

MICHIGAN

PARTS MANUAL

No. 1729

MODEL 85A

Series I

TRACTOR SHOVEL

Information contained herein pertains to Machine
Serial Numbers listed below:

WAUKESHA GAS — 4123 thru 4624, 1DA375 thru 1DA999

WAUKESHA DIESEL — 4123D thru 4629D, 1DB86 thru 1DB999

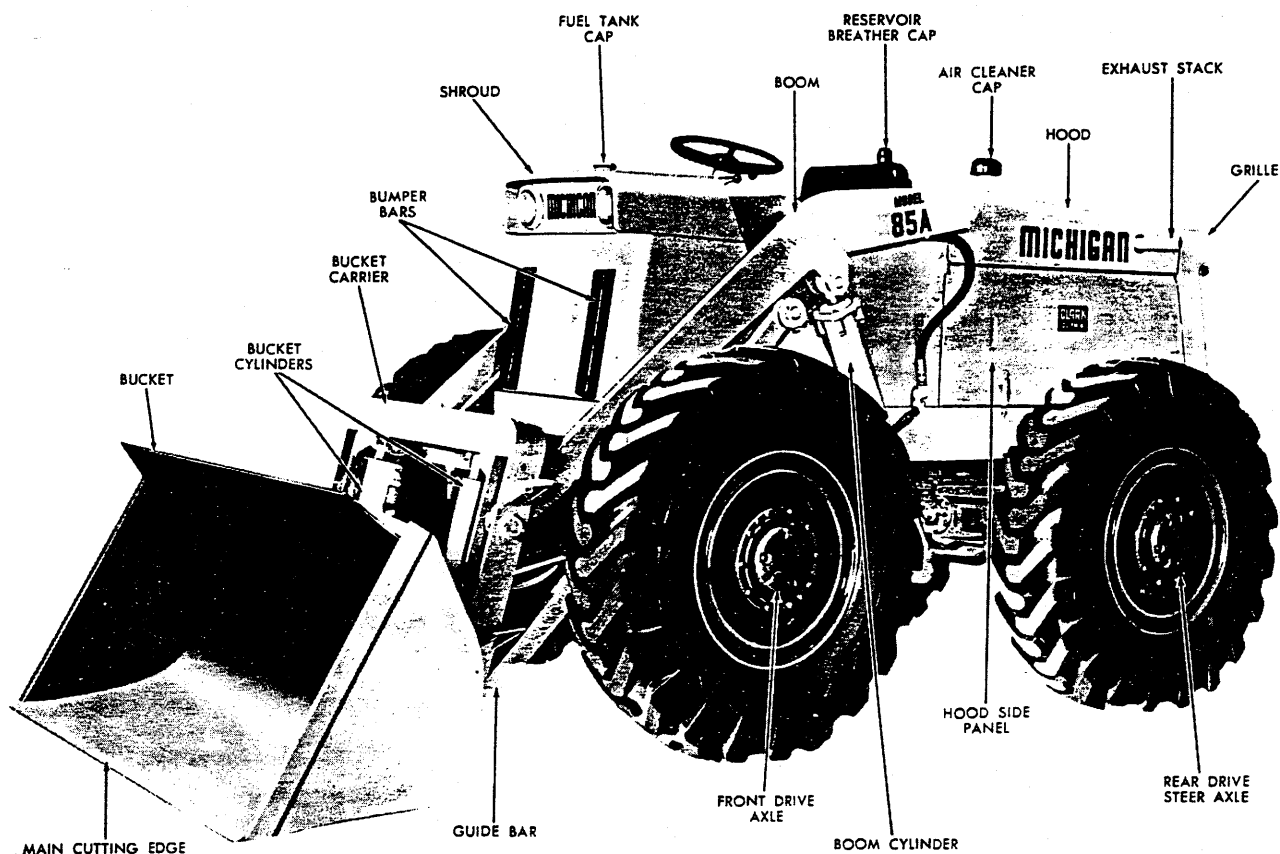
G.M. — 1DG26 thru 1DG999

Record Your Machine
Serial Number Here

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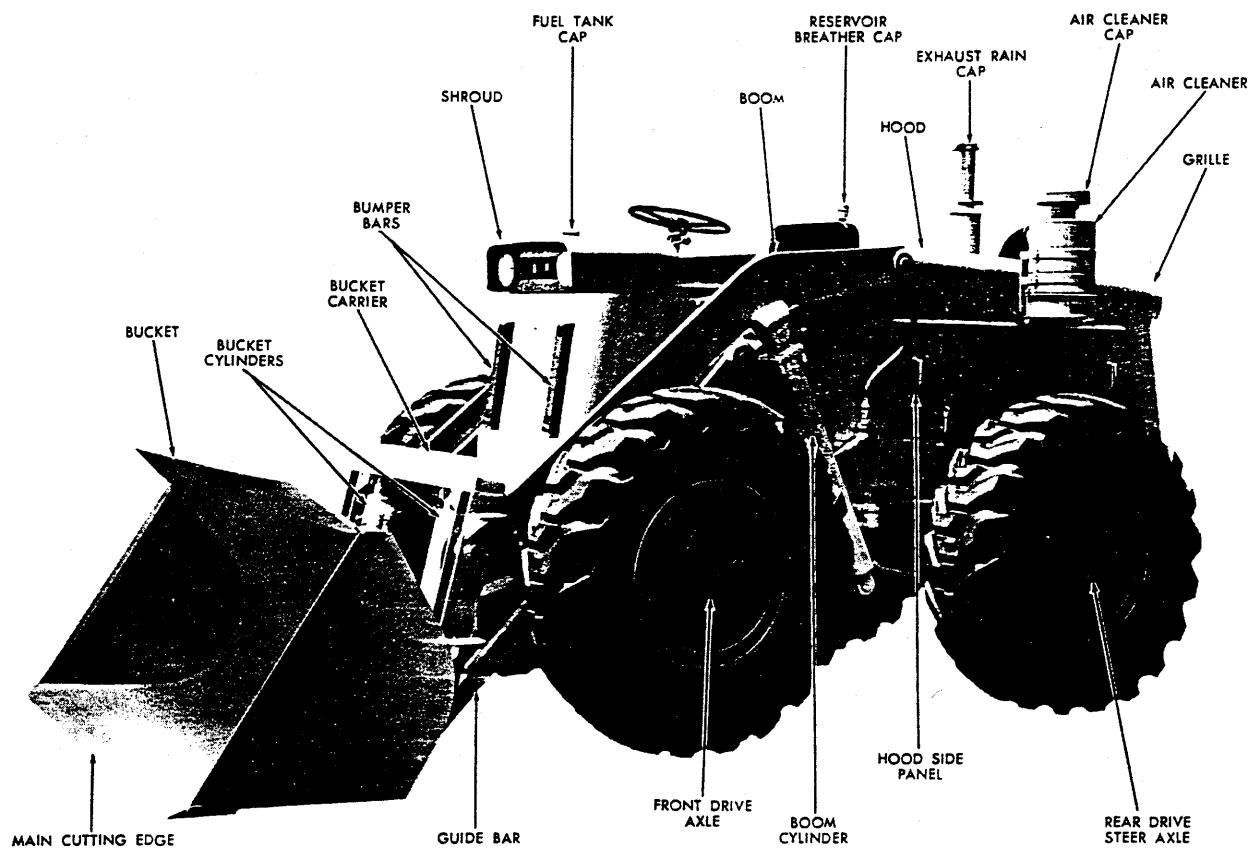
CLARK EQUIPMENT COMPANY
Construction Machinery Division
BENTON HARBOR, MICHIGAN, U.S.A.
In Canada: Canadian Clark, Ltd., St. Thomas, Ontario

MICHIGAN



MODEL 85A WAUKESHA GAS — SERIES I

TS-3008-P



MODEL 85A G.M. DIESEL — SERIES I

TS-3000-P

D	Page
Decals	39
Diagram, Wiring — G.M.	110
Diagram, Wiring — Waukesha Diesel	109
Diagram, Wiring — Waukesha Gas	108
Differential and Carrier Assembly	61
Distributor and Ignition Cables	1, 2
Drag Link, Steering	73

E	
Engine and Accessories — G.M.	3
Engine and Accessories — Waukesha	1, 2, 3
Engine Hourmeter — G.M.	3
Engine Hourmeter — Waukesha	1
Engine Oil Pressure Sender Unit — G.M.	3
Engine Oil Pressure Sender Unit — Waukesha	1
Engine Support Parts — G.M.	3
Engine Support Parts — Waukesha	1

F	
Filter, Fuel — Waukesha Diesel	19
Filter, Lube Oil — Waukesha Gas	39
Filter, Transmission and Torque Converter Oil ...	51, 53, 55
Floorboards	68
Frame, Transmission Mounts and Axle Mounting Parts	4
Front Brake Assembly	66
Front Drive Axle Assembly	57
Fuel Filters — Waukesha Diesel	19
Fuel Lines — G.M.	21
Fuel Lines — Waukesha Diesel	19
Fuel Lines — Waukesha Gas	20
Fuel Pump — Waukesha Gas	2
Fuel Tank	17
Fuel Tank Cap	9

G	
Gauges, Instrument Panel	106, 107
Gear Shift Levers and Linkage	38
Generator — Waukesha	1
Glow Plugs — Waukesha Diesel	3
Grille, Counterweight, Hoods and Shrouds	9
Guide Bar	5

H	Page
Head Lamp Assembly	111
Hood	9
Hood Side Panels	9
Horn	112
Hourmeter, Engine — G.M.	3
Hourmeter, Engine — Waukesha	1
Hydraulic Oil Reservoir	87
Hydraulic Pump, Bucket and Boom	88, 89, 90, 91
Hydraulic Pump, Converter Charging	43; 44, 45
Hydraulic Pump, Steering	84, 85, 86
Hydraulic System, Bucket and Boom	93, 95, 97
Hydraulic System, Steering	82, 83
Hydraulic System, Transmission and Torque Converter	51, 53, 55

I	
Ignition Cables	2
Ignition Coil	2
Ignition Switch	106, 107
Instrument Panel	106, 107

L	
Lever, Parking Brake	71
Light Mounting Plate, Back-Up	9
Lights and Mounting Parts	111
Light Switch	106, 107
Lining, Brake Shoe	66, 67
Lube Oil Filter — Waukesha Gas	39

M	
Main Hydraulic Pump	88, 89, 90, 91
Main Hydraulic System	93, 95, 97
Master Cylinder, Brake	68
Muffler — G.M.	24
Muffler — Waukesha Diesel	22
Muffler — Waukesha Gas	23

O	
Oil Reservoir, Hydraulic	87

P	
Panel, Instrument	106, 107
Parking Brake Controls	70

[C]

ENGINE AND ACCESSORIES — WAUKESHA

All orders for engine assembly or components thereof should be placed with the nearest Waukesha Motor Co. distributor or dealer. Always give model, specifications and serial number of your engine. This data will be found on nameplate attached to the side of the engine.

ENGINE SUPPORT PARTS — WAUKESHA GAS AND DIESEL

Item No.	Part No.	Description	No. Req'd.
1	550697	SUPPORT, Engine — L.H.	1
2	551777	SUPPORT, Engine — R.H.	1
3	1C-824	BOLT, Support to Flywheel Housing	8
4	4E-08	LKWSHR, Support to Flywheel Housing	8
5	550698	PAD, Support to Frame	2
6	2C-832	BOLT, Support to Frame	4
7	21D-08	NUT, Support to Frame	4
8	2C-832	BOLT, Engine Trunnion to Frame	2
9	21D-08	NUT, Engine Trunnion to Frame	2
10	619029	WASHER, Engine Trunnion to Frame	2

ENGINE ACCESSORIES — WAUKESHA GAS AND DIESEL

11	551323	SENDER UNIT, Engine Temperature	1
12	550832	SENDER UNIT, Oil Pressure — See Note "A"	1
13	5K-106	NIPPLE, Sender Unit	1
14	75F-1	COUPLING, Sender Unit	1

HOURLY METER AND MOUNTING PARTS — WAUKESHA

15		HOURLY METER	
15A	521484	For Serial 4123 thru 4629, 1DA375 thru 1DA459, 1DB86 thru 1DB100	1
15B	940323	For Serial: Waukesha Gas — 1DA460 thru 1DA999; Waukesha Diesel — 1DB101 thru 1DB999; G.M. — 1DG1 thru 1DG999	1
16	953130	GASKET, Hourmeter	1
17	41G-1010	SCREW, Hourmeter	4
18	552839	WASHER, Hourmeter	4

GENERATOR AND PARTS — WAUKESHA

19	940133	GENERATOR (Inc. 20 thru 24) (D.R. 1102009)	1
20	940135	ARMATURE, Generator (D.R. 1927182)	1
21	1801015	BRUSH, Generator	2
22	619052	FAN, Generator	1
23	630506	BAFFLE, Generator	1
24	940134	PULLEY, Generator	1
25	6J-405	KEY, Pulley	1
26	23E-11	WASHER, Pulley	1
27	850311	NUT, Pulley	1
28	957576	STRAP, Generator Adjusting	1
29	1C-512	BOLT, Adjusting Strap	2
30	25E-15	WASHER, Adjusting Strap	2
31	4E-05	LKWSHR, Adjusting Strap	2
32	652444	SPACER, Generator — Rear	1
33	2C-524	BOLT, Generator Attaching — 1½" long	1
34	2D-05	NUT, Generator Attaching	1
35	4E-05	LKWSHR, Generator Attaching	1
36	1C-516	BOLT, Generator Attaching — 1" long	1

VOLTAGE REGULATOR — WAUKESHA GAS AND DIESEL

37	940105	REGULATOR, Voltage	1
38	550862	BRACKET, Regulator Mounting	1
39	2C-620	BOLT, Bracket to Frame	2
40	2D-06	NUT, Bracket to Frame	2
41	4E-06	LKWSHR, Bracket to Frame	2
42	2C-412	BOLT, Regulator to Bracket	3
43	2D-04	NUT, Regulator to Bracket	3
44	4E-04	LKWSHR, Regulator to Bracket	3

DISTRIBUTOR AND IGNITION CABLES

45	940331	DISTRIBUTOR	1
46	953129	GASKET, Distributor	1
47	552842	CLAMP, Distributor	2
48	1C-618	BOLT, Clamp	2
49	4E-06	LKWSHR, Clamp	2

NOTE "A": For replacement refer to Service Gram S.G.-326B.

ENGINE ACCESSORIES — GAS MODEL ONLY
DISTRIBUTOR AND IGNITION CABLES (Continued)

Item No.	Part No.	Description	No. Req'd.
50	857852	CAP, Distributor	1
51	853628	POINT SET, Distributor	1
52	850091	ROTOR, Distributor	1
53	853586	COVER, Distributor (Inc. 54, 55)	1
54	853599	GASKET, Cover	1
55	853598	FELT SEAL, Cover	1
56	850085	CONDENSER, Distributor	1
57	552857	CABLE KIT, Ignition (Inc. 58 thru 64)	1
58	552844	CABLE — No. 1 & 6 Cylinder	2
59	552845	CABLE — No. 2 & 5 Cylinder	2
60	552846	CABLE — No. 3 Cylinder	1
61	552847	CABLE — No. 4 Cylinder	1
62	617383	CABLE, Distributor to Coil	1
63	610097	NIPPLE, Distributor	7
64	610098	NIPPLE, Coil	1
IGNITION COIL			
65	722593	**COIL, Ignition	1
66	2C-510	BOLT, Coil to Regulator Bracket	2
67	2D-05	NUT, Coil to Regulator Bracket	2
68	4E-05	LKWSHR, Coil to Regulator Bracket	2
CARBURETOR			
69	990823	CARBURETOR	1
70	523347	GASKET, Carburetor to Adapter	1
71	940178	REPAIR KIT, Carburetor	1
72	940179	GASKET KIT, Carburetor	1
73	853227	JET, Adjustable	1
74	515050	STUD, Carburetor to Adapter	2
75	2D-05	NUT, Carburetor to Adapter	2
76	4E-05	LKWSHR, Carburetor to Adapter	2
77	515048	ADAPTER, Carburetor to Manifold	1
78	552840	GASKET, Carburetor to Manifold	1
79	1C-616	BOLT, Adapter to Manifold	2
80	4E-06	LKWSHR, Adapter to Manifold	2
FUEL PUMP			
81	941590	PUMP ASSY, Fuel (Inc. 82)	1
82	952721	GASKET, Fuel Pump	1
83	941945	REPAIR KIT, Fuel Pump	1
84	—	§ REPAIR KIT, Diaphragm — See 83	1
85	1C-516	BOLT, Pump Attaching	2
86	952779	WASHER, Copper — Pump Attaching	2
STARTER — GAS ONLY			
87	585314	STARTER ASSY (Inc. 88A, 89, 90A, 91A)	1
88	—	ARMATURE, Starter	1
88A	871513	For Delco #1107851 Starter	1
88B	850813	For Delco #1107842 Starter	1
89	852135	DRIVE ASSY, Starter	1
90	—	HOUSING, Drive	1
90A	945383	For Delco #1107851 Starter	1
90B	943413	For Delco #1107842 Starter	1
91	—	BRUSH, Starter	4
91A	871518	For Delco #1107851 Starter	4
91B	940139	For Delco #1107842 Starter	3
92	4E-06	LKWSHR, Starter Mounting	3
93	1C-620	BOLT, Mounting	1
94	551530	SWITCH, Starter Magnetic	2
95	2C-414	BOLT, Switch Attaching	2
96	2D-04	NUT, Switch Attaching	2
97	4E-04	LKWSHR, Switch Attaching	2
ENGINE ACCESSORIES — WAUKESHA DIESEL ONLY			
98	—	FUEL INJECTION PUMP — See Engine Parts Manual	—
99	—	INJECTOR, Fuel — See Engine Parts Manual	—
100	—	LUBE OIL FILTER — See Engine Parts Manual	—

**NOTE: For replacement use 2503976 Coil plus 1—897894 Bracket.

§ Not Sold Separately

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

Item No.	Part No.	Description	No. Req'd.
GLOW PLUGS — WAUKESHA DIESEL			
101	991292	GLOW PLUG	6
102	953103	GASKET, Glow Plug	6
103	553139	HARNES, Glow Plug Wiring	1
104	552941	BRACKET, Glow Plug Harness	1
105	2G-1210	SCREW, Bracket Attaching	1
106	14D-12	NUT, Bracket Attaching	1
107	2E-04	LKWSHR, Bracket Attaching	1
108	551530	SWITCH, Glow Plug Magnetic	1
109	2C-414	BOLT, Switch Attaching	2
110	2D-04	NUT, Switch Attaching	2
111	4E-04	LKWSHR, Switch Attaching	2

STARTER — WAUKESHA DIESEL ONLY

112	518713	*STARTER ASSY (Inc. 113 thru 117)	1
112A	946390	STARTER ASSY (Inc. 113A thru 117A) (D.R. 1113639)	1
113	864539	ARMATURE, Starter	1
113A	946420	ARMATURE, Starter (See Note "A")	1
114	864559	HOUSING, Starter Drive	1
114A	946421	HOUSING, Starter Drive (See Note "A")	1
115	874587	DRIVE ASSY, Starter (D.R. 1932605)	1
115A	891272	DRIVE ASSY, Starter (See Note "A")	1
116	946422	BRUSH, Starter	4
116A	946422	BRUSH, Starter (See Note "A")	4
117	941992	SWITCH, Starter Solenoid	1
117A	3679957	SWITCH, Starter Solenoid (See Note "A")	1
118	552884	SPACER, Starter Mounting	1
119	1C-628	BOLT, Starter Mounting	3
120	4E-06	LKWSHR, Starter Mounting	3

*NOTE: For complete replacement of 518713 Starter Assy use 946390 Starter Assy.

NOTE "A": Component part breakdown for 946390 (D.R. 1113639) Starter.

ENGINE AND ACCESSORIES — G.M.

All orders for engine assembly or components thereof should be placed with the nearest G.M. Diesel Distributor. To obtain proper items, it is necessary to provide your engine model, serial number and accessory group type number for the equipment required. This data is stamped on the options and accessories plate on the rocker cover of the engine.

ENGINE SUPPORT PARTS — G.M.

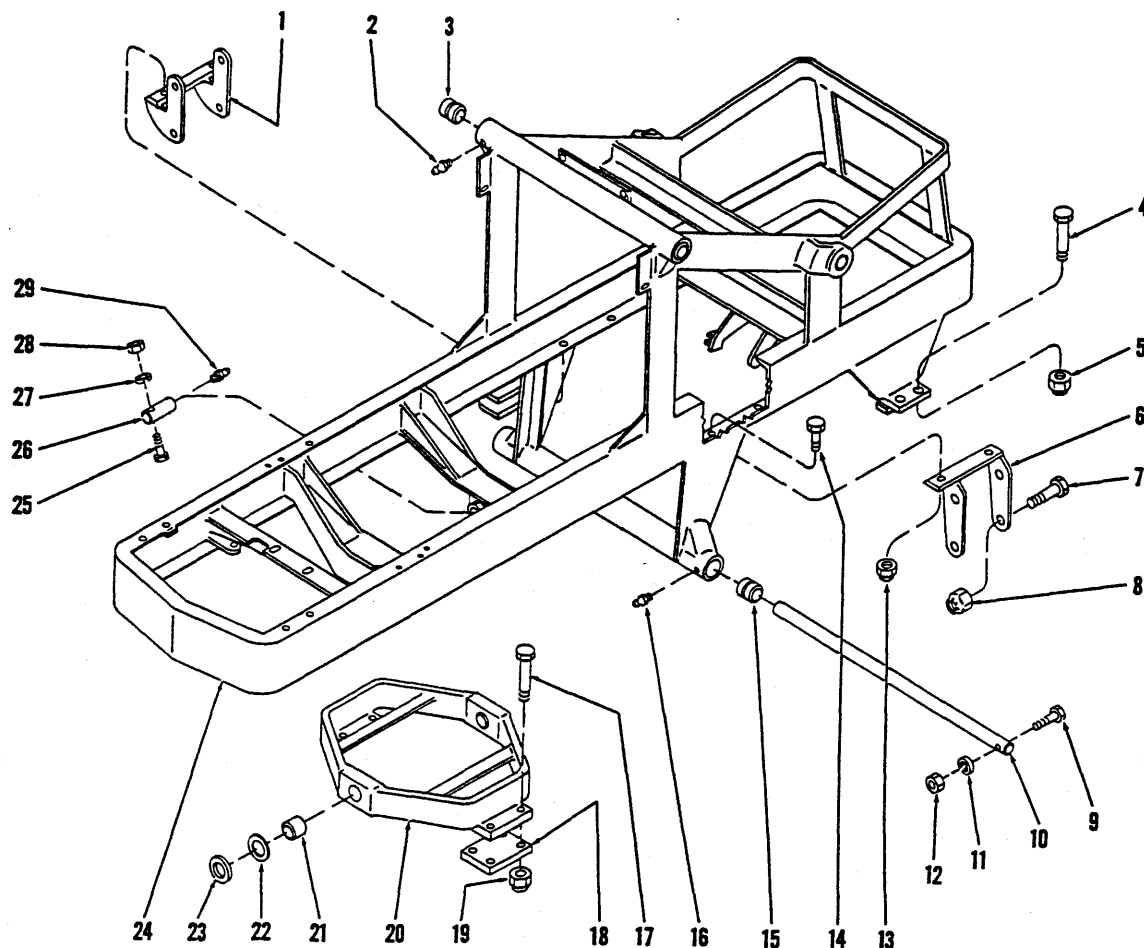
121	531060	SUPPORT, Engine (Rear)	2
122	1C-824	BOLT, Support to Flywheel	8
123	4E-08	LKWSHR, Support to Flywheel	8
124	2C-832	BOLT, Support to Frame	4
125	21D-08	NUT, Support to Frame	4
126	536613	SPACER, Front Engine Mounting	1
127	25E-21	WASHER, Front Engine Mounting	2
128	2C-832	BOLT, Front Engine Mounting	2
129	21D-08	NUT, Front Engine Mounting	2

ENGINE ACCESSORIES

130	—	*GENERATOR	—
131	—	*STARTER	—
132	—	*VOLTAGE REGULATOR	—
133	—	*FILTER, Fuel & Engine Lube	—
134	551241	BRACKET, Regulator Mounting	1
135	2C-616	BOLT, Bracket to Frame	2
136	2D-06	NUT, Bracket to Frame	2
137	4E-06	LKWSHR, Bracket to Frame	2
138	2C-420	BOLT, Regulator to Bracket	4
139	2D-04	NUT, Regulator to Bracket	4
140	4E-04	LKWSHR, Regulator to Bracket	4
141	551255	HOURLMETER	1
142	685514	DAMPENER, Vibration	1
143	3G-608	SCREW, Hourmeter Mounting	6
144	15E-06	LKWSHR, Hourmeter Mounting	6
145	551323	SENDING UNIT, Engine Temp.	1
146	636260	SWITCH, Oil Pressure	1
147	550832	SENDING UNIT, Oil Pressure — See Note "A"	1
148	18F-1	TEE, Oil Pressure Switch	1
149	5K-108	NIPPLE, Oil Pressure Switch	1

*NOTE: Your local G.M. Engine Distributor is equipped to service and supply these parts.

NOTE "A": For replacement refer to Service Gram S.G.-326B.



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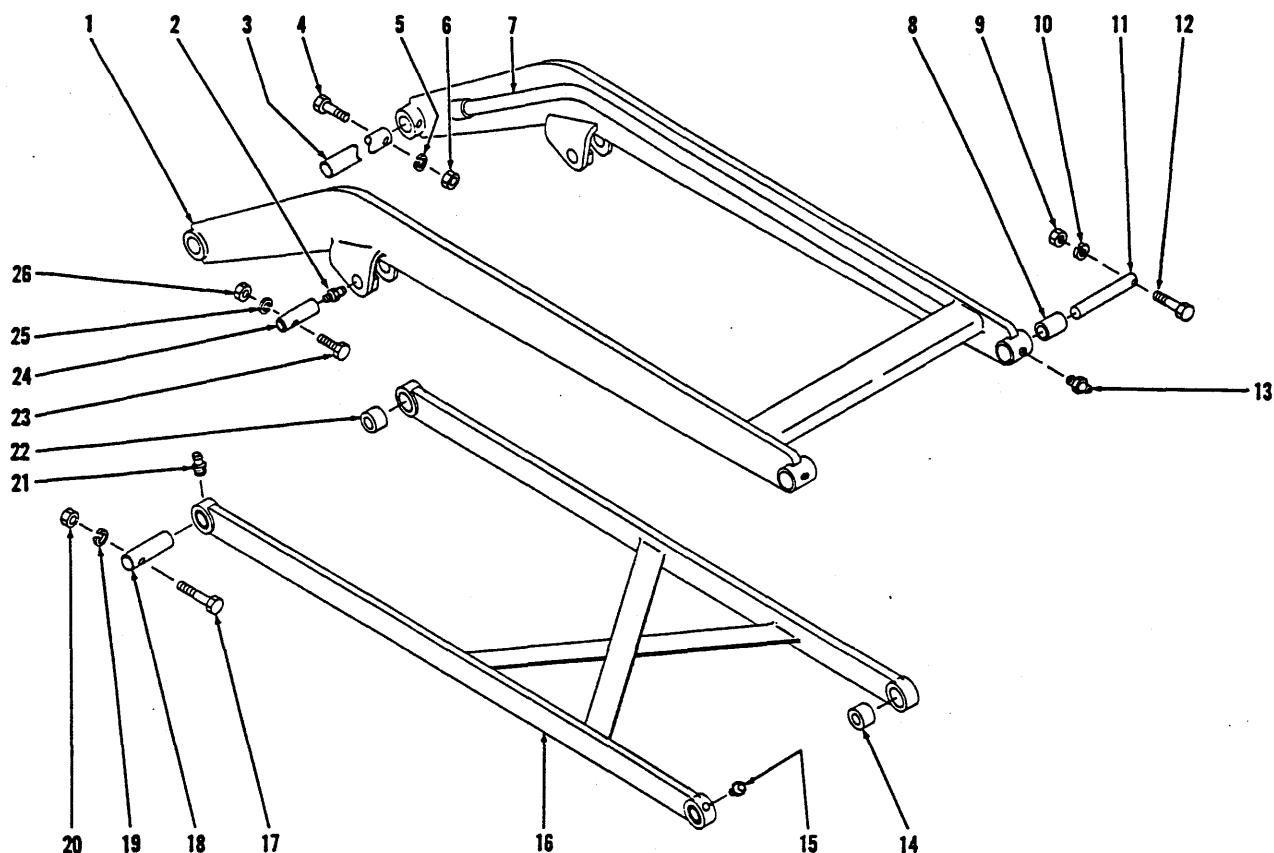
FRAME, TRANSMISSION MOUNTS AND AXLE MOUNTING PARTS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	550576	MOUNT, Transmission — L.H.	1	18	538831	PAD, Rear Axle Mount	2
2	10H-25	FITTING, Pivot Tube Grease	2	19	68D-12	NUT, Rear Axle to Cradle	8
3	550010	BUSHING, Upper Pivot Tube	2	20	536645	CRADLE ASSY, Rear Axle (Inc. 21)	1
4	24C-12112	*BOLT, Front Axle to Frame	8	21	550066	BUSHING, Cradle	2
5	68D-12	NUT, Front Axle to Frame	8	22	551348	‡WASHER, Cradle to Frame— $\frac{1}{16}$ "	—
6	550572	MOUNT, Transmission — R.H.	1	23	551347	‡WASHER, Cradle to Frame— $\frac{1}{8}$ "	—
7	2C-1044	BOLT, Transmission to Mount	8	24		FRAME ASSY (Inc. 3, 15)	
8	18D-10	NUT, Transmission to Mount	8	24A	514265	For Waukesha Powered Machines	1
9	2C-872	BOLT, Shaft Retaining	2	24B	531669	For G.M. Powered Machines	1
10	550070	SHAFT, Boom Cylinder Pivot	1	25	2C-856	BOLT, Pin Retaining	2
11	4E-08	LKWSHR, Shaft Retaining	2	26	550069	PIN, Cradle Pivot	2
12	2D-08	NUT, Shaft Retaining	2	27	4E-08	LKWSHR, Pin Retaining	2
13	68D-08	NUT, Mount to Frame	4	28	2D-08	NUT, Pin Retaining	2
14	18C-836	BOLT, Mount to Frame	4	29	15H-15	FITTING, Cradle Pin Grease	2
15	550010	BUSHING, Lower Pivot Tube	2				
16	10H-25	FITTING, Pivot Tube Grease	2				
17	24C-12128	BOLT, Rear Axle to Cradle	8				

*NOTE: 68D-12 Nut (item 5) must be used with 24C-12112 (7" long) bolt.

‡As Required

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

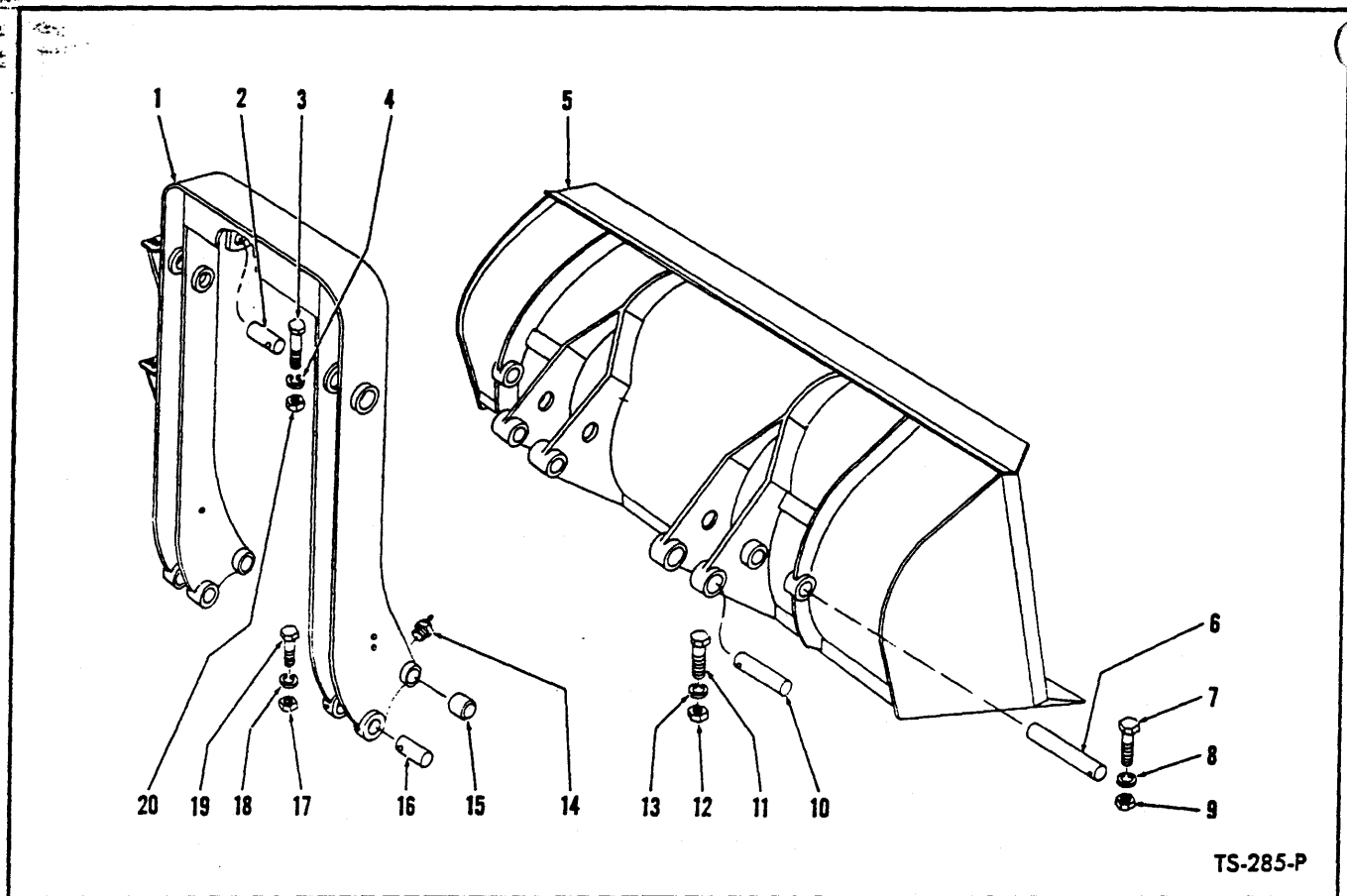


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BOOM AND GUIDE BAR

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	550130	BOOM ASSY (Inc. 7, 7A)	1	14	550143	BUSHING, Guide Bar to Carrier	2
2	10H-35	FITTING, Boom Cylinder Pin Grease	2	15	11H-25	FITTING, Guide Bar Grease	2
3	550178	SHAFT, Boom Pivot	1	16	512991	GUIDE BAR ASSY (Inc. 12, 20)	2
4	2C-876	BOLT, Pivot Shaft Retaining	2	17	2C-876	BOLT, Pin Retaining	2
5	4E-06	LKWSHR, Pivot Shaft Retaining	2	18	550188	PIN, Guide Bar to Frame	2
6	2D-06	NUT, Pivot Shaft Retaining	2	19	4E-08	LKWSHR, Pin Retaining	2
7	550144	PIPE, Boom — R.H.	1	20	2D-08	NUT, Pin Retaining	2
7A	550176	PIPE, Boom — L.H.	1	21	10H-35	FITTING, Guide Bar Grease — Rear	2
8	550143	BUSHING, Boom to Carrier	2	22	550191	BUSHING, Guide Bar to Frame	2
9	2D-06	NUT, Pin Retaining	2	23	2C-648	BOLT, Pin Retaining	2
10	4E-06	LKWSHR, Pin Retaining	2	24	550179	PIN, Boom Cylinder to Boom	2
11	550207	PIN, Boom to Carrier	2	25	4E-06	LKWSHR, Pin Retaining	2
12	2C-648	BOLT, Pin Retaining	2	26	2D-06	NUT, Pin Retaining	2
13	10H-25	FITTING, Boom Grease	2				

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



BUCKET AND CARRIER

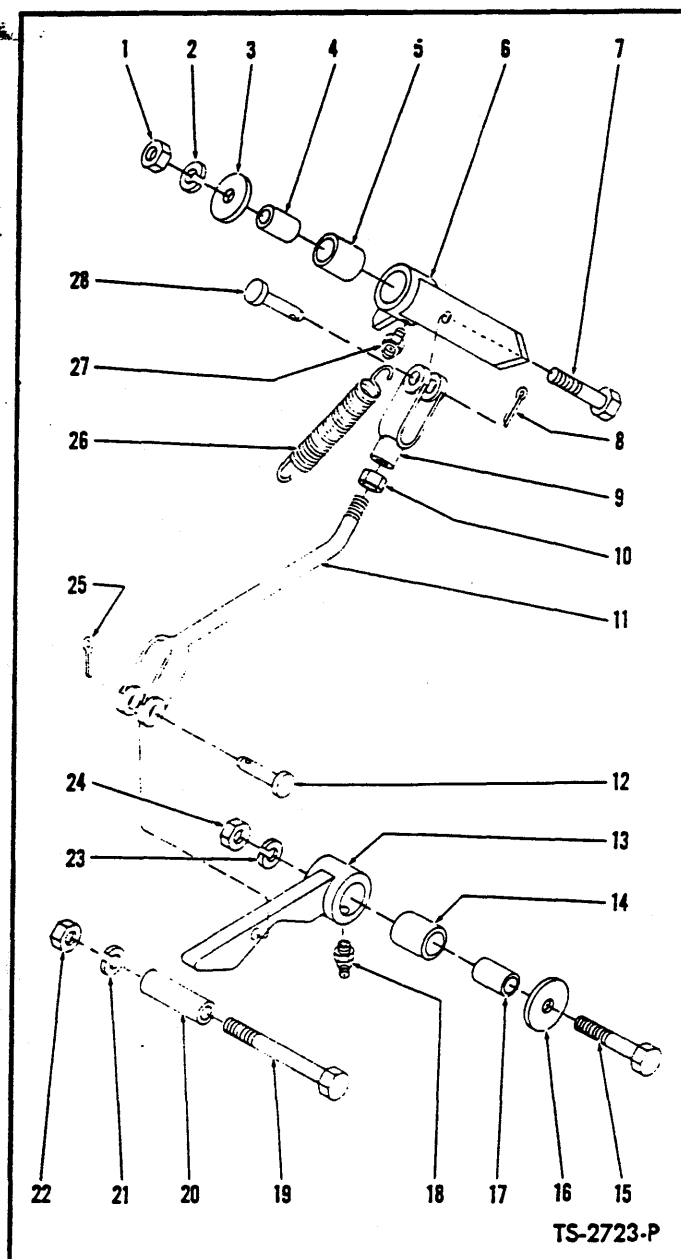
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	548152	CARRIER ASSY, Bucket (Inc. 15)	1	11	2C-656	BOLT, Pin Retaining	2
2	550208	PIN, Cylinder to Carrier	2	12	2D-06	NUT, Pin Retaining	2
3	2C-672	BOLT, Pin Retaining	2	13	4E-06	LKWSHR, Pin Retaining	2
4	4E-06	LKWSHR, Pin Retaining	2	14	11H-15	FITTING, Carrier Grease	2
5	—	BUCKET ASSY — (See Chart Below)	—	15	550206	BUSHING, Carrier	4
6	552550	PIN, Carrier to Bucket	2	16	550207	PIN, Guide Bar to Carrier	2
7	2C-648	BOLT, Pin Retaining	2	17	2D-06	NUT, Pin Retaining	2
8	4E-06	LKWSHR, Pin Retaining	2	18	4E-06	LKWSHR, Pin Retaining	2
9	2D-06	NUT, Pin Retaining	2	19	2C-648	BOLT, Pin Retaining	2
10	550231	PIN, Cylinder to Bucket	2	20	2D-06	NUT, Pin Retaining	2

BUCKET ASSEMBLY DATA

BUCKET		MAIN CUTTING EDGE			SIDE CUTTING EDGE			
Width	Part No.	Part No.	Size	Approx. Wt.	R. H. Part. No.	L. H. Part. No.	Size	Wt.
60"	552863	552865	1 x 9 x 61	136	*552868	*552869	½ x 3 x 37 1/4	14
79"	509491	553441	1 x 9 x 79	177	*550218	*550216	½ x 3 x 35 1/4	13
85"	551711	534113	1 x 9 x 85	190	*551815	*551816	½ x 3 x 38 1/4	14
97"	519495	551765	1 x 9 x 97	218	*551769	*551770	½ x 3 x 44	16

*NOTE: ½" x 3" x 10" segments are available for above side cutting edges, 940173 R.H. and 940172 L.H. — approximate wt., 4 lbs.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

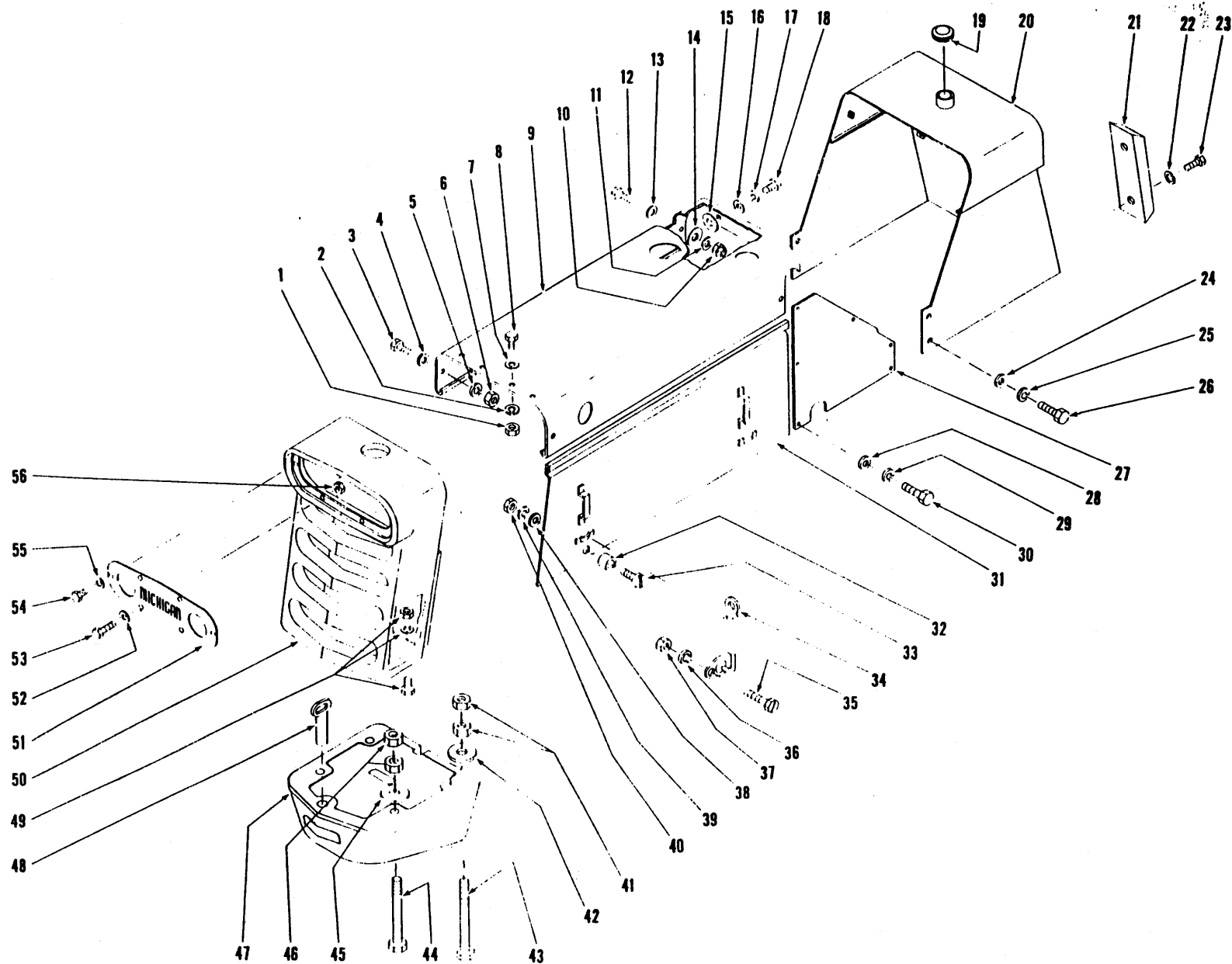
BUCKET INDICATOR


Item No.	Part No.	Description	No. Req'd.
1	2D-08	NUT, Pointer Arm to Bucket	1
2	4E-08	LKWSHR, Pointer Arm to Bucket	1
3	616796	WASHER, Pointer Arm to Bucket	1
4	550646	SLEEVE, Pointer Arm	1
5	526767	BUSHING, Pointer Arm	1
6	551521	ARM, Pointer	1
7	2C-840	BOLT, Pointer Arm to Bucket	1
8	1F-414	COTTER, Clevis Pin	1
9	2J-8300	CLEVIS, Rod to Pointer Arm.....	1
10	8D-08	NUT, Clevis Jam	1
11	552409	ROD, Bucket Indicator	1
12	4F-08127	PIN, Rod to Cam	1
13	551517	CAM, Indicator	1
14	526767	BUSHING, Cam	1
15	2C-844	BOLT, Cam to Bucket	1
16	616796	WASHER, Cam to Bucket	1
17	550646	SLEEVE, Cam	1
18	12H-15	FITTING, Cam Grease	1
19	1C-1072	BOLT, Tube to Carrier	1
20	551523	TUBE, Indicator	1
21	4E-10	LKWSHR, Tube to Carrier	1
22	1D-10	NUT, Tube to Carrier	1
23	4E-08	LKWSHR, Cam to Bucket	1
24	2D-08	NUT, Cam to Bucket	1
25	1F-414	COTTER, Clevis Pin	1
26	551644	SPRING, Pointer Return	1
27	12H-15	FITTING, Pointer Grease	1
28	4F-08127	PIN, Clevis to Pointer	1

BUCKET TEETH CHART

Bucket Width	One Piece Tooth No.	Replaceable Tip Tooth No.	No. Required	Replaceable Tip No.	Replaceable Tip Pin No.
60"	552154	529968	6	529970	529971
79"	552154	529968	8	529970	529971
85"	552154	529968	8	529970	529971
97"	552154	529968	9	529970	529971

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



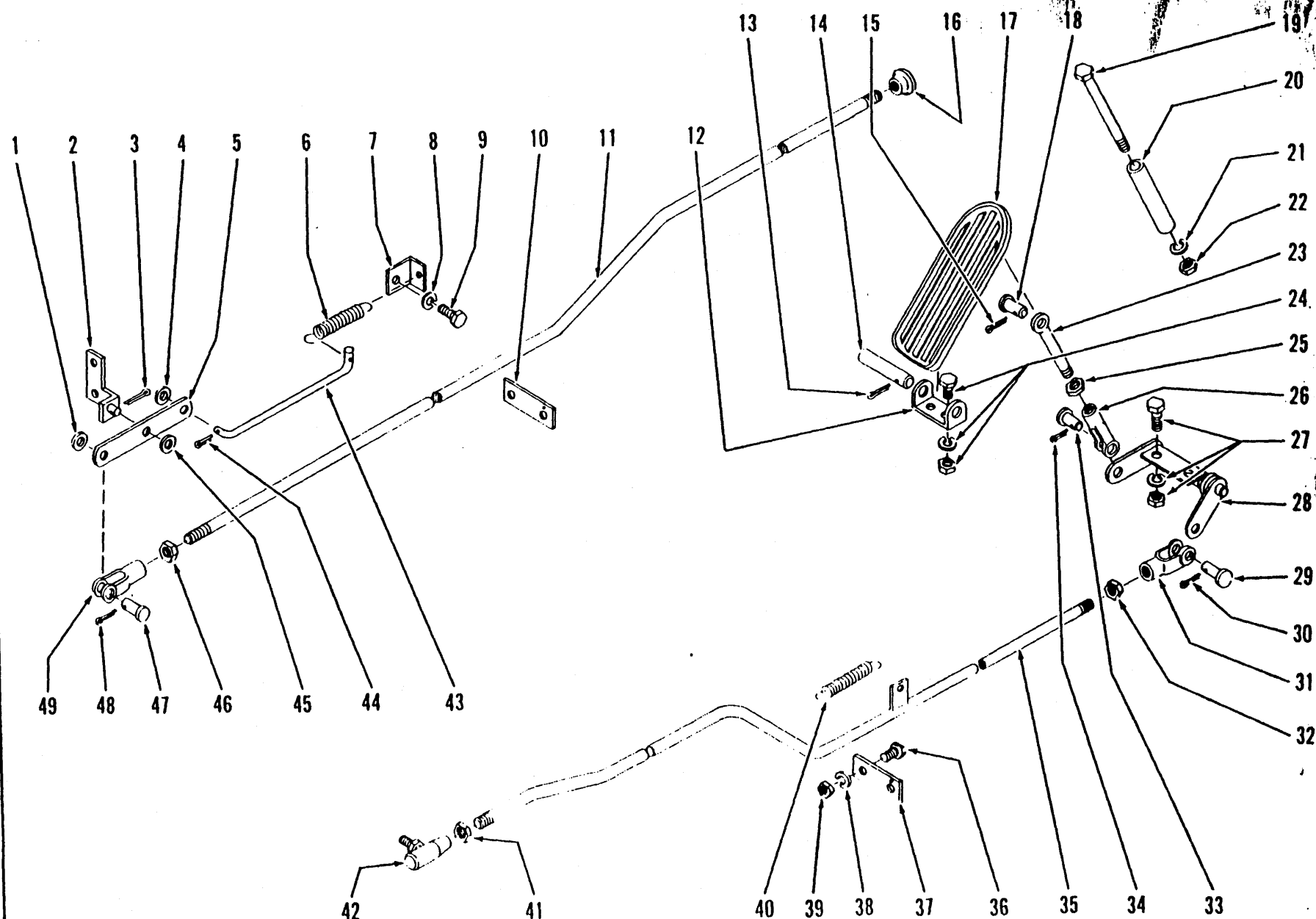
GRILLE, COUNTERWEIGHT, HOOD AND SHROUDS

TS-2603-P

GRILLE, COUNTERWEIGHT, HOOD AND SHROUDS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	2D-06	NUT, Hood to Grille	4	30	2C-610	BOLT, Side Panel to Frame	12
2	4E-06	LKWSHR, Hood to Grille	4	31		PANEL, Hood Side	
3	2C-620	BOLT, Radiator & Hood to Grille	2	31A	514426	Right Hand	1
4	551835	WASHER, Radiator & Hood to Grille	2	31B	514427	Left Hand	1
5	4E-06	LKWSHR, Radiator & Hood to Grille	2	32	551434	BUMPER, Hood Side Panel	4
6	2D-06	NUT, Radiator & Hood to Grille	2	33	2G-1014	SCREW, Bumper to Panel	4
7	551835	WASHER, Hood to Grille	4	34	552336	CATCH, Hood Side Panel	4
8	2C-616	BOLT, Hood to Grille	4	35	3G-1016	SCREW, Catch to Frame	8
9		HOOD		36	12E-10	LKWSHR, Catch to Frame	8
9A	514428	For Waukesha Gas Machines	1	37	12D-10	NUT, Catch to Frame	8
9B	514429	For Waukesha Diesel Machines	1	38	616775	WASHER, Bumper to Panel	4
9C	529842	For G.M. Machines	1	39	13E-10	LKWSHR, Bumper to Panel	4
10	103376	NUT, Hood to Frame	2	40	14D-10	NUT, Bumper to Panel	4
11	619026	WASHER, Hood to Frame	2	41	62D-12	NUT, Counterweight to Frame	4
12	2C-622	BOLT, Hood to Frame	2	42	25E-27	WASHER, Counterweight to Frame	4
13	551835	WASHER, Hood to Frame	2	43	16C-12280	BOLT, Counterweight to Frame	2
14	518233	PAD, Rubber — Hood to Frame	2	44	16C-12320	BOLT, Counterweight to Frame	2
15	518233	PAD, Rubber — Hood to Frame	2	45	25E-27	WASHER, Counterweight to Frame	4
16	616791	WASHER, Hood to Frame	2	46	62D-12	NUT, Counterweight	4
17	4E-08	LKWSHR, Hood to Frame	2	47	513233	COUNTERWEIGHT	1
18	2C-824	BOLT, Hood to Frame	2	48	550586	PIN, Drawbar	1
19	539837	CAP, Fuel Tank	1	49	2C-1052	BOLT, Grille to Frame	2
20	550833	SHROUD, Front	1	49A	2D-10	NUT, Grille to Frame	2
21	551539	BAR, Bumper	2	49B	4E-10	LKWSHR, Grille to Frame	2
22	4E-08	LKWSHR, Bumper Bar to Frame	4	50	550252	GRILLE	1
23	2C-836	BOLT, Bumper Bar to Frame	4	51	550880	PLATE, Back-up Lamp Mounting	1
24	103293	WASHER, Shroud to Frame	4	52	4E-05	LKWSHR, Plate to Grille	2
25	4E-06	LKWSHR, Shroud to Frame	4	53	1C-520	BOLT, Plate to Grille	2
26	2C-610	BOLT, Shroud to Frame	4	54	1C-510	BOLT, Plate to Grille	4
27	550893	PANEL, Side	2	55	4E-05	LKWSHR, Plate to Grille	4
28	103293	WASHER, Side Panel to Frame	12	56	1D-05	NUT, Plate to Grille	2
29	4E-06	LKWSHR, Side Panel to Frame	12				

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



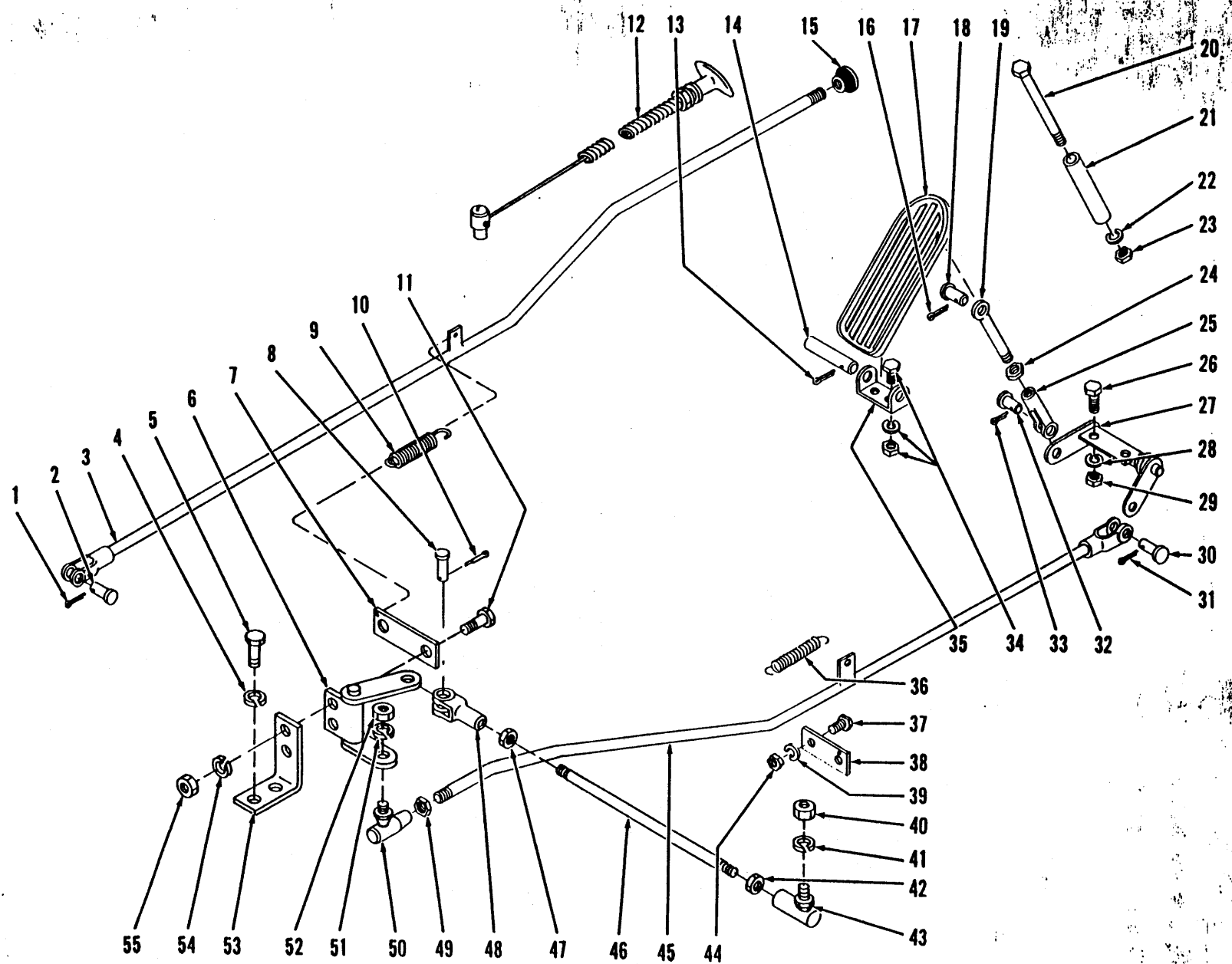
ACCELERATOR PEDAL AND LINKAGE — WAUKESHA DIESEL

TS-2621-P

ACCELERATOR PEDAL AND LINKAGE — WAUKESHA DIESEL

Item No.	Part No.	Description	No. Req'd.
1	25E-13	WASHER, Bell Crank Arm	1
2	513005	BRACKET, Bell Crank	1
3	1F-310	COTTER, Arm to Bracket	1
4	25E-13	WASHER, Bell Crank Arm	1
5	513007	ARM, Bell Crank	1
6	551090	SPRING, Shut-Off Return	1
7	513002	CLIP, Return Spring	1
8	4E-04	LKWSHR, Return Spring Clip	1
9	1C-409	BOLT, Return Spring Clip	1
10	551514	GUIDE, Shut-Off Rod	1
11	514620	ROD, Shut-Off	1
12	551015	BRACKET, Pedal Pivot	1
13	1F-316	COTTER, Pedal to Bracket Pin	1
14	623762	PIN, Pedal to Bracket	1
15	1F-207	COTTER, Clevis Pin	1
16	551178	KNOB, Shut-Off Rod	1
17	623829	PEDAL, Accelerator	1
18	4F-04051	PIN, Rod to Pedal	1
19	2C-448	BOLT, Pedal Stop	1
20	551016	STOP, Accelerator Pedal	1
21	4E-04	LKWSHR, Pedal Stop	1
22	2D-04	NUT, Pedal Stop	1
23	550619	ROD, Pedal to Bell Crank	1
24	2C-410	BOLT, Bracket to Floorboard	2
24A	2D-04	NUT, Pedal to Bell Crank	2
24B	4E-04	LKWSHR, Pedal to Bell Crank	2
25	8D-04	NUT, Clevis Jam	1
26	2J-4200	CLEVIS, Rod to Bell Crank	1
27	2C-410	BOLT, Bell Crank to Floorboard	2
27A	2D-04	NUT, Bell Crank to Floorboard	2
27B	4E-04	LKWSHR, Bell Crank to Floorboard	2
28	550616	BELL CRANK	1
29	4F-04051	PIN, Clevis to Bell Crank	1
30	1F-207	COTTER, Clevis Pin	1
31	2J-4200	CLEVIS, Rod to Bell Crank	1
32	8D-04	NUT, Clevis Jam	1
33	4F-04051	PIN, Clevis to Bell Crank	1
34	1F-207	COTTER, Clevis Pin	1
35	514617	ROD, Accelerator	1
36	2C-516	BOLT, Guide Attaching	1
37	550624	GUIDE, Accelerator Rod	1
38	4E-05	LKWSHR, Guide Attaching	1
39	2D-05	NUT, Guide Attaching	1
40	551090	SPRING, Pedal Return	1
41	8D-04	NUT, Jam	1
42	361938	BALL JOINT	1
43	513003	ROD, Connector	1
44	1F-310	COTTER, Rod to Bell Crank Arm	1
45	25E-13	WASHER, Bell Crank Arm	1
46	14D-10	NUT, Clevis Jam	1
47	4F-03038	PIN, Clevis	1
48	1F-208	COTTER, Clevis Pin	1
49	2J-10109	CLEVIS	1

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ACCELERATOR PEDAL AND LINKAGE — G.M.

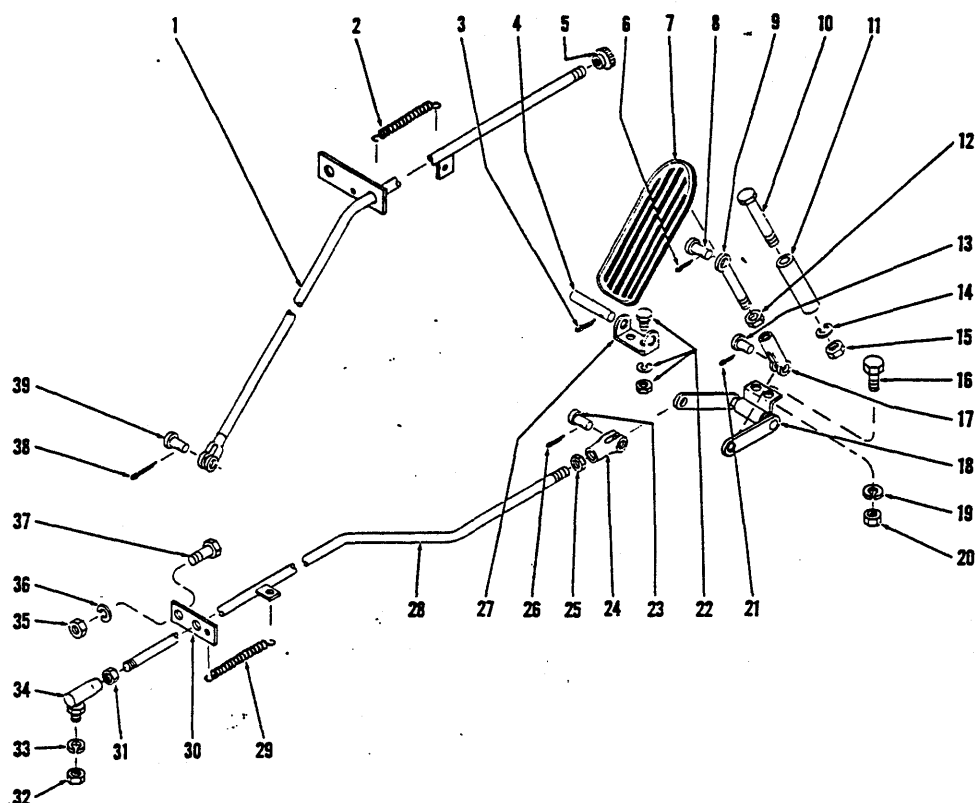
TS-2567-P

ACCELERATOR PEDAL AND LINKAGE — G.M.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	1F-207	COTTER	1	30	4F-04051	PIN, Rod to Bell Crank	1
2	4F-04051	PIN, Rod to Engine	1	31	1F-207	COTTER	1
3	533612	ROD, Engine Shut-Off	1	32	4F-04051	PIN, Clevis to Bell Crank	1
4	4E-06	LKWSHR, Bracket to Engine	2	33	1F-207	COTTER	1
5	1C-616	BOLT, Bracket to Engine	2	34	2C-410	BOLT, Bracket to Floorboard	2
6	550616	BELL CRANK, Rear	1	34A	4E-04	LKWSHR, Bracket to Floorboard	2
7	521434	GUIDE, Engine Shut-Off Rod	1	34B	2D-04	NUT, Bracket to Floorboard	2
8	4F-04051	PIN, Clevis to Bell Crank	1	35	551015	BRACKET, Pedal Pivot	1
9	551090	SPRING, Rod Return	1	36	551090	SPRING, Rod Return	1
10	1F-207	COTTER	1	37	2C-616	BOLT, Guide to Frame	1
11	2C-412	BOLT, Guide & Bell Crank to Bracket	2	38	529364	GUIDE, Accelerator Rod	1
12	—	*CABLE, Emergency Engine Shut-Off	—	39	4E-06	LKWSHR, Guide to Frame	1
13	1F-316	COTTER	1	40	2D-04	NUT, Ball Joint to Engine	1
14	623762	PIN, Pedal to Bracket	1	41	4E-04	LKWSHR, Ball Joint to Engine	1
15	533585	KNOB, Engine Shut-Off Rod	1	42	8D-04	NUT, Ball Joint Jam	1
16	1F-207	COTTER	1	43	361938	BALL JOINT, Rod to Engine	1
17	623829	PEDAL, Accelerator	1	44	2D-06	NUT, Guide to Frame	1
18	4F-04051	PIN, Rod to Pedal	1	45	530927	ROD, Accelerator	1
19	550619	ROD, Pedal to Bell Crank	1	46	530930	ROD, Bell Crank to Engine	1
20	2C-448	BOLT, Stop to Floorboard	1	47	8D-04	NUT, Clevis Jam	1
21	551016	STOP, Pedal	1	48	2J-4200	CLEVIS, Rod to Bell Crank	1
22	4E-04	LKWSHR, Stop to Floorboard	1	49	8D-05	NUT, Ball Joint Arm	1
23	2D-04	NUT, Stop to Floorboard	1	50	361939	BALL JOINT	1
24	8D-04	NUT, Clevis Jam	1	51	4E-05	LKWSHR, Ball Joint to Bell Crank	1
25	2J-4200	CLEVIS, Rod to Bell Crank	1	52	2D-05	NUT, Ball Joint to Bell Crank	1
26	2C-410	BOLT, Bell Crank to Floorboard	2	53	530932	BRACKET, Bell Crank & Guide to Engine	1
27	550792	BELL CRANK, Front	1	54	4E-04	LKWSHR, Bell Crank & Guide to Bracket	2
28	4E-04	LKWSHR, Bell Crank to Floorboard	2	55	2D-04	NUT, Bell Crank & Guide to Bracket	2
29	2D-04	NUT, Bell Crank to Floorboard	2				

*Furnished with engine. See your local GM distributor for replacement or service on this part.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

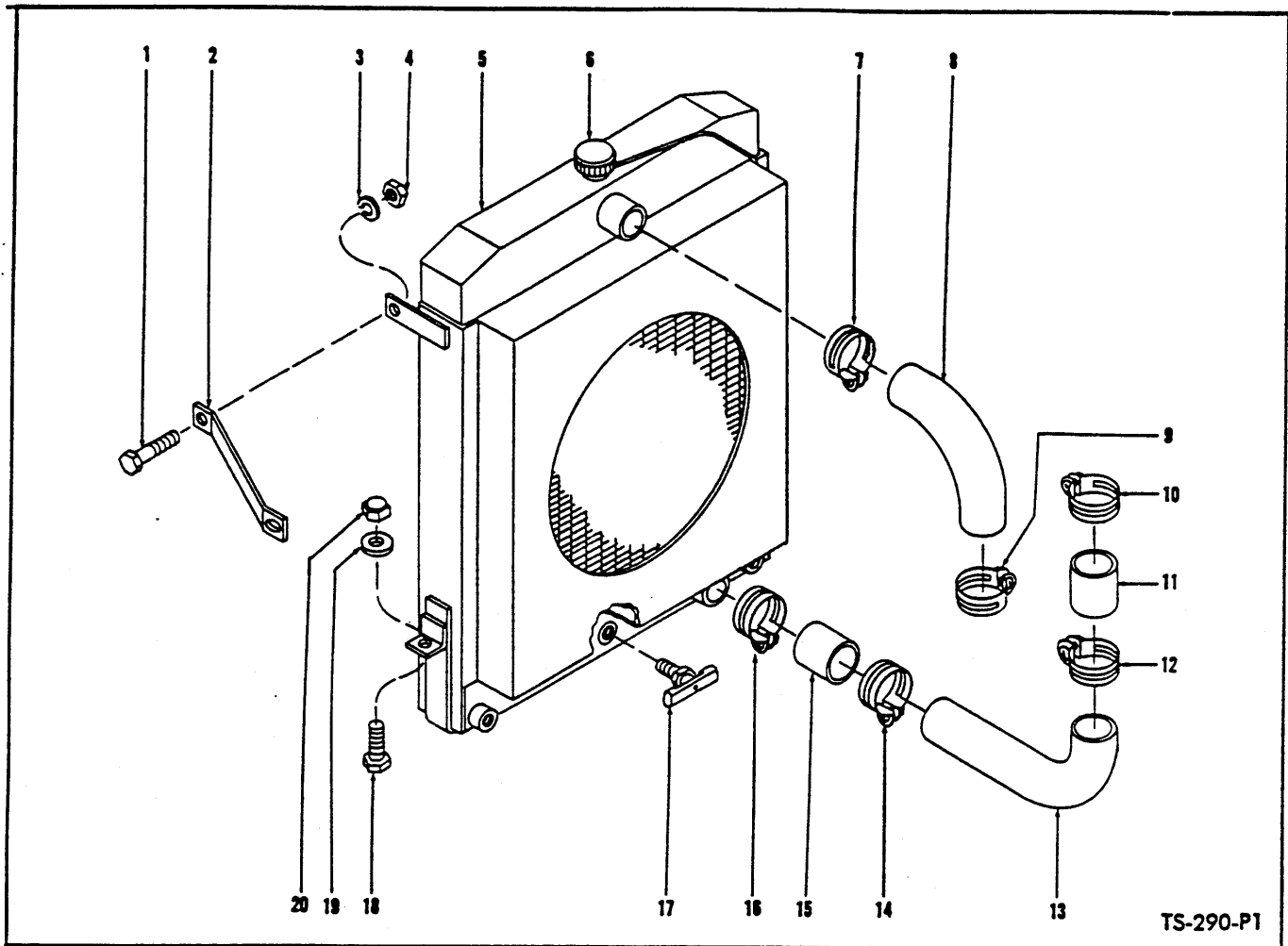


TS-2604-P

ACCELERATOR PEDAL AND LINKAGE – WAUKESHA GAS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	514624	ROD, Choke	1	22	2C-410	BOLT, Bracket to Floorboard	2
2	551090	SPRING, Choke Rod Return	1	22A	2D-04	NUT, Bracket to Floorboard	2
3	1F-316	COTTER, Clevis Pin	1	22B	4E-04	LKWSHR, Bracket to Floorboard	2
4	623762	PIN, Pedal to Bracket	1	23	4F-04051	PIN, Clevis to Bell Crank	1
5	551178	KNOB, Choke Rod	1	24	2J-4200	CLEVIS, Rod to Bell Crank	1
6	1F-207	COTTER, Clevis Pin	1	25	8D-04	NUT, Clevis Jam	1
7	623829	PEDAL, Accelerator	1	26	1F-207	COTTER, Clevis Pin	1
8	4F-04051	PIN, Pedal to Rod	1	27	551015	BRACKET, Accelerator Pedal Pivot	1
9	550619	ROD, Pedal to Bell Crank	1	28	514622	ROD, Accelerator	1
10	2C-448	BOLT, Stop to Floorboard	1	29	551090	SPRING, Pedal Return	1
11	551016	STOP, Accelerator Pedal	1	30	550624	GUIDE, Accelerator Rod	1
12	8D-04	NUT, Clevis Jam	1	31	8D-04	NUT, Ball Joint Jam	1
13	4F-04051	PIN, Clevis to Bell Crank	1	32	8D-04	NUT, Ball Joint Attaching	1
14	4E-04	LKWSHR, Stop to Floorboard	1	33	4E-04	LKWSHR, Ball Joint Attaching	1
15	2D-04	NUT, Stop to Floorboard	1	34	361938	BALL JOINT, Rod to Carburetor	1
16	2C-410	BOLT, Bell Crank to Floorboard	1	35	2D-06	NUT, Guide Attaching	1
17	2J-4200	CLEVIS, Rod to Bell Crank	1	36	4E-06	LKWSHR, Guide Attaching	1
18	550616	BELL CRANK	1	37	2C-616	BOLT, Guide Attaching	1
19	4E-04	LKWSHR, Bell Crank to Floorboard	1	38	1F-208	COTTER, Clevis Pin	1
20	2D-04	NUT, Bell Crank to Floorboard	1	39	4F-03038	PIN, Choke Rod to Choke	1
21	1F-207	COTTER, Clevis Pin	1				

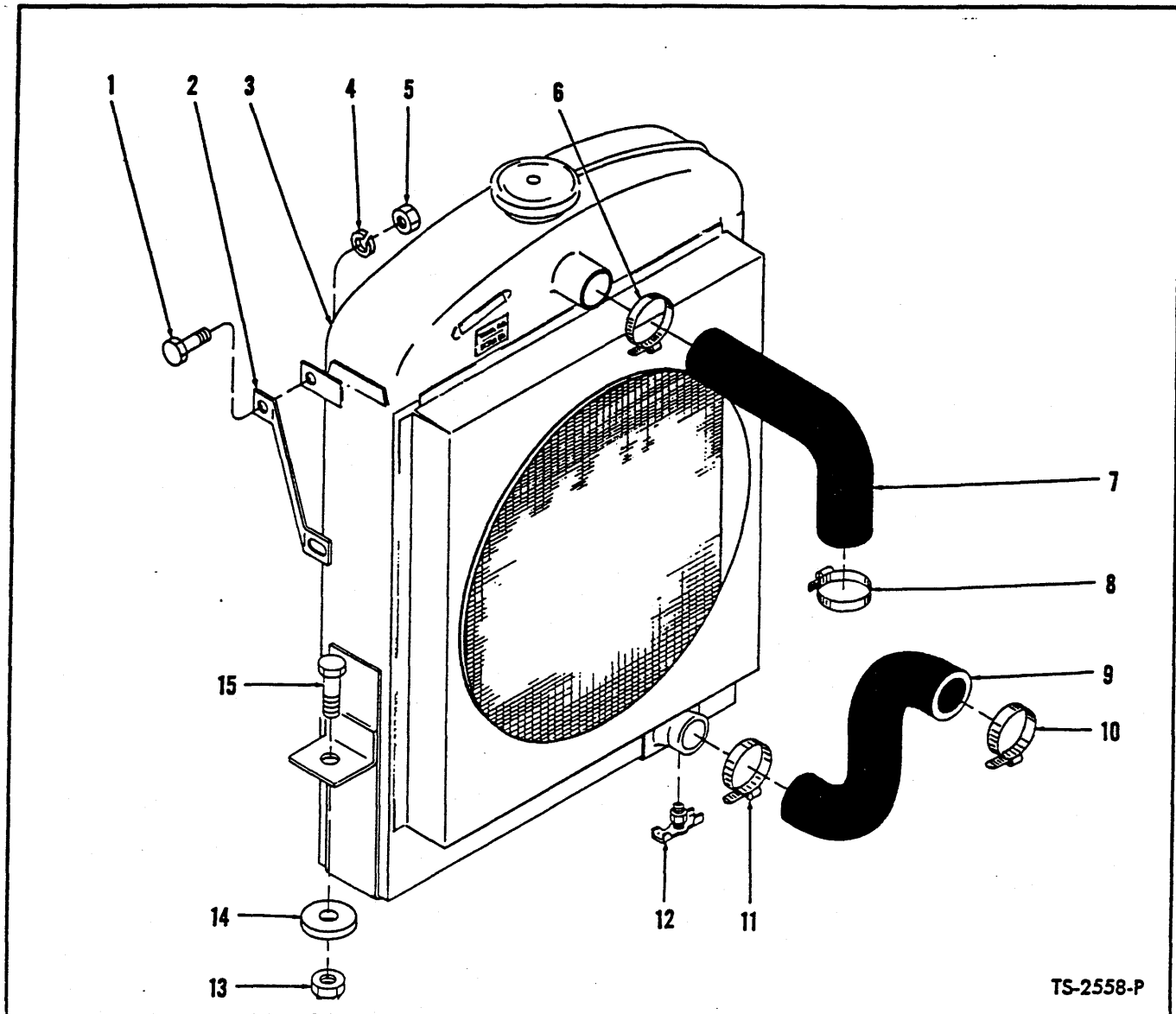
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

**RADIATOR AND CONNECTIONS – WAUKESHA**

Item No.	Part No.	Description	No. Req'd.
1	2C-614	BOLT, Clip to Radiator	2
2	514658	CLIP, Radiator to Grille	2
3	4E-06	LKWSHR, Clip to Radiator	2
4	2D-06	NUT, Clip to Radiator	2
5	514963	RADIATOR	1
6	351495	CAP, Radiator (Inc. 6A)	1
6A	862093	†GASKET, Radiator Cap	1
7	784663	CLAMP, Hose	1
8	941439	HOSE, Upper Radiator	1
9	784663	CLAMP, Hose	1
10	784663	CLAMP, Hose	1
11	1M-16030	HOSE, Lower Radiator	1
12	784663	CLAMP, Hose	1
13	516191	TUBE, Lower Radiator	1
14	784663	CLAMP, Hose	1
15	1M-16030	HOSE, Lower Radiator	1
16	784663	CLAMP, Hose	1
17	73F-2	DRAIN COCK, Radiator	1
18	2C-828	BOLT, Radiator to Frame	2
19	518233	PAD, Radiator to Frame	2
20	21D-08	NUT, Radiator to Frame	2

†Not Illustrated

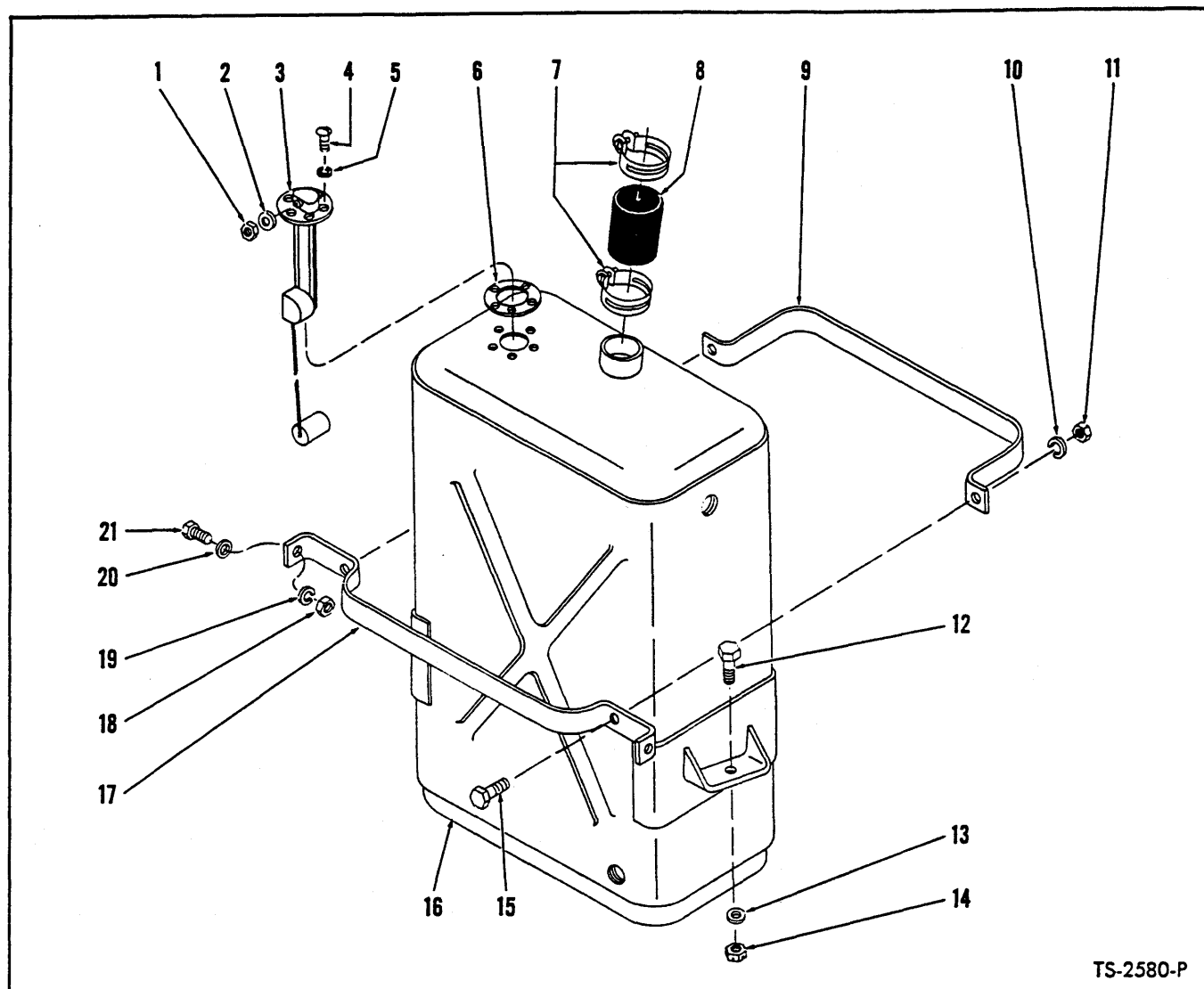
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE


RADIATOR AND CONNECTIONS – G.M.

Item No.	Part No.	Description	No. Req'd.
1	2C-614	BOLT, Clip to Radiator	2
2	514658	CLIP, Radiator to Grille	2
3	1518815	RADIATOR	1
4	4E-06	LKWSHR, Clip to Radiator	2
5	2D-06	NUT, Clip to Radiator	2
6	784663	CLAMP, Hose to Radiator	1
7	531169	HOSE, Radiator – Upper	1
8	784663	CLAMP, Hose to Engine	1
9	531170	HOSE, Radiator – Lower	1
10	784663	CLAMP, Hose to Engine	1
11	784663	CLAMP, Hose to Radiator	1
12	73F-2	DRAIN COCK	1
13	21D-08	NUT, Radiator to Frame	2
14	518233	PAD, Radiator to Frame	2
15	2C-828	BOLT, Radiator to Frame	2
16	351495	†CAP, Radiator (Inc. 17)	1
17	862093	†GASKET, Radiator Cap	1

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TS-2580-P

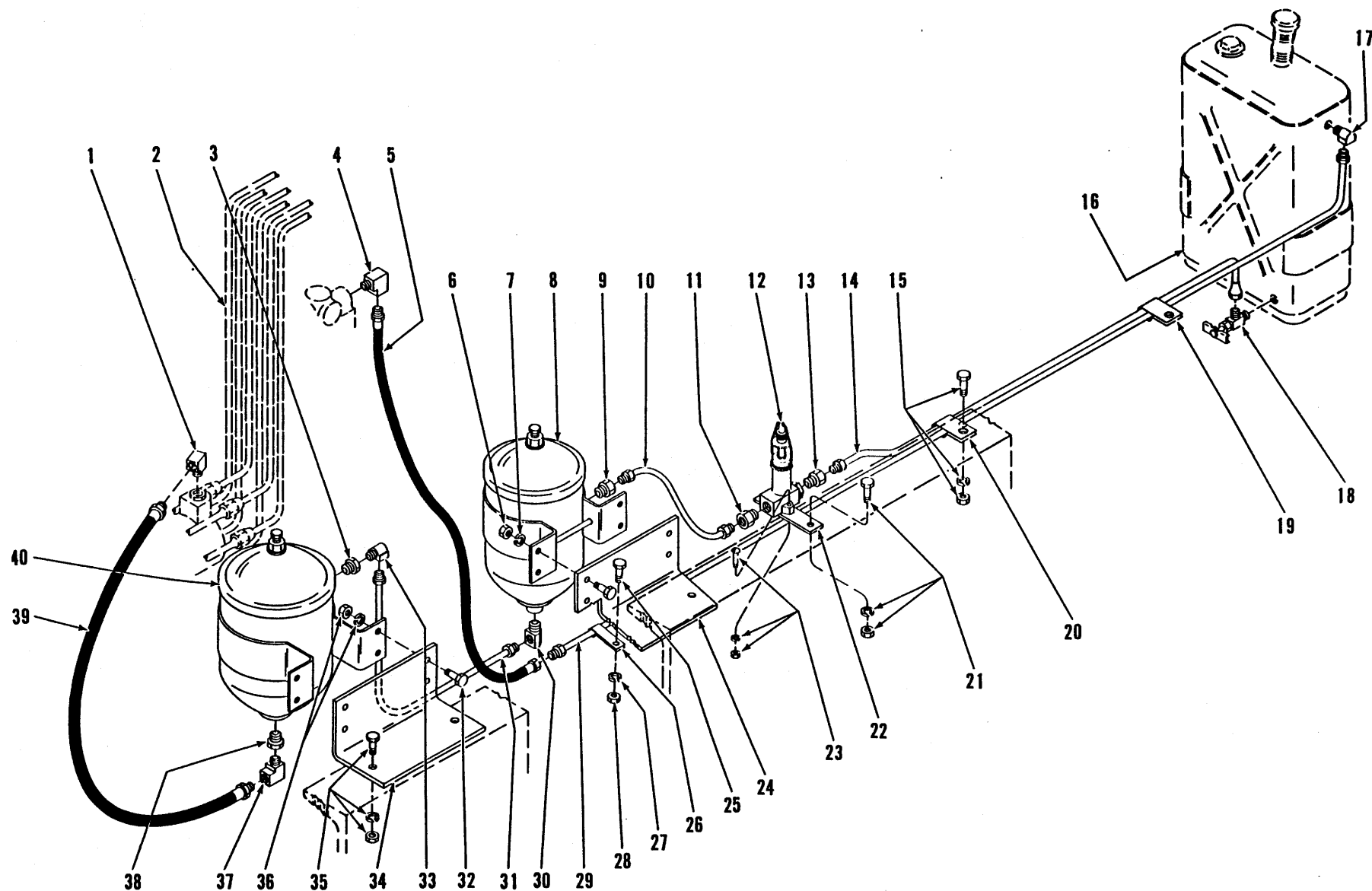
FUEL TANK

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	14D-10	NUT, Sender Terminal	1	13B	518233	For Serial 4141 thru 4629, 1DA375 thru 1DA999, 1DB86 thru 1DB999, 1DG1 thru 1DG999	2
2	12E-10	LKWSHR, Sender Terminal	1	14	21D-08	NUT, Fuel Tank to Frame	2
3	551384	**SENDER UNIT, Fuel	1	15	2C-616	BOLT, Tie Strap to Mounting Strap....	2
4	3G-1008	SCREW, Sender Unit to Tank	5	16		TANK, Fuel	
5	12E-10	LKWSHR, Sender Unit to Tank	5	16A	517073	*For Waukesha Powered Machines	1
6	627982	GASKET, Sender Unit to Tank	1	16B	530923	For G.M. Powered Machines	1
7	522632	CLAMP, Hose	2	17	517616	STRAP, Fuel Tank Mounting	1
8	550712	HOSE, Fuel Filler	1	18	2D-06	NUT, Mounting Strap to Shroud	2
9	517617	STRAP, Fuel Tank Tie	1	19	4E-06	LKWSHR, Mounting Strap to Shroud..	2
10	4E-06	LKWSHR, Tie Strap to Mtg. Strap.....	2	20	103293	WASHER, Mounting Strap to Shroud..	2
11	2D-06	NUT, Tie Strap to Mounting Strap.....	2	21	2C-616	BOLT, Mounting Strap to Shroud	2
12	2C-828	BOLT, Fuel Tank to Frame	2				
13		PAD, Fuel Tank to Frame					
13A	550711	For Serial 4123 thru 4140	2				

*NOTE: When 517073 Fuel Tank is installed in machine serial 4123 thru 4140 use one (1) 942424 Fuel Tank Mounting Kit which includes items 9 thru 15, 17 thru 21.

**NOTE: For replacement use 947263 Kit.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



FUEL LINES — WAUKESHA DIESEL

TS-2720-P

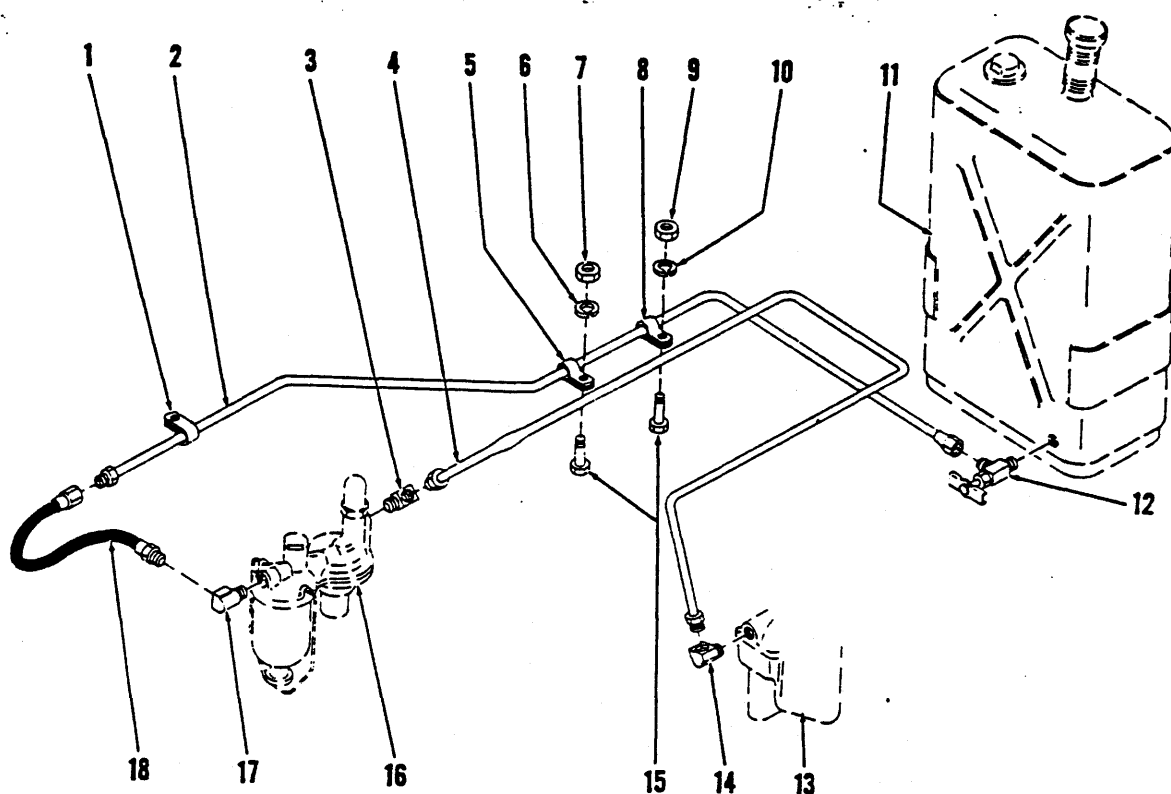
FUEL LINES — WAUKESHA DIESEL

Item No.	Part No.	Description	No. Req'd.
1	618298	ELBOW, Hose to Pump	1
2		SEE ENGINE PARTS MANUAL	—
3	356612	BUSHING, Filter Reducing	1
4	618298	ELBOW, Hose to Manifold	1
5		HOSE, Manifold to Return Line	
5A	550983	For Serial 4123D thru 4197D	1
5B	519952	For Serial 4198D thru 4629D, 1DB86 thru 1DB999	1
6	2D-05	NUT, Filter to Bracket	4
7	4E-05	LKWSHR, Filter to Bracket	4
8	528374	*FILTER ASSY, Primary Fuel (Inc. 8A)	1
8A	940107	†CARTRIDGE KIT, Primary Filter	1
9	59F-6	CONNECTOR, Line to Filter	1
10		LINE, Hand Pump to Filter	
10A	514605	For Serial 4123D thru 4469D	1
10B	528365	For Serial 4469D thru 4629D, 1DB86 thru 1DB999	1
11	59F-6	CONNECTOR, Line to Hand Pump	1
12	751794	PUMP, Hand Primer	1
13	59F-6	CONNECTOR, Line to Hand Pump	1
14	553984	LINE, Tank to Hand Pump	1
15	2C-620	BOLT, Clip to Frame	1
15A	2D-06	NUT, Clip to Frame	1
15B	4E-06	LKWSHR, Clip to Frame	1
16		FUEL TANK — (See Index)	—
17	62F-5	ELBOW, Return Line to Tank	1
18	69F-5	VALVE, Fuel Shut-Off	1
19	552732	CLIP, Fuel Lines	1
20	552732	CLIP, Fuel Lines	1
21	2C-620	BOLT, Bracket to Frame	2
21A	2D-06	NUT, Bracket to Frame	2
21B	4E-06	LKWSHR, Bracket to Frame	2
22	553986	BRACKET, Hand Pump Mounting	1
23	2G-1018	SCREW, Pump to Bracket	2
23A	14D-10	NUT, Pump to Bracket	2
23B	12E-10	LKWSHR, Pump to Bracket	2
24	550757	BRACKET, Primary Filter	1
25	2C-620	BOLT, Clip to Frame	1
26	6H-9	CLIP, Return Line	1
27	4E-06	LKWSHR, Clip to Frame	1
28	2D-06	NUT, Clip to Frame	1
29	514606	LINE, Return Fuel	1
30	62F-6	ELBOW, Line to Filter	1
31	553982	LINE, Primary to Secondary Filter	1
32	2C-512	BOLT, Filter to Bracket	4
33	62F-6	ELBOW, Line to Filter	1
34	550757	BRACKET, Secondary Filter Mounting	1
35	2C-616	BOLT, Primary & Secondary Bracket	4
35A	2D-06	NUT, Primary & Secondary Bracket	4
35B	4E-06	LKWSHR, Primary & Secondary Bracket	4
36	2D-05	NUT, Filter to Bracket	4
36A	4E-05	LKWSHR, Filter to Bracket	4
37	618298	ELBOW, Hose to Filter	1
38	356612	BUSHING, Filter Reducing	1
39	550876	HOSE, Secondary Filter to Pump	1
40	553858	FILTER, Secondary Fuel (Inc. 40A)	1
40A	945353	†CARTRIDGE KIT, Secondary Filter	1

*NOTE: When 528374 is installed in machines Serial Numbers 4123 thru 4469, a new fuel intake line will have to be fabricated. Use two (2) 92F-5 inverted flare tube steel nuts and 3/8" O.D. copper tubing to make new line.

†Not Illustrated

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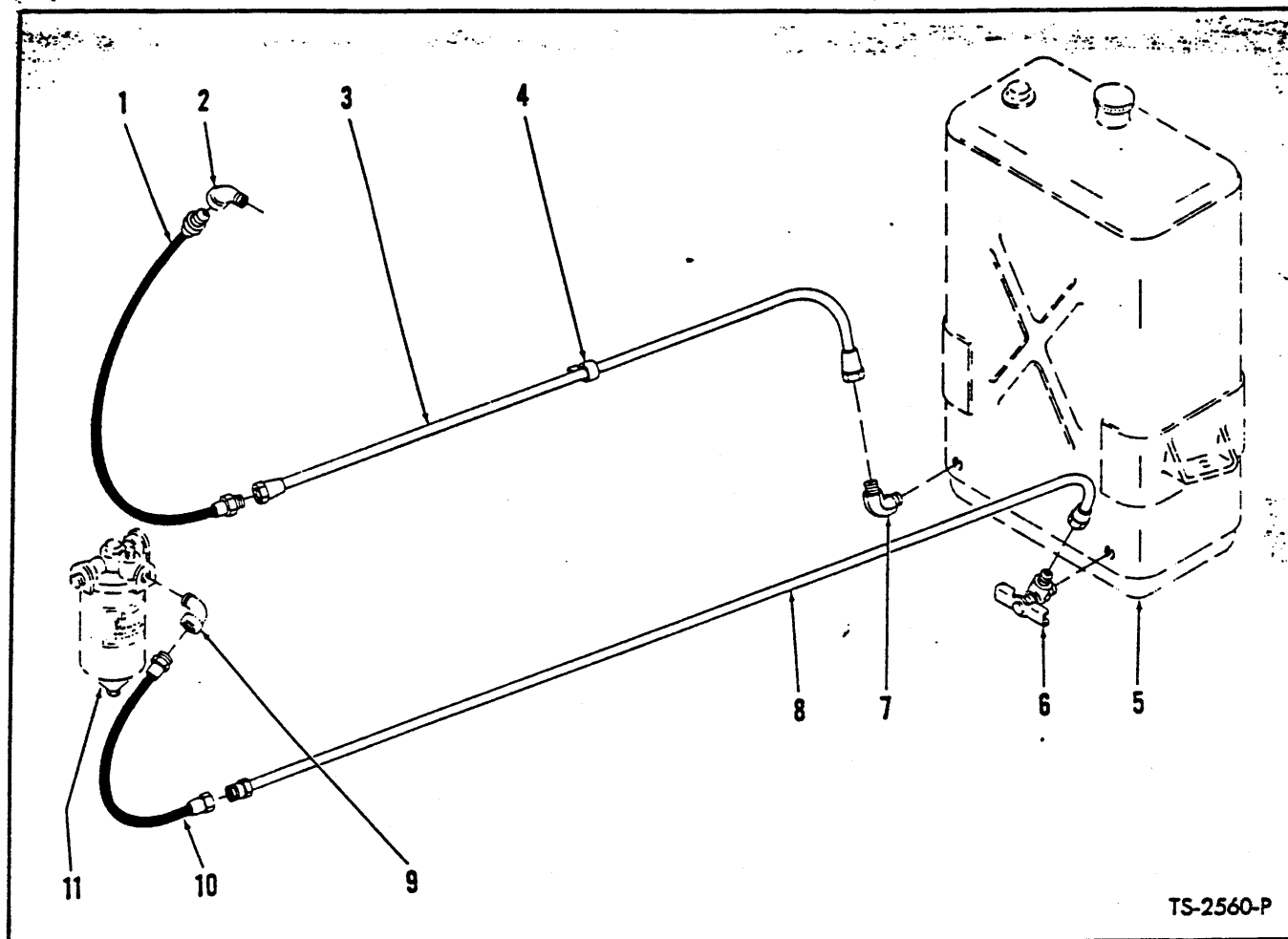


TS-2717-P

FUEL LINES — WAUKESHA GAS

Item No.	Part No.	Description	No. Req'd.
1	6H-9	CLIP, Fuel Line	1
2	516188	FUEL LINE, Tank to Fuel Pump	1
3	62F-4	ELBOW, Line to Fuel Pump	1
4	552827	FUEL LINE, Fuel Pump to Carburetor	1
5	6H-9	CLIP, Fuel Line	1
6	4E-06	LKWSHR, Clip to Frame	1
7	2D-06	NUT, Clip to Frame	1
8	6H-9	CLIP, Fuel Line	1
9	2D-06	NUT, Clip to Frame	1
10	4E-06	LKWSHR, Clip to Frame	1
11	—	FUEL TANK — (See Index)	—
12	69F-4	VALVE, Fuel Shut-Off	1
13	—	CARBURETOR — (See Index)	—
14	62F-4	ELBOW, Line to Carburetor	1
15	2C-616	BOLT, Clip to Frame	2
16	—	FUEL PUMP — (See Index)	—
17	620558	ELBOW, Hose to Fuel Pump	1
18	550984	HOSE, Line to Fuel Pump	1

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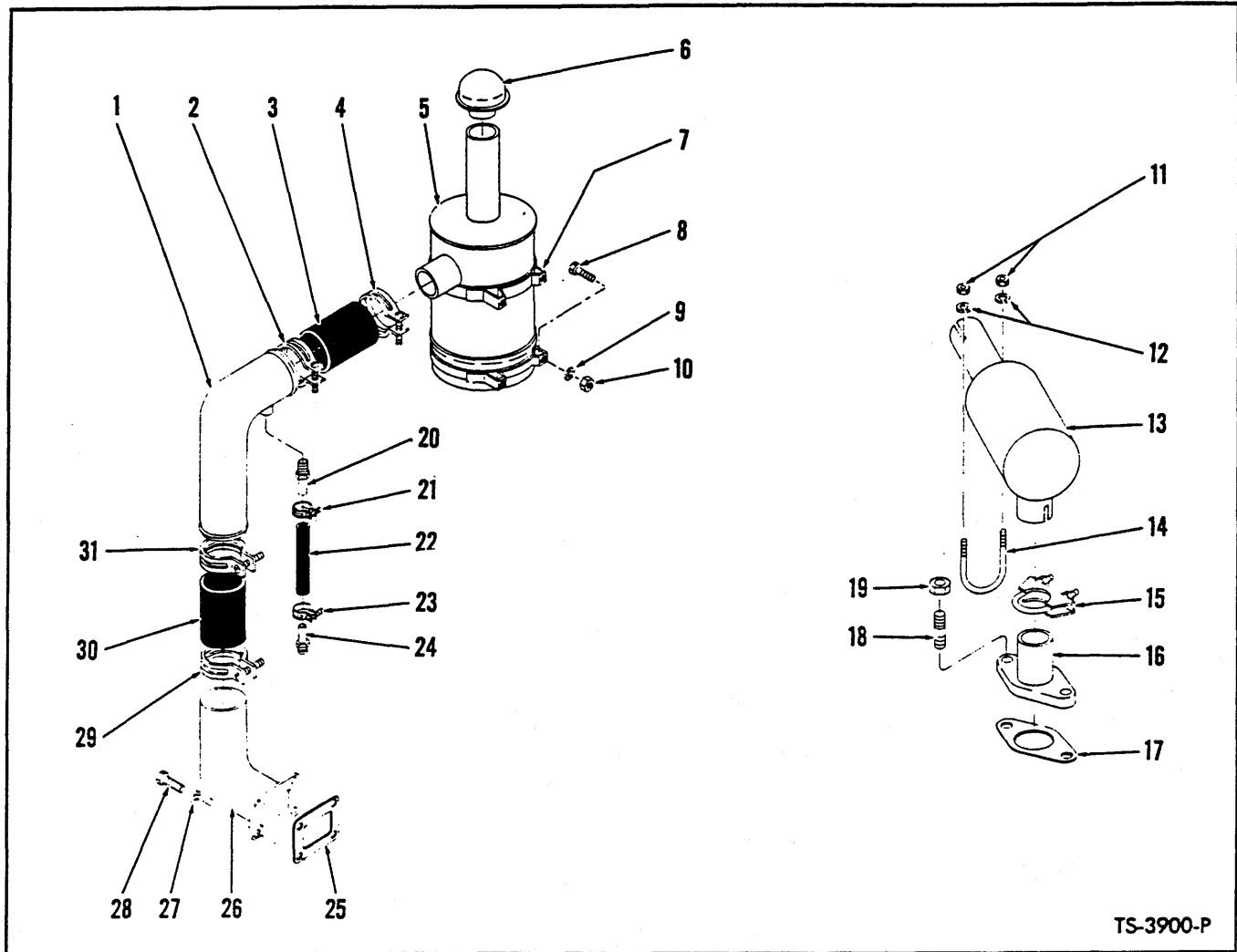


FUEL LINES — G.M.

Item No.	Part No.	Description	No. Req'd.
1	524958	HOSE, Fuel Return.....	1
2	531165	ELBOW, Nozzle to Hose	1
3	530924	LINE, Fuel Return	1
4	6H-10	CLIP, Fuel Line	5
5	—	FUEL TANK — (See Index) ..	—
6	69F-5	VALVE, Shut-Off	1
7	42F-6	ELBOW, Fuel Return Line to Tank	1
8	509291	LINE, Fuel Supply	1
9	30K-304	ELBOW, Hose to Filter.....	1
10	512133	HOSE, Fuel Supply	1
11	—	*FUEL FILTER	—

*This part is furnished with engine, see your local GM distributor for service or replacement.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

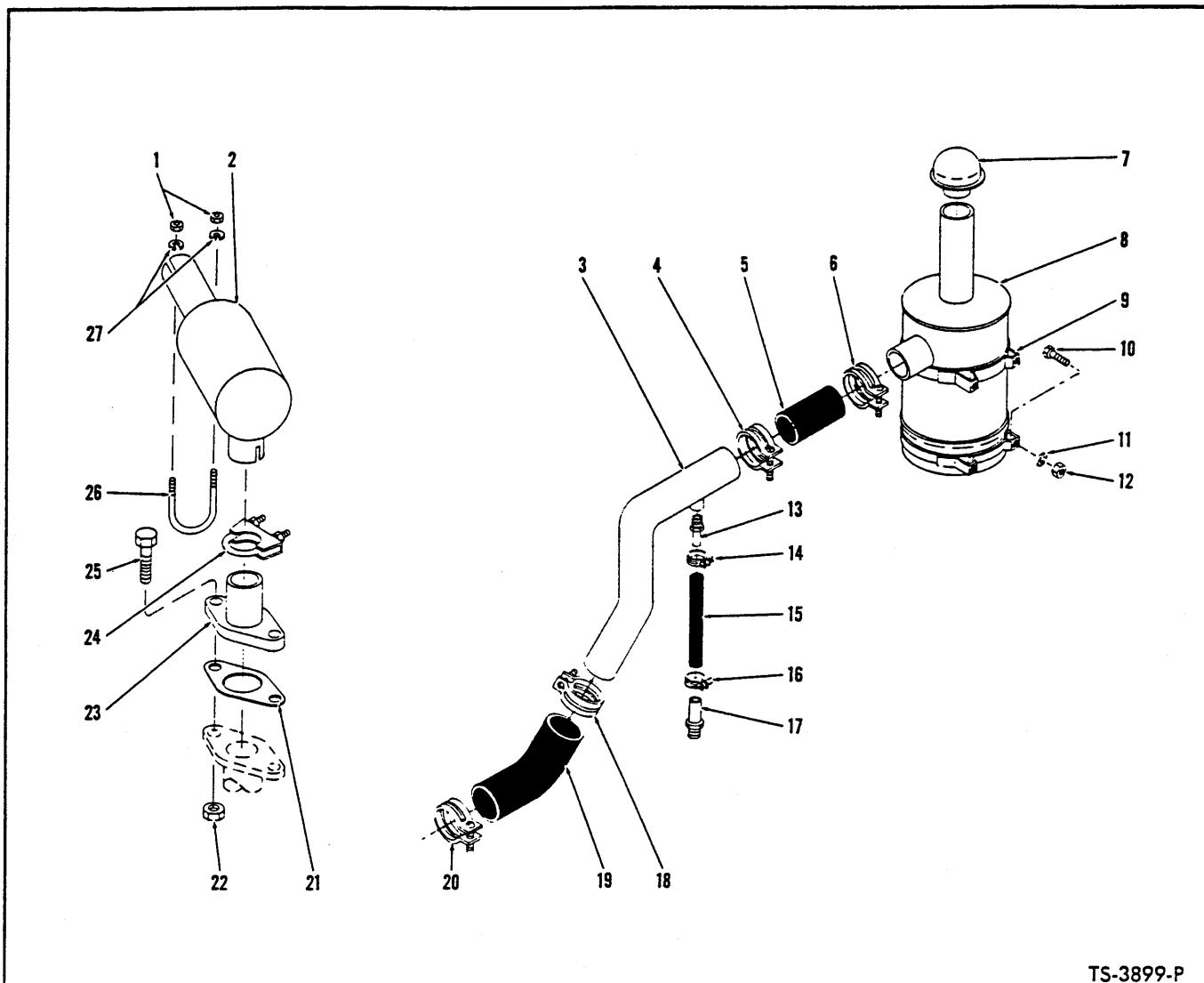


TS-3900-P

AIR CLEANER AND MUFFLER — WAUKESHA DIESEL*

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	518527	TUBE, Air Intake	1	17	551677	GASKET, Manifold Adapter	1
2	875248	CLAMP, Hose	1	18	610033	STUD, Adapter to Manifold	2
3	521217	HOSE, Tube to Air Cleaner	1	19	15D-08	NUT, Adapter to Manifold	2
4	875248	CLAMP, Hose	1	20	655281	NIPPLE, Hose	1
5	542576	AIR CLEANER	1	21	4H-15	CLAMP, Hose	1
6	551659	CAP, Air Cleaner	1	22	712175	HOSE, Valve Cover Breather	1
7	551660	STRAP, Air Cleaner	2	23	4H-15	CLAMP, Hose	1
8	2C-512	BOLT, Air Cleaner to Reservoir	4	24	655281	NIPPLE, Hose	1
9	4E-05	LKWSHR, Air Cleaner to Reservoir	4	25	551670	GASKET, Intake Manifold Adapter	1
10	2D-05	NUT, Air Cleaner to Reservoir	4	26	551667	ADAPTER, Intake Manifold	1
11	2D-05	NUT, Muffler to Hood	2	27	4E-04	LKWSHR, Adapter to Manifold	4
12	4E-05	LKWSHR, Muffler to Hood	2	28	1C-414	BOLT, Adapter to Manifold	4
13	516190	MUFFLER	1	29	875248	CLAMP, Hose	1
14	551528	U-BOLT, Muffler to Hood	1	30	521217	HOSE, Tube to Adapter	1
15	550652	CLAMP, Muffler to Adapter	1	31	875248	CLAMP, Hose	1
16	551673	ADAPTER, Exhaust Manifold	1				

*Ref. SG-711

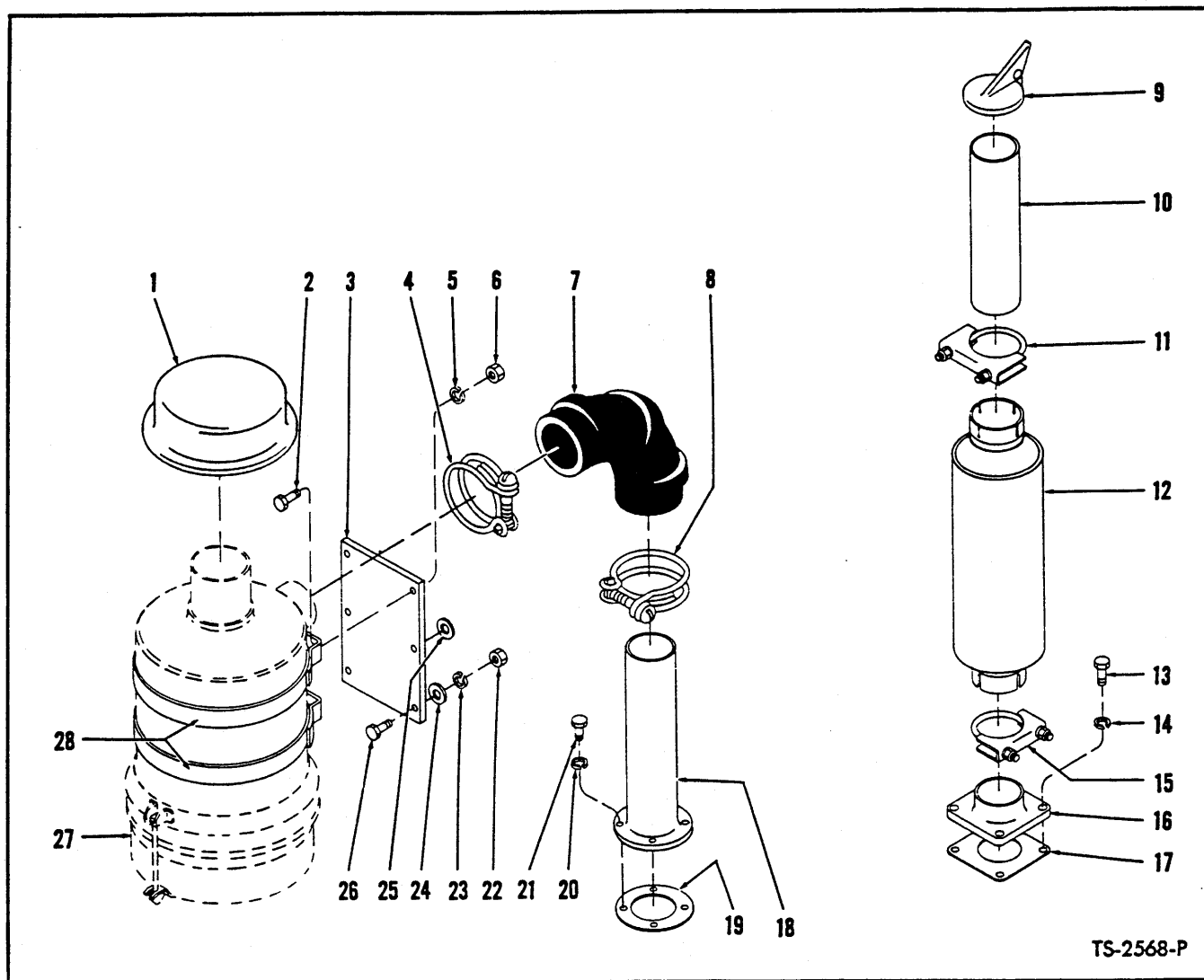


TS-3899-P

AIR CLEANER AND MUFFLER — WAUKESHA GAS*

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	2D-05	NUT, Muffler to Hood	2	15	550354	HOSE, Valve Cover Breather	1
2	516190	MUFFLER	1	16	4H-15	CLAMP, Hose	1
3	515049	TUBE, Air Intake	1	17	655281	NIPPLE, Hose	1
4	875248	CLAMP, Hose	1	18	875248	CLAMP, Hose	1
5	551663	HOSE, Tube to Air Cleaner	1	19	550657	HOSE, Tube to Carburetor	1
6	875248	CLAMP, Hose	1	20	875248	CLAMP, Hose	1
7	551659	CAP, Air Cleaner	1	21	551677	GASKET, Exhaust Manifold Adapter	1
8	542576	AIR CLEANER	1	22	15D-08	NUT, Adapter to Manifold	1
9	551660	STRAP, Air Cleaner	2	23	551672	ADAPTER, Exhaust Manifold	1
10	2C-512	BOLT, Air Cleaner to Reservoir	4	24	550652	CLAMP, Muffler to Adapter	1
11	4E-05	LKWSHR, Air Cleaner to Reservoir	4	25	1C-832	BOLT, Adapter to Manifold	1
12	2D-05	NUT, Air Cleaner to Reservoir	4	26	551528	U-BOLT, Muffler to Hood	1
13	655281	NIPPLE, Hose	1	27	4E-05	LKWSHR, Muffler to Hood	2
14	4H-15	CLAMP, Hose	1				

*Ref. SG-681

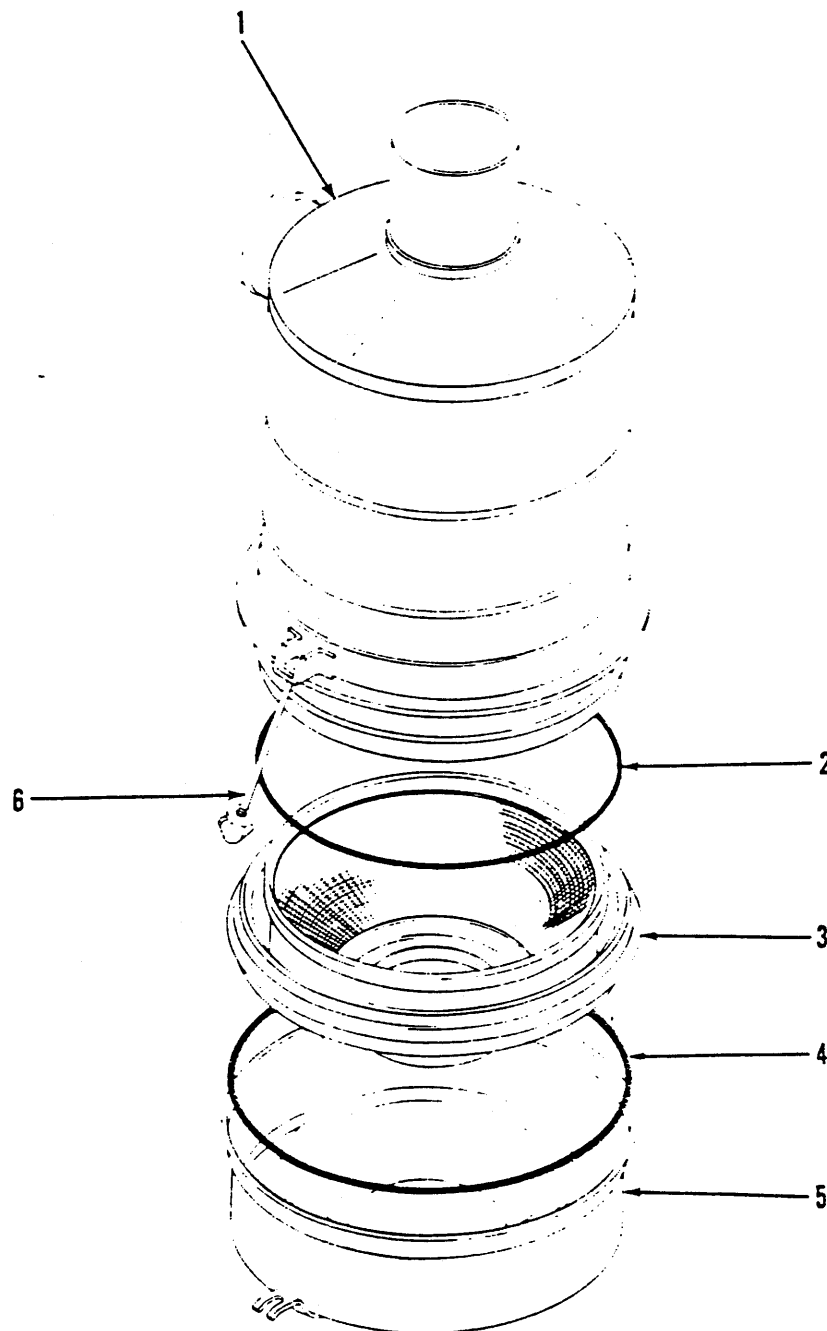


TS-2568-P

AIR CLEANER AND MUFFLER — G.M.*

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	511512	CAP, Air Cleaner.....	1	16	509300	ADAPTER, Exhaust Manifold	1
2	2C-620	BOLT, Air Cleaner to Bracket.....	4	17	509303	GASKET, Manifold Flange.....	1
3	509456	BRACKET, Air Cleaner to Hood.....	1	18	509295	TUBE, Air Intake Manifold.....	1
4	21H-74	CLAMP, Hose to Air Cleaner.....	1	19	509299	GASKET, Manifold Flange.....	1
5	4E-06	LKWSHR, Air Cleaner to Bracket.....	4	20	4E-05	LKWSHR, Flange to Intake Manifold..	4
6	2D-06	NUT, Air Cleaner to Bracket.....	4	21	1C-516	BOLT, Flange to Intake Manifold	4
7	515425	HOSE, Air Cleaner to Intake Tube....	1	22	2D-06	NUT, Bracket to Hood.....	2
8	21H-74	CLAMP, Hose to Inlet Tube.....	1	23	4E-06	LKWSHR, Bracket to Hood.....	2
9	511493	CAP, Rain	1	24	619021	WASHER, Bracket to Hood.....	2
10	509304	TAIL PIPE	1	25	619021	WASHER, Air Cleaner & Bracket to Hood	2
11	507069	CLAMP, Muffler to Tail Pipe	1	26	2C-616	BOLT, Bracket to Hood.....	2
12	507066	MUFFLER	1	27	—	AIR CLEANER ASSY — (See Index)	—
13	2C-716	BOLT, Flange to Exhaust Manifold.....	4	28	941474	STRAP, Air Cleaner Mounting.....	2
14	4E-07	LKWSHR, Flange to Exhaust Manifold	4				
15	507069	CLAMP, Muffler to Flange.....	1				

*Ref. SG-711



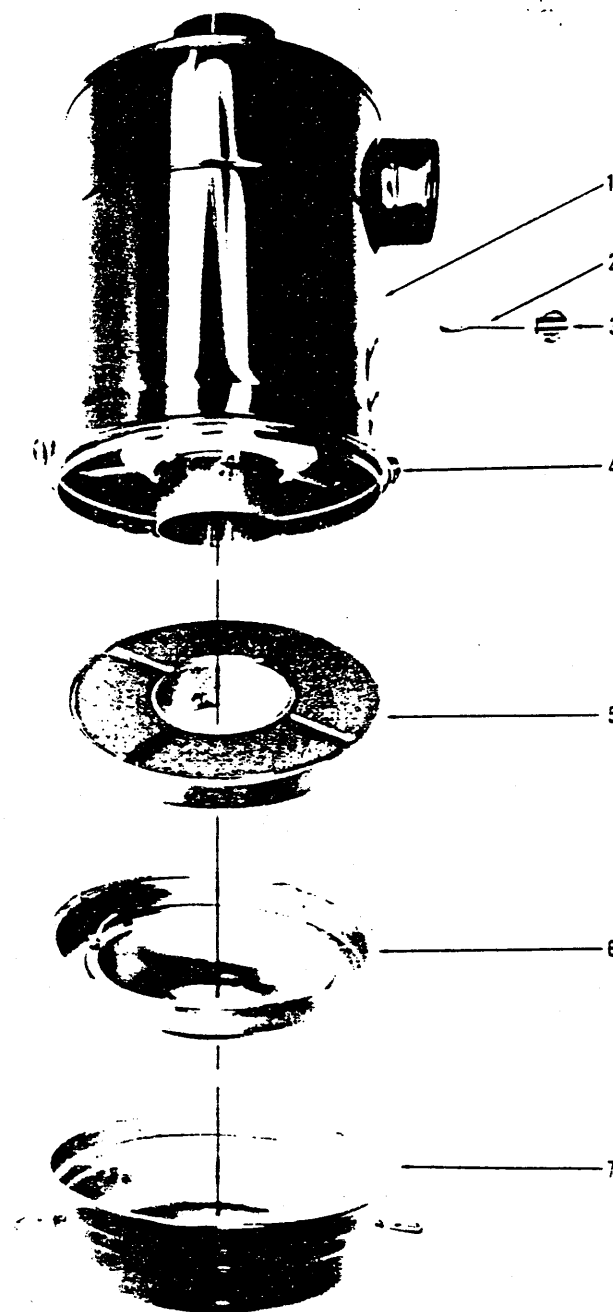
TS-2544-P

AIR CLEANER ASSEMBLY — G.M.

Item No.	Part No.	Description	No. Req'd
A	420696	*AIR CLEANER ASSY (Inc. 1 thru 6). For Serial 1DG26 thru 1DG173	1
1	—	§BODY (See "A")	—
2	878660	"O" RING	1
3	878659	TRAY	1
4	878660	"O" RING	1
5	878661	OIL CUP	1
6	874962	ROD, Side	2

*NOTE: For complete replacement of 420696 use 542333 located in Parts Manual Supplement No. 1780 in rear of Parts Manual.
 ‡Not Sold Separately — Order complete assembly.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TS-4357

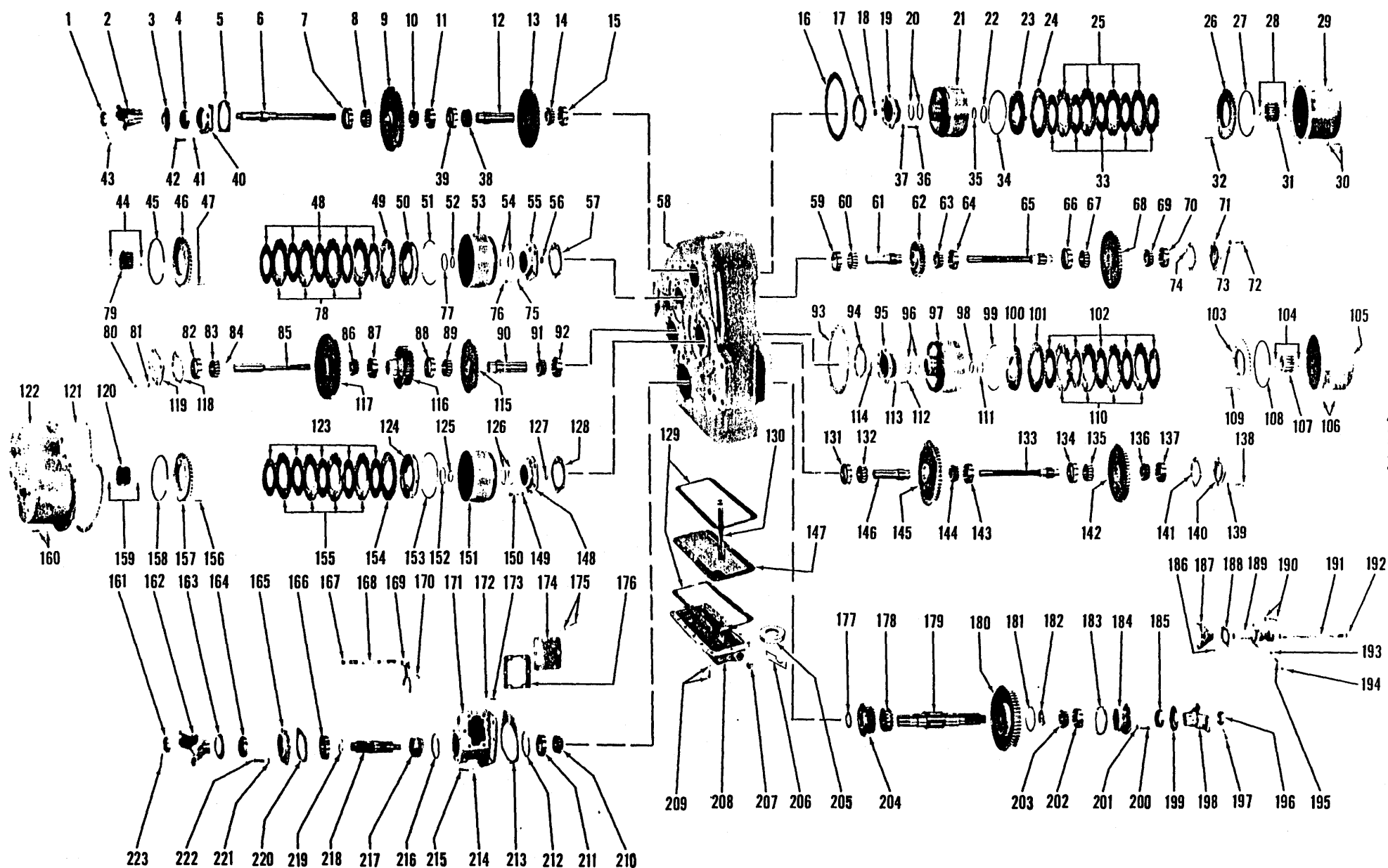
AIR CLEANER ASSEMBLY — G.M.

(For Serial 1DG174 and After)

Item No.	Part No.	Description	No. Req'd
A	542333	AIR CLEANER ASSY (Inc. 1 thru 7)	1
1	-----	§BODY (See "A")	1
2	891814	HOOK	2
3	891815	NUT, Wing	2
4	891813	BAND ASSY	1
5	891588	ELEMENT	1
6	891811	CUP, Inner Oil	1
7	891812	CUP, Outer Oil	1

§Not Sold Separately — Order Complete Assembly

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



(1G3)

TRANSMISSION ASSEMBLY

TS-2588-P

For Serial 4123 thru 4128, 4130, 4131, 4133 thru 4153, 4155, 4156, 4157, 4159 thru 4214

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	280071	* TRANSMISSION ASSY (Inc. 1 thru 227)	1	33	216677	DISC, Clutch Inner	5
1	201951	NUT, Input Flange	1	34	208776	RING, Piston Outer Sealing	1
2	209343	FLANGE ASSY, Input (Inc. 3)	1	35	224097	RING, Drum Hub Retaining	1
3	100949	DEFLECTOR, Input Flange	1	36	1C-718	BOLT, Bearing Cap	4
4	206864	SEAL, Input Shaft Oil	1	37	4E-07	LKWSHR, Bearing Cap	4
5	209340	‡SHIM, Bearing Cap — .004"	—	38	675548	CONE, Quill Shaft Bearing	1
5A	209341	‡SHIM, Bearing Cap — .007"	—	39	675544	CUP, Quill Shaft Bearing	1
5B	209342	‡SHIM, Bearing Cap — .010"	—	39A	223881	†RING, Bearing Locating	1
6	216674	SHAFT, Input	1	40	209339	CAP, Input Shaft Bearing	1
7	675544	CUP, Input Shaft Bearing	1	41	4E-07	LKWSHR, Bearing Cap	4
8	675547	CONE, Input Shaft Bearing	1	42	1C-718	BOLT, Bearing Cap	4
9	209377	GEAR, Input Shaft Reverse (45T)	1	43	1F-424	COTTER, Flange Nut	1
10	675547	CONE, Input Shaft Bearing	1	44	224068	RING, Clutch Disc Hub Retaining	2
11	675544	CUP, Input Shaft Bearing	1	45	223942	RING, End Plate Retaining	1
11A	223881	†RING, Bearing Locating	1	46	208760	PLATE, Clutch Disc End	1
12	209368	SHAFT, Input Quill	1	47	216697	SPRING, Clutch Disc Release	10
13	209369	GEAR, Input Shaft Forward (43T)	1	48	216677	DISC, Clutch Inner	5
14	675548	CONE, Quill Shaft Bearing	1	49	221998	DISC, Clutch Outer	1
15	675544	CUP, Quill Shaft Bearing	1	50	221996	PISTON, Clutch	1
16	221401	GASKET, Clutch Cover	1	51	208776	RING, Piston Outer Sealing	1
17	209392	‡SHIM, Bearing Cap — .004"	—	52	224097	RING, Drum Hub Retaining	1
17A	209393	‡SHIM, Bearing Cap — .007"	—	53	222410	DRUM ASSY (Inc. 53A, 53B)	1
17B	209394	‡SHIM, Bearing Cap — .010"	—	53A	222407	†HOUSING, Bleed Valve	1
17C	221208	‡SHIM, Bearing Cap — .020"	—	53B	10J-06	†BALL, Bleed Valve	1
18	25K-30016	"O" RING, Bearing Cap	1	53C	—	†SHUB, Clutch Drum (See 53)	1
19	209391	CAP, Clutch Bearing	1	53D	209932	†PIN, Pressure Relief	1
20	209387	RING, Drum Hub Sealing	2	53E	209389	†SPRING, Pressure Relief	1
21	222410	DRUM ASSY, Clutch (Inc. 21A, 21B)	1	53F	220678	†GUARD, Relief Spring	1
21A	222407	†HOUSING, Bleed Valve	1	53G	209937	†WASHER, Relief Spring	1
21B	10J-06	†BALL, Bleed Valve	1	53H	619023	†WASHER, Clutch Drum Balance	1
21C	—	†SHUB, Clutch Drum (See 21)	1	53J	100284	†BOLT, Drum to Hub	8
21D	209932	†PIN, Pressure Relief	1	54	209387	RING, Drum Hub Sealing	2
21E	209389	†SPRING, Pressure Relief	1	55	209391	CAP, Clutch Bearing	1
21F	220678	†GUARD, Relief Spring	1	56	25K-30016	"O" RING, Bearing Cap	1
21G	209937	†WASHER, Relief Spring	1	57	209392	‡SHIM, Bearing Cap — .004"	—
21H	619023	†WASHER, Clutch Drum Balance	1	57A	209393	‡SHIM, Bearing Cap — .007"	—
21J	100284	†BOLT, Drum to Hub	8	57B	209394	‡SHIM, Bearing Cap — .010"	—
22	234038	RING, Piston Inner Sealing	1	57C	221208	‡SHIM, Bearing Cap — .020"	—
23	221996	PISTON, Clutch	1	58	800815	CASE ASSY, Transmission (Inc. 129, 130, 147, 207, 208, 209)	1
24	221998	DISC, Clutch Outer	1	59	675544	CUP, Quill Shaft Bearing	1
25	208773	DISC, Clutch Outer	4	60	675548	CONE, Quill Shaft Bearing	1
26	208760	PLATE, Clutch Disc End	1	61	209368	SHAFT, 1st & 3rd Quill	1
27	223942	RING, End Plate Retaining	1	62	209374	GEAR, 1st & 3rd Drive (29T)	1
28	224068	RING, Clutch Disc Hub Retaining	2	63	675548	CONE, Quill Shaft Bearing	1
29	209358	COVER, Clutch	1	64	675544	CUP, Quill Shaft Bearing	1
30	5C-614	BOLT & LKWSHR, Clutch Cover	10	64A	223881	†RING, Bearing Locating	1
31	216673	HUB, Clutch Disc	1	65	216671	SHAFT, 1st & 3rd Drive	1
32	216697	SPRING, Clutch Disc Release	10				

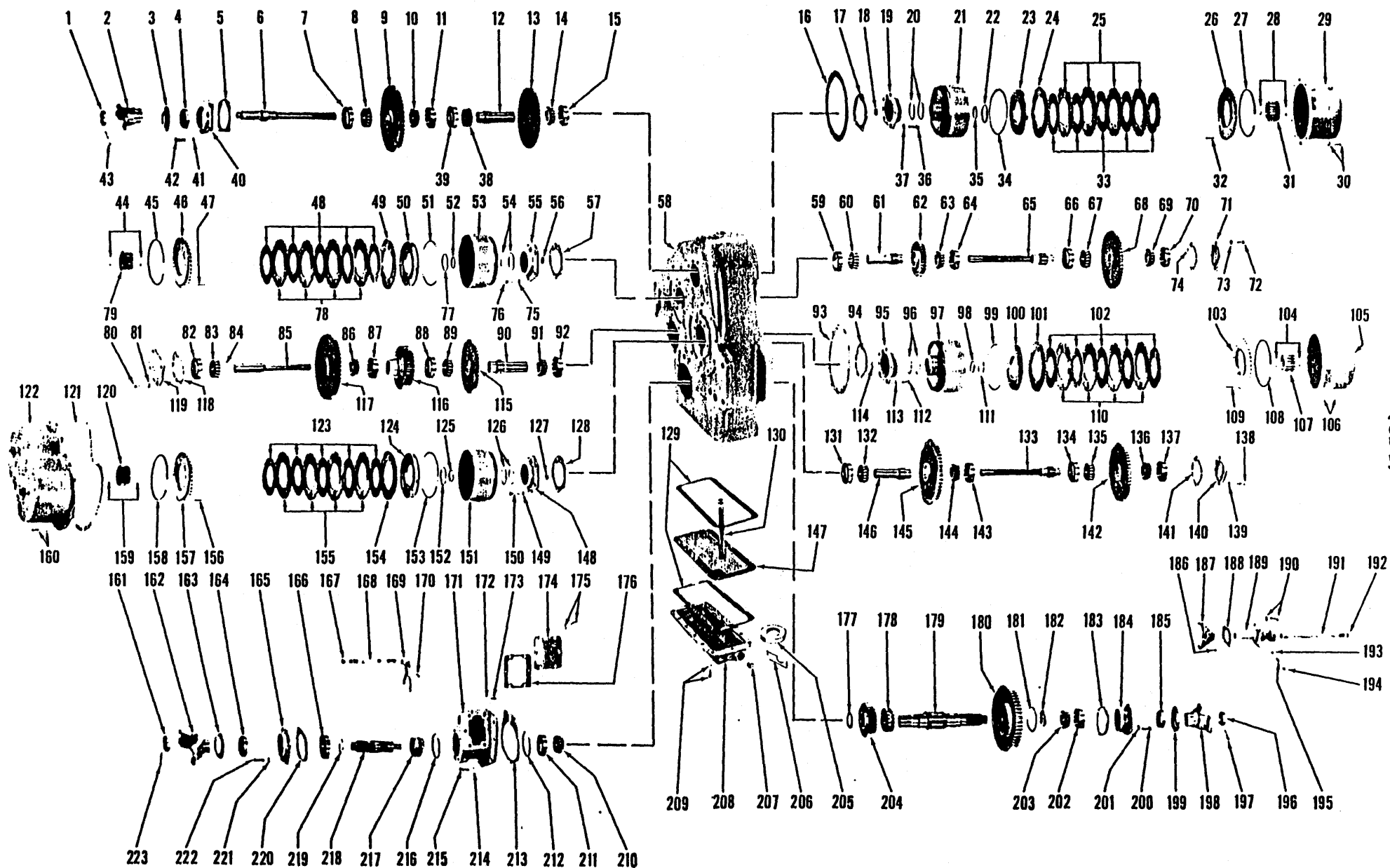
‡As Required

†Not Illustrated

§Not Sold Separately

*NOTE: For complete replacement of 280071 use 281740. It should be noted that when this conversion is made the transmission will De-Clutch in forward speeds only whereas previous units would De-Clutch in both forward and reverse.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TRANSMISSION ASSEMBLY

TRANSMISSION ASSEMBLY (Continued)

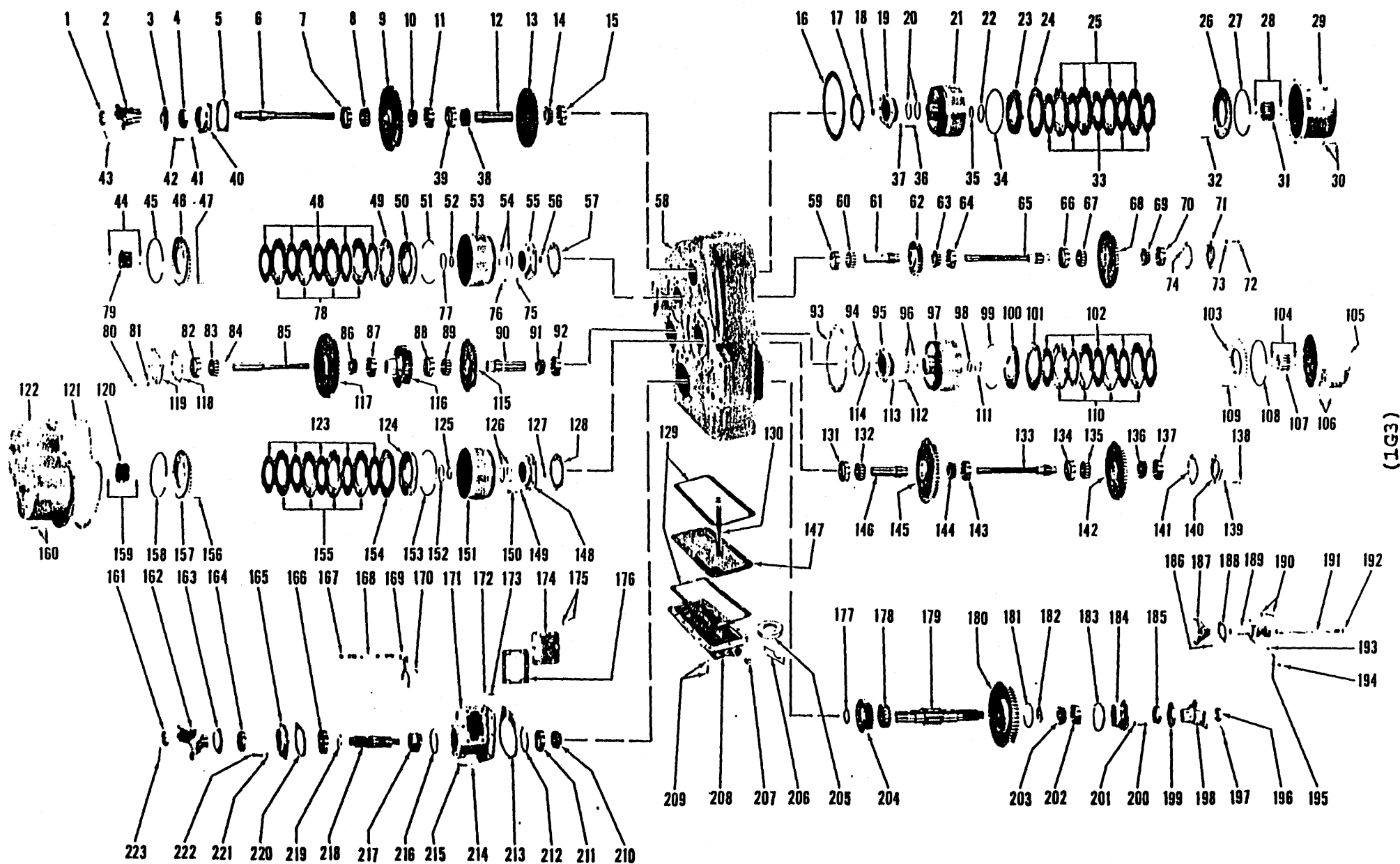
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
66	675544	CUP, Drive Shaft Bearing	1	100	221996	PISTON, Clutch	1
66A	223881	†RING, Bearing Locating	1	101	221998	DISC, Clutch Outer	1
67	675547	CONE, Drive Shaft Bearing	1	102	216677	DISC, Clutch Inner	5
68	209375	GEAR, 1st & 3rd Drop (44T)	1	103	208760	PLATE, Clutch Disc End	1
69	675547	CONE, Drive Shaft Bearing	1	104	224068	RING, Clutch Disc Hub Retaining	2
70	675544	CUP, Drive Shaft Bearing	1	105	209358	COVER, Clutch	1
71	209364	CAP, Drive Shaft Bearing	1	106	5C-614	BOLT & LKWSHR, Clutch Cover	10
72	1C-718	BOLT, Bearing Cap	4	107	216673	HUB, Clutch Disc	1
73	4E-07	LKWSHR, Bearing Cap	4	108	223942	RING, End Plate Retaining	1
74	209365	‡SHIM, Bearing Cap — .004"	—	109	216697	SPRING, Clutch Disc Release	1
74A	209366	‡SHIM, Bearing Cap — .007"	—	110	208773	DISC, Clutch Outer	4
74B	209367	‡SHIM, Bearing Cap — .010"	—	111	234038	RING, Piston Inner Sealing	1
75	4E-07	LKWSHR, Bearing Cap	4	112	1C-718	BOLT, Bearing Cap	4
76	1C-718	BOLT, Bearing Cap	4	113	4E-07	LKWSHR, Bearing Cap	4
77	234038	RING, Piston Inner Sealing	1	114	25K-30016	"O" RING, Bearing Cap	1
78	208773	DISC, Clutch Outer	4	115	209369	GEAR, 2nd & 4th Drive (43T)	1
79	216673	HUB, Clutch Disc	1	116	220395	GEAR, Drive Shaft Low (32T)	1
80	1C-718	BOLT, Bearing Cap	4	117	209421	GEAR, Drive Shaft High (57T)	1
81	4E-07	LKWSHR, Bearing Cap	4	118	209417	‡SHIM, Bearing Cap — .004"	—
82	675542	CUP, Drive Shaft Bearing	1	118A	209418	‡SHIM, Bearing Cap — .007"	—
83	675545	CONE, Drive Shaft Bearing	1	118B	209419	‡SHIM, Bearing Cap — .010"	—
84	224031	RING, 2nd & 4th High Gear Locating	1	119	209416	CAP, Drive Shaft Bearing	1
85	216672	SHAFT, 2nd & 4th Drive	1	120	216673	HUB, Clutch Disc	1
86	675546	CONE, Drive Shaft Bearing	1	121	209370	GASKET, Clutch Cover	1
87	675542	CUP, Drive Shaft Bearing	1	122	209357	COVER, Clutch	1
87A	223951	†RING, Bearing Locating	1	123	216677	DISC, Clutch Inner	5
88	675544	CUP, Quill Shaft Bearing	1	124	221996	PISTON, Clutch	1
89	675548	CONE, Quill Shaft Bearing	1	125	224097	RING, Clutch Drum Hub Retaining	1
90	209368	SHAFT, 2nd & 4th Quill	1	126	209387	RING, Clutch Drum Hub Sealing	2
91	675548	CONE, Quill Shaft Bearing	1	127	25K-30016	"O" RING, Bearing Cap	1
92	675544	CUP, Quill Shaft Bearing	1	128	209392	‡SHIM, Bearing Cap — .004"	—
93	221401	GASKET, Clutch Cover	1	128A	209393	‡SHIM, Bearing Cap — .007"	—
94	209392	‡SHIM, Bearing Cap — .004"	—	128B	209394	‡SHIM, Bearing Cap — .010"	—
94A	209393	‡SHIM, Bearing Cap — .007"	—	128C	221208	‡SHIM, Bearing Cap — .020"	—
94B	209394	‡SHIM, Bearing Cap — .010"	—	129	209353	GASKET, Oil Pan	2
94C	221208	‡SHIM, Bearing Cap — .020"	—	130	220673	PIPE, Oil Suction	1
95	209391	CAP, Clutch Bearing	1	131	675544	CUP, Quill Shaft Bearing	1
96	209387	RING, Drum Hub Sealing	2	132	675548	CONE, Quill Shaft Bearing	1
97	222410	DRUM ASSY, Clutch (Inc. 97A, 97B)	1	133	216671	SHAFT, Reverse Drive	1
97A	222407	†HOUSING, Bleed Valve	1	134	675544	CUP, Drive Shaft Bearing	1
97B	10J-06	†BALL, Bleed Valve	1	134A	223881	†RING, Bearing Locating	1
97C	—	†SHUB, Clutch Drum (See 97)	—	135	675547	CONE, Drive Shaft Bearing	1
97D	209932	†PIN, Pressure Relief	1	136	675547	CONE, Drive Shaft Bearing	1
97E	209389	†SPRING, Pressure Relief	1	137	675544	CUP, Drive Shaft Bearing	1
97F	220678	†GUARD, Relief Spring	1	138	1C-718	BOLT, Bearing Cap	4
97G	209937	†WASHER, Relief Spring	1	139	4E-07	LKWSHR, Bearing Cap	4
97H	619023	†WASHER, Clutch Drum Balance	1	140	209364	CAP, Reverse Shaft Bearing	1
97J	100284	†BOLT, Drum to Hub	8	141	209365	‡SHIM, Bearing Cap — .004"	—
98	224097	RING, Clutch Drum Hub Retaining	1	141A	209366	‡SHIM, Bearing Cap — .007"	—
99	208776	RING, Piston Outer Sealing	1	141B	209367	‡SHIM, Bearing Cap — .010"	—

†As Required

†Not Illustrated

§Not Sold Separately

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



(1G3)

TRANSMISSION ASSEMBLY

TS-2588-P

TRANSMISSION ASSEMBLY (Continued)

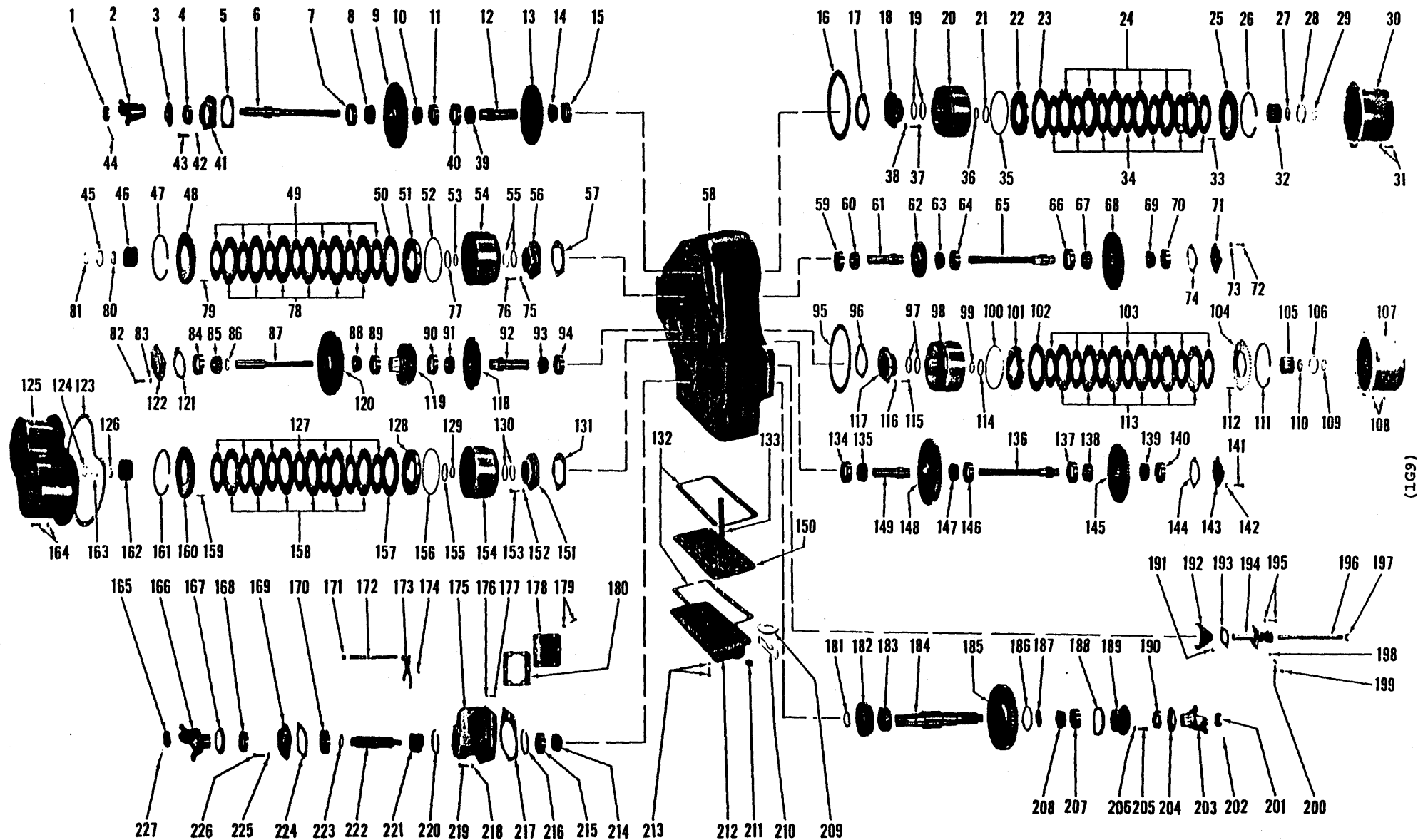
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
142	209372	GEAR, Reverse Idler (52T)	1	182	209407	WASHER, Output Shaft Gear Thrust	1
143	675544	CUP, Quill Shaft Bearing	1	183	209701	‡SHIM, Bearing Cap — .004"	—
143A	223881	†RING, Bearing Locating	1	183A	209702	‡SHIM, Bearing Cap — .007"	—
144	675548	CONE, Quill Shaft Bearing	1	183B	209703	‡SHIM, Bearing Cap — .010"	—
145	209371	GEAR, Reverse Shaft Drive (54T)	1	184	209692	CAP, Front Bearing	1
146	209368	SHAFT, Reverse Quill	1	185	206864	SEAL, Bearing Cap Oil	1
147	220669	SCREEN ASSY, Oil	1	186	201566	SCREW, Shift Fork Lock	1
148	209391	CAP, Clutch Bearing	1	187	209403	FORK, High & Low Shift	1
149	4E-07	LKWSHR, Bearing Cap	4	188	209406	GASKET, Shift Shaft Support	1
150	1C-718	BOLT, Bearing Cap	4	189	209405	SUPPORT, Shift Shaft	1
151	222410	DRUM ASSY, Clutch (Inc. 151A, 151B)	1	190	5C-616	BOLT & LKWSHR, Shift Shaft Support	1
151A	222407	† HOUSING, Bleed Valve	1	191	209404	SHAFT, High & Low Shift	1
151B	10J-06	† BALL, Bleed Valve	1	192	208871	SEAL, Shift Shaft Support Oil	1
151C	—	† § HUB, Clutch Drum (See 151)	1	193	10J-12	BALL, Mesh Lock	1
151D	209932	† PIN, Pressure Relief	1	194	40K-04	PLUG, Mesh Lock	1
151E	209389	† SPRING, Pressure Relief	1	195	201844	SPRING, Mesh Lock	1
151F	220678	† GUARD, Relief Spring	1	196	205928	NUT, Output Shaft Flange	1
151G	209937	† WASHER, Relief Spring	1	197	1F-432	COTTER, Flange Nut	1
151H	619023	† WASHER, Clutch Drum Balance	1	198	209414	FLANGE ASSY, Output (Inc. 199)	1
151J	100284	† BOLT, Drum to Hub	8	199	100949	DEFLECTOR, Output Flange	1
152	234038	RING, Piston Inner Sealing	1	200	1C-718	BOLT, Bearing Cap	4
153	208776	RING, Piston Outer Sealing	1	201	4E-07	LKWSHR, Bearing Cap	4
154	221998	DISC, Clutch Outer	1	202	675544	CUP, Output Shaft Bearing	1
155	208773	DISC, Clutch Outer	4	203	675548	CONE, Output Shaft Bearing	1
156	216697	SPRING, Clutch Disc Release	10	204	209396	GEAR, Output Shaft High (Inc. Bushing) 29T	1
157	208760	PLATE, Clutch Disc End	1	205	525293	MAGNET	1
158	223942	RING, End Plate Retaining	1	206	223780	SPRING, Magnet Retaining	1
159	224068	RING, Clutch Disc Hub Retaining	2	207	13F-12	PLUG, Drain	1
160	5C-614	BOLT & LKWSHR, Clutch Cover	16	208	215644	PAN, Drain	1
161	205928	NUT, Output Flange	1	209	5C-616	BOLT & LKWSHR, Oil Pan	14
162	209414	FLANGE ASSY, Output (Inc. 163)	1	210	675548	CONE, Output Shaft Bearing	1
163	100949	DEFLECTOR, Output Flange	1	211	675544	CUP, Output Shaft Bearing	1
164	206864	SEAL, Output Shaft Oil	1	212	223881	RING, Bearing Retaining	1
165	209428	CAP, Output Shaft Bearing	1	213	209411	SHIM, Output Shaft Housing	1
166	713997	BEARING, Output Shaft	1	214	4E-07	LKWSHR, Housing to Case	7
167	234650	SEAL, Shift Shaft Oil	1	215	1C-720	BOLT, Housing to Case	7
168	209434	SHAFT, Rear Output Shift	1	216	224069	RING, Bearing Locating	1
169	209433	FORK, Output Shaft Shift	1	217	209427	HUB, Rear Output Shaft Shift	1
170	201566	SCREW, Shift Fork Lock	1	218	209426	SHAFT, Rear Output	1
171	209430	HOUSING, Rear Output Shaft	1	219	223925	RING, Rear Output Shaft Locating	1
172	10J-12	BALL, Mesh Lock	1	220	209429	GASKET, Bearing Cap	1
173	201413	SPRING, Mesh Lock	1	221	4E-07	LKWSHR, Bearing Cap	4
174	209431	COVER, Output Shaft Housing	1	222	1C-718	BOLT, Bearing Cap	4
175	5C-612	BOLT & LKWSHR, Housing Cover	6	223	1F-432	COTTER, Flange Nut	1
176	209432	GASKET, Housing Cover	1	224	356618	†BUSHING, Case Reducing — ¾" x ¾"	1
177	209407	WASHER, Output Shaft Gear Thrust	1	225	356626	†BUSHING, Case Reducing — 1¼" x 1"	1
178	209409	HUB, High & Low Shift	1	226	13F-12	†PLUG, Filler	1
179	209423	SHAFT, Output (Inc. 179A)	1	227	—	TRANSMISSION CONTROL COVER — (See Index)	—
179A	225408	BUSHING, Shaft	1				
180	800656	GEAR, Output Shaft Low (Inc. Bushing & 181) 55T	1				
181	209673	RING, Low Gear Oil	1				

‡As Required

†Not Illustrated

§Not Sold Separately

WHEN ORDERING PARTS ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TRANSMISSION ASSEMBLY

TS-1617-P

TRANSMISSION ASSEMBLY

For Serial: **WAUKESHA GAS — 4129, 4132, 4154, 4158, 4215 thru 4624,
1DA375 thru 1DA999**

**WAUKESHA DIESEL — 4215D thru 4629D, 1DB86 thru 1DB999
G.M. — 1DG1 thru 1DG999**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	280778	** TRANSMISSION ASSY — R-300FS-3 (Inc. 1 thru 227)	1	33	220186	SPRING, Clutch Disc Release	10
1	201951	NUT, Input Flange	1	34	209928	DISC, Clutch Inner	7
2	209343	FLANGE ASSY, Input (Inc. 3)	1	35	208776	RING, Piston Outer Sealing	1
3	100949	DEFLECTOR, Input Flange	1	36	224106	RING, Drum Hub Retaining	1
4	206864	SEAL, Input Shaft Oil	1	37	1C-718	BOLT, Bearing Cap	4
5	209340	‡SHIM, Bearing Cap — .004"	—	38	4E-07	LKWSHR, Bearing Cap	4
5A	209341	‡SHIM, Bearing Cap — .007"	—	39	675548	CONE, Quill Shaft Bearing	1
5B	209342	‡SHIM, Bearing Cap — .010"	—	40	675544	CUP, Quill Shaft Bearing	1
6	220390	SHAFT, Input	1	40A	223881	†RING, Bearing Locating	1
7	675544	CUP, Input Shaft Bearing	1	41	209339	CAP, Input Shaft Bearing	1
8	675547	CONE, Input Shaft Bearing	1	42	4E-07	LKWSHR, Bearing Cap	4
9	209377	GEAR, Input Shaft Reverse (45T)	1	43	1C-718	BOLT, Bearing Cap	4
10	675547	CONE, Input Shaft Bearing	1	44	1F-424	COTTER, Flange Nut	1
11	675544	CUP, Input Shaft Bearing	1	45	223867	RING, Hub Washer Locating	1
11A	223881	†RING, Bearing Locating	1	46	220398	HUB, Clutch Disc	1
12	220389	SHAFT, Forward Gear Quill	1	47	223942	RING, End Plate Retaining	1
13	209369	GEAR, Input Shaft Forward (43T)	1	48	208760	PLATE, Clutch Disc End	1
14	731321	CONE, Quill Shaft Bearing	1	49	209928	DISC, Clutch Inner	7
15	731319	CUP, Quill Shaft Bearing	1	50	221998	DISC, Clutch Outer	1
16	221401	GASKET, Clutch Cover	1	51	221996	PISTON, Clutch	1
17	220471	‡SHIM, Bearing Cap — .004"	—	52	208776	RING, Piston Outer Sealing	1
17A	220472	‡SHIM, Bearing Cap — .007"	—	53	224106	RING, Drum Hub Retaining	1
17B	220473	‡SHIM, Bearing Cap — .010"	—	54	222409	DRUM ASSY, Clutch (Inc. 54A, 54B)	1
17C	221209	‡SHIM, Bearing Cap — .020"	—	54A	222407	†HOUSING, Bleed Valve	1
18	220469	CAP, Clutch Bearing	1	54B	10J-16	†BALL, Bleed Valve	1
19	209387	RING, Clutch Drum Sealing	1	54C	209389	*†SPRING, Pressure Relief	1
20	222409	DRUM ASSY, Clutch (Inc. 20A, 20B)	1	54D	209932	*†PIN, Pressure Relief	1
20A	222407	†HOUSING, Bleed Valve	1	54E	220678	*†GUARD, Pressure Relief Spring	1
20B	10J-06	†BALL, Bleed Valve	1	54F	619023	*†WASHER, Clutch Drum Balance	4
20C	209389	*†SPRING, Pressure Relief	1	54G	209937	*†WASHER, Pressure Relief Spring	1
20D	209932	*†PIN, Pressure Relief	1	54H	—	*†SHUB, Clutch Drum — (See 54)	1
20E	220678	*†GUARD, Pressure Relief Spring	1	54J	100284	*†BOLT, Drum to Hub	8
20F	619023	*†WASHER, Clutch Drum Balance	4	55	209387	RING, Drum Hub Sealing	2
20G	209937	*†WASHER, Pressure Relief Spring	1	56	220469	CAP, Clutch Bearing	1
20H	—	*†SHUB, Clutch Drum — (See 20)	1	57	220471	‡SHIM, Bearing Cap — .004"	—
20J	100284	*†BOLT, Drum to Hub	8	57A	220472	‡SHIM, Bearing Cap — .007"	—
21	234038	RING, Piston Inner Sealing	1	57B	220473	‡SHIM, Bearing Cap — .010"	—
22	221996	PISTON, Clutch	1	57C	221209	‡SHIM, Bearing Cap — .020"	—
23	221998	DISC, Clutch Outer	1	58	220934	CASE ASSY, Transmission	1
24	208773	DISC, Clutch Outer	6	59	731319	CUP, Quill Shaft Bearing	1
25	208760	PLATE, Clutch Disc End	1	60	731321	CONE, Quill Shaft Bearing	1
26	223942	RING, End Plate Retaining	1	61	220389	SHAFT, 1st & 3rd Quill	1
27	220468	WASHER, Disc Hub Retaining	1	62	209374	GEAR, 1st & 3rd Drive (29T)	1
28	223867	RING, Hub Washer Locating	1	63	675548	CONE, Quill Shaft Bearing	1
29	224047	RING, Hub Washer Retaining	1	64	675544	CUP, Quill Shaft Bearing	1
30	220391	COVER, Clutch	1	64A	223881	†RING, Bearing Locating	1
31	5C-614	BOLT & LKWSHR, Clutch Cover	10	65	220388	SHAFT, 1st & 3rd Drive	1
32	220398	HUB, Clutch Disc	1	66	675544	CUP, Drive Shaft Bearing	1
				66A	223881	†RING, Bearing Locating	1

† Illustrated

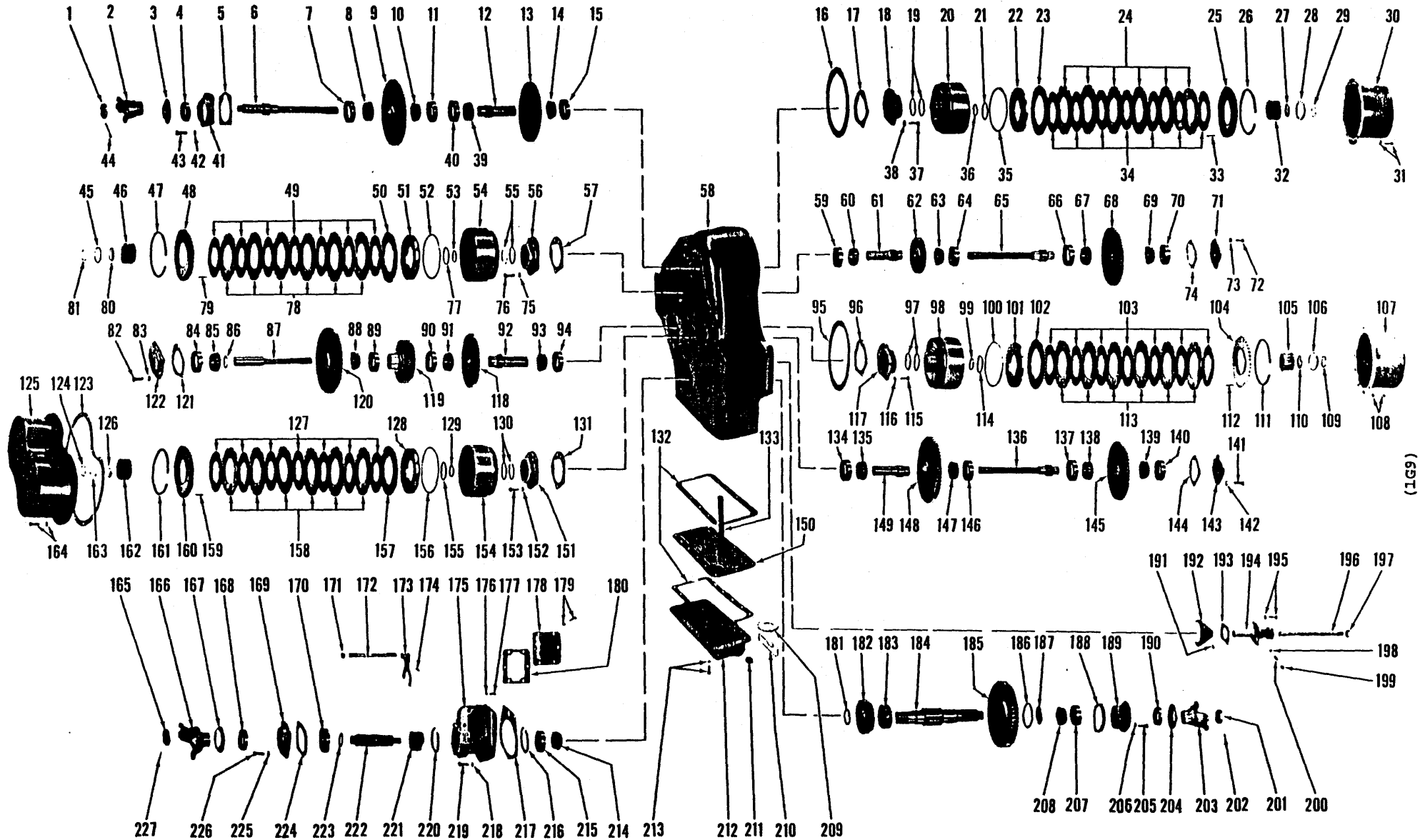
Not Sold Separately

‡As Required

*NOTE: These items are for Units with Bolt on Clutch Drum Hubs. Units with weld on clutch drum hubs do not require these parts.

**NOTE: For complete replacement of 280778 Trans. Assy use 281740 Trans. Assy. It should be noted that when this conversion is made the Trans. will De-Clutch in forward speeds only whereas previously it would De-Clutch in forward and reverse both.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TRANSMISSION ASSEMBLY

TS-1617-P

TRANSMISSION ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
67	675547	CONE, Drive Shaft Bearing.....	1	102	221998	DISC, Clutch Outer.....	1
68	209375	GEAR, 1st & 3rd Drop (44T).....	1	103	209928	DISC, Clutch Inner.....	7
69	675547	CONE, Drive Shaft Bearing.....	1	104	208760	PLATE, Clutch Disc End.....	1
70	675544	CUP, Drive Shaft Bearing.....	1	105	220398	HUB, Clutch Disc.....	1
71	209364	CAP, Drive Shaft Bearing.....	1	106	223867	RING, Hub Washer Locating.....	1
72	1C-718	BOLT, Bearing Cap.....	4	107	220391	COVER, Clutch.....	1
73	4E-07	LKWSHR, Bearing Cap.....	4	108	5C-614	BOLT & LKWSHR, Clutch Cover.....	10
74	209365	‡SHIM, Bearing Cap — .004".....	—	109	224047	RING, Hub Washer Retaining.....	1
74A	209366	‡SHIM, Bearing Cap — .007".....	—	110	220468	WASHER, Disc Hub Retaining.....	1
74B	209367	‡SHIM, Bearing Cap — .010".....	—	111	223942	RING, End Plate Retaining.....	1
75	4E-07	LKWSHR, Bearing Cap.....	4	112	220186	SPRING, Clutch Disc Release.....	10
76	1C-718	BOLT, Bearing Cap.....	4	113	208773	DISC, Clutch Outer.....	6
77	234038	RING, Piston Inner Sealing.....	1	114	234038	RING, Piston Inner Sealing.....	1
78	208773	DISC, Clutch Outer.....	6	115	1C-718	BOLT, Bearing Cap.....	4
79	220186	SPRING, Clutch Disc Release.....	10	116	4E-07	LKWSHR, Bearing Cap.....	4
80	220468	WASHER, Disc Hub Retaining.....	1	117	220469	CAP, Clutch Bearing.....	1
81	224047	RING, Hub Washer Retaining.....	1	118	209369	GEAR, 2nd & 4th Drive (43T).....	1
82	1C-718	BOLT, Bearing Cap.....	5	119	220395	GEAR, 2nd & 4th Low (32T).....	1
83	4E-07	LKWSHR, Bearing Cap.....	5	120	220394	GEAR, 2nd & 4th High (57T).....	1
84	731336	CUP, Drive Shaft Bearing.....	1	121	220513	‡SHIM, Bearing Cap — .004".....	—
85	711124	CONE, Drive Shaft Bearing.....	1	121A	220514	‡SHIM, Bearing Cap — .007".....	—
86	223951	RING, Bearing Locating.....	1	121B	220515	‡SHIM, Bearing Cap — .010".....	—
87	220393	SHAFT, 2nd & 4th Drive.....	1	122	220508	CAP, Drive Shaft Bearing.....	1
88	654875	CONE, Drive Shaft Bearing.....	1	123	209370	GASKET, Clutch Cover.....	1
89	731336	CUP, Drive Shaft Bearing.....	1	124	224047	RING, Hub Washer Retaining.....	1
90	675544	CUP, Quill Shaft Tapered Bearing.....	1	125	220386	COVER, Clutch.....	1
91	675548	CONE, Quill Shaft Tapered Bearing.....	1	126	220468	WASHER, Disc Hub Retaining.....	1
92	220389	SHAFT, 2nd & 4th Quill.....	1	127	209928	DISC, Clutch Inner.....	7
93	731321	CONE, Quill Shaft Tapered Bearing.....	1	128	221996	PISTON, Clutch.....	1
94	731319	CUP, Quill Shaft Tapered Bearing.....	1	129	224106	RING, Clutch Drum Hub Retaining.....	1
95	221401	GASKET, Clutch Cover.....	1	130	209387	RING, Drum Hub Sealing.....	2
96	220471	‡SHIM, Bearing Cap — .004".....	—	131	220471	‡SHIM, Bearing Cap — .004".....	—
96A	220472	‡SHIM, Bearing Cap — .007".....	—	131A	220472	‡SHIM, Bearing Cap — .007".....	—
96B	220473	‡SHIM, Bearing Cap — .010".....	—	131B	220473	‡SHIM, Bearing Cap — .010".....	—
96C	221209	‡SHIM, Bearing Cap — .020".....	—	131C	221209	‡SHIM, Bearing Cap — .020".....	—
97	209387	RING, Drum Hub Sealing.....	2	132	209353	GASKET, Oil Pan.....	2
98	222409	DRUM ASSY, Clutch (Inc. 98A, 98B).....	1	133	220673	PIPE, Oil Suction.....	1
98A	222407	†HOUSING, Bleed Valve.....	1	134	731319	CUP, Quill Shaft Bearing.....	1
98B	10J-06	†BALL, Bleed Valve.....	1	135	731321	CONE, Quill Shaft Bearing.....	1
98C	209389	*†SPRING, Pressure Relief.....	1	136	220388	SHAFT, Reverse Drive.....	1
98D	209932	*†PIN, Pressure Relief.....	1	137	675544	CUP, Drive Shaft Bearing.....	1
98E	220678	*†GUARD, Pressure Relief Spring.....	1	137A	223881	RING, Bearing Locating.....	1
98F	619023	*†WASHER, Clutch Drum Balance.....	4	138	675547	CONE, Drive Shaft Bearing.....	1
98G	209937	*†WASHER, Pressure Relief Spring.....	1	139	675547	CONE, Drive Shaft Bearing.....	1
98H	—	*†SHUB, Clutch Drum — (See 98).....	1	140	675544	CUP, Drive Shaft Bearing.....	1
98J	100284	*†BOLT, Drum to Hub.....	8	141	1C-718	BOLT, Bearing Cap.....	4
99	224106	RING, Drum Hub Retaining.....	1	142	4E-07	LKWSHR, Bearing Cap.....	4
100	208776	RING, Piston Outer Sealing.....	1	143	209364	CAP, Reverse Shaft Bearing.....	1
101	221996	PISTON, Clutch.....	1	144	209365	‡SHIM, Bearing Cap — .004".....	—

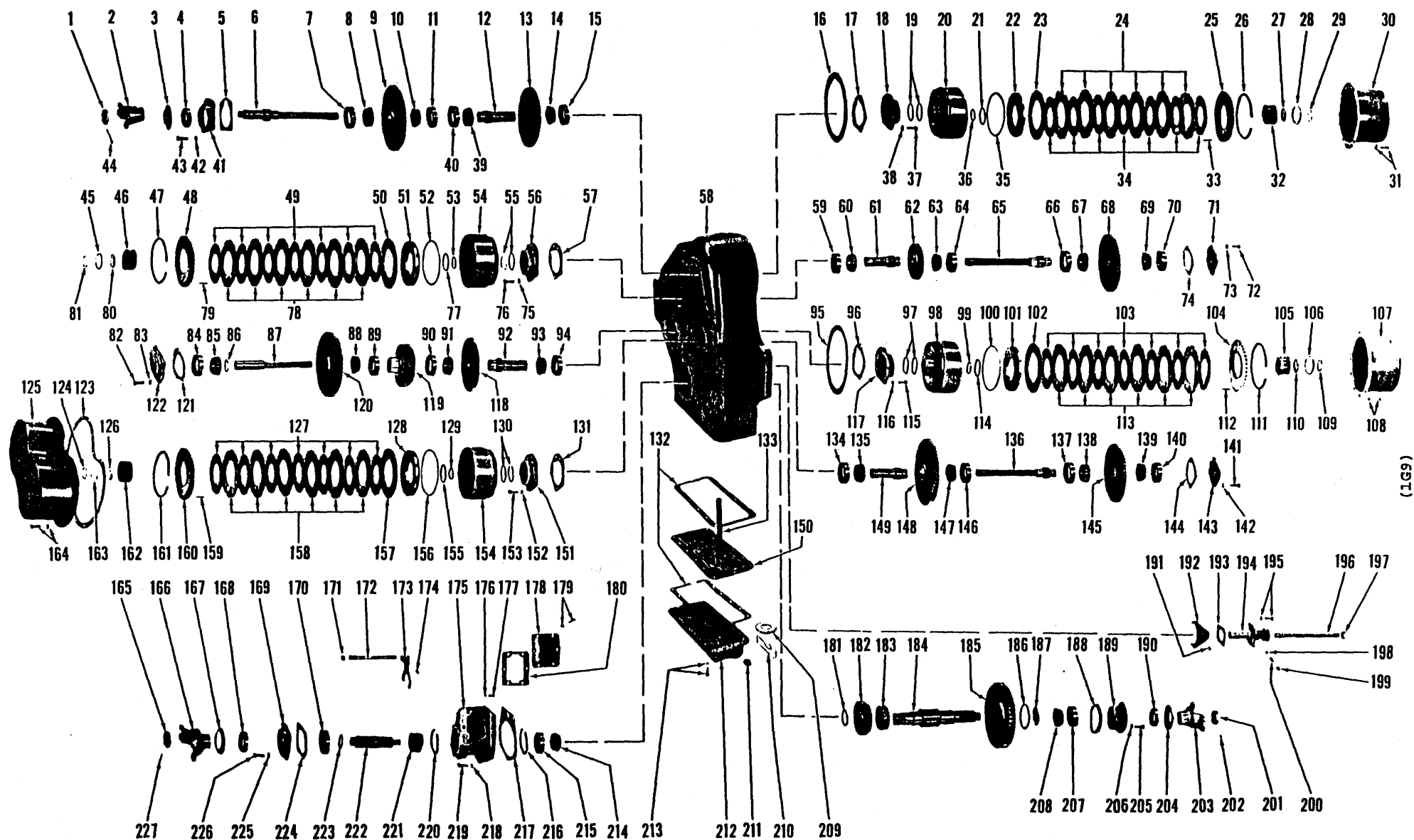
†Not Illustrated

§Not Sold Separately

‡As Required

*NOTE: These items are for Units with Bolt on Clutch Drum Hubs. Units with weld on clutch drum hubs do not require these parts.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



(1G9)

TRANSMISSION ASSEMBLY

TS-1617-P

TRANSMISSION ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
144A	209366	‡SHIM, Bearing Cap — .007" _____	—	181	209407	WASHER, Output Shaft Gear Thrust _____	1
144B	209367	‡SHIM, Bearing Cap — .010" _____	—	182	209396	GEAR ASSY, Output Shaft High (Inc. Bushing) _____	1
145	209372	GEAR, Reverse Idler (52T) _____	1	183	209409	HUB, High & Low Shift _____	1
146	675544	CUP, Drive Shaft Bearing _____	1	184	209423	SHAFT ASSY, Output (Inc. 184A) _____	1
146A	223881	RING, Bearing Locating _____	1	184A	225408	†BUSHING, Shaft _____	1
147	675548	CONE, Drive Shaft Bearing _____	1	185	800656	GEAR ASSY, Output Shaft Low (Inc. Bushing & 186) (55T) _____	1
148	209371	GEAR, Reverse Shaft Drive (54T) _____	1	186	209673	RING, Low Gear Oil _____	1
149	220389	SHAFT, Drive Gear Quill _____	1	187	209407	WASHER, Output Shaft Gear Thrust _____	1
150	220669	SCREEN, Oil _____	1	188	209701	‡SHIM, Front Bearing Cap — .004" _____	—
151	220469	CAP, Clutch Bearing _____	1	188A	209702	‡SHIM, Front Bearing Cap — .007" _____	—
152	4E-07	LKWSHR, Bearing Cap _____	4	188B	209703	‡SHIM, Front Bearing Cap — .010" _____	—
153	1C-718	BOLT, Bearing Cap _____	4	189	209692	CAP, Output Shaft Front Bearing _____	1
154	222409	DRUM ASSY, Clutch (Inc. 154A, 154B) _____	1	190	206864	SEAL, Bearing Cap Oil _____	1
154A	222407	†HOUSING, Bleed Valve _____	1	191	201566	SCREW, Shift Fork Lock _____	1
154B	10J-06	†BALL, Bleed Valve _____	1	192	209403	FORK, High & Low Shift _____	1
154C	209389	*†SPRING, Pressure Relief _____	1	193	209406	GASKET, Shift Shaft Support _____	1
154D	209932	*†PIN, Pressure Relief _____	1	194	209405	SUPPORT, High & Low Shift Shaft _____	1
154E	220678	*†GUARD, Pressure Relief Spring _____	1	195	5C-616	BOLT & LKWSHR, Shift Shaft Support _____	1
154F	619023	*†WASHER, Clutch Drum Balance _____	4	196	209404	SHAFT, High & Low Shift _____	1
154G	209937	*†WASHER, Pressure Relief Spring _____	1	197	208871	SEAL, Shift Shaft Support Oil _____	1
154H	_____	*†SHUB, Clutch Drum _____	1	198	10J-12	BALL, Mesh Lock _____	1
154J	100284	*†BOLT, Drum to Hub _____	8	199	13F-04	PLUG, Mesh Lock _____	1
155	234038	RING, Piston Inner Sealing _____	1	200	201844	SPRING, Mesh Lock _____	1
156	208776	RING, Piston Outer Sealing _____	1	201	205928	NUT, Output Shaft Flange _____	1
157	221998	DISC, Clutch Outer _____	1	202	1F-432	COTTER, Flange Nut _____	1
158	208773	DISC, Clutch Outer _____	6	203	209414	FLANGE ASSY, Output (Inc. 204) _____	1
159	220186	SPRING, Clutch Disc Release _____	10	204	100949	DEFLECTOR, Output Flange _____	1
160	208760	PLATE, Clutch Disc End _____	1	205	1C-718	BOLT, Front Bearing Cap _____	4
161	223942	RING, End Plate Retaining _____	1	206	4E-07	LKWSHR, Front Bearing Cap _____	4
162	220398	HUB, Clutch Disc _____	1	207	675544	CUP, Output Shaft Bearing _____	1
163	223867	RING, Hub Washer Locating _____	1	208	675548	CONE, Output Shaft Bearing _____	1
164	5C-614	BOLT & LKWSHR, Clutch Cover _____	16	209	525293	MAGNET, Oil Screen _____	1
165	205928	NUT, Output Flange _____	1	210	223780	SPRING, Magnet Retaining _____	1
166	209414	FLANGE ASSY, Output (Inc. 167) _____	1	211	201120	PLUG, Drain (Magnetic) _____	1
167	100949	DEFLECTOR, Output Flange _____	1	212	215644	PAN, Oil _____	1
168	206864	SEAL, Bearing Cap Oil _____	1	213	5C-616	BOLT & LKWSHR, Oil Pan _____	14
169	209428	CAP, Rear Output Shaft Bearing _____	1	214	675548	CONE, Output Shaft Bearing _____	1
170	713997	BEARING, Rear Output Shaft _____	1	215	675544	CUP, Output Shaft Bearing _____	1
171	234650	SEAL, Shift Shaft Oil _____	1	216	223881	RING, Bearing Retaining _____	1
172	209434	SHAFT, Rear Output Shaft Shift _____	1	217	209411	SHIM, Output Shaft Housing _____	1
173	209433	FORK, Rear Output Shaft Shift _____	1	218	4E-07	LKWSHR, Housing to Case _____	7
174	201566	SCREW, Shift Fork Lock _____	1	219	1C-720	BOLT, Housing to Case _____	7
175	209430	HOUSING, Rear Output Shaft _____	1	220	224069	RING, Bearing Retaining _____	1
176	10J-12	BALL, Mesh Lock _____	1	221	209427	HUB, Rear Output Shaft Shift _____	1
177	201413	SPRING, Mesh Lock _____	1	222	209426	SHAFT, Rear Output _____	1
178	209431	PLATE, Rear Housing Cover _____	1	223	223925	RING, Bearing Locating _____	1
179	5C-612	BOLT & LKWSHR, Cover Plate _____	6	224	209429	GASKET, Rear Bearing Cap _____	1
180	209432	GASKET, Cover Plate _____	1	225	4E-07	LKWSHR, Rear Bearing Cap _____	4
				226	1C-718	BOLT, Rear Bearing Cap _____	4
				227	1F-432	COTTER, Flange Nut _____	1

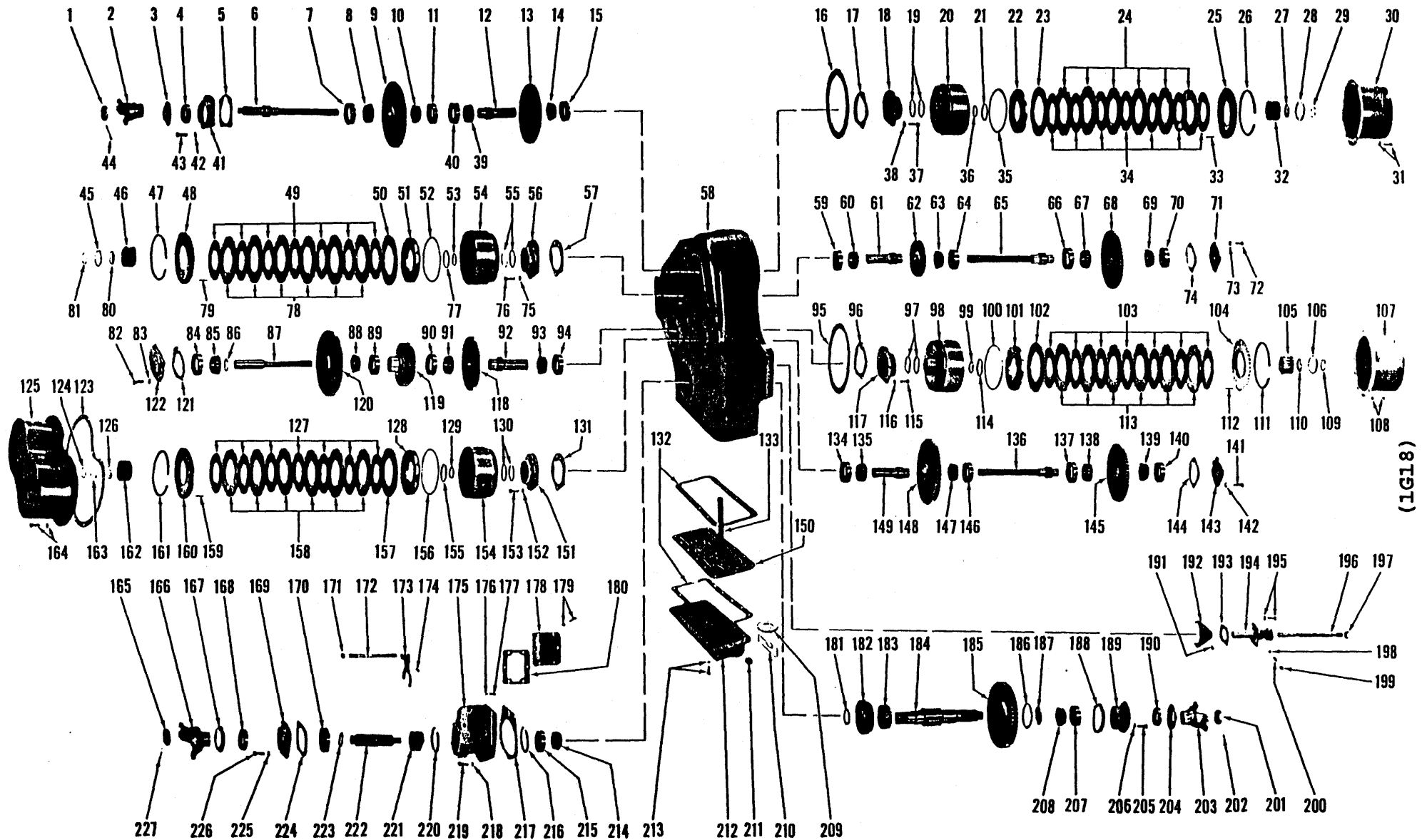
‡As Required

†Not Illustrated

§Not Sold Separately

*NOTE: These items are for Units with Bolt on Clutch Drum Hubs. Units with weld on clutch drum hubs do not require these parts.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



(1G18)

TRANSMISSION ASSEMBLY

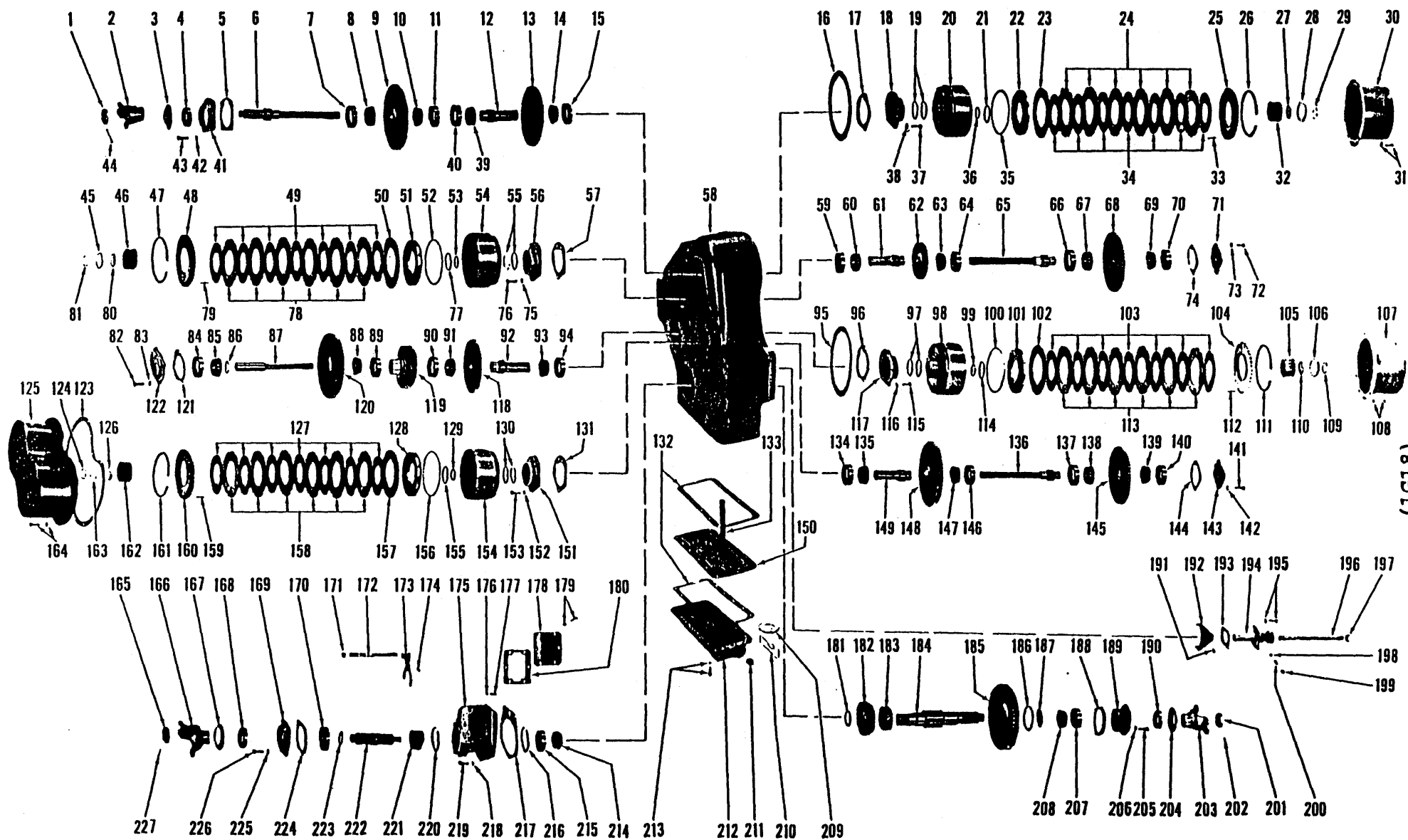
TS-1617-P

TRANSMISSION ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	281740	TRANSMISSION ASSY — (R-300FS-5) (Inc. 1 thru 234)	1	41	209339	CAP, Input Shaft Bearing	1
1	201951	NUT, Input Flange	1	42	6E-07	LKWSHR, Bearing Cap	4
2	209343	FLANGE ASSY, Input (Inc. 3)	1	43	226862	STUD, Bearing Cap	4
3	100949	DEFLECTOR, Input Flange	1	43A	62D-07	†NUT, Bearing Cap	4
4	206864	SEAL, Input Shaft Oil	1	44	1F-424	COTTER, Flange Nut	1
5	209340	‡SHIM, Bearing Cap — .004"	—	45	223867	RING, Hub Washer Locating	1
5A	209341	‡SHIM, Bearing Cap — .007"	—	46	220398	HUB, Clutch Disc	1
5B	209342	‡SHIM, Bearing Cap — .010"	—	47	223942	RING, End Plate Retaining	1
6	220390	SHAFT, Input	1	48	208760	PLATE, Clutch Disc End	1
7	675544	CUP, Input Shaft Bearing	1	49	216677	DISC, Clutch Inner	7
8	675547	CONE, Input Shaft Bearing	1	50	221998	DISC, Clutch Outer	1
9	209377	GEAR, Input Shaft Reverse (45T)	1	51	221996	PISTON, Clutch	1
10	675547	CONE, Input Shaft Bearing	1	52	208776	RING, Piston Outer Sealing	1
11	675544	CUP, Input Shaft Bearing	1	53	224106	RING, Drum Hub Retaining	1
11A	223881	†RING, Bearing Locating	1	54	222409	DRUM ASSY, Clutch (Inc. 54A, 54B) ..	1
12	220389	SHAFT, Forward Gear Quill	1	54A	222407	†HOUSING, Bleed Valve	1
13	209369	GEAR, Input Shaft Forward (43T)	1	54B	10J-06	†BALL, Bleed Valve	1
14	731321	CONE, Quill Shaft Bearing	1	55	209387	RING, Drum Hub Sealing	2
15	731319	CUP, Quill Shaft Bearing	1	56	220469	CAP, Clutch Bearing	1
16	221401	GASKET, Clutch Cover	1	57	220471	‡SHIM, Bearing Cap — .004"	—
17	220471	‡SHIM, Bearing Cap — .004"	—	57A	220472	‡SHIM, Bearing Cap — .007"	—
17A	220472	‡SHIM, Bearing Cap — .007"	—	57B	220473	‡SHIM, Bearing Cap — .010"	—
17B	220473	‡SHIM, Bearing Cap — .010"	—	57C	221209	‡SHIM, Bearing Cap — .020"	—
17C	221209	‡SHIM, Bearing Cap — .020"	—	58	220934	CASE ASSY, Transmission	1
18	220469	CAP, Clutch Bearing	1	59	731319	CUP, Quill Shaft Bearing	1
19	209387	RING, Clutch Drum Sealing	2	60	731321	CONE, Quill Shaft Bearing	1
20	222409	DRUM ASSY, Clutch (Inc. 20A, 20B) ..	1	61	220389	SHAFT, 1st & 3rd Quill	1
20A	222407	†HOUSING, Bleed Valve	1	62	209374	GEAR, 1st & 3rd Drive (29T)	1
20B	10J-06	†BALL, Bleed Valve	1	63	675548	CONE, Quill Shaft Bearing	1
21	234038	RING, Piston Inner Sealing	1	64	675544	CUP, Quill Shaft Bearing	1
22	221996	PISTON, Clutch	1	64A	223881	†RING, Bearing Locating	1
23	221998	DISC, Clutch Outer	1	65	220388	SHAFT, 1st & 3rd Drive	1
24	208773	DISC, Clutch Outer	6	66	675544	CUP, Drive Shaft Bearing	1
25	208760	PLATE, Clutch Disc End	1	66A	223881	†RING, Bearing Locating	1
26	223942	RING, End Plate Retaining	1	67	675547	CONE, Drive Shaft Bearing	1
27	220468	WASHER, Disc Hub Retaining	1	68	209375	GEAR, 1st & 3rd Drop (44T)	1
28	223867	RING, Hub Washer Locating	1	69	675547	CONE, Drive Shaft Bearing	1
29	224047	RING, Hub Washer Retaining	1	70	675544	CUP, Drive Shaft Bearing	1
30	220391	COVER, Clutch	1	71	209364	CAP, Drive Shaft Bearing	1
31	21C-612	BOLT, Clutch Cover	10	72	226862	STUD, Bearing Cap	4
32	220398	HUB, Clutch Disc	1	72A	62D-07	†NUT, Bearing Cap	4
33	220186	SPRING, Clutch Disc Release	10	73	4E-07	LKWSHR, Bearing Cap	4
34	216677	DISC, Clutch Inner	7	74	209365	‡SHIM, Bearing Cap — .004"	—
35	208776	RING, Piston Outer Sealing	1	74A	209366	‡SHIM, Bearing Cap — .007"	—
36	224106	RING, Drum Hub Retaining	1	74B	209367	‡SHIM, Bearing Cap — .010"	—
37	1C-718	BOLT, Bearing Cap	4	75	4E-07	LKWSHR, Bearing Cap	4
38	4E-07	LKWSHR, Bearing Cap	4	76	1C-718	BOLT, Bearing Cap	4
39	675548	CONE, Quill Shaft Bearing	1	77	234038	RING, Piston Inner Sealing	1
40	675544	CUP, Quill Shaft Bearing	1	78	208773	DISC, Clutch Outer	6
40A	223881	†RING, Bearing Locating	1	79	220186	SPRING, Clutch Disc Release	10
				80	220468	WASHER, Disc Hub Retaining	1

‡As Required
†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TRANSMISSION ASSEMBLY

TS-1617-P

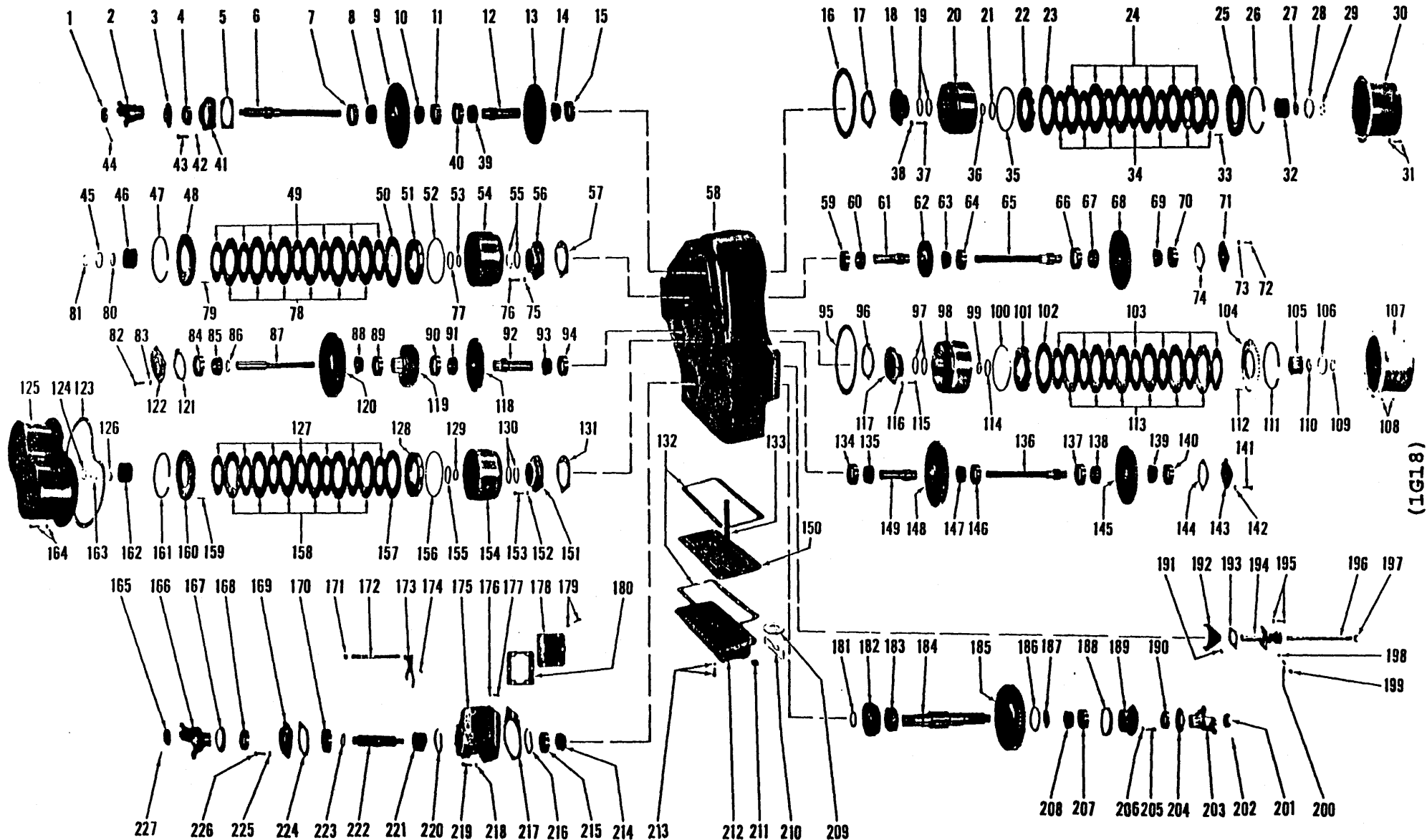
TRANSMISSION ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
81	224047	RING, Hub Washer Retaining	1	121	220513	‡SHIM, Bearing Cap — .004"	—
82	226862	STUD, Bearing Cap	5	121A	220514	‡SHIM, Bearing Cap — .007"	—
82A	62D-07	†NUT, Bearing Cap	5	121B	220515	‡SHIM, Bearing Cap — .010"	—
83	4E-07	LKWSHR, Bearing Cap	5	122	220508	CAP, Drive Shaft Bearing	1
84	731336	CUP, Drive Shaft Bearing	1	123	209370	GASKET, Clutch Cover	1
85	711124	CONE, Drive Shaft Bearing	1	124	224047	RING, Hub Washer Retaining	1
86	224031	RING, High Gear Locating	1	125	220386	COVER, Clutch	1
87	220393	SHAFT, 2nd & 4th Drive	1	126	220468	WASHER, Disc Hub Retaining	1
88	654875	CONE, Drive Shaft Bearing	1	127	216677	DISC, Clutch Inner	7
89	731336	CUP, Drive Shaft Bearing	1	128	221996	PISTON, Clutch	1
89A	223951	†RING, Bearing Locating	1	129	224106	RING, Clutch Drum Hub Retaining	1
90	675544	CUP, Quill Shaft Tapered Bearing	1	130	209387	RING, Drum Hub Sealing	2
91	675548	CONE, Quill Shaft Tapered Bearing ..	1	131	220471	‡SHIM, Bearing Cap — .004"	—
92	220389	SHAFT, 2nd & 4th Quill	1	131A	220472	‡SHIM, Bearing Cap — .007"	—
93	731321	CONE, Quill Shaft Tapered Bearing ..	1	131B	220473	‡SHIM, Bearing Cap — .010"	—
94	731319	CUP, Quill Shaft Tapered Bearing	1	131C	221209	‡SHIM, Bearing Cap — .020"	—
95	221401	GASKET, Clutch Cover	1	132	209353	GASKET, Oil Pan	2
96	220471	‡SHIM, Bearing Cap — .004"	—	133	220673	PIPE, Oil Suction	1
96A	220472	‡SHIM, Bearing Cap — .007"	—	134	731319	CUP, Quill Shaft Bearing	1
96B	220473	‡SHIM, Bearing Cap — .010"	—	135	731321	CONE, Quill Shaft Bearing	1
96C	221209	‡SHIM, Bearing Cap — .020"	—	136	220388	SHAFT, Reverse Drive	1
97	209387	RING, Drum Hub Sealing	2	137	675544	CUP, Drive Shaft Bearing	1
98	222409	DRUM ASSY, Clutch (Inc. 98A, 98B)	1	137A	223881	†RING, Bearing Locating	1
98A	222407	†HOUSING, Bleed Valve	1	138	675547	CONE, Drive Shaft Bearing	1
98B	10J-06	†BALL, Bleed Valve	1	139	675547	CONE, Drive Shaft Bearing	1
99	224106	RING, Drum Hub Retaining	1	140	675544	CUP, Drive Shaft Bearing	1
100	208776	RING, Piston Outer Sealing	1	141	226862	STUD, Bearing Cap	4
101	221996	PISTON, Clutch	1	141A	62D-07	†NUT, Bearing Cap	4
102	221998	DISC, Clutch Outer	1	142	4E-07	LKWSHR, Bearing Cap	4
103	216677	DISC, Clutch Inner	7	143	209364	CAP, Reverse Shaft Bearing	1
104	208760	PLATE, Clutch Disc End	1	144	209365	‡SHIM, Bearing Cap — .004"	—
105	220398	HUB, Clutch Disc	1	144A	209366	‡SHIM, Bearing Cap — .007"	—
106	223867	RING, Hub Washer Locating	1	144B	209367	‡SHIM, Bearing Cap — .010"	—
107	220391	COVER, Clutch	1	145	209372	GEAR, Reverse Idler (52T)	1
108	21C-612	BOLT, Clutch Cover	10	146	675544	CUP, Drive Shaft Bearing	1
109	224047	RING, Hub Washer Retaining	1	146A	223881	†RING, Bearing Locating	1
110	220468	WASHER, Disc Hub Retaining	1	147	675548	CONE, Drive Shaft Bearing	1
111	223942	RING, End Plate Retaining	1	148	209371	GEAR, Reverse Shaft Drive (54T)	1
112	220186	SPRING, Clutch Disc Release	10	149	220389	SHAFT, Drive Gear Quill	1
113	208773	DISC, Clutch Outer	6	150	220669	SCREEN, Oil	1
114	234038	RING, Piston Inner Sealing	1	151	220469	CAP, Clutch Bearing	1
115	1C-718	BOLT, Bearing Cap	4	152	4E-07	LKWSHR, Bearing Cap	4
116	4E-07	LKWSHR, Bearing Cap	4	153	1C-718	BOLT, Bearing Cap	4
117	220469	CAP, Clutch Bearing	1	154	222409	DRUM ASSY, Clutch (Inc. 154A, 154B)	1
118	209369	GEAR, 2nd & 4th Drive (43T)	1	154A	222407	†HOUSING, Bleed Valve	1
119	220395	GEAR, 2nd & 4th Low (32T)	1	154B	10J-06	†BALL, Bleed Valve	1
120	220394	GEAR, 2nd & 4th High (57T)	1				

‡As Required

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



(1G18)

TRANSMISSION ASSEMBLY

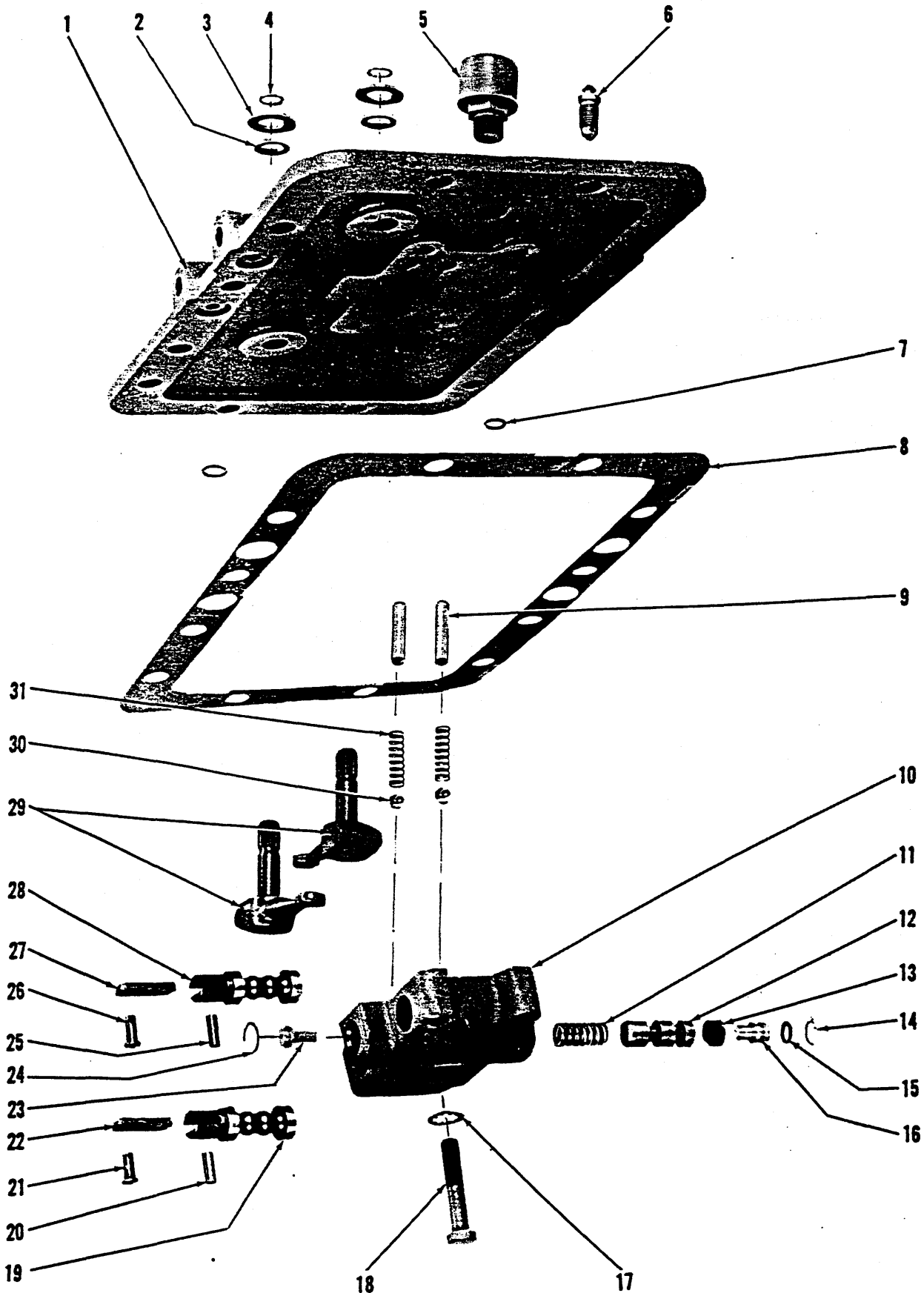
TRANSMISSION ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
155	234038	RING, Piston Inner Sealing	1	194	209405	SUPPORT, High & Low Shift Shaft	1
156	208776	RING, Piston Outer Sealing	1	195	5C-616	BOLT & LKWSHR, Shift Shaft Support	4
157	221998	DISC, Clutch Outer	1	196	209404	SHAFT, High & Low Shift	1
158	208773	DISC, Clutch Outer	6	197	208871	SEAL, Shift Shaft Support Oil	1
159	220186	SPRING, Clutch Disc Release	10	198	10J-12	BALL, Mesh Lock	1
160	208760	PLATE, Clutch Disc End	1	199	40K-04	PLUG, Mesh Lock	1
161	223942	RING, End Plate Retaining	1	200	201844	SPRING, Mesh Lock	1
162	220398	HUB, Clutch Disc	1	201	205928	NUT, Output Shaft Flange	1
163	223867	RING, Hub Washer Locating	1	202	1F-432	COTTER, Flange Nut	1
164	21C-612	BOLT, Clutch Cover	16	203	209414	FLANGE ASSY, Output (Inc. 204)	1
165	205928	NUT, Output Flange	1	204	100949	DEFLECTOR, Output Flange	1
166	209414	FLANGE ASSY, Output (Inc. 167)	1	205	226862	STUD, Front Bearing Cap	4
167	100949	DEFLECTOR, Output Flange	1	205A	62D-07	†NUT, Front Bearing Cap	4
168	206864	SEAL, Bearing Cap Oil	1	206	4E-07	LKWSHR, Front Bearing Cap	4
169	209428	CAP, Rear Output Shaft Bearing	1	207	675544	CUP, Output Shaft Bearing	1
170	713997	BEARING, Rear Output Shaft	1	208	675548	CONE, Output Shaft Bearing	1
171	234650	SEAL, Shift Shaft Oil	1	209	525293	MAGNET, Oil Screen	1
172	209434	SHAFT, Rear Output Shaft Shift	1	210	223780	SPRING, Magnet Retaining	1
173	209433	FORK, Rear Output Shaft Shift	1	211	13F-12	PLUG, Drain	1
174	201566	SCREW, Shift Fork Lock	1	212	215644	PAN, Oil	1
175	209430	HOUSING, Rear Output Shaft	1	213	5C-616	BOLT & LKWSHR, Oil Pan	14
176	10J-12	BALL, Mesh Lock	1	214	675548	CONE, Output Shaft Bearing	1
177	201844	SPRING, Mesh Lock	1	215	675544	CUP, Output Shaft Bearing	1
178	209431	PLATE, Rear Housing Cover	1	216	223881	RING, Bearing Retaining	1
179	5C-612	BOLT & LKWSHR, Cover Plate	6	217	209411	SHIM, Output Shaft Housing	1
180	209432	GASKET, Cover Plate	1	218	4E-07	LKWSHR, Housing to Case	7
181	209407	WASHER, Output Shaft Gear Thrust ..	1	219	226862	STUD, Housing to Case	7
182	209396	GEAR ASSY, Output Shaft High (Inc. Bushing) (29T)	1	219A	62D-07	†NUT, Housing to Case	7
183	209409	HUB, High & Low Shift	1	220	224069	RING, Bearing Retaining	1
184	209423	SHAFT ASSY, Output (Inc. 184A)	1	221	209427	HUB, Rear Output Shaft Shift	1
184A	225408	†BUSHING, Output Shaft	1	222	209426	SHAFT, Rear Output	1
185	800656	GEAR ASSY, Output Shaft Low (Inc. Bushing) (Inc. 186) (55T)	1	223	223925	RING, Bearing Locating	1
186	209673	RING, Low Gear Oil	1	224	209429	GASKET, Rear Bearing Cap	1
187	209407	WASHER, Output Shaft Gear Thrust ..	1	225	6E-07	LKWSHR, Rear Bearing Cap	4
188	209701	‡SHIM, Front Bearing Cap — .004"	—	226	226862	STUD, Rear Bearing Cap	4
188A	209702	‡SHIM, Front Bearing Cap — .007"	—	226A	62D-07	†NUT, Rear Bearing Cap	4
188B	209703	‡SHIM, Front Bearing Cap — .010"	—	227	1F-432	COTTER, Flange Nut	1
189	209692	CAP, Output Shaft Front Bearing	1	228	13F-12	†PLUG, Filler & Breather Hole	2
190	206864	SEAL, Bearing Cap Oil	1	229	16F-08	†PLUG, Transmission	1
191	201566	SCREW, Shift Fork Lock	1	230	19F-16	†BUSHING, Reducing	1
192	209403	FORK, High & Low Shift	1	231	550803	†LEVER, Control Valve	2
193	209406	GASKET, Shift Shaft Support	1	232	4E-04	†LKWSHR, Control Lever	2
				233	2C-424	†BOLT, Control Lever	2
				234	62D-04	†NUT, Control Lever	2

†Not Illustrated

‡As Required

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TRANSMISSION CONTROL COVER

3816-P-48-55G

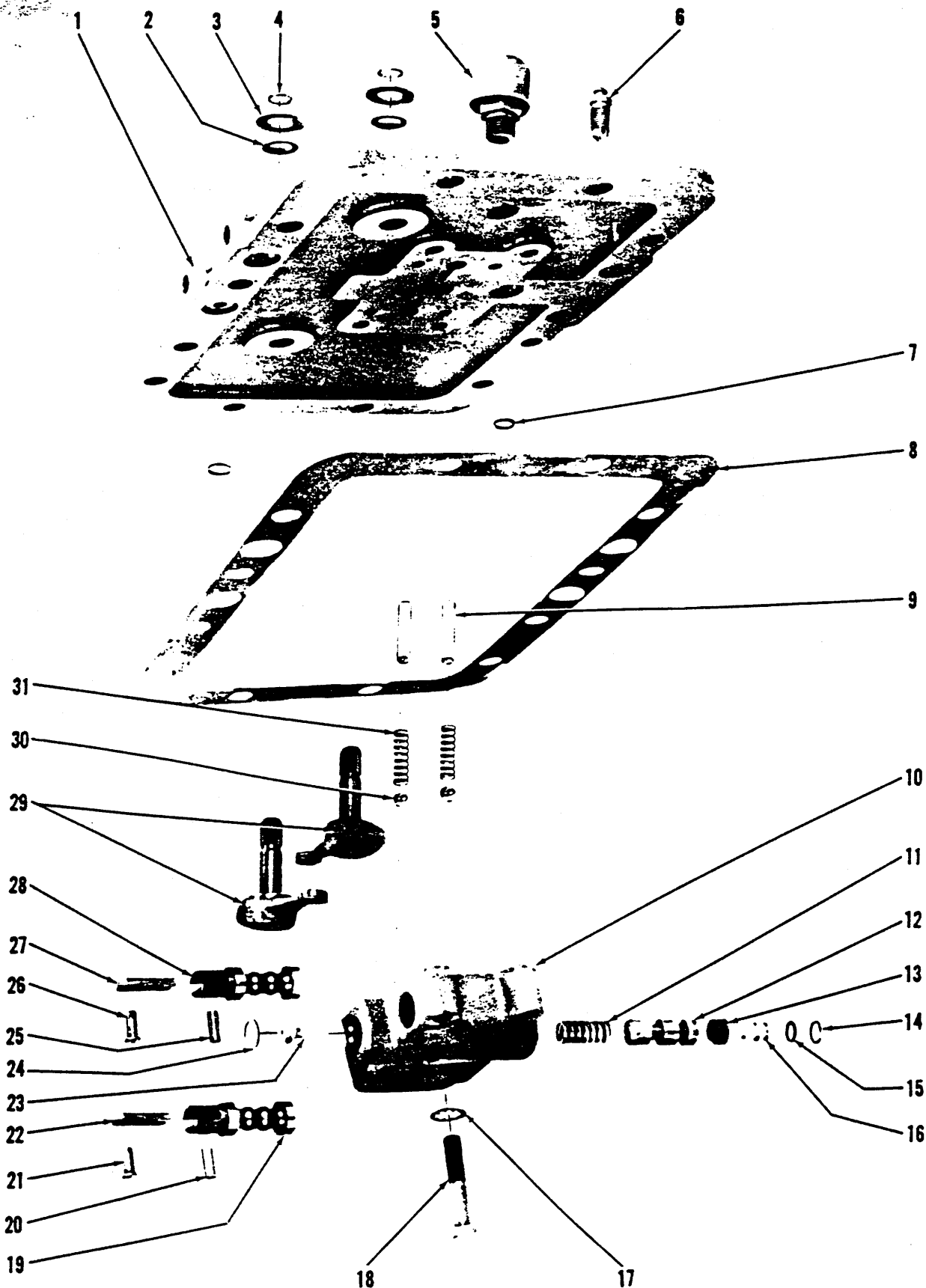
TRANSMISSION CONTROL COVER

Item No.	Part No.	Description	No. Req'd.
A		COVER ASSY, Control (Inc. 1, 2 thru 31)	
B	800657	For Serial 4123 thru 4128, 4130, 4131, 4133 thru 4153, 4155, 4156, 4157, 4159 thru 4214	1
C	800916	For Serial: Waukesha — 4129, 4132, 4154, 4158, 4215 thru 4629; IDA375 thru 1DA999, 1DB86 thru 1DB999; G.M. — 1DG1 thru 1DG999	1
D	227968	VALVE ASSY, Control (Inc. 10 thru 16, 19, 20, 22 thru 25, 27, 28)	1
1		COVER, Control	
1A	209378	For Serial 4123 thru 4128, 4130, 4131 4133 thru 4153, 4155, 4156, 4157, 4159 thru 4214	1
1B	220957	For Serial: Waukesha — 4129, 4132, 4154, 4158, 4215 thru 4629, IDA375 thru 1DA999, 1DB86 thru 1DB999; G.M. — 1DG1 thru 1DG999	1
1C	1C-718	†BOLT, Cover to Case	9
1D	4E-07	†LKWSHR, Cover to Case	9
1E	40K-02	†PLUG, Control Cover Oil Passage	5
2	208812	SEAL, Selector Arm Oil	2
3	25E-21	WASHER, Selector Arm	2
4	224095	RING, Selector Arm Washer Retaining	2
5	104942	BREATHER, Control Cover	1
6	208805	VALVE, Control Cover Brake Bleeder	1
7	25K-30016	"O" RING, Control Cover Oil Passage	5
8	209379	GASKET, Cover to Case	1
9	209874	STOP, Selector Valve Detent Ball	2
10	209380	HOUSING, Control Valve	1
11	220363	SPRING, Shut-Off Valve	1
12	208815	VALVE, Shut-Off	1
13	227874	CUP, Shut-Off Valve Sealing	1
14	223944	RING, Valve Stop Retaining	1
15	25K-30014	"O" RING, Shut-Off Valve Stop	1
16	209878	STOP, Shut-Off Valve	1
17	6E-06	LKWSHR, Valve to Cover	4
18	1C-628	BOLT, Valve to Cover	4
19	— — — —	§VALVE, Selector — (See D)	1
20	208809	PIN, Selector Valve Link	1
21	208810	PIN, Link to Arm	1
21A	1F-208	†COTTER, Clevis Pin	1
22	209382	LINK, Valve to Arm	1
23	227873	GUIDE, Valve Spring	1
24	223944	RING, Spring Retaining	1
25	208809	PIN, Selector Valve Link	1
26	208810	PIN, Link to Arm	1
26A	1F-208	†COTTER, Clevis Pin	1
27	209382	LINK, Valve to Arm	1
28	— — — —	§VALVE, Selector — (See D)	1
29	209690	ARM, Selector	2
30	10J-12	BALL, Selector Valve Detent	2
31	203647	SPRING, Selector Valve Detent Ball	2

†Not Illustrated

§Not Sold Separately

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TRANSMISSION CONTROL COVER

TS-3816-P-48-55G

TRANSMISSION CONTROL COVER

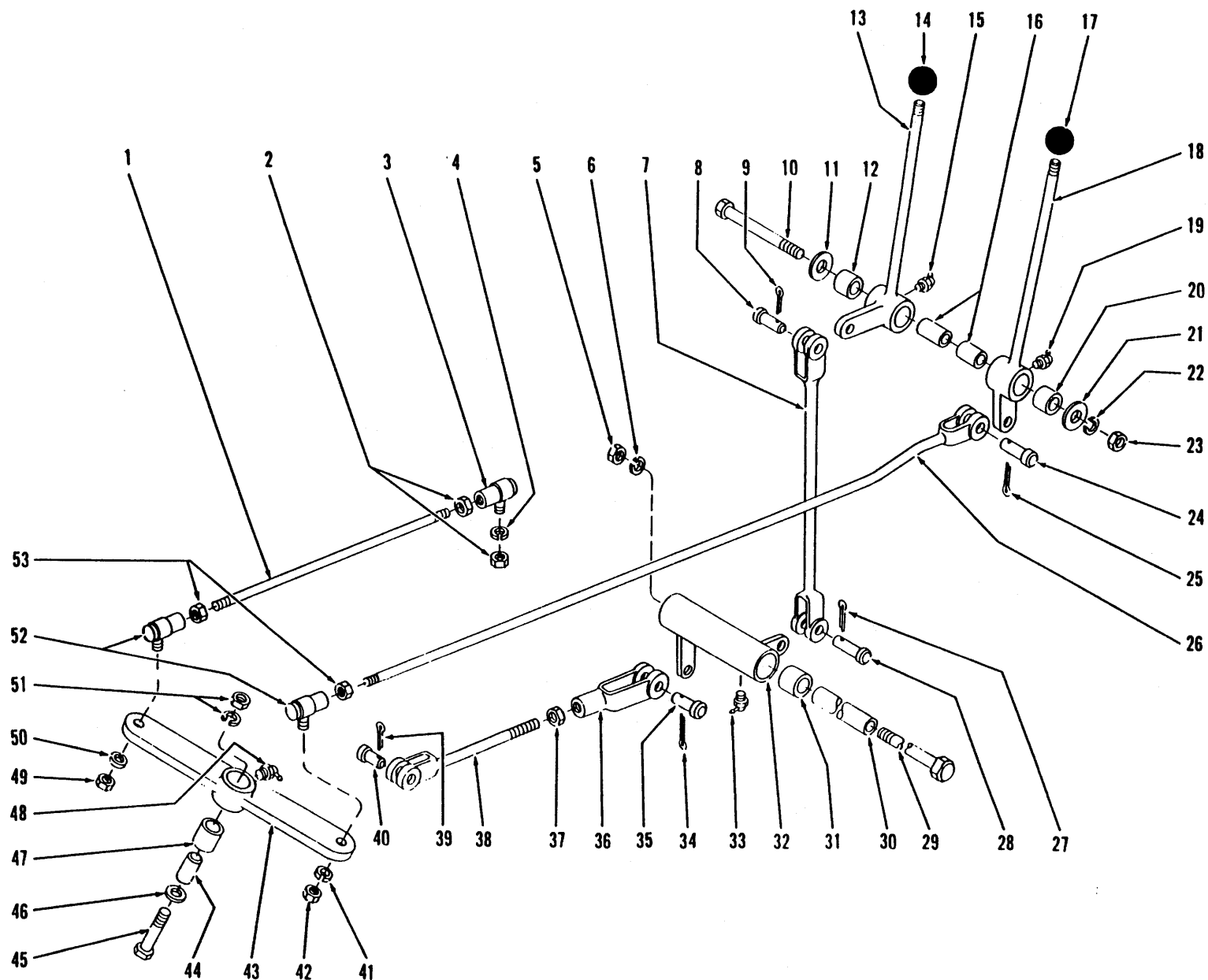
(For 281740 Transmission Only)

Item No.	Part No.	Description	No. Req'd.
A	225854	COVER ASSY, Control (Inc. 1 thru 35)	1
B	227872	VALVE ASSY, Selector Control (Inc. 10 thru 16, 19, 20, 22 thru 25, 27, 28)	1
1	220957	COVER, Control	1
1A	13F-12	†PLUG, Control Cover	1
2	208812	SEAL, Selector Arm Shaft Oil	2
3	25E-21	WASHER, Selector Arm Shaft Seal	2
4	224095	RING, Selector Arm Shaft Washer Retaining	2
5	104942	BREATHER, Control Cover	1
6	208805	VALVE, Bleeder	1
7	25K-30016	"O" RING, Oil Passage	5
8	209379	GASKET, Cover to Case	1
9	209874	STOP, Selector Valve Detent Ball	2
10	-----	§HOUSING, Selector Valve — See "B"	—
10A	16F-02	†PLUG, Selector Valve	2
11	220363	SPRING, Shut-Off Valve	1
12	-----	§VALVE, Shut-Off — See "B"	1
13	227874	CUP, Shut-Off Valve Sealing	1
14	223944	RING, Shut-Off Valve Stop Retaining	1
15	25K-30014	"O" RING, Shut-Off Valve Stop	1
16	209878	STOP, Shut-Off Valve	1
17	4E-06	LKWSHR, Valve to Cover Bolt	4
18	1C-626	BOLT, Valve to Cover	4
19	-----	§VALVE, Selector — See "B"	1
20	208809	PIN, Selector Valve Link	1
21	208810	PIN, Selector Valve Link Clevis	1
21A	1F-208	†COTTER, Clevis Pin	1
22	209382	LINK, Selector Valve	1
23	227873	GUIDE, Valve Spring	1
24	223944	RING, Shut-Off Valve Spring Retainer	1
25	208809	PIN, Selector Valve Link	1
26	208810	PIN, Selector Valve Link Clevis	1
26A	1F-208	†COTTER, Clevis Pin	1
27	209382	LINK, Selector Valve	1
28	-----	§VALVE, Selector — See "B"	1
29	209690	SHAFT ASSY, Selector	2
30	10J-12	BALL, Selector Valve Detent	2
31	203647	SPRING, Selector Valve Detent	2
32	40K-02	†PLUG, Control Cover Oil Passage	5
33	220947	†BAFFLE, Oil	1
34	1C-718	†BOLT, Control Cover to Case	9
35	4E-07	†LKWSHR, Control Cover to Case	9

†Not Illustrated

§Not Sold Separately

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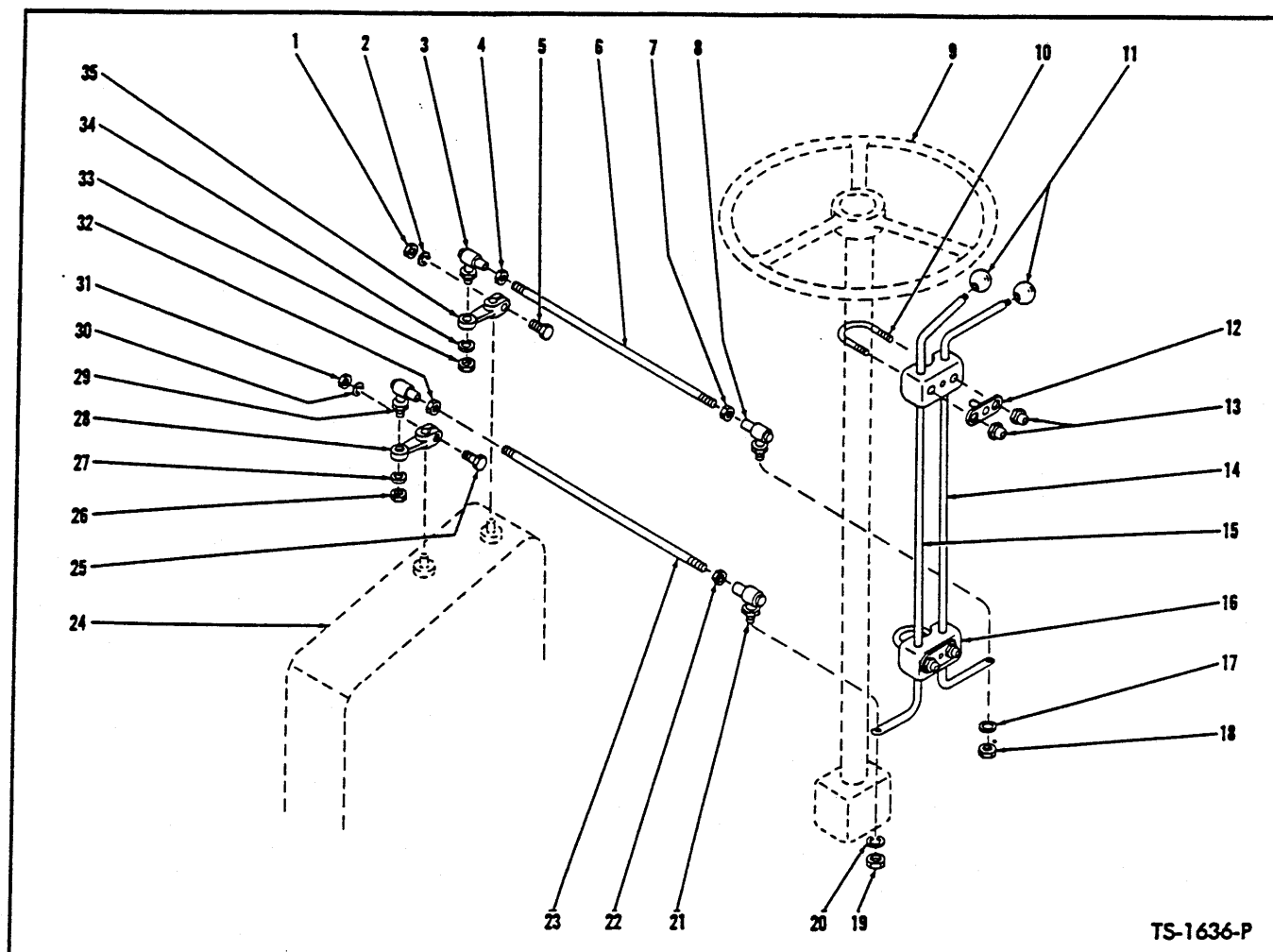
TRANSMISSION CONTROLS

TS-2613-P

TRANSMISSION CONTROLS
Work and Travel, Two and Four Wheel Drive

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	550691	ROD, Bell Crank to Transmission.....	1	28	4F-08127	PIN, Rod to Bell Crank	1
2	8D-06	NUT, Ball Joint	2	29	14C-10144	BOLT, Bell Crank Attaching	1
3	2520677	BALL JOINT, Rod to Transmission.....	1	30	551496	SLEEVE, Bell Crank	1
4	4E-06	LKWSHR, Ball Joint	1	31	526767	BUSHING, Bell Crank	2
5	2D-10	NUT, Bell Crank Attaching	1	32	551494	BELL CRANK, Range	1
6	4E-10	LKWSHR, Bell Crank Attaching	1	33	12H-15	FITTING, Bell Crank Grease	1
7	550679	ROD, Range — Lever to Bell Crank....	1	34	1F-414	COTTER, Clevis Pin	1
8	4F-08127	PIN, Rod to Lever	1	35	4F-08127	PIN, Clevis to Bell Crank	1
9	1F-414	COTTER, Clevis Pin	1	36	2J-8300	CLEVIS, Rod to Bell Crank	1
10	2C-868	BOLT, Lever Attaching	1	37	8D-08	NUT, Clevis Jam	1
11	616796	WASHER, Lever Attaching	1	38	550683	ROD, Bell Crank to Transmission	1
12	526767	BUSHING, Lever	1	39	1F-310	COTTER, Clevis Pin	1
13	550677	LEVER, Range Shift	1	40	4F-06106	PIN, Rod to Transmission	1
14	509772	KNOB, Range Lever	1	41	4E-06	LKWSHR, Ball Joint	1
15	12H-15	FITTING, Range Lever Grease	1	42	8D-06	NUT, Ball Joint	1
16	550646	SLEEVE, Lever	2	43	550689	BELL CRANK, 4WD	1
17	509772	KNOB, 4WD Lever	1	44	550646	SLEEVE, Bell Crank	1
18	550685	LEVER, Four Wheel Drive Shift	1	45	4C-844	BOLT, Bell Crank Attaching	1
19	12H-15	FITTING, 4WD Shift Lever	1	46	616796	WASHER, Bell Crank Attaching	1
20	526767	BUSHING, Lever	1	47	526767	BUSHING, Bell Crank	1
21	616796	WASHER, Lever Attaching	1	48	12H-15	FITTING, Bell Crank Grease	1
22	4E-08	LKWSHR, Lever Attaching	1	49	8D-06	NUT, Ball Joint	1
23	2D-08	NUT, Lever Attaching	1	50	4E-06	LKWSHR, Ball Joint	1
24	4F-08127	PIN, Rod to Lever	1	51	2D-08	NUT, Bell Crank Attaching	1
25	1F-414	COTTER, Clevis Pin	1	51A	4E-08	LKWSHR, Bell Crank Attaching	1
26	550687	ROD, 4WD — Lever to Bell Crank	1	52	2520677	BALL JOINT	2
27	1F-414	COTTER, Clevis Pin	1	53	8D-06	NUT, Ball Joint	2

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TS-1636-P

GEAR SHIFT LEVERS AND LINKAGE

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	2D-04	NUT, Lever Clamp	1	17	4E-06	LKWSHR, Ball Socket Attaching.....	1
2	4E-04	LKWSHR, Lever Clamp	1	18	8D-06	NUT, Ball Socket Attaching	1
3	2520677	BALL SOCKET	1	19	8D-06	NUT, Ball Socket Attaching	1
4	8D-06	NUT, Ball Socket Jam	1	20	4E-06	LKWSHR, Ball Socket Attaching.....	1
5	2C-424	BOLT, Lever Clamp	1	21	2520677	BALL SOCKET	1
6	550674	ROD, Shift	1	22	8D-06	NUT, Ball Socket Jam	1
7	8D-06	NUT, Ball Socket Jam	1	23	550674	ROD, Shift	1
8	2520677	BALL SOCKET	1	24	—	TRANSMISSION — (See Index)	—
9	—	STEERING GEAR — (See Index)	—	25	2C-424	BOLT, Lever Clamp	1
10	550672	U-BOLT, Shift Lever Attaching	2	26	8D-06	NUT, Ball Socket Attaching	1
11	509772	KNOB, Shift Levers	2	27	4E-06	LKWSHR, Ball Socket Attaching.....	1
12	550669	PLATE, Shift Lever Attaching	2	28	550803	LEVER, Transmission	1
13	18D-05	NUT, U-Bolt	4	29	2520677	BALL SOCKET	1
14	550667	LEVER, High & Low Shift	1	30	4E-04	LKWSHR, Lever Clamp	1
15	550663	LEVER, Forward & Reverse Shift	1	31	2D-04	NUT, Lever Clamp	1
16	—	*SUPPORT, Shift Levers	—	32	8D-06	NUT, Ball Socket Jam	1
16A	581978	Male Half	2	33	8D-06	NUT, Ball Socket Attaching	1
16B	581979	Female Half	2	34	4E-06	LKWSHR, Ball Socket Attaching	1
				35	550803	LEVER, Transmission	1

*NOTE: When 581978 and 581979 Nylon Supports are installed in place of rubber support, 550669 Plate Item 12 is not required.

DECALS

Item No.	Part No.	Description	No. Req'd.
1	2513351	DECAL, Clark	2
2	-----	OMIT	—
3	3301782	DECAL, Model	2
4	548474	DECAL, Gear Shift	1
5	548472	DECAL, Oil Level — Reservoir & Transmission	2
6	538256	DECAL, Drain — Transmission.....	1
7	548473	DECAL, Fill — Torque Converter	1
8	548520	DECAL, Torque Converter — Instrument Panel	1
9	552851	*DECAL, Cold Starting Procedure	1
10	538258	*DECAL, Starter	1
11	522549	DECAL, Safety Precaution	1
12	548521	*DECAL, Switch Identification	1
13	542074	PLATE, Patent	1
14	6C-605	SCREW, Plate Mounting	4

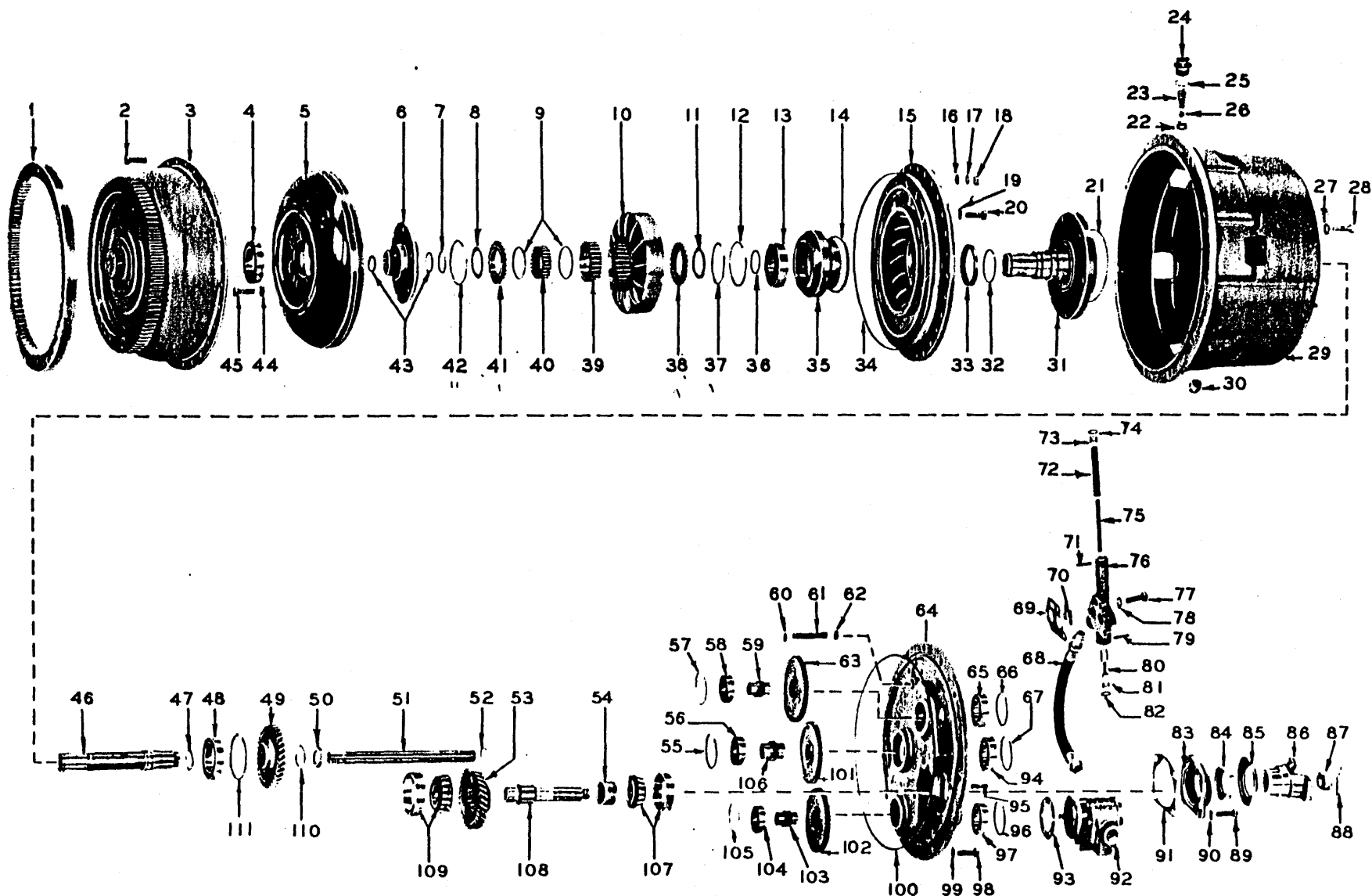
*Waukesha Diesel only.

LUBE OIL FILTER — WAUKESHA GAS

Item No.	Part No.	Description	No. Req'd.
1	940106	FILTER, Lube Oil (Inc. 2)	1
2	869688	CARTRIDGE KIT, Oil Filter	1
3	956814	GASKET, Oil Filter	1
4	1C-812	BOLT, Mounting — ½"	2
5	4E-08	LKWSHR, Mounting — ½".....	2
6	1C-612	BOLT, Mounting — ¾"	1
7	4E-06	LKWSHR, Mounting — ¾"	1

NOTES

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TORQUE CONVERTER ASSEMBLY

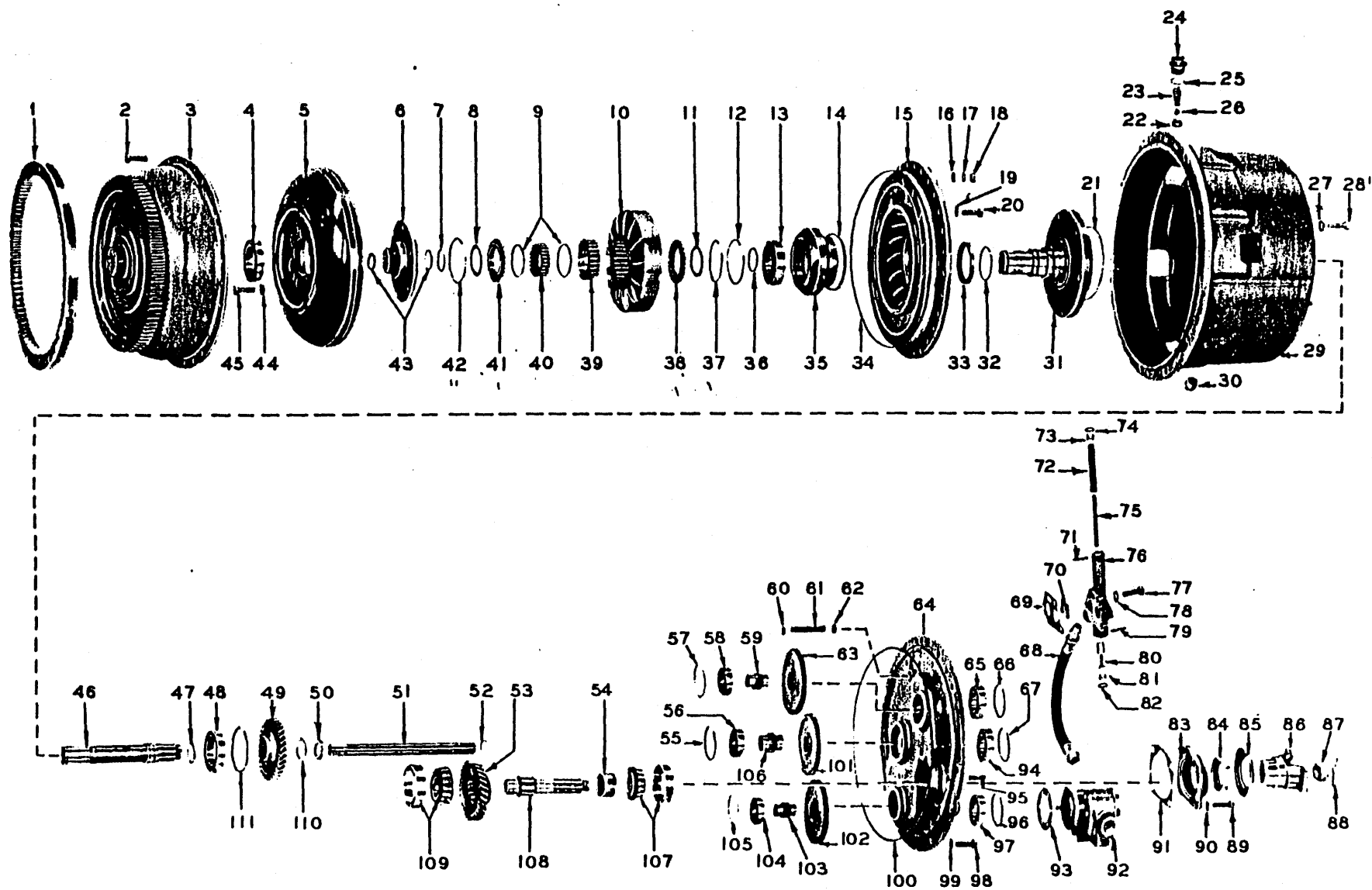
3609-P-87-56

TORQUE CONVERTER ASSEMBLY
For Serial: GAS — 4123 thru 4624, 1DA375 thru 1DA459
DIESEL — 4123D thru 4629D, 1DB86 thru 1DB100

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	280453	CONVERTER ASSY, C-303-1 (Inc. 1, 2 thru 116)	1	29C	4E-04	†LKWSHR, Housing Cover Attaching....	4
1	233089	GEAR, Converter Drive	1	29E	1C-620	†BOLT, Housing to Flywheel Housing....	12
1A	233092	†BOLT, Drive Gear to Flywheel	8	29F	4E-06	†LKWSHR, Housing to Flywheel Hsg....	12
1B	215909	†WASHER, Drive Gear to Flywheel.....	8	30	201120	PLUG, Drain — Magnetic	1
2	2C-618	BOLT, Impeller to Drive Disc	30	31	220706	SUPPORT, Converter	1
3	220483	DISC, Converter Drive	1	32	209307	RING, Converter Support Oil	1
4	223358	BEARING, Drive Disc	1	33	228385	SEAL, Converter Support Oil	1
5	220507	TURBINE, Converter	1	34	60K41200	"O" RING, Impeller to Drive Disc.....	1
6	220493	HUB, Turbine	1	35	209782	HUB, Impeller	1
7	224028	RING, Washer Retaining	1	36	224075	RING, Impeller Hub Bearing Locating	1
8	209319	WASHER, End Plate Thrust	1	37	223967	RING, End Plate Retaining	1
9	209948	SPRING, Sprag Group	2	38	220480	PLATE ASSY, Overrunning Clutch End (Inc. Bushing)	1
10	220488	MEMBER, Converter Reaction	1	39	220479	OUTER RACE, Overrunning Clutch	1
11	209320	WASHER, End Plate Thrust	1	40	221947	CLUTCH ASSY, Overrunning (Inc. 9)..	1
12	223859	RING, Impeller Hub Bearing Ret.....	1	41	220480	PLATE ASSY, Overrunning Clutch End (Inc. Bushing)	1
13	223358	BEARING, Impeller Hub	1	42	223967	RING, End Plate Retaining	1
14	25K-40508	"O" RING, Impeller Hub	1	43	224033	RING, Turbine Hub Retaining	2
15	209311	IMPELLER, Converter	1	44	619023	WASHER, Turbine to Hub	8
16	619023	WASHER, Impeller to Drive Disc.....	30	45	209313	BOLT, Turbine to Hub	8
17	6E-06	LKWSHR, Impeller to Drive Disc.....	30	46	221073	SHAFT, Main Drive Gear	1
18	2D-06	NUT, Impeller to Drive Disc	30	47	209304	RING, Main Drive Shaft Oil	1
19	619023	WASHER, Impeller to Hub	6	48	658016	BEARING, Main Drive Gear	1
20	209313	BOLT, Impeller to Hub	6	49	220492	GEAR, Main Drive (33T)	1
21	25K-40600	"O" RING, Converter Support	1	50	221074	NUT, Main Drive Gear Retaining	1
22	208788	SEAT, By-Pass Ball	1	51	209779	SHAFT, Oil Pump	1
23	209188	SPRING, Pressure Relief	1	52	209781	RING, Oil Pump Shaft Sealing	1
24	220847	FITTING, By-Pass	1	53	209336	GEAR, Output Shaft	1
25	221023	SEAL, By-Pass Fitting	1	54	209337	SPACER, Output Shaft Gear	1
26	10J-16	BALL, Pressure Relief	1	55	223863	RING, Hub Bearing Retaining	1
27	6E-08	LKWSHR, Support to Housing	6	56	743458	BEARING, Drive Gear Hub	1
28	2C-820	BOLT, Support to Housing	6	57	223981	RING, Hub Bearing Retaining	1
29	222344	HOUSING ASSY, Converter (Inc. 22)..	1	58	860668	BEARING, Driven Gear Hub	1
29A	221007	†COVER, Housing Inspection	2	59	220987	HUB, Pump Driven Gear	1
29B	1C-406	†BOLT, Housing Cover Attaching	4	60	25K-30018	"O" RING, Oil Cross Over Tube	1

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TORQUE CONVERTER ASSEMBLY

3609-P-87-56

TORQUE CONVERTER ASSEMBLY (Continued)

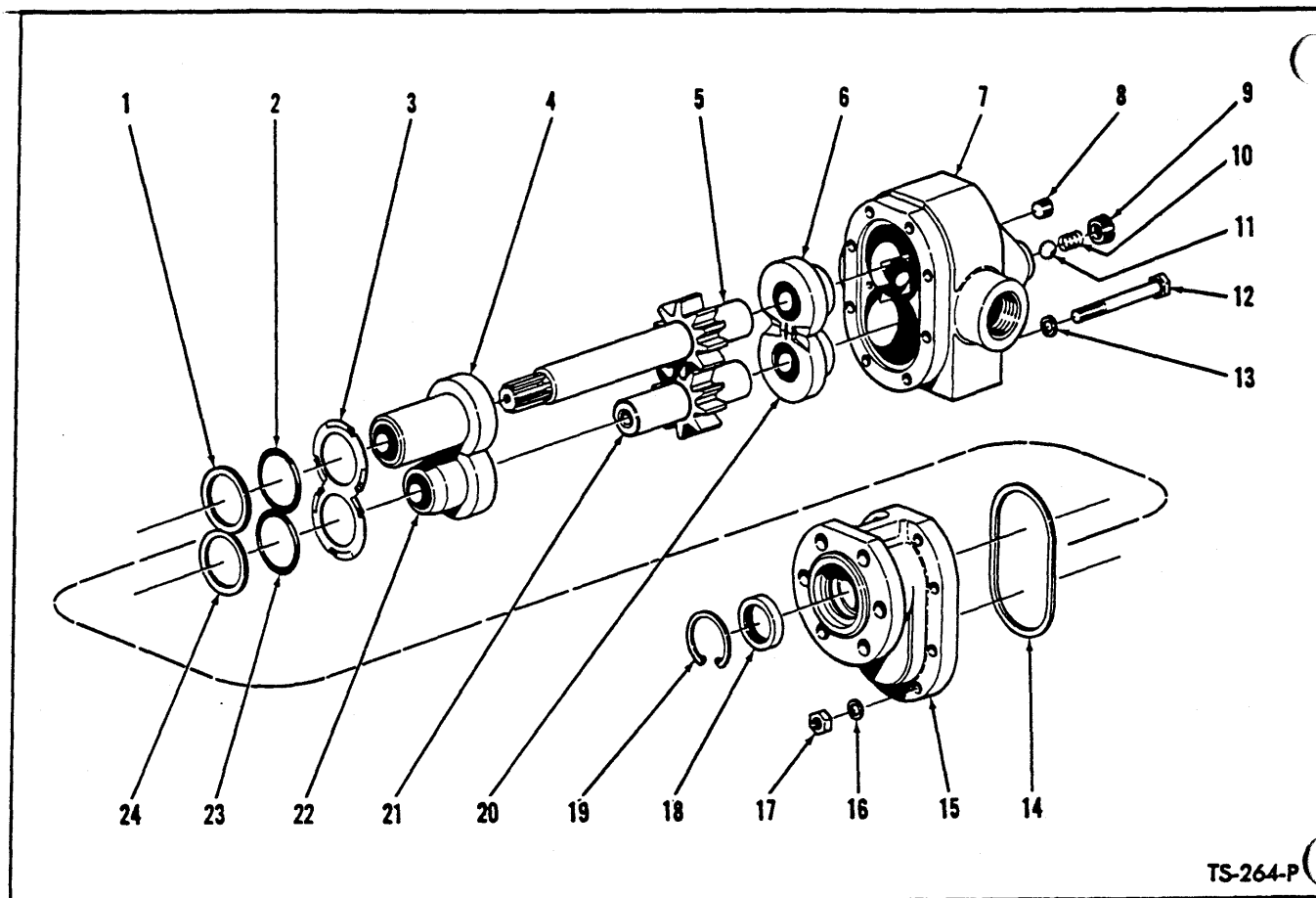
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
61	209869	TUBE, Oil Cross Over	1	92	———	CONVERTER PUMP — See Index	1
62	25K-30018	"O" RING, Oil Cross Over Tube	1	93	235961	GASKET, Pump to Converter	1
63	221082	GEAR, Oil Pump Driven	1	94	743458	BEARING, Drive Gear Hub	1
64	221072	COVER, Converter Housing	1	95	207647	STUD, Pump to Converter	6
65	860668	BEARING, Driven Gear Hub	1	96	223981	RING, Hub Bearing Retaining	1
66	223981	RING, Hub Bearing Retaining	1	97	860668	BEARING, Driven Gear Hub	1
67	223863	RING, Hub Bearing Retaining	1	98	1C-720	BOLT, Cover to Housing	12
68	221084	HOSE, Pump to Valve	1	99	4E-07	LKWSHR, Cover to Housing	12
69	220978	GASKET, Valve to Converter	1	100	209294	"O" RING, Cover to Housing	1
70	58K-210	"O" RING, Valve to Converter	1	101	221080	GEAR, Pump Drive (46T)	1
71	660178	PIN, Piston Stop Retaining	1	102	221082	GEAR, Pump Driven (43T)	1
72	220981	SPRING, Regulator Valve—Outer	1	103	220987	HUB, Pump Driven Gear	1
73	220983	STOP, Regulator Valve	1	104	860668	BEARING, Driven Gear Hub	1
74	25K-30018	"O" RING, Valve Stop	1	105	223981	RING, Hub Bearing Retaining	1
75	220982	SPRING, Regulator Valve—Inner	1	106	221081	HUB, Pump Drive Gear	1
76	801067	VALVE ASSY, Pressure Regulator (Inc. 69 thru 75, 79 thru 82).....	1	107	675544	CUP, Output Shaft Bearing	1
77	1C-820	BOLT, Valve to Converter—Short	2	107A	675547	CONE, Output Shaft Bearing	1
7A	1C-840	BOLT, Valve to Converter—Long	1	108	209334	SHAFT, Output	1
78	4E-08	LKWSHR, Valve to Converter	3	109	675544	CUP, Output Shaft Bearing	1
79	660178	PIN, Piston Stop Retaining	1	109A	675547	CONE, Output Shaft Bearing	1
80	———	§PISTON, Valve — See 76	1	110	221075	WASHER, Main Drive Gear Nut	1
81	220983	STOP, Regulator Valve	1	111		RING, M. D. Gear Bearing Locating	
82	25K-30018	"O" RING, Valve Stop	1	111A	223947	‡RING — .088 to .090	—
83	221076	CAP, Output Shaft Bearing	1	111B	223948	‡RING — .091 to .093	—
84	206864	SEAL, Output Shaft Oil	1	111C	223949	‡RING — .094 to .096	—
85	100949	DEFLECTOR, Output Flange	1	111D	223950	‡RING — .097 to .099	—
86	209343	FLANGE ASSY, Output (Inc. 85)	1	112	224043	†RING, M. D. Gear Bearing Retaining	1
87	201951	NUT, Output Shaft Flange	1	113	220979	†DOWEL, Cover to Housing	1
88	1F-432	COTTER, Flange Nut	1	114	221083	†SPACER, Drive Gear Bearing	1
89	1C-720	BOLT, Bearing Cap	4	115	659041	†RING, Oil Pump Shaft Retaining	1
90	4E-07	LKWSHR, Bearing Cap	4	116	89F-7	†CONNECTOR, Hydraulic Tube	1
91		SHIM, Output Shaft Bearing Cap		117	800880	HOUSING & COVER ASSY (Inc. 22, 29, 64, 98, 99, 100, 113)	1
91A	221077	‡SHIM — .004"	—	118	800881	MEMBER & RACE ASSY (Inc. 10, 37, 38, 39)	1
91B	221078	‡SHIM — .007"	—				
91C	221079	‡SHIM — .010"	—				

§Not Sold Separately

†Not Illustrated

‡As Required

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TS-264-P

HYDRAULIC PUMP — CONVERTER CHARGINGFor Serial: **WAUKESHA GAS — 4123 thru 4624, 1DA375 thru 1DA399****WAUKESHA DIESEL — 4123D thru 4629D, 1DB86 thru 1DB90**

Item No.	Part No.	Description	No. Req'd.
A	221450	*PUMP ASSY (Inc. 1 thru 24).....	1
B	942404	REPAIR KIT, Major (Inc. 1 thru 4, 6, 10 thru 14, 16 thru 20, 22, 23, 24).....	1
C	942403	REPAIR KIT, Minor (Inc. 1, 2, 14, 18, 19, 23, 24)	1
1	—	§WASHER, Back-Up.....	1
2	—	§"O" RING	1
3	—	§SPRING, Bearing	1
4	—	§BEARING, Cover — Drive	1
5	—	§GEAR, Drive	1
6	—	§BEARING, Body — Drive	1
7	—	§BODY	1
8	16F-02	PLUG, Seal Chamber	1
9	—	§PLUG, Seal Relief	1
10	—	**§SPRING, Seal Relief	1
11	—	**§BALL, Seal Relief	1

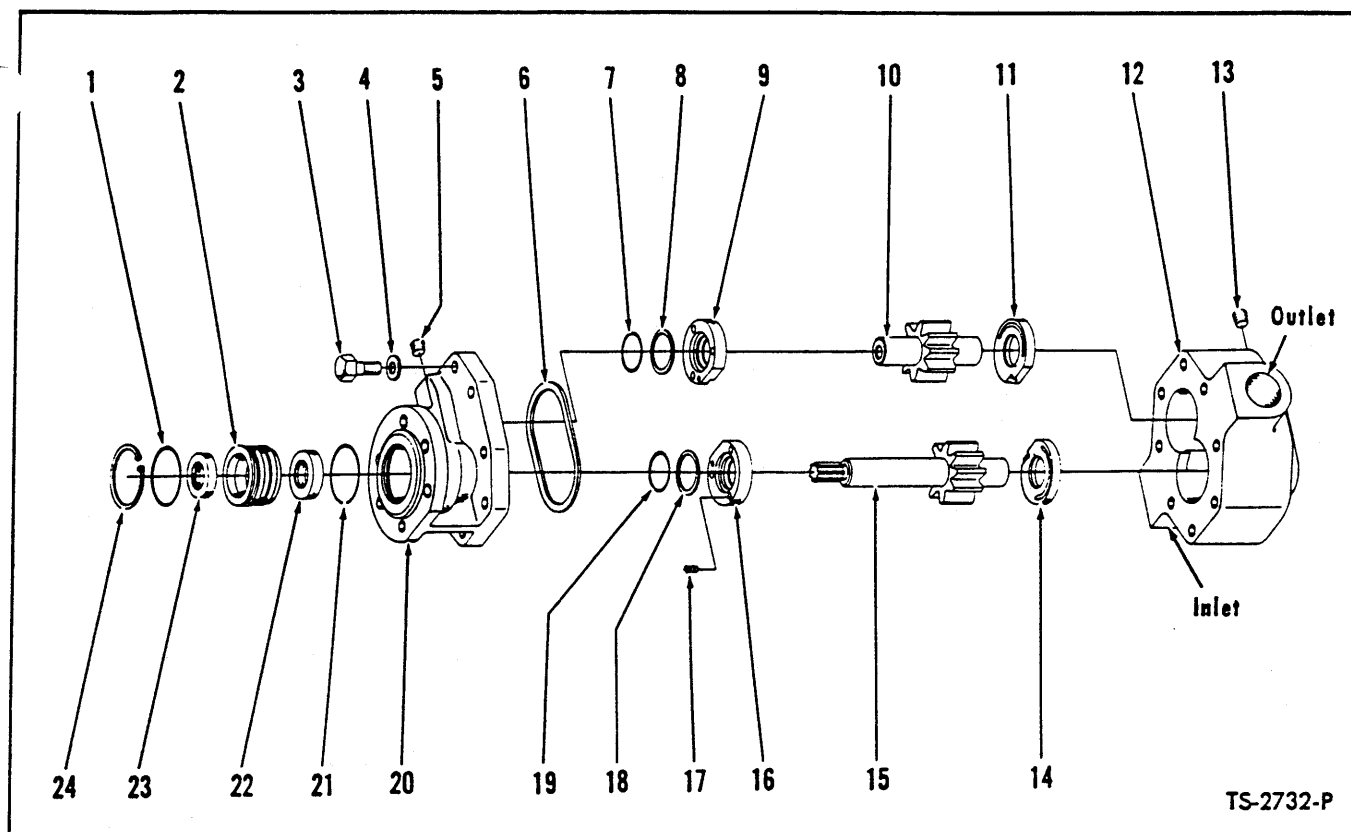
Item No.	Part No.	Description	No. Req'd.
12	—	§BOLT, Cover to Body	8
13	—	§WASHER, Cover to Body	8
14	—	§GASKET, Cover	1
15	—	§COVER	1
16	—	§WASHER, Cover to Body	8
17	—	§NUT, Cover to Body	8
18	—	§SEAL, Shaft Oil	1
19	—	§RING, Seal Retaining	1
20	—	§BEARING, Body — Driven	1
21	—	§GEAR, Driven	1
22	—	§BEARING, Cover — Driven	1
23	—	§"O" RING	1
24	—	§WASHER, Back-Up	1
25	235961	†GASKET, Pump to Converter	1
26	8D-06	†NUT, Pump to Converter	6
27	4E-06	†LKWSHR, Pump to Converter	6

†Not Illustrated

§Not Sold Separately

*NOTE: For complete replacement use 450229 Pump Assy.

**NOTE: Spring and Ball to be removed when rebuilding pump.

**HYDRAULIC PUMP — CONVERTER CHARGING**For Serial: **WAUKESHA GAS — 1DA400 thru 1DA409****WAUKESHA DIESEL — 1DB91 thru 1DB95**

Item No.	Part No.	Description	No. Req'd.
A	450012	*PUMP ASSY (Inc. 1 thru 24)	1
B	498152	REPAIR KIT, Major (Inc. 9, 11, 14, 16)	1
C	498151	**REPAIR KIT, Minor (Inc. 1, 3, 4, 6, 7, 8, 17, 18, 19, 21)	1
D	498024	GEAR SET, Drive & Driven (Inc. 10, 15)	1
E	498113	REPAIR KIT, Shaft Seal (Inc. 1, 2, 21 thru 24)	1
1	—	§"O" RING, Retainer	1
2	—	§RETAINER, Shaft Seal	1
3	—	§BOLT, Cover to Body	8
4	—	§WASHER, Cover to Body	8
5	—	§PLUG, Cover	1
6	—	§GASKET, Cover	1
7	—	§"O" RING, Cover Thrust Plate	1
8	—	§WASHER, Back-Up	1
9	—	§THRUST PLATE, Cover	1
10	—	§GEAR, Driven	1

Item No.	Part No.	Description	No. Req'd.
11	—	§THRUST PLATE, Body	1
12	—	§BODY (Inc. Bushings) (See Note "A")	1
13	—	§PLUG, Body	1
14	—	§THRUST PLATE, Body	1
15	—	§GEAR, Drive	1
16	—	§THRUST PLATE, Cover	1
17	—	§SPRING, Cover Thrust Plate	6
18	—	§WASHER, "O" Ring Back-Up	1
19	—	§"O" RING, Cover Thrust Plate	1
20	—	§COVER (Inc. Bushings) (See Note "A")	1
21	—	§"O" RING, Retainer	1
22	—	§SEAL, Inner Oil	1
23	—	§SEAL, Outer Oil	1
24	—	§RING, Seal Retainer	1
25	235961	†GASKET, Pump to Converter	1
26	8D-06	†NUT, Pump to Converter	6
27	4E-06	†LKWSHR, Pump to Converter	6

*NOTE: For complete replacement use 450229 Pump Assy.

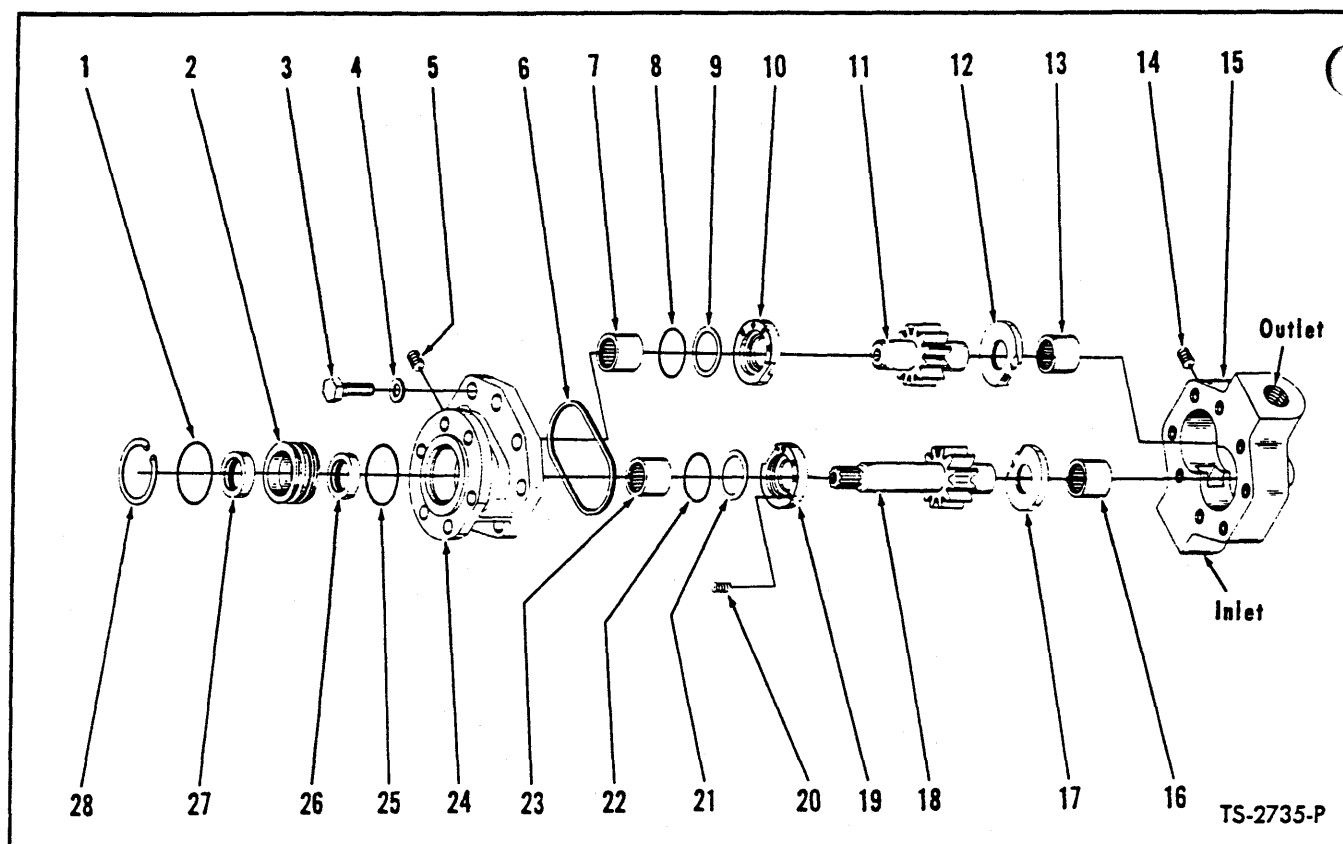
**NOTE: Minor Repair Kit consists of "O" Rings, Back-up Washers, Gaskets and approximately 20% of the hardware items such as bolts, nuts, springs and washers. The latter for the purpose of replacing any of these items lost or damaged in repair operation.

NOTE "A": Pump Bodies, Covers and Bearings will not be made available for field use since when these items are worn beyond limits permitting re-use, the cost of rebuilding the pump exceeds practical limits. In such cases a new pump assembly should be utilized.

†Not Illustrated

§Not Sold Separately

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**HYDRAULIC PUMP — CONVERTER CHARGING**

For Serial: GAS — 1DA410 thru 1DA999

WAUKESHA DIESEL — 1DB96 thru 1DB999

G.M. — 1DG26 thru 1DG999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	450072	***PUMP ASSY (Inc. 1 thru 28)	1	13	---	**§BEARING, Body	1
B	498128	REPAIR KIT, Major (Inc. 10, 12, 17, 19)	1	14	---	§PLUG, Body	1
C	498127	*REPAIR KIT, Minor (Inc. 1, 3, 4, 6, 8, 9, 20, 21, 22, 25)	1	15	---	**§BODY	1
D	498024	GEAR SET, Drive & Driven (Inc. 11, 18)	1	16	---	**§BEARING, Body	1
E	498113	REPAIR KIT, Shaft Seal (Inc. 1, 2, 25 thru 28)	1	17	---	§THRUST PLATE, Body	1
1	---	§"O" RING, Retainer	1	18	---	§GEAR, Drive	1
2	---	§RETAINER, Shaft Seal	1	19	---	§THRUST PLATE, Cover	1
3	---	§BOLT, Cover to Body	8	20	---	§SPRING, Cover Thrust Plate	6
4	---	§WASHER, Cover to Body	8	21	---	§WASHER, "O" Ring Back-Up	1
5	---	§PLUG, Cover	1	22	---	§"O" RING, Cover Thrust Plate	1
6	---	§GASKET, Cover	1	23	---	**§BEARING, Cover	1
7	---	**§BEARING, Cover — Driven	1	24	---	**§COVER	1
8	---	§"O" RING, Cover Thrust Plate	1	25	---	§"O" RING, Retainer	1
9	---	§WASHER, "O" Ring Back-Up	1	26	---	§SEAL, Inner Oil	1
10	---	§THRUST PLATE, Cover	1	27	---	§SEAL, Outer Oil	1
11	---	§GEAR, Driven	1	28	---	§RING, Seal Retaining	1
12	---	§THRUST PLATE, Body	1	29	214961	†SLEEVE, Pump Drive	1
				30	235961	†GASKET, Pump to Converter	1
				31	8D-06	†NUT, Pump to Converter	6
				32	4E-06	†LKWSHR, Pump to Converter	6

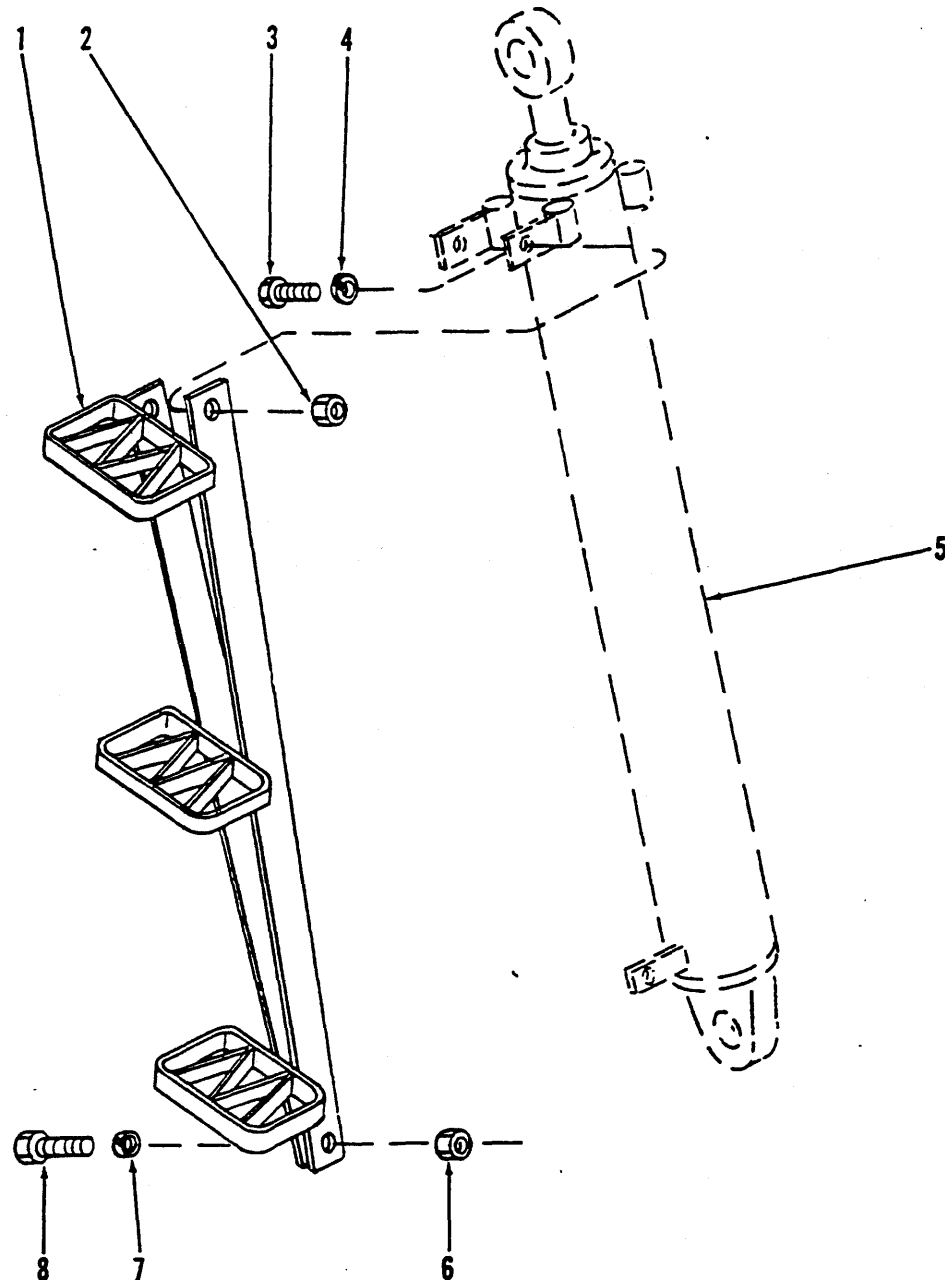
*NOTE: Minor Repair Kit consists of "O" Rings, Back-up Washers, Gaskets and approximately 20% of the hardware items such as bolts, nuts, springs and washers. The latter for the purpose of replacing any of these items lost or damaged in repair operation.

**NOTE: Pump Bodies, Covers and Bearings will not be made available for field use since when these items are worn beyond limits permitting re-use, the cost of rebuilding the pump exceeds practical limits. In such cases a new pump assembly should be utilized.

***NOTE: For complete replacement use 450229 Pump Assy.

†Not Illustrated

§Not Sold Separately

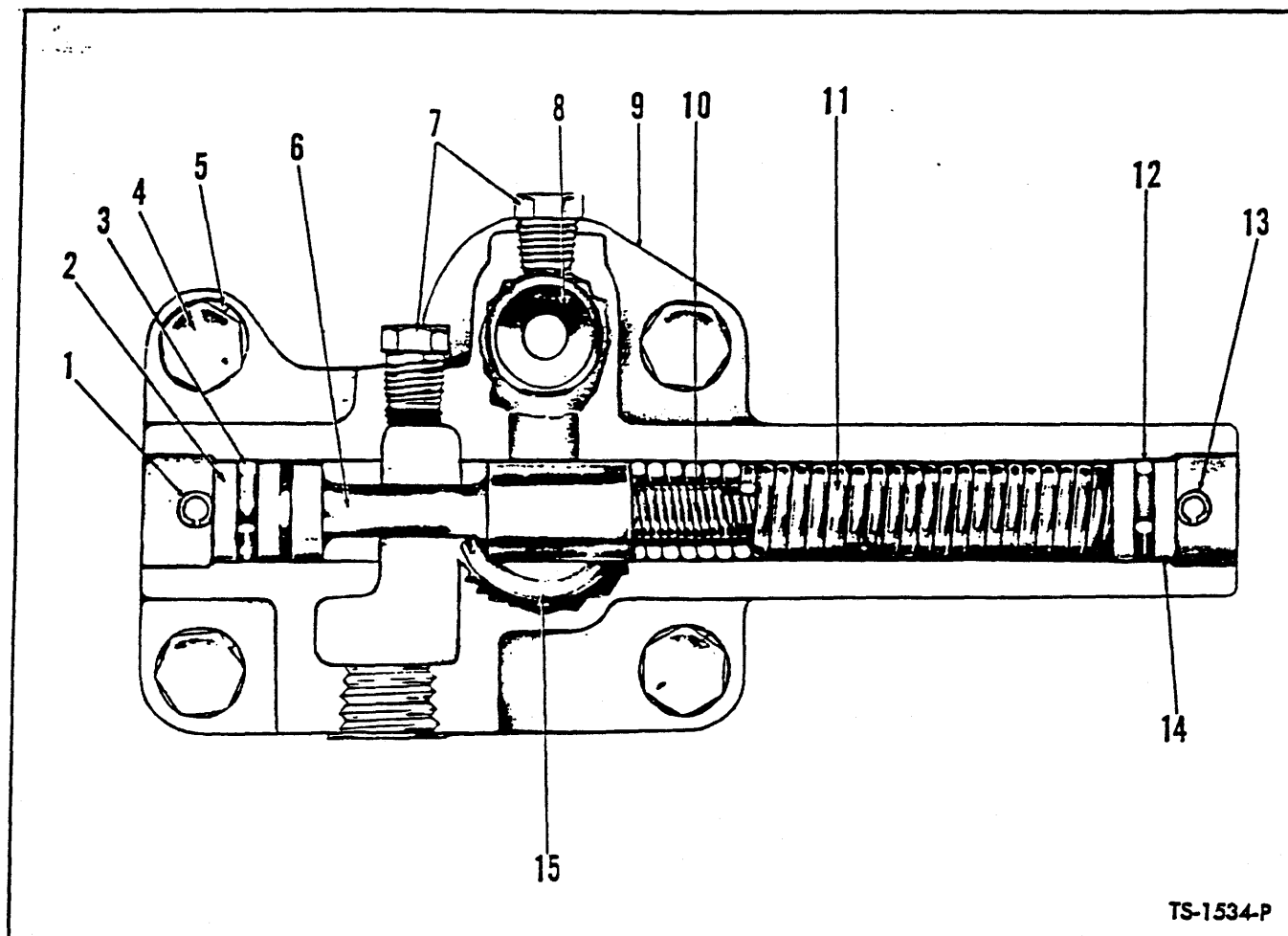


TS-3260-P

CYLINDER STEP ASSEMBLY

Item No.	Part No.	Description	No. Req'd.
1	533667	STEP ASSY, Boom Cylinder	1
2	2D-08	NUT, Step to Cylinder Mounting	2
3	2C-820	BOLT, Step to Cylinder Mounting	2
4	4E-08	LKWSHR, Step to Cylinder Mounting	2
5	—	BOOM CYLINDER — (See Index)	—
6	2D-08	NUT, Step to Cylinder Mounting	1
7	4E-08	LKWSHR, Step to Cylinder Mounting	1
8	2C-824	BOLT, Step to Cylinder Mounting	1

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



PRESSURE REGULATOR VALVE ASSEMBLY

For Serial: WAUKESHA GAS — 1DA460 thru 1DA999; WAUKESHA DIESEL — 1DB101 thru 1DB999;
G.M. — 1DG1 thru 1DG999

Item No.	Part No.	Description	No. Req'd.
A	214969	VALVE ASSY, Pressure Regulator (Inc. 1 thru 3, 6, 8 thru 16)	1
1	660178	PIN, Piston Stop	1
2	220983	STOP, Piston	1
3	25K-30018	"O" RING, Piston Stop	1
4	1C-616	BOLT, Valve to Converter	4
5	4E-06	LKWSHR, Valve to Converter	4
6	—	§PISTON, Valve (See "A")	—
7	40K-02	PLUG, Valve Housing Pipe	2

Item No.	Part No.	Description	No. Req'd.
8	214946	SEAT, Safety Valve	1
9	—	§BODY, Valve (See "A")	—
10	220981	SPRING, Valve — Inner	1
11	220982	SPRING, Valve — Outer	1
12	25K-30018	"O" RING, Piston Stop	1
13	660178	PIN, Piston Stop	1
14	220983	STOP, Piston	1
15	25K-40104	"O" RING, Valve to Converter	1
16	214949	†GASKET, Valve to Housing	1

†Not Illustrated
§Not Sold Separately

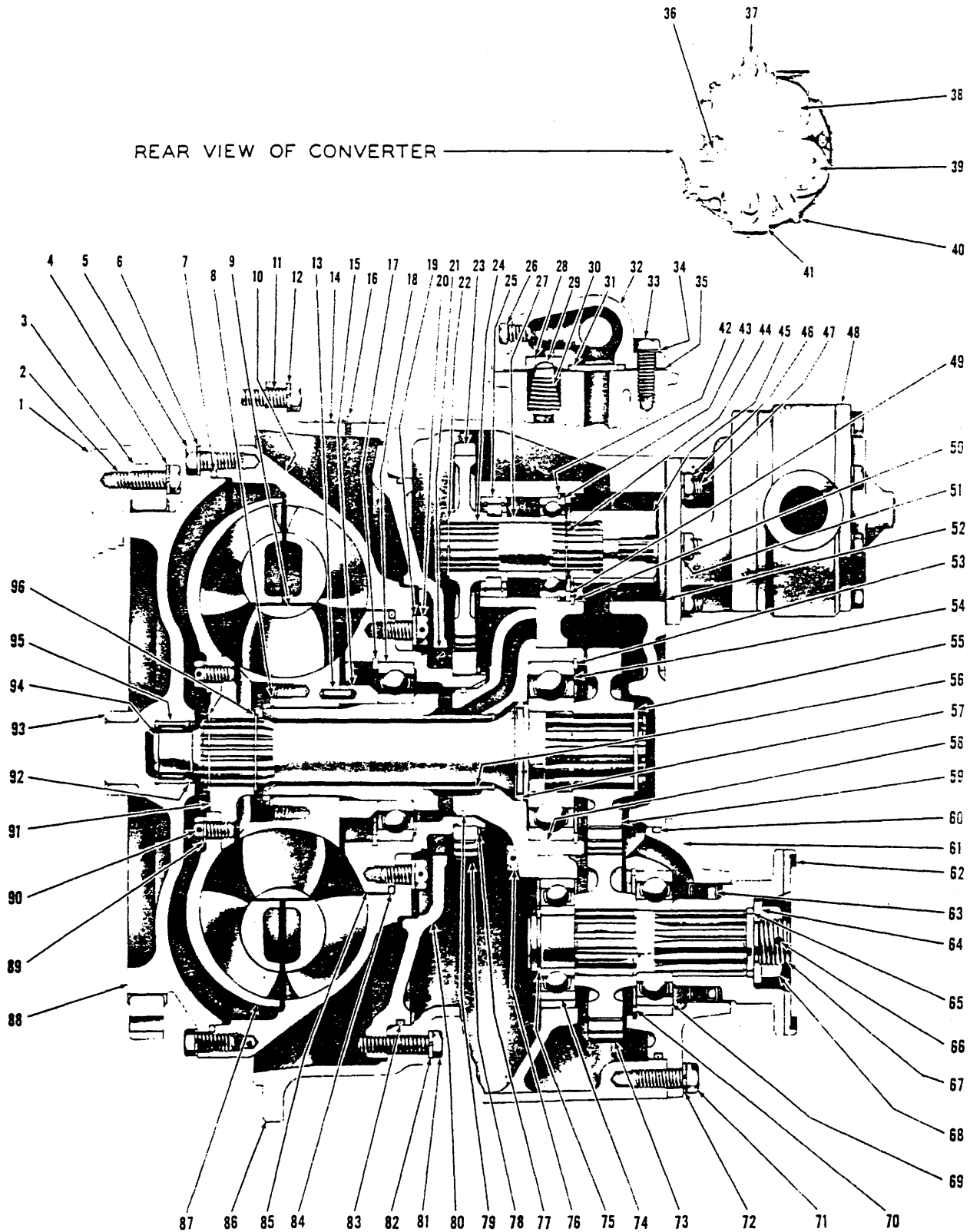
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

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REAR VIEW OF CONVERTER



TORQUE CONVERTER ASSEMBLY

TS-1566-P

TORQUE CONVERTER ASSEMBLY

For Serial: WAUKESHA GAS — 1DA460 thru 1DA999

WAUKESHA DIESEL — 1DB101 thru 1DB999

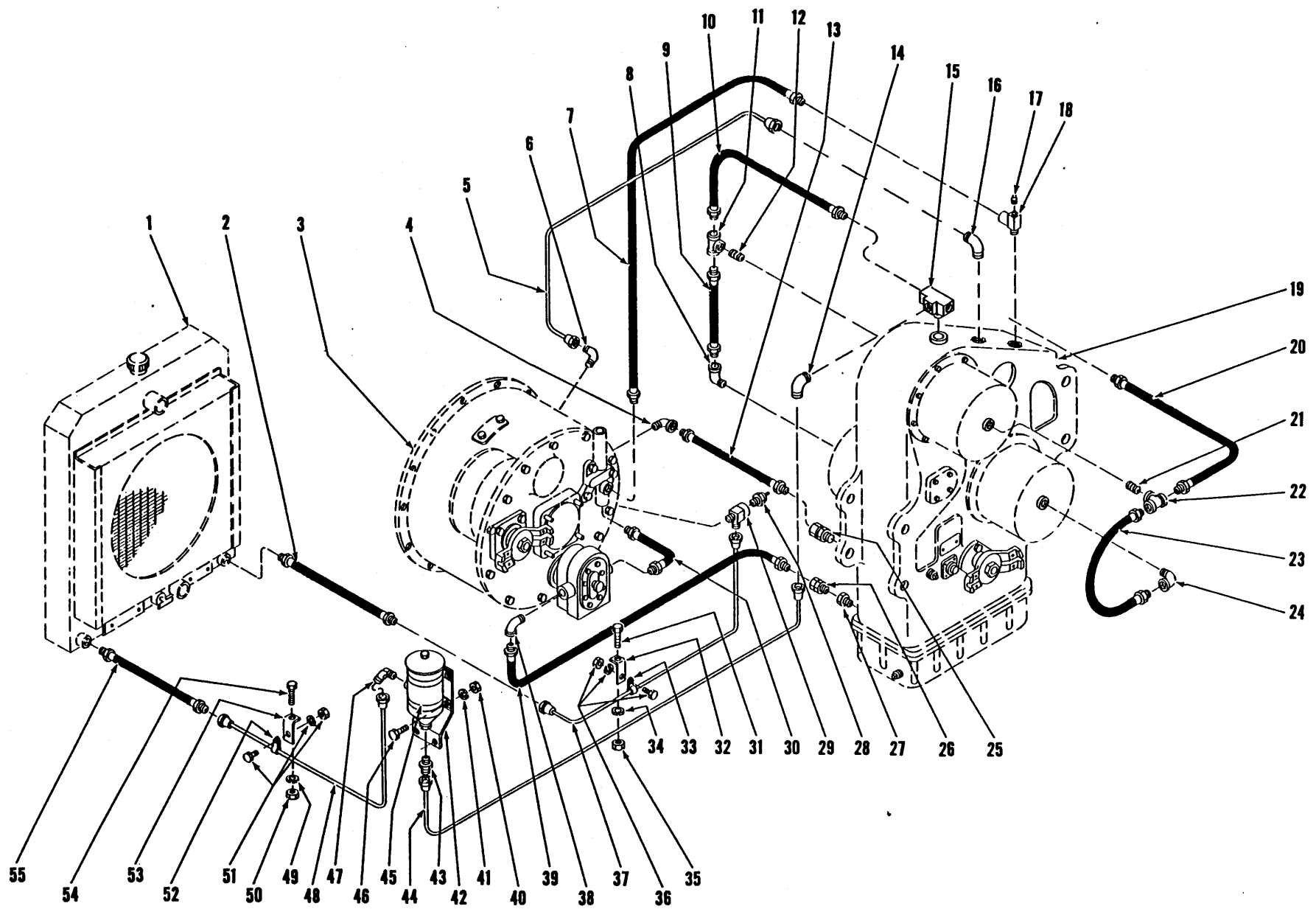
G.M. — 1DG1 thru 1DG999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	281161	CONVERTER ASSY (C-273T-5)	1	50	713186	RING, Washer Retaining	1
1	—	FLYWHEEL, Engine	—	51	4E-06	LKWSHR, Pump Stud	6
2	233092	BOLT, Drive Gear to Flywheel	8	52	235961	GASKET, Converter Pump	1
3	233089	GEAR, Converter Drive	1	53	214953	RING, Bearing Retaining	1
4	215909	WASHER, Drive Gear to Flywheel	8	54	231554	BEARING, Turbine Shaft	1
5	1C-616	BOLT, Impeller to Cover	24	55	224116	RING, Gear Retaining	1
6	4E-06	LKWSHR, Impeller to Cover	24	56	—	§SLEEVE, Stator Support	—
7	60K41200	"O" RING, Impeller to Cover	1			(Included in 58)	—
8	743035	RING, Reaction Member Retaining	1	57	222079	RING, Turbine Shaft Sealing	1
9	214957	MEMBER, Reaction	1	58	214932	SUPPORT ASSY, Converter (Inc. 56)	1
10	214959	IMPELLER	1	59	214935	GEAR, Turbine Shaft	1
11	1C-620	BOLT, Converter to Engine	12	60	25K-40512	"O" RING, Bearing Retainer	1
12	4E-06	LKWSHR, Converter to Engine	12	61	235091	RETAINER ASSY, Bearing (Inc. 63)	1
13	658244	PIN, Spacer to Reaction Member Lock	1	62	214940	FLANGE, Companion	1
14	—	§PLATE, Name	—	63	206864	SEAL, Oil	1
15	214934	SPACER, Reaction Member	1	64	102745	WASHER, Output Shaft	1
16	—	§SCREW, Name Plate Drive	—	65	25K-40112	"O" RING, Companion Flange	1
17	214953	RING, Impeller Hub Bearing Retainer	1	66	1F-424	COTTER, Output Shaft	1
18	214596	BEARING, Impeller Hub	1	67	214937	SHAFT, Output	1
19	25E-19	WASHER, Hub to Impeller Bolt	8	68	201951	NUT, Output Shaft	1
20	4C-714	BOLT, Hub to Impeller	8	69	743439	BEARING, Output Shaft Rear	1
21	214941	SEAL, Oil Baffle Oil	1	70	223901	RING, Bearing Snap	1
22	711298	RING, Gear Retaining	3	71	1C-720	BOLT, Bearing Retainer	3
23	214931	GEAR, Pump Drive (37T)	3	71A	214730	†STUD, Bearing Retainer	2
24	214928	SHAFT, Pump Drive	3	71B	8D-07	†NUT, Bearing Retainer	2
25	214936	BEARING, Roller	3	72	4E-07	LKWSHR, Bearing Retainer	5
26	40K-02	PLUG, Valve Housing Pipe	2	73	214938	GEAR, Output Shaft (37T)	1
27	214930	SPACER, Pump Shaft	3	74	235057	BEARING, Output Shaft Front	1
28	214946	SEAT, Safety Valve	1	75	214955	RING, Bearing Retaining	1
29	222318	PLUNGER, Safety Valve	1	76	1C-820	BOLT, Stator Support	6
30	222312	SPRING, Safety Valve	1	76A	7E-08	†LKWSHR, Stator Support	6
31	25K-40104	"O" RING, Valve to Converter	1	77	224009	RING, Gear Retaining	1
32	—	See Regulator Valve Assy (Item 37)	—	78	214951	GEAR, Impeller Hub	1
33	1C-616	BOLT, Valve Body	4	79	221653	RING, Sealing	1
34	4E-06	LKWSHR, Valve Body	4	80	214925	BAFFLE, Oil	1
35	214949	GASKET, Valve Body to Converter	1	81	1C-628	BOLT, Oil Baffle	3
36	—	SHAFT, Output (See Item 67)	—	82	4E-06	LKWSHR, Oil Baffle	3
37	—	VALVE ASSY, Pressure Regulating	—	83	60K41200	"O" RING, Oil Baffle	1
		(See Index)	—	84	25K-40616	"O" RING, Impeller Hub	1
38	—	PAD, Pump Mounting	—	85	214958	HUB, Impeller	1
39	—	PAD, Pump Mounting	—	86	214950	HOUSING, Converter	1
40	13F-16	PLUG, Pipe	4	86A	14F-08	†PLUG, Pipe	1
41	—	PUMP, Converter Charging	—	86B	40K-02	†PLUG, Pipe	1
		(See Index)	—	87	223833	TURBINE	1
42	214954	RING, Bearing Snap	3	88	214922	*DRIVE DISC	1
43	214956	BEARING, Shaft	3	89	619023	WASHER, Turbine Hub Bolt	8
44	224039	RING, Bearing Retaining	3	90	209313	BOLT, Turbine to Hub	8
45	214961	ADAPTER, Converter Pump Drive	1	91	214924	HUB, Turbine	1
46	8D-06	NUT, Pump Stud	6	92	666542	RING, Bearing Retaining	1
47	207647	STUD, Pump	6	93	222006	SLEEVE	1
48	—	PUMP, Converter Charging—	—	94	214933	SHAFT, Turbine	1
		(See Index)	1	95	214988	BEARING, Impeller Cover	1
49	214929	WASHER, Pump Shaft	3	96	659065	RING, Turbine Hub Snap	2

§Not Sold Separately

†Not Illustrated

*NOTE: For replacement use 801524 Kit, which consists of 1—234503 Impeller Cover plus 1—222006 Impeller Cover Sleeve.



HYDRAULIC SYSTEM — TRANSMISSION AND TORQUE CONVERTER

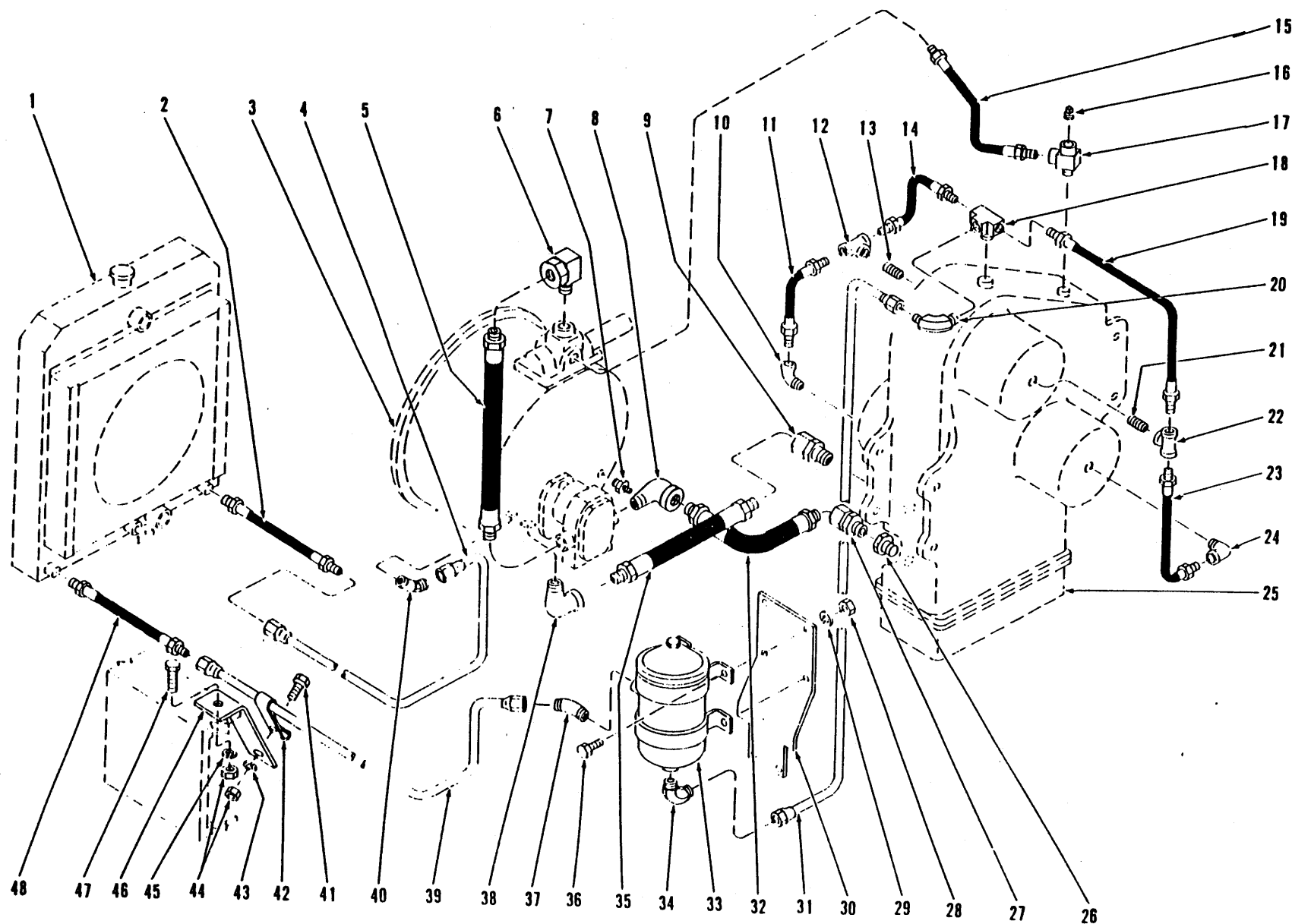
TS-2592-P

HYDRAULIC SYSTEM — TRANSMISSION AND TORQUE CONVERTER — WAUKESHA
For Serial: WAUKESHA GAS — 4123 thru 4624, 1DA375 thru 1DA459
WAUKESHA DIESEL — 4123D thru 4629D, 1DB86 thru 1DB100

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	RADIATOR — (See Index)	—	31	2C-620	BOLT, Bracket to Frame	1
2	528295	HOSE, Cooler Line to Radiator	1	32	551996	BRACKET, Cooler Line Clip	1
3	—	TORQUE CONVERTER — (See Index)	—	33	6H-16	CLIP, Cooler Line	1
4	26F-5	ELBOW, Hose to Converter	1	34	4E-06	LKWSHR, Bracket to Frame	1
5	514613	LINE, Converter Overflow	1	35	2D-06	NUT, Bracket to Frame	1
6	85F-8	ELBOW, Line to Converter	1	36	2C-612	BOLT, Clip to Bracket	1
7	519738	HOSE, Reg. Valve to Transmission	1	36A	2D-06	NUT, Clip to Bracket	1
8	26F-2	ELBOW, Hose to Clutch Cover	1	36B	4E-06	LKWSHR, Clip to Bracket	1
9	550874	HOSE, 1st & 3rd to Reverse Clutch	1	37	552290	LINE, Cooler — Converter to Radiator	1
10	550876	HOSE, Cross to 1st & 3rd Clutch	1	38	26F-6	ELBOW, Hose to Pump	1
11	18F-2	TEE, 1st & 3rd Clutch	1	39	552156	HOSE, Trans. to Conv. — Suction	1
12	5K-207	NIPPLE, Tee to Clutch Cover	1	40	2D-05	NUT, Filter to Bracket	4
13	550724	HOSE, Converter Drain	1	41	4E-05	LKWSHR, Filter to Bracket	4
14	83F-7	ELBOW, Line to Cross	1	42	552473	BRACKET, Filter	1
15	550866	CROSS, Transmission Clutches	1	43	89F-7	CONNECTOR, Line to Filter	1
16	83F-8	ELBOW, Line to Transmission	1	44	514614	LINE, Filter to Transmission	1
17	13F-04	PLUG, Tee	1	45	552470	FILTER, Transmission Oil (Inc. 45A)	1
18	30F-1	TEE, Hose to Transmission	1	45A	957577	†CARTRIDGE KIT, Oil Filter	1
19	—	TRANSMISSION — (See Index)	—	46	2C-514	BOLT, Filter to Bracket	4
20	550758	HOSE, Cross to Forward Clutch	1	47	84F-7	ELBOW, Line to Filter	1
21	5K-207	NIPPLE, Tee to Clutch Cover	1	48	552474	LINE, Radiator to Filter	1
22	18F-2	TEE, Forward Clutch	1	49	4E-06	LKWSHR, Bracket to Frame	1
23	550758	HOSE, Forward to 2nd & 4th Clutch ..	1	50	2D-06	NUT, Bracket to Frame	1
24	26F-2	ELBOW, Hose to Clutch Cover	1	51	2C-612	BOLT, Clip to Bracket	1
25	36F-5	ADAPTER UNION	1	51A	2D-06	NUT, Clip to Bracket	1
25A	356621	†BUSHING, Trans. Case Reducing	1	51B	4E-06	LKWSHR, Clip to Bracket	1
26	36F-6	ADAPTER UNION	1	52	6H-16	CLIP, Cooler Return Line	1
27	356626	BUSHING, Transmission Reducing ..	1	53	551996	BRACKET, Cooler Line Clip	1
28	551323	SENDER UNIT, Converter Temperature	1	54	2C-620	BOLT, Bracket to Frame	1
29	551896	TEE, Cooler Line to Converter	1	55	528295	HOSE, Radiator to Return Line	1
30	221084	HOSE, Pump to Regulator Valve	1				

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



HYDRAULIC SYSTEM — TRANSMISSION AND TORQUE CONVERTER

TS-2431-P

HYDRAULIC SYSTEM — TRANSMISSION AND TORQUE CONVERTER — WAUKESHA

For Serial: GAS — 1DA460 thru 1DA999

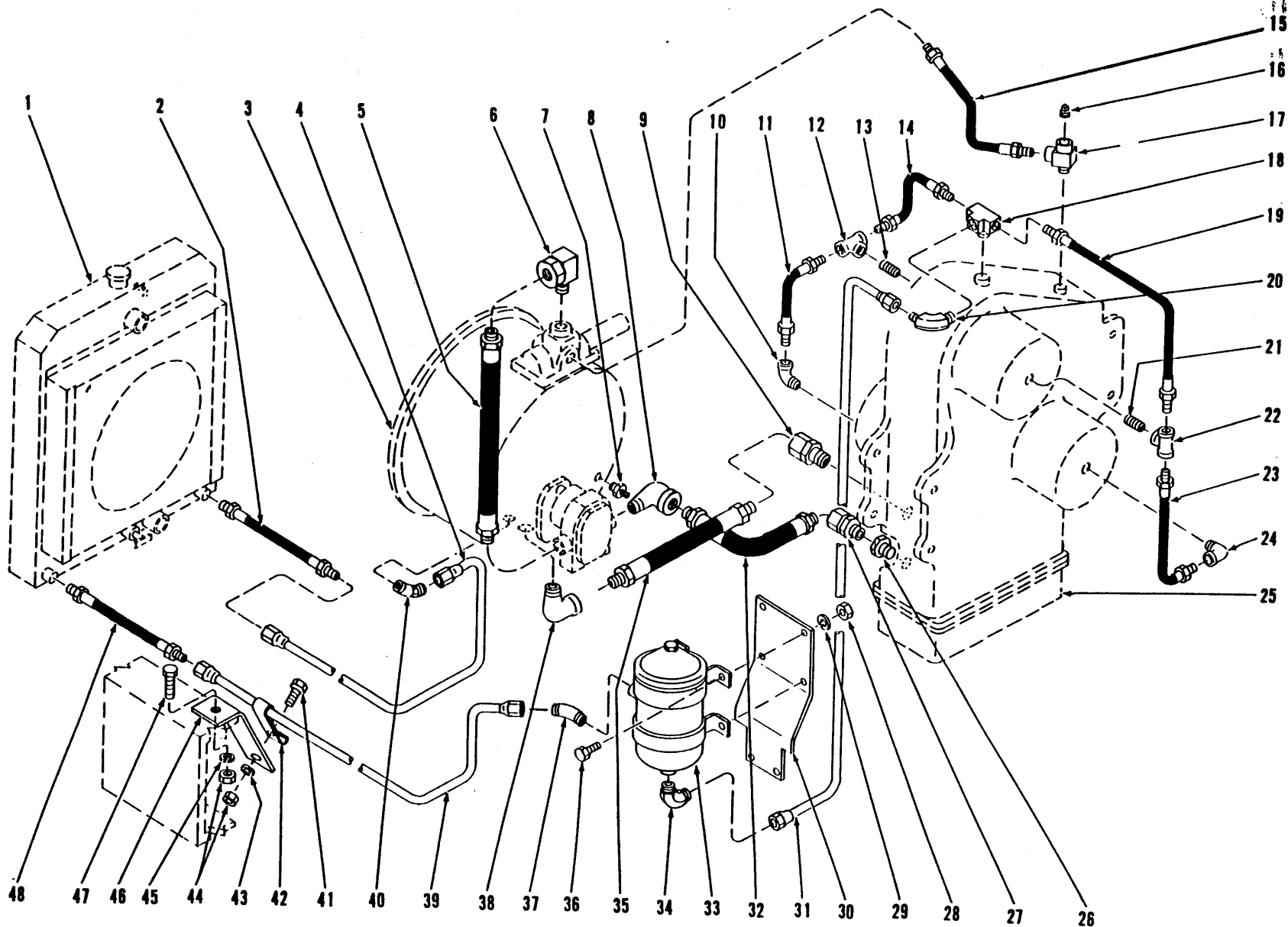
DIESEL — 1DB101 thru 1DB999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	RADIATOR — (See Index)	—	23	550758	HOSE, Forward to 2nd & 4th Clutch ..	1
2	536048	HOSE, Cooler Line to Radiator	1	24	26F-2	ELBOW, Hose to Clutch Cover	1
3	—	TORQUE CONVERTER (See Index)	—	25	—	TRANSMISSION — (See Index)	—
4	531401	COOLER LINE, Converter to Radiator ..	1	26	356626	BUSHING, Transmission Reducing	1
5	645432	HOSE, PUMP to Regulator Valve	1	27	36F-6	ADAPTER UNION	1
6	553843	ADAPTER UNION	1	28	2D-05	NUT, Filter to Bracket	4
7	551323	SENDER UNIT, Converter Temperature ..	1	29	4E-05	LKWSHR, Filter to Bracket	4
8	26F-6	ELBOW, Hose to Pump	1	30	552473	BRACKET, Filter Attaching	1
9	—	ADAPTER UNION	—	31	514614	COOLER LINE, Filter to Transmission ..	1
9A	36F-5	For Serial: GAS — 1DA460 thru 1DA489	1	32	531006	HOSE, Converter Suction	1
9B	36F-6	For Serial: GAS — 1DA490 thru 1DA999	1	33	552470	FILTER ASSY, Trans. & Conv. Oil (Inc. 33A)	1
		DIESEL — 1DB101 thru 1DB999	1	33A	957577	†CARTRIDGE KIT, Oil Filter	1
10	26F-2	ELBOW, Hose to Clutch Cover	1	34	89F-7	CONNECTOR, Cooler Line to Filter	1
11	550874	HOSE, 1st & 3rd to Reverse Clutch	1	35	536367	*HOSE, Converter Overflow	1
12	18F-2	TEE, 1st & 3rd Clutch	1	36	2C-514	BOLT, Filter to Bracket	1
13	5K-207	NIPPLE, Tee to Clutch Cover	1	37	531400	ELBOW, Cooler Line to Filter	1
14	550876	HOSE, Cross to 1st & 3rd Clutch	1	38	26F-6	ELBOW, Hose to Converter	1
15	527550	HOSE, Converter to Tee	1	39	531402	COOLER LINE, Radiator to Filter	1
16	13F-04	PLUG, Tee	1	40	83F-8	ELBOW, Cooler Line to Converter	1
17	30F-1	TEE, Hose to Transmission	1	41	2C-612	BOLT, Clip to Bracket	2
18	550866	CROSS, Transmission Clutches	1	42	6H-18	CLIP, Cooler Line	2
19	550758	HOSE, Cross to Forward Clutch	1	43	4E-06	LKWSHR, Clip to Bracket	2
20	83F-7	ELBOW, Cooler Line to Cross	1	44	2D-06	NUT	4
21	5K-207	NIPPLE, Tee to Clutch Cover	1	45	4E-06	LKWSHR, Bracket to Frame	2
22	18F-2	TEE, Forward Clutch	1	46	551996	BRACKET, Cooler Line Clip	2
				47	2C-620	BOLT, Bracket to Frame	2
				48	536048	HOSE, Radiator to Cooler Line	1

*NOTE: When 536367 Hose is installed on Gas Powered machines Serial 1DA460 thru 1DA489, one (1) 36F-6 Adapter Union must be used at transmission end. Reducing Bushing in transmission is to be discarded.

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



HYDRAULIC SYSTEM — TRANSMISSION AND TORQUE CONVERTER

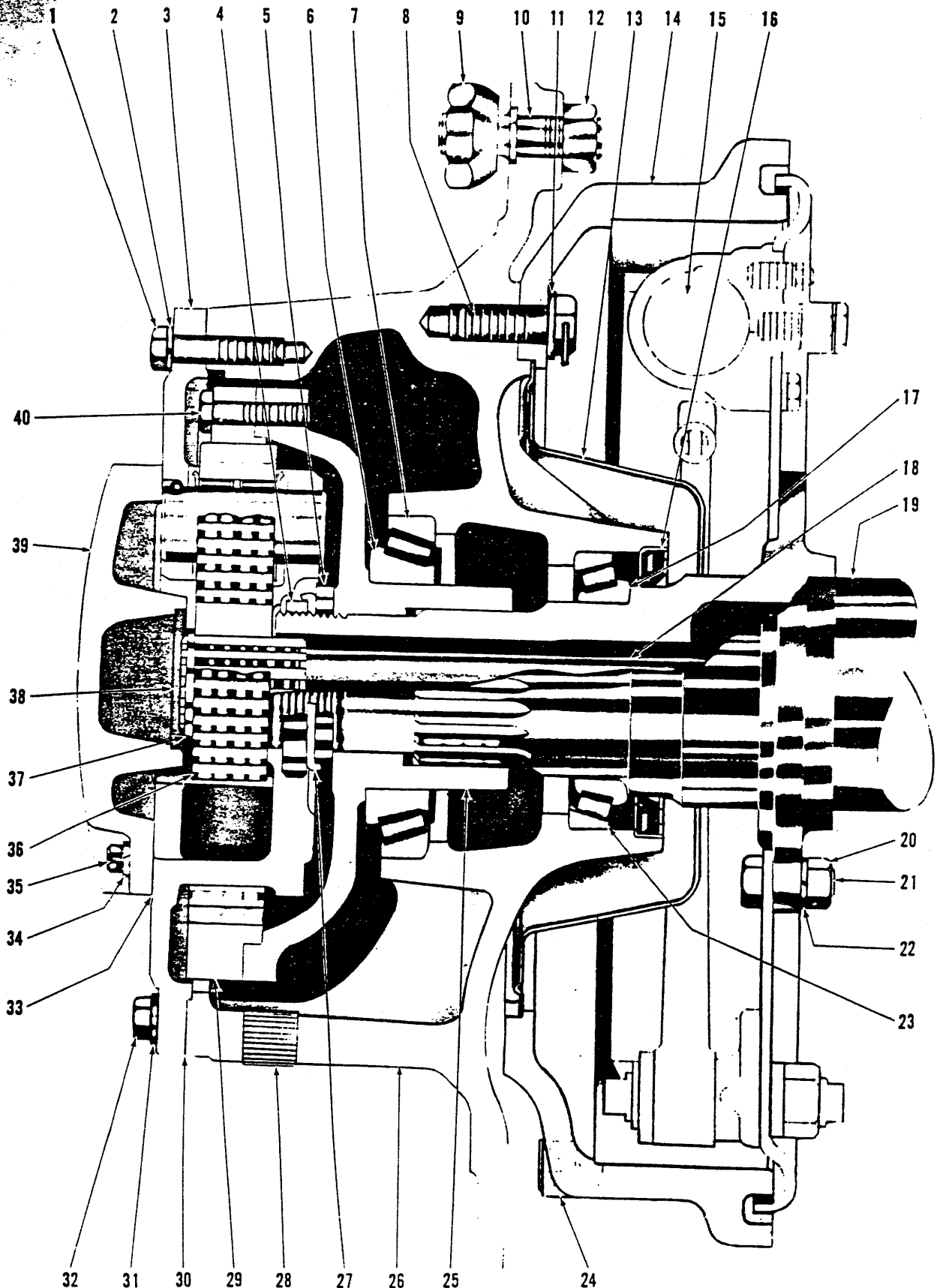
TS-2431-P

HYDRAULIC SYSTEM — TRANSMISSION AND TORQUE CONVERTER — G.M.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	RADIATOR — (See Index)	—	27	36F-6	ADAPTER UNION	1
2	536048	HOSE, Cooler Line to Radiator	1	28	2D-05	NUT, Filter to Bracket	4
3	—	TORQUE CONVERTER (See Index)....	—	29	4E-05	LKWSHR, Filter to Bracket	4
4	531676	COOLER LINE, Converter to Radiator	1	30	531168	BRACKET, Filter Attaching	1
5	645432	HOSE, Pump to Regulator Valve	1	30A	2C-620	BOLT, Bracket to Frame	2
6	553843	ADAPTER UNION	1	30B	2D-06	NUT, Bracket to Frame	2
7	551323	SENDER UNIT, Converter Temperature	1	30C	4E-06	LKWSHR, Bracket to Frame	2
8	26F-6	ELBOW, Hose to Pump	1	31	529874	COOLER LINE, Filter to Transmission..	1
9	36F-6	ADAPTER UNION	1	32	582487	HOSE, Converter Suction	1
10	26F-2	ELBOW, Hose to Clutch Cover	1	33	552470	FILTER ASSY, Trans. & Conv. Oil (Inc. 33A)	1
11	550874	HOSE, 1st & 3rd to Reverse Clutch	1	33A	957577	†CARTRIDGE KIT, Oil Filter	1
12	18F-2	TEE, 1st & 3rd Clutch	1	34	83F-7	ELBOW, Cooler Line to Filter	1
13	5K-207	NIPPLE, Tee to Clutch Cover	1	35	539106	HOSE, Converter Overflow	1
14	550876	HOSE, Cross to 1st & 3rd Clutch	1	36	2C-514	BOLT, Filter to Bracket	4
15	531167	HOSE, Converter to Tee	1	37	730149	ELBOW, Cooler Line to Filter	1
16	13F-04	PLUG, Tee	1	38	26F-6	ELBOW, Hose to Converter	1
17	30F-1	TEE, Hose to Transmission	1	39	531677	COOLER LINE, Radiator to Filter	1
18	550866	CROSS, Transmission Clutches	1	40	89F-8	CONNECTOR, Cooler Line to Conv.	1
19	550758	HOSE, Cross to Forward Clutch	1	41	2C-612	BOLT, Clip to Bracket	2
20	—	Not Applicable this Model	—	42	6H-18	CLIP, Cooler Line	2
21	5K-207	NIPPLE, Tee to Clutch Cover	1	43	4E-06	LKWSHR, Clip to Bracket	2
22	18F-2	TEE, Forward Clutch	1	44	2D-06	NUT	4
23	550758	HOSE, Forward to 2nd & 4th Clutch..	1	45	4E-06	LKWSHR, Bracket to Frame	2
24	26F-2	ELBOW, Hose to Clutch Cover	1	46	551996	BRACKET, Cooler Line Clip	2
25	—	TRANSMISSION — (See Index)	—	47	2C-620	BOLT, Bracket to Frame.....	2
26	356626	BUSHING, Transmission Reducing	1	48	536048	HOSE, Radiator to Cooler Line	1

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



AXLE ASSEMBLY — FRONT DRIVE

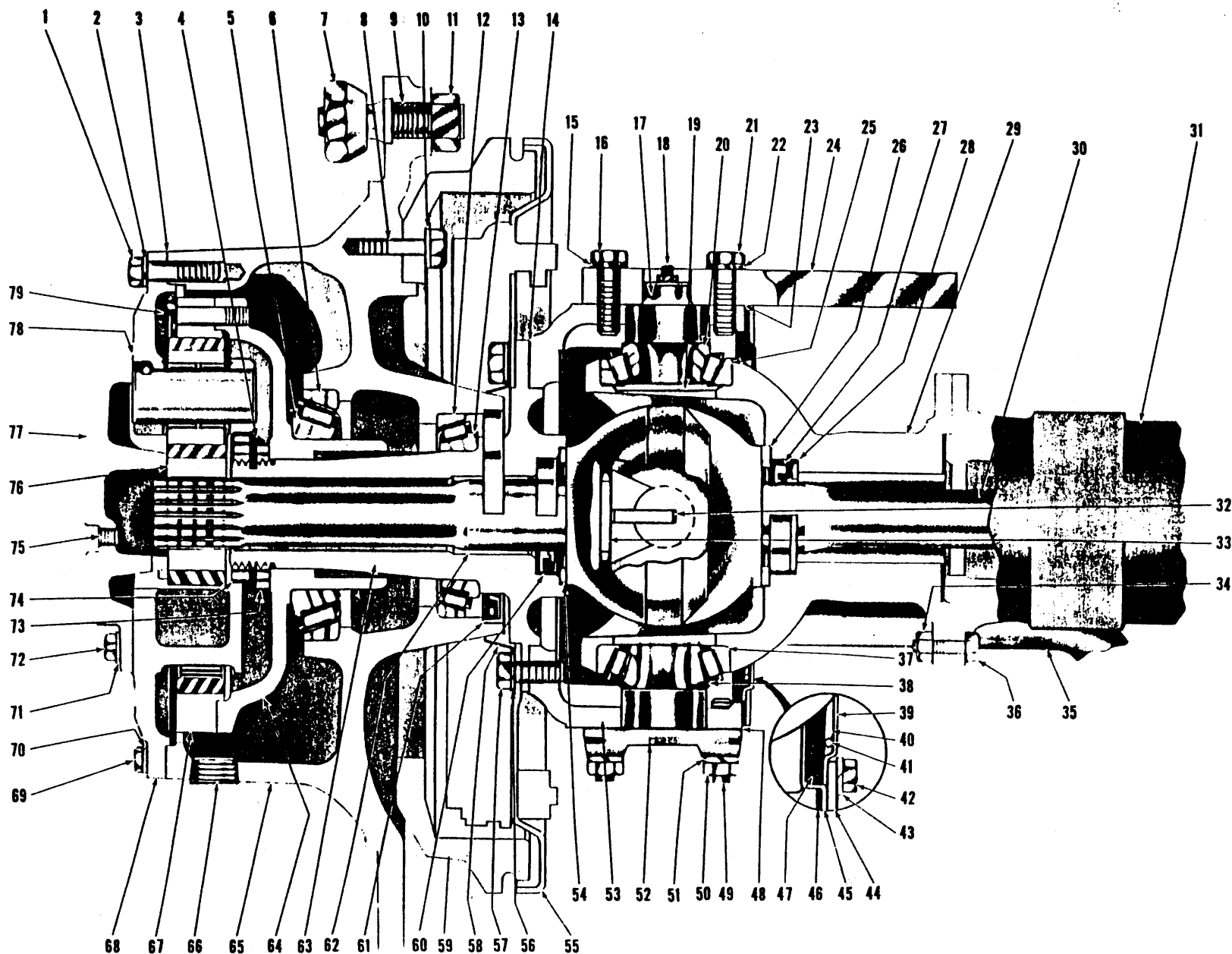
TS-2791-P

AXLE ASSEMBLY — FRONT DRIVE

Item No.	Part No.	Description	No. Req'd.
A	130064	AXLE ASSY (Inc. 1 thru 41)	1
1	100970	BOLT, Planet Spider to Hub	20
2	106762	WASHER, Planet Spider to Hub	20
3	—	PLANET SPIDER (See Index)	—
4	114463	NUT, Outer Spindle	2
5	114463	NUT, Inner Spindle	2
6	675256	CONE, Outer Hub Bearing	2
7	675255	CUP, Outer Hub Bearing	2
8	17C-1024	BOLT, Drum to Hub	12
9	103522	NUT, Wheel	20
10	103445	STUD, Wheel	20
11	104412	WASHER, Drum to Hub	12
12	86D12	NUT, Wheel Stud	20
13	109055	OIL THROW	2
14	106344	DRUM, Brake	2
15	—	FRONT BRAKE ASSY (See Index)	—
16	111719	SEAL, Hub Oil	2
17	675253	CONE, Inner Hub Bearing	2
18	106087	SHAFT, Axle	2
19	105422	HOUSING, Axle	1
19A	11F-12	†PLUG, Housing Filler & Drain	2
19B	106656	†BREATHER, Axle Housing	1
20	2D-08	NUT, Brake Attaching	16
21	101092	BOLT, Brake Attaching	16
22	4E-08	LKWSHR, Brake Attaching	16
23	675252	CUP, Inner Hub Bearing	2
24	107608	CLIP, Brake Drum Inspection Hole	2
25	940330	HUB, Internal Gear (Inc. 40)	2
26	110114	HUB ASSY (Inc. 7, 23)	2
27	100967	LOCK, Spindle Nut	2
28	11F-12	PLUG, Hub Filler	2
29	106059	GEAR, Internal	2
30	—	OMIT GASKET — Use Perma-Tex No. 2	—
31	3E-08	LKWSHR, Planet Puller Hole	4
32	1C-808	BOLT, Planet Puller Hole	4
33	—	OMIT GASKET — Use Perma-Tex No. 2	—
34	4E-07	LKWSHR, Thrust Cap	12
35	1C-720	BOLT, Thrust Cap	12
36	106058	GEAR, Sun	2
37	224028	RING, Sun Gear Retaining	2
38	106455	WASHER, Sun Gear Thrust	2
39	106454	CAP ASSY, Sun Gear Thrust (Inc. 38)	2
40	106880	BOLT, Internal Gear to Hub	16
41	—	DIFFERENTIAL & CARRIER ASSY (See Index)	1

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



AXLE ASSEMBLY — REAR DRIVE STEER

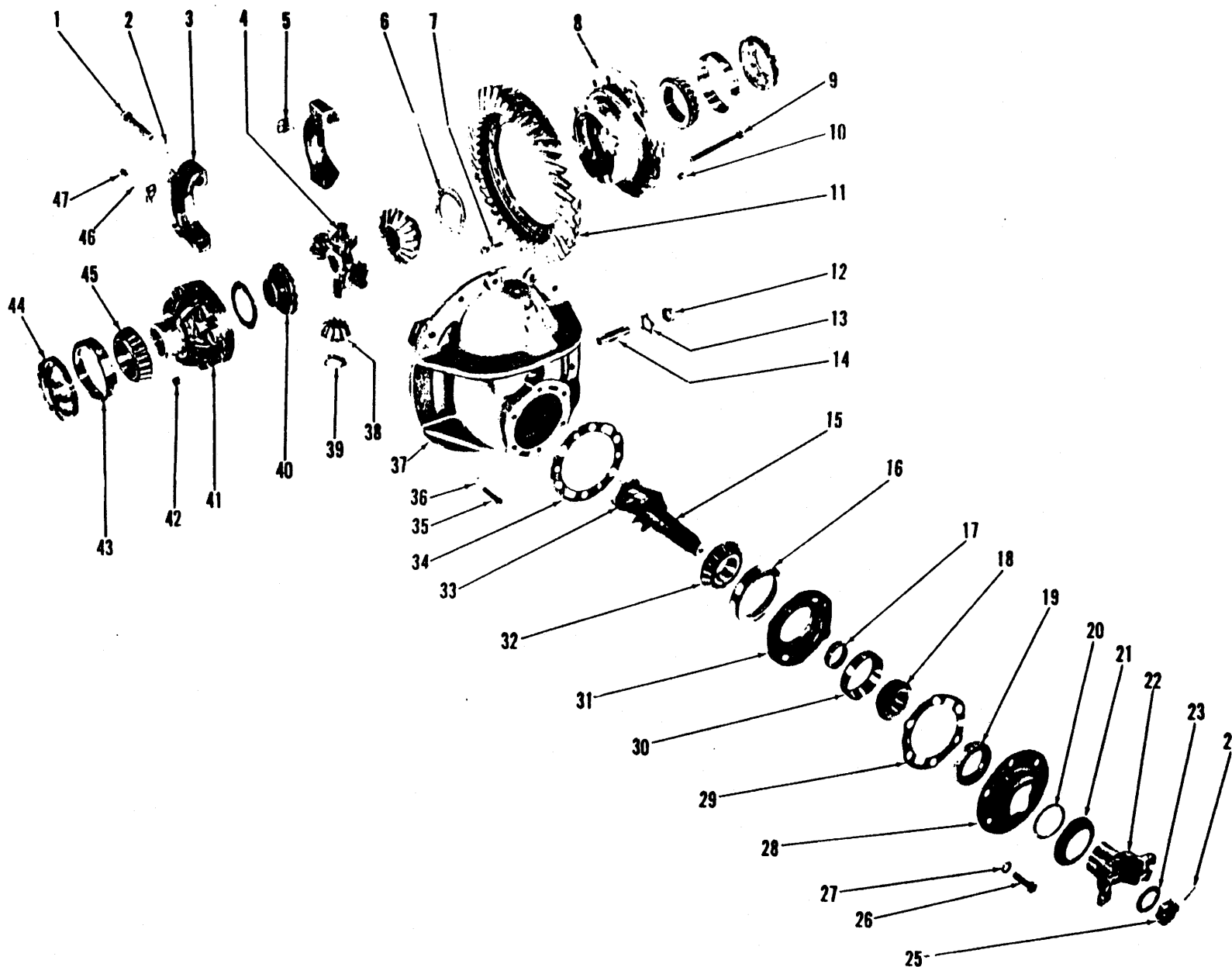
TS-2845-P

AXLE ASSEMBLY — REAR DRIVE STEER

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	130049	AXLE ASSY (Inc. 1 thru 80)	1	39	106135	RETAINER, Outer End Dust Seal	2
1	100970	BOLT, Carrier to Axle Housing	20	40	106133	SEAL, Outer End Dust	2
2	106762	WASHER, Carrier to Axle Housing	20	41	106134	SPRING, Outer End Dust Seal	2
3	-----	OMIT GASKET—Use Perma-Tex No. 2	—	42	1C-612	BOLT, Outer End Seal Ring	24
4	100967	LOCK, Spindle Nut	2	43	4E-06	LKWSHR, Outer End Seal Ring	24
5	675256	CONE, Outer Hub Bearing	2	44	106136	RING, Outer End Seal Retaining	4
6	675255	CUP, Outer Hub Bearing	2	45	106130	RETAINER, Outer End Oil Seal	2
7	103522	NUT, Wheel	20	46	106131	GASKET, Oil Seal Retainer	2
8	17C-1024	BOLT, Drum to Hub	12	47	106132	SEAL, Outer End Oil	2
9	103445	STUD, Wheel	20	48	106125	‡SHIM, Steering Trunnion — .004	—
10	104412	WASHER, Drum to Hub	12	48A	106124	‡SHIM, Steering Trunnion — .007	—
11	86D12	NUT, Wheel Stud	20	48B	106123	‡SHIM, Steering Trunnion — .010	—
12	675252	CUP, Inner Hub Bearing	2	49	112587	STUD, Flanged Trunnion	12
13	675253	CONE, Inner Hub Bearing	2	50	2D-09	NUT, Flanged Trunnion	12
14	-----	OMIT GASKET—Use Perma-Tex No. 2	—	51	4E-09	LKWSHR, Flanged Trunnion	12
15	111656	WASHER, Outer Steering Arm Bolt	2	52	106119	TRUNNION, Flanged — Lower	2
16	106313	BOLT, Outer Steering Arm	2	52A	108432	†TRUNNION, Flanged — Upper R.H. ..	1
17	106120	TRUNNION, Steering — L.H. Upper ..	1	53	106100	SUPPORT, Spindle — R.H. (Inc. 49)...	1
17A	108432	†TRUNNION, Steering — R.H. Upper ..	1	53A	106112	SUPPORT, Spindle — L.H. (Inc. 49)	1
18	10H-25	FITTING, Upper Trunnion Grease	2	54	106129	WASHER, Universal Joint Thrust	2
19	106121	RETAINER, Upper Trunnion Oil	2	55	-----	BRAKE ASSY — (See Index)	—
20	675305	CONE, Upper Trunnion Bearing	2	56	106762	WASHER, Spindle & Brake Attaching ..	20
21	106322	BOLT, Inner Steering Arm	2	57	106539	BOLT, Spindle & Brake Attaching	20
22	104549	WASHER, Inner Steering Arm	2	58	117913	SLINGER, Oil	2
23	106321	‡SHIM, Steering Arm — .004	—	59	106815	DRUM, Brake	2
23A	106320	‡SHIM, Steering Arm — .007	—	59A	100320	†CLIP, Inspection Hole	2
23B	106319	‡SHIM, Steering Arm — .010	—	60	106127	SEAL, Universal Joint Shaft Oil	2
24	106790	ARM, Steering	1	61	111719	SEAL, Hub Oil	2
25	675306	CUP, Upper Trunnion Bearing	2	62	106099	BUSHING, Spindle	2
26	106129	WASHER, Universal Joint Thrust	2	63	117925	SPINDLE ASSY (Inc. 62)	2
27	106127	SEAL, Universal Joint Shaft Oil	2	64	106879	HUB, Internal Gear	2
28	106128	WASHER, Oil Seal	2	65	110114	HUB ASSY (Inc. 6, 12)	2
29	815948	OUTER END, Housing	2	66	11F-12	PLUG, Hub Filler	2
29A	11F-12	†PLUG, Outer End Filler	2	67	106059	GEAR, Internal	2
30	106096	SHAFT ASSY, Axle (Inc. 32, 33)	2	68	-----	PLANET CARRIER ASSY — (See Index) ..	—
31	106116	HOUSING, Axle	1	69	1C-808	BOLT, Planet Puller Hole	4
31A	11F-12	†PLUG, Housing Filler & Drain	2	70	3E-08	LKWSHR, Planet Puller Hole	4
31B	12F-204	†PLUG, Housing Expansion	1	71	4E-07	LKWSHR, Thrust Cap	12
31C	106656	†BREATHER, Axle Housing	1	72	1C-720	BOLT, Thrust Cap	12
32	874260	PIN, Center Ball	2	73	114463	NUT, Inner Spindle	2
33	675436	PIN, Spiral	2	74	114463	NUT, Outer Spindle	2
34	106998	NUT, Outer End Bolt	16	75	11F-04	PLUG, Oil Level	2
35	-----	TIE ROD ASSY — (See Index)	—	76	106058	GEAR, Sun	2
36	106735	BOLT, Outer End to Housing	16	77	945128	CAP, Sun Gear Thrust (Inc. 77A)	2
37	675306	CUP, Lower Trunnion Bearing	2	77A	111805	†VALVE, Relief	1
38	675305	CONE, Lower Trunnion Bearing	2	78	-----	OMIT GASKET—Use Perma-Tex No. 2 ..	—
				79	106880	BOLT, Internal Gear to Hub	16
				80	-----	DIFF. & CARRIER ASSY — (See Index) ..	—

†Not Illustrated
‡As Required

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



DIFFERENTIAL AND CARRIER ASSEMBLY

2592-P-43-54

DIFFERENTIAL AND CARRIER ASSEMBLY

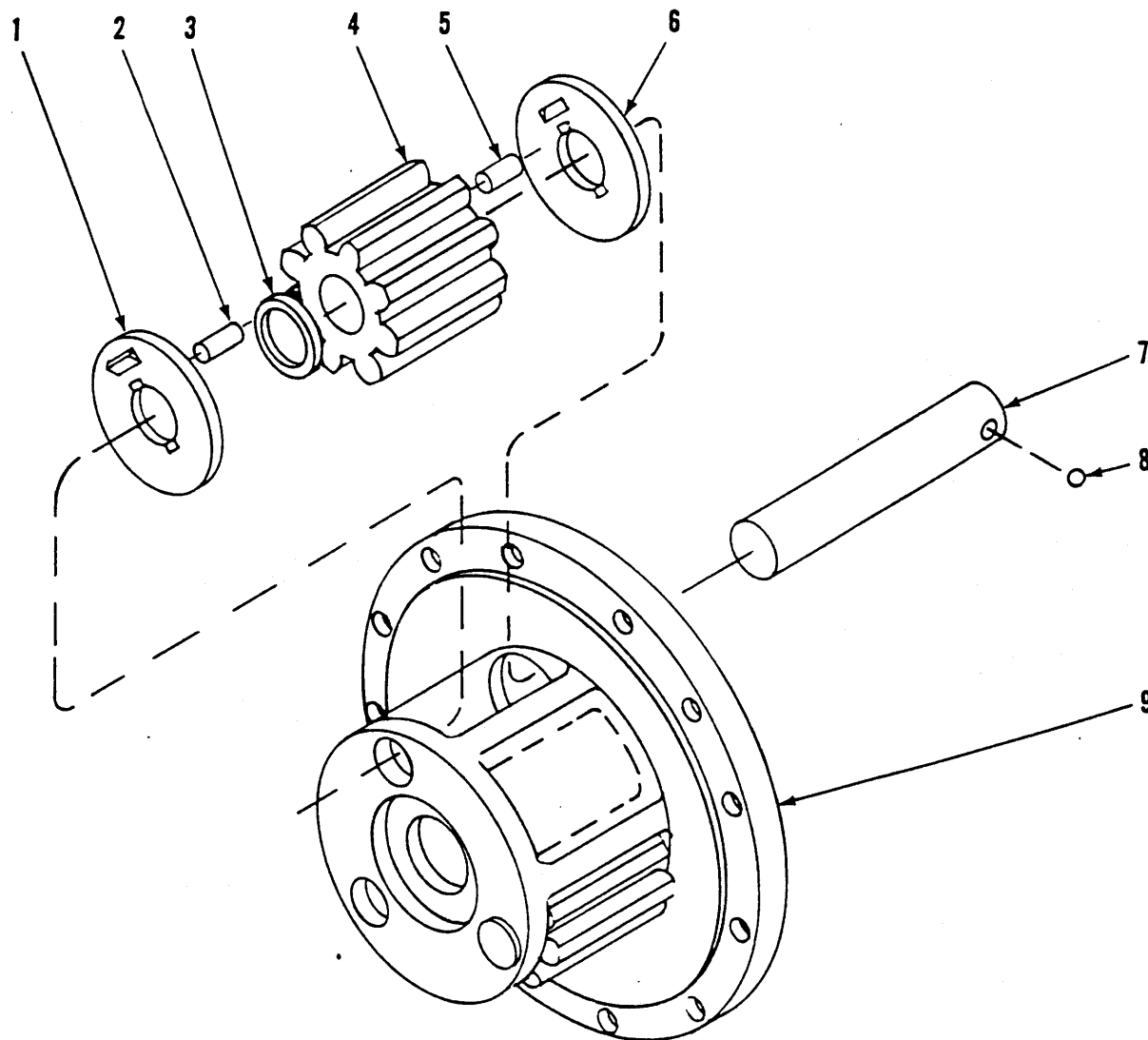
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A		DIFF. & CARRIER ASSY (Inc. 1 thru 34, 37 thru 47)		31	100938	CAGE ASSY, Pinion Brg. (Inc. 30)...	1
B	815576	Front Drive	1	32	667277	CONE, Center Pinion Bearing	1
C	815509	Rear Drive Steer	1	33	675536	BEARING, Inner Pinion	1
1	100937	BOLT, Differential Carrier Cap	4	34		SHIM, Pinion Bearing Cage	
2	111656	WASHER, Differential Carrier Cap....	4	34A	112354	‡SHIM — .004"	—
3	—	§CAP, Differential Carrier — (See 37) ..	2	34B	125576	‡SHIM — .007"	—
4	100171	SPIDER, Differential	1	34C	125577	‡SHIM — .010"	—
5	100941	LOCK, Differential Adjusting Nut	2	35	1C-722	BOLT, Carrier to Axle — ⅞" x 1⅝"	6
6	100173	WASHER, Side Gear Thrust	2	35A	1C-728	BOLT, Carrier to Axle — ⅞" x 1¾"	8
7	100176	BOLT, Ring Gear	12	35B	1C-732	BOLT, Carrier to Axle — ⅞" x 2"	1
8	—	§CASE, Diff. — Flanged Half (See 51) ..	1	36	4E-07	LKWSHR, Carrier to Axle — ⅞"	14
9	100174	BOLT, Differential Case	8	37	106042	CARRIER ASSY (Inc. 1, 2, 3)	1
10	86D8	NUT, Ring Gear	12	38	815744	*KIT, Differential Pinion	1
11	—	§GEAR, Ring — (See 50)	1	39	100172	WASHER, Differential Pinion Thrust....	4
12	8D-14	NUT, Thrust Screw	1	40	100170	GEAR, Differential Side	2
13	100954	LOCK, Thrust Screw Nut	1	41	—	§CASE, Diff. — Plain Half (See 51)	1
14	123800	SCREW, Differential Thrust	1	42	86D8	NUT, Differential Case	8
15	—	§PINION, Differential — (See 50)	1	43	675249	CUP, Differential Bearing	2
16	667278	CUP, Center Pinion Bearing	1	44	100940	NUT, Differential Adjusting	2
17	815040	SPACER, Pinion Bearing	1	45	675248	CONE, Differential Bearing	2
18	710288	CONE, Outer Pinion Bearing	1	46	4E-06	LKWSHR, Adjusting Nut Lock	2
19	111720	SEAL, Pinion Oil	1	47	3C-614	BOLT, Adjusting Nut Lock	2
20	100945	GASKET, Pinion Oil Seal	1	48		DIFFERENTIAL ASSY (Inc. 4, 6 thru 11, 15, 38 thru 42)	
21	100949	DEFLECTOR, Pinion Dust	1	48A	124443	Front Drive	1
22	106081	FLANGE, Companion	1	48B	124995	Rear Drive	1
23	119298	WASHER, Pinion Shaft	1	49	124444	DIFF. BODY SUB-ASSY (Inc. 4, 6, 8, 9, 10, 38 thru 42)	1
24	1F-428	COTTER, Pinion Shaft Nut	1	50		GEAR & PINION SET (Inc. 11, 15)	
25	100950	NUT, Pinion Shaft	1	50A	815202	Front Drive	1
26	1C-928	BOLT, Oil Seal Retainer	5	50B	815204	Rear Drive	1
26A	1C-828	BOLT, Oil Seal Retainer Locating	1	51	815203	DIFF. CASE KIT (Inc. 8, 41)	1
27	4E-09	LKWSHR, Oil Seal Retainer	5				
27A	4E-08	LKWSHR, Oil Seal Retainer Locating..	1				
28	100942	RETAINER, Pinion Oil Seal	1				
29	112353	GASKET, Oil Seal Retainer	1				
30	675257	CUP, Outer Pinion Bearing	1				

‡As Required

§Not Sold Separately

*NOTE: 815744 Kit consists of 4 No. 100169 Pinions.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



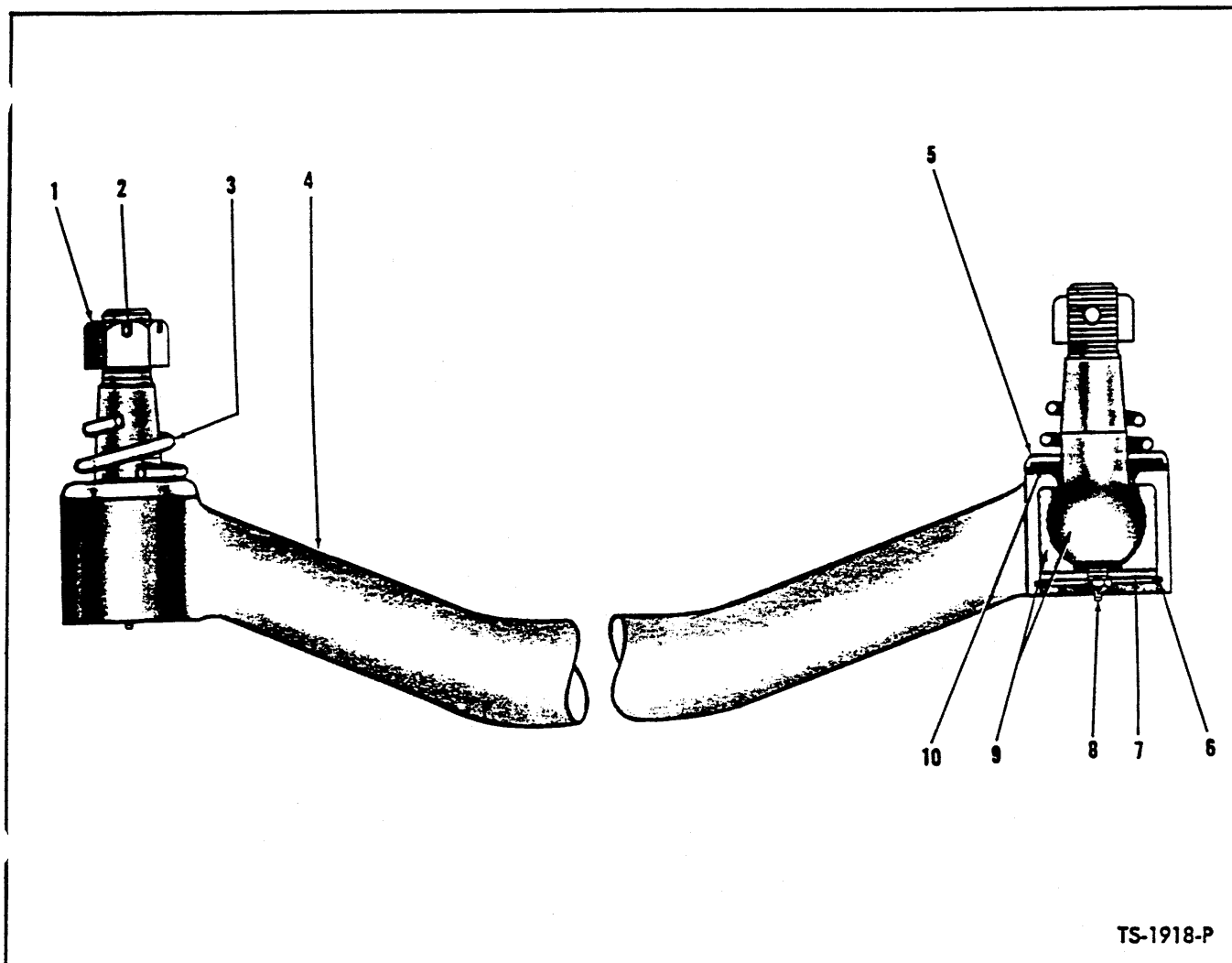
TS-2836-P

PLANET SPIDER ASSEMBLY

Item No.	Part No.	Description	No. Req'd.
A	945608	*PLANET SPIDER KIT, (Inc. 1 thru 9).....	4
Quantities listed below are for 1 Planet Spider.			
1	106350	WASHER, Pinion Thrust	3
2	106351	ROLLER, Pinion	87
3	106352	SPACER, Pinion Roller	3
4	109088	PINION, Planet	3
5	106351	ROLLER, Pinion	87
6	106350	WASHER, Pinion Thrust	3
7	106349	SHAFT, Pinion	3
8	10J-12	BALL, Pinion Shaft	3
9	106347	SPIDER, Planet	1

*NOTE: 945608 Kit also includes 5 each of 112287 Dowels, 116419 Studs and 64D-08 Nuts to replace the existing 5 mounting bolts on Axle.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



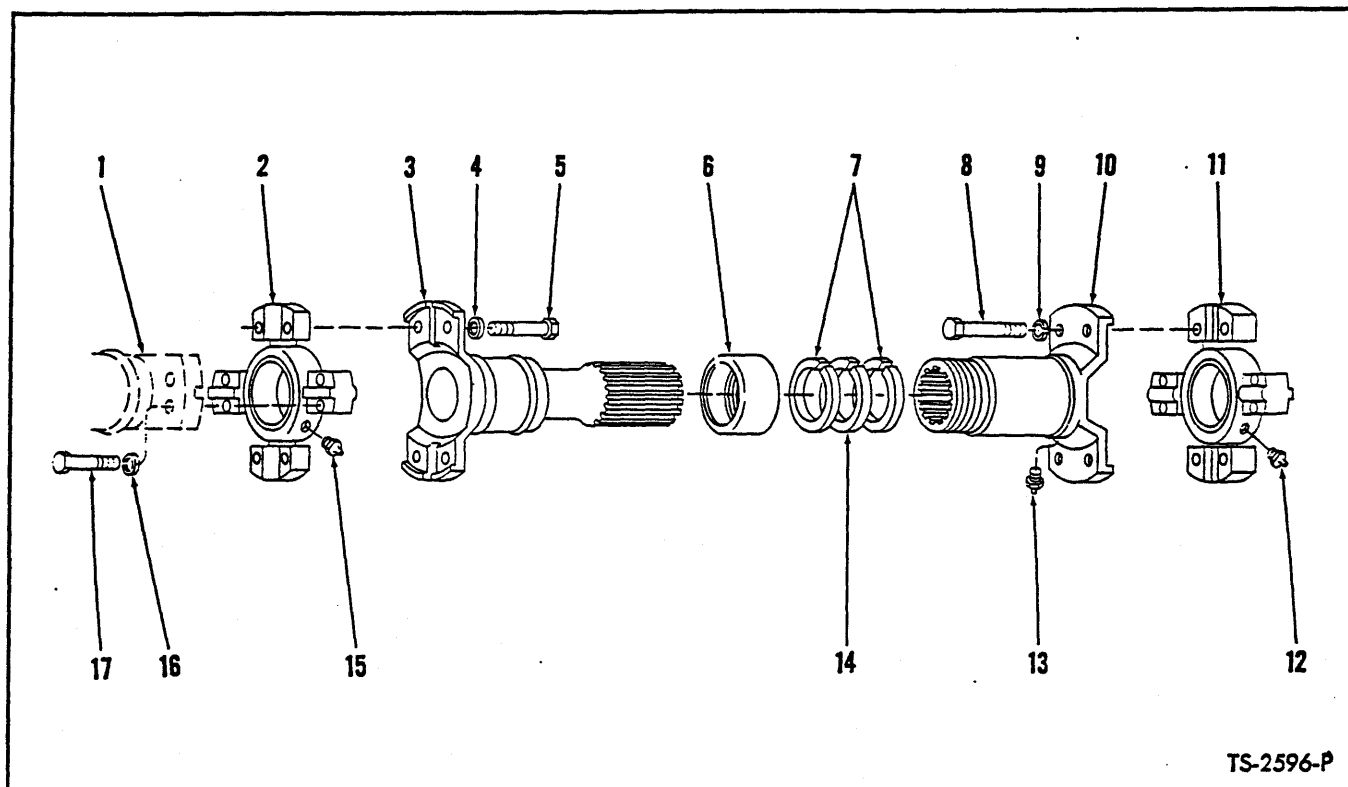
TS-1918-P

TIE ROD ASSEMBLY

Item No.	Part No.	Description	No. Req'd.
1	4D-12	NUT, Ball Stud	2
2	1F-426	COTTER, Ball Stud Nut	2
3	106268	SPRING	2
4	525857	TIE ROD ASSY (Inc. 6 thru 9)	1
5	106138	RETAINER, Felt Washer	2
6	507695	RING, Ball Stud Retaining	2
7	541879	*PLATE, Ball Stud Retaining	2
8	10H-25	FITTING, Ball Stud Grease	2
9	117228	BALL STUD	2
10	106137	WASHER, Felt	2

*NOTE: For replacement use 815841 Retainer Plate Assembly which consists of 1—524066 Retainer Plate & 1—10H-25 Grease Fitting.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



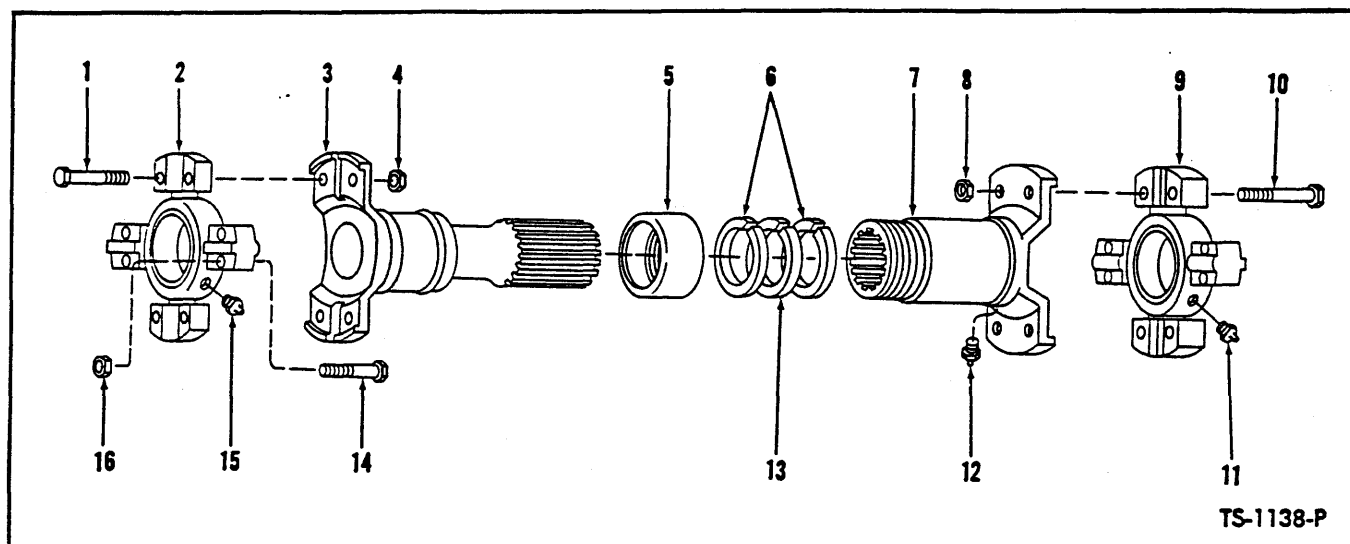
TS-2596-P

PROPELLER SHAFT — ENGINE TO TRANSMISSION
COLUMN 1 — For G.M. Powered Machines
COLUMN 2 — For Waukesha Powered Machines

Item No.	Description	No. Req'd.	Column 1	Column 2
A	PROPELLER SHAFT ASSY (Inc. 1 thru 17).....	1	529850	514268
1	FLANGE — See Converter & Transmission Listings	—	—	—
2	SPIDER & BEARING	1	946067	946067
3	STUB YOKE	1	944670	942659
4	LKWSHR, Spider to Stub Yoke	4	4E-05	4E-05
5	BOLT, Spider to Stub Yoke	4	695811	695811
6	RETAINER, Felt	1	940654	940654
7	WASHER, Felt Retainer	2	940653	940653
8	BOLT, Spider to Slip Yoke	4	695811	695811
9	LKWSHR, Spider to Slip Yoke	4	4E-05	4E-05
10	SLIP YOKE	1	944868	944868
11	SPIDER & BEARING (Inc. 11A)	1	946067	946067
12	FITTING, Spider Grease	1	10H-35	10H-35
13	FITTING, Slip Yoke Grease	1	10H-25	10H-25
14	WASHER, Felt	1	940081	940081
15	FITTING, Spider Grease	1	10H-35	10H-35
16	LKWSHR, Spider Attaching	8	4E-05	4E-05
17	BOLT, Spider Attaching	8	695811	695811

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

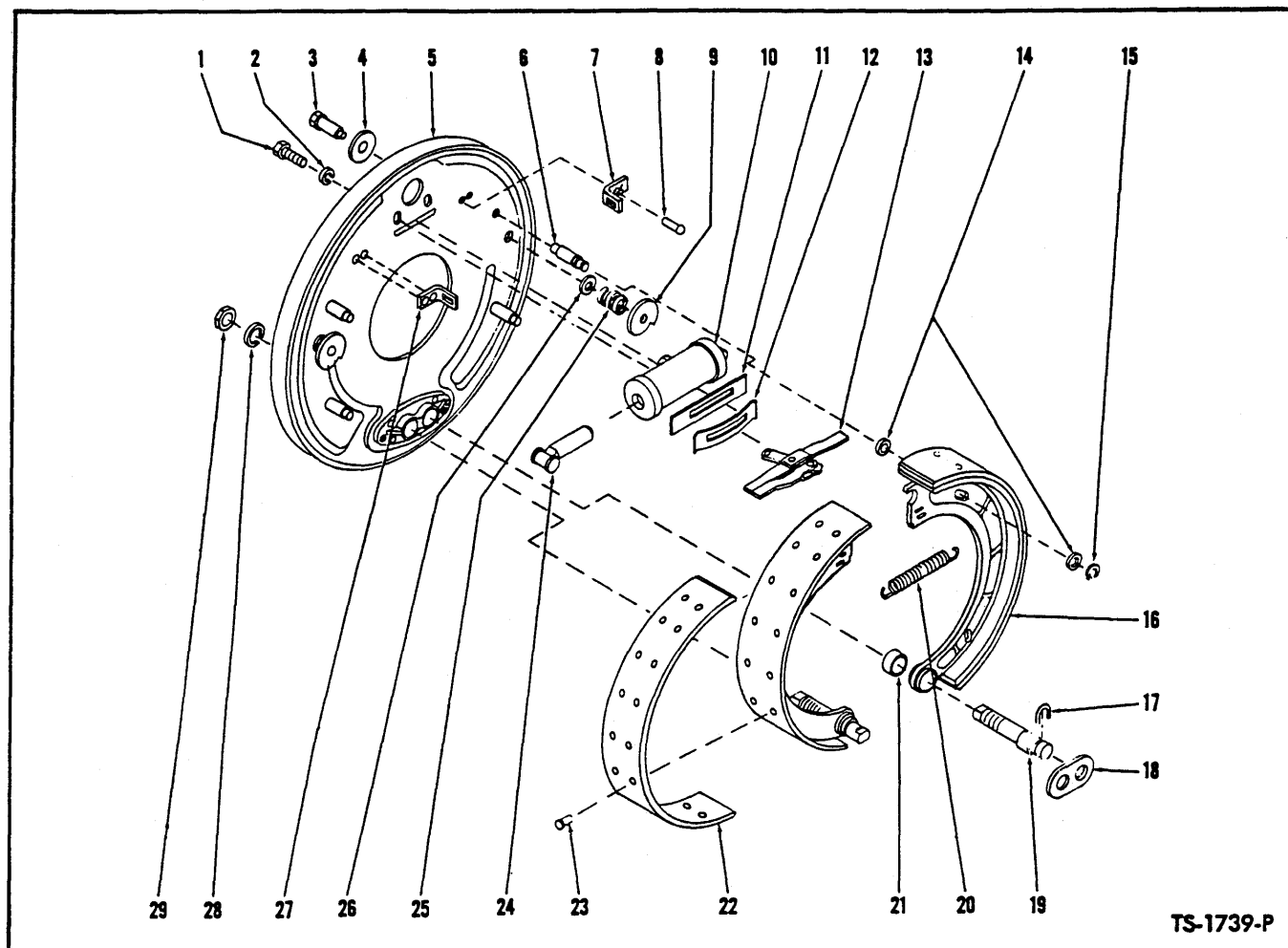


PROPELLER SHAFT — TRANSMISSION TO AXLES

Item No.	Part No.	Description	No. Req'd.
A	550580	PROP SHAFT ASSY (Inc. 1 thru 16)	2
Quantities listed below are for 1 Prop Shaft.			
1	18C632	BOLT, Spider & Bearing to Tube	4
2	944862	SPIDER & BEARING	1
3	940084	TUBE	1
4	8D-06	NUT, Spider & Bearing to Tube.....	4
5	940090	RETAINER, Felt	1
6	940091	WASHER, Felt Retainer	2
7	940224	SLIP YOKE	1
8	8D-06	NUT, Spider & Bearing to Slip Yoke	4
9	944862	SPIDER & BEARING.....	1
10	18C632	BOLT, Spider & Bearing to Slip Yoke	4
11	10H-35	FITTING, Spider & Bearing Grease	1
12	10H-25	FITTING, Slip Yoke Grease	1
13	940092	WASHER, Felt	1
14	18C632	BOLT, Spider & Bearing Attaching	8
15	10H-35	FITTING, Spider & Bearing Grease	1
16	8D-06	NUT, Spider & Bearing Attaching	8

†Not Illustrated

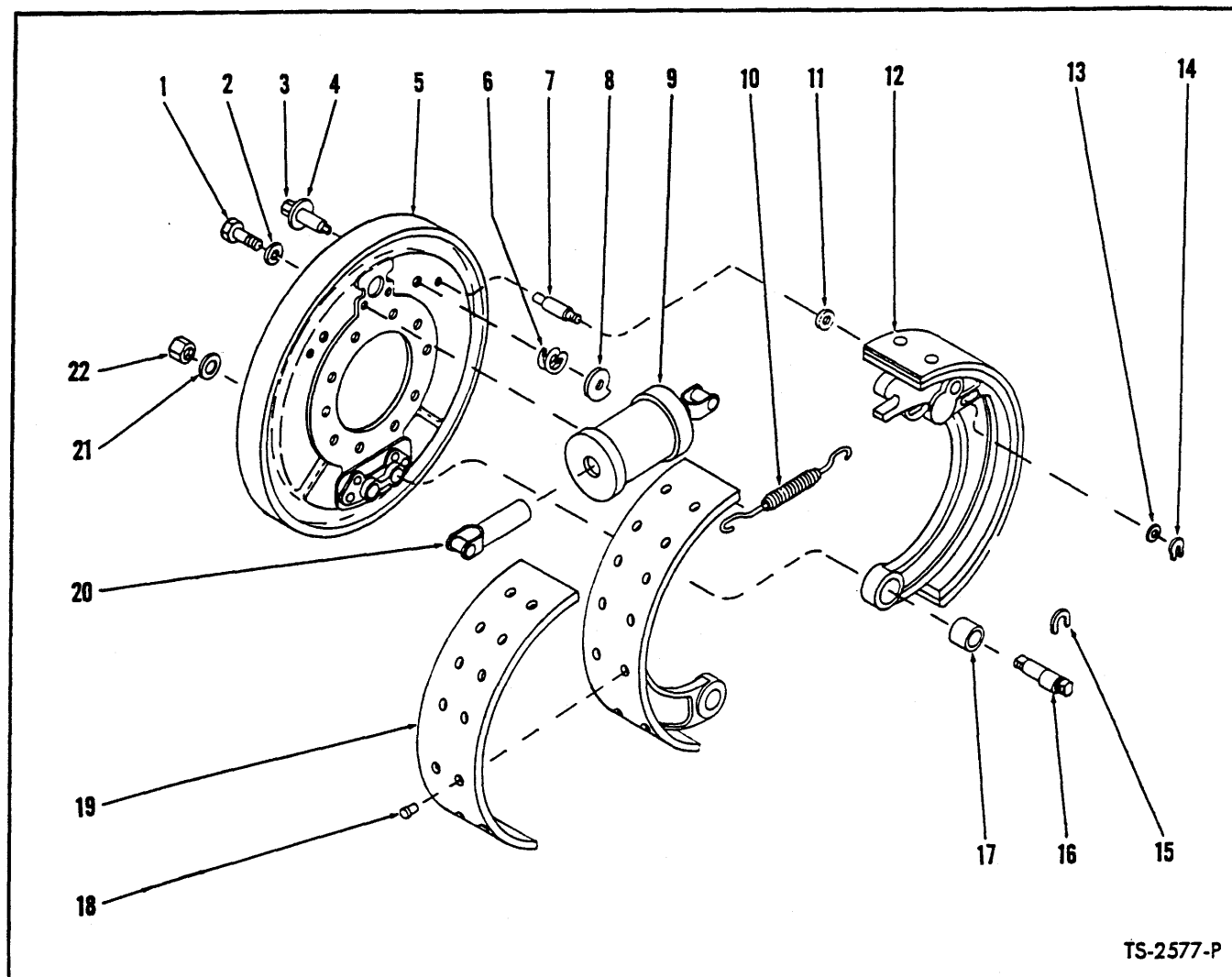
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE


BRAKE ASSEMBLY — FRONT *

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A		BRAKE ASSY (Inc. 1 thru 29)		13	106526	LINK, Parking Brake	1
B	110929	Right Hand	1	14	102322	WASHER, Guide Pin	8
C	110930	Left Hand	1	15	100878	"C" WASHER, Guide Pin	4
NOTE: 2 Brake Assemblies used on axle — Quantities listed below are for 1 Brake Assembly.				16	118254	SHOE ASSY, Brake (Inc. 21, 22, 23)....	2
1	1C-610	BOLT, Cylinder to Brake Disc	2	17	101332	"C" WASHER, Anchor Pin	2
2	4E-06	LKWSHR, Cylinder to Brake Disc	2	18	106970	STRUT, Anchor Pin	1
3	114169	PIN ASSY, Cam (Inc. 4)	2	19	106969	PIN, Brake Shoe Anchor	2
4	100867	WASHER, Cam Pin	2	20	106216	SPRING, Brake Shoe Return	1
5		DISC ASSY, Brake (Inc. 3, 4, 6, 9, 25, 26, 27)		21	201966	BUSHING, Brake Shoe	2
5A	106337	Right Hand	1	22	944217	LINING KIT, Brake Shoe (Inc. 23B)	2
5B	106338	Left Hand	1	23		RIVET, Lining to Shoe	
6	106373	PIN, Guide	4	23A	106184	$\frac{3}{4}$ " — For Shoes with $\frac{1}{2}$ " rivet holes..	36
7	106180	SUPPORT, Parking Brake Link	1	23B	3H-1216	$\frac{3}{4}$ " — For Shoes with $\frac{1}{4}$ " rivet holes	36
8	1H-410	RIVET, Link Support	4	24	958553	LINK, Wheel Cylinder Connector	2
9	100864	CAM, Shoe Adjusting	2	25	943859	SPRING ASSY, Cam (Inc. 26)	2
10	107014	CYLINDER ASSY, Wheel (Inc. 24) ..	1	26	851771	WASHER, Cam Spring	2
10A	940130	†REPAIR KIT, Wheel Cylinder	1	27	106179	SUPPORT, Parking Brake Link	1
11	104524	SHIELD, Link Dust	1	28	4E-12	LKWSHR, Anchor Pin	2
12	106185	SPRING, Link	1	29	2D-12	NUT, Anchor Pin	2

†Not Illustrated

*Ref. SG-681



TS-2577-P

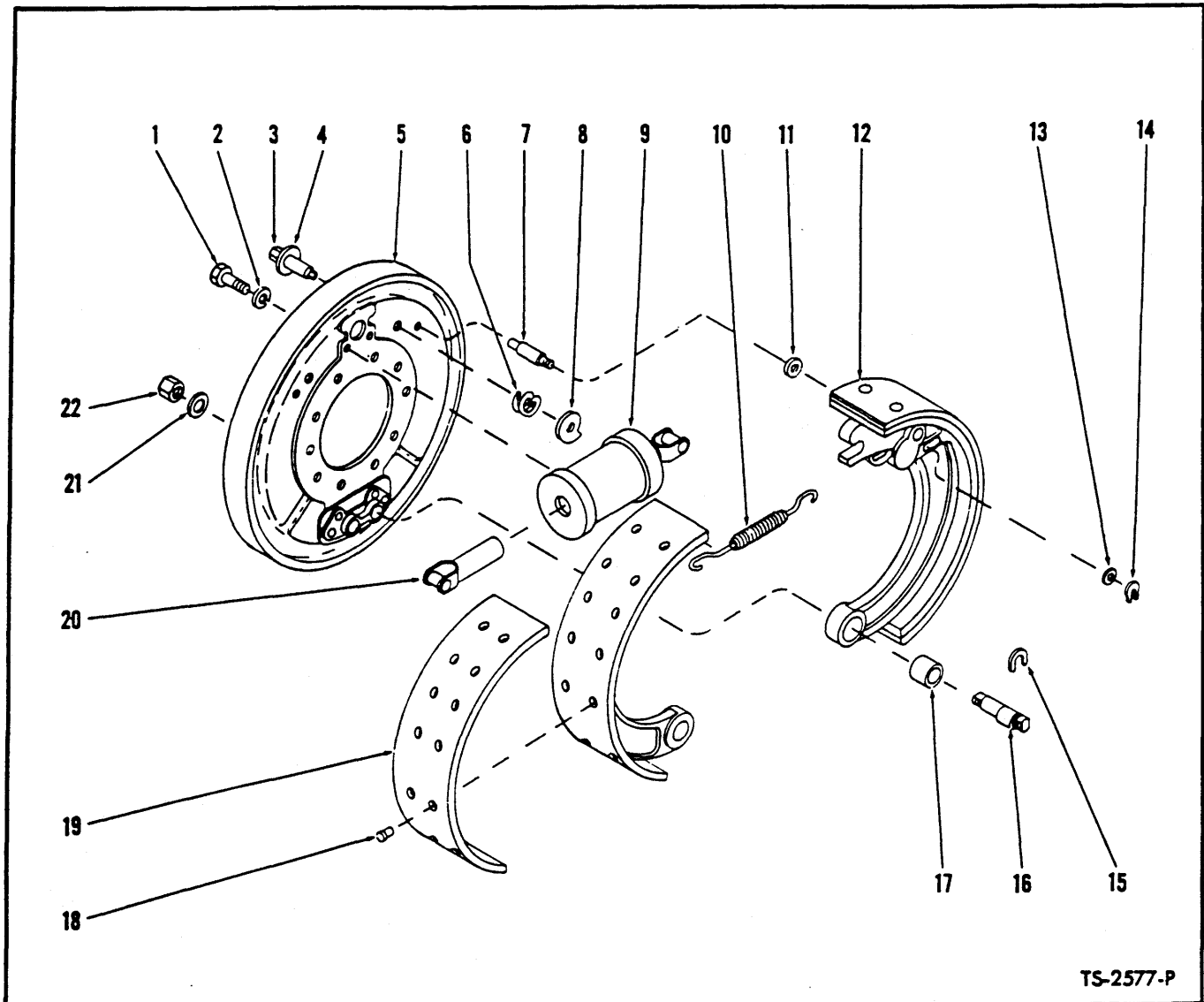
BRAKE ASSEMBLY — REAR

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	110917	*BRAKE ASSY (Inc. 1 thru 22)	2	11	102322	WASHER, Guide Pin	2
NOTE: 2 brake assemblies used on axle — Quantities listed below are for 1 brake assembly.				12	111440	SHOE ASSY, Brake (Inc. 17, 19)	2
1	1C-510	BOLT, Cylinder to Brake Disc	2	13	102322	WASHER, Guide Pin	2
2	4E-05	LKWSHR, Cylinder to Brake Disc	2	14	100878	"C" WASHER, Guide Pin	2
3	114170	PIN ASSY, Cam (Inc. 4)	2	15	100613	"C" WASHER, Anchor Pin	2
4	100867	WASHER, Cam Pin	2	16	102498	PIN, Anchor	2
5	106817	DISC ASSY, Brake (Inc. 3, 4, 6, 7, 8)	1	17	102497	BUSHING, Brake Shoe	2
6	943859	SPRING, Cam (Inc. 6A)	2	18		RIVET, Lining to Shoe	
6A	851771	†WASHER, Cam Spring	4	18A	106184	¾" — For Shoes with ½" rivet holes	24
7	100877	PIN, Guide	2	18B	3H-1214	¾" — For Shoes with ¾" rivet holes	24
8	100864	CAM, Brake Shoe Adjusting	2	19	944216	LINING KIT, Brake Shoe (Inc. 18B)	2
9	102488	CYLINDER ASSY, Wheel (Inc. 20)	1	20	853402	LINK, Wheel Cylinder Connector	2
9A	853405	†REPAIR KIT, Wheel Cylinder	1	21	6E-12	LKWSHR, Anchor Pin	2
10	100879	SPRING, Brake Shoe Return	1	22	2D-12	NUT, Anchor Pin	2

*NOTE: For complete replacement use 120505 Brake Assembly. Ref. SG-681.

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

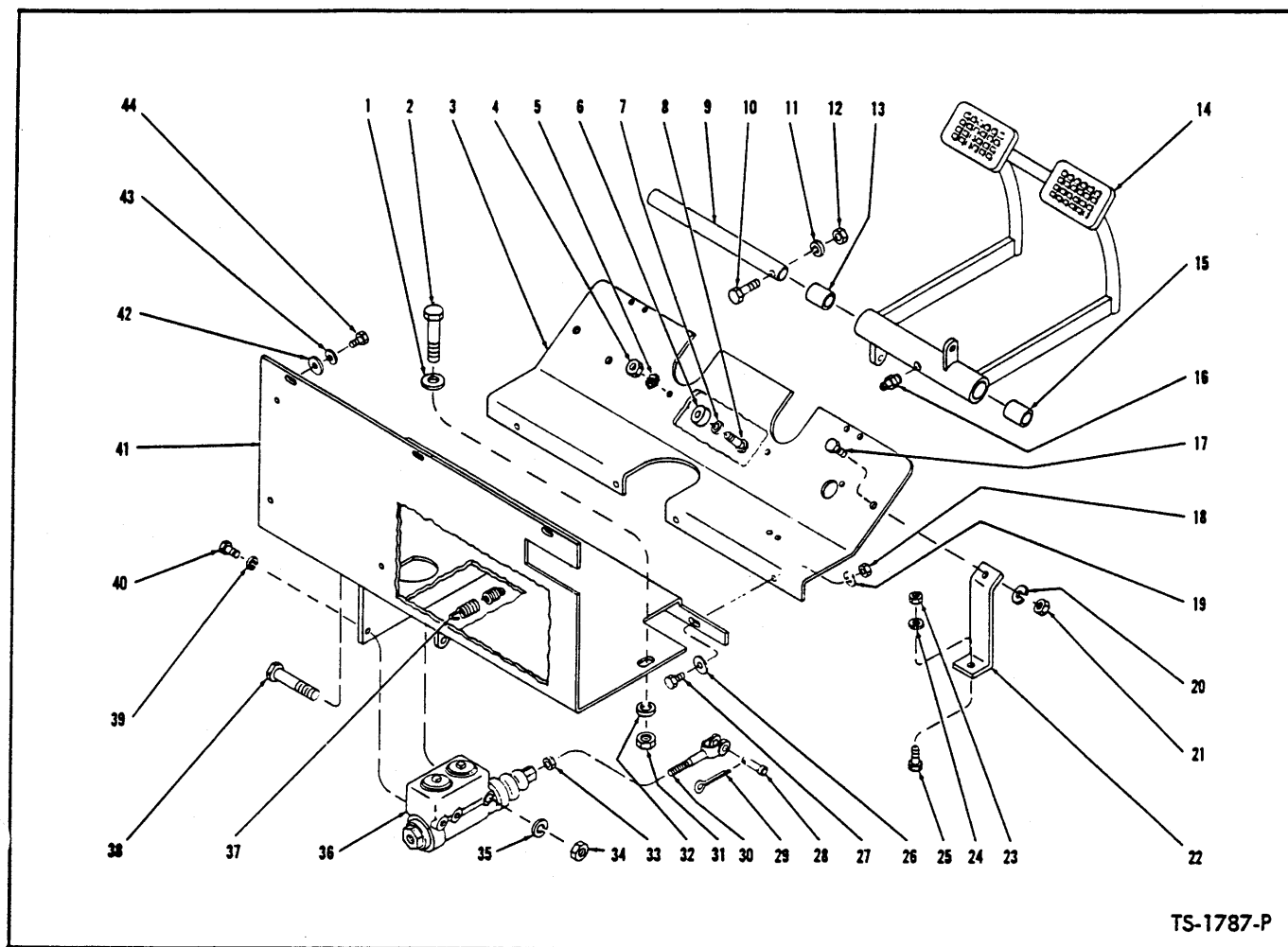


TS-2577-P

BRAKE ASSEMBLY — REAR

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	120505	BRAKE ASSY (Inc. 1 thru 22)	2	12	120507	SHOE ASSY, Brake (Inc. 17, 18, 19)	2
NOTE: 2 Brake Assemblies used per axle — Quantities listed below are for 1 Brake Assembly.				13	102322	WASHER, Guide Pin	2
1	1C-510	BOLT, Cylinder to Brake Disc	2	14	100878	"C" WASHER, Guide Pin	2
2	4E-05	LKWSHR, Cylinder to Brake Disc	2	15	100613	"C" WASHER, Anchor Pin	2
3	114170	PIN ASSY, Cam (Inc. 4)	2	16	102498	PIN, Anchor	2
4	100867	WASHER, Cam Pin	2	17	102497	BUSHING, Brake Shoe	2
5	106817	DISC ASSY, Brake (Inc. 3, 4, 6, 7, 8) ..	1	18	23H-706	RIVET, Lining to Shoe	24
6	100865	SPRING, Cam	2	19	944216	LINING KIT, Brake Shoe (Inc. 18)	2
7	100877	PIN, Guide	2	19A	840040	†LINING KIT, Brake Shoe — 1/8" O.S. (Inc. 18)	2
8	100864	CAM, Brake Shoe Adjusting	2	20	853402	LINK, Wheel Cylinder Connector	2
9	—	CYLINDER ASSY, Wheel — See Index ..	1	21	6E-12	LKWSHR, Anchor Pin	2
10	100879	SPRING, Brake Shoe Return	1	22	62D-12	NUT, Anchor Pin	2
11	102322	WASHER, Guide Pin	2				

 †Not Illustrated
*Ref. SG-681



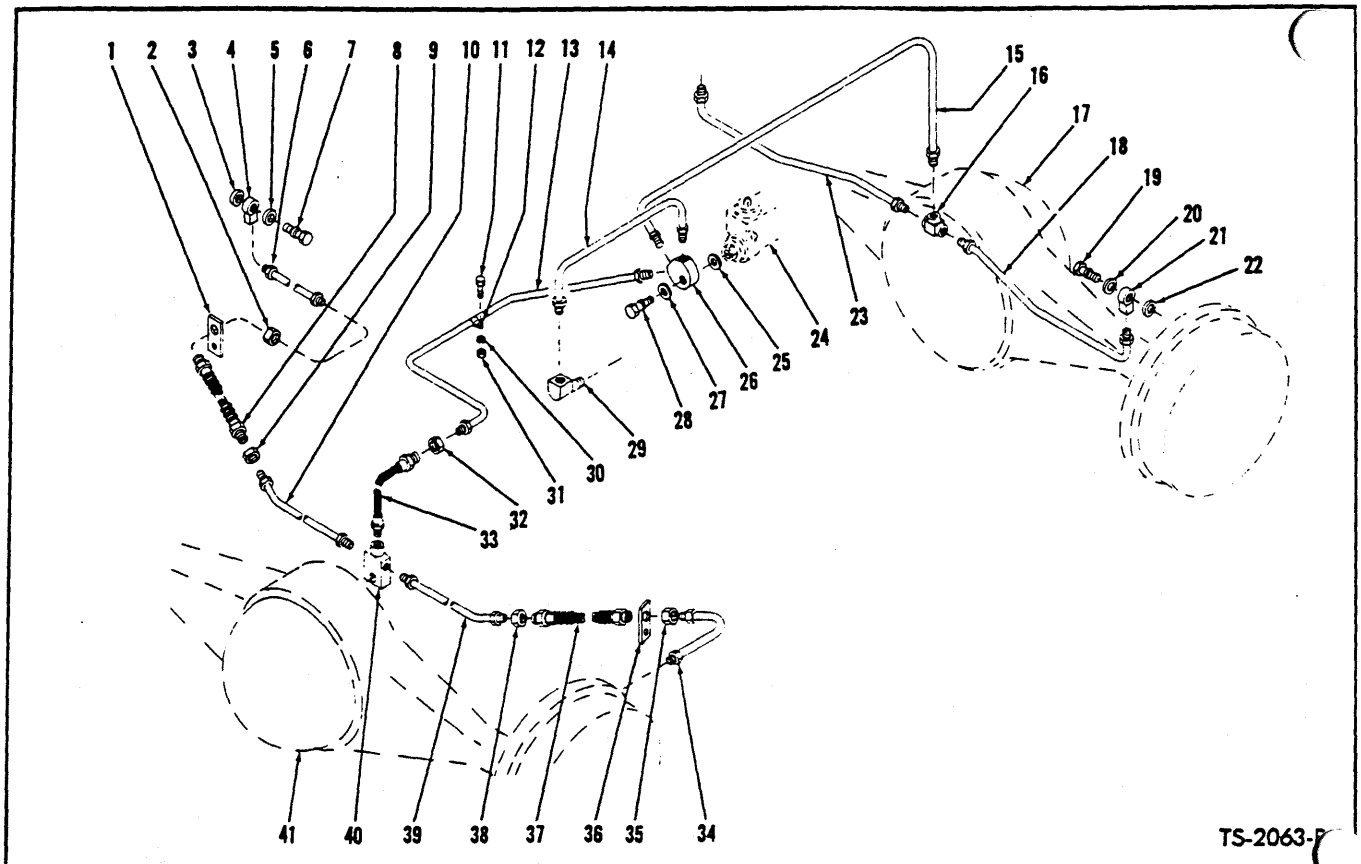
TS-1787-P

BRAKE CONTROLS AND FLOORBOARDS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	25E-16	WASHER, Floorboard to Frame	2	24	4E-06	LKWSHR, Bracket to Frame	2
2	2C-616	BOLT, Floorboard to Frame	2	25	2C-620	BOLT, Bracket to Frame	2
3	550631	FLOORBOARD, Front	1	26	25E-16	WASHER, Floorboard to Floorboard ..	4
4	14D-10	NUT, Bumper to Floorboard	2	27	2C-616	BOLT, Floorboard to Floorboard	4
5	13E-10	LKWSHR, Bumper to Floorboard	2	28	4F-08127	PIN, Clevis to Pedal	1
6	302568	BUMPER, Brake Pedal	2	29	1F-412	COTTER, Clevis Pin	1
7	616775	WASHER, Bumper to Floorboard	2	30	552377	ROD ASSY, Master Cylinder Push	1
8	2G-1010	SCREW, Bumper to Floorboard	2	31	2D-06	NUT, Floorboard to Frame	2
9	550299	SHAFT, Brake Pedal	1	32	4E-06	LKWSHR, Floorboard to Frame	2
10	2C-640	BOLT, Shaft Retaining	1	33	8D-07	NUT, Push Rod Jam	1
11	4E-06	LKWSHR, Shaft Retaining	1	34	2D-07	NUT, Cylinder to Floorboard	1
12	2D-06	NUT, Shaft Retaining	1	35	4E-07	LKWSHR, Cylinder to Floorboard	1
13	526767	BUSHING, Brake Pedal	1	36	552373	CYLINDER, Brake Master	1
14	550292	PEDAL, Brake	1	36A	869449	†REPAIR KIT, Master Cylinder	1
15	526767	BUSHING, Brake Pedal	1	37	550301	SPRING, Pedal Return	1
16	11H-15	FITTING, Brake Pedal Grease	1	38	2C-760	BOLT, Cylinder to Floorboard	1
17	2C-616	BOLT, Floorboard to Bracket	2	39	4E-06	LKWSHR, Cylinder to Floorboard	1
18	2D-06	NUT, Floorboard to Floorboard	4	40	1C-614	BOLT, Cylinder to Floorboard	1
19	4E-06	LKWSHR, Floorboard to Floorboard ..	4	41	552375	FLOORBOARD, Rear	1
20	4E-06	LKWSHR, Floorboard to Bracket	2	42	25E-16	WASHER, Rear Floorboard to Frame..	3
21	2D-06	NUT, Floorboard to Bracket	2	43	4E-06	LKWSHR, Rear Floorboard to Frame..	3
22	550632	BRACKET, Floorboard Support	2	44	1C-612	BOLT, Rear Floorboard to Frame	3
23	2D-06	NUT, Bracket to Frame	2				

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TS-2063-P

BRAKE LINES*

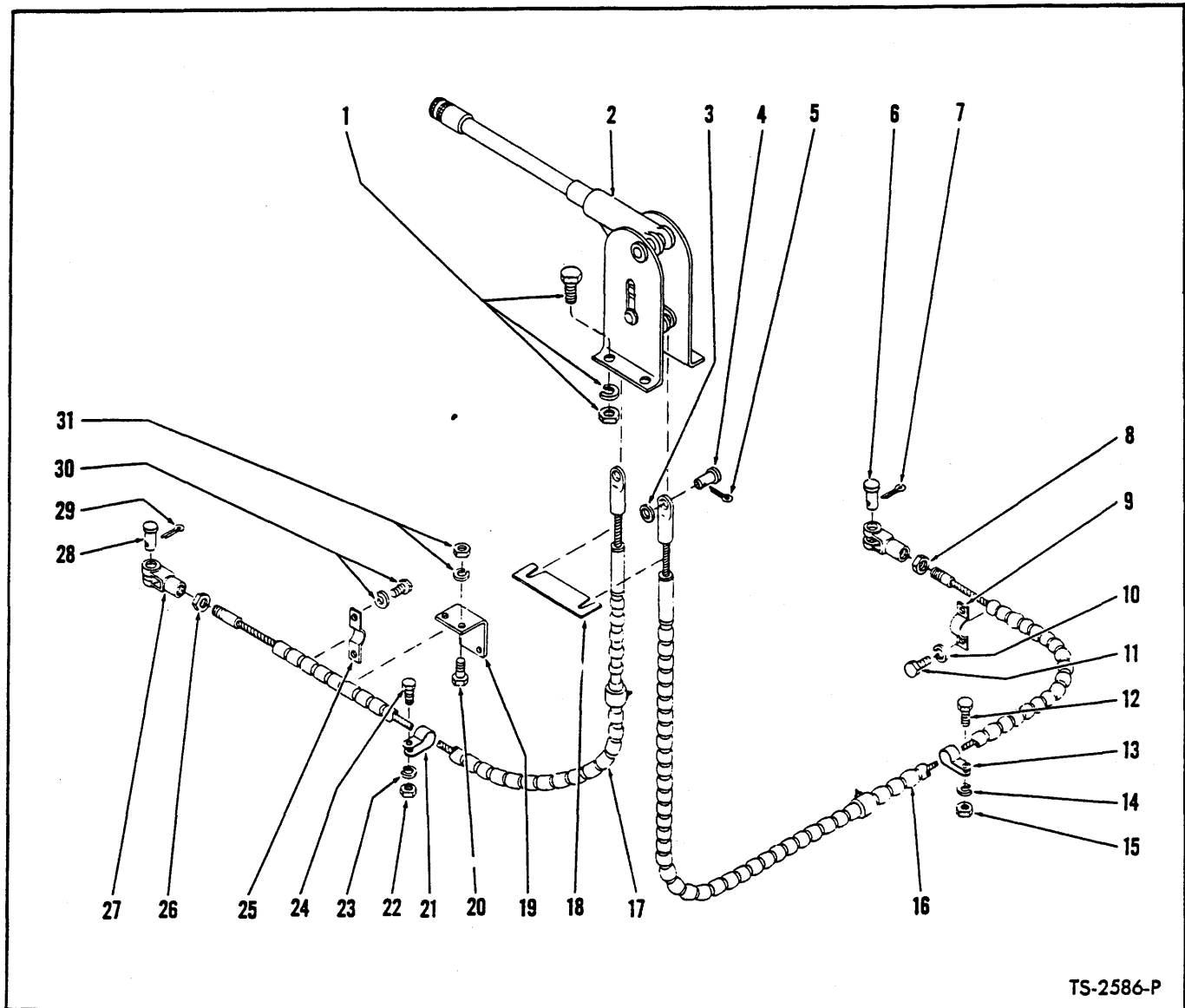
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	550325	CLIP, Brake Hose	1	21	620235	FITTING, Wheel Cylinder	2
2	8D-10	NUT, Clip to Hose	1	22	613750	GASKET, Copper — Inner Wheel Cyl.	2
3	613750	GASKET, Copper — Inner Wheel Cyl.	2	23	550405	LINE, Brake — Tee to Left Wheel Cyl.	1
4	620235	FITTING, Wheel Cylinder	2	24	-----	BRAKE MASTER CYL. — (See Index) ..	—
5	620238	GASKET, Copper — Outer Wheel Cyl.	2	25	613750	GASKET, Copper — Inner Master Cyl.	1
6	-----	LINE, Brake — Frame to Wheel Cyl.	1	26	552264	FITTING, Master Cylinder	1
6A	518173	For Serial Group "A" Below	1	27	620238	GASKET, Copper — Outer Master Cyl.	1
6B	552387	For Serial Group "B" Below	1	28	692722	BOLT, Master Cylinder Fitting	1
7	692722	BOLT, Wheel Cylinder Fitting	2	29	62F-3	ELBOW, Line to Transmission	1
8	552374	HOSE, Brake	1	30	4E-06	LKWSHR, Clip Attaching	1
9	8D-10	NUT, Brake Hose	1	31	2D-06	NUT, Clip Attaching	1
10	552386	LINE, Brake — Tee to Brake Hose	1	32	8D-10	NUT, Brake Hose	1
11	2C-616	BOLT, Clip Attaching	1	33	550324	HOSE, Line to Axle Tee	1
12	6H-4	CLIP, Brake Line	1	34	-----	LINE, Brake — Frame to Wheel Cyl.	1
13	552384	LINE, Brake—Master Cyl. to Rear Axle	1	34A	518173	For Serial Group "A" Below	1
14	552382	LINE, Master Cyl. to Transmission	1	34B	552387	For Serial Group "B" Below	1
15	552383	LINE, Brake — Master Cyl. to Front Axle	1	35	8D-10	NUT, Brake Hose	1
16	609733	TEE, Front Axle Brake Lines	1	36	550325	CLIP, Brake Hose	1
17	-----	FRONT AXLE — (See Index)	—	37	552374	HOSE, Brake	1
18	550404	LINE, Brake — Tee to Right Wheel Cyl.	1	38	8D-10	NUT, Brake Hose	1
19	692722	BOLT, Wheel Cylinder Fitting	2	39	552385	LINE, Brake — Tee to Brake Hose	1
20	620238	GASKET, Copper — Outer Wheel Cyl.	2	40	550320	TEE, Rear Axle Brake Line	1
				41	-----	REAR AXLE — (See Index)	1

 Serial Group "A":
 4143 thru 4155

*Ref. SG-681

Serial Group "B":

 WAUKESHA GAS — 4123 thru 4142, 4156 thru 4624, 1DA375 thru 1DA999
 WAUKESHA DIESEL — 4123 thru 4142, 4156 thru 4629, 1DB86 thru 1DB999
 G.M. — 1DG1 thru 1DG999

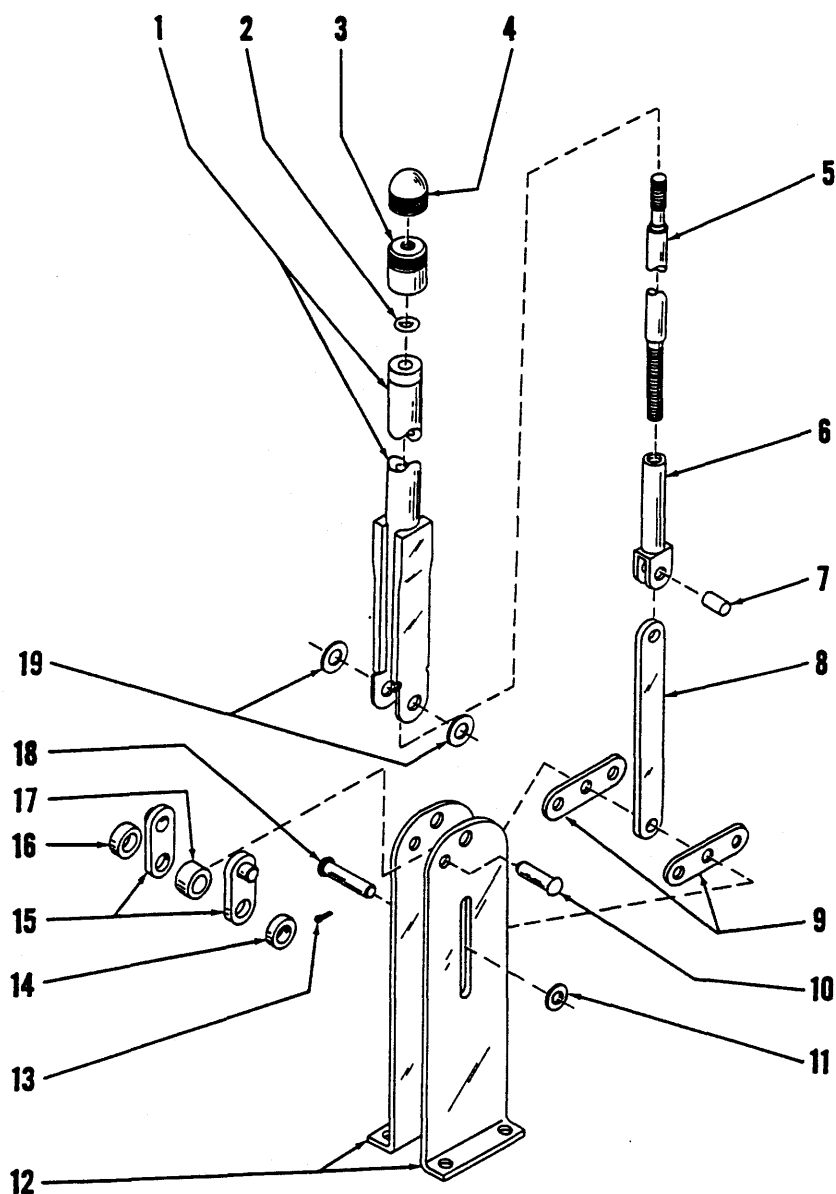


TS-2586-P

PARKING BRAKE CONTROLS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	2C-524	BOLT, Lever to Frame	4	17	551688	CABLE, Parking Brake — L.H.	1
1A	2D-05	NUT, Lever to Frame	4	18	551696	RETAINER, Cable	1
1B	4E-05	LKWSHR, Lever to Frame	4	19	551837	BRACKET, Cable to Frame	1
2	—	LEVER, Parking Brake (See Page 71)	1	20	2C-616	BOLT, Bracket to Frame	2
3	619016	WASHER, Clevis Pin	2	21	551834	CLIP, Cable to Bracket	1
4	4F-04051	PIN, Cable to Lever	2	22	2D-06	NUT, Clip to Bracket	1
5	1F-208	COTTER, Cable to Lever	2	23	4E-06	LKWSHR, Clip to Bracket	1
6	4F-06106	PIN, Clevis to Brake Lever	1	24	2C-610	BOLT, Clip to Bracket	1
7	1F-312	COTTER, Clevis Pin	1	25	104645	BRACKET, Cable	1
8	8D-06	NUT, Clevis Jam	1	26	8D-06	NUT, Clevis Jam	1
9	104645	BRACKET, Cable	1	27	2J-6208	CLEVIS, Cable to Brake	1
10	4E-05	LKWSHR, Cable Bracket	2	28	4F-06106	PIN, Clevis to Brake Lever	1
11	1C-510	BOLT, Cable Bracket	2	29	1F-312	COTTER, Clevis Pin	1
12	2C-616	BOLT, Cable Clip	1	30	1C-510	BOLT, Cable Bracket	2
13	551834	CLIP, Cable	1	30A	4E-05	LKWSHR, Cable Bracket	2
14	4E-06	LKWSHR, Cable Clip	1	31	2D-06	NUT, Bracket to Frame	2
15	2D-06	NUT, Cable Clip	1	31A	4E-06	LKWSHR, Bracket to Frame	2
16	551689	CABLE, Parking Brake — R.H.	1				

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

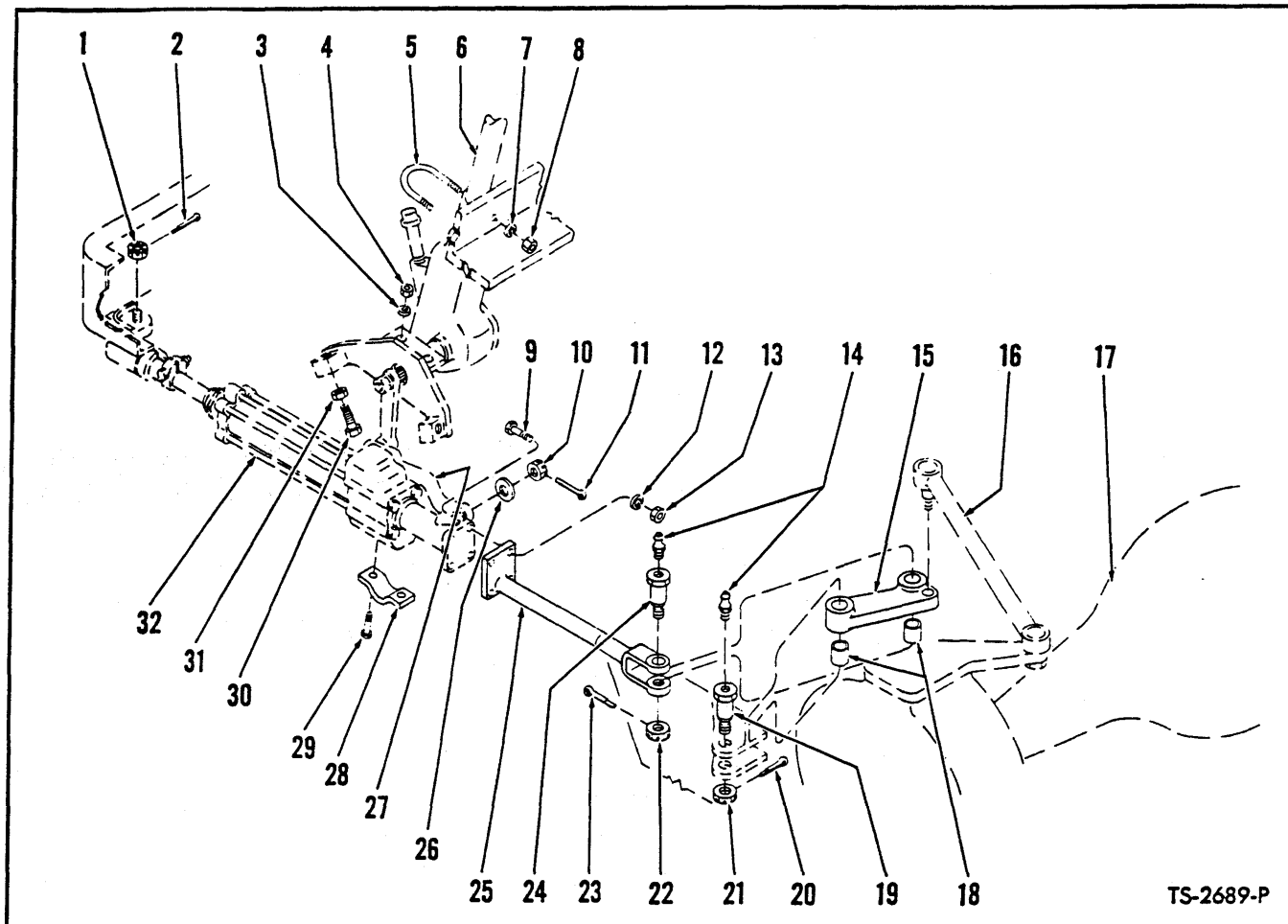


TS-2601-P

PARKING BRAKE LEVER ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	551742	LEVER ASSY (Inc. 1 thru 19)	1	12		BRACKET, Mounting	
1	941232	BODY, Lever	1	12A	946091	RIGHT HAND	1
2	946163	WASHER, Base to Body	1	12B	941235	LEFT HAND	1
3	949370	BASE, Adjusting Knob (Inc. 4).....	1	13	1F-312	COTTER, Clevis Pin	1
4	—	§CAP, Adjusting Knob — See 3	1	14	941234	SPACER	1
5	941237	ROD, Adjusting	1	15	862653	BRACKET, Pivot	2
6	862648	TUBE, Adjusting	1	16	941234	SPACER	1
7	941238	PIN, Tube to Link	1	17	603985	SPACER	1
8	862652	LINK, Body to Bracket	1	18	862738	PIN, Clevis	1
9	941236	LINK, Equalizer	2	19	25E-18	WASHER, Mounting	2
10	—	§RIVET — See A	1				
11	25E-15	WASHER, Clevis Pin	1				

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

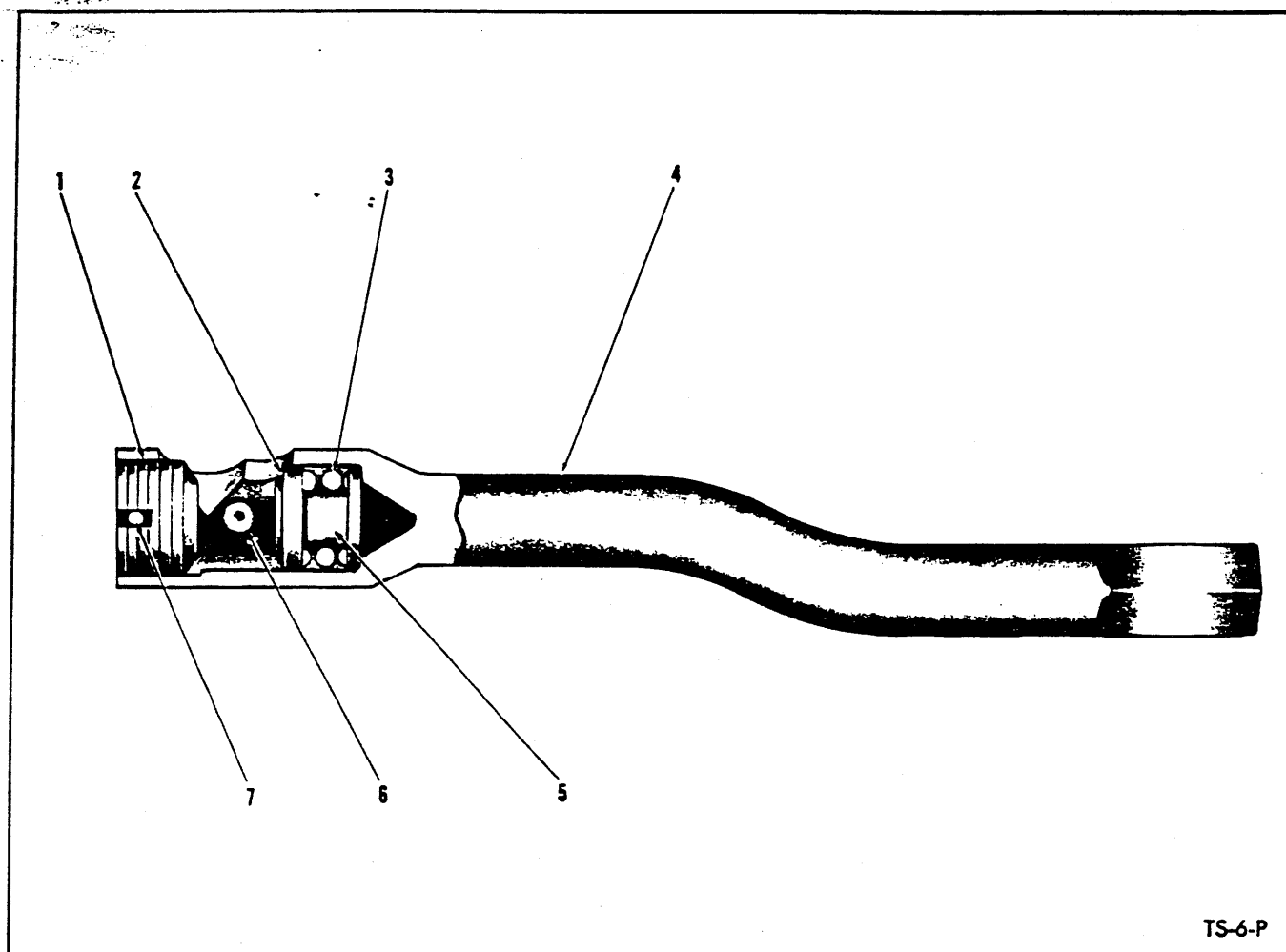


TS-2689-P

STEERING LINKAGE GROUP

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	868980	NUT, Booster to Frame	1	17	-----	REAR DRIVE STEER AXLE—(See Index)	—
2	1F-428	COTTER, Booster to Frame Nut	1	18	550601	BUSHING, Bell Crank	2
3	4E-08	LKWSHR, Steering Gear Clamp	2	19	550602	PIN, Bell Crank to Frame	1
4	2D-08	NUT, Steering Gear Clamp	2	20	1F-424	COTTER, Pin Retaining Nut	1
5	545941	U-BOLT, Steering Gear to Frame.....	1	21	617863	NUT, Pin Retaining	1
6	-----	STEERING GEAR — (See Index)	—	22	617863	NUT, Pin Retaining	1
7	4E-08	LKWSHR, U-Bolt	2	23	1F-424	COTTER, Pin Retaining Nut	1
8	2D-08	NUT, U-Bolt	2	24	550602	PIN, Adapter to Bell Crank	1
9	2C-832	BOLT, Adapter to Booster	4	25	543326	ADAPTER, Steering Booster	1
10	868980	NUT, Drag Link to Booster	1	26	25E-29	WASHER, Drag Link to Booster	1
11	1F-428	COTTER, Drag Link to Booster Nut	1	27	-----	DRAG LINK — (See Index)	—
12	4E-08	LKWSHR, Adapter to Booster	4	28	550044	CLAMP, Steering Gear	1
13	2D-08	NUT, Adapter to Booster	4	29	2C-836	BOLT, Clamp to Frame ..	2
14	10H-25	FITTING, Pin Grease	2	30	2C-1028	BOLT, Steering Stop	2
15	550600	BELL CRANK ASSY (Inc. 18)	1	31	8D-10	NUT, Steering Stop	2
16	-----	PUSH ROD ASSY — (See Index)	—	32	-----	STEERING BOOSTER — (See Index)....	—

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



STEERING DRAG LINK

Item No.	Part No.	Description	No. Req'd.
A	550595	DRAG LINK ASSY (Inc. 1 thru 5)	1
1	940011	PLUG, Ball Seat Adjustment	1
2	940015	BALL SEAT	1
3	940016	SPRING	1
4	—	§FORGING, Drag Link — (See "A")	—
5	940018	PLUG, Safety	1
6	10H-25	FITTING, Drag Link Grease	1
7	1F-432	COTTER, Adjustment Plug	1

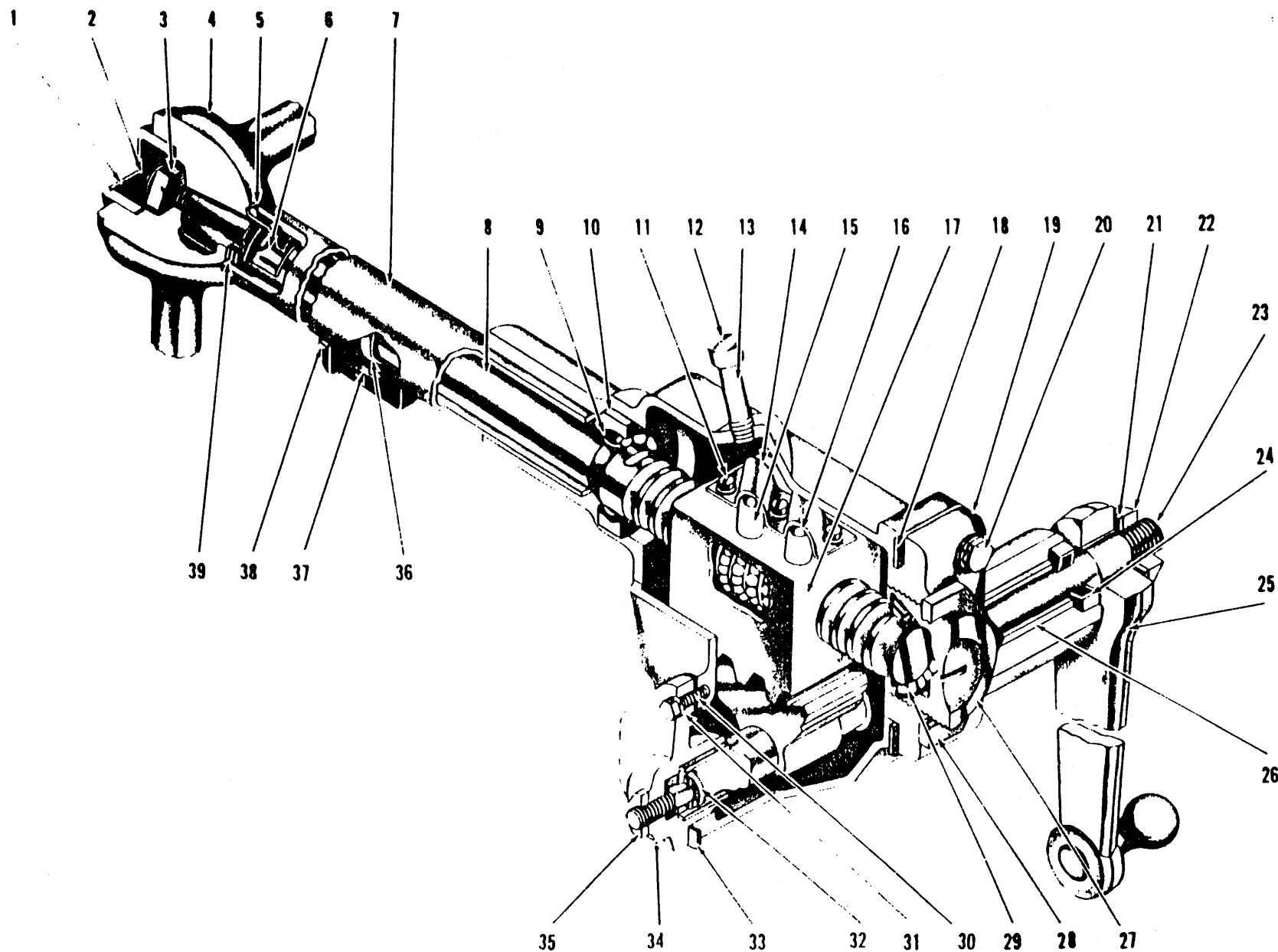
§Not Sold Separately — Order Complete Assembly Item "A".

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

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STEERING GEAR ASSEMBLY

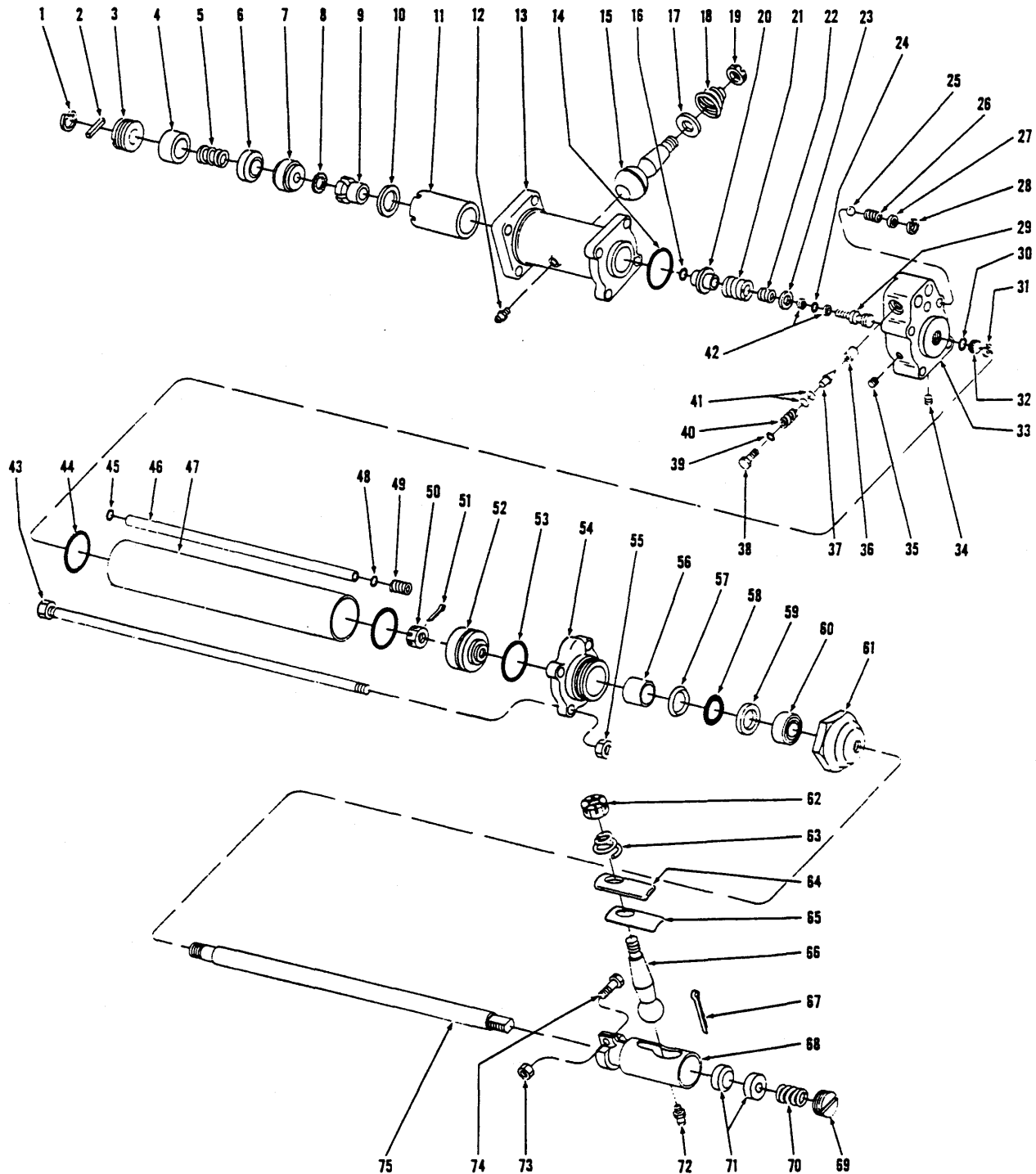
TS-1282-P

STEERING GEAR ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	940109	GEAR ASSY (Inc. 2, 5 thru 24, 26 thru 36, 39, 40)	1	22	850756	NUT, Pitman Arm	1
1	639796	BUTTON ASSY, Horn	1	23	940111	GEAR, Pitman Shaft	1
2	853368	TERMINAL, Horn	1	24	853391	SEAL, Pitman Shaft Grease	1
3	648304	NUT, Steering Wheel	1	25	940114	ARM, Pitman	1
4	1508704	WHEEL, Steering	1	26	853357	BUSHING, Pitman Shaft	2
5	853394	SEAT, Upper Bearing Spring	1	27	853372	ADJUSTER, Worm Bearing	1
6	857729	BEARING, Upper	1	28	853385	NUT, Worm Bearing Adjuster Lock ..	1
7	940112	HOUSING ASSY (Inc. 10, 26)	1	29	853373	BEARING, Worm Thrust	1
8	940122	SHAFT ASSY (Inc. 2, 8A, 9, 11, 14, 15, 16, 17, 36)	1	30	1C-612	BOLT, Side Cover	3
8A	940123	SHAFT	1	31	2E-06	LKWSHR, Side Cover	3
9	853373	BEARING, Worm Thrust	1	32	851770	ADJUSTER, Lash	1
10	853379	CUP, Worm Thrust Bearing	1	32A	853187	SHIM KIT, Lash Adjuster	1
11	851762	BOLT ASSY (Inc. Washer)	3	33	851756	GASKET, Side Cover	1
12	22F-4	CAP, Filler	1	34	853182	COVER, Housing Side (Inc. Bushing)..	1
13	5K-432	NIPPLE, Filler Extension	1	35	8D-07	NUT, Lash Adjuster	1
14	853464	CLAMP, Ball Return Guide	1	36	940115	CONTACT, Horn Cable	1
15	853412	GUIDE, Ball Return	4	37	622026	CONNECTOR, Horn Cable	1
16	10J-09	BALL	106	37A	622028	†COVER, Horn Cable Connector ..	1
17	853408	BALL NUT	1	37B	622027	†SCREW, Horn Connector	1
18	853380	GASKET, End Cover	1	37C	518346	†GASKET, Horn Connector	1
19	853376	COVER, Housing End	1	38	3G-1003	SCREW, Horn Cover	2
20	1C-718	BOLT, End Cover — Short	3	38A	17E-10	†LKWSHR, Horn Cover	2
20A	1C-726	BOLT, End Cover — Long	1	39	853395	SPRING, Upper Bearing	1
20B	3E-07	LKWSHR, End Cover	4	40	853384	†KEY, Steering Wheel	1
21	4E-18	LKWSHR, Pitman Arm	1	41	695930	†SCREW, Horn Button	4
				42	940119	†SPACER, Lock Block	
				43	940120	†BLOCK, Adjusting Nut Lock	1

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



STEERING BOOSTER ASSEMBLY

TS-2768-P

STEERING BOOSTER ASSEMBLY

**For Serial: WAUKESHA GAS — 4123 thru 4629, 1DA375 thru 1DA595
WAUKESHA DIESEL — 4123D thru 4629D, 1DB86 thru 1DB999
G.M. — 1DG1 thru 1DG170**

Item No.	Part No.	Description	No. Req'd.
A	513228	*STEERING BOOSTER ASSY	1
1	867580	RING, Snap	1
2	869021	KEY	1
3	869020	PLUG	1
4	869019	SPACER	1
5	869018	SPRING	1
6	869017	SEAT, Ball Stud	1
7	941818	SEAT, Ball Stud	1
8	941816	LKWSHR	1
9	941815	NUT, Spool Adjusting	1
10	941817	RETAINER	1
11	869011	SLEEVE	1
12	10H-2	FITTING, Grease	1
13	869010	RETAINER	1
14	25K-40204	"O" RING	1
15	868982	BALL STUD	1
16	25K-30020	"O" RING	1
17	858291	COVER, Dust	1
18	868981	SPRING	1
19	868980	NUT	1
20	868984	RETAINER, Spring	1
21	940663	SPRING	1
22	940664	SPRING	1
23	868986	WASHER	1
24	25K-20010	"O" RING	1
25	10J-12	BALL	1
26	868992	SPRING	1
27	868991	WASHER	1
28	664138	RING, Snap	1
29	942779	SPOOL, Valve	1
30	25K-40028	"O" RING	1
31	868993	RING, Snap	1
32	868994	PLUG	1
33	870744	BODY, Valve (Inc. 37)	1
34	16F-04	PLUG — ¼" Pipe	3
35	16F-02	PLUG — ⅜" Pipe	1
36	940666	SEAT	1
37	940667	POPPET	1
38	861811	PLUG	1
39	91F-5	"O" RING	1
40	940669	SPRING	1
41	940668	‡SHIM	—
42	942806	WASHER, Back-Up	2
43	943665	KIT, Stay Bolt & Nut	4
44	25K-40216	"O" RING	2
45	25K-30016	"O" RING	1

Item No.	Part No.	Description	No. Req'd.
46	869007	TUBE, Oil Passage	1
47	869005	CYLINDER	1
48	25K-30016	"O" RING	1
49	869008	SPRING	1
50	4D-14	NUT	1
51	1F-424	COTTER	1
52	868996	PISTON	1
53	858251	RING, Piston	1
54	868997	CAP	1
55	869000	NUT	4
56	664769	BUSHING, Oilite	1
57	858245	ADAPTER, Male Chevron	1
58	858244	PACKING, Chevron	5
59	858243	ADAPTER, Female Chevron	1
60	870732	WIPER	1
61	870740	NUT, Packing	1
62	868980	NUT	1
63	868981	SPRING	1
64	858234	SHIELD	1
65	858235	COVER, Dust	1
66	858236	BALL STUD	1
67	1F-848	COTTER	1
68	870736	HOUSING, Ball Joint	1
69	858302	PLUG	1
70	872844	SPRING	1
71	858226	SEAT, Ball Stud	2
72	10H-2	FITTING, Grease	1
73	18D-06	NUT	1
74	870730	BOLT	1
75	870739	ROD, Piston	1
76	942672	†‡REPAIR KIT "O" RING (Inc. 14, 16, 24, 30, 39, 42, 44, 45, 48)	—
77	942668	†‡PACKING KIT (Inc. 57 thru 60)	—

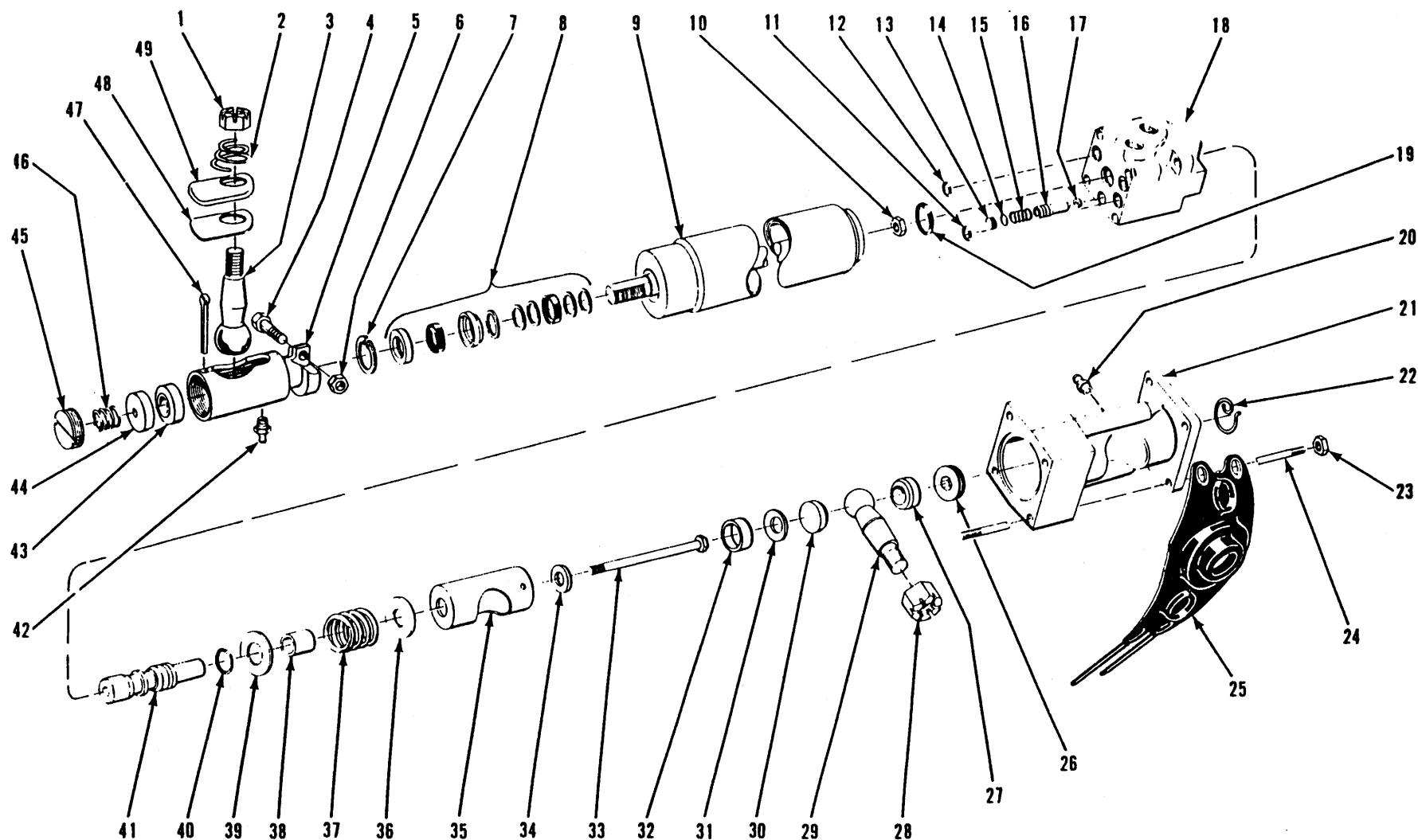
Diagram illustrating the assembly of the steering booster. The diagram shows the inlet port, outlet port, and the internal components including the piston, ring, and seals. The assembly is labeled with part numbers: 31F-4, 661564, 91F-6, 517089, and 870739. The diagram also indicates the front of the machine.

TS-3093-P

***NOTE:** For replacement use 541541 Booster plus one (1) 517089 Fitting, one (1) 31F-4 Adapter and one (1) 91F-6 "O" Ring. Install as shown in figure one above.

†Not Illustrated
‡As Required

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



STEERING BOOSTER ASSEMBLY

TS-3085-P

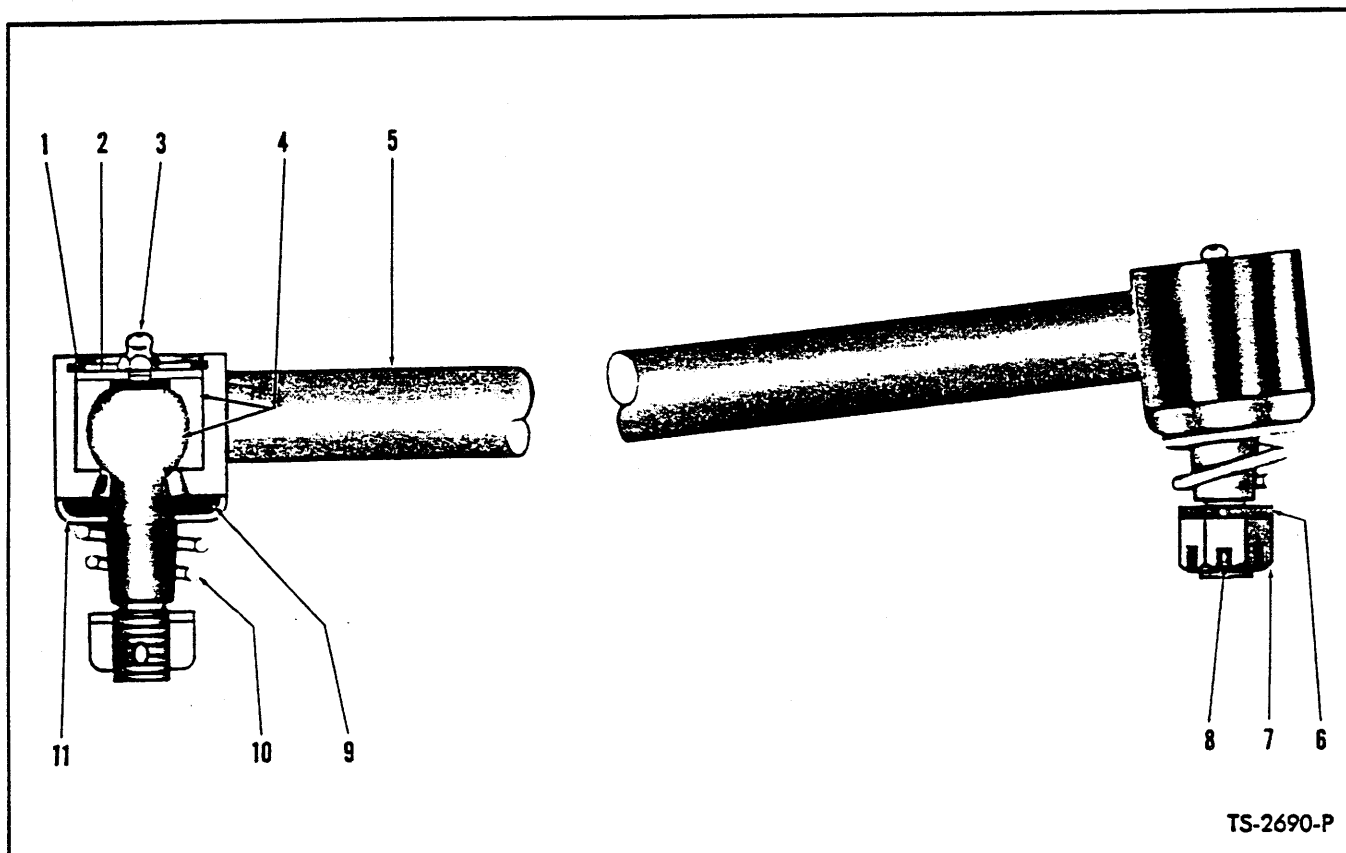
STEERING BOOSTER ASSEMBLY

For Serial: WAUKESHA GAS — 1DA596 thru 1DA999
G.M. — 1DG171 thru 1DG999

Item No.	Part No.	Description	No. Req'd.
A	541541	STEERING BOOSTER ASSY (Inc. 1 thru 49)	1
1	868980	NUT	1
2	868981	SPRING	1
3	858236	BALL STUD	1
4	870730	SCREW	1
5	870736	HOUSING, Ball Joint	1
6	18D-06	NUT	1
7	672907	RING, Snap	1
8	886519	SEAL KIT, Cylinder	1
9	944754	CYLINDER ASSY (Inc. 8)	1
10	885865	NUT	1
11	—	§"O" RING (See 50)	1
12	—	§"O" RING (See 50)	1
13	944749	PLUG	1
14	—	§"O" RING (See 50)	1
15	944748	SPRING	1
16	944752	PLUNGER ASSY, Relief Valve	1
17	944750	SEAT, Relief Valve	1
18	944751	BODY	1
19	—	§"O" RING (See 50)	1
20	882535	FITTING, Grease	1
21	882534	HOUSING, Flanged	1
22	891159	RING, Snap	1
23	885865	NUT	4
24	882537	STUD	4
25	882538	COVER, Dust	1
26	882533	PLUG, Ball Stud	1
27	882532	SEAT, Ball Stud	1
28	4D-14	NUT	1
29	883980	BALL STUD	1
30	882532	SEAT, Ball Stud	1
31	882541	WASHER, Spring	1
32	882531	SPACER	1
33	885864	BOLT	1
34	882526	WASHER	1
35	882525	SLEEVE	1
36	882527	WASHER	1
37	944747	SPRING, Centering 50#	1
38	882523	SPACER	1
39	882527	WASHER	1
40	—	§"O" RING (See 50)	1
41	882522	SPOOL, Valve	1
42	10H-25	FITTING, Grease	1
43	858226	SEAT, Ball Stud	1
44	858226	SEAT, Ball Stud	1
45	858302	PLUG	1
46	872844	SPRING	1
47	1F-848	COTTER	1
48	858235	COVER, Dust	1
49	858234	SHIELD, Dust	1
50	886520	SEAL KIT (Inc. 11, 12, 14, 19 & 40)	1

§Not Sold Separately

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TS-2690-P

PUSH ROD ASSEMBLY

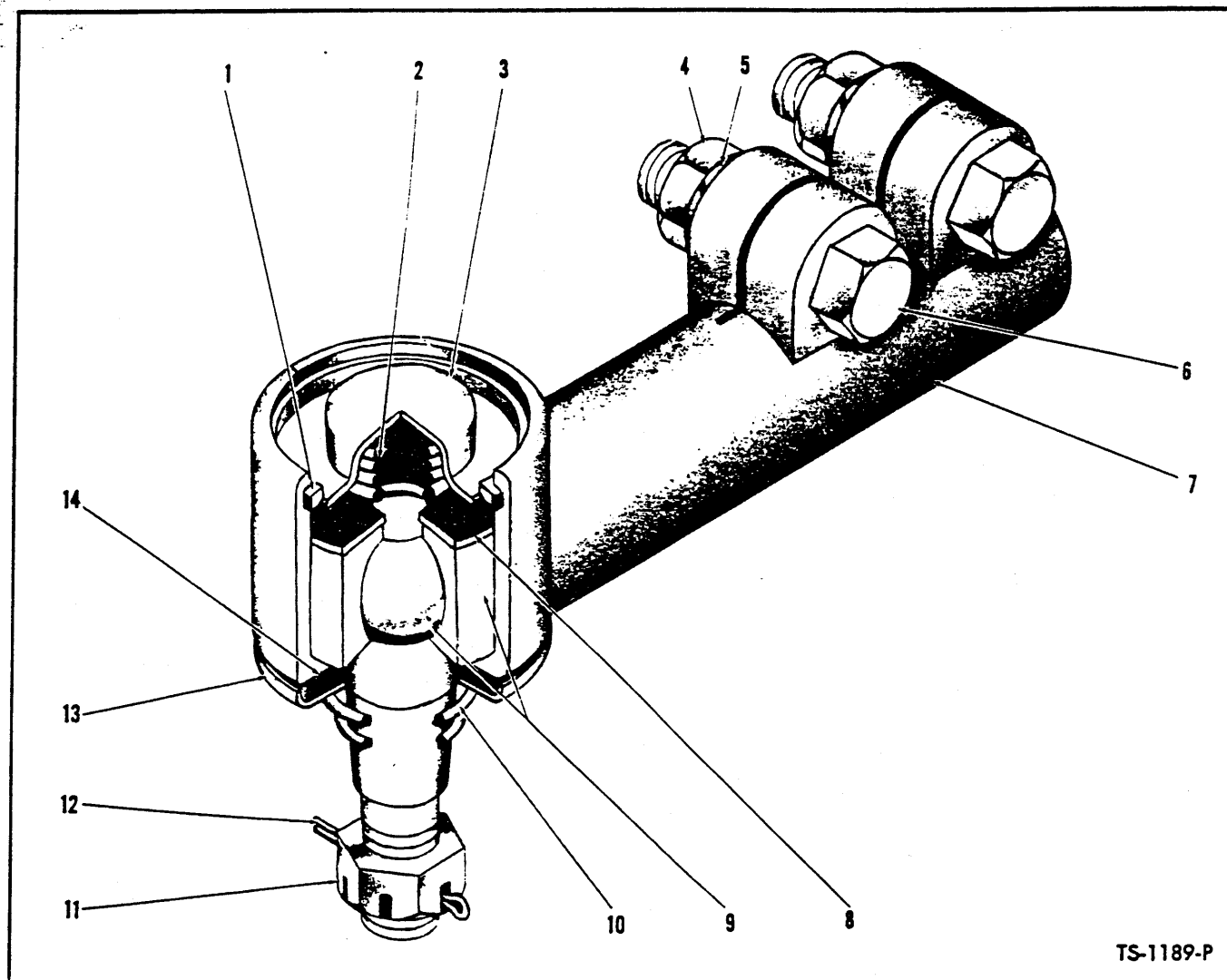
Item No.	Part No.	Description	No. Req'd.
A	525867	*PUSH ROD ASSY (Inc. 1 thru 5)	1
1	507695	RING, Plate Retaining	2
2	541879	**PLATE, Ball Stud Retaining	2
3	10H-25	FITTING, Ball Stud Grease	2
4	117228	BALL STUD	2
5	—	§ROD ONLY (See "A")	1
6	25E-27	WASHER, Ball Stud	2
7	4D-12	NUT, Ball Stud	2
8	1F-426	COTTER, Ball Stud Nut	2
9	106137	FELT WASHER, Ball Stud	2
10	106268	SPRING, Felt Retaining	2
11	106138	PLATE, Felt Washer Retaining	2

*NOTE: Machines serial 4123 thru 4528 were equipped with a push rod with replaceable ends. When it becomes necessary to replace rod on these machines order item "A" above. Service parts for replaceable ends will still be furnished.

**NOTE: For replacement use 815841 Retainer Plate Assembly which consists of 1—524066 Retainer Plate & 1—10H-25 Grease Fitting. 4123 thru 4528

§ Not Sold Separately

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

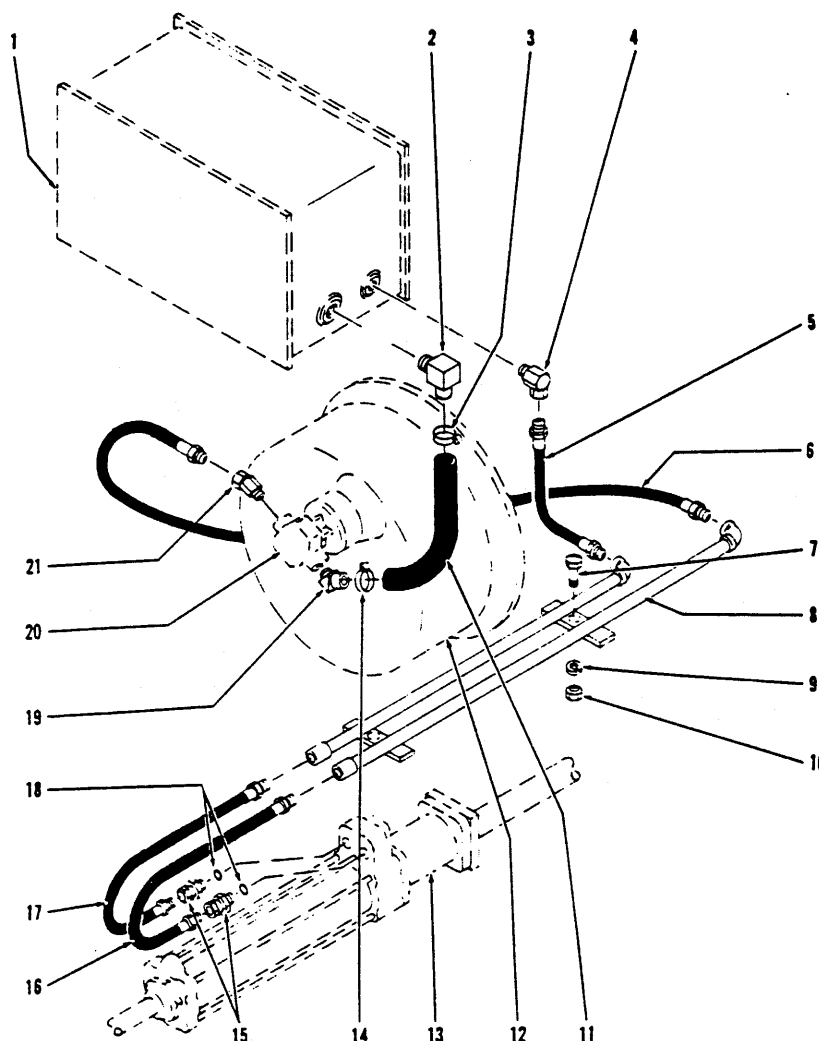


TS-1189-P

TIE ROD AND PUSH ROD END ASSEMBLY

Item No.	Part No.	Description	No. Req'd.
A	112652	END ASSY, Tie Rod (Inc. 1 thru 14)	4
Quantities listed below are for 1 end.			
1	106094	RING, Cap Retaining	1
2	106091	SPRING	1
3	106093	CAP, Ball Stud Retaining	1
4	2D-10	NUT, Clamping	2
5	4E-10	LKWSHR, Clamping	2
6	2C-1040	BOLT, Clamping	2
7	106113	HOUSING, Tie Rod End	1
8	106088	WASHER, Retaining	1
9	112654	BALL STUD ASSY	1
10	106268	SPRING	1
11	112174	NUT, Ball Stud	1
12	—	OMIT — Not applicable this model	—
13	106138	RETAINER, Felt	1
14	106137	FELT	1

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TS-2589-P

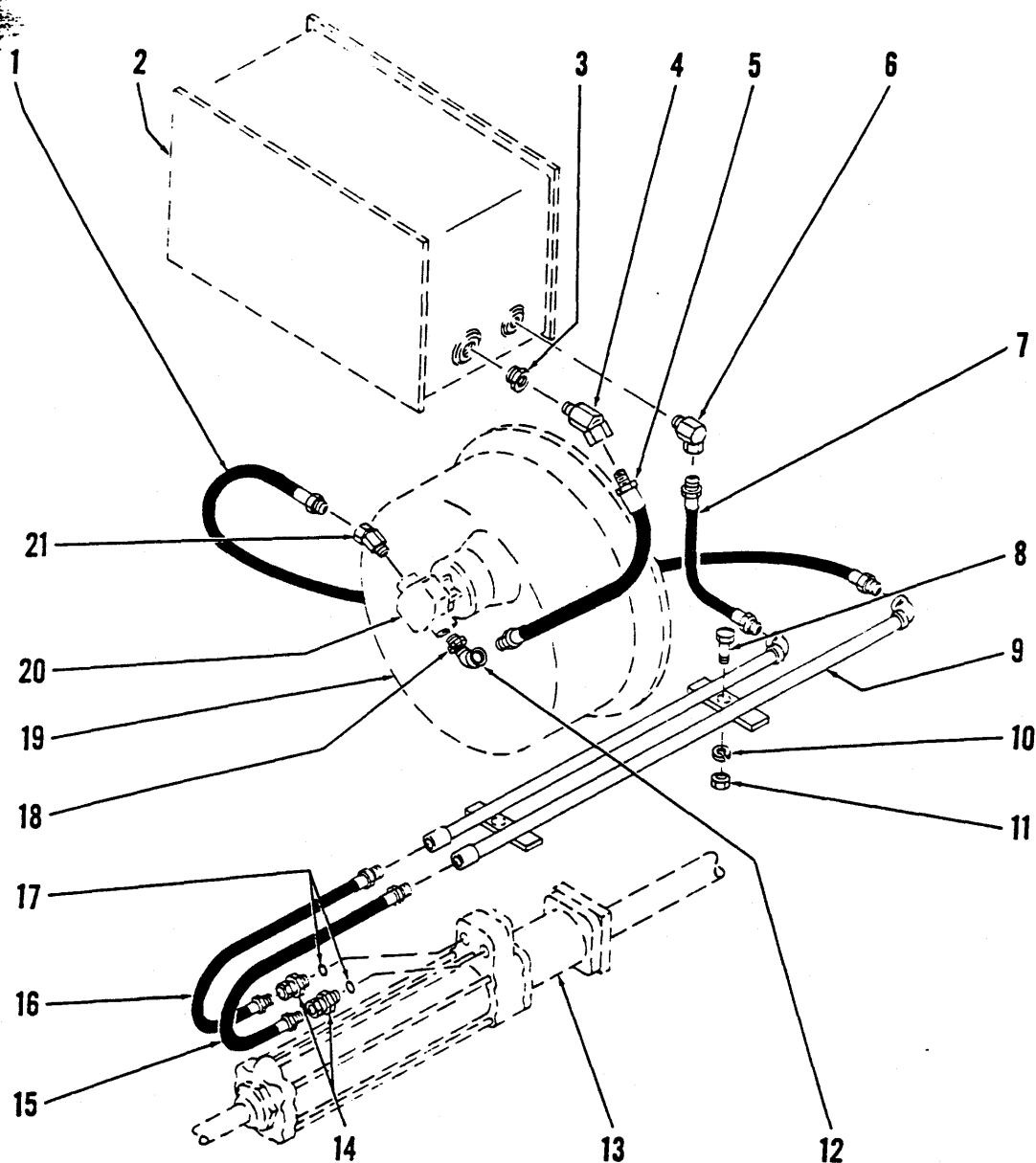
HYDRAULIC SYSTEM — STEERING

For Serial: **WAUKESHA GAS** — 4123 thru 4624, 1DA375 thru 1DA459
WAUKESHA DIESEL — 4123D thru 4629D, 1DB86 thru 1DB100
G.M. — 1DG1 thru 1DG999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	----	RESERVOIR, Hyd. Oil — (See Index)	1	10	2D-06	NUT, Pipe to Frame	2
2	666846	NIPPLE, Hose to Reservoir	1	11	516159	HOSE, Reservoir to Pump — Suction	1
3	540103	CLAMP, Hose	1	12	----	TORQUE CONVERTER — (See Index)	1
4	31F-4	ADAPTER UNION	1	13	----	STEERING BOOSTER — (See Index)	1
5		HOSE, Pipe to Reservoir		14	540103	CLAMP, Hose	1
5A	712766	For Waukesha Powered Machines	1	15	661564	ADAPTER UNION	2
5B	524530	For G.M. Powered Machines	1	16	661559	HOSE, Pipe to Booster	1
5C	25F-4	†ELBOW, Hose to Pipe — G.M. Only	1	17	661559	HOSE, Pipe to Booster	1
6	661563	HOSE, Pump to Pipe — Pressure	1	18	91F-6	"O" RING, Adapter Union	2
7	2C-624	BOLT, Pipe to Frame	2	19	666858	NIPPLE, Hose to Pump	1
8	514610	PIPE	1	20	----	TORQUE CONVERTER PUMP — (See Index)	—
9	4E-06	LKWSHR, Pipe to Frame	2	21	514788	ADAPTER UNION	1

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TS-2157-P

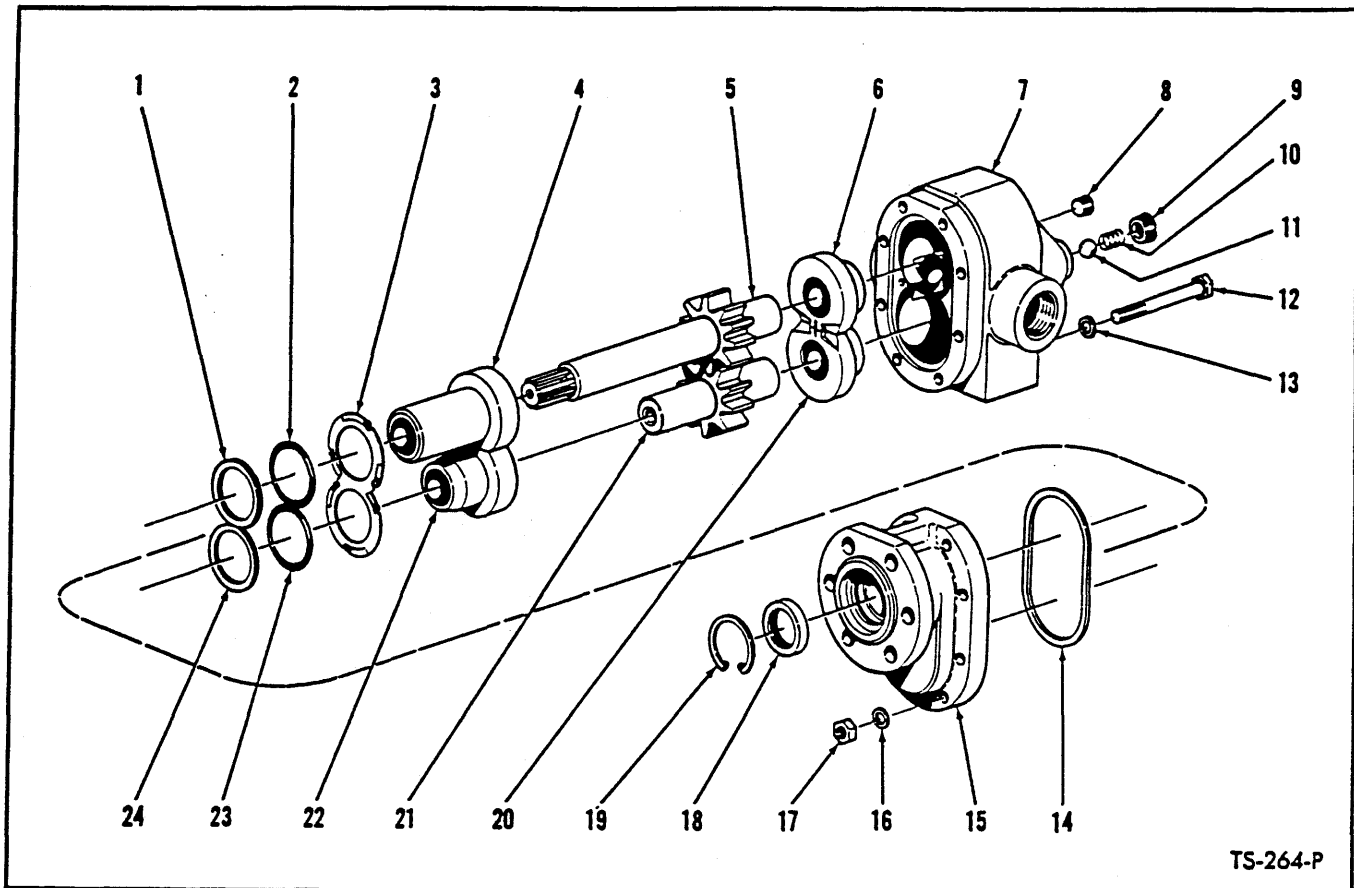
HYDRAULIC SYSTEM — STEERING — WAUKESHA

For Serial: GAS — 1DA460 thru 1DA999

DIESEL — 1DB101 thru 1DB999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	661563	HOSE, Pump to Pipe — Pressure	1	12	26F-5	ELBOW, Hose to Pump	1
2	—	RESERVOIR, Hyd. Oil — (See Index)	—	13	—	STEERING BOOSTER — (See Index)	—
3	356621	BUSHING, Reservoir Reducing	1	14	661564	ADAPTER UNION	2
4	33F-5	ADAPTER UNION	1	15	661559	HOSE, Pipe to Booster	1
5	531000	HOSE, Reservoir to Pump — Suction	1	16	661559	HOSE, Pipe to Booster	1
6	31F-4	ADAPTER UNION	1	17	91F-6	"O" RING, Adapter Union	2
7	712766	HOSE, Pipe to Reservoir — Return	1	18	356621	BUSHING, Pump Reducing	1
8	2C-624	BOLT, Pipe to Frame	2	19	—	TORQUE CONVERTER — (See Index)	—
9	514610	PIPE, Steering	1	20	—	STEERING PUMP — (See Index)	—
10	4E-06	LKWSHR, Pipe to Frame	2	21	514788	ADAPTER UNION	1
11	2D-06	NUT, Pipe to Frame	2				

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TS-264-P

HYDRAULIC PUMP — STEERING — WAUKESHA

For Serial: GAS — 4123 thru 4624

DIESEL — 4123D thru 4629D

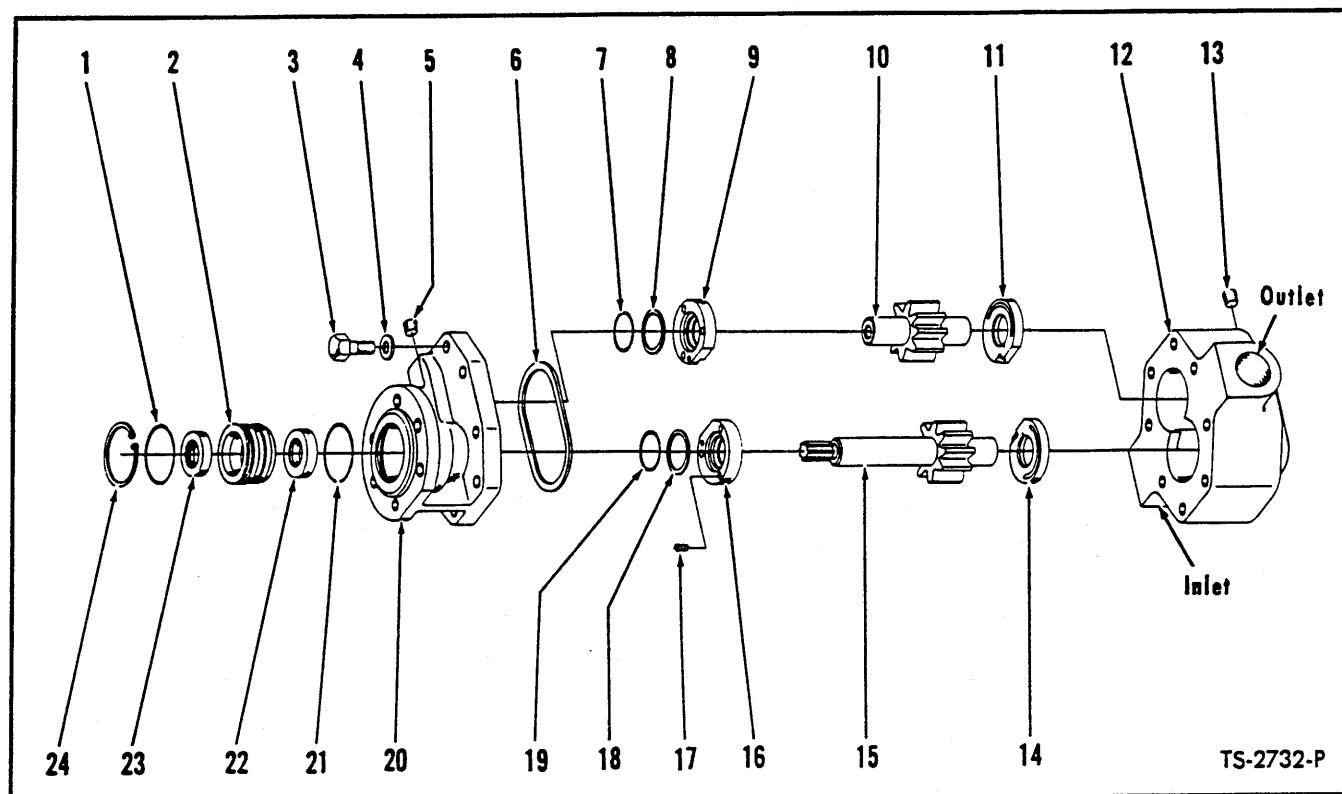
Item No.	Part No.	Description	No. Req'd.
A	221450	*PUMP ASSY (Inc. 1 thru 24).....	1
B	942404	REPAIR KIT, Major (Inc. 1 thru 4, 6, 10 thru 14, 16 thru 20, 22, 23, 24)....	1
C	942403	REPAIR KIT, Minor (Inc. 1, 2, 14, 18, 19, 23, 24)	1
1	—	§WASHER, Back-UP	1
2	—	§"O" RING	1
3	—	§SPRING, Bearing	1
4	—	§BEARING, Cover — Drive	1
5	—	§GEAR, Drive	1
6	—	§BEARING, Body — Drive	1
7	—	§BODY	1
8	16F-02	PLUG, Seal Chamber	1
9	—	§PLUG, Seal Relief	1
10	—	§SPRING, Seal Relief	1
11	—	§BALL, Seal Relief	1

Item No.	Part No.	Description	No. Req'd.
12	—	§BOLT, Cover to Body	8
13	—	§WASHER, Cover to Body	8
14	—	§GASKET, Cover	1
15	—	§COVER	1
16	—	§WASHER, Cover to Body	8
17	—	§NUT, Cover to Body	8
18	—	§SEAL, Shaft Oil	1
19	—	§RING, Seal Retaining	1
20	—	§BEARING, Body — Driven	1
21	—	§GEAR, Driven	1
22	—	§BEARING, Cover — Driven	1
23	—	§"O" RING	1
24	—	§WASHER, Back-Up	1
25	235961	†GASKET, Pump to Converter	1
26	8D-06	†NUT, Pump to Converter	6
27	4E-06	†LKWSHR, Pump to Converter	6

*NOTE: For complete replacement use 2520771 Pump Assy. plus 1—235961 Gasket, 3—9E6 Lkwshr., 3—8D6 Nut, 2—25E17 Washer, 1—1304905 Adapter Union, 1—91F8 O-ring, 1—1526292 Tube Speed, 1—519275 Adapter Union, 1—91F7 O-ring, & 1—2522413 Gasket.

†Not Illustrated

§Not Sold Separately



HYDRAULIC PUMP — STEERING

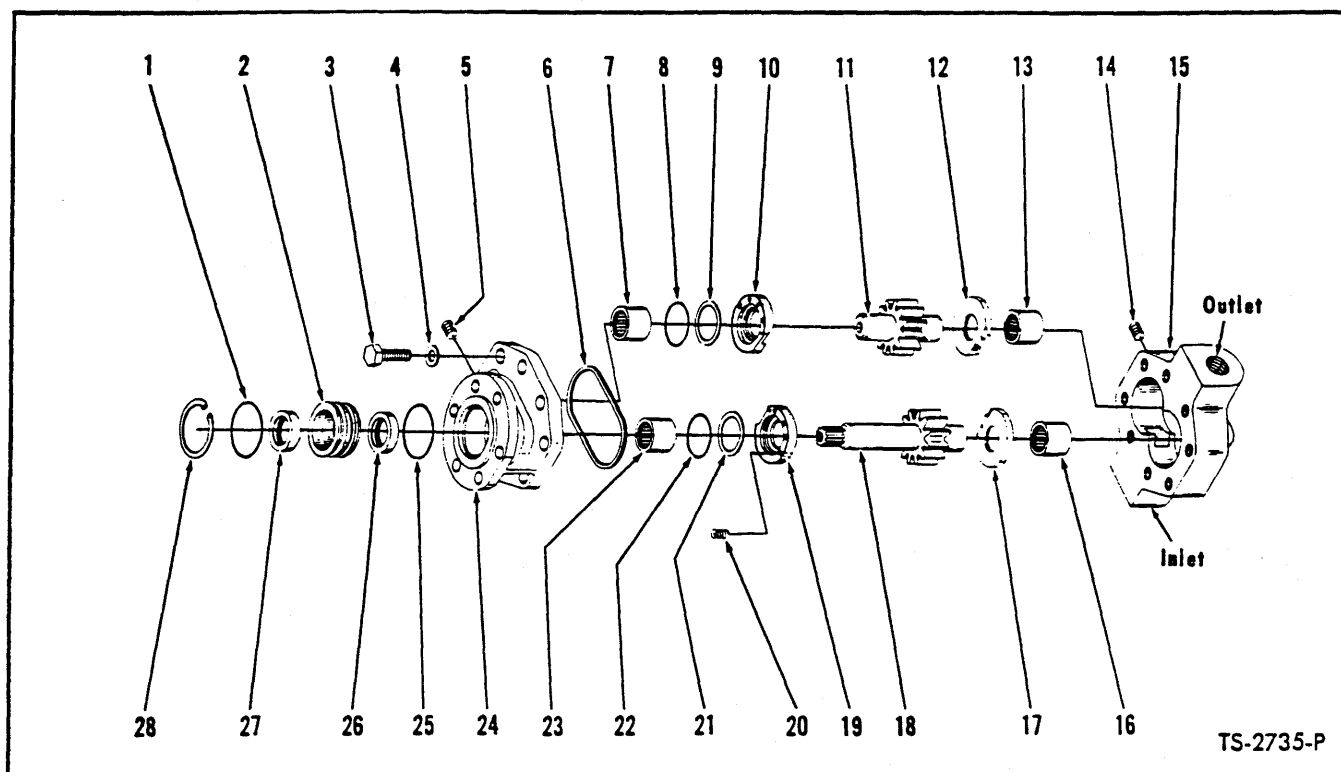
For Serial: **WAUKESHA GAS — 1DA375 thru 1DA404**
WAUKESHA DIESEL — 1DB86 thru 1DB90
G.M. — 1DG1 thru 1DG15

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	450012	*PUMP ASSY (Inc. 1 thru 24)	1	11	-----	§THRUST PLATE, Body	1
B	498152	REPAIR KIT, Major (Inc. 9, 11, 14, 16)	1	12	-----	§BODY (Inc. Bushings) (See "A")	1
C	498151	REPAIR KIT, Minor (Inc. 1, 3, 4, 6, 7, 8, 17, 18, 19, 21)	1	13	-----	§PLUG, Body	1
D	498024	GEAR SET, Drive & Driven (Inc. 10, 15)	1	14	-----	§THRUST PLATE, Body	1
E	498113	REPAIR KIT, Shaft Seal (Inc. 1, 2, 21 thru 24)	1	15	-----	§GEAR, Drive	1
1	-----	§"O" RING, Retainer	1	16	-----	§THRUST PLATE, Cover	1
2	-----	§RETAINER, Shaft Seal	1	17	-----	§SPRING, Cover Thrust Plate	6
3	-----	§BOLT, Cover to Body	8	18	-----	§WASHER, "O" Ring Back-Up	1
4	-----	§WASHER, Cover to Body	8	19	-----	§"O" RING, Cover Thrust Plate	1
5	-----	§PLUG, Cover	1	20	-----	§COVER (Inc. Bushings) (See "A")	1
6	-----	§GASKET, Cover	1	21	-----	§"O" RING, Retainer	1
7	-----	§"O" RING, Cover Thrust Plate	1	22	-----	§SEAL, Inner Oil	1
8	-----	§WASHER, Back-Up	1	23	-----	§SEAL, Outer Oil	1
9	-----	§THRUST PLATE, Cover	1	24	-----	§RING, Seal Retainer	1
10	-----	§GEAR, Driven	1	25	235961	†GASKET, Pump to Converter	1
				26	8D-06	†NUT, Pump to Converter	6
				27	4E-06	†LKWSHR, Pump to Converter	6

*NOTE: For complete replacement use 2520771 Pump Assy. plus 1—235961 Gasket, 3—9E6 Lkwshr., 3—8D6 Nut, 2—25E17 Washer, 1—1304905 Adapter Union, 1—91F8 O-ring, 1—1526292 Tube Speed, 1—519275 Adapter Union, 1—91F7 O-ring, & 1—2522413 Gasket.

†Not Illustrated

§ Not Sold Separately



TS-2735-P

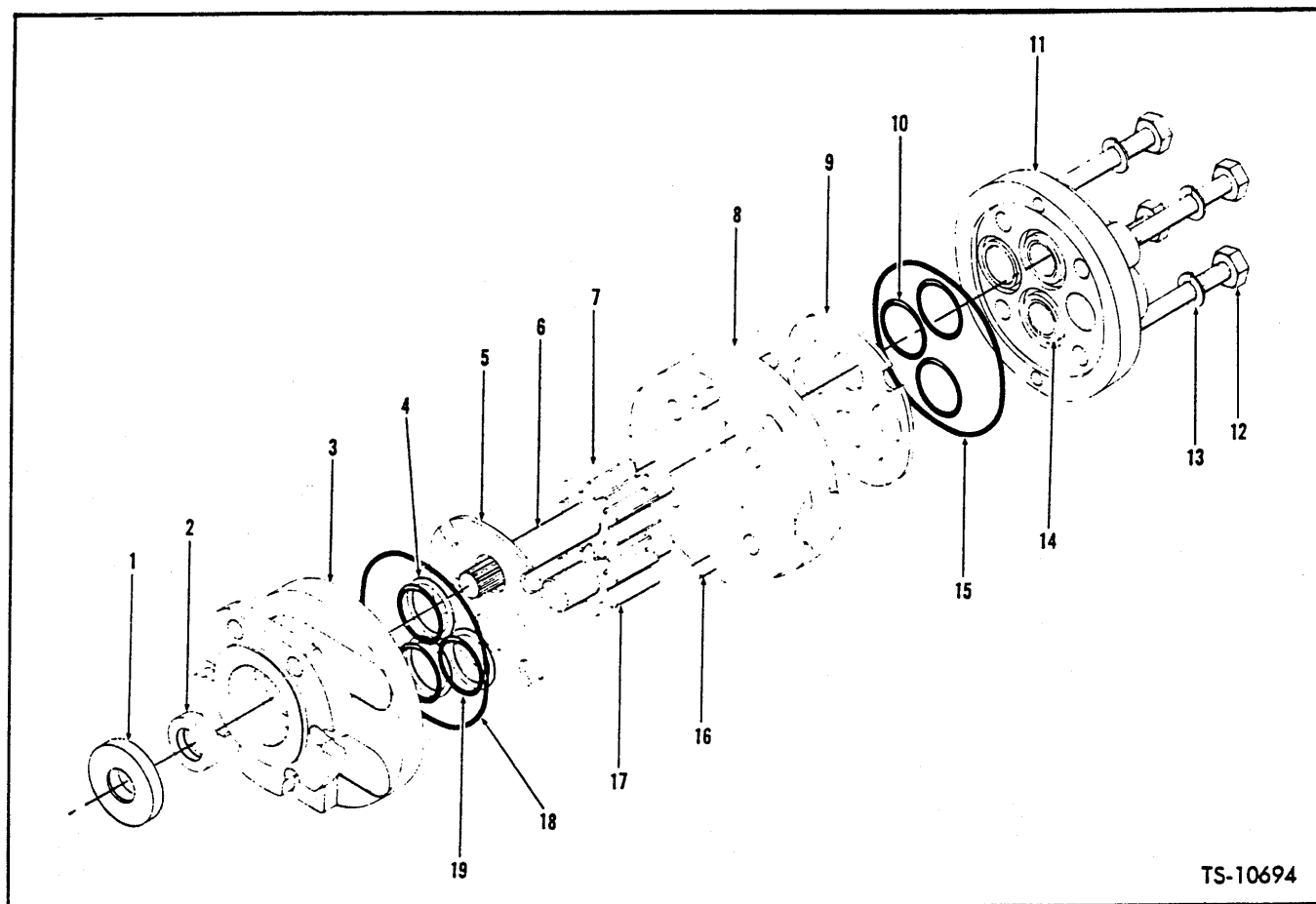
HYDRAULIC PUMP – STEERINGFor Serial: **WAUKESHA GAS – 1DA405 thru 1DA999****WAUKESHA DIESEL – 1DB91 thru 1DB999****G.M. – 1DG16 thru 1DG999**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	450072	*PUMP ASSY (Inc. 1 thru 28)	1	13	-----	§ BEARING, Body – See "A"	1
B	498128	REPAIR KIT, Major (Inc. 10, 12, 17, 19)	1	14	-----	§ PLUG, Body	1
C	498127	*REPAIR KIT, Minor (Inc. 1, 3, 4, 6, 8, 9, 20, 21, 22, 25)	1	15	-----	§ BODY – See "A"	1
D	498024	GEAR SET, Drive & Driven (Inc. 11, 18)	1	16	-----	§ BEARING, Body – See "A"	1
E	498113	REPAIR KIT, Shaft Seal (Inc. 1, 2, 25 thru 28)	1	17	-----	§ THRUST PLATE, Body	1
1	-----	§ "O" RING, Retainer	1	18	-----	§ GEAR, Drive	1
2	-----	§ RETAINER, Shaft Seal	1	19	-----	§ THRUST PLATE, Cover	1
3	-----	§ BOLT, Cover to Body	8	20	-----	§ SPRING, Cover Thrust Plate	6
4	-----	§ WASHER, Cover to Body	8	21	-----	§ WASHER, "O" Ring Back-Up	1
5	-----	§ PLUG, Cover	1	22	-----	§ "O" RING, Cover Thrust Plate	1
6	-----	§ GASKET, Cover	1	23	-----	§ BEARING, Cover – See "A"	1
7	-----	§ BEARING, Cover – Driven – See "A"	1	24	-----	§ COVER – See "A"	1
8	-----	§ "O" RING, Cover Thrust Plate	1	25	-----	§ "O" RING, Retainer	1
9	-----	§ WASHER, "O" Ring Back-Up	1	26	-----	§ SEAL, Inner Oil	1
10	-----	§ THRUST PLATE, Cover	1	27	-----	§ SEAL, Outer Oil	1
11	-----	§ GEAR, Driven	1	28	-----	§ RING, Seal Retaining	1
12	-----	§ THRUST PLATE, Body	1	29	214961	† SLEEVE, Pump Drive	1
				30	235961	† GASKET, Pump to Converter	1
				31	8D-06	† NUT, Pump to Converter	6
				32	4E-06	† LKWSHR, Pump to Converter	6

*NOTE: For complete replacement use 2520771 Pump Assy., plus 1–2522413 Gasket.

†Not Illustrated

§ Not Sold Separately



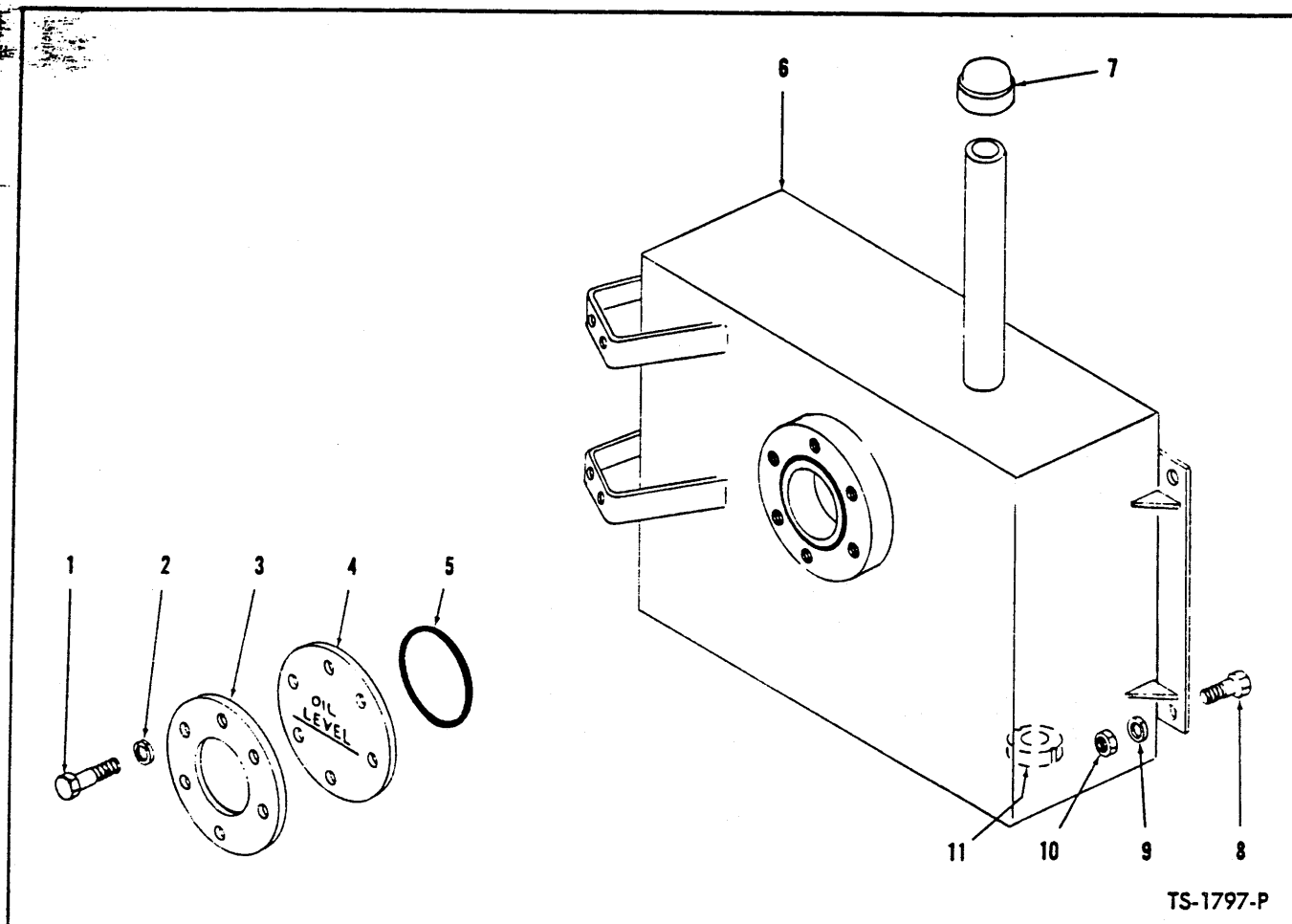
TS-10694

HYDRAULIC PUMP — STEERING

Item No.	Part No.	Description	No. Req'd.
A	1520707	*PUMP ASSY (Inc. 1 thru 19).....	1
B	948264	SEAL KIT (Inc. 1, 2, 4, 10, 15, 18 & 19)	1
1	-----	§SEAL, Outer Shaft — See "B"	1
2	-----	§SEAL, Inner Shaft — See "B"	1
3	-----	§ADAPTER, Pump	1
4	-----	§RING, Back-Up — Adapter to Housing — See "B"	3
5	-----	§PLATE, Adapter Wear	1
6	-----	§SHAFT, Drive (Inc. 7)	1
7	-----	§GEAR, Drive — See 6	1
8	-----	§HOUSING, Pump	1
9	-----	§PLATE, Cover Wear	1
10	-----	§"O" RING, Cover to Housing — See "B"	3
11	-----	§COVER, Pump	1
12	-----	§BOLT, Cover to Adapter	4
13	-----	§LKWSHR, Cover to Adapter	4
14	-----	§BUSHING, Adapter & Cover	4
15	-----	§"O" RING, Cover to Housing — See "B"	1
16	-----	§PIN, Dowel — Housing	4
17	-----	§SHAFT & GEAR ASSY, Driven	1
18	-----	§"O" RING, Adapter to Housing — See "B"	1
19	-----	§"O" RING, Adapter to Housing — See "B"	3

§ Not Sold Separately

*NOTE: For complete replacement use 2520771 Pump Assy. plus 1-2522413 Gasket.

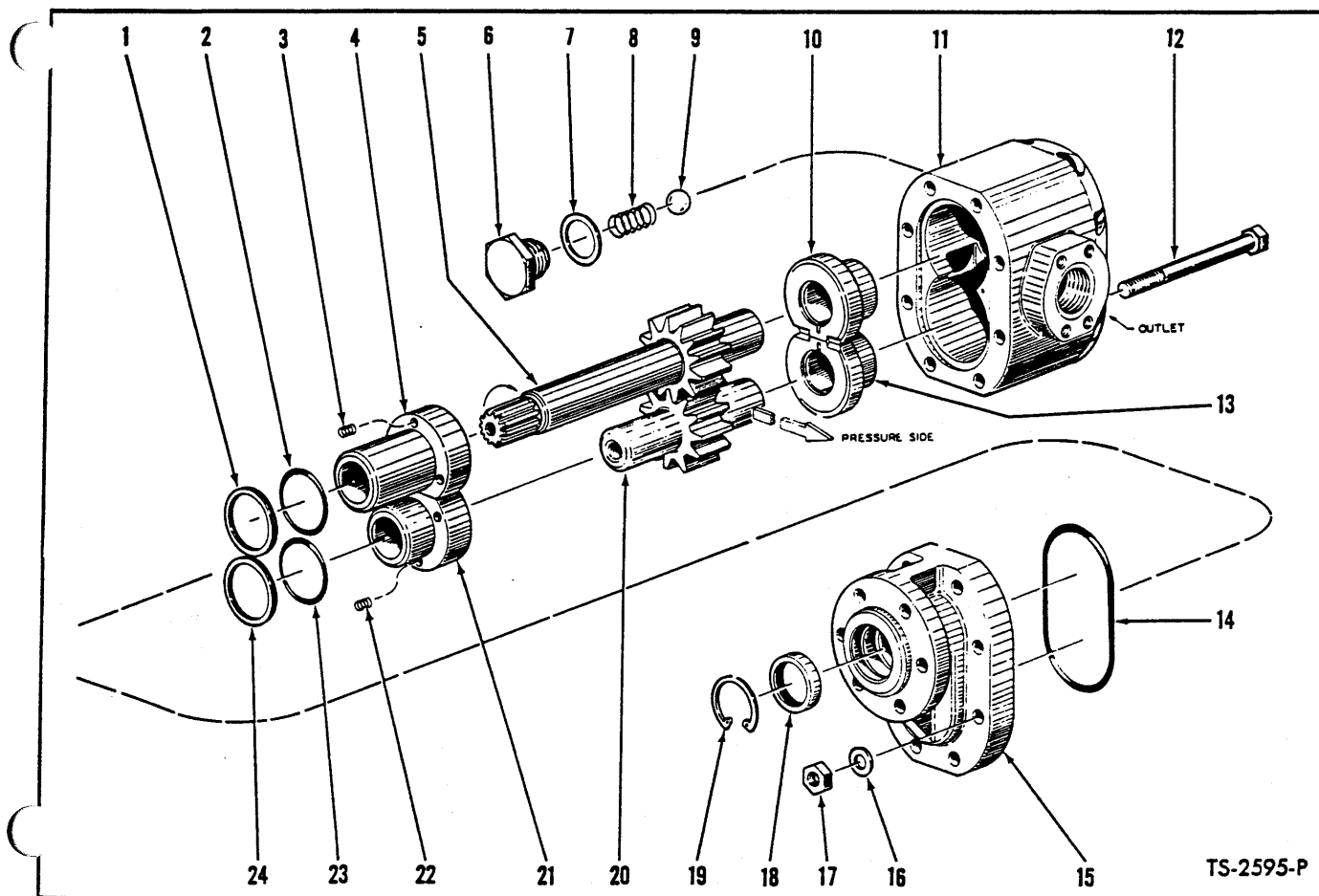


HYDRAULIC OIL RESERVOIR

Item No.	Part No.	Description	No. Req'd.
1	2C-616	BOLT, Inspection Cover	6
2	4E-06	LKWSHR, Inspection Cover	6
3	550398	RING, Inspection Cover Clamp	1
4	550389	COVER, Reservoir Inspection	1
5	25K-40428	"O" RING, Inspection Cover	1
6		RESERVOIR, Hydraulic Oil	
6A	553284	For Waukesha Powered Machines	1
6B	529852	For G.M. Powered Machines	1
7	604639	CAP, Reservoir Breather	1
8	2C-820	BOLT, Reservoir to Frame	3
9	4E-08	LKWSHR, Reservoir to Frame	3
10	2D-08	NUT, Reservoir to Frame	3
11	525293	MAGNET, Reservoir	1
12	11F-12	† PLUG, Reservoir	1

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



HYDRAULIC PUMP — BUCKET AND BOOM — WAUKESHA

For Serial: GAS — 4123 thru 4624, 1DA375 thru 1DA404

DIESEL — 4123D thru 4629D, 1DB86 thru 1DB90

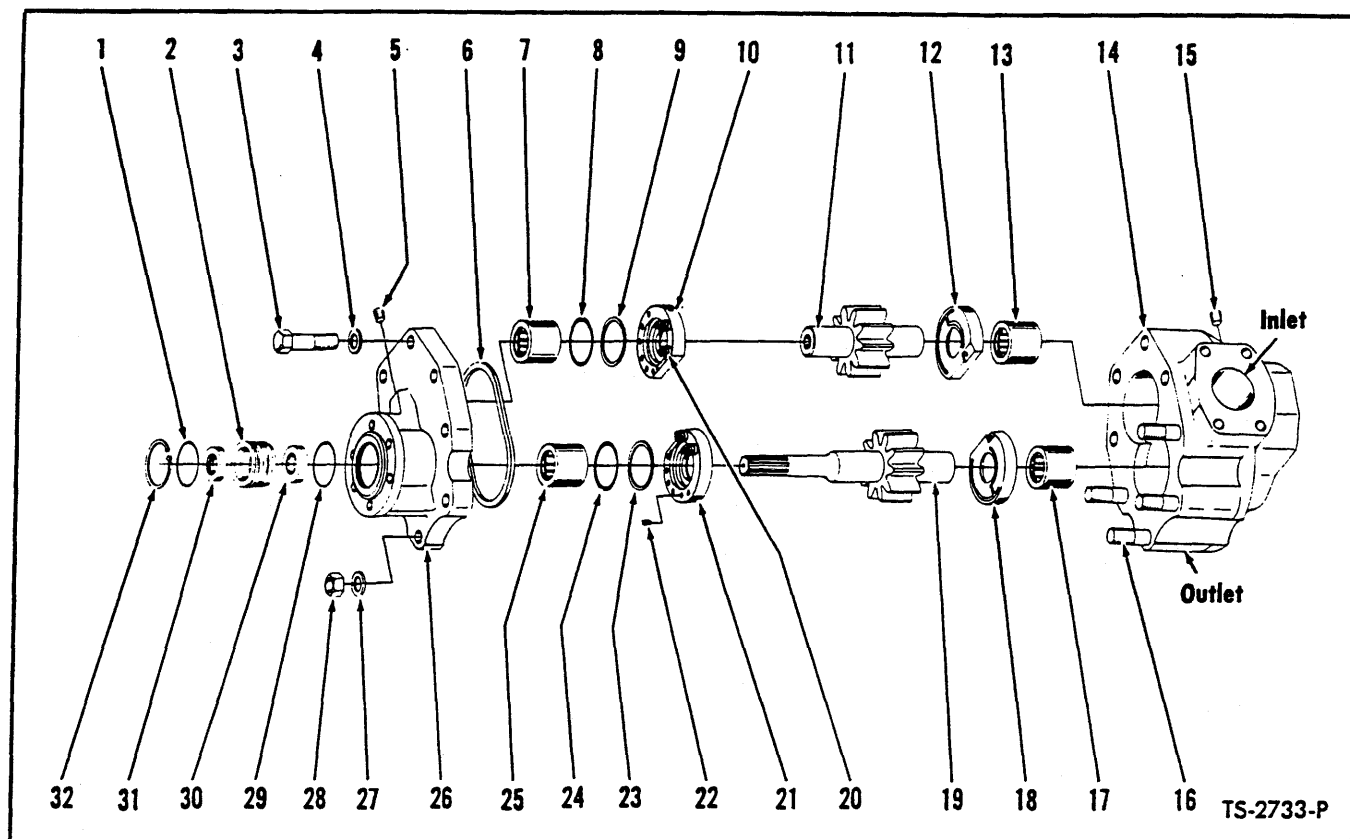
Item No.	Part No.	Description	No. Req'd.
A	553417	*PUMP ASSY (Inc. 1 thru 24)	1
B	941646	REPAIR KIT, Major (Inc. 1 thru 4, 7, 10, 12, 13, 14, 16 thru 19, 21 thru 24)	1
C	941644	REPAIR KIT, Minor (Inc. 1, 2, 7, 14, 18, 19, 23, 24)	1
D	942431	GEAR SET, Drive & Driven (Inc. 5, 20)	1
1		§WASHER, Back-Up	1
2		§"O" RING	1
3		§SPRING, Bearing	3
4		§BEARING, Cover — Drive	1
5		§GEAR, Drive	1
6		§RETAINER, Seal Relief	1
7		§GASKET, Seal Relief	1
8		OMIT	—
9		OMIT	—
10		§BEARING, Body — Drive	1
11		§BODY	1

Item No.	Part No.	Description	No. Req'd.
12		§BOLT, Cover to Body	8
13		§BEARING, Body — Driven	1
14		§GASKET, Cover	1
15		§COVER	1
16		§WASHER, Cover to Body	8
17		§NUT, Cover to Body	8
18		§SEAL, Shaft Oil	1
19		§RING, Seal Retaining	1
20		§GEAR, Driven	1
21		§BEARING, Cover — Driven	1
22		§SPRING, Bearing	3
23		§"O" RING	1
24		§WASHER, Back-Up	1
25	235961	†GASKET, Pump to Converter	1
26	8D-06	†NUT, Pump to Converter	6
27	4E-06	†LKWSHR, Pump to Converter	6

*NOTE: For complete replacement use 1532858 Pump Assy., plus 1—235961 Gasket, 3—9E6 Lkwshr., 3—8D6 Nut, 1—1532475 Tube, 1—58K225 O-ring, 2—19J24 Flange, 4—17C824 Bolt, 4—4E7 Lkwshr., 1—585883 Hose, 2—1545004 Clamp, 1—1531953 Hose, 1—58K222 O-ring, 2—19J20 Flange, 4—17C724 Bolt, 4—4E8 Lkwshr., & 1—1532481 Cross Tube.

†Not Illustrated

§ Not Sold Separately

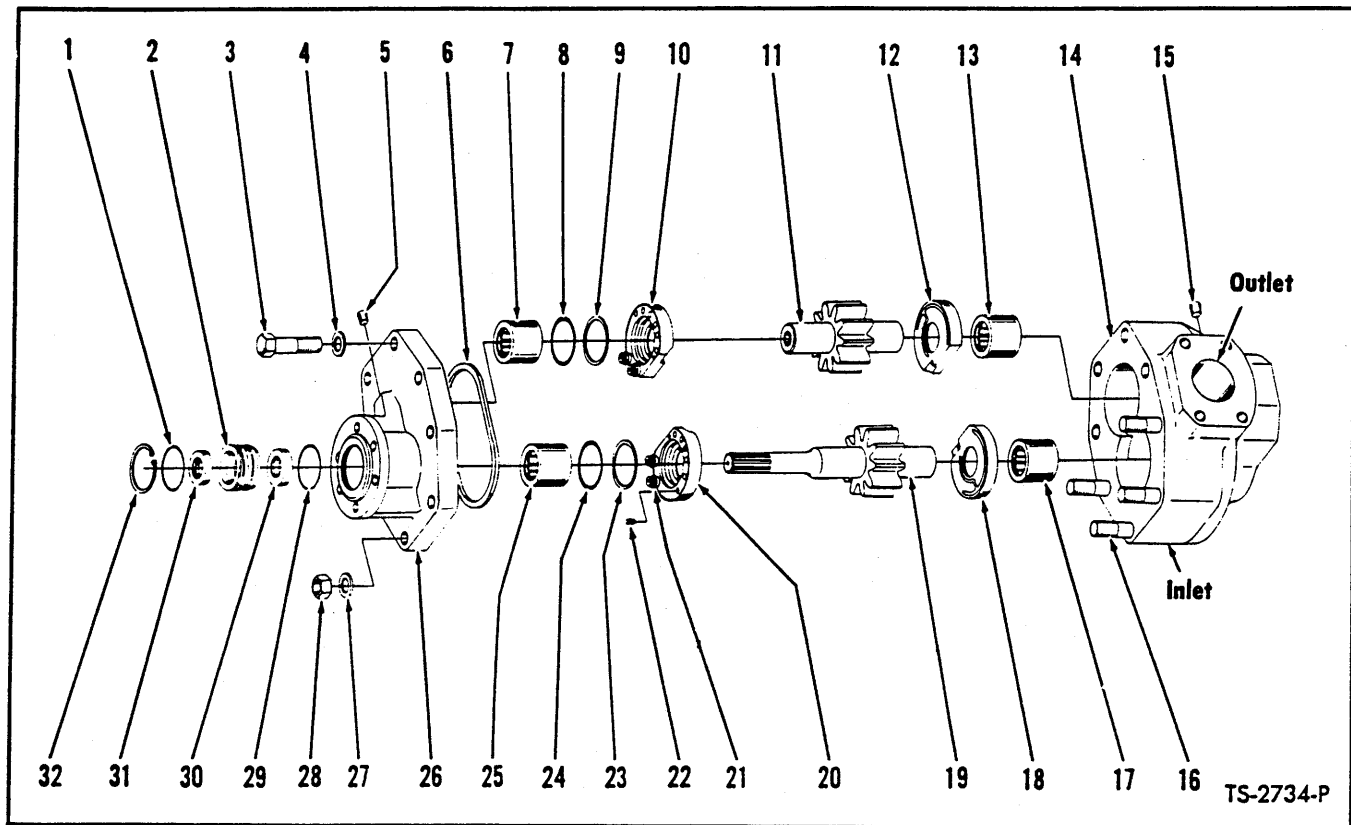


HYDRAULIC PUMP — BUCKET AND BOOM — WAUKESHA

For Serial: GAS — 1DA405 thru 1DA459
 DIESEL — 1DB91 thru 1DB100

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	450015	*PUMP ASSY (Inc. 1 thru 32)	1	15	—	§PLUG, Body	1
B	498132	REPAIR KIT, Major (Inc. 10, 12, 18, 20, 21)	1	16	—	§STUD, Cover to Body	4
C	498131	REPAIR KIT, Minor (Inc. 1, 3, 4, 6, 8, 9, 20, 22, 23, 24, 28, 29)	1	17	—	§BEARING, Body — See "A"	1
D	498036	GEAR SET, Drive & Driven (Inc. 11, 19)	1	18	—	§THRUST PLATE, Body	1
E	498113	REPAIR KIT, Shaft Seal (Inc. 1, 2, 29 thru 32)	1	19	—	§GEAR, Drive	1
1	—	§"O" RING, Retainer	1	20	—	§"O" RING, Piston	4
2	—	§RETAINER, Shaft Seal	1	21	—	§THRUST PLATE, Cover (Inc. 20)	1
3	—	§BOLT, Cover to Body	4	22	—	§SPRING, Cover Thrust Plate	12
4	—	§WASHER, Cover to Body	4	23	—	§WASHER, "O" Ring Back-Up	1
5	—	§PLUG, Cover	1	24	—	§"O" RING, Cover Thrust Plate	1
6	—	§GASKET, Cover	1	25	—	§BEARING, Cover — See "A"	1
7	—	§BEARING, Cover — See "A"	1	26	—	§COVER — See "A"	1
8	—	§"O" RING, Cover Thrust Plate	1	27	—	§WASHER, Cover to Body	4
9	—	§WASHER, "O" Ring Back-Up	1	28	—	§NUT, Cover to Body	4
10	—	§THRUST PLATE, Cover (Inc. 20)	1	29	—	§"O" RING, Retainer	1
11	—	§GEAR, Drive	1	30	—	§SEAL, Inner Oil	1
12	—	§THRUST PLATE, Body	1	31	—	§SEAL, Outer Oil	1
13	—	§BEARING, Body — See "A"	1	32	—	§RING, Seal Retaining	1
14	—	§BODY — See "A"	1	33	235961	†GASKET, Pump to Converter	1
				34	8D-06	†NUT, Pump to Converter	1
				35	4E-06	†LKWSHR, Pump to Converter	1

*NOTE: For complete replacement use 1532858 Pump Assy., plus 1 — 235961 Gasket, 3 — 9E6 Lkwshr., 3 — 8D6 Nut, 1 — 1532475 Tube, 1 — 58K225 O-ring, 2 — 19J24 Flange, 4 — 17C824 Bolt, 4 — 4E7 Lkwshr., 1 — 585883 Hose, 2 — 1545004 Clamp, 1 — 1531953 Hose, 1 — 58K222 O-ring, 2 — 19J20 Flange, 4 — 17C724 Bolt, 4 — 4E8 Lkwshr., 1 — 1532481 Cross Tube.

**HYDRAULIC PUMP — BUCKET AND BOOM**

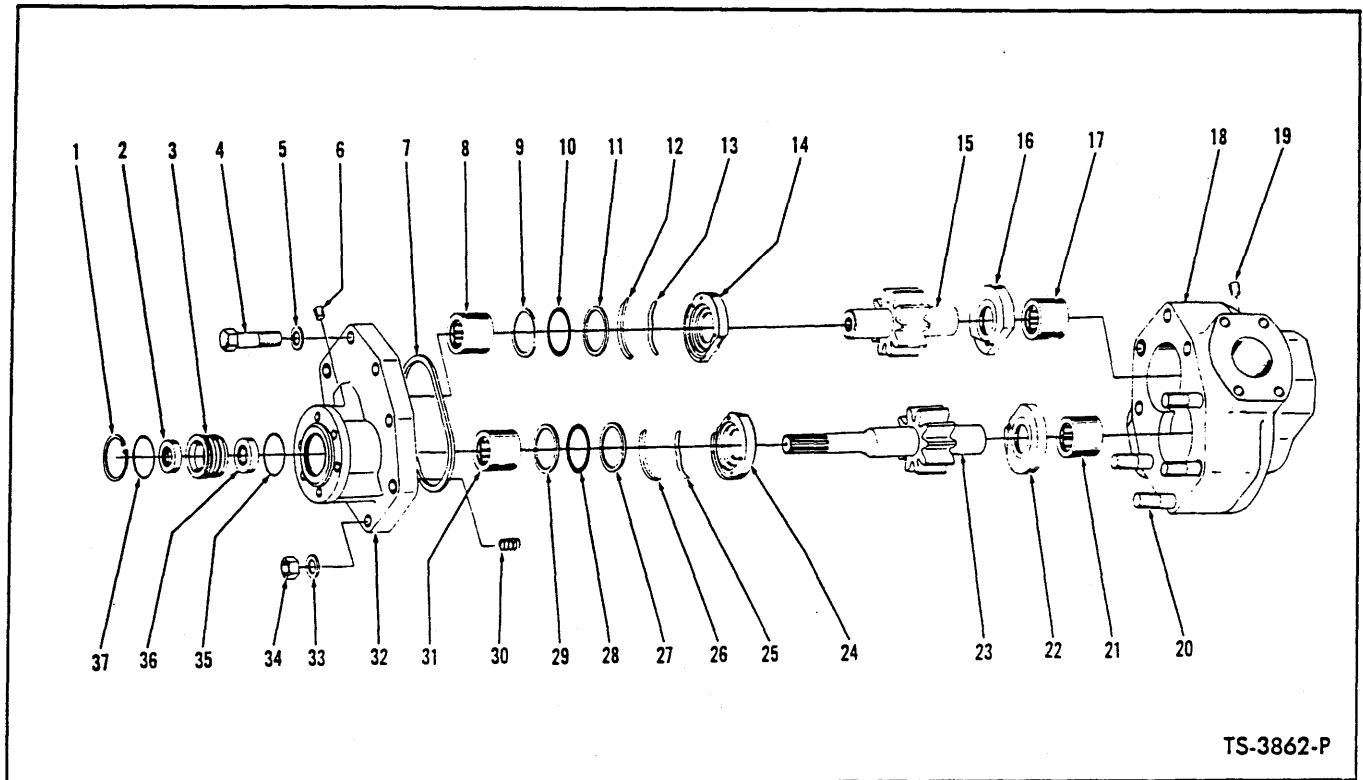
WAUKESHA GAS — 1DA460 thru 1DA999

WAUKESHA DIESEL — 1DB101 thru 1DB999

G.M. — 1DG26 thru 1DG999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	450061	PUMP ASSY (Inc. 1 thru 32)	1	15	—	§ PLUG, Body	1
B	498132	REPAIR KIT, Major (Inc. 10, 12, 18, 20)	1	16	—	§ STUD, Cover to Body	1
C	498131	*REPAIR KIT, Minor (Inc. 1, 3, 4, 6, 8, 9, 21, 22, 23, 24, 28, 29)	1	17	—	§ BEARING, Body — See "A"	1
D	498036	GEAR SET, Drive & Driven (Inc. 11, 19)	1	18	—	§ THRUST PLATE, Body	1
E	498113	REPAIR KIT, Shaft Seal (Inc. 1, 2, 29, 30, 31, 32)	1	19	—	§ GEAR, Drive	1
1	—	§ "O" RING, Retainer	1	20	—	§ THRUST PLATE, Cover (Inc. 21)	1
2	—	§ RETAINER, Shaft Seal	1	21	—	§ "O" RING, Piston	4
3	—	§ BOLT, Cover to Body	4	22	—	§ SPRING, Cover Thrust Plate	12
4	—	§ WASHER, Cover to Body	4	23	—	§ WASHER, "O" Ring Back-Up	1
5	—	§ PLUG, Cover	1	24	—	§ "O" RING, Cover Thrust Plate	1
6	—	§ GASKET, Cover	1	25	—	§ BEARING, Cover — See "A"	1
7	—	§ BEARING, Cover — See "A"	1	26	—	§ COVER — See "A"	1
8	—	§ "O" RING, Cover Thrust Plate	1	27	—	§ WASHER, Cover to Body	4
9	—	§ WASHER, "O" Ring Back-Up	1	28	—	§ NUT, Cover to Body	4
10	—	§ THRUST PLATE, Cover (Inc. 21)	1	29	—	§ "O" RING, Retainer	1
11	—	§ GEAR, Driven	1	30	—	§ SEAL, Inner Oil	1
12	—	§ THRUST PLATE, Body	1	31	—	§ SEAL, Outer Oil	1
13	—	§ BEARING, Body — See "A"	1	32	—	§ RING, Seal Retaining	1
14	—	§ BODY — See "A"	1	33	214962	† SLEEVE, Pump Drive	1
				34	235961	† GASKET, Pump to Converter	1
				35	8D-06	† NUT, Pump to Converter	6
				36	4E-06	† LKWSHR, Pump to Converter	6

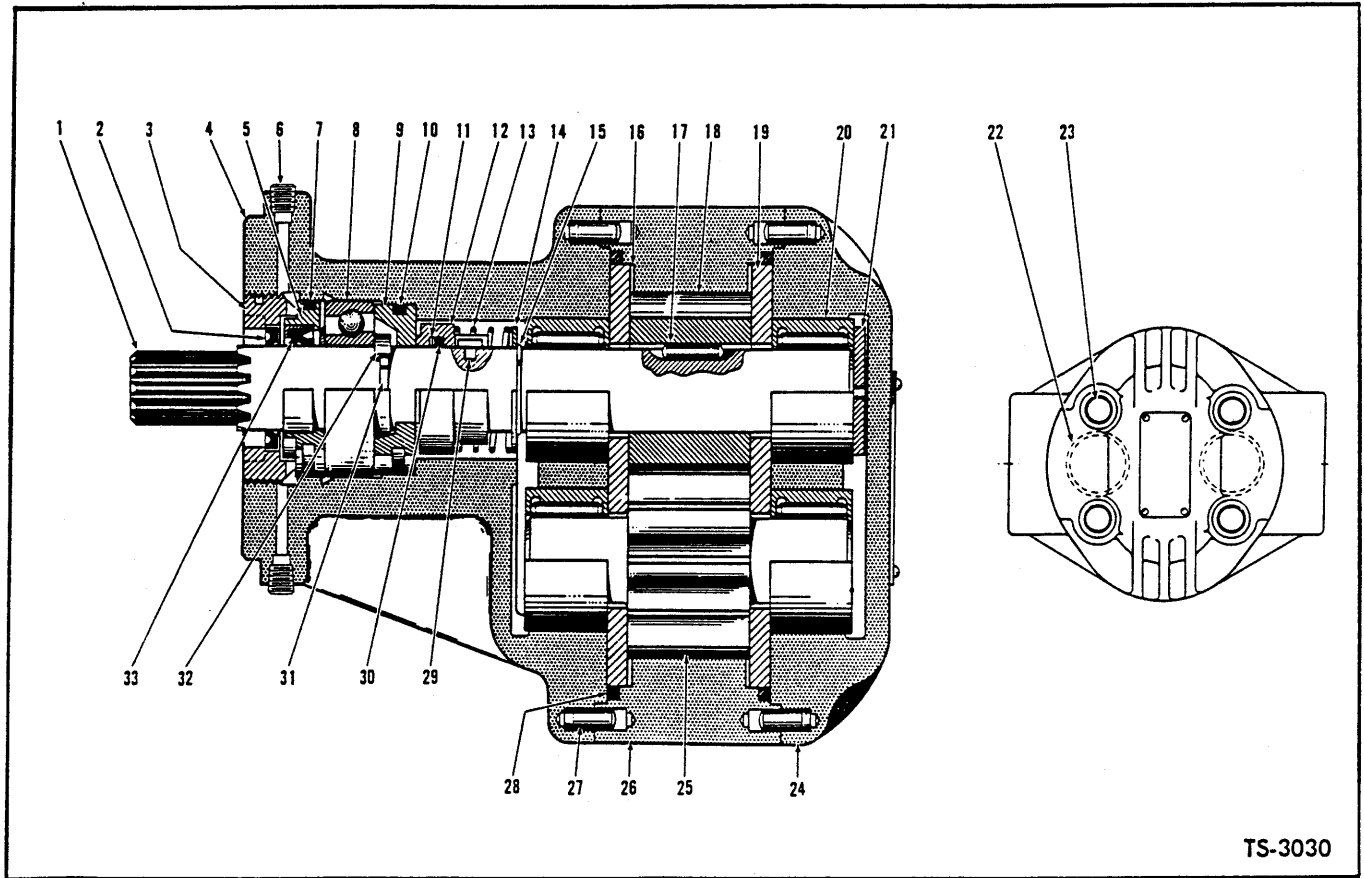
*NOTE: For complete replacement use 569329 Pump Assy. plus 1—235961 Gasket, 3—9E6 Lkwshr., 3—8D6 Nut, 1—1532343 Stem, —58K225 O-ring, 2—19J24 Flange, 4—17C824 Bolt, 4—4E8 Lkwshr., 2—585883 Hose, 4—1545004 Clamp, 1—58K222 O-ring, 2—19J20 Flange, 4—17C724 Bolt, & 4—4E7 Lkwshr. Also required are 1—1532478 Tube & 1—1532848 Hose for G.M. machines, or 1—1532344 Tube & 1—1532849 Hose for Waukesha machines.



HYDRAULIC PUMP — BUCKET AND BOOM

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A		PUMP ASSY (Inc. 1 thru 37)		11	---	§RING, "O" Ring Back-Up	1
B	450139	For Serial: Waukesha Gas — 1DA460 thru 1DA999; Waukesha Diesel — 1DB101 thru 1DB999; G.M. — 1DG26 thru 1DG999	1	12	---	§RING, Mask-Off	1
C	450142	For Serial: Waukesha Gas — 4123 thru 4624, 1DA375 thru 1DA459, Waukesha Diesel — 4123D thru 4629D, 1DB86 thru 1DB100	1	13	---	§SPRING, Wave	1
D	498175	*REPAIR KIT, Minor (Inc. 4, 5, 7, 9, 10, 11, 27 thru 30, 33, 34, 35, 37)	1	14	---	§THRUST PLATE, Cover	1
E	498174	REPAIR KIT, Major (Inc. 12, 13, 14, 16, 22, 24, 25, 26)	1	15	---	§GEAR, Driven	1
F	498113	REPAIR KIT, Shaft Seal (Inc. 1, 2, 3, 35, 36, 37)	1	16	---	§THRUST PLATE, Body	1
G	498036	GEAR KIT (Inc. 15, 23)	1	17	---	§BEARING, Body — See "A"	1
1	---	§RING, Seal Retainer Retaining	1	18	---	§BODY, Pump — See "A"	1
2	---	§SEAL, Outer Shaft Oil	1	19	---	§PLUG, Body	1
3	---	§RETAINER, Shaft Seal	1	20	---	§STUD, Cover to Body	4
4	---	§BOLT, Cover to Body	4	21	---	§BEARING, Body — See "A"	1
5	---	§WASHER, Cover to Body Bolt	4	22	---	§THRUST PLATE, Body	1
6	---	§PLUG, Cover	1	23	---	§GEAR, Drive	1
7	---	§GASKET, Cover	1	24	---	§THRUST PLATE, Cover	1
8	---	§BEARING, Cover — See "A"	1	25	---	§SPRING, Wave	1
9	---	§RING, "O" Ring Back-Up	1	26	---	§RING, Mask-Off	1
10	---	§"O" RING, Cover Thrust Plate	1	27	---	§RING, "O" Ring Back-Up	1
				28	---	§"O" RING, Cover Thrust Plate	1
				29	---	§RING, "O" Ring Back-Up	1
				30	---	§SPRING, Cover Thrust Plate	3
				31	---	§BEARING, Cover — See "A"	1
				32	---	§COVER, Pump — See "A"	1
				33	---	§WASHER, Cover to Body Stud	4
				34	---	§NUT, Cover to Body Stud	4
				35	---	§"O" RING, Oil Seal Retainer	1
				36	---	§SEAL, Inner Shaft Oil	1
				37	---	§"O" RING, Oil Seal Retainer	1

*NOTE: For replacement of 450139 use 569329 Pump Assy. For replacement of 450142 use 1532858 Pump Assy. Also needed for replacement with a new pump are 1-235961 Gasket, 3-9E6 Lkwshr., 3-8D6 Nut, 1-1532343 Stem, 1-58K225 O-ring, 2-19J24 Flange, 4-17C824 Bolt, 4-4E8 Lkwshr., 2-585883 Hose, 4-1545004 Clamp, 1-58K222 O-ring, 2-19J20 Flange, 4-17C724 Bolt, 4-4E7 Lkwshr., plus 1-1532478 Tube & 1-1532848 Hose for G.M. machines, or 1-1532344 Tube & 1-1532849 Hose for Waukesha machines.

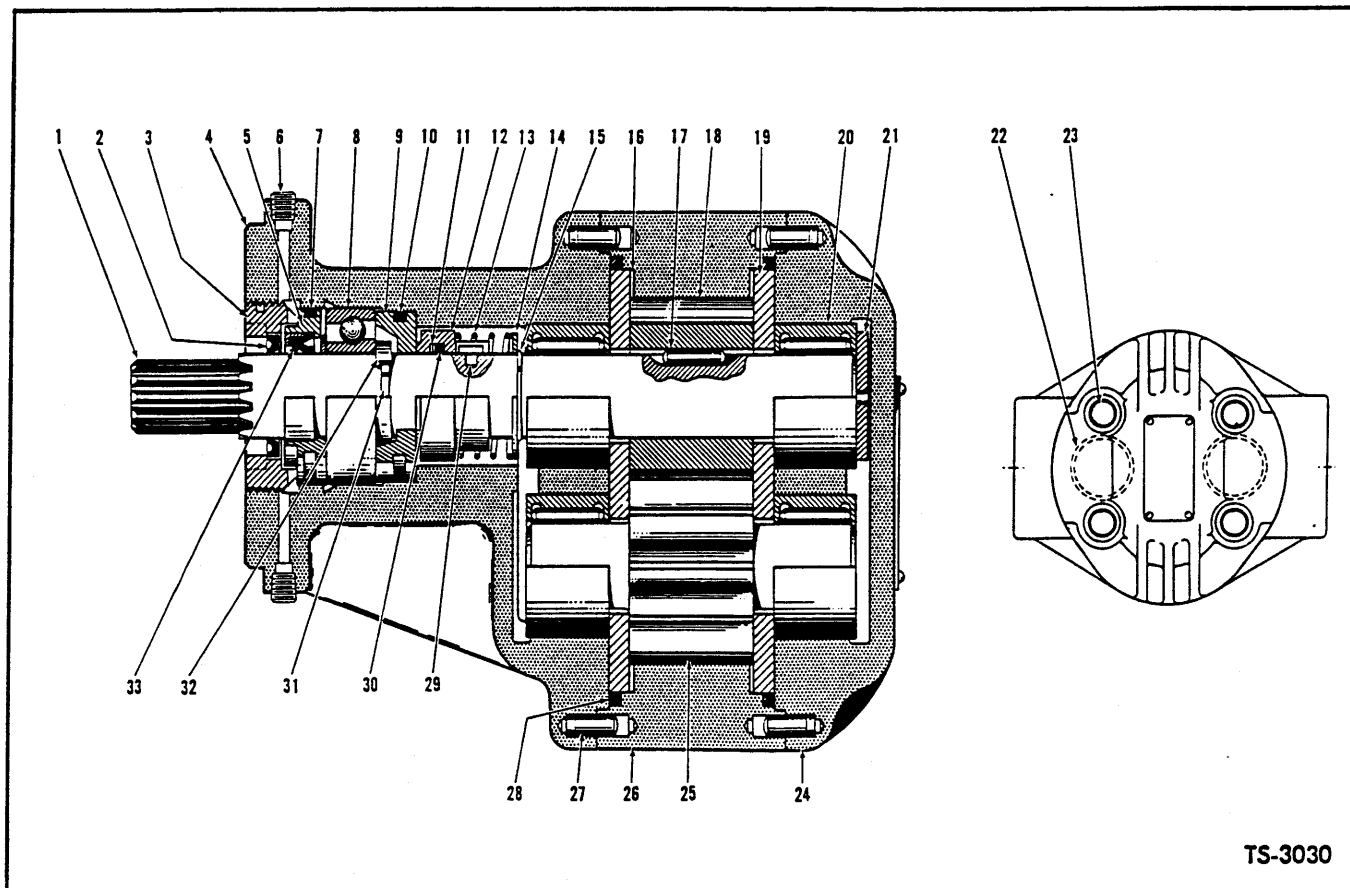


TS-3030

HYDRAULIC PUMP — BUCKET AND BOOM

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	569329	PUMP ASSY (Inc. 1 thru 33)	1	15	-----	§RING, Snap (See "B")	1
B	944710	REPAIR KIT, Minor (Inc. 2, 7, 9, 11 thru 16, 22, 28 thru 33)	1	16	-----	§SHIM, Wear Plate (See "B" & "F")	As Req'd.
C	948800	GEAR & SHAFT SET (Inc. 1, 17, 18 & 25)	1	17	-----	§PIN, Dowel — Shaft to Gear (See "C")	1
D	944776	SEAL KIT, Shaft (Inc. 2, 7 & 33)	1	18	-----	§GEAR, Drive (See "C")	1
E	944777	BEARING KIT (Inc. 8 & 20)	1	19	-----	§PLATE, Wear (See "F")	2
F	944787	WEAR PLATE SET (Inc. 16 & 19)	1	20	-----	§BEARING, Roller (See "E")	4
1	-----	§SHAFT, Drive (See "C")	1	21	884614	PLATE, Thrust	1
2	-----	§SEAL, Shaft Outer (See "B" & "D")	1	22	-----	§"O" RING, High Pressure Side (See "B")	2
3	944782	RETAINER, Shaft Outer Seal	1	23	93G-1060	BOLT, Cover & Housing to Adapter	4
4	-----	§ADAPTER, Pump (See "A")	1	24	-----	§COVER, Pump (See "A")	1
5	884604	RETAINER, Shaft Inner Seal	1	25	-----	§GEAR, Driven (See "C")	1
6	16F-01	PLUG, Adapter Port	3	26	948836	HOUSING, Gear	1
7	-----	§"O" RING, Retainer (See B & D)	1	27	867753	PIN, Dowel, Housing to Adapter & Cover	4
8	884605	BEARING, Shaft (See "E")	1	28	-----	§"O" RING, Housing (See "B")	2
9	-----	§SEAT ASSY, Seal (Inc. 10), (See "B")	1	29	-----	§KEY, Drive (See 12 & "B")	1
10	-----	§"O" RING, Seal Seat (See 9 & "B")	1	30	-----	§"O" RING, High Pressure Seal (See 12 & "B")	1
11	-----	§RING, Back-Up (See "B")	1	31	-----	§RING, Drive Shaft Snap (See "B")	1
12	-----	§SEAL ASSY, High Pressure (Inc. 11, 13, 14, 29, 30), (See "B")	1	32	-----	§RETAINER, Shaft Snap Ring (See "B")	1
13	-----	§SPRING, High Pressure Seal (See "B")	1	33	-----	§SEAL, Shaft Inner (See "B" & "D")	1
14	-----	§WASHER, High Pressure Seal (See "B")	1				

§Not Sold Separately


TS-3030
HYDRAULIC PUMP — BUCKET AND BOOM

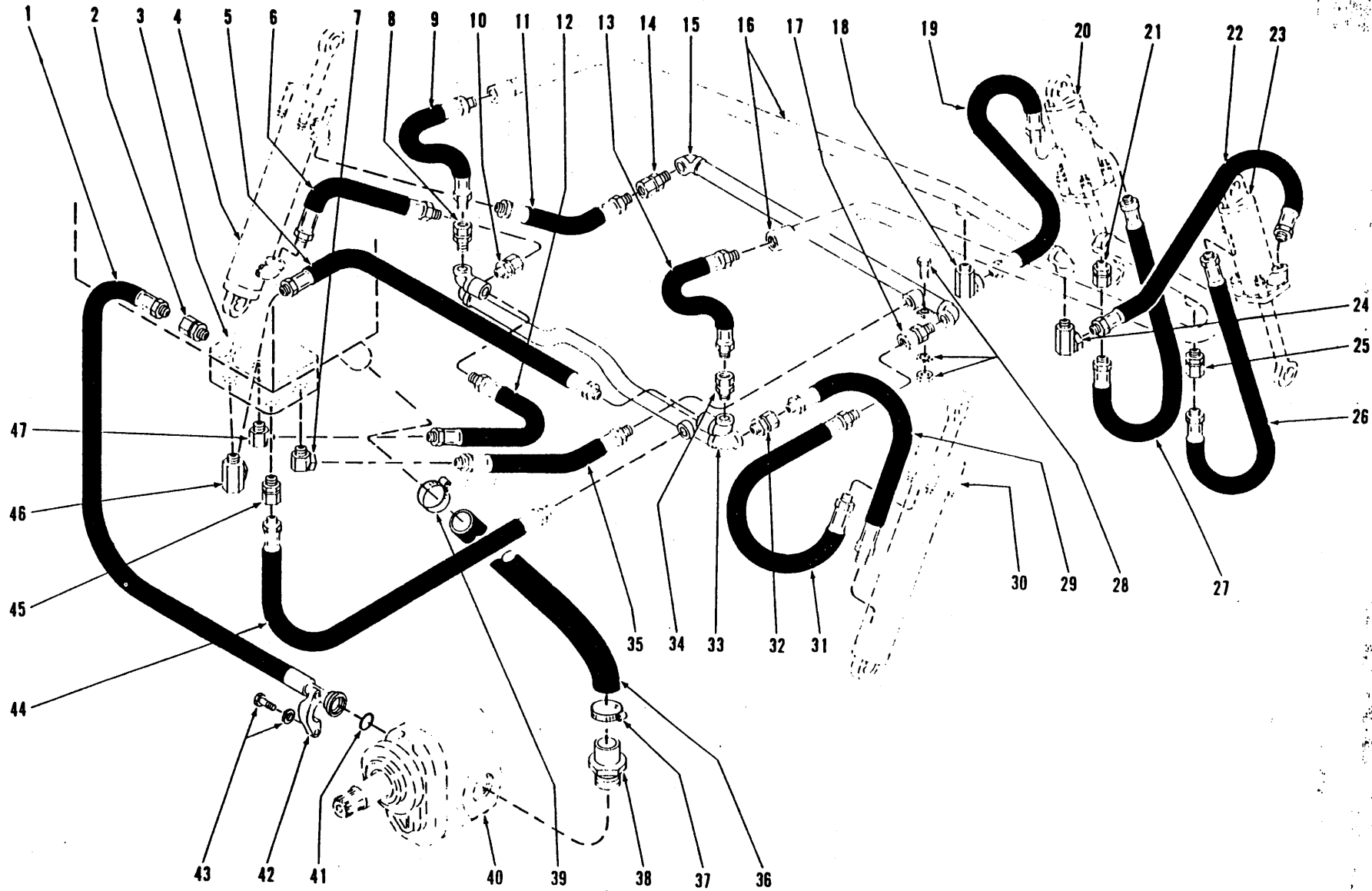
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1532858	PUMP ASSY (Inc. 1 thru 33)	1	15	-----	§RING, Snap (See "B")	1
B	944710	REPAIR KIT, Minor (Inc. 2, 7, 9, 11 thru 16, 22, 28 thru 33)	1	16	-----	§SHIM, Wear Plate (See "B" & "F")	As Req'd.
C	948800	GEAR & SHAFT SET (Inc. 1, 17, 18 & 25)	1	17	-----	§PIN, Dowel — Shaft to Gear (See "C")	1
D	944776	SEAL KIT, Shaft (Inc. 2, 7 & 33)	1	18	-----	§GEAR, Drive (See "C")	1
E	944777	BEARING KIT (Inc. 8 & 20)	1	19	-----	§PLATE, Wear (See "F")	2
F	944787	WEAR PLATE SET (Inc. 16 & 19)	1	20	-----	§BEARING, Roller (See "E")	4
1	-----	§SHAFT, Drive (See "C")	1	21	884614	PLATE, Thrust	1
2	-----	§SEAL, Shaft Outer (See "B" & "D")	1	22	-----	§"O" RING, High Pressure Side (See "B")	2
3	944782	RETAINER, Shaft Outer Seal	1	23	93G-1060	BOLT, Cover & Housing to Adapter	4
4	-----	§ADAPTER, Pump (See "A")	1	24	-----	§COVER, Pump (See "A")	1
5	884604	RETAINER, Shaft Inner Seal	1	25	-----	§GEAR, Driven (See "C")	1
6	16F-01	PLUG, Adapter Port	3	26	948836	HOUSING, Gear	1
7	-----	§"O" RING, Retainer (See "B" & "D")	1	27	867753	PIN, Dowel, Housing to Adapter & Cover	4
8	884605	BEARING, Shaft (See "E")	1	28	-----	§"O" RING, Housing (See "B")	2
9	-----	§SEAT ASSY, Seal (Inc. 10), (See "B")	1	29	-----	§KEY, Drive (See 12 & "B")	1
10	-----	§"O" RING, Seal Seat (See 9 & "B")	1	30	-----	§"O" RING, High Pressure Seal (See 12 & "B")	1
11	-----	§RING, Back-Up (See "B")	1	31	-----	§RING, Drive Shaft Snap (See "B")	1
12	-----	§SEAL ASSY, High Pressure (Inc. 11, 13, 14, 29, 30), (See "B")	1	32	-----	§RETAINER, Shaft Snap Ring (See "B")	1
13	-----	§SPRING, High Pressure Seal (See "B")	1	33	-----	§SEAL, Shaft Inner (See "B" & "D")	1
14	-----	§WASHER, High Pressure Seal (See "B")	1				

§Not Sold Separately

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HYDRAULIC SYSTEM — BUCKET AND BOOM

TS-2590-P

HYDRAULIC SYSTEM — BUCKET AND BOOM — WAUKESHA
For Serial: GAS — 4123 thru 4624, 1DA375 thru 1DA459
DIESEL — 4123D thru 4629D, 1DB86 thru 1DB100

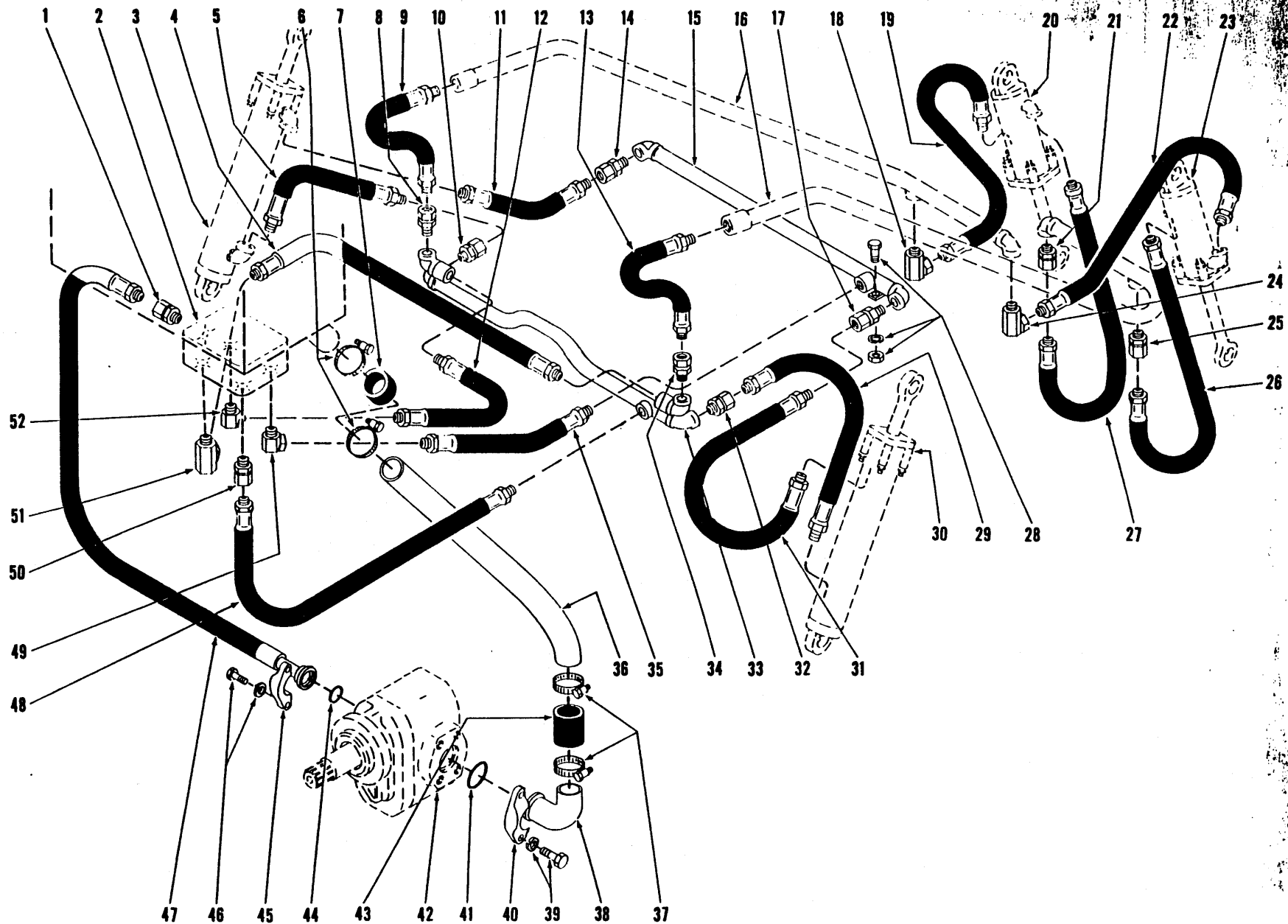
Item No.	Part No.	Description	No. Req'd.
1	553419	HOSE, Pump to Valve — Pressure	1
2	36F-5	ADAPTER UNION	1
3	—	CONTROL VALVE — See Index	—
4	—	BOOM CYLINDER — See Index	—
5	645432	*HOSE, Valve to R.H. Rear Crosspipe	1
6	691800	*HOSE, Crosspipe to Boom Cylinder	1
7	33F-5	ADAPTER UNION	1
8	36F-5	ADAPTER UNION	1
9	658914	*HOSE, Crosspipe to Boom Pipe	1
10	36F-5	ADAPTER UNION	1
11	616533	*HOSE, Crosspipe to Boom Cylinder	1
12	616533	HOSE, Valve to L.H. Rear Crosspipe	1
13	658914	*HOSE, Crosspipe to Boom Pipe	1
14	36F-5	ADAPTER UNION	1
15	550728	CROSSPIPE, Front	1
16	—	BOOM PIPE — See Index	—
17	36F-5	ADAPTER UNION	1
18	31F-5	ADAPTER UNION	1
19	691800	HOSE, Boom Pipe to Bucket Cylinder	1
20	—	BUCKET CYLINDER — See Index	—
21	36F-5	ADAPTER UNION	1
22	691800	HOSE, Boom Pipe to Bucket Cylinder	1
23	—	BUCKET CYLINDER — See Index	—
24	31F-5	ADAPTER UNION	1
25	36F-5	ADAPTER UNION	1
26	645432	*HOSE, Boom Pipe to Bucket Cylinder	1
27	645432	*HOSE, Boom Pipe to Bucket Cylinder	1
28	2C-620	BOLT, Crosspipe Attaching	4
28A	2D-06	NUT, Crosspipe Attaching	4
28B	4E-06	LKWSHR, Crosspipe Attaching	4
29	691800	*HOSE, Crosspipe to Boom Cylinder	1
30	—	BOOM CYLINDER — See Index	—
31	616533	*HOSE, Crosspipe to Boom Cylinder	1
32	36F-5	ADAPTER UNION	1
33	550725	CROSSPIPE, Rear	1
34	36F-5	ADAPTER UNION	1
35	550724	HOSE, Valve to Rear Crosspipe	1
36	553340	HOSE, Reservoir to Pump — Suction	1
37	784663	CLAMP, Hose	1
38	553339	NIPPLE, Hose to Pump	1
39	784663	CLAMP, Hose	1
40	—	PUMP, Bucket & Boom — See Index	—
41	58K-219	"O" RING, Hose to Pump	1
42	19J16	FLANGE HALF, Hose to Pump	2
43	1C-620	BOLT, Flange Half to Pump	4
43A	4E-06	LKWSHR, Flange Half to Pump	4
44	610386	HOSE, Valve to Front Crosspipe	1
45	36F-5	ADAPTER UNION	1
46	31F-5	ADAPTER UNION	1
47	33F-5	ADAPTER UNION	1

*NOTE: When installing hose Items 6, 9, 11, 13, 26, 27, 29 and 31 in place of swivel end hoses one 36F-5 Adapter Union must be used with each hose replaced.

*NOTE: Machines equipped with Parker Control Valve (Serial numbers listed below) were equipped with a 613337 Hose in this location. Hose was attached to Valve with one 32F-5 Adapter Union, one 5K-620 Nipple and one 522969 Bushing in place of 33F-5 Adapter Union, Item 47.

WAUKESHA — 4279 thru 4289, 4292 thru 4323, 4494 thru 4523, 4529 thru 4533, 4580.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



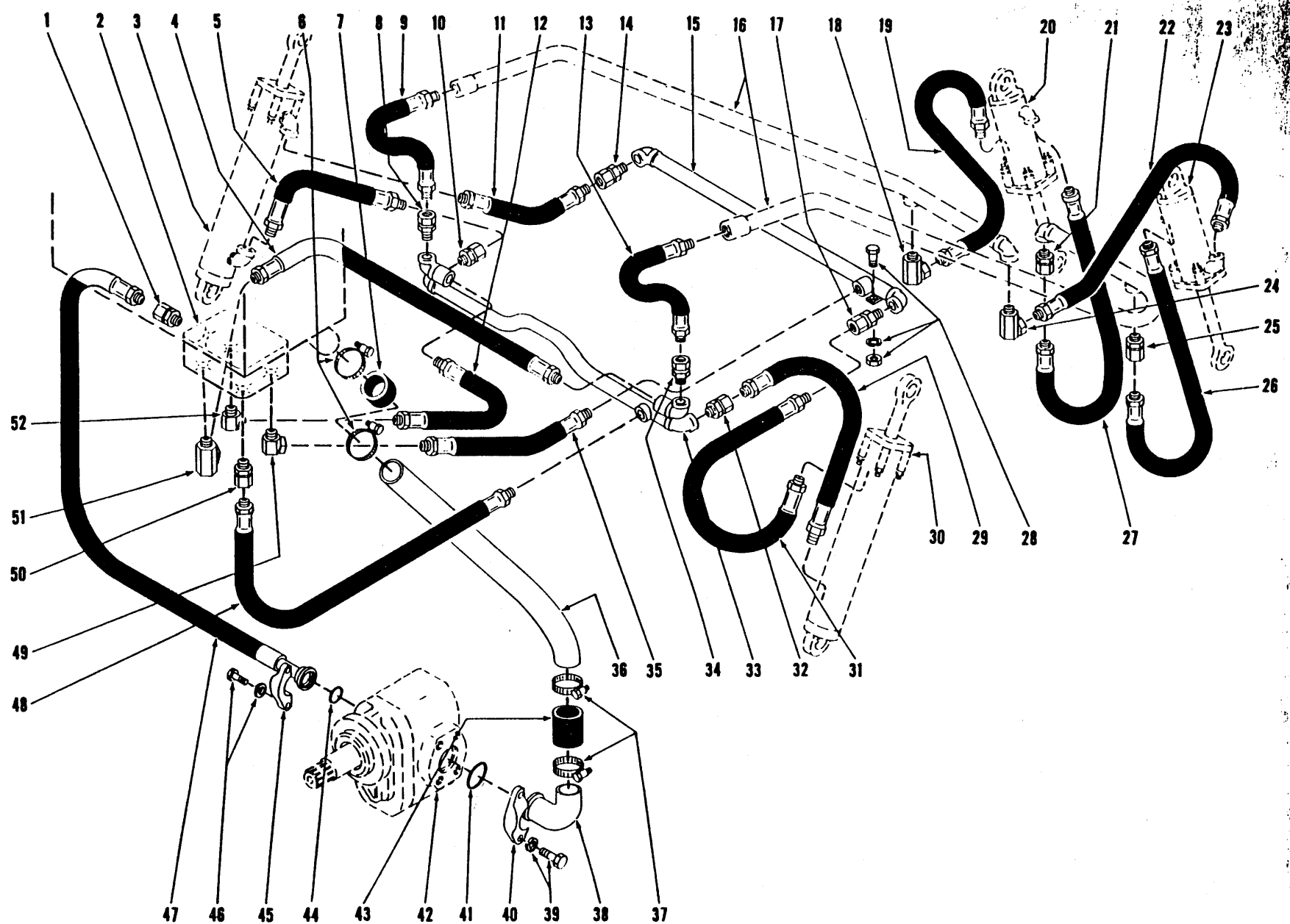
HYDRAULIC SYSTEM — BUCKET AND BOOM

TS-2154-P

HYDRAULIC SYSTEM — BUCKET AND BOOM — WAUKESHA
For Serial: GAS — 1DA460 thru 1DA999
DIESEL — 1DB101 thru 1DB999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	36F-5	ADAPTER UNION	1	28	2C-620	BOLT, Crosspipe Attaching	4
2	———	CONTROL VALVE — (See Index)	—	28A	2D-06	NUT, Crosspipe Attaching	4
3	———	BOOM CYLINDER — (See Index)	—	28B	4E-06	LKWSHR, Crosspipe Attaching	4
4	645432	HOSE, Valve to Crosspipe — Bucket Cylinder Line	1	29	691800	HOSE, Crosspipe to Boom Cyl. Base....	1
5	691800	HOSE, Crosspipe to Boom Cylinder Base	1	30	———	BOOM CYLINDER — (See Index)	—
6	784663	CLAMP, Hose	2	31	616533	HOSE, Crosspipe to Boom Cyl. Top....	1
7	536710	HOSE, Tube to Reservoir	1	32	36F-5	ADAPTER UNION	1
8	36F-5	ADAPTER UNION	1	33	550725	CROSSPIPE	1
9	658914	HOSE, Crosspipe to L.H. Boom Pipe....	1	34	36F-5	ADAPTER UNION	1
10	36F-5	ADAPTER UNION	1	35	550724	HOSE, Valve to Crosspipe	1
11	616533	HOSE, Crosspipe to Boom Cyl. Top....	1	36	531002	TUBE, Reservoir to Pump — Suction....	1
12	616533	HOSE, Valve to Crosspipe — Bucket Cylinder Line	1	37	784663	CLAMP, Hose	2
13	658914	HOSE, Crosspipe to R.H. Boom Pipe....	1	38	531003	STEM, Pump	1
14	36F-5	ADAPTER UNION	1	39	1C-724	BOLT, Flange Half to Pump	4
15	550728	CROSSPIPE	1	39A	4E-07	LKWSHR, Flange Half to Pump	4
16	———	BOOM PIPE — (See Index)	—	40	19J20	FLANGE HALF	2
17	36F-5	ADAPTER UNION	1	41	58K-222	"O" RING, Hose to Pump	1
18	31F-5	ADAPTER UNION	1	42	———	PUMP ASSY, Bucket & Boom — (See Index)	1
19	691800	HOSE, L.H. Boom Pipe to Bucket Cyl.	1	43	536710	HOSE, Tube to Stem	1
20	———	BUCKET CYLINDER — (See Index)	—	44	58K-219	"O" RING, Hose to Pump	1
21	36F-5	ADAPTER UNION	1	45	19J16	FLANGE HALF	2
22	691800	HOSE, L.H. Boom Pipe to Bucket Cyl.	1	46	1C-620	BOLT, Flange Half to Pump	4
23	———	BUCKET CYLINDER — (See Index)	—	46A	4E-06	LKWSHR, Flange Half to Pump	4
24	31F-5	ADAPTER UNION	1	47	531004	HOSE, Pump to Valve — Pressure	1
25	36F-5	ADAPTER UNION	1	48	610386	HOSE, Valve to Crosspipe	1
26	645432	HOSE, R.H. Boom Pipe to Bucket Cyl.	1	49	33F-5	ADAPTER UNION	1
27	645432	HOSE, R.H. Boom Pipe to Bucket Cyl.	1	50	36F-5	ADAPTER UNION	1
				51	31F-5	ADAPTER UNION	1
				52	33F-5	ADAPTER UNION	1

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



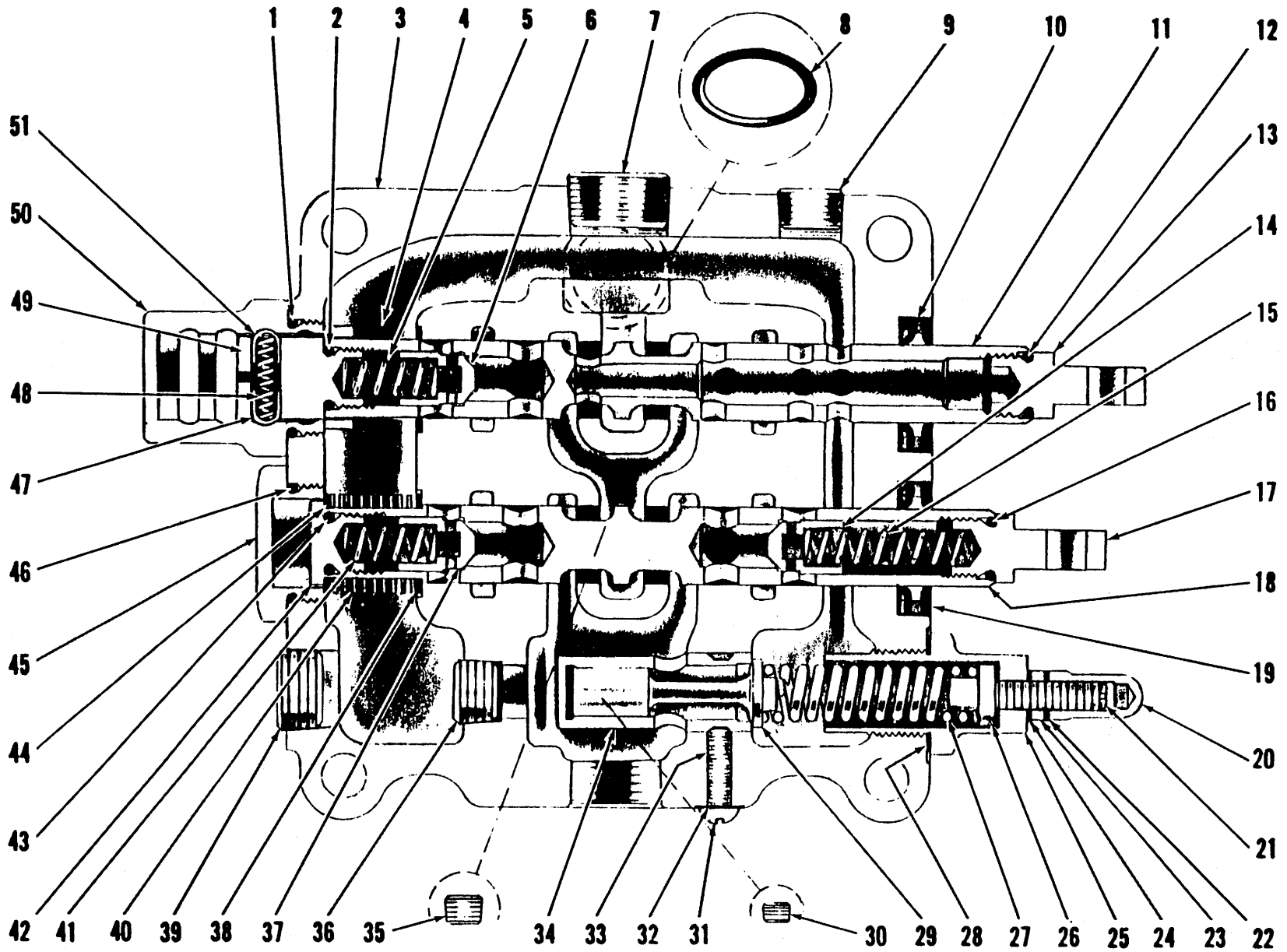
HYDRAULIC SYSTEM — BUCKET AND BOOM

TS-2154-P

HYDRAULIC SYSTEM — BUCKET AND BOOM — G.M.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	36F-5	ADAPTER UNION	1	28	2C-620	BOLT, Crosspipe Attaching	4
2	—	CONTROL VALVE — (See Index)	—	28A	2D-06	NUT, Crosspipe Attaching	4
3	—	BOOM CYLINDER — (See Index)	—	28B	4E-06	LKWSHR, Crosspipe Attaching	4
4	691800	HOSE, Valve to Crosspipe — Bucket Cylinder Line	1	29	691800	HOSE, Crosspipe to Boom Cyl. Base....	1
5	691800	HOSE, Crosspipe to Boom Cylinder Base	1	30	—	BOOM CYLINDER — (See Index)	—
6	784663	CLAMP, Hose	2	31	616533	HOSE, Crosspipe to Boom Cyl. Top....	1
7	536710	HOSE, Tube to Reservoir	1	32	36F-5	ADAPTER UNION	1
8	36F-5	ADAPTER UNION	1	33	550725	CROSSPIPE	1
9	658914	HOSE, Crosspipe to L.H. Boom Pipe....	1	34	36F-5	ADAPTER UNION	1
10	36F-5	ADAPTER UNION	1	35	550724	HOSE, Valve to Crosspipe	1
11	616533	HOSE, Crosspipe to Boom Cyl. Top....	1	36	531672	TUBE, Reservoir to Pump — Suction ..	1
12	669953	HOSE, Valve to Crosspipe — Bucket Cylinder Line	1	37	784663	CLAMP, Hose	2
13	658914	HOSE, Crosspipe to R.H. Boom Pipe....	1	38	531003	STEM, Pump	1
14	36F-5	ADAPTER UNION	1	39	1C-724	BOLT, Flange Half to Pump	4
15	550728	CROSSPIPE	1	39A	4E-07	LKWSHR, Flange Half to Pump	4
16	—	BOOM PIPE — (See Index)	—	40	19J20	FLANGE HALF	2
17	36F-5	ADAPTER UNION	1	41	58K-222	"O" RING, Hose to Pump	1
18	31F-5	ADAPTER UNION	1	42	—	PUMP ASSY, Bucket & Boom — (See Index)	1
19	691800	HOSE, L.H. Boom Pipe to Bucket Cyl.	1	43	536710	HOSE, Tube to Stem	1
20	—	BUCKET CYLINDER — (See Index)	—	44	58K-219	"O" RING, Hose to Pump	1
21	36F-5	ADAPTER UNION	1	45	19J16	FLANGE HALF	2
22	691800	HOSE, L.H. Boom Pipe to Bucket Cyl.	1	46	1C-620	BOLT, Flange Half to Pump	4
23	—	BUCKET CYLINDER — (See Index)	1	46A	4E-06	LKWSHR, Flange Half to Pump	4
24	31F-5	ADAPTER UNION	1	47	529847	HOSE, Pump to Valve — Pressure	1
25	36F-5	ADAPTER UNION	1	48	613337	HOSE, Valve to Crosspipe	1
26	645432	HOSE, R.H. Boom Pipe to Bucket Cyl.	1	49	33F-5	ADAPTER UNION	1
27	645432	HOSE, R.H. Boom Pipe to Bucket Cyl.	1	50	36F-5	ADAPTER UNION	1
				51	31F-5	ADAPTER UNION	1
				52	33F-5	ADAPTER UNION	1

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



CONTROL VALVE ASSEMBLY

TS-1799-P

CONTROL VALVE ASSEMBLY

For Serial: WAUKESHA GAS — 4123 thru 4278, 4290, 4291, 4324 thru 4493, 4524 thru 4528, 4534 thru 4579, 4581 thru 4624, 1DA375 thru 1DA999

WAUKESHA DIESEL — 4123D thru 4278D, 4290D, 4291D, 4324D thru 4493D, 4524D thru 4528D, 4534D thru 4579D, 4581D thru 4629D, 1DB86 thru 1DB999

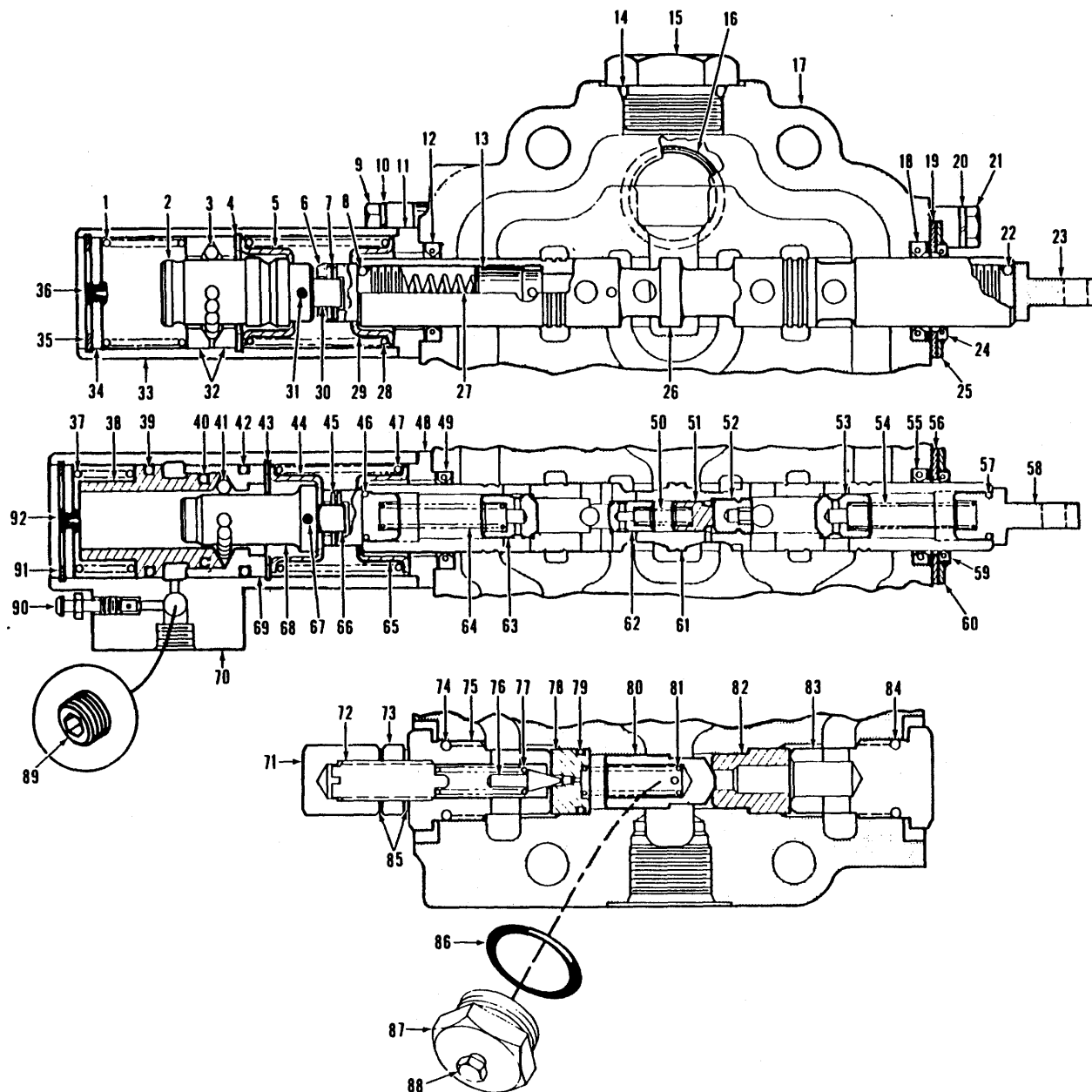
G.M. — 1DG1 thru 1DG999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	550282	*VALVE ASSY (Inc. 1 thru 51)	1	26	940029	GUIDE, Relief Spring	1
1	25K-30112	"O" RING, Detent Cap	1	27	940030	SPRING, Relief Valve	1
2	940061	RING, Boom Plunger Seal	1	28	940031	GASKET, Relief Valve Cap	1
3	-----	§HOUSING, Valve — (See "A")	1	29	940032	PLUNGER, Relief Valve	1
4	940062	SPACER, Boom Plunger	1	30	16F-04	PLUG, Housing	1
5	940063	SPRING, Plunger Check Valve	1	31	863052	SCREW, Relief Seat Lock	1
6	940064	PLUNGER, Boom Check Valve	1	32	863053	GASKET, Lock Screw	1
7	16F-16	PLUG, Housing Discharge	1	33	15G-506	SCREW, Relief Seat Set	1
8	58K-222	"O" RING, Valve to Reservoir	1	34	940033	SEAT, Relief Valve	1
9	16F-08	PLUG, Housing Cleanout	1	35	16F-06	PLUG, Housing	1
10	944022	SEAL, Plunger	1	36	16F-08	PLUG, Housing	1
11	-----	§PLUNGER, Boom Operating — (See "A")	1	37	940064	PLUNGER, Bucket Check Valve	1
12	940061	"O" RING, Plunger Eye	1	38	940074	WASHER, Plunger Spring	1
13	940068	EYE, Plunger End	1	39	16F-12	PLUG, Housing	1
14	940064	PLUNGER, Bucket Check Valve	1	40	940072	SPRING, Plunger Return	1
15	940070	SPRING, Plunger Check Valve	1	41	940063	SPRING, Plunger Check Valve	1
16	940061	"O" RING, Plunger Eye	1	42	940073	CAP, Plunger End	1
17	940068	EYE, Plunger End	1	43	940061	"O" RING, End Cap	1
18	-----	§PLUNGER, Bucket Operating — (See "A")	1	44	940074	WASHER, Plunger Spring	1
19	944022	SEAL, Plunger	1	45	940039	CAP, Bucket Plunger Housing	1
20	863045	NUT, Relief Valve Acorn	1	46	25K-30112	"O" RING, Housing Cap	1
21	940028	SCREW, Relief Valve Adjustment	1	47	940075	POPPET, Detent	1
22	958210	WASHER, Copper	1	48	940024	SPRING, Detent Poppet	1
23	8D-06	NUT, Relief Valve Jam	1	49	940023	CAP, Detent Poppet	1
24	958210	WASHER, Copper	1	50	940040	CAP, Housing Detent	1
25	940025	CAP, Relief Valve	1	51	940075	POPPET, Detent	1
				52	2C-856	†BOLT, Valve to Reservoir	3
				53	4E-08	†LKWSHR, Valve to Reservoir	3

*NOTE: For complete replacement use 2511040 Valve Assy. plus 1—960605 Service Kit.

†Not Illustrated

§Not Sold Separately



98A.1

(1H11)

PM 1729
Printed in U.S.A.

TS-14064

Valve Assembly, Main (2 Spool)

MICHIGAN

No. Part No. Qty. Description

A	2511040	1	Valve assy
1	945853	1	Spring
2	945848	1	Cap
3	10J-06	15	Ball
4	1300582	1	Ring
5	888451	1	Retainer
6	961005	1	Cap
7	300232	1	Pin
8	25K-30014	1	O-ring
9	11G-520	2	Bolt
10	4E-05	2	Lockwasher
11	960971	1	Plate
12	961004	1	Seal
13	945590	1	Check
14	91F-10	2	O-ring
15	24K-10	2	Cap
16	25K-40106	1	O-ring
17	S ³ -----	—	Housing
18	961004	1	Seal
19	960966	1	Plate
20	4E-05	4	Lockwasher
21	1C-512	4	Bolt
22	25K-30014	1	O-ring
23	945226	1	Plunger eye
24	960968	1	Wiper
25	960967	1	Plate
26	S ³ -----	—	Plunger
27	871388	1	Spring
28	888452	1	Spring
29	888451	1	Retainer
30	888449	1	Pin
31	300232	1	Pin
32	886758	2	Retainer
33	886761	1	Cover
34	886762	1	Plug
35	755855	1	Retainer
36	886763	1	Plug
37	945233	1	Spring
38	945231	1	Retainer
39	58K-124	1	O-ring
40	58K-121	1	O-ring
41	10J-06	12	Ball
42	58K-124	1	O-ring
43	1300582	1	Ring
44	888451	1	Retainer
45	300232	1	Pin
46	25K-30014	1	O-ring

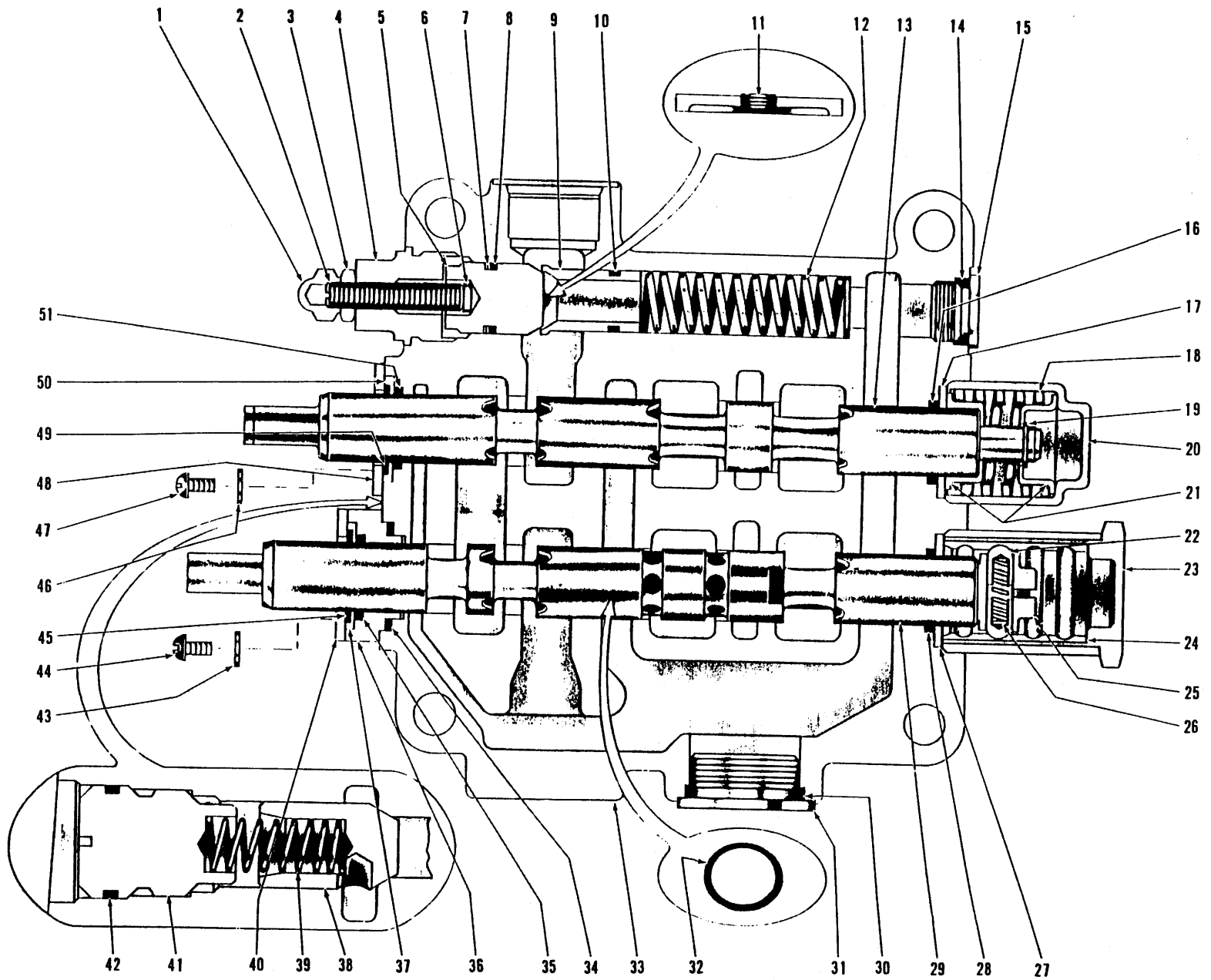
¹See Index

²Inc. 1→92

³See "A"

No. Part No. Qty. Description

47	888455	1	Spring
48	960971	1	Plate
49	961004	11	Seal
50	S ³ -----	—	Spring
51	S ³ -----	—	Platon
52	S ³ -----	—	Cap
53	945590	1	Check
54	871388	1	Spring
55	981004	1	Seal
56	960966	1	Plate
57	25K-30014	1	O-ring
58	945226	1	Plunger eye
59	960968	1	Wiper
60	960967	1	Plate
61	S ³ -----	—	Plunger
62	S ³ -----	—	Check
63	945590	1	Check
64	948540	1	Spring
65	888451	1	Retainer
66	888449	1	Pin
67	730432	1	Pin
68	945232	1	Cap
69	945217	1	Retainer
70	945234	1	Housing
70A	†11G-520	2	Bolt
70B	†4E-05	2	Lockwasher
71	49D-08	1	Nut
72	980834	1	Screw
73	8D-08	1	Nut
74	58K-210	1	O-ring
75	980835	1	Cap
76	886739	1	Poppet
77	886753	1	Spring
78	960964	1	Seat
79	25K-30020	1	O-ring
80	960965	1	Check
81	947791	1	Spring
82	960963	1	Seat
83	980838	1	Cap
84	58K-210	1	O-ring
85	613750	2	Washer
86	91F-8	1	O-ring
87	945430	1	Cap
88	40K-04	1	Plug
89	16F-02	1	Plug
90	641297	1	Screw
91	755855	1	Retainer
92	886763	1	Plug



CONTROL VALVE ASSEMBLY

TS-1741-P

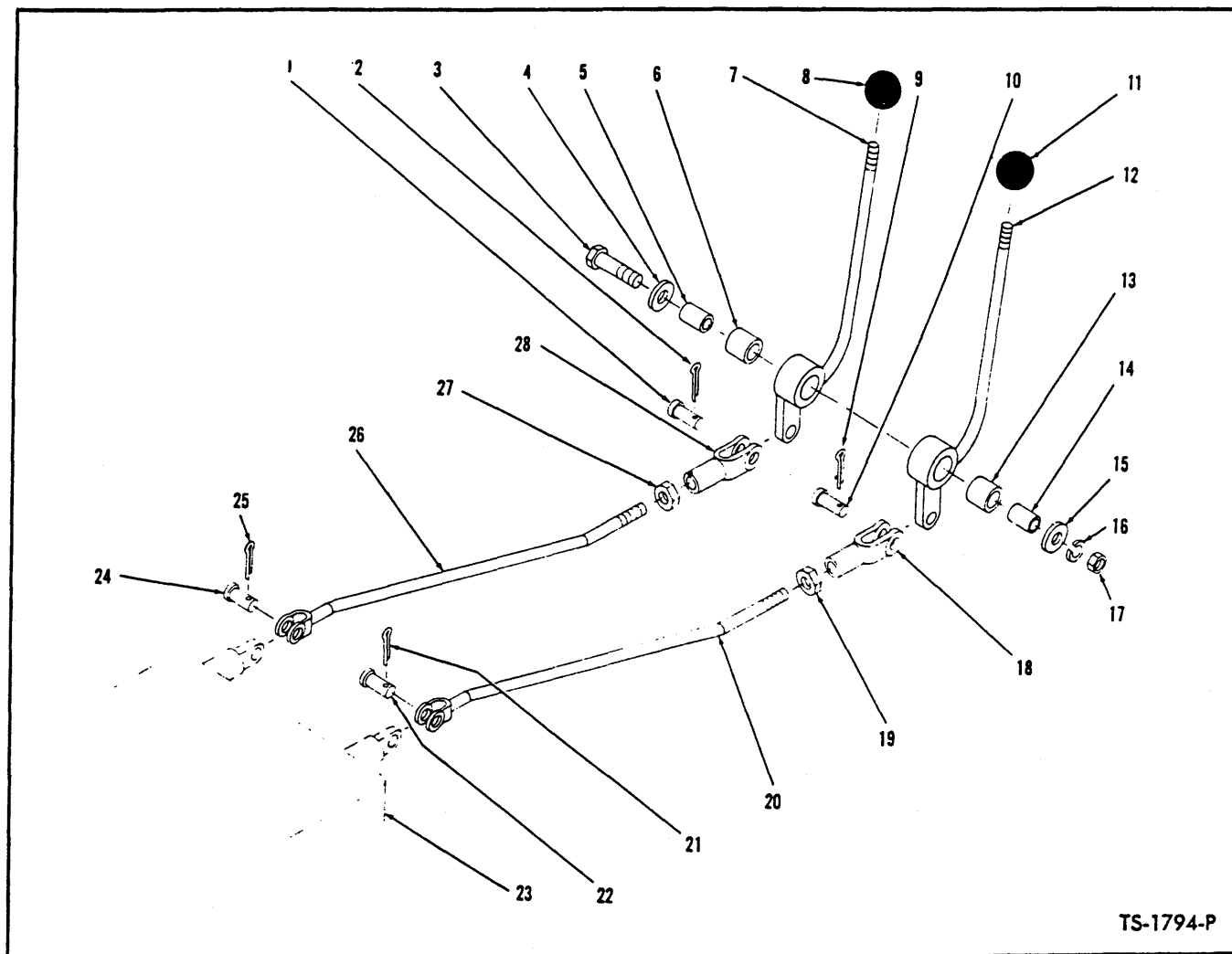
CONTROL VALVE ASSEMBLY — PARKER
For Serial 4279 thru 4289, 4292 thru 4323, 4494 thru 4523, 4529 thru 4533, 4580

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	522962	*VALVE ASSY (Inc. 1 thru 51)	1	27	943904	RETAINER, "O" Ring	1
1	47D-05	NUT, Acorn	1	28	25K-30100	"O" RING, Plunger	1
2	33G-536	SET SCREW, Relief Valve	1	29	-----	§PLUNGER, Boom Cylinder Operating (See "A")	1
3	8D-05	NUT, Jam	1	30	91F-11	"O" RING, Plug	1
4	943912	CAP, Relief Valve	1	31	47K-11	PLUG	1
5	943911	SEAT, Relief Valve Plunger	1	32	25K-60120	"O" RING, Valve to Reservoir	1
6	878246	INSERT, Seat	1	33	-----	§HOUSING, Valve (See "A")	1
7	943741	WASHER, Back-up	1	34	25K-40106	"O" RING	1
8	58K-210	"O" RING, Seat	1	35	25K-30100	"O" RING, Plunger	1
9	943910	PLUNGER, Relief Valve	1	36	943914	HOUSING, Seal	1
10	943764	RING, Teflon	1	37	943915	RETAINER, "O" Ring	1
11	16F-04	PLUG, Valve	1	38	886686	POPPET, Check Valve	2
12	943909	SPRING, Relief Valve	1	39	943909	SPRING, Check Valve	2
13	-----	§PLUNGER, Bucket Cylinder Operating (See "A")	1	40	943916	PLATE, Wiper Retaining	1
14	91F-7	"O" RING, Plug	1	41	943908	CAP, Check Valve	2
15	47K-7	PLUG	1	42	25K-40026	"O" RING, Check Valve Cap	2
16	25K-30100	"O" RING, Plunger	1	43	4E-06	LKWSHR, Retaining Plate	2
17	943904	RETAINER, "O" Ring	1	44	4G-616	SCREW, Retaining Plate	2
18	943918	SPRING, Plunger	1	45	943740	WIPER, Plunger	1
19	878235	RING, Spring Retaining	1	46	4E-06	LKWSHR, Retaining Plate	2
20	943919	CAP, Plunger End	1	47	4G-610	SCREW, Retaining Plate	2
21	943917	RETAINER, Spring	2	48	943916	PLATE, Wiper Retaining	1
22	944130	POPPET	2	49	943740	WIPER, Plunger	1
23	943902	CAP, Plunger	1	50	943915	RETAINER, "O" Ring	1
24	944129	BARREL, Detent	1	51	25K-30100	"O" RING, Plunger	1
25	944131	RETAINER, Poppet	1	52	2C-860	†BOLT, Valve to Reservoir	3
26	944132	SPRING, Poppet	1	53	4E-08	†LKWSHR, Valve to Reservoir	3

§Not Sold Separately

†Not Illustrated

*NOTE: For complete replacement use 2511040 Valve Assy., plus 1—960605 Service Kit.



TS-1794-P

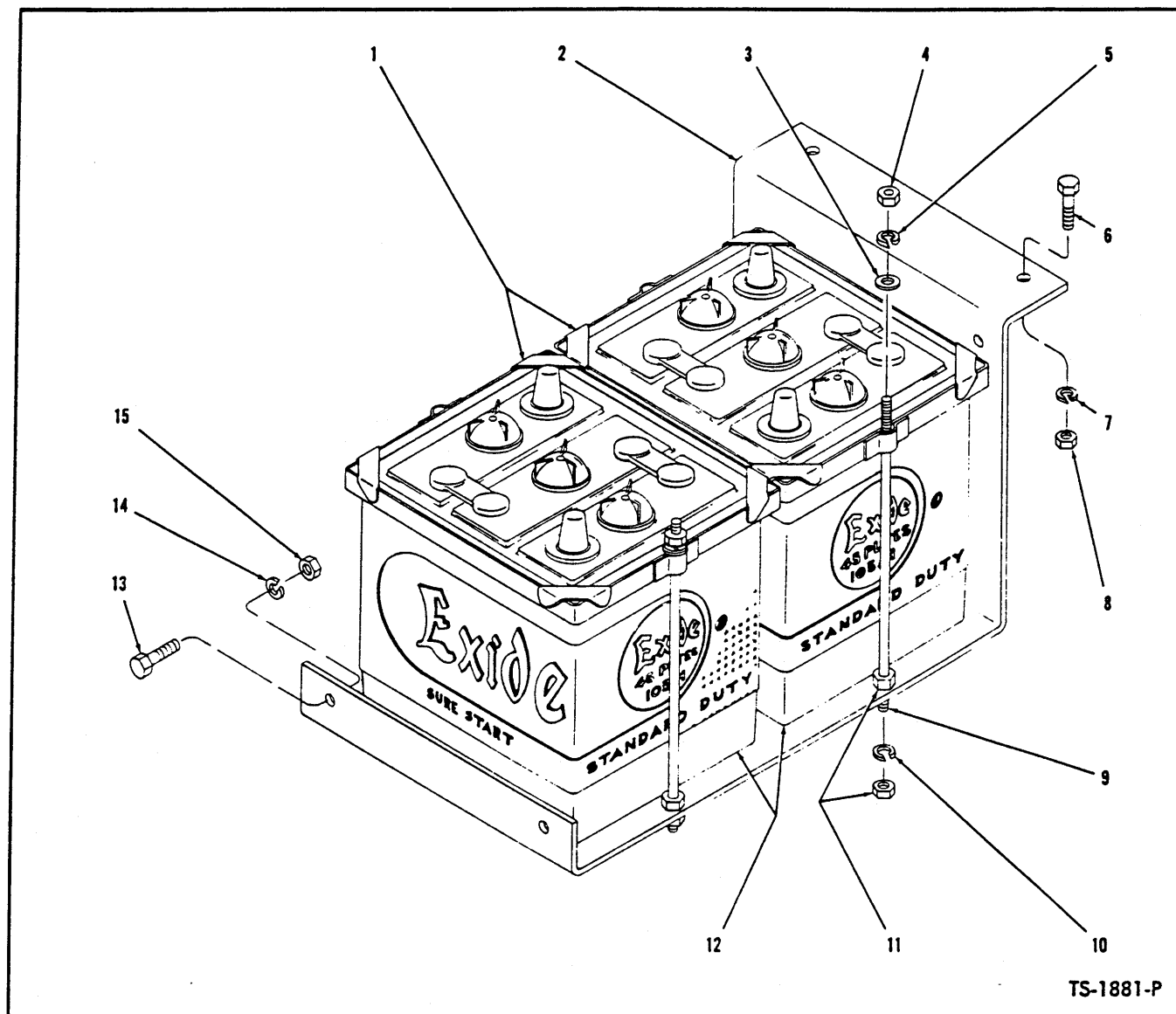
VALVE CONTROL LEVERS AND LINKAGE

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	4F-08127	PIN, Clevis to Lever	1	15	616796	WASHER, Lever to Frame	1
2	1F-414	COTTER, Clevis Pin	1	16	4E-08	LKWSHR, Lever to Frame	1
3	2C-868	BOLT, Lever to Frame	1	17	2D-08	NUT, Lever to Frame	1
4	616796	WASHER, Lever to Frame	1	18	2J-8300	CLEVIS, Rod to Lever	1
5	550646	SLEEVE, Lever to Frame	1	19	8D-08	NUT, Clevis Jam	1
6	526767	BUSHING, Bucket Lever	1	20	550647	*ROD, Boom Valve	1
7	550644	LEVER, Bucket Valve	1	21	1F-414	COTTER, Clevis Pin	1
8	509772	KNOB, Bucket Lever	1	22	4F-08127	PIN, Rod to Valve	1
9	1F-414	COTTER, Clevis Pin	1	23	—	CONTROL VALVE — (See Index).....	—
10	4F-08127	PIN, Clevis to Lever	1	24	4F-08127	PIN, Rod to Valve	1
11	509772	KNOB, Boom Lever	1	25	1F-414	COTTER, Clevis Pin	1
12	550640	LEVER, Boom Valve	1	26	550647	*ROD, Bucket Valve	1
13	526767	BUSHING, Valve Lever	1	27	8D-08	NUT, Clevis Jam	1
14	550646	SLEEVE, Lever to Frame	1	28	2J-8300	CLEVIS, Rod to Lever	1

*NOTE: Items 20 and 26 for machines equipped with Parker Control Valve is 523566.

Parker Control Valve No. 522962 was installed in machine serial 4279 thru 4289, 4292 thru 4323, 4494 thru 4523, 4529 thru 4533, 4580.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

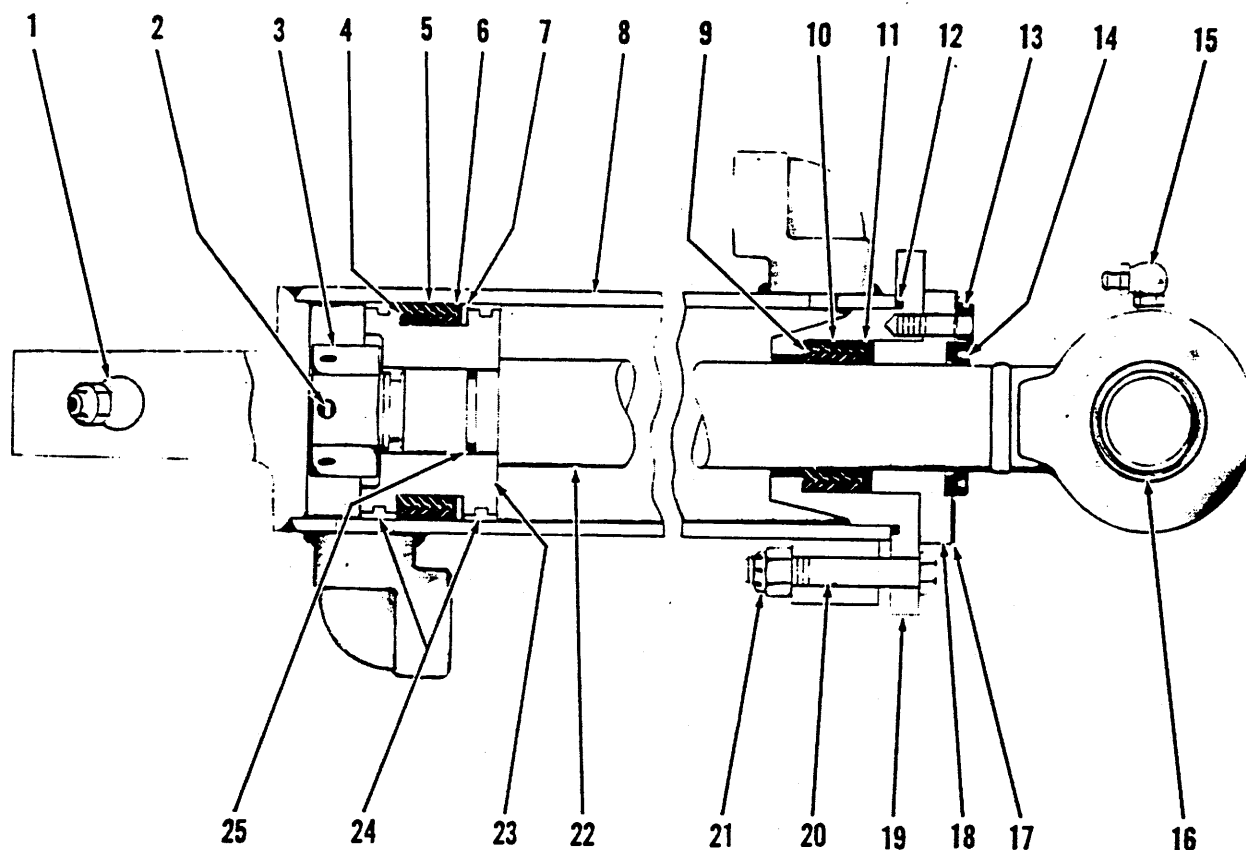


TS-1881-P

BATTERY AND BATTERY BOX

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1		COVER, Battery Hold Down		6	2C-612	BOLT, Battery Box Attaching	2
1A	550844	For Gas Powered Machines with Exide #SS-1 Battery	2	7	4E-06	LKWSHR, Battery Box Attaching	2
1B	536488	For Gas Powered Machines with Exide #CX-1-105 Battery	2	8	2D-06	NUT, Battery Box Attaching	2
1C	550859	For Diesel Powered Machines	2	9	600183	STUD, Hold Down Cover	4
2		BOX, Battery		10	4E-05	LKWSHR, Hold Down Cover	4
2A	550843	For Gas Powered Machines	1	11	1D-05	NUT, Hold Down Cover	8
2B	550858	For Diesel Powered Machines	1	12		BATTERY	
3	25E-15	WASHER, Hold Down Cover Stud	4	12A		EXIDE #CX-1-105 for Gas Powered	2
4	1D-05	NUT, Hold Down Cover Stud	4	12B		EXIDE #XF-25 for Diesel Powered	2
5	4E-05	LKWSHR, Hold Down Cover Stud	4	13	2C-612	BOLT, Battery Box Attaching	2
				14	4E-06	LKWSHR, Battery Box Attaching	2
				15	2D-06	NUT, Battery Box Attaching	2

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TS-2794-P

BUCKET CYLINDER ASSEMBLY**2 cylinders used on machine — Quantities listed below are for 1 cylinder**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A		CYLINDER ASSY (Inc. 1 thru 25)		10	2501107	PACKING SET, Cylinder Cap, Inc. 9,11)	1
B	531774	Right Hand	1	11	—	§ADAPTER, Female — See 10	1
C	531775	Left Hand	1	12	25K-40416	"O" RING, Cylinder Cap	1
D	2523428	***KIT (Inc. 2, 4 thru 7, 9 thru 11, 14, 24, 25)	1	13	4C-616	BOLT, Wiper Retainer	1
1	11H-15	FITTING, Cylinder Grease	1	14	2516952	WIPER, Piston Rod	1
2	1F-648	COTTER, Piston Rod Nut	1	15	12H-15	FITTING, Piston Rod Grease	1
3	551605	NUT, Piston Rod	1	16	550229	BUSHING, Rod & Cylinder	2
4	—	§ADAPTER, Male — See 5	2	17	550089	RETAINER, Piston Rod Wiper	1
5	—	§PACKING SET, Piston (Inc. 4, 6) See D	1	18	550087	GLAND, Packing	1
6	—	§ADAPTER, Female — See 5	1	19	550085	*CAP, Cylinder	1
7	—	§‡SHIM, Piston Packing — See D	1	20	2C-856	BOLT, Cylinder Cap	4
8	—	CYLINDER (Inc. 16)		21	18D-08	NUT, Cylinder Cap	4
8A	514167	Right Hand	1	22	550097	ROD ASSY, Piston (Inc. 16)	1
8B	529458	Left Hand	1	23	550080	**PISTON	1
9	—	§ADAPTER, Male — See 10	1	24	—	§RING, Piston Wear — See D	2
				25	—	§"O" RING, Piston Rod — See D	1

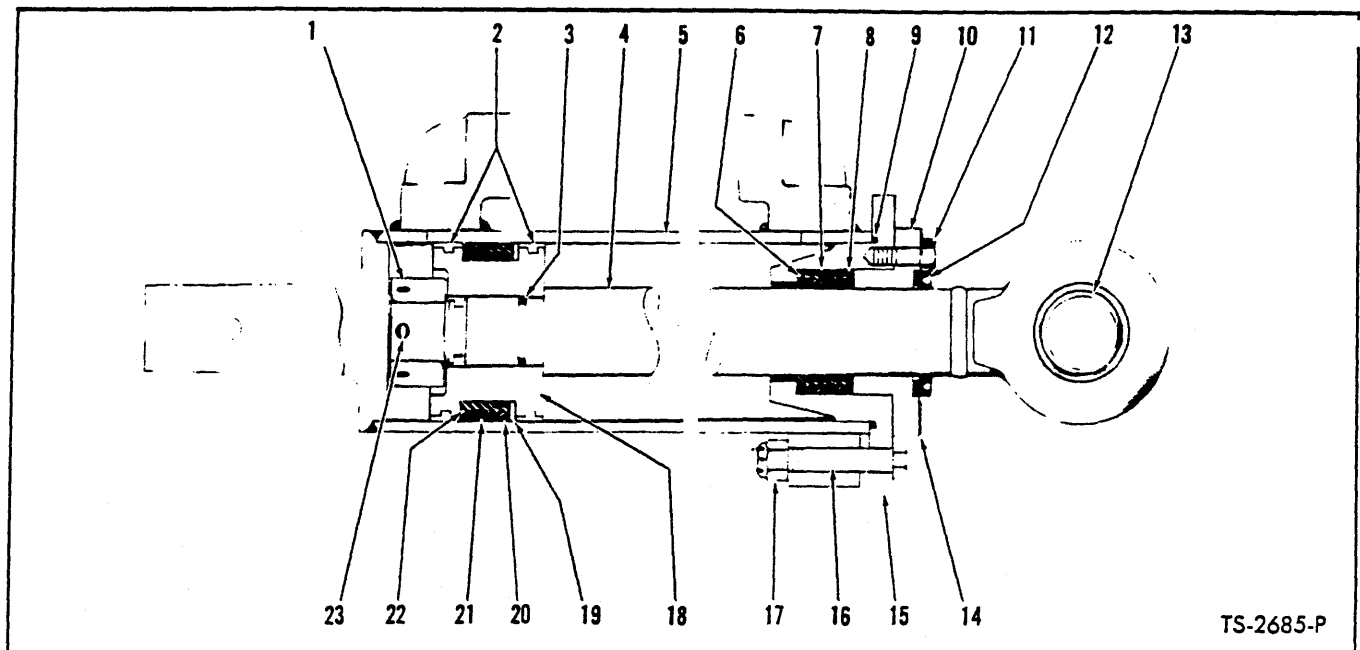
‡As Required

§Not Sold Separately

*NOTE: For replacement of 550085 Cap use 945113 Cap Assy plus 1—544893 Adapter. 945113 Cap Assy also includes 1—25K-40408 O-Ring and 1—548477 Back-Up Ring.

**NOTE: For replacement of 550080 Piston use 1 — 1503026 Piston plus 1 — 2516069 Kit.

***NOTE: For reference see Service Gram S.G.-597.



TS-2685-P

4½" BOOM CYLINDER ASSEMBLY

**2 Cylinders Used on Machine – Quantity Indicated
is for 1 Cylinder
For Serial 4123 thru 4604**

Item No.	Part No.	Description	No. Req'd.
A	551991	CYLINDER ASSY (Inc. 1 thru 23) ...	1
B	2523417	†KIT (Inc. 2, 3, 6 thru 8, 12, 19 thru 23)	1
1	551605	NUT, Piston Rod	1
2	-----	§RING, Piston Wear – See B	2
3	-----	§"O" RING, Piston Rod – See B	1
4	550083	ROD ASSY, Piston (Inc. 13)	1
5	533660	CYLINDER	1
6	-----	§ADAPTER, Male – See 7	1
7	2501107	§PACKING SET, Cylinder Cap (Inc. 6, 8)	1
8	-----	§ADAPTER, Female – See 7	1
9	25K-40416	"O" RING, Cylinder Cap	1
10	550087	GLAND, Packing	1
11	4C-616	BOLT, Retainer & Gland	4
12	2516952	WIPER, Piston Rod	1
13	550066	BUSHING, Piston Rod	1
14	550089	RETAINER, Piston Rod Wiper	1
15	550085	² CAP, Cylinder	1
16	2C-856	BOLT, Cylinder Cap	4
17	18D-08	NUT, Cylinder Cap	4
18	550080	³ PISTON	1
19	-----	§‡SHIM, Piston Packing – See B	1
20	-----	§ADAPTER, Female – See 21	2
21	-----	§PACKING SET, Piston (Inc. 20, 22) See B	1
22	-----	§ADAPTER, Male – See 21	2
23	1F-648	COTTER, Piston Rod Nut	1

5" BOOM CYLINDER ASSEMBLY

**2 Cylinders Used on Machine – Quantity Indicated
is for 1 Cylinder
For Serial 4605 thru 4629, 1DA375 thru 1DA999,
1DB86 thru 1DB999, 1DG1 thru 1DG999**

Item No.	Part No.	Description	No. Req'd.
A		CYLINDER ASSY	
B	531661	Right Hand	1
C	533663	Left Hand	1
D	2523430	⁴ Kit (Inc. 2, 3, 6 → 8, 12, 19, 23) ...	1
1	551605	NUT, Piston Rod	1
2	-----	§RING, Piston Wear – See D	2
3	-----	§"O" RING, Piston Rod – See D	1
4	550083	ROD ASSY, Piston (Inc. 13)	1
5	533664	CYLINDER	1
6	-----	§ADAPTER	1
7	2501107	PACKING SET, Cylinder Cap (Inc. 6, 8)	1
8	-----	§ADAPTER, Female – See 7	1
9	25K-40500	"O" RING, Cylinder Cap	1
10	550087	GLAND, Packing	1
11	4C-616	BOLT, Retainer & Gland	4
12	2516952	WIPER, Piston Rod	1
13	550066	BUSHING, Piston Rod	1
14	550089	RETAINER, Piston Rod Wiper	1
15	527297	⁵ CAP, Cylinder	1
16	2C-856	BOLT, Cylinder Cap	4
17	18D-08	NUT, Cylinder Cap	4
18	527291	⁶ PISTON	1
19	-----	‡SHIM, Piston Packing – See D	—
20	527294	ADAPTER, Female Chevron Packing ..	2
21	531600	PACKING SET, Piston	1
22	527293	ADAPTER, Male Chevron Packing ..	2
23	1F-648	COTTER, Piston Rod Nut	1

‡As Required

§Not Sold Separately

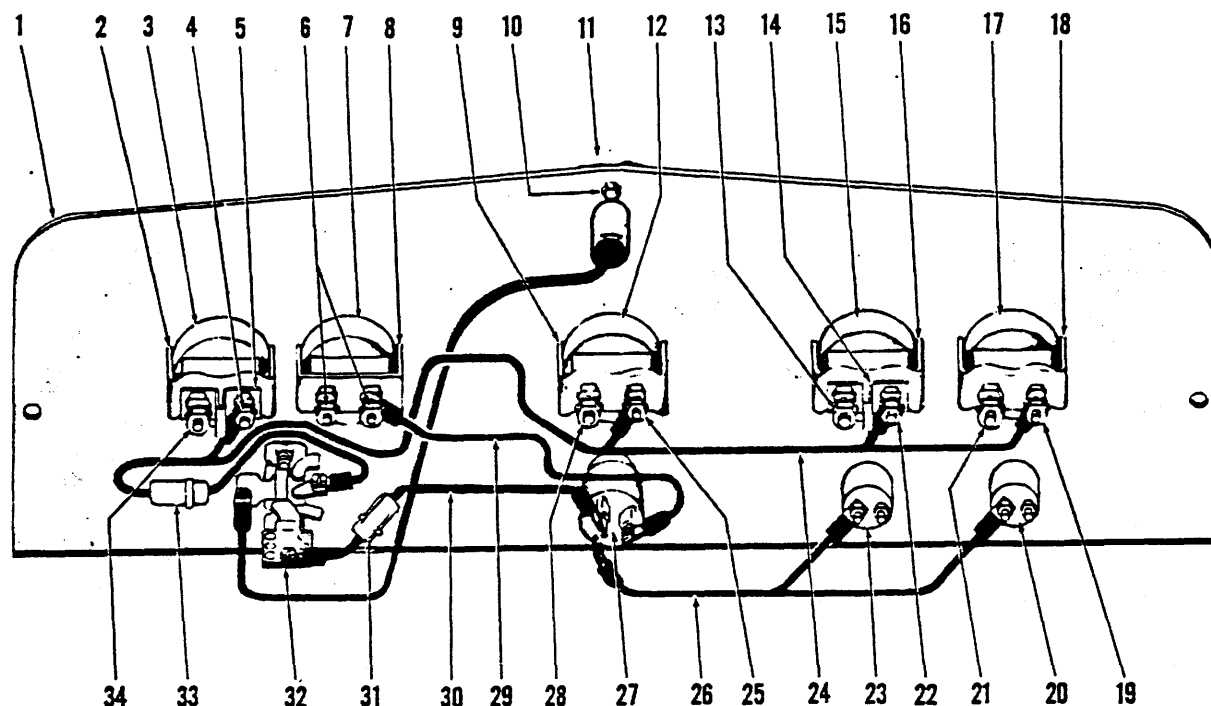
²For replacement of 550085 Cap use 945113 Cap Assy plus 1 – 544893 Adapter. 945113 Cap Assy includes 1 – 25K-40408 O-Ring and 1 – 548577 Back-Up Ring.

³For replacement of 550080 Piston use 1 – 1503026 Piston plus 1 – 2516069 Kit.

⁴For reference see Service Gram S.G.-597.

⁵For replacement of 527297 Cap use 945120 Cap Assy. 945120 Cap Assy includes 1 – 25K-40424 O-Ring and 1 – 533791 Back-Up Ring.

⁶For replacement of 527291 use 1503597 Piston plus 1 – 2516059 Kit.



TS-2727-P

INSTRUMENT PANEL — WAUKESHA DIESEL

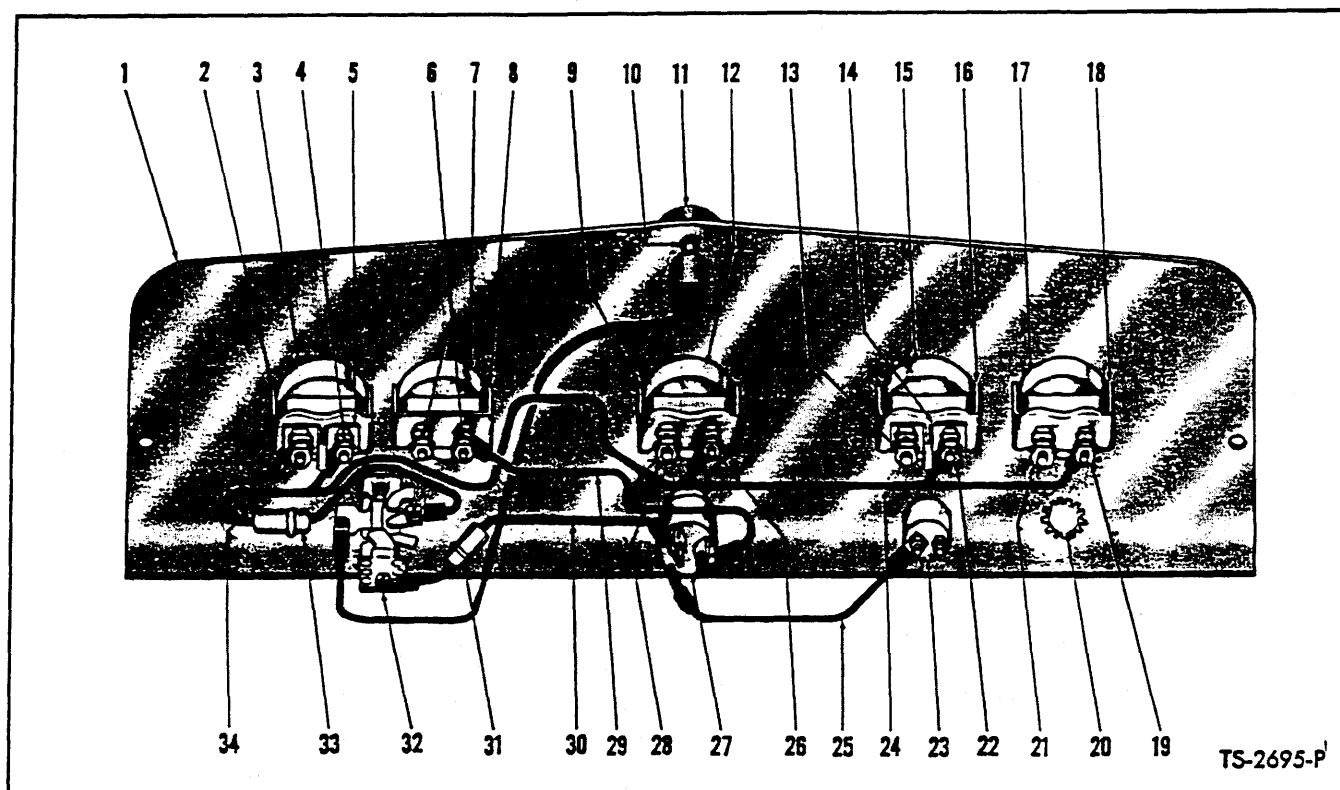
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	550733	PANEL, Instrument	1	21	14D-10	NUT, Engine Temperature Gauge	2
2	626530	CLAMP, Fuel Gauge	1	21A	12E-10	†LKWSHR, Engine Temperature Gauge	1
3	551320	GAUGE, Fuel	1	22	12D-8	NUT, Oil Pressure Gauge	2
4	12D-8	NUT, Fuel Gauge	2	22A	12E-8	†LKWSHR, Oil Pressure Gauge	1
4A	12E-8	†LKWSHR, Fuel Gauge	1	23	600259	PUSH BUTTON, Starter	1
5	602350	SEPARATOR, Fuel Gauge Terminals ..	1	23A	857420	†BOOT, Push Button — Rubber	1
6	14D-10	NUT, Ammeter	4	24	552935	WIRE, Light Switch to Gauges	1
6A	12E-10	†LKWSHR, Ammeter	2	25	12D-8	NUT, Converter Temperature Gauge	2
7	550735	AMMETER	1	25A	12E-8	†LKWSHR, Converter Temp. Gauge ...	1
8	601212	CLAMP, Ammeter	1	26	552938	WIRE, Ignition Switch to Starter & Glow Plug Button	1
9	626530	CLAMP, Converter Temp. Gauge	1	27	573548	SWITCH, Ignition (Keyed)	1
10	18G-606	SCREW, Dash Lamp to Panel	2	28	14D-10	NUT, Converter Temperature Gauge..	2
10A	12E-6	†LKWSHR, Dash Lamp to Panel	2	28A	12E-10	†LKWSHR, Converter Temp. Gauge ...	1
11	551503	*DASH LAMP	1	29	639543	WIRE, Ignition Switch to Ammeter	1
12	551321	GAUGE, Torque Converter Temp.....	1	30	552946	WIRE, Ignition Switch to Light Switch	1
13	14D-10	NUT, Oil Pressure Gauge	2	31	611074	FUSE — 20 Amp	1
13A	12E-10	†LKWSHR, Oil Pressure Gauge	1	32	2514253	SWITCH, Light — See Note "A"	1
14	602350	SEPARATOR, Oil Pressure Gauge	1	32A	550742	†ROD, Light Switch	1
15	551319	GAUGE, Oil Pressure	1	32B	550743	†BUSHING, Light Switch	1
16	626530	CLAMP, Oil Pressure Gauge	1	33	661555	FUSE — 4 Amp	1
17	551322	**GAUGE, Engine Temperature	1	34	14D-10	NUT, Fuel Gauge	2
18	626530	CLAMP, Engine Temperature Gauge	1	34A	12E-10	†LKWSHR, Fuel Gauge	1
19	12D-8	NUT, Engine Temperature Gauge	2	35	2C-710	†BOLT, Panel Attaching — ⅞" x ⅝"	3
19A	12E-8	†LKWSHR, Engine Temperature Gauge	1	36	2C-616	†BOLT, Panel Attaching — ⅝" x 1"	1
20	600259	PUSH BUTTON, Glow Plug	1	37	4E-07	†LKWSHR, Panel Attaching — ⅞"	3
20A	857420	†BOOT, Push Button — Rubber	1	38	4E-06	†LKWSHR, Panel Attaching — ⅞"	1

*NOTE: For replacement use 574276 Lamp plus 1—940316 Bulb & 1—574275 Tab.

**NOTE: For replacement refer to Service Gram S.G.-326B.

NOTE "A": When replacing with a new switch the mounting hole must be enlarged to .4688.

†Not Illustrated



TS-2695-P

INSTRUMENT PANEL — WAUKESHA GAS AND G.M.

Item No.	Part No.	Description	No. Req'd.
1	550733	PANEL, Instrument	1
2	626530	CLAMP, Fuel Gauge	1
3	551320	GAUGE, Fuel	1
4	12D-8	NUT, Gauge	2
4A	12E-8	†LKWSHR, Gauge	1
5	602350	SEPARATOR, Fuel Gauge Terminals..	1
6	14D-10	NUT, Ammeter	4
6A	12E-10	†LKWSHR, Ammeter	2
7	550735	AMMETER	1
8	601212	CLAMP, Ammeter	1
9	626530	CLAMP, Torque Conv. Temp. Gauge..	1
10	18G-606	SCREW, Dash Lamp	2
10A	12E-6	†LKWSHR, Dash Lamp	2
11	551503	*LAMP, Dash	1
12	551321	GAUGE, Torque Converter Temp.	1
13	14D-10	NUT, Oil Pressure Gauge	2
13A	12E-10	†LKWSHR, Oil Pressure Gauge	1
14	602350	SEPARATOR, Oil Pressure Gauge	1
15	551319	GAUGE, Oil Pressure	1
16	626530	CLAMP, Oil Pressure Gauge	1
17	551322	**GAUGE, Engine Temperature	1
18	626530	CLAMP, Engine Temperature Gauge..	1
19	12D-8	NUT, Engine Temperature Gauge	2
19A	12E-8	†LKWSHR, Engine Temperature Gauge	1
20	696073	BUTTON, Plug	1
21	14D-10	NUT, Engine Temperature Gauge	2

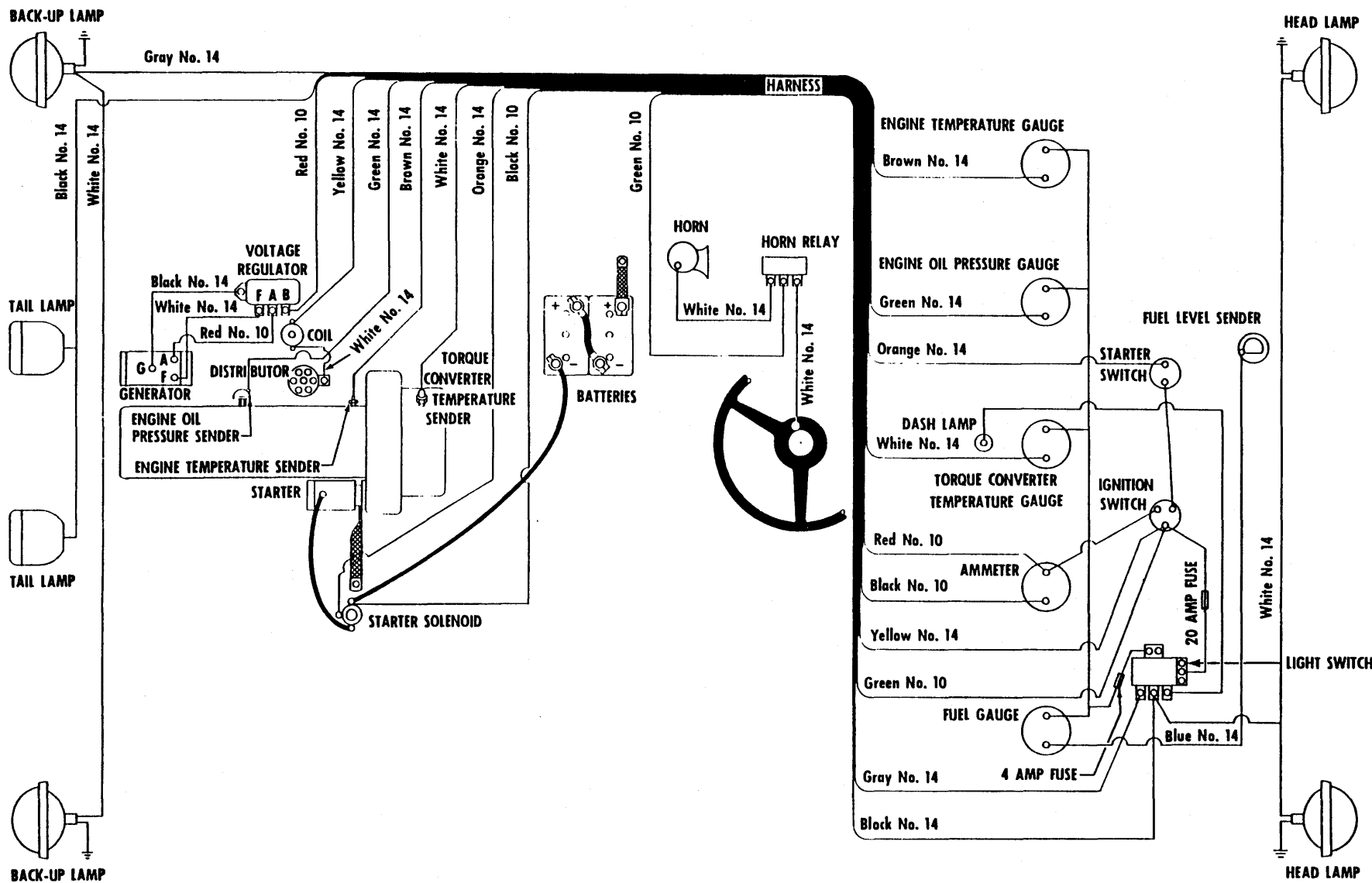
Item No.	Part No.	Description	No. Req'd.
21A	12E-10	†LKWSHR, Engine Temperature Gauge	1
22	12D-8	NUT, Oil Pressure Gauge	2
22A	12E-8	†LKWSHR, Oil Pressure Gauge	1
23	600259	PUSH BUTTON, Starter	1
23A	857420	†BOOT, Push Button — Rubber	1
24	552935	WIRE, Light Switch to Gauges	1
25	550746	WIRE, Ignition Switch to Starter Button	1
26	12D-8	NUT, Converter Temperature Gauge	2
26A	12E-8	†LKWSHR, Converter Temp. Gauge....	1
27	573548	SWITCH, Ignition (Keyed)	1
28	14D-10	NUT, Converter Temperature Gauge	2
28A	12E-10	†LKWSHR, Converter Temp. Gauge	1
29	639543	WIRE, Ignition Switch to Ammeter	1
30	552946	WIRE, Ignition Switch to Light Switch	1
31	611074	FUSE — 20 Amp	1
32	2514253	SWITCH, Light — See Note "A"	1
32A	550742	†ROD, Light Switch	1
32B	550743	†BUSHING, Light Switch	1
33	661555	FUSE — 4 Amp	1
34	14D-10	NUT, Fuel Gauge	2
34A	12E-10	†LKWSHR, Fuel Gauge	1
35	2C-710	†BOLT, Panel Attaching — 7/16" x 3/8"	3
36	2C-616	†BOLT, Panel Attaching — 3/8" x 1"	1
37	4E-07	†LKWSHR, Panel Attaching — 7/16"	3
38	4E-06	†LKWSHR, Panel Attaching — 3/8"	1

*NOTE: For replacement use 574276 Lamp plus 1-940316 Bulb & 1-574275 Tab.

**NOTE: For replacement refer to Service Gram S.G.-326B.

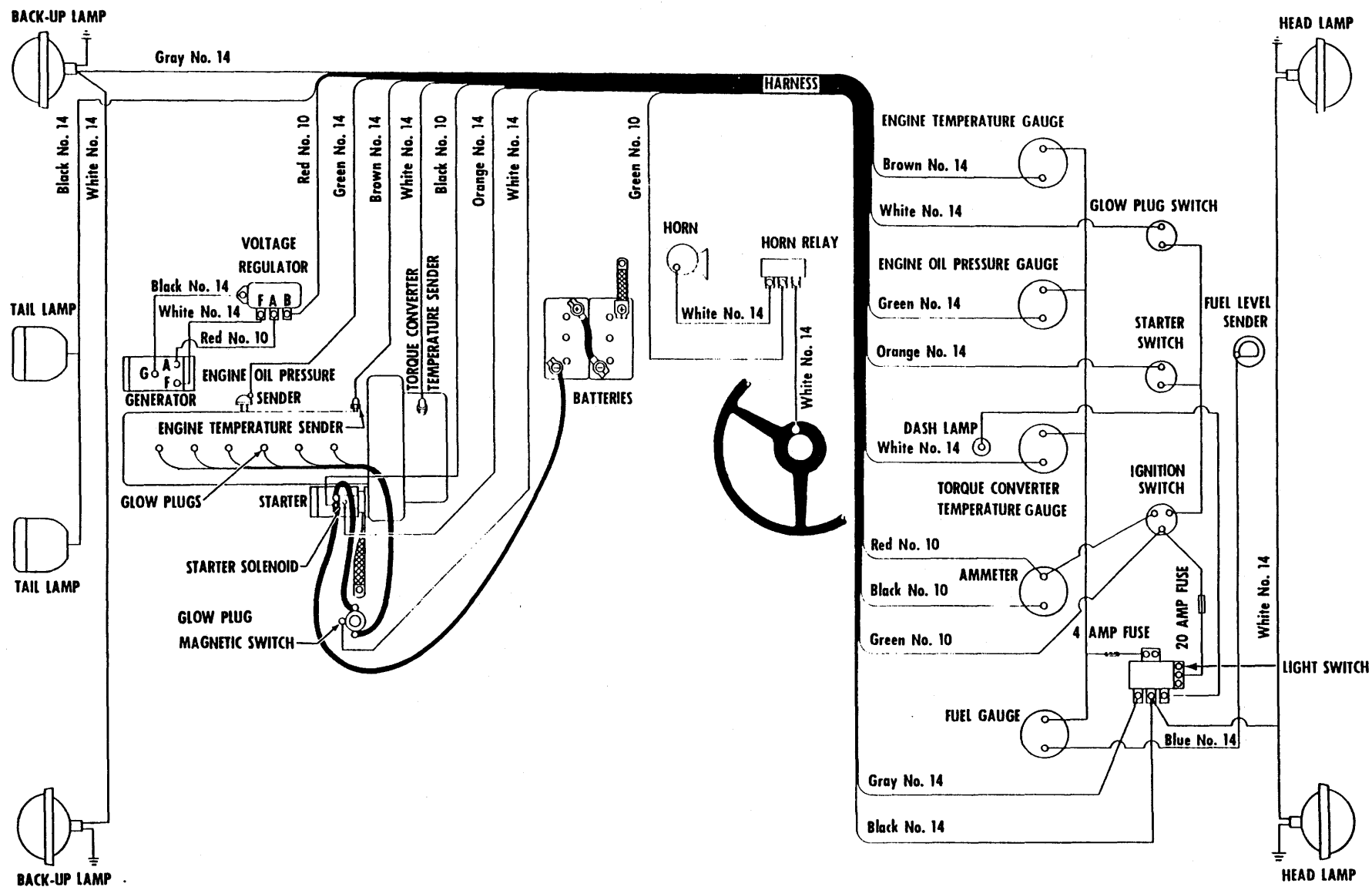
NOTE "A": When replacing with a new switch, the mounting hole must be enlarged to .4688.

†Not Illustrated



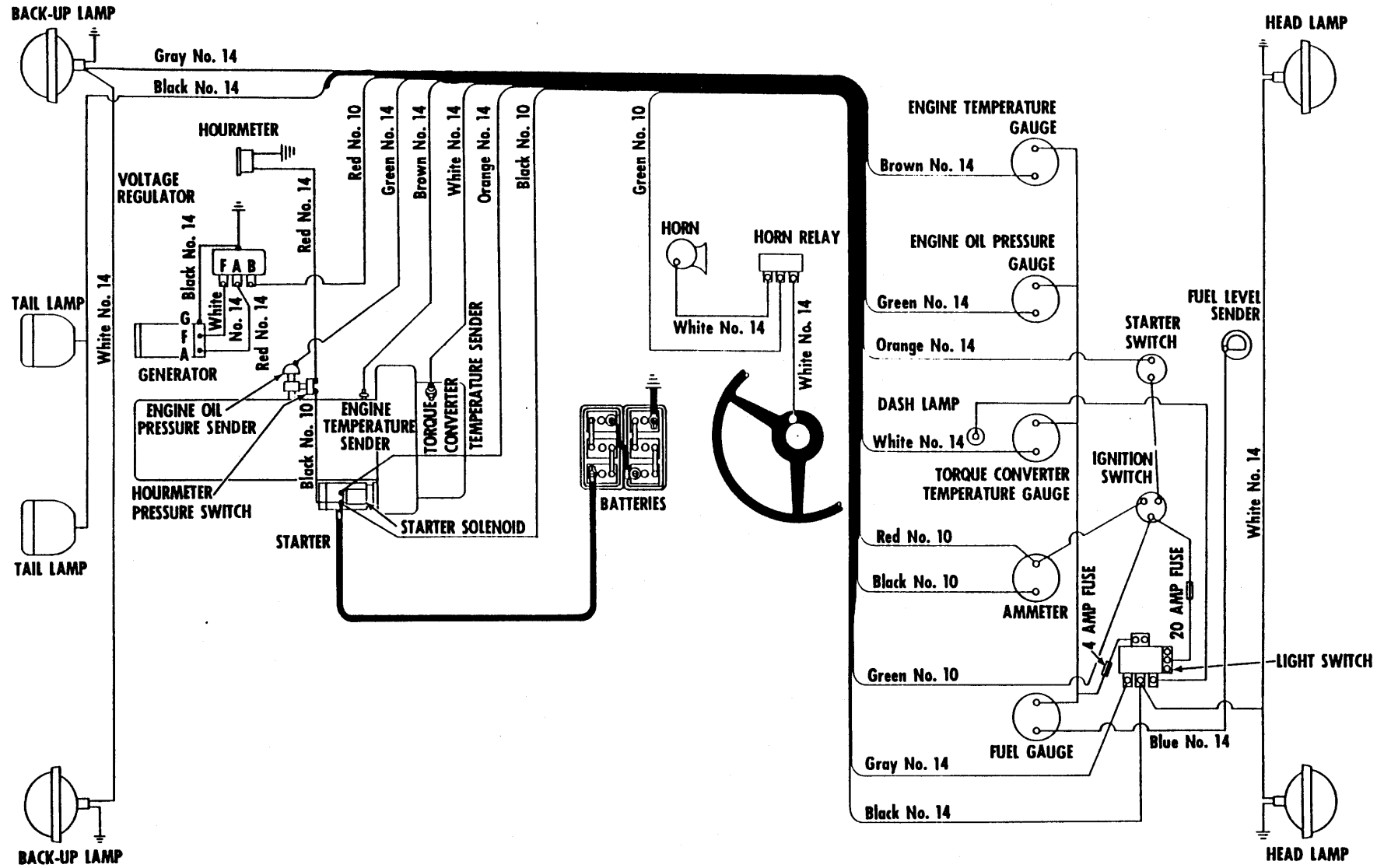
WIRING DIAGRAM (WAUKESHA GAS)

TS-2726-P



WIRING DIAGRAM (WAUKESHA DIESEL)

TS-2728-P



WIRING DIAGRAM (G.M. DIESEL)

TS-3025-P

WIRING AND BATTERY CABLES — WAUKESHA GAS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	550845	CABLE, Battery Ground	1	11	550851	WIRE, Light Switch to Head Lamps .	1
2	550846	CABLE, Battery Connector	1	12	535369	WIRE, Fuel Gauge to Sender Unit	1
3	554016	CABLE, Battery to Solenoid Switch ..	1	13	550745	WIRE, Coil to Distributor	1
4	675611	CABLE, Solenoid Switch to Starter ..	1	14	695120	WIRE, Steering Column to Horn Relay	1
5	550848	CABLE, Starter Ground	1	15	550855	**WIRE, Horn Relay to Horn	1
6	2C-616	BOLT, Starter Ground Cable	1	15A	557438	WIRE, Horn Relay to Horn	1
7	2D-06	NUT, Starter Ground Cable	1	16	2C-652	BOLT, Clip to Valve	1
8	4E-06	LKWSHR, Starter Ground Cable	1	17	2D-06	NUT, Clip to Valve	1
9	553144	HARNESS, Main Wiring	1	18	4E-06	LKWSHR, Clip to Valve	1
10	550850	HARNESS, Gen. & Reg. Wiring.....	1				

WIRING AND BATTERY CABLES — WAUKESHA DIESEL

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	550845	CABLE, Battery Ground	1	10	550850	HARNESS, Gen. & Reg. Wiring.....	1
2	550846	CABLE, Battery Connector	1	11	535369	WIRE, Fuel Gauge to Sender Unit.....	1
3	554016	CABLE, Battery to Starter Solenoid....	1	12	550851	WIRE, Light Switch to Head Lamps.	1
4	553466	CABLE, Starter Solenoid to Glow Plug Solenoid	1	13	550855	WIRE, Horn Relay to Horn.....	1
5	550848	CABLE, Starter Ground	1	13A	557438	WIRE, Horn Relay to Horn.....	1
6	2C-616	BOLT, Starter Ground Cable	1	14	695120	WIRE, Steering Column to Horn Relay	1
7	2D-06	NUT, Starter Ground Cable	1	15	2C-652	BOLT, Clip to Valve.....	1
8	4E-06	LKWSHR, Starter Ground Cable	1	16	2D-06	NUT, Clip to Valve.....	1
9	553145	HARNESS, Main Wiring	1	17	4E-06	LKWSHR, Clip to Valve.....	1

WIRING AND BATTERY CABLES — G.M.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	550845	CABLE, Battery to Ground.....	1	6	550851	WIRE, Light Switch to Head Lamp ...	1
2	550846	CABLE, Battery Connector.....	1	7	535369	WIRE, Fuel Gauge to Tank Unit	1
3	593227	CABLE, Battery to Solenoid.....	1	8	695120	WIRE, Steering Column to Horn Relay	1
4	509335	WIRING HARNESS, Main.....	1	9	550855	WIRE, Horn Relay to Horn	1
5	509336	WIRING HARNESS, Generator to Regulator.....	1	9A	557438	WIRE, Horn Relay to Horn	1
				10	641738	WIRE, Oil Pressure Switch to Starter	1
				11	551879	WIRE, Regulator Ground to Bracket	1

LIGHTS AND MOUNTING PARTS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	551284	*LAMP ASSY, Back-Up (Inc. 2, 3)	2	11	3G-808	SCREW, Ground Wire	2
2	877752	SEALED UNIT, Back-Up Lamp	2	12	12D-8	NUT, Ground Wire	2
3	551293	CLIP, Sealed Unit Retaining	6	13	13E-8	LKWSHR, Ground Wire	2
4	550745	WIRE, Back-Up Lamp Ground	2	14	5203855	LAMP, Tail	2
5	550853	WIRE, Back-Up Lamp Jumper	1	15	551314	BRACKET, Tail Lamp	2
6	12D-8	NUT, Back-Up Lamp to Plate	6	16	1C-610	BOLT, Bracket to Grille	4
7	12E-8	LKWSHR, Back-Up Lamp to Plate	6	17	4E-06	LKWSHR, Bracket to Grille	4
8	547006	LAMP ASSY, Head (Inc. 9, 10)	2	18	1D-04	NUT, Lamp to Bracket	4
9	551242	SEALED UNIT, Head Lamp	2	19	4E-04	LKWSHR, Lamp to Bracket	4
10	551293	CLIP, Sealed Unit Retaining	6				

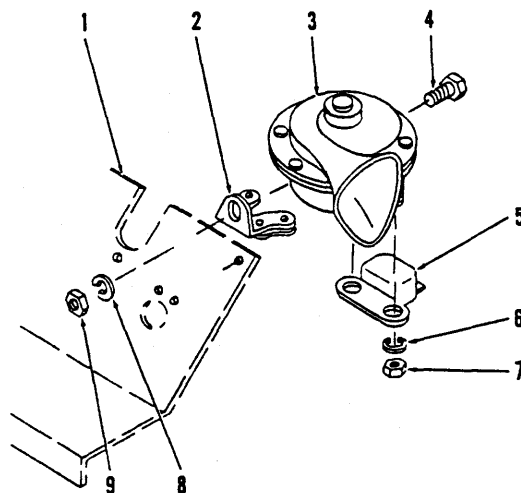
TOOLS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	711264	WRENCH, Wheel	1	4		RING, Cylinder Packing Compressor	
2	552164	HANDLE, Wheel Wrench	1	4A	953067	For 4½" Cylinder	1
3	552172	WRENCH, Hub Bearing	1	4B	527499	For 5" Cylinder	1
				5	953065	SLEEVE, Piston Rod Wiper Taper	1

*NOTE: For replacement of 551284 Lamp Assy use 945958 Lamp Kit. 945958 kit consists of 1-546920 Lamp, 3-12E-10 Lockwashers, 3-12D-10 Nuts & 1-002123 Template. The serviceable items of 546920 Lamp are 877752 Sealed Unit and 944976 Retainer Assy.

**550855 is used with 647300 Horn and 557438 is used with 733624 Horn. New Horn (733624) includes a permanent mounting bracket for identification purposes.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



TS-2581-P

HORN

Item No.	Part No.	Description	No. Req'd.
1	—	FLOORBOARD — See Index	—
2	621279	BRACKET, Horn	1
3	647300	*HORN	1
4	2C-612	BOLT, Horn to Floorboard	1
5	647310	RELAY, Horn	1
6	4E-04	LKWSHR, Relay to Horn	2
7	2D-04	NUT, Relay to Horn	2
8	4E-06	LKWSHR, Horn to Floorboard	1
9	2D-06	NUT, Horn to Floorboard	1

*NOTE: For replacement of 647300 Horn use 733624 Horn plus 1-557438 wire, Relay to Horn.

WHEEL ASSEMBLY DATA — TUBELESS

14:00 x 24

Item No.	Part No.	Description	No. Req'd.
1	515127	*WHEEL	4
2	941325	RING, Lock	4
3	941326	FLANGE	4
4	941329	"O" RING	4
5	—	VALVE STEM ASSY (Inc. 6)	—
5A	941422	For Serial 8123 thru 10718	4
5B	517963	For Serial 10719 & thereafter	4
6	943658	ADAPTER, Valve Stem	4
7	109247	CAP, Valve Stem Adapter	4

*NOTE: When 515127 Wheel is installed on Serial 4123 thru 4174 one 517963 Valve Stem must be used.

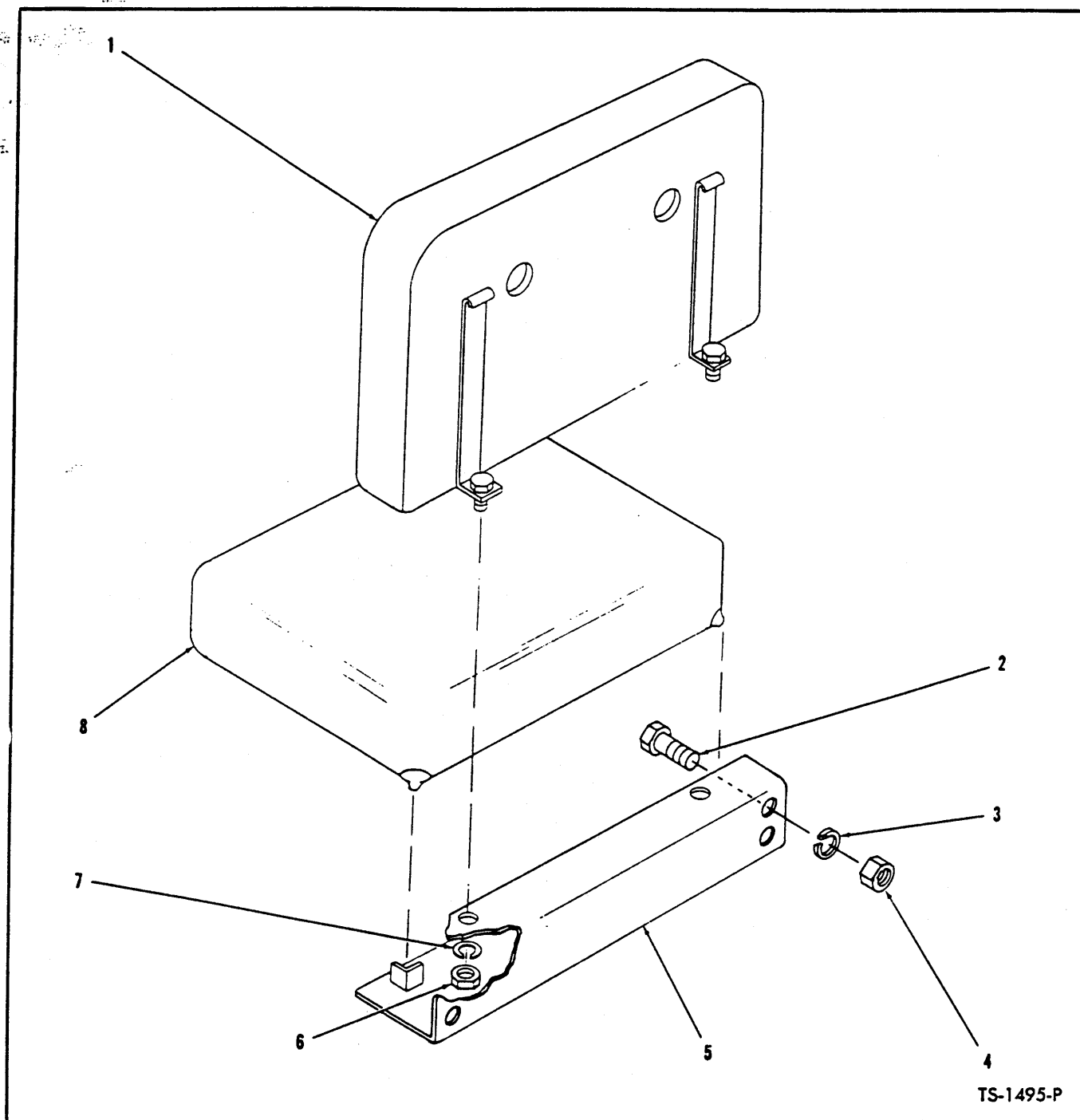
WHEEL ASSEMBLY DATA — WITH TUBE

Item No.	13:00 x 24	14:00 x 24	16:00 x 24	Description	No. Req'd.
8	*552696	*552696	523624	WHEEL	4
9	**552602	**552602	§***	**RING, Lock	4
**For machines equipped with Firestone Rims, this item as follows:					
9A	551541	551541	—	RING, Lock	4
9B	551542	551542	—	RING, Side	4

*NOTE: For replacement of 552696 use 569545 plus 1-524009 Lock Ring and 1-524010 Flange.

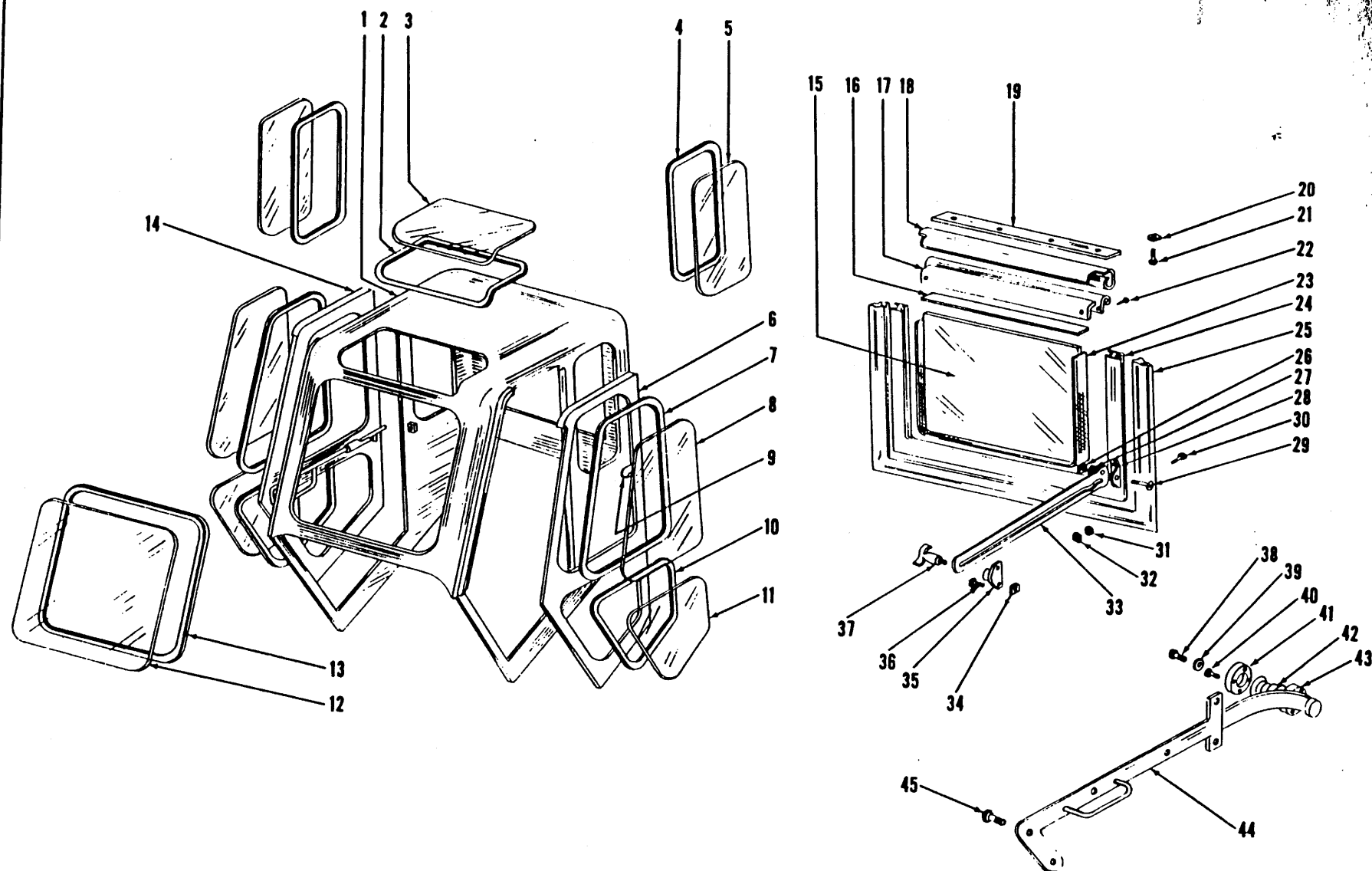
***NOTE: For replacement use Items 1, 2 and 3.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

**SEAT AND SUPPORT**

Item No.	Part No.	Description	No. Req'd.
1	550635	CUSHION, Backrest	1
2	2C-616	BOLT, Support to Frame	4
3	4E-06	LKWSHR, Support to Frame	4
4	2D-06	NUT, Support to Frame	4
5	550636	SUPPORT, Seat	1
6	2D-06	NUT, Backrest Cushion to Support	2
7	4E-06	LKWSHR, Backrest Cushion to Support	2
8	550634	CUSHION, Seat	1

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



CAB ASSEMBLY

TS-149-P

CAB ASSEMBLY

These cabs have been manufactured by two companies, Kidron Body Co. and Orrville Metal Specialty Co. Manufacturer can be identified by serial number stamped on serial number plate. Cabs manufactured by Kidron are prefixed with the letter "K," whereas cabs manufactured by Orrville are prefixed with the letter "O".

Cab serial number also includes machine model number. As an example, in serial number K-75-1, "K" indicates cab is manufactured by Kidron Body Co., 75 indicates it is used on model 75A or 85A, 1 is the cab serial number. If this serial number had been prefixed by the letter "O" such as O-75-1, "O" would indicate that it was manufactured by Orrville Metal Specialty Co.

Whenever parts are required for a cab, always determine manufacturer by checking serial number plate. Cab listings herein are separated by manufacturer.

KIDRON BODY CO. CABS

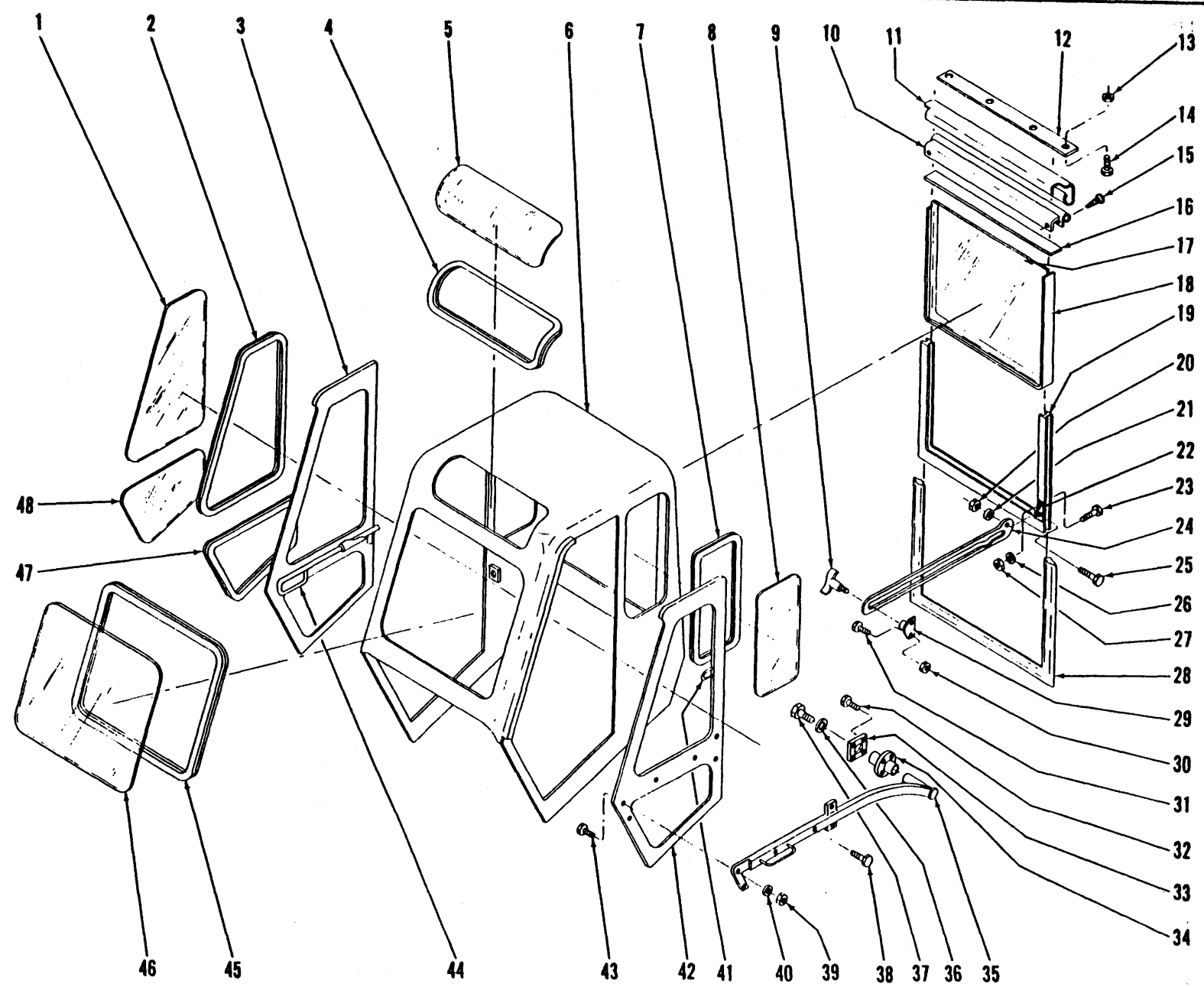
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	**551719	CAB ASSY (Inc. 2 thru 57).....	1	28	940434	BRACKET, Throwout Arm.....	2
2		WEATHERSEAL, Curved Roof		29	4G-408	BOLT, Throwout Arm to Bracket....	2
	940407	Glass.....	1	30	3G-1016	SCREW, Throwout Arm Bracket ...	4
3	940406	GLASS, Curved Roof.....	1	31	4E-04	LKWSHR, Throwout Arm Bracket..	4
4		WEATHERSTRIP, Quarter Panel		32	12D-10	NUT, Throwout Arm Bracket.....	4
	940415	Glass.....	2	33	940436	ARM, Rear Windshield Throwout..	2
5	(See 58)	GLASS PATTERN, Quarter Panel ..	2	34	12D-10	NUT, Throwout Arm Bracket.....	4
6	940411	DOOR, L.H. Panel.....	1	35	940437	BRACKET, Throwout Arm.....	2
7		WEATHERSTRIP, Upper Door		36	3G-1010	SCREW, Throwout Arm Bracket....	4
	940413	Glass.....	2	37	940438	WING BOLT, Throwout Arm.....	2
8	(See 58)	GLASS PATTERN, Upper Door.....	2	38	1C-512	BOLT, Hinge Retaining.....	1
9	940416	STOP, L.H. Door.....	1	39	940512	WASHER, Hinge Retaining.....	1
10		WEATHERSTRIP, Lower Door		40	1C-526	BOLT, Ring Retaining.....	4
	940414	Glass.....	2	41	940422	RING, Door Hinge Clamping.....	1
11	(See 58)	GLASS PATTERN, Lower Door....	2	42		SLEEVE, Door Hinge Adjusting -	
12	(See 58)	GLASS PATTERN, Windshield.....	1		940421	L.H.....	1
13	940409	WEATHERSTRIP, Windshield.....	1	43	940420	RING, Door Hinge Mounting - L.H.	1
14	940424	DOOR, R.H. Panel.....	1	44	940419	ARM, Door Hinge - L.H.....	1
15	(See 58)	GLASS PATTERN, Rear Windshield	1	45	1C-516	BOLT, Hinge Arm Mounting - Short	4
16		WEATHERSEAL, Upper Rear		45A	1C-520	BOLT, Hinge Arm Mounting - Long	2
	940432	Windshield.....	1	46	940417	†SEAL, L.H. Door.....	1
17	940430	HINGE CHANNEL, Rear Windshield	1	47	940425	†SEAL, R.H. Door.....	1
18	940427	HINGE, Rear Windshield	1	48	940410	DOOR ASSY - L.H., Complete.....	1
19	940428	EVERSEAL, Upper Rear Windshield	1	49	940423	DOOR ASSY - R.H., Complete.....	1
20	*12D-10	NUT, Hinge Bolt.....	5	50		WINDSHIELD ASSY - Rear	
21	*3G-1010	BOLT, Hinge.....	5		940426	(Inc. 15 thru 25).....	1
22	NPN	SCREW, Hinge Channel to Frame....	2	51	2C-824	†BOLT, Cab to Frame.....	4
23		WEATHERSEAL, Rear Windshield		52	2C-828	†BOLT, Cab Hinge to Frame.....	2
	940433	Sides & Bottom.....	1	53	2D-08	†NUT, Cab & Hinge to Frame.....	6
24	940429	FRAME, Rear Windshield.....	1	54	4E-08	†LKWSHR, Cab & Hinge to Frame... 6	
25		WEATHERSEAL, Rear Windshield		55	2C-616	†BOLT, Cab to Front Shroud.....	4
	940439	Sides & Bottom.....	1	56	2D-06	†NUT, Cab to Front Shroud.....	4
26	24D-04	NUT, Throwout Arm to Bracket....	2	57	4E-06	†LKWSHR, Cab to Front Shroud....	4
27	25E-16	WASHER, Throwout Arm Spacer....	2	58		GLASS PATTERN KIT, Cab Glass	
					970033	(Inc. 5, 8, 11, 12, 15).....	1

*Quantity required this item for 75 Series and 85A Cab is 4.

**NOTE: When complete cab is ordered under these numbers, Orrville cabs will be furnished.

†Not Illustrated

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



CAB ASSEMBLY

TS-486-P

CAB ASSEMBLY

These cabs have been manufactured by two companies, Kidron Body Co. and Orrville Metal Specialty Co. Manufacturer can be identified by serial number stamped on serial number plate. Cabs manufactured by Kidron are prefixed with the letter "K," whereas cabs manufactured by Orrville are prefixed with the letter "O".

Cab serial number also includes machine model number. As an example, in serial number K-75-1, "K" indicates cab is manufactured by Kidron Body Co., 75 indicates it is used on model 75A or 85A, 1 is the cab serial number. If this serial number had been prefixed by the letter "O" such as O-75-1, "O" would indicate that it was manufactured by Orrville Metal Specialty Co.

Whenever parts are required for a cab, always determine manufacturer by checking serial number plate. Cab listings herein are separated by manufacturer.

ORRVILLE METAL SPECIALTY CABS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	551719	CAB ASSEMBLY (Inc. 1 thru 60)...	1	32	1C-516	BOLT, Plate Retaining.....	4
1	(See 61)	GLASS PATTERN, Upper Door.....	2	33	943565	PLATE, Door Hinge Bearing.....	1
2	940413	WEATHERSTRIP, Upper Door Glass	2	34	943619	BEARING, Door Hinge.....	1
3	943589	DOOR, R.H. Panel.....	1	35	943620	ARM, Door Hinge.....	1
4	940477	WEATHERSEAL, Curved Roof Glass	1	36	4E-05	LKWSHR.....	5
5	*940350	GLASS, Curved Roof.....	1	37	1C-512	BOLT, Bearing Retaining.....	1
6	(See A)	CAB.....	1	38	1C-520	SCREW, Door Hinge Arm.....	2
7		WEATHERSTRIP, Quarter Panel		39	1D-05	NUT, Door Hinge Arm.....	6
	940415	Glass.....	2	40	4E-05	LKWSHR, Door Hinge Arm.....	5
8	(See 61)	GLASS PATTERN, Quarter Panel.....	2	41	940416	STOP, L.H. Door.....	1
9	940438	WING BOLT, Throwout Arm.....	2	42	943586	DOOR, L.H. Panel.....	1
10	943601	HINGE CHANNEL, Rear Windshield	1	43	1C-510	BOLT, Door Hinge Arm.....	4
11	943604	HINGE, Upper Rear Windshield.....	1	44	943622	LOCK BOLT, R.H. Door.....	1
12	943607	EVERSEAL, Upper Rear Windshield	1	45	940409	WEATHERSTRIP, Windshield.....	1
13	12D-10	NUT, Hinge Bolt.....	5	46	(See 61)	GLASS PATTERN, Windshield.....	1
14	3G-1010	SCREW, Hinge.....	5	47	940414	WEATHERSTRIP, Lower Door Glass	2
15	18G-1008	SCREW, Hinge Channel to Cab.....	2	48	(See 61)	GLASS PATTERN, Lower Door.....	2
16		WEATHERSEAL, Upper Rear		49		WINDSHIELD ASSY, Rear	
	943598	Windshield.....	1		943592	(Inc. 15 thru 25).....	1
17	(See 61)	GLASS PATTERN, Rear Windshield	1	50	2C-824	†BOLT, Cab to Frame.....	4
18		WEATHERSEAL, Rear Windshield		51	2C-828	†BOLT, Cab Hinge to Frame.....	2
	943610	Sides & Bottom.....	1	52	2D-08	†NUT, Cab & Hinge to Frame.....	6
19	943613	FRAME, Rear Windshield.....	1	53	4E-08	†LKWSHR, Cab & Hinge to Frame...	6
20	24D-04	NUT, Throwout Arm to Bracket...	2	54	2C-616	†BOLT, Cab to Front Shroud.....	4
21	25E-12	WASHER, Throwout Arm Spacer...	2	55	2D-06	†NUT, Cab to Front Shroud.....	4
22	940434	BRACKET, Throwout Arm.....	2	56	4E-06	†LKWSHR, Cab to Front Shroud....	4
23	3G-1016	SCREW, Throwout Arm Bracket.....	4	57	943967	†SPONGE, Lower Door Opening.....	2
24	940436	ARM, Rear Windshield Throwout...	2	58	943970	†SPONGE, Upper Door Opening.....	2
25	4G-408	SCREW, Throwout Arm to Bracket...	2	59	943973	†SPONGE, Rear Window Upper Corner	2
26	4E-04	LKWSHR, Throwout Arm Bracket...	2	60	943974	†SPONGE, Rubber Cowl Top.....	1
27	12D-10	NUT, Throwout Arm Bracket.....	2	61		GLASS PATTERN KIT, Cab Glass	
28		WEATHERSEAL, Rear Windshield			943860	(Inc. 1, 8, 17, 46, 48).....	1
	943616	Sides & Bottom.....	1	62		DOOR ASSY - R.H. (Inc. 1, 2, 3,	
29	940437	BRACKET Throwout Arm.....	2		944017	44, 47, 48).....	1
30	12D-10	NUT, Throwout Arm Bracket.....	4	63		DOOR ASSY - L.H. (Inc. 1, 2, 41,	
31	3G-1010	SCREW, Throwout Arm Bracket.....	4		944016	42, 47, 48).....	1

*For 75 Series and 85A Cabs Serial 0-1 to 0-50 use 940406.

WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

