1k-WASHER (2)
10	636 517 R11	COVER, crankcase guard & transmission guard
	180 121	3/8 x 7/8" Type 2 BOLT (2)
	103 321	3/8" 1k-WASHER (2)
11	635 688 R1	BRACKET, transmission guard front (2)
	179 840	3/8 x 1-1/8" Type 2 BOLT(4)
	102 634	3/8" NUT (4)
	103 321	3/8" 1k-WASHER (4)
12	635 649 R94	GUARD, crankcase
	179 839	3/8 x 1" Type 2 BOLT (4)
	179 884	1/2 x 1-3/8" Type 2 BOLT (4)
	16 038 R1	17/32 x 1 x 11 ga WASHER (4)
	575 807 R1	13/32 x 1 x 11 ga WASHER (4)
	103 321	3/8" 1k-WASHER (4)
	103 323	1/2" 1k-WASHER (4)
13	676 522 R1	COVER, crankcase guard
	180 175	1/2 x 1-1/4" Type 2 cd-pitd BOLT
	16 038 R1	17/32 x 1 x 11 ga WASHER
	120 384	1/2" cd-pitd 1k-WASHER
14	635 427 R1	PAN, sod (Crawler only)
	179 839	3/8 x 1" Type 2 BOLT(4)
	179 893	1/2 x 3" Type 2 BOLT (2)
	Q 5 035	17/32 x 1 x 16 ga WASHER (2)
	575 807 R1	13/32 x 1 x 11 ga WASHER (4)
	102 637	1/2" NUT (2)
	103 323	1/2" 1k-WASHER (2)
	103 321	3/8" 1k-WASHER (4)

REF. NO.	PART NUMBER	DESCRIPTION
MAIN FRAME CHANNELS AND GUARDS - Continued		
15	635 565 R2	WEIGHT, front end (1st weight)
	179 891	1/2 x 2-1/2" Type 2 BOLT (2)
	179 897	1/2 x 4" Type 2 BOLT (2)
	PO 10 535	17/32 x 1-1/4 x 11 ga WASHER (6)
	103 323	1/2" 1k-WASHER (4)
15	635 565 R2	WEIGHT, front end (additional)
	271 616	3/4 x 3-1/4" Type 2 BOLT (2)
	615 168 R1	25/32 x 1-1/2 x 11 ga WASHER (4)
	220 081	3/4" NUT (2)
16	635 252 R91	PARTS ACCESSORY, front tow hook composed of:
	1 Base	635 798 R1
	3 Bolt	179 885
	2 Bolt	179 887
	1 Bolt	179 889
	1 Hook	77 850 R2
	6 Lockwasher	103 323
	3 Nut	102 637
17	636 251 R91	PARTS ACCESSORY, transmission guard w/tractors equipped w/crankcase guard & drawbar) (Crawler only) composed of:
	3 Bolt	179 883
	2 Bolt	180 121
	12 Bolt	179 839
	6 Bolt	179 840
	4 Bolt	15 073 R1
	2 Bolt	271 562
	2 Brace	636 134 R1
	2 Bracket	635 688 R1
	2 Bracket	635 689 R1
	2 Bracket	635 690 R1
	1 Cover	636 517 R11
	1 Elbow	137 894
	1 Guard	635 682 R92
	1 Plug	444 870
	20 Lockwasher	103 321
	7 Lockwasher	103 323
	12 Nut	102 635
	4 Nut	102 637
	2 Nut	102 639
	3 Washers	16 038 R1
	2 Washers	12 026 R1
17	675 944 R91	PARTS ACCESSORY, transmission guard (w/tractors equipped w/Crankcase Guard) (Crawler only) (Includes all parts listed in 636 251 R91, parts accessory, plus the following) (Illustrated on page 89)
	1 Guide Drawbar	635 272 R91
	4 Bolt	271 613

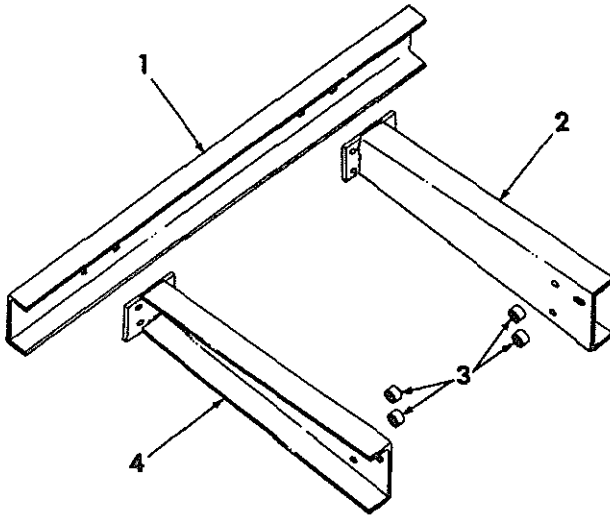


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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FRONT BUMPER



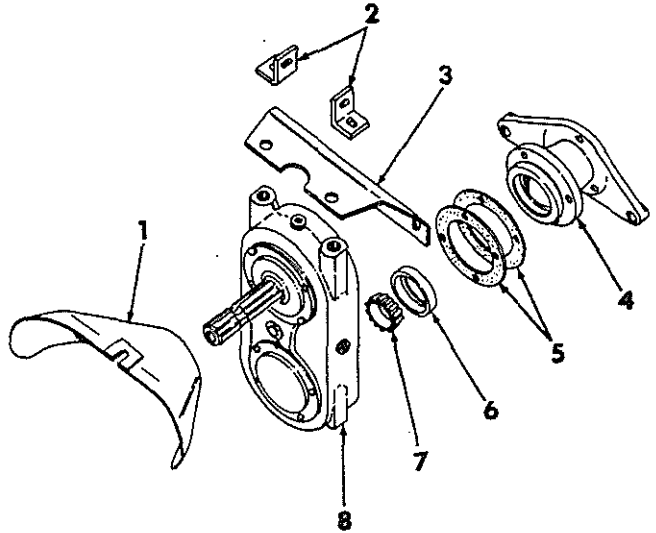
HE 351

NOTE: Not for Tractor w/Loader or Bullgraders

1	676 404 R1 465 567 R1 120 378 120 384	CHANNEL, bumper 1/2 x 1-1/2" Type 2 cd-pltd crg BOLT(8) 1/2" cd-pltd NUT (8) 1/2" lk-WASHER cd-pltd (8)
2	676 406 R11 223 517 432 695 R1 12 258 R1 615 131 R1 124 589	SUPPORT ASSEMBLY (RH) 5/8 x 3" Type 4 cd-pltd BOLT (2) 5/8 x 1-3/4" Type 4 cd-pltd BOLT 21/32 x 1-1/4 x 11 ga WASHER (2) 21/32 x 1 x 22 ga WASHER 5/8" cd-pltd NUT
3	521 426 R1	SPACER, support mounting (4)
4	676 405 R11 223 517 432 695 R1 12 258 R1 615 131 R1 124 589	SUPPORT ASSEMBLY (LH) 5/8 x 3" Type 4 cd-pltd BOLT (2) 5/8 x 1-3/4" Type 4 cd-pltd BOLT 21/32 x 1-1/4 x 11 ga WASHER (2) 21/32 x 1 x 22 ga WASHER 5/8" cd-pltd NUT
	676 403 R91	PARTS ACCESSORY, front bumper composed of all parts listed above

REF. NO.	PART NUMBER	DESCRIPTION
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PTO SPEED REDUCER ATTACHMENTS



HE 352

1	676 562 R91 179 840 103 321	SHIELD ASSEMBLY, reducer 3/8 x 1-1/8" Type 2 BOLT (4) 3/8" lk-WASHER (4)
2	676 757 R1 179 883 179 887 102 637 Q5 035 103 323	ANGLE, reducer support (2) (for Crawler w/3 Point Hitch) 1/2 x 1-1/4" Type 2 BOLT (2) 1/2 x 1-3/4" Type 2 BOLT (2) 1/2" NUT (2) 17/32 x 1 x 16 ga WASHER (4) 1/2" lk-WASHER (4)
3	676 547 R1 179 883 179 881 Q5 035 103 323	SUPPORT, reducer (for Crawler w/out 3 point Hitch) 1/2 x 1-1/4" Type 2 BOLT (2) 1/2 x 1" Type 2 BOLT (2) 17/32 x 1 x 16 ga WASHER (4) 1/2" lk-WASHER (4)
4	676 546 R1 179 839 271 556 103 321	ADAPTOR, reducer 3/8 x 1" Type 2 BOLT (4) 5/8 x 1-1/4" Type 2 BOLT (2) 3/8" lk-WASHER (4)
5	676 591 R1	GASKET, adaptor (2)
6	264 800 R91	CUP, adaptor brg
7	150 498 R1	CONE, adaptor brg
8	675 545 R91	SPEED REDUCER (for component parts refer to "SPEED REDUCER")



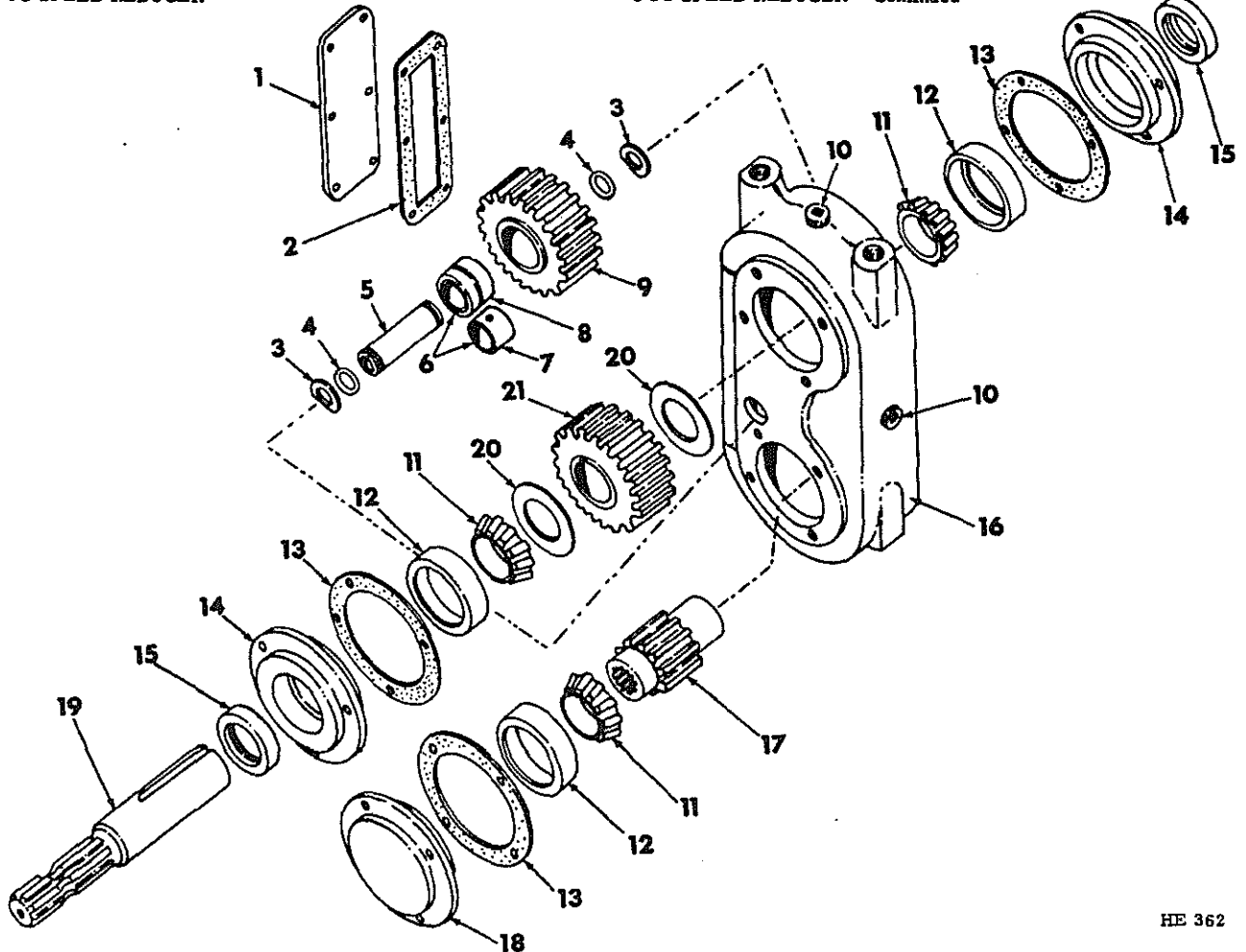
**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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PTO SPEED REDUCER

PTO SPEED REDUCER - Continued



HE 362

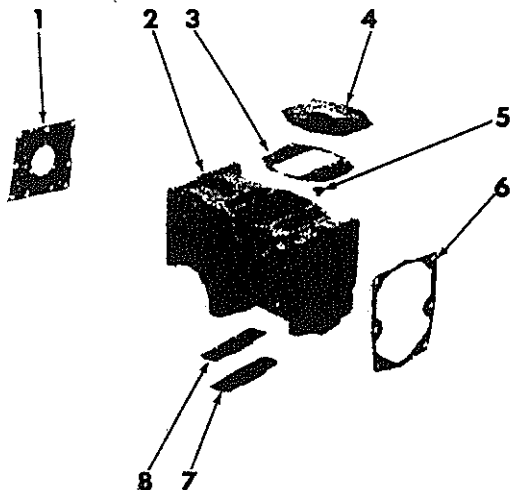
NOTE: Reduces speed from 1000 to 540 RPM

1	676 587 R1 180 022	COVER, housing 1/4 x 1/2" cd-pltd Type 2 BOLT (6)			
2	676 588 R1	GASKET, cover			
3	667 933 R1	WASHER (2)			
4	384 598 R1	"O" RING, shaft (2)			
5	676 593 R1 180 122	PIN, idler gear 3/8 x 1" cd-pltd Type 2 BOLT (2)			
6	676 610 R91	BEARING ASSEMBLY composed of: 1 Bearing 1 Race	676 611 R91 676 612 R1		
7	676 612 R1	RACE, inner			
8	676 611 R91	BEARING, needle			
9	676 592 R1	GEAR, idler			
10	444 703	PLUG, pipe (3)			
				11	264 800 R91 CONE, bearing (3)
				12	150 498 R1 CUP, bearing (3)
				13	676 591 R1 GASKET, retainer (3)
				14	676 590 R1 180 122 RETAINER, shaft (2) 3/8 x 1" cd-pltd Type 2 BOLT (8)
				15	676 609 R1 SEAL, oil (2)
				16	676 586 R1 HOUSING, pto
				17	676 741 R1 SHAFT & GEAR, high speed
				18	676 742 R1 180 122 RETAINER, shaft (closed) 3/8 x 1" cd-pltd Type 2 BOLT (4)
				19	676 596 R1 676 595 R1 SHAFT, low speed Shaft KEY
				20	676 786 R1 SHIM (2)
				21	676 594 R1 GEAR, low speed



REF. NO.	PART NUMBER	DESCRIPTION
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TORQUE AMPLIFIER HOUSING

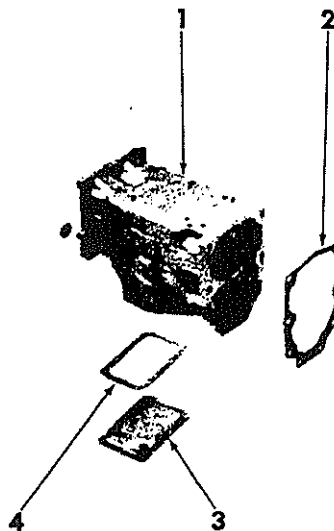


H 4334

1	635 181 R2	GASKET, spacer hsg front
2	635 003 R11	HOUSING, spacer (Includes 635 061 R1, BUSHINGS & 141 287, PIN)
	636 430 R1	5/8 <sup>11</sup> -NF Type 4 STUD (13)
	20 663 R1	5/8 x 2-3/8 <sup>11</sup> Type 4 BOLT (2)
	225 861	5/8 <sup>11</sup> -NF Type 4 NUT (13)
3	635 183 R3	GASKET, spacer hsg top cover
4	635 165 R1	COVER, spacer hsg top
	179 837	3/8 x 3/4 <sup>11</sup> Type 2 BOLT (2)
	636 431 R1	3/8 <sup>11</sup> -NF Type 4 STUD (14)
	103 026	3/8 <sup>11</sup> -NF Type 2 NUT (14)
	107 823	3/8 <sup>11</sup> -NF stamped NUT (14)
	103 321	3/8 <sup>11</sup> 1k-WASH. (2)
5	635 061 R1	BUSHING, spacer hsg (2)
6	635 182 R2	GASKET, spacer hsg rear
7	635 166 R1	COVER, spacer hsg bottom
	179 816	5/16 x 3/4 <sup>11</sup> Type 2 BOLT (6)
	103 320	5/16 <sup>11</sup> 1k-WASH. (6)
8	635 184 R2	GASKET, spacer hsg bottom cover

REF. NO.	PART NUMBER	DESCRIPTION
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POWER SHIFT REVERSER HOUSING



H 1453

1	675 548 R11	HOUSING, reverser (Includes 172 570, 172 548, 172 580, 172 592, 222 507, PLUGS & 141 287, PIN)
	636 430 R1	5/8 <sup>11</sup> -NF Type 4 STUD (15)
	225 861	5/8 <sup>11</sup> -NF Type 4 NUT (15)
	20 663 R1	5/8 x 2-3/8 <sup>11</sup> Type 4 BOLT (2)
2	675 550 R1	GASKET, hsg rear
3	675 551 R1	COVER, hsg bottom
	179 816	5/16 x 3/4 <sup>11</sup> Type 2 BOLT (8)
	103 320	5/16 <sup>11</sup> 1k-WASH. (8)
4	675 552 R1	GASKET, hsg bottom cover

\* Not Serviced Separately

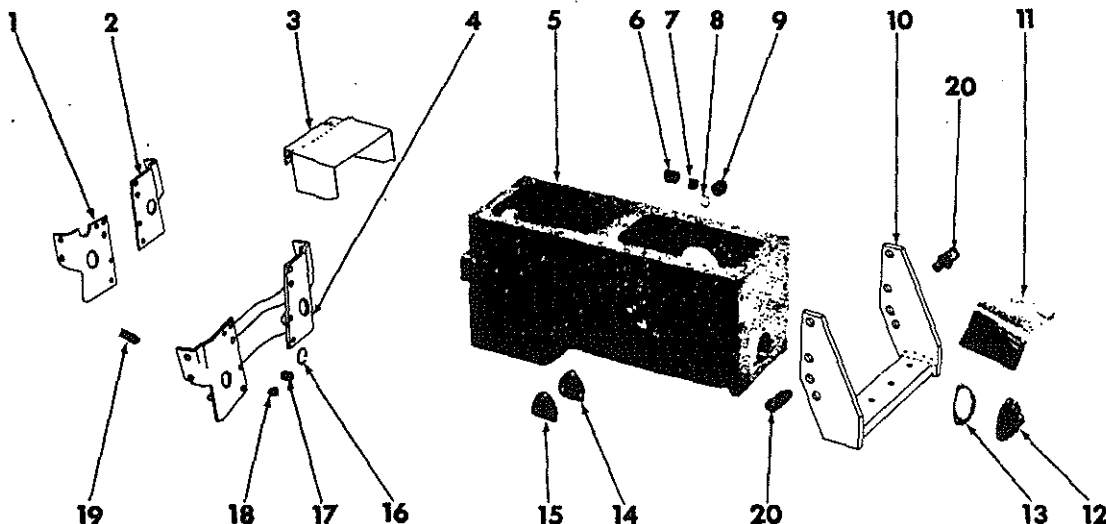


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REF. NO.	PART NUMBER	DESCRIPTION
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MAIN FRAME

MAIN FRAME - Continued



H 4334

1	635 169 R2	PLATE, frame support LH (Torque Amplifier)
1	675 553 R1	PLATE, frame support LH (Power Shift Reverser)
2	635 170 R3	PLATE, frame support RH (Torque Amplifier & Power Shift Reverser)
	635 456 R1	1/2" Special BOLT (4)
	635 457 R1	5/8" Special BOLT (4)
	20 668 R1	5/8-NF x 1-1/2" Type 4 BOLT (4)
	225 861	5/8" - NF NUT (4)
	110 827	9/16" 1k-WASHER (4)
	103 324	11/16" 1k-WASHER (4)
3	636 108 R1	SHIELD, propeller shaft (Standard Transmission only)
	271 554	5/8 x 1" Type 2 BOLT (2)
4	635 168 R93	SUPPORT, frame cross (Standard Transmission only)
	635 456 R1	1/2" Special BOLT (4)
	635 457 R1	5/8" Special BOLT (4)
	20 668 R1	5/8-NF x 1-1/2" Type 4 BOLT (4)
	225 861	5/8" - NF NUT (4)
	110 827	9/16" 1k-WASHER (4)
	103 324	11/16" 1k-WASHER (4)
5	675 539 R11	FRAME, main composed of:
	2 Bolt	179 810
	1 Bushing	676 738 R1
	1 Bushing	676 739 R1
	* 1 Frame	
	2 Lockwasher	103 320
	1 Plug	172 576
	1 Plug	103 868
	1 Plug	635 713 R1
	1 "O" Ring	252 728 R1
	2 Washer	Q 398
	444 870	1/2" drain PLUG
	137 894	45° street ELBOW (drain)
6	676 738 R1	BUSHING, reverse idler shaft front
7	676 739 R1	BUSHING, reverse idler shaft rear
8	252 728 R1	"O" RING, hyd plug

9	635 713 R1	PLUG, frame hyd
	179 810	5/16 x 3/8" Type 2 BOLT
	Q 398	11/32 x 7/8 x 16 ga WASH.
	103 320	5/16" 1k-WASH.
10	635 272 R91	GUIDE, drawbar (Crawler) (NOT w/Three Point Hitch)
10	636 500 R91	GUIDE, drawbar (Crawler) (w/Three Point Hitch)
10	676 226 R91	GUIDE, drawbar (Skidder only)
	271 613	3/4 x 2-1/2" Type 2 BOLT (4)
	103 326	3/4" 1k-WASH. (4)
11	704 395 R96	SHIELD, PTO safety (w/PTO & Constant Running PTO)
	179 819	5/16 x 1-1/8" Type 2 BOLT (3)
	Q 398	11/32 x 7/8 x 16 ga WASH. (3)
	103 320	5/16" 1k-WASH. (3)
12	635 452 R1	PLATE, PTO shaft opening cover
	179 816	5/16 x 3/4" Type 2 BOLT (3)
	103 320	5/16" 1k-WASH. (3)
13	636 629 R1	GASKET, PTO shaft opening cover plate (2)
14	636 630 R1	GASKET, PTO shifter shaft hole cover
15	635 453 R1	PLATE, PTO shifter shaft hole cover
	179 838	3/8 x 7/8" Type 2 BOLT (3)
	103 321	3/8" 1k-WASHER (3)
16	172 576	PLUG, 1-5/8" expansion
17	103 868	PLUG, 1/2" sq-hd pipe (Crawler)
18	103 867	PLUG, 3/8" sq-hd pipe (Crawler)
19	141 287	PIN, 1/2 x 1-1/2" dowel (w/Torque Amplifier)
20	636 499 R1	PIN, drawbar guide (2) (for use w/Three Point Hitch) (Welded in drawbar guide)

\* Not Serviced Separately

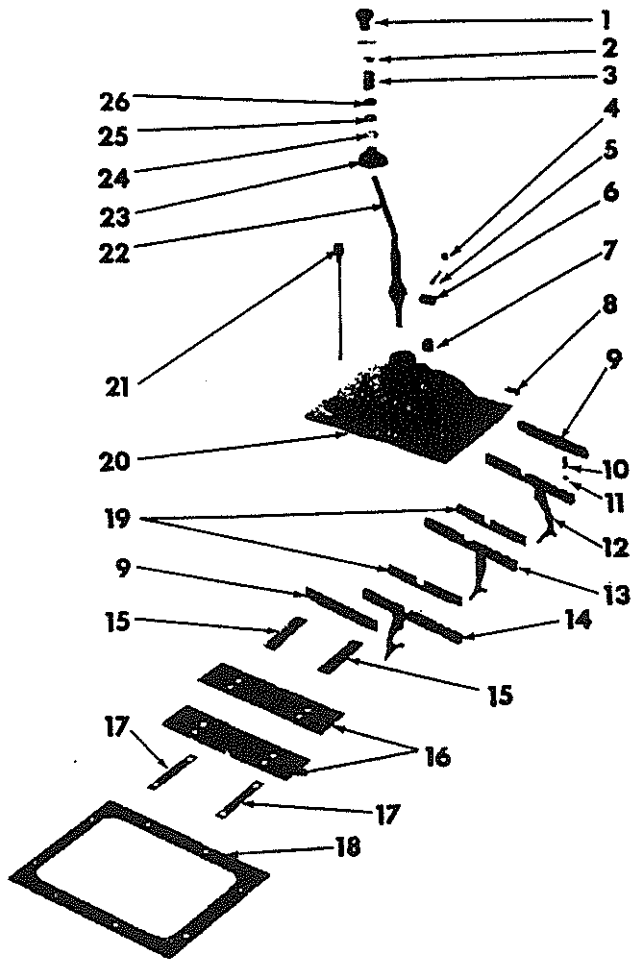
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REF. NO.	PART NUMBER	DESCRIPTION
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GEAR SHIFT



H 6961

1	53 717 DA	KNOB, gear shifter lever
2	710 953 R1	STOP, gear shifter lever spg
3	29 547 D	SPRING, gear shifter lever
4	172 529	PLUG, 5/8" swivel shaft expansion
5	34 878 D 172 529	SHAFT, gear shifter lever (small) 5/8" expansion PLUG
6	705 650 R1	SHAFT, gear shifter lever swivel (large)
7	103 869	PLUG, 3/4" sq-hd pipe
8	636 485 R1	TAB, transmission cover bolt locking (7)
9	704 039 R2	GUIDE, gear shifter rail outer (2)
10	3072 000 R1	SPRING, gear shifter poppet (3)
11	16 013 R1	BALL, gear shifter stl (3)

REF. NO.	PART NUMBER	DESCRIPTION
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GEAR SHIFT - Continued

12	635 176 R91	FORK, first & reverse speed gear shifter (Crawler not w/T.A.)
12	635 176 R91	FORK, first & reverse speed gear shifter (Skidder)
12	635 912 R92	FORK, reverse speed shifter (w/T.A.)
13	635 177 R91	FORK, second & third speed gear shifter
14	635 178 R92	FORK, fourth & fifth speed gear shifter
15	704 040 R1 179 837	BRACKET, gear shifter fork & guide (2) 3/8 x 3/4" Type 2 BOLT (4)
16	636 426 R1	BAFFLE, transmission cover oil (2)
17	636 425 R1	LOCK, rail guide bracket bolt (2)
18	636 483 R2	GASKET, transmission cover
19	704 038 R1	GUIDE, gear shifter rail inner (2)
20	703 970 R41 636 432 R1 103 026	COVER, transmission (Includes PLUG, 103 869) Transmission cover STUD (7) 3/8"-NF NUT (7)
21	635 157 R92	STICK, transmission oil level dip
22	704 041 R91 108 644	LEVER, gear shifter 3/16 x 1-3/8" c-PIN
23	712 626 R1	SHIELD, gear shifter swivel housing
24	21 868 V	WASHER, 29/32 x 1-1/2 x 16 ga.
25	34 879 D	WASHER, gear shifter lever felt
26	34 880 D	RETAINER, lever felt washer

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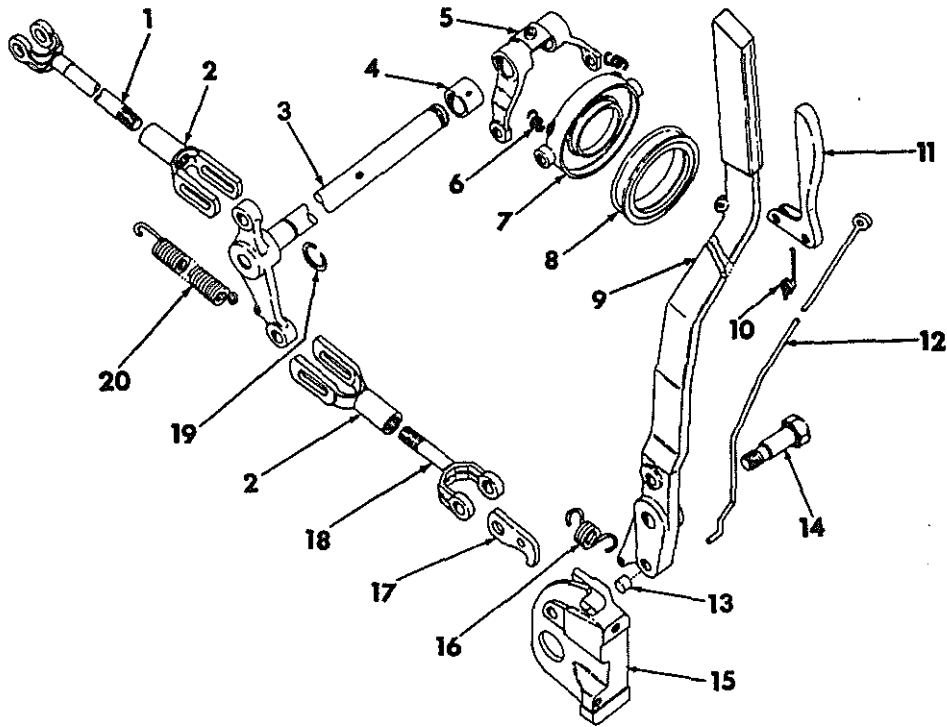
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REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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TORQUE AMPLIFIER CONTROL

TORQUE AMPLIFIER CONTROL - Continued



HE 296

1	635 160 R11 114 496 114 787 103 385	ROD, engine clutch 1/2" - NF jam NUT 1/2 x 1-27/64" dtd rod-end PIN 1/8 x 1" c-PIN	11	359 921 R2 359 922 R2 661 406 R1	GRIP, control lever Special lever PIN (2) Grip pin RETAINER (2)
2	635 697 R1 359 929 R1 11 002 VA 103 385	YOKE, clutch control rod (2) Control rod yoke PIN (2) 17/32 x 7/8 x 16 ga WASHER (4) 1/8 x 1" c-PIN (2)	12	636 124 R21 Q 392 103 384	ROD, clutch control lever 9/32 x 3/4 x 18 ga WASHER 1/8 x 3/4" c-PIN
3	635 175 R91 615 181 R1	SHAFT, clutch release 29/32 x 1-1/4 x 16 ga WASHER (2)	13	141 281	PIN, lever stop (1/2 x 7/8" dowel)
4	635 061 R1	BUSHING, spacer housing release shaft	14	362 841 R1 131 488 103 323	BOLT, control lever pivot 1/2" - NF low crown NUT 1/2" 1k-WASHER
5	360 653 R2 375 559 R1 12 810 R1 103 906 359 906 R1 114 503	FORK, clutch release Release fork pivot PIN (2) 1/8 x 1-1/32" rd-hd RIVET (2) 5/32 x 3/4" No. 8 Woodruff KEY (2) 3/8 x 1-1/8" special set SCREW 3/8" jam NUT	15	362 838 R1 179 839 103 321	RATCHET, control lever 3/8 x 1" Type 2 BOLT (2) 3/8" 1k-WASHER (2)
6	359 901 R1	SPRING, clutch release sleeve (2)	16	362 843 R1	SPRING, control lever return
7	359 900 R1	SLEEVE, clutch release	17	359 925 R3 362 840 R1 11 002 VA 103 385	PAWL, control lever Rod end clevis PIN 17/32 x 7/8 x 16 ga WASHER 1/8 x 1" c-PIN
8	362 028 R91	BEARING, clutch release	18	635 149 R2 114 496	CLEVIS, control rod end 1/2" - NF jam NUT
9	636 123 R1	LEVER, clutch control (used 1965-1966) (order 1 - 676 486 R1, LEVER & 1 - 636 124 R21, ROD)	19	359 909 R1	RETAINER, clutch release shaft (2)
9	676 486 R1	LEVER, clutch control (used 1967 & since)	20	365 963 R1	SPRING, pedal to lever
10	359 920 R2	SPRING, control lever grip			



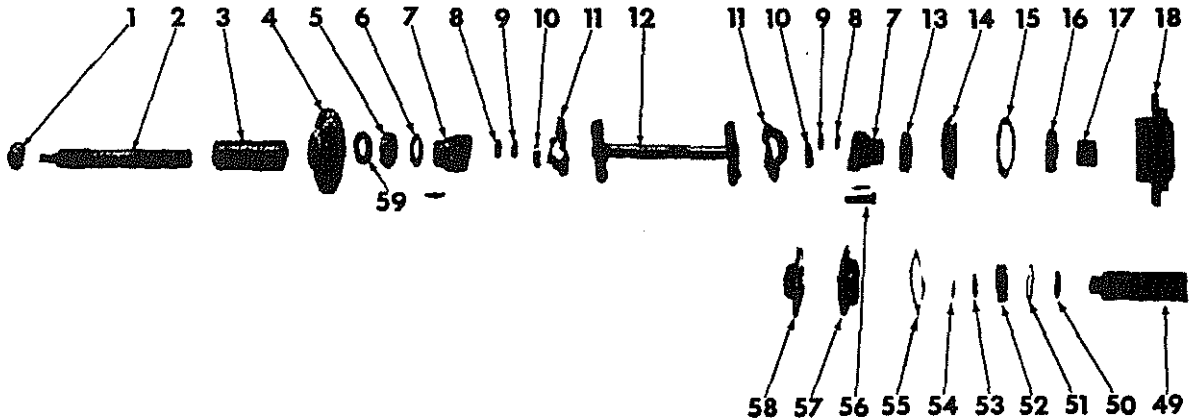


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REF. NO.	PART NUMBER	DESCRIPTION
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TRANSMISSION & STANDARD DRIVE

TRANSMISSION & STANDARD DRIVE - Continued



HB 4331

1	ST 575	BEARING, clutch shaft pilot	17	711 252 R1	RING, driving shaft brg distance
2	635 102 R1	SHAFT, clutch	18	635 131 R1 179 840 103 321	CAGE, driving shaft brg 3/8 x 1-1/8" Type 2 BOLT (4) 3/8" lk-WASHER (4)
3	635 108 R2	GUIDE, clutch throwout brg	19	635 179 R1	GASKET, driving shaft brg cage
4	635 095 R12 179 838 103 321	RETAINER, clutch shaft brg (Includes GUIDE, 635 108 R2) 3/8 x 7/8" Type 2 BOLT (3) 3/8" lk-WASH. (3)	20	ST 235	BEARING, driving shaft rear
5	635 257 R91	BEARING, clutch shaft retainer (opt to use 636 632 R91, BEARING)	21	635 146 R1	SHAFT, transmission driving 23T
6	635 161 R1	SHIELD, propeller dust	22	704 014 R91	BEARING, spline shaft pilot
7	704 023 R1 66 984 D	COUPLING, propeller shaft joint (2) 3/16 x 2-1/8" Woodruff KEY (2)	23	706 462 R2	GEAR, 28T fourth & fifth speed sliding
8	7 579 T	RETAINER, shaft joint rubber wash. (16)	24	709 301 R1	GEAR, 33T and 41T second & third speed sliding (2.26 MPH second gear speed) (Crawler Tractors prior Serial No. H 2371)
9	6 161 H	WASHER, propeller shaft joint rubber (16)	24	676 607 R1	GEAR, 33T and 37T second & third speed sliding (2.00 MPH second gear speed) (Crawler Tractor with Serial No. H 2371 & up)
10	704 024 R1 179 841 103 321	WASH, shaft joint coupling retainer (2) 3/8 x 1-1/4" Type 2 BOLT (2) 3/8" lk-WASH. (2)	25	635 136 R1	GEAR, 41T first & reverse speed sliding
11	48 967 DA	RING, propeller shaft joint (2)	26	675 838 R1	NUT, spline shaft brg lock
12	635 150 R91	SHAFT, propeller	27	ST 775 A	CONE, spline shaft front brg
13	635 580 R91	SEAL, driving shaft oil (opt to use 703 844 R91 or 709 772 R91, OIL SEALS)	28	ST 970	CUP, spoine shaft front brg
14	704 019 R11 179 841 103 321	RETAINER, driving shaft oil seal (Includes OIL SEAL, 635 580 R91) 3/8 x 1-1/4" Type 2 BOLT (3) 3/8" lk-WASH. (3)	29	707 501 R1 707 502 R1 707 503 R1	SHIM, .002" spline shaft brg (as required) SHIM, .010" spline shaft brg (as required) SHIM, .004" spline shaft brg (as required)
15	711 254 R1	GASKET, driving shaft oil seal retainer	30	707 500 R1	SPACER, spline shaft brg
16	ST 247	BEARING, w/snap ring driving shaft front	31	704 025 R1 193 033 225 857 115 551	RETAINER, spline shaft brg 1/2 - NF x 2-3/8" Type 2 BOLT (3) 1/2" - NF NUT (3) 1/2" int-t lk-WASHER (3)

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# CRAWLER TRACTORS

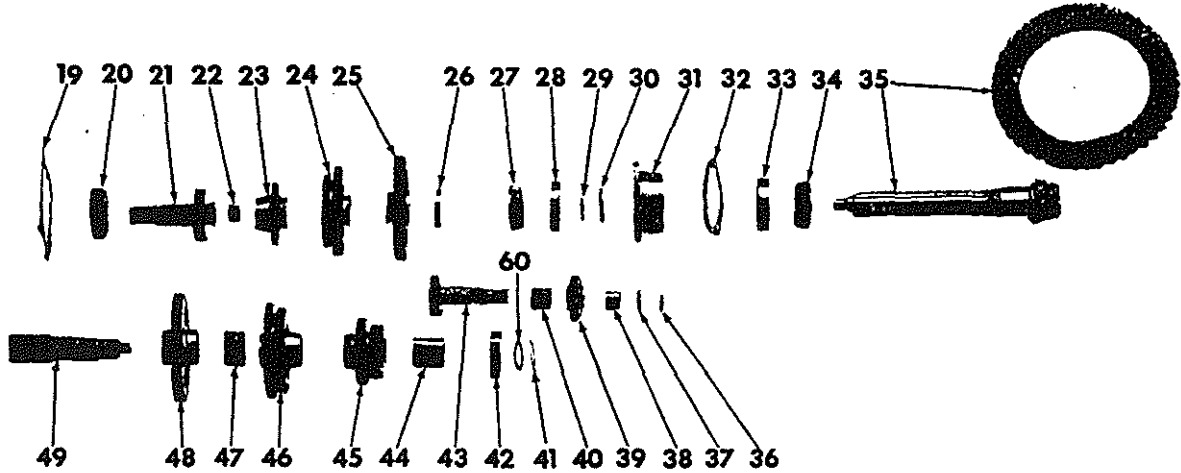


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REF. NO.	PART NUMBER	DESCRIPTION
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TRANSMISSION AND STANDARD DRIVE - Continued

TRANSMISSION AND STANDARD DRIVE - Continued



32	704 008 R1	SHIM, .0108" brg retainer (as required)
32	704 009 R1	SHIM, .006" brg retainer (as required)
32	704 010 R1	SHIM, .0016" brg retainer (as required)
32	3041 092 R1	SHIM, .015" brg retainer (as required)
32	3041 093 R1	SHIM, .030" brg retainer (as required)
33	ST 964	CUP, spline shaft rear brg
34	63 313 R91	CONE, spline shaft rear brg
35	675 836 R91	PACKAGE, transmission shaft & gear (serviced as a unit)
36	704 029 R1	RING, reverse idler shaft retaining
37	675 350 R1	WASHER, reverse idler shaft - special
38	676 739 R1	BUSHING, reverse idler shaft rear
39	635 135 R1	GEAR, 16T reverse idler
40	676 738 R1	BUSHING, reverse idler shaft front
41	233 041 R1	RING, countershaft rear brg retaining
42	ST 215	BEARING, countershaft rear
43	3073 875 R1	SHAFT, 17T reverse idler 2.26 MPH second gear speed (Crawler Tractor prior Serial No. H 2398) (order 1 - 676 738 R1 & 1 - 676 739 R1, BUSHING)
43	676 608 R1	SHAFT, 16T reverse idler (2.00 MPH second gear speed) (Crawler Tractor Serial No. H 2398 & up)
44		SPACER, countershaft gears rear (Crawler Tractor prior Serial No. H 2946) (order 1 - 676 748 R1, SPACER & 1 - 676 749 R1, WASHER)
44	676 748 R1	SPACER, countershaft gears rear (Crawler Tractor with Serial No. H 2946 & up)
45	635 143 R1	GEAR, 18T and 29T first & second speed driving (2.26 MPH second gear speed) (Crawler Tractor prior Serial No. H 2371)

45	676 606 R1	GEAR, 19T and 23T, first & second speed driving (2.00 MPH second gear speed) (Crawler Tractor Serial No. H 2371 & up)
46	635 144 R1	GEAR, 37T and 42T third & fourth speed driving
47	635 172 R1	SPACER, countershaft gears front
48	635 145 R1	GEAR, 47T constant mesh
49	635 137 R1	COUNTERSHAFT, transmission
50	635 199 R1	SPACER, countershaft brg
51	635 646 R1	RING, countershaft front brg retaining
52	ST 213	BEARING, countershaft front
53	703 985 R1	WASHER, countershaft retainer
54	703 968 R1 179 818	PLATE, countershaft retainer 5/16 x 1" Type 2 BOLT (2)
55	635 180 R1	GASKET, countershaft front brg cage (2)
56	48 968 DAX	SCREW, propeller shaft joint (8) (Includes the following:
	363 239 R1	7/16" - NF NUT (8)
	103 322	7/16" 1k-WASHER (8)
57	635 129 R1	CAGE, countershaft front brg
58	635 130 R1 179 840 103 321	RETAINER, countershaft front brg cage 3/8 x 1-1/8" Type 2 BOLT (4) 3/8" 1k-WASHER (4)
59	54 216 H	WASHER, dust shield
60	676 749 R1	WASHER, bearing thrust (Crawler Tractors with Serial No. H 2946 & up)

\* NOT SERVICED SEPARATELY.

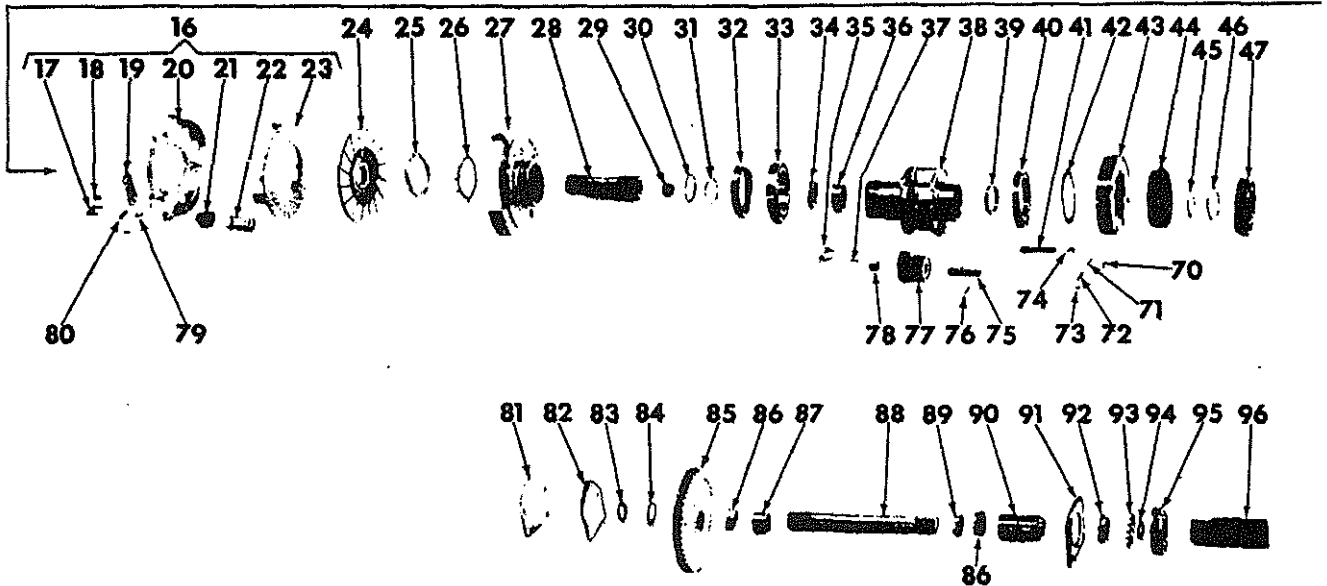
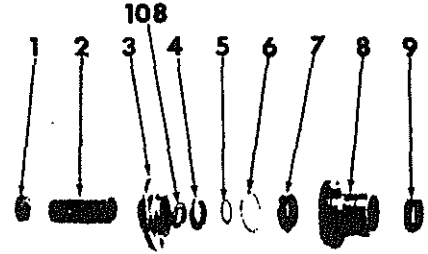


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REF. NO.	PART NUMBER	DESCRIPTION
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TRANSMISSION AND TORQUE AMPLIFIER DRIVE

TRANSMISSION AND TORQUE AMPLIFIER DRIVE - Continued



HB 4332

1	ST 575	BEARING, clutch shaft pilot	15	364 432 R91	COUPLING, driving shaft (Includes 364 411 R1, RING)
2	635 108 R2	GUIDE, clutch throw-out brg	16	635 619 R91	PLATE ASSEMBLY, 7" torque amplifier clutch composed of:
3	635 095 R12	RETAINER, clutch shaft brg (Includes 635 108 R2, GUIDE)			6 Cup 359 934 R1
	179 838	3/8 x 7/8" Type 2 BOLT (3)			1 Lever Pkg 359 948 R94
	103 321	3/8" 1k-WASH. (3)			1 Plate 362 197 R1
4	635 571 R91	SEAL, clutch shaft retainer oil			1 Plate 359 932 R91
5	631 255 R1	RING, shaft front brg retaining			1 Spring Pkg 360 237 R92
6	584 685 R1	RING, front brg retaining		359 899 R1	1/4 x 9/16" Special BOLT (6)
7	ST 560	BEARING, front		103 319	1/4" 1k-WASH. (6)
8	635 132 R1	RETAINER, spacer housing front brg	17	359 937 R3	SPRING, clutch release lever (3)
	179 843	3/8 x 1-1/2" Type 2 BOLT (3)	18	359 935 R1	SCREW, clutch release lever (3)
	103 321	3/8" 1k-WASH. (3)		375 603 R1	5/16"-NF jam NUT (3)
9	370 486 R91	BEARING, driving or clutch shaft rear	19	359 936 R21	LEVER, clutch release (3) (Includes NUT, 375 603 R1 & SCREW, 359 935 R1)(Also refer to Lever Package)
10	635 103 R1	SHAFT, clutch (NOT w/CRPTO)	19	359 948 R94	PACKAGE, clutch release lever composed of:
11	635 139 R1	SHAFT, CRPTO driving (w/CRPTO)			3 Lever 359 936 R21
12	635 423 R91	SEAL, driving & clutch shaft oil			3 Pin 369 106 R1
13	635 104 R1	SHAFT, clutch (w/CRPTO)			3 Pin 369 107 R1
14	364 411 R1	RING, driving shaft coupling			3 Spring 359 937 R3

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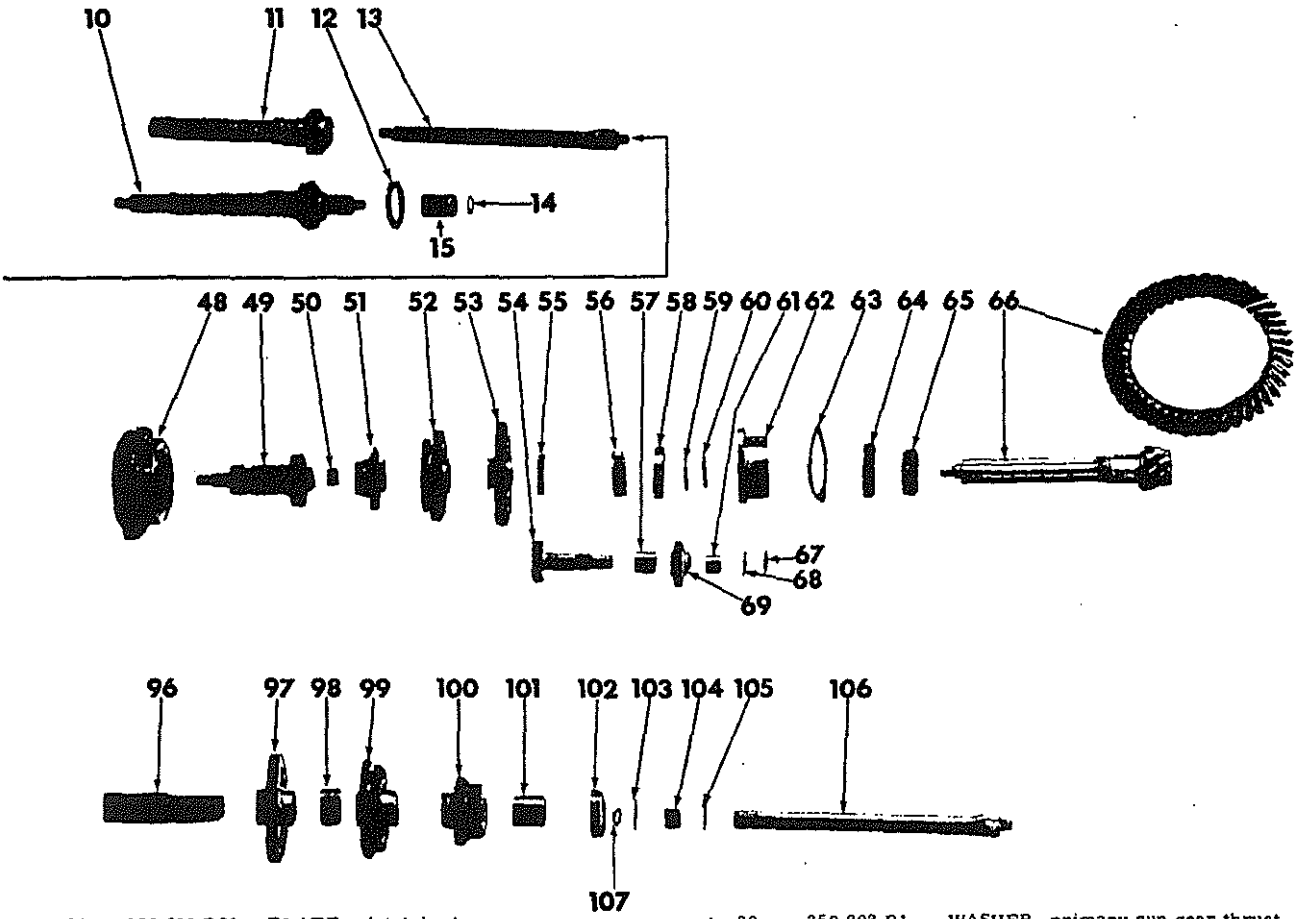
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REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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TRANSMISSION AND TORQUE AMPLIFIER DRIVE - Continued

TRANSMISSION AND TORQUE AMPLIFIER DRIVE - Continued



20	359 932 R91 359 933 R1 359 899 R1 103 319	PLATE, clutch back Back plate release lever SEAT (3) 1/4 x 9/16" Special BOLT (6) 1/4" lk-WASH. (6)
21	359 934 R1	CUP, pressure plate spg (6)
22	359 939 R2 360 237 R92	SPRING, pressure plate (6) PACKAGE, pressure plate spg (Includes SPRINGS, 359 939 R2)
23	362 197 R1 359 899 R1 103 319	PLATE, pressure 1/4 x 9/16" Special BOLT (6) 1/4" lk-WASH. (6)
24	375 701 R91	DISC, 7" clutch driven
25	359 897 R1	LOCK, clutch carrier
26	359 896 R2	LOCK, clutch carrier nut
27	359 895 R3	CARRIER, T.A. Clutch
28	361 283 R32	GEAR AND BEARING, 23T primary sun (Includes 377 133 R91, BRG)
29	377 133 R91	BEARING, sun gear needle

30	359 893 R1	WASHER, primary sun gear thrust
31	359 894 R1	RING, primary sun gear thrust washer snap
32	361 248 R92	SEAL, planet carrier front brg oil
33	ST 562	BEARING, planet carrier front
34	359 951 R92	SEAL, planet carrier oil
35	359 890 R2	PLATE, planet gear thrust (6)
36	359 950 R91	BEARING, planet carrier
37	364 634 R91	SET, planet gear needle brg roller (consists of 138 - 359 954 R1, ROLLERS)
38	361 281 R12	CARRIER, planet (Includes 359 950 R91, BRG; 359 951 R92, OIL SEAL; 17 046 R1, PINS & 359 882 R1, SPACER)
39	359 882 R1	SPACER, planet carrier
40	ST 589	BEARING, planet carrier rear
41	360 652 R1	SCREW, brg carrier (4) (opt w/365 615 R1)
42	363 666 R1	WASHER, overrunning clutch roller front
43	365 402 R11	RAMP, brg carrier & overrunning clutch (Includes 361 287 R1, PINS; 361 285 R11, PLUGS; 365 403 R1, ROLLERS & 361 286 R1, SPRINGS)

\* Not Serviced Separately



**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
TRANSMISSION AND TORQUE AMPLIFIER DRIVE - Continued		
44	360 651 R2	WASHER, overrunning clutch roller rear
45	359 891 R1	WASHER, driving primary & driven secondary sun gear thrust
46	358 059 R1	RING, drive shaft brg snap
47	ST 266	BEARING w/SNAP RING, drive shaft
48	360 643 R1 103 321	CAGE, driven shaft brg 3/8 x 1-3/4" Type 2 BOLT (4) 3/8" 1k-WASHER (4)
49	635 188 R2	SHAFT, transmission driving
50	704 014 R91	BEARING, spline shaft pilot
51	706 462 R2	GEAR, 28T fourth & fifth speed sliding
52	709 301 R1	GEAR, 33T & 41T second & third speed sliding (2.00 MPH second gear speed) (Crawler Tractor prior Serial No. H 2371) (Skidder Tractor prior Serial No. H 1143)
52	676 607 R1	GEAR, 33T & 37T second & third speed sliding (2.00 MPH second gear speed) (Crawler Tractor with Serial No. H 2371 & up) (Skidder Tractor with Serial No. H 1143 & up)
53	635 136 R1	GEAR, 41T first & reverse speed sliding
54	3073 875 R1	SHAFT, 17T reverse idler 2.26 MPH second gear speed (Crawler Tractor prior Serial No. H 2398) (Skidder Tractor prior Serial No. H 1143) (order with 1 - 676 738 R1, 1 - 676 739 R1, BUSHING)
54	676 608 R1	SHAFT, 16T reverse idler (2.00 MPH second gear speed) (Crawler Tractor Serial No. H 2398 & up) (Skidder Tractor Serial No. H 1143 & up)
55	675 838 R1	NUT, spline shaft brg lock
56	ST 775 A	CONE, spline shaft front brg
57	676 738 R1	BUSHING, reverse idler shaft front
58	ST 970	CUP, spline shaft front brg
59	707 501 R1	SHIM, .002" spline shaft brg (as req'd)
59	707 502 R1	SHIM, .010" spline shaft brg (as req'd)
59	707 503 R1	SHIM, .004" spline shaft brg (as req'd)
60	707 500 R1	SPACER, spline shaft brg
61	676 739 R1	BUSHING, reverse idler shaft rear

REF. NO.	PART NUMBER	DESCRIPTION
TRANSMISSION AND TORQUE AMPLIFIER DRIVE - Continued		
62	704 025 R1 193 033 225 857 115 551	RETAINER, spline shaft brg 1/2 - NF x 2-3/8" Type 2 BOLT (3) 1/2" - NF NUT (3) 1/2" int-t-1k-WASHER (3)
63	704 008 R1	SHIM, .0108" brg retainer (as req'd)
63	704 009 R1	SHIM, .006" brg retainer (as req'd)
63	704 010 R1	SHIM, .0016" brg retainer (as req'd)
63	3041 092 R1	SHIM, .015" brg retainer (as req'd)
63	3041 093 R1	SHIM, .030" brg retainer (as req'd)
64	ST 964	CUP, spline shaft brg rear
65	63 313 R91	CONE, spline shaft brg rear
66	675 836 R91	PACKAGE, transmission spline shaft & bevel gear (to be serviced as matched pair)
67	704 029 R1	RING, reverse idler shaft retaining
68	675 350 R1	WASHER, reverse idler shaft special
69	635 135 R1	GEAR, 16T reverse idler
70	365 403 R1	ROLLER, overrunning clutch
71	361 287 R1	PIN, overrunning clutch
72	361 286 R1	SPRING, overrunning clutch
73	361 285 R1	PLUG, overrunning clutch
74	360 232 R1	RING, brg carrier screw retaining (4)
75	361 282 R2	SHAFT, planet gear (3)
76	17 046 R1	LOCK, planet gear shaft (3) (1/8-x 1-1/8" slt-spg PIN)
77	362 005 R92	SET, planet gear (23T & 28T) (consists of 3 - 359 887 R2, GEARS)
78	359 888 R1	SPACER, planet gear brg.(3)
79	369 107 R1	RING, release lever pin retaining (3)
80	369 106 R1	PIN, clutch release lever (3).
81	635 167 R1 114 631 179 816 103 320	COVER, countershaft opening Cover bolt SLEEVE (4) 5/16 x 3/4" Type 2 BOLT (4) 5/16" 1k-WASHER (4)
82	635 185 R2	GASKET, countershaft opening cover



**CRAWLER TRACTORS**



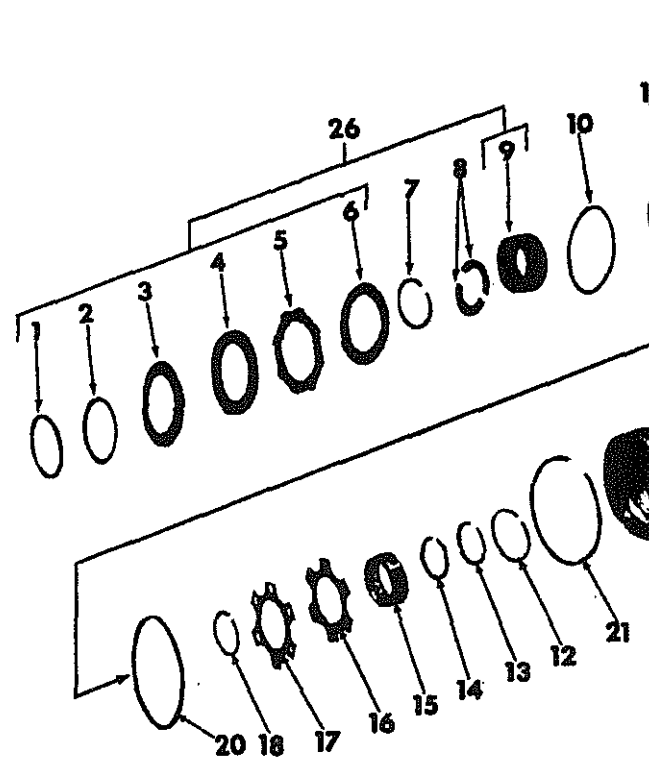
REF. NO.	PART NUMBER	DESCRIPTION
TRANSMISSION AND TORQUE AMPLIFIER DRIVE - Continued		
83	152 450 R1 615 267 R1	RING, countershaft front retaining 1-9/32 x 1-3/4 x 18 ga retaining ring WASHER
84	635 186 R1	SHIM, .010 <sup>th</sup> countershaft front retaining ring (as req'd)
85	635 140 R1	GEAR, 47T driven
86	635 198 R1	BUSHING, countershaft front flange (2)
87	102 613 R91	BEARING, front countershaft front
88	635 141 R1	SHAFT, front counter
89	283 375 R91	BEARING, front countershaft rear
90	635 154 R1	COUPLING, countershaft
91	635 164 R1 179 838 103 321	PLATE, countershaft front brg retainer 3/8 x 7/8" Type 2 BOLT (4) 3/8" 1k-WASHER (4)
92	127 711	NUT, countershaft front brg lock
93	127 688	WASHER, countershaft front brg lock
94	601 882 C1	WASHER, nut spacer
95	ST 256	BEARING, countershaft front
96	635 138 R11	SHAFT, transmission counter (Includes 635 202 R1, BUSHINGS & 127 611, NUT)
97	635 145 R1	GEAR, 47T constant mesh
98	635 172 R1	SPACER, countershaft gears front
99	635 144 R1	GEAR, 37T & 42T third & fourth speed driving
100	635 143 R1	GEAR, 19T & 29T first & second speed driving (2.26 MPH second gear speed) (Crawler Tractor prior Serial No. H 2371) (Skidder Tractor prior Serial No. H 1143)
100	676 606 R1	GEAR, 19T and 23T first & second speed driving (2.00 MPH second gear speed) (Crawler Tractor Serial No. H 2371 & up) (Skidder Tractor Serial No. H 1143 & up)
101		SPACER, countershaft gears rear (Crawler Tractor prior Serial No. H 2946 ) (Skidder Tractor prior Serial No. H 1201) (order 1 - 676 748 R1, SPACER & 1 - 676 749 R1, WASHER)

REF. NO.	PART NUMBER	DESCRIPTION
TRANSMISSION AND TORQUE AMPLIFIER DRIVE - Continued		
101	676 748 R1	SPACER, countershaft gears rear (Crawler Tractor with Serial No. H 2946 & up) (Skidder Tractor with Serial No. H 1201 & up)
102	ST 215	BEARING, countershaft rear
103	233 041 R1	RING, countershaft rear brg retainer
104	635 202 R1	BUSHING, countershaft rear
105	635 201 R1	WASHER, rear thrust (w/PTO)
106	635 142 R1	SHAFT, rear counter (w/PTO)
107	676 749 R1	WASHER, bearing thrust (Crawler Tractor with Serial No. H 2946 & up) (Skidder Tractor with Serial No. H 1201 & up)
108	54 216 H	WASHER, dust seal
	636 205 R91	AMPLIFIER ASSEMBLY, torque composed of: 1 Bearing ST 562 1 Bearing ST 589 1 Bearing ST 266 1 Cage 360 643 R1 1 Carrier 361 281 R12 1 Gear 361 283 R32 1 Gear Set 362 005 R92 1 Lock 358 896 R2 1 Lock 358 897 R1 1 Oil Seal 361 248 R82 3 Pin 17 046 R1 6 Plate 359 890 R2 1 Ramp 365 402 R11 1 Ring 359 894 R1 4 Ring 360 232 R1 1 Ring 358 059 R1 1 Roller Set 364 634 R91 4 Screw 360 652 R1 1 Shaft 635 188 R2 3 Shaft 361 282 R2 3 Spacer 358 888 R1 1 Washer 358 891 R1 1 Washer 358 893 R1 1 Washer 358 893 R1 1 Washer 363 666 R1 1 Washer 360 651 R1



REF. NO.	PART NUMBER	DESCRIPTION
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POWER SHIFT REVERSER CLUTCH AND SHAFT

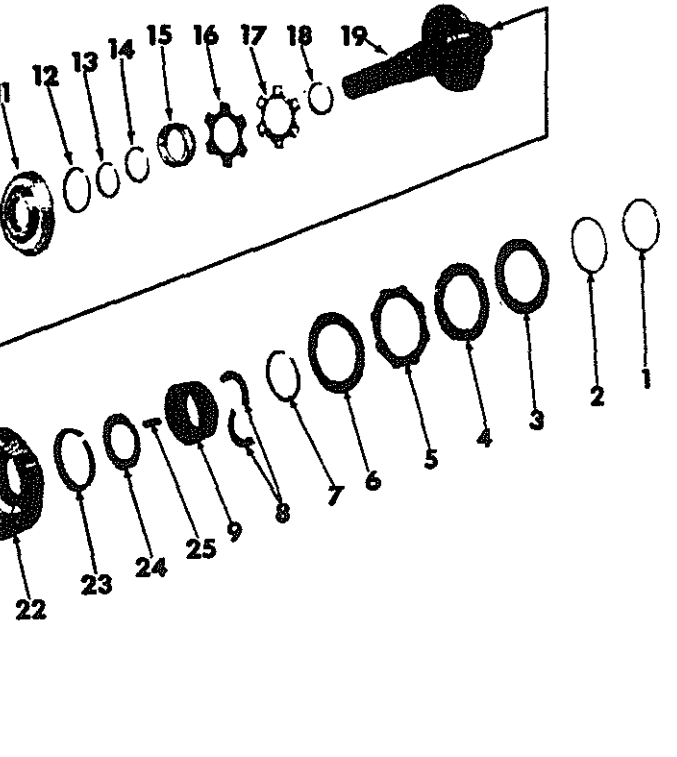


H 1415

	675 651 R91	CLUTCH AND SHAFT, (Includes all parts listed below)
1	676 658 R1	RING, clutch retaining (2)
2	675 670 R2	RETAINER, clutch ring (2)
3	675 669 R1	WASHER, clutch spring (2)
4	675 668 R1	PLATE, clutch backing (2)
5	324 241 R1	DISC, clutch driven (12)
6	675 667 R1	PLATE, clutch driven (14)
7	324 232 R1	RING, clutch hub (4)
8	675 671 R1	WASHER, clutch hub retaining (8)
9	675 663 R11	HUB, clutch (2) composed of: * 1 Hub 1 Retainer 675 665 R1 1 Retainer 675 666 R1 6 Spring 675 664 R1
10	324 226 R1	WASHER, clutch piston seal
11	675 660 R1	PISTON, clutch front
12	675 659 R1	RING, piston seal (2)
13	324 408 R1	RING, shaft seal (2)
14	675 655 R1	RING, piston retaining (2)
15	675 658 R1	PISTON, accelerating (2)

REF. NO.	PART NUMBER	DESCRIPTION
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POWER SHIFT REVERSER CLUTCH AND SHAFT - Continued



16	610 751 C1 610 755 C1	VALVE, disc (2) Dowel PIN (3)
17	610 760 C1	DISC, reinforcing (2)
18	675 655 R1	RING, plate retaining (2)
19	675 652 R91	SHAFT, clutch composed of: 2 Pin 17 164 R1 * 1 Pipe * 1 Plate 2 Ring 675 655 R1 * 1 Shaft
20	324 227 R1	"O" RING, separator plate
21	347 297 R1	RING, clutch piston
22	675 661 R1	PISTON, clutch rear
23	675 666 R1	RETAINER, spring outer (2)
24	675 665 R1	RETAINER, spring inner (2)
25	675 664 R1	SPRING, piston return (12)
26	675 662 R91	SET, clutch disc and plate composed of: 6 Disc 324 241 R1 1 Hub 675 663 R11 7 Plate 675 667 R1 1 Plate 675 668 R1 1 Retainer 675 670 R2 1 Ring 676 658 R1 1 Washer 675 669 R1

\* Not Serviced Separately



Frame & Driving  
Mechanisms

# CRAWLER TRACTORS

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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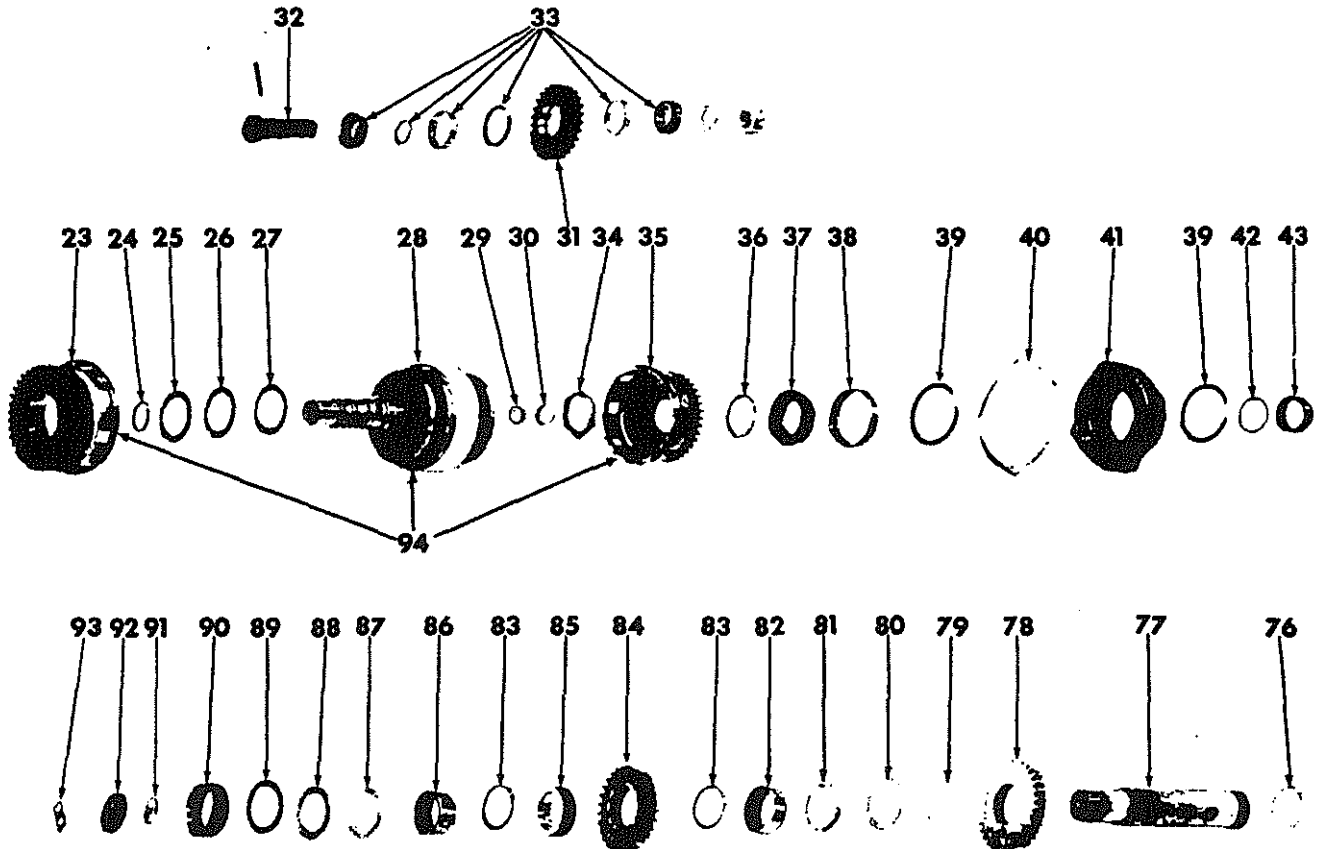


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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TRANSMISSION AND POWER SHIFT REVERSER DRIVE - Cont'd.

TRANSMISSION AND POWER SHIFT REVERSER DRIVE - Cont'd.



35	676 578 R91	GEAR ASSEMBLY, clutch rear (1 to 1 speed ratio)
36	675 763 R1	SHIM, .002" reverse clutch rear gear (as required)
36	675 764 R1	SHIM, .015" reverse clutch rear gear (as required)
37	659 458 R91	BEARING, transmission driving shaft cone (2)
38	105 497 H	CUP, transmission driving shaft bearing (2)
39	675 684 R1	RING, bearing retaining (2)
40	675 624 R1	SHIM, .002" transmission driving shaft bearing housing (as required)
40	675 625 R1	SHIM, .020" transmission driving shaft bearing housing (as required)
40	675 626 R1	SHIM, .0747" transmission driving shaft bearing housing (as required)
41	675 623 R1 179 840 103 321	HOUSING, transmission driving shaft bearing 3/8 x 1-1/8" Type 2 BOLT (4) 3/8" 1k-WASHER (4)
42	675 628 R1	SHIM, .002" bearing spacer (as required)
42	675 629 R1	SHIM, .015" bearing spacer (as required)
43	675 627 R1	BEARING, spacer
44	675 622 R1	SHAFT AND GEAR, transmission driving

45	704 014 R91	BEARING, transmission spline shaft pilot
46	706 462 R2	GEAR, fourth & fifth speed sliding 28T
47	708 301 R1	GEAR, second & third speed sliding (33T and 41T) (2.26 MPH second gear speed) (Crawler Tractor Serial No. prior H 23
47	676 607 R1	GEAR, second & third speed sliding (33T and 37T) (2.00 MPH second gear speed) (Crawler Tractor Serial No. H 2371 and
48	635 136 R1	GEAR, first & reverse speed sliding (41T
49	675 838 R1	NUT, transmission spline shaft bearing 1
50	ST 775 A	BEARING, transmission spline shaft tapered roller cone
51	ST 970	CUP, transmission spline shaft tapered roller bearing
52	707 501 R1	SHIM, .002" transmission spline shaft bearing (as required)
52	707 502 R1	SHIM, .010" transmission spline shaft bearing (as required)
52	707 503 R1	SHIM, .004" transmission spline shaft bearing (as required)

\* Not Serviced Separately



**CRAWLER TRACTORS**

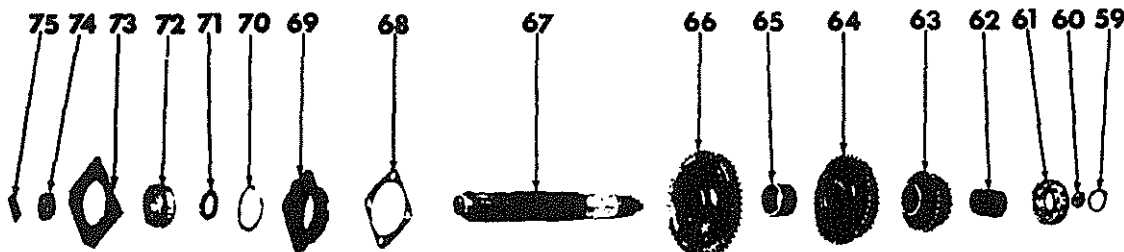
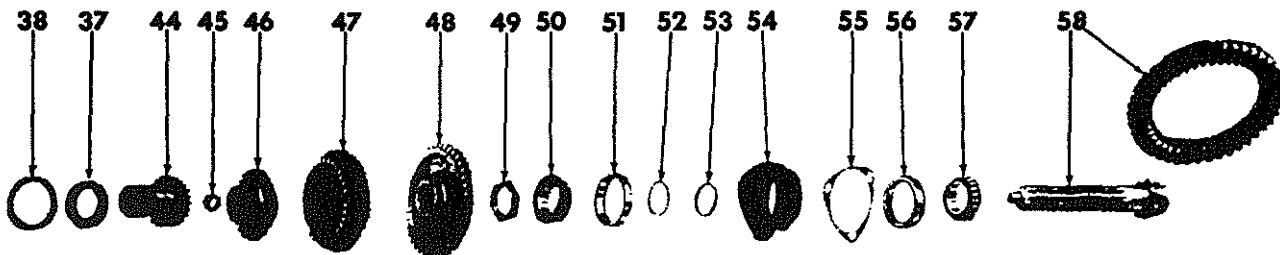


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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TRANSMISSION AND POWER SHIFT REVERSER DRIVE  
- Continued

TRANSMISSION AND POWER SHIFT REVERSER DRIVE  
- Continued



53	707 500 R1	SPACER, transmission spline shaft bearing
54	704 025 R1	RETAINER, transmission spline shaft bearing
	193 033	1/2 - NF x 2-3/8" Type BOLT
	225 857	1/2" - NF NUT
	115 551	1/2" int-t lk-WASHER
55	704 008 R1	SHIM, .0108" transmission spline shaft bearing retainer (2 or as required)
55	704 009 R1	SHIM, .006" transmission spline shaft bearing retainer (as required)
55	704 010 R1	SHIM, .0016" transmission spline shaft bearing retainer (as required)
55	3041 092 R1	SHIM, .015" transmission spline shaft bearing retainer (as required)
55	3041 093 R1	SHIM, .030" transmission spline shaft bearing retainer (as required)
56	ST 964	CUP, transmission spline shaft rear bearing
57	63 313 R91	BEARING, transmission spline shaft rear cone
58	675 836 R91	PACKAGE, transmission spline shaft & drive bevel gear
59	233 041 R1	RING, transmission countershaft rear bearing retainer

60	676 749 R1	WASHER, transmission countershaft rear bearing retainer (Crawler Tractor Serial No. H2946 & up)
61	ST 215	BEARING, transmission countershaft rear ball
62		SPACER, transmission countershaft gears rear (Crawler Tractor prior Serial No. H2946) (order 1 - 676 748 R1, SPACER & 1 - 676 749 R1, WASHER)
62	676 748 R1	SPACER, transmission countershaft gears rear (Crawler Tractor Serial No. H2946 & up)
63	635 143 R1	GEAR, first & second speed driving (19T & 29T) (2.26 MPH second gear speed) (Crawler Tractor Serial No. prior H 2371)
63	676 606 R1	GEAR, first & second speed driving (19T & 23T) (2.00 MPH second gear speed) (Crawler Tractor Serial No. H 2371 & up)
64	635 144 R1	GEAR, third & fourth speed driving (37T & 42T)

\* Not Serviced Separately



**CRAWLER TRACTORS**



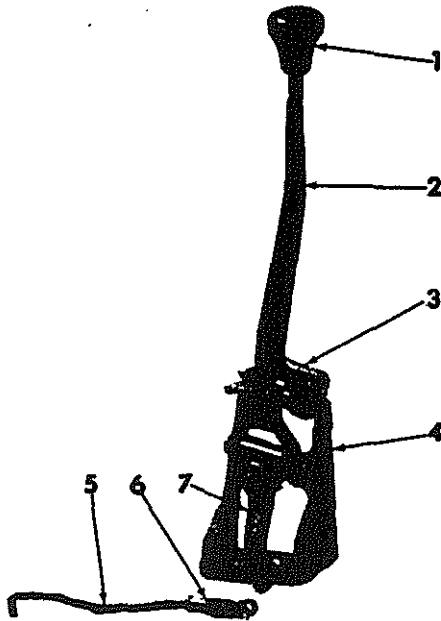
REF. NO.	PART NUMBER	DESCRIPTION
TRANSMISSION AND POWER SHIFT REVERSER DRIVE - Continued		
65	635 172 R1	SPACER, transmission countershaft gears front
66	635 145 R1	GEAR, transmission constant mesh (47T)
67	635 137 R1	COUNTERSHAFT, transmission
68	635 180 R1	GASKET, transmission countershaft front bearing cage (2)
69	635 129 R1	CAGE, transmission countershaft front bearing
	179 840	3/8 x 1-1/8" Type 2 BOLT (4)
	103 321	3/8" 1k-WASHER (4)
70	635 646 R1	RING, transmission countershaft front ball bearing retaining
71	635 189 R1	SPACER, transmission countershaft front bearing
72	ST 213	BEARING, transmission countershaft front ball
73	675 636 R1	BLOCK, transmission countershaft front bearing
74	703 985 R1	WASHER, transmission countershaft re-tainer
75	703 986 R1	PLATE, transmission countershaft lock
76	644 771 R1	RING, retaining
77	675 611 R1	COUNTERSHAFT, reverse
78	675 619 R1	GEAR, rear countershaft (33T) (1 to 1.18 speed ratio)
78	676 580 R1	GEAR, rear countershaft (30T) (1 to 1 speed ratio)
79	584 269 R1	RACE, rear countershaft thrust bearing
80	584 268 R91	BEARING, rear countershaft thrust
81	675 704 R1	RACE, rear countershaft thrust bearing
82	112 822 R91	BEARING, rear countershaft needle
83	665 071 R1	RING, retaining (2)
84	675 617 R1	GEAR, countershaft reverse (28T)
85	675 618 R1	SPACER, countershaft reverse gear
86	360 665 R91	BEARING, front countershaft needle
87	390 362 R1	RACE, front countershaft thrust bearing
88	232 001 R91	BEARING, front countershaft thrust
89	612 686 R1	RACE, front countershaft thrust bearing
90	675 616 R1	SPACER, front countershaft

REF. NO.	PART NUMBER	DESCRIPTION
TRANSMISSION AND POWER SHIFT REVERSER DRIVE - Continued		
91	675 613 R1	SHIM, .005" countershaft (as required)
91	675 614 R1	SHIM, .0299" countershaft (as required)
92	675 612 R1 179 818	RETAINER, countershaft 5/16 x 1" Type 2 BOLT (2)
93	675 615 R1	STRIP, retainer bolt lock
94	675 607 R91	CLUTCH & SHAFT, reverse & forward range (1 to 1.18 speed ratio) composed of: 1 Bearing 675 708 R91 1 Bearing 675 707 R91 1 Gear 675 672 R91 1 Gear 675 674 R91 1 Package 675 651 R91 1 Race 675 705 R1 1 Race 675 706 R1
94	676 577 R91	CLUTCH & SHAFT, reverse & forward range (1 to 1 speed ratio) composed of: 1 Bearing 675 708 R91 1 Bearing 675 707 R91 1 Gear 675 672 R91 1 Gear 676 578 R91 1 Package 675 651 R91 1 Race 675 705 R1 1 Race 675 706 R1



REF. NO.	PART NUMBER	DESCRIPTION
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POWER SHIFT CONTROL LEVER

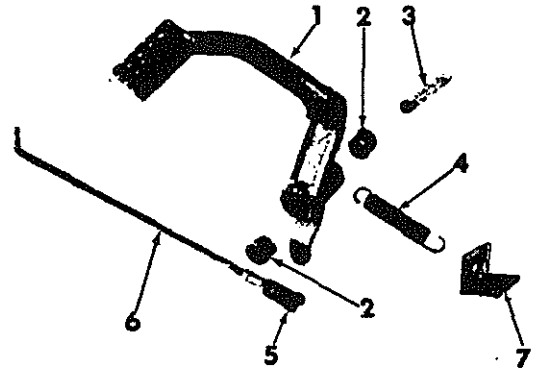


H 1370

1	53 717 DA	KNOB, handle
2	675 598 R1 675 599 R1 103 385	HANDLE, control Pivot PIN 1/8 x 1" c-PIN (2)
3	675 597 R1 Q 3 519 103 383	FORK, locking 1/4 x 2-1/2" std-hd dld PIN 1/8 x 1/2" c-PIN
4	675 596 R1 179 883 103 323	SECTOR, lever 1/2 x 1-1/4" Type 2 BOLT (3) 1/2" lk-WASH. (3)
5	675 602 R1 120 368 107 763	ROD, valve control 5/16"-NF cd-pltd NUT 1/8 x 5/8" c-PIN
6	116 535 39 374 D 103 372	CLEVIS, lower reverse lever 5/16 x 1-1/16" rod-end dld PIN 3/32 x 1/2" c-PIN
7	675 600 R1 109 461 675 601 R1 179 891 102 637 103 323	LEVER, control 1/8" lub-FTG Control lever SPACER 1/2 x 2-1/2" Type 2 BOLT 1/2" NUT 1/2" lk-WASHER

REF. NO.	PART NUMBER	DESCRIPTION
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POWER SHIFT CONTROL PEDAL



H 1374

1	675 603 R11 271 568 10 620 P	PEDAL, power control (includes 635 060 R1, BUSHINGS) 5/8 x 3-1/2" Type 2 BOLT 2 1/32 x 1-1/2 x 16 ga WASH.
2	635 060 R1	BUSHING, pedal (2)
3	635 109 R1	SPACER, pedal
4	676 027 R1	SPRING, pedal return
5	104 037	CLEVIS, 5/16" adjustable rod end
6	675 604 R1 120 368 39 374 D 103 373 103 372	ROD, power shift spool control 5/16"-NF cd-pltd NUT 5/16 x 1-1/16" rod end PIN 3/32 x 3/4" c-PIN (2) 3/32 x 1/2" c-PIN
7	635 535 R1 271 550	ANGLE, return spring anchor 5/8 x 5/8" Type 2 BOLT

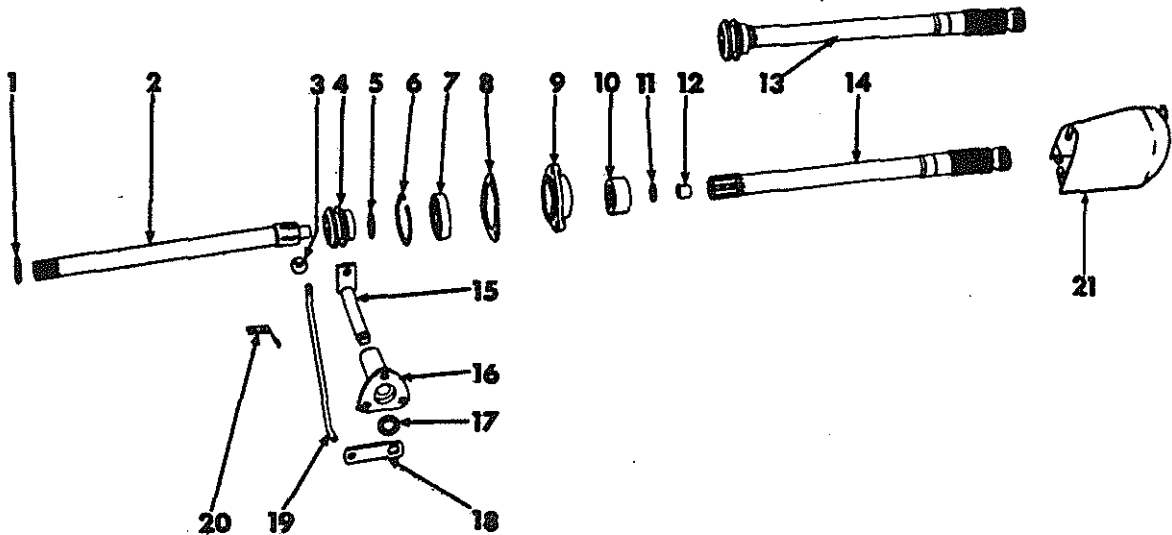


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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POWER TAKE-OFF & WINCH DRIVE

POWER TAKE-OFF & WINCH DRIVE - Continued



H 4318

1	635 201 R1	WASHER, 1-5/32 x 1-5/8 x 16 ga shaft thrust (Not Winch Drive)
2	635 142 R1	SHAFT, PTO driving (Not Winch Drive)
3	635 126 R1	KNOB, PTO shifter lever (Not Winch Drive)
4	704 386 R1	SPOOL, PTO shifter (Not Winch Drive)
5	659 380 R1	RING, PTO shaft retaining (2)
6	659 380 R1	RING, PTO shifter shaft
8	458 022 R1	RING, shaft brg retaining
7	ST .205 A	BEARING, PTO shaft
8	636 629 R1	GASKET, PTO opening cover plate (2)
9	704 387 R12	RETAINER, PTO shaft seal (Includes 3065 217 R91, OIL SEAL) (Not Winch Drive)
	179 819	5/16 x 1-1/8" Type 2 BOLT (3)
	Q 398	11/32 x 7/8 x 16 ga WASH. (3)
	103 320	5/16" lk-WASH. (3)
10	3065 217 R91	SEAL, PTO shaft oil (opt w/708 580 R91 & 3068 756 R91, OIL SEAL) (Not Winch Drive)
11	635 128 R1	SHIM, PTO shaft light (as req'd)
11	635 200 R1	SHIM, PTO shaft heavy (as req'd)
12	48 594 DA	BUSHING, PTO shaft
13	676 167 R91	SHAFT, winch (Winch Drive Only)
14	635 118 R11	SHAFT, PTO (Includes 48 594 DA, BUSHING) (Not Winch Drive)

15	635 119 R91 10 620 P 103 385	SHAFT, shifter (Not Winch Drive) 21/32 x 1-1/2 x 16 ga WASH. 1/8 x 1" c-PIN
16	635 117 R1 179 839 103 321	BRACKET, PTO shifter (Not Winch Drive) 3/8 x 1" Type 2 BOLT (3) 3/8" lk-WASH. (3)
17	704 393 R91	SEAL, PTO shifter shaft oil (opt w/704 394 R91, 635 579 R91 & 3066 616 R91, OIL SEALS) (Not Winch Drive)
18	635 122 R1	ARM, shifter shaft outer (Not Winch Drive)
19	635 124 R1 Q 398 103 384	LEVER, PTO shifter (Not Winch Drive) 11/32 x 7/8 x 16 ga WASH. 1/8 x 3/4" c-PIN
20	635 126 R1	SPRING, PTO shifter lever retaining (Not Winch Drive)
	100 751	No. 8 x 1/2" slt-rd-hd SCREW (2)
	106 496	No. 8 lk-WASH. (2)
	103 092	NUT (2)
21	704 395 R96 179 819 Q 398 103 320	SHIELD, PTO safety (Not Winch Drive) 5/16 x 1-1/8" Type 2 BOLT (3) 11/32 x 7/8 x 16 ga WASH. (3) 5/16" lk-WASH. (3)

\* Not Serviced Separately



Frame & Driving  
Mechanisms

# CRAWLER TRACTORS

SECTION A  
TC-209A



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION

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**CRAWLER TRACTORS**

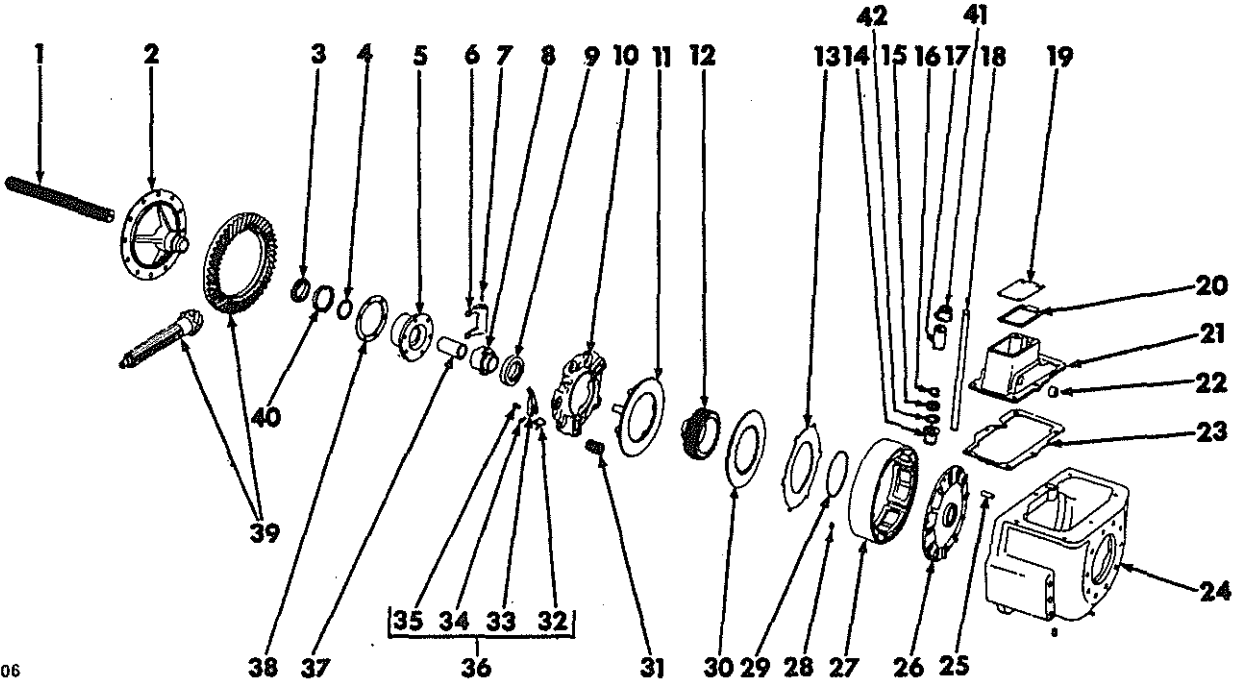


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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STEERING CLUTCH & HOUSING

STEERING CLUTCH & HOUSING - Continued



HB 4306

1	675 849 R1	SHAFT, bevel gear	9	359 857 R91	BEARING, clutch release (2)
2	635 383 R2	HUB, bevel gear (for Crawler Tractor prior Serial No. H 1230) (for Skidder prior Serial No. H 1051)	10	352 744 R91	PLATE, clutch back (2) (Includes SEATS, 7911T)
2	676 033 R1	HUB, bevel gear (for Crawler Tractor Serial No. H1230 & up) (for Skidder, Serial No. H 1051 & up)		7 911 T	Adjusting screw SEAT (6)
3	567 846 R91	CONE, bevel gear brg (2)		186 270	5/16 x 3-1/2" Type 2 BOLT (12)
4	636 415 R91	SEAL, bevel gear brg retainer oil (2) (for Crawler Tractor prior Serial No. H 1230) (for Skidder prior Serial No. H 1051)		635 401 R1	21/64 x 9/16 x 22 ga WASH. (as req'd)
4	676 032 R91	SEAL, bevel gear brg retainer oil (2) (for Crawler Tractor Serial No. H 1230 & up) (for Skidder Serial No. H 1051 & up)		102 634	5/16" NUT (12)
5	636 718 R91	RETAINER, bevel gear brg (2) (Includes 635 386 R1, GUIDE) (for Crawler Tractor prior Serial No. H 1230) (for Skidder prior Serial No. H 1051)		103 320	5/16" 1k-WASHER (12)
5	676 030 R91	RETAINER, bevel gear brg (2) (Includes 635 386 R1, GUIDE) (for Crawler Tractor Serial No. H 1230 & up) (for Skidder Serial No. H 1051 & up)	10	635 557 R91	CLUTCH, steering (2)
	179 840	3/8 x 1-1/8" Type 2 BOLT (4)			composed of:
	102 635	3/8" NUT (4)			1 Package
	103 321	3/8" 1k-WASHER (4)			1 Plate
6	676 777 R1	FORK, steering clutch release (2)			1 Plate
	179 840	3/8 x 1-1/8" Type 2 BOLT (4)			6 Spring
	103 321	3/8" 1k-WASHER (4)			353 246 R91
7	635 098 R1	KEY, release fork (4)	11	351 448 R1	PLATE, clutch pressure (2)
8	635 377 R1	SLEEVE, clutch release brg (2)	12	636 416 R1	HUB, steering clutch driving (2)
			13	635 384 R2	PLATE, steering clutch driven (12)
			14	636 682 R1	BUSHING, clutch release shaft upper (2)
			15	Q 3 501	WASHER, 25/32 x 1-1/4 x 16 ga (2)
			16	154 665 R1	RING, release shaft retaining (2)
			17	636 747 R1	BUSHING, clutch release shaft lower
			18	635 387 R1	SHAFT, clutch release LH
			18	635 388 R1	SHAFT, clutch release RH
			19	635 049 R1	PLATE, housing inspection (2)
				179 791	1/4 x 1/2" Type 2 BOLT (4)
				103 319	1/4" 1k-WASHER (4)
			20	635 680 R2	GASKET, inspection plate (2)

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## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
STEERING CLUTCH & HOUSING - Continued		
21	635 009 R12	COVER, steering clutch housing LH (includes BUSHINGS, 635 060 R1)
21	635 010 R12	COVER, steering clutch housing RH (includes BUSHINGS, 635 060 R1)
	179 841	3/8 x 1-1/4" Type 2 BOLT (12)
	103 321	3/8" lk-WASHER (12)
22	635 060 R1	BUSHING, clutch housing cover (4)
23	635 679 R1	GASKET, clutch housing (2)
24	635 745 R11	HOUSING, steering clutch LH
24	635 746 R11	HOUSING, steering clutch RH (for Crawler Tractor prior Serial No. H 705 for 48" & 68" gauge width) (for Crawler Tractor prior Serial No. H 1011 for 38" gauge width) (for Skidder prior Serial No. H 1051)
24	676 101 R11	HOUSING, steering clutch LH
24	676 102 R11	HOUSING, steering clutch RH (for Crawler Tractor Serial No. H 705 & up for 48" & 68" gauge width) (for Crawler Tractor Serial No. H 1011 & up for 38" gauge width) (for Skidder Serial No. H 1051 & up) composed of:
		1 Bushing 636 682 R1
		1 Bushing 636 747 R1
		*1 Housing 141 287
		2 Pin 172 538
		1 Plug 172 538
	103 867	3/8" sq-hd PLUG (2)
	20 548 R1	5/8 x 1-3/4" Type 4 BOLT (2)
	179 889	1/2 x 2" Type 2 BOLT (8)
	179 892	1/2 x 2-3/4" Type 2 BOLT (2)
	103 323	1/2" lk-WASHER (10)
	178 625	5/8" int-t lk-WASHER (2)
25	141 287	PIN, 1/2 x 1-1/2" dowel (2)
26	635 381 R2	BASE, steering clutch (2)
	186 270	5/16 x 3-1/2" Type 2 BOLT (12)
	635 401 R1	21/64 x 9/16 x 22 ga WASHER (as req'd)
	102 634	5/16" NUT (12)
	103 320	5/16" lk-WASHER (12)
27	635 375 R1	DRUM, steering clutch (2)
28	635 401 R1	WASHER, 21/64 x 9/16 x 22 ga (as req'd)
29	635 394 R1	WIRE, clutch driving hub (2)
30	675 848 R1	DISC, steering clutch friction (14)
31	635 561 R1	SPRING, clutch pressure (6)
32	51 461 D	SPRING, clutch release lever (3)
33	353 243 R91	LEVER, clutch release (3) (Includes 114 494, NUT & 352 745 R1, SCREW)
34	51 460 D	PIN, release lever (3)
	103 372	3/32 x 1/2" c-PIN (3)
35	352 745 R1	SCREW, clutch release lever adjusting (3)
	114 494	3/8" - NF jam NUT (3)

REF. NO.	PART NUMBER	DESCRIPTION
STEERING CLUTCH & HOUSING - Continued		
36	353 246 R91	PACKAGE, release lever service composed of:
		3 Lever 353 243 R91
		3 Pin 51 460 D
		3 Pin 103 372
		3 Spring 51 461 D
37	635 386 R1	GUIDE, steering clutch release brg (2)
38	635 395 R1	SHIM, .003" bevel gear brg retainer (as req'd)
38	635 396 R1	SHIM, .005" bevel gear brg retainer (as req'd)
38	635 397 R1	SHIM, .010" bevel gear brg retainer (as req'd)
39	675 836 R91	PACKAGE, transmission spline shaft & drive bevel gear
40	567 845 R91	CUP, bevel gear brg (2)
41	635 681 R1	BOOT, upper steering clutch release shaft bushing (2)
42	587 579 R1	"O" RING, steering clutch release shaft lower bushing (2)

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**CRAWLER TRACTORS**

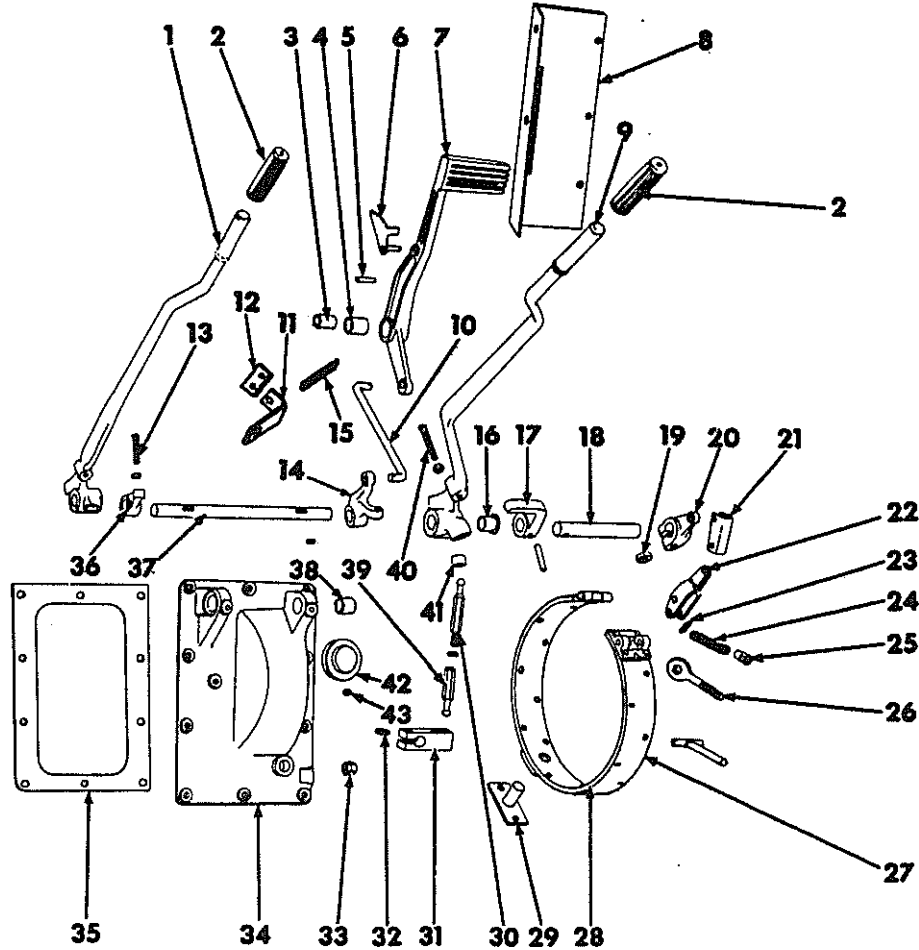


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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STEERING AND BRAKE CONTROLS

STEERING AND BRAKE CONTROLS - Continued



H 1482  
HB 4297

1	636 233 R2 109 462	LEVER, steering LH 1/8" - 90° lub-FITTING
2	635 398 R1	GRIP, steering lever (2)
3	635 308 R2	SPACER, brake pedal pivot
4	635 091 R1	BUSHING, brake pedal pivot
5	19 555 R1	PIN, 5/16 x 1" spiral (in main frame for brake pedal lock)
6	675 999 R01 104 977	LOCK, brake pedal Retaining RING
7	635 283 R11 271 563 10 620 P	PEDAL (Includes BUSHING, 635 091 R1) 5/8 x 2-1/4" Type 2 BOLT 21/32 x 1-1/2 x 16 ga WASHER

8	635 269 R1	PLATE, operator's foot LH
8	635 270 R3 179 816 179 837 103 320 103 321	PLATE, operator's foot RH shown 5/16 x 3/4" Type 2 BOLT (3) 3/8 x 3/4" Type 2 BOLT (2) 5/16" 1k-WASHER (3) 3/8" 1k-WASHER (2)
8	675 639 R1	PLATE, operator's foot LH (power shift reverser)
8	675 204 R91	PLATE, operator's foot RH (Skidder only)
8	635 270 R3	PLATE, RH (Crawler & Skidder).
8	635 269 R1 179 837 103 321	PLATE, LH (Crawler less Power Shift Reverser) 3/8 x 3/4" Type 2 BOLT (2) 3/8" 1k-WASHER (2)
9	636 224 R2 109 462	LEVER, steering RH 1/8" - 90° lub-FITTING



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
STEERING AND BRAKE CONTROLS - Continued			STEERING AND BRAKE CONTROLS - Continued		
10	635 304 R1 16 038 R1 103 385	ROD, brake pedal 17/32 x 1 x 11 ga WASHER 1/8 x 1" c-PIN (2)	28	635 289 R11	PACKAGE, brake lining service (Includes RIVETS, 61 176 V)
11	636 593 R1 15 432 R1	ANCHOR, brake pedal spring 5/8 x 1" Type 2 BOLT	29	635 289 R91 179 837 103 321	PIN, brake band anchor 3/8 x 3/4" Type 2 BOLT (2) 3/8" lk-WASHER (2)
12	636 592 R1 15 432 R1 109 084 103 319	BRACKET, brake pedal spg 1/4 x 1-1/4" step BOLT 1/4" NUT 1/4" lk-WASHER	30	635 392 R1 114 496	LINK, steering clutch release shaft male (2) 1/2" - NF jam NUT (2)
13	636 722 R1 120 377	BOLT, steering lever stop (2) 3/8" cd-pltd NUT	31	635 391 R1 117 845 102 635 103 321	ARM, steering clutch release shaft (2) 3/8 x 1-3/4" Type 2 BOLT (2) 3/8" NUT (2) 3/8" lk-WASHER (2)
14	635 285 R1 112 139	ARM, brake pedal RH 1/4 x 7/8" Woodruff KEY	32	635 098 R1	KEY, steering clutch release shaft arm (2)
15	635 534 R1	SPRING, brake pedal	33	103 869	PLUG, 3/4" sq-hd pipe bevel gear cover
15	676 027 R1	SPRING, pedal return (Power Shift Reverser Only)	34	635 008 R22 179 859 103 322 636 493 R1 636 492 R1	COVER, bevel gear (includes BUSHINGS, 635 061 R1 & PLUGS 103 865 & 103 869) 7/16 x 1-1/8" Type 2 BOLT 7/16" lk-WASHER Bevel gear cover Type 4 STUD (6) Seat lower filler to bevel gear cover STUD (3)
16	676 637 R1	BUSHING, steering lever (2)		456 939 107 824 109 461	7/16" - NF Type 4 NUT (9) 7/16" - NF Special stamped NUT (9) 1/8" str lub-FITTING (2)
17	636 227 R1 617 939 R1	LEVER, brake actuating (2) 5/16 x 1-1/2" spirol PIN (2)	35	635 055 R2	GASKET, bevel gear cover
18	635 287 R1	SHAFT, brake actuating (2)	36	635 284 R1 112 139	ARM, brake pedal LH 1/4 x 7/8" Woodruff KEY
19	635 305 R1	KEY, brake intermediate (2)	37	635 288 R1	SHAFT, brake & steering cross
20	635 282 R1 179 843 103 321	LEVER, brake intermediate (2) 3/8 x 1-1/2" Type 2 BOLT (2) 3/8" lk-WASHER (2)	38	635 061 R1	BUSHING, bevel gear cover (2)
21	635 306 R1 702 269 R1 103 384	ROD, brake lever (2) 5/16 x 15/16" std-hd-dld PIN (2) 1/8 x 3/4" c-PIN (2)	39	635 393 R1	LINK, steering clutch release shaft female (2)
22	635 292 R91 702 269 R1 602 032 R1 103 384 104 068	LEVER, brake floating (2) (Includes RIVETS, 104 068) 5/16 x 15/16" std-hd-dld PIN (2) 3/8 x 2-7/16" std-hd-dld special PIN (2) 1/8 x 3/4" c-PIN (4) 3/16 x 5/8" b-hd RIVET (2)	40	636 722 R1 120 377	BOLT, special brake pedal arm (2) 3/8" cd-pltd NUT (2)
23	139 680 H	WASHER, adjusting bolt spg (2)	41	635 389 R1	INSERT, steering lever (2)
24	635 532 R2	SPRING, adjusting bolt (2)	42	636 748 R91	BREATHER, transmission
25	635 307 R1	NUT, band adjusting bolt (2)	43	103 865	PLUG, 1/8" sq-hd pipe bevel gear cover
26	636 144 R1 636 579 R1 Q 1 597 103 384	BOLT, brake band adjusting (2) Brake band PIN (2) 13/32 x 3/4 x 16 ga WASHER (2) 1/8 x 3/4" c-PIN (2)			
27	636 576 R91	BAND, brake composed of: *1 Band *1 Bracket 1 Lining Package 635 299 R11 *1 Plate 4 Rivet 104 167 4 Rivet 113 226 2 Rivet 115 323			

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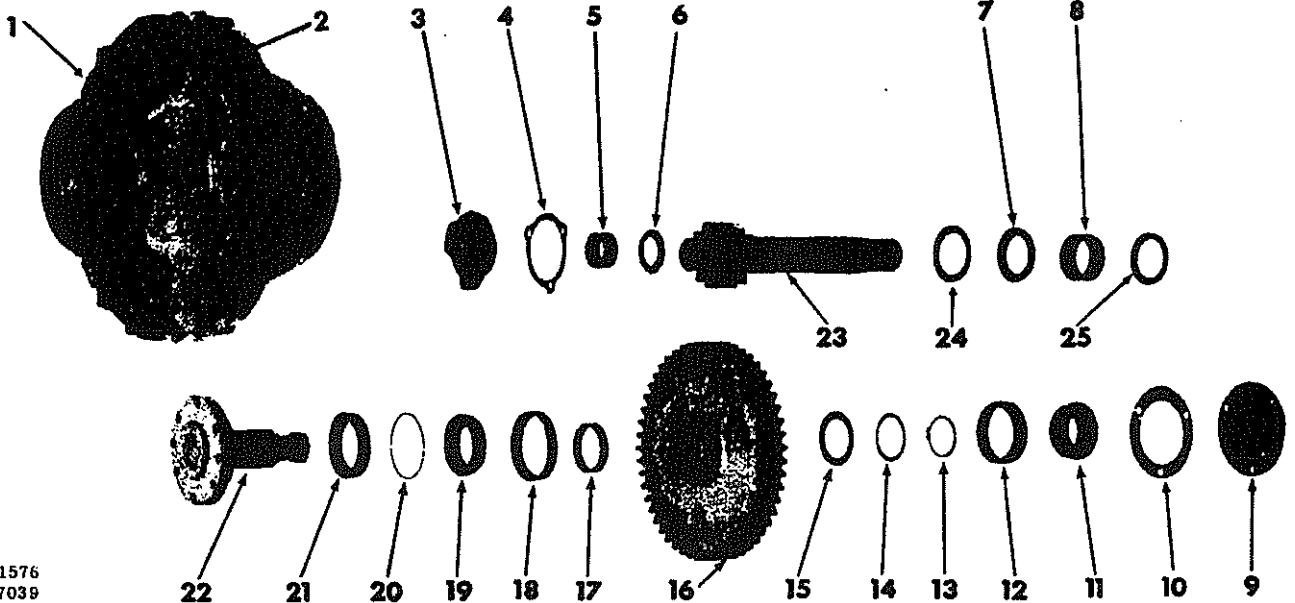


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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FINAL DRIVE

FINAL DRIVE - Continued



H 1576  
H 7039

NOTE A: For Crawler Tractor w/38" gauge prior to Serial No. H 1011  
For Crawler Tractor w/48" gauge prior to Serial No. H 705  
For Skidder Tractor w/48" gauge prior to Serial No. H 1051  
For Crawler Tractor w/68" gauge prior to Serial No. H 705

NOTE B: For Crawler Tractor w/38" gauge w/Serial No. H 1011 to H 1293  
For Crawler Tractor w/48" gauge w/Serial No. H 705 to H 1229  
For Skidder Tractor w/48" gauge w/Serial No. H 1051 & up  
For Crawler Tractor w/68" gauge w/Serial No. H 705 to H 1261

NOTE C: For Crawler Tractor w/38" gauge w/Serial No. H 1294 & up  
For Crawler Tractor w/48" gauge w/Serial No. H 1230 & up  
For Skidder Tractor w/48" gauge w/Serial No. H 1051 & up  
For Crawler Tractor w/68" gauge w/Serial No. H 1262 & up

676 038 R91 FINAL DRIVE ASSEMBLY (2) (NOTE A)  
(for 38" gauge width, also order 1 - 676 032 R91, OIL SEAL)

FINAL DRIVE ASSEMBLY (2) (NOTE B)  
(order 1 - 676 093 R91, FINAL DRIVE & for 38" gauge width also order 1 - 676 032 R91, OIL SEAL)

676 093 R91 FINAL DRIVE ASSEMBLY (2) (NOTE C)  
composed of Items 1 to 22) (also includes Hardware)

1	676 039 R91	HOUSING ASSEMBLY, final drive (2) (NOTE A) (for 38" gauge width order 1 - 676 032 R91, OIL SEAL)
1		HOUSING ASSEMBLY, final drive (2) (NOTE B) (order 1 - 676 094 R91 HOUSING ASSEMBLY, also for 38" gauge width order 1 - 676 032 R91, OIL SEAL)
1	676 094 R91	HOUSING ASSEMBLY, final drive (2) (NOTE C)
		composed of:
	5 Bolt	179 891
	1 Cup	ST 997
	1 Cup	13 390 D
	*1 Housing	
	*1 Housing	
	5 Lockwasher	103 323
	5 Nut	102 637
	2 Pin	141 244
	3 Plug	444 867
		(for housing to housing BOLTS, see NOTE)
	179 890	1/2 x 2-1/2" Type 2 BOLT (4)
	141 244	3/8 x 1" dowel PIN (4)
	444 867	3/8" hdls pipe PLUG (6)
	102 637	1/2" NUT (4)
	103 323	1/2" lk-WASHER (4)
2	635 076 R2	GASKET, final drive housing (2)
3	635 062 R31	RETAINER, pinion brg (2) (Includes 360 665 R91, BEARING)
	179 840	3/8 x 1-1/3" Type 2 BOLT (6)
	103 321	3/8" lk-WASHER (6)
4	635 077 R1	GASKET, pinion brg retainer (4)
5	360 665 R91	BEARING, pinion shaft outer (2)
6	635 074 R1	BEARING, pinion thrust outer (2)
7	635 073 R1	BUSHING, pinion thrust inner (2)

\* Not Serviced Separately



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
FINAL DRIVE - Continued					
8	635 418 R91	BEARING, pinion shaft needle inner (2 - 38" gauge; 4 - 48" & 68" gauge)			
9	636 809 R1 179 816 103 320	CAP, bull gear shaft (2) 5/16 x 3/4" Type 2 BOLT (6) 5/16" 1k-WASHER (6)			
10	636 817 R1	GASKET, bull gear shaft cap (2)			
11	636 826 R91	CONE, bull gear shaft inner brg (2)			
12	ST 977	CUP, bull gear shaft inner brg (2)			
13	269 916 R1	RING, bull gear spacer retaining (2)			
14	636 808 R1	SHIM, gear space retaining (as req'd)			
15	636 807 R1	SPACER, bull gear inner (2)			
16	636 697 R1	GEAR, final drive bull (2)			
17	635 070 R1	SPACER, bull gear outer (2)			
18	13 390 D	CUP, bull gear shaft outer (2)			
19	ST 2 039	CONE, bull gear shaft brg outer (2)			
20	636 491 R1	RING, gear shaft outer brg spacer (2)			
21	636 818 R92	PACKAGE, bull gear shaft oil seal service (2)			
22	636 749 R91 636 751 R1 19 506 R1	SHAFT, final drive bull gear (2) Bullgear shaft NUT (2) 3/16 x 2" coiled-spg PIN (2)			
23	636 694 R11	SHAFT, final drive pinion (2) (38" gauge)			
23	636 695 R11	SHAFT, final drive pinion (2) (48" gauge)			
23	636 696 R11	SHAFT, final drive pinion (2) (68" gauge)			
24	635 072 R1	WASHER, pinion thrust (2)			
25	636 415 R91	SEAL, pinion shaft (2) (NOTE A & B)			
25	676 032 R91	SEAL, pinion shaft (2) (NOTE C)			
	NOTE:	When final drive housing is in the vertical position, the inner to outer housing bolts are:			
	179 890	1/2 x 2-1/4" Type 2 BOLT w/NUT (7) (housing to housing)			
	179 896	1/2 x 3-3/4" Type 2 BOLT w/NUT (2) (housing to housing when final drive reinforcement not used)			
	433 156	1/2 x 4-1/2" Type 2 BOLT w/NUT (2) (housing to housing to final drive stop)			
	179 887	1/2 x 4-3/4" Type 2 BOLT w/NUT (2) (housing to housing to final drive reinforcement)			
	NOTE:	When final drive housing is in forward position, the inner to outer housing bolts are:			
	179 890	1/2 x 2-1/4" Type 2 BOLT w/NUT (5) (housing to housing)			
	179 896	1/2 x 3-3/4" Type 2 BOLT w/NUT (2) (housing to housing)			
	179 892	1/2 x 2-3/4" Type 2 BOLT w/NUT (2) (housing to housing to final drive stop)			
	179 896	1/2 x 3-3/4" Type 2 BOLT w/NUT (2) (housing to housing when final drive reinforcement not used)			
	179 887	1/2 x 4-3/4" Type 2 BOLT w/NUT (2) (reinforcement)			

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**CRAWLER TRACTORS**

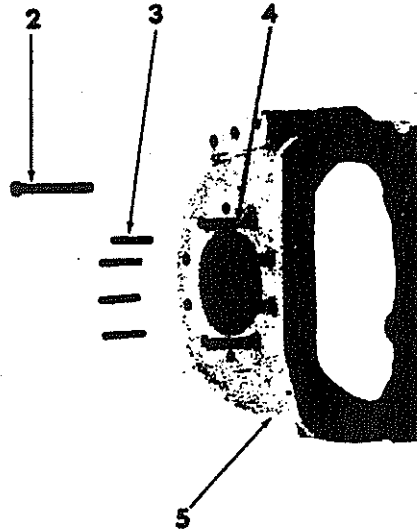
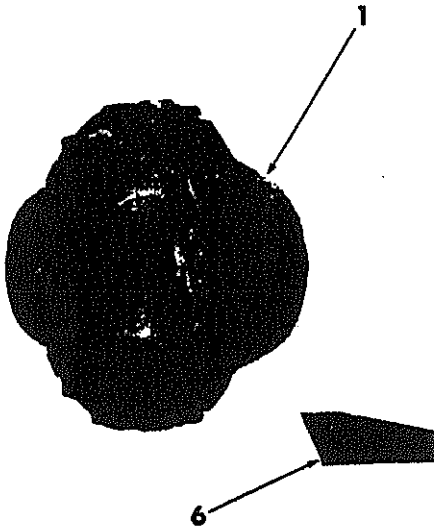


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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FINAL DRIVE & HOUSING CONNECTIONS  
38" Gauge Width Tractor Only

FINAL DRIVE & HOUSING CONNECTIONS  
38" Gauge Width Tractor Only - Continued



H 7032

NOTE A: For Crawler Tractor w/38" gauge prior to Serial No. H 1011

NOTE B: For Crawler Tractor w/38" gauge w/Serial No. H 1011 to H 1293

NOTE C: For Crawler Tractor w/38" gauge w/Serial No. H 1294 & up

1	676 038 R91	FINAL DRIVE ASSEMBLY (2) (for component parts refer to "FINAL DRIVE") (NOTE A) (also order 1 - 676 032 R91, OIL SEAL)
1		FINAL DRIVE ASSEMBLY, (2) (NOTE B) (order 1 - 676 093 R91, FINAL DRIVE ASSEMBLY & 1 - 676 032 R91, OIL SEAL)
1	676 093 R91	FINAL DRIVE ASSEMBLY, (2) (for component parts refer to "FINAL DRIVE") (NOTE C)
2	20 658 R1	BOLT, 1/2 NF x 6-1/4" Type 4 BOLT (4) (center) (NOTE A)
	225 857	1/2 NF Type 4 NUT (4)
	103 323	1/2" 1k-WASHER (4)
2	20 826 R1	BOLT, 5/8 NF x 6-1/4" Type 4 BOLT (4) (center) (NOTE B & C)
	225 861	5/8" NF NUT (4)
3	636 434 R1	STUD, final drive (8) (Bottom) (NOTE A)
	225 857	1/2" NF Type 4 NUT (8)
	103 323	1/2" 1k-WASHER (8)
3	676 108 R1	STUD, final drive (8) (Bottom) (NOTE B & C)
	225 861	5/8" NF Type 4 NUT (8)

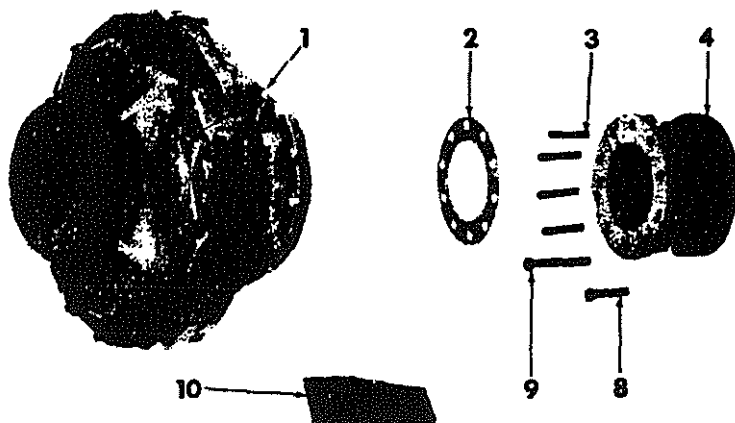
4	636 555 R1	STUD, clutch housing (8) (Top) (NOTE A)
	225 857	1/2" NF Type 4 NUT (8)
	103 323	1/2" 1k-WASHER (8)
4	676 107 R1	STUD, clutch housing (8) (Top) (NOTE B & C)
	225 861	5/8" NF Type 4 NUT (8)
5		HOUSING, steering clutch (refer to "STEERING CLUTCH")
6	635 081 R1	STOP, final drive (2)
	433 156	1/2 x 4-1/2" cd-pltd Type 2 BOLT (4)
	120 378	1/2" cd-pltd NUT (4)
	120 384	1/2" cd-pltd 1k-WASHER (4)



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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FINAL DRIVE & HOUSING CONNECTIONS  
48" Gauge Wheel Width Tractor Only

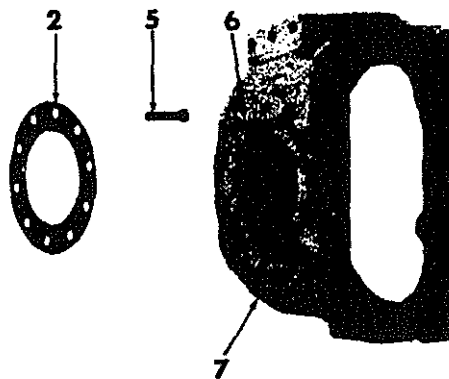
NOTE A: For Crawler Tractor w/48" gauge prior to Serial No. H 705  
For Skidder Tractor w/48" gauge prior to Serial No. H 1051

NOTE B: For Crawler Tractor w/48" gauge w/Serial No. H 705 to H 1229

NOTE C: For Crawler Tractor w/48" gauge w/Serial No. H 1230 & up  
For Skidder Tractor w/48" gauge w/Serial No. H 1051 & up

1	676 038 R91	FINAL DRIVE ASSEMBLY (2) (NOTE A) (for component parts refer to "FINAL DRIVE")
1	676 093 R91	FINAL DRIVE ASSEMBLY (2) (NOTE B & C) (for component parts refer to "FINAL DRIVE")
2	635 079 R2	GASKET, gauge spacer (2) (NOTE A)
2	676 099 R1	GASKET, gauge spacer (2) (NOTE B & C)
3	636 433 R1	STUD, final drive to spacer (8) (Bottom) (NOTE A)
	225 857	1/2" - NF Type 4 NUT (8)
	103 323	1/2" 1k-WASHER (8)
3	676 108 R1	STUD, final drive to spacer (8) (Bottom) (NOTE B & C)
	225 861	5/8" - NF Type 4 NUT (8)
4	676 034 R1	SPACER, gauge (2) (NOTE A) (Also order 1 - 676 032 R91, OIL SEAL)
4		SPACER, gauge (2) (NOTE B) (order 1 - 676 120 R1, SPACER & 1 - 676 032 R91, OIL SEAL)
4	676 120 R1	SPACER, gauge (2) (NOTE B & C)
	103 866	1/4" sq-hd pipe PLUG
5	337 033 R1	BOLT, 1/2" - NF x 3-1/2" Type 4 spacer to clutch housing (12) (Bottom) (NOTE A)
	225 857	1/2" - NF Type 4 NUT (12)
	103 323	1/2" 1k-WASHER (12)
5	223 744	BOLT, 5/8 - NF x 3-1/2" Type 4 spacer to clutch housing (12) (Bottom) (NOTE B & C)
	225 861	5/8" - NF Type 4 NUT (12)

REF. NO.	PART NUMBER	DESCRIPTION
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FINAL DRIVE & HOUSING CONNECTIONS  
48" Gauge Wheel Width Tractor Only - Continued

H 7032

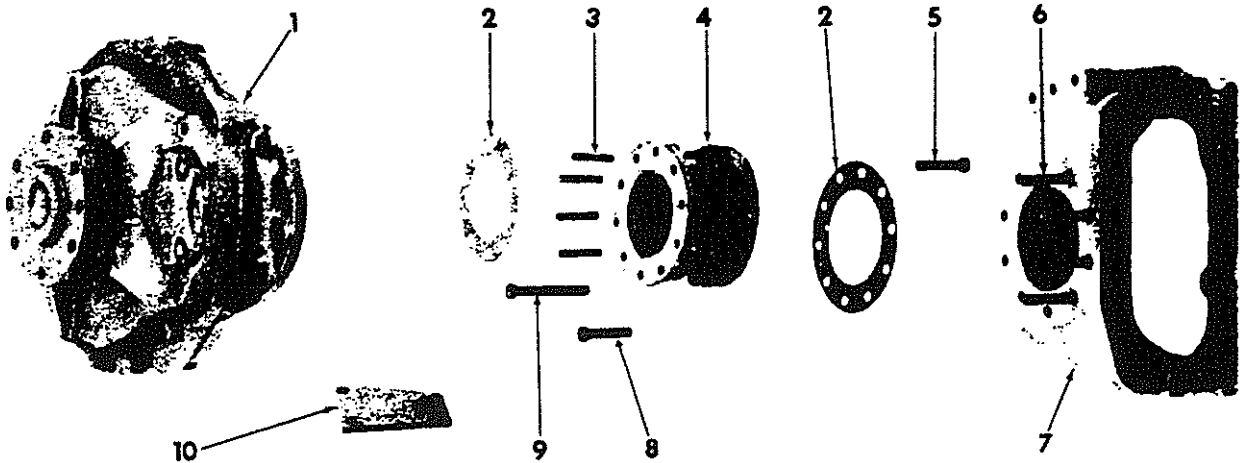
6	636 433 R1	STUD, spacer to clutch hsg (8) (NOTE A) (Top)
	225 857	1/2" - NF Type 4 NUT (8)
	103 323	1/2" 1k-WASHER (8)
6	676 108 R1	STUD, spacer to clutch hsg (8) (NOTE B & C) (Top)
	225 861	5/8" - NF Type 4 NUT (8)
7		HOUSING, steering clutch (Refer to "STEERING CLUTCH")
8	20 167 R1	BOLT, 1/2 - NF x 3" Type 4 spacer to final drive (8) (NOTE A) (Top)
	225 857	1/2" - NF Type 4 NUT (8)
	103 323	1/2" 1k-WASHER (8)
8	20 669 R1	BOLT, 5/8 - NF x 3" Type 4 spacer to final drive (8) (NOTE B & C) (Top)
	225 861	5/8" - NF Type 4 NUT (8)
9	20 658 R1	BOLT, 1/2 - NF x 6-1/4" Type 4 spacer to final drive (4) (NOTE A) (Center)
	225 857	1/2" - NF Type 4 NUT (4)
	103 323	1/2" 1k-WASHER (4)
9	20 826 R1	BOLT, 5/8 - NF x 6-1/4" Type 4 spacer to final drive (4) (NOTE B & C) (Center)
	225 861	5/8" - NF Type 4 NUT (4)
10	635 081 R1	STOP, final drive (2) (for Crawler Tractor when final drive in vertical position not Loader & Backhoe)
	433 156	1/2 x 4-1/2" cd-pltd Type 2 BOLT (4)
	120 378	1/2" cd-pltd NUT (4)
	120 384	1/2" cd-pltd 1k-WASHER (4)
10	635 082 R1	STOP, final drive (2) (For Crawler Tractor when final drive in forward position not for Loader with Backhoe)
10		STOP, final drive (2) (For Crawler Tractor when final drive in forward position in Combination w/Loader & Backhoe prior Serial No. H 2459 Order 1 - 635 082 R1 STOP)
	179 892 R1	1/2 x 2-3/4" Type 2 BOLT (4)
	102 637	1/2" NUT (4)
	103 323	1/2" 1k-WASHER (4)
10	676 655 R1	STOP, final drive (2) (For Crawler Tractor when final drive in vertical position in combination w/Loader & Backhoe Serial No. H 2459 & up)
	433 156	1/2 x 4-1/2" cd-pltd type 2 BOLT (4)
	120 378	1/2" cd-pltd NUT (4)
	120 384	1/2" cd-pltd 1k-WASHER (4)

**CRAWLER TRACTORS**

REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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FINAL DRIVE & HOUSING CONNECTIONS  
68" Gauge Width Tractor Only

FINAL DRIVE & HOUSING CONNECTIONS  
68" Gauge Width Tractor Only - Continued



H 7032

NOTE A: For Crawler Tractor w/68" gauge prior to Serial No. H 705

NOTE B: For Crawler Tractor w/68" gauge w/Serial No. H 705 to 1261

NOTE C: For Crawler Tractor w/68" gauge w/Serial No. H 1262 & up

1	676 038 R91	FINAL DRIVE ASSEMBLY, (2) (NOTE A) (for component parts refer to "FINAL DRIVE")	6	636 433 R1	STUD, spacer to clutch hsg (8) (NOTE A) (Top)
1	676 093 R91	FINAL DRIVE ASSEMBLY, (2) (NOTE B & C) (for component parts refer to "FINAL DRIVE")		225 857	1/2" NF Type 4 NUT (8)
2	635 079 R2	GASKET, gauge spacer (2) (NOTE A)		103 323	1/2" lk-WASHER (8)
2	676 099 R1	GASKET, gauge spacer (2) (NOTE B & C)	6	676 108 R1	STUD, spacer to clutch hsg (8) (NOTE B & C) (Top)
3	636 433 R1	STUD, final drive to spacer (8) (Bottom) (NOTE A)		225 861	5/8" NF Type 4 NUT (8)
	225 857	1/2" NF Type 4 NUT (8)	7		HOUSING, steering clutch (refer to "STEERING CLUTCH")
	103 323	1/2" lk-WASHER (8)	8	20 167 R1	BOLT, 1/2-NF x 3" Type 4 spacer to final drive (8) (NOTE A) (Top)
3	676 108 R1	STUD, final drive to spacer (8) (Bottom) (NOTE B & C)		225 857	1/2" NF Type 4 NUT (8)
	225 861	5/8 - NF Type 4 NUT (8)		103 323	1/2" lk-WASHER (8)
4	676 037 R1	SPACER, gauge (2) (NOTE A) (also order 1 - 676 032 R91, OIL SEAL)	8	20 669 R1	BOLT, 5/8" NF x 3" Type 4 spacer to final drive (8) (NOTE B & C) (Top)
4		SPACER, gauge (2) (NOTE B) (order 1 - 676 098 R1 SPACER & 1 - 676 032 R91 OIL SEAL)	9	20 658 R1	BOLT, 1/2 NF x 6-1/4" Type 4 spacer to final drive (4) (NOTE A) (Center)
4	676 098 R1	SPACER, gauge (2) (NOTE B & C)		225 857	1/2" NF Type 4 NUT (4)
	103 865	1/8 sq-hd pipe PLUG (2)		103 323	1/2" lk-WASHER (4)
5	337 033 R1	BOLT, 1/2" NF x 3-1/2" Type 4 spacer to clutch housing) (12) (bottom) (Note A)	9	20 826 R1	BOLT, 5/8" NF x 6-1/4" Type 4 spacer to final drive (4) (NOTE B & C) (Center)
	225 857	1/2" NF Type 4 NUT (12)		225 861	5/8" NF Type 4 NUT (4)
	103 323	1/2" lk-WASHER (12)	10	635 081 R1	STOP, final drive (2)
5	223 744	BOLT, 5/8" NF x 3-1/2" Type 4 (spacer to clutch housing) (12) (bottom) (NOTE B & C)		433 156	1/2 x 4-1/2" cd-pltd Type 2 BOLT (4)
	225 861	5/8" NF Type 4 NUT (12)		120 378	1/2" cd-pltd NUT (4)
				120 384	1/2" cd-pltd lk-WASHER (4)

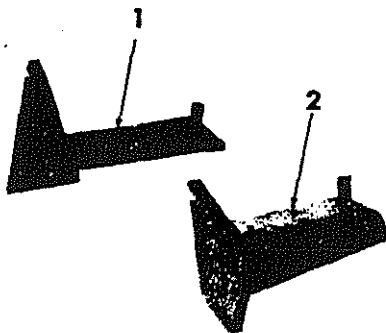


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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FINAL DRIVE REINFORCEMENT (Not Skidder)

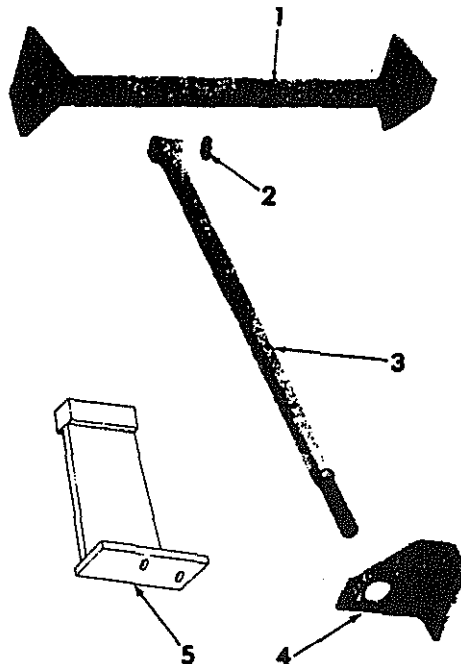


H 1576

1	636 267 R92	REINFORCEMENT, final drive LH shown (Final Drive Housing in forward position)
1	636 268 R92	REINFORCEMENT, final drive RH (Final Drive Housing in forward position)
	179 839	3/8 x 1" Type 2 BOLT (4)
	179 887	1/2 x 1-3/4" Type 2 BOLT (2)
	187 201	1/2 x 4-3/4" Type 2 BOLT (4)
	16 038 R1	17/32 x 1 x 11 ga WASHER (6)
	551 175 R1	19/32 x 1-1/2 x 16 ga WASHER (6)
	676 642 R1	.531 x 1.50 x 22 ga WASHER (12)
	102 637	1/2" NUT (4)
	103 323	1/2" 1k-WASHER (6)
	103 321	3/8" 1k-WASHER (4)
2	636 054 R92	REINFORCEMENT, final drive LH shown (Final Drive Housing in vertical position)
2	636 055 R92	REINFORCEMENT, final drive RH (Final Drive Housing in vertical position)
	179 839	3/8 x 1" Type 2 BOLT (4)
	179 887	1/2 x 1-3/4" Type 2 BOLT (2)
	187 201	1/2 x 4-3/4" Type 2 BOLT (4)
	16 038 R1	17/32 x 1 x 11 ga WASHER (6)
	551 175 R1	19/32 x 1-1/2 x 16 ga WASHER (6)
	676 642 R1	.531 x 1.50 x 22 ga WASHER (12)
	102 637	1/2" NUT (4)
	103 323	1/2" 1k-WASHER (6)
	103 321	3/8" 1k-WASHER (4)

REF. NO.	PART NUMBER	DESCRIPTION
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FINAL DRIVE REINFORCEMENT (Skidder only)



HE 350  
H 7542

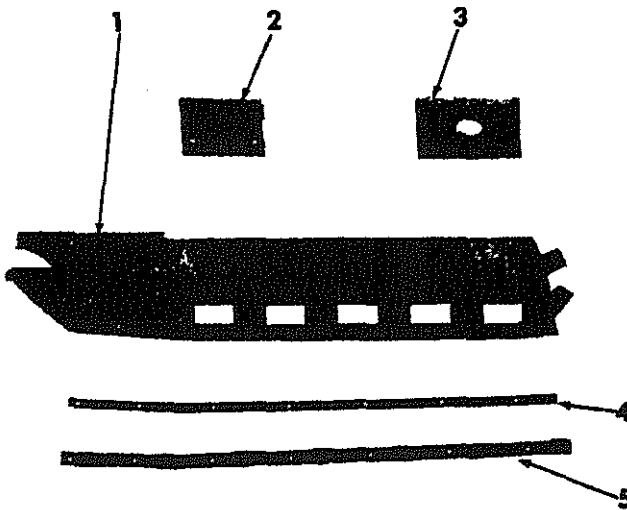
1	636 942 R91	REINFORCEMENT, final drive (used on Skidder Tractor prior Serial No. H 1001)
1	676 223 R91	REINFORCEMENT, final drive (Heavy Duty used on Skidder Tractor Serial No. H 1001 and up)
	617 941 R1	5/16 x 2" hv-coiled spg PIN (2)
	15 041 R1	1/2 x 1-1/2" crg BOLT (4)
	179 887	1/2 x 1-3/4" Type 2 BOLT (2)
	187 201	1/2 x 4-3/4" Type 2 BOLT (4)
	16 038 R1	17/32 x 1 x 11 ga WASHER (10)
	551 175 R1	19/32 x 1-1/2 x 16 ga WASHER (10)
	676 642 R1	.531 x 1.50 x 22 ga WASHER (20)
	102 637	1/2" NUT (8)
	103 323	1/2" 1k-WASHER (10)
2	636 946 R1	WASHER, brace pin (2)
3	636 947 R11	BRACE, final drive (2)
	220 090	1-1/4" NUT (4)
	131 016	21/32 x 1-5/16 x .074 WASHER (4)
4	636 949 R1	GUIDE, final drive brace LH
4	636 950 R1	GUIDE, final drive brace (RH shown)
	20 664 R1	5/8 x 2-3/4" Type 4 BOLT (4)
	19 724 R1	5/8" NUT (4)
5	676 381 R91	REINFORCEMENT, final drive rear left
5	676 382 R91	REINFORCEMENT, final drive rear right shown
	179 887	1/2 x 1-3/4" Type 2 BOLT (4)
	190 256	1/2 x 4-1/2" Type 2 BOLT (4)
	16 038 R1	17/32 x 1 x 11 ga WASHER (4)
	102 637	1/2" NUT (4)
	103 323	1/2" 1k-WASHER (8)





REF. NO.	PART NUMBER	DESCRIPTION
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## TRACK FRAME

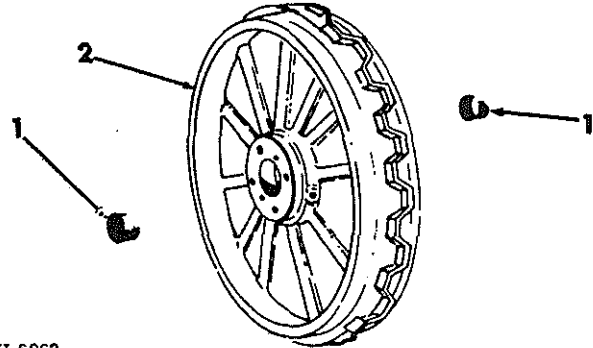


H 1479  
H 6752

1	676 771 R1	FRAME ASSEMBLY, track LH (Not 5G2 Bullgrader)
1	676 028 R92	FRAME ASSEMBLY, track LH (5G2 Bullgrader less Backhoe) (Includes 637 163 R11 & 637 177 R11, SUPPORTS, (Welded to Frame))
1	676 248 R92	FRAME ASSEMBLY LH (For 5G2 Bullgrader w/Backhoe)
1	676 250 R92	FRAME ASSEMBLY LH (For 10 Bullgrader, 11 Bullgrader w/Backhoe)
1	676 772 R1	FRAME ASSEMBLY, track RH (Not 5G2 Bullgrader)
1	676 029 R92	FRAME ASSEMBLY, track RH (5G2 Bullgrader less Backhoe) (Includes 637 163 R11 & 637 117 R11 SUPPORTS (Welded to frame))
1	676 249 R92	FRAME ASSEMBLY RH (For 5G2 Bullgrader w/Backhoe)
1	676 251 R92	FRAME ASSEMBLY RH (For 10 Bullgrader, 11 Bullgrader w/Backhoe)
2	637 177 R11	SUPPORT, trunnion (2) (5G2 Bullgrader)
3	637 163 R11	SUPPORT, trunnion (2) (5G2 Bullgrader)
4	635 660 R1	GUIDE, track chain LH (2)
4	635 661 R1	GUIDE, track chain RH (2)
	13 999 R1	7/16 x 1-1/8" csk-hd RIVET (7 per guide)
5	635 653 R92	GUIDE, track chain LH (2)
5	635 654 R92	GUIDE, track chain RH (2)
	170 883	1/2 x 1-1/4" Type 2 BOLT (7 per guide)
	103 323	1/2" lk-WASHER (7 per guide)

REF. NO.	PART NUMBER	DESCRIPTION
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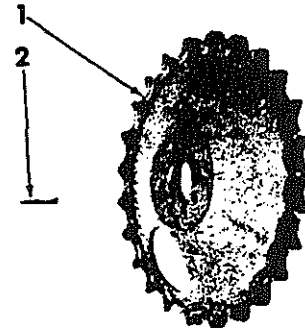
## FRONT IDLER



H 6962

1	635 226 R1	BUSHING, front idler (4)
2	636 802 R11	IDLER, front (2) (Spoke Type) (Includes 635 226 R1, BUSHING) (for service order 1 - 676 444 R91, IDLER ASSEMBLY)
2	676 444 R91	IDLER, front (2) (Solid Type) (Includes 635 226 R1, BUSHING & 444 687, PLUG)

## DRIVE SPROCKET



H 1484

1	675 913 R1	SPROCKET, track drive (2)
1	675 915 R1	SPROCKET, cut-away track drive (2)
	20 486 R1	5/8 - NF x 1-3/4" Type 4 BOLT (12)
2	635 075 R1	STUD, drive sprocket (4)
	225 861	5/8" - NF cd-pltd Type 4 NUT (4)

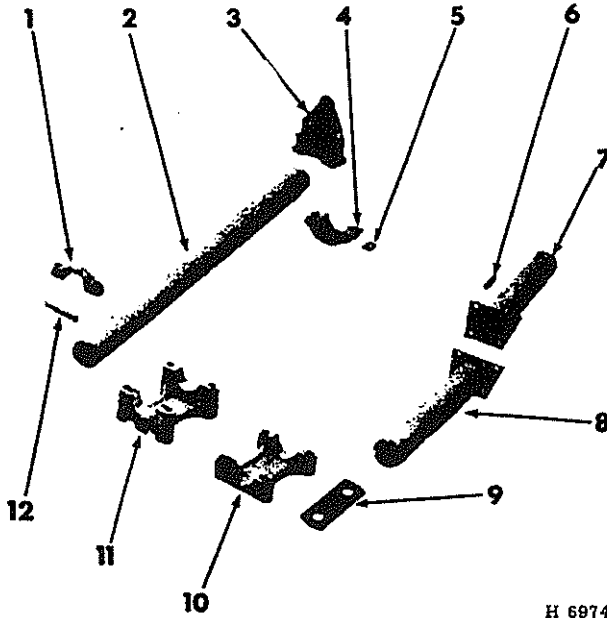


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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**GAUGE BARS & PADS**

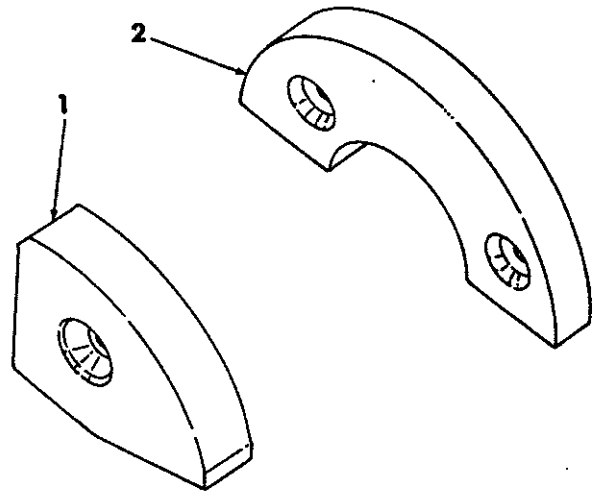


H 6974

1	635 641 R2 20 666 R1	CAP, gauge bar mounting pad (8) 5/8 x 6" Type 4 BOLT (16)
2	675 923 R2	BAR, front gauge (38")
2	675 916 R2	BAR, front gauge (48")
2	675 926 R2	BAR, front gauge (68")
3	635 628 R1 20 672 R1 426 639	BRACKET, gauge bar mounting (4) 3/4-NF x 1-3/4" Type 4 BOLT (12) 3/4" NF NUT (12)
4	635 629 R1 20 662 R1	CAP, gauge bar bracket (4) 5/8 x 2-1/8" Type 4 BOLT (8)
5	635 627 R1	LOCK, mounting bracket cup bolt (8)
6	636 435 R1 225 861	STUD, rear gauge bar (8) 5/8"-NF Type 4 NUT (8)
7	675 925 R92	BAR, rear gauge RH (38")
7	675 918 R92	BAR, rear gauge RH (48")
7	675 928 R92	BAR, rear gauge RH (68")
8	675 924 R92	BAR, rear gauge LH (38")
8	675 917 R92	BAR, rear gauge LH (48")
8	675 927 R92	BAR, rear gauge LH (68")
9	676 125 R1	STRAP, rear gauge bar (8) (For tractor w/Bullgrader & Backhoe)
10	635 640 R2 20 487 R1	PAD, gauge bar mounting (4) (for Tractor w/Bullgrader, Backhoe & Loader or w/track frame in forward position) 5/8 x 4-1/2" Type 2 BOLT (16)
11	635 639 R1 20 666 R1	PAD, gauge bar mounting (4) 5/8 x 6" Type 4 BOLT (16)
12	635 015 R1	PIN, gauge bar alignment (4)

REF. NO.	PART NUMBER	DESCRIPTION
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**FRONT IDLER WEIGHTS**



HE 349

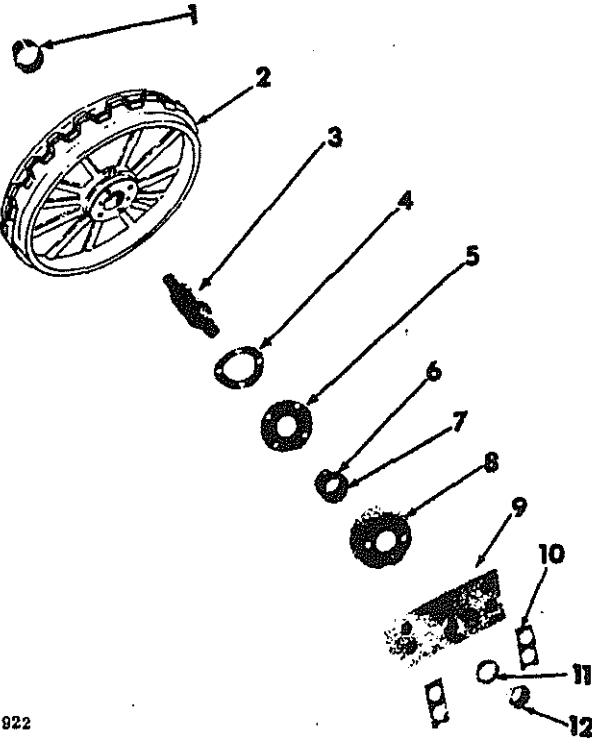
NOTE: For counterweighting loader when used with Backhoe

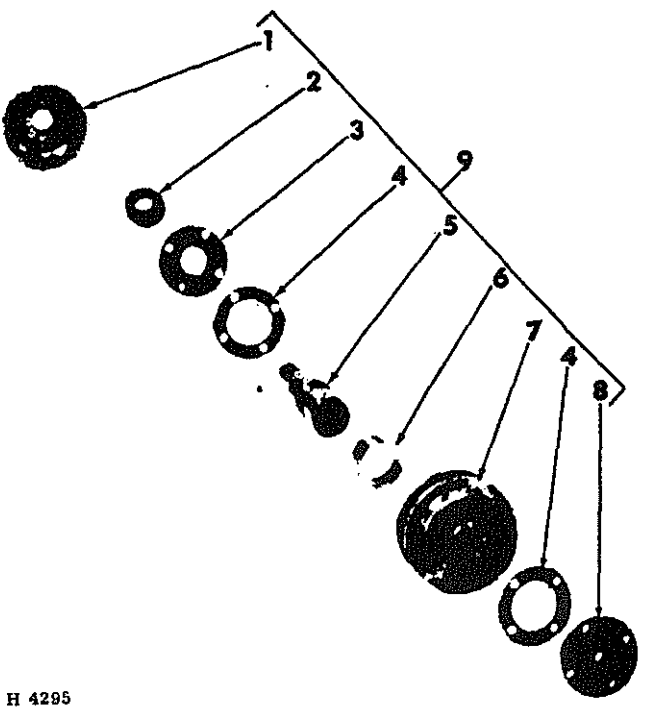
1	676 366 R1 271 730 124 589	WEIGHT, front idler (20) (Sooke Type) 5/8 x 3-3/4" cd-pltd Type 2 BOLT (10) 5/8" cd-pltd NUT (10)
2	676 446 R1 271 730 124 589	WEIGHT, front idler (8) (Solid Type) 5/8 x 3-3/4" cd-pltd Type 2 BOLT (8) 5/8" cd-pltd NUT (8)



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
<b>FRONT IDLER (w/End Face Seals)</b>		
		
H 5922		
1	635 226 R1	BUSHING, front idler (4)
2	636 802 R11	IDLER, front (2) (Spoke Type) (includes 625 226 R1, BUSHING) (for service order 1 - 676 444 R91, IDLER ASSEMBLY)
2	676 444 R91	IDLER, front (2) (Solid Type) (includes 635 226 R1, BUSHING, & 444 687, PLUG)
3	636 379 R11	SHAFT, front idler (2) (Includes 216 353, NUTS), 19 602 R91
		1/8" b-hd lub-FITTING (2)
4	635 005 R1	GASKET, front idler (8)
5	636 382 R1	PLATE, idler thrust (4)
	20 648 R1	5/16 x 7/8" Type 4 BOLT (16)
	103 320	5/16" lk-WASHER (16)
6	636 389 R91	SEAL, idler oil (4) (Includes 636 390 R1, GASKET)
7	636 390 R1	GASKET, oil seal
8	636 380 R11	COVER, idler oil seal (4)
	19 738 R1	5/16 x 3/4" spirol PIN (8)
9	636 384 R2	PLATE, adjusting (4) (raised position)
9	637 264 R2	PLATE, adjusting (4) (lowered position)
	223 451	3/4 x 2-1/4" Type 4 BOLT (16)
10	636 386 R1	SHIM, .015" adjusting plate (as req'd)
10	636 387 R1	SHIM, .030" adjusting plate (as req'd)
11	636 383 R1	WASHER, nut back-up (4)
12	216 353	NUT, 1" - NF idler shaft (4)

REF. NO.	PART NUMBER	DESCRIPTION
<b>TOP IDLER</b>		
		
H 4295		
1	635 222 R12	COVER, idler oil seal (2)
2	635 229 R91	SEAL, top idler oil (2) (Includes 636 321 R1, GASKET) (opt to use 636 672 R1, GASKET)
3	635 217 R2	PLATE, top idler thrust inner (2)
	186 275	5/16 x 5-1/2" Type 2 BOLT (8)
	102 634	5/16" NUT (8)
	103 320	5/16" lk-WASHER (8)
4	635 005 R1	GASKET, top idler (8)
5	636 495 R1	SHAFT, top idler (2)
	113 782	1/4 x 1" No. 15 Woodruff KEY (2)
	220 083	1" NUT (2)
6	635 226 R1	BUSHING, top idler (4)
7	675 151 R11	ROLLER, top idler (2) (Includes 635 226 R1, BUSHINGS)
8	635 218 R1	PLATE, top idler thrust outer (2)
	19 602 R91	1/8" b-hd lub-FITTING (2)
	186 275	5/16 x 5-1/2" Type 2 BOLT (8)
	102 634	5/16" NUT (8)
	103 320	5/16" lk-WASHER (8)
9	675 408 R91	PACKAGE, top idler service (composed of one-half the quantity used of all parts listed above) (except 635 222 R12)

\* Not Serviced Separately

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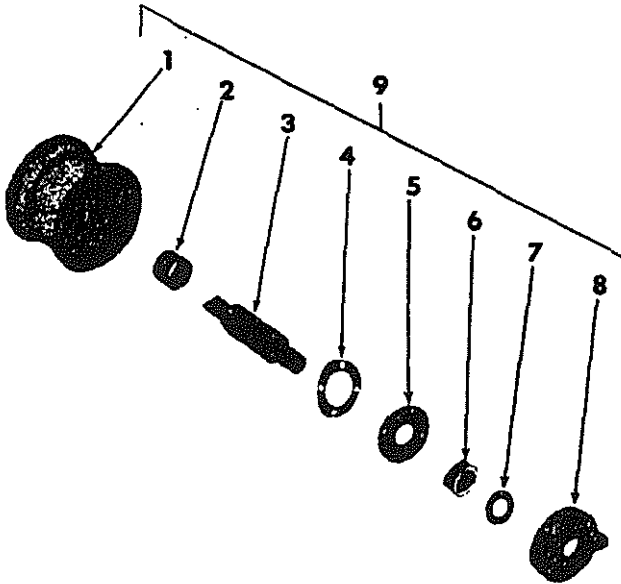
Track Drive

CRAWLER TRACTORS

SECTION A  
TC-203A

REF. NO.	PART NUMBER	DESCRIPTION
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TRACK ROLLER (w/End Face Seals)

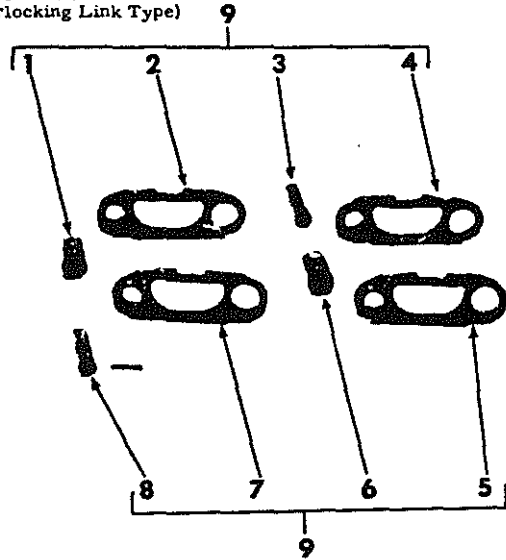


H 6753

1	636 051 R91	ROLLER, track (Includes 625 226 R1, BUSHINGS)
2	635 226 R1	BUSHING, track roller (2)
3	636 494 R1 19 602 R91	SHAFT, track roller 1/8" b-hd lub-FITTING
4	635 005 R1	GASKET, track roller
5	635 217 R2 179 816 103 320	PLATE, track roller thrust 5/16 x 3/4" Type 2 BOLT (4) 5/16" 1k-WASHER (4)
6	635 229 R91	SEAL, track roller oil (Includes 636 321 R1, GASKET)
7	636 321 R1	GASKET, oil seal (opt w/636 672 R1, GASKET)
7	636 672 R1	GASKET, oil seal (opt w/636 321 R1, GASKET)
8	635 207 R1 179 883 103 323	BRACKET, track roller shaft 1/2 x 1-1/4" Type 2 BOLT (2) 1/2" 1k-WASHER (2)
9	675 407 R91	PACKAGE, track roller service composed of: 8 Bolt 179 816 4 Gasket 635 005 R1 8 Lockwasher 103 320 1 Fitting 19 602 R91 1 Roller w/Bushings 636 051 R91 1 Shaft 636 494 R1 2 Bracket 635 207 R1 2 Seal 635 229 R91 2 Plate 635 217 R2

REF. NO.	PART NUMBER	DESCRIPTION
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TRACK CHAIN  
(Interlocking Link Type)



H 4295

1	636 741 R1	BUSHING, master link (2)
2	636 737 R3	LINK, track master RH (2)
3	636 738 R1	PIN, regular link (68)
4	636 735 R3	LINK, track regular RH (68)
5	636 734 R3	LINK, track regular LH (68)
6	636 740 R1	BUSHING, regular link (68)
7	636 736 R3	LINK, track master LH (2)
8	636 739 R1 617 940 R1	PIN, master link (2) 5/16 x 1-3/4" spirol PIN (4)
9	636 733 R91	CHAIN, track (2) composed of: 34 Bushing 636 740 R1 1 Bushing 636 741 R1 34 Link 636 734 R3 34 Link 636 735 R3 1 Link 636 736 R3 1 Link 636 737 R3 34 Pin 636 738 R1 1 Pin 636 739 R1 2 Pin 617 940 R1

\* Not Serviced Separately



Track Drive

**CRAWLER TRACTORS**

SECTION A  
TC-203A

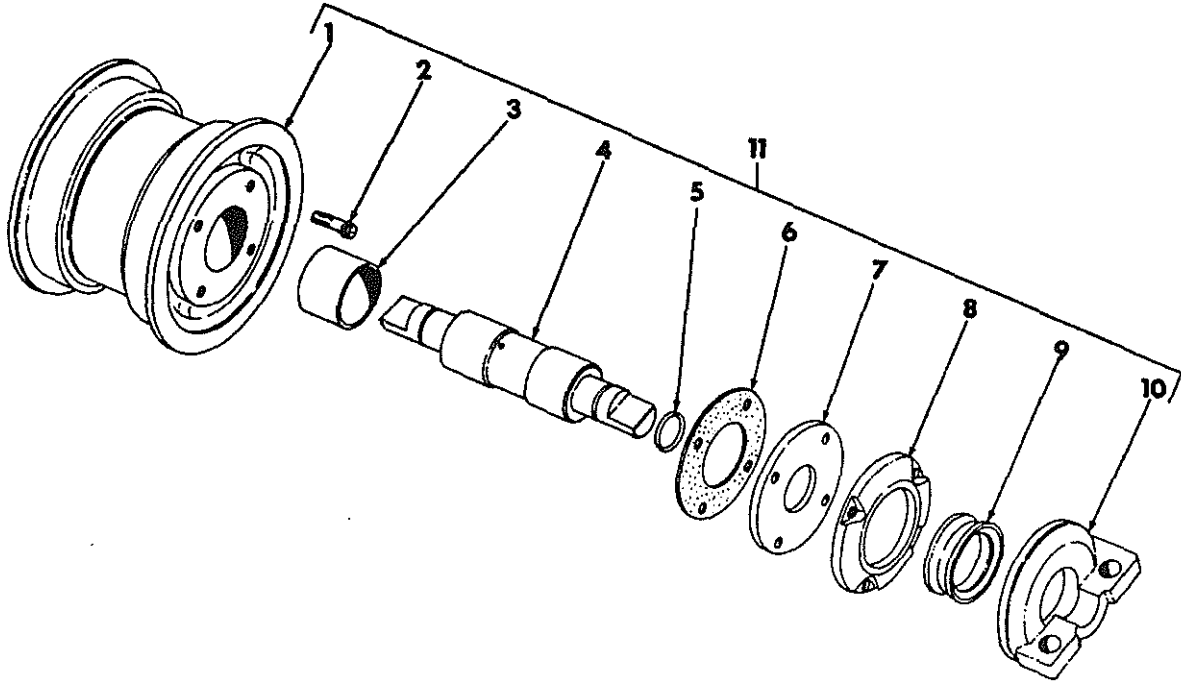


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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TRACK ROLLER WITH DF SEALS

TRACK ROLLER WITH DF SEALS - Continued



HE 302

1	676 412 R91	ROLLER, track (Includes 635 226 R1, BUSHINGS)
2	676 416 R1	BOLT, track roller (8)
3	635 226 R1	BUSHING, track roller (2)
4	676 418 R1 444 687 R1	SHAFT, track roller Shaft PLUG
5	370 943 R1	"O" RING, track roller shaft (2)
6	676 415 R1	GASKET, track roller (2)
7	676 414 R1	PLATE, track roller thrust (2)
8	676 417 R1	RETAINER, track roller (2)
9	676 425 R91	SEAL PACKAGE, track roller (2) composed of: 1 Oil Seal * 1 Band * 2 Rubbers * 2 Wipers * 1 Instruction *

9	606 252 C91	PACKAGE, oil seal (Repair) composed of: 2 Rubbers * 2 Bands (Plastic) * 2 Wipers * 1 Instruction *
9	606 627 C91	PACKAGE, reunitionization field service composed of: 50 Plastic Retainer Bands
10	676 419 R1 179 883	BRACKET, track roller shaft (2) 1/2 x 1-1/4" Type 2 BOLT (2)
11	676 411 R91	PACKAGE, track roller composed of: 1 Roller 676 412 R91 2 Retainer 676 417 R1 1 Shaft 676 418 R1 2 Seal Package 676 425 R91 2 "O" Ring 370 943 R1 2 Gasket 676 415 R1 8 Bolt 676 416 R1 2 Bracket 676 419 R1 1 Plug 444 687 2 Plate 676 414 R1

\*Not Serviced Separately



## CRAWLER TRACTORS

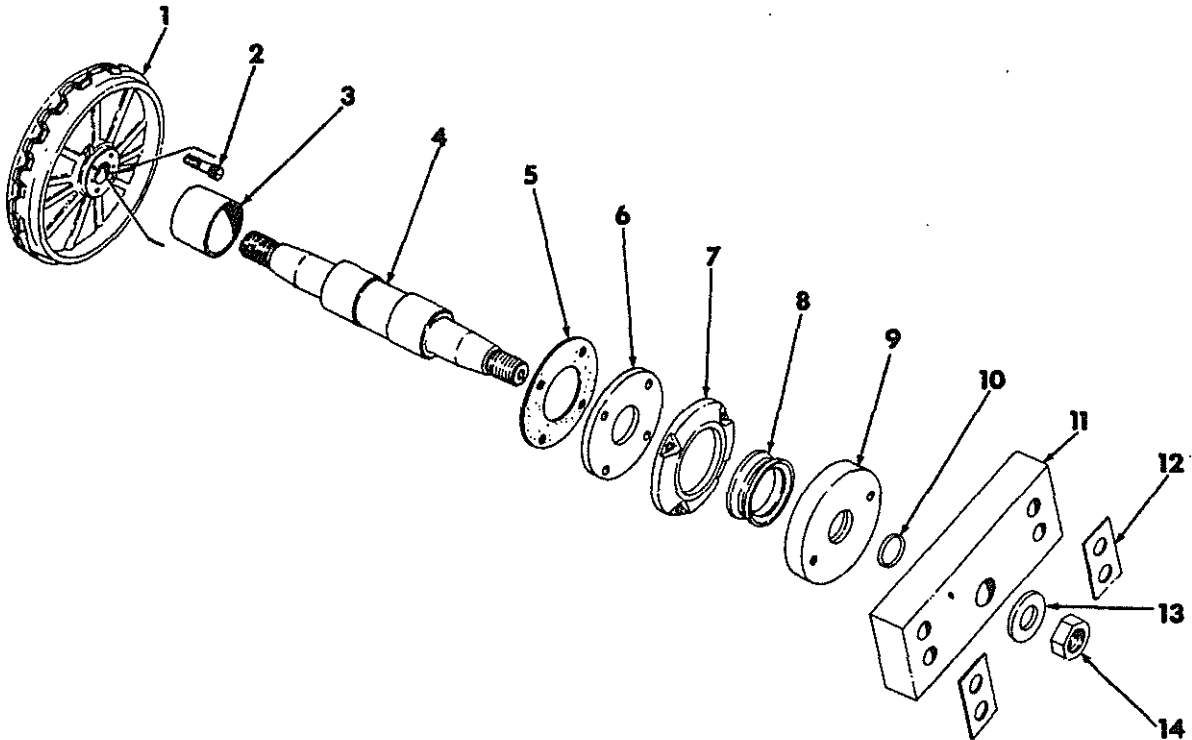


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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## FRONT IDLER WITH DF SEALS

## FRONT IDLER WITH DF SEALS - Continued



HE 303

1	676 444 R91	IDLER, front (2) (Includes 2 - BUSHINGS & 1 - PLUG)	8	606 252 C91	PACKAGE, oil seal (Repair) composed of: 2 Rubbers * 2 Bands * (Plastic) 2 Wipers * 1 Instruction *
	635 226 R1	Idler BUSHING (2)			
	444 687	Idler PLUG			
2	676 416 R1	BOLT, retainer mounting (16)	8	606 627 C91	PACKAGE, reunitionization field service composed of: 50 Plastic Retainer Bands
3	635 226 R1	BUSHING, front idler (4)	9	676 424 R1	CARRIER, oil seal (4)
4	636 379 R11	SHAFT, front idler (2) (Includes 2 - NUTS & 1 - PLUG)	19 738 R1	5/16 x 3/4" spirol PIN (8)	
	216 353	Shaft NUT (2)	10	379 141 R1	"O" RING, carrier (4)
	444 687	Shaft PLUG	11	636 384 R2	PLATE, adjusting (4) (raised position)
5	676 415 R1	GASKET, front idler (4)	11	637 264 R2	PLATE, adjusting (4) (lower position)
6	676 414 R1	PLATE, idler thrust (4)	223 451	3/4 x 2-1/4" Type 4 BOLT (16)	
7	676 417 R1	RETAINER, seal (4)	12	636 386 R1	SHIM, .015" adjusting plate (as req'd)
8	676 425 R91	SEAL PACKAGE, idler oil (4) composed of: 1 Oil Seal * 1 Band * 2 Rubbers * 2 Wipers * 1 Instruction *	12	636 387 R1	SHIM, .030" adjusting plate (as req'd)
			13	636 383 R1	WASHER, nut back-up (4)
			14	216 353	NUT, 1" - NF idler shaft (4)

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Track Drive

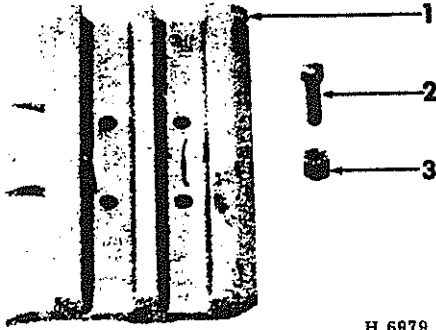
**CRAWLER TRACTORS**

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION
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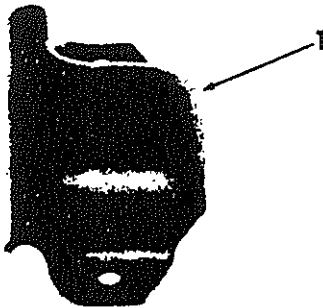
TRACK SHOE (Overlapping Flat, Low Profile - 3 Grouser Type)  
(48" & 68" Gauge Width)



H 6979

1	675 930 R1	SHOE 12" (70)
1	676 641 R1	SHOE 14" (70)
2	676 740 R1	BOLT, 1/2 - NF x 1-3/4" Type 4 track shoe (280)
3	214 442	NUT, 1/2" - NF track shoe bolt (280)
	675 929 R91	SHOE SET, 12" (Includes all parts listed above except 676 641 R1)
	676 647 R91	SHOE SET, 14" (Includes all parts listed above except 675 930 R1)

TRACK SHOE (Street Plate) (To be used in addition to single Grouser Heavy Section Shoes)

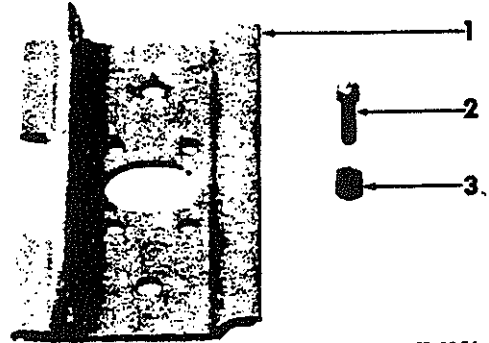


H 1483

1	29 804 DB	PLATE, street 9-1/2" (36)
	271 581	5/8 x 1-1/4" NF Type 2 BOLT (72)
	103 030	5/8" NF NUT (72)
	254 797 R91	SHOE SET, 9-1/2" half set (Includes Ref. No. 1)

REF. NO.	PART NUMBER	DESCRIPTION
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TRACK SHOE (All Weather) (Standard, Heavy Duty)

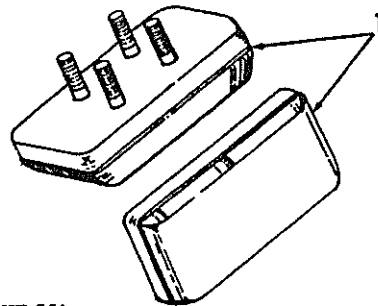


H 6981

1	636 784 R1	SHOE, 10" (70) (38, 48 & 68" gauge width)
1	636 785 R1	SHOE, 12" (70) (48 & 68" gauge width)
1	636 794 R1	SHOE, 12" (70) (48 & 68" gauge width) (Heavy Duty)
1	636 786 R1	SHOE, 14" (70) (48 & 28" gauge width)
1	636 795 R1	SHOE, 14" (70) (48 & 68" gauge width) (Heavy Duty)
2	676 640 R1	BOLT, 1/2 - NF x 1-3/4" Type 4 track shoe (280)
3	214 442	NUT, 1/2" - NF track shoe bolt (280)
	636 779 R91	SHOE SET, 10" (Includes 636 784 R1 SHOE) (+) (38, 48 & 68" gauge width)
	636 781 R91	SHOE SET, 12" (Includes 636 785 R1 SHOE) (+) (48 & 68" gauge width)
	636 790 R91	SHOE SET, 12" Heavy Duty (Includes 636 794 R1, SHOE) (+) (48 & 68" gauge width)
	636 783 R91	SHOE SET, 14" (Includes 636 786 R1 SHOE) (+) (48 & 68" gauge width)
	636 792 R91	SHOE SET, 14" Heavy Duty (Includes 636 795 R1 SHOE) (+) (48 & 68" gauge width)

NOTE: (+) (All shoe sets include BOLTS 676 740 R1 & NUTS 214 442)

TRACK SHOE (RUBBER) (Standard & Loader Type)



HE 281

1	676 328 R91	SHOE ASSEMBLY, rubber, 48" or 68" gauge width (70)
	214 442	1/2" NF - NUT (280)
	676 327 R91	SHOE SET, Includes ref. No. 1

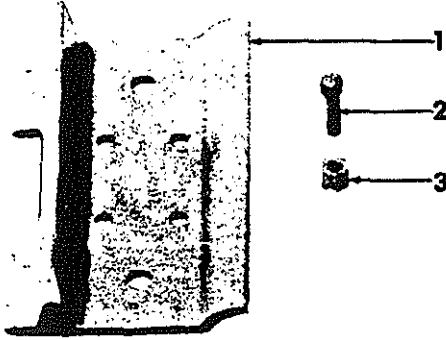


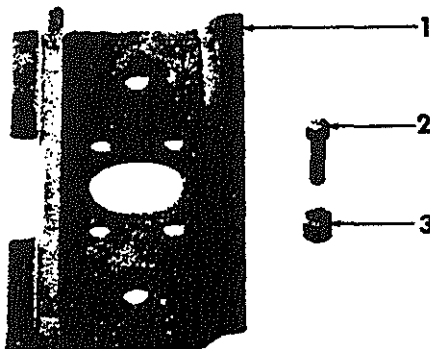
Track Drive

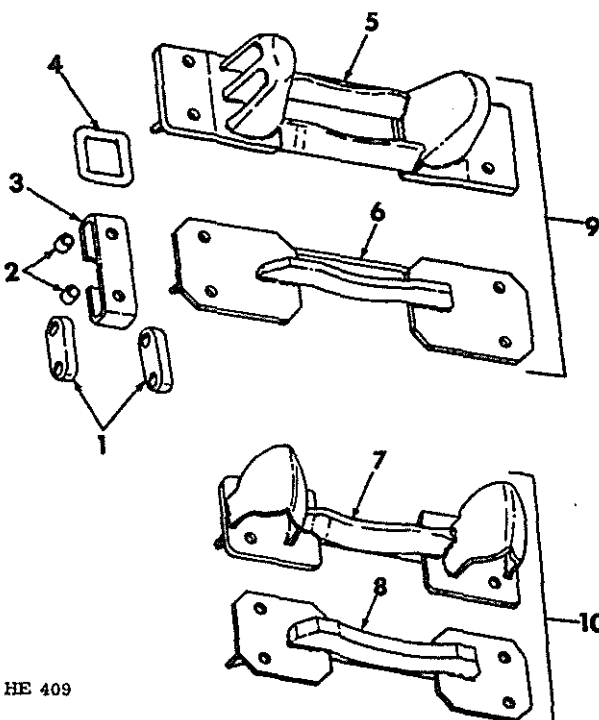
# CRAWLER TRACTORS

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION
<b>TRACK SHOES (Clipped Corner Type) (Standard) (48" &amp; 68" Gauge Width)</b>		
		
		H 6982
1	636 761 R1	SHOE, 12" (70)
1	636 762 R1	SHOE, 14 (70)
2	676 740 R1	BOLT, 1/2 - NF x 1-3/4" Type 4 track shoe (280)
3	214 442	NUT, 1/2" - NF track shoe (280)
	636 757 R01	SHOE SET, 12" (Includes all except 636 762 R1 listed above)
	636 758 R01	SHOE SET, 14" (Includes all except 636 761 R1 listed above)

<b>TRACK SHOE (Single Truncated Grouser) (All Weather) (Bullgrader) (48" gauge width only)</b>		
		
		H 6979
1	675 932 R1	SHOE, 12" (70)
1	676 643 R1	SHOE, 14" (70) (Bullgrader)
2	676 740 R1	BOLT, 1/2 NF x 1-3/4" Type 4 Track shoe (280)
3	214 442	NUT, 1/2" - NF track shoe bolt (280)
	675 931 R01	SHOE SET, 12" (Includes all parts listed except 676 643 R1)
	676 766 R91	SHOE SET, 14" (Includes all parts listed except 675 932 R1)

REF. NO.	PART NUMBER	DESCRIPTION
<b>TRACK CHAIN (Skidder Only)</b>		
		
		HE 409
1	636 924 R1	LINK, master shoe (8)
	675 235 R1	Shoe link BOLT (8)
	17 141 R1	5/32 x 1" slit-avg PIN (8)
	109 890	5/8" slit NUT (8)
2	366 253 R1	SPACER, hook link bolts (148)
	20 530 R1	1/2 - NF x 2-1/4" Type 4 BOLT (148)
	214 442	1/2" - NF NUT (148)
	118 975	1/2" int-t lk-WASHER (148)
3	675 452 R1	HOOK, link (74)
4	637 376 R1	LINK, regular shoe (70)
5	675 445 R1	SHOE w/GUIDES (19) (19" chain)
6	675 446 R01	SHOE ASSEMBLY (18) (19" chain)
7	675 443 R1	SHOE w/GUIDES (19) (15" chain)
8	675 444 R01	SHOE ASSEMBLY (18) (15" chain)
9	636 920 R92	CHAIN ASSEMBLY, 19"
		composed of:
	8 Link	636 924 R1
	148 Spacer	366 253 R1
	74 Hook	675 452 R1
	70 Link	637 376 R1
	19 Shoe	675 445 R1
	18 Shoe	675 446 R91
10	636 921 R92	CHAIN ASSEMBLY, 15"
		composed of:
	8 Link	636 924 R1
	148 Spacer	366 253 R1
	74 Hook	675 452 R1
	70 Link	637 376 R1
	19 Shoe	675 443 R1
	18 Shoe	675 444 R91

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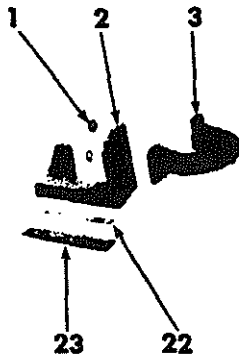




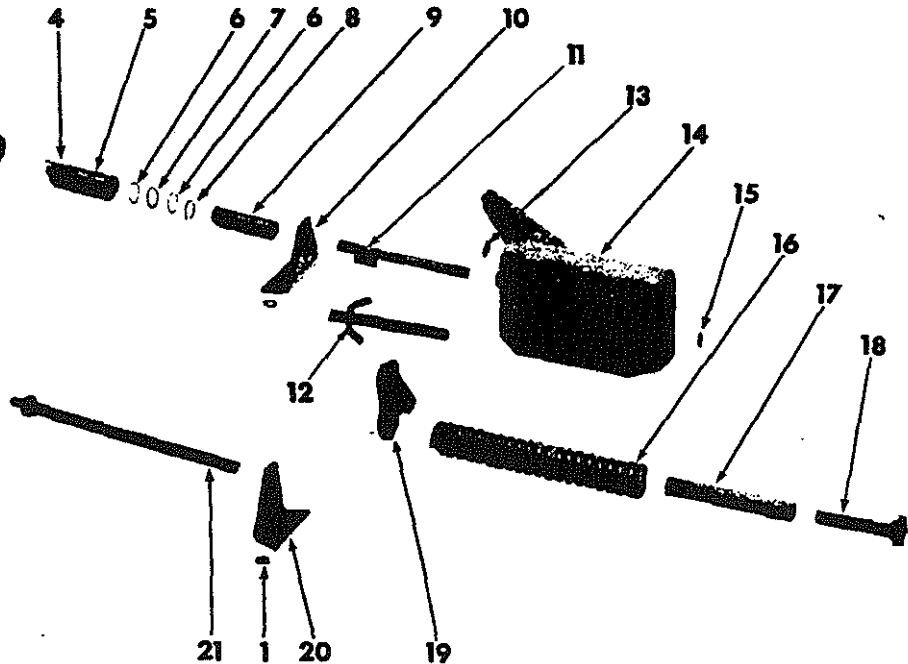
## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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ENCLOSED SPRING FRONT IDLER  
(Manual and Hydraulic Track Adjustment)

REF. NO.	PART NUMBER	DESCRIPTION
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ENCLOSED SPRING FRONT IDLER  
(Manual and Hydraulic Track Adjustment) - ContinuedH 1367  
H 6967NOTE A: For all Crawler Tractors except with Loader/  
Backhoe combinationNOTE B: For Crawler Tractor with Loader/Backhoe prior  
Serial No. H 2459NOTE C: For Crawler Tractor with Loader/Backhoe w/  
Serial No. H 2459 & up

1	636 514 R1	SPACER, adjusting yoke & rod (8)	10	675 738 R1	SUPPORT, adjuster rod (2) (hydraulic) (NOTE A & B)
2	636 497 R2	BRACKET, idler adjusting LH (2)	11	675 736 R11	ROD, track adjuster (2) (Hydraulic) (NOTE A & B)
2	636 498 R2	BRACKET, idler adjusting RH (2)	12	676 653 R11	ROD, track adjuster (2) (Hydraulic) (NOTE C)
3	636 443 R1	YOKE, front idler adjusting (2)	13	172 578	PLUG, tightener spg cover front 1-3/4" expansion (4)
	109 460	1/8 - 65° lub-FITTING (2)	14	636 451 R01	COVER, tightener spg LH
	179 837	3/8 x 3/4" Type 2 BOLT (2)	14	636 452 R01	COVER, tightener spg RH
	271 564	5/8 x 2-1/2" Type 2 BOLT (4)		102 467 H	1/4" straight lub-FITTING (2)
	271 567	5/8 x 3-1/4" Type 2 BOLT (4)		271 554	5/8 x 1" Type 2 BOLT (8)
	PO 10532	13/32 x 1-1/4 x 11 ga WASHER (2)		271 558	5/8 x 1-1/2" Type 2 bolt (4)
	12 258 R1	21/32 x 1-1/4 x .120" WASHER (4) (under hd of lower bolt)	15	172 578	PLUG, tightener spg cover rear 1-5/8" expansion (4)
	102 639	5/8" NUT (8)	16	636 712 R1	SPRING, idler tightener (4)
	103 321	3/8" 1k-WASHER (2)	17	635 221 R1	GUIDE, tightener spg (4)
4	676 075 R01	FITTING, track adjuster body bleed hole (2) (Hydraulic)	18	636 441 R1	PLUG, tightener spg (4)
	676 076 R1	Fitting WASHER (2)	19	636 442 R1	SEAT, tightener spg (2)
5	675 732 R11	BODY, track adjuster (2) (Hydraulic)	20	636 463 R1	SUPPORT, adjusting rod (NOTE A & B)
6	378 726 R1	WASHER, "O" Ring back up (4) (Hydraulic)		271 558	5/8 x 1-1/2" Type 2 BOLT (4)
7	464 048 R1	"O" RING, plunger bar (4) (Hydraulic)		103 325	5/8" 1k-WASHER (4)
8	675 140 R1	RING, plunger bar wiper (2) (Hydraulic)	21	636 448 R11	ROD, idler adjusting (2) (Manual) (NOTE A & B)
9	675 735 R1	BAR, body plunger (2) (Hydraulic)	21	636 449 R11	ROD, idler adjusting (2) (Manual) (NOTE C)
			22	635 626 R1	SHIM, adjusting bracket (16)
			23	636 586 R2	RETAINER, adjusting bracket (4)
				271 558	5/8 x 1-1/2" Type 2 BOLT (16)

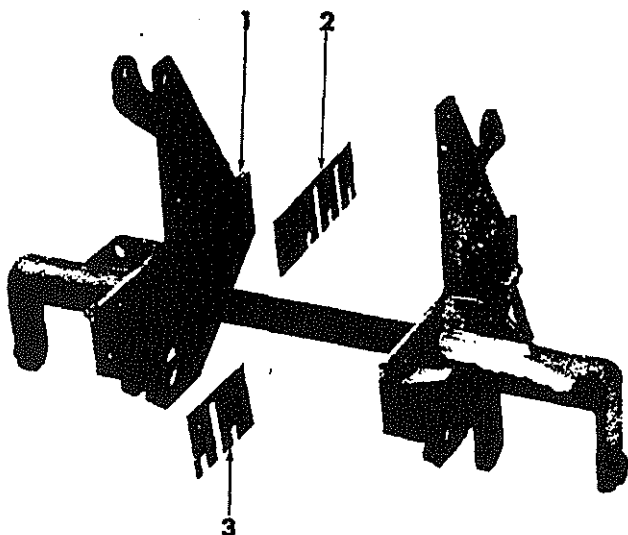
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REF. NO.	PART NUMBER	DESCRIPTION
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BOGIE TRUNNION (Skidder Only)

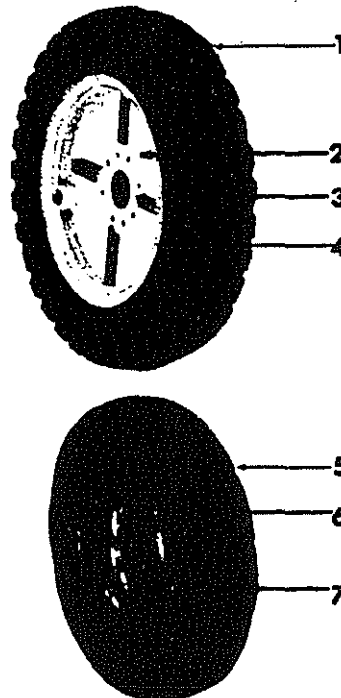


H 7539

1	675 112 R91	TRUNNION AND SPACER BAR, bogie 5/8 x 4-1/4" Type 4 BOLT (2) (To Clutch Housing)
2	636 959 R1	SHIM, bogie trunnion rear (16 ga) (as req'd)
2	636 960 R1	SHIM, bogie trunnion rear (18 ga) (as req'd)
3	636 957 R1	SHIM, bogie trunnion front (16 ga) (as req'd)
3	636 958 R1	SHIM, bogie trunnion front (18 ga) (as req'd) 3/4-NF x 2" Type 4 BOLT w/NUT (16)

REF. NO.	PART NUMBER	DESCRIPTION
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DRIVE AND BOGIE WHEELS (Skidder Only)



H 7543

1	636 918 R1	TIRE, pneumatic driving tire (2) TUBE, 7.00 x 20" inner (2)
2	636 926 R91	WHEEL ASSEMBLY, driving (2) (4.33 x 20) (order 1 - 676 539 R91, WHEEL ASSEMBLY w/1 - 676 495 R1, RING)
2	676 581 R91	WHEEL ASSEMBLY, driving (2) (4.33 x 20) (order 1 - 676 539 R91, WHEEL ASSEMBLY w/1 - 676 495 R1, RING)
2	676 539 R91	WHEEL ASSEMBLY, driving (2) (5.00 x 20) (order w/1 - 676 495 R1, RING)
3	636 919 R1	FLAP, tire (2)
4	637 276 R1	RING, side (2) (4.33 x 20, RIM) (Stamped 433 R ) (for 636 926 R91, WHEEL ASSEMBLY)
4	676 569 R1	RING, side (2) (4.33 x 20, RIM) (Stamped 6.0 Type FL) (for 676 581 R91, WHEEL ASSEMBLY)
4	676 495 R1	RING, side (2) (5.00 x 20, RIM)
5		TIRE, 600 x 16" pneumatic bogie wheel (4) TUBE, 6.00 x 16" inner (4)
6	676 448 R91	DISK & RIM, bogie wheel (4)
7	636 915 R1	FLAP, bogie wheel tire (4)

\* Not Serviced Separately

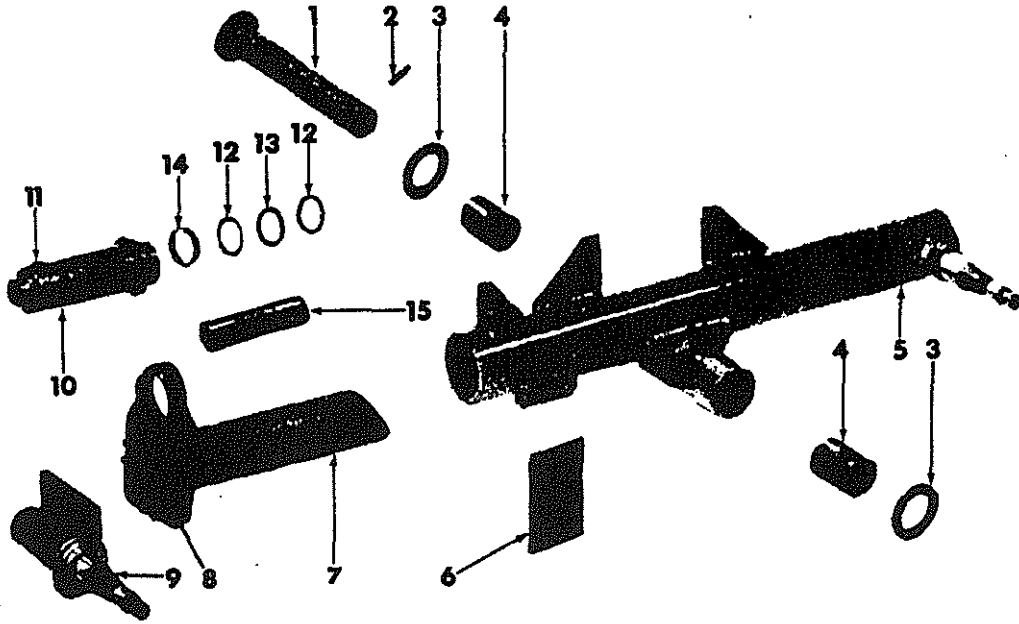


REF. NO.	PART NUMBER	DESCRIPTION
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BOGIE BEAM AND HYDRAULIC TRACK ADJUSTMENT (Skidder Only)

REF. NO.	PART NUMBER	DESCRIPTION
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BOGIE BEAM AND HYDRAULIC TRACK ADJUSTMENT (Skidder Only) - Continued



H 7535  
H 8118

1	637 292 R1	SHAFT, bogie pivot (2)
2	676 582 R1 103 384	PIN, retaining (2) 1/8 x 3/4" c-PIN (2)
3	637 353 R1	WASHER, pivot shaft (4)
4	636 963 R1	BUSHING, pivot shaft (4)
5	675 118 R92 675 119 R92 109 461	BEAM, bogie LH BEAM, bogie RH 1/8" straight lub FTG (4)
6	636 873 R1 179 841 102 635 103 321	KEY, adjusting shaft locating (2) 3/8 x 1-1/4" Type 2 BOLT (4) 3/8" NUT (4) 3/8" 1k-WASHER (4)
7	676 024 R91	SHAFT, bogie adjusting (2)
8	637 359 R1	WASHER, toe-in adjusting (2)
9	675 157 R91 675 158 R91 133 092 R1 426 639 675 141 R1	SPINDLE, bogie front LH SPINDLE, bogie front RH 3/4 - NF x 3" Type 4 cd-pltd BOLT (8) 3/4" - NF NUT (8) Special WASH. (16)

10	675 134 R91 3 657 19 433 R1	BODY, hyd track adjuster (2) 1/8"-27 straight lub FTG (2) 5/32 x 5/8" spirol PIN (2)
11	675 138 R1 704 643 R1	PLUG, body drain (2) Drain plug WASH. (2)
12	378 726 R1	WASHER, back-up (4)
13	464 048 R1	"O" RING, plunger bar (2)
14	675 140 R1	RING, wiper bar plunger (2)
15	675 139 R1	BAR, adjuster body plunger (2)

\* Not Serviced Separately

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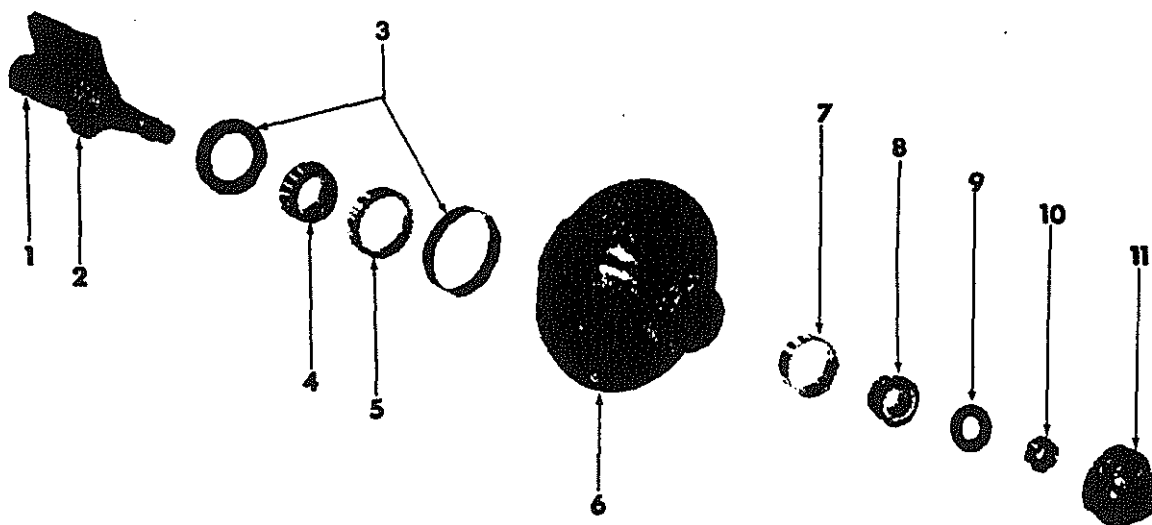


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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**BOGIE WHEEL, HUB AND SPINDLE (Skidder Only)**

**BOGIE WHEEL, HUB AND SPINDLE (Skidder Only) - Continued**



H 8118

1	675 157 R91 675 158 R91 133 092 426 639 675 141 R1	SPINDLE, bogie front LH SPINDLE, bogie front RH 3/4" NF x 3" Type 4 cd-pltd BOLT (8) 3/4" NF NUT (8) Special WASH. (16)
2	675 161 R1	RETAINER, oil seal (4)
3	675 170 R91	SEAL w/WEAR SLEEVE, hub (4)
4	62 923 R91 662 057 R91	CONE, inner brg (4) (opt w/662 057 R91) CONE, inner brg (4) (opt w/62 923 R91)
5	130 503 H 300 985 R1	CUP, inner brg (4) (opt w/300 985 R1) CUP, inner brg (4) (opt w/130 503 H)
6	675 160 R1 109 461 675 169 R1	HUB, bogie wheel (4) 1/8" straight lub FTG (4) Wheel hub BOLT (32)
7	13 447 D	CUP, outer brg (4)
8	ST 2 034	CONE, outer brg (4)
9	618 373 R1	WASHER, outer thrust (4)
10	427 645 103 397	NUT, 7/8"-NF alt (4) 5/32 x 1-1/4" c-PIN (4)
11	617 625 R1	CAP, wheel hub (4)

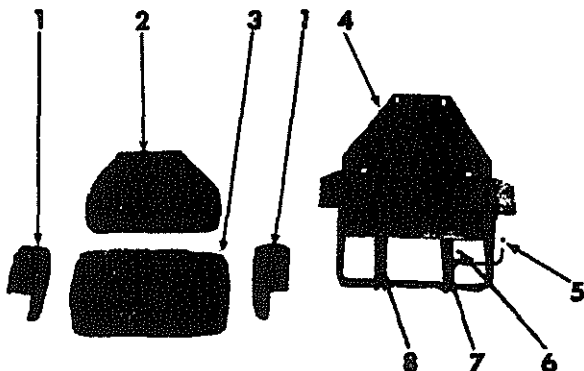
\* Not Serviced Separately



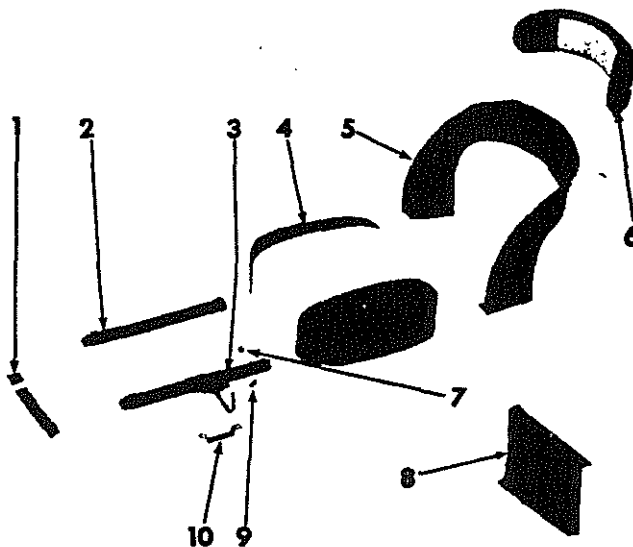
REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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**OPERATOR'S SEAT (w/Arm Rests)**



**OPERATOR'S SEAT (Less Arm Rests)**



**H 4552**

675 342 R92 SEAT, operator's (composed of all parts listed below)

- 1 676 147 R91 CUSHION, side (2)  
133 098 5/16 x 7/8" slt-rd-hd SCREW (4)  
120 214 5/16" lk-WASH. (4)
- 2 635 995 R92 CUSHION, back  
133 098 5/16 x 7/8" slt-rd-hd SCREW (4)  
120 214 5/16" lk-WASH. (4)
- 3 635 994 R92 CUSHION, seat
- 4 675 343 R92 FRAME, seat  
217 908 5/16 x 5/8" soc-hd Type 2 BOLT (4)  
103 320 5/16" lk-WASH. (4)
- 5 148 689 R1 KNOB, seat adjuster
- 6 96 775 R1 SPRING, slide rail
- 7 676 189 R91 RAIL, adjuster LH (includes SPRING, 96 775 R1)
- 8 371 629 R91 RAIL, adjuster RH  
217 907 5/16 x 5/8" soc-hd Type 2 BOLT (4)  
103 320 5/16" lk-WASH. (4)

**H 4283**

371 585 R93 SEAT, operator's (composed of all parts listed, unless otherwise noted)

- 1 635 441 R1 BRACKET, seat support front (when Three Point Hitch is used) (+)  
179 816 5/16 x 3/4" Type 2 BOLT (2)  
103 320 5/16" lk-WASH. (2)
- 2 371 629 R91 RAIL, adjuster RH
- 3 371 628 R91 RAIL, adjuster LH  
154 000 5/16 x 1-1/4" cd-pltd cross-rec fil-hd SCREW (4)  
120 214 5/16" cd-pltd lk-WASH. (4)
- 4 371 625 R93 CUSHION, operator's seat
- 5 371 626 R91 SUPPORT, seat back
- 6 371 627 R93 CUSHION, operator's back
- 7 148 689 R1 KNOB, handle
- 8 635 268 R1 BRACKET, seat support rear  
636 492 R1 Seat support bracket STUD (2)  
217 907 5/16 x 5/8" Type 2 soc-hd-BOLT (2)  
102 643 5/16" NUT (2)  
456 939 7/16" NF special NUT (3)  
103 320 5/16" lk-WASHER (2)
- 9 96 775 R1 SPRING, seat adjuster (+)
- 10 371 630 R1 GUIDE, adjuster handle  
180 124 3/8 x 1-1/4" Type 2 cd-pltd BOLT (2)  
120 382 3/8" cd-pltd lk-WASH. (2)

\* Not Serviced Separately  
+ Not part of Seat



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
SEAT SUPPORT					
H 1645					
1	676 145 R1	REINFORCEMENT, seat support bracket (Not Skidder)			
	14 990 R1	5/16 x 5/8" crg BOLT (2)			
	102 634	5/16" NUT (2)			
	103 320	5/16" lk-WASHER (2)			
2	676 139 R91	FILLER, seat lower (Not Skidder)			
	179 842	3/8 x 1-3/8" Type 2 BOLT (2)			
	103 321	3/8" lk-WASHER (2)			
3	635 268 R1	BRACKET, seat support rear			
4	636 185 R1	STIFFENER, support bracket			
	179 814	5/16 x 5/8" Type 2 BOLT (4)			
	102 634	5/16" NUT (4)			
	103 320	5/16" lk-WASHER (4)			
5	635 267 R1	BRACKET, seat support front			
	179 814	5/16 x 5/8" Type 2 BOLT (2)			
	179 835	3/8 x 5/8" Type 2 BOLT (2)			
	102 634	5/16" NUT (2)			
	103 320	5/16" lk-WASHER (2)			
	103 321	3/8" lk-WASHER (2)			



Three Point Hitch

# CRAWLER TRACTORS

SECTION A  
TC-203A

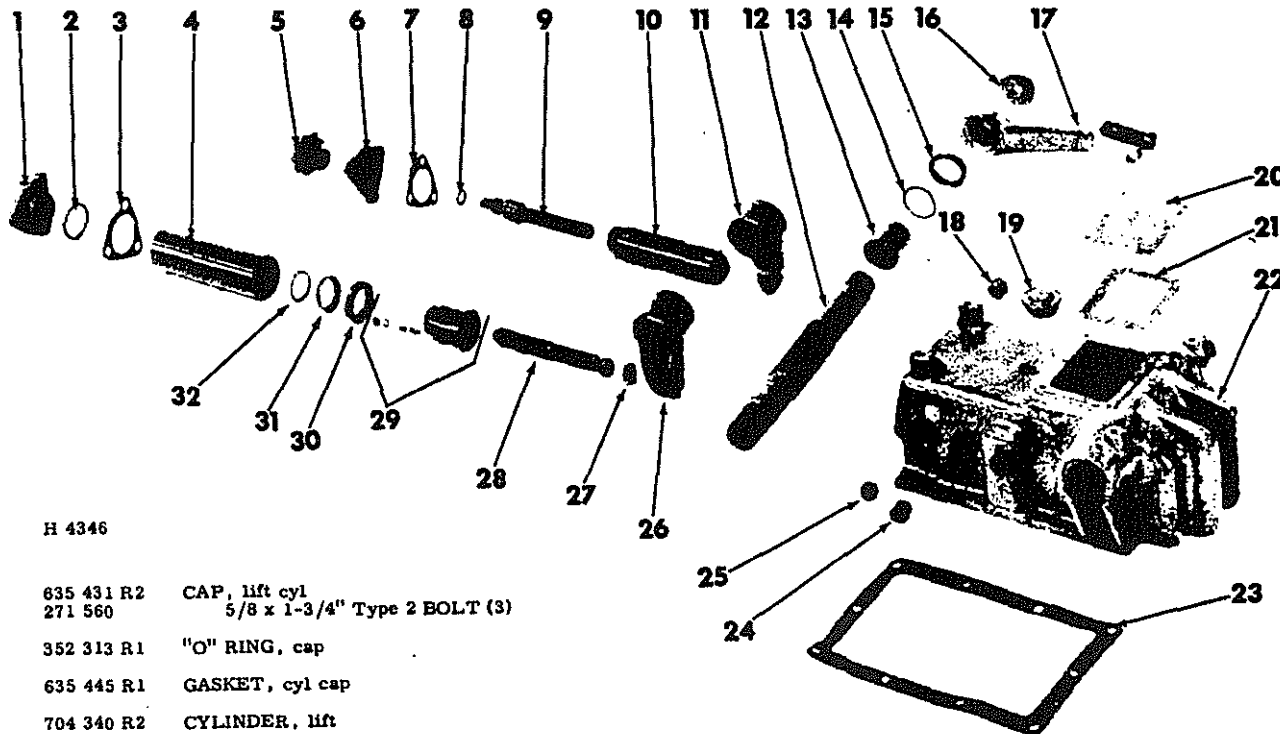


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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THREE POINT LIFT HOUSING

THREE POINT LIFT HOUSING - Continued



H 4346

1	635 431 R2 271 560	CAP, lift cyl 5/8 x 1-3/4" Type 2 BOLT (3)
2	352 313 R1	"O" RING, cap
3	635 445 R1	GASKET, cyl cap
4	704 340 R2	CYLINDER, lift
5	704 378 R1 188 943	WHEEL, depth control hand 3/16 x 1-1/8" groove PIN
6	635 432 R1 179 885 103 323	SUPPORT, depth control 1/2 x 1-1/2" Type 2 BOLT (3) 1/2" lk-WASHER (3)
7	635 554 R1	GASKET, depth control sealing
8	704 378 R1	RING, depth control sealing
9	707 889 R1	SCREW, depth control
10	704 370 R21	SPRING, depth control
11	635 435 R1 181 364	CAM, depth control 3/8-NF x 1" Type 2 BOLT
12	635 436 R2	ROCKSHAFT, hyd lift
13	704 356 R1	BUSHING, rockshaft (2)
14	704 360 R1	WASHER, rockshaft (2)
15	706 095 R92	SEAL, oil rockshaft (2) (opt to use SEALS, 706 308 R91 or 709 546 R91)
16	707 754 R1 179 885 103 323	PLATE, arm retaining (2) 1/2 x 1-1/2" Type 2 BOLT (2) 1/2" lk-WASHER (2)
17	704 361 R4 3044 309 R1 Q 398 103 384	ARM, lift (2) Special headed PIN (2) 11/32 x 7/8 x 16 ga WASHER (2) 1/8 x 3/4" c-PIN (2)
18	144 034	BUSHING, 3/4 x 1/2" reducer housing
19	364 680 R91	BREATHER, reservoir service package consists of: *1 Breather 1 Nipple 1 Coupling

20	635 443 R1 179 791 103 319	COVER, housing 1/4 x 1/2" Type 2 BOLT (6) 1/4" lk-WASH. (6)
21	635 444 R1	GASKET, cover
22	635 430 R31 636 492 R1 179 859 103 322	HOUSING, lift (Includes BUSHINGS, 635 061 R1 and 144 034, PLUG, 103 869) 7/16 x 2" STUD (8) 7/16 x 1-1/8" Type 2 BOLT 7/16" lk-WASH.
23	635 055 R2	GASKET, housing
24	635 081 R1	BUSHING, housing (2)
25	103 869	PLUG, 3/4" sq-hd pipe
26	704 358 R3 181 364	ARM, cyl rocker 3/8-NF x 1" Type 2 BOLT
27	705 206 R1	BUSHING, connection rod
28	704 363 R1 704 365 R1 Q 398 103 384	ROD, cyl connecting 5/16 x 2-13/16" std-hd didd PIN 11/32 x 7/8 x 16 ga WASH. 1/8 x 3/4" c-PIN
29	707 744 R92	PISTON, cyl (Refer to "HYDRAULIC LIFT CYLINDER PISTON")
30	704 367 R1	SEAL, cyl piston oil
31	704 368 R1	RETAINER, piston oil seal
32	704 369 R1	RING, oil seal retaining

\* Not Serviced Separately

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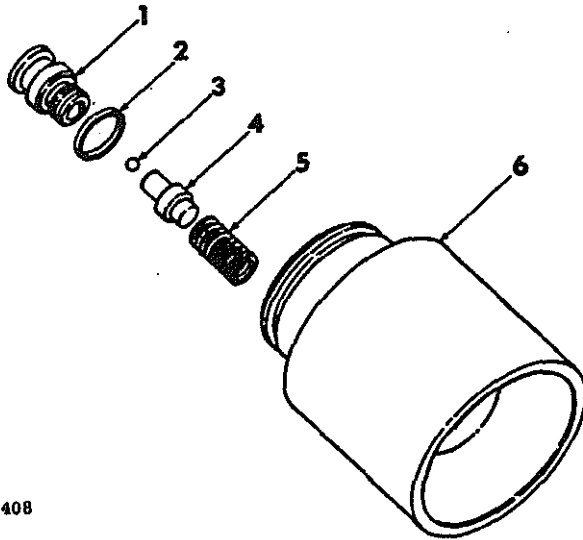


## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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## HYDRAULIC LIFT CYLINDER PISTON

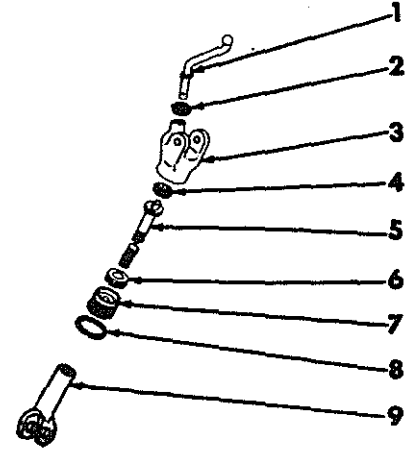


HE 408

	707 744 R92	PISTON, hyd lift cyl (composed of all parts listed)
1	707 745 R1	PLUG, relief valve
2	379 365 R1	"O" RING, relief valve
3	16 003 R1	BALL, relief valve
4	707 746 R2	RIDER, ball
5	3066 410 R1	SPRING, relief valve
6	704 366 R2	PISTON, cyl

REF. NO.	PART NUMBER	DESCRIPTION
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## LEVELLING LIFT ROD



H 1485

	676 126 R91	ROD, levelling lift (composed of all parts listed below)
1	3069 062 R11	CRANK, levelling control
2	3069 063 R1 142 506	PINION, levelling rod Control crank pinion PIN
3	3069 057 R1 109 461	BOX, levelling gear- 1/8" lub-FTG
4	3069 067 R1 103 905	GEAR, levelling rod Gear to rod KEY
5	676 127 R1	ROD, levelling
6	3044 346 R91	BEARING, levelling ball thrust (opt to use 3044 347 R91, 3044 348 R91 & 3068 049 R91, BEARINGS)
7	3069 064 R1	BEARING, levelling rod retaining
8	3069 065 R1	NUT, retaining brg lock
9	676 128 R1 676 207 R1 103 407	YOKE, levelling rod Yoke PIN 3/16 x 1" c-PIN





**CRAWLER TRACTORS**

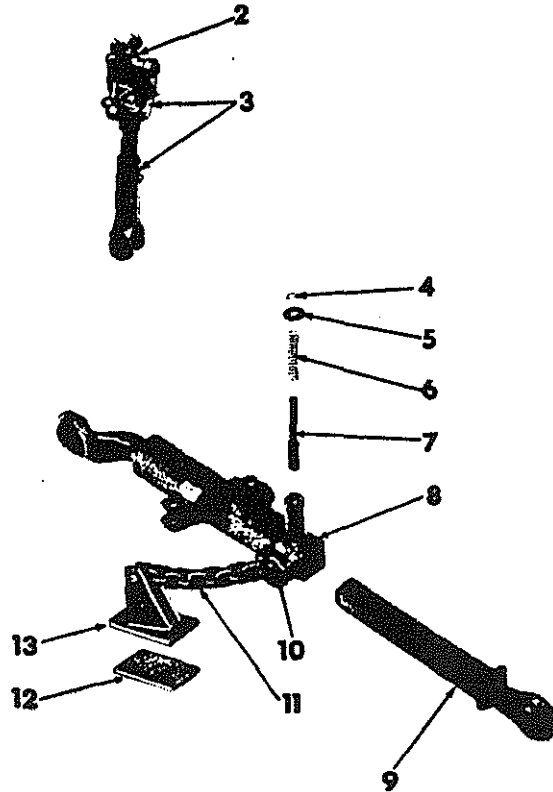
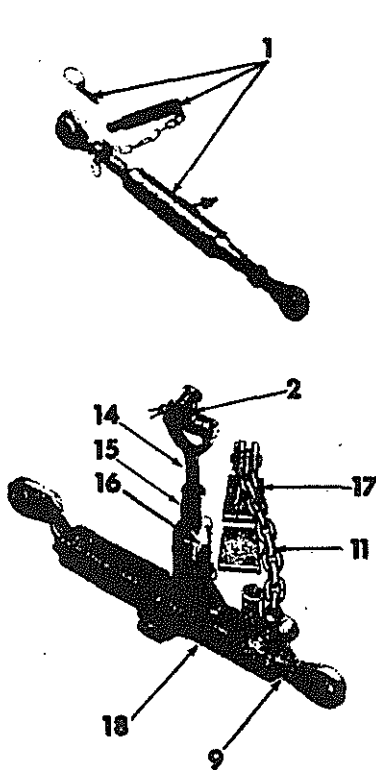


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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THREE POINT HITCH (Inside Check Chain)

THREE POINT HITCH (Inside Check Chain) - Continued



H 1478  
H 1480

NOTE: Applicable only to tractors w/38" or 68" gauge width and/or forward track frame position, also for tractors equipped with Bullgraders or Loaders)

1	704 176 R94	LINK, telescoping (Refer to "TELESCOPING TOP LINK")
2	635 433 R2 3044 309 R1 3069 069 R1 520 175 R1 103 407	SWIVEL, levelling & lift rod (2) Special headed PIN (3) Special headed PIN Q. A. c-PIN (2) 3/16 x 1" c-PIN (2)
3	676 126 R91	ROD, levelling lift (Refer to "LEVELLING LIFT ROD")
4	370 290 R1	RING, latch pin retaining (2)
5	374 121 R1	WASHER, latch handle (2)
6	127 830 H	SPRING, latch (2)
7	374 282 R1	PIN, latch (2)
8	676 131 R91	LINK, lower RH front
9	374 122 R11 517 758 R91 11 484 R 380 583 R1 380 584 R1	LINK, lower rear (2) Implement c-PIN (4) Long SPACER (2) Lower link short BUSHING (2) Lower link long BUSHING (2)

10	H 2 808 520 175 R1	PIN, 5/8 x 2" std-hd-dld (4) Q. A. c-PIN (4)
11	676 459 R91	CHAIN, check (2)
12	676 462 R1	BLOCK, chain anchor (2)
13	676 461 R91 179 893 102 637 103 323	BRACKET ASSEMBLY, chain anchor RH 1/2 x 3" Type 2 BOLT (3) 1/2" NUT (3) 1/2" 1k-WASHER (3)
14	676 129 R11	ROD, lift
15	676 205 R1 676 207 R1 103 407	YOKE, lift rod Yoke PIN 3/16 x 1" c-PIN
16	374 283 R1 544 855 R1 520 175 R1	BLOCK, lift rod float Float block yoke PIN Q.A. c-PIN
17	676 460 R91 179 893 102 637 103 323	BRACKET ASSEMBLY, chain anchor LH 1/2 x 3" Type 2 BOLT (3) 1/2" NUT (3) 1/2" 1k-WASHER (3)
18	676 130 R91	LINK, lower LH front



Three Point Hitch

**CRAWLER TRACTORS**

SECTION A  
TC-203A

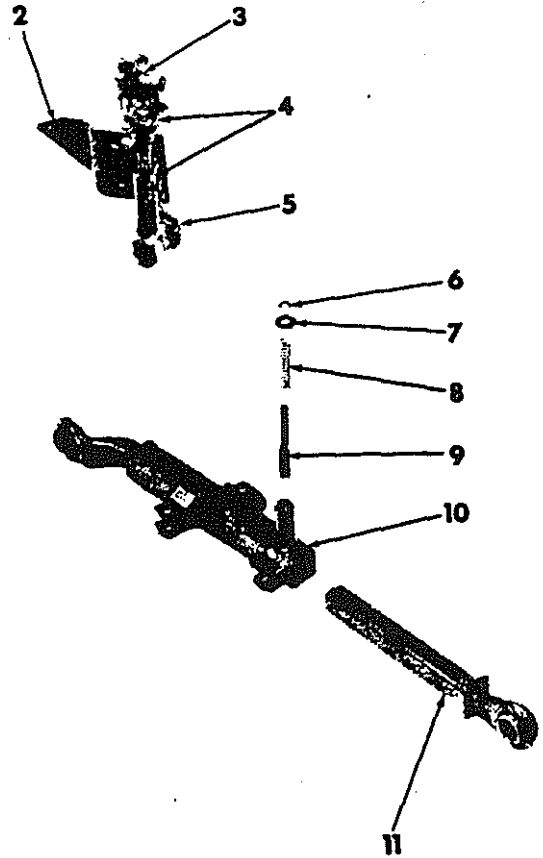
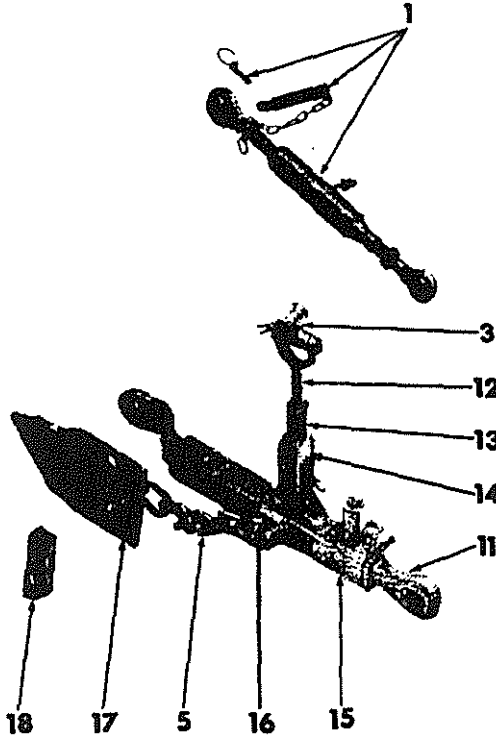


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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THREE POINT HITCH (Outside Check Chain)

THREE POINT HITCH (Outside Check Chain) - Continued



H 1478  
H 1480

NOTE: Applicable only to tractors w/48" gauge width and standard frame position, not for tractors equipped w/Bullgraders or Loaders.

1	704 176 R94	LINK, telescoping (Refer to "TELESCOPING TOP LINK")
2	635 510 R2 179 884 189 787 102 637 103 323	BRACKET, check chain (RH) 1/2 x 1-3/4" Type 2 BOLT 1/2 x 5-1/4" Type 2 BOLT (2) 1/2" NUT (2) 1/2" lk-WASHER (3)
3	635 433 R2 3044 309 R1 3069 069 R1 520 175 R1 103 407	SWIVEL, levelling & lift rod (2) Special headed PIN (3) Special headed PIN Q. A. c-PIN (2) 3/16 x 1" c-PIN (2)
4	676 126 R91	ROD, levelling lift (Refer to "LEVELLING LIFT ROD")
5	676 132 R91 427 637 23 471 S 557 270 143 222	CHAIN, check (2) 3/4" set NUT (2) 25/32 x 1-1/2 x 7 ga WASHER (2) 29/32 x 1-1/4 x 11 ga WASHER (2) 7/64 x 1-1/2" c-PIN (2)
6	370 290 R1	RING, latch pin retaining (2)
7	374 121 R1	WASHER, latch handle (2)
8	127 830 H	SPRING, latch (2)

9	374 282 R1	PIN, latch (2)
10	676 131 R91	LINK, lower RH front
11	374 122 R11 517 758 R91 11 484 R 380 583 R1 380 584 R1	LINK, lower rear (2) Implement c-PIN (4) Long SPACER (2) Lower link short BUSHING (2) Lower link long BUSHING (2)
12	676 129 R11	ROD, lift
13	676 205 R1 676 207 R1 103 407	YOKE, lift rod Yoke PIN 3/16 x 1" c-PIN
14	374 283 R1 522 855 R1 520 175 R1	BLOCK, lift rod float Float block yoke PIN Q. A. c-PIN
15	676 130 R91	LINK, lower LH front
16	H 2 808 103 407	PIN, 5/8 x 2" std-hd-dld (check chain) (2) 3/16 x 1-1/4" c-PIN (2)
17	635 509 R2 179 884 179 787 102 637 103 323	BRACKET, check chain (LH) 1/2 x 1-3/4" Type 2 BOLT 1/2 x 5-1/4" Type 2 BOLT (2) 1/2" NUT (2) 1/2" lk-WASHER (3)
18	635 511 R2	SPACER, check chain bracket (2)



**CRAWLER TRACTORS**

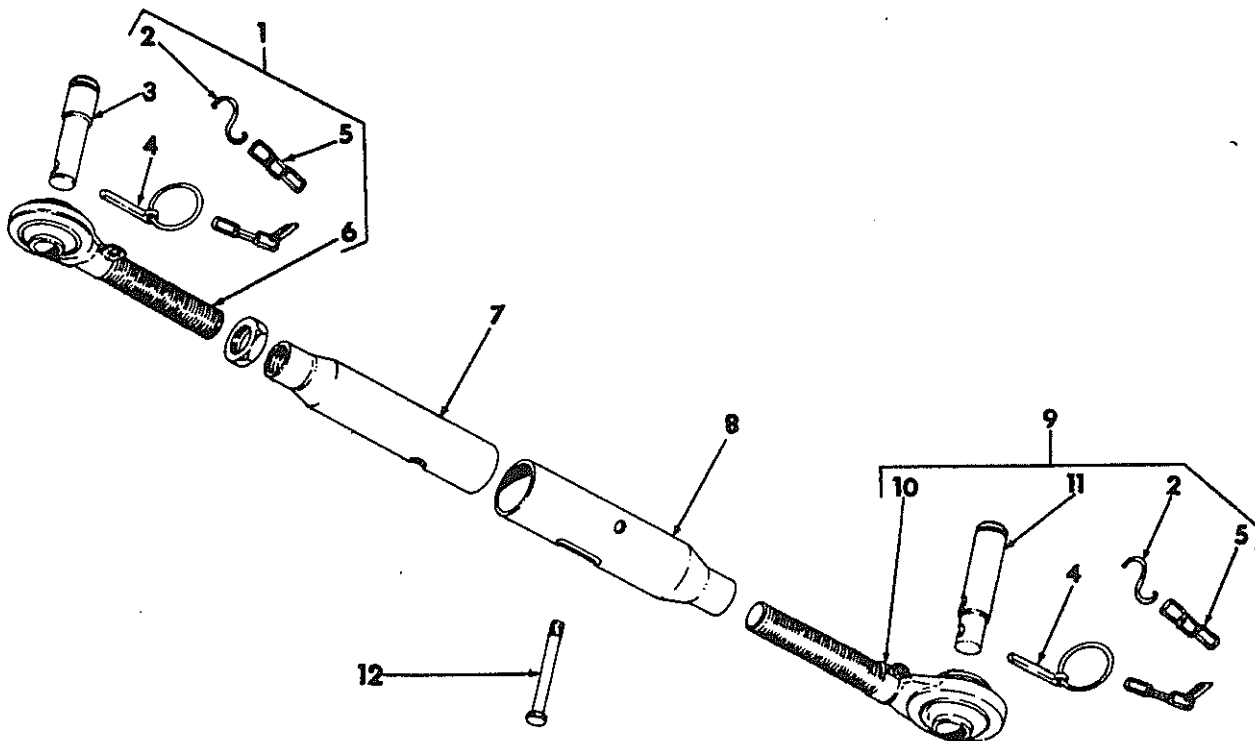


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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TELESCOPING TOP LINK

TELESCOPING TOP LINK - Continued



HE 304

704 176 R94	LINK, telescoping (composed of all parts listed below)	7	704 180 R1	LINK, telescoping top half bottom
1	709 307 R92 EYEBOLT, top link composed of:	8	704 179 R1	LINK, telescoping top half top
	1 Eyebolt 704 178 R21	9	709 308 R92 EYEBOLT, top link top composed of:	
	1 Pin 704 183 R1		1 Eyebolt 704 177 R21	
	1 Chain 704 184 R93		1 Pin 704 182 R1	
	1 Hook 704 185 R1		1 Chain 704 184 R93	
	1 Cotter 517 758 R91		1 Hook 704 185 R1	
2	704 185 R1 HOOK, top link pin (2)		1 Cotter 517 758 R91	
3	704 183 R1 PIN, top link bottom	10	704 177 R21 EYEBOLT, top link top	
4	517 785 R91 PIN, implement cotter (2)	11	704 182 R1 PIN, top link top	
5	704 184 R93 CHAIN, link pin retaining	12	19 952 R1 BOLT, top link adjusting (1/2 x 7" Type 2 cd-pltd)	
6	704 178 R21 EYEBOLT, top link bottom		120 378 1/2" cd-pltd NUT (2)	
	426 899 1" cd-pltd jam NUT			



Three Point Hitch

# CRAWLER TRACTORS

SECTION A  
TC-203 A



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION

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**CRAWLER TRACTORS**

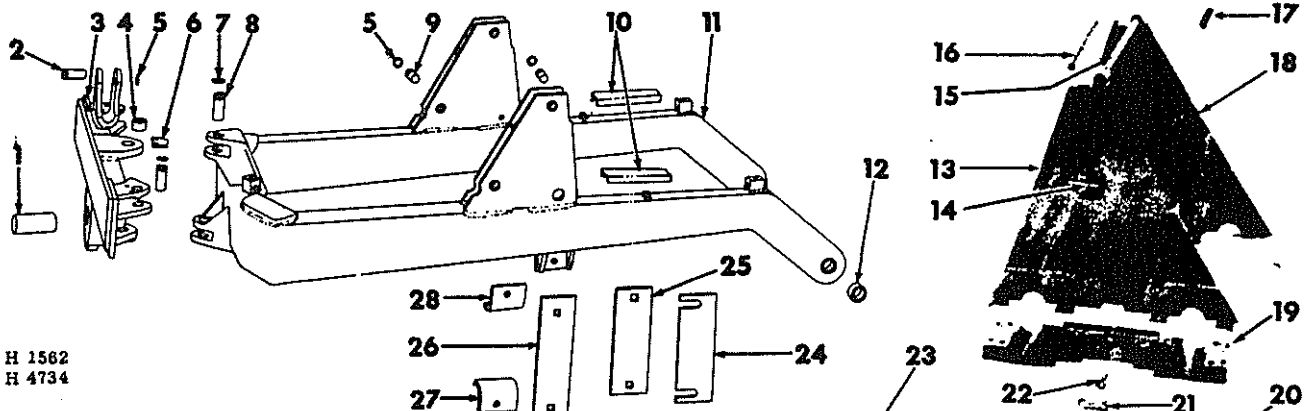


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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ANGLING "C" AND LIFT FRAME

ANGLING "C" AND LIFT FRAME - Continued



H 1562  
H 4734

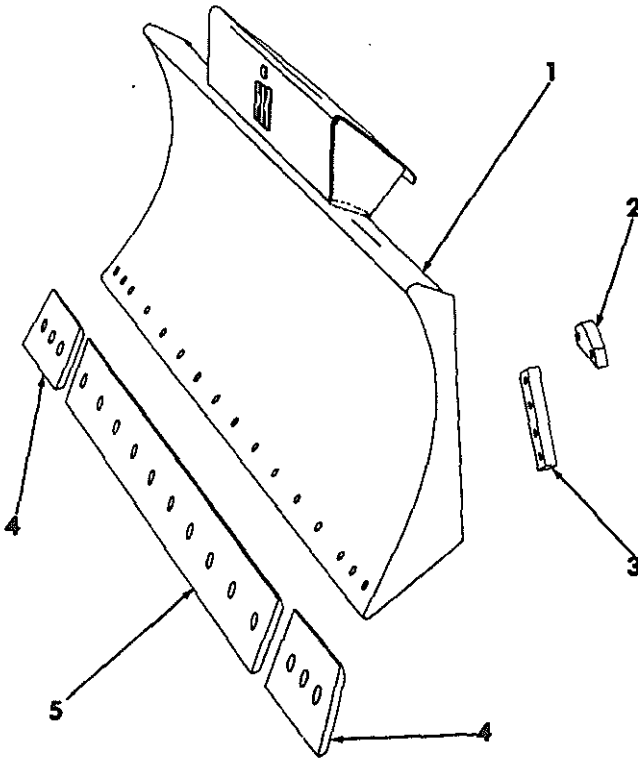
1	308 916 R1	PIN, bullgrader blade main
2	637 883 R1	PIN, tilting hyd cyl (2)
	152 450 R1	Pin retaining RING (3)
2	637 883 R1	PIN, angling hyd cyl (2)
	152 450	Pin retaining RING (4)
3	637 776 R91	FRAME w/BUSHINGS, angling
4	308 611 R1	BUSHING, angling frame (2)
5	152 450 R1	RING, cyl pins retaining (16)
6	637 885 R1	PLATE, lift cyl rear retaining pin
	179 840	3/8 x 1-1/8" Type 2 BOLT (2)
	127 507 H	13/32 x 7/8 x 7 ga WASHER (4)
	103 321	3/8" 1k-WASHER (2)
7	69 339 R1	RING, angling pin retaining (4)
8	637 775 R1	PIN, angling frame (2)
	69 339 R1	Pin retaining RING (4)
9	637 777 R1	PIN, front lifting & rear angling hyd cyl (4)
	152 450 R1	Pin retaining RING (8)
10	676 493 R1	CHANNEL, hyd hose guard (2)
11	637 778 R92	FRAME w/BUSHINGS, blade "C"
12	637 882 R1	BUSHING, "C" frame pivot (2)
13	675 964 R91	FRAME, blade lift LH (1965-1966)
	631 558 R1	1/2 x 1-1/4" Type 4 BOLT (2)
	20 167 R1	1/2 - NF x 3" Type 4 BOLT (6)
	102 637	1/2" NUT (2)
	103 028	1/2" - NF NUT (6)
	103 323	1/2" 1k-WASHER (8)
13	676 289 R93	FRAME, blade lift LH (1966 and Since)
	20 659 R1	5/8 x 1-1/4" Type 4 BOLT (2)
	223 441	5/8 x 3-1/4" Type 4 BOLT (6)
	19 724 R1	5/8" NUT (8)
14	676 432 R2	ANGLE, fender support (2)
15	675 972 R1	ROD, lift frame cross tie
	220 083	1" NUT (2)
16	675 973 R2	PIPE, lift frame cross tie
17	637 814 R1	PIN, lift hyd cyl rear (2)
	152 450 R1	Pin retaining RING (4)
	N 42 395	1-9/32 x 1-3/4 x 12 ga WASHER (2)
18	675 965 R91	FRAME, blade lift RH (1965-1966)
	631 558 R1	1/2 x 1-1/4" Type 4 BOLT (2)
	20 167 R1	1/2 - NF x 3" Type 4 BOLT (6)
	102 637	1/2" NUT (2)
	103 028	1/2" - NF NUT (6)
	103 323	1/2" 1k-WASHER (8)

18	676 290 R93	FRAME, blade lift RH (1966 and Since)
	20 659 R1	5/8 x 1-1/4" Type 4 BOLT (2)
	223 441	5/8 x 3-1/4" Type 4 BOLT (6)
	19 724 R1	5/8" NUT (8)
19	637 815 R91	TRUNNION, lift frame (2) (Not w/Backhoe)
		(1965-1966)
19	676 286 R91	TRUNNION, lift frame (2) (Not w/Backhoe)
		(1966 and Since)
	20 727 R1	5/8 x 3" Type 4 BOLT (8)
	375 624 R1	5/8 x 3-3/4" Type 4 BOLT (8)
	19 724 R1	5/8" NUT (8)
20	676 243 R91	TRUNNION, lift frame (2) (w/Backhoe)
	20 727 R1	5/8 x 3" Type 4 BOLT (8)
	375 624 R1	5/8 x 3-3/4" Type 4 BOLT (8)
	19 724 R1	5/8" NUT (8)
21	637 830 R1	PLATE, trunnion pin retaining (2)
	179 838	3/8 x 7/8" Type 2 BOLT (4)
	103 321	3/8" 1k-WASHER (4)
22	637 813 R1	PIN, frame trunnion (2)
23	482 100 R91	TRUNNION, lift frame RH shown
23	482 099 R91	TRUNNION, lift frame LH (10 Bullgrader
		w/Scarifier)
	20 727 R1	5/8 x 3" Type 4 BOLT (8)
	375 624 R1	5/8 x 3-3/4" Type 4 BOLT (8)
	19 724 R1	5/8" NUT (8)
24	637 812 R1	SHIM, rub plate wear (as req'd)
25	637 278 R1	PLATE, frame channel rub (2)
	15 598 R1	3/8 x 1-3/4" No. 3 plow BOLT (4)
	102 635	3/8" NUT (4)
	103 321	3/8" 1k-WASHER (4)
26	637 806 R1	PLATE, "C" frame rub (2)
	15 601 R1	5/8 x 1-3/4" No. 3 plow BOLT (4)
	102 639	5/8" NUT (4)
27	638 280 R1	BRACKET, rub plate lower LH shown
	179 866	7/16 x 2" Type 2 BOLT (2)
	271 500	7/16" NUT (2)
	103 322	7/16" 1k-WASHER (2)
27	638 279 R1	BRACKET, rub plate lower RH
	179 868	7/16 x 2-1/2" Type 2 BOLT (2)
	271 500	7/16" NUT (2)
	103 322	7/16" 1k-WASHER (2)
28	638 279 R1	BRACKET, rub plate upper LH shown
28	638 280 R1	BRACKET, rub plate upper RH
	179 864	7/16 x 1-3/4" Type 2 BOLT (4)
	271 500	7/16" NUT (4)
	103 322	7/16" 1k-WASHER (4)



REF. NO.	PART NUMBER	DESCRIPTION
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BULLGRADER BLADE

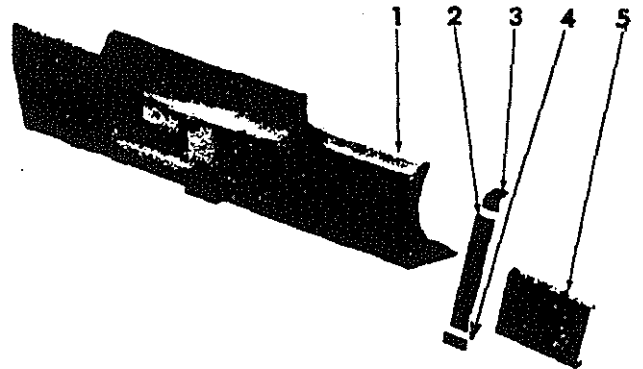


H 4728

1	676 263 R91	BLADE, bullgrader (includes 676 275 R1, ANGLE & 676 276 R1, CHANNEL)
2	308 957 R1 271 612	PLATE, blade bottom beam 3/4 x 2-1/4" Type 2 BOLT (3)
3	308 920 R1 271 562	PLATE, side channel (2) 5/8 x 2" Type 2 BOLT (8)
4	308 968 R1 308 969 R1 292 845 R1 220 081	BIT, blade end LH BIT, blade end RH 3/4 x 2" No. 3 plow BOLT (6) 3/4" NUT (6)
5	298 829 R1 292 845 R1 220 081	EDGE, blade cutting 3/4 x 2" No. 3 plow BOLT (10) 3/4" NUT (10)

REF. NO.	PART NUMBER	DESCRIPTION
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BLADE COUNTERWEIGHT

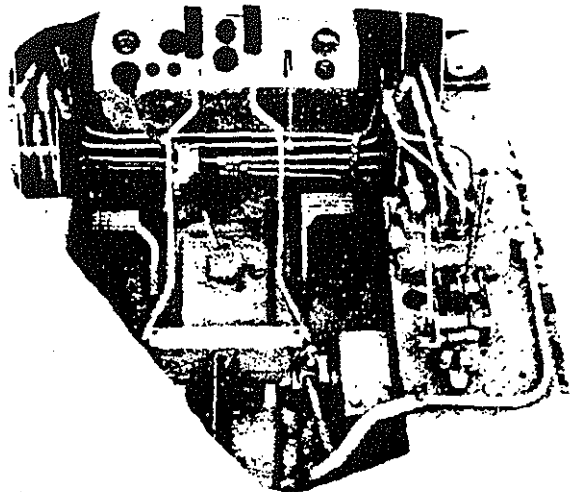


H 1581

NOTE: For application to Blade when tractor equipped w/BACKHOE

1		BLADE, bullgrader (for component parts refer to "BULLGRADER BLADE")
2	676 269 R1 179 885 102 637 103 323	BAR, counterweight retaining (2) 1/2 x 1-1/2" Type 2 BOLT (2) 1/2" NUT (2) 1/2" lk-WASHER (2)
3	676 275 R1	ANGLE, counterweight retaining (2)(Welded to rear of blade)
4	676 276 R1	CHANNEL, counterweight retaining (2) (Welded to rear of blade)
5	676 272 R1	PLATE, front counterweight (2)

10 BULLGRADER BLADE HYDRAULICS



H 1430

NOTE: Above view illustrates hyd controls, valves & pipe required to operate the 10 Blade mounted on the 500 INTERNATIONAL Crawler Tractor. Refer to Hydraulic section for service parts.

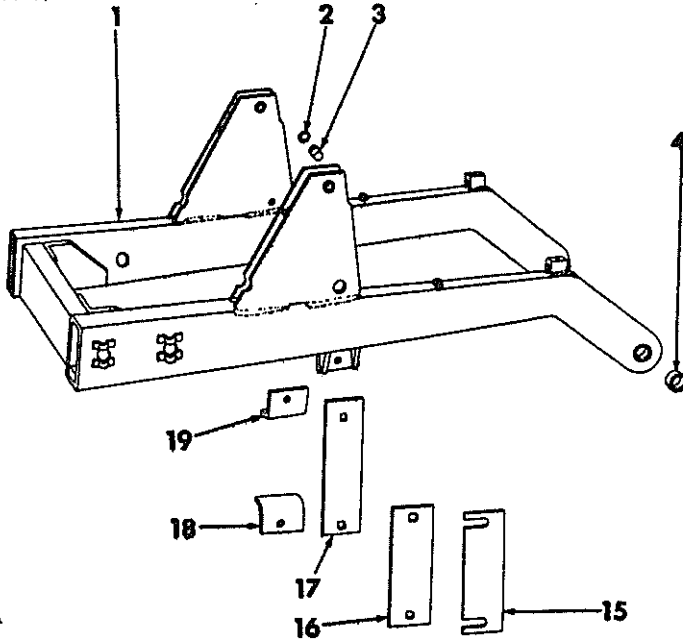
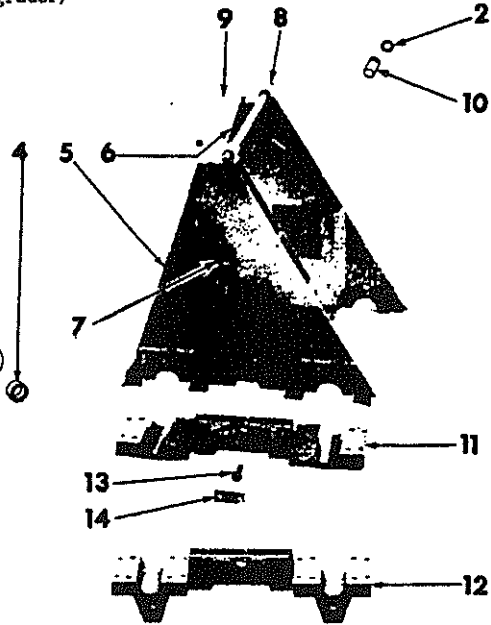


## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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"C" & LIFT FRAME  
(11 Bullgrader)H 1562  
H 4734 A"C" & LIFT FRAME - Continued  
(11 Bullgrader)

1	637 960 R91	FRAME, blade "C" (Includes 637 882 R1, BUSHINGS)	11	637 815 R91	TRUNNION, lift frame (2) (Not w/Backhoe) (1965-1966)
2	152 450 R1	RING, hyd cyl retaining (8)	11	676 286 R91	TRUNNION, lift frame (2) (Not w/Backhoe) (1966 and Since)
3	637 777 R1	PIN, hyd cyl front retaining (2)		20 727 R1	5/8 x 3" Type 4 BOLT (8)
	152 450 R1	Pin retaining RING (4)		375 624 R1	5/8 x 3-3/4" Type 4 BOLT (8)
				19 724 R1	5/8" NUT (8)
4	637 882 R1	BUSHING, "C" frame pivot (2)	12	676 243 R91	TRUNNION, lift frame (2) (w/Backhoe)
5	675 964 R91	FRAME, blade lift LH (1965-1966)		20 727 R1	5/8 x 3" Type 4 BOLT (8)
	631 558 R1	1/2 x 1-1/4" Type 4 BOLT (2)		375 624 R1	5/8 x 3-3/4" Type 4 BOLT (8)
	20 167 R1	1/2 - NF x 3" Type 4 BOLT (6)		19 724 R1	5/8" NUT (8)
	102 637	1/2" NUT (2)	13	637 813 R1	PIN, "C" frame trunnion (2)
	103 028	1/2" - NF NUT (6)	14	637 830 R1	PLATE, trunnion pin retaining (2)
	103 323	1/2" 1k-WASHER (8)		179 838	3/8 x 7/8" Type 2 BOLT (4)
5	676 289 R93	FRAME, blade lift LH (1966 and Since)		103 321	3/8" 1k-WASHER (4)
	20 659 R1	5/8 x 1-1/4" Type 4 BOLT (2)	15	637 812 R1	SHIM, rub plate wear (as req'd)
	223 441	5/8 x 3-1/4" Type 4 BOLT (6)	16	638 278 R1	PLATE, frame channel rub (2)
	19 724 R1	5/8" NUT (8)		15 598 R1	3/8 x 1-3/4" No. 3 plow BOLT (4)
6	675 965 R91	FRAME, blade lift RH (1965-1966)		102 635	3/8" NUT (4)
	631 558 R1	1/2 x 1-1/4" Type 4 BOLT (2)		103 321	3/8" 1k-WASHER (4)
	20 167 R1	1/2 - NF x 3" Type 4 BOLT (6)	17	637 806 R1	PLATE, "C" frame rub (2)
	102 637	1/2" NUT (2)		15 601 R1	5/8 x 1-3/4" No. 3 plow BOLT (4)
	103 028	1/2" - NF NUT (6)		102 639	5/8" NUT (4)
	103 323	1/2" 1k-WASHER (8)	18	638 280 R1	BRACKET, rub plate lower LH shown
6	676 290 R93	FRAME, blade lift RH (1966 and Since)		179 866	7/16 x 2" Type 2 BOLT (2)
	20 659 R1	5/8 x 1-1/4" Type 4 BOLT (2)		271 500	7/16" NUT (2)
	223 441	5/8 x 3-1/4" Type 4 BOLT (6)		103 322	7/16" 1k-WASHER (2)
	19 724 R1	5/8" NUT (8)	18	638 279 R1	BRACKET, rub plate lower RH
7	676 432 R1	ANGLE, fender support (2)		179 868	7/16 x 2-1/2" Type 2 BOLT (2)
8	675 972 R1	ROD, lift frame cross tie		271 500	7/16" NUT (2)
	220 083	1" NUT (2)		103 322	7/16" 1k-WASHER (2)
9	675 873 R2	PIPE, lift frame cross tie	19	638 279 R1	BRACKET, rub plate upper LH shown
10	637 814 R1	PIN, hyd cyl rear retaining (2)	19	638 280 R1	BRACKET, rub plate upper RH
	152 450 R1	Pin retaining RING (4)		179 864	7/16 x 1-3/4" Type 2 BOLT (4)
	N 42 395	1-9/32 x 1-3/4 x 12_ga WASHER (2)		271 500	7/16" NUT (4)
				103 322	7/16" 1k-WASHER (4)

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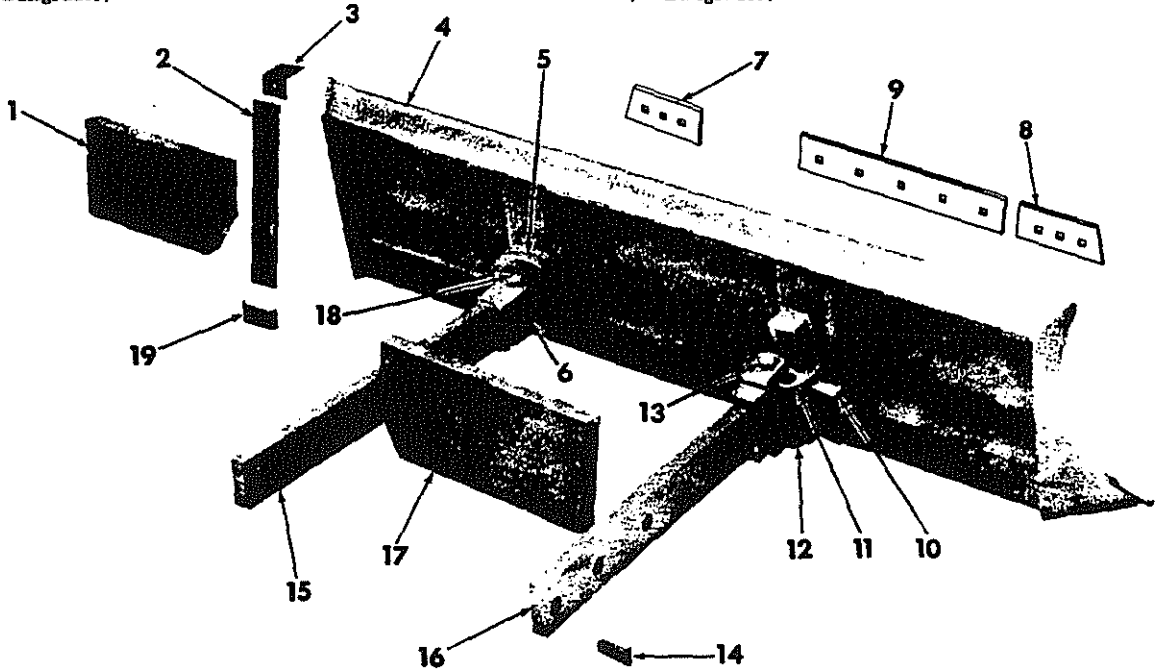
**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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**BULLGRADER BLADE**  
(11 Bullgrader)

**BULLGRADER BLADE - Continued**  
(11 Bullgrader)



H 1580  
H 1561

NOTE: Blade counterweights are for application to Blade when tractor equipped w/BACKHOE.

1	676 274 R1	PLATE, front counterweight outer (2)	11	637 948 R1	BLOCK, angling side upper
2	676 269 R1 179 885 102 637 103 323	BAR, counterweight retaining (3) 1/2 x 1-1/2" Type 2 BOLT (2) 1/2" NUT (2) 1/2" 1k-WASHER (2)	12	637 989 R1	BLOCK, angling side lower
3	676 275 R1	ANGLE, counterweight retaining (3)	13	637 949 R1 108 658	PIN, angling slide block 5/16 x 2-1/2" c-PIN
4	676 264 R91	BLADE, bullgrader (Includes 676 275 R1, ANGLE; 676 276 R1, CHANNEL; 292 841 R2, RING & 292 836 R92, SWIVEL)	14	637 968 R11 179 096	PIN, side bar retaining (4) 5/16 x 4" c-PIN (4)
5	292 841 R2	RING, swivel retaining (welded)	15	637 953 R11	BAR, angling side LH
6	292 836 R92 294 938 R1	SWIVEL w/BUSHING Swivel BUSHING	16	637 954 R11	BAR, angling slide RH
7	308 968 R1 292 845 R1 220 081	BIT, blade end LH 3/4 x 2" No. 3 plow BOLT (3) 3/4" NUT (3)	17	676 273 R1	PLATE, front counterweight inner
8	308 969 R1 292 845 R1 220 081	BIT, blade end RH 3/4 x 2" No. 3 plow BOLT (3) 3/4" NUT (3)	18	637 959 R1 108 658	PIN, cross head swivel 5/16 x 2-1/2" c-PIN
9	298 829 R1 292 845 R1 220 081	EDGE, blade cutting 3/4 x 2" No. 3 plow BOLT (10) 3/8" NUT (10)	19	676 276 R1	CHANNEL, counterweight retaining (3)
10	637 958 R1 103 424	WEDGE, slide block (2) 1/4 x 2-1/2" c-PIN (2)			

\* Not Serviced Separately

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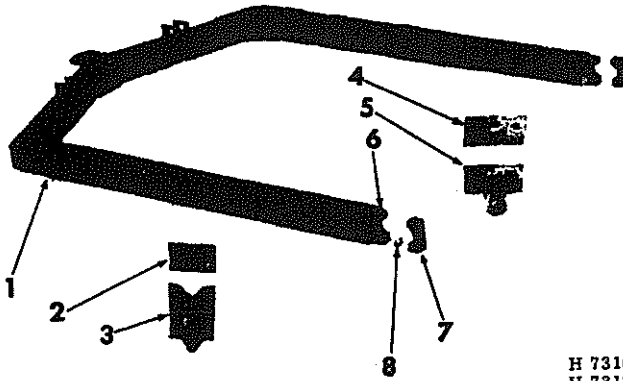




## CRAWLER TRACTORS

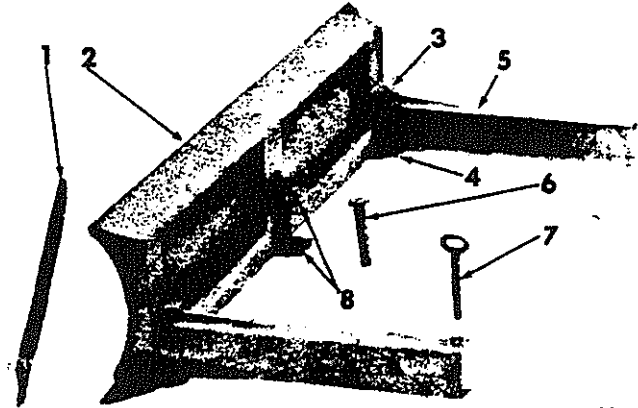


REF. NO.	PART NUMBER	DESCRIPTION
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BLADE LIFT "C" FRAME  
(5G2 Bullgrader)H 7310  
H 7312

1	637 151 R91	"C" FRAME, blade lift (Includes 638 352 R1, BRGS; 223 444, BOLTS; 638 351 R1, CAPS & 638 353 R1, SHIMS)
2	637 163 R11	SUPPORT, rub plate (2) (welded)
3	637 165 R1 271 554 271 556	PLATE, "C" frame rub (2) 5/8 x 1" Type 2 BOLT (4) 5/8 x 1-1/4" Type 2 BOLT (4)
4	637 177 R11	SUPPORT, trunnion (2) (welded)
5	637 173 R91 271 609	TRUNNION, "C" frame pivot (2) 3/4 x 1-3/4" Type 2 BOLT (8)
6	638 352 R1	BEARING, frame trunnion (2) (welded)
7	638 351 R1 223 444	CAP, trunnion brg (2) 5/8 x 4" Type 4 BOLT (4)
8	638 353 R1	SHIM, trunnion brg cap (12)

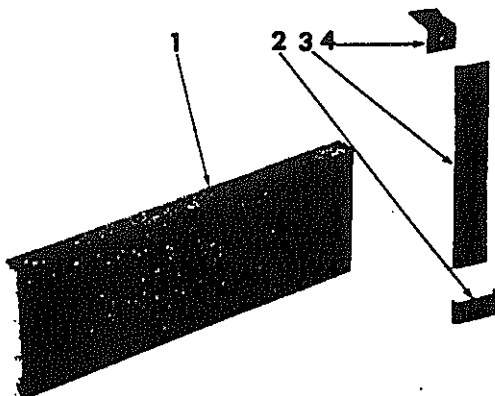
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BLADE AND PUSH ARM  
(5G2 Bullgrader)

H 7311

1	638 348 R1 15 601 R1 102 639	EDGE, blade cutting (2) 5/8 x 1-3/4" No.3 plow BOLT (12) 5/8" NUT (12)
2	637 137 R92	BLADE, bullgrader (Includes 676 267 R1, ANGLES; 637 150 R1, BLOCKS; 637 147 R1 & 637 148 R1, BRACKETS & 676 268 R1, CHANNELS)
3	637 147 R1	BRACKET, arm pivot upr (2) (welded)
4	637 148 R1	BRACKET, arm pivot lower (2) (welded)
5	637 166 R11	ARM, blade push (2) (for service also order 1 - 637 147 R1, upper BRACKET)
6	637 170 R91	PIN, push arm (2)
7	637 154 R1 119 202	PIN, blade "C" frame pivot 3/8 x 2-1/4" c-PIN
8	637 150 R1	BLOCK, "C" frame blade pivot (2) (welded)

## BLADE COUNTERWEIGHT



H 1582

## BLADE COUNTERWEIGHT - Continued

NOTE: When 5G2 Bullgrader Blade is used on tractor equipped w/BACKHOE

1	676 266 R1	PLATE, front counterweight (2)
2	676 268 R1	CHANNEL, counterweight retaining (4) (welded to blade)
3	676 269 R1 179 885 102 637 103 323	BAR, counterweight retaining (4) 1/2 x 1-1/2" Type 2 BOLT (4) 1/2" NUT (4) 1/2" lk-WASHER (4)
4	676 267 R1	ANGLE, counterweight retaining (4) (welded to blade)

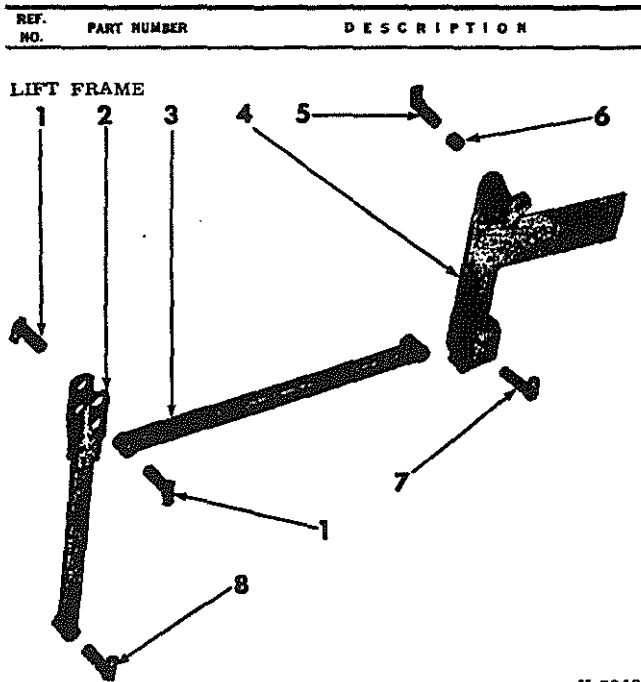
\* Not Serviced Separately

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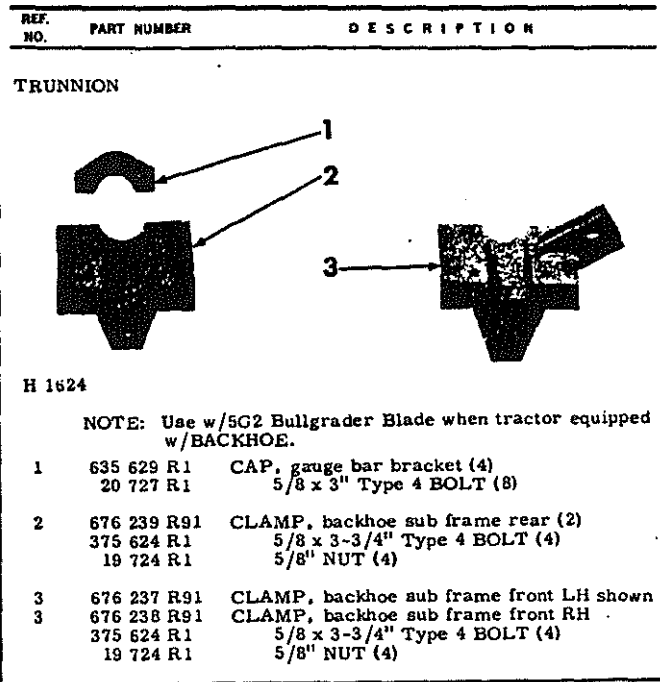
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## CRAWLER TRACTORS



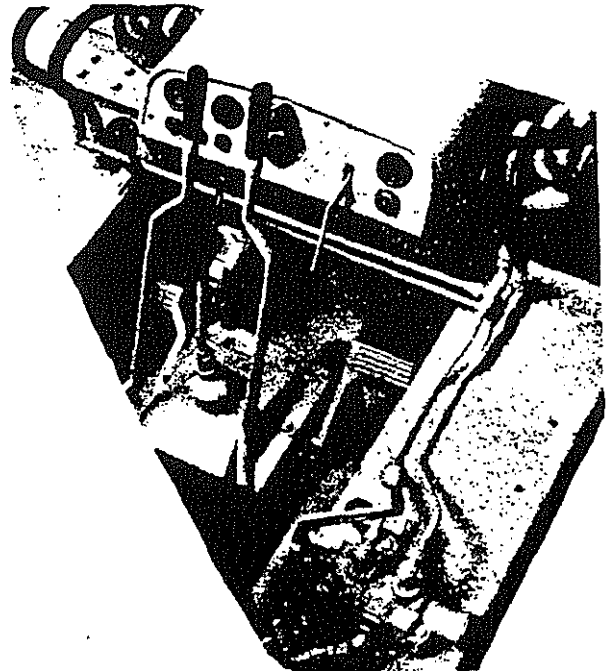
H 7313



H 1624

NOTE: Use w/5G2 Bullgrader Blade when tractor equipped w/BACKHOE.

## 5G2 BULLGRADER HYDRAULICS



H 1408

NOTE: Above view illustrates the one-spool hyd control valve and hyd pipes &amp; lines, mounted on the 500 INTERNATIONAL Crawler Tractor equipped with 5G2 Bullgrader Blade. If additional equipment is to be operated from the tractor hydraulics, it will be necessary to change the control valve to a two-spool valve. The Hydraulic System can be operated from a 9 GPM (Gas), a 10 GPM (Diesel) and a 12 GPM (Diesel or Gas) Hydraulic Pump.

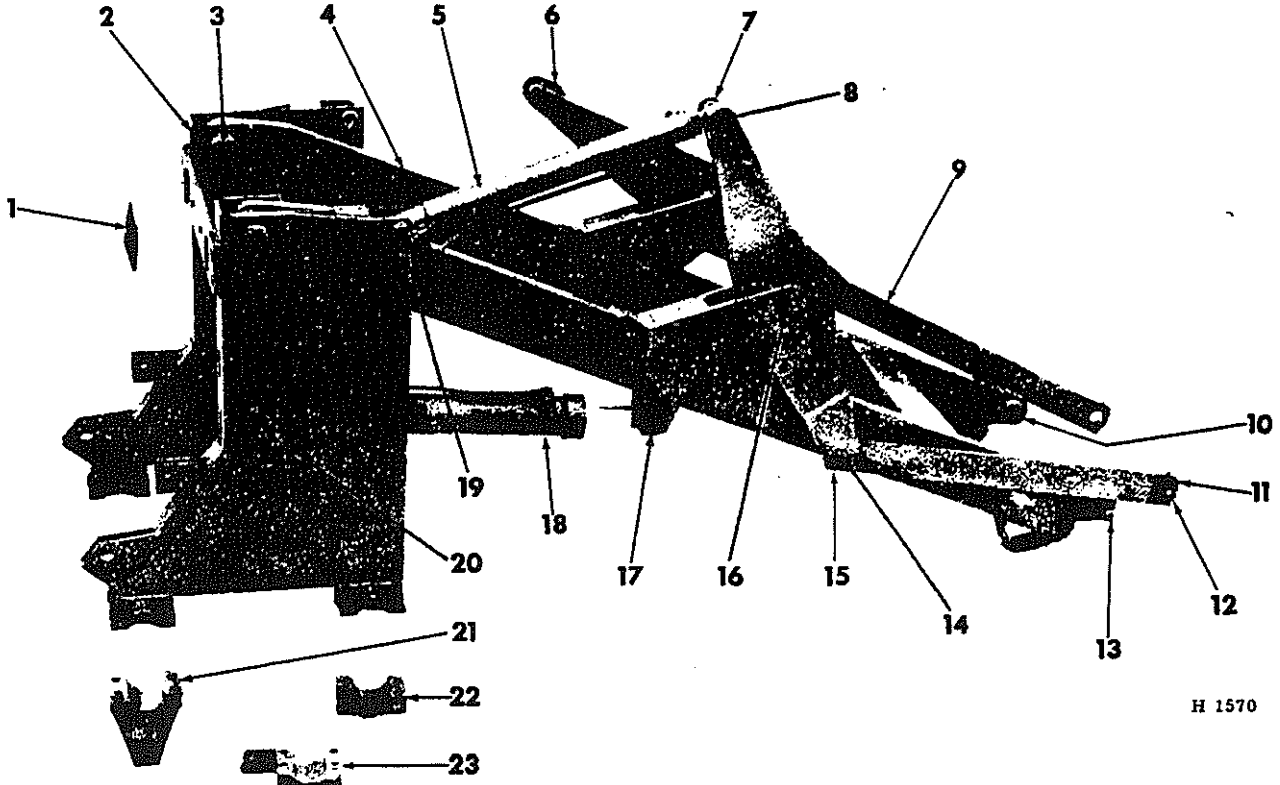


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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**SUBFRAME AND BOOM**  
(L.H. Loader)

**SUBFRAME AND BOOM**  
(L.H. Loader) - Continued



H 1570

NOTE A - Material bucket & Drott 4-in-1 clam bucket  
NOTE B - Drott log grapple & Drott angle dozer blade

1	675 868 R1 126 032	BAR, subframe safety 3/8" cd-pltd wing NUT (2)
2	675 853 R92 223 441	SUBFRAME, loader 5/8 x 3-1/4" Type 2 BOLT w/NUT (16)
3	675 869 R1 468 280 R1 391 746 R1 473 748 R1 103 407	SHAFT, boom pivot (2) Boom pivot BUSH. (4) Shaft shim WASH. (as req'd) 1/2 x 2-7/16" std-hd dld special PIN (2) 3/16 x 1" c-PIN (2)
4	481 145 R91  109 461 468 280 R1 479 049 R1	BOOM, (NOTE A) (includes 468 280 R1 & 479 049 R1, BUSHINGS & 109 461, FITTINGS) 1/8" lub-FTG (2) Boom pivot BUSH. (4) Boom bucket BUSH. (4)
4	481 410 R91  109 461 468 280 R1 478 747 R1	BOOM, (NOTE B) (includes 468 280 R1 & 478 747 R1, BUSHINGS & 109 461, FITTINGS) 1/8" lub-FTG (2) Boom pivot BUSH. (4) Boom grapple or blade BUSH. (4)
5	389 044 R91	CYLINDER, tilt hyd (2) (for component parts refer to "TILTING HYDRAULIC CYLINDER" in the hyd section)

6	479 759 R91 481 395 R91 479 758 R1 109 461	LEVER, tilt LH (Note A) LEVER, tilt LH (Note B) Lever BUSHING 1/8" lub-FITTING
7	479 760 R91 481 396 R91 478 758 R1 109 461	LEVER, tilt RH (Note A) LEVER, tilt RH (Note B) Lever BUSHING 1/8" lub-FITTING
8	479 745 R1 479 762 R1 602 032 R1 103 384	SHAFT, hyd cyl front tilt (2) Shaft shim WASH. (as req'd) 3/8 x 2-7/16" std-hd-dld cd-pltd PIN (2) 1/8 x 3/4" c-PIN (2)
9	485 700 R91 485 702 R91 479 061 R1 478 746 R1 110 146	LINK ASSEMBLY (LH) (Note A) LINK ASSEMBLY (LH) (Note B) Link BUSHING (2) (Note A) (Note B) Link BUSHING (Note B) 1/4" lub-FITTING (4)
10	479 049 R1 478 747 R1	BUSHING, boom pivot (4) (Note A) BUSHING, boom pivot (4) (Note B)
11	485 701 R91 485 703 R91 479 061 R1 478 746 R1 110 146	LINK ASSEMBLY (RH) (Note A) LINK ASSEMBLY (RH) (Note B) Link BUSHING (2) (Note A) (Note B) Link BUSHING (Note B) 1/4" lub-FITTING (4)
12	479 067 R1 478 749 R1 478 043 R1 12 235 R1	SHAFT, tilt link front (2) (Note A) SHAFT, tilt link front (2) (Note B) Shaft lk-PIN (2) 1/8 x 5/8" cd-pltd c-PIN (2)

\* Not Serviced Separately

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## CRAWLER TRACTORS

REF. NO.	PART NUMBER	DESCRIPTION
SUB FRAME AND BOOM - Continued (IH Loader)		
13	473 811 R1	SHAFT, pivot (2) (Note A)
13	478 748 R1	SHAFT, pivot (2) (Note B)
	109 461	1/8" lub-FITTING (2)
	478 043 R1	Shaft lk-PIN (2)
	12 235 R1	1/8 x 5/8" cd-pltd c-PIN (2)
14	479 065 R1	SHAFT, tilt link rear (2)
	479 054 R1	Shaft shim WASHER (as req'd)
	457 424 R1	Shaft lk-PIN (2)
	103 384	1/8 x 3/4" c-PIN (2)
15	478 750 R1	BAR, tilt link rear shaft retaining (Note B)
	9410 281	1/2" - 90° swivel ELBOW
16	481 146 R1	SHAFT, tilt lever pivot (2)
	479 747 R1	Shaft shim WASHER (as req'd)
	479 748 R1	Shaft lk-PIN (2)
	103 407	3/16 x 1" c-PIN (2)
17	479 750 R1	SHAFT, hyd cyl front lift (2)
	391 746 R1	Shaft shim WASHER (as req'd)
	479 749 R1	Shaft lk-PIN (2)
	103 384	1/8 x 1" c-PIN (2)
18	392 745 R92	CYLINDER, boom lift hyd (2) (For component parts refer to "LIFTING HYDRAULIC CYLINDER" in the hyd section)
19	479 064 R1	SHAFT, hyd cyl rear tilt (2)
	479 762 R1	Shaft shim WASHER (as req'd)
	378 484 R1	Shaft lk-PIN (2)
	12 235 R1	1/8 x 5/8" cd-pltd c-PIN (2)
20	479 070 R1	SHAFT, hyd cyl rear lift (2)
	391 746 R1	Shaft shim WASHER (as req'd)
	473 748 R1	1/2 x 2-7/16" std-hd-dld special PIN (2)
	103 407	3/16 x 1" c-PIN (2)
21	676 246 R91	BRACKET, sub frame mounting (4) (Applicable only when tractor equipped w/ BACKHOE)
	223 441	5/8 x 3-1/4" Type 4 BOLT (16)
	19 724 R1	5/8" NUT (16)
22	675 854 R1	BRACKET, sub frame mounting (4) (NOT applicable when tractor equipped w/ BACKHOE)
	223 441	5/8 x 3-1/4" Type 4 BOLT (16)
	19 724 R1	5/8" NUT (16)
23	482 096 R91	BRACKET, sub frame mounting (LH)
23	482 097 R91	BRACKET, sub frame mounting (RH) (applicable only when tractor equipped with Loader w/Scarifier)(RH shown)
	223 441	5/8 x 3/4" Type 4 BOLT (16)
	19 724 R1	5/8" NUT (16)

REF. NO.	PART NUMBER	DESCRIPTION
MATERIAL BUCKET (IH Loader)		
	H 1526	
1		BUCKET, material (Includes all parts listed below) (order on Machine Order)
1		BUCKET, material (less teeth) (order on Machine Order)
2	478 444 R1	BLADE, side cutting LH (welded)
2	478 445 R1	BLADE, side cutting RH (welded)
3	473 812 R91	TOOTH, bucket scarifier (6)
	19 064 R1	1/2 x 2-1/2" cd-pltd No. 3 plow BOLT (12)
	120 378	1/2" cd-pltd NUT (12)
	468 712 R1	SPACER, bucket tooth (6)
4	473 805 R1	BLADE, front cutting (welded)
5	484 485 R1	PLATE, bucket weight (10) (for counter balancing BACKHOE)
	21 136 R1	5/8 x 6-1/4" cd-pltd BOLT (4)
	131 016	21/32 x 1-5/16 x .095" cd-pltd WASHER (4)
	124 589	5/8" cd-pltd NUT (4)
	121 574	5/8" cd-pltd lk-WASHER (4)

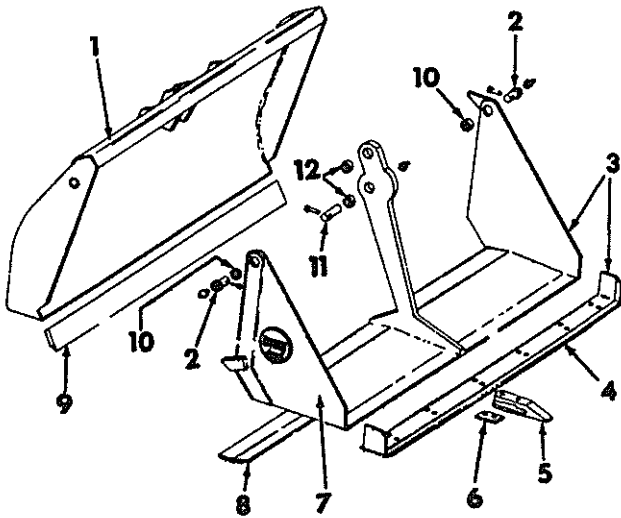


## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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## DROTT FOUR-IN-ONE BUCKET (Single Cylinder)



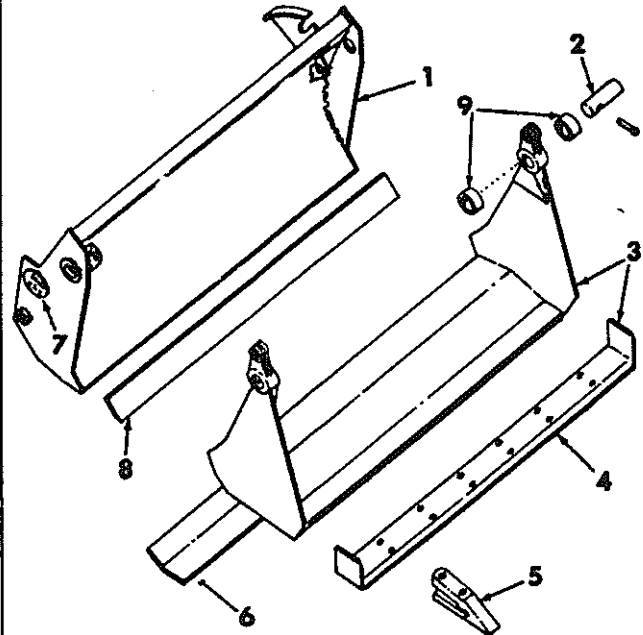
H 1506

NOTE: For U.S. service orders, the following listed parts must be ordered direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN U.S.A. For Canadian service, order parts from Burlington Parts Depot, P.O. Box 512 Burlington, Ontario.

1	53 083	BLADE, bucket
2	26 557 M1 12 031 10 778 4 626	PIN, clam hinge (2) Lub - FITTING (2) Clevis PIN (2) 1/8 x 3/4" c-PIN (2)
3	50 899	CLAM, bucket (Includes 26 402, EDGE & 64 705, PLATE)
4	26 402	EDGE, cutting
5	26 446 4 224 15 674 15 675	TOOTH, scarifier 1/2" NUT 1/4 x 2" cap SCREW 1/2 x 2-1/4" cap SCREW
6	46 902	SPACER
7	43 494	PLATE, name (2)
8	64 705	PLATE, compaction
9	200 015	EDGE, cutting
10	46 630	BUSHING, outer hinge (2)
11	27 194 M1 12 031 10 778 4 626	PIN, clam to blade Lub - FITTING Clevis PIN 1/8 x 3/4" c-PIN
12	47 197	BUSHING, inner hinge (2)

REF. NO.	PART NUMBER	DESCRIPTION
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## DROTT FOUR-IN-ONE CLAM BUCKET (Dual Cylinder)



HE 355

NOTE: For U.S. service orders, the following listed parts must be ordered direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U.S.A. For Canadian service, order parts from Burlington Parts Depot, P.O. Box 512, Burlington, Ontario.

1	57 039	BLADE, bucket
2	204 178 12 031 10 786 4 627	PIN, clam hinge (2) Lub-FITTING (2) Clevis PIN (2) 1/8 x 3/4" c-PIN (2)
3	55 253	CLAM, bucket (Includes 206 688, EDGE & 73 772, PLATE)
4	206 688	EDGE, cutting
5	26 446 4 224 15 674 15 675	TOOTH, scarifier 1/2" NUT 1/4 x 2" cap SCREW 1/2 x 2-1/4" cap SCREW
6	73 772	PLATE, compaction
7	43 494	PLATE, name (2)
8	73 641	EDGE, cutting
9	23 904	BUSHING, clam (4)



# CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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DROTT 28" PULPWOOD GRAPPLE

NOTE: For service components of the GRAPPLE and the grapple operating hyd cyl connecting hoses, refer to the applicable grapple in the DROTT Parts Catalog, and for U.S. service order the parts direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U.S.A. For Canadian service order parts from Burlington Parts Depto, P.O. Box 512, Burlington, Ontario. For component parts of the operating cyl refer to "DROTT CLAM BUCKET OR LOG GRAPPLE OPERATING CYLINDER" in this Parts Catalog.

DROTT 48" PULPWOOD GRAPPLE

NOTE: For service components of the GRAPPLE and the grapple operating hyd cyl connecting hoses, refer to the applicable grapple in the DROTT Parts Catalog, and for U.S. service order the parts direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U.S.A. For Canadian service order parts from Burlington Parts Depot, P.O. Box 512, Burlington, Ontario. For component parts of the operating cyl refer to "DROTT CLAM BUCKET OR LOG GRAPPLE OPERATING CYLINDER" in this Parts Catalog.

DROTT 48" COMBINATION LOG & LUMBER GRAPPLE

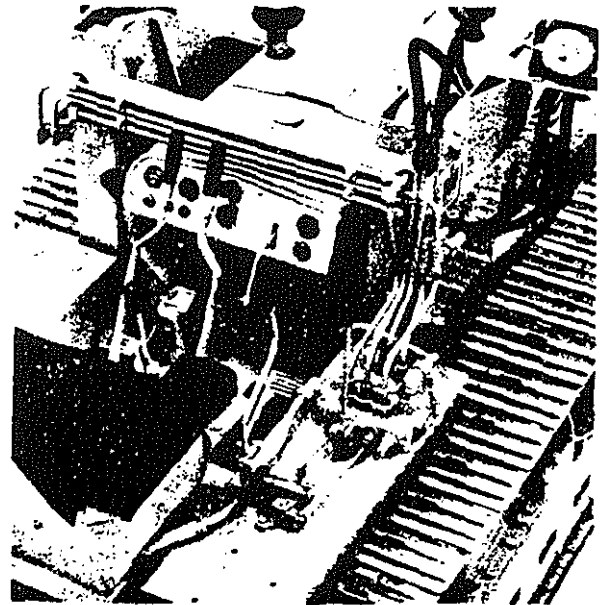
NOTE: For service components of the GRAPPLE and the grapple operating hyd cyl connecting hoses, refer to the applicable grapple in the DROTT Parts Catalog, and for U.S. service order the parts direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U.S.A. For Canadian service order parts from Burlington Parts Depot, P.O. Box 512, Burlington, Ontario. For component parts of the operating cyl refer to "DROTT CLAM BUCKET OR LOG GRAPPLE OPERATING CYLINDER" in this Parts Catalog.

REF. NO.	PART NUMBER	DESCRIPTION
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DROTT ANGLE DOZER BLADE

NOTE: For service components of the BLADE, refer to the DROTT Parts Catalog and for U.S. service order parts direct from the DROTT MFG. CORPORATION WAUSAU, WISCONSIN, U.S.A. For Canadian service order the parts from the Burlington Parts Depot P.O. Box 512, Burlington, Ontario.

## I. H. LOADER HYDRAULICS



H 1512

NOTE: Above view illustrates the three-spool hyd control valve and hyd pipes & lines, mounted on the 500 INTERNATIONAL Crawler Tractor equipped w/ I. H. Loader. Three spool valve will operate Drott 4-in-1 Clam Bucket or Log Grapples. Machine can be equipped w/two-spool valve to operate Material Bucket or Drott Angle Dozer Blade. Refer to Hydraulic Section of this Parts Catalog for hyd service parts.

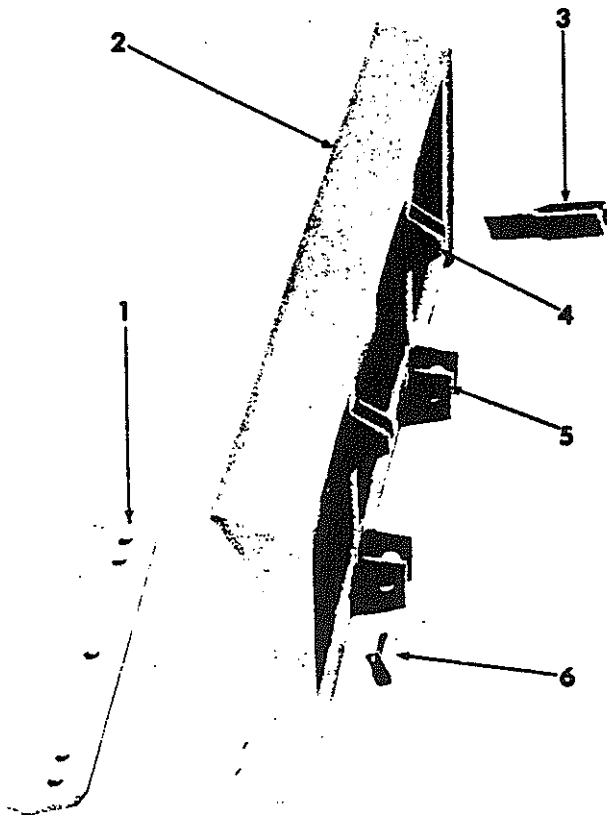
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## CRAWLER TRACTORS



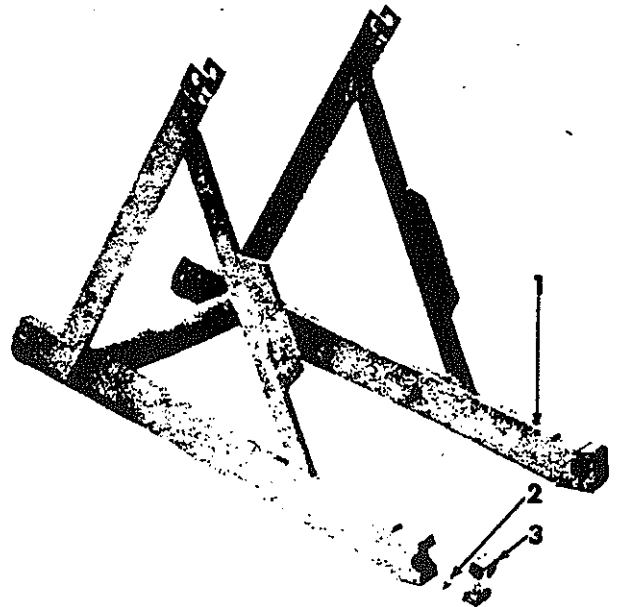
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**BULLDOZER BLADE**  
 (5D2 Bulldozer)


H 7864

1	637 278 R1 15 601 R1 102 639	EDGE, blade cutting (2) 5/8 x 1-3/4" No. 3 plow BOLT (10) 5/8" NUT (10)
2	637 278 R91	BLADE, 'bulldozer
3	637 289 R91 584 492 R1 Q 5 036 103 421	STRAP, blade adjusting (2) 1 x 3" std-hd did PIN (4) 1-1/32 x 1-3/4 x 16 ga WASH. (4) 1/4 x 1-3/4" c-PIN (4)
4	637 288 R1	LUG, blade adjusting strap (4) (welded to blade)
5	637 287 R1	ANCHOR, push arm (4) (welded to blade)
6	675 366 R11 179 837 Q 1 597 103 321	PIN, push arm anchor (2) 3/8 x 3/4" Type 2 BOLT (2) 13/32 x 3/4 x 16 ga WASH. (2) 3/8" lk-WASH. (2)

REF. NO.	PART NUMBER	DESCRIPTION
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**BLADE LIFT FRAME**  
 (5D2 Bulldozer)


H 7865

1	637 304 R91	FRAME, blade lift (Includes 637 306 R1, CAPS)
2	638 353 R1	SHIM, frame brg cap (12)
3	637 306 R1 223 442	CAP, frame trunnion brg (2) 5/8 x 3-1/2" Type 4 BOLT (4)

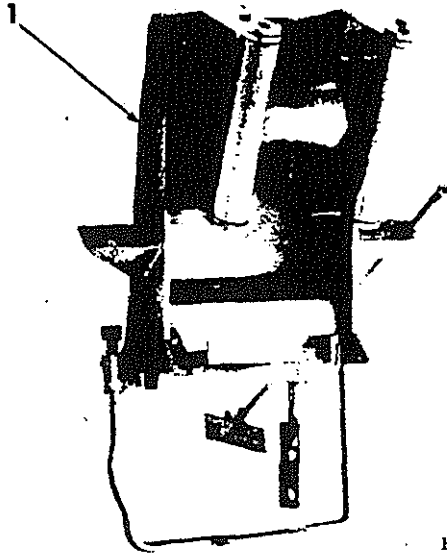


# CRAWLER TRACTORS



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**LOG ARCH**

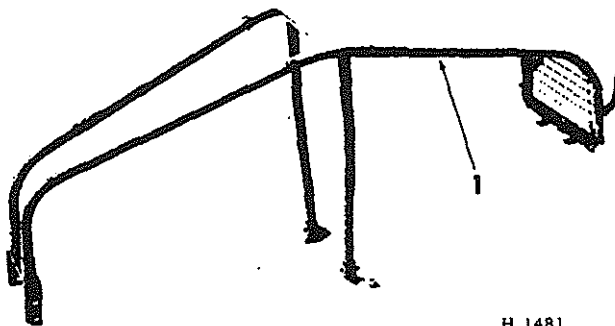


H 1520

NOTE: Tractor must be equipped w/Gearmatic Model 9 Winch. For service, component parts must be ordered direct from ESCO MFG. COMPANY, PORT HOPE, ONTARIO, CANADA.

- 1 ARCH, log (Refer to NOTE)

**CANOPY**



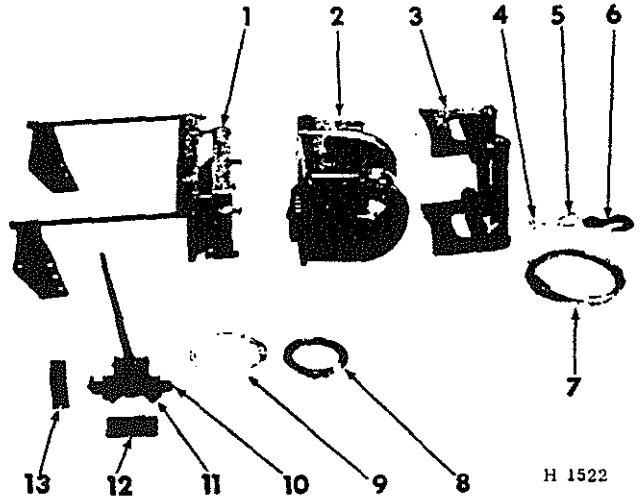
H 1481

NOTE: TRACTOR must be equipped w/LOG ARCH. For service, component parts must be ordered direct from ESCO MFG. COMPANY, PORT HOPE, ONTARIO, CANADA.

- 1 CANOPY, tractor (Refer to NOTE)
  - 271 723 5/8 x 2" cd-pltd Type 2 BOLT (4)
  - 19 604 R1 3/8 x 1-5/8" cd-pltd step BOLT (4)
  - 180 179 1/2 x 1-3/4" cd-pltd Type 2 BOLT (2)
  - 608 701 R1 2 1/32 x 1-1/4 x 16 ga WASHER (4)
  - 120 377 3/8" cd-pltd 1k-WASHER (4)
  - 120 378 1/2" cd-pltd 1k-WASHER (2)
  - 120 382 3/8" cd-pltd NUT (4)
  - 120 384 1/2" cd-pltd NUT (2)

REF. NO.	PART NUMBER	DESCRIPTION
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**WINCH EQUIPMENT**



H 1522

NOTE A: To order complete assembly, order on Machine Order Form

- 1 ADAPTER, winch (required to mount a Gearmatic Model 9 Winch to Tractors (NOTE A) (for components refer to Winch Adapter)
- 2 215 480 H3 WINCH (for components refer to WINCH HOUSING, BRAKE CYLINDER, DRUM & BRAKE BANDS, CLUTCH ASSEMBLY & RING GEAR PINION & SHAFT)
- 3 FAIRLEAD, 3 or 4 Roller (NOTE A) (for components refer to FAIRLEAD)
- 4 605 827 R91 CLAMP, 1/2" winch cable
- 4 675 208 R91 CLAMP, 5/8" winch cable
- 5 605 826 R1 EYE, 1/2" winch cable
- 5 675 209 R1 EYE, 5/8" winch cable
- 6 675 155 R1 HOOK, winch cable
- 7 675 154 R1 CABLE, 1/2" x 75 ft. winch
- 7 675 207 R1 CABLE, 5/8" x 50 ft. winch
- 8 114 623 H1 TUBE, control
- 9 197 407 H1 TUBE, control
- 10 118 753 ELBOW, 90°
- 11 215 334 H1 VALVE, control (for components refer to MASTER CONTROL UNIT)
- 12 675 171 R1 STRIP, winch valve mounting
  - 179 841 3/8 x 1-1/4" Type 2 BOLT (4)
  - 102 635 3/8" NUT (4)
  - 103 321 3/8" 1k-WASHER (4)
- 13 676 228 R1 CHANNEL, valve shield
  - 179 838 3/8 x 7/8" Type 2 BOLT (4)
  - 102 635 3/8" NUT (4)
  - 103 321 3/8" 1k-WASHER (4)

GEARMATIC MODEL 9 WINCH (Includes reference No. 1, 2, 8, 9, 10, 11, 12 & 13)





Winch

**CRAWLER TRACTORS**

SECTION A  
TC-203A

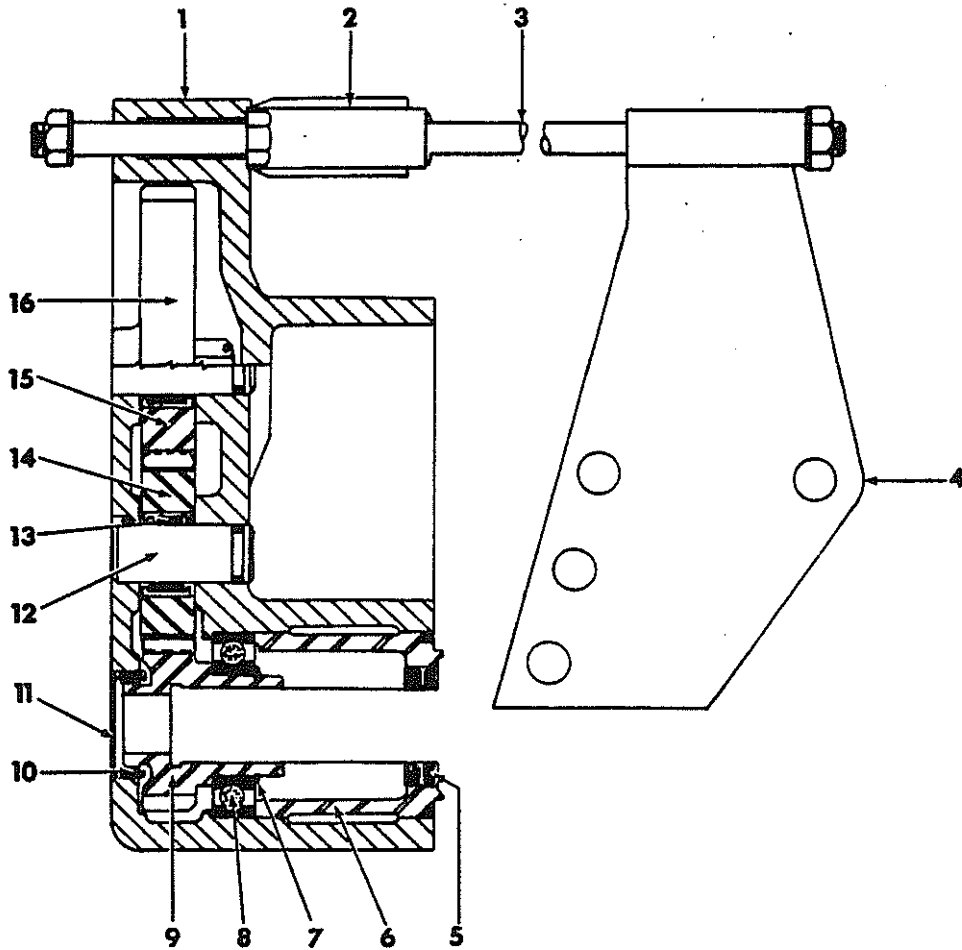


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REF. NO.	PART NUMBER	DESCRIPTION
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WINCH ADAPTER

WINCH ADAPTER - Continued



HE 231

1	676 677 R1 676 678 R1 676 679 R1 444 704 223 744 271 558 271 570 271 560 102 639 103 325 179 885 103 323 103 387	HOUSING, adapter Housing GASKET Washer GASKET (2) Pipe PLUG 5/8 x 3-1/2" NF Type 2 BOLT 5/8 x 1-1/2" Type 2 BOLT (4) 5/8 x 4" Type 2 BOLT 5/8 x 1-3/4" Type 2 BOLT (2) 5/8" NUT (3) 5/8" 1k-WASHER (10) 1/2 x 1-1/2" Type 2 BOLT (2) 1/2" 1k-WASHER (2) 1/8 x 1-1/2" c-PIN
2	676 693 R91 20 635 R1	SUPPORT ASSEMBLY, tie bolt 5/8 x 6-1/2" - NF Type 2 BOLT
3	676 692 R1 103 030 103 325	BOLT, tie (2) .5/8" - NF NUT (4) 5/8" 1k-WASHER (4)
4	676 690 R91 676 691 R91 271 556 102 639 103 325 271 562	BRACKET ARM, tie bolt (left) BRACKET ARM, tie bolt (right) 5/8 x 1-1/4" Type 2 BOLT (2) 5/8" NUT (2) 5/8" 1k-WASHER (8) 5/8 x 2" Type 2 BOLT (6)

5	676 761 R91	SEAL, pto oil
6	676 689 R1 352 216 R1	HOUSING, pto pilot "O" RING
7	287 049 R1	RING, bearing retainer
8	ST 264	BEARING, drive gear ball
9	676 687 R1	GEAR, pto 13T
10	205 369 R91	BEARING, drive gear needle
11	676 688 R1	PLUG, needle bearing
12	676 686 R1 253 070 R1 17 008 R1	SHAFT, idler gear (2) Shaft "O" RING (2) 1/4" steel BALL (2)
13	216 570 R91	BEARING, idler gear needle (2)
14	676 685 R1	GEAR, idler 20T
15	676 684 R1	GEAR, idler 16T
16	676 683 R1	GEAR, PINION

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## CRAWLER TRACTORS

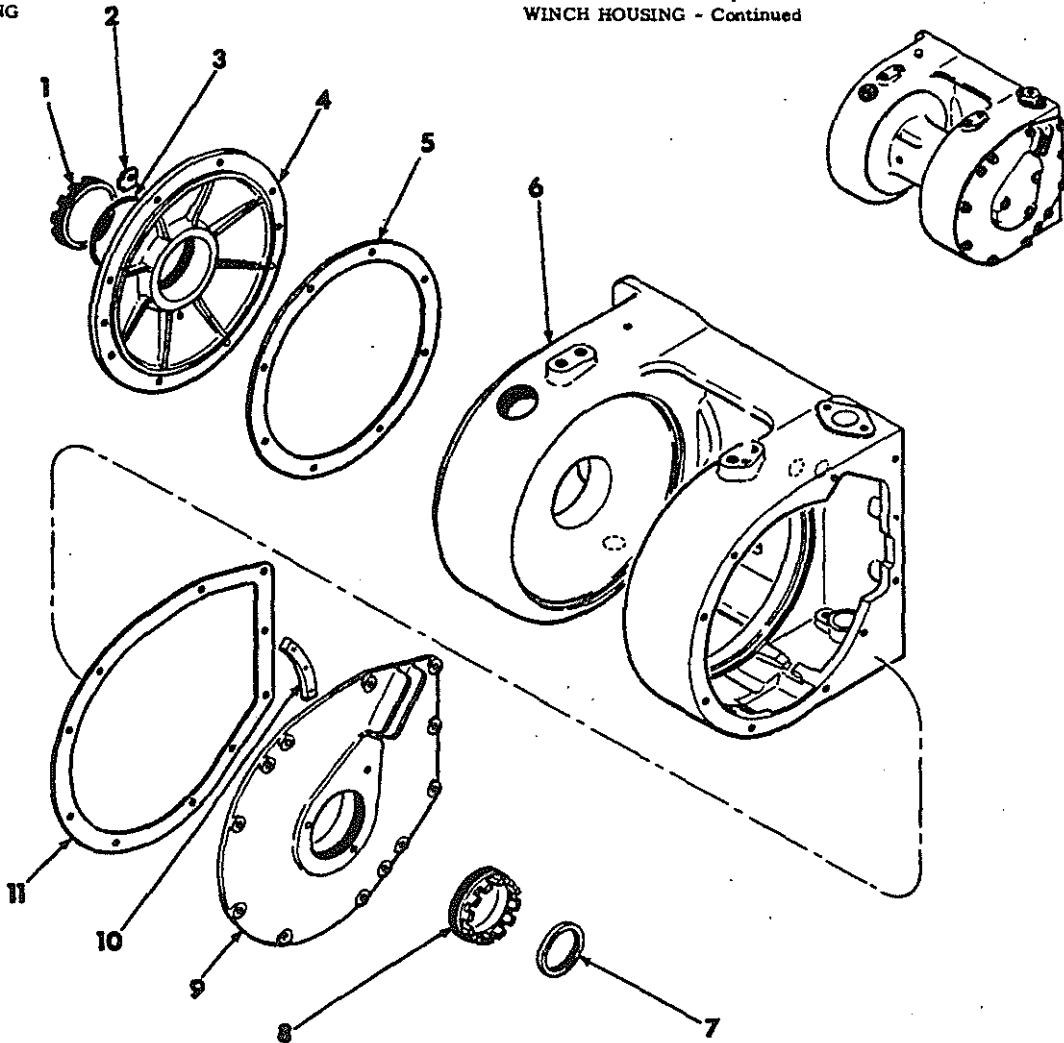


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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## WINCH HOUSING

## WINCH HOUSING - Continued



H 3147

NOTE A: Used on Winches up to Gearmatic Serial No. 9-1374

NOTE B: Used on Winches with Gearmatic Serial No. 9-1375 and up

1	202 438 H1	CAP, bearing screw
2	202 437 H1 179 812 103 320	LOCK, bearing cap 5/16 x 1/2" Type 2 BOLT 5/16" 1k-WASHER
3	310 935 H1	"O" RING
4	217 446 H1 414 576 179 839 103 321	COVER, gear Pipe PLUG 3/8 x 1" Type 2 BOLT (8) 3/8" 1k-WASHER (8)
5	202 441 H1	GASKET, cover

6	217 442 H1	HOUSING, winch (Note A)
6	876 694 C1 139 106 876 735	HOUSING, winch (Note B) 7/16-NF x 7/16" set SCREW (Note B) SPRING (Note B)
	202 491 H1	Barrel PLUG
	202 490 H1	Barrel PLUG
	217 502 H1	Brake lever PLUG
	217 503 H1	VENT
7	217 813 H1	SEAL, oil
8	217 463 H1	NUT, adjusting
9	217 494 H1 179 839 103 321	COVER, clutch 3/8 x 1" Type 2 BOLT (10) 3/8" 1k-WASHER (10)
10	217 496 H1 20 483 R1	RING, guide 5/16 x 3/4" soc-hd BOLT (3)
11	217 456 H1	GASKET, cover

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Winch

**CRAWLER TRACTORS**

SECTION A  
TC-203A

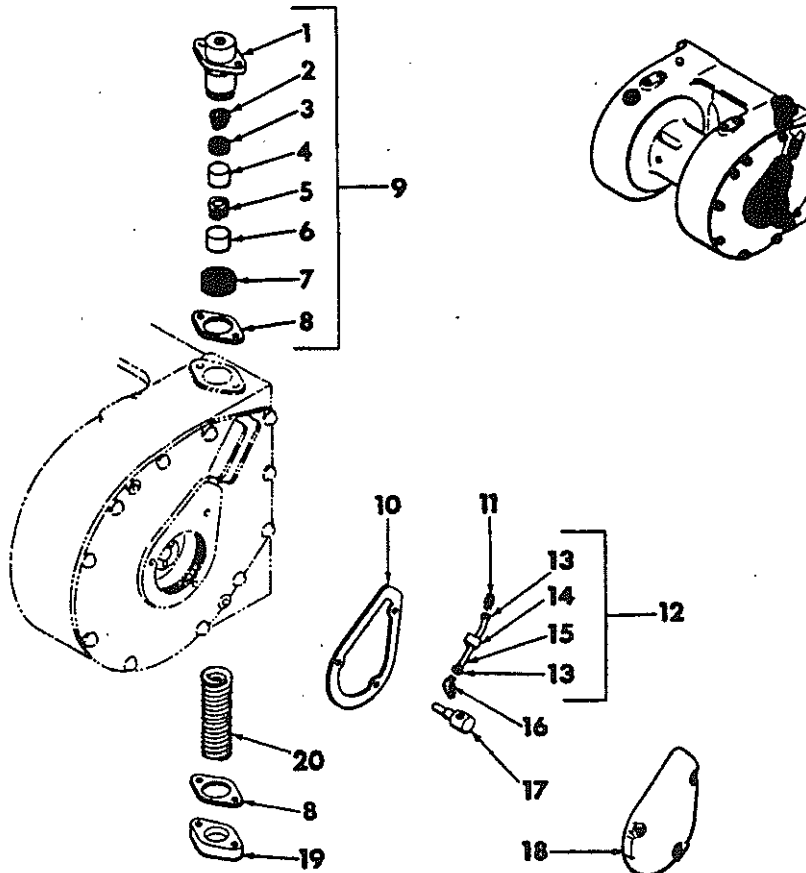


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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WINCH BRAKE CYLINDER

WINCH BRAKE CYLINDER - Continued



H 3146

1	217 505 H1 179 839 103 321	CYLINDER, brake 3/8 x 1" Type 2 BOLT (2) 3/8" 1k-WASHER (2)
2	202 484 H1	SPRING, upper
3	51 905 H	U-CUP
4	217 506 H1	PISTON, primary
5	217 458 H1	SPRING, lower
6	51 902 H	PISTON, secondary
7	96 030 H	BOOT, to gasket
8	217 504 H1	GASKET, cylinder
9	875 488 C81	CYLINDER ASSEMBLY, brake (Includes Items 1 to 8)
10	217 481 H1	GASKET, cap
11	118 800	CONNECTOR, tube

12	217 488 H1	TUBE, assembly consists of 217 523 H1 TUBE 2-215 458 H1 NUTS, 217 524 H1 GROMMET
13	215 458 H1	NUT, tube (2)
14	217 524 H1	GROMMET, tube
15	217 523 H1	TUBE, tubing
16	118 753	ELBOW, tube
17	217 487 H1	TUBE, hydraulic
18	217 491 H1 179 843 103 321	CAP, end 3/8 x 1-1/2" Type 2 BOLT (3) 3/8" 1k-WASHER (3)
19	217 515 H1 217 517 H1 103 322	CAP, spring 7/16 x 3" Type 2 BOLT (2) 7/16" 1k-WASHER (2)
20	217 516 H1	SPRING, brake

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Winch

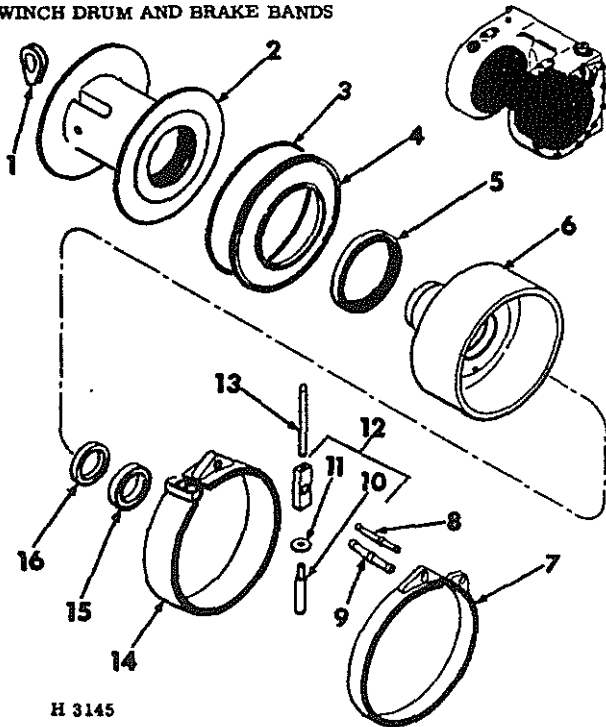
# CRAWLER TRACTORS

SECTION A  
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REF. NO.	PART NUMBER	DESCRIPTION
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## WINCH DRUM AND BRAKE BANDS



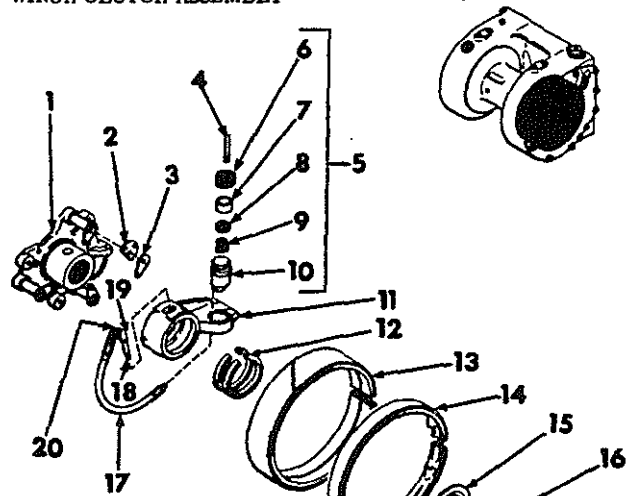
H 3145

NOTE A: Used on Winches up to Gearmatic Serial No. 9-1374  
NOTE B: Used on Winches with Gearmatic Serial No. 9-1375 and up

1	202 449 H1	HONDU, in drum
2	217 447 H1 138 242	DRUM, winch 3/8 x 1" soc-hd Type 2 BOLT
3	217 452 H1	"O" RING, flange
4	217 451 H1	FLANGE, seal
5	217 450 H1	SEAL, flange oil
6	217 453 H1	DRUM, brake
7	217 497 H1	BAND, primary brake
8	217 498 H1	LEVER, primary brake
9	217 508 H1	LEVER, secondary brake
10	217 525 H1	ROD, guide
11	446 484	WASHER, rod
12	217 510 H1	BLOCK ASSEMBLY, (Includes BLOCK; 217 525 H1, ROD & 446 484 WASHER)
13	217 507 H1 18 518 R1	ROD, push Lever to block PIN
14	217 509 H3 876 696 C1 181 374	BAND, secondary brake (Note A) BAND, secondary brake (Note B) 3/8 x 1-1/2" Type 2 BOLT (2) (Note A)
	202 493 H1 876 695 C1 18 607 R1	3/8" WASHER (2) (Note A) Anchor PIN (Note B) Lever to band PIN
15	217 448 H1	BEARING, brake drum
16	202 445 H1	SEAL, brake drum oil

REF. NO.	PART NUMBER	DESCRIPTION
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## WINCH CLUTCH ASSEMBLY



H 3151

1	217 493 H1 17 175 R1 179 839 103 321	HUB, clutch Hub PIN (3) 3/8 x 1" Type 2 BOLT (6) 3/8" lk-WASHER (6)
2	217 457 H1	CAM, adjusting
3	217 459 H1	PLATE, cam lock
4	202 479 H1	ROD, clutch cylinder
5		CYLINDER ASSEMBLY, clutch (Includes BOOT, 49 661 H; PISTON: 49 660 H; U-CUP, 48 887 H; SPRING, 202 484 H1; & CYLINDER, 202 480 H1)
6	49 661 H	BOOT, cylinder
7	49 660 H	PISTON, cylinder
8	48 887 H	U-CUP
9	202 484 H1	SPRING, cylinder
10	202 480 H1	CYLINDER, clutch
11	217 492 H1	LEVER, clutch
12	202 450 H1	FELT, lever (2)
13	217 454 H1	BAND, secondary clutch
14	217 455 H1	BAND, primary clutch
15	217 490 H1	SPACER, bearing
16	202 464 H1	BEARING, lever
17	202 431 H1	HOSE ASSEMBLY, cylinder
18	114 794	NIPPLE, to Elbow
19	105 414	ELBOW, 45° to nipple
20	118 753	ELBOW, 90° to hose

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## CRAWLER TRACTORS

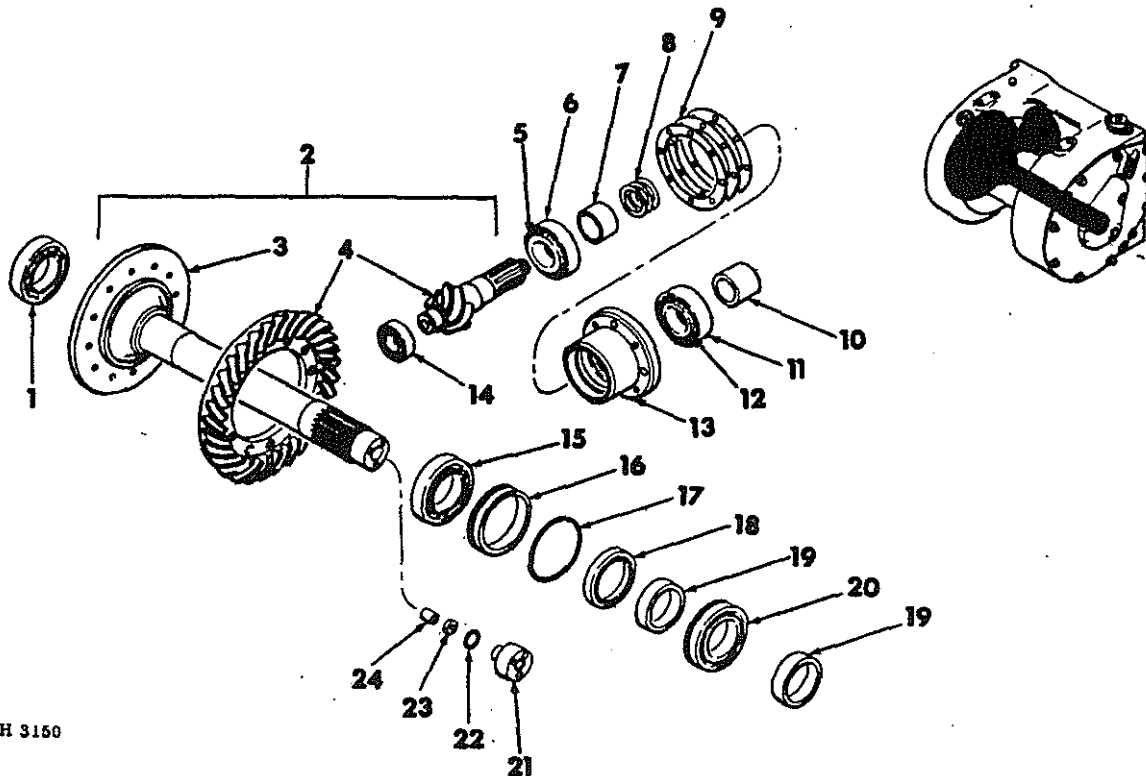


REF. NO.	PART NUMBER	DESCRIPTION
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## WINCH RING GEAR, PINION AND SHAFT

REF. NO.	PART NUMBER	DESCRIPTION
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## WINCH RING GEAR, PINION AND SHAFT - Continued



H 3150

1	ST 264	BEARING, ball			
2	217 445 H2	RING GEAR, PINION & SHAFT ASSEMBLY (Includes 217 521 H2 SHAFT ASSEMBLY 202 497 H2 RING GEAR, PINION & RIVET ASSEMBLY)			
3	217 521 H2	SHAFT ASSEMBLY, (Includes SHAFT and 217 522 H1 RETAINER CUP)			
4	202 497 H2	RING GEAR, PINION & RIVET ASSEMBLY, (Includes 877 077 C1 RIVET w/RING GEAR & PINION) (MATCHED SET)			
5	89 366 H	BEARING, cone rear			
6	50 083 R1	BEARING, cup rear			
7	217 520 H1	SPACER, bearing			
8	217 519 H1	SHIM SET, bearing			
9	217 443 H1	SHIM SET, housing			
10	202 430 H1	BUSHING, preload (for shipping purpose only)			
11	ST 882	BEARING CUP, front			
12	8905 H	BEARING CONE, front			
13	217 444 H1	HOUSING ASSEMBLY, pinion bearing (Includes 202 433 H1, HOUSING ASSEMBLY; 217 520 H1 SPACER; 217 519 H1, SHIM SET; 217 443 H1, SHIM SET)	13	202 435 H1	HOUSING ASSEMBLY w/BEARING CUPS, (Includes 50 083 R1, CUP & ST 882, CUP)
138 242		3/8 x 1" skt hd BOLT (4)			
			13	202 433 H1	HOUSING ASSEMBLY w/BEARING CONES, (Includes 202 435 H1, HOUSING; 89 366 H CONE; & 8905 H, CONE) Pinion WASHER Pinion NUT 1/8 x 1-1/2" pinion c-PIN
				106 270	
				216 353	
				103 387	
			14	202 494 H1	BEARING, pinion rear
			15	ST 265	BEARING, drum shaft
			16	202 443 H1	HOUSING, shaft seal
			17	316 470 R1	"O" RING, shousing
			18	202 445 H1	SEAL, shaft oil
			19	202 446 H1	SPACER, right bearing (2)
			20	202 447 H1	BEARING, drum shaft
			21	217 489 H1	CAP, drum shaft gland
				181 339	5/16 x 1" NF Type 2 BOLT (3)
			22	324 017 R1	"O" RING, gland cap
			23	202 462 H1	U-SEAL
			24	217 522 H1	REATINER, cup (part of Item 3)

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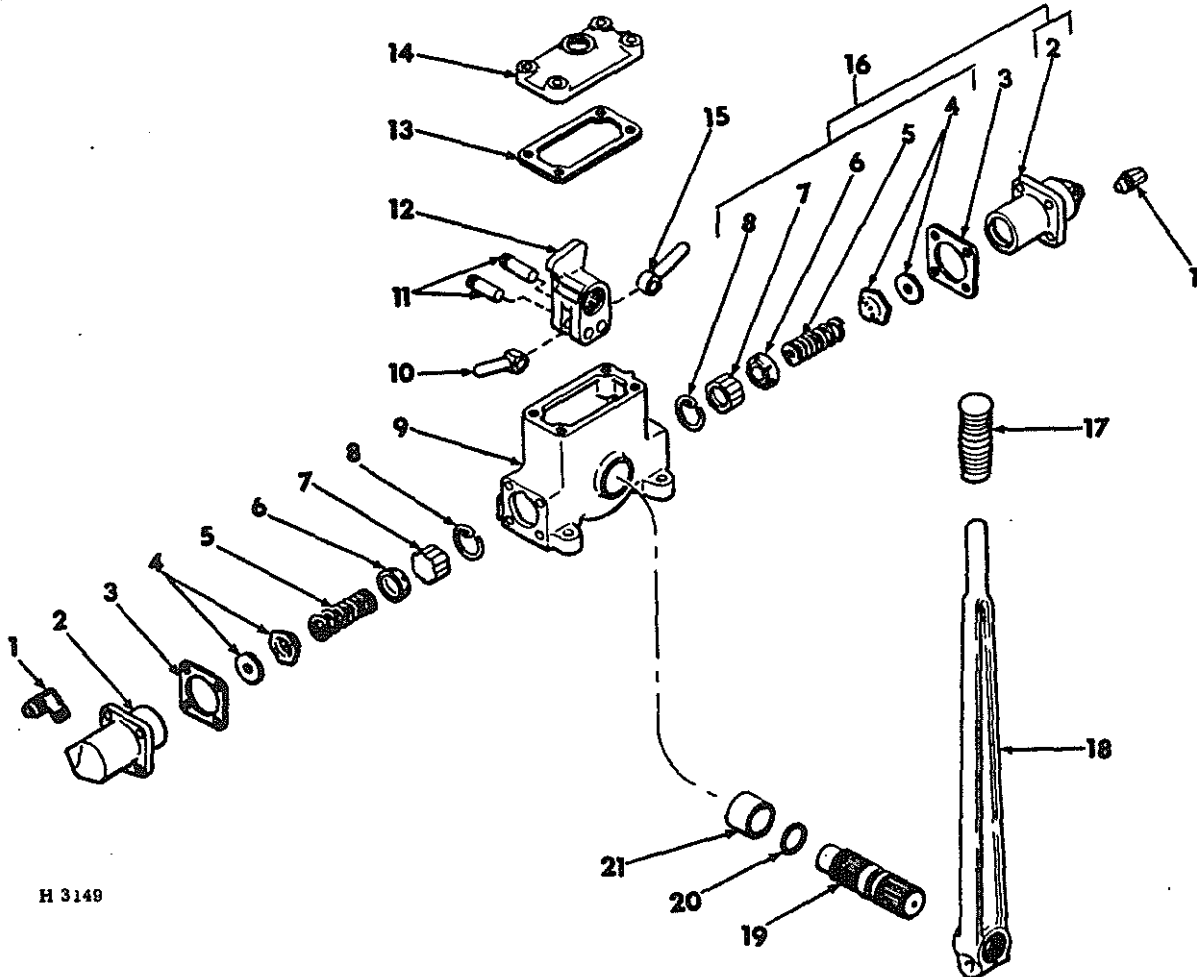
## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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## MASTER CONTROL UNIT

## MASTER CONTROL UNIT - Continued



H 3149

	215 334 H1	GEARMATIC CONTROL ASSEMBLY	13	202 517 H1	GASKET, cover
1	118 753	ELBOW, 90° (2)	14	202 513 H1	COVER, housing
2	202 534 H1	CYLINDER, (2)	179 817	5/16 x 7/8 Type 2 BOLT (4)	Washer
	179 817	5/16 x 7/8" Type 2 BOLT (8)	202 461 H1	Plug	
			202 516 H1		
3	202 528 H1	GASKET, cylinder (2)	15	202 525 H1	ROD, long push
4	202 528 H1	VALVE ASSEMBLY, (Includes 875 489 C1, WASHER)	16	875 485 C91	CYLINDER ASSEMBLY CONTROL (2) (Includes 202 534 H1, CYLINDER, 202 528 H1, VALVE; 202 533 H1, SPRING; 202 532, CUP; 202 531 H1, PISTON; 202 530 H1, RING
5	202 533 H1	SPRING, valve	17	202 515 H1	GRIP, lever
6	202 532 H1	CUP, spring	18	202 514 H1	HANDLE, control
7	202 531 H1	PISTON, cylinder	181 377	3/8 x 1-3/4" NF Type 2 BOLT	
8	202 530 H1	RING, lock	103 026	3/8" NF NUT	
9	202 482 H1	HOUSING, control	19	202 519 H1	SHAFT, control
10	217 526 H1	ROD, short push	20	350 684 R1	"O" RING, shaft
11	202 524 H1	PIN, push rod (2)	21	202 520 H1	BUSHING, shaft
12	202 523 H1	ARM, control rocker			
	202 518 H1	5/16 x 1" Type 2 BOLT			



Winch

**CRAWLER TRACTORS**

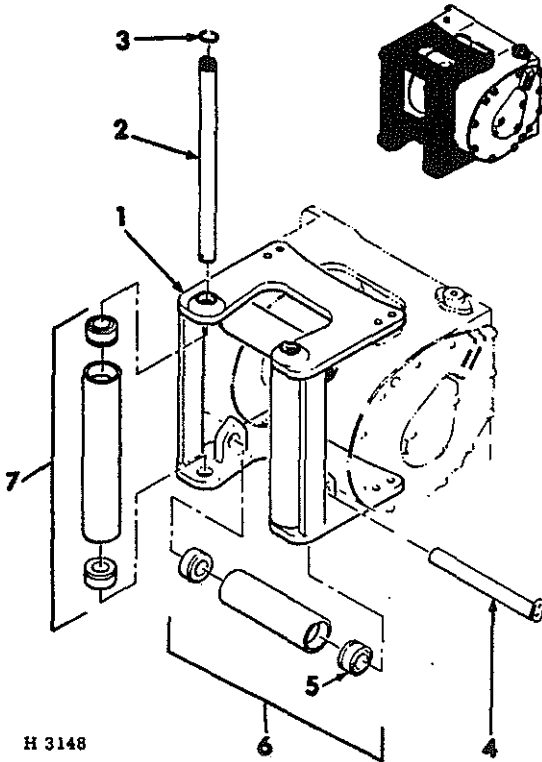
SECTION A  
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REF. NO.	PART NUMBER	DESCRIPTION
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**FAIRLEAD ASSEMBLY FOR 3 AND 4 ROLLER**

REF. NO.	PART NUMBER	DESCRIPTION
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**ROLLER & SHAFT ASSEMBLY LONG.**  
(Includes 202 503 H1, SHAFT; 17 069 R1, PIN; 202 501 H1, RING; 109 461, FITTING; 202 502 H1, ROLLER ASSEMBLY (2) )

**ROLLER & SHAFT ASSEMBLY SHORT.**  
NOTE: only 1 used on 3 Roller Fairlead  
(Includes 185 390 H1, SHAFT; 2-109 461, FITTING; 179 812, bolt & 1k-WASHER; and 185 387 H1, Roller Assembly (2) )

1	202 500 H1 271 558 103 325	<b>BODY</b> 5/8 x 1-1/2" Type 2 BOLT (8) 5/8" 1k-WASHER (8)
2	202 503 H1 17 069 R1 109 461	<b>SHAFT, long roller (2)</b> Spring PIN (2) Lube FITTING (2)
3	202 501 H1	<b>RING, wire (2)</b>
4	185 390 H1 109 461 179 812 103 320	<b>SHAFT, short roller (2)</b> Lube FITTING (4) 5/16 x 1/2" Type 2 BOLT (2) 5/16" 1k-WASHER (2)
5	202 506 H1	<b>BUSHING (8)</b>
6	185 387 H1	<b>ROLLER ASSEMBLY, short (2)</b> (Includes ROLLER, and 2-202 506 H1, BUSHINGS)
7	202 502 H1	<b>ROLLER ASSEMBLY, long (2)</b> (Includes ROLLER, 202 507 H1; & 2-202 506 H1, BUSHINGS)

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# CRAWLER TRACTORS

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REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION

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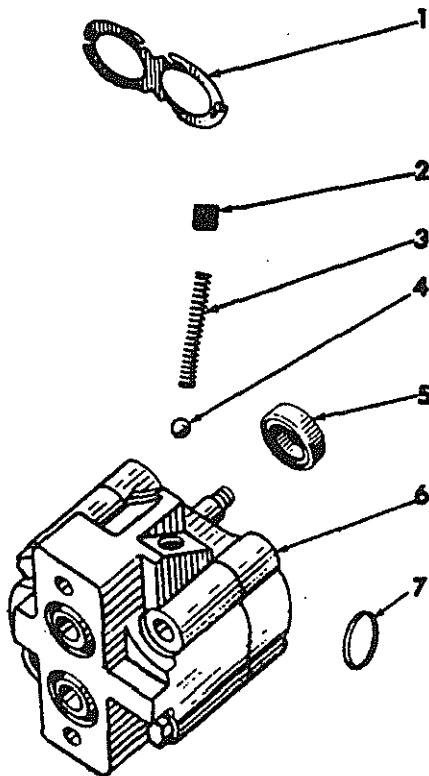
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REF. NO.	PART NUMBER	DESCRIPTION
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**HYDRAULIC PUMP**  
(9 Gallons per minute)

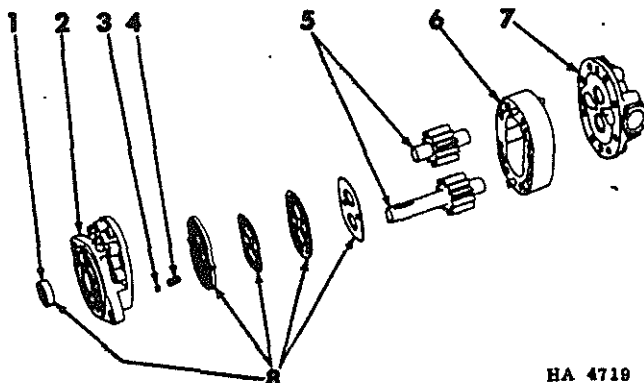


**A 49522**

	368 633 R92	PUMP, hyd (Includes parts listed, unless otherwise noted)
	186 282	3/8 x 3-1/4" Type 2 BOLT (2) (+)
	103 321	3/8" 1k-WASH. (2) (+)
1	361 629 R1	SPRING, pressure plate
2	362 336 R1	PLUG, check ball
3	381 370 R1	SPRING, check ball
4	16 011 R1	BALL, 11/32" dia check
5	381 369 R91	SEAL, pump shaft oil
6		BODY, pump (*) (Order 1 - 368 633 R91, PUMP)
7	373 182 R1	RETAINER, "O" Ring (2)
	368 634 R92	PACKAGE, hyd pump service (+)
		composed of:
		1 Gasket 350 708 R1
		2 Ring 355 965 R1
		* 2 Ring
		* 1 Ring
		* 2 Ring
		1 Seal 381 369 R91
		* 2 Washer

REF. NO.	PART NUMBER	DESCRIPTION
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**HYDRAULIC PUMP**  
(12 Gallons per minute) (PTO Drive)



HA 4719

	635 868 R91	PUMP, pto driven (composed of parts listed, unless otherwise noted)
	179 862	7/16 x 1-1/2" Type 2 BOLT (2) (+)
	271 500	7/16" NUT (2) (+)
	103 322	7/16" 1k-WASHER (2) (+)
1	636 628 R91	SEAL, pump shaft oil
2	636 014 R91	COVER, pump front
	636 020 R1	5/16 x 3" special SCREW (2)
	179 829	5/16 x 2-3/4" Type 2 BOLT (4)
	179 830	5/16 x 3" Type 2 BOLT (2)
3	16 007 R1	BALL, 7/32" dia check (2)
4	371 523 R1	SPRING, check ball (2)
5	636 018 R91	PACKAGE, gear service
	636 489 R1	3/16 x 3/16 x 13/16" straight KEY
6	636 019 R91	BODY w/DOWELS, pump
7	636 049 R91	PLATE, pump back
	636 020 R1	5/16 x 3" special SCREW (2)
	179 829	5/16 x 2-3/4" Type 2 BOLT (4)
	179 830	5/16 x 3" Type 2 BOLT (2)
8	636 015 R91	PACKAGE, hyd pump service
		composed of:
		* 1 Diaphragm
		* 1 Gasket
		* 1 Gasket
		1 Seal 636 628 R91
		* 1 Seal

\* Not Serviced Separately  
+ Not Part of Pump



**CRAWLER TRACTORS**

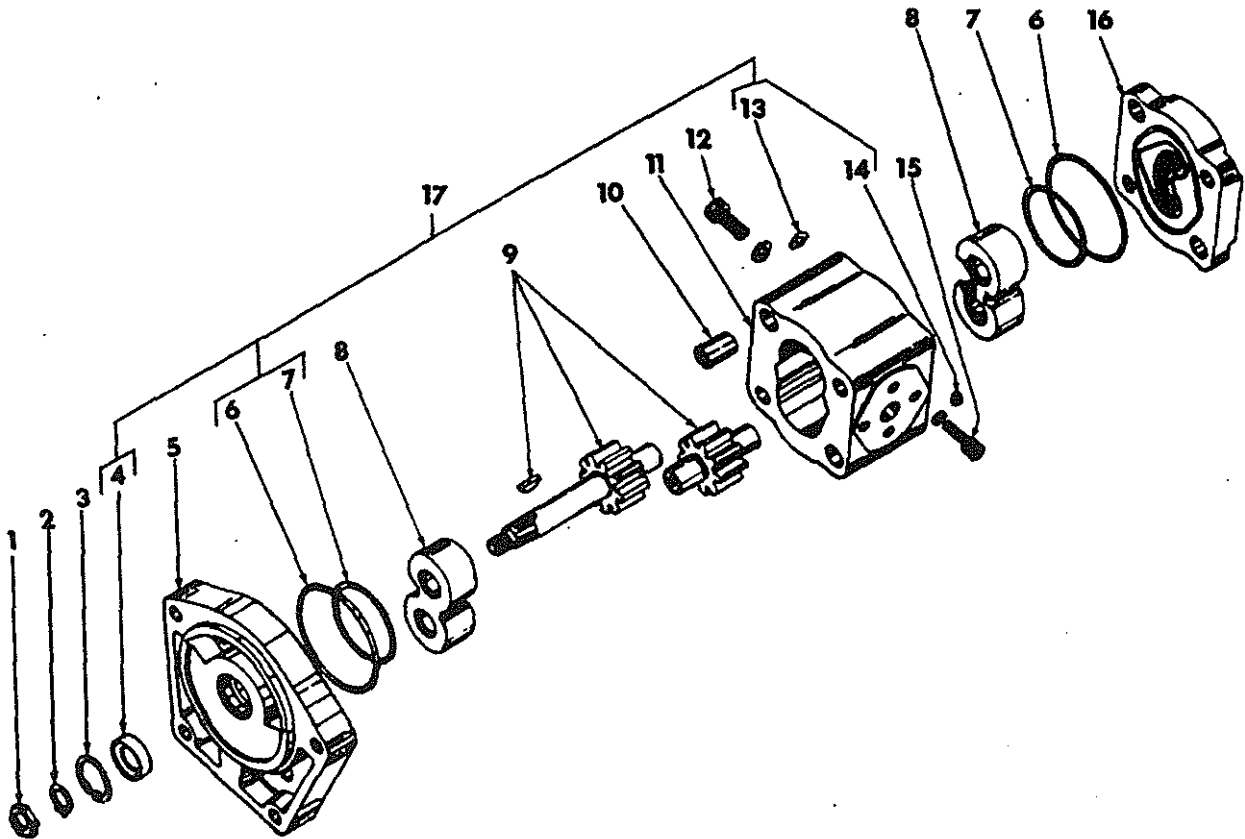


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC PUMP  
(10 Gallons Per Minute)

HYDRAULIC PUMP - Continued  
(10 Gallons Per Minute)



A 72628

NOTE: For timing-gear driven Diesel Engine

3043 981 R94	PUMP, 10 GPM hyd (includes parts listed, unless otherwise noted)
179 828	5/16 x 2-1/2" Type 2 BOLT (3) (+)
271 486	5/16 x 2-5/8" Type 2 BOLT (+)
102 634	5/16" NUT (4) (+)
103 320	5/16" 1k-WASHER (4) (+)

1	3044 638 R1	NUT, timing gear 1k
2	706 069 R1	WASHER, 1k-nut lock
3	706 066 R1	CIRCLIP, oil seal retaining
4	708 422 R01	OIL SEAL, pump cover
5	708 395 R1	FLANGE, hyd pump
	386 403 R1	Pump flange BOLT (4)
	103 321	3/8" 1k-WASHER (4)
	214 441	3/8" - NF NUT (4)
6	3044 623 R1	"O" RING, flange sealing (2)
7	3044 624 R1	"O" RING, pressure relief (2)
8	3049 628 R1	BEARING, pump gear (2)
9	3049 627 R01	PACKAGE, hyd pump gear service
	706 067 R1	Drive gear Woodruff KEY

10	3044 631 R1	DOWEL, pump body hollow (4)	
11	3049 626 R1	BODY, hyd pump	
12	706 075 R1	SCREW, 5/16 x 3/4" soc-hd cap (2)	
	706 053 R1	5/16" 1k-WASHER (2)	
13	352 221 R1	"O" RING, outlet port	
14	364 879 R1	"O" RING, inlet port	
15	3044 642 R1	SCREW, 1/4 x 3/4" outlet port facing (2)	
	706 072 R1	1/4" 1k-WASHER (2)	
16	3044 628 R1	COVER, hyd pump	
17	3044 645 R01	PACKAGE, hyd pump seal service	
		composed of:	
		2 "O" Ring	3044 623 R1
		2 "O" Ring	3044 624 R1
		1 Oil Seal	708 422 R01
		1 "O" Ring	364 879 R1
		1 "O" Ring	352 221 R1

+ Not Part of Hydraulic Pump



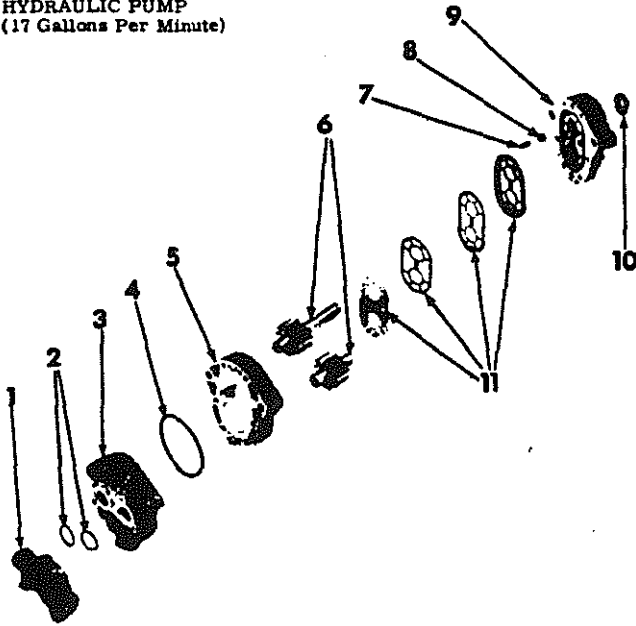
CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC PUMP  
(17 Gallons Per Minute)



H 1602

	675 642 R91	PUMP, hyd (Includes parts listed, unless otherwise noted)
	186 292	7/16 x 4-1/4" Type 2 BOLT (2)
	103 322	7/16" 1k-WASHER (2)
	271 500	7/16" NUT (2) (+)
	103 322	7/16" 1k-WASHER (2) (+)
1	676 044 R1	MANIFOLD, port
	20 618 R1	5/16 x 2" Type 2 BOLT (2)
	21 404 R1	5/16 x 4-1/2" Type 2 BOLT (2)
2	583 474 R1	"O" RING, port hole (2)
3	675 096 R91	PLATE, pump back
	20 838 R1	5/16 x 3" Type 2 BOLT (4)
4	285 724 R1	"O" RING, pump body
5	470 924 R91	BODY, hyd pump
6	636 028 R91	PACKAGE, hyd pump gear service
	10 208 V	3/16 x 3/16 x 7/8" straight KEY
7	371 523 R1	SPRING, check ball
8	16 007 R1	BALL, 7/32" dia check spg
9	675 095 R91	COVER, pump front
10	675 097 R91	SEAL, pump shaft oil
11	675 098 R91	PACKAGE, hyd pump service
		composed of:
		1 Ball 16 007 R1
		*1 Diaphragm
		*1 Gasket
		*1 Gasket
		1 "O" Ring 284 724 R1
		2 "O" Ring 583 474 R1
		*1 Seal
		1 Seal 675 097 R91
		1 Spring 371 523 R1

\* Not Serviced Separately  
+ Not Part of Hydraulic Pump



Hydraulics

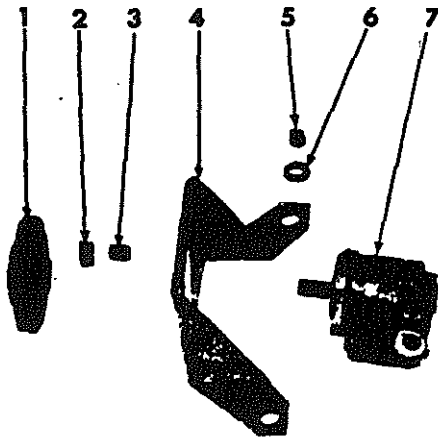
**CRAWLER TRACTORS**

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION
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**HYDRAULIC PUMP DRIVE  
(12 GPM front mounted pto)**

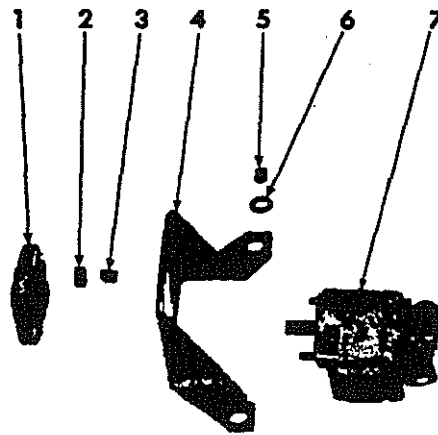


H 1644

1	675 742 R1	ADAPTOR, pto pulley hub (Gas engine)
	102 570	1/4 x 3/8" hdls cup-pt set SCREW
	106 751	3/16 x 3/4" No. 9 Woodruff KEY
	179 841	3/8 x 1-1/4" Type 2 BOLT (4)
	115 549	3/8" int-tooth lk-WASH. (4)
1	675 743 R1	ADAPTOR, pto pulley hub (Diesel engine)
	102 570	1/4 x 3/8" hdls cup-pt set SCREW
	106 751	3/16 x 3/4" No. 9 Woodruff KEY
	179 861	7/16 x 1-3/8" Type 2 BOLT (4)
	115 550	7/16" int-tooth lk-WASH. (4)
2	635 954 R1	BUSHING, hub adaptor (4)
3	675 649 R1	BUSHING, adaptor inner (4) (Gas engine)
3	635 953 R1	BUSHING, adaptor inner (4) (Diesel engine)
4	675 643 R91	BRACKET, pump mounting (Gas engine)
4	675 644 R91	BRACKET, pump mounting (Diesel engine)
	179 885	1/2 x 1-1/2" Type 2 BOLT (2)
	16 038 R1	17/32 x 1 x 11 ga WASH. (2)
	103 323	1/2" lk-WASH. (2)
5	13 412 L	SPACER, mounting bracket bolt (2)
6	868 439 R1	INSULATOR, mounting bracket (4)
7	635 868 R91	PUMP, 12 GPM hyd (for component parts refer to "HYDRAULIC PUMP")
	179 862	7/16 x 1-1/2" Type 2 BOLT (2)
	271 500	7/16" NUT (2)
	103 322	7/16" lk-WASH. (2)

REF. NO.	PART NUMBER	DESCRIPTION
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**HYDRAULIC PUMP DRIVE  
(17 GPM front mounted pto)**



H 1643

1	675 647 R1	ADAPTOR, pto pulley hub (Gas engine)
	102 570	1/4 x 3/8" hdls cup-pt set SCREW
	106 751	3/16 x 3/4" No. 9 Woodruff KEY
	179 841	3/8 x 1-1/4" Type 2 BOLT (4)
	115 549	3/8" int-tooth lk-WASH. (4)
1	675 648 R1	ADAPTOR, pto pulley hub (Diesel engine)
	102 570	1/4 x 3/8" hdls cup-pt set SCREW
	106 751	3/16 x 3/4" No. 9 Woodruff KEY
	179 861	7/16 x 1-3/8" Type 2 BOLT (4)
	115 550	7/16" int-tooth lk-WASH. (4)
2	635 954 R1	BUSHING, hub adaptor (4)
3	675 649 R1	BUSHING, adaptor inner (4) (Gas engine)
3	635 953 R1	BUSHING, adaptor inner (4) (Diesel engine)
4	675 643 R91	BRACKET, pump mounting (Gas engine)
4	675 644 R91	BRACKET, pump mounting (Diesel engine)
	179 885	1/2 x 1-1/2" Type 2 BOLT (2)
	16 038	17/32 x 1 x 11 ga WASH. (2)
	103 323	1/2" lk-WASH. (2)
5	13 412 L	SPACER, bracket mounting bolt (2)
6	868 439 R1	INSULATOR, mounting bracket (4)
7	675 642 R91	PUMP, 17 GPM hyd (for component parts refer to "HYDRAULIC PUMP")
	271 500	7/16" NUT (2)
	103 322	7/16" lk-WASH. (2)

\* Not Serviced Separately

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REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC OIL FILTER</b> (Standard Capacity)		
		H 1596
	635 585 R92	FILTER, hyd oil (composed of all parts listed below, unless otherwise noted) 3/8 x 1-1/8" Type 2 BOLT w/NUT (2) (+) 13/32 x 7/8 x 16 ga WASH. (2) (+) 3/8" 1k-WASH. (2) (+)
1	735 591 R1	GASKET, oil filter bolt
2	635 701 R1	BOLT, oil filter center
3	635-586 R1	CASE, oil filter
4	675 354 R1	HOSE, oil filter spg
5	675 353 R1	SPRING, oil filter
6	675 352 R1	CUP, oil filter spring
7	835 700 R1	ELEMENT, oil filter
8	635 589 R1	GASKET, oil filter case
9	635 699 R1	SUPPORT, oil filter
	179 840	3/8 x 1-1/8" Type 2 BOLT (2) (+)
	Q 1 504	13/32 x 7/8 x 16 ga WASHER (2) (+)
	102 635	3/8" NUT (2) (+)
	103 321	3/8" 1k-WASHER (2) (+)

REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC OIL FILTER</b> (Increased Capacity)		
		H 1594
	636 801 R91	FILTER, hyd oil (composed of parts listed unless otherwise noted) 7/16 x 2" Type 2 BOLT w/NUT (2) (+) 15/32 x 1 x 11 ga WASH. (2) (+) 7/16" 1k-WASH. (2) (+)
1	635 591 R1	GASKET, center bolt
2	636 831 R1	BOLT, filter center
3	636 829 R1	CASE, filter
4	675 354 R1	HOSE, spg
5	675 353 R1	SPRING, filter
6	675 352 R1	CUP, filter spg
7	636 830 R1	ELEMENT, filter
8	635 589 R1	GASKET, filter case
9	636 828 R1	SUPPORT, filter
	179 866	7/16 x 2" Type 2 BOLT (2) (+)
	Q 5 028	15/32 x 1 x 11 ga WASHER (2) (+)
	271 500	7/16" NUT (2) (+)
	103 322	7/16" 1k-WASHER (2) (+)

\* Not Serviced Separately  
+ Not Part of Filter



Hydraulics

**CRAWLER TRACTORS**

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION
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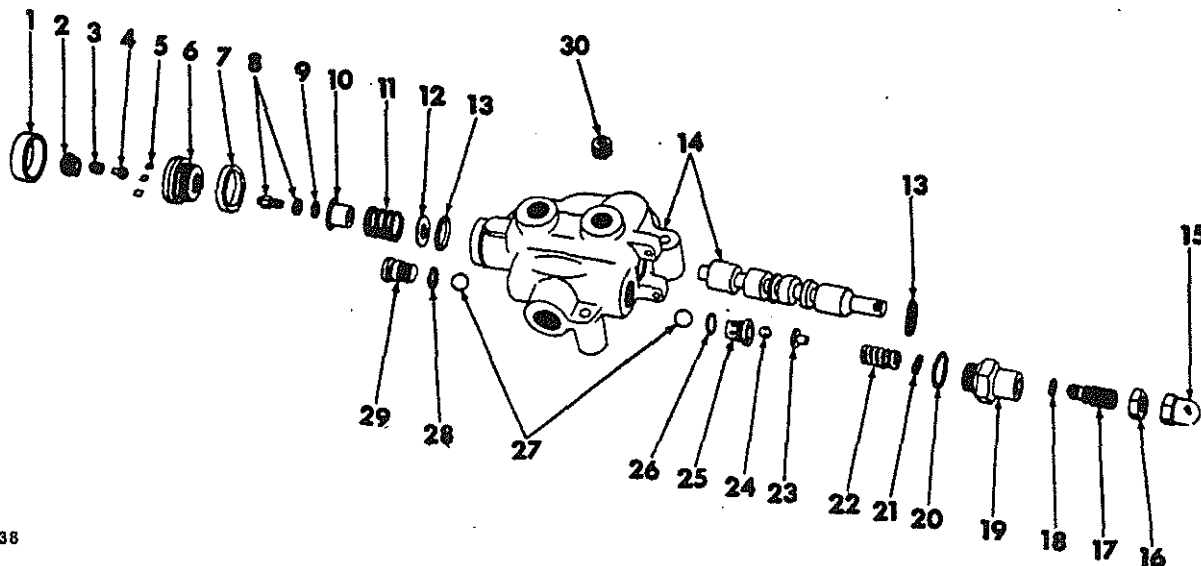


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC CONTROL VALVE

HYDRAULIC CONTROL VALVE - Continued



H 4338

NOTE: For use on tractor utilizing machinery w/a single action hyd cyl or 3 Point Hitch Linkage alone.

635 605 R02	VALVE, 1 spool hyd control (Includes parts listed, unless otherwise noted)
179 849	3/8 x 2-1/2" Type 2 BOLT (3) (+)
102 635	3/8" NUT (3) (+)
103 321	3/8" 1k-WASHER (3) (+)
1	663 034 R1 CAP, bonnet
2	635 780 R1 CAP, detent spg
3	635 779 R1 SPRING, valve detent
4	635 778 R1 HOLDER, detent spg
5	635 777 R1 FINGER, detent spg (3)
6	635 776 R1 CAP, detent
7	635 775 R1 SPACER, detent cap
8	635 972 R1 ADAPTER, detent 103 320 5/16" 1k-WASH.
9	22 910 V WASHER, detent
10	663 022 R1 COLLAR, centering spg stop
11	635 772 R1 SPRING, centering
12	149 372 R1 WASHER, stop
13	663 032 R1 SEAL, spool (2)
14	HOUSING & SPOOL, valve (*) (order 1 - 635 605 R02, VALVE) 179 849 3/8 x 2-1/2" Type 2 BOLT (3) (+) 102 635 3/8" NUT (3) (+) 103 321 3/8" 1k-WASHER (3) (+)

15	131 663 NUT, 5/8"-NF high crown
16	124 944 NUT, relief adjusting screw
17	663 031 R1 SCREW, relief adjusting
18	355 966 R1 "O" RING, adjusting screw
19	663 030 R1 BODY, relief valve
20	663 029 R1 GASKET, relief valve body
21	635 788 R1 SPACER, relief spg
22	663 028 R1 SPRING, relief valve
23	635 785 R1 SPACER, relief valve spg
24	16 014 R1 BALL, 7/16" dia relief valve
25	380 362 R1 SEAT, relief valve
26	570 828 R1 "O" RING, relief valve seat
27	666 719 R1 BALL, 5/8" dia check (2)
28	352 221 R1 "O" RING, check ball plug
29	666 722 R1 PLUG, check ball
30	444 701 PLUG, 1/2"-NF hdls-soc valve housing

\* Not Serviced Separately  
+ Not Part of Valve

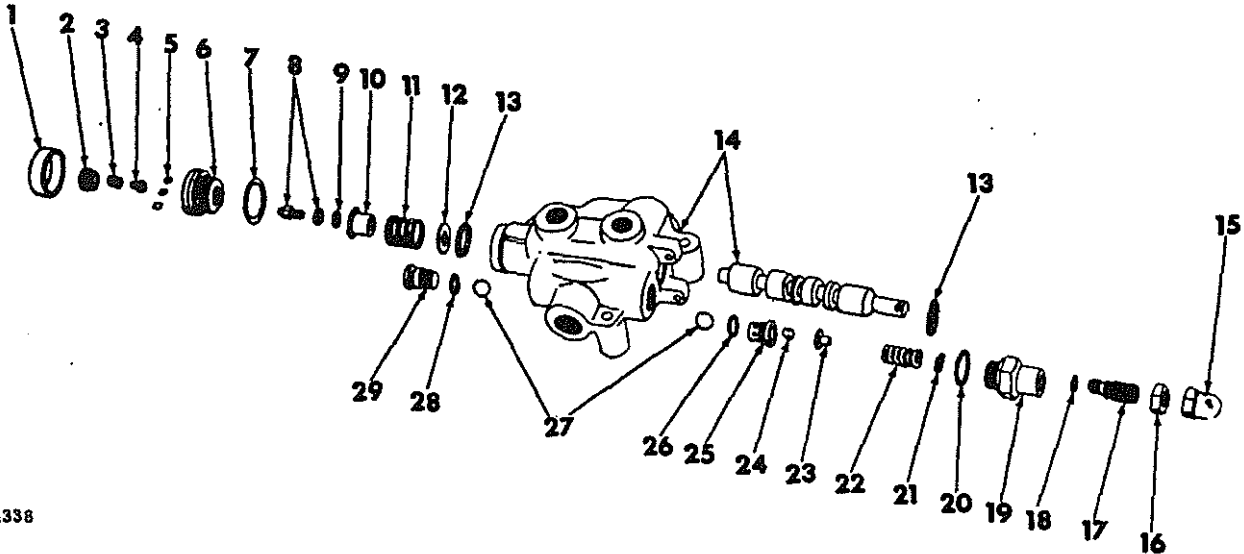


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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC CONTROL VALVE

HYDRAULIC CONTROL VALVE - Continued



H 4338

NOTE A: For use on tractors equipped w/Remote Control Hydraulic Cylinder, or with 11 Bullgrader, or with 5G2 Bullgrader or w/5D2 Bulldozer.

NOTE B: For use on tractors equipped w/Remote Control Double Acting Hydraulic Cylinder with 10 Bullgrader, & Scarifier & Loader.

636 709 R91 VALVE, 1 spool hyd control (NOTE A) less valve ports (Includes parts listed unless otherwise noted)  
179 849 3/8 x 2-1/2" Type 2 BOLT (3) (+)  
102 635 3/8" NUT (3) (+)  
103 321 3/8" 1k-WASHER (3) (+)

635 867 R92 VALVE, hyd control 1 spool (NOTE B) with valve ports (Includes parts listed unless otherwise noted)  
179 851 3/8 x 3" Type 2 BOLT (3) (+)  
102 635 3/8" NUT (3) (+)  
103 321 3/8" 1k-WASHER (3) (+)

1	663 034 R1	CAP, bonnet
2	635 780 R1	CAP, detent spg
3	635 779 R1	SPRING, detent
4	635 778 R1	HOLDER, detent
5	635 777 R1	FINGER, detent (3)
6	635 776 R1	CAP, detent
7	635 971 R1	GASKET, detent cap
8	635 965 R1 103 320	ADAPTER, detent 5/16" 1k-WASHER
9	120 393	WASHER, detent

10	635 966 R1	COLLAR, centering spg
11	635 967 R1	SPRING, centering
12	149 372 R1	WASHER, spg stop
13	663 032 R1	SEAL, spool (2)
14		HOUSING & SPOOL, valve (+) (for service order 1 - 636 709 R91, VALVE) 179 849 3/8 x 2-1/2" Type 2 BOLT (3) (+) 102 635 3/8" NUT (3) (+) 103 321 3/8" 1k-WASHER (3) (+)
15	131 663	NUT, 5/8" - NF high crown
16	124 944	NUT, relief adjusting screw
17	663 031 R1	SCREW, relief adjusting
18	355 966 R1	"O" RING, adjusting screw
19	663 030 R1	BODY, relief valve
20	663 029 R1	GASKET, relief valve body
21	635 788 R1	SPACER, relief
22	635 970 R1	SPRING, relief valve
23	635 785 R1	SPACER, relief valve spg
24	16 014 R1	BALL, 7/16" dia relief valve
25	380 362 R1	SEAT, relief valve
26	570 828 R1	"O" RING, relief valve seat
27	668 719 R1	BALL, 5/8" dia check valve (2)
28	352 221 R1	"O" RING, check ball plug
29	666 722 R1	PLUG, check ball

\* Not Serviced Separately  
+ Not Part of Valve



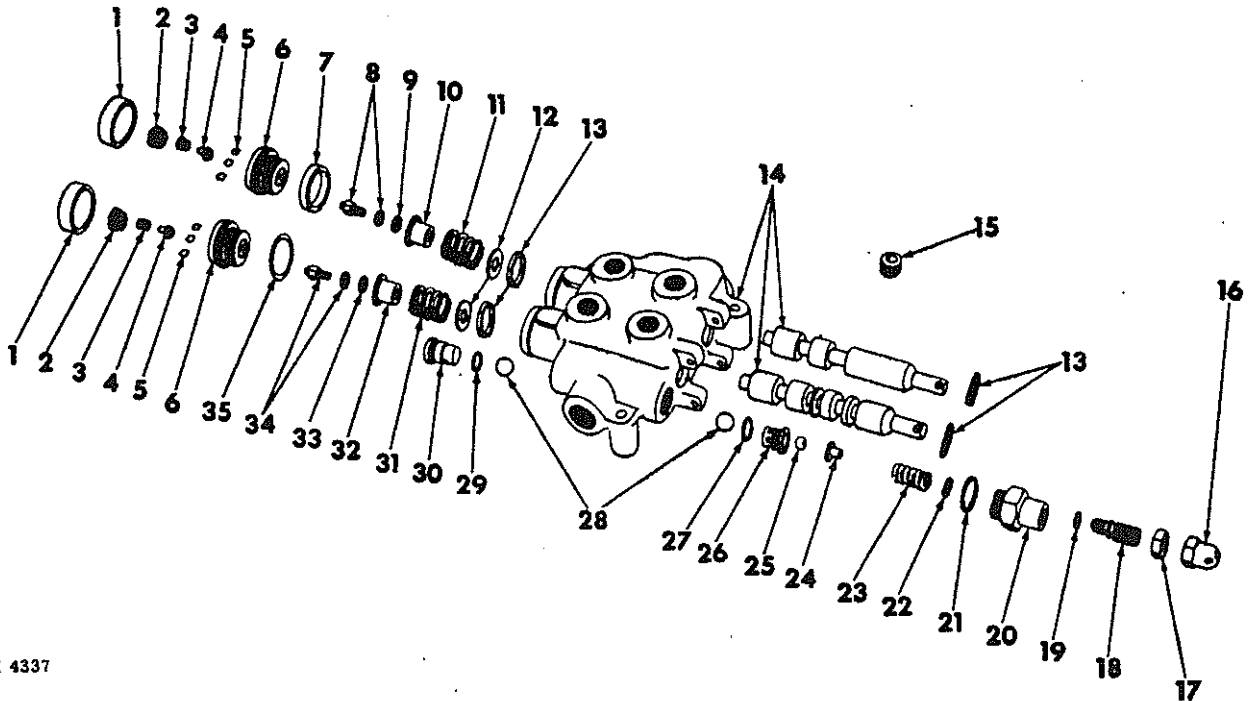


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC CONTROL VALVE

HYDRAULIC CONTROL VALVE - Continued



H 4337

NOTE: For use on tractors equipped w/Three Point Linkage and used in conjunction w/any one of the following:  
REMOTE CONTROL HYD CYL or 11 BULL-GRADER or 5G2 BULLGRADER)

635 877 R92 VALVE, 2 spool 4-way 3-way hyd control (includes parts listed below, unless otherwise noted)

179 849 3/8 x 2-1/2" Type 2 BOLT (3) (+)  
102 635 3/8" NUT (3) (+)  
103 321 3/8" 1k-WASHER (3) (+)

1	663 034 R1	CAP, bonnet (2)
2	635 780 R1	CAP, detent spg (2)
3	635 779 R1	SPRING, spool detent (2)
4	635 778 R1	HOLDER, detent finger (2)
5	635 777 R1	FINGER, detent (6)
6	635 776 R1	CAP, detent (2)
7	635 775 R1	SPACER, detent cap
8	635 972 R1	ADAPTER, 3-way spool detent 5/16" 1k-WASH.
9	22 910 V	WASHER, detent adapter
10	663 022 R1	COLLAR, centering spg stop
11	635 772 R1	SPRING, 3-way spool centering
12	149 372	WASHER, centering spg stop (2)
13	663 032 R1	SEAL, valve spool (4)
14		HOUSING & SPOOL, valve (*) (order 1 - 635 877 R92, VALVE)
	179 849	3/8 x 2-1/2" Type 2 BOLT (3) (+)
	102 635	3/8" NUT (3) (+)
	103 321	3/8" 1k-WASHER (3) (+)

15	444 701	PLUG, 1/2"-NF hdls pipe
16	131 663	NUT, 5/8"-NF high crown
17	124 944	NUT, relief adjusting screw
18	663 031 R1	SCREW, relief adjusting
19	355 866 R1	"O" RING, adjusting screw
20	663 030 R1	BODY, relief valve
21	663 029 R1	GASKET, relief valve body
22	635 788 R1	SPACER, relief valve spg
23	635 970 R1	SPRING, relief valve
24	635 785 R1	SPACER, relief valve spg
25	16 014 R1	BALL, 7/16" dia steel
26	380 362 R1	SEAT, relief valve
27	570 828 R1	"O" RING, relief valve seat
28	666 719 R1	BALL, 5/8" dia check valve (2)
29	352 221 R1	"O" RING, check ball plug
30	666 722 R1	PLUG, valve check ball
31	635 967 R1	SPRING, float spool centering
32	635 966 R1	COLLAR, float spool spg
33	120 393	WASHER, float detent
34	635 965 R1 103 320	ADAPTER, float spool detent 5/16" 1k-WASH.
35	635 971 R1	GASKET, float spool detent cap

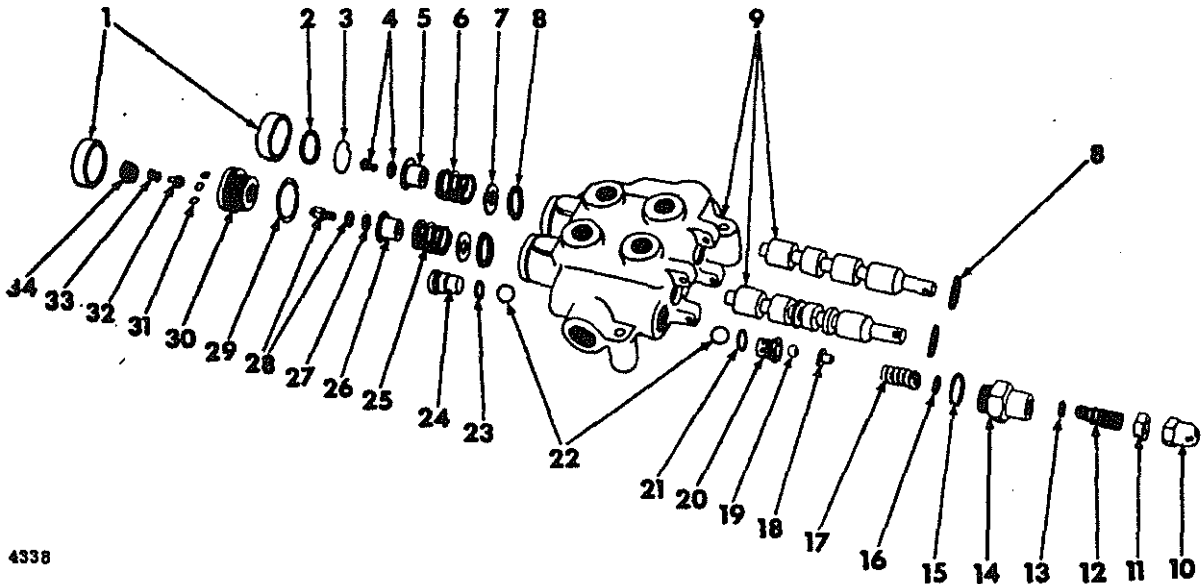
\* Not Serviced Separately  
+ Not Part of Valve



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC CONTROL VALVE

HYDRAULIC CONTROL VALVE - Continued



H 4338

NOTE: To operate the 11 or 5G2 Bullgrader in conjunction w/Remote Control Hydraulic Cylinder

635 878 R92	VALVE, 2 spool 4-way-4way hyd (Includes parts listed, unless otherwise noted)	14	663 030 R1	BODY, relief valve
179 849	3/8 x 2-1/2" Type 2 BOLT (3) (+)	15	663 029 R1	GASKET, relief valve body
102 635	3/8" NUT (3) (+)	16	635 788 R1	SPACER, relief valve
103 321	3/8" lk-WASHER (3) (+)	17	635 970 R1	SPRING, relief valve
1	663 034 R1 CAP, valve bonnet (2)	18	635 785 R1	SPACER, valve spg
2	663 025 R1 RING, end cap snap	19	16 014 R1	BALL, 7/16" dia relief valve
3	663 023 R1 CAP, end (3)	20	380 362 R1	SEAT, relief valve
4	120 628 SCREW, 1/4 x 1/2" slt-rd-hd 174 878 1/4" hv-int-tooth lk-WASH.	21	570 828 R1	"O" RING, relief valve seat
5	663 022 R1 COLLAR, spool stop	22	666 719 R1	BALL, 5/8" dia. check (2)
6	663 024 R1 SPRING, spool centering	23	352 221 R1	"O" RING, check ball plug
7	149 372 R1 WASHER, stop (2)	24	666 722 R1	PLUG, check ball
8	663 032 R1 SEAL, spool (4)	25	635 967 R1	SPRING, float spool centering
9	HOUSING & SPOOL, valve (*) (order 1 - 635 878 R92, VALVE)	26	635 966 R1	COLLAR, float spool spg
179 849	3/8 x 2-1/2" Type 2 BOLT (3) (+)	27	120 393	WASHER, float spool
102 635	3/8" NUT (3) (+)	28	635 965 R1 103 320	ADAPTER, float detent 5/16" lk-WASH.
103 321	3/8" lk-WASHER (3) (+)	29	635 971 R1	GASKET, detent cap
10	131 863 NUT, 5/8"-NF high crown	30	635 776 R1	CAP, float detent
11	124 944 NUT, relief valve adjusting screw	31	635 777 R1	FINGER, detent (3)
12	663 031 R1 SCREW, relief valve adjusting	32	635 778 R1	HOLDER, float detent finger
13	355 966 R1 "O" RING, adjusting screw	33	635 779 R1	SPRING, float detent
		34	635 780 R1	CAP, float detent spg

\* Not Serviced Separately  
+ Not Part of Hydraulic Valve

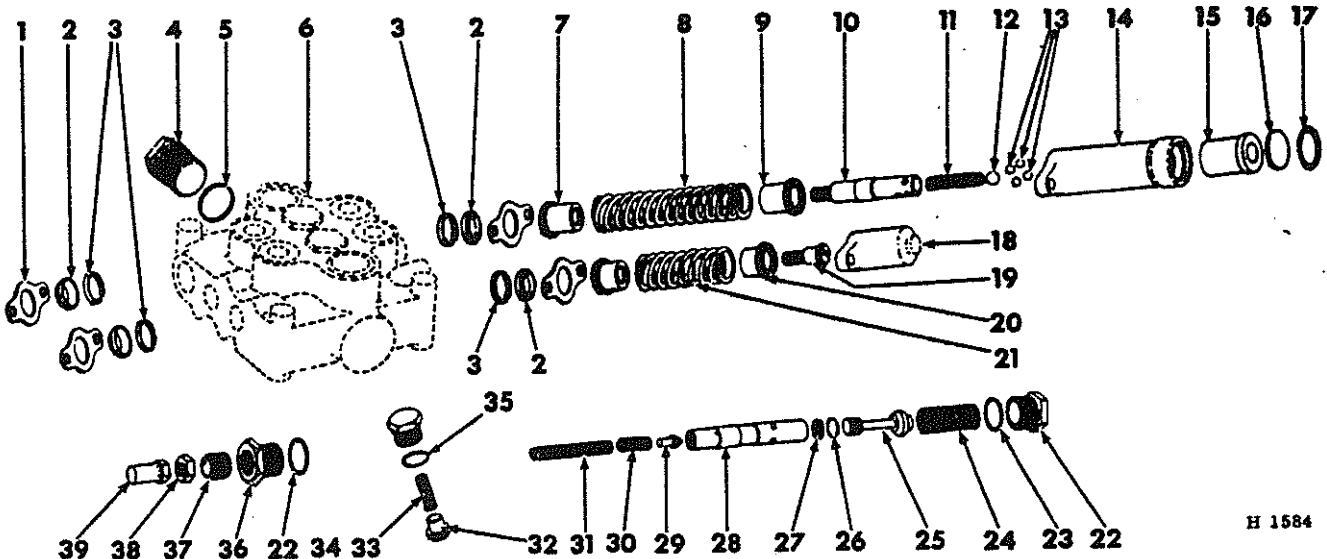


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC CONTROL VALVE

HYDRAULIC CONTROL VALVE - Continued



H 1584

NOTE: On tractors w/IH Loader, utilizing the Material Bucket or the Drott Angle Dozer Blade

	676 123 R91	VALVE, 2 spool hyd control (Includes parts listed, unless otherwise noted)
	179 851	3/8 x 3" Type 2 BOLT (4) (+)
	102 635	3/8" NUT (4) (+)
	103 321	3/8" 1k-WASHER (4) (+)
1	310 798 R1 113 954	PLATE, spool seal (4) 1/4 x 3/8" slt-rd-hd SCREW (4)
2	615 012 C1	WIPER, spool (4)
3	384 598 R1	"O" RING, float & std spool (4)
4	310 850 R1	PLUG, valve port (2)
5	297 458 R1	"O" RING, valve port plug (2)
6		HOUSING & SPOOL, valve (*) (order 1 - 676 123 R91, VALVE)
	179 851	3/8 x 3" Type 2 BOLT (4) (+)
	102 635	3/8" NUT (4) (+)
	103 321	3/8" 1k-WASHER (4) (+)
7	310 822 R1	SEAT, float spool return spg inner
8	310 801 R1	SPRING, float spool return
9	636 039 R1	SEAT, float spool return spg outer
10	636 040 R1	PIN, float spool detent
11	310 804 R1	SPRING, float spool detent
12	16 011 R1	BALL, 11/32" float spool steel
13	16 008 R1	BALL, 1/4" float spool steel (4)
14	310 799 R1 217 904	CAP, float spool detent 1/4 x 7/8" hex-soc-hd SCREW (2)
15	636 041 R1	SLEEVE, float spool detent
16	310 805 R1	PLUG, std spool detent
17	310 806 R1	RING, detent plug snap
18	310 825 R1 217 904	CAP, std spool detent 1/4 x 7/8" hex-soc-hd SCREW (2)

19	310 824 R1	SCREW, std spool detent
20	310 822 R1	SEAT, std spool return spg (2)
21	310 823 R1	SPRING, std spool detent
22	310 807 R1	PLUG, relief valve
23	368 269 R1	"O" RING, valve & pilot plug (2)
24	310 808 R1	SPRING, relief valve poppet
25	310 810 R1	POPPET, relief valve
26	355 967 R1	"O" RING, relief valve poppet
27	310 811 R1	RING, poppet back-up
28	310 809 R1	SLEEVE, relief valve
29	310 812 R1	POPPET, relief valve pilot
30	310 813 R1	SPRING, relief valve pilot
31	310 816 R1	SCREW, relief valve adjusting
32	310 819 R1	POPPET, check valve (2)
33	310 820 R1	SPRING, check valve poppet (2)
34	310 821 R1	PLUG, check valve (2)
35	364 885 R1	"O" RING, check valve plug (2)
36	310 815 R1	PLUG, relief valve pilot
37	310 814 R1	SLEEVE, adjusting screw
38	310 817 R1 676 303 R1	NUT, adjusting screw lock Screw lock nut WASHER
39	310 818 R1 676 304 R1	NUT, adjusting screw castle Castle nut outer WASHER

\* Not Serviced Separately  
+ Not Part of Valve



Hydraulics

# CRAWLER TRACTORS

SECTION A  
TC-203A



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION

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## CRAWLER TRACTORS

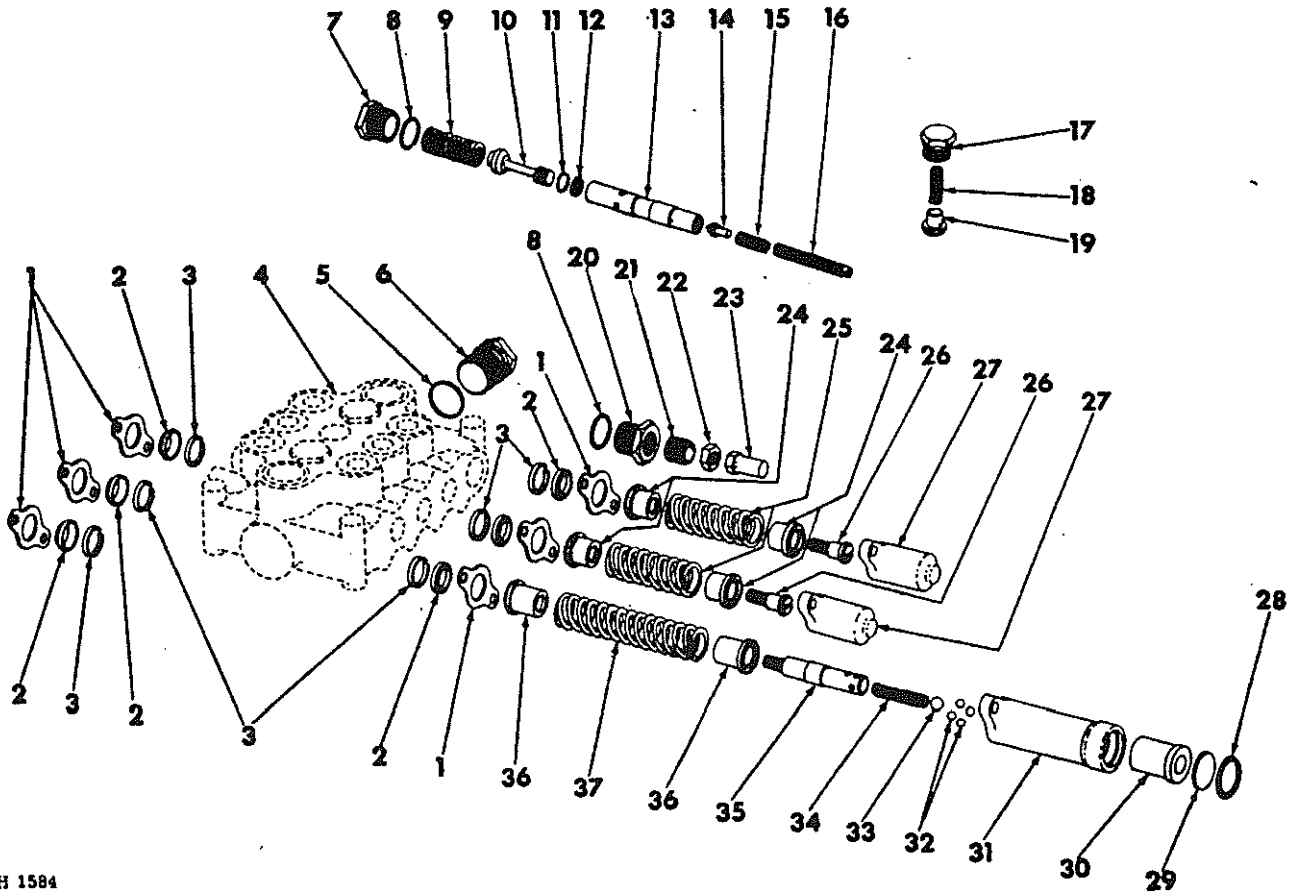


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REF. NO.	PART NUMBER	DESCRIPTION
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## HYDRAULIC CONTROL VALVE

## HYDRAULIC CONTROL VALVE - Continued



H 1584

NOTE: On Tractors equipped with 10 BULLGRADER

676 002 R91	VALVE, hyd control (includes all parts listed, unless otherwise noted)	8	368 269 R1	"O" RING, relief & pilot plug (2)
179 851	3/8 x 3" Type 2 BOLT (4) (+)	9	310 808 R1	SPRING, relief valve poppet
102 635	3/8" NUT (4) (+)	10	310 810 R1	POPPET, relief valve
103 321	3/8" lk-WASHER (4) (+)	11	355 967 R1	"O" RING, relief valve poppet
1	310 798 R1 PLATE, valve spool seal (6)	12	310 811 R1	RING, poppet back-up
113 954	1/4 x 3/8" slit-rd-hd SCREW (6)	13	310 809 R1	SLEEVE, relief valve
2	310 796 R1 WIPER, valve spool (6)	14	310 812 R1	POPPET, relief valve pilot
3	310 797 R1 RING, spool seal support (6)	15	310 813 R1	SPRING, pilot poppet
4	HOUSING & SPOOL, valve (*) (for service order 1 - 676 002 R91, VALVE)	16	310 816 R1	SCREW, relief valve adjusting
179 851	3/8 x 3" Type 2 BOLT (4) (+)	17	310 821 R1	PLUG, check valve (3)
102 635	3/8" NUT (4) (+)		364 885 R1	Plug "O" RING (3)
103 321	3/8" lk-WASHER (4) (+)			
5	297 459 R1 "O" RING, inlet & outlet port plug (2)			
6	310 850 R1 PLUG, valve inlet & outlet port plug (2)			
7	310 807 R1 PLUG, relief valve			

\* Not Serviced Separately  
+ Not Part of Valve

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CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
HYDRAULIC CONTROL VALVE - Continued					
18	310 820 R1	SPRING, check valve poppet (3)			
19	310 819 R1	POPPET, check valve spg (3)			
20	310 815 R1	PLUG, relief valve pilot			
21	310 814 R1	SLEEVE, adjusting screw			
22	310 817 R1	NUT, adjusting screw lock			
23	310 818 R1	NUT, adjusting screw castle			
24	310 822 R1	SEAT, std spool detent spr (4)			
25	310 823 R1	SPRING, std spool detent (2)			
26	310 824 R1	SCREW, std spool detent (2)			
27	310 825 R1 217 904	CAP, std spool detent (2) 1/4 x 7/8" soc-hdls SCREW (4)			
28	310 806 R1	RING, detent plug snap			
29	310 805 R1	PLUG, float spool detent cap			
30	310 803 R1	SLEEVE, float spool detent			
31	310 799 R1 217 904	CAP, float spool detent 1/4 x 7/8" hdis SCREW (2)			
32	16 008 R1	BALL, 1/4" dia steel (4)			
33	16 011 R1	BALL, 11/32" dia steel			
34	310 804 R1	SPRING, float spool detent			
35	310 802 R1	PIN, float spool detent			
36	310 800 R1	SEAT, float detent return spg (2)			
37	310 801 R1	SPRING, float spool detent return			

\* Not Serviced Separately  
+ Not Part of Cylinder

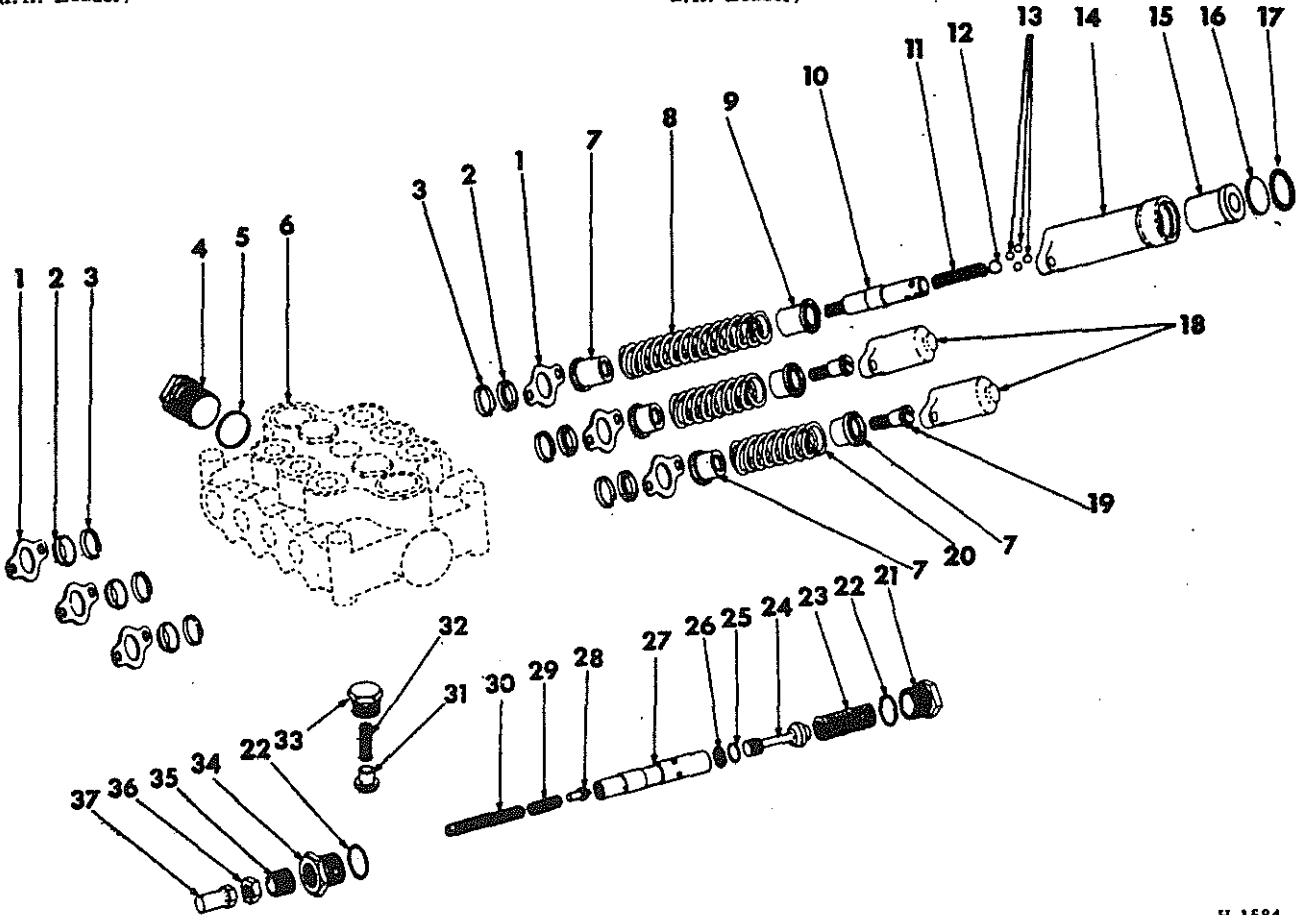


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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC CONTROL VALVE  
(I. H. Loader)

HYDRAULIC CONTROL VALVE - Continued  
(I. H. Loader)



H 1584

NOTE: On tractors w/I. H. Loader, utilizing the Drott 4-in-1 Clam Bucket or Drott Log Grapple.

635 704 R91	VALVE, 3-spool hyd control (includes parts listed, unless otherwise noted)	7	310 822 R1	SEAT, spool spg (5)
179 851	3/8 x 3" Type 2 BOLT (4) (+)	8	310 801 R1	SPRING, float spool return
102 635	3/8" NUT (4) (+)	9	636 039 R1	SEAT, float spool spg outer
103 321	3/8" 1k-WASHER (4) (+)	10	636 040 R1	PIN, float
1	310 788 R1 PLATE, std & float-spool seal (6)	11	310 804 R1	SPRING, float spool detent
113 954	1/4 x 3/8" slit-rd-hd SCREW (6)	12	16 011 R1	BALL, 11/32" steel
2	310 786 R1 OIL SEAL, spool wiper (6)	13	16 008 R1	BALL, 1/4" steel (4)
3	310 787 R1 RING, spool support (6)	14	310 798 R1 CAP, float spool detent	
4	310 850 R1 PLUG, valve port (2)	217 904	1/4 x 7/8" hex-soc-hd SCREW (2)	
5	287 459 R1 "O" RING, valve port plug (2)	15	636 041 R1	SLEEVE, float spool detent
6	HOUSING & SPOOL, valve (*) (order 1 - 635 704 R91, VALVE)	16	310 805 R1	PLUG, detent
179 851	3/8 x 3" Type 2 BOLT (4) (+)	17	310 806 R1	RING, snap
102 635	3/8" NUT (4) (+)			
103 321	3/8" 1k-WASHER (4) (+)			

\* Not Serviced Separately  
+ Not Part of Valve



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
HYDRAULIC CONTROL VALVE - Continued		
18	310 825 R1	CAP, std spool detent (2)
	217 904 R1	1/4 x 7/8" hex-soc-hd SCREW (4)
19	310 824 R1	SCREW, detent spool (2)
20	310 823 R1	SPRING, std spool detent (2)
21	310 807 R1	PLUG, relief valve
22	368 269 R1	"O" RING, relief valve (2)
23	310 808 R1	SPRING, relief valve poppet
24	310 810 R1	POPPET, relief valve
25	355 967 R1	"O" RING, relief valve poppet
26	310 811 R1	RING, relief valve poppet back-up
27	310 809 R1	SLEEVE, relief valve
28	310 812 R1	POPPET, relief valve pilot
29	310 813 R1	SPRING, relief valve pilot
30	310 816 R1	SCREW, relief valve adjusting
31	310 819 R1	POPPET, check valve (3)
32	310 820 R1	SPRING, check valve poppet (3)
33	310 821 R1	PLUG, check valve (3)
	364 885 R1	Valve plug "O" RING (3)
34	310 815 R1	PLUG, relief valve pilot
35	310 814 R1	SLEEVE, adjusting screw
36	310 817 R1	NUT, adjusting screw lock
37	310 818 R1	NUT, adjusting screw castle

REF. NO.	PART NUMBER	DESCRIPTION
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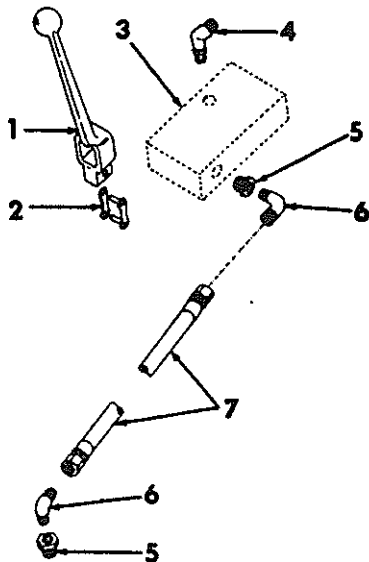




## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC VALVE SYSTEM - For Crawler without bullgrader loader or 3 point hitch hydraulic lift</b>		

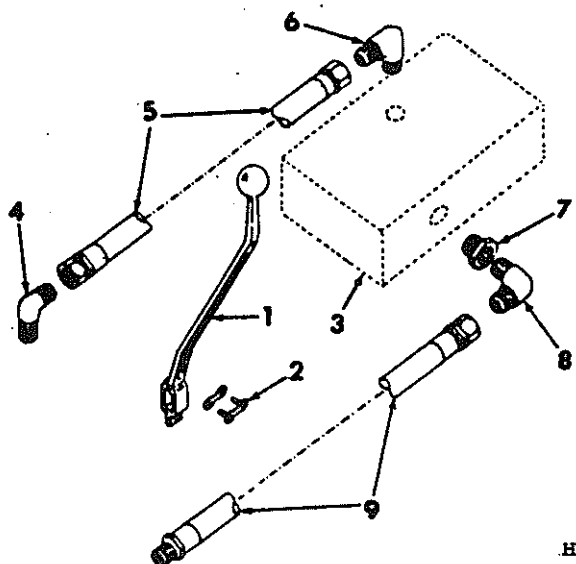


HE 338

- NOTE A: For Single Acting Cylinder Alone  
 NOTE B: For Remote Control Double Acting Cylinder Alone  
 NOTE C: For Remote Control and Single Acting Cylinder

1	636 038 R1 517 194 R1 103 373	LEVER, hyd valve (NOTE A & B) 1/4 x 1-3/8" std-hd PIN 3/32 x 3/4" c-PIN
1	636 038 R1 517 194 R1 103 373	LEVER, hyd valve (2) (NOTE C) 1/4 x 1-3/8" std-hd PIN (2) 3/32 x 3/4" c-PIN (2)
2	635 714 R91 635 714 R91	LINK, valve lever chain (NOTE A & B) LINK, valve lever chain (2) (NOTE C)
3	635 605 R92	VALVE, 1 spool 3 way hyd control (NOTE A) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 160)
3	636 709 R91	VALVE, 1 spool 4 way hyd control (NOTE B) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 161)
3	635 877 R92 600 192 R1 179 849 102 635 103 321	VALVE, 2 spool dual control (NOTE C) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 162 ) Valve mounting SPACER (3) 3/8 x 2-1/2" Type 2 BOLT (3) 3/8" NUT (3) 3/8" 1k-WASHER (3)
4	618 231 R1 635 596 R1	ELBOW, 1/2" - 90° valve port (NOTE A & C) ELBOW, 1/2" - 90° valve ports (2) (NOTE B & C)
5	144 034	BUSHING, 3/4 x 1/2" hyd valve outlet & bevel gear cover (2)
6	9402 866	ELBOW, 90°
7	636 007 R91	HOSE, valve to bevel gear cover

REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC VALVE SYSTEM - For Crawler without bullgrader and loader but with 3 Point Hitch Hydraulic Lift</b>		



HE 340

- NOTE A: For Three Point Hitch Alone  
 NOTE B: For Three Point Hitch and Remote Control

1	636 038 R1 517 194 R1 103 373	LEVER, hyd valve (NOTE A) 1/4 x 1-3/8" std-hd PIN 3/32 x 3/4" c-PIN
1	636 038 R1 517 194 R1 103 373	LEVER, hyd valve (2) (NOTE B) 1/4 x 1-3/8" std-hd PIN (2) 3/32 x 3/4" c-PIN (2)
2	635 714 R91 635 714 R91	LINK, valve lever chain (NOTE A) LINK, valve lever chain (2) (NOTE B)
3	635 605 R92	VALVE, 3 spool 3 way control (NOTE A) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 160 )
3	635 877 R92 600 192 R1 179 849 102 635 103 321	VALVE, 2 spool dual control (NOTE B) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 162 ) Valve mounting SPACER (3) 3/8 x 2-1/2" Type 2 BOLT (3) 3/8" NUT (3) 3/8" 1k-WASHER (3)
4	9410 977 570 828 R1	ELBOW, 90° hydraulic cyl cap Cyl cup "O" RING
5	635 594 R92 473 820 R91	HOSE, hitch cyl (Crawler Tractor prior Serial No. H order 1 - 473 820 R91, HOSE & 1 - 618 231 R1; ELBOW) HOSE, hitch cyl (Crawler Tractor Serial No. H & up)
6	618 231 R1 635 596 R1	ELBOW, 1/2" - 90° valve ports (NOTE A & B) ELBOW, 1/2" - 90° valve ports (2) (NOTE B)
7	144 034	BUSHING, 3/4 x 1/2" valve outlet
8	9402 866	ELBOW, 90° valve outlet
9	636 006 R92	HOSE, hyd lift housing



**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC VALVE SYSTEM - For Crawler with 5G2 or 11 Bullgrader, but without 3 point hitch hydraulic lift or backhoe</b>		
	HE 338	
	NOTE A: For Bullgrader Alone	
	NOTE B: For Bullgrader in Combination w/Single Acting Cylinder	
	NOTE C: For Bullgrader in Combination w/Remote Control Double Acting Cylinder	
1	636 038 R1 517 194 R1 103 373	LEVER, hyd valve (NOTE A) 1/4 x 1-3/8" std-hd PIN 3/32 x 3/4" c-PIN
1	636 038 R1 517 194 R1 103 373	LEVER, hyd valve (2) (NOTE B & C) 1/4 x 1-3/8" std-hd PIN (2) 3/32 x 3/4" c-PIN (2)
2	635 714 R91	LINK, valve lever chain (NOTE A)
2	635 714 R91	LINK, valve lever chain (2) (NOTE B & C)
3	636 708 R91	VALVE, 1 spool 4 way hyd control (NOTE A) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 161)
3	635 877 R92	VALVE, 2 spool dual control (NOTE B) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 162)
3	635 878 R92	VALVE, 2 spool dual control (NOTE C) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 163)
	600 192 R1 179 849 102 635 103 321	Valve mounting SPACER (3) 3/8 x 2-1/2" Type 2 BOLT (3) 3/8" NUT (3) 3/8" 1k-WASHER (3)
4	635 596 R1	ELBOW, 1/2" - 90° valve ports (2) (NOTE A & B) 11 Bullgrader
4	618 231 R1	ELBOW, 1/2" - 90° valve ports (2) (NOTE A & B) 5G2 Bullgrader
4	618 231 R1	ELBOW, 1/2" - 90° valve ports (NOTE B) 5G2 & 11 Bullgrader
4	635 596 R1	ELBOW, 1/2" - 90° valve ports (4) (NOTE C) 11 Bullgrader
4	618 231 R1	ELBOW, 1/2" - 90° valve ports (2) (NOTE C) 5G2 Bullgrader
4	635 596 R1	ELBOW, 1/2" - 90° valve ports (2) (NOTE C) 5G2 Bullgrader
5	144 034	BUSHING, 3/4 x 1/2" valve outlet & bevel gear cover (2)
6	9402 866	ELBOW, 90° valve outlet & bevel gear cover (2)
7	636 007 R91	HOSE, valve to bevel gear cover

REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC VALVE SYSTEM - For Crawler with 5G2 or 11 Bullgrader with 3 Point Hitch Hydraulic Lift</b>		
	HE 340	
1	636 038 R1 517 194 R1 103 373	LEVER, hyd valve (2) 1/4 x 1-3/8" std-hd PIN (2) 3/32 x 3/4" c-PIN (2)
2	635 714 R91	LINK, valve lever chain (2)
3	635 877 R92	VALVE, 2 spool dual control (for component parts refer to "HYDRAULIC CONTROL VALVE" page 162)
	600 192 R1 179 849 102 635 103 321	Valve mounting SPACER (3) 3/8 x 2-1/2" Type 2 BOLT (3) 3/8" NUT (3) 3/8" 1k-WASHER (3)
4	9410 977 570 828 R1	ELBOW, 90° hyd cyl cap Cyl cap "O" RING
5	635 594 R92	HOSE, hitch cyl (Crawler Tractor prior Serial No. H order 1 - 473 820 R91, HOSE & 1 - 618 231 R1, ELBOW)
5	473 820 R91	HOSE, hitch cyl (Crawler Tractor Serial No. H & up)
6	635 596 R1 618 231 R1	ELBOW, 1/2" - 90° valve ports (2) ELBOW, 1/2" - 90° valve ports
7	144 034	BUSHING, 3/4 x 1/2" valve outlet
8	9402 866	ELBOW, 90° valve outlet
9	636 006 R92	HOSE, hyd lift housing

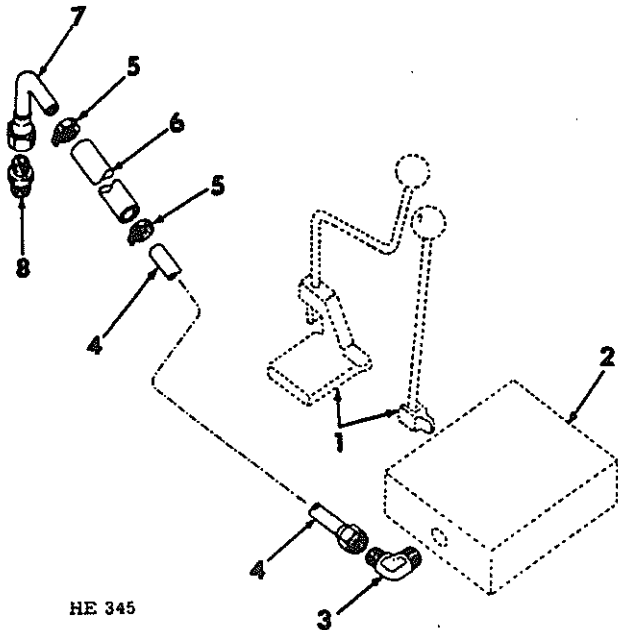


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC VALVE SYSTEM - For Crawlers with 10 Bullgrader without auxiliary valve

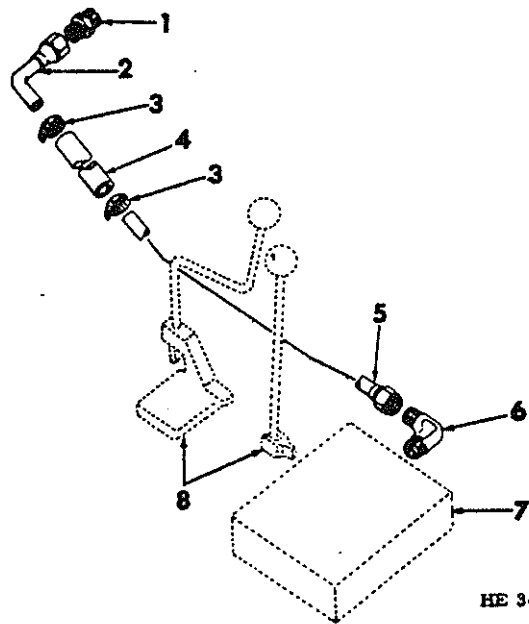


HE 345

1		CONTROLS, hyd valve (for component parts refer to "VALVE CONTROLS")
2	676 002 R91	VALVE, 3 spool hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE" page 166)
	179 851	3/8 x 3" Type 2 BOLT (3)
	102 635	3/8" NUT (3)
	103 321	3/8" 1k-WASHER (3)
3	635 768 R91 279 459 R1	ELBOW, 90° outlet port Valve elbow "O" RING
4	676 003 R11	PIPE, valve to reservoir
5	995 218 R1	CLAMP, hose (2)
6	635 985 R1	HOSE, valve to reservoir
7	635 983 R11	ELBOW, reservoir hose
8	9402 711	CONNECTOR, bevel gear cover

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC VALVE SYSTEM - For Crawlers with Loader without auxiliary valve



HE 346

NOTE A: Loader with Drott Angle Dozer Blade or Material Bucket		
NOTE B: Loader with Drott 4-in-1 Clam Bucket or Drott Log Grapple		
1	9402 711	CONNECTOR, bevel gear cover
2	635 983 R11	ELBOW, reservoir hose
3	995 218 R1	CLAMP, hose (2)
4	635 985 R1	HOSE, valve to reservoir
5	675 886 R11	PIPE, valve to reservoir
6	635 768 R91 287 459 R1	ELBOW, outlet port Valve elbow "O" RING
7	635 704 R91	VALVE, hyd control 3 spool (for component parts refer to "HYDRAULIC CONTROL VALVE" page 168) (NOTE B)
7	676 123 R91	VALVE, hyd control 2 spool (for component parts refer to "HYDRAULIC CONTROL VALVE" page 164) (NOTE A)
	179 851	3/8 x 3" Type 2 BOLT (3)
	102 635	3/8" NUT (3)
	103 321	3/8" 1k-WASHER (3)
8		CONTROLS, hyd valve (for component parts refer to "VALVE CONTROLS")

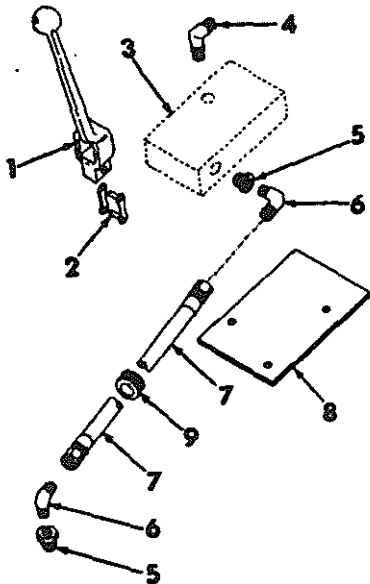


## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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## HYDRAULIC VALVE SYSTEM - For Skidder with 5D2 Bulldozer

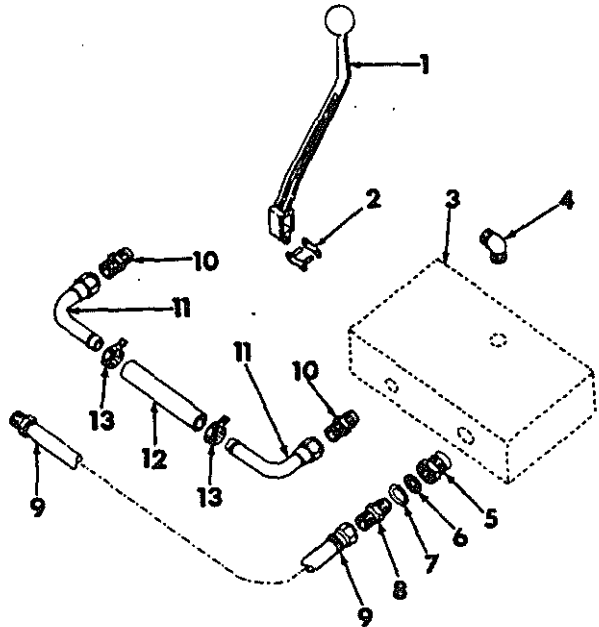


HE 338

1	380 366 R1 517 194 R1 103 373	LEVER, hyd 1/4 x 1-3/8" std-hd PIN 3/32 x 3/4" c-PIN
2	635 714 R91	LINK, valve lever chain
3	636 709 R91  179 849 102 635 103 321	VALVE, 1 spool 4 way control (for component parts refer to "HYDRAULIC CONTROL VALVE" page 161) 3/8 x 2-1/2" Type 2 BOLT (3) 3/8" NUT (3) 3/8" 1k-WASHER (3)
4	618 231 R1	ELBOW, 1/2" - 90° valve ports (2)
5	144 034	BUSHING, 3/4 x 1/2" valve outlet
6	9402 827	ELBOW, 45° outlet & bevel gear cover (2)
7	637 213 R11	HOSE, bevel gear cover
8	637 214 R1	BLOCK, valve mtg
9	317 623 R1	GROMMET, fender hose

REF. NO.	PART NUMBER	DESCRIPTION
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## HYDRAULIC VALVE SYSTEM - For Crawlers with 5G2 or 11 Bullgrader and Backhoe



HE 375

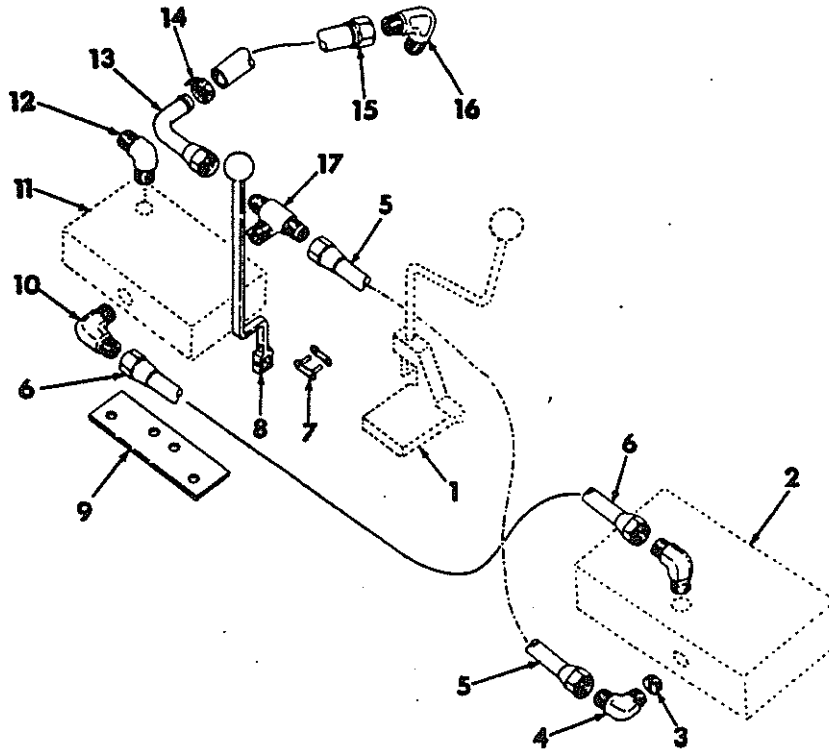
1	636 038 R1 517 194 R1 103 373	LEVER, hyd valve 1/4 x 1-3/8" std-hd PIN 3/32 x 3/4" c-PIN
2	635 714 R91	LINK, valve lever chain
3	636 709 R91  600 192 R1 179 849 102 635 103 321	VALVE, 1 spool 4 way control (for component parts refer to "HYDRAULIC CONTROL VALVE" page 161) Valve mtg SPACER (3) 3/8 x 2-1/2" Type 2 BOLT (3) 3/8" NUT (3) 3/8" 1k-WASHER (3)
4	618 231 R1	ELBOW, 1/2" - 90° valve ports (2) (5G2 Bullgrader)
4	635 596 R1	ELBOW, 1/2" - 90° valve ports (2) (11 Bullgrader)
5	666 217 R1	SLEEVE, power beyond port
6	635 971 R1	GASKET, sleeve
7	666 218 R1	"O" RING, connector
8	9402 712	CONNECTOR, sleeve
9	482 042 R91	HOSE, power beyond to backhoe
10	9402 711	CONNECTOR, outlet port & bevel gear cover (2)
11	635 983 R11	ELBOW, valve to reservoir & reservoir hose (2)
12	635 985 R1	HOSE, valve to reservoir
13	995 218 R1	CLAMP, hose (2)



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC VALVE SYSTEM - For Crawlers with 10 Bullgrader with Auxiliary Valve without 3 point hitch

HYDRAULIC VALVE SYSTEM - For Crawlers with 10 Bullgrader with Auxiliary Valve without 3 point hitch - Continued



HE 376

NOTE A: For Bullgrader in Combination w/Single Acting Cylinder

NOTE B: For Bullgrader in Combination w/Remote Control Double Acting Cylinder or Scarifier

1	CONTROLS, hyd valve (for component parts refer to "VALVE CONTROLS")	10	9402 867	ELBOW, 90° valve inlet port
2	676 002 R91 VALVE, 3 spool hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE" page 166)	11	635 605 R92	VALVE, hyd control 1 spool 3 way (NOTE A) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 160)
	179 851 R1 3/8 x 3" Type 2 BOLT (3)	11	635 867 R92	VALVE, hyd control 1 spool 4 way (NOTE B) (for component parts refer to "HYDRAULIC CONTROL VALVE" 636 709 R91 page 161 less power beyond plug & gasket)
	102 635 3/8" NUT (3)		615 926 R1	Valve mtg SPACER (2)
	103 321 3/8" 1k-WASHER (3)		178 851	3/8 x 3" Type 2 BOLT (3)
3	144 014 PLUG, power behind port		102 635	3/8" NUT (3)
4	635 768 R91 ELBOW, outlet port & power beyond (2)		103 321	3/8" 1k-WASHER (3)
	297 459 R1 Valve elbow "O" RING (2)	12	635 596 R1	ELBOW, 1/2" - 90° valve port (NOTE A)
5	676 299 R11 PIPE, valve outlet to tee	12	9402 866	ELBOW, 1/2" - 90° valve ports (2) (NOTE B)
6	676 298 R11 PIPE, valve to valve	13	635 983 R11	ELBOW, hyd reservoir hose
7	635 714 R91 LINK, hyd valve lever chain	14	995 218 R1	CLAMP, hose
8	635 984 R1 LEVER, hyd valve	15	676 541 R91	HOSE, hyd reservoir
	517 194 R1 1/4 x 1-3/4" std-hd PIN	16	9402 867	ELBOW, 90° bevel gear cover
	103 373 3/32 x 3/4" c-PIN	17	9403 023	TEE, auxiliary valve outlet
9	676 720 R1 BAR, valve mtg			
	600 192 R1 Mtg bar SPACER			
	28 035 K 13/32 x 1 x 22 ga WASHER			
	179 881 1/2 x 1" Type 2 BOLT (2)			
	102 637 1/2" NUT (2)			
	103 323 1/2" 1k-WASHER (2)			



## CRAWLER TRACTORS

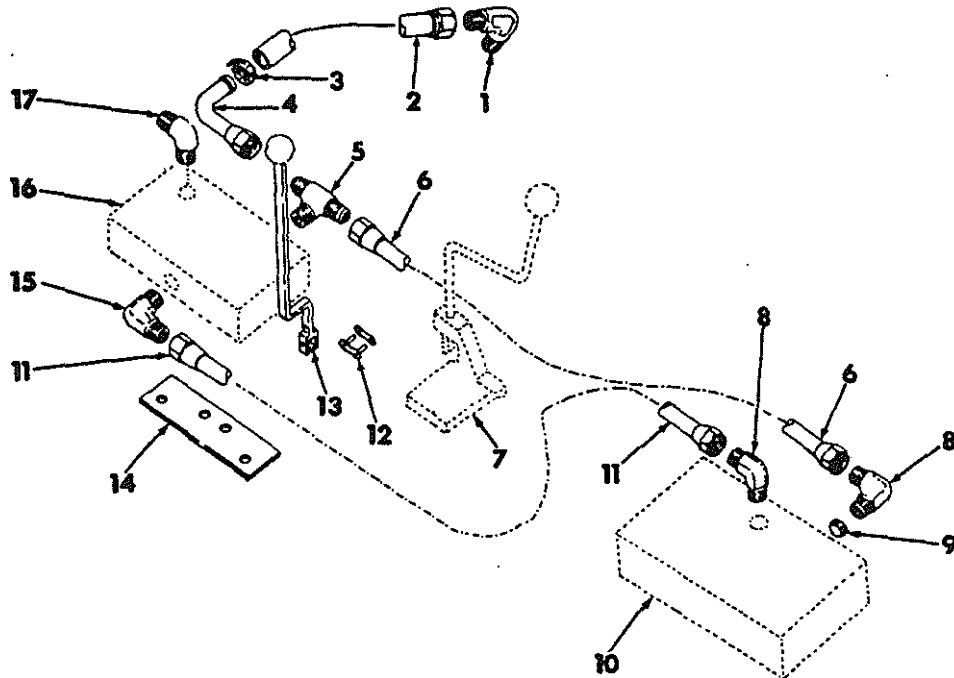


REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC VALVE SYSTEM - For Crawlers with Loader, with Auxiliary Valve, but without three point hitch

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC VALVE SYSTEM - For Crawlers with Loaders, with Auxiliary Valve, but without three point hitch - Continued



HE 348

NOTE A: For Loader in combination with Single Acting Cylinder

NOTE B: For Loader in combination with Remote Control Double Acting Cylinder or Scarifier

1	9402 867	ELBOW, 90° bevel gear cover	11	636 062 R11	PIPE, valve to valve
2	676 541 R91	HOSE, hyd reservoir	12	635 714 R91	LINK, hyd valve lever chain
3	995 218 R1	CLAMP, hose	13	635 984 R1	LEVER, hyd valve
4	635 983 R11	ELBOW, hyd reservoir hose	517 194 R1		1/4 x 1-3/4" std-hd PIN
5	9403 023	TEE, auxiliary valve outlet	103 373		3/32 x 3/4" c-PIN
6	635 982 R11	PIPE, valve outlet to tee	14	676 720 R1	BAR, valve mtg
7		CONTROLS, hyd valve (for component parts refer to "VALVE CONTROLS")	600 182 R1		Mtg bar SPACER
8	635 768 R91	ELBOW, outlet & power beyond port (2)	28 035 K		15/32 x 1 x 22 ga WASHER
	297 459 R1	Valve elbow "O" RING (2)	179 881		1/2 x 1" Type 2 BOLT (2)
9	144 014	PLUG, power beyond port	102 637		1/2" NUT (2)
10	635 704 R91	VALVE, hyd control 3 spool (for Loader w/ Drott 4-in-1 Clam Bucket or Drott Log Grapple) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 168)	103 323		1/2" 1k-WASHER (2)
10	676 123 R91	VALVE, hyd control 2 spool (for Loader w/ Drott Angle Dozer Blade or Material Bucket) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 164)	15	9402 867	ELBOW, 90° auxiliary valve inlet port
179 851		3/8 x 3" Type 2 BOLT (3)	16	635 605 R92	VALVE, hyd control 1 spool 3 way (NOTE A) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 160)
102 635		3/8" NUT (3)	16	635 867 R92	VALVE, hyd control 1 spool 4 way (NOTE B) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 161) (less power beyond plug & gasket)
103 321		3/8" 1k-WASHER (3)	615 926 R1		Valve mtg SPACER (2)
			179 851		3/8 x 3" Type 2 BOLT (3)
			102 635		3/8" NUT (3)
			103 321		3/8" 1k-WASHER (3)
			17	635 596 R1	ELBOW, 1/2" - 90° valve port (NOTE A)
			17	9402 866	ELBOW, 1/2" - 90° valve port (NOTE B)



## CRAWLER TRACTORS

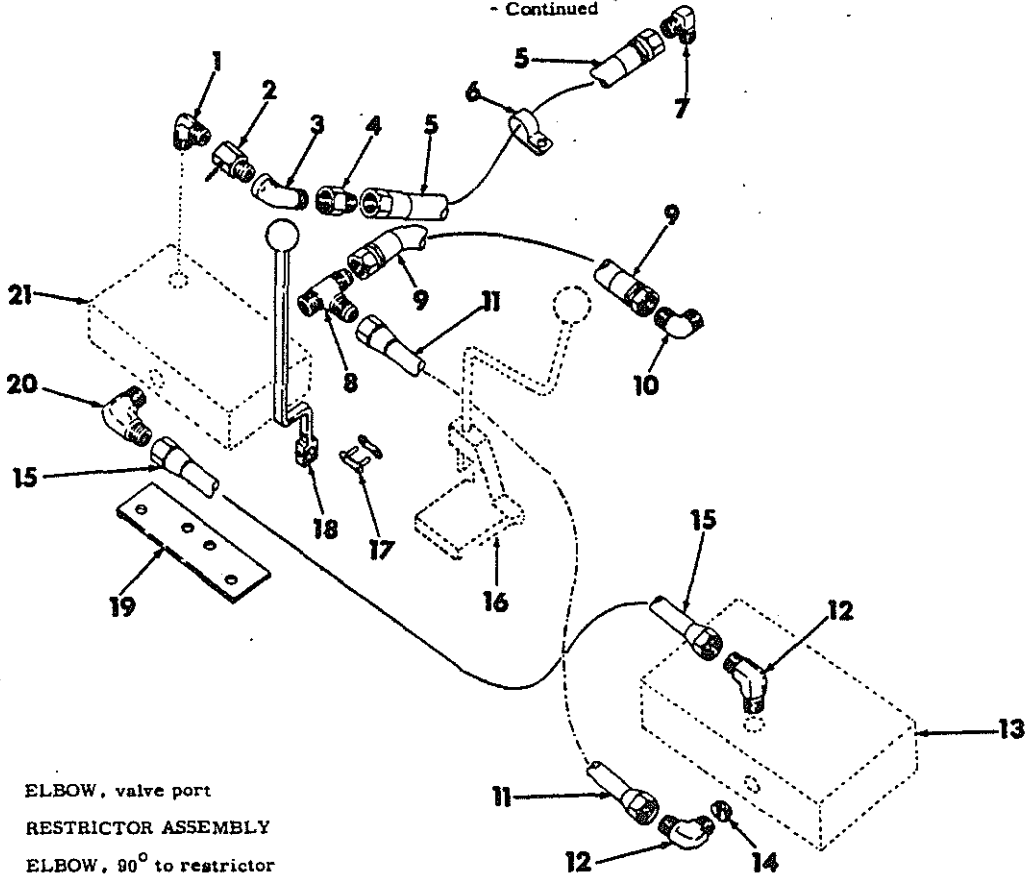


REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC VALVE SYSTEM - For Crawlers with 10 Bullgrader with Auxiliary Valve with Three Point Hitch Hydraulic Lift

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC VALVE SYSTEM - For Crawlers with 10 Bullgrader with Auxiliary Valve with Three Point Hitch Hydraulic Lift - Continued



HE 347

1	635 596 R1	ELBOW, valve port
2	635 907 R11	RESTRICTOR ASSEMBLY
3	108 686	ELBOW, 90° to restrictor
4	561 989 R1	ADAPTER, hose
5	635 594 R92	HOSE, hitch cyl (Crawler Tractor prior Serial No. H - order 1 - 473 820 R01, HOSE & 1 - 561 989 R1, ADAPTER)
5	473 820 R91	HOSE, hitch cyl (Crawler Tractor Serial No. H & up)
6	636 053 R1	CLAMP, hose
7	9410 977 570 828 R1	ELBOW, hyd cyl cap Elbow "O" RING
8	9403 101	TEE, auxiliary valve outlet
9	635 810 R91	HOSE, reservoir
10	9402 867	ELBOW, hyd lift hsg
11	676 299 R11	PIPE, valve outlet to tee
12	635 768 R91 297 459 R1	ELBOW, outlet port & power beyond (2) Valve Elbow "O" RING (2)
13	676 002 R91	VALVE, 3 spool hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE" page 166)
	179 851	3/8 x 3" Type 2 BOLT (3)
	102 635	3/8" NUT (3)
	103 321	3/8" 1k-WASHER (3)

14	144 014	PLUG, power beyond port
15	676 298 R11	PIPE, valve to valve
16		CONTROLS, hyd valve (for component parts refer to "VALVE CONTROLS")
17	635 714 R91	LINK, hyd valve lever chain
18	635 984 R1 517 194 R1 103 373	LEVER, hyd valve 1/4 x 1-3/4" std-hd PIN 3/32 x 3/4" c-PIN
19	676 720 R1 600 102 R1 28 035 K 179 881 102 637 103 323	BAR, valve mounting Mtg bar SPACER 13/32 x 1 x 22 ga WASHER 1/2 x 1" Type 2 BOLT (2) 1/2" NUT (2) 1/2" 1k-WASHER (2)
20	9402 867	ELBOW, 90° valve inlet port
21	635 605 R92	VALVE, hyd control 1 spool 3 way (for component parts refer to "HYDRAULIC CONTROL VALVE" page 160)
	615 926 R1	Valve mtg SPACER (2)
	179 851	3/8 x 3" Type 2 BOLT (3)
	102 635	3/8" NUT (3)
	103 321	3/8" 1k-WASHER (3)



## CRAWLER TRACTORS

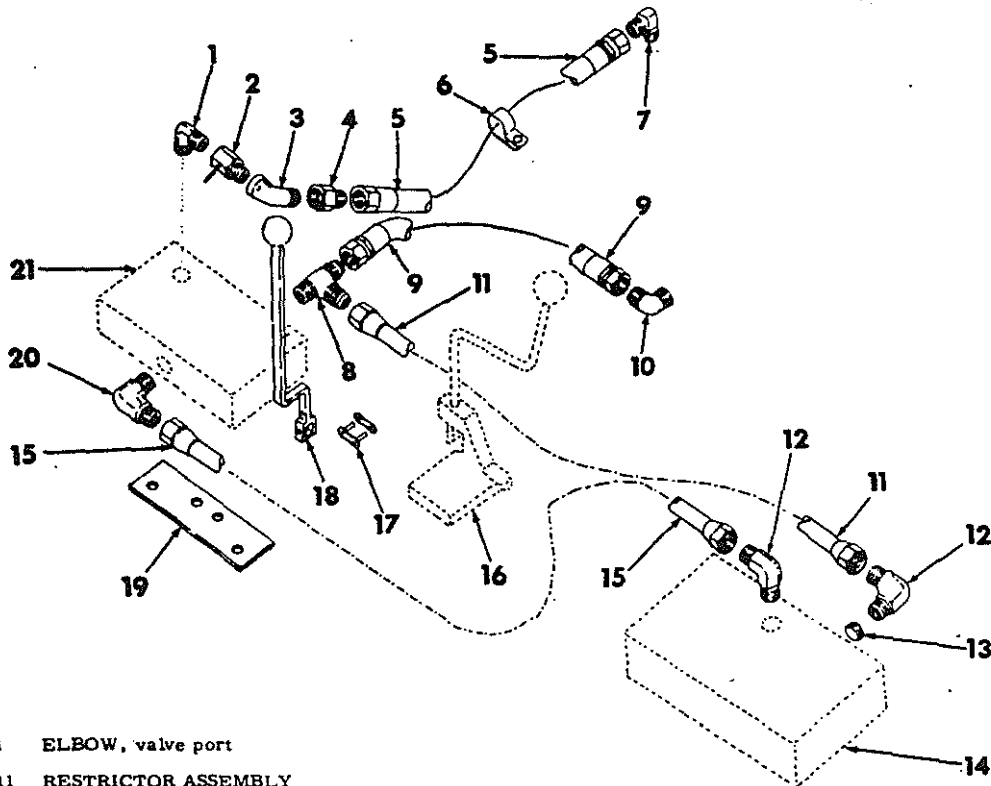


REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC VALVE SYSTEM - For Crawler With Loader with Auxiliary Valve and 3 Point Hitch Hydraulic Cylinder

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC VALVE SYSTEM - For Crawler With Loader with Auxiliary Valve and 3 Point Hitch Hydraulic Cylinder - Continued



HE 341

1	635 596 R1	ELBOW, valve port		
2	635 907 R11	RESTRICTOR ASSEMBLY		
3	108 686	ELBOW, 90° to restrictor		
4	561 989 R1	ADAPTER, hose		
5	635 594 R92	HOSE, hitch cyl (Crawler Tractor prior Serial No. H order 1 - 473 820 R91, HOSE & 1 - 561 989 R1, ADAPTER)		
5	473 820 R91	HOSE, hitch cyl (Crawler Tractor Serial No. H & up)		
6	636 053 R1	CLAMP, hose		
7	9410 077 570 828 R1	ELBOW, hyd cyl cap Elbow "O" RING		
8	9403 101	TEE, auxiliary valve outlet		
9	635 810 R91	HOSE, reservoir		
10	9402 867	ELBOW, hyd lift housing		
11	635 982 R11	PIPE, valve outlet to tee		
12	635 768 R91 287 459 R1	ELBOW, outlet & power beyond port (2) Valve elbow "O" RING (2)		
13	144 014	PLUG, power beyond port		
14	635 704 R91	VALVE, hyd control 3 spool (for Loader w/Drott 4-in-1 Clam Bucket or Drott Log Grapple) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 168)		
14	676 123 R91 179 851 102 635 103 321	VALVE, hyd control 2 spool (for Loader w/ Drott Angle Dozer Blade or Material Bucket) (for component parts refer to "HYDRAULIC CONTROL VALVE" page 164) 3/8 x 3" Type 2 BOLT (3) 3/8" NUT (3) 3/8" 1k-WASHER (3)		
15	636 062 R11	PIPE, valve to valve		
16		CONTROLS, hyd valve (for component parts refer to "VALVE CONTROLS")		
17	635 714 R91	LINK, hyd valve lever chain		
18	635 984 R1 517 194 R1 103 373	LEVER, hyd valve 1/4 x 1-3/4" std-hd PIN 3/32 x 3/4" c-PIN		
18	676 720 R1 600 192 R1 28 035 K 179 881 102 637 103 323	BAR, valve mtg Mtg bar SPACER 13/32 x 1 x 22 ga WASHER 1/2 x 1" Type 2 BOLT (2) 1/2" NUT (2) 1/2" 1k-WASHER (2)		
20	9402 867	ELBOW, 90° valve inlet port		
21	635 605 R92 615 926 R1 179 851 102 635 103 321	VALVE, hyd control 1 spool 3 way (for component parts refer to "HYDRAULIC CONTROL VALVE" page 160) Valve mtg SPACER (2) 3/8 x 3" Type 2 BOLT (3) 3/8" NUT (3) 3/8" 1k-WASHER (3)		





# CRAWLER TRACTORS

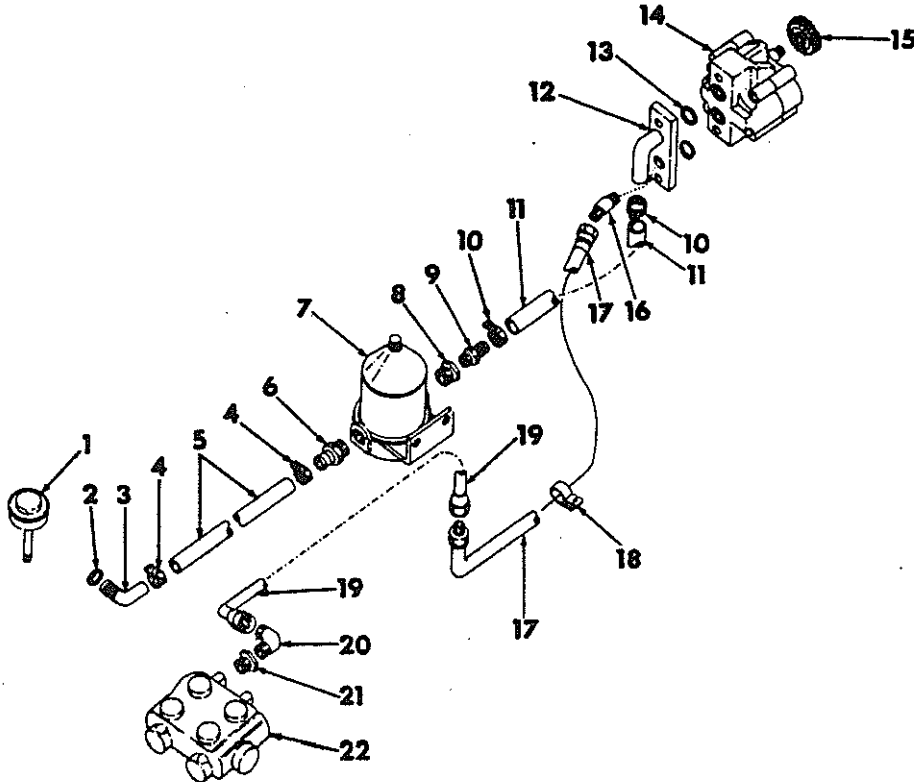


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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**HYDRAULIC PUMP SYSTEM**  
(For Gas Tractor with 9 GPM Pump Alone)

**HYDRAULIC PUMP SYSTEM - Continued**  
(For Gas Tractor with 9 GPM Pump Alone)



HE 385

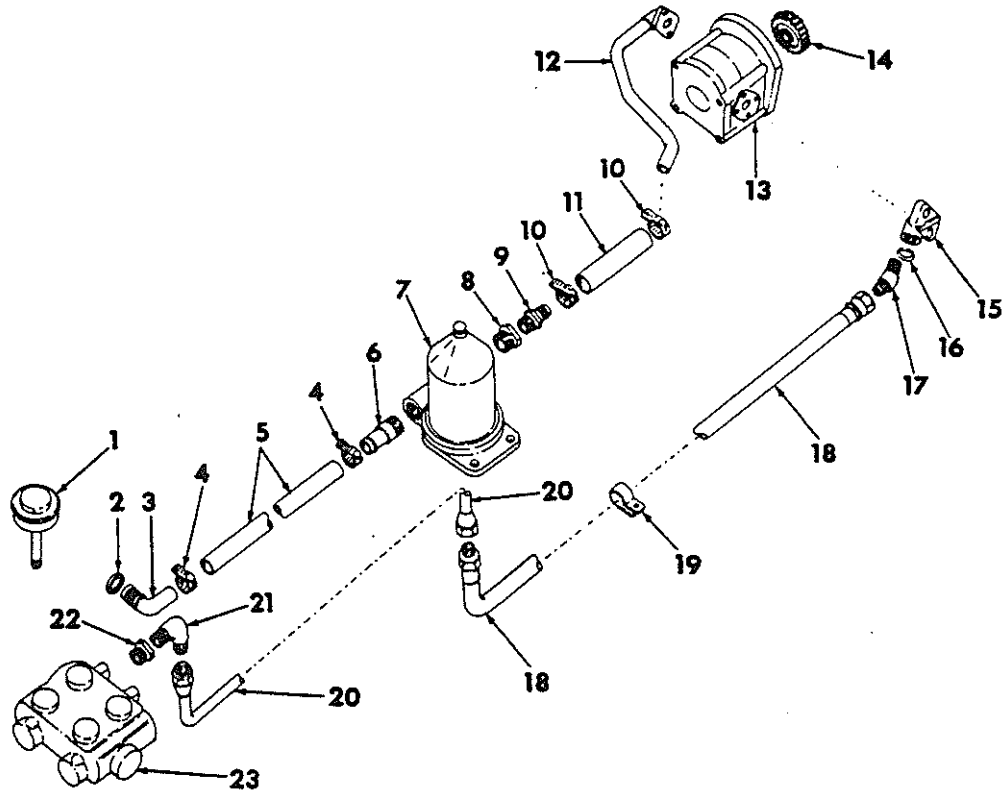
1	636 748 R91	BREATHER, hyd fluid reservoir
2	252 728 R1	"O" RING, reservoir elbow
3	635 710 R91	ELBOW, suction line reservoir
4	274 086 R91	CLAMP, reservoir suction hose (2)
5	636 341 R1	HOSE, reservoir to filter suction
6	635 648 R1	FITTING, reservoir side oil filter
7	635 585 R92	FILTER, hyd oil (for component parts refer to "HYDRAULIC OIL FILTER")
	179 840	3/8 x 1-1/8" Type 2 BOLT (2)
	102 635	3/8" NUT (2)
	Q 1 504	13/32 x 7/8 x 16 ga WASHER (2)
	103 321	3/8" 1k-WASHER (2)
8	128 003	BUSHING, 1 x 3/4" filter reducing
9	635 584 R1	FITTING, pump side oil filter
10	122 316 R91	CLAMP, pump side suction hose (2)
11	636 342 R11	HOSE, filter to pump suction
12	635 602 R11	MANIFOLD, hyd pump
	186 310	3/8 NF x 3-1/2" Type 2 BOLT (2)
	103 026	3/8" NF NUT (2)
	103 321	3/8" 1k-WASHER (2)
13	355 865 R1	"O" RING, hyd pump manifold (2)
14	368 633 R92	PUMP, 9 GPM hyd (for component parts refer to "HYDRAULIC PUMP")
	186 282	3/8 x 3-1/4" Type 2 BOLT (2)
	103 321	3/8" 1k-WASHER (2)

15	350 709 R1	GEAR, 16T hyd pump drive
	115 549	Drive gear WASHER
	124 543	1/8 x 1/2" No. 3 Woodruff KEY
	114 494	3/8" NF jam NUT
16	9411 105	ELBOW, 1/2" - 45° pump manifold
	570 828 R1	Pump manifold "O" RING
17	635 600 R91	HOSE, pump to valve high pressure
18	636 053 R1	CLAMP, high pressure hose
19	635 599 R11	PIPE, pump to valve high pressure
20	9402 866	ELBOW, 90° valve inlet bushing
21	144 034	BUSHING, 3/4 x 1/2" valve inlet reducing
22		VALVE, hyd control (for the applicable valve & component parts refer to "HYDRAULIC CONTROL VALVE")



REF. NO.	PART NUMBER	DESCRIPTION
HYDRAULIC PUMP SYSTEM - For Diesel Tractor with 10 GPM Pump Alone		

REF. NO.	PART NUMBER	DESCRIPTION
HYDRAULIC PUMP SYSTEM - For Diesel Tractor with 10 GPM Pump Alone - Continued		



HE 374

NOTE A: For Tractor w/5G2 or 11 Bullgrader

NOTE B: For Skidder

1	636 748 R91	BREATHER, hyd reservoir	13	3043 981 R94	PUMP, 10 GPM hyd (for component parts refer to "HYDRAULIC PUMP")
2	252 728 R1	"O" RING, reservoir elbow	179 828		5/16 x 2-1/2" Type 2 BOLT (3)
3	635 745 R91	ELBOW, oil return line	271 486		5/16 x 2-5/8" Type 2 BOLT
4	279 024 R91	CLAMP, rear return hose (2)	102 634		5/16" NUT (4)
5	636 832 R1	HOSE, reservoir to filter return	103 320		5/16" 1k-WASHER (4)
6	635 743 R1	FITTING, filter (reservoir side)	14	704 331 R1	PINION, hyd pump drive
7	636 801 R91	FILTER, hyd oil (for component parts refer to "HYDRAULIC OIL FILTER")	706 067 R1		Pump pinion KEY
179 866		7/16 x 2" Type 2 BOLT (2)	706 069 R1		Pinion 1k-WASHER
271 500		7/16" NUT (2)	3044 638 R1		Pinion 1k-NUT
179 866		15/32 x 1 x 11 ga WASHER (2)	15	635 547 R1	MANIFOLD, hyd pump outlet
103 322		7/16" 1k-WASHER (2)	138 205		1/4 x 1-3/4" soc-hd SCREW (2)
8	128 003	BUSHING, 1 x 3/4" filter reducer	350 429 R1		Manifold "O" RING
9	635 584 R1	FITTING, filter (pump side)	16	570 828 R1	"O" RING, connector
10	985 218 R1	CLAMP, front return hose (2)	17	9411 105	CONNECTOR, outlet manifold
11	675 414 R1	HOSE, pump to filter return	18	635 600 R91	HOSE, pump to valve pressure
12	675 413 R11	PIPE, hyd pump inlet	19	636 053 R1	CLAMP, pressure hose
706 075 R1		5/16 x 3/4" soc-hd SCREW (2)	20	635 599 R11	PIPE, pressure hose to valve (NOTE A)
706 053 R1		5/16" 1k-WASHER (2)	20	637 212 R11	PIPE, pressure hose to valve (NOTE B)
			21	9402 866	ELBOW, 90° valve inlet
			22	144 034	BUSHING, 3/4 x 1/2" valve inlet reducer
			23		VALVE, hyd control for applicable valve and component parts refer to "HYDRAULIC CONTROL VALVE"



Hydraulic

# CRAWLER TRACTORS

SECTION A  
TC-203A

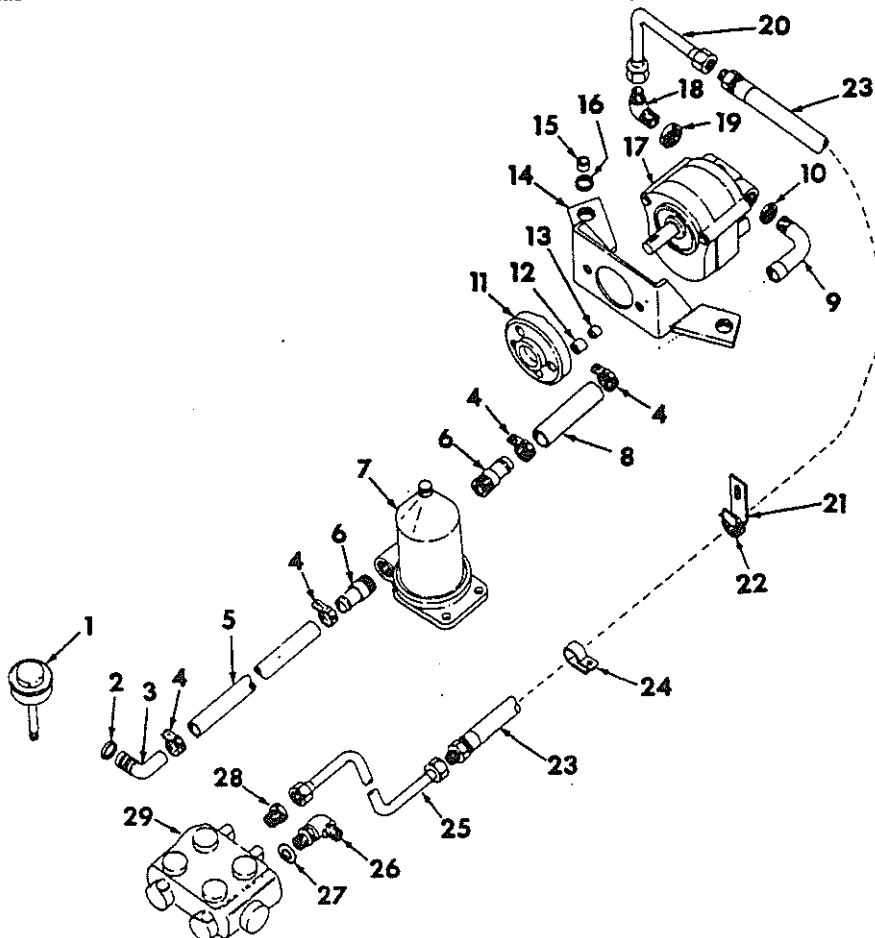


REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC PUMP SYSTEM - For Gas and Diesel Tractors  
w/12 GPM Pump Alone

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC PUMP SYSTEM - For Gas and Diesel Tractors  
w/12 GPM Pump Alone - Continued



NOTE A: For 10 Bullgrader  
NOTE B: For 5G2 or 11 Bullgrader  
NOTE C: For Skudder

1	636 748 R91	BREATHER, hyd fluid reservoir
2	252 728 R1	"O" RING, reservoir elbow
3	635 745 R91	ELBOW, reservoir suction
4	279 024 R91	CLAMP, hyd suction hoses (4)
5	636 832 R1	HOSE, reservoir to filter suction
6	635 743 R1	FITTING, suction hose filter (2)
7	636 801 R91	FILTER, hyd (for component parts refer to "HYDRAULIC OIL FILTER")
	179 866	7/16 x 2" Type 2 BOLT (2)
	271 500	7/16" NUT (2)
	Q 5 028	15/32 x 1 x 11 ga WASHER (2)
	103 322	7/16" 1k-WASHER (2)
8	636 344 R1	HOSE, filter to hyd pump suction

9	676 072 R11	PIPE, pump inlet suction
10	676 074 R1	NUT, suction pipe seal
11	675 742 R1	ADAPTER, pto pulley hub (Gas engine)
	102 570	1/4 x 3/8" hdls cup-pt set SCREW (2)
	179 841	3/8 x 1-1/4" Type 2 BOLT (4)
	115 549	3/8" int-t 1k-WASHER (4)
11	675 743 R1	ADAPTER, pto pulley hub (Diesel engine)
	102 570	1/4 x 3/8" hdls cup-pt set SCREW (3)
	179 861	7/16 x 3/8" Type 2 BOLT (4)
	115 550	7/16" int-t 1k-WASHER (4)
12	635 954 R1	BUSHING, hub adapter (4)
13	675 649 R1	BUSHING, adapter inner (4) (Gas engine)
13	635 953 R1	BUSHING, adapter inner (4) (Diesel engine)
14	675 643 R91	BRACKET, pump mounting (Gas engine)
14	675 644 R91	BRACKET, pump mounting (Diesel engine)
	179 885	1/2 x 1-1/2" Type 2 BOLT (2)
	16 038 R1	17/32 x 1 x 11 ga WASHER (2)
	103 323	1/2" 1k-WASHER (2)
15	13 412 L	SPACER, bracket mounting bolt (2)
16	868 439 R1	INSULATOR, mounting bracket (4)

HE 344



## CRAWLER TRACTORS

REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
HYDRAULIC PUMP SYSTEM - For Gas and Diesel Tractors w/12 GPM Pump Alone - Continued					
17	635 868 R91	PUMP, 12 GPM, front hyd (for component parts refer to "HYDRAULIC PUMP")			
	179 862	7/16 x 1-1/2" Type 2 BOLT (2)			
	271 500	7/16" NUT (2)			
	103 322	7/16" 1k-WASHER			
18	343 805 R1	ELBOW, 90° pump outlet manifold (Note A)			
18	9402 866	ELBOW, 90° pump outlet manifold (Note B)			
19	636 724 R1	NUT, outlet elbow seal			
20	676 064 R11	TUBE, pump outlet pressure (Note A)			
20	676 067 R11	TUBE, pump outlet pressure (Note B & C)			
21	676 768 R1	BRACKET, clamp support			
	Q 1 597	13/32 x 3/4 x 16 ga WASHER (Gas engine)			
	Q 397	11/32 x 3/4 x 16 ga WASHER (Diesel engine)			
22	333 710 R91	CLAMP, high pressure hose			
23	676 065 R91	HOSE, high pressure (Note A)			
23	676 068 R91	HOSE, high pressure (Note B & C)			
24	636 162 R1	CLAMP, high pressure hose (Note A)			
24	636 053 R1	CLAMP, high pressure hose (Note B & C)			
25	676 001 R11	PIPE, hose to valve high pressure (Note A)			
25	635 599 R11	PIPE, hose to valve high pressure (Note B)			
25	637 212 R11	PIPE, hose to valve high pressure (Note C)			
26	635 768 R91	ELBOW, 90° valve inlet (Note A)			
26	9402 866	ELBOW, 90° valve inlet (Note B & C)			
27	297 459 R1	"O" RING, port elbow (Note A)			
28	144 034	BUSHING, 3/4 x 1/2" valve inlet			
29		VALVE, hyd control, for applicable valve & component parts refer to "HYDRAULIC CONTROL VALVE")			



## CRAWLER TRACTORS

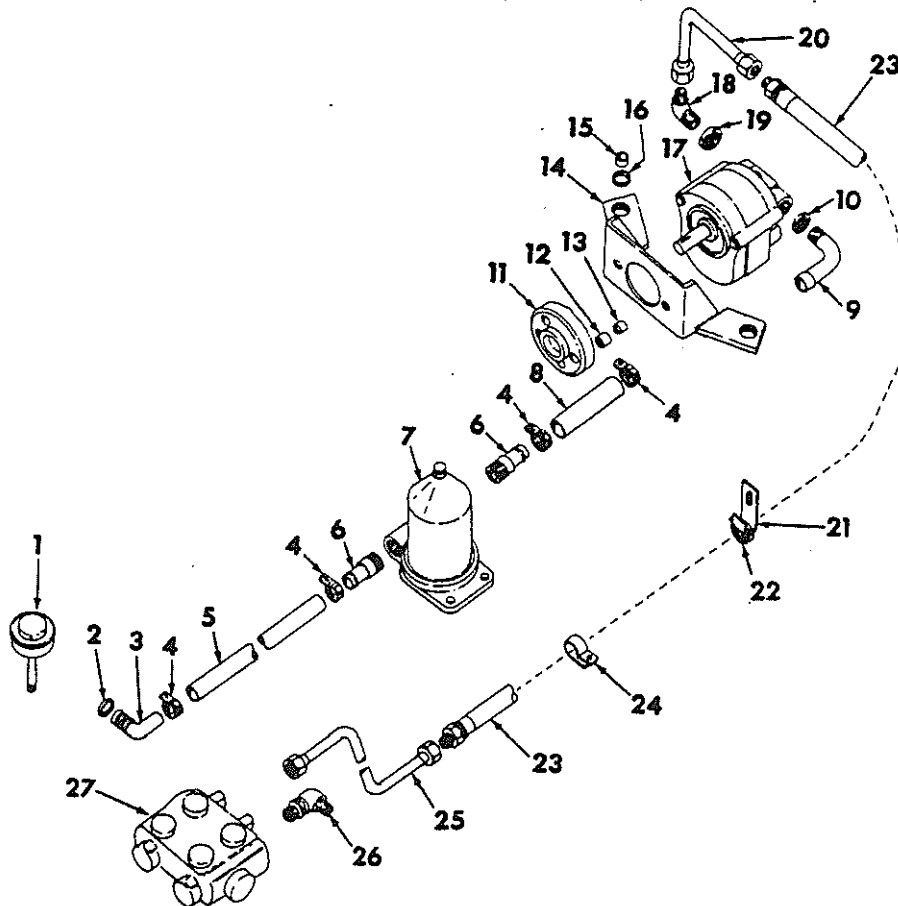


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC PUMP SYSTEM - For Gas and Diesel Tractors  
w/17 GPM Pump Without Backhoe

HYDRAULIC PUMP SYSTEM - For Gas and Diesel Tractors  
w/17 GPM Pump Without Backhoe - Continued



HE 344

NOTE A: For Tractor w/10 Bullgrader  
NOTE B: For Tractor w/Loader w/Material Bucket or  
Drott Angle Dozer Blade  
NOTE C: For Tractor w/Loader w/Drott Clam Bucket or  
Drott Log Grapples

1	636 748 R91	BREATHER, hyd fluid reservoir
2	252 728 R1	"O" RING, reservoir elbow
3	635 745 R91	ELBOW, reservoir suction
4	279 024 R91	CLAMP, hyd suction hoses (4)
5	636 832 R1	HOSE, reservoir to filter suction
6	635 743 R1	FITTING, suction hose filter (2)
7	636 801 R91	FILTER, hyd oil (for component parts refer to "HYDRAULIC OIL FILTER")
	179 866	7/16 x 2" Type 2 BOLT (2)
	271 500	7/16" NUT (2)
	Q 5 028	15/32 x 1 x 11 ga WASHER (2)
	103 322	7/16" 1k-WASHER (2)
8	636 344 R1	HOSE, filter to hyd pump suction

9	676 066 R11	PIPE, pump inlet suction
10	676 074 R1	NUT, suction pipe seal
11	675 647 R1	ADAPTER, pto pulley hub (Gas engine)
	102 570	1/4 x 3/8" hdls cup-pt set SCREW (2)
	179 841	3/8 x 1-1/4" Type 2 BOLT (4)
	115 549	3/8" int-t lk-WASHER (4)
11	675 648 R1	ADAPTER, pto pulley hub (Diesel engine)
	102 570	1/4 x 3/8" hdls cup-pt set SCREW (3)
	179 861	7/16 x 1-3/8" Type 2 BOLT (4)
	155 550	7/16" int-t lk-WASHER (4)
12	635 954 R1	BUSHING, hub adapter (4)
13	675 649 R1	BUSHING, adapter inner (4) (Gas engine)
13	635 953 R1	BUSHING, adapter inner (4) (Diesel Engine)
14	675 643 R91	BRACKET, pump mounting (Gas engine)
14	675 644 R91	BRACKET, pump mounting (Diesel engine)
	179 885	1/2 x 1-1/2" Type 2 BOLT (2)
	16 038 R1	17/32 x 1 x 11 ga WASHER (2)
	103 323	1/2" 1k-WASHER (2)
15	13 412 L	SPACER, bracket mounting bolt (2)



**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC PUMP SYSTEM - For Gas and Diesel Tractors w/17 GPM Pump Without Backhoe - Continued</b>		
16	868 439 R1	INSULATOR, mounting bracket (4)
17	675 642 R91 271 500 103 322	PUMP, 17 GMP front hyd (for component parts refer to "HYDRAULIC PUMP") 7/16" NUT (2) 7/16" 1k-WASHER (2)
18	343 805 R1	ELBOW, 90° pump outlet manifold
19	636 724 R1	NUT, outlet elbow seal
20	676 064 R11	TUBE, pump outlet
21	676 768 R1 Q 1 597 Q 397	BRACKET, clamp support 13/32 x 3/4 x 16 ga WASHER (Gas) 11/32 x 3/4 x 16 ga WASHER (Diesel)
22	333 710 R91	CLAMP, high pressure hose
23	676 065 R91	HOSE, high pressure
24	636 162 R1	CLAMP, high pressure hose
25	676 001 R11	PIPE, valve to pressure hose (NOTE A)
25	676 043 R11	PIPE, valve to pressure hose (NOTE B)
25	675 907 R11	PIPE, valve to pressure hose (NOTE C)
26	635 768 R91 297 459 R1	ELBOW, 90° valve inlet port Elbow port "O" RING
27		VALVE, hyd control (for the applicable valve and component parts refer to "HYDRAULIC CONTROL VALVE")

REF. NO.	PART NUMBER	DESCRIPTION
<b>SELF-SEALING COUPLING</b>		
		HE 172
1	395 152 R91	COUPLING, hyd self-sealing (*)
2	373 220 R1	CAP, coupling dust (+)

\* Not Serviced Separately  
+ Not Part of Hydraulic Coupling



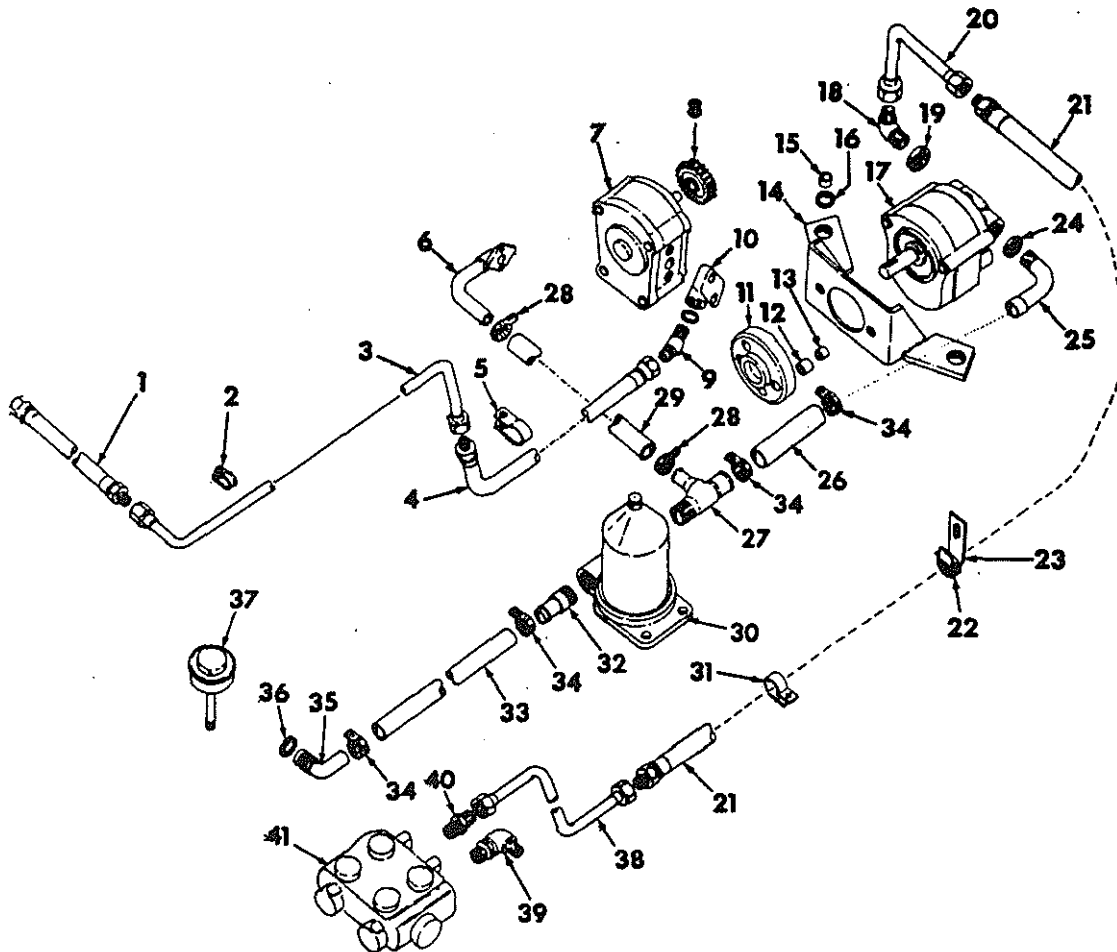
## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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**HYDRAULIC PUMP SYSTEM**  
 For Diesel Tractor w/17 GPM Pump with Backhoe

REF. NO.	PART NUMBER	DESCRIPTION
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**HYDRAULIC PUMP SYSTEM**  
 For Diesel Tractor w/17 GPM Pump with Backhoe - Continued


HE 339

- NOTE A: For Tractors w/5G2 Bullgrader  
 NOTE B: For Tractors w/11 Bullgrader  
 NOTE C: For Tractors w/10 Bullgrader  
 NOTE D: For Tractors w/Loader w/Material Bucket or Drott Angle Dozer Blade  
 NOTE E: For Tractors w/Loader w/Drott Clam Bucket or Drott Log Grapples

1	481 641 R01	HOSE, pipe to backhoe pressure
2	101 982 R1	CLAMP, backhoe pressure pipe (2)
3	676 260 R11	TUBE, hose to hose high pressure (NOTE A, B & C)
3	676-408 R11	TUBE, hose to hose high pressure (NOTE D & E)
4	635 600 R91	HOSE, pump to tube high pressure
5	636-053 R1	CLAMP, high pressure hose
6	676 254 R91	TUBE, pump inlet suction
	3044 641 R1	5/16 x 3/4" soc-hd SCREW (2)
	706 853 R1	5/16" lk-WASHER (2)

7	3043 981 R93	PUMP, 10 GPM hyd (for component parts refer to "HYDRAULIC PUMP")
	179 828	5/16 x 2-1/2" Type 2 BOLT (3)
	271 486	5/16 x 2-5/8" Type 2 BOLT
	102 634	5/16" NUT (4)
	103 320	5/16" lk-WASHER (4)
8	704 331 R1	PINION, hyd pump drive
	706 067 R1	Pump pinion KEY
	706 069 R1	Pinion lk-WASHER
	3044 638 R1	Pinion lk-NUT
9	9411 105	ELBOW, outlet manifold
	570 828 R1	Elbow "O" RING
10	635 547 R1	MANIFOLD, auxiliary pump outlet
	138 205	1/4 x 1-3/4" soc-hd SCREW (2)
	350 429 R1	Manifold "O" RING
11	675 648 R1	ADAPTER, pto pulley hub
	102 570	1/4 x 3/8" hdls cup-pt set SCREW (3)
	179 861	7/16 x 1-3/8" Type 2 BOLT (4)
	115 550	7/16" int-tooth lk-WASHER (4)



CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC PUMP SYSTEM</b> For Diesel Tractor w/17 GPM Pump with Backhoe - Continued		
12	635 954 R1	BUSHING, hub adapter (4)
13	635 953 R1	BUSHING, adapter inner (4)
14	675 644 R91 179 885 16 038 R1 103 323	BRACKET, pump mtg 1/2 x 1-1/2" Type 2 BOLT (2) 17/32 x 1 x 11 ga WASHER (2) 1/2" 1k-WASHER (2)
15	13 412 L	SPACER, bracket mtg bolt (2)
16	868 439 R1	INSULATOR, mtg bracket (4)
17	675 642 R91 271 500 103 322	PUMP, 17 GPM hyd (for component parts refer to "HYDRAULIC PUMP") 7/16" NUT (2) 7/16" 1k-WASHER (2)
18	343 805 R1	ELBOW, 90° pump outlet manifold
19	636 724 R1	NUT, outlet elbow seal
20	676 064 R11	TUBE, pump outlet
21	676 065 R11	HOSE, high pressure
22	333 710 R91	CLAMP, high pressure hose
23	676 768 R1 Q 397	BRACKET, clamp support 11/32 x 3/4 x 16 ga WASHER
24	676 074 R1	NUT, suction pump seal
25	676 066 R11	PIPE, 17 GPM inlet suction
26	636 344 R1	HOSE, filter to hyd pump suction
27	676 762 R1	TEE, in filter pump side
28	995 218 R1	CLAMP, pump inlet hose to filter tee (2)
29	636 150 R1	HOSE, pump inlet to filter tee
30	636 801 R91 179 866 Q5 028 271 500 103 322	FILTER, hyd oil (for component parts refer to "HYDRAULIC OIL FILTER") 7/16 x 2" Type 2 BOLT (2) 15/32 x 1 x 11 ga WASHER (2) 7/16" NUT (2) 7/16" 1k-WASHER (2)
31	636 162 R1	CLAMP, high pressure hose
32	635 743 R1	FITTING, suction hose filter
33	636 832 R1	HOSE, reservoir to filter suction

REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC PUMP SYSTEM</b> For Diesel Tractor w/17 GPM Pump with Backhoe - Continued		
34	279 024 R91	CLAMP, hyd suction hoses (4)
35	635 745 R91	ELBOW, reservoir suction
36	252 728 R1	"O" RING, suction elbow
37	636 748 R91	BREATHER, hyd fluid reservoir
38	676 261 R11	TUBE, high pressure (NOTE A)
38	676 262 R11	TUBE, high pressure (NOTE B)
38	676 001 R11	TUBE, high pressure (NOTE C)
38	676 043 R11	TUBE, high pressure (NOTE D)
38	675 907 R11	TUBE, high pressure (NOTE E)
39	635 768 R91 279 549 R1	ELBOW, 90° valve inlet port (NOTE C, D & E) Elbow "O" RING
40	9402 711	CONNECTOR, valve inlet port (NOTE A & B)
41		VALVE, hyd control for the applicable valve and component parts (Refer to "HYDRAULIC CONTROL VALVE")





**CRAWLER TRACTORS**

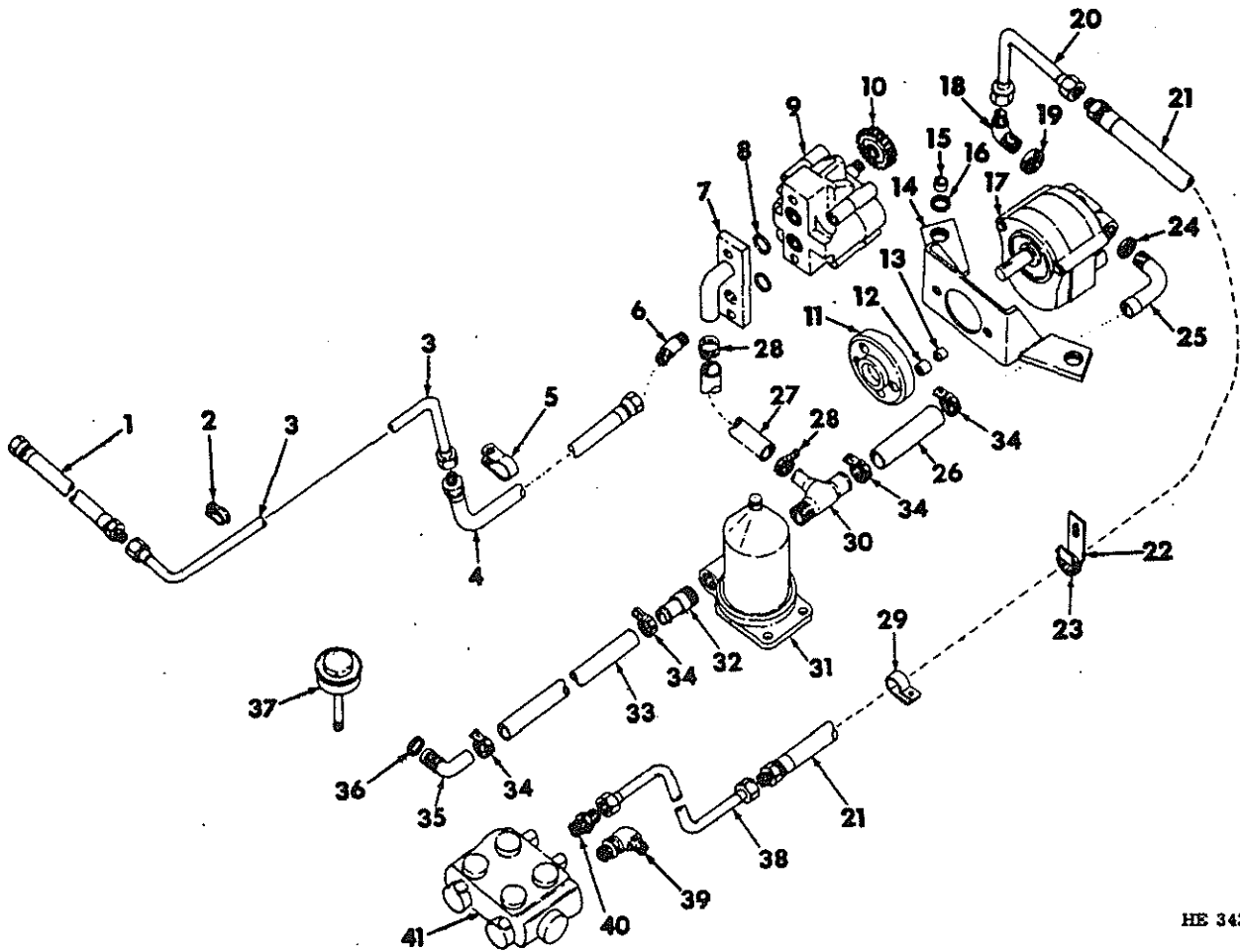


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC PUMP SYSTEM - For Gas Tractors w/17 GPM Pump with Backhoe

HYDRAULIC PUMP SYSTEM - For Gas Tractors w/17 GPM Pump with Backhoe - Continued



HE 343

- NOTE A: For Tractors w/5G2 Bullgrader
- NOTE B: For Tractors w/11 Bullgrader
- NOTE C: For Tractors w/10 Bullgrader
- NOTE D: For Tractors w/Loader w/Material Bucket or Drott Dozer Blade
- NOTE E: For Tractors w/Loader w/Drott Clam Bucket or Drott Log Grapples

1	481 641 R01	HOSE, pipe to backhoe pressure
2	101 982	CLAMP, backhoe pressure pipe (2)
3	676 260 R11	TUBE, hose to hose high pressure (NOTE A, B & C)
3	676 408 R11	TUBE, hose to hose high pressure (NOTE D & E)
4	635 600 R91	HOSE, pump to tube high pressure
5	636 053 R1	CLAMP, high pressure hose
6	9411 105 570 828 R1	ELBOW, 1/2" - 45° hyd pump manifold Manifold elbow "O" RING

7	676 252 R91 186 310 103 026 103 321	MANIFOLD, hyd pump inlet suction 3/8-NF x 3-1/2" Type 2 BOLT (2) 3/8"-NF NUT (2) 3/8" lk-WASHER (2)
8	355 965 R1	"O" RING, pump inlet manifold (2)
9	368 633 R92 186 282 103 321	PUMP, 9 GPM hyd (for component parts refer to "HYDRAULIC PUMP") 3/8 x 3-1/4" Type 2 BOLT (2) 3/8" lk-WASHER (2)
10	350 709 R1 115 549 124 543 114 494	GEAR, 16T hyd pump drive Drive gear WASHER 1/8 x 1/2" Woodruff KEY 3/8" - NF jam NUT
11	675 647 R1 102 570 179 841 115 549	ADAPTER, pto pulley hub 1/4 x 3/8" hdls cup-pt SCREW (2) 3/8 x 1-1/4" Type 2 BOLT (4) 3/8" int-tooth lk-WASHER (4)
12	635 954 R1	BUSHING, hub adapter (4)



**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
HYDRAULIC PUMP SYSTEM - For Gas Tractors w/17 GPM Pump with Backhoe - Continued		
13	675 649 R1	BUSHING, adapter inner (4)
14	675 643 R91 179 885 16 038 R1 103 323	BRACKET, pump mtg 1/2 x 1-1/2" Type 2 BOLT (2) 17/32 x 1 x 11 ga WASHER (2) 1/2" 1k-WASHER (2)
15	13 412 L	SPACER, bracket mtg bolt (2)
16	868 439 R1	INSULATOR, mtg bracket (4)
17	675 642 R91 271 500 103 322	PUMP, 17 GPM hyd (for component parts refer to "HYDRAULIC PUMP") 7/16" NUT (2) 7/16" 1k-WASHER (2)
18	343 805 R1	ELBOW, 90° pump outlet manifold
19	636 724 R1	NUT, outlet elbow seal
20	676 064 R11	TUBE, pump outlet
21	676 065 R91	HOSE, high pressure
22	676 768 R1 Q 397	BRACKET, clamp support 11/32 x 3/4 x 16 ga WASHER
23	333 710 R91	CLAMP, high pressure hose
24	676 074 R1	NUT, suction pump seal
25	676 066 R11	PIPE, 17 GPM pump inlet suction
26	636 344 R1	HOSE, filter to hyd pump suction
27	676 256 R1	HOSE, pump tube to filter tee
28	995 218 R1	CLAMP, auxiliary pump hose (2)
29	636 162 R1	CLAMP, high pressure hose
30	676 762 R1	TEE, hyd filter suction
31	636 801 R91 179 866 271 500 103 322	FILTER, hyd oil (for component parts refer to "HYDRAULIC OIL FILTER") 7/16 x 2" Type 2 BOLT (2) 7/16" NUT (2) 7/16" 1k-WASHER (2)
32	635 743 R1	FITTING, reservoir side filter
33	636 832 R1	HOSE, reservoir to filter suction
34	278 024 R91	CLAMP, hyd suction hoses (4)
35	635 745 R91	ELBOW, reservoir suction

REF. NO.	PART NUMBER	DESCRIPTION
HYDRAULIC PUMP SYSTEM - For Gas Tractors w/17 GPM Pump with Backhoe - Continued		
36	252 728 R1	"O" RING, reservoir elbow
37	636 748 R91	BREATHER, hyd fluid reservoir
38	676 261 R11	TUBE, high pressure (NOTE A)
38	676 262 R11	TUBE, high pressure (NOTE B)
38	676 001 R11	TUBE, high pressure (NOTE C)
38	676 043 R11	TUBE, high pressure (NOTE D)
38	675 907 R11	TUBE, high pressure (NOTE E)
39	635 768 R91 279 459 R1	ELBOW, 90° valve inlet port (NOTE C, D & E) Elbow "O" RING
40	9402 711	CONNECTOR, valve inlet port (NOTE A & B)
41		VALVE, hyd control for the applicable valve and component parts (Refer to "HYDRAULIC CONTROL VALVE")
HYDRAULIC OIL (Hy-Tran Fluid)		
	372 703 R4	HY-TRAN, 1 quart U.S. Measure
	997 495 R4	HY-TRAN, 1 quart Imperial Measure
	372 704 R4	HY-TRAN, 1 gallon U.S. Measure
	372 705 R4	HY-TRAN, 5 gallon U.S. Measure
	997 497 R4	HY-TRAN, 5 gallon Imperial Measure
	407 024 R4	HY-TRAN, 15 gallon U.S. Measure
	999 597 R4	HY-TRAN, 30 gallon U.S. Measure
	999 635 R4	HY-TRAN, 55 gallon U.S. Measure

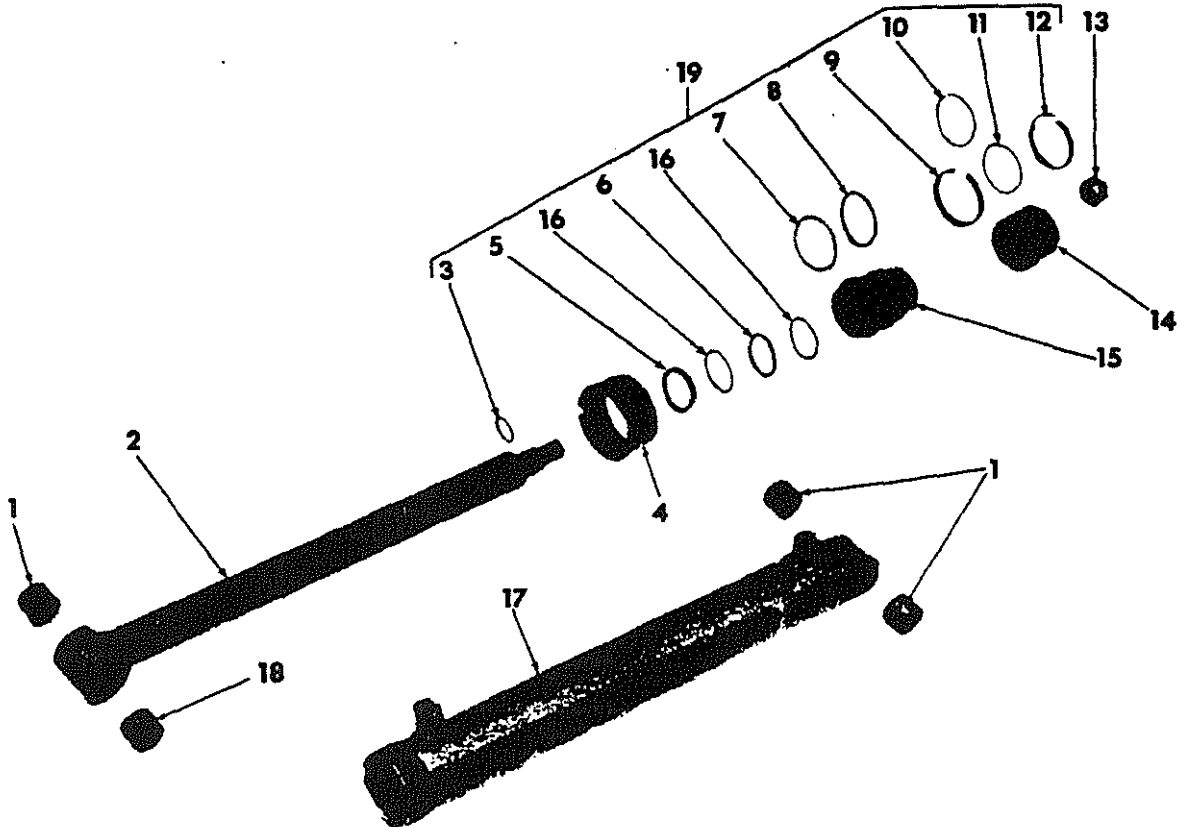


REF. NO.	PART NUMBER	DESCRIPTION
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LIFTING HYDRAULIC CYLINDER  
(3-1/2 x 34.35" Double Acting)  
(I.H. Loader)

REF. NO.	PART NUMBER	DESCRIPTION
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LIFTING HYDRAULIC CYLINDER  
(3-1/2 x 34.35" Double Acting)  
(I.H. Loader) - Continued



H 1646

392 745 R92	CYLINDER, lifting hyd (2) (composed of all parts listed below)	13	20 251 R1	NUT, 1-1/8"-NF cd-pltd conelok
1	468 280 R1 BUSHING, body & piston rod long (3)	14	381 084 R2	PISTON, hyd cyl
2	392 746 R91 ROD, hyd cyl piston (Includes 389 732 R1 & 468 280 R1, BUSHINGS) 1/8" lub-FTG	15	381 080 R1	HEAD, front
3	252 483 R1 "O" RING, piston rod small	16	381 083 R1	WASHER, piston rod back-up (2)
4	381 089 R1 RING, front head retaining	17	385 513 R11	BODY, lifting hyd cyl (Includes 468 280 R1, BUSHINGS) 1/8"-80° elbow lub-FTG 1/8" sltd hdls pipe PLUG
5	327 219 R91 WIPER, piston rod	18	389 732 R1	BUSHING, piston rod short
6	398 978 R1 QUAD RING, piston rod	19	471 267 R92	PACKAGE, hyd cyl service composed of:
7	381 088 R1 WASHER, head back-up			1 "O" Ring 252 483 R1
8	352 216 R1 "O" RING, head front			1 "O" Ring 352 216 R1
9	381 085 R1 "O" RING, piston brg front			1 "O" Ring 380 910 R1
10	381 086 R1 SEAL, piston			1 Quad Ring 398 978 R1
11	380 910 R1 "O" RING, piston seal			1 "O" Ring 381 085 R1
12	383 005 R1 RING, piston brg rear			1 Ring 383 005 R1
				1 Seal 381 086 R1
				2 Washer 381 083 R1
				1 Washer 381 088 R1
				1 Wiper 327 219 R91

\* Not Serviced Separately

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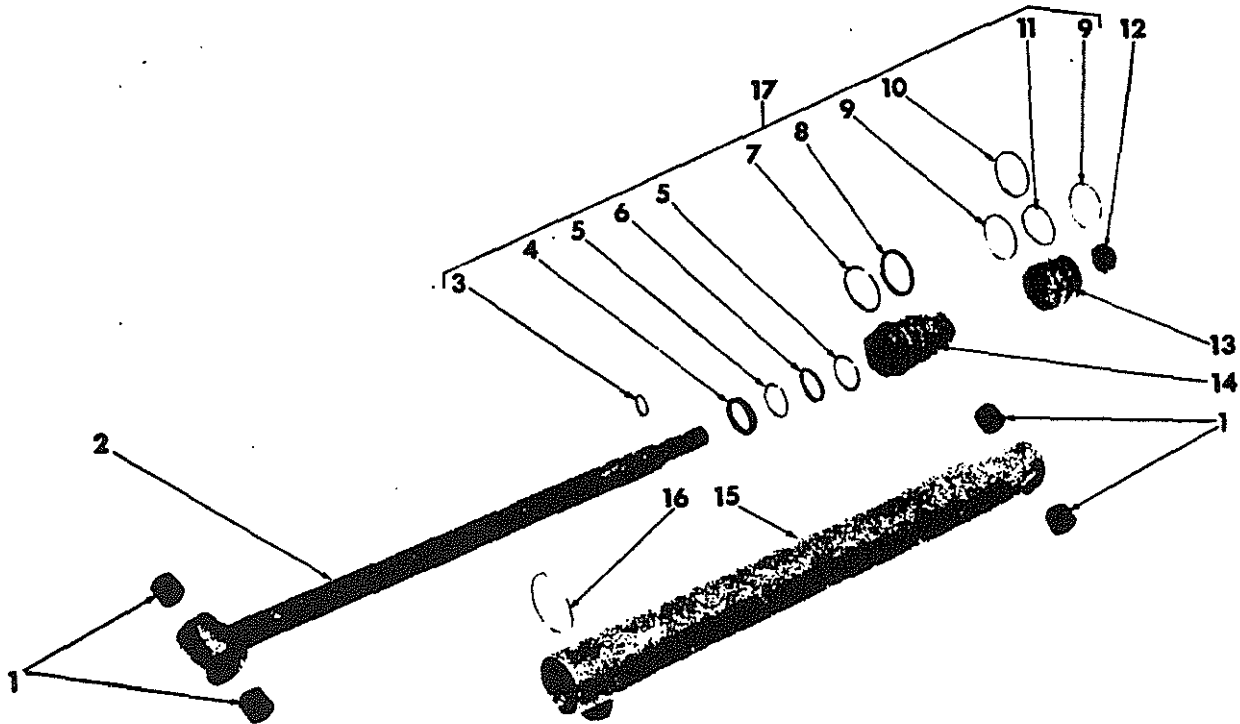


REF. NO.	PART NUMBER	DESCRIPTION
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TILTING HYDRAULIC CYLINDER  
(2-1/2 x 31.20" Double Acting)  
(I.H. Loader)

REF. NO.	PART NUMBER	DESCRIPTION
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TILTING HYDRAULIC CYLINDER  
(2-1/2 x 31.20" Double Acting)  
(I.H. Loader) - Continued



H 1650

389 044 R91	CYLINDER, tilting hyd (2) (composed of all parts listed below)	11	379 961 R1	"O" RING, piston seal
1	479 278 R1 BUSHING, piston rod & cyl body (4)	12	9416 471	NUT, 1"-NF cd-pltd lock
2	389 047 R91 ROD, hyd cyl piston (Includes 479 278 R1, BUSHINGS) 273 355 1/4" drive-type lub-FTG 181 352 3/8-NF x 3/8" Type 2 BOLT	13	384 129 R1	PISTON, hyd cyl
3	253 070 R1 "O" RING, piston inner	14	378 536 R2	HEAD, front
4	378 736 R91 WIPER, piston rod	15	389 046 R91 BODY, tilting hyd cyl (Includes 479 278 R1, BUSHINGS) 273 355 1/4" drive-type lub-FTG	
5	378 734 R1 WASHER, back-up (2)	16	385 133 R1	KEY, front head retaining
6	400 744 R1 "O" RING, back-up washer	17	471 270 R93	PACKAGE, hyd cyl service composed of:
7	378 733 R1 WASHER, head "O" ring, back-up			2 Bearing 379 960 R1
8	350 657 R1 "O" RING, head			1 "O" Ring 253 070 R1
9	379 960 R1 BEARING, hyd cyl piston (2)			1 "O" Ring 350 657 R1
10	379 959 R1 SEAL, hyd cyl piston			1 "O" Ring 400 744 R1
				1 "O" Ring 379 961 R1
				1 Seal 379 959 R1
				1 Washer 378 733 R1
				2 Washer 378 734 R1
				1 Wiper 378 736 R91

\* Not Serviced Separately

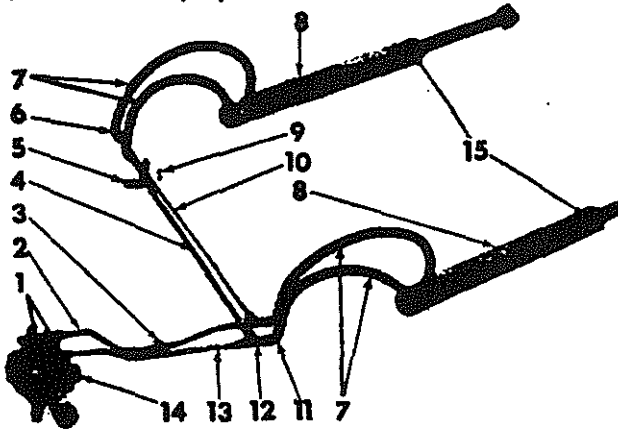
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (5G2 Bullgrader & 5D2 Bulldozer)  
(Control valve to hyd cyls)

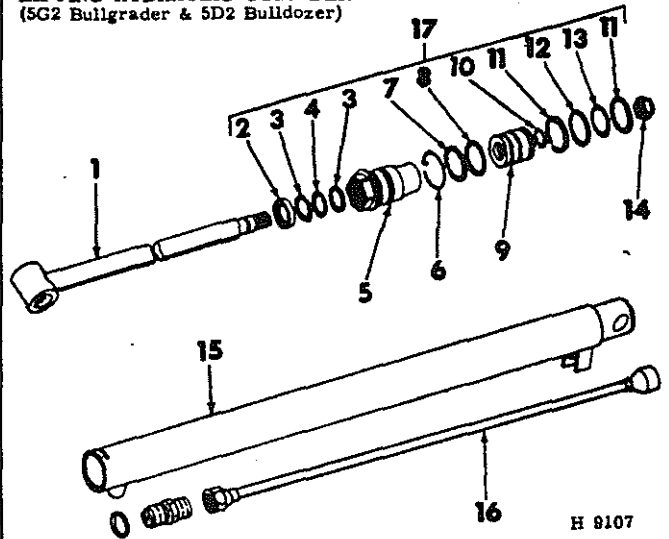


NOTE A: 5G2 BULLGRADER  
NOTE B: 5D2 BULLDOZER

1	618 231 R1	ELBOW, 1/2" - 90° valve port (2)
2	637 184 R11	PIPE, valve to tie inner (Note A)
2	637 302 R11	PIPE, valve to tie inner (Note B)
3	675 076 R1	CLAMP, hyd pipe dual
	179 795	1/4 x 3/4" Type 2 BOLT
	567 305 R1	11/32 x 2-1/2 x 11 ga WASHER
	109 084	1/4" NUT
	103 319	1/4" lk-WASHER
4	637 183 R11	PIPE, cyl left hose to tee lower (Note A)
4	637 301 R1	PIPE, cyl left hose to tee lower (Note B)
5	638 158 R1	BRACKET, cyl pipe support
	179 795	1/4 x 3/4" Type 2 BOLT
	109 084	1/4" NUT
	103 319	1/4" lk-WASHER
6	9402 943	ELBOW, 1/2" - 90° cyl hose LH (2)
7	637 300 R91	HOSE, hyd cyl (4)
	364 885 R1	Cyl hose "O" RING (4)
8		CYLINDER, lifting hyd (2) (for component parts refer to "LIFTING HYDRAULIC CYLINDER")
9	675 077 R1	CLAMP, cyl pipe (2)
	179 795	1/4 x 3/4" Type 2 BOLT (2)
	109 084	1/4" NUT (2)
	103 319	1/4" lk-WASHER (2)
10	637 182 R11	PIPE, cyl left hose to tee upr (Note A)
10	637 301 R11	PIPE, cyl left hose to tee upr (Note B)
11	9410 281	ELBOW, 1/2" - 90° cyl hose RH (2)
12	9402 982	TEE, 1/2" 3 way hyd pipe & hose (2)
13	637 185 R11	PIPE, valve to tee outer (Note A)
13	637 303 R11	PIPE, valve to tee outer (Note B)
14		VALVE, hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE")
	179 840	3/8 x 2-1/2" Type 2 BOLT (3)
	102 635	3/8" NUT (3)
	103 321	3/8" lk-WASHER (3)
15	371 357 R91	ELBOW, 1/2" - 90° lift cyl rear port (2)
		(Note B)
	364 885 R1	Port elbow "O" RING (2)

REF. NO.	PART NUMBER	DESCRIPTION
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LIFTING HYDRAULIC CYLINDER  
(5G2 Bullgrader & 5D2 Bulldozer)



385 684 R91	CYLINDER, lifting hyd (2) (composed of all parts listed below)		
1	384 126 R11	ROD, hyd cyl piston	
	273 355	1/4" drive-type lub-FTG	
2	378 736 R91	WIPER, piston rod	
3	378 734 R1	WASHER, piston rod back-up (2)	
4	400 744 R1	"O" RING, piston rod	
5	378 536 R2	HEAD, front	
6	385 133 R1	RING, front head retaining	
7	378 733 R1	WASHER, head back-up	
8	350 657 R1	"O" RING, head front	
9	384 129 R1	PISTON, hyd cyl	
10	253 070 R1	"O" RING, piston rod	
11	379 960 R1	BEARING, piston rod (2)	
12	379 959 R1	SEAL, piston	
13	379 961 R1	"O" RING, piston	
14	9416 471	NUT, 1"-NF lock	
15	385 685 R91	BODY, lifting hyd cyl	
	273 360	1/4"-65° elbow lub-FTG	
16	385 690 R11	TUBE, hyd fluid return	
	9410 203	CONNECTOR, hyd fluid tube	
	570 828 R1	"O" RING, return tube connector	
17	471 270 R93	PACKAGE, hyd cyl service	
		composed of:	
		2 Bearing	379 960 R1
		1 "O" Ring	253 070 R1
		1 "O" Ring	350 657 R1
		1 "O" Ring	400 744 R1
		1 "O" Ring	379 961 R1
		1 Seal	379 959 R1
		1 Washer	378 733 R1
		2 Washer	378 734 R1
		1 Wiper	378 736 R91

\* Not Serviced Separately



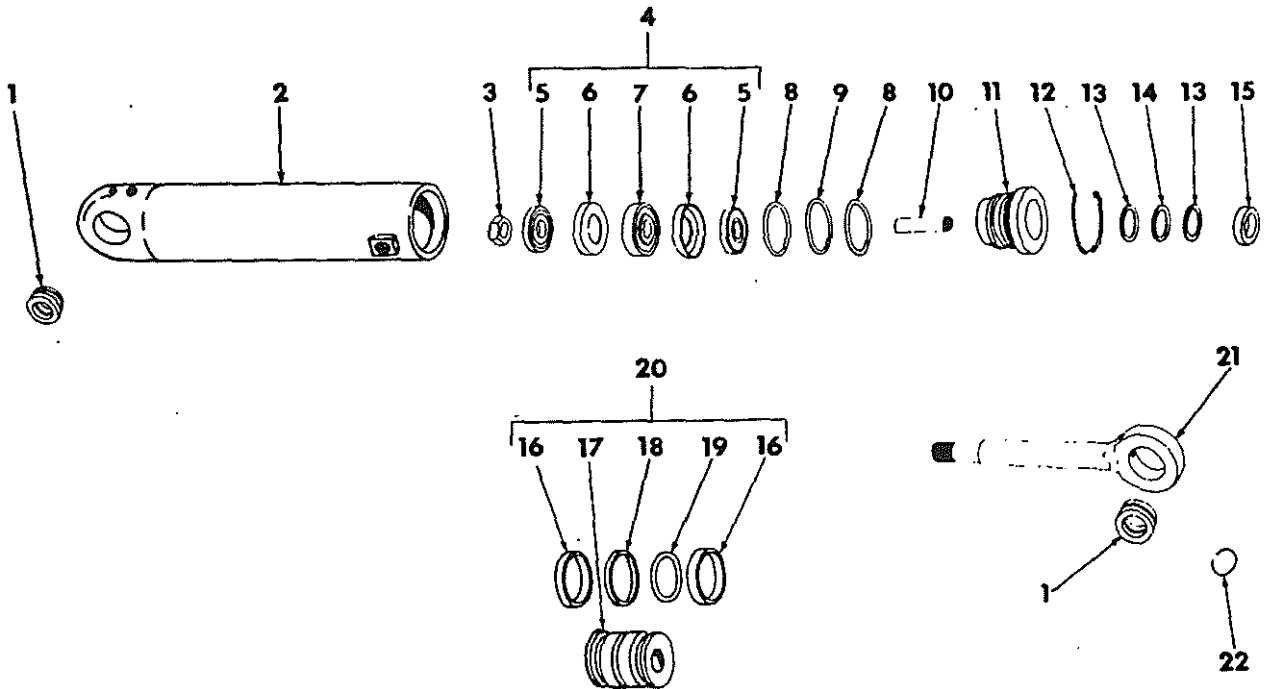
## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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## HYDRAULIC CYLINDERS (For 10 and 11 Bullgraders)

## HYDRAULIC CYLINDERS (For 10 and 11 Bullgraders) - Continued

H 4863A  
H 4864

	NOTE A:	675 980 R92 "ANGLING CYLINDER" (10 Bullgrader only)
	NOTE B:	638 013 R92 "LIFT CYLINDER" (10 and 11 Bullgrader)
	NOTE C:	309 726 R94 "TILTING CYLINDER" (No. 10 Bullgrader only)
1	309 687 R91	BUSHING, pivot (2) (NOTE A)
1	309 672 R1	BUSHING, pivot (2) (NOTE B & C)
2	638 014 R91	HOUSING, angling cylinder (NOTE A & B)
2	309 727 R92	HOUSING, tilting cylinder (NOTE C)
	109 462	1/8" - 90° FITTING (+) (NOTE A & C)
	109 461	1/8" straight lub-FITTING (+) (NOTE B)
3-	675 982 R1	NUT, piston rod lock (NOTE A)
	455 257 R1	3/16 x 2-1/4" slit-spg-PIN (NOTE A)
3	272 676	NUT, piston rod lock (NOTE B & C)
4		PISTON & PACKINGS (Leather Type) (consisting of items 5 to 7) (order 1 - 676 732 R91)
5	309 669 R1	RETAINER, piston packing (Leather Type) (2)
6	310 504 R1	PACKING, cylinder piston (Leather Type) (2)
7	309 668 R1	PISTON, hyd cylinder (Leather Type)

8	309 670 R1	RING, sealing back-up (2)
9	283 857 R1	RING, cylinder cup sealing
10	675 983 R1	SPACER, piston rod (NOTE A)
11	309 664 R4	CAP, hyd cylinder
12	309 671 R1	KEY, cyl cap retaining
13	652 897 R1	RING, piston rod back-up (2)
14	293 739 R1	"O" RING, piston rod
15	309 684 R1	RING, piston rod wiper
16	387 374 R1	BEARING, piston (Teflon Type) (2)
17	676 737 R1	PISTON, hyd cylinder (Teflon Type)
18	387 373 R1	RING, piston seal (Teflon Type)
19	333 017 R1	"O" RING, over ring (Teflon Type)
20	676 732 R91	PISTON & PACKINGS (Teflon Type) (consisting of items 16 to 19)
21	675 981 R11	ROD, hyd cylinder piston (NOTE A)
21	309 665 R12	ROD, hyd cylinder piston (NOTE B)
21	309 720 R12	ROD, hyd cylinder piston (NOTE C)
	109 461	1/8" lub-FITTING (+)
22	309 673 R1	RING, pivot bushing retaining (2) (NOTE A)

+ Not Part of Housing and Rod

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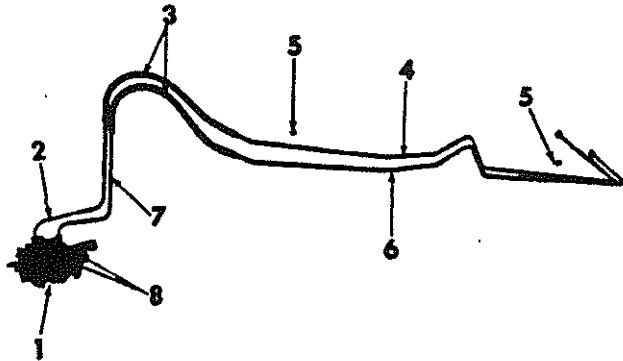
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# CRAWLER TRACTORS

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (Valve to Cylinder) Drott Clam Bucket or Log Grapple

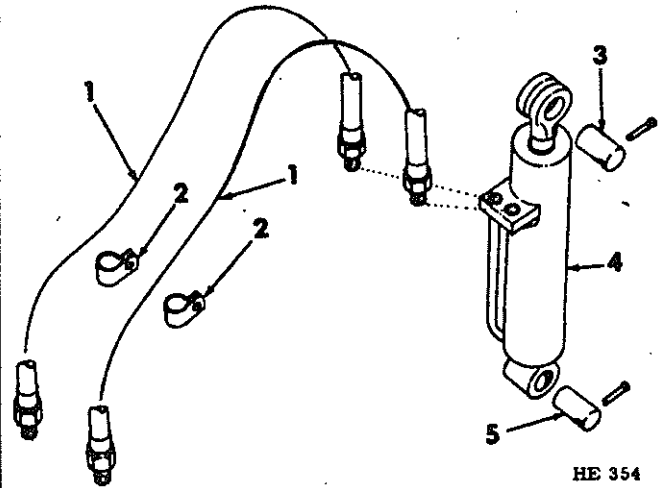


H 1621

1	635 704 R91	VALVE, three spool hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE")
	179 851	3/8 x 3" Type 2 BOLT (4)
	102 635	3/8" NUT (4)
	103 321	3/8" lk-WASHER (4)
2	675 885 R11	PIPE, valve cyl lowering
3	473 820 R91	HOSE, pipe to pipe (2)
4	473 817 R11	PIPE, inside lower hyd
5	369 758 R1	CLAMP, hyd pipe (5)
	180 074	5/16 x 9/16" Type 2 cd-pltd BOLT (2)
	180 081	5/16 x 1-1/4" Type 2 cd-pltd BOLT
	180 085	5/16 x 1-3/4" Type 2 cd-pltd BOLT
	180 079	5/16 x 1" Type 2 cd-pltd BOLT
	120 376	5/16" cd-pltd NUT
	120 214	5/16" cd-pltd lk-WASHER
6	473 816 R11	PIPE, outside raise hyd
7	675 884 R11	PIPE, cyl raise valve
8	481 352 R1	CONNECTOR, valve port (2)
	364 885 R1	Connector "O" RING (2)

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (Valve to Cylinder) Drott Clam Bucket or Log Grapple (Single Cylinder)



HE 354

NOTE: For U.S. service orders, the following listed parts must be ordered direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U.S.A. For Canadian service, order parts from Burlington Parts Depot, P.O. Box 512, Burlington, Ontario.

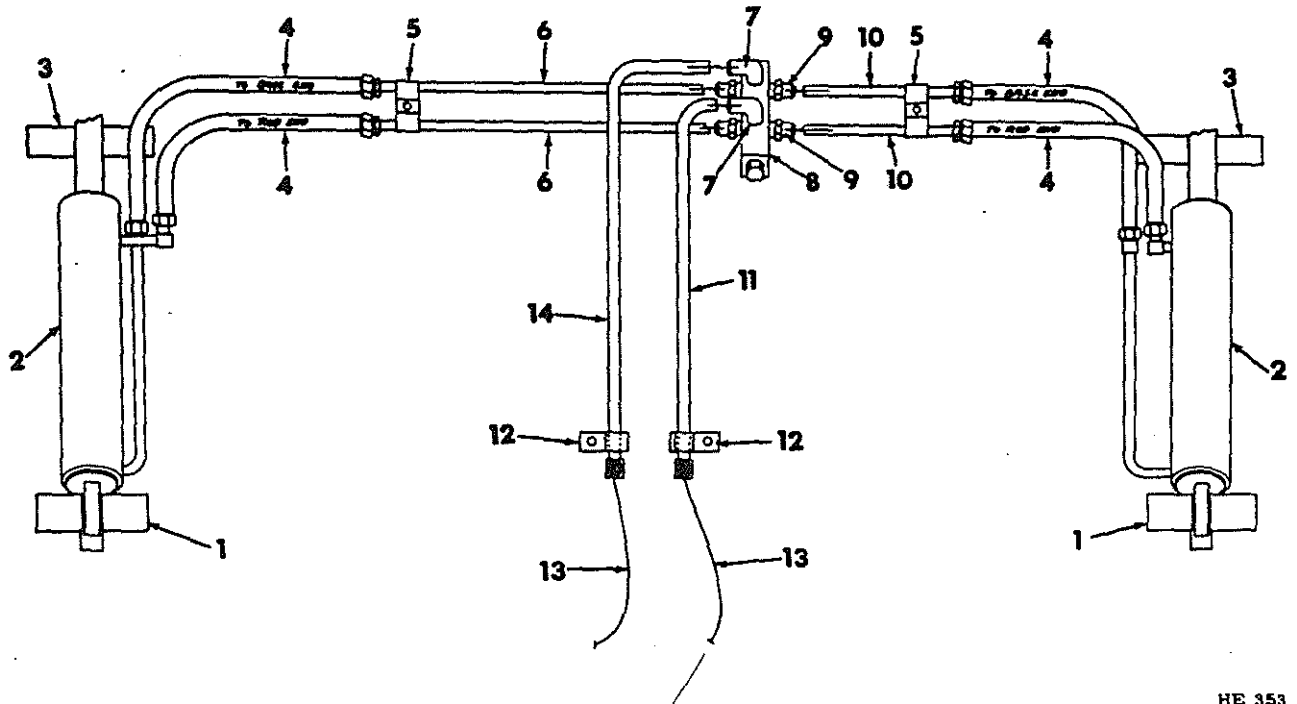
1	11 232	HOSE, pipe to cyl (2) (Not applicable to log grapple - Refer to the proper grapple in the DROTT Parts Catalog for the correct connecting hoses)
2	60 436	CLAMP, pipe to cyl hose (2)
	4 220	1/4" NUT (2)
	2 351	1/4 x 1" cup SCREW (2)
	4 395	1/4" lk-WASHER (2)
3	27 193 M2	PIN, hyd cyl to clam (Not applicable to log grapple - Refer to the proper grapple in the DROTT Parts Catalog for the correct connecting pin)
	10 783	Clevis PIN
	4 626	1/8 x 3/4" c-PIN
4		CYLINDER, clam or grapple hyd (Single Cylinder) (Refer to DROTT CLAM BUCKET OR GRAPPLE OPERATING HYDRAULIC CYLINDER in this Parts Catalog)
5	47 199 M1	PIN, hyd cyl hose (Not applicable to log grapple) (Refer to the proper grapple in the DROTT Parts Catalog for the correct connecting pin)
	10 778	Clevis PIN
	4 626	1/8 x 3/4" c-PIN



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
		HYDRAULIC LINES VALVE TO CYLINDER - Drott Clam Bucket or Log Grapple (Dual Cylinder)			HYDRAULIC LINES VALVE TO CYLINDER - Drott Clam Bucket or Log Grapple (Dual Cylinder) - Continued



HE 353

NOTE: For U.S. service orders, the following listed parts must be ordered direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U.S.A. For Canadian Service, order parts from Burlington Parts Depot, P.O. Box 512, Burlington, Ontario.

1	62 267	PIN, hyd cyl hose (2) (Not applicable to log grapple (Refer to the proper grapple in the DROTT Parts Catalog for the correct connecting pin)	6	209 371	TUBE, valve to left cyl (2)
	10 783	Clevis PIN (2)	7	7 724	ELBOW, 90° relief valve (2)
	4 627	1/8 x 3/4" c-PIN (2)	8	208 868	VALVE, relief
2		CYLINDER, clam or grapple hyd (2) (Dual Cylinder) (for component parts refer to "DROTT CLAM BUCKET OR LOG GRAPPLE OPERATING HYDRAULIC CYLINDER" in this catalog)	9	7 719	ADAPTER, tube (4)
3	204 122	PIN, hyd cyl to clam (2) (Not applicable to log grapple) (Refer to the proper grapple in the DROTT Parts Catalog for the correct connecting pin)	10	209 372	TUBE, valve to right cyl (2)
	10 784	Clevis PIN (2)	11	209 370	TUBE, valve to lift arm (right)
	4 627	1/8 x 3/4" c-PIN (2)	12	64 743	CLAMP, tube (2)
4	11 226	HOSE, hyd cyl (4)		2 401	Clamp BOLT (2)
5	78 067	CLAMP, tube (2)		7 385	Clamp flat WASHER (2)
	4 222	Clamp NUT (2)		4 397	Clamp lk-WASHER (2)
	4 397	Clamp WASHER (2)	13	79 864	HOSE, hyd (2)
			14	209 369	TUBE, valve to lift arm (left)





## CRAWLER TRACTORS

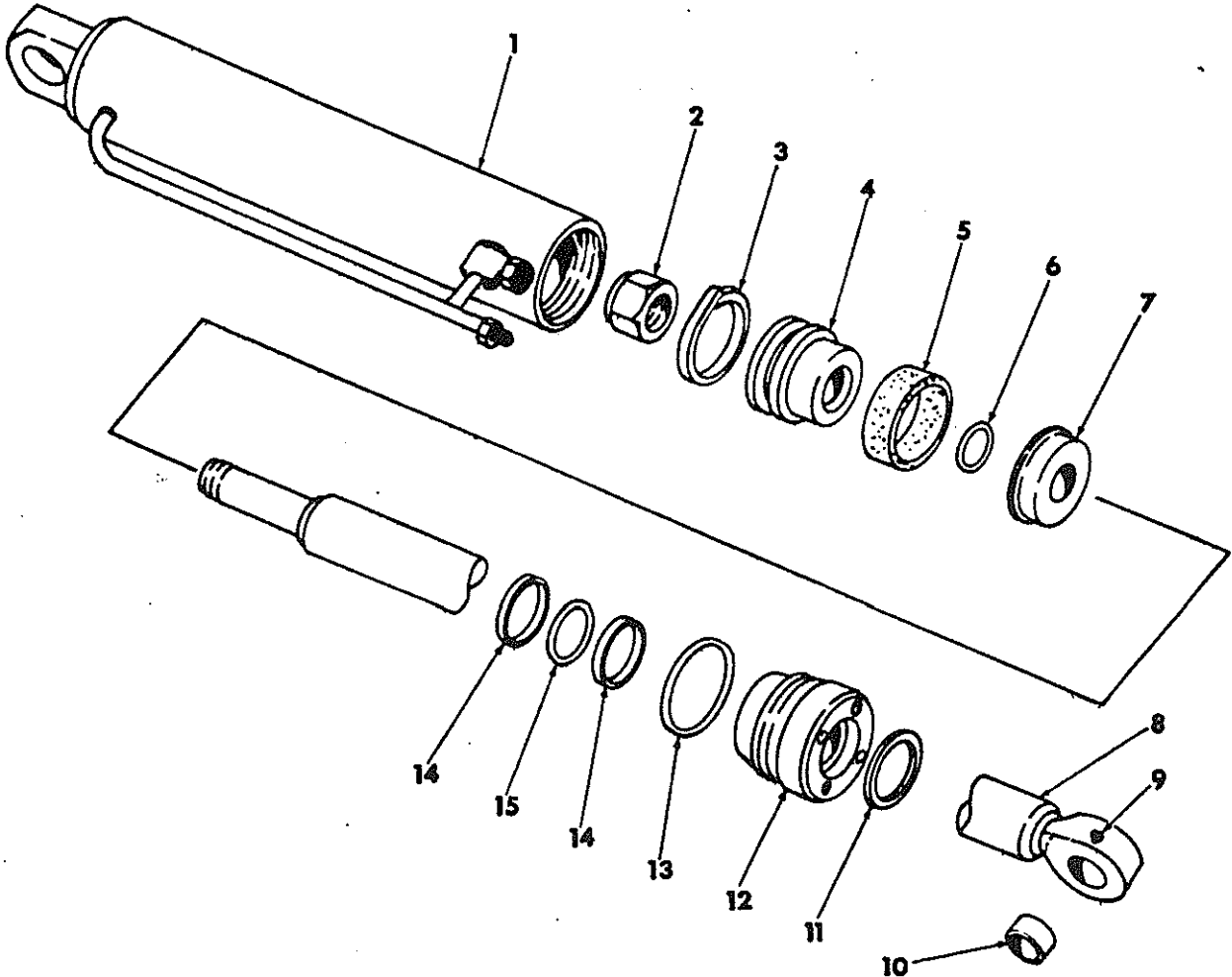


REF. NO.	PART NUMBER	DESCRIPTION
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DROTT 4 IN 1 CLAM BUCKET OPERATING HYDRAULIC CYLINDER (Dual Clam Cylinder Type)

REF. NO.	PART NUMBER	DESCRIPTION
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DROTT 4 IN 1 CLAM BUCKET OPERATING HYDRAULIC CYLINDER (Dual Clam Cylinder Type) - Continued



HE 286

NOTE: For U.S. Service the following parts must be ordered direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U.S.A. For Canadian Service order parts from the Burlington Parts Depot, P.O. Box 512, Burlington, Ontario.

55 177	CYLINDER, clam operating (composed of all parts listed below)	6	5 807	"O" RING, piston	
1	206 508	CYLINDER, body assembly	7	60 194	PISTON, front half
2	9 021	NUT, piston rod	8	206 589	ROD ASSEMBLY
3	48 034	RING, piston wear	9	46 960	FITTING, lub
4	60 192	PISTON, rear half	10	46 820	BUSHING, piston rod
5	27 161	PISTON PACK	11	46 869	RING, piston rod wiper
			12	46 823	HEAD, hyd cylinder
			13	6 321	"O" RING, hyd cylinder head
			14	10 923	WASHER, leather back up (2)
			15	6 165	"O" RING, piston rod (in head)

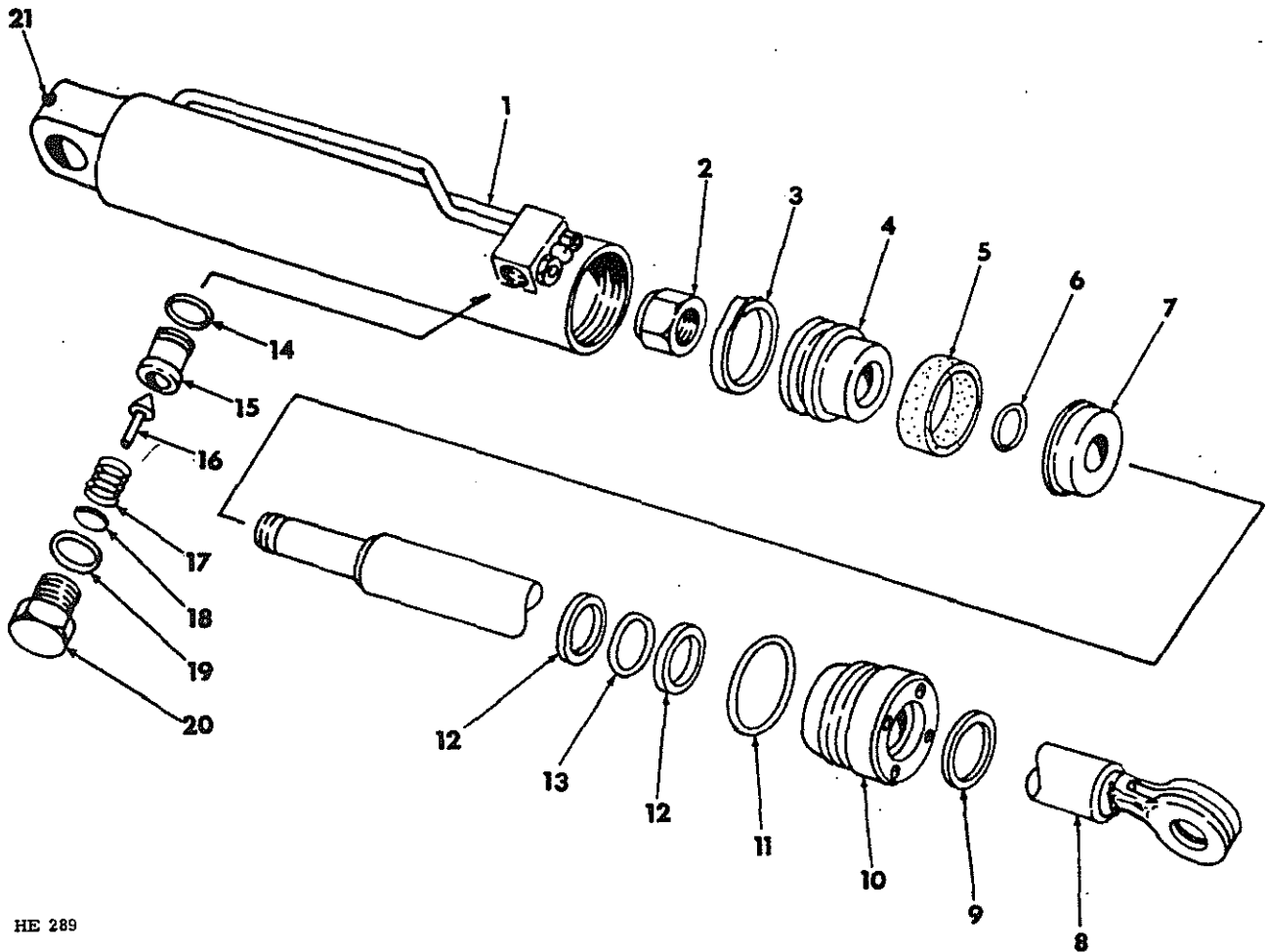


## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
		DROTT 4 IN 1 CLAM BUCKET OR LOG GRAPPLE OPERATING HYDRAULIC CYLINDER (Single Clam Cylinder Type)

REF. NO.	PART NUMBER	DESCRIPTION
		DROTT 4 IN 1 CLAM BUCKET OR LOG GRAPPLE OPERATING HYDRAULIC CYLINDER (Single Clam Cylinder Type) - Continued



HE 289

NOTE: For U.S. Service the following parts must be ordered direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U.S.A. For Canadian Service order parts from the Burlington Parts Depot, P.O. Box 512, Burlington, Ontario.

	31 347 M5	CYLINDER, clam or log grapple operating (composed of all parts listed below)	9	46 869	RING, piston rod wiper
1	26 551 M5	CYLINDER, hyd	10	46 840	HEAD, hyd cylinder
2	9 022	NUT, piston rod 1-1/8" -NF self-lk	11	6 165	"O" RING, piston coil (in head)
3	48 419	RING, piston wear	12	10 923	WASHER, leather back up (2)
4	28 097	PISTON, rear half	13	6 165	"O" RING, piston rod (in head)
5	26 550	PISTON, pack	14	5 603	"O" RING, seat relief valve
6	5 809	"O" RING, piston	15	46 913	SEAT, relief valve
7	49 783	PISTON, front half	16	46 914	PLUNGER, relief valve
8	26 552 M1	ROD ASSEMBLY	17	46 912	SPRING, plunger
			18	46 910	SHIM, relief valve
			19	6 058	"O" RING, cap
			20	46 911	CAP, relief valve
			21	12 031	FITTING, lub

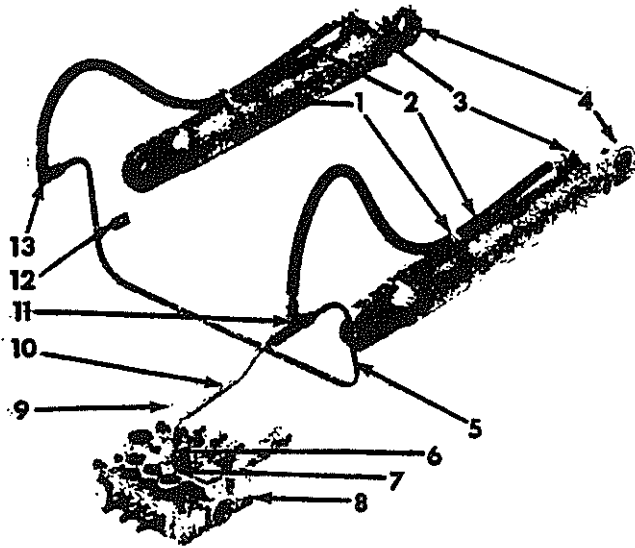
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REF. v NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (10 Bullgrader)  
(Blade Lifting Hyd Lines)

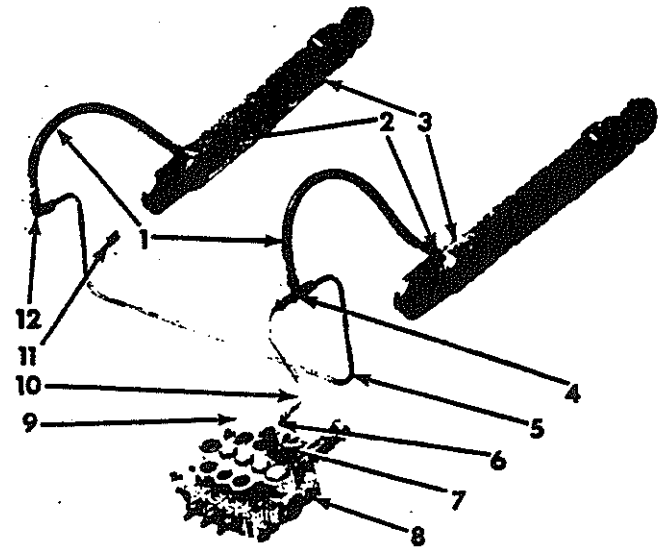


H 1565

1	985 851 R91	CLAMP, hoses to hyd cyl (2)
2	675 974 R91	HOSE, lift cyl front port (2)
3	9402 865	ELBOW, 1/2"-90° cyl front port (2)
4	638 013 R92	CYLINDER, blade lifting hyd (2) (for components refer to "LIFTING HYDRAULIC CYLINDER")
5	675 975 R11	PIPE, cross-over front port
6	9410 281	ELBOW, 1/2"-90° valve connector
7	481 352 R1 364 885 R1	CONNECTOR, valve port pipe Connector "O" RING
8	676 002 R91	VALVE, hyd control (for components refer to "HYDRAULIC CONTROL VALVE") 3/8 x 3" Type 2 BOLT w/NUT (4) 3/8" 1k-WASH. (4)
9	364 885 R1	"O" RING, valve port connector
10	675 976 R11	PIPE, valve to cross-over tee
11	9402 982	TEE, 3-way hyd cyl hose
12	369 758 R1 179 797 103 319	CLAMP, pipes to lift frame 1/4 x 1" Type 2 BOLT 1/4" 1k-WASH.
15	9402 943	ELBOW, 1/2"-90° left hose to cross-over pipe

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (10 Bullgrader)  
(Blade Lowering Hyd Lines)



H 1563

1	675 846 R91	HOSE, lift cyl rear port (2)
2	9402 826	ELBOW, 1/2"-45° cyl rear port (2)
3	638 013 R92	CYLINDER, blade lifting hyd (2) (for components refer to "LIFTING HYDRAULIC CYLINDER")
4	9402 982	TEE, 3-way hyd cyl hose
5	675 978 R11	PIPE, cross-over rear port
6	9410 281	ELBOW, 1/2"-90° valve connector
7	481 352 R1 364 885 R1	CONNECTOR, valve port pipe Connector "O" RING
8	676 002 R91	VALVE, hyd control (for components refer to "HYDRAULIC CONTROL VALVE") 3/8 x 3" Type 2 BOLT w/NUT (4) 3/8" 1k-WASH. (4)
9	364 885 R1	"O" RING, valve port connector
10	675 979 R11	PIPE, valve to cross-over tee
11	369 758 R1 179 797 103 319	CLAMP, pipes to lift frame 1/4 x 1" Type 2 BOLT 1/4" 1k-WASH.
12	9402 943	ELBOW, 1/2"-90° left hose to cross-over pipe

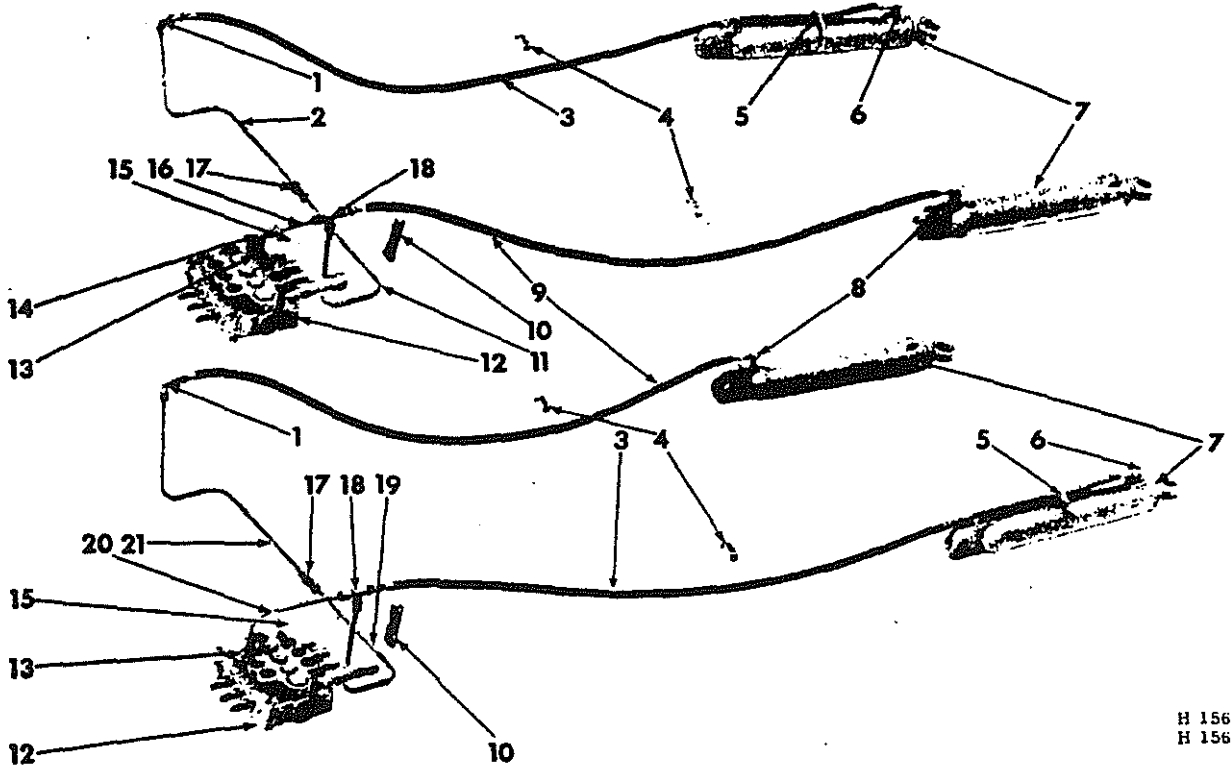


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (10 Bullgrader)  
(Valve to Blade angling hyd cyls)

HYDRAULIC LINES (10 Bullgrader)  
(Valve to Blade angling hyd cyls) - Continued



H 1564  
H 1566

1	9402 943	ELBOW, 1/2"-90° left hoses to cross-over pipes (2)	11	675 986 R11	PIPE, cross-over RH
2	675 985 R11	PIPE, cross-over LH	12	676 002 R91	VALVE, hyd control (for components refer to "HYDRAULIC CONTROL VALVE") 3/8 x 3" Type 2 BOLT w/NUT (4) 3/8" 1k-WASH. (4)
3	675 984 R91	HOSE, hyd cyl front port (2)	13	481 352 R1 364 885 R1	CONNECTOR, valve port elbow (2) Port connector "O" RING (2)
4	676 540 R1 179 799 103 319	CLAMP, hyd hose (2) 1/4 x 1-1/4" Type 2 BOLT (2) 1/4" 1k-WASH. (2)	14	9410 281	ELBOW, 1/2"-90° valve front port
5	985 851 R81	CLAMP, hoses to hyd cyl (2)	15	364 885 R1	"O" RING, valve port connector (2)
6	9402 865	ELBOW, hyd cyl front port (2)	16	675 988 R11	PIPE, rear port elbow to tee
7	675 980 R92	CYLINDER, angling hyd (2) (for component parts refer to "ANGLING HYDRAULIC CYLINDER")	17	9402 787	UNION, right to left cross-over pipes (2)
8	637 865 R1	ELBOW, 1/2"-90° hyd cyl rear port (2)	18	9402 982	TEE, cross-over pipe (2)
9	675 987 R91	HOSE, hyd cyl rear port (2)	19	675 990 R11	PIPE, cross-over RH
10	675 997 R1 179 798 109 084 103 319	CLAMP, cross-over pipe (2) 1/4 x 1" Type 2 BOLT (2) 1/4" NUT (2) 1/4" 1k-WASHER (2)	20	675 991 R11	PIPE, tee to valve rear port
			21	675 989 R11	PIPE, cross-over LH

\* Not Serviced Separately

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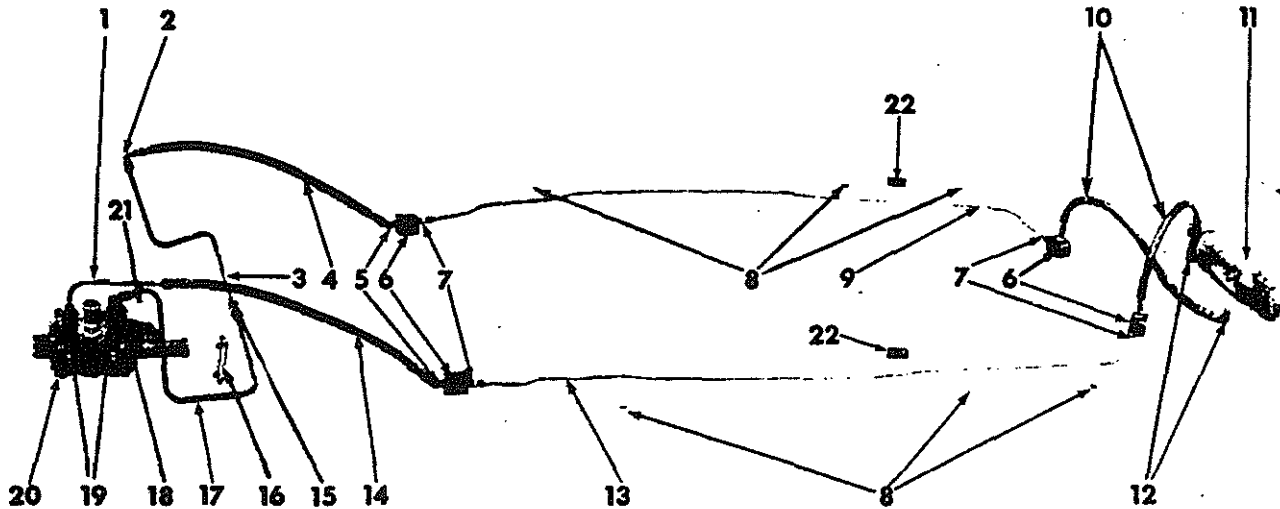


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (10 Bullgrader)  
(Valve to blade tilt cyl hyd lines)

HYDRAULIC LINES (10 Bullgrader)  
(Valve to blade tilt cyl hyd lines) - Continued



H 1567

1	675 996 R11	PIPE, hyd valve rear port
2	9402 943	ELBOW, 1/2"-90° hose to cross-over pipe
3	675 993 R11	PIPE, cross-over LH
4	675 995 R91	HOSE, junction to cross-over pipe
5	9402 826	ELBOW, 1/2"-45° rear junction block (2)
6		BLOCK, hyd pipe junction (4) (welded to blade lift "C" frame)
7	610 774 R1	CONNECTOR, pipe to junction blocks (4)
8	191 755 142 281	CLIP, tilt cyl pipe (6) Clip pipe SCREW (6)
9	637 857 R11	PIPE, tilt hyd cyl port LH
10	637 864 R91 985 851 R91	HOSE, tilt cyl port (2) Hose cyl CLAMP
11	309 726 R94	CYLINDER, tilting hyd (for component parts refer to "TILTING HYDRAULIC CYLINDER")
12	9402 865	ELBOW, 1/2"-90° tilt hyd cyl port (2)
13	637 856 R11	PIPE, tilt hyd cyl port RH
14	675 846 R91	HOSE, junction to cross-over pipe
15	9402 787	UNION, cross-over pipe to pipe
16	675 997 R1 179 798 109 084 103 319	CLAMP, cross-over pipe (2) 1/4 x 1-1/8" Type 2 BOLT (2) 1/4" NUT (2) 1/4" lk-WASHER (2)

17	675 994 R11	PIPE, cross-over RH
18	9410 281	ELBOW, 1/2"-90° pipe to connector
19	481 352 R1 364 885 R1	CONNECTOR, valve port (2) Connector "O" RING (2)
20	676 002 R91 179 851 102 835 103 321	VALVE, hyd control (for components refer to "HYDRAULIC CONTROL VALVE") 3/8 x 3" Type 2 BOLT (4) 3/8" NUT (4) 3/8" lk-WASHER (4)
21	364 885 R1	"O" RING, valve port connector (2)
22	675 967 R1 179 799 109 084 103 319	CLAMP, cylinder pipe to frame 1/4 x 1-1/4" Type 2 BOLT (2) 1/4" NUT (2) 1/4" lk-WASHER (2)

\* Not Serviced Separately

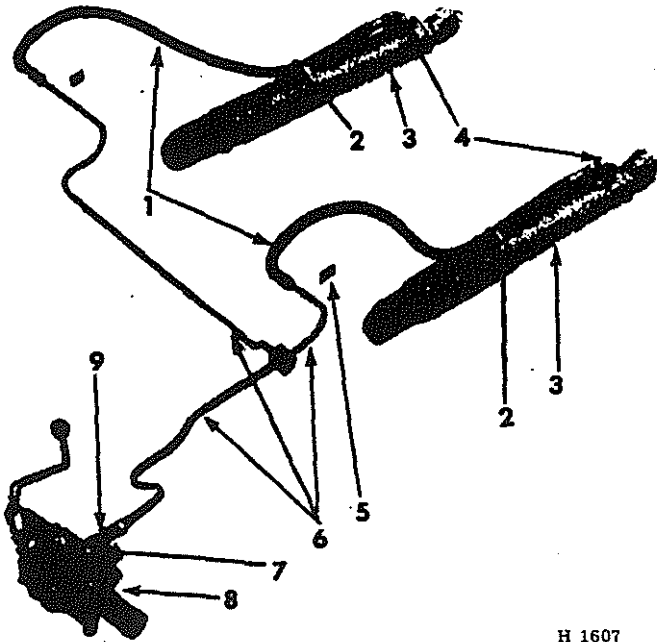
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (Blade Raising)  
(11 Bullgrader)

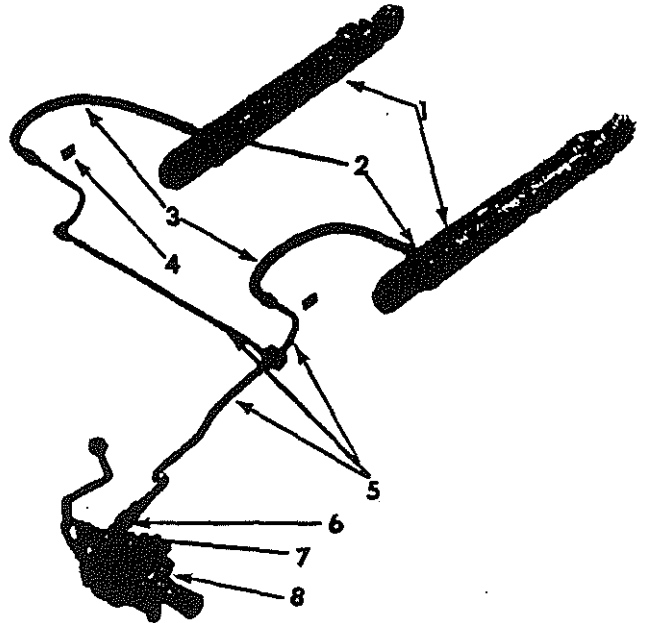


H 1607

1	637 860 R91	HOSE, hyd cyl front port (2)
2	985 851 R91	CLAMP, hose to hyd cyl (2)
3	638 013 R92	CYLINDER, hyd lifting (2) (for components refer to "LIFTING HYD CYLINDER")
4	9402 865	ELBOW, 1/2"-90° cyl front port (2)
5	369 758 R1 179 797 103 319	CLAMP, lifting cyl pipes (2) 1/4 x 1" Type 2 BOLT (2) 1/4" 1k-WASH. (2)
6	637 978 R91	PIPE, lift cyl raise
7	635 596 R1	ELBOW, 1/2"-90° valve port
8	636 709 R1 179 849 102 635 103 321	VALVE, hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE") 3/8 x 2-1/2" Type 2 BOLT (3) 3/8" NUT (3) 3/8" 1k-WASHER (3)
9	9402 749	CONNECTOR, valve port elbow

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (Blade Lowering)  
(11 Bullgrader)



H 1605

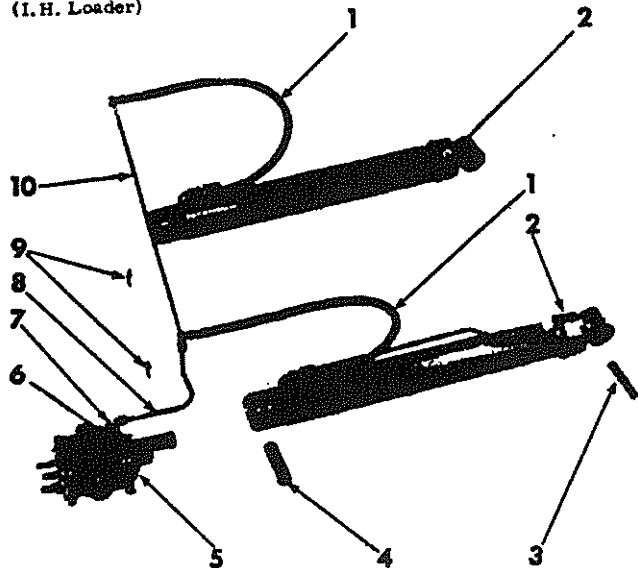
1	638 013 R92	CYLINDER, hyd lifting (2) (for components refer to "HYDRAULIC LIFTING CYLINDER")
2	9402 826	ELBOW, 1/2"-45° cyl rear port (2)
3	637 861 R91	HOSE, hyd cyl rear port (2)
4	369 758 R1 179 797 103 319	CLAMP, lifting cyl pipes (2) 1/4 x 1" Type 2 BOLT (2) 1/4" 1k-WASH. (2)
5	637 979 R91	PIPE, lift cyl lowering
6	9402 749	CONNECTOR, valve port pipe
7	635 596 R1	ELBOW, 1/2"-90° valve port
8	636 709 R1 179 849 102 635 103 321	VALVE, hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE") 3/8 x 2-1/2" Type 2 BOLT (3) 3/8" NUT (3) 3/8" 1k-WASHER (3)

\* Not Serviced Separately



REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (Boom Raising)  
(I.H. Loader)



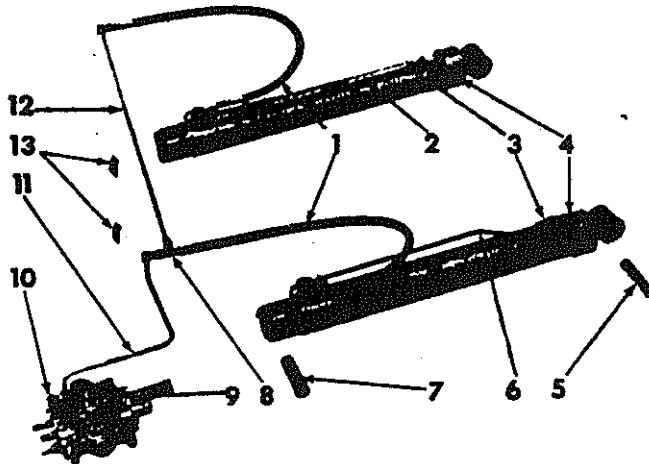
H 1611

NOTE: Tractor equipped w/2-spool hyd control valve to operate Material Bucket or Drott Angle Dozer Blade.

1	473 794 R91	HOSE, lifting hyd cyl (2)
2	392 745 R91	CYLINDER, hyd lifting (2) (for component parts refer to "LIFTING HYDRAULIC CYLINDER")
3	479 750 R1 479 749 R1 103 384	SHAFT, hyd cyl front (2) Shaft locking PIN (2) 1/8 x 3" c-PIN (2)
4	479 064 R1 378 484 R1 12 235 R1	SHAFT, hyd cyl rear (2) Shaft locking PIN (2) 1/8 x 5/8" cd-pltd c-PIN (2)
5	676 123 R91  179 851 102 635 103 321	VALVE, 2 spool hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE") 3/8 x 3" Type 2 BOLT(4) 3/8" NUT (4) 3/8" 1k-WASHER (4)
6	407 045 R1 364 885 R1	UNION, raise pipe valve reducing Valve union "O" RING
7	9410 977 570 828 R1	ELBOW, 1/2"-90° reducing union Valve elbow "O" RING
8	675 872 R11	PIPE, valve to cyl hose raise
9	369 758 R1 180 083	CLAMP, cross-over pipes (2) 5/16 x 1-1/2" Type 2 BOLT (2)
10	675 871 R11	PIPE, cyl raising cross-over

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (Boom Lowering)  
(I.H. Loader)



H 1612

NOTE: Tractor equipped w/2-spool hyd control valve to operate material bucket or Drott angle dozer blade.

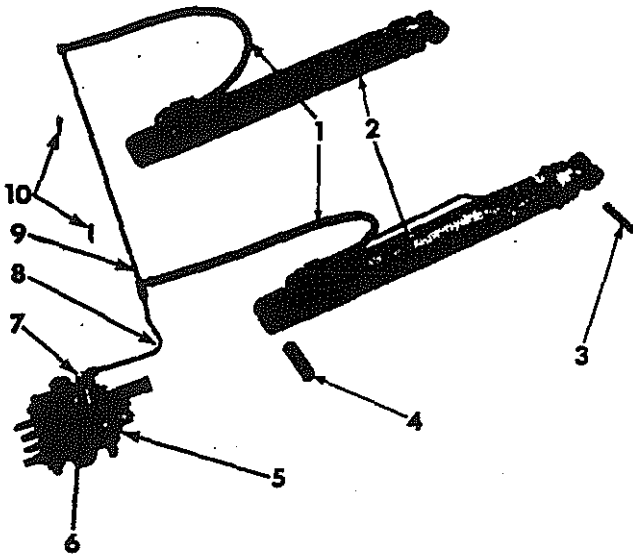
1	473 794 R91	HOSE, lifting hyd cyl (2)
2	473 797 R11 570 828 R1	PIPE, hyd cyl return LH Pipe "O" RING (2)
3	9410 203 570 828 R1	CONNECTOR, hyd cyl return port (2) Connector "O" RING (2)
4	392 745 R91	CYLINDER, hyd lifting (2) (for component parts refer to "LIFTING HYDRAULIC CYLINDER")
5	479 750 R1 479 749 R1 103 384	SHAFT, hyd cyl front (2) Shaft locking PIN (2) 1/8 x 1" c-PIN (2)
6	676 090 R11 570 828 R1	PIPE, hyd cyl return RH Pipe "O" RING (2)
7	479 064 R1 378 484 R1 12 235 R1	SHAFT, hyd cyl rear (2) Shaft locking PIN (2) 1/8 x 5/8" cd-pltd c-PIN (2)
8	9410 333	TEE, cross over swivel
9	481 352 R1 364 885 R1	CONNECTOR, valve Connector "O" RING
10	676 123 R91  179 851 102 635 103 321	VALVE, 2 spool hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE") 3/8 x 3" Type 2 BOLT(4) 3/8" NUT (4) 3/8" 1k-WASHER (4)
11	675 873 R11	PIPE, valve to hose lowering
12	675 870 R11	PIPE, cross-over lowering
13	369 758 R1 180 083	CLAMP, cross-over pipes (2) 5/16 x 1-1/2" Type 2 cd-pltd BOLT (2)

\* Not Serviced Separately



REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (Boom Raising)  
(I. H. Loader)



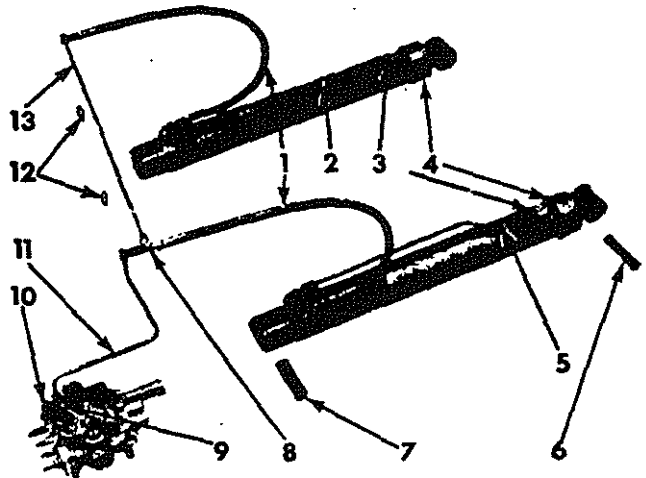
H 1609

NOTE: Tractor equipped w/3-spool hyd control valve to operate Drott 4-in-1 Clam Bucket or Drott log grapples.

1	473 794 R91	HOSE, lifting hyd cyl (2)
2	392 745 R91	CYLINDER, hyd lifting (2) (for component parts refer to "LIFTING HYDRAULIC CYLINDER")
3	479 750 R1 479 749 R1 103 384	SHAFT, lift cyl front (2) Shaft locking PIN (2) 1/8 x 1" c-PIN (2)
4	479 064 R1 378 484 R1 12 235 R1	SHAFT, lift cyl rear (2) Shaft locking PIN (2) 1/8 x 5/8" cd-pltd c-PIN (2)
5	635 704 R91  179 851 102 635 103 321	VALVE, 3 spool hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE") 3/8 x 3" Type 2 BOLT w/NUT (4) 3/8" NUT (4) 3/8" 1k-WASH. (4)
6	407 045 R1 364 885 R1	UNION, raise pipe valve reducing Valve union "O" RING
7	9410 877 570 828 R1	ELBOW, 1/2"-90° reducing union Valve elbow "O" RING
8	675 872 R11	PIPE, valve to cyl hose raise
9	675 871 R11	PIPE, cyl raise cross
10	369 758 R1 180 083	CLAMP, cross-over pipes (2) 5/16 x 1-1/2" Type 2 cd-pltd BOLT (2)

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (Boom Lowering)  
(I. H. Loader)



H 1610

NOTE: Tractor equipped w/3-spool hyd control valve to operate Drott 4-in-1 Clam Bucket or Drott log grapples.

1	473 794 R91	HOSE, lifting hyd cyl (2)
2	473 797 R11 570 828 R1	PIPE, hyd cyl return LH Pipe "O" RING (2)
3	9410 203 570 828 R1	CONNECTOR, hyd cyl return port (2) Connector "O" RING (2)
4	392 745 R91	CYLINDER, hyd lifting (2) (for component parts refer to "LIFTING HYDRAULIC CYLINDER")
5	676 090 R11 570 828 R1	PIPE, hyd cyl return RH Pipe "O" RING (2)
6	479 750 R1 479 749 R1 103 384	SHAFT, lift cyl front (2) Shaft locking PIN (2) 1/8 x 1" c-PIN (2)
7	479 064 R1 378 484 R1 12 235 R1	SHAFT, lift cyl rear (2) Shaft locking PIN (2) 1/8 x 5/8" cd-pltd c-PIN (2)
8	9410 333	TEE, cross over swivel
9	481 352 R1 364 885 R1	CONNECTOR, valve port cyl lower Connector "O" RING
10	635 704 R91  179 851 102 635 103 321	VALVE, 3 spool hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE") 3/8 x 3" Type 2 BOLT (4) 3/8" NUT (4) 3/8" 1k-WASHER (4)
11	675 873 R11	PIPE, valve to hose cyl lower
12	369 758 R1 180 083	CLAMP, cross-over pipes (2) 5/16 x 1-1/2" Type 2 cd-pltd BOLT (2)
13	675 870 R11	PIPE, cyl lower cross-over

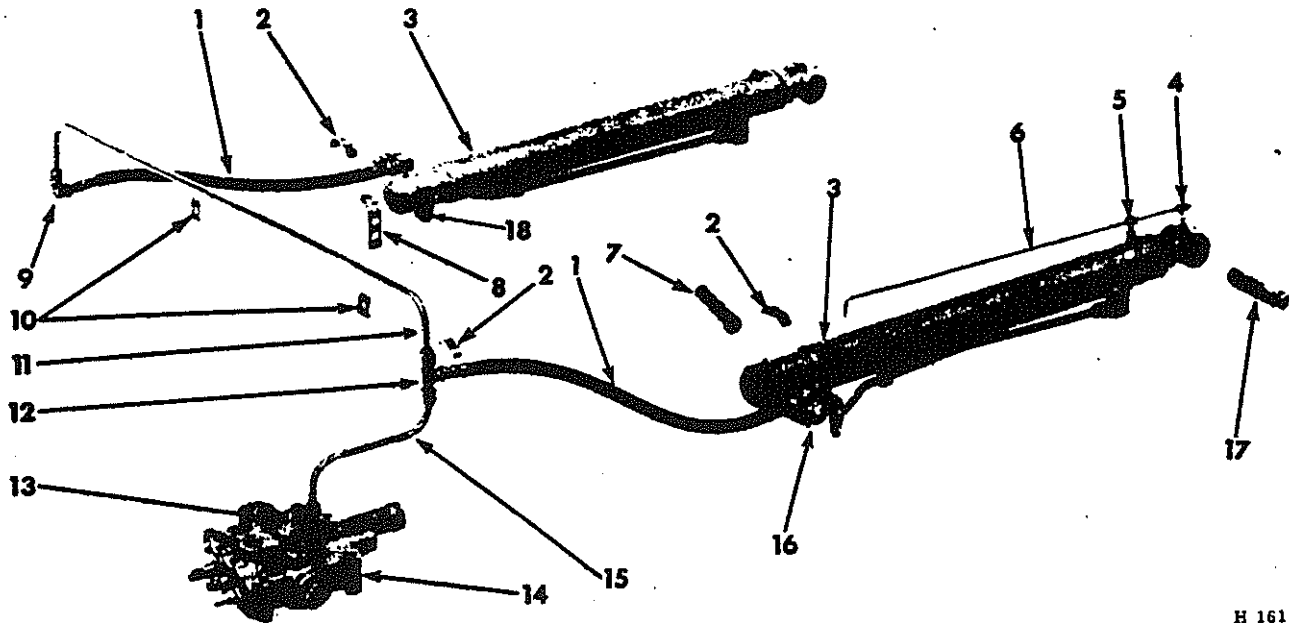
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REF. NO.	PART NUMBER	DESCRIPTION
HYDRAULIC LINES (Tilt Raising) (I.H. Loader)		

REF. NO.	PART NUMBER	DESCRIPTION
HYDRAULIC LINES (Tilt Raising) (I.H. Loader) - Continued		



H 1619

NOTE: For tractor w/2-spool hyd control valve to operate Material Bucket or Drott Angle Dozer Blade. For U.S. service orders, parts listed "DROTT", must be ordered direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U.S.A. For Canadian service, order parts direct from Burlington Parts depot, P.O. Box 512, Burlington, Ontario.

1	473 820 R91	HOSE, tilt hyd cyl (2)
2	379 045 R1	CLAMP, tilt cyl hose (3)
	179 842	5/16 x 1-3/4" Type 2 BOLT (3)
	102 634	5/16" NUT (3)
	103 320	5/16" lk-WASHER (3)
3	389 044 R91	CYLINDER, tilting hyd (2) (for component parts refer to "TILTING HYDRAULIC CYLINDER")
4	478 737 R91	EYE, front indicator (Material Bucket)
4	46 858	EYE, front indicator (Drott - see NOTE)
	4 203	3/8"-NF NUT (Drott - see NOTE)
5	478 734 R91	EYE, rear indicator (Material Bucket)
5	46 857	EYE, rear indicator (Drott - see NOTE)
	4 203	3/8"-NF NUT (Drott - see NOTE)
6	478 733 R1	ROD, indicator (Material Bucket)
	114 492	1/4"-NF cd-pltd jam NUT
	103 024	1/4"-NF cd-pltd NUT
	120 380	1/4" cd-pltd lk-WASH.
6	64 943	ROD, indicator (Drott - see NOTE)
	4 201	1/4"-NF NUT (2)
	4 395	1/4" lk-WASH.

7	479 064 R1	SHAFT, cyl rear mounting (2)
	378 484 R1	Shaft locking PIN (2)
	12 235 R1	1/8 x 5/8" cd-pltd c-PIN (2)
8	675 878 R1	ANGLE, cyl hose support
	179 839	3/8 x 1" Type 2 BOLT (2)
	Q 1 597	13/32 x 3/4 x 16 ga WASH. (2)
	103 321	3/8" lk-WASH. (2)
9	9402 943	ELBOW, 1/2"-90° cross-over pipe
10	369 758 R1	CLAMP, cross-over pipe (2)
	180 083	5/16 x 1-1/2" Type 2 cd-pltd BOLT (2)
11	675 879 R11	PIPE, cross-over cyl raise
12	9402 982	TEE, 1/2"-3 way
13	481 352 R1	CONNECTOR, valve port cyl pipe
	364 885 R1	Connector "O" RING
14	676 123 R91	VALVE, 2 spool hyd control (for components refer to "HYDRAULIC CONTROL VALVE")
	179 851	3/8 x 3" Type 2 BOLT (4)
	102 635	3/8" NUT (4)
	103 321	3/8" lk-WASHER (4)
15	675 881 R11	PIPE, valve to hose raise
16	675 876 R91	PIPE, rear cyl port LH
16	675 877 R91	PIPE, rear cyl port RH
17	479 745 R1	SHAFT, cyl front mounting (2)
	602 032 R1	Shaft locking PIN (2)
	103 384	1/8 x 3/4" c-PIN (2)
18	9410 977	ELBOW, 1/2"-90° cyl rear port (2)
	570 828 R1	Elbow "O" RING (2)

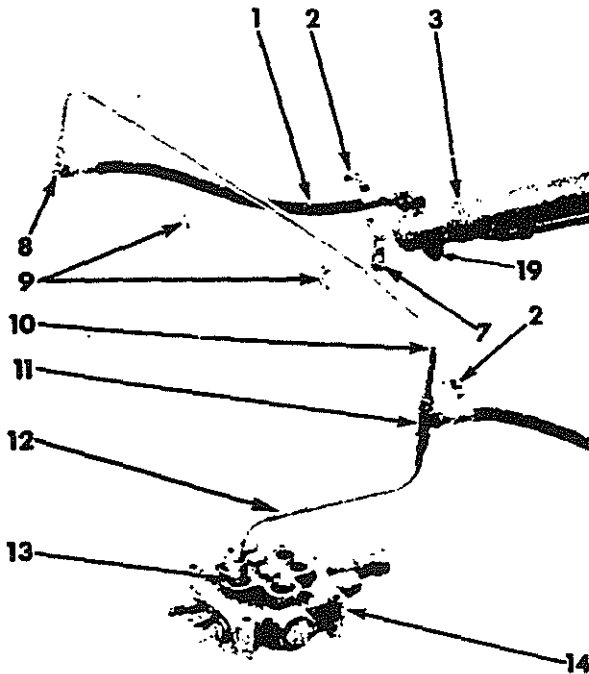
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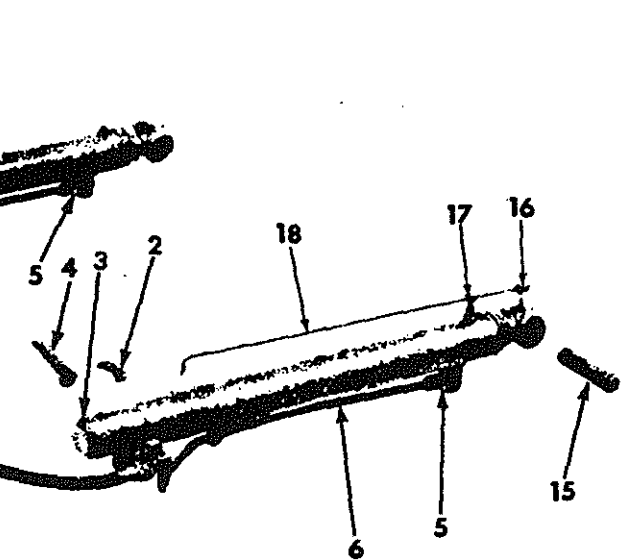
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HYDRAULIC LINES (Tilt Lowering)  
(I.H. Loader)

NOTE: For tractors w/2-spool hyd control valve to operate Material Bucket or Drott Angle Dozer Blade. For U.S. service orders, parts listed "DROTT" must be ordered direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U.S.A. For Canadian service, order parts direct from Burlington Parts Depot, P.O. Box 512, Burlington, Ontario.

1	473 820 R91	HOSE, tilt hyd cyl (2)
2	379 045 R1 179 824 102 634 103 320	CLAMP, tilt cyl hose (3) 5/16 x 1-3/4" Type 2 BOLT (3) 5/16" NUT (3) 5/16" 1k-WASHER (3)
3	389 044 R91	CYLINDER, tilting hyd (2) (for component parts refer to "TILTING HYDRAULIC CYLINDER")
4	479 064 R1 378 484 R1 12 235 R1	SHAFT, cyl rear mounting (2) Shaft locking PIN (2) 1/8 x 5/8" cd-pltd c-PIN (2)
5	9410 203 570 828 R1	CONNECTOR, hyd cyl return port (2) Connector "O" RING (2)
6	675 874 R11 675 875 R11	PIPE, tilt cyl return LH PIPE, tilt cyl return RH
7	675 878 R1 179 839 Q 1 597 103 321	ANGLE, cyl hose support 3/8 x 1" Type 2 BOLT (2) 13/32 x 3/4 x 16 ga WASHER (2) 3/8" 1k-WASHER (2)
8	9402 943	ELBOW, 1/2" - 90° cross-over pipe
9	369 758 R1 180 083	CLAMP, cross-over pipe (2) 5/16 x 1-1/2" Type 2 BOLT (2)
10	675 880 R11	PIPE, cross-over lowering

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (Tilt Lowering)  
(I.H. Loader) - Continued

11	9402 982	TEE, 1/2" - 3 way
12	675 882 R11	PIPE, valve to hose lowering
13	481 352 R1 364 885 R1	CONNECTOR, valve port cyl pipe Connector "O" RING
14	676 123 R91 179 851 102 635 103 321	VALVE, 2 spool hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE") 3/8 x 3" Type 2 BOLT (4) 3/8" NUT (4) 3/8" 1k-WASHER (4)
15	479 745 R1 602 032 R1 103 384	SHAFT, cyl front mounting (2) Shaft locking PIN (2) 1/8 x 3/4" c-PIN (2)
16	478 737 R91 46 858 4 203	EYE, front indicator (Material Bucket) EYE, front indicator (Drott - see NOTE) 3/8" - NF NUT (Drott - see NOTE)
17	478 734 R91 46 857 4 203	EYE, rear indicator (Material Bucket) EYE, rear indicator (Drott - see NOTE) 3/8" - NF NUT (Drott - see NOTE)
18	478 733 R1 114 492 103 024 120 380	ROD, indicator (Material Bucket) 1/4" - NF cd-pltd jam NUT 1/4" - NF cd-pltd NUT 1/4" cd-pltd 1k-WASHER
18	64 943 4 201 4 395	ROD, indicator (Drott - see NOTE) 1/4" - NF NUT (2) 1/4" 1k-WASHER
19	9410 977 570 828 R1	ELBOW, 1/2" - 90° cyl rear port (2) Elbow "O" RING (2)

H 1616

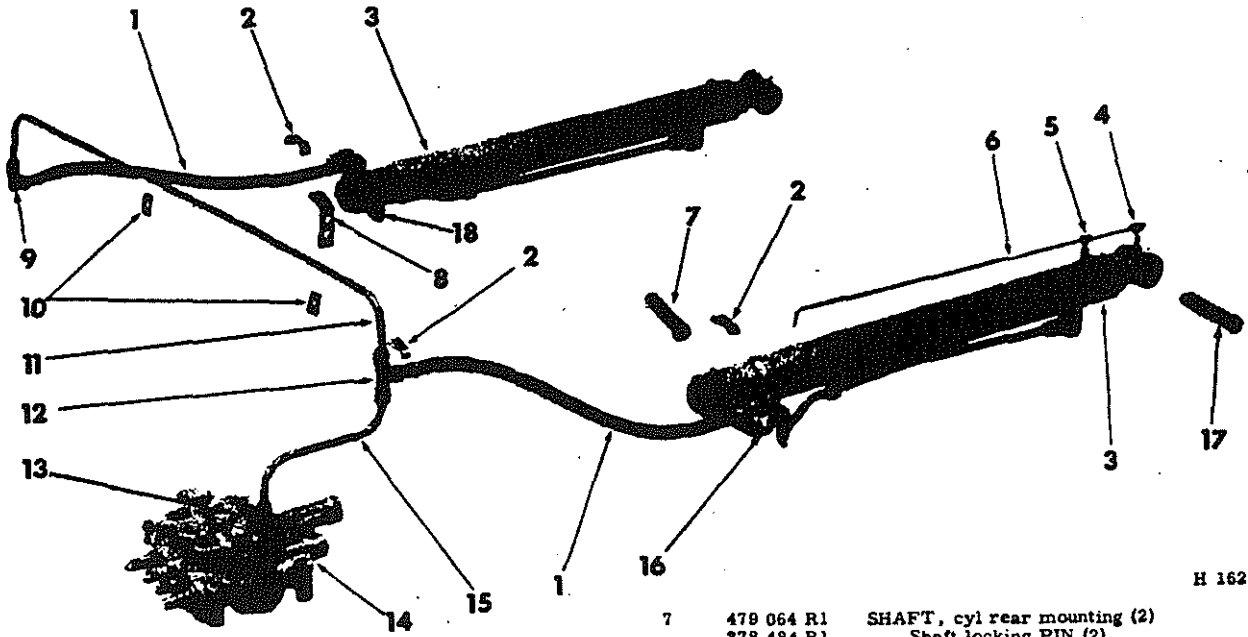


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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (Tilt Raising)  
(I. H. Loader)

HYDRAULIC LINES (Tilt Raising)  
(I. H. Loader) - Continued



H 1620

NOTE: For tractors w/3-spool hyd control valve operating a Drott 4-in-1 Clam Bucket or Drott Log Grapples. For U.S. service orders, parts listed "DROTT" must be ordered direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U. S. A. For Canadian service, order parts direct from Burlington Parts Depot, P.O. Box 512, Burlington, Ontario.

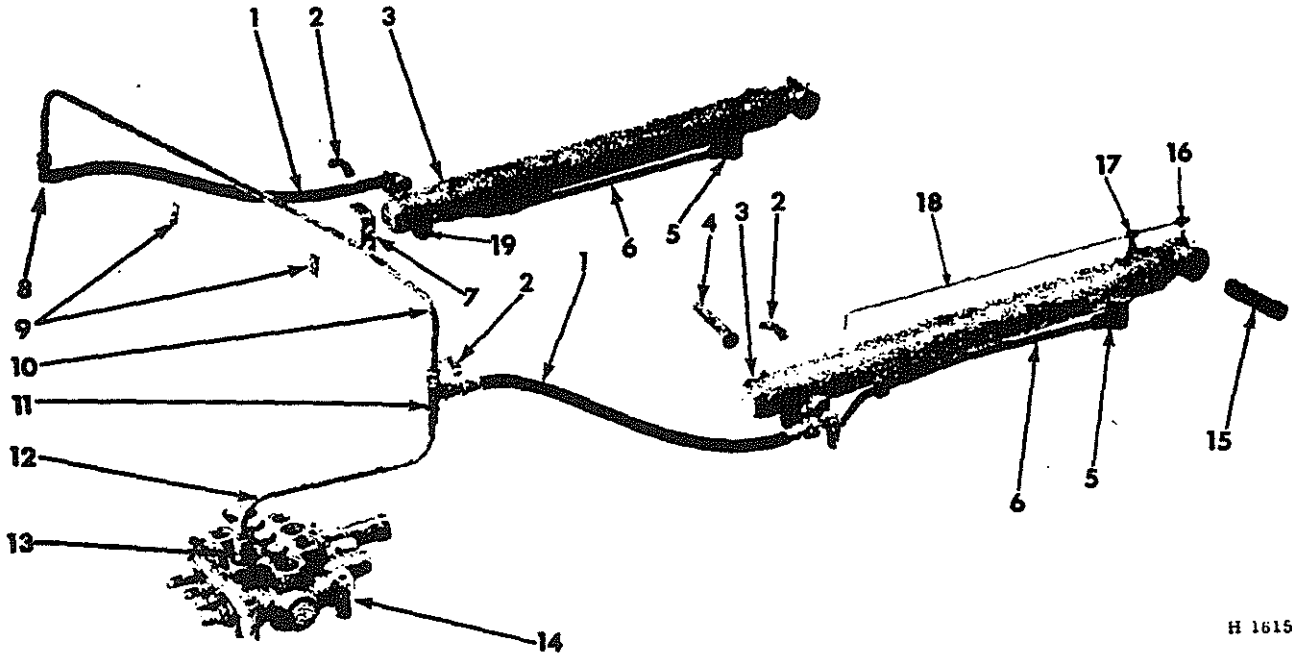
1	473 820 R91	HOSE, tilt hyd cyl (2)
2	378 045 R1 178 824 102 634 103 320	CLAMP, tilt cyl hose (3) 5/16 x 1-3/4" Type 2 BOLT (3) 5/16" NUT (3) 5/16" 1k-WASHER (3)
3	388 044 R91	CYLINDER, tilting hyd (2) (for component parts refer to "TILTING HYDRAULIC CYLINDER")
4	478 737 R91 46 858 4 203	EYE, front indicator (Material Bucket) EYE, front indicator (Drott - see NOTE) 3/8"-NF NUT (Drott - See NOTE)
5	478 734 R91 46 857 4 203	EYE, rear indicator (Material Bucket) EYE, rear indicator (Drott - see NOTE) 3/8"-NF NUT (Drott - see NOTE)
6	478 733 R1 114 482 103 024 120 380	ROD, indicator (Material Bucket) 1/4"-NF cd-pltd jam NUT 1/4"-NF cd-pltd NUT 1/4" cd-pltd 1k-WASH.
6	64 943 4 201 4 385	ROD, indicator (Drott - see NOTE) 1/4"-NF NUT (2) 1/4" 1k-WASH.

7	478 064 R1 378 484 R1 12 235 R1	SHAFT, cyl rear mounting (2) Shaft locking PIN (2) 1/8 x 5/8" cd-pltd c-PIN (2)
8	675 878 R1 178 839 Q 1 587 103 321	ANGLE, cyl hose support 3/8 x 1" Type 2 BOLT (2) 13/32 x 3/4 x 16 ga WASH. (2) 3/8" 1k-WASH. (2)
9	9402 943	ELBOW, 1/2"-90° cross-over pipe
10	368 758 R1 180 083	CLAMP, cross-over pipes (2) 5/16 x 1-1/2" Type 2 BOLT (2)
11	675 878 R11	PIPE, cross-over cyl raise
12	9402 982	TEE, 1/2"-3 way
13	481 352 R1 364 885 R1	CONNECTOR, valve port cyl pipe Connector "O" RING
14	635 704 R91 178 851 102 635 103 321	VALVE, 3-spool hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE") 3/8 x 3" Type 2 BOLT (4) 3/8" NUT (4) 3/8" 1k-WASHER (4)
15	675 881 R11	PIPE, valve to hose raise
16	675 876 R91 675 877 R91	PIPE, rear cyl port LH PIPE, rear cyl port RH
17	478 745 R1 602 032 R1 103 384	SHAFT, cyl front mounting (2) Shaft locking PIN (2) 1/8 x 1" c-PIN (2)
18	9410 977 570 828 R1	ELBOW, 1/2"-90° cyl rear port (2) Elbow "O" RING (2)

\* Not Serviced Separately



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC LINES (Tilt Lowering)  
(I. H. Loader)HYDRAULIC LINES (Tilt Lowering)  
(I. H. Loader) - Continued

H 1615

NOTE: For tractors w/3-spool hyd control valve to operate a Drott 4-in-1 Clam Bucket or Drott Log Grapples. For U.S. service, parts listed DROTT\* must be ordered direct from the DROTT MFG. CORPORATION, WAUSAU, WISCONSIN, U.S.A. For Canadian service order parts direct from the Burlington Parts Depot, P.O. Box 512, Burlington, Ontario.

1	473 820 R1	HOSE, tilt hyd cyl (2)	11	9402 982	TEE, 1/2" - 3 way
2	379 045 R1	CLAMP, tilt cyl hose (3)	12	675 882 R11	PIPE, valve to hose lowering
	179 824	5/16 x 1-3/4" Type 2 BOLT (3)	13	481 352 R1	CONNECTOR, valve port cyl pipe
	102 634	5/16" NUT (3)		364 885 R1	Connector "O" RING
	103 320	5/16" 1k-WASHER (3)	14	635 704 R91	VALVE, 3 spool hyd control (for component parts refer to "HYDRAULIC CONTROL VALVE")
3	389 044 R91	CYLINDER, tilting hyd (2) (for component parts refer to "TILTING HYDRAULIC CYLINDER")		179 851	3/8 x 3" Type 2 BOLT (4)
4	479 064 R1	SHAFT, cyl rear mounting (2)		102 635	3/8" NUT (4)
	378 484 R1	Shaft locking PIN (2)		103 321	3/8" 1k-WASHER (4)
	12 235 R1	1/8 x 5/8" cd-pltd c-PIN (2)	15	479 745 R1	SHAFT, cyl front mounting (2)
5	9410 203	CONNECTOR, hyd cyl return port (2)		602 032 R1	Shaft locking PIN (2)
	570 828 R1	Connector "O" RING (2)		103 384	1/8 x 1" c-PIN (2)
6	675 874 R11	PIPE, tilt cyl return LH	16	478 737 R91	EYE, front indicator (Material Bucket)
6	675 875 R11	PIPE, tilt cyl return RH		46 858	EYE, front indicator (Drott - see NOTE)
7	675 878 R1	ANGLE, cyl hose support		4 203	3/8" - NF NUT (Drott - see NOTE)
	179 839	3/8 x 1" Type 2 BOLT (2)	17	478 734 R91	EYE, rear indicator (Material Bucket)
	Q 1 597	13/32 x 3/4 x 16 ga WASHER (2)		46 857	EYE, rear indicator (Drott - see NOTE)
	103 321	3/8" 1k-WASHER (2)		4 203	3/8" - NF NUT (Drott - see NOTE)
8	9402 943	ELBOW, 1/2" - 90° cross-over pipe	18	478 733 R1	ROD, indicator (Material Bucket)
9	369 758 R1	CLAMP, cross-over pipe (2)		114 492	1/4" - NF cd-pltd jam NUT
	180 083	5/16 x 1-1/2" Type 2 cd-pltd BOLT (2)		103 024	1/4" - NF cd-pltd NUT
10	675 880 R11	PIPE, cross-over lowering		120 380	1/4" cd-pltd 1k-WASHER
			18	64 943	ROD, indicator (Drott - see NOTE)
				4 201	1/4" - NF NUT (2)
				4 395	1/4" 1k-WASHER
			19	9410 977	ELBOW, 1/2" - 90° cyl rear port (2)
				570 828 R1	Elbow "O" RING (2)

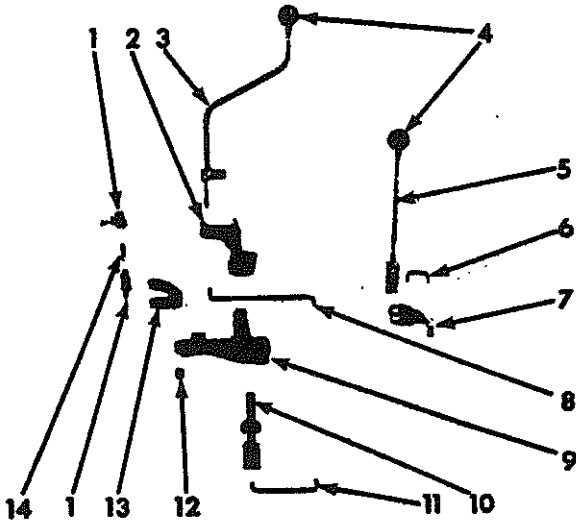


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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VALVE CONTROLS (Prior to Serial No. H 1561)  
(10 Bullgrader)

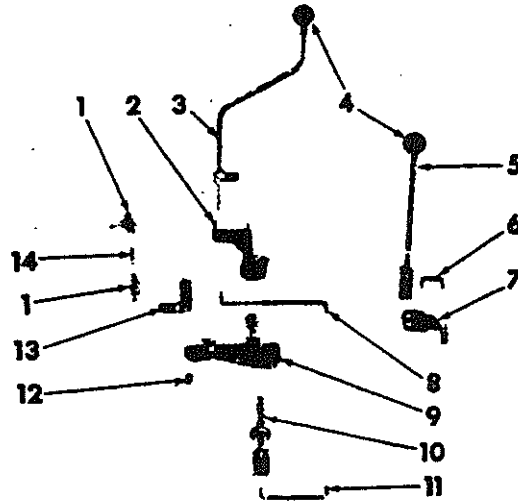


H 1579

1	310 663 R91 103 026	JOINT, control lever ball (2) 3/8" - NF 1k-NUT (2)
2	311 107 R2 179 846 102 635 103 321	BRACKET, lever support 3/8 x 1-7/8" Type 2 BOLT w/NUT 3/8" NUT 3/8" 1k-WASHER
3	675 887 R11 109 461 181 385 273 956	LEVER, lift & angle control 1/8" lub-FITTING 3/8 - NF x 3" Type 2 BOLT 3/8" - NF 1k-NUT
4	559 577 R1	KNOB, control levers (2)
5	676 010 R92 181 433 103 028 103 323	LEVER, tilt control 1/2 - NF x 1-3/4" Type 2 BOLT 1/2" - NF NUT 1/2" 1k-WASHER
6	675 903 R1 12 235 R1	ROD, valve control 1/8 x 5/8" c-PIN (2)
7	309 574 R2 180 022 120 380	BRACKET, tilt control lever 1/4 x 1" cd-pltd Type 2 BOLT (2) 1/4" cd-pltd 1k-WASHER (2)
8	676 008 R1 107 763	ROD, angle control 1/8 x 5/8" c-PIN (2)
9	676 009 R1 179 849 179 847 102 635 103 321	BASE, control lever 3/8 x 1-1/2" Type 2 BOLT (2) 3/8 x 2" Type 2 BOLT 3/8" NUT (3) 3/8" 1k-WASHER (3)
10	676 004 R91 109 461	ROCKSHAFT, lift control 1/8" lub-FITTING
11	676 006 R1 107 763	ROD, lift control 1/8 x 5/8" c-PIN (2)
12	661 280 R1	SPACER, base mounting (3)
13	676 007 R1 181 371 273 956	LEVER, blade angle control 3/8 - NF x 1-3/8" Type 2 BOLT 3/8" - NF 1k-NUT
14	311 115 R1 273 956	STUD, ball joint 3/8" - NF NUT (2)

REF. NO.	PART NUMBER	DESCRIPTION
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VALVE CONTROLS  
(10 Bullgrader) (Serial No. H 1561 & up)



H 1579

NOTE: Parts listed below are included in PARTS  
ACCESSORY PACKAGE - 675 959 R91

1	310 663 R91 103 026	JOINT, control lever ball (2) 3/8" NF 1k-NUT (2)
2	311 107 R2 179 846 102 635 103 321	BRACKET, lever support 3/8 x 1-7/8" Type 2 BOLT 3/8" NUT 3/8" 1k-WASHER
3	675 887 R11 109 461 181 385 273 956	LEVER, lift & tilt control 1/8" lub-FITTING 3/8 - NF x 3" Type 2 BOLT 3/8" NF 1k-NUT
4	559 577 R1	KNOB, control levers (2)
5	676 427 R91 181 433 103 028 103 323	LEVER, angle control 1/2 NF x 1-3/4" Type 2 BOLT 1/2" NF NUT 1/2" 1k-WASHER
6	675 903 R1 12 235 R1	ROD, valve control 1/8 x 5/8" c-PIN (2)
7	309 574 R2 180 022 120 380	BRACKET, angle control lever 1/4 x 1" cd-pltd Type 2 BOLT (2) 1/4" cd-pltd 1k-WASHER (2)
8	676 426 R1 107 763	ROD, tilt control 1/8 x 5/8" c-PIN (2)
9	676 009 R1 179 849 179 847 102 635 103 321	BASE, control lever 3/8 x 2-1/2" Type 2 BOLT 3/8 x 2" Type 2 BOLT (2) 3/8" NUT (3) 3/8" 1k-WASHER (3)
10	676 004 R91 109 461	ROCKSHAFT, lift control 1/8" lub FITTING
11	676 006 R1 107 763	ROD, lift control 1/8 x 5/8" c-PIN (2)
12	661 280 R1	SPACER, base mounting (3)
13	311 113 R1 181 371 273 956	LEVER, blade tilt control 3/8" NF x 1-3/8" Type 2 BOLT 3/8" NF 1k-NUT
14	311 115 R1 273 956	STUD, ball joint 3/8" NF NUT (2)

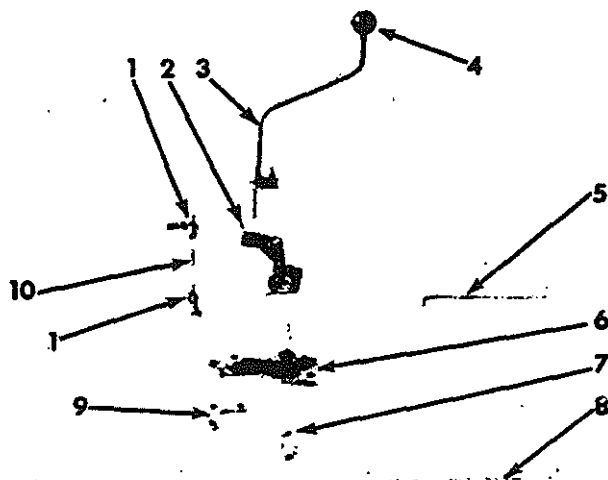


**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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**VALVE CONTROLS**  
(I. H. Loader w/2-spool Valve)



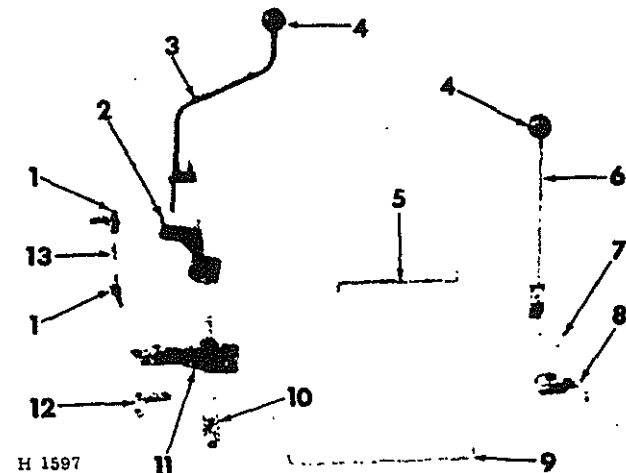
II 1592

NOTE: For tractors w/I. H. Loader equipped w/Material Bucket or Drott Angle Dozer Blade.

1	310 663 R91 273 956	JOINT, tilt control ball (2) 3/8"-NF 1k-NUT (2)
2	311 107 R2 179 846 102 635 103 321	BRACKET, lift & tilt lever support 3/8 x 1-7/8" Type 2 BOLT 3/8" NUT 3/8" 1k-WASHER
3	675 887 R11 109 461 181 385 273 956	LEVER, hyd valve control 1/8" lub-FTG 3/8-NF x 3" Type 2 BOLT 3/8"-NF 1k-NUT
4	559 577 R1	KNOB, control lever
5	675 893 R1 107 763	ROD, lift control 1/8 x 5/8" c-PIN (2)
6	322 991 R1 179 841 179 845 102 635 103 321	STAND, lift & tilt control 3/8 x 1-1/4" Type 2 BOLT (2) 3/8 x 1-3/4" Type 2 BOLT 3/8" NUT (3) 3/8" 1k-WASHER (3)
7	675 890 R91 109 461	ROCKSHAFT, lift control 1/8" lub-FTG
8	675 894 R1 107 763	ROD, tilt control 1/8 x 5/8" c-PIN (2)
9	311 113 R1 181 371 273 956	BELLCRANK, tilt control 3/8-NF x 1-3/8" Type 2 BOLT 3/8"-NF 1k-NUT
10	311 115 R1 103 026	STUD, tilt control ball joint 3/8"-NF NUT (2)

REF. NO.	PART NUMBER	DESCRIPTION
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**VALVE CONTROLS**  
(I. H. Loader w/3 Spool Valve)



H 1597

NOTE: For tractors w/I. H. Loader equipped w/Drott 4-in-1 Clam Bucket or Drott Log Grapple.

1	310 663 R91 273 956	JOINT, tilt control ball (2) 3/8"-NF 1k-NUT (2)
2	311 107 R2 179 846 102 635 103 321	BRACKET, lift & tilt lever support 3/8 x 1-7/8" Type 2 BOLT 3/8" NUT 3/8" 1k-WASHER
3	675 887 R11 109 461 181 385 273 956	LEVER, hyd valve control lift & tilt 1/8" lub-FITTING 3/8" - NF x 3" Type 2 BOLT 3/8" - NF 1k-NUT
4	559 577 R1	KNOB, control levers (2)
5	675 893 R1 107 763	ROD, lift control 1/8 x 5/8" c-PIN (2)
6	676 010 R92 181 433 103 028 103 323	LEVER, clam or grapple control 1/2 - NF x 1-3/4" Type 2 BOLT 1/2" NF NUT 1/2" 1k-WASHER.
7	675 903 R1 12 235 R1	ROD, clam or grapple control 1/8 x 5/8" cd-pltd c-PIN (2)
8	309 574 R2 180 022 120 380	BRACKET, clam or grapple support 1/4 x 1" cd-pltd Type 2 BOLT (2) 1/4" cd-pltd 1k-WASHER (2)
9	675 894 R1 107 763	ROD, tilt control 1/8 x 5/8" c-PIN (2)
10	675 890 R91 109 461	ROCKSHAFT, lift control 1/8" lub-FITTING
11	322 991 R1 179 841 179 845 102 635 103 321	STAND, lift & tilt control 3/8 x 1-1/4" Type 2 BOLT w/NUT (2) 3/8 x 1-3/4" Type 2 BOLT 3/8" - NUT (3) 3/8" 1k-WASHER (3)
12	311 113 R1 181 371 273 956	BELLCRANK, tilt control 3/8 - NF x 1-3/8" Type 2 BOLT 3/8" - NF 1k-NUT
13	311 115 R1 103 026	STUD, tilt control ball joint 3/8" - NF NUT (2)

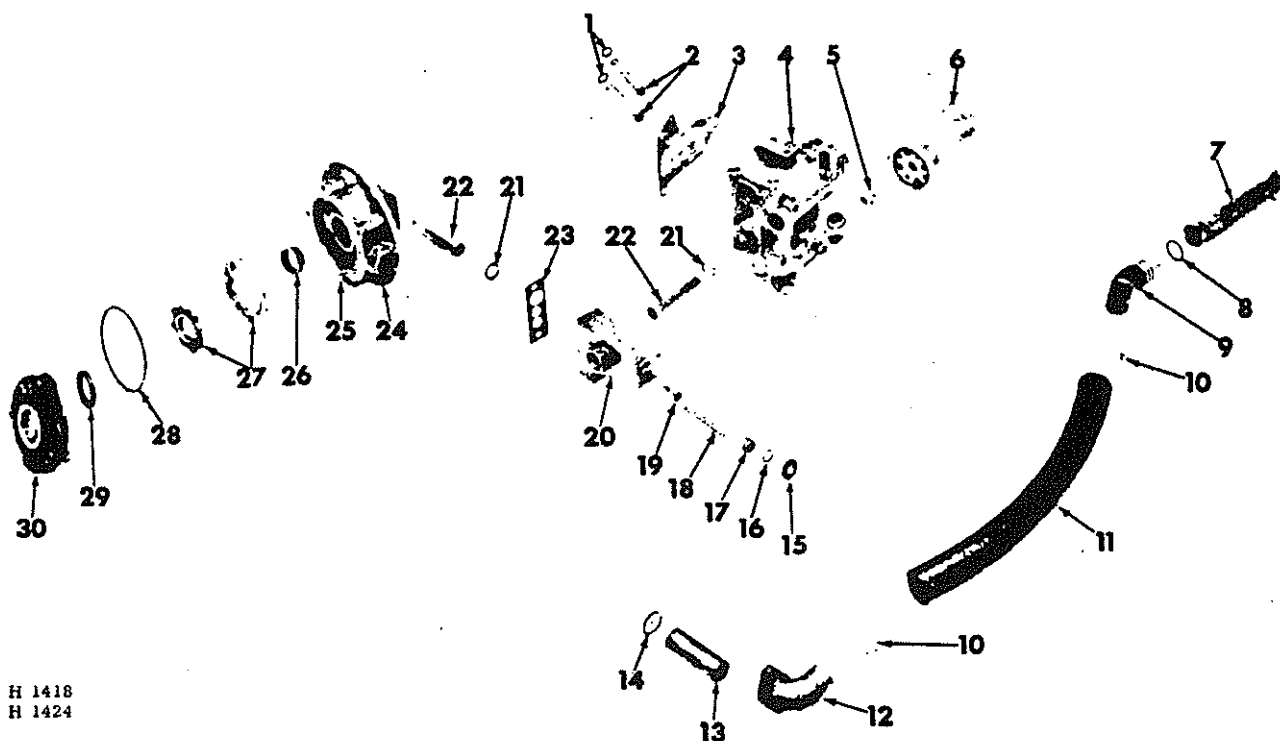


REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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POWER SHIFT REVERSER VALVE AND PUMP

POWER SHIFT REVERSER VALVE AND PUMP - Continued



H 1418  
H 1424

1	370 920	"O" RING (4)
2	675 595 R1	PIPE, valve to clutch (2)
3	675 584 R1	GASKET, valve to reverser housing
4	675 569 R94	VALVE, power shift reverser control (for individual parts refer to "POWER SHIFT REVERSER CONTROL VALVE")
	433 114	3/8 x 4-1/2" Type 2 BOLT (2)
	186 289	3/8 x 5" Type 2 BOLT
	103 321	3/8" 1k-WASHER
5	920 068 R1	NIPPLE, valve body filter
6	918 256 R91	FILTER
7	675 726 R91	FILTER, suction
8	370 944 R1	"O" RING, suction elbow
9	675 583 R1	ELBOW, suction
	179 810	5/16 x 3/8" Type 2 BOLT
	103 320	5/16" 1k-WASH.
	Q 398	11/32 x 7/8 x 16 ga WASH.
10	279 027 R91	CLAMP, hose (2)
11	675 584 R1	HOSE, suction
12	675 585 R1	FLANGE, suction hose
	179 841	3/8 x 1-1/4" Type 2 BOLT (2)
	103 321	3/8" 1k-WASH. (2)
13	675 586 R1	PIPE, pump inlet
14	370 943 R1	"O" RING, pipe (2)
15	614 452 R1	WASHER, cooler relief valve retainer

16	379 181 R1	"O" RING, cooler relief valve plug
17	676 058 R1	PLUG, cooler relief valve
18	635 532 R2	SPRING, cooler relief valve
19	676 060 R1	VALVE, cooler relief
20	675 567 R1	MANIFOLD, pump outlet
	179 847	3/8 x 2" Type 2 BOLT
	272 393	3/8 x 6-1/4" Type 2 BOLT
	103 321	3/8" 1k-WASH. (2)
21	606 582 C1	"O" RING, (4)
22	675 566 R1	PIPE, pump outlet and valve inlet (2)
23	675 568 R1	GASKET, manifold
24	675 562 R11	HOUSING, reverser pump (includes 2 PINS, 19 962 R1)
	179 839	3/8 x 1" Type 2 BOLT (4)
	103 321	3/8" 1k-WASH. (4)
25	19 962 R1	PIN, 3/8 x 3/4" dowel (2)
26	205 369 R91	BEARING, housing
27	675 565 R91	SET, pump gear
28	252 556 R1	"O" RING, cover
29	381 907 R91	SEAL, retainer oil
30	675 563 R1	RETAINER, reverser pump gear
	179 841	3/8 x 1-1/4" Type 2 BOLT (4)
	103 321	3/8" 1k-WASH. (4)

\* Not Serviced Separately

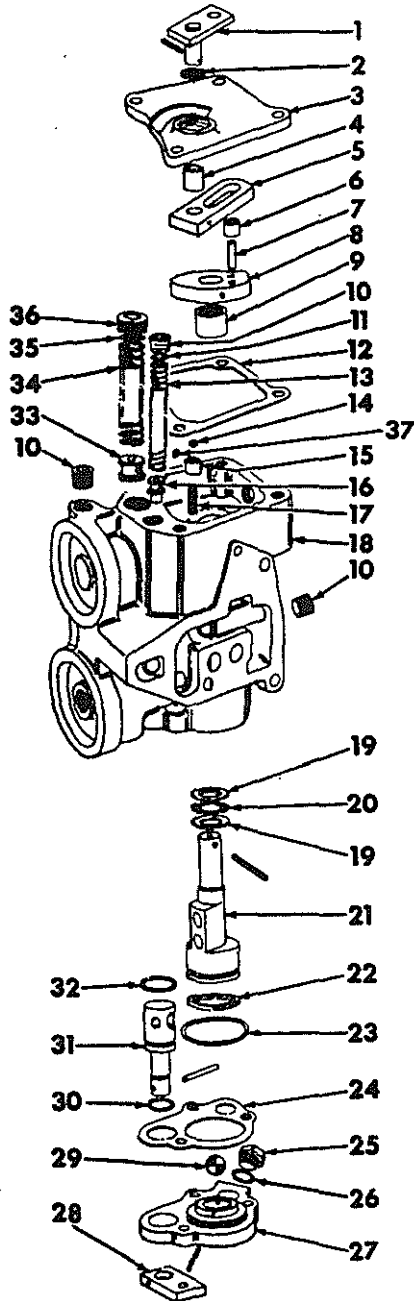


## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
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## POWER SHIFT REVERSER CONTROL VALVE



H 1452

	675 569 R04	VALVE (Includes all parts listed)
1	675 573 R91 20 697 R1	ARM, valve relay 1/8 x 1" coiled spring PIN
2	675 682 R91	SEAL, cover
3	675 571 R11 179 839 103 321	COVER, valve (Includes BUSHING, 675 576 R1) 3/8 x 1" Type 2 BOLT (4) 3/8" 1k-WASH. (4)

REF. NO.	PART NUMBER	DESCRIPTION
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## POWER SHIFT REVERSER CONTROL VALVE- Continued

4	675 576 R1	BUSHING, relay arm pin
5	675 577 R1	BAR, relay
6	675 578 R1	BUSHING, relay bar
7	20 698 R1	PIN, 7/32 x 1" coiled spring
8	675 579 R1	DISK, valve detent
9	276 574 R91	BEARING, spool
10	444 660	PLUG, 3/8" sq skt pipe (3)
11	676 088 R1 676 089 R1	BLOCK, thin adjusting BLOCK, thick adjusting
12	675 572 R1	GASKET, valve cover
13	676 409 R1	SPRING, low pressure
14	17 008 R1	BALL, 1/4" steel
15	675 578 R1	BUSHING, spring
16	675 588 R1	PLUNGER, low pressure
17	675 587 R1	SPRING, detent
18		BODY, valve (order 675 569 R94)
19	675 549 R1	RACE, spool thrust (2)
20	324 105 R91	BEARING, spool thrust
21	675 580 R1 21 326 R1	SPOOL, valve 3/16 x 1-1/4" coiled spring PIN
22	325 059 R1	RING, spool
23	364 108 R1	"O" RING
24	675 593 R1	GASKET, cover
25	9410 359	PLUG, 1/2" straight thread "O" ring boss
26	570 828 R1	"O" RING
27	675 592 R3 18 530 21 241 R1 103 320	COVER, inching spool 1/8 x 1-1/2" sltd spring PIN 5/16 x 7/8" sc-hd BOLT (3) 5/16" 1k-WASH. (3)
28	675 590 R2	BLOCK, inching control arm
29	17 020 R1	BALL, 5/8" steel
30	370 920 R1	"O" RING, valve spool
31	675 591 R1 21 072 R1	SPOOL, inching 3/16 x 1" coiled spring PIN
32	369 908 R1	"O" RING, spool
33	675 589 R1	PLUNGER, high pressure
34	676 399 R1	SPRING, high pressure
35	676 087 R1 676 086 R1	BLOCK, adjusting thin BLOCK, adjusting thick
36	9409 949	PLUG, 3/4" sq-skt pipe
37	444 687	PLUG, 1/8" skt pipe

\* Not Serviced Separately

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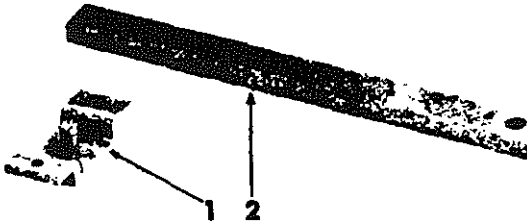
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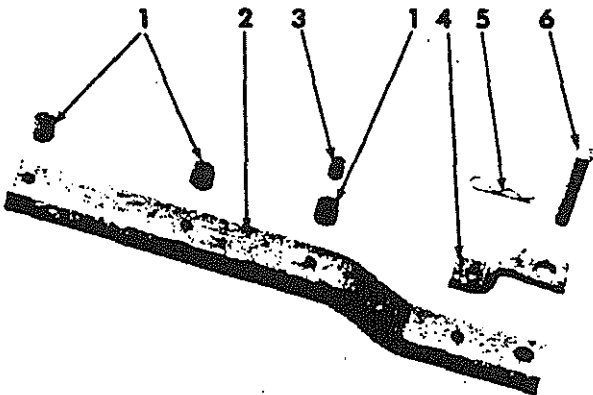
**DRAWBAR (Swinging)**



H 4334

- |   |                        |  |
|---|------------------------|--|
| 1 | 635 275 R11<br>271 558 | BRACKET, drawbar pivot<br>5/8 x 1-1/2" Type 2 BOLT (2) |
| 2 | 636 033 R1             | DRAWBAR, swinging                                      |

**DRAWBAR EXTENSION**

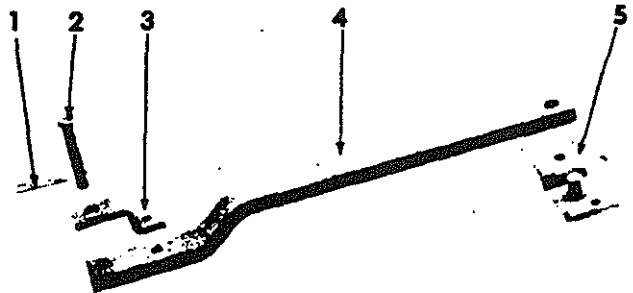


H 5755

- |   |  |   |
|---|--|---|
|   | 636 177 R91  | PARTS ACCESSORY, drawbar extension (tractors w/1000 RPM PTO only) (composed of parts listed below)  |
| 1 | 635 279 R2   | SPACER, extension (3)   |
| 2 | 636 032 R1<br>271 570<br>271 574<br>575 810<br>102 639 | EXTENSION, drawbar (for use on tractors w/1000 rpm PTO only)<br>5/8 x 4" Type 2 BOLT (2)<br>5/8 x 5" Type 2 BOLT<br>21/32 x 1-1/2" x 11 ga WASHER<br>5/8" NUT |
| 3 | 636 045 R1   | BUSHING, extension mounting   |
| 4 | 636 159 R1<br>271 565<br>102 639                       | STRAP, hammer<br>5/8 x 2-3/4" Type 2 BOLT<br>5/8" NUT   |
| 5 | 591 107 R1   | PIN, 5/32" Q.A. cotter  |
| 6 | 636 167 R1   | PIN, 1 x 5-5/8" std-hd d/d  |

REF. NO.	PART NUMBER	DESCRIPTION
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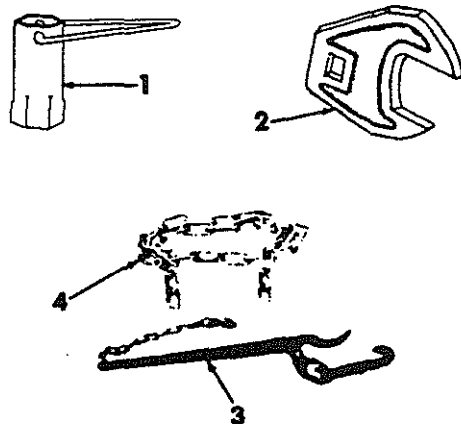
**DRAWBAR (Heavy Duty)**



H 7317

- |   |  |  |
|---|--|--|
| 1 | 591 107 R1   | PIN, 5/32" Q.A. c-drawbar  |
| 2 | 636 167 R1   | PIN, 1 x 5-5/8" std-hd d/d   |
| 3 | 636 159 R1<br>271 564<br>102 639<br>271 565<br>102 639 | HAMMERSTRAP, drawbar<br>5/8 x 2-1/2" Type 2 BOLT (Crawler)<br>5/8" NUT<br>5/8 x 2-3/4" Type 2 BOLT (Skidder)<br>5/8" NUT |
| 4 | 636 481 R1<br>676 222 R1                               | DRAWBAR, (Crawler only)<br>DRAWBAR, (Skidder only)   |
| 5 | 635 275 R11<br>271 558                                 | BRACKET, drawbar pivot<br>5/8 x 1-1/2" Type 2 BOLT (2)   |

**TOOLS**



HE 402

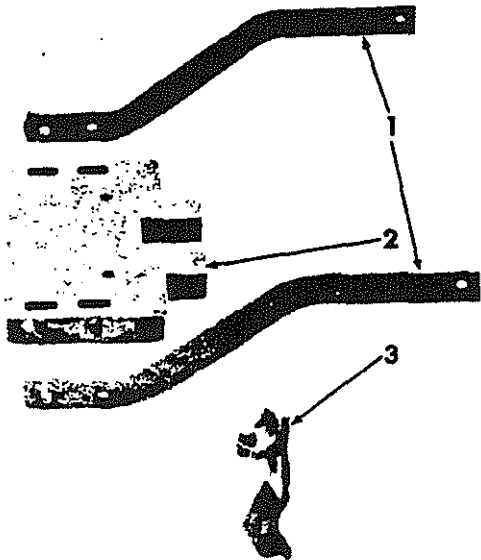
- |   |              |  |
|---|--------------|--|
| 1 | 3045 260 R92 | WRENCH, glow plug (Diesel)                       |
| 2 | 636 867 R1   | WRENCH, final drive bullgear shaft nut adjusting |
| 3 | 637 379 R91  | TOOL, chain tightener (Skidder)                  |
| 4 | 637 380 R91  | CHAIN, tightener (Skidder)                       |

\* Not Serviced Separately



REF. NO.	PART NUMBER	DESCRIPTION
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REAR WEIGHT TRAY (Loader Only)

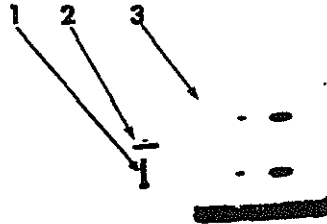


H 1479  
HA 4498

	636 773 R91	PARTS ACCESSORY, rear weight tray (for Loader only) (composed of parts listed below)
1	636 769 R1 271 658 220 082	ARM, rear weight tray (2) 7/8 x 2-1/2" Type 2 BOLT (2) 7/8" NUT (2)
2	636 755 R1 271 661 566 105 R1 220 082 114 507	BASE, rear weight tray 7/8 x 3-1/4" Type 2 BOLT (4) 5/8 x 5-1/2" Type 2 BOLT (threaded to head) (2) 7/8" NUT (4) 5/8" jam NUT (2)
3	636 754 R1 179 883 271 556 103 323	SUPPORT, weight tray base (2) 1/2 x 1-1/4" Type 2 BOLT (2) 5/8 x 1-1/4" Type 2 BOLT (2) 1/2" 1k-WASHER (2)

REF. NO.	PART NUMBER	DESCRIPTION
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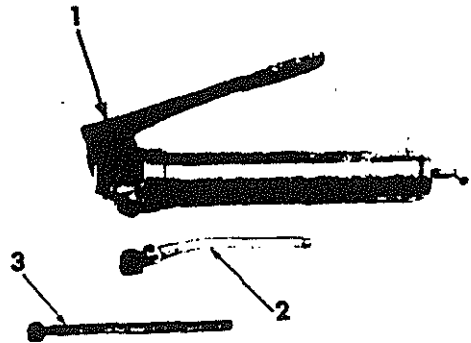
REAR WEIGHT



H 4498

1	271 615 Q 5 099	BOLT, 3/4 x 3" Type 2 (2 req'd per weight) 25/32 x 1-3/4 x 11 ga WASH. (2)
2	635 983 R1	NUT, weight mounting bolt (2 req'd per weight)
3	635 948 R1	WEIGHT, rear

LUBRICATION GUN



H 1151

1	999 677 R91	BODY, lub gun
2	636 860 R91	NOZZLE, gun button head coupler & hose
3	676 489 R11	TUBE ASSEMBLY, lub filler



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
<b>COVERS &amp; TOOL BOXES (Crawler Only)</b>		
		H 1392
1	635 739 R11 18 626 R1 120 375 120 380	CATCH, tool box cover (2) 1/4 x 1/2" cd-pltd crg BOLT (4) 1/4" cd-pltd NUT (4) 1/4" cd-pltd lk-WASHER (4)
2	676 148 R92 676 149 R91 676 213 R91 180 020 120 375 120 380 16 897 R1 120 376 120 214	BOX ASSEMBLY, tool LH (not for Backhoe) BOX ASSEMBLY, tool RH BOX ASSEMBLY, tool LH (for Backhoe) 1/4 x 3/4" cd-pltd Type 2 BOLT (6) 1/4" cd-pltd NUT (6) 1/4" cd-pltd lk-WASHER (6) 5/16 x 3/4" cd-pltd crg BOLT (6) 5/16" cd-pltd NUT (6) 5/16" cd-pltd lk-WASHER (6)
3	676 158 R01 676 159 R91	COVER ASSEMBLY, tool box LH COVER ASSEMBLY, tool box RH
4	676 165 R1 14 993 R1 109 084 103 319	BAR, hinge spacer (4) 1/4 x 3/4" crg BOLT (8) 1/4" NUT (8) 1/4" lk-WASHER (8)
5	676 168 R91 676 393 R1	COVER ASSEMBLY (In lieu of RH tool box) (not for 10 Bullgrader or Loader) Valve cover seal
5	676 182 R91	COVER ASSEMBLY (In lieu of RH tool box) (for 10 Bullgrader) (Crawler Tractor Prior Serial No. H 1561)
5	676 429 R91	COVER ASSEMBLY (In lieu of RH tool box) (for 10 Bullgrader) (Crawler Tractor Serial No. H 1561 & up)
5	676 178 R91 180 021 120 375 120 380 16 897 R1 120 376 120 214	COVER ASSEMBLY (In lieu of RH tool box) (for Loader) 1/4 x 7/8" cd-pltd Type 2 BOLT (2) 1/4" cd-pltd NUT (2) 1/4" cd-pltd lk-WASHER (2) 5/16 x 3/4" cd-pltd crg BOLT (2) 5/16" cd-pltd NUT (2) 5/16" cd-pltd lk-WASHER (2)
6	676 201 R01 443 874 110 633 106 497	REFLECTOR, rear No. 10 - 24 x 1/2" cd-pltd SCREW (3) No. 10 NUT (3) No. 10 lk-WASHER (3)

REF. NO.	PART NUMBER	DESCRIPTION
<b>DRAWBAR (Rigid Type) (For use w/Speed Reducer Only)</b>		
		HE 285
1	591 107 R1	PIN, 5/32" Q.A. cotter
2	636 167 R1	PIN, 1 x 5-5/8" std hd dld
3	636 159 R1 271 565 102 639	HAMMERSTRAP, drawbar 5/8 x 2-3/4" Type 2 BOLT 5/8" NUT
4	676 548 R1	DRAWBAR
5	635 275 R11 271 558	BRACKET, draw bar pivot 5/8 x 1-1/2" Type 2 BOLT
6	676 549 R1 102 637 103 323	U-BOLT, drawbar support 1/2" NUT 1/2" lk-WASHER



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
PRODUCT GRAPHICS			PRODUCT GRAPHICS - Continued		
2751 771 R1		PRODUCT GRAPHIC, "Air Cleaner Instruction Donaldson" (English) (Yellow Vehicles) (Wet Type only)	34 008		PRODUCT GRAPHIC, tilt indicator (for Drott 4-in-1 Clam bucket) (Single cylinder)
2751 772 R1		PRODUCT GRAPHIC, "Air Cleaner Instruction Donaldson" (Spanish) (Yellow Vehicles)	79 865		PRODUCT GRAPHIC, clam opening (for Drott 4-in-1 Clam bucket) (Dual cylinder)
2751 773 R1		PRODUCT GRAPHIC, "Air Cleaner Instruction Donaldson" (French) (Yellow Vehicles)	45 228		PRODUCT GRAPHIC, "CLEAN OUT" (for Drott 4-in-1 Clam bucket) (Dual cylinder)
2751 774 R1		PRODUCT GRAPHIC, "Air Cleaner Instruction Donaldson" (English) (Red Vehicles)	39 971		PRODUCT GRAPHIC, tilt indicator (for Drott 4-in-1 Clam bucket) (Dual cylinder)
2751 775 R1		PRODUCT GRAPHIC, "Air Cleaner Instruction Donaldson" (Spanish) (Red Vehicles)	675 634 R92		PACKAGE, product graphic service (500 Crawler Gas)
2751 776 R1		PRODUCT GRAPHIC, "Air Cleaner Instruction Donaldson" (French) (Red Vehicles)	675 635 R92		PACKAGE, product graphic service (500 Crawler Diesel)
2751 777 R1		PRODUCT GRAPHIC, "For Low Gear use 2nd w/T.A. (English) (Yellow Vehicles)	676 111 R92		PACKAGE, product graphic service (Skidder Gas)
2751 778 R1		PRODUCT GRAPHIC, "For Low Gear use 2nd w/T.A. (Spanish) (Yellow Vehicles)	676 112 R92		PACKAGE, product graphic service (Skidder Diesel)
2751 779 R1		PRODUCT GRAPHIC, "For Low Gear use 2nd w/T.A. (French) (Yellow Vehicles)			
2751 780 R1		PRODUCT GRAPHIC, "For Low Gear use 2nd w/T.A. (English) (Red Vehicles)	LUBRICATION PLATES		
2751 781 R1		PRODUCT GRAPHIC, "For Low Gear use 2nd w/T.A. (Spanish) (Red Vehicles)	NOTE A: For Tractors equipped with End Face Oil Seals		
2751 782 R1		PRODUCT GRAPHIC, "For Low Gear use 2nd w/T.A. (French) (Red Vehicles)	NOTE B: For Tractors equipped with D.F. Oil Seals all plates use 113 231 No. 6 x 1/4" rd hd SCREW (4)		
2752 020 R1		PRODUCT GRAPHIC, "IH"	636 839 R2		PLATE, lub(Note A)(English)(Crawler Gas)
2752 019 R1		PRODUCT GRAPHIC, "IH" (w/seat w/o arm rests)	676 751 R1		PLATE, lub(Note B)(English)(Crawler Gas)
2751 681 R1		PRODUCT GRAPHIC, reverser control	636 840 R2		PLATE, lub(Note A & B)(French)(Crawler Gas)
2751 688 R1		PRODUCT GRAPHIC, "WARNING" power shift reverser	636 841 R2		PLATE, lub(Note A & B)(Spanish)(Crawler Gas)
2752 574 R1		PRODUCT GRAPHIC, bucket tilt indicator (Not applicable to machine equipped w/ Drott bucket)	636 842 R2		PLATE, lub (Note A) (English) (Crawler Diesel)
64 942		PRODUCT GRAPHIC, clam opening (for Drott 4-in-1 Clam bucket) (Single cylinder)	676 754 R1		PLATE, lub(Note B) (English) (Crawler Diesel)
45 228		PRODUCT GRAPHIC, "CLEAN OUT" (for Drott 4-in-1 Clam bucket) (Single cylinder)	636 843 R2		PLATE, lub (Note A & B) (French) (Crawler Diesel)
			636 844 R2		PLATE, lub(Note A & B)(Spanish)(Crawler Diesel)
			637 221 R1		PLATE, lub (English) (Skidder Gas)
			637 405 R1		PLATE, lub (French) (Skidder Gas)
			637 407 R1		PLATE, lub (Spanish) (Skidder Gas)
			637 222 R1		PLATE, lub (English) (Skidder Diesel)
			637 406 R1		PLATE, lub (French) (Skidder Diesel)
			637 408 R1		PLATE, lub (Spanish) (Skidder Diesel)

REF. NO.	PART NUMBER	DESCRIPTION
<b>SERVICE ENGINE</b>		
<b>SERVICE ENGINE GAS SKELTON</b>		
	391 027 R91, C 146	
	composed of:	
	Crankcase Assembly	
	Crankshaft w/Bearings Gear & Seals	
	Connecting Rods w/Bearings	
	Piston w/Pins & Rings	
	Camshaft w/Gear & Bearings	
	Crankcase Front Cover & Gasket	
	Oil Pump	
	Tappets	
<b>SERVICE ENGINE DIESEL SKELTON</b>		
	3043 326 R91, BD 144C	
	composed of:	
	Cumbustion Chambers	
	Water Pump	
	Fan Drive Pulley	
	Cylinder Head Assembly w/Cover	
	Valves & Levers	
	Intake & Exhaust Manifolds	
	Crankcase Assembly	
	Crankshaft w/Bearings, Gear & Seals	
	Connecting Rods w/Bearings	
	Piston w/Pins & Rings	
	Camshaft w/Gear & Bearings	
	Crankcase Front Cover & Gasket	
	Oil Pump	
	Tappets	

REF. NO.	PART NUMBER	DESCRIPTION
<b>SERVICE ENGINE - Continued</b>		
<b>SERVICE ENGINE</b>		
	373 510 R91 For C135 Gasoline	
	390 041 R91 For C146 Gasoline	
	composed of:	
	Camshaft, Pushrods Tappets & Camshaft Gear	
	Connecting Rods, Pistons, Bearings & Rings	
	Cooling System	
	Crankcase	
	Crankshaft	
	Flywheel & Bearings	
	Cylinder Head	
	Electric System	
	Engine Mounting	
	Fuel System	
	Governor	
	Lubrication System	
	Manifold	
<b>SERVICE ENGINE</b>		
	675 511 R92 For BD154D Diesel	
	636 200 R93 For BD144C Diesel	
	composed of:	
	Cumbustion Chambers	
	Water Pump	
	Fan Drive Pulley	
	Cylinder Head Assembly w/Cover	
	Valves & Levers	
	Injection Pump & Pipes	
	Fuel Filter, Feed Pump & Lines	
	Intake & Exhaust Manifolds	
	Crankcase Assembly	
	Crankshaft w/Bearings, Gear & Seals	
	Connecting Rods w/Bearings	
	Piston w/Pins & Rings	
	Camshaft w/Gear & Bearing	
	Crankcase Front Cover & Gasket	
	Oil Pump	
	Tappets	



**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
<b>ENGINE SERVICE PACKAGES</b>		
381 734 R91		PACKAGE, crankcase gasket service (C 135) composed of:
	2 Felt	24 425 D
	4 Felt	43 445 DA
	1 Gasket	13 728 D
	4 Gasket	43 446 DA
	2 Gasket	43 447 D
	1 Gasket	43 448 D
	1 Gasket	43 458 DB
	1 Gasket	45 875 D
	1 Gasket	46 168 DB
	1 Gasket	46 871 D
	1 Gasket	367 687 R1
	1 Gasket	368 153 R1
	2 Gasket	375 786 R1
	1 Oil Seal	367 956 R91
		or
		367 957 R91
		or
		149 345 R91
	1 Seal	43 482 D
	1 Gasket	375 745 R1
	1 Gasket	46 179 DC
357 476 R94		PACKAGE, valve grinding gasket service (C-135)
	1 Gasket	24 520 D
	1 Gasket	43 294 D
	1 Gasket	43 378 DD
	2 Gasket	352 014 R3
	1 Gasket	366 300 R2
	2 Washer	62 866 D
		or
		357 374 R1
381 738 R91		PACKAGE, engine gasket service (C 135 & 146) composed of:
	1 Gasket	375 743 R1
	1 Gasket	367 687 R1
	1 Gasket	375 745 R1
	1 Gasket	46 179 DC
	4 Felt	43 445 DA
	4 Gasket	43 446 DA
	1 Gasket	377 997 R1
	1 Seal	378 040 R91
	1 Gasket	43 458 DB
	1 Gasket	45 875 D
	1 Seal	43 482 D
	1 Gasket	46 168 DB
	2 Gasket	375 786 R1
	1 Gasket	13 728 D
	1 Seal	367 956 R91
		or
		367 957 R91
		or
		149 345 R91
	1 Gasket	375 783 R1
	1 Gasket	49 124 D
375 866 R93		PACKAGE, valve grinding gasket service (C 135 & C 146) composed of:
	1 Gasket	383 525 R1
	1 Gasket	43 378 DD
	2 Washer	62 866 D
		or
		357 374 R1
	2 Gasket	352 014 R3
	1 Gasket	382 116 R1
	1 Gasket	43 294 D
	1 Gasket	31 336 D

REF. NO.	PART NUMBER	DESCRIPTION
<b>ENGINE SERVICE PACKAGES - Continued</b>		
706 105 R93		PACKAGE, diesel engine valve grinding service composed of:
	1 Gasket	703 815 R1
	1 Gasket	703 883 R6
	1 Gasket	703 896 R1
	2 Gasket	704 162 R1
	2 Gasket	704 165 R2
	4 Gasket	710 382 R3
	4 Gasket	710 383 R1
3041 249 R93		PACKAGE, diesel engine crankcase gasket service (BD 144C) composed of:
	4 Gasket	710 382 R3
	4 Gasket	710 383 R1
	1 Gasket	703 816 R1
	1 Gasket	703 815 R1
	1 Gasket	708 907 R1
	1 Gasket	703 840 R1
	1 Gasket	709 903 R1
	1 Gasket	708 285 R1
	1 Gasket	703 849 R1
	1 Gasket	703 851 R1
	1 Gasket	703 883 R6
	1 Gasket	703 896 R1
	1 Gasket	708 289 R1
	1 Gasket	706 592 R1
	2 Gasket	704 162 R1
	2 Gasket	704 165 R2
	1 Gasket	3043 370 R1
	1 Gasket	3 405 H
		or
		3043 644 R1
379 616 R91		PACKAGE, rear main bearing seal and gasket (C 135) composed of:
	2 Felt	24 425 D
	2 Gasket	43 446 DA
	1 Gasket	43 448 D
	2 Gasket	43 447 D
	2 Plug	43 445 DA
379 619 R91		PACKAGE, rear main bearing seal and gasket (C 146) composed of:
	2 Gasket	43 446 DA
	1 Gasket	377 997 R1
	1 Oil Seal	378 040 R91
	2 Plug	43 445 DA
379 620 R92		PACKAGE, crankcase front cover seal and gasket (C 135 & 146) composed of:
	1 Gasket	46 179 DC
	1 Gasket	43 294 D
	1 Gasket	46 871 D
	1 Gasket	45 875 D
	1 Gasket	375 745 R1
	1 Oil Seal Pkg	378 193 R91
378 193 R91		PACKAGE, front cover seal & ring service (for C 135 & C 146 Gas Engine)



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
ENGINE SERVICE PACKAGES		
367 707 R91	PACKAGE, governor assem service (C135) composed of:	
	1 Pinion	375 778 R11
	1 Spring	49 218 DA
	1 Pin	49 219 DA
	1 Sleeve	363 866 R1
	2 Pin	46 924 D
	2 Pin	108 628
	2 Weight	351 778 R1
	1 Bearing	43 481 D
	1 Housing	367 706 R11
	1 Bolt	179 821
	1 Bolt	179 827
	3 Bolt	179 829
	5 Lock Washer	103 320
	1 Cap	367 857 R91
	1 Gasket	45 875 D
	1 Spring	28 078 D
	1 Body	31 804 DA
	1 Nut	272 121
	1 Nut	131 487
	1 Rockshaft	367 709 R11
	1 Seal	43 482 D
	1 Retainer	43 483 D
	1 Fork	367 711 R1
	2 Screw	131 970
	2 Washer	106 496
	1 Lever	46 947 DAXB
	1 Nut	114 494
	1 Washer	114 606
	1 Seal	367 956 R91
	1 Lever	51 491 DA
	2 Washer	151 341 R1
	1 Stop	357 432 R3
	1 Nut	114 503
	1 Spring	369 686 R2
	1 Package	382 980 R92
391 020 R92	PACKAGE, governor assem service (C146) composed of:	
	1 Pinion	375 778 R11
	1 Spring	49 218 DA
	1 Pin	49 219 DA
	1 Sleeve	363 866 R1
	2 Pin	46 924 D
	2 Pin	108 628
	2 Weight	393 750 R1
	1 Bearing	43 481 D
	1 Housing	6 340 DBX
	1 Bolt	179 821
	1 Bolt	179 827
	3 Bolt	179 829
	5 Washer	103 320
	1 Gasket	45 875 D
	1 Spring	28 078 D
	1 Body	31 804 DA
	1 Nut	272 121
	1 Nut	131 487
	1 Rockshaft	367 709 R11
	1 Seal	43 482 D
	1 Retainer	43 483 D
	1 Fork	383 798 R1
	2 Screw	131 970
	2 Washer	106 496
	1 Lever	45 947 DAXB
	1 Nut	114 494
	1 Washer	114 606
	1 Seal	367 956 R91
	1 Lever	51 491 DA
	1 Stop	357 432 R3
	1 Nut	114 503
	1 Spring	389 452 R1
	1 Spring	389 451 R1
	2 Washer	151 341 R1
	1 Package	391 021 R92

REF. NO.	PART NUMBER	DESCRIPTION
ENGINE SERVICE PACKAGES - Continued		
391 021 R92	PACKAGE, governor overhaul service (C 146) composed of:	
	1 Bushing	45 939 D
	2 Bearing	45 753 D
	1 Plug	172 531
	1 Spring	49 218 DA
	1 Pin	46 942 D
	1 Gasket	45 875 D
	1 Bolt	179 827
	1 Spring	28 078 D
	1 Seal	43 482 D
	1 Retainer	43 483 D
	1 Fork	367 711 R1
	1 Lever	46 947 DAXB
	1 Seal	367 956 R91
	1 Lever	51 491 DA
	2 Washer	151 341 R1
	1 Stop	357 432 R3
	1 Spring	389 451 R1
	1 Pin	49 219 DA
	1 Sleeve	49 325 D
	2 Pin	46 924 D
	2 Pin	108 628
	2 Weight	393 750 R1
	1 Bearing	43 481 D
	1 Rockshaft	367 709 R11
382 980 R92	PACKAGE, governor overhaul service (C 135) composed of:	
	1 Bushing	46 939 D
	2 Bearing	45 753 D
	1 Plug	172 531
	1 Spring	49 218 DA
	1 Pin	46 942 D
	1 Gasket	45 875 D
	1 Bolt	179 827
	1 Spring	28 078 D
	1 Seal	43 482 D
	1 Retainer	43 483 D
	1 Fork	367 711 R1
	1 Lever	46 947 DAXB
	1 Seal	367 956 R91
	1 Lever	51 491 DA
	2 Washer	151 341 R1
	1 Stop	357 432 R3
	1 Spring	369 686 R2
	1 Pin	49 219 DA
	1 Sleeve	49 325 D
	2 Sleeve	363 866 R1
	2 Pin	46 924 D
	2 Pin	108 628
	2 Weight	351 778 R1
	1 Bearing	43 481 D
	1 Rockshaft	367 709 R11
63 866 DB	PACKAGE, oil filter element normal duty type (gas) (Export only) (Includes ELEMENTS, 376 374 R91)	
751 680 R91	PACKAGE, oil filter element (Diesel) (Export only) (for 3066 851 R91, PUR- OLATOR FILTER)	



**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
<b>GASKET &amp; FUEL &amp; MISC SERVICE PACKAGES</b>		
676 348 R91		PACKAGE, transmission gasket service (for use w/reverser) composed of: 1 Gasket 636 629 R1 1 Gasket 635 055 R2 1 Gasket 636 483 R2 1 Gasket 636 630 R1 2 Gasket 635 180 R1 1 Gasket 675 550 R1
676 351 R91		PACKAGE, reverser control valve gasket & seal service composed of: 1 Seal 675 682 R91 5 "O" Ring 370 920 R1 1 Gasket 675 593 R1 1 "O" Ring 570 828 R1 1 Gasket 675 572 R1 1 "O" Ring 369 908 R1 1 "O" Ring 364 108 R1 1 Gasket 675 594 R1
676 347 R91		PACKAGE, transmission gasket service (for use w/torque amplifier) 2 Gasket 636 629 R1 1 Gasket 635 055 R2 1 Gasket 635 182 R2 1 Gasket 636 630 R1 1 Gasket 636 483 R2
676 346 R91		PACKAGE, transmission gasket service (for use w/standard transmission) composed of: 2 Gasket 636 629 R1 1 Gasket 635 179 R1 1 Gasket 636 483 R2 1 Gasket 636 630 R1 1 Seal 635 580 R91 1 Gasket 711 254 R1 1 Gasket 635 055 R2 2 Gasket 635 180 R1
676 349 R91		PACKAGE, torque amplifier gasket service composed of: 1 Gasket 635 181 R2 1 Gasket 635 183 R3 1 Gasket 635 185 R2 1 Gasket 635 182 R2 1 Gasket 635 184 R2
676 350 R91		PACKAGE, power shift reverser gasket & seal service composed of: 1 Gasket 675 550 R1 1 Gasket 675 564 R1 1 Seal 381 907 R91 1 "O" Ring 352 221 R1 2 Ring 324 408 R1 2 Ring 675 659 R1 1 Gasket 675 552 R1 1 "O" Ring 252 556 R1 2 "O" Ring 606 582 C1 3 Ring 327 090 R1 1 "O" Ring 324 227 R1 1 Washer 324 226 R1
373 577 R91		PACKAGE, distributor shaft bushing service (used to replace bushing in distributor housing 353 898 R11)

REF. NO.	PART NUMBER	DESCRIPTION
<b>GASKET &amp; FUEL &amp; MISC SERVICE PACKAGES - Continued</b>		
676 835 R91		PARTS ACCESSORY PACKAGE, electric fuel pump (Gas) composed of: 1 Pipe 675 721 R1 1 Nut 114 630 1 Sleeve 114 631 1 Nut 29 899 D 1 Filter 614 692 R91 1 Pump 391 586 R91 1 Nipple 443 876 2 Bolt 179 791 2 Lockwasher 103 319 1 Bracket 675 700 R91 1 Cable 676 464 R91 1 Gasket 49 124 D 1 Cover 29 710 D 2 Bolt 179 814 2 Lockwasher 103 320 1 Adaptor 443 998 1 Hose 676 631 R1 1 Elbow 676 633 R1
676 750 R91		PACKAGE, in line fuel filter field conversion composed of: 1 Filter 920 175 R91 2 Elbow 676 633 R1 1 Hose 676 632 R1 1 Hose 676 631 R1 4 Clamp 210 511 R1 1 Adaptor 443 998
368 357 R91		PACKAGE, gasket kit for Zenith carburator composed of: 1 Gasket 368 362 R91 1 Washer 12 433 D 1 Washer 12 435 D 1 Washer 22 846 D 1 Washer 53 792 D
373 359 R91		PACKAGE, gasket kit for Marvel Schebler carburator composed of: 1 Gasket 69 950 D 1 Gasket 69 952 D 1 Gasket 373 361 R1
3044 506 R91		ELEMENT ASSEMBLY, fuel filter (Diesel) (Export only - 6 req'd)
676 731 R91		PARTS ACCESSORY, for Bullgraders not equipped with mud shield mounting lugs composed of: 1 Shield 676 724 R1 1 Shield 676 725 R1 4 Lugs 676 723 R1 2 Support 676 733 R1 2 Block 676 734 R1 2 Bolt 180 173 2 Nut 120 384 2 Lockwasher 120 378
676 488 R91		PACKAGE, track link bushing service for 500 Crawler composed of: 1 Bushing 636 741 R1 1 Pin 636 738 R1 2 Spacer 676 474 R1





**CRAWLER TRACTORS**



QTY. NO.	PART NUMBER	DESCRIPTION
<b>TRACK DRIVE SERVICE PACKAGES</b>		
676 104 R91	<b>PARTS ACCESSORY PACKAGE, for Crawler Tractor 38" gauge width (Serial No. H 1011 &amp; up)</b> composed of:	
	1 Bar	675 923 R2
	1 Bar	675 924 R92
	1 Bar	975 925 R92
	8 Stud	676 107 R1
	8 Stud	676 108 R1
	4 Bolt	20 826 R1
	20 Nut	225 861
	2 Shaft	636 694 R11
	4 Bolt	179 896
	4 Nut	102 637
	4 Lockwasher	103 323
	2 Pin	635 289 R91
	4 Bolt	179 837
	4 Lockwasher	103 321
676 106 R91	<b>PARTS ACCESSORY PACKAGE, for Crawler Tractor 68" gauge width (Serial No. H 1262 &amp; up)</b> composed of:	
	1 Bar	675 926 R2
	1 Bar	675 927 R92
	1 Bar	675 928 R92
	2 Spacer	676 098 R1
	2 Seal	676 032 R91
	2 Plug	103 865
	2 Shaft	636 696 R11
	2 Bearing	636 418 R91
	4 Bolt	179 896
	4 Nut	102 637
	4 Lockwasher	103 323
	2 Pin	635 289 R91
	4 Bolt	179 837
	4 Lockwasher	103 321
675 922 R92	<b>PARTS ACCESSORY PACKAGE, for Crawler Tractor 68" gauge width (Prior Serial No. H 1262)</b> composed of:	
	1 Bar	675 926 R2
	1 Bar	675 927 R92
	1 Bar	675 928 R92
	4 Bolt	179 896
	4 Bolt	179 837
	2 Bearing	636 418 R91
	4 Lockwasher	103 323
	4 Lockwasher	103 321
	4 Nut	102 637
	2 Pin	635 289 R91
	2 Plug	103 865
	2 Shaft	636 696 R11
	2 Spacer	676 037 R1
	2 Seal	676 032 R91
675 920 R91	<b>PARTS ACCESSORY PACKAGE, for (Crawler Tractor 38" gauge width (Prior Serial No. H 1011))</b> composed of:	
	1 Bar	675 923 R2
	1 Bar	675 924 R92
	1 Bar	675 925 R92
	4 Bolt	20 658 R1
	4 Bolt	179 896
	4 Bolt	179 837
	24 Lockwasher	103 323
	4 Lockwasher	103 321
	20 Nut	225 857
	2 Pin	635 289 R91
	2 Shaft	636 694 R11
	8 Stud	636 555 R1
	8 Stud	636 494 R1

QTY. NO.	PART NUMBER	DESCRIPTION
<b>TRACK DRIVE &amp; COOLING SYSTEM SERVICE PACKAGES</b>		
636 849 R91	<b>PARTS ACCESSORY, front track frame position (applicable to Tractor equipped w/48" gauge width only)</b> composed of:	
	2 Bolt	179 892
	2 Bolt	179 896
	1 Bolt	271 554
	4 Lockwasher	103 323
	4 Nut	102 637
	4 Pad	635 640 R2
	1 Reinforcement	636 267 R92
	1 Reinforcement	636 268 R92
676 780 R91	<b>PACKAGE, water Pump &amp; Pulley (For Tractor with 11/16 Flat Cog Type belt drive &amp; Suction Fan)</b> composed of:	
	1 Pump	3072 069 R92
	1 Pulley	676 746 R1
	1 Gasket	703 816 R1
676 781 R91	<b>PACKAGE, Water Pump and Pulley (For Tractor with 11/16 Flat Cog Type belt drive &amp; Blower Fan)</b> composed of:	
	1 Pump	3072 069 R92
	1 Pulley	676 747 R1
	1 Gasket	703 816 R1
676 782 R91	<b>PACKAGE, Water Pump &amp; Pulley (For Tractor with 3/8" V-Type belt drive &amp; Suction Fan)</b> composed of:	
	1 Pump	3072 069 R92
	1 Pulley	3072 458 R1
	1 Gasket	703 816 R1
676 783 R91	<b>PACKAGE, Water Pump &amp; Pulley (For Tractor with 3/8" V-Type belt drive &amp; Blower Fan)</b> composed of:	
	1 Pump	3072 069 R92
	1 Pulley	676 743 R1
	1 Gasket	703 816 R1
391 028 R91	<b>PACKAGE, Water Pump Service (Gas) (C149)</b> composed of:	
	1 Seal	73 296 R93
	1 Impeller	367 689 R1
	1 Shaft & Bearing	ST 644
	1 Ring	102 069 H
	1 Gasket	367 687 R1
	1 Gasket	375 745 R1
	1 Hub, Pulley	368 501 R2
675 731 R91	<b>PARTS ACCESSORY, manual truck adjuster (For all Crawler Tractor except Loader w/Backhoe prior Serial No. H 2459)</b> composed of:	
	1 Rod	636 448 R11
	1 Support	636 463 R1
	2 Bolt	179 837
	2 Lockwasher	103 321
	2 Washer	PO10 532
676 657 R91	<b>PARTS ACCESSORY, manual truck adjuster (For Crawler Tractor w/Loader/Backhoe Serial No. H 2459 &amp; up)</b> composed of:	
	1 Rod	636 449 R11
	2 Bolt	179 837
	2 Lockwasher	103 321
	2 Washer	PO10 532



**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC SERVICE PACKAGES</b>		
675 959 R91	<b>PARTS ACCESSORY PACKAGE, 3 spool hydraulic valve, for use w/10 Bullgrader composed of:</b>	
	1 Pipe	676 001 R11
	2 Elbow	635 768 R91
	2 "O" Ring	297 459 R1
	1 Valve	676 002 R91
	3 Bolt	179 851
	3 Nut	102 635
	3 Lockwasher	103 321
	1 Pipe	676 003 R11
	1 Hose	635 985 R1
	2 Clamp	995 218 R1
	1 Elbow	635 983 R11
	1 Connector	9402 711
	*1 Instruction	
	1 Lever	675 887 R11
	2 Knob	559 577 R1
	2 Fitting	109 461
	1 Bolt	181 385
	4 Nut	273 956
	1 Bracket	311 107 R2
	1 Bolt	179 846
	1 Rockshaft	676 004 R91
	1 Rod	676 006 R1
	4 Cotter	107 763
	2 Joint	310 663 R91
	1 Stud	311 115 R1
	2 Nut	103 026
	1 Lever	311 113 R1
	1 Bolt	181 371
	1 Rod	676 426 R1
	1 Base	676 009 R1
	3 Spacer	661 290 R1
	1 Bolt	179 849
	2 Bolt	179 847
	4 Nut	102 635
	4 Lockwasher	103 321
	1 Lever	676 427 R91
	1 Bolt	181 433
	1 Nut	103 028
	1 Lockwasher	103 323
	1 Bracket	309 574 R2
	2 Bolt	180 022
	2 Lockwasher	120 380
	1 Rod	675 903 R1
	2 Cotter	12 235 R1
	1 Cover	676 429 R91
	1 Bolt	16 897 R1
	1 Nut	120 376
	1 Lockwasher	120 214
	1 Bolt	180 021
	1 Nut	120 375
	1 Lockwasher	120 380
637 216 R92	<b>PARTS ACCESSORY PACKAGE, one spool valve 5D2 Bulldozer (Skidder) composed of:</b>	
	1 Valve	636 709 R91
	1 Lever	380 366 R1
	1 Pin	517 194 R1
	1 Cotter	103 373
	1 Link	635 714 R91
	1 Block	637 214 R1
	3 Bolt	179 849
	3 Nut	102 635
	3 Lockwasher	103 321
	2 Elbow	618 231 R1
	2 Cap	9403 372
	2 Bushing	144 034
	2 Elbow	9402 827
	1 Hose	637 213 R11
	1 Grommet	317 623 R1
	1 Pipe	637 212 R11
	*1 Instruction	

REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC SERVICE PACKAGES - Continued</b>		
676 468 R91	<b>PARTS ACCESSORY PACKAGE, one spool 3 way auxiliary valve, for use w/Three Point Linkage Attachment or Single Acting Cylinder for 10 Bullgrader composed of:</b>	
	1 Plug	144 014
	1 Elbow	635 768 R91
	1 "O" Ring	297 459 R1
	1 Tube	676 298 R11
	1 Elbow	9402 867
	1 Valve	635 605 R92
	1 Lever	635 984 R1
	1 Pin	517 194 R1
	1 Cotter	103 373
	1 Link	635 714 R91
	1 Bar	676 720 R1
	2 Spacer	615 926 R1
	1 Spacer	600 192 R1
	1 Washer	28 035 K
	3 Bolt	179 851
	3 Nut	102 635
	3 Lockwasher	103 321
	2 Bolt	179 881
	2 Nut	102 637
	2 Lockwasher	103 323
	1 Elbow	635 596 R1
	1 Cap	119 101
	1 Tube	676 299 R11
	1 Tee	9403 023
	1 Hose	676 541 R91
	1 Elbow	9402 867
	1 Seal	676 393 R1
	*1 Instruction	
676 470 R91	<b>PARTS ACCESSORY PACKAGE, one spool 3 way auxiliary valve, for use w/Three Point Linkage Attachment or Single Acting Cylinder for Loader composed of:</b>	
	1 Plug	144 014
	1 Elbow	635 768 R91
	1 "O" Ring	297 459 R1
	1 Tube	636 062 R11
	1 Elbow	9402 867
	1 Valve	635 605 R92
	1 Lever	635 984 R1
	1 Pin	517 194 R1
	1 Cotter	103 373
	1 Link	635 714 R91
	1 Bar	676 720 R1
	2 Spacer	615 926 R1
	1 Spacer	600 192 R1
	1 Washer	28 035 K
	3 Bolt	179 851
	3 Nut	102 635
	3 Lockwasher	103 321
	2 Bolt	179 881
	2 Nut	102 637
	2 Lockwasher	103 323
	1 Elbow	635 596 R1
	1 Cap	119 101
	1 Tube	635 982 R11
	1 Tee	9403 023
	1 Hose	676 541 R91
	1 Elbow	9402 867
	1 Seal	676 393 R1
	*1 Instruction	

\* Not Serviced Separately



## CRAWLER TRACTORS



REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC SERVICE PACKAGES</b>		
676 458 R91	<b>PARTS ACCESSORY PACKAGE, 1 spool 4 way auxiliary valve, for use w/Remote Control Hydraulic Cylinder or Scarifier for 10 Bullgrader</b> composed of:	
	1 Plug	144 014
	1 Elbow	635 768 R91
	1 "O" Ring	297 459 R1
	1 Tube	676 298 R11
	1 Elbow	9402 867
	1 Valve	635 867 R92
	1 Lever	635 984 R1
	1 Pin	517 194 R1
	1 Cotter	103 373
	1 Link	635 714 R91
	1 Bar	676 720 R1
	2 Spacer	615 926 R1
	1 Spacer	600 192 R1
	1 Washer	28 035 K
	3 Bolt	179 851
	3 Nut	102 635
	3 Lockwasher	103 321
	2 Bolt	179 881
	2 Nut	102 637
	2 Lockwasher	103 323
	2 Elbow	9402 866
	2 Cap	9403 373
	1 Tube	676 299 R11
	1 Tee	9403 023
	1 Hose	676 541 R91
	1 Elbow	9402 867
	1 Seal	676 393 R1
	*1 Instruction	
675 747 R91	<b>PARTS ACCESSORY PACKAGE, 9 GPM hydraulic pump for Crawler (timing gear driven) (Gas Engine)</b> composed of:	
	1 Gear	350 709 R1
	1 Washer	115 549
	1 Key	124 543
	1 Nut	114 494
	1 Pump	368 633 R92
	2 Bolt	186 282
	2 Lockwasher	103 321
	1 Manifold	635 602 R11
	2 "O" Ring	355 965 R1
	2 Bolt	186 310
	2 Nut	103 026
	2 Lockwasher	103 321
	1 Elbow	9411 105
	1 "O" Ring	570 828 R1
	1 Hose	635 600 R91
	1 Clamp	636 053 R1
	1 Pipe	635 599 R1
	1 Elbow	9402 866
	1 Bushing	144 034
	1 Breather	636 748 R91
	1 Elbow	635 710 R91
	1 "O" Ring	252 728 R1
	1 Hose	636 341 R1
	2 Clamp	274 086 R91
	1 Fitting	635 648 R1
	1 Filter	635 585 R1
	2 Bolt	179 840
	2 Nut	102 635
	2 Lockwasher	103 321
	2 Washer	Q1 504
	1 Bushing	128 003
	1 Fitting	635 584 R1
	1 Hose	636 342 R1
	2 Clamp	122 316 R91

\*Not Serviced Separately

REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC SERVICE PACKAGES - Continued</b>		
676 458 R91	<b>PARTS ACCESSORY PACKAGE, 1 spool 4 way auxiliary valve, for use w/Remote Control Hydraulic Cylinder or Scarifier for Loader</b> composed of:	
	1 Plug	144 014
	1 Elbow	635 768 R91
	1 "O" Ring	297 459 R1
	1 Tube	636 062 R11
	1 Elbow	9402 867
	1 Valve	635 867 R92
	1 Lever	635 984 R1
	1 Pin	517 194 R1
	1 Cotter	103 373
	1 Link	635 714 R91
	1 Bar	676 720 R1
	2 Spacer	615 926 R1
	1 Spacer	600 192 R1
	1 Washer	28 035 K
	3 Bolt	179 851
	3 Nut	102 635
	3 Lockwasher	103 321
	2 Bolt	179 881
	2 Nut	102 637
	2 Lockwasher	103 323
	2 Elbow	9402 866
	2 Cap	9403 373
	1 Tube	635 982 R11
	1 Tee	9403 023
	1 Hose	676 541 R91
	1 Elbow	9402 867
	1 Seal	676 393 R1
	*1 Instruction	
675 402 R91	<b>PARTS ACCESSORY PACKAGE, 10 GPM hydraulic pump for Crawler or Skidder (timing gear driven) (Diesel Engine)</b> composed of:	
	1 Pump	3043 981 R94
	1 Pinion	704 331 R1
	3 Bolt	179 828
	4 Nut	102 634
	4 Lockwasher	103 320
	1 Bolt	271 486
	1 Manifold	635 547 R1
	1 "O" Ring	350 429 R1
	2 Screw	138 205
	1 Elbow	9411 105
	1 "O" Ring	570 828 R1
	1 Hose	635 600 R91
	1 Clamp	636 053 R1
	1 Pipe	635 599 R11
	1 Elbow	9402 866
	1 Bushing	144 034
	1 Breather	635 748 R91
	1 Elbow	635 745 R91
	1 "O" Ring	252 728 R1
	1 Hose	636 832 R1
	2 Clamp	279 024 R91
	1 Fitting	635 743 R1
	1 Filter	636 801 R91
	2 Bolt	179 868
	2 Nut	271 500
	2 Lockwasher	103 322
	2 Washer	Q5 028
	1 Bushing	128 003
	1 Fitting	635 584 R1
	1 Hose	675 414 R1
	2 Clamp	122 316 R91
	1 Pipe	675 413 R11

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**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC SERVICE PACKAGES

HYDRAULIC SERVICE PACKAGES - Continued

**676 021 R91 PARTS ACCESSORY PACKAGE, 12 GPM hydraulic pump front PTO driven for 10 Bullgrader only (Gas Engine) composed of:**

- 1 Pump 635 868 R91
- 1 Adaptor 675 742 R1
- 2 Screw 102 570
- 4 Bushing 675 649 R1
- 4 Bushing 635 954 R1
- 4 Bolt 179 841
- 4 Lockwasher 115 549
- 2 Bolt 179 862
- 2 Nut 271 500
- 2 Lockwasher 103 322
- 1 Bracket 675 643 R91
- 2 Bolt 179 885
- 2 Lockwasher 103 323
- 2 Spacer 13 412 L
- 4 Insulator 868 439 R1
- 2 Washer 16 038 R1
- 1 Elbow 343 805 R1
- 1 Nut 636 724 R1
- 1 Tube 676 064 R11
- 1 Hose 676 065 R91
- 1 Clamp 636 162 R1
- 1 Breather 636 748 R91
- 1 Elbow 636 745 R91
- 1 "O" Ring 252 728 R1
- 1 Hose 636 832 R1
- 4 Clamp 279 024 R91
- 2 Fitting 635 743 R1
- 1 Filter 636 801 R91
- 2 Bolt 179 866
- 2 Nut 271 500
- 2 Lockwasher 103 322
- 2 Washer Q5 028
- 1 Hose 636 344 R1
- 1 Pipe 676 072 R11
- 1 Nut 676 074 R11
- 1 Clamp 333 710 R91
- 1 Bracket 676 768 R1
- 1 Washer Q1 597

\*1 Instruction

**676 176 R91 PARTS ACCESSORY PACKAGE, 2 spool hydraulic, for use w/Remote Control Hydraulic Cylinder in conjunction w/ 5G2 or 11 Bullgrader composed of:**

- 1 Valve 635 878 R92
- 2 Lever 636 038 R1
- 2 Pin 517 194 R1
- 2 Cotter 103 373
- 2 Link 635 714 R91
- 3 Spacer 600 192 R1
- 3 Bolt 179 849
- 3 Nut 102 635
- 3 Lockwasher 103 321
- 4 Elbow 635 586 R1
- 4 Cap 119 101
- 2 Bushing 144 034
- 2 Elbow 9402 866
- 1 Hose 636 007 R91
- 1 Seal 676 393 R1
- 1 Cover 676 168 R91

\*1 Instruction

**676 022 R91 PARTS ACCESSORY PACKAGE, 12 GPM hydraulic pump front PTO driven, for 10 Bullgrader only (Diesel Engine) composed of:**

- 1 Pump 635 868 R91
- 1 Adaptor 675 743 R1
- 3 Screw 102 570
- 4 Bushing 635 953 R1
- 4 Bushing 635 954 R1
- 4 Bolt 179 861
- 4 Lockwasher 115 550
- 2 Bolt 179 862
- 2 Nut 271 500
- 2 Lockwasher 103 322
- 1 Bracket 675 644 R91
- 2 Bolt 179 885
- 2 Lockwasher 103 323
- 2 Spacer 13 412 L
- 4 Insulator 868 439 R1
- 2 Washer 16 038 R1
- 1 Elbow 343 805 R1
- 1 Nut 636 724 R1
- 1 Tube 676 064 R11
- 1 Hose 676 065 R91
- 1 Clamp 636 162 R1
- 1 Breather 636 748 R91
- 1 Elbow 635 745 R91
- 1 "O" Ring 252 728 R1
- 1 Hose 636 832 R1
- 4 Clamp 279 024 R91
- 2 Fitting 635 743 R1
- 1 Filter 636 801 R91
- 2 Bolt 179 866
- 2 Nut 271 500
- 2 Lockwasher 103 322
- 2 Washer Q5 028
- 1 Hose 636 344 R1
- 1 Pipe 676 072 R11
- 1 Nut 676 074 R1
- 1 Clamp 333 710 R91
- 1 Bracket 676 768 R1
- 1 Washer Q 397

\*1 Instruction

**676 295 R91 PARTS ACCESSORY PACKAGE, one spool hydraulic valve, for use w/Three Point Linkage Attachment composed of:**

- 1 Valve 635 605 R92
- 1 Lever 636 038 R1
- 1 Pin 517 194 R1
- 1 Cotter 103 373
- 1 Link 635 714 R91
- 3 Spacer 600 192 R1
- 3 Bolt 179 849
- 3 Nut 102 635
- 3 Lockwasher 103 321
- 1 Elbow 618 231 R1
- 1 Cap 9403 372
- 2 Bushing 144 034
- 2 Elbow 9402 866
- 1 Hose 636 007 R91
- 1 Cover 676 168 R91
- 1 Seal 676 393 R1

\*1 Instruction

\*Not Serviced Separately



**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC SERVICE PACKAGES</b>		
675 754 R91	<b>PARTS ACCESSORY PACKAGE, 12 GPM hydraulic pump front pto driven Crawler or Skidder (not 10 Bullgrader) (Gas Engine) composed of:</b>	
	1 Pump	635 868 R91
	1 Adaptor	675 742 R1
	2 Screw	102 570
	4 Bushing	675 849 R1
	4 Bushing	635 954 R1
	4 Bolt	179 841
	4 Lockwasher	115 549
	2 Bolt	179 862
	2 Nut	271 500
	2 Lockwasher	103 322
	1 Bracket	675 743 R91
	2 Bolt	179 885
	2 Lockwasher	103 323
	2 Spacer	13 412 L
	4 Insulator	868 439 R1
	2 Washer	16 038 R1
	2 Elbow	9402 866
	1 Nut	636 724 R1
	1 Tube	676 067 R11
	1 Hose	676 068 R91
	1 Clamp	636 053 R1
	1 Pipe	635 599 R11
	1 Bushing	144 034
	1 Breather	636 748 R91
	1 Elbow	635 745 R91
	1 "O" Ring	252 728 R1
	1 Hose	636 832 R1
	4 Clamp	279 024 R91
	2 Fitting	635 743 R1
	1 Filter	636 801 R91
	2 Bolt	179 866
	2 Nut	271 500
	2 Lockwasher	103 322
	2 Washer	Q5 028
	1 Hose	636 344 R1
	1 Pipe	676 072 R11
	1 Nut	676 074 R1
	1 Clamp	333 710 R91
	1 Bracket	676 768 R1
	1 Washer	Q1 597
	*1 Instruction	
676 174 R92	<b>PARTS ACCESSORY PACKAGE, one spool hydraulic valve, for use w/Remote Control Hydraulic Cylinder 5G2 &amp; 11 Bullgrader composed of:</b>	
	1 Valve	636 709 R91
	1 Lever	636 038 R1
	1 Pin	517 194 R1
	1 Cotter	103 373
	1 Link	635 714 R91
	3 Spacer	600 192 R1
	3 Bolt	179 849
	3 Nut	102 635
	3 Lockwasher	103 321
	2 Elbow	635 596 R1
	2 Cap	119 101
	2 Bushing	144 034
	2 Elbow	9402 866
	1 Hose	636 007 R91
	1 Cover	676 168 R91
	1 Seal	676 393 R1
	*1 Instruction	

REF. NO.	PART NUMBER	DESCRIPTION
<b>HYDRAULIC SERVICE PACKAGES - Continued</b>		
675 756 R91	<b>PARTS ACCESSORY PACKAGE, 12 GPM hydraulic pump front PTO driven for Crawler or Skidder (not 10 Bullgrader) (Diesel Engine) composed of:</b>	
	1 Valve	635 868 R91
	1 Adaptor	675 743 R1
	3 Screw	102 570
	4 Bushing	635 953 R1
	4 Bushing	635 954 R1
	4 Bolt	179 861
	4 Lockwasher	115 550
	2 Bolt	179 862
	2 Nut	271 500
	2 Lockwasher	103 323
	1 Bracket	675 644 R91
	2 Bolt	179 885
	2 Lockwasher	103 323
	2 Spacer	13 412 L
	4 Insulator	868 439 R1
	2 Washer	16 038 R1
	2 Elbow	9402 866
	1 Nut	636 724 R1
	1 Hose	676 067 R11
	1 Hose	676 068 R91
	1 Clamp	636 053 R1
	1 Pipe	635 599 R11
	1 Bushing	144 034
	1 Breather	636 748 R91
	1 Elbow	635 745 R91
	1 "O" Ring	252 728 R1
	1 Hose	636 832 R1
	4 Clamp	279 024 R91
	2 Fitting	635 743 R1
	1 Filter	636 801 R91
	2 Bolt	179 866
	2 Nut	271 500
	2 Lockwasher	103 322
	2 Washer	Q5 028
	1 Hose	636 344 R1
	1 Pipe	676 072 R11
	1 Nut	676 074 R1
	1 Clamp	333 710 R91
	1 Bracket	676 768 R1
	1 Washer	Q 397
676 297 R91	<b>PARTS ACCESSORY PACKAGE, two spool hydraulic valve w/Three Point Linkage Attachment in conjunction w/any one of the following Remote Control Hydraulic Cylinder 5G2 or 11 Bullgrader composed of:</b>	
	1 Valve	635 877 R92
	2 Lever	636 038 R1
	2 Pin	517 194 R1
	2 Cotter	103 373
	2 Link	635 714 R91
	3 Spacer	600 192 R1
	3 Bolt	179 849
	3 Nut	102 635
	3 Lockwasher	103 321
	2 Elbow	635 596 R1
	2 Cap	119 101
	1 Elbow	618 231 R1
	1 Cap	9403 372
	2 Bushing	144 034
	2 Elbow	9402 866
	1 Hose	636 007 R91
	1 Seal	676 393 R1
	1 Cover	676 168 R91
	*1 Instruction	

\*Not Serviced Separately



**CRAWLER TRACTORS**



REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC SERVICE PACKAGES

REF. NO.	PART NUMBER	DESCRIPTION
675 750 R91		<b>PARTS ACCESSORY PACKAGE, 17 GPM hydraulic pump (Gas Engine) composed of:</b>
	1 Pump	675 642 R91
	2 Nut	271 500
	2 Lockwasher	103 322
	1 Adaptor	675 647 R1
	2 Screw	102 570
	4 Bushing	675 648 R1
	4 Bushing	635 954 R1
	4 Bolt	179 841
	4 Lockwasher	115 549
	1 Bracket	675 643 R11
	2 Bolt	179 885
	2 Lockwasher	103 323
	2 Spacer	13 412 L
	4 Insulator	868 439 R1
	2 Washer	16 038 R1
	1 Elbow	343 805 R1
	1 Nut	636 724 R1
	1 Tube	676 064 R11
	1 Hose	676 065 R91
	1 Clamp	636 162 R1
	1 Breather	636 748 R91
	1 Elbow	635 745 R91
	1 "O" Ring	252 728 R1
	1 Hose	636 832 R1
	4 Clamp	279 024 R91
	2 Fitting	635 743 R1
	1 Filter	636 801 R91
	2 Bolt	179 866
	2 Nut	271 500
	2 Lockwasher	103 322
	2 Washer	Q5 028
	1 Hose	636 344 R1
	1 Pipe	676 066 R11
	1 Nut	676 074 R1
	1 Clamp	333 710 R91
	1 Bracket	676 768 R1
	1 Washer	Q1 587
	*1 Instruction	

REF. NO.	PART NUMBER	DESCRIPTION
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HYDRAULIC SERVICE PACKAGES - Continued

REF. NO.	PART NUMBER	DESCRIPTION
675 752 R91		<b>PARTS ACCESSORY PACKAGE, 17 GPM hydraulic pump (Diesel Engine) composed of:</b>
	1 Pump	675 642 R91
	2 Nut	271 500
	2 Lockwasher	103 322
	1 Adaptor	675 648 R1
	3 Screw	102 570
	4 Bushing	635 953 R1
	4 Bushing	635 954 R1
	4 Bolt	179 861
	4 Lockwasher	115 550
	1 Bracket	675 644 R91
	2 Bolt	179 885
	2 Lockwasher	103 323
	2 Spacer	13 412 L
	4 Insulator	868 439 R1
	2 Washer	16 038 R1
	1 Elbow	343 805
	1 Nut	636 724 R1
	1 Tube	676 064 R11
	1 Hose	676 065 R91
	1 Clamp	636 162 R1
	1 Breather	636 748 R91
	1 Elbow	635 745 R91
	1 "O" Ring	252 728 R1
	1 Hose	636 832 R1
	4 Clamp	279 024 R91
	2 Fitting	635 743 R1
	1 Filter	636 801 R91
	2 Bolt	179 866
	2 Nut	271 500
	2 Lockwasher	103 322
	2 Washer	Q5 028
	1 Hose	636 344 R1
	4 Clamp	279 024 R91
	1 Pipe	676 066 R11
	1 Nut	676 074 R1
	1 Clamp	333 710 R91
	1 Bracket	676 768 R1
	1 Washer	Q 397
	*1 Instruction	

\*Not Serviced Separately





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3 044 623 R1	A-155	3 070 547 R91	A- 27	ST 964	A- 96		
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3 044 628 R1	A-155	3 070 777 R1	A- 35	ST 970	A- 92		
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**PROPOSAL FOR MANUAL REVISION**

FOR INTERNAL USE ONLY – No. PMR

P R O P O S E R	NAME OF COMPANY:	LOCATION:
	DEPARTMENT:	PHONE NO:
	NAME:	DATE:

MANUAL NAME:			
MANUAL NO:			
MACHINE MODEL: S/N IF APPLICABLE:			

PAGE NO:

PROBLEM:

Attach photo or sketch.  
 If more space is needed, use another sheet.

FOR INTERNAL USE ONLY	
CORRECTIVE ACTION:	