

MICHIGAN

PARTS MANUAL

No. 2083

MODEL 75 III TRACTOR SHOVEL

Information contained herein pertains to Machine Serial
Numbers listed below:

75 III G.M. — 7CG101 thru 7CG999

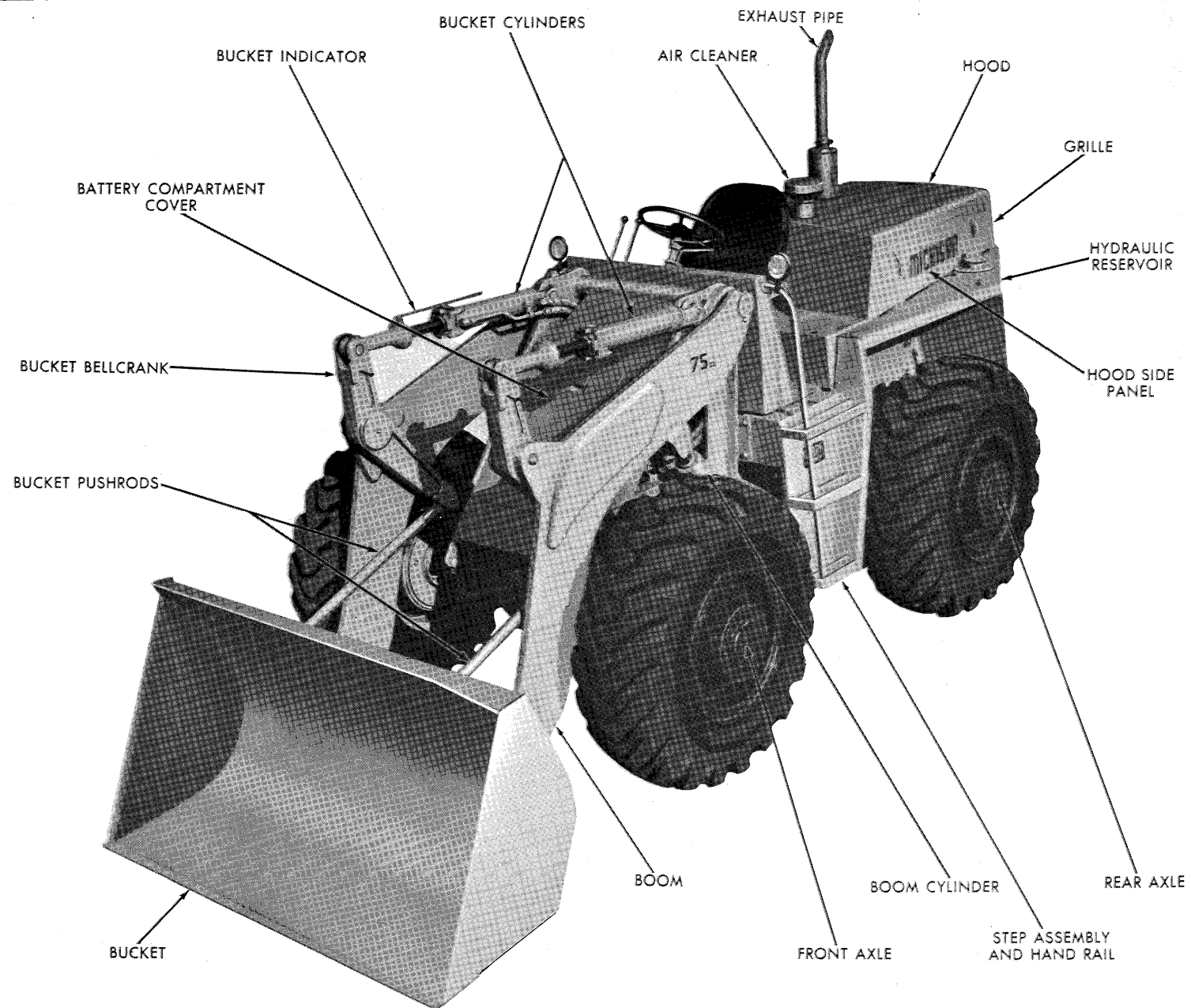
Data covering Machine Serial Ranges prefixed with designation
8CG, 9CG, etc., and machines powered with optional power plants
will be found contained in Supplements at rear of this Manual.

Record Your Machine
Serial Number Here



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





MODEL 75 III TRACTOR SHOVEL

TS-6765-P

WHEN ORDERING REPAIR PARTS

To assure the best results and to maintain the original quality built into the machine it is important that only Clark-Approved Parts be used when new parts are required.

IMPORTANT: Always furnish the distributor with the machine serial number when ordering parts.

Order through your nearest Clark Distributor, for THE MICHIGAN LINE.

Always give serial number of machine.

Furnish: Quantity, Part Number and Description.

WHEN PARTS ARE RECEIVED

Check immediately for quantity, correctness and condition.

Advise your Michigan Distributor of any error.

Claims for damages, during shipment, should be made to the carrier immediately.

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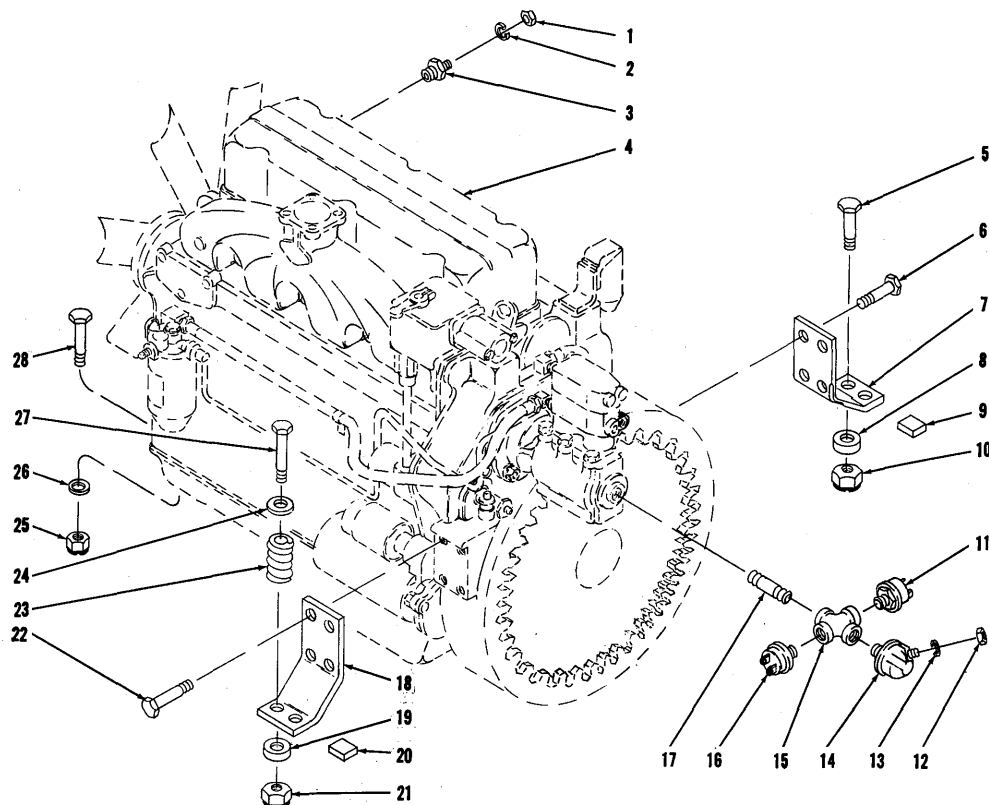
CONSTRUCTION MACHINERY DIVISION



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ENGINE AND ACCESSORIES

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 necessary group type number for the equipment required. This data is stamped on the options and accessories plate on the rocker cover of engine.



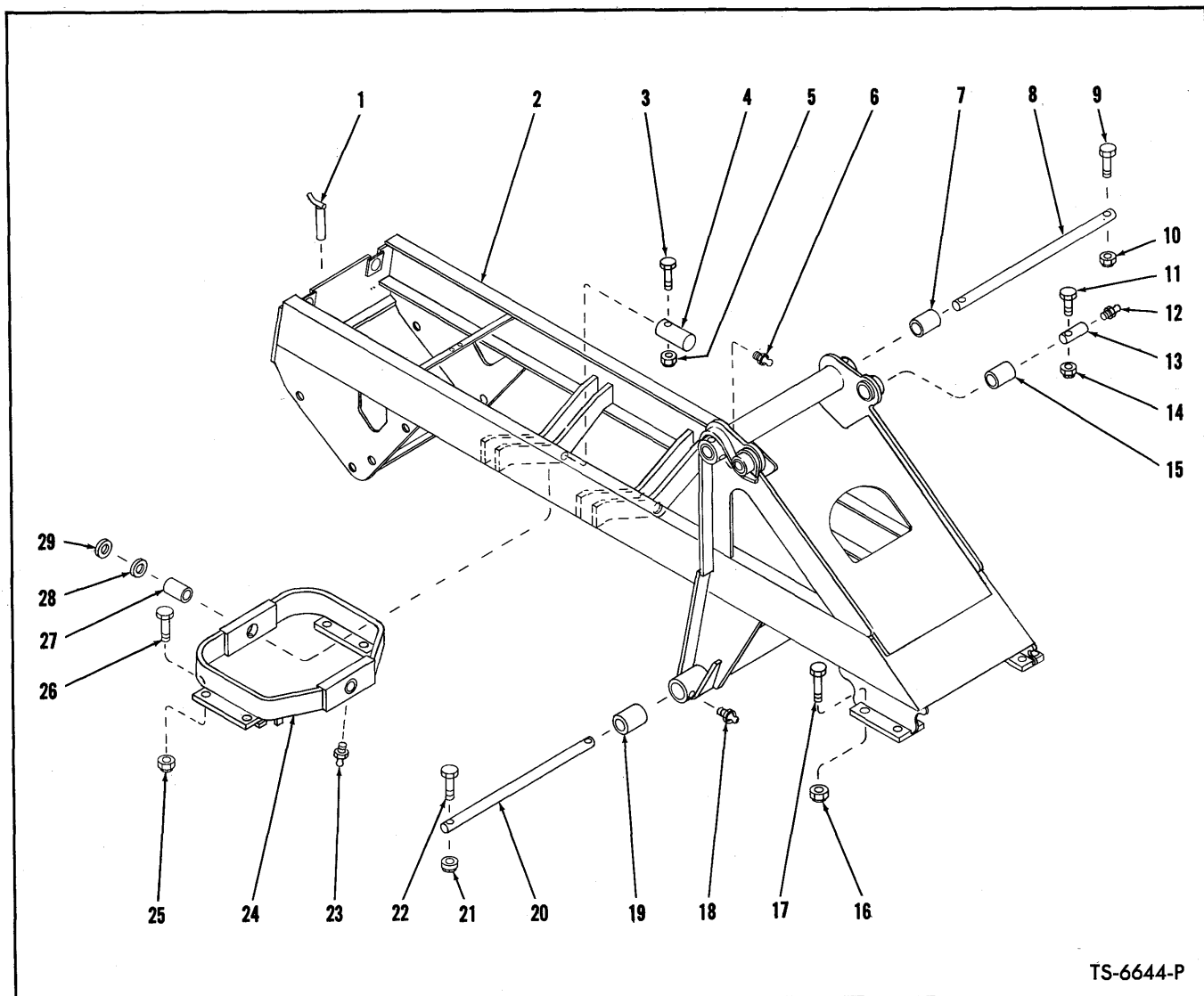
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ENGINE ACCESSORIES AND SUPPORT PARTS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	14D-10	NUT, Sender Unit	1	17	5K-106	NIPPLE, Cross to Engine	1
2	12E-10	LKWSHR, Sender Unit	1	18	570938	SUPPORT, Engine	1
3	551323	SENDER UNIT, Engine Temperature ..	1	19	71D-08	BASE, Support Mounting	2
4	—	ENGINE — See G.M. Engine Parts Manual	—	20	518624	BLOCK, Support Mounting — Welded to Frame Only	2
5	18C-836	BOLT, Support to Frame — L.H.	2	21	70D-08	NUT, Support to Frame	2
6	8C-824	BOLT, Support to Engine	4	22	8C-824	BOLT, Support to Engine	4
7	570938	SUPPORT, Engine	1	23	570935	SPRING, Engine Mounting—R.H. Only ..	2
8	71D-08	BASE, Support Mounting	2	24	616792	WASHER, Engine Mounting — R.H. Only	2
9	518624	BLOCK, Support Mounting — Welded to Frame Only	2	25	18D-08	NUT, Engine Trunnion to Frame	2
10	70D-08	NUT, Support to Frame	2	26	619029	WASHER, Engine Trunnion to Frame ..	2
11	636260	SWITCH, Hourmeter Pressure	1	27	18C-864	BOLT, Support to Frame — R.H.	2
12	14D-10	NUT, Sender Unit	1	28	18C-832	BOLT, Engine Trunnion to Frame	2
13	12E-10	LKWSHR, Sender Unit	1	29	1621888	† VOLTAGE REGULATOR	1
14	940643	SENDER UNIT, Engine Oil Pressure	1	30	18C-424	† BOLT, Regulator to Air Cleaner Bracket	3
15	21F-1	CROSS, Connecting	1	31	18D-04	† NUT, Regulator to Air Cleaner Bracket ..	3
16	636260	SWITCH, Voltage Regulator Pressure ..	1				

†Not Illustrated

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



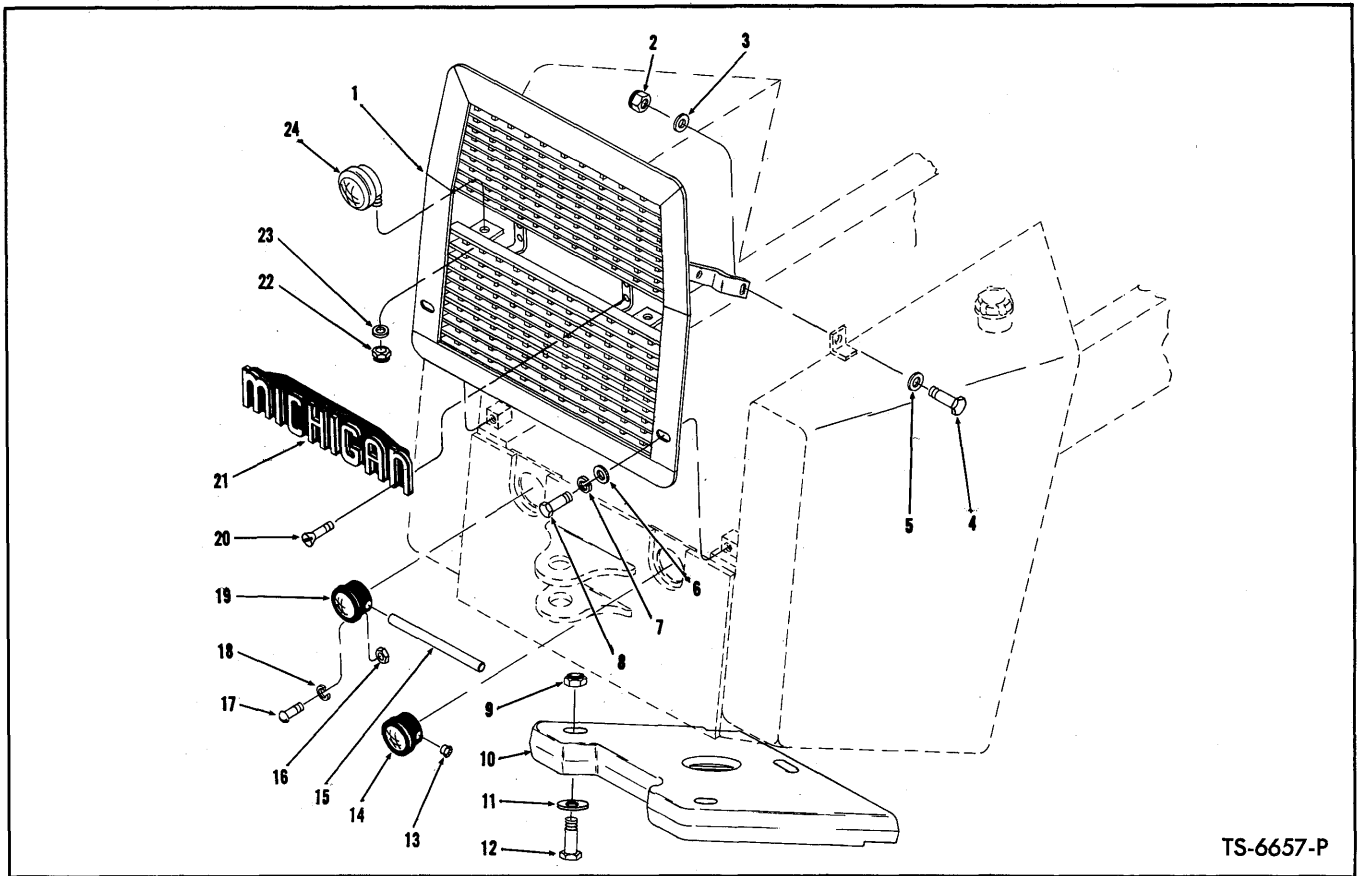
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FRAME AND CRADLE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	549988	PIN ASSY, Drawbar	1	16	68D-12	NUT, Front Axle to Frame	8
2	570863	FRAME ASSY (Inc. 7, 15, 19)	1	17	24C-12144	BOLT, Front Axle to Frame	8
3	18C-856	BOLT, Pin Retaining	2	18	10H-25	FITTING, Lower Pivot Tube Grease	2
4	536100	PIN, Cradle Pivot	2	19	564129	BUSHING, Lower Pivot Tube	2
5	18D-08	NUT, Pin Retaining	2	20	587960	SHAFT, Cylinder Pivot	1
6	10H-25	FITTING, Upper Pivot Tube Grease	2	21	18D-08	NUT, Pivot Shaft Retaining	2
7	564126	BUSHING, Upper Pivot Tube	2	22	18C-872	BOLT, Pivot Shaft Retaining	2
8	571022	SHAFT, Boom Pivot — Upper	1	23	10H-25	FITTING, Cradle Pin Grease	2
9	18C-880	BOLT, Pivot Shaft Retaining	2	24	564137	CRADLE ASSY, Rear Axle (Inc. 27)	1
10	18D-08	NUT, Pivot Shaft Retaining	2	25	68D-12	NUT, Rear Axle to Cradle	8
11	18C-880	BOLT, Pivot Pin Retaining	2	26	18C-1252	BOLT, Rear Axle to Cradle	8
12	10H-25	FITTING, Pivot Pin Grease	2	27	538585	BUSHING, Cradle Pivot	2
13	556960	PIN, Bucket Cylinder Pivot	2	28	551348	‡SHIM, Cradle to Frame	—
14	18D-08	NUT, Pivot Pin Retaining	2	29	551347	‡SHIM, Cradle to Frame	—
15	585007	BUSHING, Upper Pivot	2				

‡As Required

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



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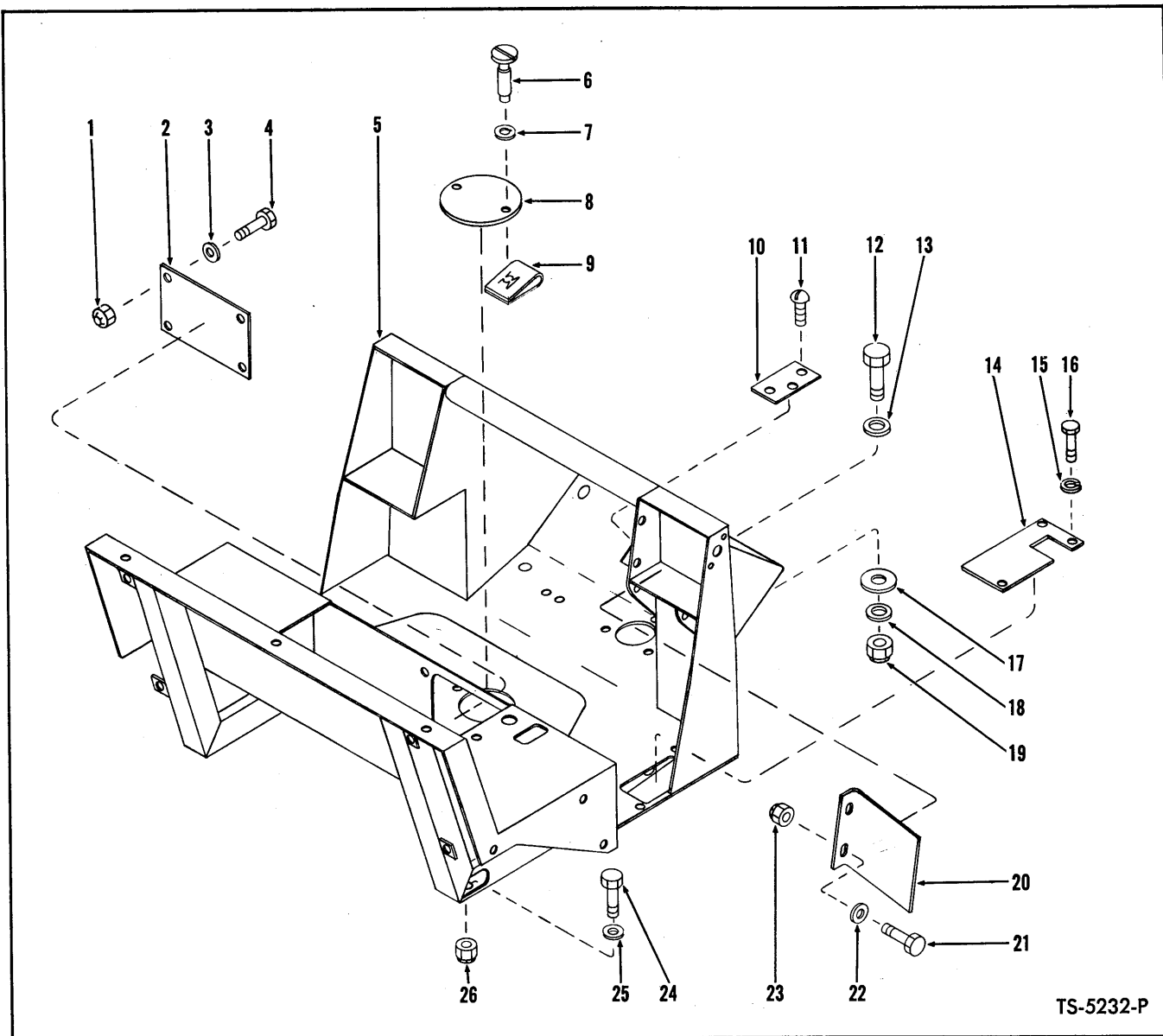
GRILLE AND COUNTERWEIGHT

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	563881	GRILLE ASSY, Rear	1	14B	942746	†BULB, Tail & Stop Lamp	1
2	18D-08	NUT, Grille to Tank	2	15	566849	CONDUIT, Tail & Stop Lamp Wire Protector	1
3	619029	WASHER, Grille to Tank	2	16	14D-10	NUT, Lamp Mounting	6
4	18C-824	BOLT, Grille to Tank	2	17	2G-1012	SCREW, Lamp Mounting	6
5	619029	WASHER, Grille to Tank	2	18	17E-10	LKWSHR, Lamp Mounting	6
6	619029	WASHER, Grille to Frame	2	19	562641	LAMP ASSY, Tail & Stop — L.H. (Inc. 19A)	1
7	4E-08	LKWSHR, Grille to Frame	2	19A	1103680	†LENS, Tail Lamp	1
8	18C-816	BOLT, Grille to Frame	2	19B	942746	†BULB, Tail & Stop Lamp	1
9	18D-02	*NUT, Counterweight to Frame	3	20	44G-418	SCREW, Name Plate to Grille	4
10	1520287	COUNTERWEIGHT	1	21	564011	NAME PLATE, Michigan	1
11	590499	*WASHER, Counterweight to Frame	3	22	17D-6	NUT, Back-Up Lamp Mounting	2
12	24C-12168	BOLT, Counterweight to Frame	2	23	584092	WASHER, Back-Up Lamp Mounting	2
12A	24C-1296	*†BOLT, Counterweight to Frame	1	24	547529	LAMP ASSY, Back-Up (Inc. 25)	2
13	1010736	PLUG, Lamp — R.H. Only	1	25	944907	†SEALED UNIT, Head Lamp	2
14	562641	LAMP ASSY, Tail & Stop — R.H. (Inc. 14A)	1	26	509320	†SPACER, Back-Up Lamp	2
14A	1103680	†LENS, Tail Lamp	1				

*NOTE: Optional Equipment — Not furnished with machine.

†Not Illustrated

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



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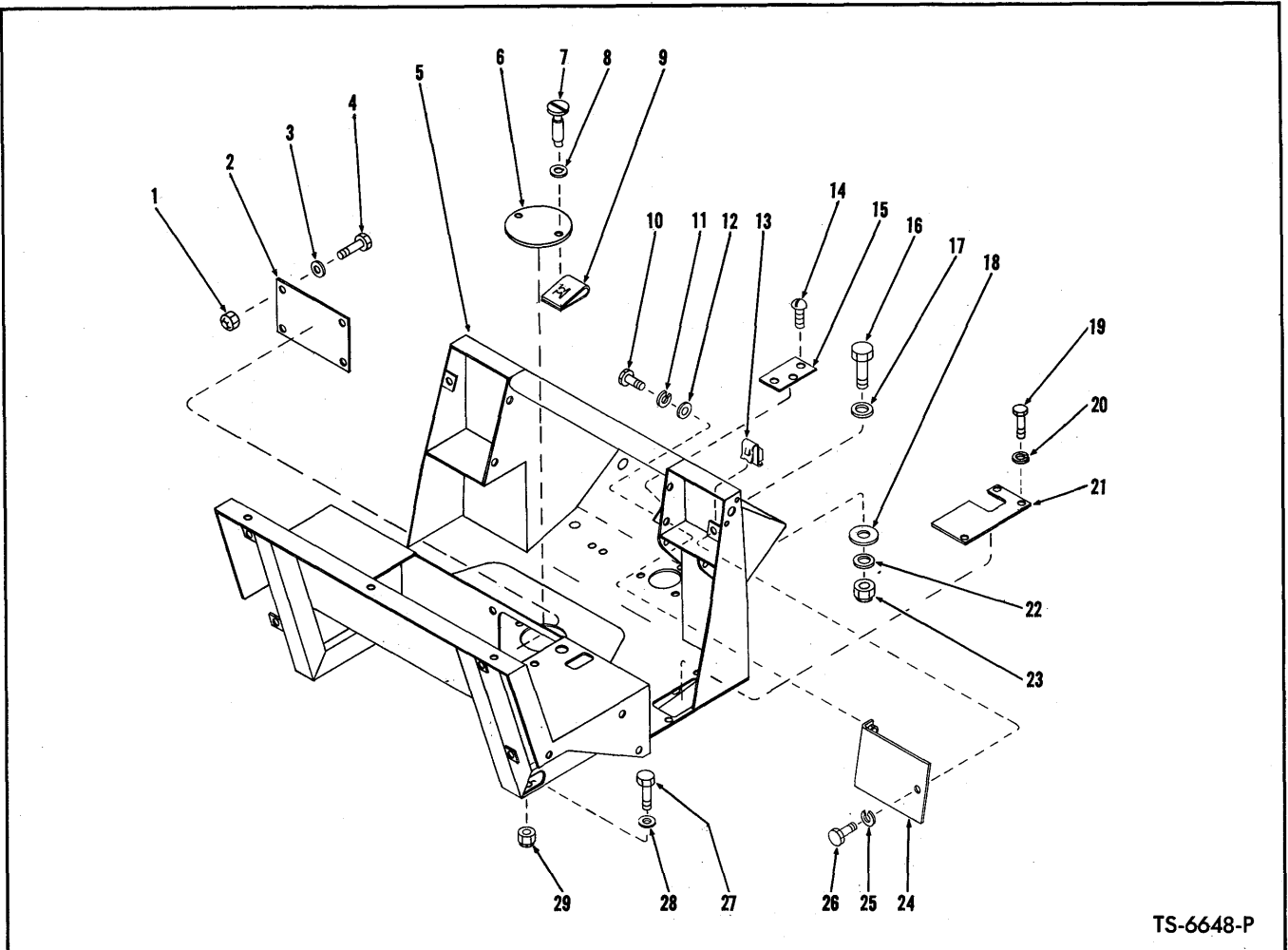
COCKPIT AND INSPECTION PLATES

For Serial 7CG101 thru 7CG196

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-04	NUT, Cover Plate Mounting	4	14	566458	PLATE, Valve Levers Cover	1
2	557057	PLATE, Heater Cover	1	15	4E-06	LKWSHR, Cover Plate Mounting	3
3	664421	WASHER, Cover Plate Mounting	4	16	18C-612	BOLT, Cover Plate Mounting	3
4	18C-412	BOLT, Cover Plate Mounting	4	17	616798	‡SPACER, Cockpit Mounting	—
5	588021	COCKPIT	1	18	619029	WASHER, Cockpit Mounting	1
6	568829	SCREW, Cover Mounting	2	19	18D-08	NUT, Cockpit Mounting	1
7	1612583	WASHER, Cover Mounting	2	20	589991	PLATE, Panel — R.H.	1
8	568828	COVER, Transmission Check (Inc. 6, 7)	1	21	18C-616	BOLT, Plate Mounting	2
9	568830	NUT, Cover Mounting	2	22	619024	WASHER, Plate Mounting	2
10	566649	PLATE, Steer Cover	1	23	18D-06	NUT, Plate Mounting	2
11	18G-806	SCREW, Cover Plate Mounting	3	24	18C-824	BOLT, Cockpit Mounting	4
12	18C-832	BOLT, Cockpit Mounting	1	25	619029	WASHER, Cockpit Mounting	8
13	619029	WASHER, Cockpit Mounting	1	26	18D-08	NUT, Cockpit Mounting	4

‡As Required

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



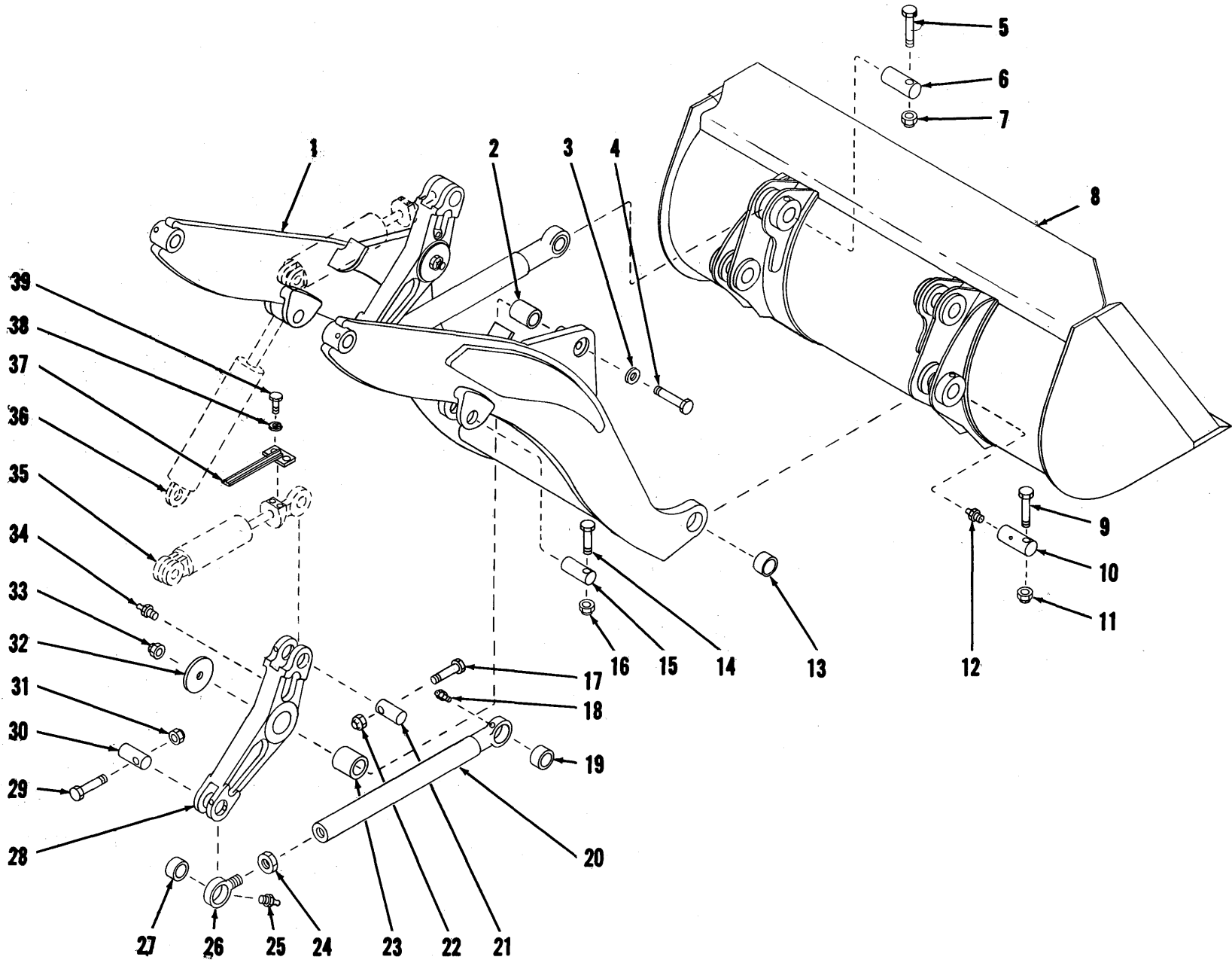
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COCKPIT AND INSPECTION PLATES.**For Serial 7CG197 and Thereafter**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-04	NUT, Cover Plate Mounting	4	16	18C-832	BOLT, Cockpit Mounting	1
2	557057	PLATE, Heater Cover	1	17	619029	WASHER, Cockpit Mounting	1
3	664421	WASHER, Cover Plate Mounting	4	18	616798	‡ SPACER, Cockpit Mounting	—
4	18C-412	BOLT, Cover Plate Mounting	4	19	17C-612	BOLT, Cover Plate Mounting	3
5	588021	COCKPIT	1	20	4E-06	LKWSHR, Cover Plate Mounting	3
6	568828	COVER, Transmission Check (Inc. 7, 8)	1	21	569912	PLATE, Valve Levers Mounting	1
7	568829	SCREW, Cover Mounting	2	22	619029	WASHER, Cockpit Mounting	1
8	1612583	WASHER, Cover Mounting	2	23	18D-08	NUT, Cockpit Mounting	1
9	568830	NUT, Cover Mounting	2	24	574026	PLATE, Panel — R.H.	1
10	17C-616	BOLT, Plate Mounting	2	25	4E-06	LKWSHR, Plate Mounting	1
11	4E-06	LKWSHR, Plate Mounting	2	26	17C-616	BOLT, Plate Mounting	1
12	656672	WASHER, Plate Mounting	2	27	18C-828	BOLT, Cockpit Mounting	4
13	572729	NUT, Plate Mounting	1	28	619029	WASHER, Cockpit Mounting	8
14	18G-806	SCREW, Cover Plate Mounting	3	29	18D-08	NUT, Cockpit Mounting	4
15	566649	PLATE, Steer Cover	1				

‡As Required

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



BUCKET, INDICATOR, BOOM, BELLCRANKS AND PUSHRODS

TS-6639-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

BUCKET, INDICATOR, BOOM, BELLCRANKS AND PUSHRODS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	587832	BOOM ASSY (Inc. 2, 13)	1	22	18D-08	NUT, Pin Retaining	2
2	589023	BUSHING, Bellcrank Pivot	2	23	542031	BUSHING, Bellcrank	2
3	664428	WASHER, Bellcrank Mounting	2	24	8D-24	NUT, Eye Jam	2
4	24C-12120	BOLT, Bellcrank to Boom	2	25	10H-25	FITTING, Eye Grease	2
5	18C-864	BOLT, Pin Retaining	2	26	570850	EYE ASSY — Pushrod (Inc. 27)	2
6	542631	PIN, Pushrod to Bucket	2	27	587908	BUSHING, Pushrod Eye	2
7	18D-08	NUT, Pin Retaining	2	28		BELLCRANK ASSY (Inc. 23)	
8	—	BUCKET — See Chart Below	—	28A	570210	RIGHT HAND	1
9	18C-880	BOLT, Pin Retaining	2	28B	570211	LEFT HAND	1
10	568483	PIN, Boom to Bucket	2	29	18C-672	BOLT, Pin Retaining	2
11	18D-08	NUT, Pin Retaining	2	30	587901	PIN, Bellcrank to Pushrod	2
12	10H-25	FITTING, Pin Grease	2	31	18D-06	NUT, Pin Retaining	2
X 13	568482	BUSHING, Boom Arm <i>innere Schmierung</i>	2	32	557117	WASHER, Bellcrank Mounting	2
14	18C-656	BOLT, Pin Retaining	2	33	18D-12	NUT, Bellcrank to Boom	2
15	514921	PIN, Boom Cylinder to Boom	2	34	12H-25	FITTING, Bellcrank Grease	2
16	18D-06	NUT, Pin Retaining	2	35	—	BUCKET CYLINDER — See Index	—
17	18C-872	BOLT, Pin Retaining	2	36	—	BOOM CYLINDER — See Index	—
18	10H-25	FITTING, Pushrod Grease	2	37	573551	INDICATOR, Bucket	1
19	587908	BUSHING, Pushrod	2	38	4E-06	LKWSHR, Indicator to Bucket Cylinder	2
20	570846	PUSHROD ASSY (Inc. 19)	2	39	18C-620	BOLT, Indicator to Bucket Cylinder	2
21	587900	PIN, Bucket Cylinder to Bellcrank	2				

X 1522723 Bushing *äußere Schmierung 2*

BUCKET ASSEMBLY DATA — STANDARD

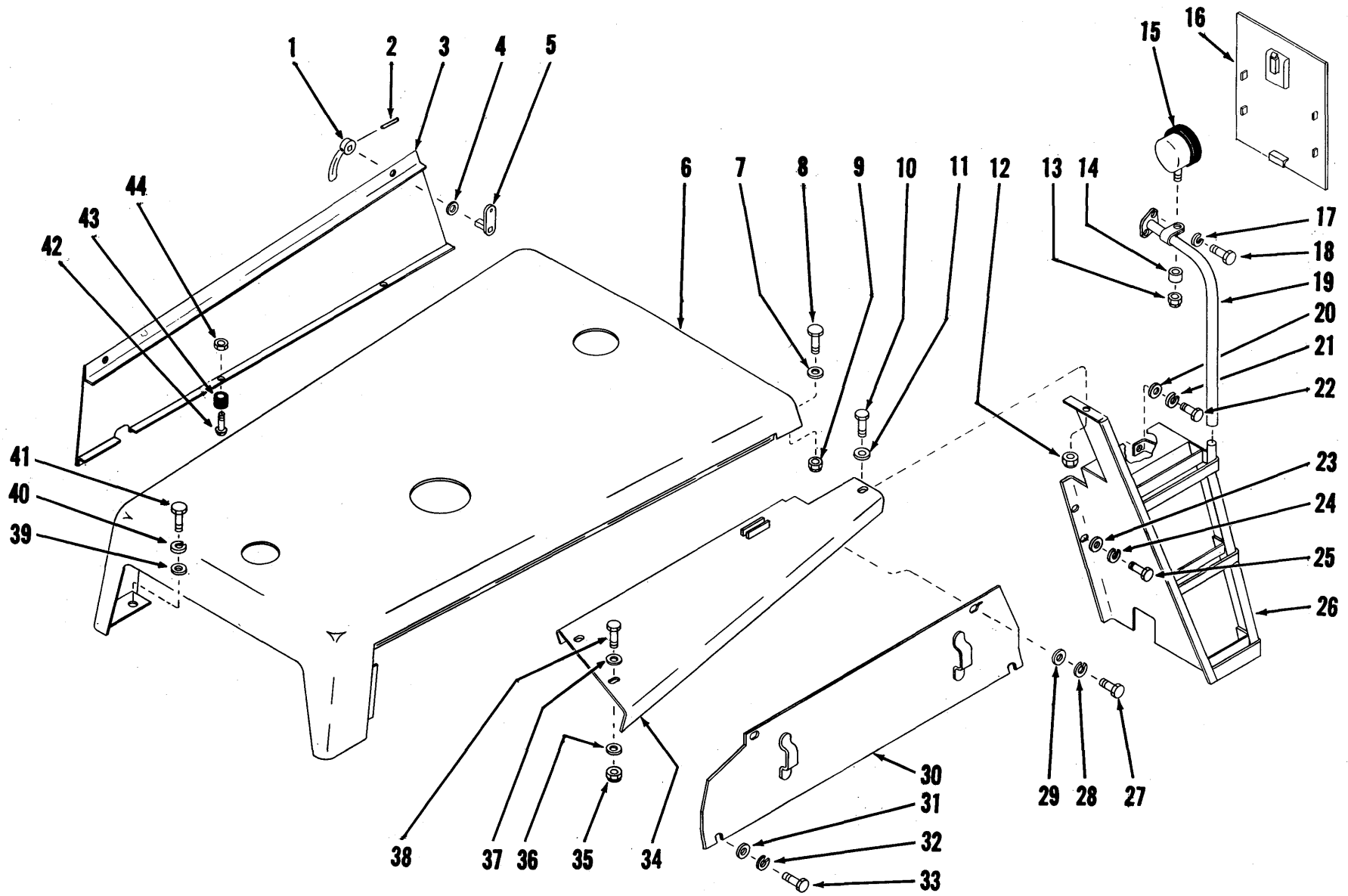
BUCKET			MAIN CUTTING EDGE			SIDE CUTTING EDGE			
Width	Capacity	Part No.	Part No.	Size	Approx. Weight	R.H. Part No.	L.H. Part No.	Size	Approx. Weight
90"	1 $\frac{3}{4}$ cu. yd.	570102	544657	1 x 9 x 91	204	570108	570110	* $\frac{3}{4}$ x 6 x 42 $\frac{3}{8}$	43

*NOTE: $\frac{3}{4}$ " x 6" x 10" Segments are available for above side cutting edges 572141 R.H. and 572142 L.H. — Approximate weight 10 lbs.

BUCKET TEETH DATA

REPLACEABLE TOOTH ASSY NO. 1" Thick Cutting Edge	REPLACEABLE TIP NO.	REPLACEABLE TIP PIN NO.
562662	562663	562664

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



HOOD, COVER, PANELS, FENDERS AND STEPS

TS-6664-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

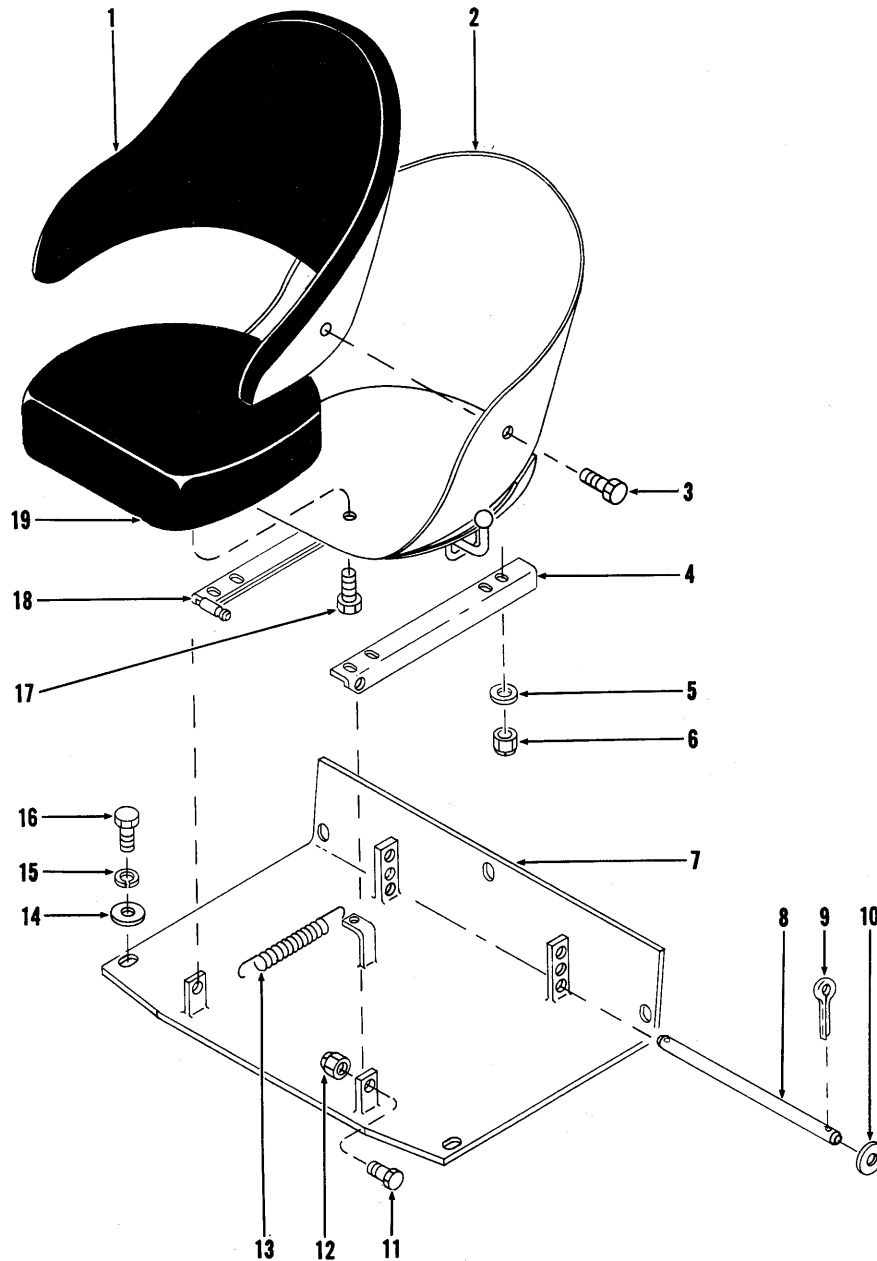
HOOD, COVER, PANELS, FENDERS AND STEPS

Item No.	Part No.	Description	No. Req'd.
1	142396	KIT, Handle (Inc. 2, 4, 5)	4
2	730432	PIN, Handle Roll	4
3		PANEL, Side (Inc. 1, 2, 4, 5, 42, 43, 44)	
3A	571646	LEFT HAND	1
3B	571645	†RIGHT HAND	1
4	-----	§SPACER, Shaft	—
5	-----	§SHAFT, Handle	—
6	556323	HOOD	1
7	619029	WASHER, Hood to Cockpit	2
8	18C-820	BOLT, Hood to Cockpit	2
9	18D-08	NUT, Hood to Cockpit	2
10	18C-824	BOLT, Fender to Step	2
11	619029	WASHER, Fender to Step	2
12	18D-08	NUT, Fender to Step	2
13	17D-6	NUT, Head Lamp Mounting	2
14	509320	SPACER, Head Lamp Mounting	2
15	547529	LAMP ASSY, Head (Inc. 15A)	2
15A	944907	†SEALED UNIT, Head Lamp	2
16	566764	COVER ASSY, Front	1
17	4E-06	LKWSHR, Hand Rail to Cockpit	4
18	17C-620	BOLT, Hand Rail to Cockpit	4
19		HAND RAIL	
19A	563980	RIGHT HAND	1
19B	563981	†LEFT HAND	1
19C	563994	CLAMP, Head Lamp to Hand Rail	2
20	619029	WASHER, Step to Frame	2
21	4E-08	LKWSHR, Step to Frame	2
22	18C-816	BOLT, Step to Frame	2
23	619029	WASHER, Step to Frame	4
24	4E-08	LKWSHR, Step to Frame	4
25	18C-816	BOLT, Step to Frame	4
26		STEP ASSEMBLY	
26A	556691	RIGHT HAND	1
26B	556692	†LEFT HAND	1
27	18C-812	BOLT, Panel to Fender	4
28	4E-08	LKWSHR, Panel to Fender	4
29	619029	WASHER, Panel to Fender	4
30		SIDE PANEL	
30A	563928	RIGHT HAND	1
30B	563929	†LEFT HAND	1
31	619029	WASHER, Panel to Frame	4
32	4E-08	LKWSHR, Panel to Frame	4
33	18C-812	BOLT, Panel to Frame	4
34		FENDER	
34A	557847	RIGHT HAND	1
34B	557848	†LEFT HAND	1
35	18D-08	NUT, Fender to Tank	4
36	619029	WASHER, Fender to Tank	4
37	619029	WASHER, Fender to Tank	4
38	18C-824	BOLT, Fender to Tank	4
39	619029	WASHER, Hood to Tank	2
40	4E-08	LKWSHR, Hood to Tank	2
41	18C-816	BOLT, Hood to Tank	2
42	3G-1008	SCREW, Side Panel Mounting	4
43	551433	BUMPER, Side Panel Mounting	4
44	12D-10	NUT, Side Panel Mounting	4

†Not Illustrated

‡As Required

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

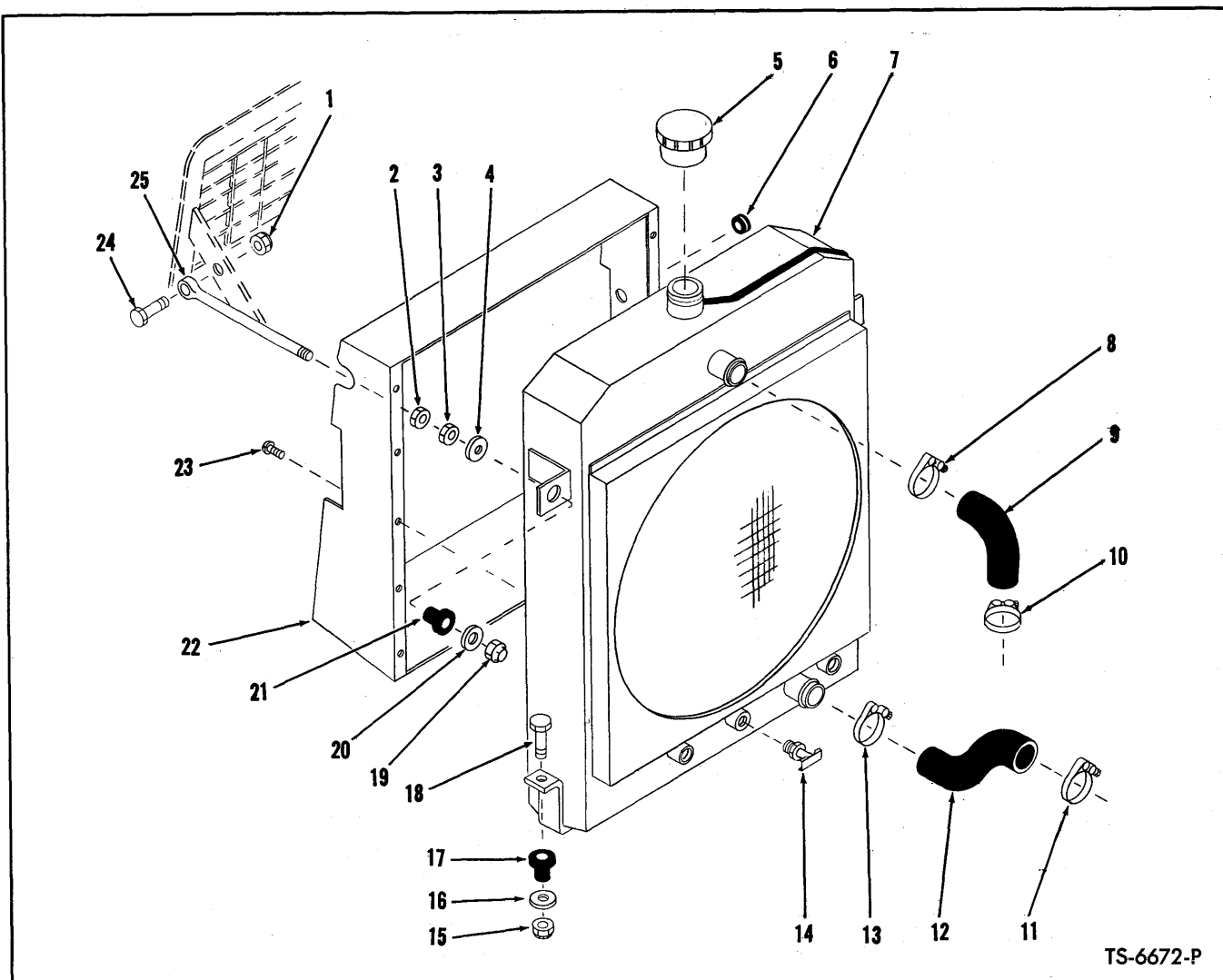


TS-5233-P

SEAT AND SUPPORT GROUP

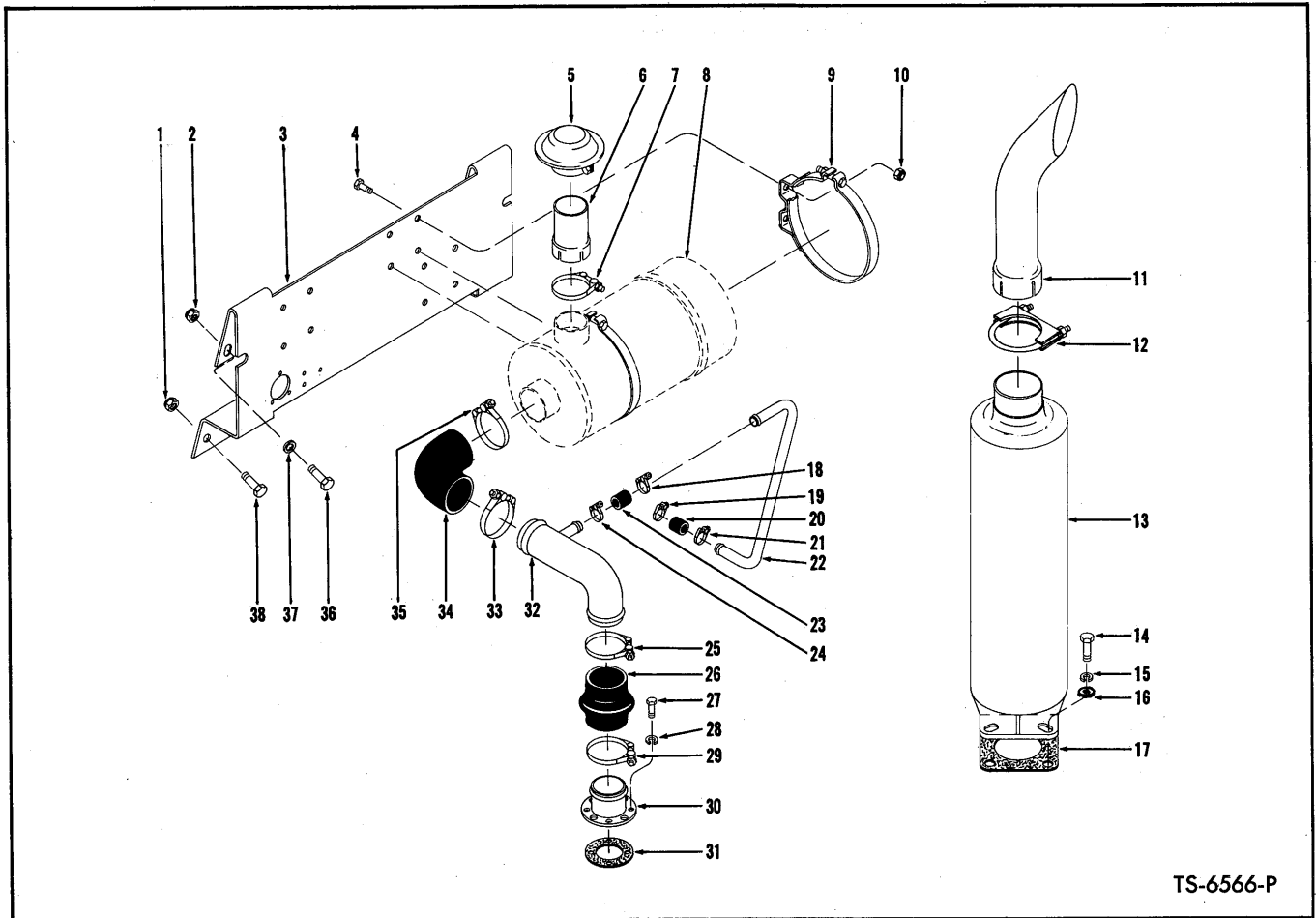
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	546687	SEAT ASSY, Bucket (Inc. 1, 2, 3, 17, 19)	1	10	619029	WASHER, Mounting Bar	2
1	944981	CUSHION, Back Rest	1	11	18C-824	BOLT, Angle to Support	2
2	944982	BUCKET, Seat	1	12	18D-08	NUT, Angle to Support	2
3	1C-610	BOLT, Cushion Mounting	3	13	550301	SPRING, Angle	1
4	558779	ANGLE, L.H. Seat Mount	1	14	619029	WASHER, Support to Cockpit	5
5	619019	WASHER, Seat Mounting	4	15	4E-08	LKWSHR, Support to Cockpit	5
6	18D-05	NUT, Seat Mounting	4	16	17C-820	BOLT, Support to Cockpit	5
7	557455	SUPPORT, Seat	1	17	1C-610	BOLT, Cushion Mounting	1
8	557458	BAR, Seat Mounting	1	18	558777	ANGLE, R.H. Seat Mount	1
9	1F-420	COTTER, Mounting Bar	2	19	944499	CUSHION, Seat	1

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

**RADIATOR AND CONNECTIONS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-08	NUT, Rod to Grille	2	13	540108	CLAMP, Hose	1
2	8D-08	NUT, Rod Jam	2	14	73F-2	DRAIN COCK, Radiator	1
3	8D-08	NUT, Rod Jam	2	15	18D-08	NUT, Radiator to Frame	2
4	584502	WASHER, Rod Mounting	2	16	584502	WASHER, Radiator to Frame	2
5	351495	CAP, Radiator	1	17	584501	MOUNT, Radiator to Frame	2
6	585950	GROMMET, Radiator Shroud	1	18	18C-836	BOLT, Radiator to Frame	2
7	564003	RADIATOR ASSY (Inc. 5, 7A)	1	19	18D-08	NUT, Rod Mounting	2
7A	945460	HOSE, Overflow	1	20	584502	WASHER, Rod Mounting	2
8	540266	CLAMP, Hose	1	21	584501	MOUNT, Rod to Radiator	2
9	564005	HOSE, Upper Radiator	1	22	563889	SHROUD, Radiator	1
10	540266	CLAMP, Hose	1	23	18G-806	SCREW, Shroud to Radiator	10
11	540108	CLAMP, Hose	1	24	18C-828	BOLT, Rod to Grille	2
12	564006	HOSE, Lower Radiator	1	25	570499	ROD, Radiator to Grille	2

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



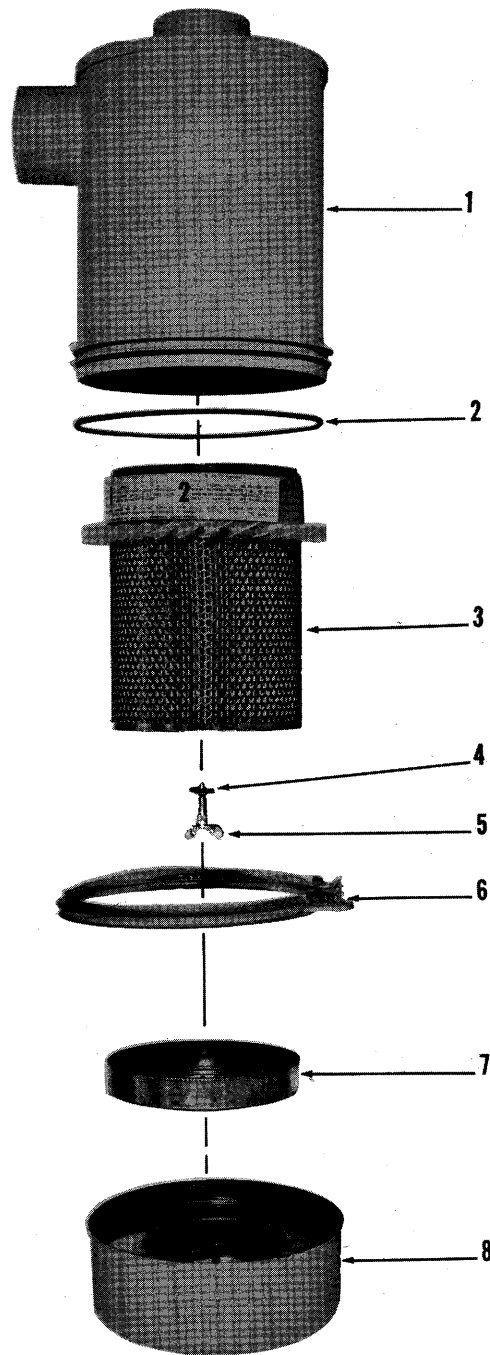
TS-6566-P

MUFFLER, TAIL PIPE AND AIR CLEANER CONNECTIONS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-08	NUT, Bracket to Cockpit	2	20	509711	HOSE, Tube to Air Compressor	1
2	18D-08	NUT, Bracket to Cockpit	2	21	540103	CLAMP, Hose	1
3	589826	BRACKET, Air Cleaner Mounting	1	22	589352	TUBE, Compressor Intake	1
4	18C-616	BOLT, Air Cleaner to Bracket	4	23	509711	HOSE, Tube to Tube	1
5	568391	CAP, Air Inlet	1	24	540103	CLAMP, Hose	1
6	543573	EXTENSION, Air Inlet	1	25	539042	CLAMP, Hose	1
7	543531	CLAMP, Extension to Air Cleaner	1	26	515424	HOSE, Tube to Adapter	1
8	-----	AIR CLEANER — See Index	—	27	17C-516	BOLT, Adapter to Engine	4
9	420945	BAND, Air Cleaner Mounting	2	28	4E-05	LKWSHR, Adapter to Engine	4
10	18D-06	NUT, Air Cleaner to Bracket	4	29	539042	CLAMP, Hose	1
10A	619029	† WASHER, Air Cleaner to Bracket	2	30	527095	ADAPTER, Air Intake	1
11	547585	TAIL PIPE	1	31	527096	GASKET, Adapter to Engine	1
12	660738	CLAMP, Tail Pipe to Muffler	1	32	589791	TUBE, Air Intake	1
13	568806	MUFFLER	1	33	539042	CLAMP, Hose	1
14	17C-620	BOLT, Muffler to Engine	4	34	515425	ELBOW, Tube to Air Cleaner	1
15	4E-06	LKWSHR, Muffler to Engine	4	35	539042	CLAMP, Hose	1
16	656672	WASHER, Muffler to Engine	4	36	18C-824	BOLT, Bracket to Cockpit	2
17	509303	GASKET, Muffler to Engine	1	37	619029	WASHER, Bracket to Cockpit	2
18	540103	CLAMP, Hose	1	38	18C-824	BOLT, Bracket to Cockpit	2
19	540103	CLAMP, Hose	1				

†Not Illustrated

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



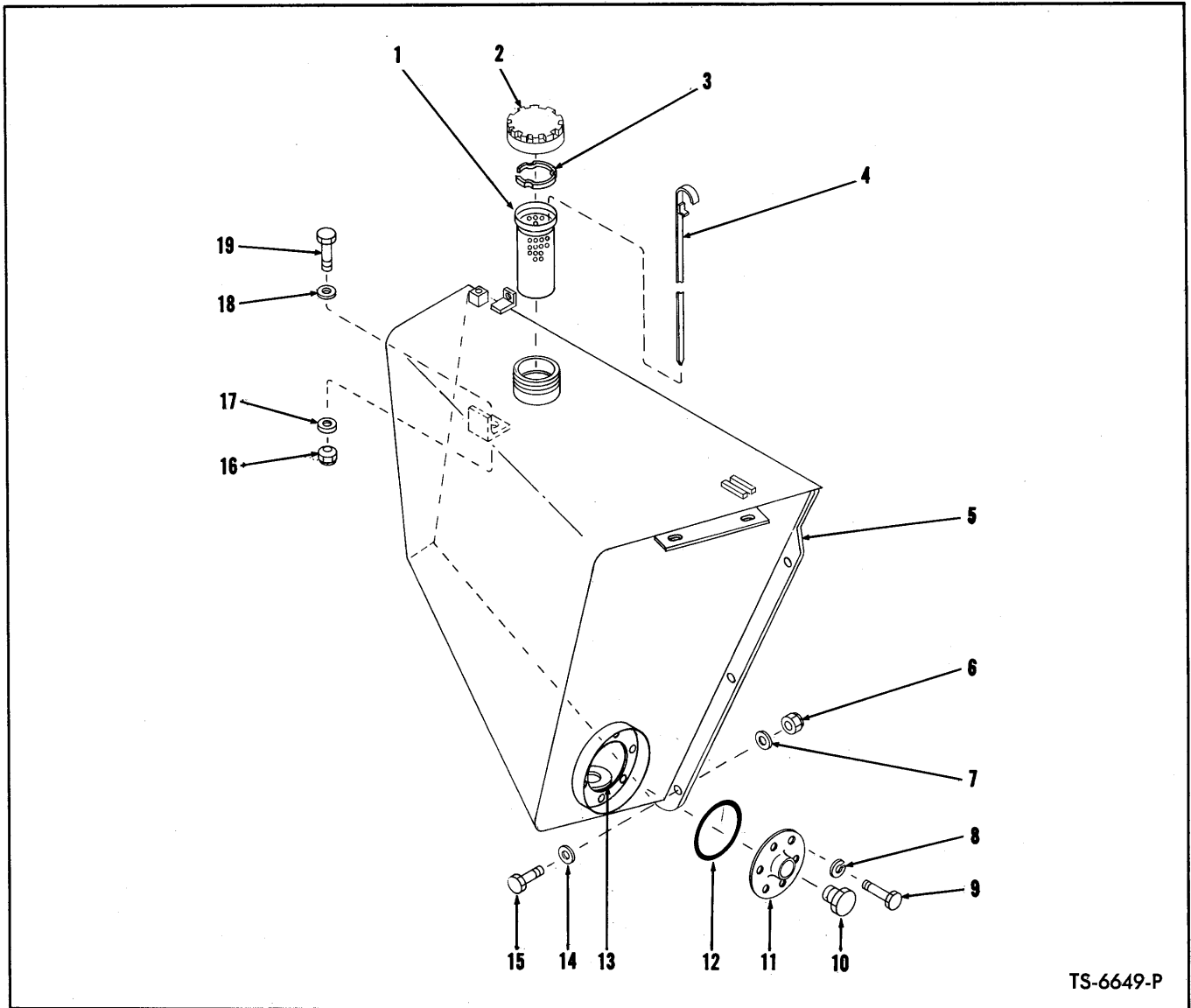
TS-5266-P

AIR CLEANER ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1632441	AIR CLEANER ASSY (Inc. 1 thru 8)	1	5	886285	BOLT, Element Attaching	1
1	—	§BODY, Air Cleaner — See Item A	—	6	944955	CLAMP, Dust Cover	1
2	886288	GASKET, Air Cleaner	1	7	894653	BAFFLE	1
3	944954	ELEMENT	1	8	894652	CUP, Dust	1
4	886287	WASHER, Element Attaching	1				

§Not Sold Separately

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

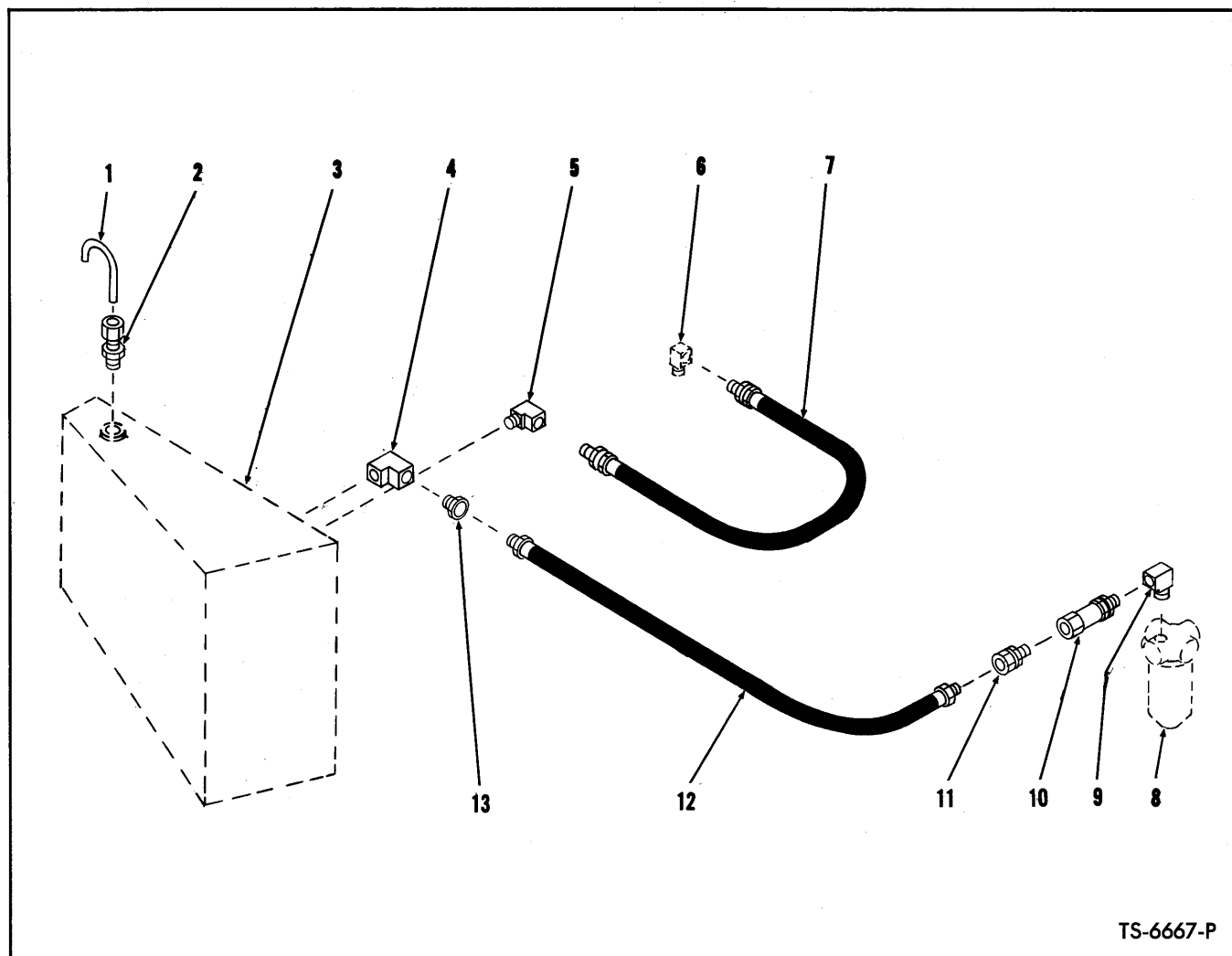


TS-6649-P

FUEL TANK

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	943957	STRAINER, Fuel Tank	1	11	587613	PLATE, Inspection	1
2	556655	CAP, Fuel Tank	1	12	25K-40428	"O" RING, Inspection Plate	1
3	569914	RING, Cap Retaining	1	13	525293	MAGNET	1
4	567864	DIPSTICK	1	14	616813	WASHER, Fuel Tank to Side Plate	5
5	589200	FUEL TANK	1	15	18C-1244	BOLT, Fuel Tank to Side Plate	5
6	18D-12	NUT, Fuel Tank to Side Plate	5	16	70D-12	NUT, Tank to Frame	1
7	616813	WASHER, Fuel Tank to Side Plate	5	17	71D-12	BASE, Tank to Frame	1
8	4E-06	LKWSHR, Inspection Plate to Tank	6	18	616813	WASHER, Tank to Frame	1
9	18C-612	BOLT, Inspection Plate to Tank	6	19	18C-1244	BOLT, Tank to Frame	1
10	40K-16	PLUG, Drain	1				

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



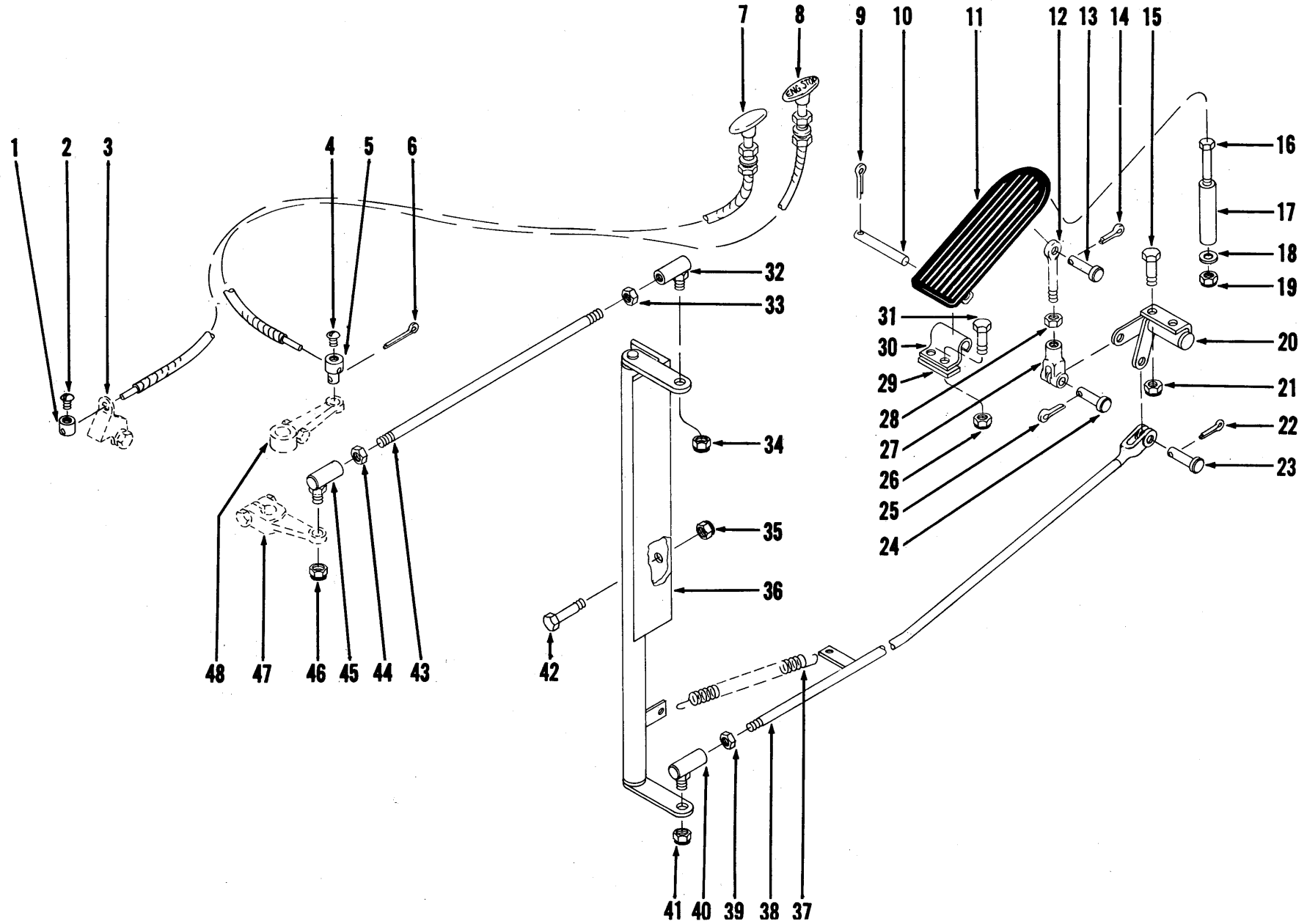
TS-6667-P

FUEL LINES

Item No.	Part No.	Description	No. Req'd.
1	567847	TUBE, Breather	1
2	49F-3	CONNECTOR, Tube to Tank	1
3	—	FUEL TANK-See Index	—
4	27F-3	ELBOW, Hose to Tank	1
5	62F-5	ELBOW, Hose to Tank	1
6	—	*MANIFOLD, Injector Drain	—
7	563903	HOSE, Fuel Return	1
8	—	*FILTER, Fuel	—
9	29F-1	ELBOW, Filter	1
10	531792	VALVE, Check	1
11	36F-2	ADAPTER UNION, Valve to Hose	1
12	610236	HOSE, Fuel Suction	1
13	19F-5	BUSHING, Tank Reducing	1

*NOTE: See your local authorized G.M. Distributor for service and replacement of these parts.

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



ACCELERATOR PEDAL AND LINKAGE

TS-6565-P



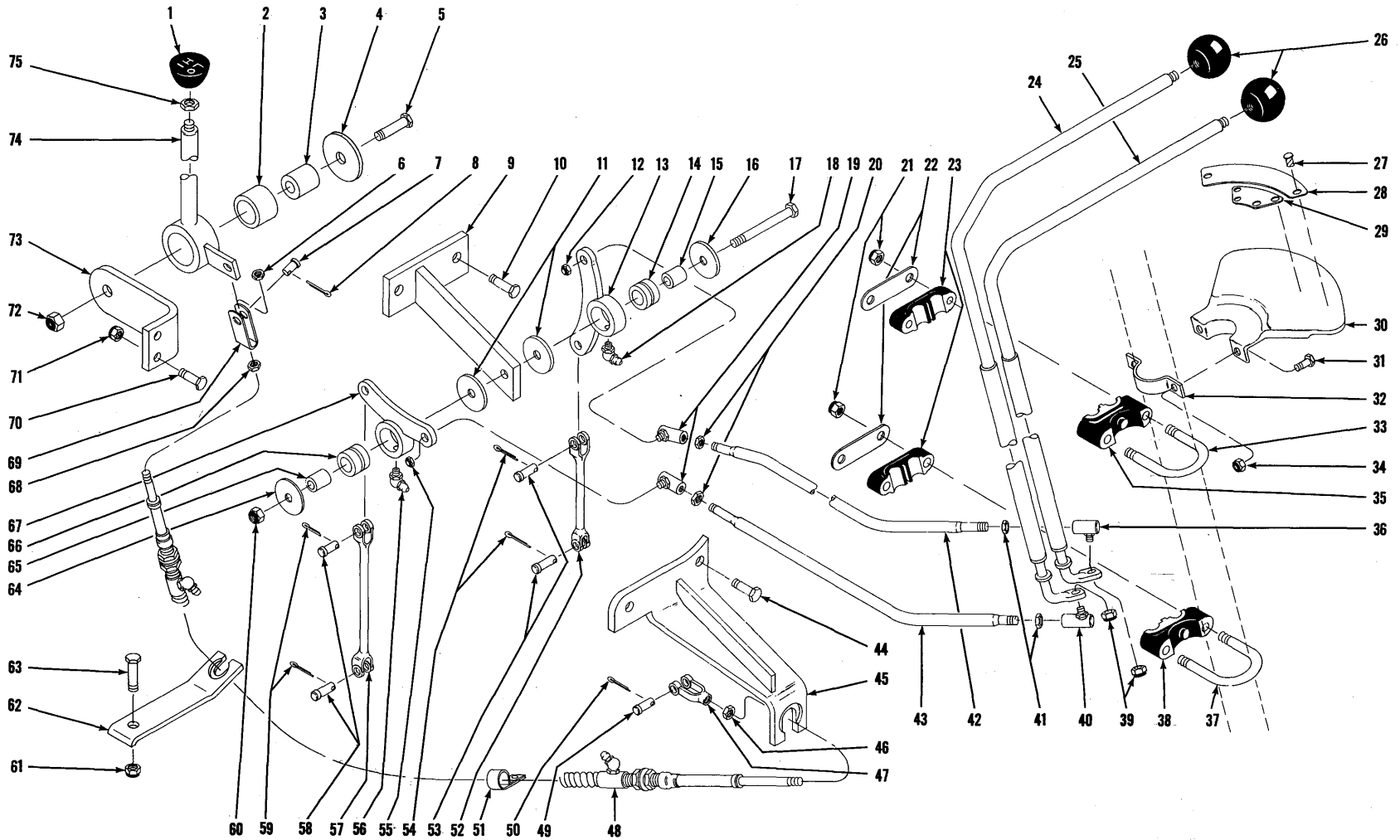
CONSTRUCTION MACHINERY DIVISION

MICHIGAN

ACCELERATOR PEDAL AND LINKAGE

Item No.	Part No.	Description	No. Req'd.
1	535003	CONNECTOR, Cable	1
2	3G-1008	SCREW, Cable Connector	1
3	-----	SHUT-OFF, Emergency — See Engine Parts Manual	—
4	3G-1008	SCREW, Cable Connector	1
5	351131	CONNECTOR, Cable	1
6	1F-308	COTTER, Cable Connector	1
7	1520190	CABLE, Emergency Shut-Off	1
8	1520193	CABLE, Engine Shut-Off	1
9	1F-316	COTTER, Pivot Pin	1
10	623762	PIN, Pedal Pivot	1
11	623829	PEDAL, Accelerator	1
12	550619	ROD, Pedal to Clevis	1
13	4F-04051	PIN, Rod to Pedal	1
14	1F-207	COTTER, Pedal Pin	1
15	18C-412	BOLT, Bellcrank to Floorboard	2
16	18C-448	BOLT, Pedal Stop	1
17	551016	STOP, Pedal	1
18	774337	WASHER, Pedal Stop	1
19	18D-04	NUT, Pedal Stop	1
20	572174	BELLCRANK, Front	1
21	18D-04	NUT, Bellcrank to Floorboard	2
22	1F-216	COTTER, Clevis Pin	1
23	4F-04051	PIN, Rod to Bellcrank	1
24	4F-04051	PIN, Clevis to Bellcrank	1
25	1F-207	COTTER, Clevis Pin	1
26	18D-04	NUT, Bracket to Floorboard	2
27	2J-4200	CLEVIS, Rod to Bellcrank	1
28	8D-04	NUT, Clevis Jam	1
29	572556	SPACER, Bracket to Floorboard	1
30	623760	BRACKET, Pedal Pivot	1
31	18C-416	BOLT, Bracket to Floorboard	2
32	1301361	BALL JOINT	1
33	8D-05	NUT, Ball Joint Jam	1
34	18D-05	NUT, Ball Joint to Bellcrank	1
35	18D-06	NUT, Bellcrank to Transmission Filter Bracket	2
36	569352	BELLCRANK, Rear	1
37	551090	SPRING	1
38	571111	ROD, Accelerator (Inc. 39, 40)	1
39	8D-05	NUT, Ball Joint Jam	1
40	1301361	BALL JOINT	1
41	18D-05	NUT, Ball Joint to Bellcrank	1
42	18C-628	BOLT, Bellcrank to Trans. Filter Bracket	2
43	571112	ROD, Governor Control (Inc. 32, 33, 44, 45)	1
44	8D-05	NUT, Ball Joint Jam	1
45	1301361	BALL JOINT	1
46	18D-05	NUT, Ball Joint to Governor Lever	1
47	-----	GOVERNOR, — See Engine Parts Manual	—
48	-----	SHUT-OFF, Fuel — See Engine Parts Manual	—

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



TRANSMISSION CONTROL LEVERS AND LINKAGE

TS-6673-P



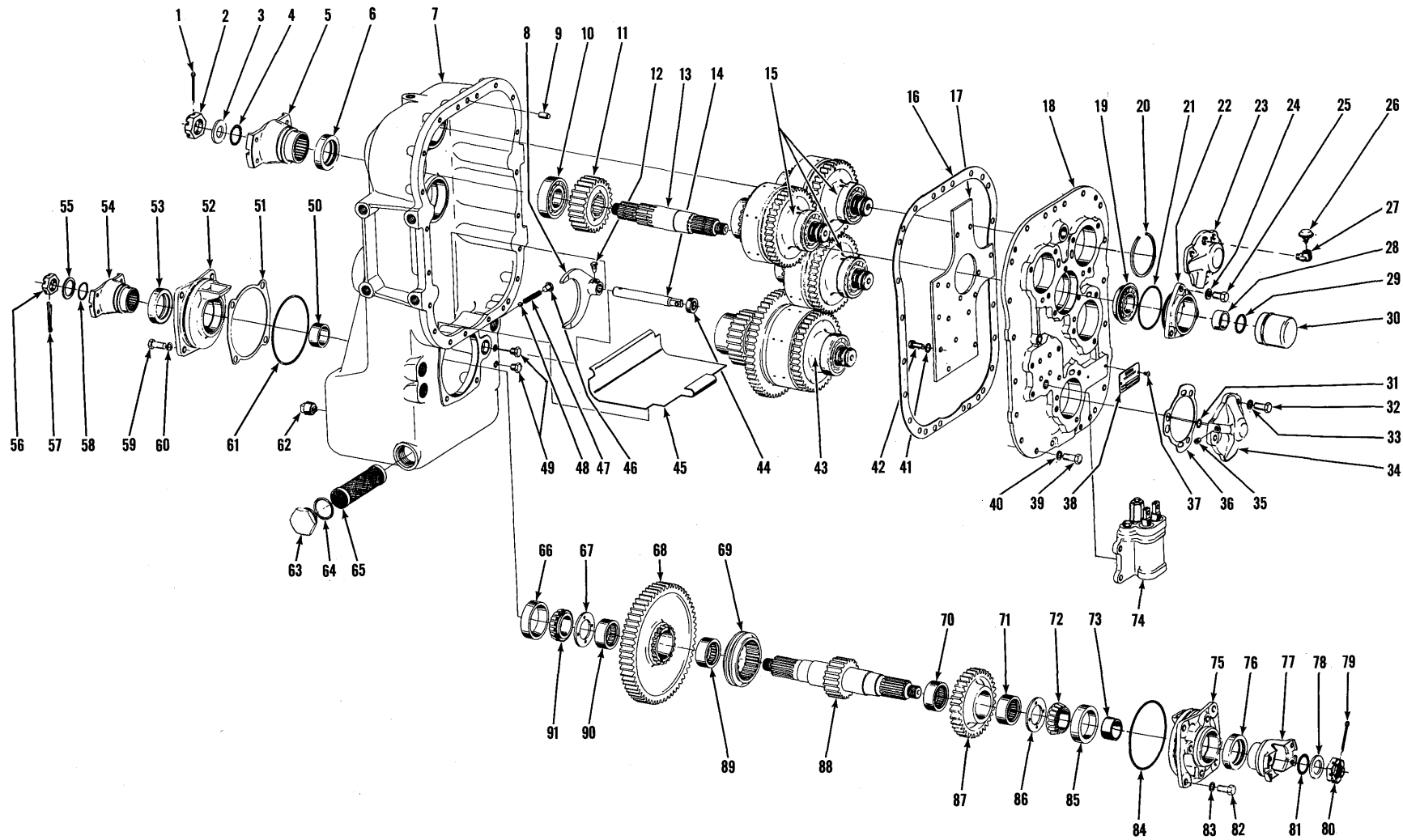
CONSTRUCTION MACHINERY DIVISION

MICHIGAN

TRANSMISSION CONTROL LEVERS AND LINKAGE

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	563753	KNOB, Shift Lever	1	39	66D-06	NUT, Ball Joint to Shift Lever	2
2	549580	BUSHING, Shift Lever	1	40	1301362	BALL JOINT	1
3	550646	SLEEVE, Shift Lever	1	41	8D-06	NUT, Ball Joint Jam	2
4	616796	WASHER, Shift Lever Mounting	1	42	557030	ROD ASSY, Hi-Lo Control (Inc. 19, 20, 36, 41)	1
5	18C-844	BOLT, Shift Lever Mounting	1	43	556424	ROD ASSY, Fwd. & Reverse (Inc. 19, 20, 40, 41)	1
6	8D-05	NUT, Control Cable Jam	1	44	17C-724	BOLT, Bracket Mounting	2
7	4F-05062	PIN, Clevis	1	45	568803	BRACKET, Anchor (Hi-Lo Cable)	1
8	1F-312	COTTER, Clevis Pin	1	46	8D-05	NUT, Control Cable Jam	1
9	557032	BRACKET, Bellcrank Mounting	1	47	556413	CLEVIS, Cable End	1
10	17C-724	BOLT, Bracket Mounting	2	48	556411	CABLE, Hi-Lo Range Control	1
11	616795	WASHER, Bellcrank Mounting	2	49	4F-06106	PIN, Clevis	1
12	66D-06	NUT, Ball Joint to Bellcrank	1	50	1F-312	COTTER, Clevis Pin	1
13	585500	BELLCRANK	1	51	562608	CLIP	1
14	585597	BUSHING, Bellcrank	1	52	557034	ROD, Hi-Lo	1
15	585596	SLEEVE, Bellcrank	1	53	4F-06106	PIN, Clevis	2
16	616795	WASHER, Bellcrank Mounting	1	54	1F-312	COTTER, Clevis Pin	2
17	18C-856	BOLT, Bellcrank Mounting	1	55	66D-06	NUT, Ball Joint to Bellcrank	1
18	12H-15	FITTING, Bellcrank Grease	1	56	12H-15	FITTING, Bellcrank Grease	1
19	1301362	BALL JOINT	2	57	556422	ROD, Forward & Reverse	1
20	8D-06	NUT, Ball Joint Jam	2	58	4F-06106	PIN, Clevis	2
21	18D-05	NUT, Lever Mounting Support	4	59	1F-312	COTTER, Clevis Pin	2
22	589906	PLATE, Support Back-Up	2	60	18D-08	NUT, Bellcrank Mounting	1
23	581979	SUPPORT, Lever Mounting	2	61	18D-08	NUT, Bracket Mounting	1
24	562227	LEVER, Shift — Forward & Reverse	1	62	562607	BRACKET, Hi-Lo Cable Mounting	1
25	562224	LEVER, Shift — Four Speed	1	63	18C-864	BOLT, Bracket Mounting	1
26	509772	KNOB, Shift Lever	2	64	616795	WASHER, Bellcrank Mounting	1
27	6C-605	SCREW, Plate Mounting Drive	6	65	585596	SLEEVE, Bellcrank	1
28	567977	PLATE, Shift Quadrant — Hi-Lo	1	66	585597	BUSHING, Bellcrank	1
29	567947	PLATE, Shift Quadrant — Forward & Reverse	1	67	585500	BELLCRANK	1
30	567946	QUADRANT, Shift	1	68	8D-05	NUT, Control Cable Jam	1
31	18C-412	BOLT, Shift Quadrant Mounting	2	69	589411	FITTING, Cable End	1
32	567945	CLAMP, Shift Quadrant Mounting	1	70	18C-620	BOLT, Bracket Mounting	2
33	557246	U-BOLT, Levers to Steering Column	1	71	18D-06	NUT, Bracket Mounting	2
34	18D-04	NUT, Shift Quadrant Mounting	2	72	18D-08	NUT, Lever Mounting	1
35	581978	SUPPORT, Lever Mounting	1	73	562606	BRACKET, Hi-Lo Range Lever Mounting	1
36	1301362	BALL JOINT	1	74	562605	LEVER, Hi-Lo Range	1
37	557246	U-BOLT, Levers to Steering Column	1	75	7D-06	NUT, Hi-Lo Range Lever Jam	1
38	581978	SUPPORT, Lever Mounting	1				

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



TRANSMISSION ASSEMBLY AND MOUNTING BRACKETS

TS-6775-P



CONSTRUCTION MACHINERY DIVISION

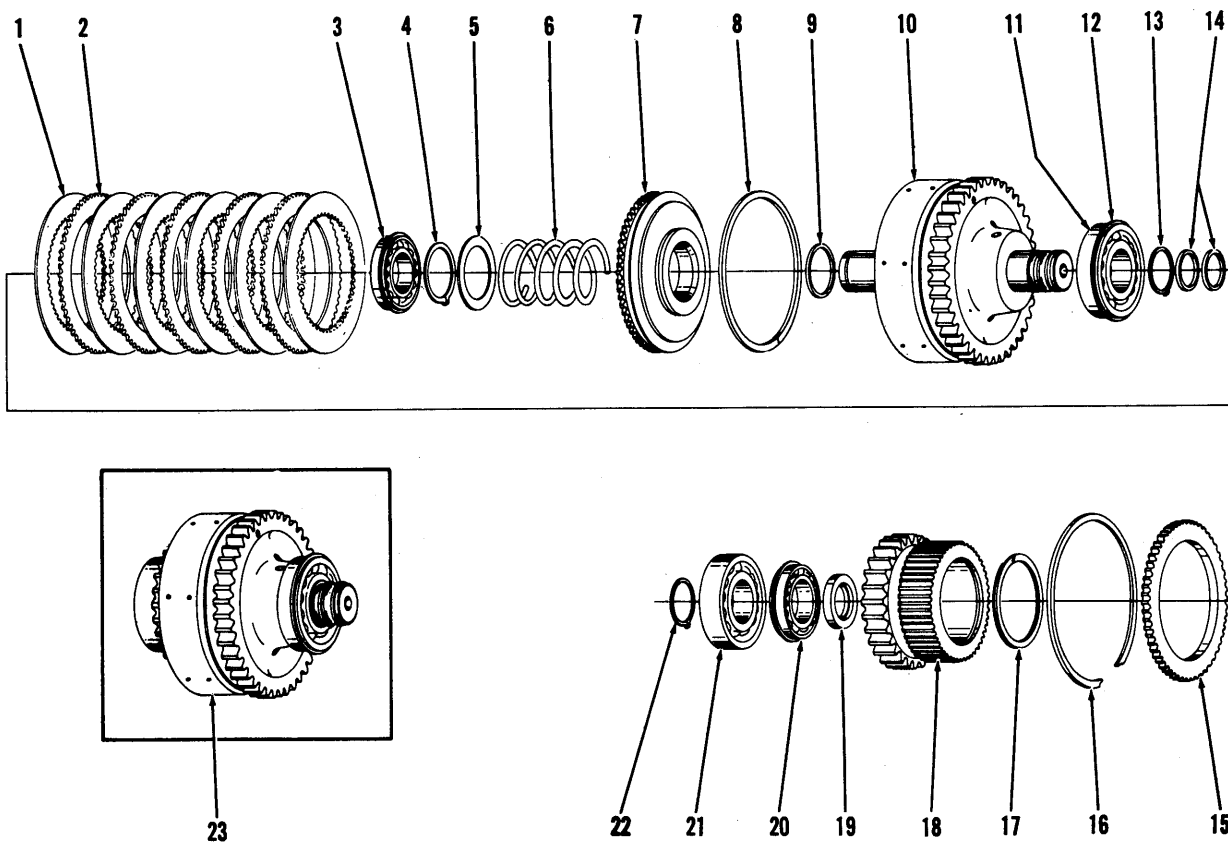
MICHIGAN

TRANSMISSION ASSEMBLY AND MOUNTING BRACKETS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	281986	TRANSMISSION ASSY (2420-17) (Inc. 1 thru 91)	1	48	10J-12	BALL, Range Shift Rail Detent	1
1	1F-428	COTTER, Flange Nut	1	49	40K-04	PLUG, Oil Level	2
2	201951	NUT, Input Flange	1	50	215162	SPACER, Brake Flange	1
3	102745	WASHER, Input Flange	1	51	215156	‡SHIM, Bearing Cap — .004"	—
4	25K-40112	"O" RING, Input Flange	1	51A	215157	‡SHIM, Bearing Cap — .007"	—
5	214940	FLANGE, Input Shaft	1	51B	215158	‡SHIM, Bearing Cap — .010"	—
6	206864	SEAL, Input Shaft Oil	1	52	215155	CAP, Output Shaft Bearing	1
7	228494	CASE ASSY, Transmission (Inc. 6)	1	53	206864	SEAL, Bearing Cap Oil	1
8	215146	FORK, Range Shift	1	54	214985	FLANGE, Output	1
9	214295	PIN, Cover to Case Dowel	2	55	102745	WASHER, Flange Nut	1
10	225603	BEARING, Input Shaft	1	56	201951	NUT, Flange	1
11	215166	GEAR, Input Shaft	1	57	1F-428	COTTER, Flange Nut	1
12	201566	SCREW, Shift Fork Lock	1	58	25K-40112	"O" RING, Flange	1
13	217952	SHAFT, Input	1	59	1C-820	BOLT, Bearing Cap	4
14	215145	RAIL, Range Shift	1	60	5E-08	LKWSHR, Bearing Cap	4
15	—	CLUTCH GROUP — Forward, Reverse & Low — See Index (Inc. 20)	—	61	25K-40524	"O" RING, Bearing Cap	1
16	215144	GASKET, Cover to Case	1	62	215757	PLUG, Drain — Magnetic	1
17	215143	PLATE, Oil Circuit	1	63	219370	PLUG, Suction Screen	1
X 18	~~215142~~	COVER ASSY, Trans. (Inc. 17, 41, 42)	1	64	219373	GASKET, Suction Screen Plug	1
19	225824	BEARING, Input Shaft Locating	1	65	215205	SCREEN, Suction	1
20	945374	RING, Bearing Retaining	4	66	675544	CUP, Output Shaft Bearing	1
21	25K-40316	"O" RING, Input Shaft Bearing Cap	1	67	215154	WASHER, Output Shaft Thrust	1
22	215198	CAP ASSY, Input Shaft Bearing (Inc. 22A)	1	68	215150	GEAR ASSY, Low (Inc. 89, 90) (61T) ..	1
22A	206864	†SEAL, Input Shaft Oil	1	69	215149	HUB, Output Shaft Shift	1
23	228961	CAP, Distributor Bearing	1	70	225079	BEARING, High Gear	1
24	—	LKWSHR, Bearing Cap — See 25	—	71	225079	BEARING, High Gear	1
25	5C-718	BOLT, Bearing Cap (Inc. 24)	3	72	675548	CONE, Output Shaft Bearing	1
26	211433	BREATHER, Air	1	73	215162	SPACER, Brake Flange	1
27	25F-3	ELBOW	1	74	—	CONTROL VALVE — See Index	—
28	215162	SPACER, Input Flange	1	75	215155	CAP, Output Shaft Bearing	1
29	659065	RING, Bearing Retaining	1	76	206864	SEAL, Bearing Cap Oil	1
30	209412	CAP, Input Shaft	1	77	214985	FLANGE, Output	1
31	25K-30016	"O" RING, Bearing Cap	4	78	102745	WASHER, Flange Nut	1
32	5C-718	BOLT, Bearing Cap (Inc. 33)	9	79	1F-428	COTTER, Flange Nut	1
33	—	LKWSHR, Bearing Cap — See 32	—	80	201951	NUT, Flange	1
34	215163	CAP, Distributor Bearing	3	81	25K-40112	"O" RING, Flange	1
35	16F-02	PLUG, Bearing Cap Pipe	4	82	1C-820	BOLT, Bearing Cap	4
36	215164	GASKET, Bearing Cap	4	83	5E-08	LKWSHR, Bearing Cap	4
37	207873	SCREW, Name Plate	2	84	25K-40524	"O" RING, Bearing Cap	1
38	220725	PLATE, Name	1	85	675544	CUP, Output Shaft Bearing	1
39	1C-720	BOLT, Cover to Case	20	86	215154	WASHER, Output Shaft Thrust	1
40	4E-07	LKWSHR, Cover to Case	20	87	215152	GEAR ASSY, High (Inc. 70, 71) (34T) ..	1
41	5E-06	LKWSHR, Plate to Cover	15	88	215551	SHAFT, Output	1
42	1C-614	BOLT, Plate to Cover	15	89	225079	BEARING, Low Gear	1
43	—	CLUTCH GROUP — High — See Index (Inc. 20)	—	90	225079	BEARING, Low Gear	1
44	225075	SEAL, Range Shift Oil	1	91	675548	CONE, Output Shaft Bearing	1
45	228943	PLATE, Baffle	1	92	589573	†BRACKET, Trans. Mounting	2
46	40K-04	PLUG, Range Shift Rail Detent	1	93	18C-832	†BOLT, Bracket to Frame	4
47	215191	SPRING, Range Shift Rail Detent	1	94	619029	†WASHER, Bracket to Frame — L.H.	2
				95	18D-08	†NUT, Bracket to Frame	4
				96	17C-1228	†BOLT, Bracket to Trans.	8
				97	4E-12	†LKWSHR, Bracket to Trans.	8

†Not Illustrated
‡As Required

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

**CLUTCH GROUP — FORWARD, REVERSE AND LOW**

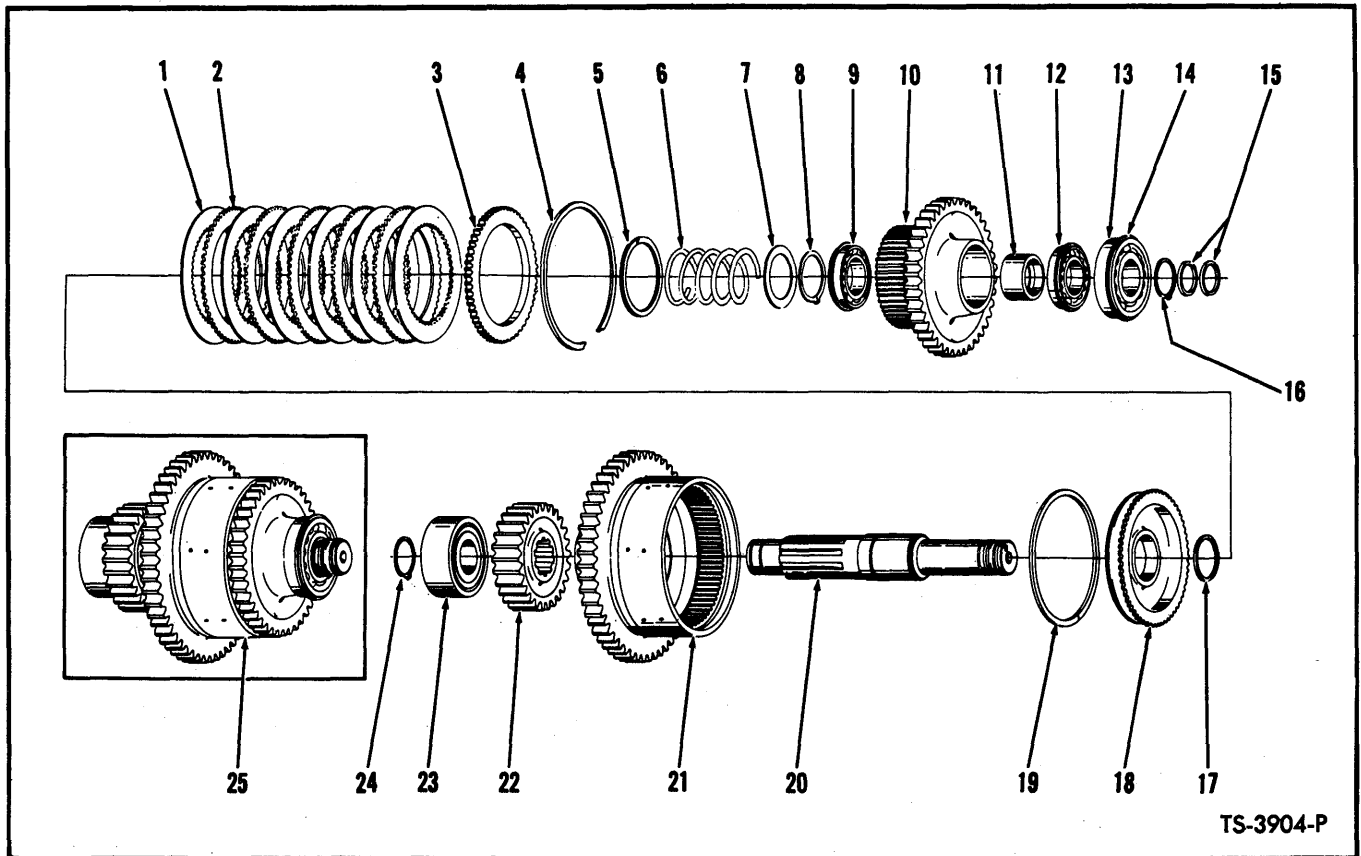
(This Group used 3 times in Transmission — Quantities listed below are for 1 Clutch Group)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	215178	DISC, Clutch Inner	6	11	666559	BEARING, Clutch Shaft (Inc. 12)	1
2	224772	DISC, Clutch Outer	5	12	945374	RING, Bearing Retaining	1
3	225076	BEARING, Clutch Disc Hub	1	13	659065	RING, Clutch Shaft Bearing Retaining	1
4	654613	RING, Return Spring Retaining	1	14	215183	RING, Clutch Shaft Sealing	2
5	616848	WASHER, Return Spring Retaining	1	15	224774	PLATE, Clutch Disc End	1
6	215179	SPRING, Clutch Piston Return	1	16	215190	RING, End Plate Retaining	1
7	215177	PISTON, Clutch	1	17	225077	RING, Clutch Disc Hub Oil Baffle	1
8	224771	RING, Piston Outer Sealing	1	18	215180	GEAR & HUB ASSY (28T)	1
9	223085	RING, Piston Inner Sealing	1	19	215182	SPACER, Clutch Disc Hub Bearing	1
10	215663	DRUM ASSY, Clutch (Inc. 10A, 10B) (40T)	1	20	225076	BEARING, Clutch Disc Hub	1
10A	215176	†SEAT, Bleed Valve Ball	1	21	658016	BEARING, Clutch Shaft	1
10B	10J-06	†BALL, Bleed Valve	1	22	659065	RING, Clutch Shaft Bearing Retaining	1
				23	—	§CLUTCH ASSY	1

†Not Illustrated

§Not sold as an Assembly — Order individual parts.

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

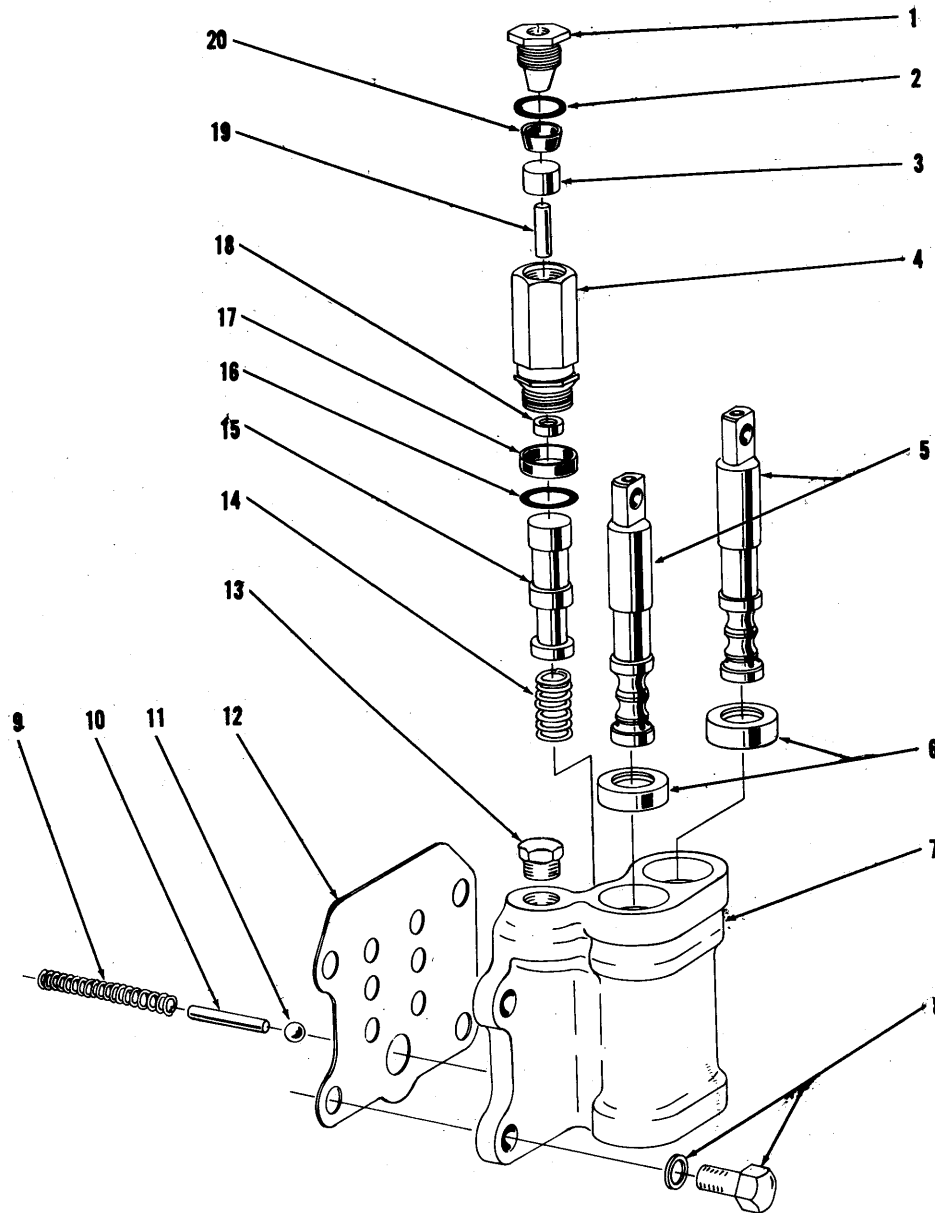
**CLUTCH GROUP — HIGH**

Item No.	Part No.	Description	No. Req'd.
1	215178	DISC, Clutch Inner	6
2	224772	DISC, Clutch Outer	5
3	224774	PLATE, Clutch Disc End	1
4	215190	RING, End Plate Retaining	1
5	225077	RING, Disc Hub Oil Baffle	1
6	215179	SPRING, Piston Return	1
7	616848	WASHER, Return Spring Retaining	1
8	654613	RING, Return Spring Retaining	1
9	225076	BEARING, Clutch Disc Hub	1
10	215188	HUB & GEAR, Clutch Disc (40T)	1
11	215189	SPACER, Clutch Disc Hub Bearing	1
12	225076	BEARING, Clutch Disc Hub	1
13	666559	BEARING, Clutch Shaft (Inc. 14)	1
14	945374	RING, Bearing Retaining	1
15	215183	RING, Clutch Shaft Sealing	2
16	659065	RING, Bearing Retaining	1
17	223085	RING, Piston Inner Sealing	1
18	215177	PISTON, Clutch	1
19	224771	RING, Piston Outer Sealing	1
20	215184	SHAFT, Clutch	1
21	227952	DRUM & GEAR ASSY, Clutch (Inc. 21A, 21B) (53T)	1
21A	215176	†SEAT, Bleed Valve Ball	1
21B	10J-06	†BALL, Bleed Valve	1
22	215166	GEAR, High Clutch Shaft (26T)	1
23	799595	BEARING, Clutch Shaft High Gear	1
24	659065	RING, Bearing Retaining	1
25		§CLUTCH ASSY	—

†Not Illustrated

§Not Sold as an Assembly — Order individual parts.

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



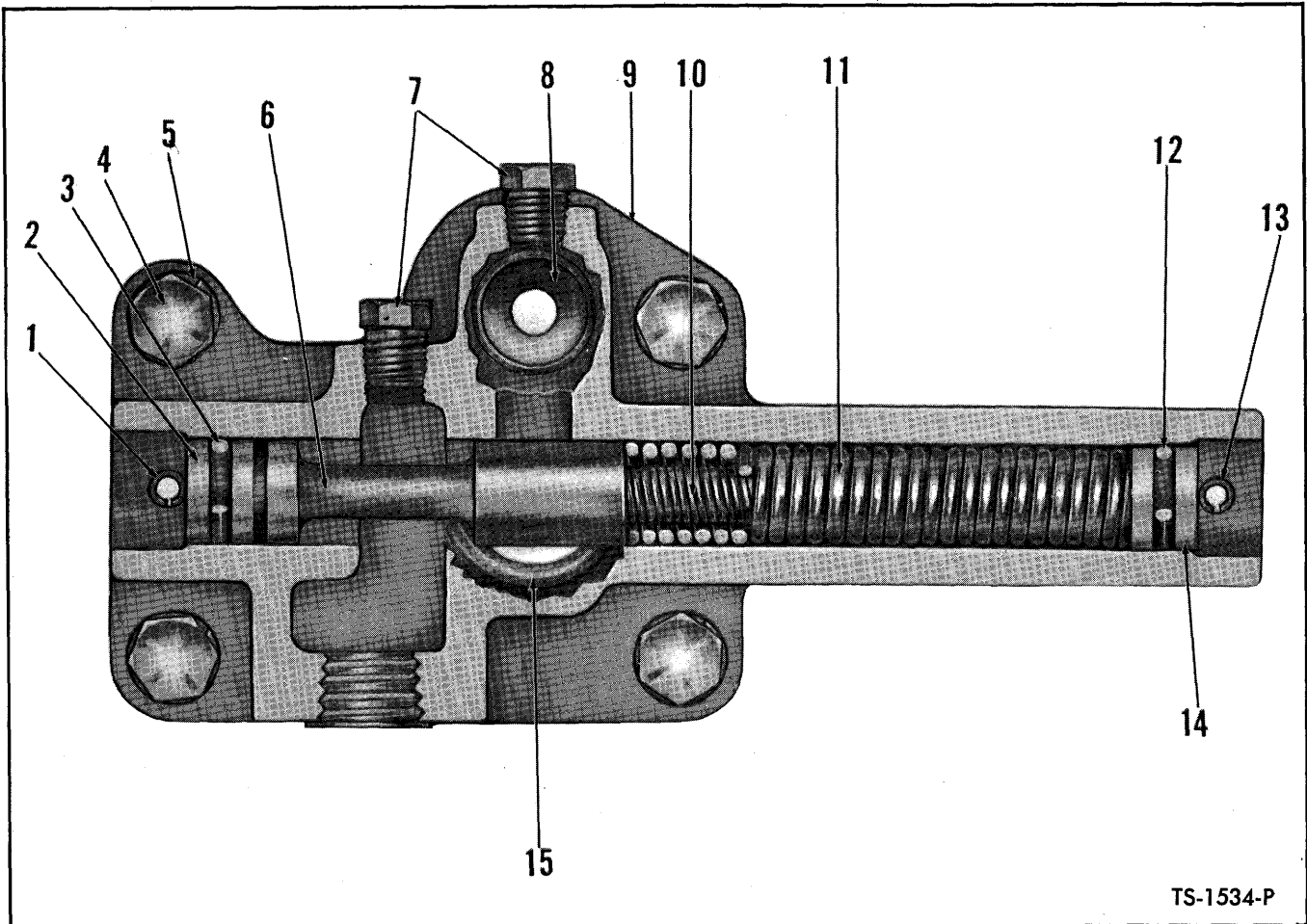
TS-6756-P

CONTROL VALVE — TRANSMISSION

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	229047	CONTROL VALVE ASSY (Inc. 1 thru 20)	1	9	215147	SPRING, Detent	2
1	215200	PLUG, Stop	1	10	215194	PIN, Detent Stop	2
2	25K-30020	"O" RING	1	11	10J-12	BALL, Detent	2
3	215199	SPACER, Cup	1	12	215169	GASKET, Housing to Cover	1
4	215196	VALVE, De-Clutch (Inc. 1, 2, 3, 4A, 16 thru 20)	1	13	40K-02	PLUG	1
4A	215197	HOUSING, Valve De-Clutch	1	14	220363	SPRING, Control Valve	1
5	—	§ VALVE, Manual Control — See A	2	15	—	§ VALVE, De-Clutch Control — See A ..	1
6	225075	SEAL, Manual Control Valve Oil	2	16	25K-30022	"O" RING	1
7	—	§ HOUSING, Control Valve — See A	1	17	228931	SEAL, Band	1
8	5C-718	BOLT & LKWSHR, Housing to Cover ..	4	18	224315	SEAL, Oil	1
				19	106358	PIN, Push	1
				20	227874	CUP, Piston	1

§Not Sold Separately

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



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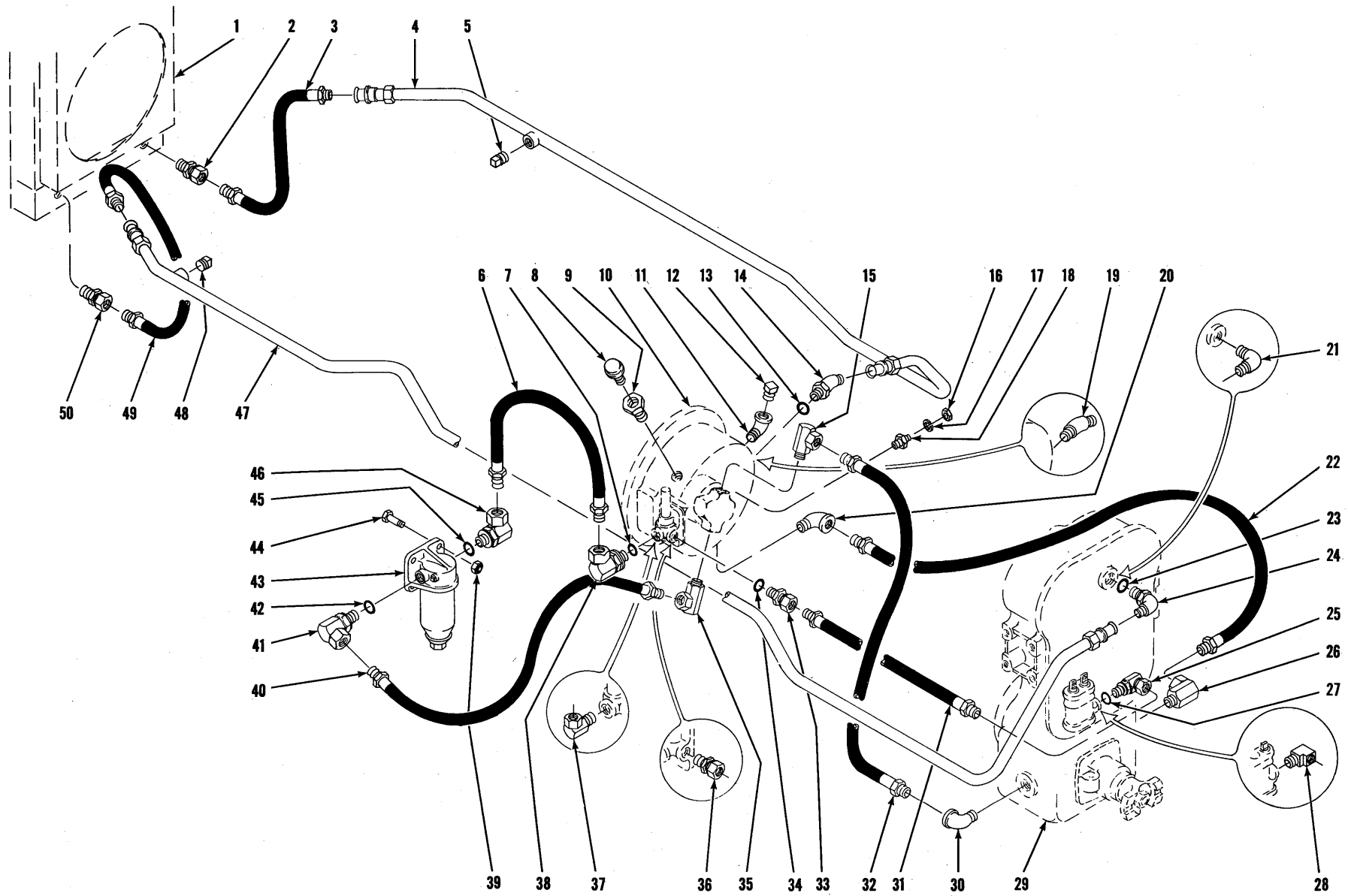
PRESSURE REGULATOR VALVE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.
A	214969	VALVE ASSY, Pressure Regulator (Inc. 1, 2, 3, 6, 8 thru 15)	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 Item "A"	—
7	40K-02	PLUG, Valve Housing	2
8	214946	SEAT, Safety Valve	1
9	—	§BODY, Valve — See Item "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 Sold Separately

†Not Illustrated

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



HYDRAULIC SYSTEM — TRANSMISSION AND TORQUE CONVERTER

TS-6642-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

HYDRAULIC SYSTEM — TRANSMISSION AND TORQUE CONVERTER

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	RADIATOR — See Index	—	27	91F-6	"O" RING, Elbow — See Serial Group "D" Below	1
2	36F-5	ADAPTER UNION, Hose to Radiator	1	28	29F-2	ELBOW, Hose to Transmission — See Serial Group "C" Below	1
3	526847	HOSE, Radiator to Cooler Line	1	29	—	TRANSMISSION — See Index	—
4	589477	LINE, Radiator to Converter Cooler (Inc. 5)	1	30	26F-6	ELBOW, Hose to Transmission	1
5	40K-04	PLUG, Cooler Line	1	31	556575	HOSE, Converter to Transmission	1
6	546803	HOSE, Converter to Filter	1	32	589367	HOSE, Converter to Transmission	1
7	91F-8	"O" RING, Elbow — See Serial Group "B" Below	1	33	690279	CONNECTOR, Hose to Converter Valve (Inc. 34) — See Serial Group "B" Below	1
8	211433	BREATHING, Converter Air	1	34	91F-6	"O" RING, Connector — See Serial Group "B" Below	1
9	227265	VALVE, Air Breather Check	1	35	31F-5	ADAPTER UNION, Hose to Converter Pump	1
10	—	CONVERTER — See Index	—	36	36F-3	CONNECTOR, Hose to Converter Valve — See Serial Group "A" Below	1
11	25F-6	ELBOW, Converter Fill	1	37	553843	ADAPTER UNION, Hose to Converter Valve — See Serial Group "A" Below	1
12	13F-16	PLUG, Converter Fill	1	38	526676	ADAPTER UNION, Hose to Converter Valve — See Serial Group "B" Below	1
13	91F-8	"O" RING, Elbow — See Serial Group "B" Below	1	39	18D-06	NUT, Filter Mounting	4
14	18K-8	ELBOW, Line to Converter (Inc. 13) — See Serial Group "B" Below	1	40	546810	HOSE, Pump to Filter	1
15	31F-6	ADAPTER UNION, Hose to Converter Pump	1	41	526676	ELBOW, Hose to Filter (Inc. 42)	1
16	14D-10	NUT, Sender Unit	1	42	91F-8	"O" RING, Elbow	1
17	12E-10	LKWSHR, Sender Unit	1	43	228190	FILTER, Converter 8 Transmission (Inc. 43A)	1
18	551323	SENDER UNIT, Converter Temperature	1	43A	215502	† CARTRIDGE KIT, Filter	1
19	84F-8	ELBOW, Cooler Line to Converter — See Serial Group "A" Below	1	44	18C-628	BOLT, Filter Mounting	4
20	26F-6	ELBOW, Hose to Converter Drain	1	45	91F-8	"O" RING, Elbow	1
21	83F-8	ELBOW, Cooler Line to Transmission — See Serial Group "C" Below	1	46	526676	ELBOW, Hose to Filter (Inc. 45)	1
22	542626	HOSE, Converter Drain	1	47	589476	LINE, Transmission to Radiator Cooler (Incl. 48)	1
23	91F-8	"O" RING, Elbow — See Serial Group "D" Below	1	48	40K-04	PLUG, Cooler Line	1
24	17K-8	ELBOW, Cooler Line to Transmission (Inc. 23) — See Serial Group "D" Below	1	49	526847	HOSE, Cooler Line to Radiator	1
25	362653	ELBOW, Hose to Transmission (Inc. 27) — See Serial Group "D" Below	1	50	36F-5	ADAPTER UNION, Hose to Radiator	1
26	31F-6	ELBOW, Drain Hose to Transmission	1				

Serial Group "A" — For Converter with pipe fitting — 7CG101 thru 7CG158

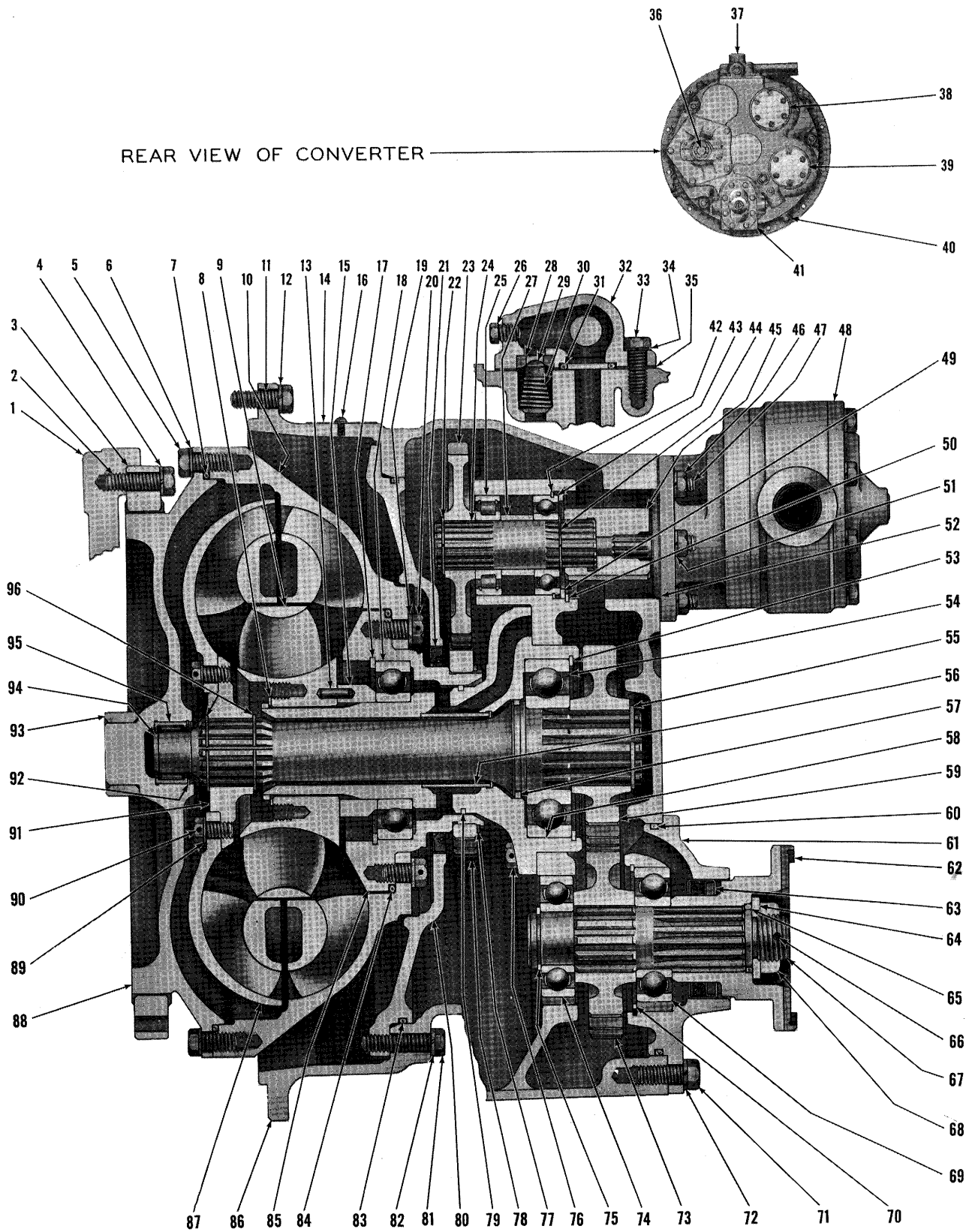
Serial Group "B" — For Converter with "O" Ring fitting — 7CG159 and thereafter

Serial Group "C" — For Transmission with pipe fitting — 7CG101 thru 164, 169

Serial Group "D" — For Transmission with "O" Ring fitting — 7CG165 thru 7CG168, 7CG170 and thereafter

†Not Illustrated

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



TORQUE CONVERTER ASSEMBLY

TS-1566-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

TORQUE CONVERTER ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	281022	CONVERTER ASSY, Torque (C-272-2) (Inc. 3, 5 thru 10, 13 thru 96)	1	50	713186	RING, Washer Retaining	3
1	———	FLYWHEEL, Engine — See Engine Parts Manual	—	51	4E-06	LKWSHR, Pump Stud	6
2	224795	BOLT, Drive Gear to Flywheel	8	52	551906	GASKET, Pump Mounting	1
3	215264	GEAR, Converter Drive	1	53	214953	RING, Bearing Retaining	1
4	215909	WASHER, Drive Gear to Flywheel	8	54	742002	BEARING, Turbine Shaft	1
5	1C-616	BOLT, Impeller to Cover	24	55	224026	RING, Gear Retaining	1
6	4E-06	LKWSHR, Impeller to Cover	24	56	———	§SLEEVE, Stator Support — See Item 58	—
7	214939	"O" RING, Impeller to Cover	1	57	222079	RING, Turbine Shaft Sealing	1
8	743035	RING, Reaction Member Retaining	1	58	214932	STATOR SUPPORT ASSY (Inc. 56)	1
9	214921	MEMBER, Reaction	1	59	214935	GEAR, Turbine Shaft (28T)	1
10	214920	IMPELLER	1	60	25K-40512	"O" RING, Bearing Retainer	1
11	17C-620	BOLT, Converter to Flywheel Hsg.	12	61	214945	RETAINER & SEAL, Bearing (Inc. 63)..	1
12	4E-06	LKWSHR, Converter to Flywheel Hsg. 12	12	62	214940	FLANGE, Companion	1
13	658244	PIN, Spacer to Reaction Member Lock	1	63	206864	SEAL, Oil	1
14	220725	PLATE, Name	1	64	102745	WASHER, Output Shaft	1
15	214934	SPACER, Reaction Member	1	65	25K-40112	"O" RING, Companion Flange	1
16	207873	SCREW, Name Plate Drive	2	66	1F-424	PIN, Cotter	1
17	214953	RING, Impeller Hub Bearing Retaining	1	67	214937	SHAFT, Output	1
18	214596	BEARING, Impeller Hub	1	68	201951	NUT, Output Shaft	1
19	619025	WASHER, Hub to Impeller	8	69	743439	BEARING, Output Shaft — Rear	1
20	4C-714	BOLT, Hub to Impeller	8	70	223901	RING, Bearing Retaining	1
21	214941	SEAL, Oil Baffle	1	71	1C-720	BOLT, Bearing Retainer	3
22	711298	RING, Gear Retaining	3	71A	214730	STUD, Bearing Retainer	2
23	214931	GEAR, Pump Drive (39T)	3	71B	8D-07	NUT, Bearing Retainer	2
24	214928	SHAFT, Pump Drive	3	72	4E-07	LKWSHR, Bearing Retainer	5
25	214936	BEARING, Pump Drive Shaft	3	73	214938	GEAR, Output Shaft (27T)	1
26	40K-02	PLUG, Valve Housing	2	74	742056	BEARING, Output Shaft — Front	1
27	214930	SPACER, Pump Shaft	3	75	214955	RING, Bearing Retaining	1
28	214946	SEAT, Safety Valve	1	76	1C-820	BOLT, Stator Support	6
29	222318	PLUNGER, Safety Valve	1	76A	7E-08	†LKWSHR, Stator Support	6
30	222312	SPRING, Safety Valve	1	77	224009	RING, Gear Retaining	1
31	25K-40104	"O" RING, Valve to Converter	1	78	214951	GEAR, Impeller Hub (41T)	1
32	———	VALVE, Regulator — See Item 37	—	79	221653	RING, Sealing	1
33	1C-616	BOLT, Valve Body	4	80	214925	BAFFLE, Oil	1
34	4E-06	LKWSHR, Valve Body	4	81	1C-628	BOLT, Oil Baffle	3
35	214949	GASKET, Valve to Converter	1	82	4E-06	LKWSHR, Oil Baffle	3
36	———	SHAFT, Output — See Item 67	—	83	214939	"O" RING, Oil Baffle	1
37	———	VALVE ASSY, Pressure Regulator — See Index	—	84	25K-40616	"O" RING, Impeller Hub	1
38	———	COVER — Shipping	—	85	214923	HUB, Impeller	1
39	———	COVER — Shipping	—	86	801546	HOUSING, Converter	1
40	13F-16	PLUG, Converter Housing	4	86A	16F-08	†PLUG, Pipe	1
41	———	PUMP, Converter Charging — See Item 48	—	86B	40K-02	†PLUG, Pipe	1
42	214954	RING, Bearing Retaining	3	86C	13F-20	†PLUG, Pipe	1
43	214956	BEARING, Shaft	3	87	222684	TURBINE	1
44	224039	RING, Bearing Retaining	3	88	214922	COVER, Impeller	1
45	214961	SLEEVE, Pump Drive Adapter	1	89	619023	WASHER, Turbine Hub	8
46	8D-06	NUT, Pump Stud	6	90	209313	BOLT, Turbine to Hub	8
47	207647	STUD, Pump	6	91	214924	HUB, Turbine	1
48	450072	PUMP, Converter Charging — See Note "A"	1	92	666542	RING, Bearing Retaining	1
49	214929	WASHER, Pump Shaft	3	93	222006	SLEEVE, Impeller Cover	1
				94	214933	SHAFT, Turbine	1
				95	214988	BEARING, Impeller Cover	1
				96	659065	RING, Turbine Hub Retaining	2
				97	211433	†AIR BREATHER	1
				98	227265	†CHECK VALVE, Air Breather	1

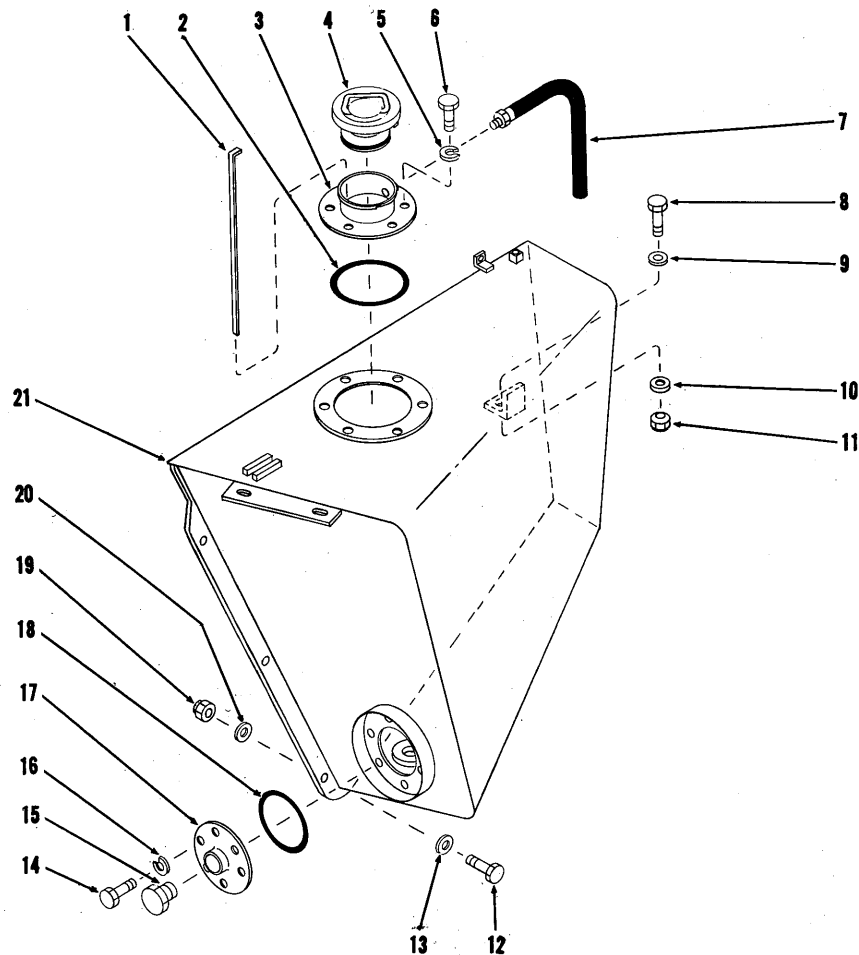
§Not Sold Separately

†Not Illustrated

*NOTE "A": When Converter Charging Pump replacement is required, only a new factory built and tested pump should be used. Proper operation of Converter and Transmission is dependent on an efficient charging pump. Damage possible by use of a field rebuilt pump can result in repair cost exceeding cost of new pump alone.

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

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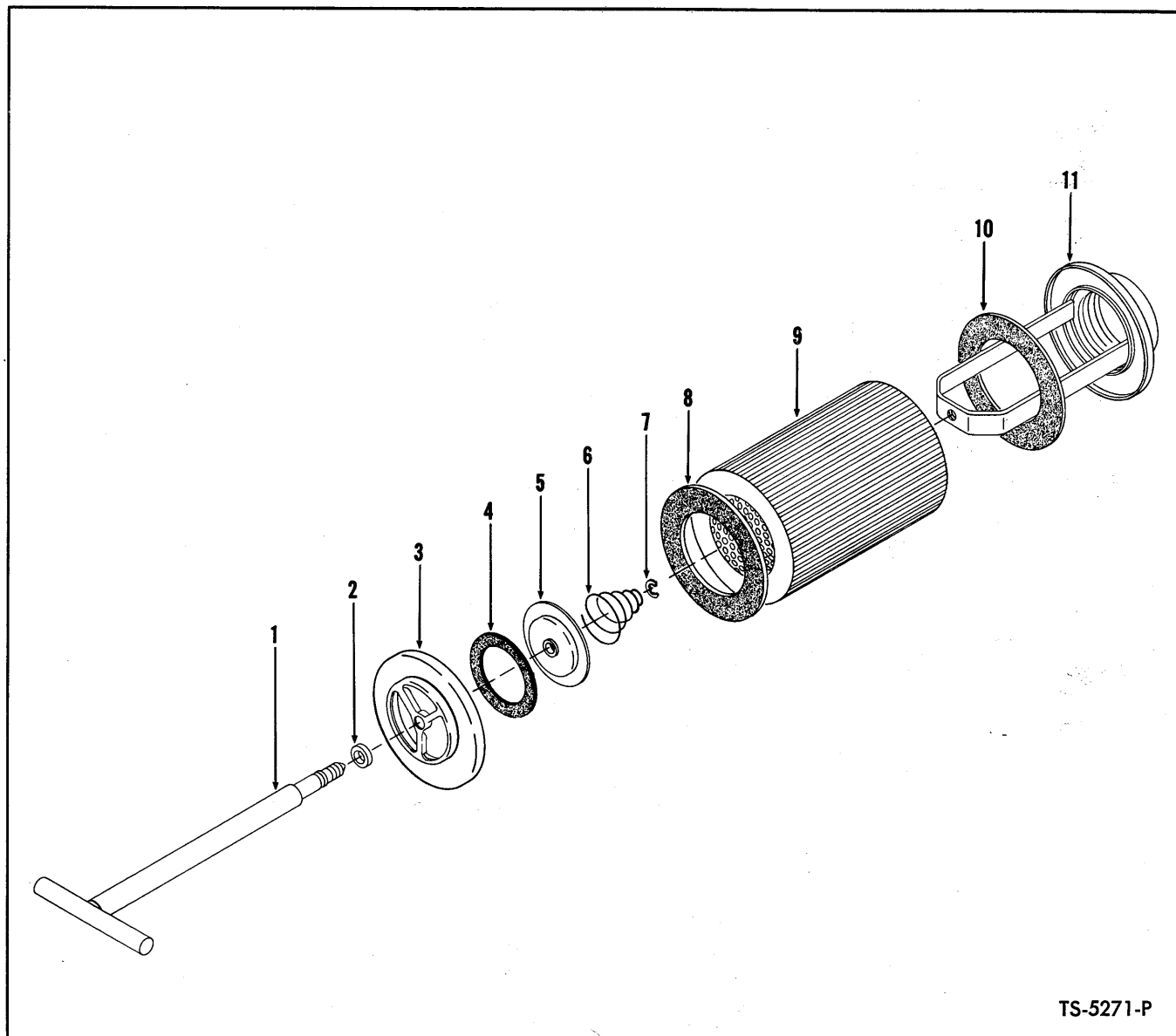
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HYDRAULIC OIL RESERVOIR

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	569425	DIPSTICK	1	12	18C-1244	BOLT, Tank to Side Plate	5
2	25K-40624	"O" RING, Filler Neck	1	13	616813	WASHER, Tank to Side Plate	5
3	564175	NECK, Filler	1	14	18C-612	BOLT, Inspection Plate to Tank	6
4	569759	CAP, Oil Reservoir	1	15	40K-16	PLUG, Drain	1
5	4E-06	LKWSHR, Filler Neck to Tank	6	16	4E-06	LKWSHR, Inspection Plate to Tank	6
6	18C-612	BOLT, Filler Neck to Tank	6	17	587613	PLATE, Inspection	1
7	569927	HOSE, Overflow	1	18	25K-40428	"O" RING, Inspection Plate	1
8	18C-1244	BOLT, Tank to Frame	1	19	18D-12	NUT, Tank to Side Plate	5
9	616813	WASHER, Tank to Frame	1	20	616813	WASHER, Tank to Side Plate	5
10	71D-12	BASE, Tank to Frame	1	21	589186	OIL RESERVOIR	1
11	70D-12	NUT, Tank to Frame	1	22	525293	†MAGNET	1

†Not Illustrated

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



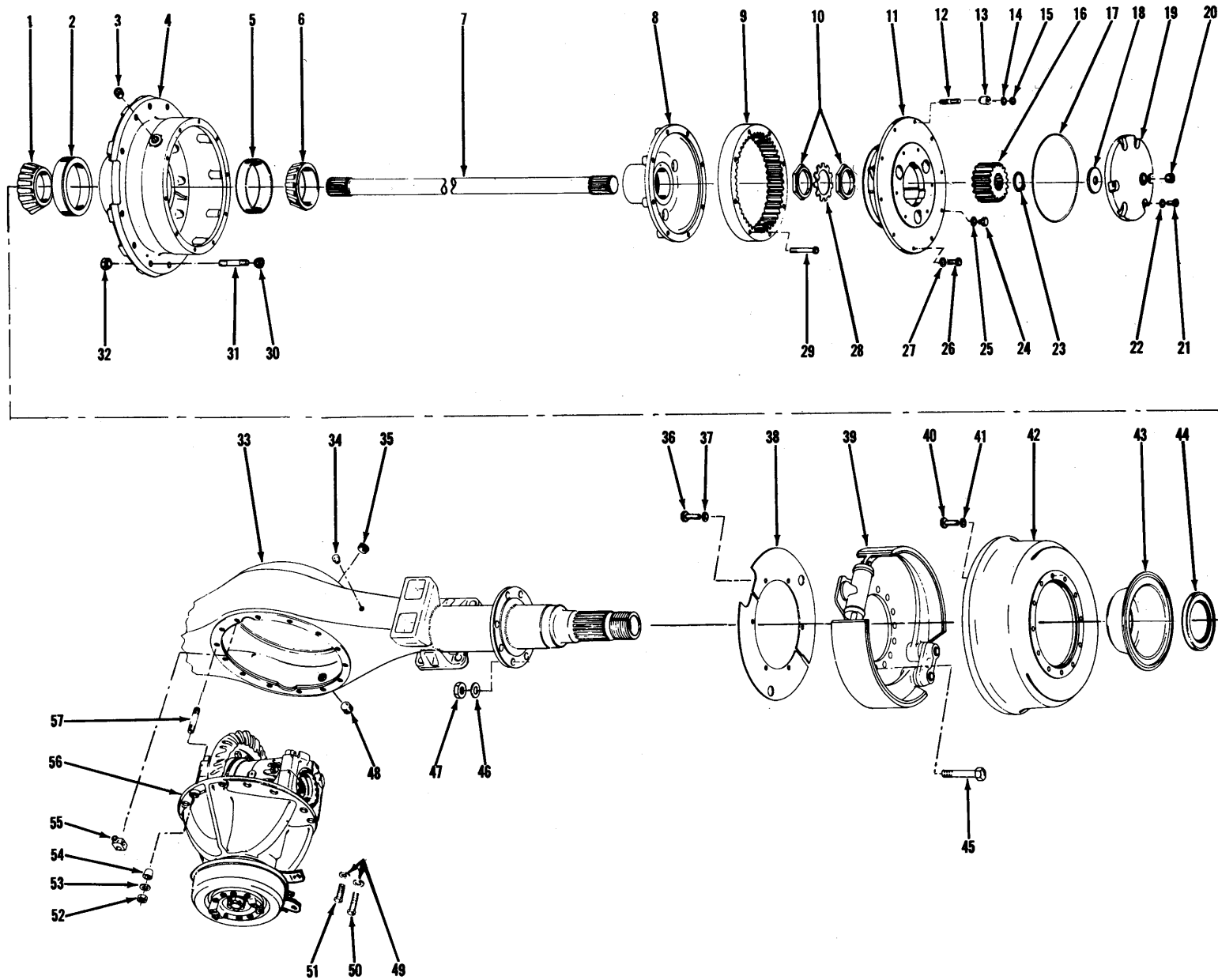
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HYDRAULIC RESERVOIR FILTER ASSEMBLY

Item No.	Part No.	Description	No. Req'd.
A	562118	FILTER ASSY (Inc. 1 thru 11)	1
B	946105	HANDLE & COVER ASSY (Inc. 1 thru 7)	1
1	—	§HANDLE, Filter — See Item B	1
2	946060	LKWSHR, Handle & Cover	1
3	—	§COVER, Filter — See Item B	1
4	946058	GASKET, Cover	1
5	946057	PLATE, Cover Valve	1
6	946056	SPRING, Cover	1
7	1303459	"E" RING, Cover	1
8	946062	GASKET, Element	1
9	946108	ELEMENT, Filter (Inc. 8, 10)	1
10	946062	GASKET, Element	1
11	946106	BASE, Filter	1

§Not Sold Separately

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



AXLE ASSEMBLY — FRONT DRIVE

TS-6763-P



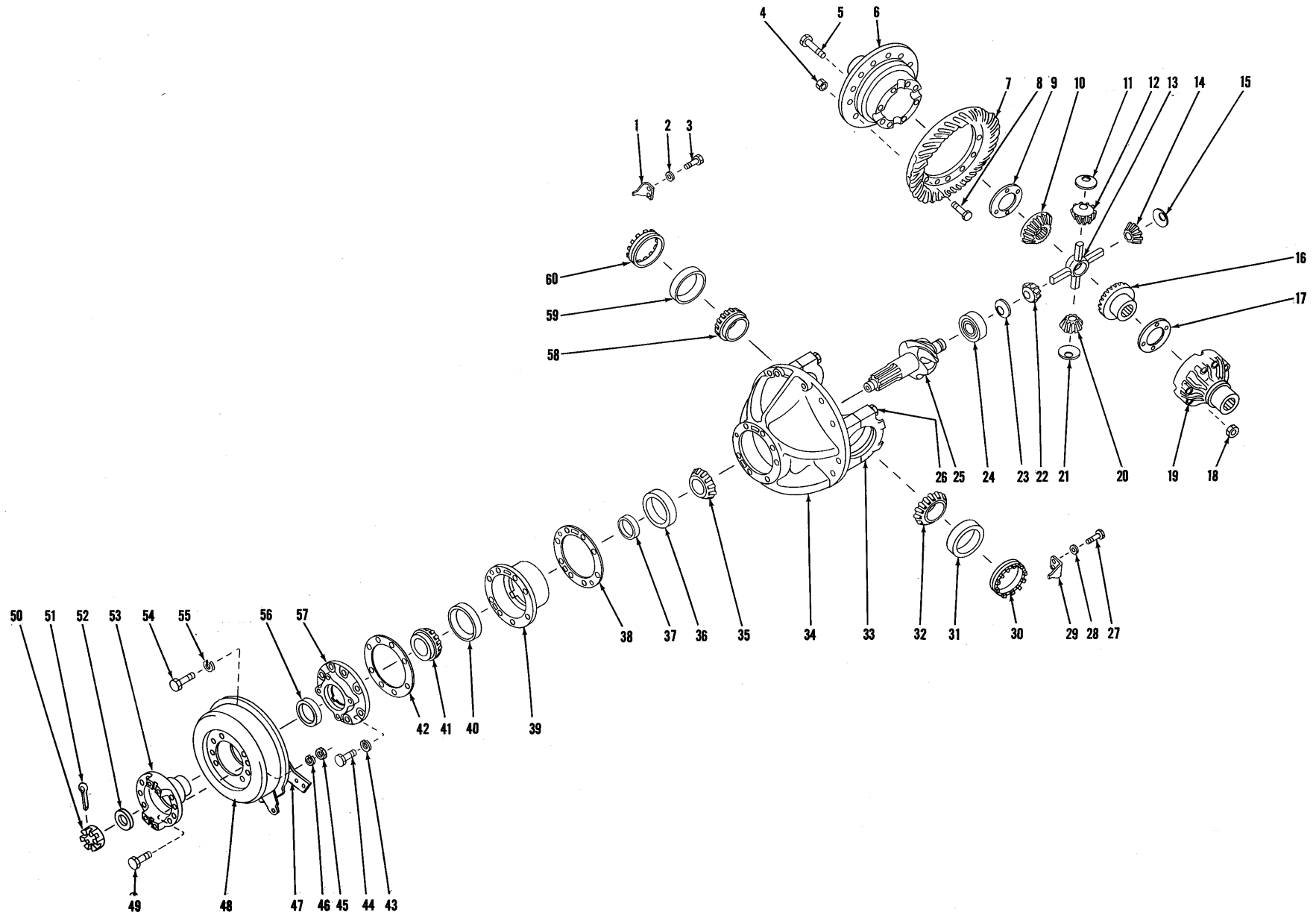
CONSTRUCTION MACHINERY DIVISION

MICHIGAN

AXLE ASSEMBLY — FRONT DRIVE

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	131597	AXLE ASSY (Inc. 1 thru 57)	1	29	106880	BOLT, Internal Gear to Hub	16
1	799408	CONE, Inner Hub Bearing	2	30	103522	NUT, Wheel	20
2	658985	CUP, Inner Hub Bearing	2	31	103445	STUD, Wheel	20
3	11F-12	PLUG, Hub Filler	2	32	103076	NUT, Wheel Stud	20
4	112073	HUB ASSY (Inc. 2, 5)	2	33	105705	HOUSING, Axle	1
5	672181	CUP, Outer Hub Bearing	2	34	106656	BREATHER, Axle Housing	1
6	672182	CONE, Outer Hub Bearing	2	35	11F-12	PLUG, Housing Filler	1
7	112054	AXLE SHAFT	2	36	1C-612	BOLT, Dust Shield Mounting	12
8	106060	HUB, Internal Gear	2	37	4E-06	LKWSHR, Dust Shield Mounting	12
9	106059	GEAR, Internal	2	38	114453	SHIELD, Brake Dust	4
10	114433	NUT, Inner Spindle	4	39	———	FRONT BRAKE ASSY — See Index	—
11	———	PLANET CARRIER — See Index	—	40	107256	BOLT, Brake Drum to Hub	24
12	116419	STUD, Planet Carrier Mounting	10	41	104412	WASHER, Brake Drum to Hub	24
13	112287	DOWEL, Planet Carrier Mounting	10	42	112075	DRUM, Brake	2
14	106762	LKWSHR, Planet Carrier Mounting	10	43	109055	CATCHER, Oil	2
15	64D-08	NUT, Planet Carrier Mounting	10	44	112055	SEAL, Hub Oil	2
16	106058	GEAR, Sun	2	45	112058	BOLT, Spindle & Brake Attaching	16
17	114089	"O" RING, Cap to Carrier	2	46	104412	WASHER, Spindle & Brake Attaching	16
18	106455	WASHER, Sun Gear Thrust Cap	2	47	1D-10	NUT, Spindle & Brake Attaching	16
19	945129	KIT, Sun Gear Thrust Cap (Inc. 17, 18, 20)	2	48	11F-12	PLUG, Housing Drain	1
20	11F-04	PLUG, Thrust Cap	2	49	112278	WASHER, Carrier to Axle Housing	11
21	1C-720	BOLT, Thrust Cap	12	50	17C-728	BOLT, Carrier to Axle Housing	8
22	112278	LKWSHR, Thrust Cap	12	51	17C-722	BOLT, Carrier to Axle Housing	3
23	224028	RING, Sun Gear Retaining	2	52	64D-07	NUT, Carrier to Axle Housing	3
24	1C-808	BOLT, Planet Puller Hole	4	53	112278	WASHER, Carrier to Axle Housing	3
25	3E-08	LKWSHR, Planet Puller Hole	4	54	103216	DOWEL, Carrier to Axle Housing	3
26	100970	BOLT, Planet Carrier to Hub	10	55	609733	TEE, Brake Line	1
27	106762	WASHER, Planet Carrier to Hub	10	56	———	DIFF & CARRIER ASSY — See Index	—
28	101274	LOCK, Spindle Nut	2	57	112277	STUD, Carrier to Axle Housing	3

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



DIFFERENTIAL AND CARRIER ASSEMBLY — FRONT DRIVE

TS-6377-P



CONSTRUCTION MACHINERY DIVISION

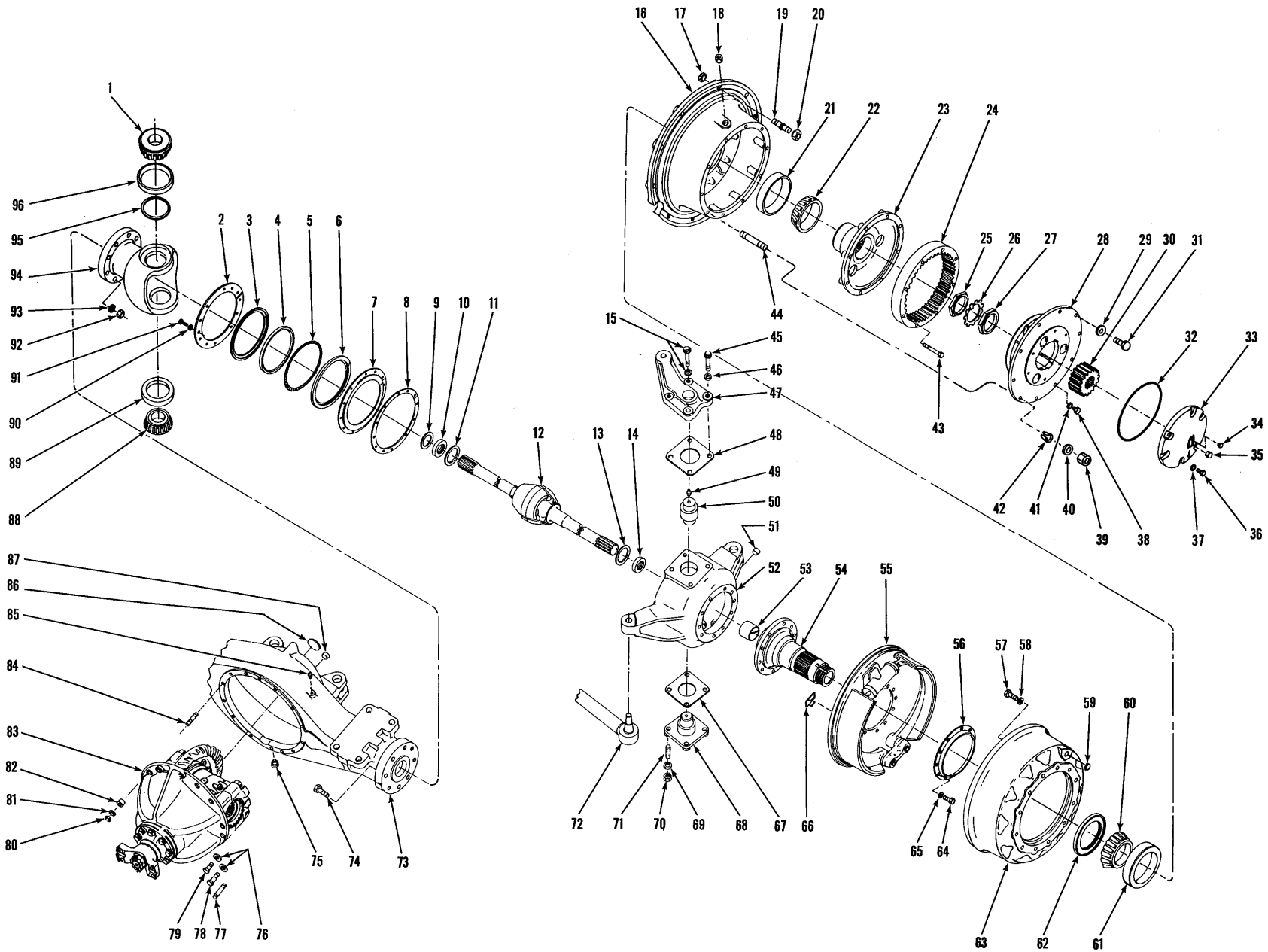
MICHIGAN

DIFFERENTIAL AND CARRIER ASSEMBLY — FRONT DRIVE

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	117192	DIFF & CARRIER ASSY (Inc. 1 thru 60)	1	35	667277	CONE, Center Pinion Bearing	1
1	100941	LOCK, Adjusting Nut	1	36	667278	CUP, Center Pinion Bearing	1
2	4E-06	LKWSHR, Adjusting Nut Lock	1	37	815040	KIT, Pinion Bearing Spacer	1
3	3C-614	BOLT, Adjusting Nut Lock	1	38	112354	‡SHIM, Pinion Bearing Cage (.004)	—
4	104182	NUT, Ring Gear	12	38A	112355	‡SHIM, Pinion Bearing Cage (.007)	—
5	100174	BOLT, Differential Case	8	38B	112356	‡SHIM, Pinion Bearing Cage (.010)	—
6	—	§DIFF. CASE, Flange Half — See Item 64	—	39	112350	CAGE ASSY, Pinion Bearing (Inc. 40)	1
7	—	§RING GEAR — See Item 63	—	40	675257	CUP, Outer Pinion Bearing	1
8	100176	BOLT, Ring Gear	12	41	710288	CONE, Outer Pinion Bearing	1
9	100173	WASHER, Side Gear Thrust	1	42	112353	GASKET, Oil Seal Retainer	1
10	100170	GEAR, Differential Side	1	43	4E-09	LKWSHR, Oil Seal Retainer	5
11	100172	WASHER, Differential Pinion Thrust	1	44	1C-940	BOLT, Oil Seal Retainer	5
12	815744	PINION KIT, Differential (Inc. 14, 20, 22)	1	44A	1C-840	†BOLT, Retainer Locating	1
13	100171	SPIDER, Differential	1	44B	4E-08	†LKWSHR, Retainer Locating	1
14	—	§PINION, Differential — See Item 12	—	45	2D-06	NUT, Drum to Flange	6
15	100172	WASHER, Differential Pinion Thrust	1	46	2E-06	LKWSHR, Drum to Flange	6
16	100170	GEAR, Differential Side	1	47	—	PARKING BRAKE — See Index	—
17	100173	WASHER, Side Gear Thrust	1	48	107261	DRUM, Brake	1
18	104182	NUT, Differential Case	8	49	101144	BOLT, Drum to Flange	6
19	—	§DIFF. CASE, Plain Half — See Item 64	—	50	100950	NUT, Pinion Shaft	1
20	—	§PINION, Differential — See Item 12	—	51	1F-428	COTTER, Pinion Shaft Nut	1
21	100172	WASHER, Differential Pinion Thrust	1	52	100951	WASHER, Pinion Shaft	1
22	—	§PINION, Differential — See Item 12	—	53	112871	FLANGE, Companion	1
23	100172	WASHER, Differential Pinion Thrust	1	54	1C-1022	BOLT, Brake Mounting	4
24	675536	BEARING, Inner Pinion	1	55	4E-10	LKWSHR, Brake Mounting	4
25	—	§PINION — See Item 63	—	56	111720	SEAL, Pinion Oil	1
26	100937	BOLT, Carrier Cap	4	57	112357	RETAINER, Pinion Oil Seal	1
26A	111656	†WASHER, Carrier Cap	4	58	675248	CONE, Differential Bearing	1
27	3C-614	BOLT, Adjusting Nut Lock	1	59	675249	CUP, Differential Bearing	1
28	4E-06	LKWSHR, Adjusting Nut Lock	1	60	100940	NUT, Differential Adjusting	1
29	100941	LOCK, Adjusting Nut	1	61	117193	†DIFFERENTIAL ASSY (Inc. 4 thru 23, 25)	1
30	100940	NUT, Differential Adjusting	1	62	106368	†DIFFERENTIAL BODY SUB-ASSY (Inc. 5, 6, 9 thru 23)	1
31	675249	CUP, Differential Bearing	1	63	117194	†GEAR & PINION SET (Inc. 7, 25)	1
32	675248	CONE, Differential Bearing	1	64	815259	†DIFF. CASE KIT (Inc. 5, 6, 18, 19)	1
33	—	§CAP, Differential — See Item 34	—				
34	116712	CARRIER ASSY, Differential (Inc. 26, 26A, 33)	1				

†Not Illustrated
‡As Required
§Not Sold Separately

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



AXLE ASSEMBLY — REAR DRIVE STEER

TS-6767-P



CONSTRUCTION MACHINERY DIVISION

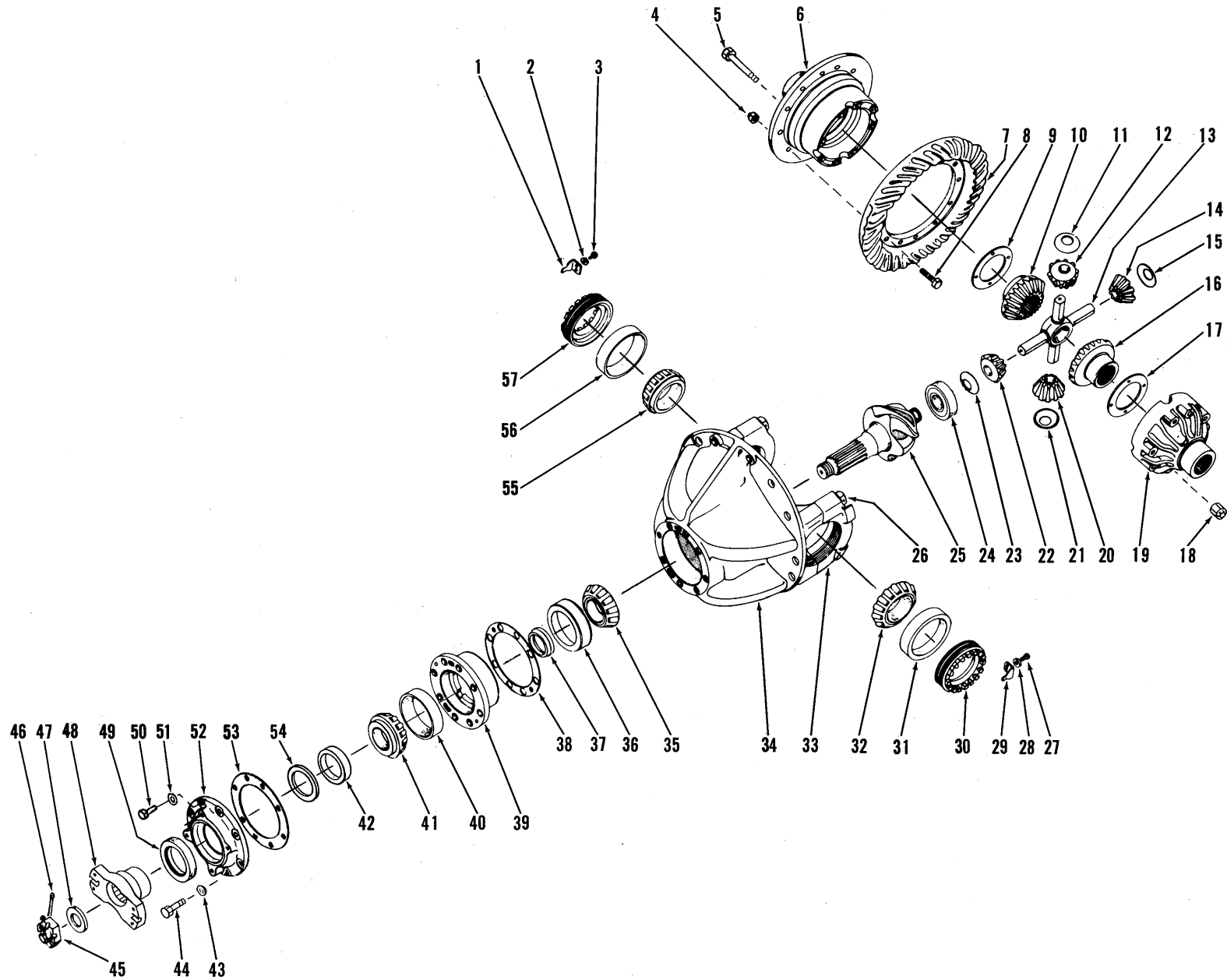
MICHIGAN

AXLE ASSEMBLY — REAR DRIVE STEER

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	131598	AXLE ASSY (Inc. 1 thru 97)	1	49	10H-25	FITTING, Upper Trunnion Grease	2
1	675305	CONE, Upper Trunnion Bearing	2	50	106120	TRUNNION, Upper Steering — L.H.	1
2	106136	RING, Outer End Seal Retainer	4	50A	108432	†TRUNNION, Upper Steering — R.H.	1
3	106135	RETAINER, Outer Dust Seal	2	51	11F-12	PLUG, Spindle Support Filler	2
4	106133	SEAL, Outer End Dust	2	52	117210	SUPPORT, Spindle — L.H. (Inc. 71)	1
5	106134	SPRING, Outer End Dust Seal	2	52A	117209	†SUPPORT, Spindle — R.H. (Inc. 71)	1
6	106132	SEAL, Outer End Oil	2	53	106099	BUSHING, Spindle	2
7	106130	RETAINER, Outer End Oil Seal	2	54	117207	SPINDLE ASSY (Inc. 53)	2
8	106131	GASKET, Outer End Oil Seal Retainer	2	55	—	BRAKE ASSY — See Index	—
9	106129	WASHER, Oil Seal	2	56	117214	CATCHER, Oil	2
10	106127	SEAL, Universal Joint Shaft Oil	2	57	107256	BOLT, Brake Drum to Hub	12
11	106128	WASHER, Universal Joint Thrust	2	58	104412	WASHER, Brake Drum to Hub	12
12	117206	SHAFT ASSY, Axle & Universal Joint	2	59	107608	PLUG, Button Inspection Hole	1
13	106128	WASHER, Universal Joint Thrust	2	60	675253	CONE, Inner Hub Bearing	2
14	106127	SEAL, Universal Joint Shaft Oil	2	61	675242	CUP, Inner Hub Bearing	2
15	106322	BOLT, Steering Arm	2	62	111719	SEAL, Hub Oil	2
15A	104549	WASHER, Steering Arm Bolt	2	63	107646	DRUM, Brake	2
16	112047	HUB ASSY (Inc. 21, 61)	2	64	117213	BOLT, Spindle & Brake Attaching	20
17	103522	NUT, Wheel Stud	20	65	106547	WASHER, Spindle & Brake Attaching	20
18	11F-12	PLUG, Hub Filler & Drain	2	66	886886	COVER, Brake Adjusting Hole	8
19	103445	STUD, Wheel	20	67	106123	‡SHIM, Steering Trunnion — THICK	—
20	103076	NUT, Wheel	20	67A	106124	‡‡SHIM, Steering Trunnion — MEDIUM	—
21	675255	CUP, Outer Hub Bearing	2	67B	106125	‡‡SHIM, Steering Trunnion — THIN	—
22	675256	CONE, Outer Hub Bearing	2	68	106119	TRUNNION, Lower Steering	2
23	106879	HUB, Internal Gear	2	69	106547	WASHER, Trunnion Attaching	12
24	106059	GEAR, Internal	2	70	64D-09	NUT, Trunnion Attaching	12
25	114463	NUT, Steering Spindle	2	71	106115	STUD, Trunnion Attaching	12
26	100967	LOCK, Spindle Nut	2	72	—	TIE ROD ASSY — See Index	—
27	114463	NUT, Steering Spindle	2	73	112045	HOUSING, Axle	1
28	—	PLANET SPIDER — See Index	—	74	112090	BOLT, Housing to Outer End	16
29	106762	WASHER, Planet Spider to Hub	10	75	11F-12	PLUG, Housing Drain	1
30	106058	GEAR, Sun	2	76	112278	WASHER, Carrier Attaching	11
31	100970	BOLT, Planet Spider to Hub	10	77	112924	STUD, Brake Line Tee Attaching	1
32	114089	SEAL RING, Cap to Carrier	2	78	17C-728	BOLT, Carrier Attaching	7
33	117242	CAP, Sun Gear Thrust	2	79	17C-722	BOLT, Carrier Attaching	4
34	111805	VALVE, Thrust Cap Relief	2	80	64D-07	NUT, Carrier Stud	3
35	11F-04	PLUG, Thrust Cap	2	81	112278	WASHER, Carrier Stud	3
36	1C-720	BOLT, Thrust Cap	12	82	103216	DOWEL, Carrier Stud	3
37	112278	WASHER, Thrust Cap	12	83	—	DIFF. & CARRIER ASSY — See Index	—
38	1C-808	BOLT, Planet Puller Hole	4	84	112277	STUD, Carrier Attaching	3
39	64D-08	NUT, Planet Carrier Stud	10	85	106656	BREATHER, Axle Housing	1
40	106762	WASHER, Planet Carrier Stud	10	86	12F-204	PLUG, Housing Expansion	1
41	3E-08	LKWSHR, Planet Puller Hole	4	87	11F-12	PLUG, Housing Filler	1
42	112287	DOWEL, Planet Carrier to Hub	10	88	675305	CONE, Trunnion Bearing — Lower	2
43	106880	BOLT, Internal Gear to Hub	16	89	675306	CUP, Trunnion Bearing — Lower	2
44	116419	STUD, Planet Carrier to Hub	10	90	4E-06	LKWSHR, Outer End Retainer	24
45	106313	BOLT, Steering Arm	2	91	1C-612	BOLT, Outer End Retainer	24
46	111656	WASHER, Steering Arm Bolt	2	92	106998	NUT, Outer End to Housing	16
47	110712	ARM, Steering	1	93	104412	WASHER, Outer End to Housing	16
48	106319	‡SHIM, Steering Arm — THICK	—	94	118048	OUTER END, Housing	2
48A	106320	‡‡SHIM, Steering Arm — MEDIUM	—	95	106121	RETAINER, Upper Trunnion Oil	2
48B	106321	‡‡SHIM, Steering Arm — THIN	—	96	675306	CUP, Upper Trunnion Bearing	2
				97	550320	†TEE, Brake Line	1

‡As Required
†Not Illustrated

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



DIFFERENTIAL AND CARRIER ASSEMBLY — REAR DRIVE STEER

TS-5007-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

DIFFERENTIAL AND CARRIER ASSEMBLY — REAR DRIVE STEER

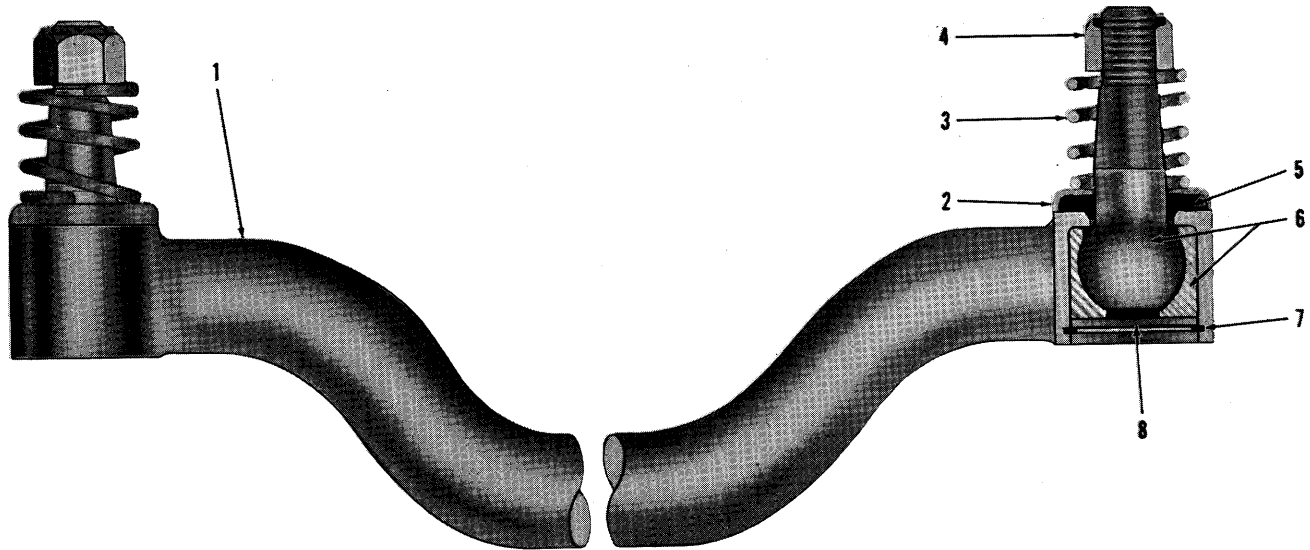
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	117197	DIFF. & CARRIER ASSY (Inc. 1 thru 57)	1	32	675248	CONE, Differential Bearing	1
1	100941	LOCK, Differential Adjusting Nut	1	33	———	CAP, Differential Carrier — See Item 34	—
2	4E-06	LKWSHR, Adjusting Nut Lock	1	34	116712	CARRIER ASSY, Diff. (Inc. 26, 26A, 33)	1
3	3C-614	BOLT, Adjusting Nut Lock	1	35	667277	CONE, Center Pinion Bearing	1
4	104182	NUT, Ring Gear	12	36	667278	CUP, Center Pinion Bearing	1
5	100174	BOLT, Differential Case	8	37	815040	KIT, Pinion Bearing Spacer	1
6	———	§DIFF. CASE — Flange Half — See Item 61	—	38	112354	‡SHIM, Bearing Cage (.004)	—
7	———	§RING GEAR — See Item 60	—	38A	112355	‡SHIM, Bearing Cage (.007)	—
8	100176	BOLT, Ring Gear	12	38B	112356	‡SHIM, Bearing Cage (.010)	—
9	100173	WASHER, Side Gear Thrust	1	39	112350	CAGE ASSY, Pinion Bearing (Inc. 40)	1
10	100170	GEAR, Differential Side	1	40	675257	CUP, Outer Pinion Bearing	1
11	100172	WASHER, Differential Pinion Thrust	1	41	710288	CONE, Outer Pinion Bearing	1
12	815744	PINION KIT, Differential (Inc. 14, 20, 22)	1	42	111720	SEAL, Pinion Oil	1
13	100171	SPIDER, Differential	1	43	4E-09	LKWSHR, Oil Seal Retainer	5
14	———	§PINION, Differential — See Item 12	—	44	1C-928	BOLT, Oil Seal Retainer	5
15	100172	WASHER, Differential Pinion Thrust	1	45	100950	NUT, Pinion Shaft	1
16	100170	GEAR, Differential Side	1	46	1F-428	COTTER, Pinion Shaft Nut	1
17	100173	WASHER, Side Gear Thrust	1	47	100951	WASHER, Pinion Shaft Nut	1
18	104182	NUT, Differential Case	8	48	106081	FLANGE, Companion	1
19	———	§DIFF. CASE — Plain Half — See Item 61	—	49	———	OMIT — Not applicable this Model ..	—
20	———	§PINION, Differential — See Item 12	—	50	1C-828	BOLT, Oil Seal Retainer Locating	1
21	100172	WASHER, Differential Pinion Thrust	1	51	4E-08	LKWSHR, Oil Seal Retainer Locating	1
22	———	§PINION, Differential — See Item 12	—	52	112352	RETAINER, Pinion Oil Seal	1
23	100172	WASHER, Differential Pinion Thrust	1	53	112353	GASKET, Oil Seal Retainer	1
24	675536	BEARING, Inner Pinion	1	54	100945	GASKET, Pinion Oil Seal	1
25	———	§PINION, Differential — See Item 60	—	55	675248	CONE, Differential Bearing	1
26	100937	BOLT, Differential Carrier Cap	4	56	675249	CUP, Differential Bearing	1
26A	111656	WASHER, Differential Carrier Cap	4	57	100940	NUT, Differential Adjusting	1
27	3C-614	BOLT, Adjusting Nut Lock	1	58	117198	†DIFF. ASSY (Inc. 4 thru 23, 25)	1
28	4E-06	LKWSHR, Adjusting Nut Lock	1	59	106368	†DIFF. BODY SUB ASSY (Inc. 5, 6, 9 thru 23)	1
29	100941	LOCK, Differential Adjusting Nut	1	60	117199	†GEAR & PINION SET (Inc. 7, 25)	1
30	100940	NUT, Differential Adjusting	1	61	815259	†DIFF. CASE KIT (Inc. 5, 6, 18, 19)	1
31	675249	CUP, Differential Bearing	1				

§Not Sold Separately

‡As Required

†Not Illustrated

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



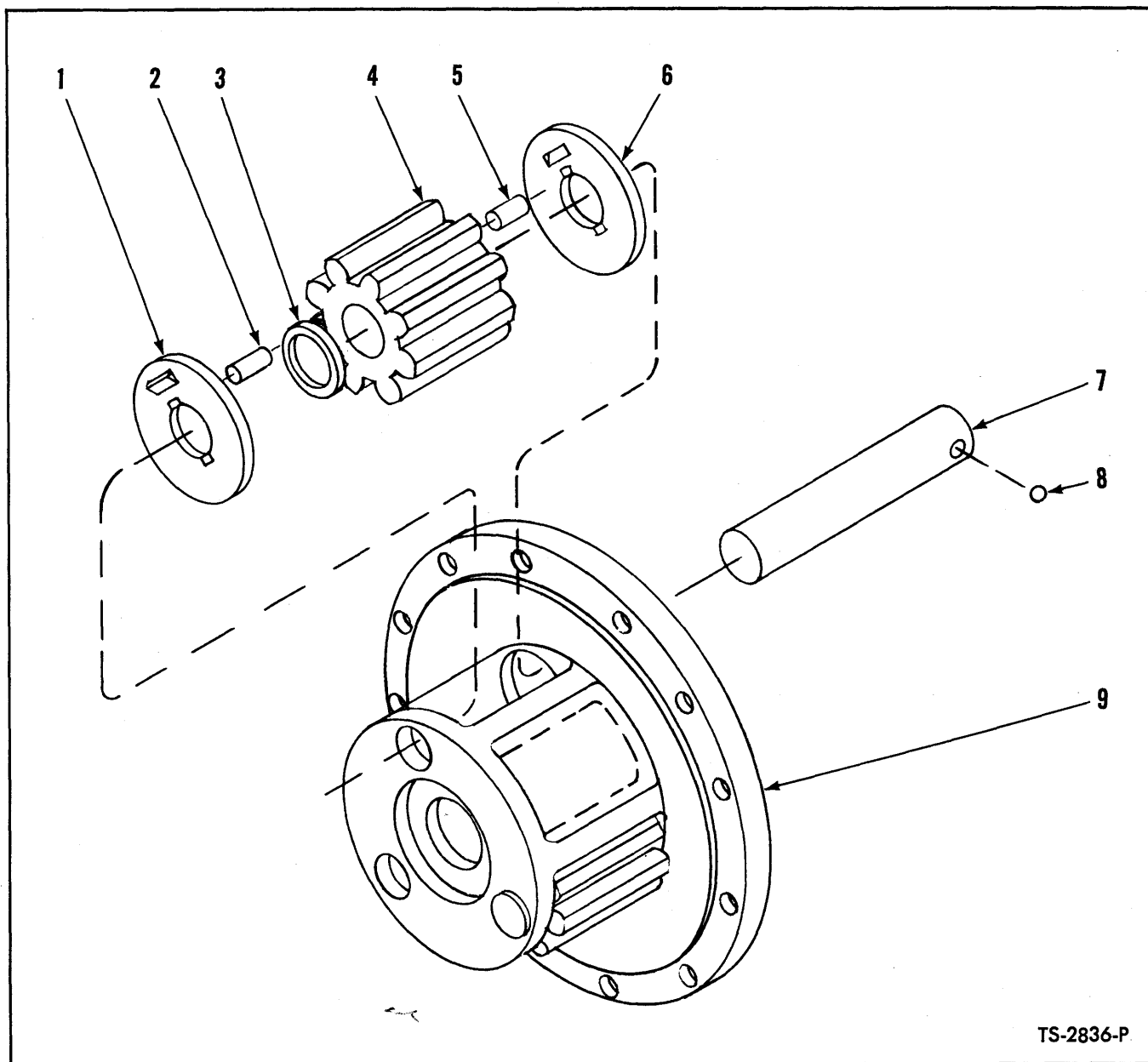
TS-3528-P

TIE ROD ASSEMBLY

Item No.	Part No.	Description	No. Req'd.
A	117226	TIE ROD ASSY (Inc. 1 thru 8)	1
1	—	SHOUSING, Tie Rod — See Item "A"	—
2	106138	RETAINER, Felt	2
3	106268	SPRING	2
4	112174	NUT, Ball Stud	2
5	106137	FELT	2
6	117228	BALL STUD	2
7	541879	PLATE, Ball Stud Retainer	2
8	507695	RING, Plate Retaining	2

§Not Sold Separately

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



TS-2836-P

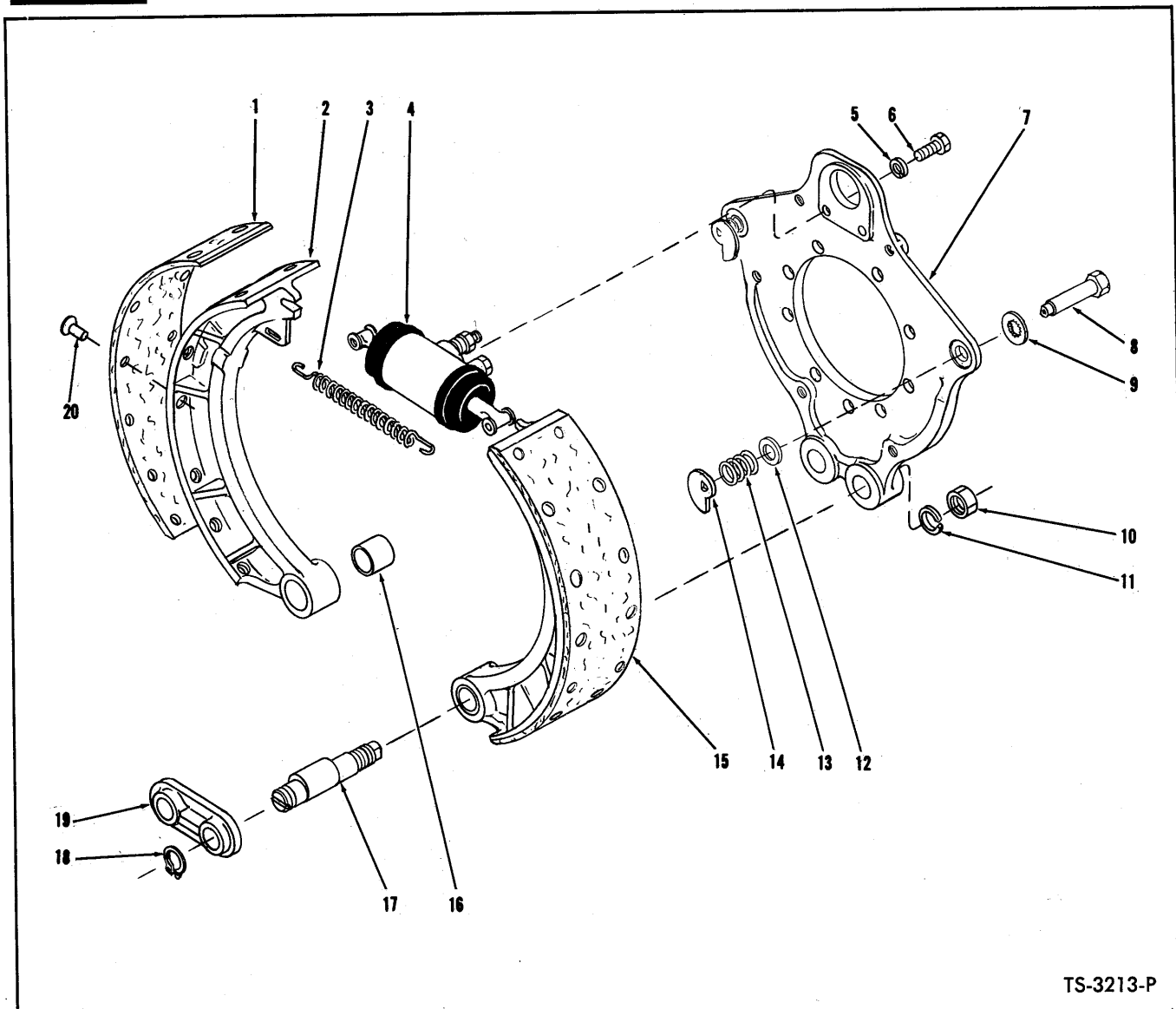
PLANET CARRIER ASSEMBLY

Item No.	Part No.	Description	No. Req'd.
A	114449	CARRIER ASSY, Planet (Inc. 1 thru 9)	4

NOTE: Four (4) Planet Carrier Assemblies used per machine. Quantities listed below are for 1 Planet Carrier.

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	114450	SPIDER, Planet	1

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

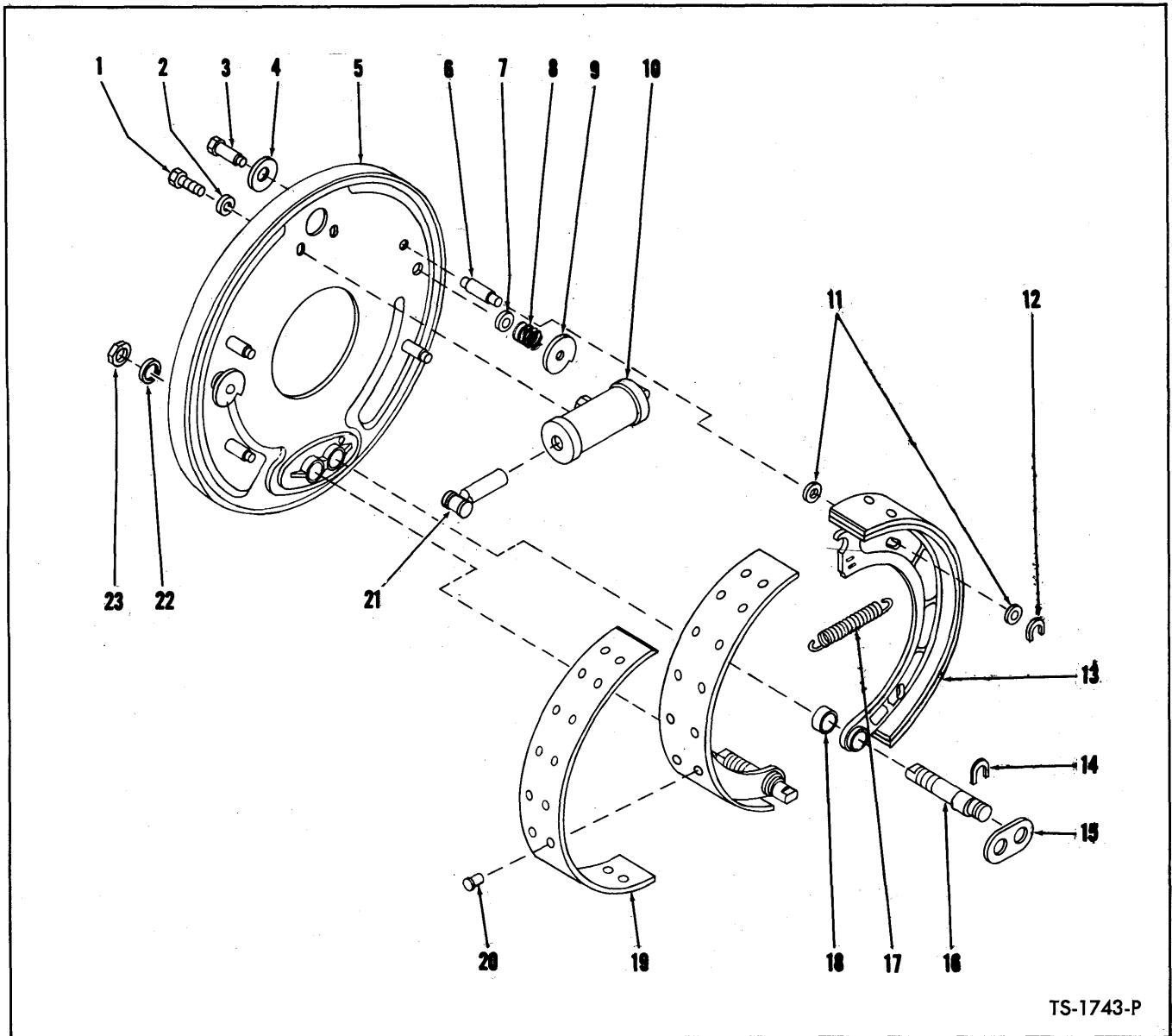
**BRAKE ASSEMBLY — FRONT**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	117150	BRAKE ASSY (Inc. 1 thru 20)	2	8	114173	PIN ASSY, Brake Shoe Adjusting (Inc. 9)	2
NOTE: 2 Brake Assemblies used on axle — Quantities listed below are for 1 Brake Assembly				9	100867	WASHER, Brake Shoe Adjusting Pin	2
B		LINING KIT, Brake (Inc. 1, 20)		10	2D-14	NUT, Anchor Pin	2
C	945614	Standard	1	11	2E-14	LKWSHR, Anchor Pin Nut	2
D	945621	* $\frac{1}{16}$ " Oversize	1	12	851771	WASHER, Cam Spring	2
1	—	§ LINING, Brake Shoe — See C & D	2	13	943859	KIT, Adjusting Cam Spring (Inc. 12) ..	2
2	—	§ SHOE, Brake — See 15	2	14	112062	CAM, Shoe Adjusting	2
3	116949	SPRING, Brake Shoe Return	1	15	118267	SHOE ASSY, Brake (Inc. 1, 2, 16, 20)	2
4	—	WHEEL CYLINDER — See Index	1	16	112068	BUSHING, Brake Shoe	2
5	4E-06	LKWSHR, Wheel Cyl. Mounting	2	17	112069	PIN, Brake Shoe Anchor	2
6	1C-614	BOLT, Wheel Cylinder Mounting	2	18	710776	RING, Anchor Pin Retaining	2
7	112060	SPIDER ASSY, Brake (Inc. 8, 9, 12, 13, 14)	1	19	112070	STRUT, Anchor Pin	1
				20	23H-1008	RIVET, Lining to Shoe	40

§Not Sold Separately

*NOTE: When 945621 Lining Kit is utilized Drums must be turned down to 16.370"—16.380". Do Not Exceed this Dimension.

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



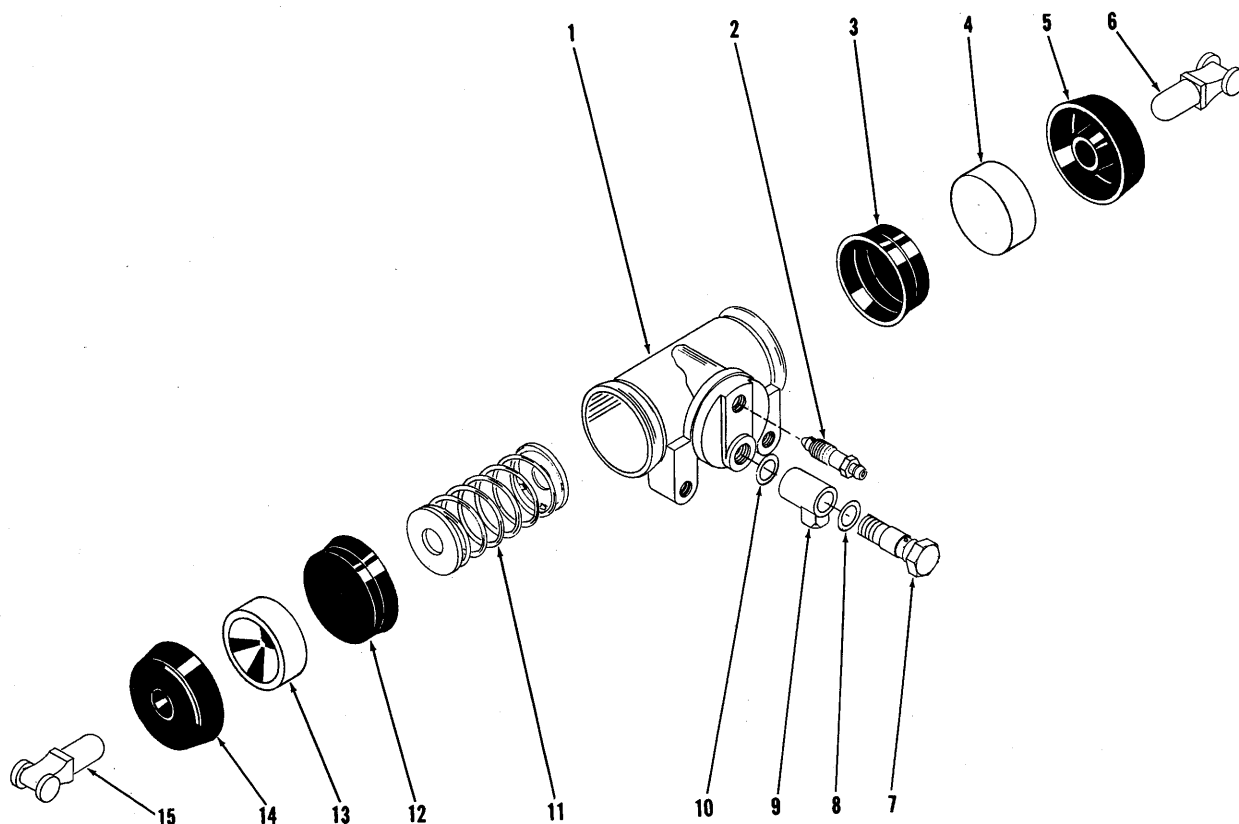
TS-1743-P

BRAKE ASSEMBLY — REAR

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	117202	BRAKE ASSY (Inc. 1 thru 23)	2	12	100878	"C" WASHER, Guide Pin	4
NOTE: 2 Brake Assemblies used on axle — Quantities listed below are for 1 Brake Assembly.				13	118254	SHOE ASSY, Brake (Inc. 18, 19, 20)	2
1	1C-610	BOLT, Cylinder to Brake Disc	2	14	101332	"C" WASHER, Anchor Pin	2
2	4E-06	LKWSHR, Cylinder to Brake Disc	2	15	106970	STRUT, Anchor Pin	1
3	114169	PIN, Cam (Inc. 4)	2	16	106969	PIN, Anchor	2
4	100867	WASHER, Cam Pin	2	17	106216	SPRING, Brake Shoe Return	1
5	117203	DISC ASSY, Brake (Inc. 3, 4, 6 thru 9)	1	18	100872	BUSHING, Brake Shoe	2
6	106373	PIN, Guide	4	19		LINING KIT, Brake (Inc. 20)	
7	851771	WASHER, Cam Spring	2	19A	944217	STANDARD	1
8	943859	KIT, Cam Spring (Inc. 7)	2	19B	945100	* $\frac{1}{16}$ " Oversize	1
9	100864	CAM, Brake Shoe Adjusting	2	20	3H-1216	RIVET, Lining to Shoe	36
10		CYLINDER, Brake Wheel — See Index	—	21	958553	LINK, Wheel Cylinder Connector	2
11	102322	WASHER, Guide Pin	8	22	4E-12	LKWSHR, Anchor Pin	2
				23	2D-12	NUT, Anchor Pin	2

*NOTE: When 945100 Lining Kit is utilized, drums must be turned down to 16.370"—16.380". DO NOT EXCEED THIS DIMENSION.

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



TS-3239-P

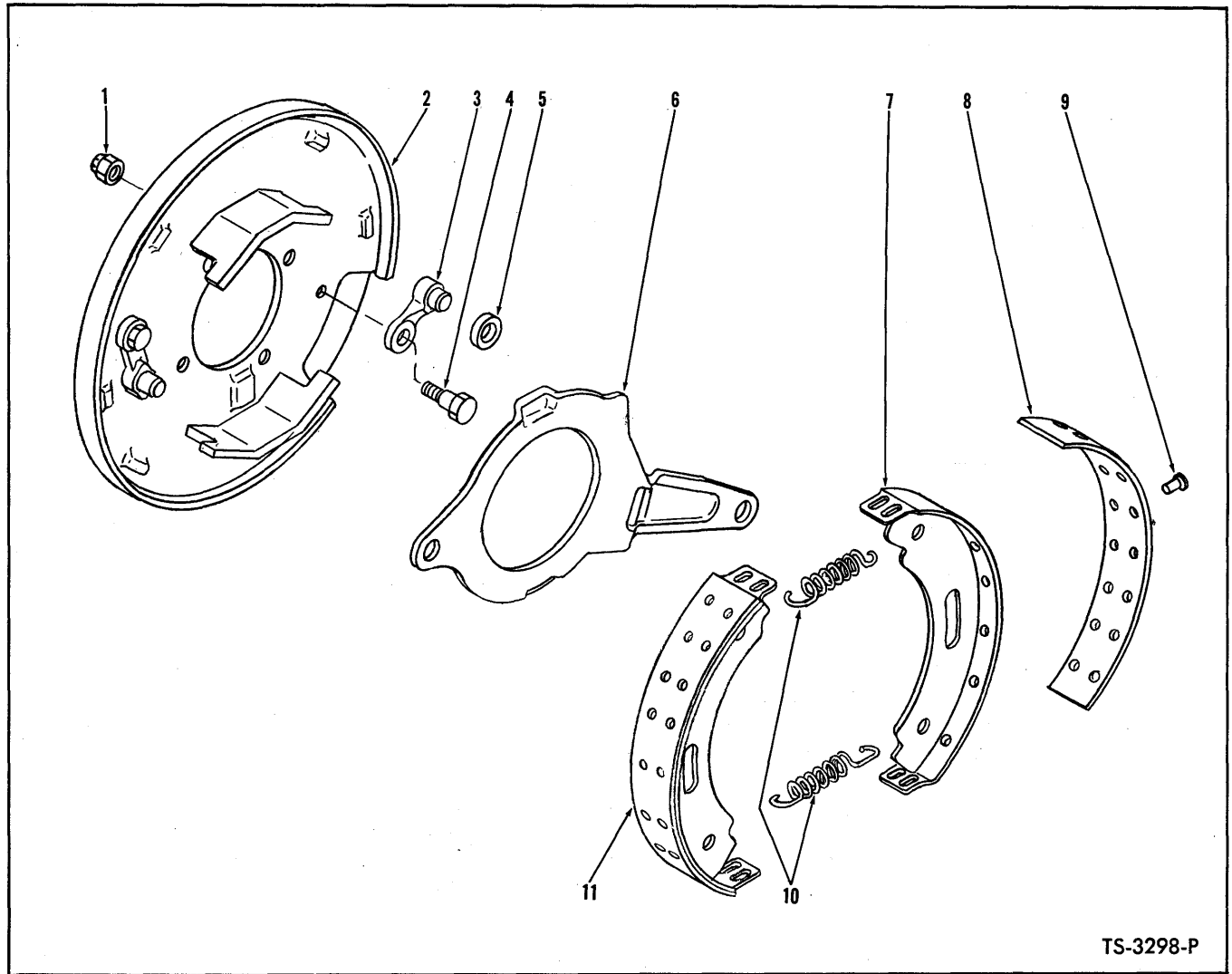
BRAKE WHEEL CYLINDER

Item No.	Part No.	Description	No. Req'd.
A		CYLINDER ASSY (Inc. 1 thru 15)	
B	112072	For Front Brake	2
C	107014	For Rear Brake	2
NOTE: 2 Wheel Cylinders used per axle. Quantities listed below are for 1 Wheel Cylinder			
D		REPAIR KIT, Cylinder (Inc. 3, 5, 12, 14)	
E	957995	For Front Cylinder	1
F	940130	For Rear Cylinder	1
1	—	§CYLINDER, Wheel — See "A"	1
2		SCREW, Bleeder	
2A	861356	For Front Cylinder	1
2B	208805	For Rear Cylinder	1
3	—	§CUP, Piston — See "D"	1
4	—	§PISTON — See "A"	1
5	—	§BOOT — See "D"	1
6	958553	LINK, Wheel Cylinder Connector	1

Item No.	Part No.	Description	No. Req'd.
7		BOLT, Fitting to Cylinder	
7A	944966	For Front Cylinder	1
7B	692722	For Rear Cylinder	1
8	620238	GASKET, Outer Fitting	1
9		FITTING, Cylinder	
9A	944967	For Front Cylinder	1
9B	620235	For Rear Cylinder	1
10	613750	GASKET, Inner Fitting	1
11		SPRING, Cylinder	
11A	956664	For Front Cylinder	1
11B	956622	For Rear Cylinder	1
12	—	§CUP, Piston — See "D"	1
13	—	§PISTON — See "A"	1
14	—	§BOOT — See "D"	1
15	958553	ROD, Push	1

§Not Sold Separately

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



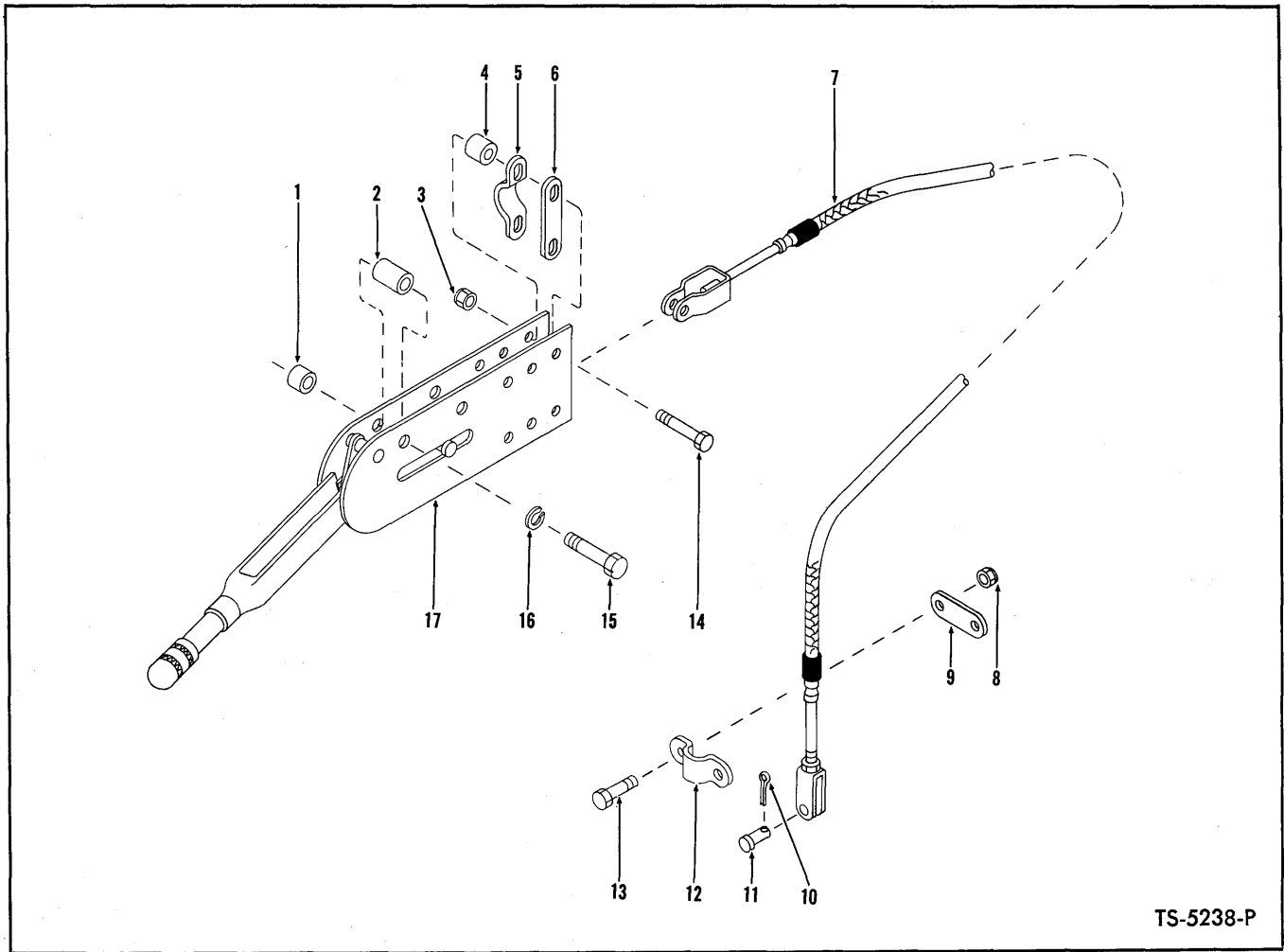
TS-3298-P

PARKING BRAKE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.
A	110280	BRAKE ASSY (Inc. 1 thru 11)	1
1	-----	§NUT, Pawl to Plate — See Item 3	2
2	945083	PLATE, Brake Backing	1
3	945046	PAWL KIT, Brake (Inc. 1, 4, 5)	2
4	-----	§BOLT, Pawl to Plate — See Item 3	2
5	220968	ROLLER, Brake Actuating	1
6	220965	LEVER, Operating Cam	1
7	-----	§SHOE, Brake — See Item 11	—
8	942405	LINING KIT, Brake (Inc. 9)	1
9	945051	RIVET, Lining to Shoe	28
10	220969	SPRING, Shoe Return	2
11	872712	SHOE ASSY, Brake (Inc. 7, 8, 9)	2

§Not Sold Separately

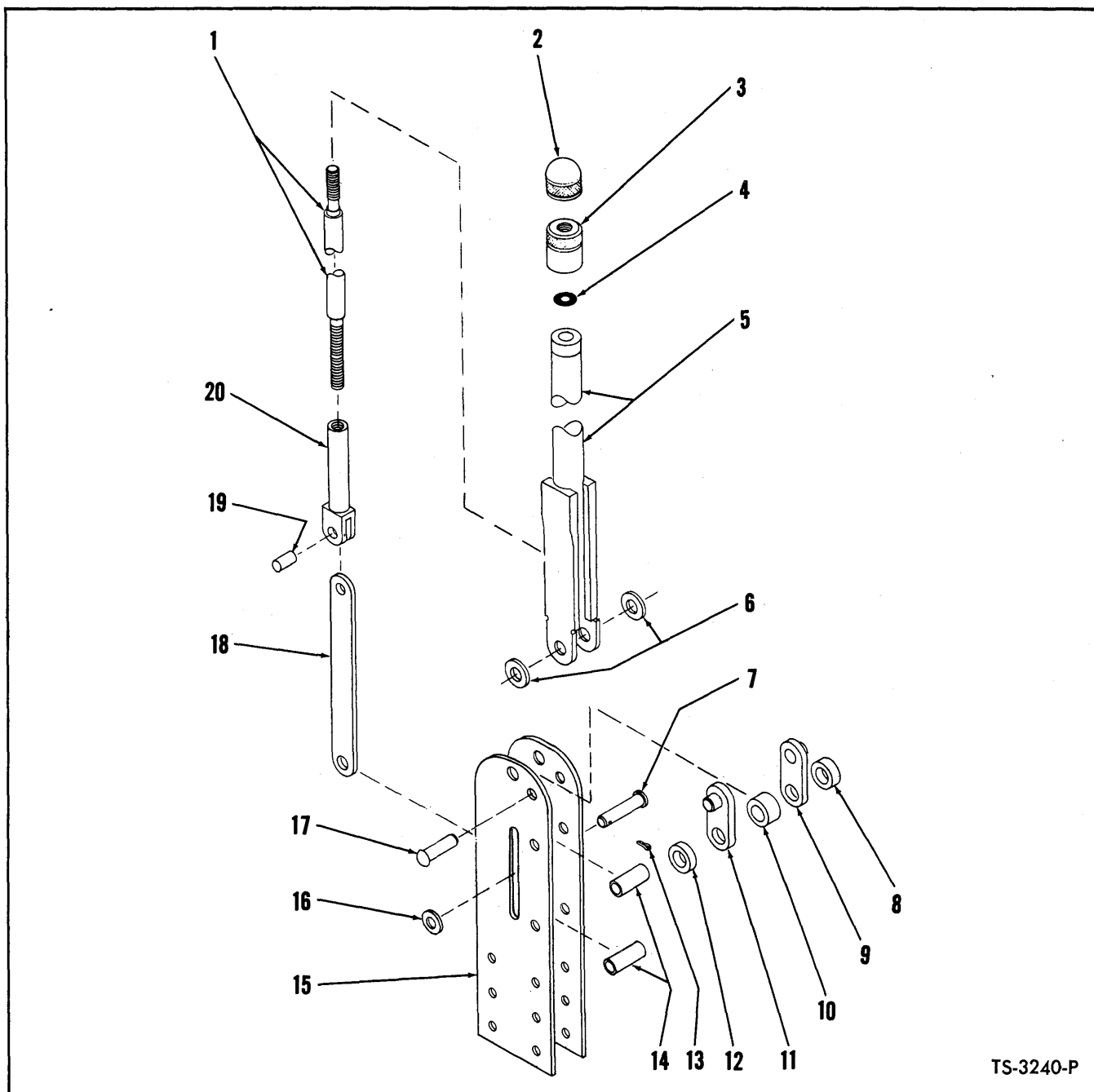
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



PARKING BRAKE CONTROLS

Item No.	Part No.	Description	No. Req'd.
1	545006	SPACER, Lever Mounting	2
2	545005	SPACER, Lever Mounting	2
3	18D-05	NUT, Cable Mounting	2
4	545006	SPACER, Cable Clamp	2
5	544512	CLAMP, Cable Mounting	1
6	645092	LINK, Cable Mounting	1
7	556693	CABLE, Parking Brake	1
8	18D-06	NUT, Clamp Attaching	2
9	645092	LINK, Cable Mounting	1
10	1F-312	COTTER, Clevis Pin	1
11	4F-06106	PIN, Cable Clevis Attaching	1
12	544512	CLAMP, Cable Mounting	1
13	18C-618	BOLT, Clamp Attaching	2
14	18C-528	BOLT, Cable Mounting	2
15	17C-636	BOLT, Lever Mounting	2
16	4E-06	LKWSHR, Lever Mounting	2
17	—	LEVER ASSY, Brake Hand — See Index	—

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

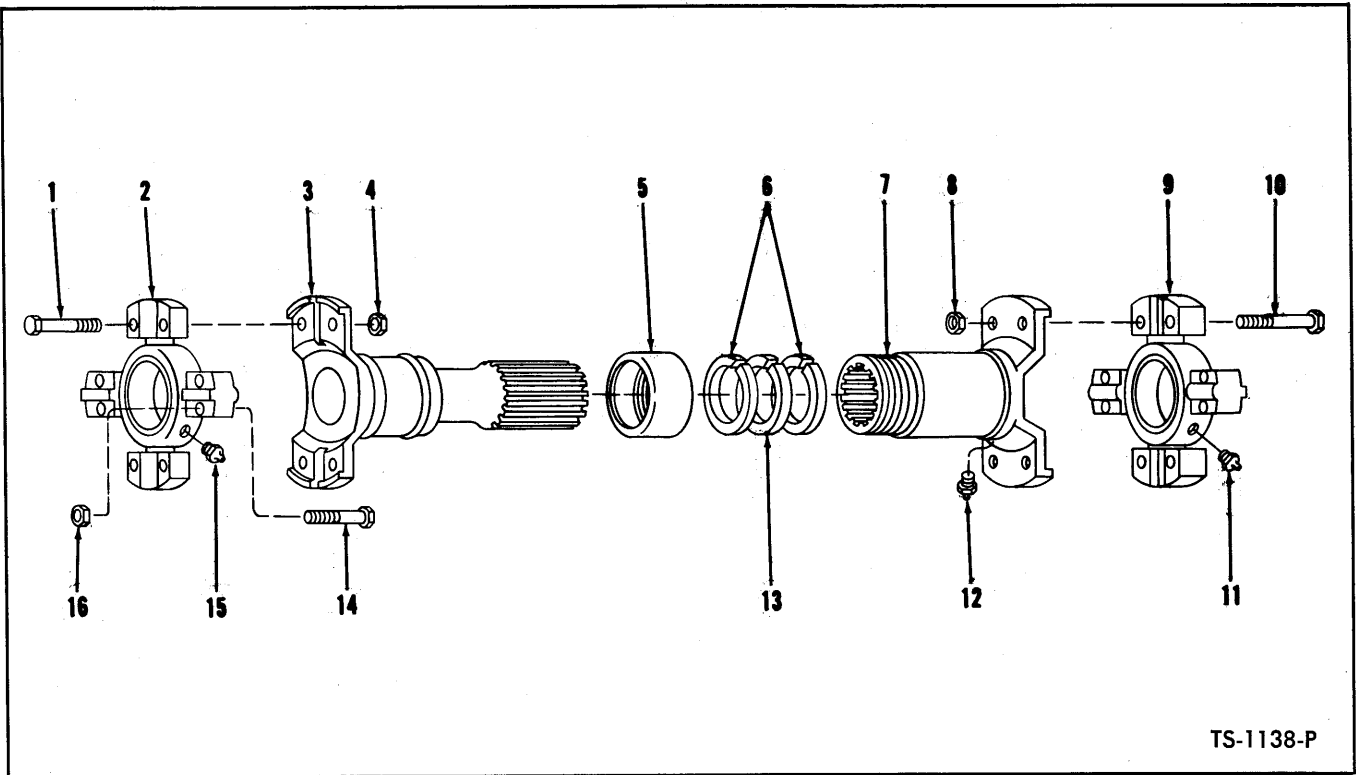


TS-3240-P

PARKING BRAKE LEVER ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	544998	LEVER ASSY (Inc. 1 thru 20)	1	11	862653	BRACKET, Pivot	1
1	866349	SCREW, Adjusting	1	12	862656	SPACER, Pivot Bracket	1
2	941227	CAP, Adjusting Knob	1	13	1F-312	COTTER, Link Pivot Pin	1
3	941226	BASE, Adjusting Knob	1	14	645095	SPACER, Mounting Bracket	2
4	946163	WASHER, Base to Body	1	15	944969	BRACKET, Lever Mounting	2
5	866348	BODY, Brake Lever	1	16	619019	WASHER, Link Pivot Pin	1
6	619024	WASHER, Body to Bracket	2	17	944054	RIVET, Pivot Bracket	1
7	862738	PIN, Adjusting Screw Link Pivot	1	18	862652	LINK, Adjusting Screw	1
8	862656	SPACER, Pivot Bracket	1	19	941238	PIN, Link to Tube	1
9	862653	BRACKET, Pivot	1	20	944968	TUBE, Adjusting Screw	1
10	862655	SPACER, Pivot Bracket	1				

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



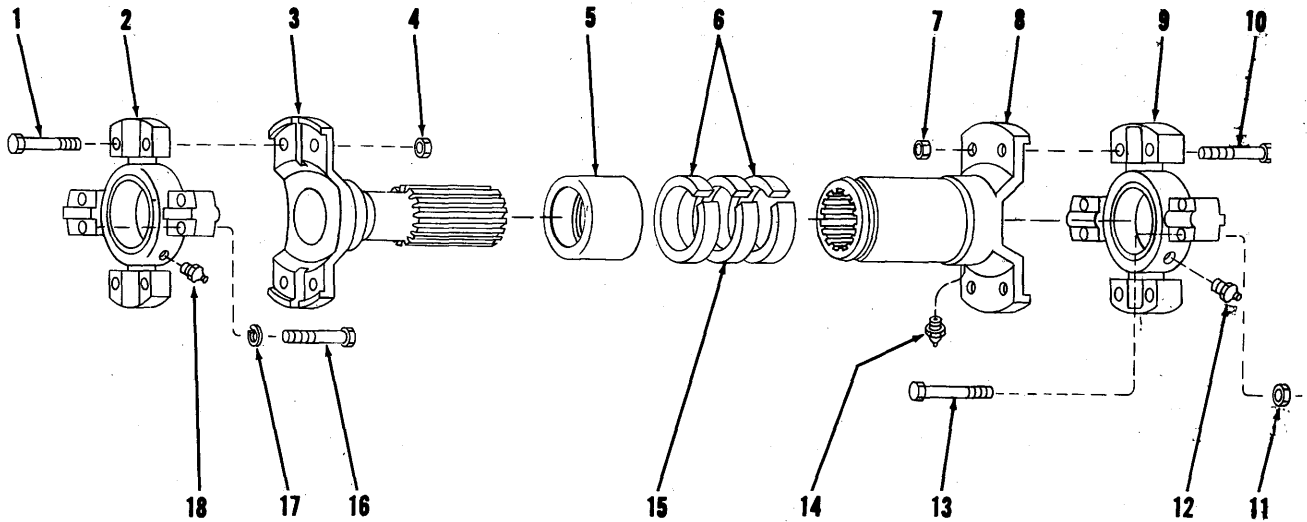
TS-1138-P

PROPELLER SHAFT ASSEMBLIES

Item No.	Description	Converter to Transmission	Transmission to Rear Axle	No. Req'd
A	PROPELLER SHAFT ASSY (Inc. 1 thru 16)	589891	589892	1
1	BOLT, Spider & Bearing to Tube	945256	940089	4
2	SPIDER & BEARING ASSY (Inc. 2A, 15)	944866	944862	1
2A	†SEAL, Spider & Bearing Grease	944863	944861	4
3	TUBE	946111	946112	1
4	NUT, Spider & Bearing to Tube	8D-05	8D-06	4
5	RETAINER, Felt	940654	940090	1
6	WASHER, Felt Retainer	940653	OMIT	2
7	SLIP YOKE (Inc. 12)	942658	946110	1
8	NUT, Spider & Bearing to Slip Yoke	8D-05	8D-06	4
9	SPIDER & BEARING ASSY (Inc. 9A, 11)	944866	944862	1
9A	†SEAL, Spider & Bearing Grease	944863	944861	4
10	BOLT, Spider & Bearing to Slip Yoke	945256	940089	4
11	FITTING, Spider & Bearing Grease	10H-35	10H-35	1
12	FITTING, Slip Yoke Grease	10H-25	10H-25	1
13	WASHER, Felt	940081 947331	940092	1
14	BOLT, Spider & Bearing Attaching	945256	940089	8
15	FITTING, Spider & Bearing Grease	10H-35	10H-35	1
16	NUT, Spider & Bearing Attaching	18D-05	8D-06	8

†Not Illustrated

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



TS-6757-P

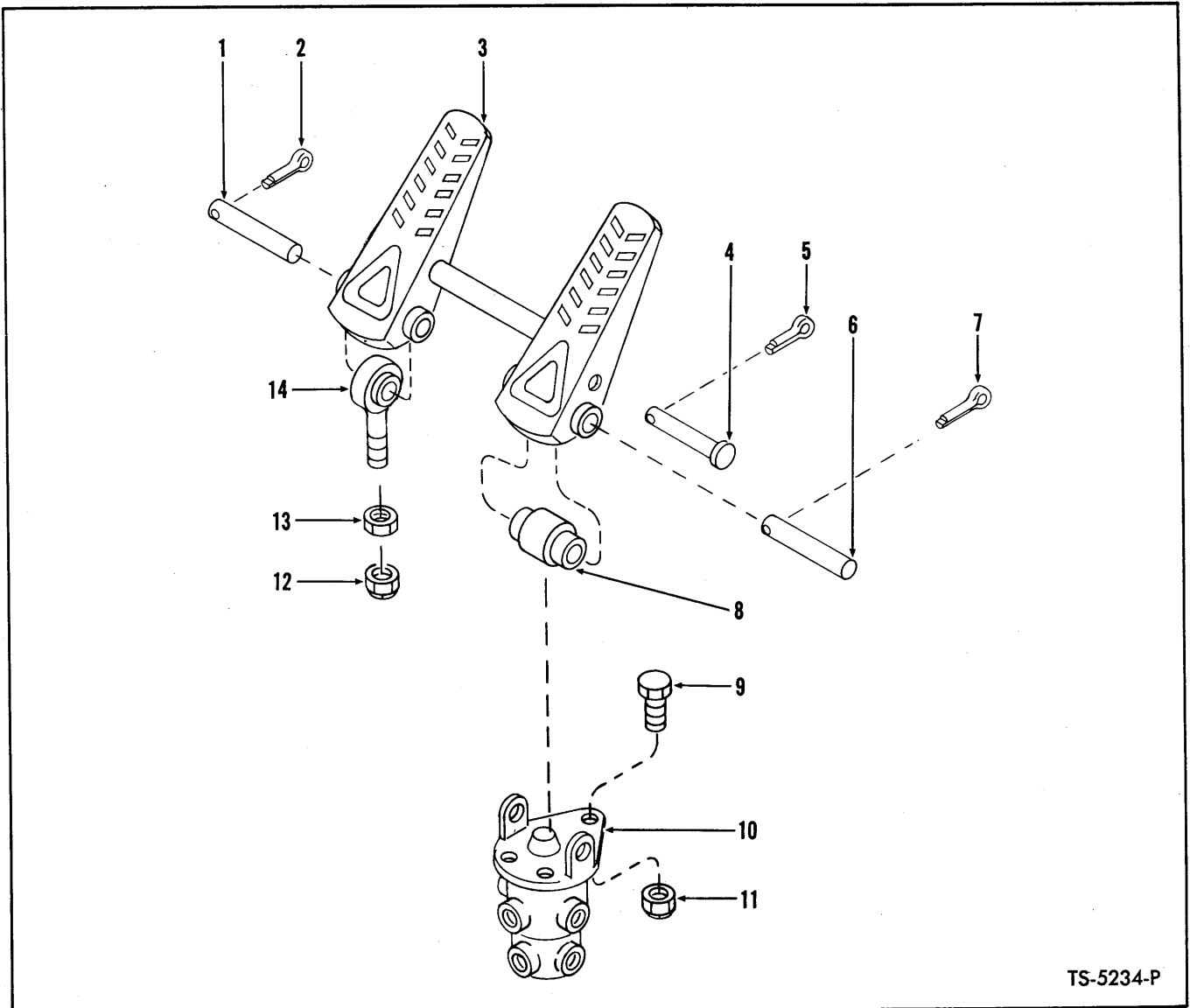
PROPELLER SHAFT ASSEMBLY

Transmission to Front Axle

Item No.	Part No.	Description	No. Req'd.
A	529864	PROPELLER SHAFT ASSY (Inc. 1 thru 16, 18)	1
1	940089	BOLT, Spider & Bearing to Tube	4
2	944862	SPIDER & BEARING ASSY (Inc. 2A, 18)	1
2A	944861	†SEAL, Spider & Bearing Grease	4
3	944168	TUBE ASSY	1
4	8D-06	NUT, Spider & Bearing to Tube	4
5	940090	RETAINER, Felt	1
6	940091	WASHER, Felt Retainer	2
7	8D-06	NUT, Spider & Bearing to Slip Yoke	4
8	940093	SLIP YOKE (Inc. 14)	1
9	944862	SPIDER & BEARING ASSY (Inc. 9A, 12)	1
9A	944861	†SEAL, Spider & Bearing Grease	4
10	940089	BOLT, Spider & Bearing to Slip Yoke	4
11	8D-06	NUT, Spider & Bearing Attaching	4
12	10H-35	FITTING, Spider & Bearing Grease	1
13	940089	BOLT, Spider & Bearing Attaching	4
14	10H-25	FITTING, Slip Yoke Grease	1
15	940092	WASHER, Felt	1
16	940089	BOLT, Spider & Bearing Attaching	4
17	4E-05	LKWSHR, Spider & Bearing Attaching	4
18	10H-35	FITTING, Spider & Bearing Grease	1

†Not Illustrated

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



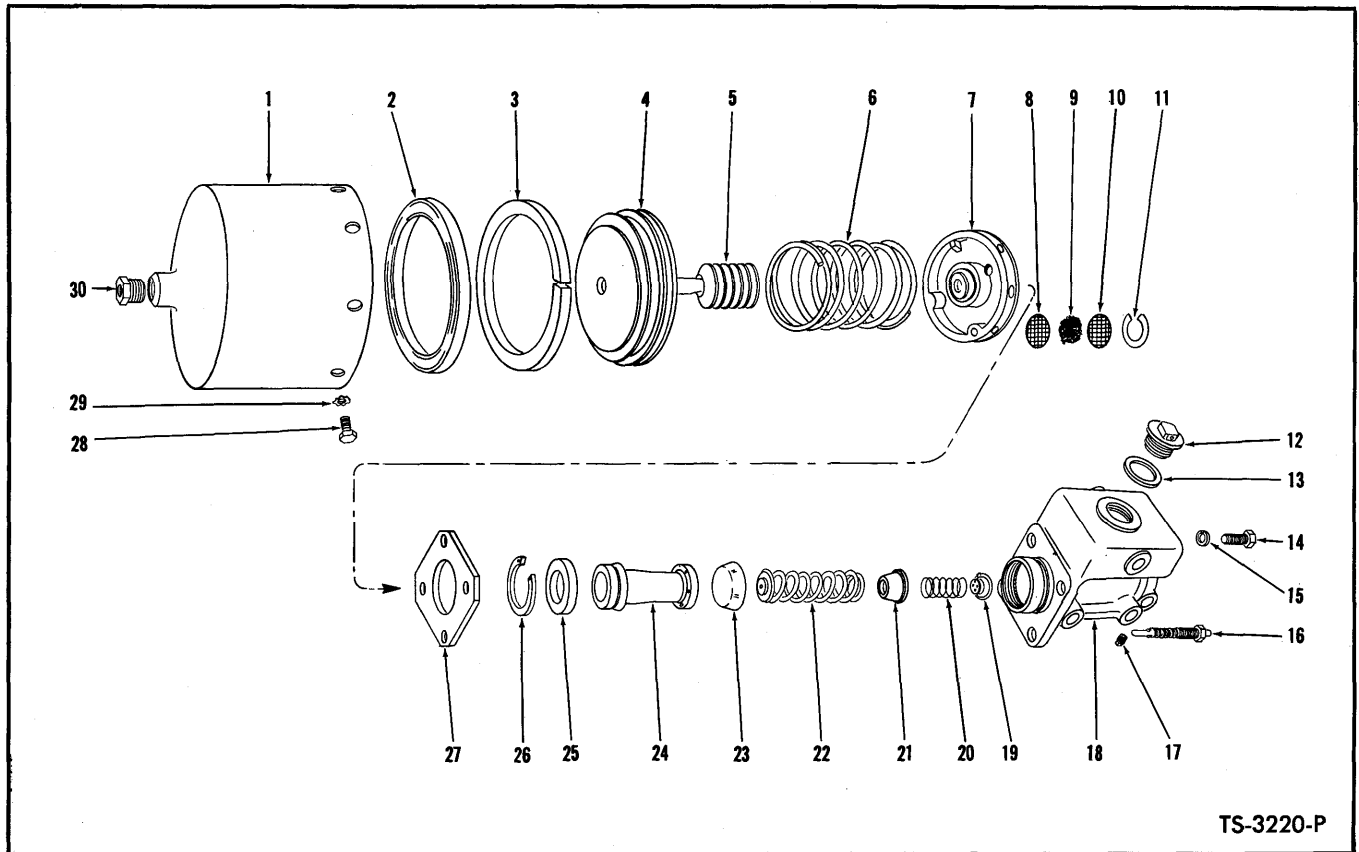
TS-5234-P

BRAKE VALVE AND CONTROLS

Item No.	Part No.	Description	No. Req'd.
1	875767	PIN, Pedal to Eye	1
2	1F-320	COTTER, Pedal Pin	1
3	589912	PEDAL, Air Brake	1
4	875766	PIN, Pedal to Roller	1
5	1F-312	COTTER, Pedal Pin	1
6	875767	PIN, Pedal to Valve	1
7	1F-320	COTTER, Pedal Pin	1
8	518259	ROLLER, Pedal	1
9	18C-516	BOLT, Valve to Cockpit	3
10	556562-945996	*VALVE, Air Brake — B.W. #277472 <i>PG 2159</i>	1
11	18D-05	NUT, Valve to Cockpit	3
12	66D-06	NUT, Eye Mounting	1
13	8D-06	NUT, Eye Jam	1
14	562444	EYE, Pedal	1

*NOTE: Your local authorized Bendix-Westinghouse Distributor is equipped to service and supply this part.

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

**CLARK
EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN**

TS-3220-P

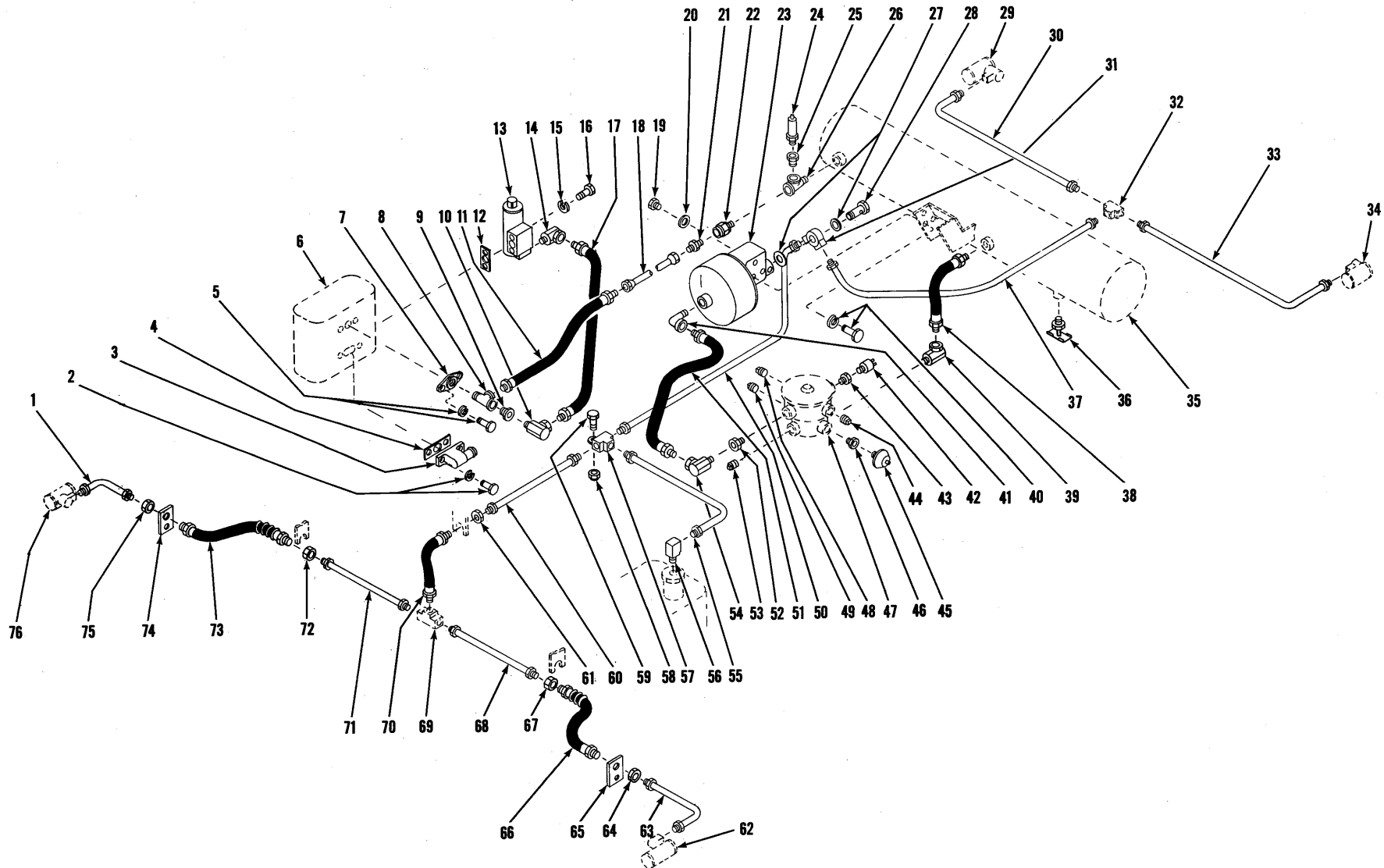
POWER CLUSTER ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	526879	POWER CLUSTER ASSY (Inc. 1 thru 30)	1	17	10F-02	PLUG, Master Cylinder	1
1	945034	SHELL, Air Cylinder	1	18	945039	CASTING, Master Cylinder	1
2	—	§CUP, Piston—See 31	1	19	—	§VALVE, Check—See 31	1
3	—	§WIPER, Piston—See 31	1	20	945026	SPRING, Check Valve	1
4	945035	PISTON, Air Cylinder	1	21	945042	RETAINER, Check Valve Spring	1
5	—	§BOOT, Piston Rod—See 31	1	22	955321	SPRING, Piston Return	1
6	945036	SPRING, Piston Return	1	23	—	§CUP, Primary—See 31	1
7	945037	HEAD ASSY, Air Cylinder (Inc. 8 thru 11)	1	24	—	§PISTON ASSY, Master Cyl.—See 31	—
8	945029	SCREEN, Filtering	1	25	955326	PLATE, Piston Stop	1
9	945044	HAIR, Filtering	1	26	955323	RING, Stop Plate Retaining	1
10	945029	SCREEN, Filtering	1	27	945040	PLATE, Master Cyl. Mounting	1
11	945043	RING, Filter Retaining	1	28	1C-510	BOLT, Shell to Head	8
12	858305	CAP, Master Cylinder Filler	1	29	6E-05	LKWSHR, Shell to Head	8
13	857933	GASKET, Filler Cap	1	30	356612	BUSHING, Shell Reducing	1
14	1C-624	BOLT, Master Cyl. to Air Cylinder	3	31	945041	REPAIR KIT (Inc. 2, 3, 5, 13, 19, 23, 24)	1
15	4E-06	LKWSHR, Master Cyl. to Air Cylinder	4	32	18C-720	†BOLT, Power Cluster Attaching	3
16	945038	INDICATOR, Stroke	1	33	4E-07	†LKWSHR, Power Cluster Attaching	3

§Not Sold Separately

†Not Illustrated

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



BRAKE AIR LINES

TS-6569-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

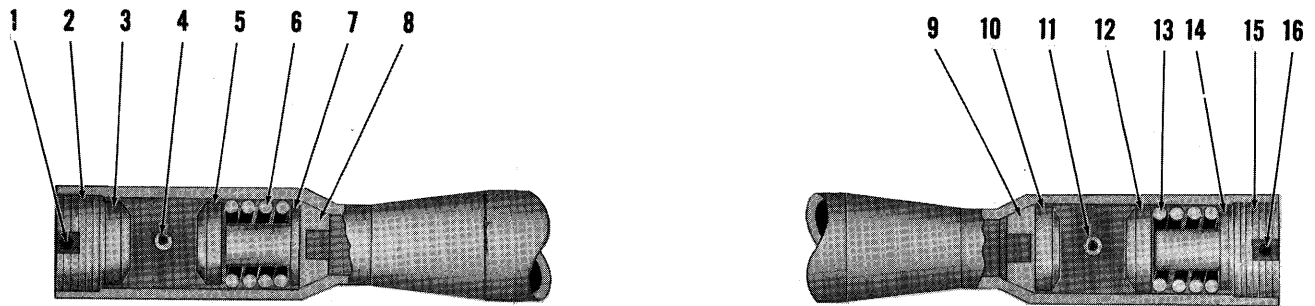
BRAKE AIR LINES

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	558547	LINE, Hose to Wheel Cylinder — L. H. Rear Axle	1	40	18C-720	BOLT, Power Cluster Mounting	3
2	17C-514	BOLT, Elbow to Compressor	2	40A	4E-07	LKWSHR, Power Cluster Mounting	3
2A	4E-05	LKWSHR, Elbow to Compressor	2	41	26F-3	ELBOW, Hose to Power Cluster	1
3	540664	ELBOW, Compressor Air Inlet	1	42	636260	SWITCH, Air Pressure	1
4	875012	GASKET, Elbow to Compressor	1	43	19F-4	BUSHING, Switch Reducing	1
5	17C-516	BOLT, Flange to Compressor	2	44	13F-08	PLUG, Brake Valve	1
5A	4E-05	LKWSHR, Flange to Compressor	2	45	940643	SENDER UNIT, Air Pressure (Inc. 45A, 45B)	1
6	—	AIR COMPRESSOR — See Engine Parts Manual	—	45A	14D-10	NUT, Sender Unit	1
7	510452	FLANGE, Discharge (B.W. #213042)	1	45B	12E-10	LKWSHR, Sender Unit	1
8	17F-4	TEE, Connecting	1	46	19F-1	BUSHING, Sender Unit Reducing	1
9	19F-4	BUSHING, Reducing	1	47	—	BRAKE VALVE — See Index	—
10	31F-1	ADAPTER UNION, Hose to Tee	1	48	13F-08	PLUG, Brake Valve	1
11	523786	HOSE, Tube to Tee	1	49	13F-04	PLUG, Brake Valve	1
12	942646	*GASKET, Governor (B.W. #236577)	1	50	589427	TUBE, Power Cluster to Connecting Tee	1
13	540306	*GOVERNOR, (B.W. #275200)	1	51	592784	HOSE, Power Cluster to Valve	1
14	31F-1	ADAPTER UNION, Hose to Governor	1	52	19F-6	BUSHING, Valve Reducing	1
15	4E-05	LKWSHR, Governor to Compressor	2	53	13F-08	PLUG, Brake Valve	1
16	17C-548	BOLT, Governor to Compressor	2	54	31F-3	ADAPTER UNION, Hose to Valve	1
17	545528	HOSE, Governor to Connecting Tee	1	55	589428	TUBE, Tee to Declutch Valve	1
18	563978	TUBE, Compressor to Air Reservoir	1	56	62F-3	ELBOW, Tube to Valve	1
19	874007	PLUG, Master Cylinder	2	57	609733	TEE, Connecting	1
20	613750	GASKET, Master Cylinder Plug	2	58	18D-07	NUT, Tee to Frame	1
21	38F-10	CONNECTOR, Tube	1	59	18C-724	BOLT, Tee to Frame	1
22	593370	VALVE, Check	1	60	589426	TUBE, Tee to Frame Clip	1
23	—	POWER CLUSTER ASSY — See Index	—	61	8D-10	NUT, Hose Jam	1
24	507815	*VALVE, Safety (B.W. #205105)	1	62	—	CYLINDER, Wheel — See Index	—
25	19F-5	BUSHING, Tee Reducing	1	63	558547	LINE, Hose to Wheel Cylinder — R.H. Rear Axle	1
26	17F-4	TEE, Connecting	1	64	8D-10	NUT, Hose Jam	1
27	620238	GASKET, Fitting to Master Cylinder	1	65	550325	CLIP, Hose — Mounted on Axle Cradle	1
27A	613750	GASKET, Bolt to Fitting	1	66	552374	HOSE, Line to Line	1
28	692722	BOLT, Fitting to Master Cylinder	1	67	8D-10	NUT, Hose Jam	1
29	—	CYLINDER, Wheel — See Index	—	68	534259	LINE, Tee to Hose	1
30	535049	LINE, Tee to Wheel Cylinder — L. H. Front Axle	1	69	550320	TEE, Brake Line — Furnished with Axle	1
31	633242	FITTING, Connecting	1	70	533814	HOSE, Tube to Tee	1
32	609733	TEE, Brake Line — Furnished with Axle	1	71	534260	LINE, Tee to Hose	1
33	535050	LINE, Tee to Wheel Cylinder — R.H. Front Axle	1	72	8D-10	NUT, Hose Jam	1
34	—	CYLINDER, Wheel — See Index	—	73	552374	HOSE, Line to Line	1
35	—	§AIR RESERVOIR — Welded to Frame	—	74	550325	CLIP, Hose — Mounted on Axle Cradle	1
36	72F-4	DRAINCOCK — Air Reservoir	1	75	8D-10	NUT, Hose Jam	1
37	589429	TUBE, Power Cluster to Front Axle	1	76	—	CYLINDER, Wheel — See Index	—
38	574439	HOSE, Brake Valve to Air Reservoir	1				
39	31F-4	ADAPTER UNION, Hose to Valve	1				

§Not Sold Separately

*NOTE: Your local authorized Bendix-Westinghouse Distributor is equipped to service and supply these parts.

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

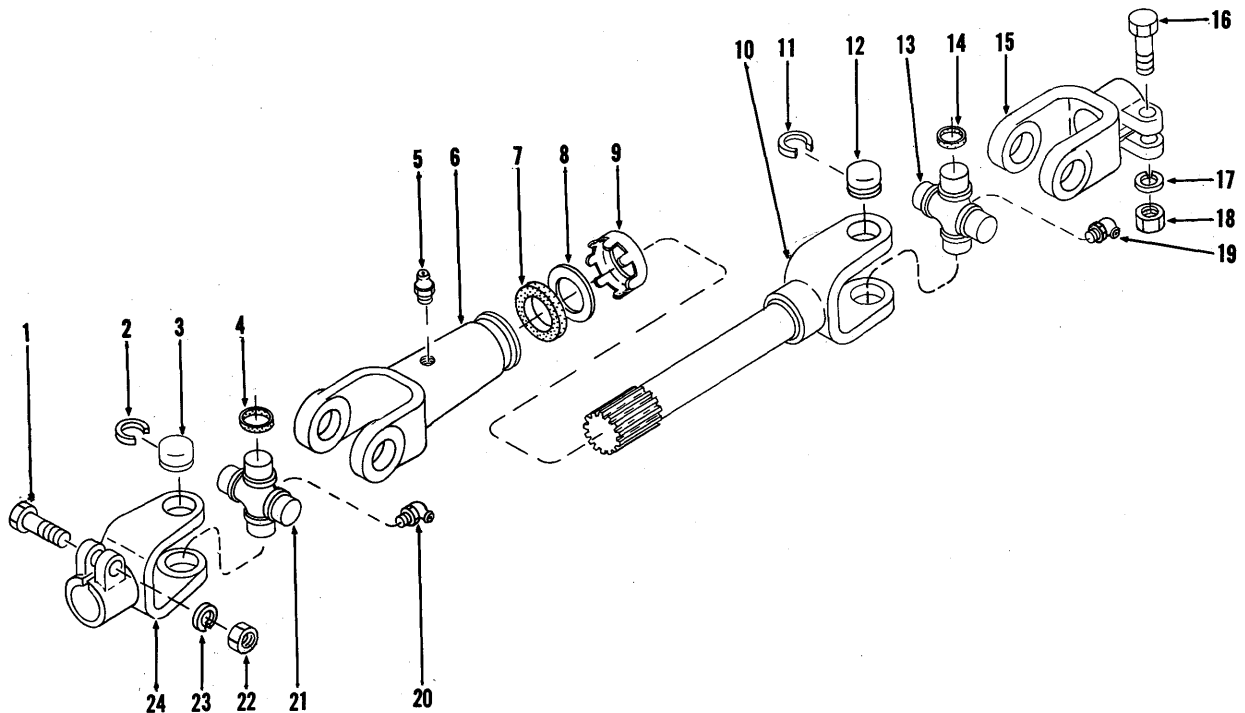


TS-1259-P

DRAG LINK

Item No.	Part No.	Description	No. Req'd.
A	589812	DRAG LINK ASSY (Inc. 2, 3, 5 thru 10, 12 thru 15)	1
1	1F-432	COTTER	1
2	876575	NUT, Adjusting	1
3	865965	SEAT, Ball Stud	1
4	10H-25	FITTING, Grease	1
5	865965	SEAT, Ball Stud	1
6	865961	SPRING	1
7	662691	SEAT, Spring	1
8	865963	SEAT	1
9	865963	SEAT	1
10	865965	SEAT, Ball Stud	1
11	10H-25	FITTING, Grease	1
12	865965	SEAT, Ball Stud	1
13	865961	SPRING	1
14	662691	SEAT, Spring	1
15	876575	NUT, Adjusting	1
16	1F-432	COTTER	1

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



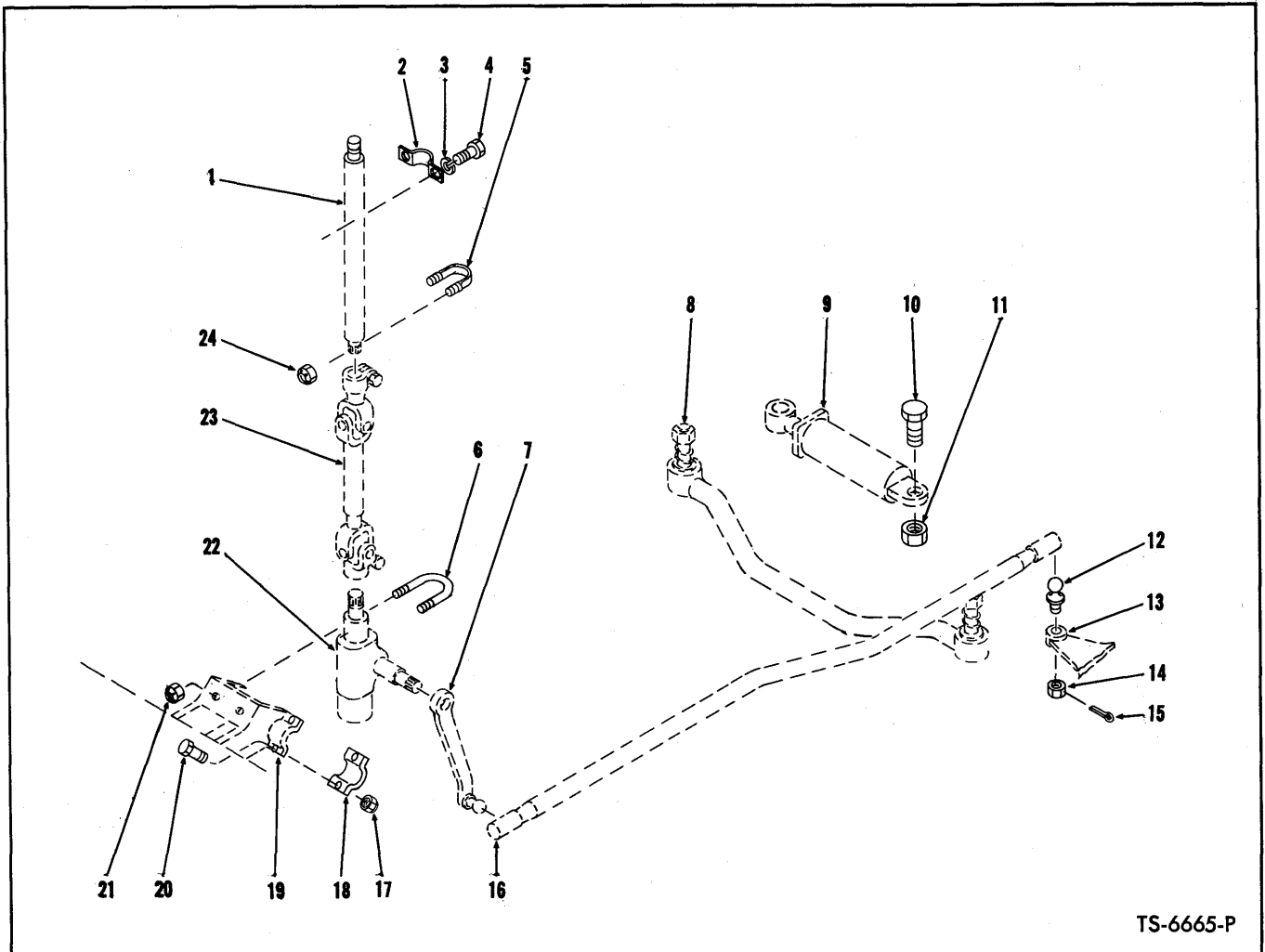
TS-5224-P

STEERING SLIP SHAFT ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	562144	SHAFT ASSY, Slip (Inc. 1 thru 24)	1	13	946020	SPIDER & BEARING ASSY (Inc. 11, 12, 14, 19)	1
B	946023	KIT, Dust Cap (Inc. 7, 8, 9)	1	14	868215	WASHER, Bearing Assy	4
1	18C-628	BOLT, Clamp Yoke Mounting	1	15	946021	CLAMP YOKE	1
2	868214	RING, Bearing Assy Retaining	4	16	18C-628	BOLT, Clamp Yoke Mounting	1
3	—	§BUSHING, Bearing Assy Cap — See Item 21	—	17	4E-06	LKWSHR, Clamp Yoke Mounting	1
4	868215	WASHER, Bearing Assy	4	18	8D-06	NUT, Clamp Yoke Mounting	1
5	10H-35	FITTING, Slip Yoke Grease	1	19	15H-15	FITTING, Bearing Assy Grease	1
6	946102	YOKE, Slip (Inc. 5)	1	20	15H-15	FITTING, Bearing Assy Grease	1
7	—	§WASHER, Dust Cap — See Item "B" ..	—	21	946020	SPIDER & BEARING ASSY (Inc. 2, 3, 4, 20)	1
8	—	§WASHER, Dust Cap — See Item "B" ..	—	22	8D-06	NUT, Clamp Yoke Mounting	1
9	—	§CAP, Dust — See Item "B"	—	23	4E-06	LKWSHR, Clamp Yoke Mounting	1
10	946103	YOKE & SHAFT ASSY	1	24	946021	CLAMP YOKE	1
11	868214	RING, Bearing Assy Retaining	4				
12	—	§BUSHING, Bearing Assy Cap — See Item 13	—				

§Not Sold Separately

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



TS-6665-P

STEERING LINKAGE GROUP

Item No.	Part No.	Description	No. Req'd.
1	—	STEERING COLUMN — See Index	—
2	562443	CLAMP, Steering Column Mounting	1
3	4E-06	LKWSHR, Steering Column to Cockpit	2
4	18C-612	BOLT, Steering Column to Cockpit	2
5	557997	U-BOLT, Steering Column Mounting	1
6	545941	U-BOLT, Steering Gear Mounting	1
7	—	PITMAN ARM — See Index	—
8	—	TIE ROD — See Index	—
9	—	STEERING CYLINDER — See Index	—
10	18C-1252	BOLT, Cylinder Anchor	4
11	18D-12	NUT, Cylinder Anchor	4
12	513122	BALL STUD, Drag Link Mounting	1

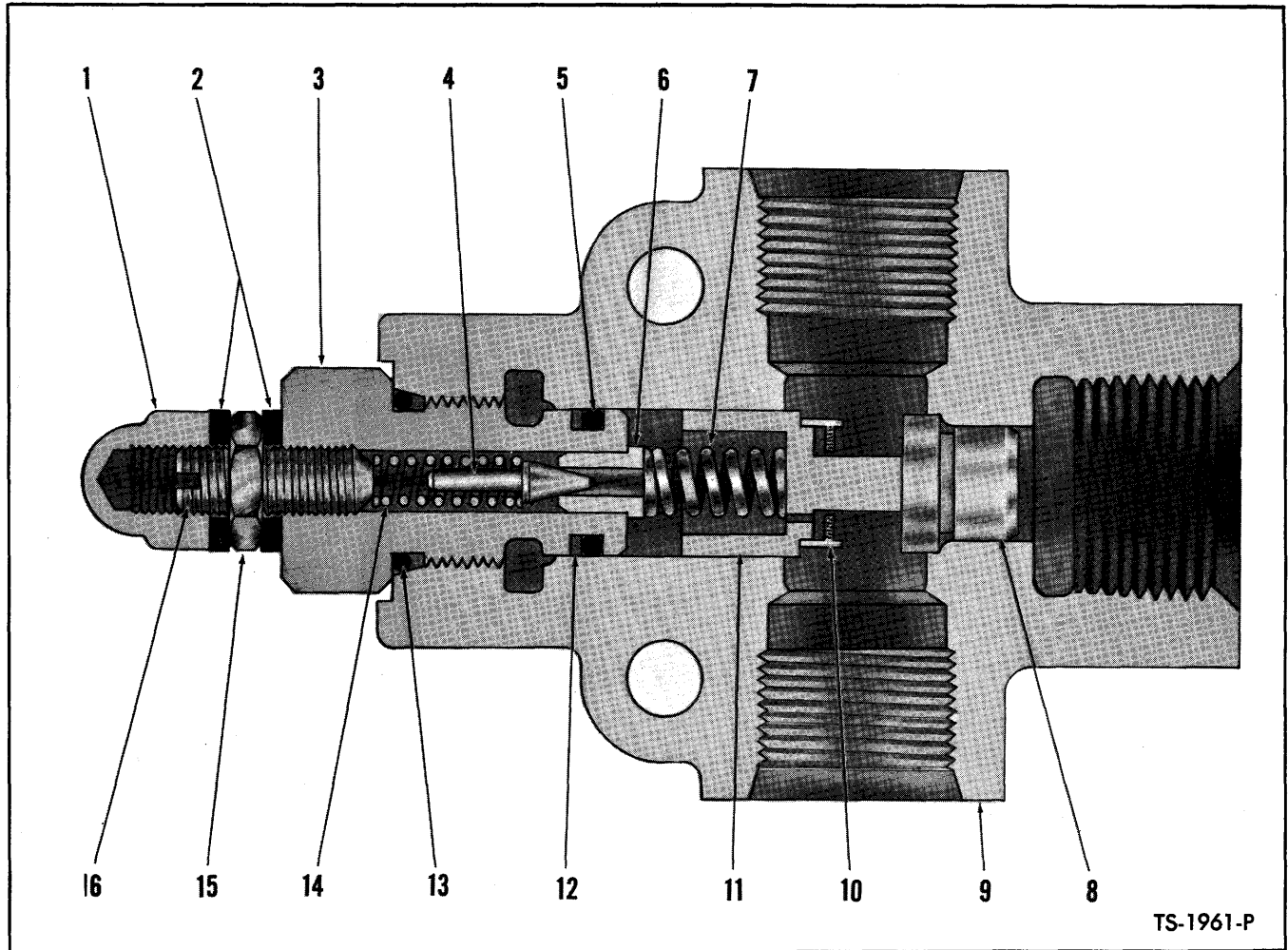
Item No.	Part No.	Description	No. Req'd.
13	—	§BRACKET, Rear Axle	—
14	4D-10	NUT, Drag Link Mounting	1
15	1F-332	COTTER, Ball Stud Nut	1
16	—	DRAG LINK — See Index	—
17	18D-08	NUT, Gear to Frame Bracket	2
18	550044	CLAMP, Steering Gear Mounting	1
19	—	§BRACKET, Frame Cross Member	—
20	18C-836	BOLT, Gear to Frame Bracket	2
21	18D-08	NUT, Gear to Frame Bracket	2
22	—	STEERING GEAR — See Index	—
23	—	SLIP SHAFT, Steering — See Index	—
24	18D-04	NUT, Steering Column to Cockpit	2

§Not Sold Separately

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

CLARK
EQUIPMENT

CONSTRUCTION MACHINERY DIVISION

MICHIGAN

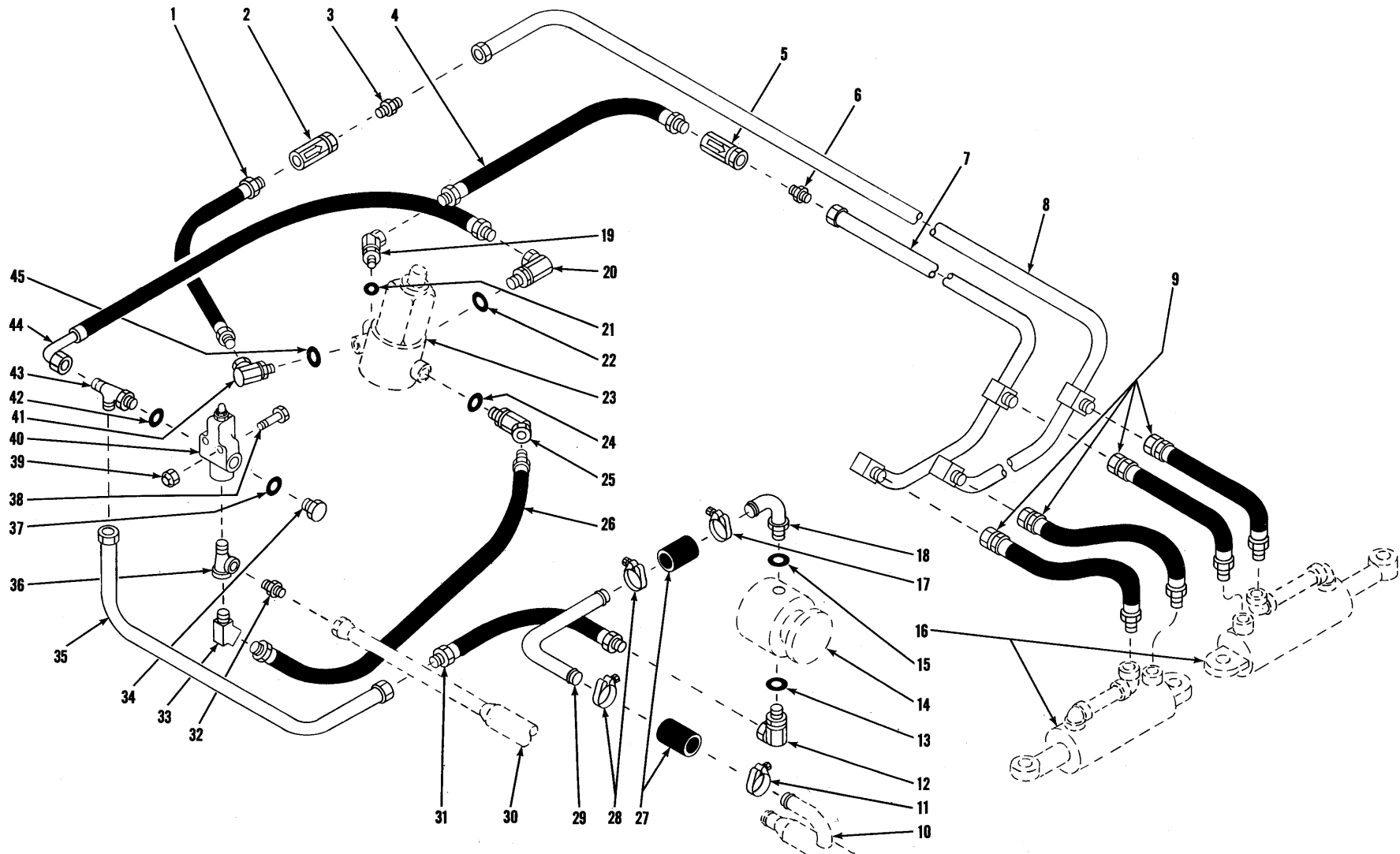
TS-1961-P

PRESSURE RELIEF VALVE — STEERING SYSTEM

Item No.	Part No.	Description	No. Req'd.
A	536539	VALVE ASSY (Inc. 1 thru 17) (Parker #VPR3-P-4F)	1
1	47D-05	NUT, Acorn	1
2	663792	WASHER, Stat-O-Seal	2
3	944467	CAP, Valve	1
4	883734	PLUNGER, Pilot	1
5	25K-20018	"O" RING	1
6	944469	SEAT, Pilot	1
7	944646	SPRING, Relief	1
8	944645	SEAT, Poppet	1
9	—	§BODY, Valve — See Item "A"	1
10	—	§SCREEN, Poppet — See Item 11	1
11	944643	POPPET ASSY (Inc. 10)	1
12	944468	RING, Back-Up	1
13	91F-6	"O" RING	1
14	944471	SPRING, Pilot	1
15	8D-05	NUT, Jam	1
16	33G-514	SCREW, Adjusting	1
17	799584	†PLUG	2

§Not Sold Separately
†Not Illustrated

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



HYDRAULIC SYSTEM — STEERING

TS-6641-P



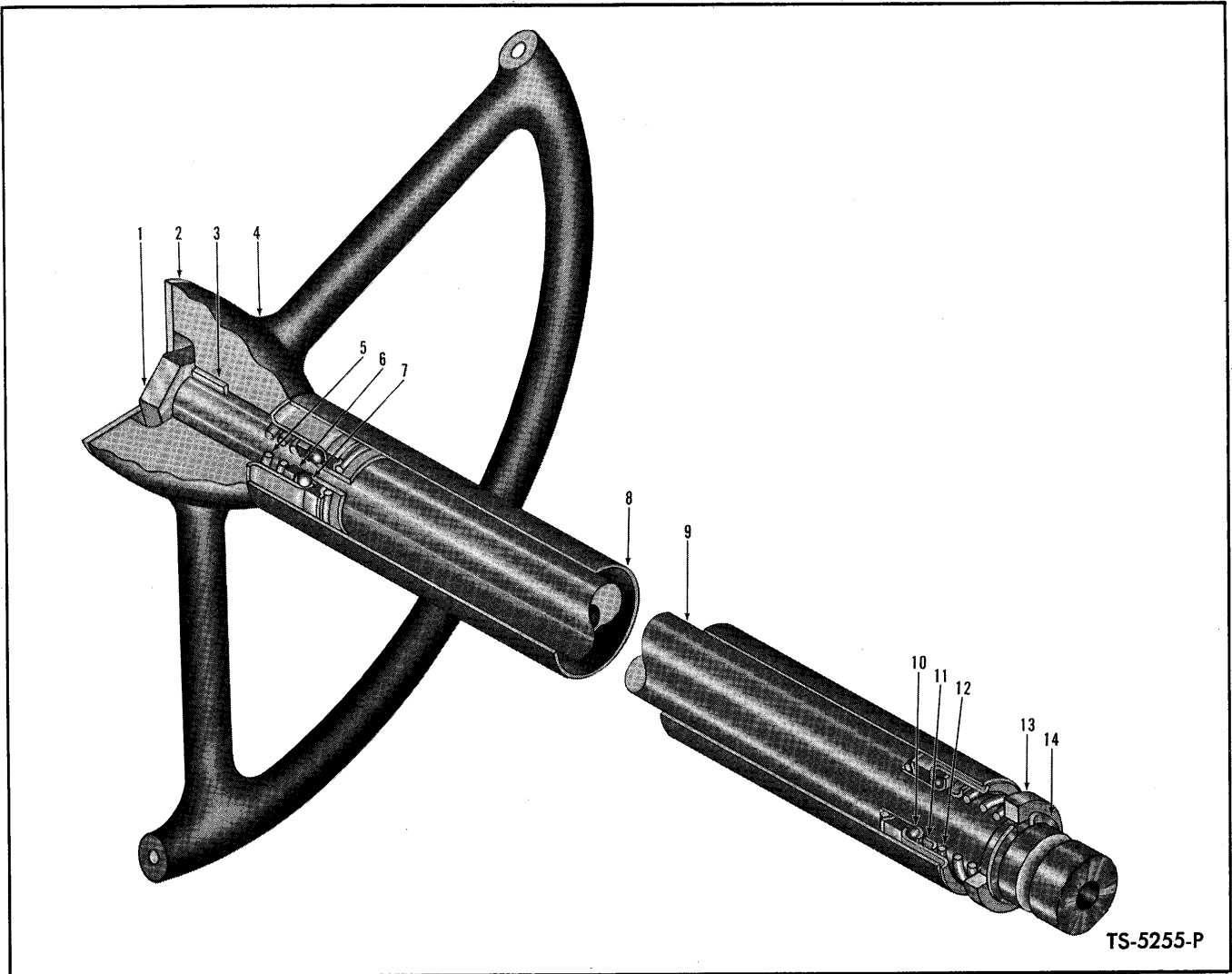
CONSTRUCTION MACHINERY DIVISION

MICHIGAN

HYDRAULIC SYSTEM — STEERING

Item No.	Part No.	Description	No. Req'd.
1	784398	HOSE, Check Valve to Gear	1
2	572731	VALVE, Check	1
3	89F-7	CONNECTOR, Check Valve to Tube	1
4	784398	HOSE, Check Valve to Gear	1
5	572731	VALVE, Check	1
6	89F-7	CONNECTOR, Check Valve to Tube	1
7	589487	TUBE ASSY, Gear to Cylinder — Right Turn	1
8	589488	TUBE ASSY, Gear to Cylinder — Left Turn	1
9	533927	HOSE, Tube to Cylinder	4
10	—	TUBE ASSY, Suction — See Bucket & Boom Hydraulic System	—
11	540127	CLAMP, Hose	1
12	526676	ADAPTER UNION, Hose to Pump (Inc. 13)	1
13	91F-8	"O" RING, Adapter Union	1
14	—	STEERING PUMP — See Index	—
15	91F-11	"O" RING, Elbow	1
16	—	STEERING CYLINDER — See Index	—
17	540127	CLAMP, Hose	1
18	564087	ELBOW ASSY, Suction — Hose to Pump (Inc. 15)	1
19	535625	ADAPTER UNION, Hose to Gear (Inc. 21)	1
20	519275	ADAPTER UNION, Hose to Gear (Inc. 22)	1
21	91F-6	"O" RING, Adapter Union	1
22	91F-7	"O" RING, Adapter Union	1
23	—	STEERING GEAR — See Index	—
24	91F-7	"O" RING, Adapter Union	1
25	534894	ADAPTER UNION, Hose to Gear (Inc. 24)	1
26	542813	HOSE, Relief Valve to Gear	1
27	536749	HOSE, Stem to Tube	2
28	540127	CLAMP, Hose	2
29	589574	TUBE, Suction	1
30	—	TUBE ASSY, Return — See Bucket & Boom Hydraulic System	—
31	564107	HOSE, Pump to Tube	1
32	656532	CONNECTOR, Tube	1
33	81F-4	ELBOW, Hose to Tee	1
34	24K-7	PLUG, Relief Valve (Inc. 37)	1
35	558570	TUBE ASSY, Pump to Valve	1
36	17F-5	TEE, Relief Valve	1
37	91F-7	"O" RING, Plug	1
38	18C-540	BOLT, Relief Valve Mounting	2
39	18D-05	NUT, Relief Valve Mounting	2
40	—	VALVE, Pressure Relief — See Index	—
41	517089	ADAPTER UNION, Hose to Gear (Inc. 45)	1
42	91F-7	"O" RING, Tube Fitting Tee	1
43	21K-7	TEE, Tube Fitting (Inc. 42)	1
44	568785	HOSE, Gear to Relief Valve	1
45	91F-6	"O" RING, Adapter Union	1

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

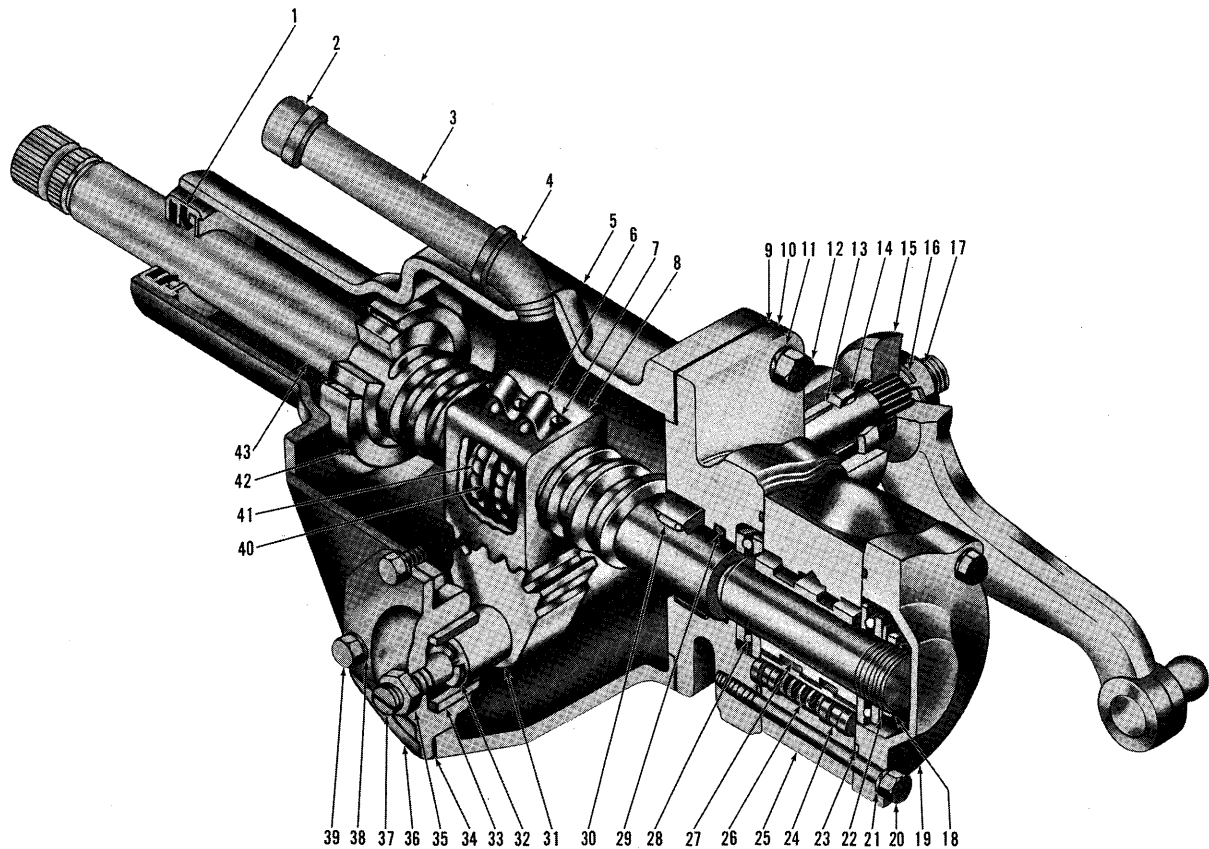
**STEERING COLUMN ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.
A	589908	COLUMN ASSY, Steering (Inc. 1, 3, 5 thru 14)	1
1	648304	NUT, Steering Wheel	1
2	548074	PLATE, Operating Precaution	1
2A	65G-406	†SCREW, Plate Attaching	4
3	853384	KEY, Steering Wheel	1
4	518331	WHEEL, Steering	1
5	853395	SPRING, Upper Bearing	1
6	861768	WASHER, Upper Bearing	1
7	857729	BEARING ASSY, Upper	1
8	589909	JACKET, Steering Column	1
9	—	§SHAFT, Steering — See Item "A"	—
10	857729	BEARING ASSY, Lower	1
11	853394	SEAT, Bearing Spring	1
12	874121	SPRING, Lower Bearing	1
13	566589	SPACER, Steering Shaft	1
14	784075	RING, Steering Shaft Retaining	1

†Not Illustrated

§Not Sold Separately — Order complete assembly

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

**CLARK
EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN**

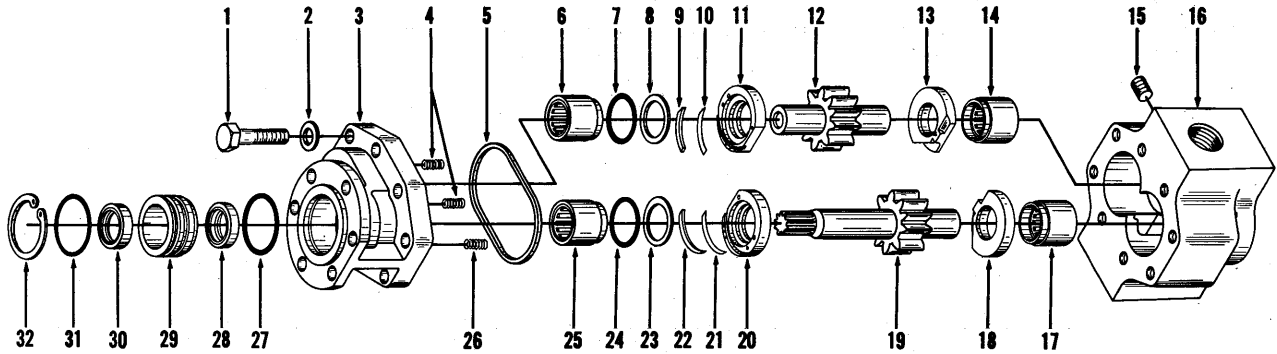
TS-5265-P

STEERING GEAR ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	562075	GEAR ASSY (Inc. 1, 5 thru 14, 16 thru 43)	1	22	943429	SPRING, Valve Spool Preload	1
1	952018	SEAL, Steering Shaft	1	23	25K-40224	"O" RING, Valve to End Cover	2
2	22F-4	CAP, Filler	1	24	861755	PLUNGER, Valve Centering	6
3	5K-420	NIPPLE, Filler	1	25	944052	VALVE ASSY (Inc. 24, 26, 27)	1
4	25F-4	ELBOW, Filler	1	26	944053	SPRING, Valve Centering	3
5	946026	HOUSING ASSY (Inc. 13, 42)	1	27	—	§VALVE SPOOL — See Item 25	—
6	853464	CLAMP, Ball Guide Return	1	28	860997	BEARING, Worm Thrust	2
7	851762	BOLT & WASHER ASSY, Clamp	3	29	25K-40108	"O" RING, Adapter	1
8	853408	NUT, Ball	1	30	861741	BEARING, Adapter	1
9	853380	GASKET, Adapter	1	31	940111	GEAR, Pitman Shaft	1
10	861738	ADAPTER, Valve to Housing (Inc. 29, 30)	1	32	853187	SHIM KIT, Lash Adjuster	1
11	4E-07	LKW SHR, Adapter to Housing	4	33	—	§BUSHING, Housing Side Cover — See Item 36	—
12	1C-720	BOLT, Adapter to Housing	4	34	851756	GASKET, Side Cover	1
13	853357	BUSHING, Pitman Shaft	2	35	8D-07	NUT, Lash Adjuster	1
14	853391	SEAL, Pitman Shaft Grease	1	36	853182	COVER ASSY, Housing Side (Inc. 33)	1
15	589811	ARM, Pitman	1	37	851770	ADJUSTER, Lash	1
16	853396	LKW SHR, Pitman Arm	1	38	1C-612	BOLT, Side Cover	3
17	850756	NUT, Pitman Arm	1	39	4E-06	LKW SHR, Side Cover	3
18	873250	NUT, Worm Bearing Lock	1	40	853412	GUIDE, Ball Return	4
19	943667	COVER, Valve End	1	41	10J-09	BALL	106
20	1C-656	BOLT, End Cover	3	42	730143	BEARING, Needle	1
21	4E-06	LKW SHR, End Cover	3	43	946027	SHAFT ASSY (Inc. 6, 7, 8, 40, 41)	1

§Not Sold Separately

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



TS-4844-P

HYDRAULIC PUMP — STEERING

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	450185	PUMP ASSY (Inc. 1 thru 32)	1	15	47K-3	PLUG, Body	1
B	498203	*REPAIR KIT, Minor (Inc. 1, 2, 4, 5, 7, 8, 23, 24, 26, 27, 32)	1	16	—	**§BODY, Pump — See Item "A"	1
C	498204	REPAIR KIT, Thrust Plate (Inc. 9, 10, 11, 13, 18, 20, 21, 22)	1	17	—	§BEARING, Body	1
D	498113	REPAIR KIT, Shaft Seal (Inc. 27 thru 32)	1	18	—	§THRUST PLATE, Body	1
E	498211	GEAR KIT (Inc. 12, 19)	1	19	—	§GEAR, Driven	1
F	498223	REPAIR KIT, Bearing (Inc. 6, 14, 17, 25)	1	20	—	§THRUST PLATE, Cover	1
1	—	§BOLT, Cover to Body	8	21	—	§SPRING, Wave	1
2	—	§WASHER, Cover to Body	8	22	—	§RING, Mask-Off	1
3	—	**§COVER, Pump See Item "A"	1	23	—	§RING, "O" Ring Back-Up	1
4	—	§SPRING, Cover Thrust Plate	2	24	—	§"O" RING, Cover Thrust Plate	1
5	—	§GASKET, Cover	1	25	—	§BEARING, Cover	1
6	—	§BEARING, Cover	1	26	—	§SPRING, Cover Thrust Plate	1
7	—	§"O" RING, Cover Thrust Plate	1	27	—	§"O" RING, Oil Seal Retainer	1
8	—	§RING, "O" Ring Back-Up	1	28	—	§SEAL, Inner Shaft Oil	1
9	—	§RING, Mask-Off	1	29	—	§RETAINER, Shaft Seal	1
10	—	§SPRING, Wave	1	30	—	§SEAL, Outer Shaft Oil	1
11	—	§THRUST PLATE, Cover	1	31	—	§"O" RING, Oil Seal Retainer	1
12	—	§GEAR, Driven	1	32	—	§RING, Seal Retainer Retaining	1
13	—	§THRUST PLATE, Body	1	33	551906	†GASKET, Pump to Converter	1
14	—	§BEARING, Body	1	34	2D-06	†NUT, Pump to Converter	6
				35	9E-06	†LKWSHR, Pump to Converter	6
				36	214961	†SLEEVE, Pump Drive	1

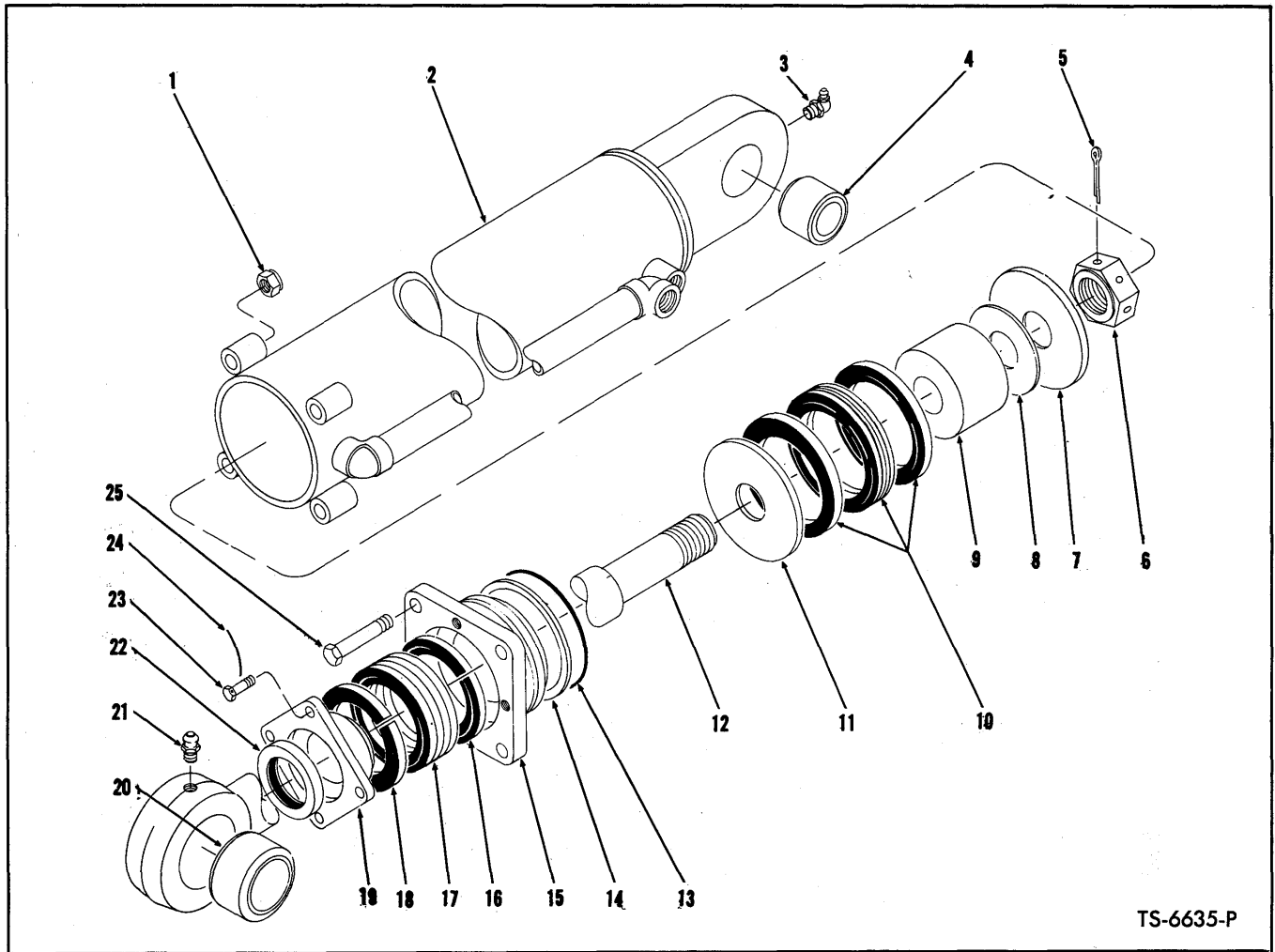
*NOTE: Minor Repair Kit consists of "O" Rings, Back-up Washers, Gaskets and approximately 20% of the hardware items such as bolts, nuts, springs and washers. The latter for the purpose of replacing any of these items lost or damaged in repair operation.

**NOTE: Pump Bodies and Covers 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 Sold Separately — Order Kits.

†Not Illustrated

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

**CLARK
EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN**

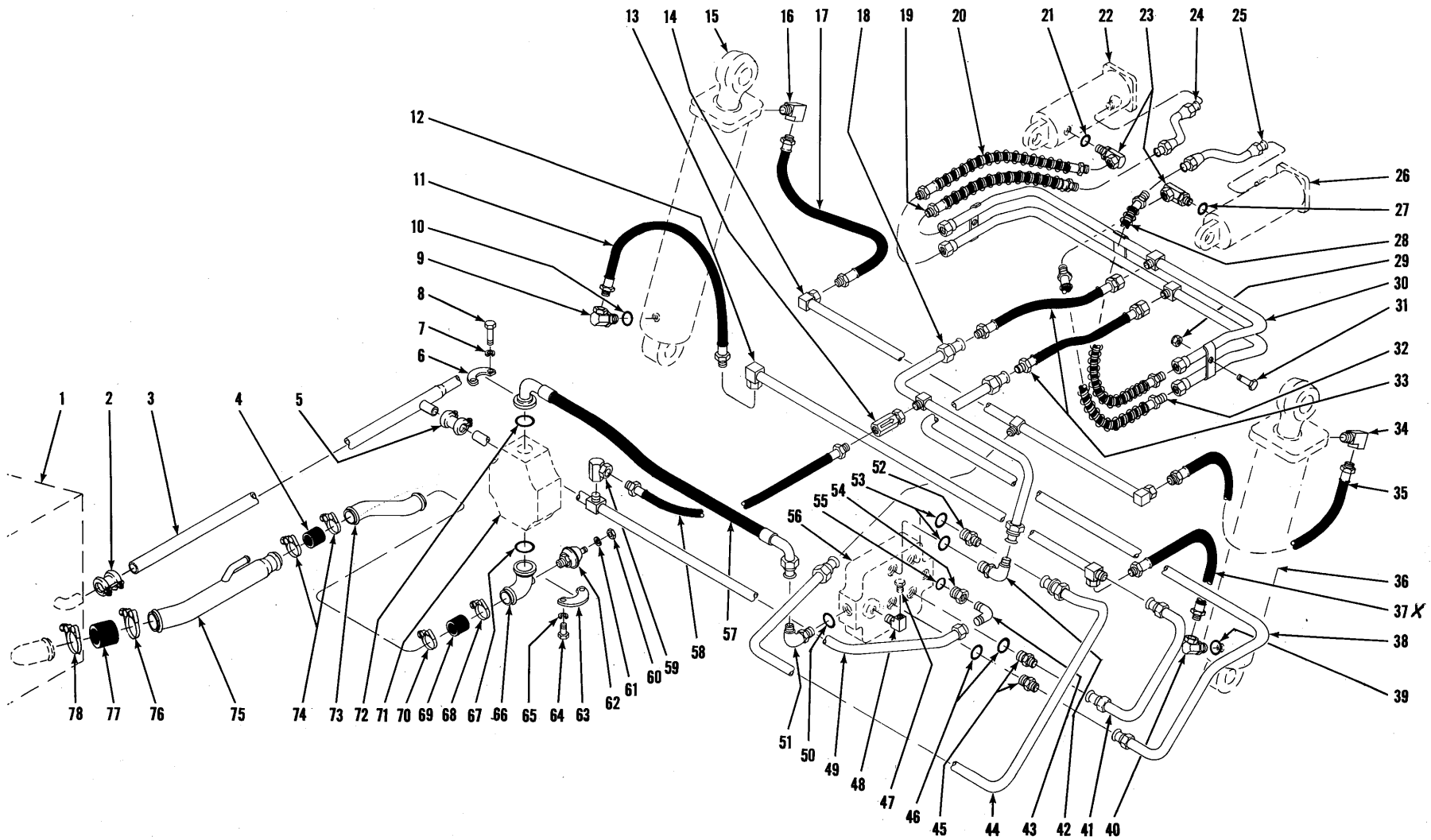
TS-6635-P

STEERING 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	533489	CYLINDER ASSY (Inc. 1 thru 25)	1	13	25K-40208	"O" RING, Cylinder Cap	1
1	68D-06	NUT, Cylinder Cap	4	14	532948	RING, "O" Ring Back-Up	1
2	533490	CYLINDER	1	15	945118	CAP ASSY, Cylinder (Inc. 13, 14)	1
3	12H-25	FITTING, Cylinder Grease	1	16	526419	ADAPTER, Male Chevron Packing	2
4	763451	BUSHING, Cylinder	1	17	538065	PACKING SET, Cylinder Cap	1
5	1F-424	COTTER, Piston Rod Nut	1	18	526420	ADAPTER, Female Chevron Packing ..	2
6	523325	NUT, Piston Rod	1	19	526414	GLAND, Packing	1
7	526423	PLATE, Backing	1	20	763451	BUSHING, Piston Rod	1
8	526424	‡SHIM, Backing Plate	—	21	10H-35	FITTING, Piston Rod Grease	1
9	526422	SLEEVE	1	22	526415	WIPER, Piston Rod	1
10	538697	PACKING ASSY	1	23	4C-414	BOLT, Packing Gland	4
11	526423	PLATE, Backing	1	24	—	LOCKWIRE (16 ga. x 13" lg.)	2
12	545155	ROD, Piston	1	25	18C-648	BOLT, Cylinder Cap	4

‡As Required

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



HYDRAULIC SYSTEM — BUCKET AND BOOM

TS-6636-P



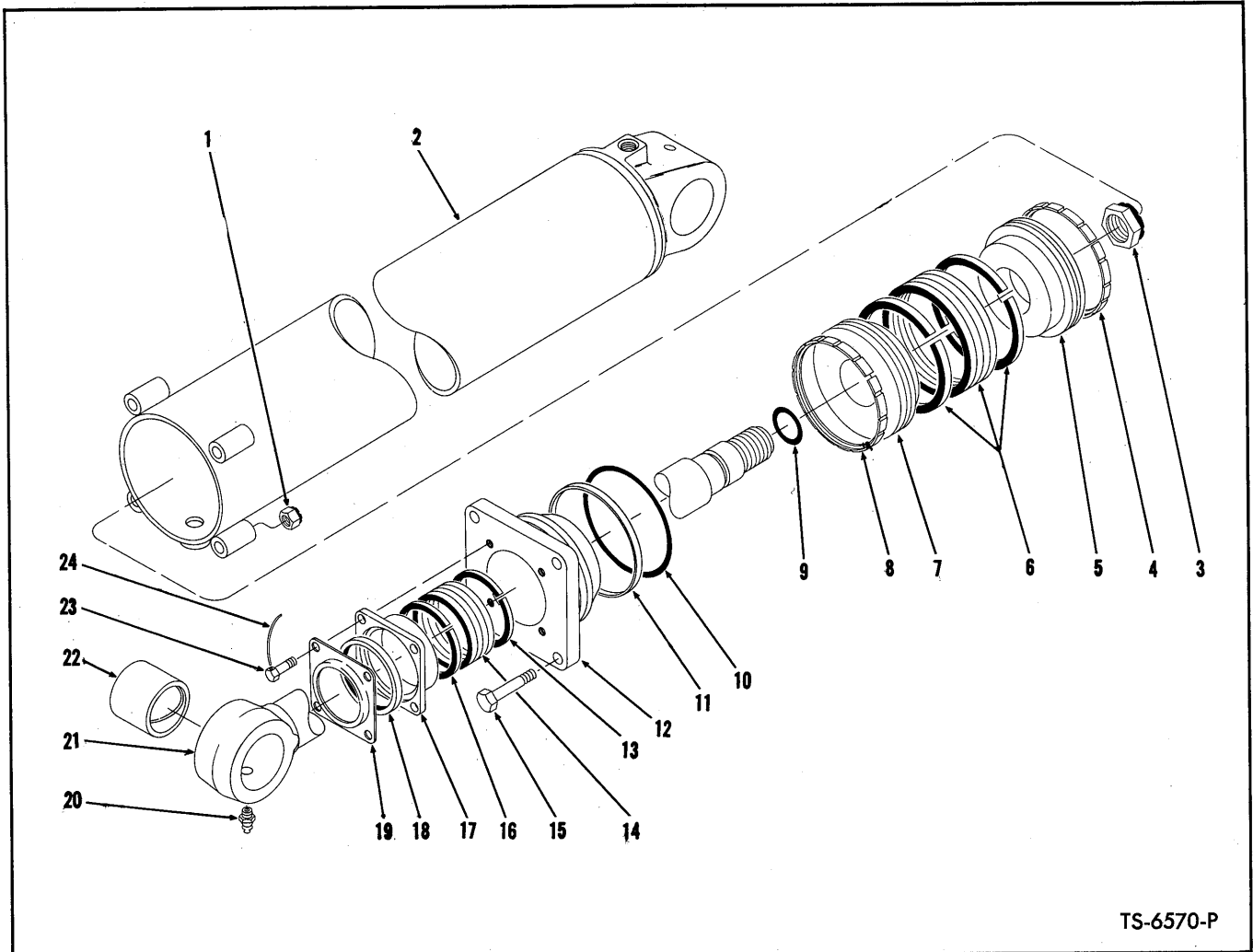
CONSTRUCTION MACHINERY DIVISION

MICHIGAN

HYDRAULIC SYSTEM — BUCKET AND BOOM

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	RESERVOIR — See Index	—	36	—	BOOM CYLINDER — See Index	—
2	573423	JOINT, Tube to Reservoir	1	37	574442	HOSE, Boom Cylinder Base to Crosstube	1
3	589419	TUBE ASSY, Return	1	38	563788	TUBE ASSY, Bucket Cylinder Crosstube to Valve	1
4	536710	HOSE, Tube to Reservoir	1	39	91F-8	"O" RING, Adapter Union	1
5	573422	JOINT, Tube to Tube	1	40	526676	ADAPTER UNION, Hose to Boom Cylinder Base (Inc. 39)	1
6	663094	FLANGE HALF, Hose to Pump	2	41	563790	TUBE ASSY, Boom Cylinder Base Crosstube to Valve	1
7	4E-07	LKWSHR, Flange Half to Pump	4	42	17K-10	ELBOW, Tube to Valve (Inc. 53)	1
8	17C-724	BOLT, Flange Half to Pump	4	43	83F-10	ELBOW, Tube to Adapter	1
9	526676	ADAPTER UNION, Hose to Boom Cylinder Base (Inc. Item 10)	1	44	563791	TUBE ASSY, Boom Cylinder Rod End Crosstube to Valve	1
10	91F-8	"O" RING, Adapter Union	1	45	15K-10	CONNECTOR, Tube to Valve (Inc. 46)	2
11	574442	HOSE, Boom Cylinder Base to Crosstube	1	46	91F-10	"O" RING, Connector	2
12	563798	CROSSTUBE ASSY, Boom Cylinder Base	1	47	40K-04	PLUG	1
13	661707	VALVE, Check	1	48	29F-1	ELBOW	1
14	563801	CROSSTUBE ASSY, Boom Cylinder Rod End	1	49	563808	TUBE ASSY, Valve to Return Tube	1
15	—	BOOM CYLINDER — See Index	—	50	91F-10	"O" RING, Elbow	1
16	29F-4	ELBOW, Hose to Boom Cylinder Rod End	1	51	17K-10	ELBOW, Hose to Valve (Inc. 50)	1
17	574442	HOSE, Boom Cylinder Rod End to Crosstube	1	52	15K-10	CONNECTOR, Tube to Valve (Inc. 53)	1
18	563789	TUBE ASSY, Valve to Crosstube — Bucket Rod End	1	53	91F-10	"O" RING, Connector	2
19	563810	HOSE, Bucket Cylinder Rod End to Crosstube	1	54	588399	ADAPTER (Inc. 55)	1
20	571176	HOSE, Bucket Cylinder Base to Crosstube	1	55	91F-13	"O" RING, Adapter	1
21	91F-8	"O" RING, Adapter Union	1	56	—	CONTROL VALVE — See Index	—
22	—	BUCKET CYLINDER — See Index	—	57	563809	HOSE, Valve to Pump	1
23	526676	ADAPTER UNION, Hose to Bucket Cylinder Base (Inc. 21, 27)	2	58	542813	HOSE, Check Valve to Tube	1
24	563805	TUBE ASSY, Hose to Bucket Cylinder Rod End	1	59	32F-5	ELBOW, Hose to Tube	1
25	563805	TUBE ASSY, Hose to Bucket Cylinder Rod End	1	60	14D-08	NUT, Indicator	1
26	—	BUCKET CYLINDER — See Index	—	61	12E-08	LKWSHR, Indicator	1
27	91F-8	"O" RING, Adapter Union	1	62	562112	INDICATOR, Reservoir Filter — Vacuum	1
28	563810	HOSE, Bucket Cylinder Rod End to Crosstube	1	63	663095	FLANGE HALF, Stem to Pump	2
29	18D-08	NUT, Bucket Crosstube Assy to Frame	2	64	17C-824	BOLT, Flange Half to Pump	4
30	563792	CROSSTUBE ASSY, Bucket Cylinder	1	65	4E-08	LKWSHR, Flange Half to Pump	4
31	18C-820	BOLT, Bucket Crosstube Assy to Frame	2	66	569506	STEM, Suction	1
32	571176	HOSE, Bucket Cylinder Base to Crosstube	1	67	25K-40128	"O" RING, Stem	1
33	571207	HOSE, Bucket Cylinder Crosstube to Tube	2	68	540130	CLAMP, Hose	1
34	29F-4	ELBOW, Hose to Boom Cylinder Rod End	1	69	536710	HOSE, Stem to Tube	1
35	574442	HOSE, Boom Cylinder Rod End to Crosstube	1	70	540130	CLAMP, Hose	1
				71	—	PUMP, Bucket & Boom — See Index	—
				72	25K-40116	"O" RING, Hose	1
				73	563785	TUBE, Suction — Front	1
				74	540130	CLAMP, Hose	2
				75	589422	TUBE ASSY, Suction — Rear	1
				76	540106	CLAMP, Hose	1
				77	533478	HOSE, Tube to Reservoir	1
				78	540106	CLAMP, Hose	1

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



TS-6570-P

BOOM 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	587950	CYLINDER ASSY (Inc. 1 thru 24)	1	13	591517	ADAPTER, Male Chevron Packing	2
1	18D-08	NUT, Cylinder Cap	4	14	531613	PACKING SET	1
2	587951	CYLINDER	1	15	18C-864	BOLT, Cylinder Cap	4
3	18D-20	NUT, Piston Rod	1	16	591516	ADAPTER, Female Chevron Packing ..	2
4	550081	RING, Wear	1	17	562700	GLAND, Packing	1
5	548575	PISTON, Bottom Half	1	18	591525	SEAL, Piston Rod	1
6	548578	PACKING ASSY	1	19	562701	RETAINER, Seal	1
7	548574	PISTON, Top Half	1	20	10H-25	FITTING, Piston Rod Grease	1
8	550081	RING, Wear	1	21	587955	ROD ASSY, Piston (Inc. 22)	1
9	25K-40112	"O" RING, Piston Rod	1	22	1521218	BUSHING, Piston Rod	1
10	25K-40408	"O" RING, Cylinder Cap	1	23	4C-616	BOLT, Packing Gland	4
11	548577	RING, "O" Ring Back-Up	1	24	———	LOCKWIRE, (16 ga. x 15" lg.)	2
12	945950	CAP ASSY, Cylinder (Inc. 10, 11)	1				

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

March 21, 1969

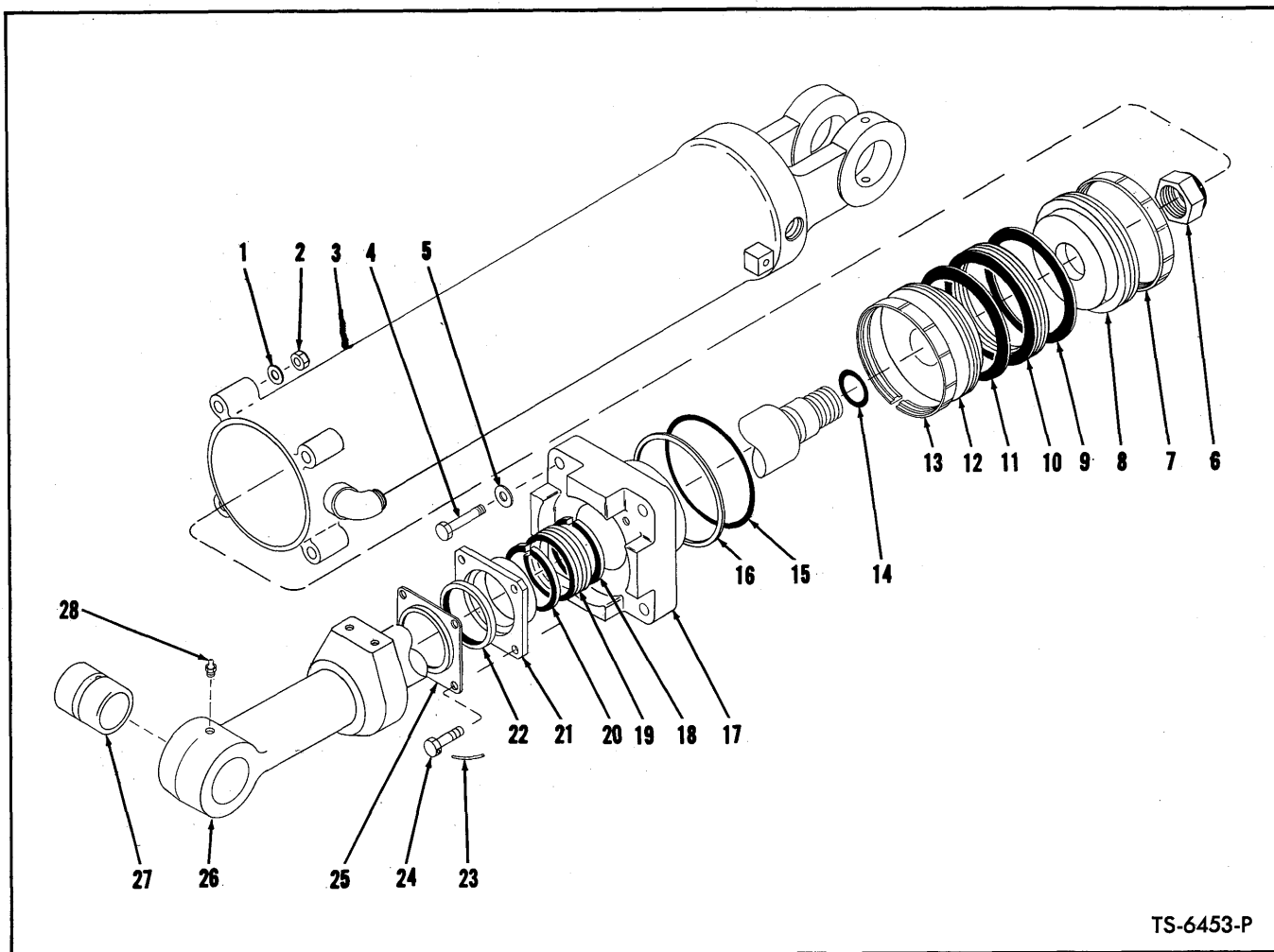
MODEL 75 & 85-III

AIR BUCKET LEVELER

Kit # 1502547 Consists Of:

<u>PART NUMBER</u>	<u>QUANTITY</u>	<u>DESCRIPTION</u>
29F-1	1	Street Elbow 90°
31F-2	2	90° Adapter Union
36F-2	1	Swivel
30F-3	1	Street Tee
18D-05	1	Nut
19F-5	1	Bushing
4E-06	4	Lockwasher
12E-10	4	Lockwasher
31H-33	1	Clip
31H-34	1	Clip
30H-58	1	Clip
18C-516	1	Bolt
18C-616	4	Bolt
2G-1010	4	Screw
559784 *	1	Air Valve
619021	4	Washer
1528868	1	Installation Drawing
1528869	1	Leveler Cam
1528870	1	Bracket
1528871	1	Bracket
1528888	1	Hose
1530094 *	1	Detent Kickout Kit
1536652	1	Hose

* Components for this item may be found
in parts manual supplements.



TS-6453-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	562529	CYLINDER ASSY (Inc. 1 thru 28)	1	15	25K-40324	"O" RING, Cylinder Cap	1
1	879768	WASHER, Cylinder Cap	4	16	743816	RING, "O" Ring Back-Up	1
2	68D-08	NUT, Cylinder Cap	4	17	945951	CAP ASSY, Cylinder (Inc. 15, 16)	1
3	~~562530~~	CYLINDER	1	18	544892	ADAPTER, Male Chevron Packing	2
4	18C-872	BOLT, Cylinder Cap	4	19	544891	PACKING SET	1
5	879768	WASHER, Cylinder Cap	4	20	544893	ADAPTER, Female Chevron Packing ..	2
6	67D-20	NUT, Piston Rod	1	21	562543	GLAND, Packing	1
7	547870	RING, Wear	1	22	587250	SEAL, Piston Rod	1
8	547869	PISTON, Bottom Half	1	23	—	LOCKWIRE (16 ga. x 13" lg.)	2
9	—	§ ADAPTER — See Item 10	—	24	4C-620	BOLT, Packing Gland	4
10	547836	PACKING ASSY (Inc. 9, 11)	1	25	562544	RETAINER, Seal	1
11	—	§ ADAPTER — See Item 10	—	26	562536	ROD ASSY, Piston (Inc. 27)	1
12	547868	PISTON, Top Half	1	27	1521241	BUSHING, Piston Rod	1
13	547870	RING, Wear	1	28	10H-25	FITTING, Piston Rod Grease	1
14	25K-40104	"O" RING, Piston Rod	1				

§Not Sold Separately

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

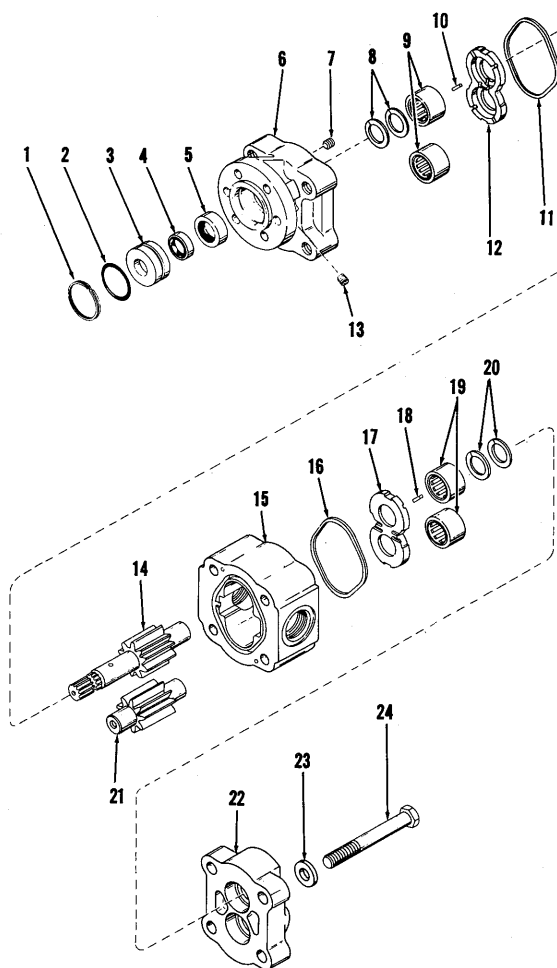
PM 2083

X 1507805 dazh

1x 533463 Hose

1x 367-5 Adapter Union

PG 2185 [67]



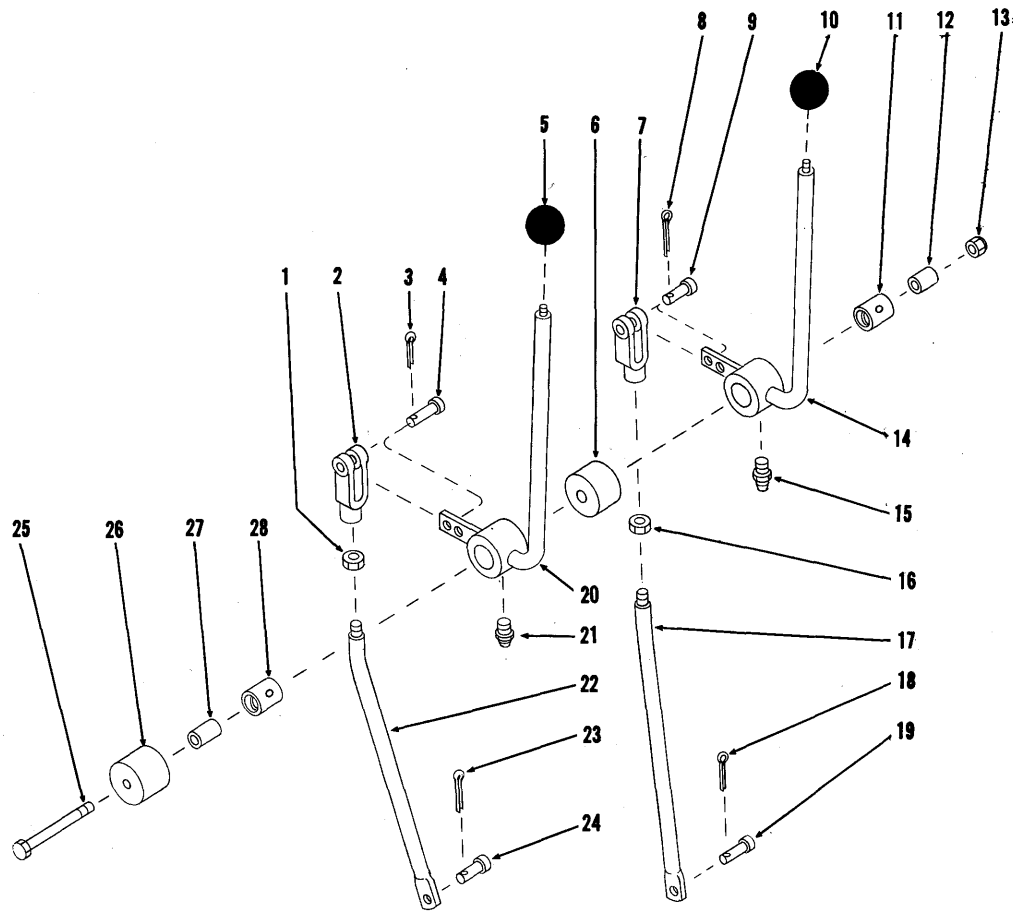
TS-6764-P

HYDRAULIC PUMP — BUCKET AND BOOM

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	569354	PUMP ASSY (Inc. 1 thru 24)	1	12	-----	§PLATE, Thrust — See Item "D"	1
B	946392	SHAFT SEAL KIT (Inc. 1 thru 5)	1	13	-----	PLUG — Shipping only	1
C	946393	GEAR (Inc. 14, 21)	1	14	-----	§GEAR, Drive — See Item "C"	1
D	946394	THRUST PLATE KIT (Inc. 1 thru 5, 10, 11, 12, 16, 17, 18)	1	15	946399	HOUSING, Gear	1
E	946395	BEARING KIT (Inc. 1 thru 5, 8 thru 12, 16 thru 20)	1	16	-----	§SEAL, Housing — See Item "D"	1
1	876354	RING, Seal Retainer	1	17	-----	§PLATE, Thrust — See Item "D"	1
2	25K-30128	"O" RING, Seal Retainer	1	18	-----	§SEAL, Pocket — See Item "D" (Cut from Strip in Kit)	6
3	-----	§RETAINER, Seal — See Item "B"	1	19	-----	§BEARING, Roller — See Item "E"	2
4	946396	SEAL, Outer Drive Shaft	1	20	-----	§SEAL, Ring — See Item "E"	2
5	946397	SEAL, Inner Drive Shaft	1	21	-----	§GEAR, Driven	1
6	946398	COVER, Shaft End	1	22	946400	COVER, Port End	1
7	33G-706	SCREW, Set	1	23	946401	WASHER, Cover Mounting	4
8	-----	§SEAL, Ring — See Item "E"	2	24	1C-1084	BOLT, Cover Mounting	4
9	-----	§BEARING, Roller — See Item "E"	2	25	214962	†SLEEVE, Pump Drive	1
10	-----	§SEAL, Pocket — See Item "D" (Cut from Strip in Kit)	6	26	551906	†GASKET, Pump to Converter	1
11	-----	§SEAL, Housing — See Item "D"	1	27	8D-06	†NUT, Pump Mounting	6
				28	9E-06	†LKWSHR, Pump Mounting	6

§Not Sold Separately
†Not Illustrated

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



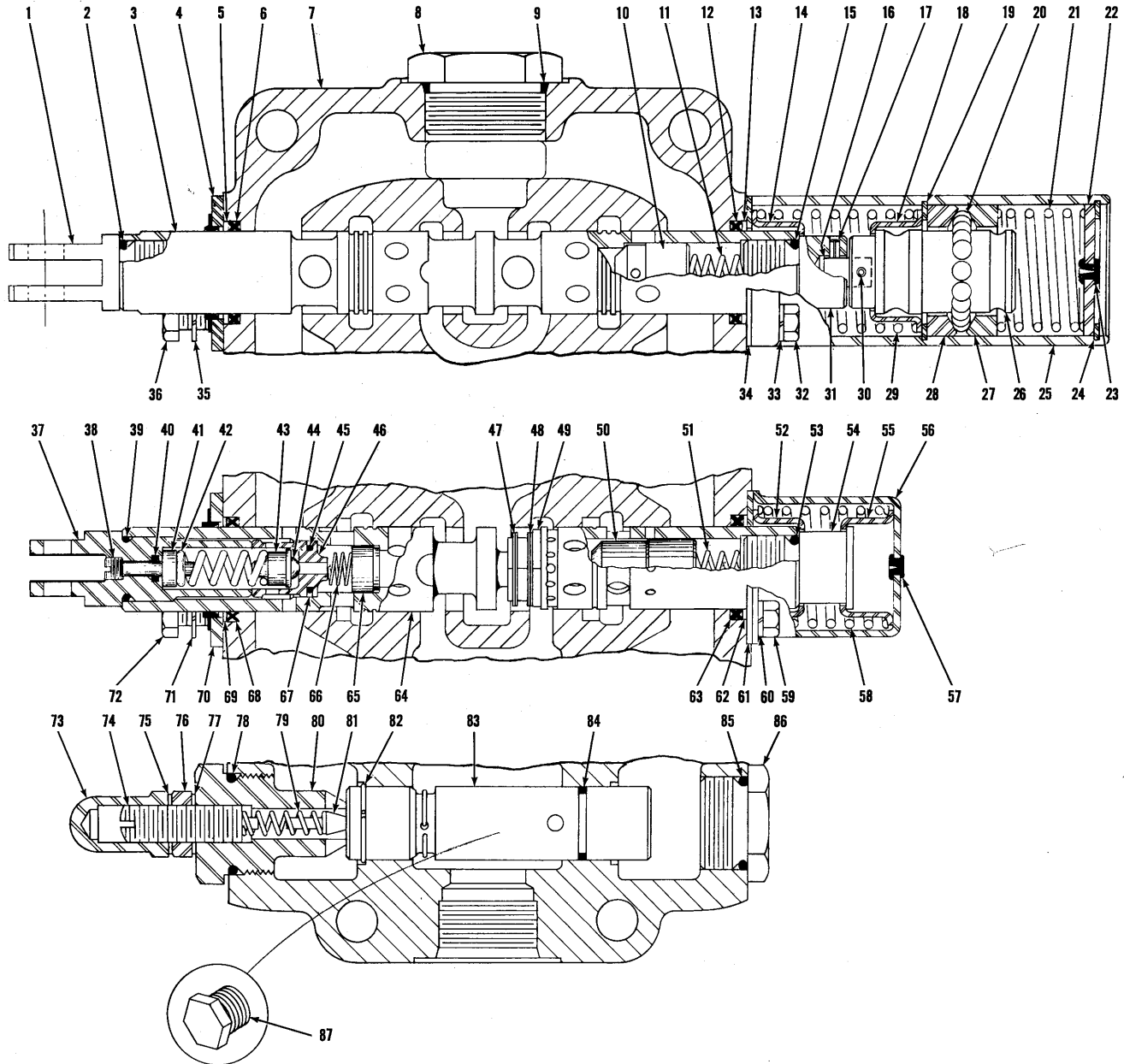
TS-6662-P

VALVE CONTROL LEVERS AND LINKAGE

Item No.	Part No.	Description	No. Req'd.
1	8D-08	NUT, Clevis Jam	1
2	2J-8300	CLEVIS, Rod to Lever	1
3	1F-414	COTTER, Clevis Pin	1
4	4F-08127	PIN, Clevis to Lever	1
5	509772	KNOB, Bucket Lever	1
6	558574	SPACER, Valve Lever Mounting	1
7	2J-8300	CLEVIS, Rod to Lever	1
8	1F-414	COTTER, Clevis Pin	1
9	4F-08127	PIN, Clevis to Lever	1
10	509772	KNOB, Boom Lever	1
11	569055	BUSHING, Valve Lever Mounting	1
12	550646	SLEEVE, Valve Lever Mounting	1
13	18D-08	NUT, Valve Lever Mounting	1
14	572708	LEVER, Boom Control (Inc. 11)	1

Item No.	Part No.	Description	No. Req'd.
15	12H-15	FITTING, Lever Grease	1
16	8D-08	NUT, Clevis Jam	1
17	564268	ROD ASSY, Valve Control (Inc. 7, 16)	1
18	1F-312	COTTER, Clevis Pin	1
19	4F-06106	PIN, Rod to Valve	1
20	572708	LEVER, Bucket Control (Inc. 28)	1
21	12H-15	FITTING, Lever Grease	1
22	564271	ROD ASSY, Valve Control (Inc. 1, 2)	1
23	1F-312	COTTER, Clevis Pin	1
24	4F-06106	PIN, Rod to Valve	1
25	24C-8136	BOLT, Valve Lever Mounting	1
26	558574	SPACER, Valve Lever Mounting	1
27	550646	SLEEVE, Valve Lever Mounting	1
28	569055	BUSHING, Valve Lever Mounting	1

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



CONTROL VALVE ASSEMBLY

TS-6653-P

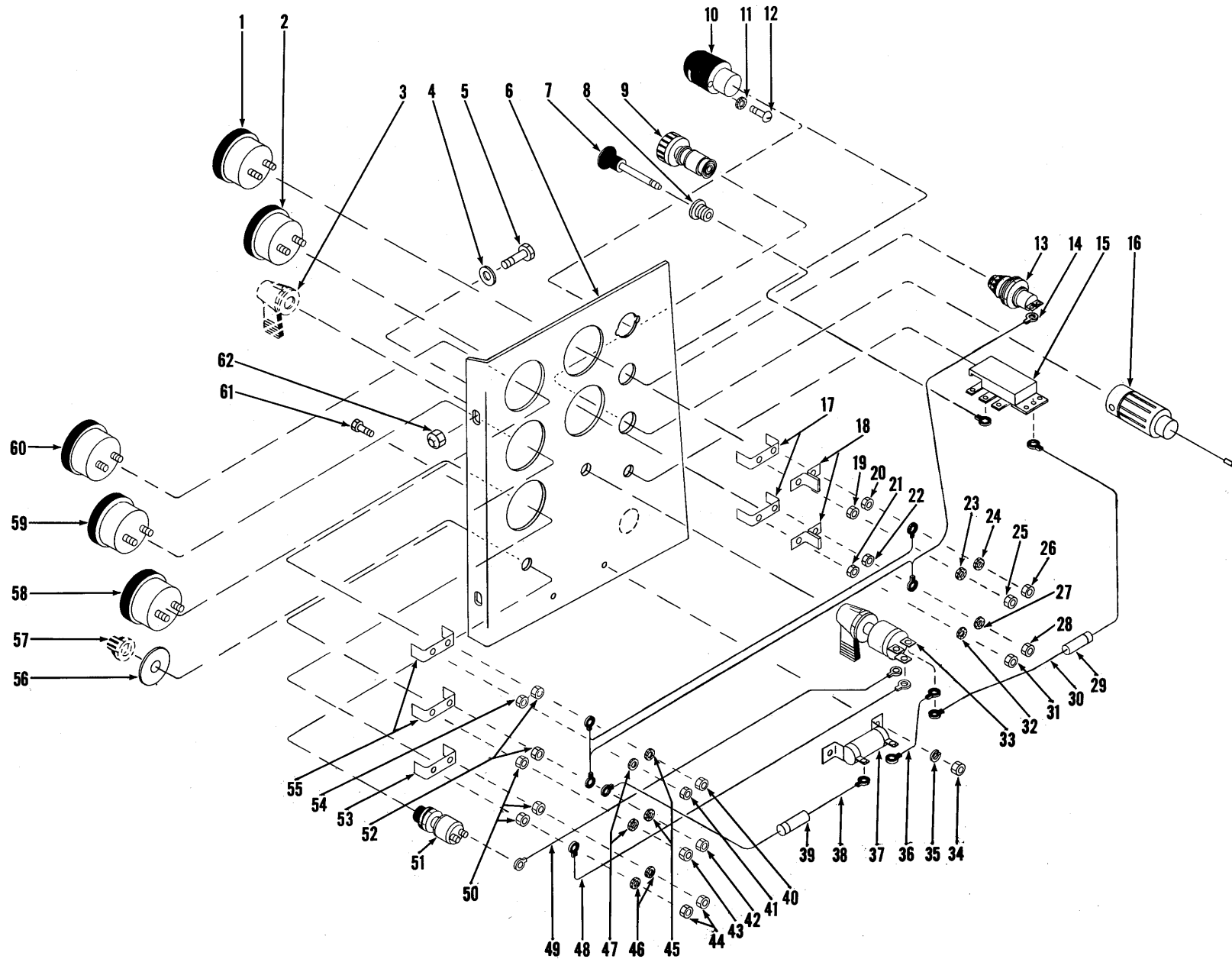
CONTROL VALVE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	558814	VALVE ASSY (Inc. 1 thru 87)	1	46	946367	SEAT, Check	1
1	946360	EYE, Plunger	1	47	1308105	RING, Check Retaining	2
2	944881	"O" RING, Plunger Eye	1	48	1308105	RING, Check Retaining	2
3	—	§ OPERATING PLUNGER—See Item "A"	—	49	946032	CHECK, Plunger	2
4	893294	WIPER, Bonded	1	50	946368	CHECK, Plunger	1
5	944883	RING, Back-Up	1	51	893293	SPRING, Plunger Check	1
6	784559	QUAD RING, Plunger	1	52	945348	GUIDE, Check Spring	1
7	—	§ HOUSING, Valve — See Item "A"	—	53	944881	"O" RING, Operating Plunger	1
8	24K-11	CAP, Housing	1	54	944895	CAP, Operating Plunger	1
9	91F-11	"O" RING, Cap	1	55	945348	GUIDE, Return Spring	1
10	944885	CHECK, Plunger	1	56	944896	COVER, Detent	1
11	893293	SPRING, Plunger Check	1	57	886745	PLUG, Bleeder	1
12	784559	QUAD RING, Plunger	1	58	944879	SPRING, Plunger Return	1
13	944883	RING, Back-Up	1	59	1C-410	BOLT, Cover Retaining	4
14	944878	GUIDE, Check Spring	1	60	4E-04	LKWSHR, Cover Retaining	4
15	944881	"O" RING, Operating Plunger	1	61	944882	PLATE, Quad Ring Retaining	1
16	888449	PIN, Detent	1	62	944883	RING, Back-Up	1
17	108301	PIN, Roll	1	63	784559	QUAD RING, Plunger	1
18	944878	GUIDE, Return Spring	1	64	—	§ OPERATING PLUNGER—See Item "A"	—
19	1301194	RING, Retaining	1	65	946370	CHECK, Plunger	1
20	10J-08	BALL, Detent	15	66	946369	SPRING, Plunger	1
21	946029	SPRING, Detent	1	67	946366	RING, Back-Up	1
22	944900	PLUG, Detent	1	68	784559	QUAD RING, Plunger	1
23	886763	PLUG, Bleeder	1	69	944883	RING, Back-Up	1
24	507695	RING, Plug Retaining	1	70	893294	WIPER, Bonded	1
25	945805	COVER, Detent	1	71	4E-04	LKWSHR, Wiper Retainer	2
26	946030	CAP, Detent	1	72	1C-410	BOLT, Wiper Retainer	2
27	944897	RETAINER, Ball	1	73	944853	ACORN NUT	1
28	944897	RETAINER, Ball	1	74	944890	SCREW, Relief Valve Adjusting	1
29	945090	SPRING, Plunger Return	1	75	613750	WASHER, Jam Nut	1
30	108301	PIN, Roll	1	76	8D-08	NUT, Jam	1
31	945095	CAP, Operating Plunger	1	77	613750	WASHER, Jam Nut	1
32	1C-416	BOLT, Cover Attaching	4	78	25K-40100	"O" RING, Adjusting Cap	1
33	4E-04	LKWSHR, Cover Attaching	4	79	886753	SPRING, Relief Valve	1
34	944882	PLATE, Quad Ring Retaining	1	80	893296	CAP, Relief Valve Adjusting	1
35	4E-04	LKWSHR, Wiper Retainer	2	81	886739	POPPET, Relief Valve	1
36	1C-410	BOLT, Wiper Retainer	2	82	946033	RING, Relief Valve Retaining	1
37	946361	EYE, Plunger	1	83	893298	VALVE ASSY, Relief (Inc. 82, 84)	1
38	946362	SCREW, Adjusting	1	84	945816	"O" RING, Relief Valve	1
39	944881	"O" RING, Plunger Eye	1	85	25K-40100	"O" RING, Cap	1
40	25K-20007	"O" RING, Guide	1	86	944894	CAP, Valve Housing	1
41	946363	GUIDE, Check Spring	1	87	40K-04	PLUG, Housing	1
42	946364	SPRING, Check	1	88	18C-864	† BOLT, Valve Mounting	3
43	946365	CHECK, Plunger (Inc. 44)	1	89	4E-08	† LKWSHR, Valve Mounting	2
44	—	§ BALL — See Item 43	—	90	66D-08	† NUT, Valve Mounting	1
45	25K-20016	"O" RING, Check Seat	1				

§Not Sold Separately

†Not Illustrated

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



INSTRUMENT PANEL ASSEMBLY

TS-5236-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

INSTRUMENT PANEL ASSEMBLY

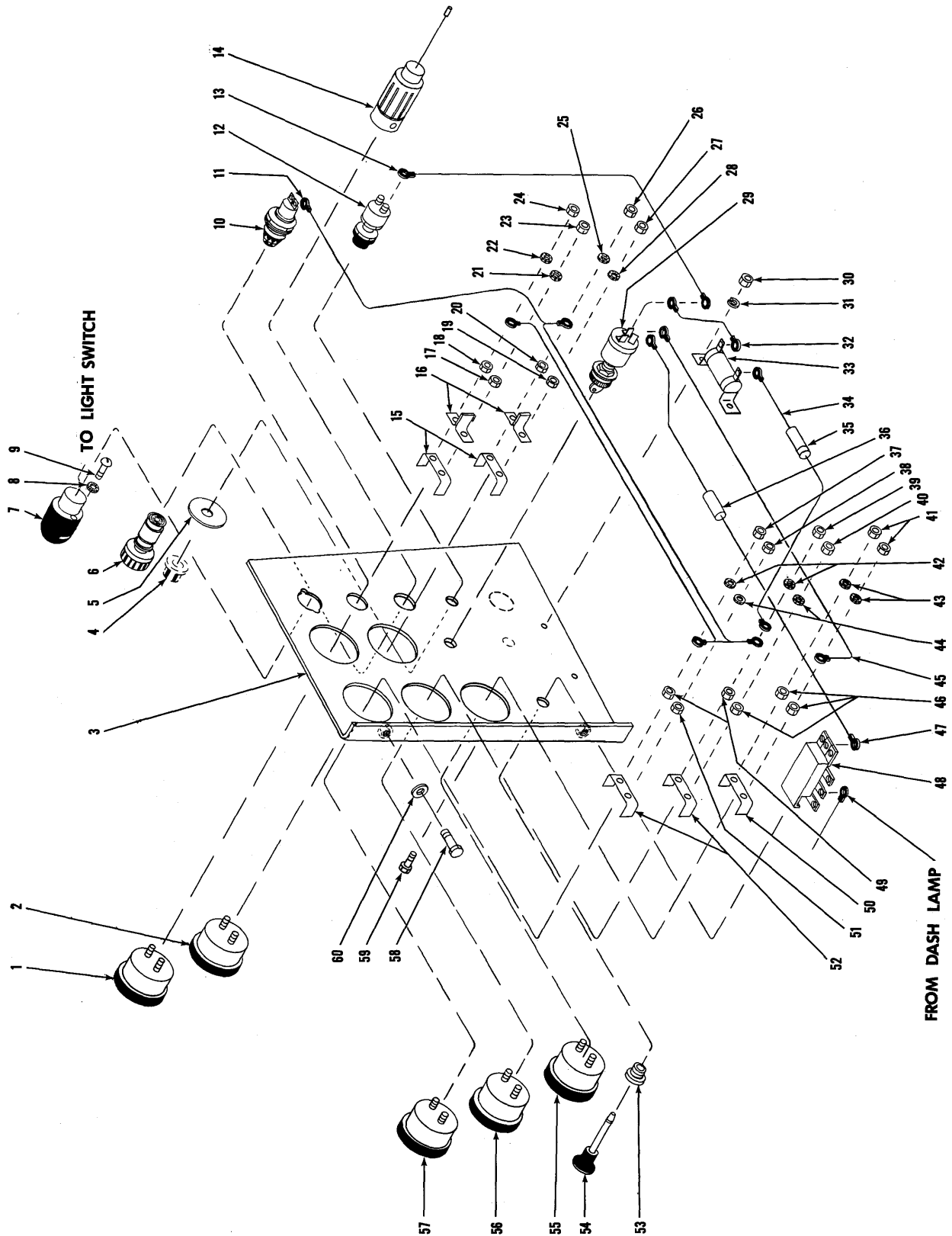
For Serial 7CG101 thru 7CG196

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	523372	GAUGE, Engine Oil Pressure	1	31	14D-10	NUT, Terminal to Gauge	1
2	517228	GAUGE, Air Pressure	1	32	12E-10	LKWSHR, Terminal to Gauge	1
3	—	OMIT	—	33	573548	SWITCH, Ignition (Key)	1
4	619024	WASHER, Instrument Panel Mounting	—	34	—	OMIT — Not used on 12V System	—
5	18C-616	BOLT, Instrument Panel Mounting	2	35	—	OMIT — Not used on 12V System	—
6	589992	PANEL, Instrument	1	36	—	OMIT — Not used on 12V System	—
7	550742	ROD, Light Switch	1	37	—	OMIT — Not used on 12V System	—
8	550743	BUSHING, Light Switch	1	38	573587	WIRE, Resistor to Temperature Gauge	1
9	944803	ELEMENT, Lighter	1	39	571021	FUSE — .75 Amp	1
10	574276	LAMP, Dash	1	40	12D-8	NUT, Terminal to Gauge	1
10A	427237	†BULB, Dash Lamp (12V)	1	41	14D-10	NUT, Terminal to Gauge	1
11	12E-6	LKWSHR, Dash Lamp Mounting	2	42	12D-8	NUT, Terminal to Gauge	1
12	18G-606	SCREW, Dash Lamp Mounting	2	43	14D-10	NUT, Terminal to Gauge	1
13	562141	LIGHT, Indicator	1	44	14D-10	NUT, Terminal to Gauge	2
13A	876574	†BULB, Indicator Light	1	45	12E-8	LKWSHR, Terminal to Gauge	2
14	558673	HARNESS, Instrument Wiring	1	46	12E-10	LKWSHR, Terminal to Gauge	2
15	550741	SWITCH, Light	1	47	12E-10	LKWSHR, Terminal to Gauge	2
16	549024	RECEPTACLE, Lighter	1	48	553405	WIRE, Ignition Switch to Ammeter	1
16A	944804	†FUSE, Lighter	1	49	553405	WIRE, Ignition Switch to Starter Button	1
17	626530	CLAMP, Instrument Mounting	2	50	14D-10	NUT, Gauge to Panel Mounting	3
18	602350	SEPARATOR, Oil & Air Gauge	2	51	600259	BUTTON, Starter (Inc. 51A, 57)	1
19	14D-10	NUT, Gauge to Panel Mounting	1	51A	857420	†RUBBER BOOT, Starter Button	1
20	12D-8	NUT, Gauge to Panel Mounting	1	52	12D-8	NUT, Gauge to Panel Mounting	2
21	14D-10	NUT, Gauge to Panel Mounting	1	53	601212	CLAMP, Ammeter Mounting	1
22	12D-8	NUT, Gauge to Panel Mounting	1	54	14D-10	NUT, Gauge to Panel Mounting	1
23	12E-10	LKWSHR, Terminal to Gauge	1	55	626530	CLAMP, Instrument Mounting	2
24	12E-8	LKWSHR, Terminal to Gauge	1	56	547237	PLATE, Starter Button	1
25	14D-10	NUT, Terminal to Gauge	1	57	—	§BUTTON, Push — See Item 51	—
26	12D-8	NUT, Terminal to Gauge	1	58	550735	AMMETER	1
27	12E-8	LKWSHR, Terminal to Gauge	1	59	551322	GAUGE, Engine Temperature	1
28	12D-8	NUT, Terminal to Gauge	1	60	551321	GAUGE, Torque Converter Temp.	1
29	611074	FUSE — 20 Amp	1	61	—	OMIT — Not used on 12V System	—
30	552946	WIRE, Ignition Switch to Light Switch (Inc. 29)	1	62	18D-06	NUT, Instrument Panel Mounting	2
				63	565430	†WIRE, Lighter to Indicator Light	1

†Not Illustrated
§Not Sold Separately

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

TS-6666-P



INSTRUMENT PANEL ASSEMBLY

FROM DASH LAMP



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

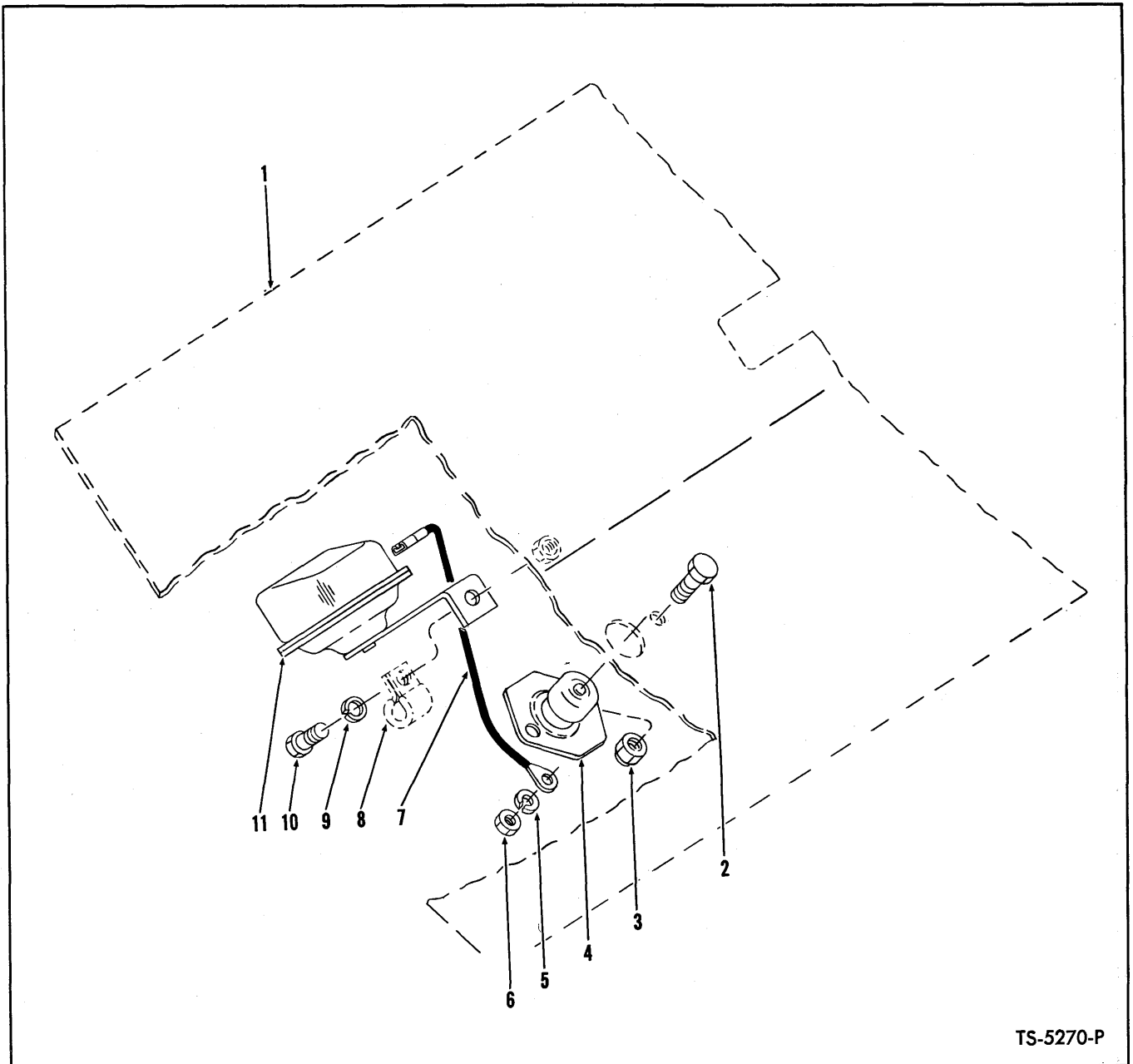
INSTRUMENT PANEL ASSEMBLY

For Serial 7CG197 and Thereafter

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	523372	GAUGE, Engine Oil Pressure	1	31	-----	OMIT — Not used on 12V System	—
2	517228	GAUGE, Air Pressure	1	32	-----	OMIT — Not used on 12V System	—
3	574117	PANEL, Instrument	1	33	-----	OMIT — Not used on 12V System	—
4	-----	§BUTTON, Push — See Item 12	—	34	573587	WIRE, Ignition Switch to Temperature Gauge	1
5	547237	PLATE, Starter Button	1	35	571021	FUSE — .75 Amp	1
6	944803	ELEMENT, Lighter	1	36	611074	FUSE — 20 Amp	1
7	574276	LAMP, Dash	1	37	12D-8	NUT, Terminal to Gauge	1
7A	940316	†BULB, Dash Lamp (12V)	1	38	14D-10	NUT, Terminal to Gauge	1
8	12E-6	LKWSHR, Dash Lamp Mounting	2	39	12D-8	NUT, Terminal to Gauge	1
9	18G-606	SCREW, Dash Lamp Mounting	2	40	14D-10	NUT, Terminal to Gauge	1
10	562141	LIGHT, Indicator	1	41	14D-10	NUT, Terminal to Gauge	2
10A	427237	†BULB, Indicator Light	1	42	12E-8	LKWSHR, Terminal to Gauge	2
11	558673	HARNESS, Instrument Wiring	1	43	12E-10	LKWSHR, Terminal to Gauge	2
12	600259	BUTTON, Starter (Inc. 4, 12A)	1	44	12E-10	LKWSHR, Terminal to Gauge	2
12A	857420	†RUBBER BOOT, Starter Button	1	45	553405	WIRE, Ignition Switch to Ammeter	1
13	553405	WIRE, Ignition Switch to Starter Button	1	46	14D-10	NUT, Gauge to Panel Mounting	3
14	549024	RECEPTACLE, Lighter	1	47	552946	WIRE, Ignition Switch to Light Switch (Inc. 36)	1
14A	944804	†FUSE, Lighter	1	48	550741	SWITCH, Light	1
15	626530	CLAMP, Instrument Mounting	2	49	12D-8	NUT, Gauge to Panel Mounting	2
16	602350	SEPARATOR, Oil & Air Gauges	2	50	601212	CLAMP, Ammeter Mounting	1
17	14D-10	NUT, Gauge to Panel Mounting	1	51	14D-10	NUT, Gauge to Panel Mounting	1
18	12D-8	NUT, Gauge to Panel Mounting	1	52	626530	CLAMP, Instrument Mounting	2
19	14D-10	NUT, Gauge to Panel Mounting	1	53	550743	BUSHING, Light Switch	1
20	12D-8	NUT, Gauge to Panel Mounting	1	54	550742	ROD, Light Switch	1
21	12E-10	LKWSHR, Terminal to Gauge	1	55	550735	AMMETER	1
22	12E-8	LKWSHR, Terminal to Gauge	1	56	551322	GAUGE, Engine Temperature	1
23	14D-10	NUT, Terminal to Gauge	1	57	551321	GAUGE, Torque Conv. Temperature ..	1
24	12D-8	NUT, Terminal to Gauge	1	58	17C-616	BOLT, Instrument Panel Mounting	3
25	12E-8	LKWSHR, Terminal to Gauge	1	59	-----	OMIT — Not used on 12V System	—
26	12D-8	NUT, Terminal to Gauge	1	60	656672	WASHER, Instrument Panel Mounting ..	2
27	14D-10	NUT, Terminal to Gauge	1	60A	4E-06	†LKWSHR, Instrument Panel Mounting..	3
28	12E-10	LKWSHR, Terminal to Gauge	1	60B	572729	†CAGED NUT, Instrument Panel Mounting	1
29	573548	SWITCH, Ignition	1				
30	-----	OMIT — Not used on 12V System	—				

§Not Sold Separately
†Not Illustrated

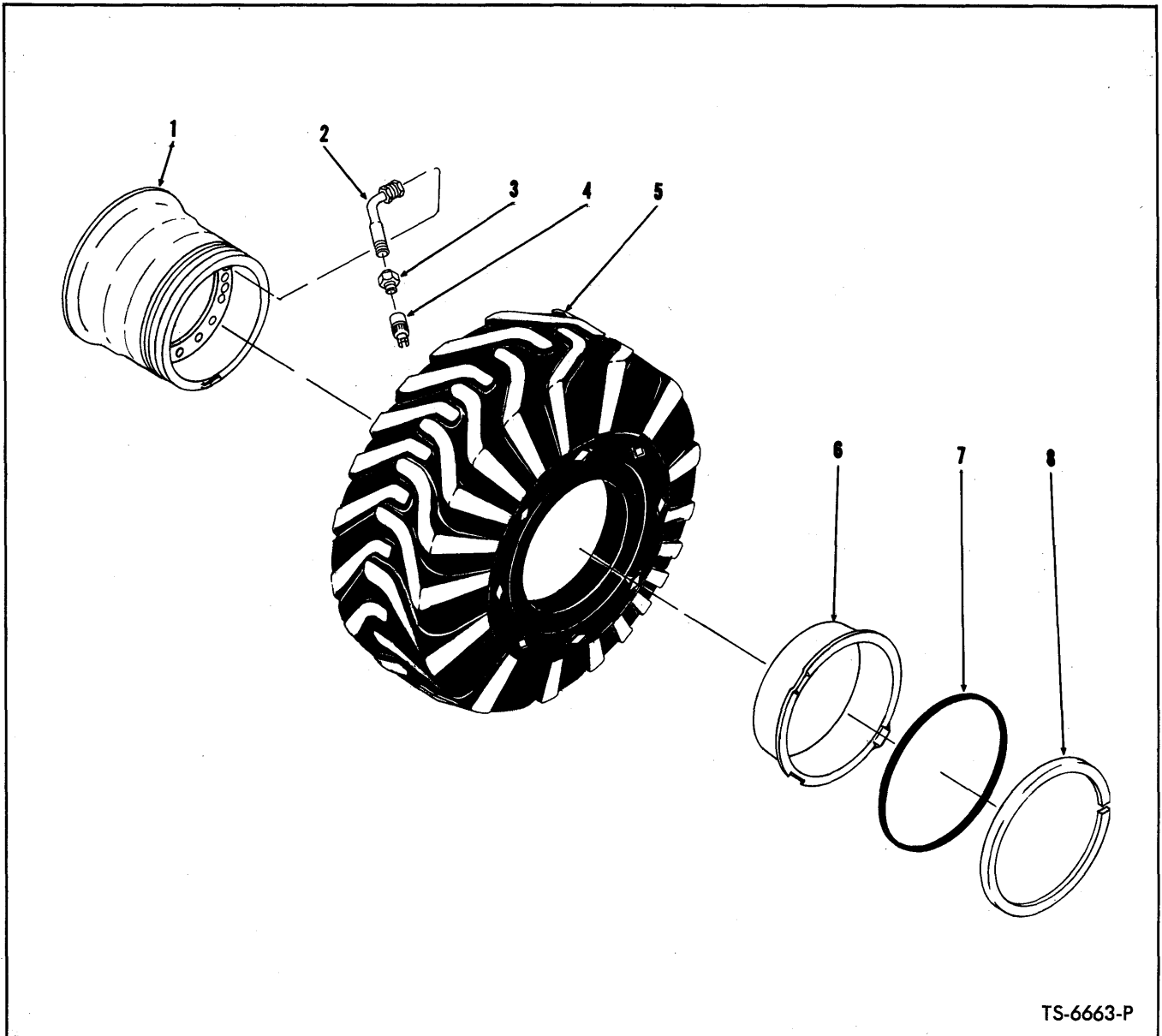
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



HORN AND FOOT SWITCH

Item No.	Part No.	Description	No. Req'd.
1	-----	COCKPIT — See Index	—
2	18C-412	BOLT, Foot Switch to Cockpit	2
3	18D-04	NUT, Foot Switch to Cockpit	2
4	778570	SWITCH, Foot	1
5	4E-05	LKWSHR, Terminal Mounting	2
6	8D-05	NUT, Terminal Mounting	2
7	558957	WIRE, Foot Switch to Horn	1
8	-----	CLIP — See Clip Chart	—
9	4E-04	LKWSHR, Horn Mounting	1
10	17C-412	BOLT, Horn Mounting	1
11	885083	HORN KIT	1

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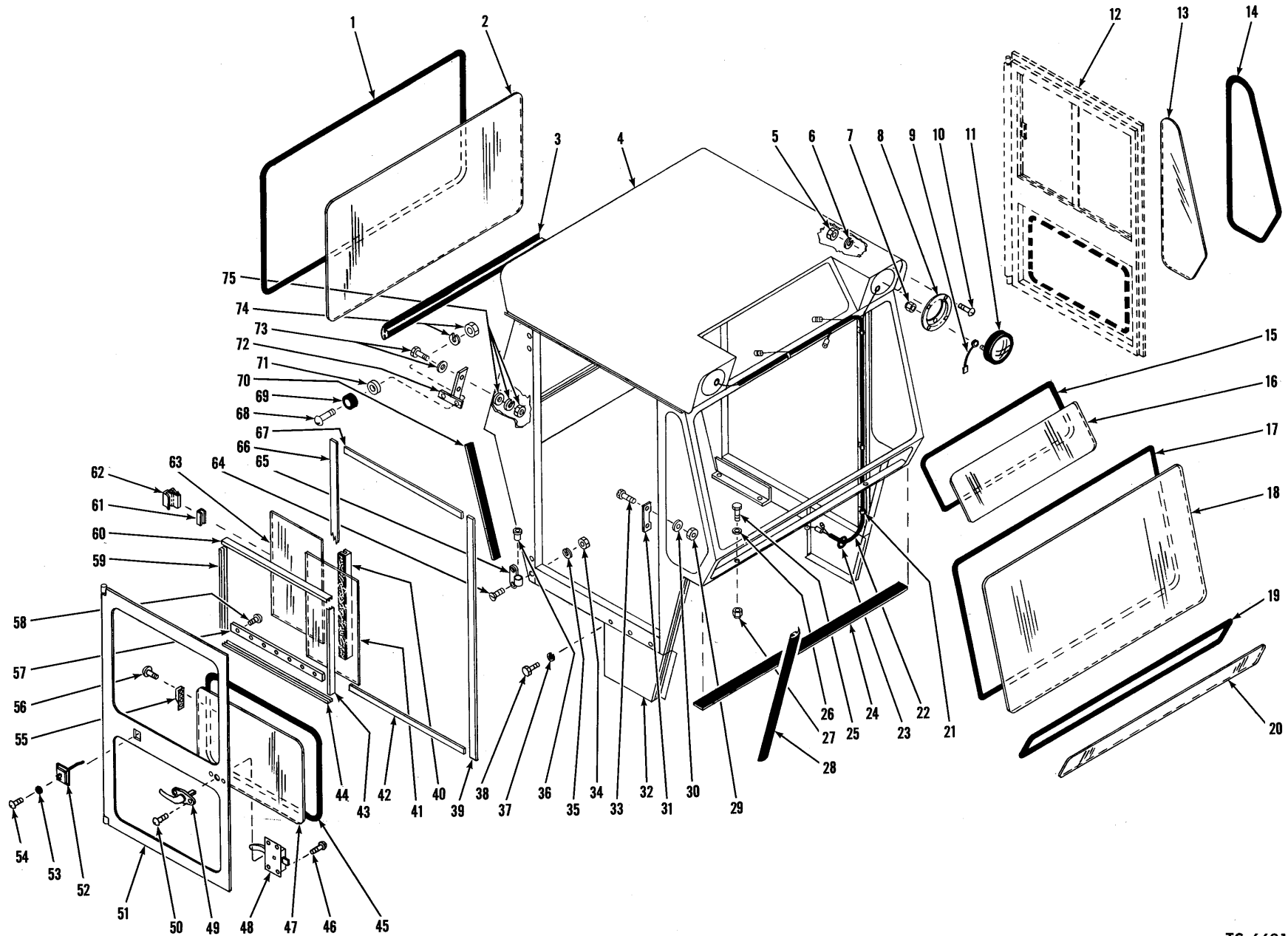
TS-6663-P

WHEEL AND TIRE DATA

Item No.	Sure Grip Grader 14.0 x 24 10 PR	Rock Grader 14.0 x 24 12 PR	Sure Grip Grader 16.0 x 24 12 PR	Loader 17.5 x 25 12 PR	Description	No. Req'd.
1	532253	532253	532253	545957	WHEEL	4
2	517963	517963	517963	509445	STEM, Valve (Inc. 3, 4)	4
3	551684	551684	551684	551684	ADAPTER, Valve Stem	4
4	551685	551685	551685	551685	CAP, Valve	4
5	-----	-----	-----	-----	§TIRE	4
6	941326	941326	941326	112461	FLANGE	4
7	941329	941329	941329	112462	"O" RING	4
8	941325	941325	941325	112460	LOCK RING	4

§Not Sold Separately

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



CAB ASSEMBLY

TS-6681-P

CAB ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	568652	CAB ASSY (Inc. 1 thru 6, 8, 10, 12 thru 20, 24, 28 thru 75)	1	39	943623	WEATHERSTRIP, Door Front	8 ft.
1	569694	MOULDING, Rear Window	11 ft.	40	139149	CHANNEL, Glass Divider	2 ft.
2	-----	§ GLASS PATTERN, Rear Window — See Item 76	—	41	-----	§ GLASS PATTERN, Sliding Door — See Item 76	—
3	1521846	WEATHERSTRIP, Cab — Rear	5 ft.	42	943623	WEATHERSTRIP, Door — Bottom	6 ft.
4	-----	§ CAB — See Item "A"	—	43	569696	CHANNEL, Side Glass Track	4 ft.
5	12D-10	NUT, Head Lamp Adapter Attaching	8	44	569696	CHANNEL, Bottom Glass Track	4 ft.
6	17E-10	LKWSHR, Head Lamp Adapter Attaching	8	45	569694	MOULDING, Lower Door Glass	12 ft.
7	50D-10	NUT, Head Lamp Attaching	6	46	66G-1008	SCREW, Lock to Door Attaching	8
8	568675	ADAPTER, Head Lamp Panel	2	47	-----	§ GLASS PATTERN, Lower Door — See Item 76	—
9	540882	WIRE, Head Lamp Ground	2	48	942874	LOCK, Door — R.H.	1
10	3G-1012	SCREW, Head Lamp Adapter Attaching	8	48A	138249	† LOCK Door — L.H.	1
11	547006	HEAD LAMP ASSY — 12V (Inc. 11A, 11B)	2	49	785904	HANDLE, Door (Less Key)	2
11A	551242	† SEALED UNIT, Head Lamp — 12V	2	49A	547172	† HANDLE, Door (With Key — Optional)	2
11B	944977	† RETAINER, Head Lamp	2	50	32G-1008	SCREW, Handle to Door Attaching	4
12	-----	DOOR — See Item 51A	—	51	568669	DOOR — R.H.	1
13	-----	§ GLASS PATTERN, Quarter Window — See Item 76	—	51A	568670	† DOOR — L.H.	1
14	569694	MOULDING, Quarter Window	5 ft.	52	560650	CATCH, Door	2
15	569694	MOULDING, Roof	6 ft.	53	17E-10	LKWSHR, Door Catch Attaching	8
16	-----	§ GLASS PATTERN, Roof — See Item 76	—	54	79G-1010	SCREW, Door Catch Attaching	8
17	569694	MOULDING, Upper Windshield	12 ft.	55	557465	STRIKE, Window Lock	4
18	-----	§ GLASS PATTERN, Upper Windshield — See Item 76	—	56	5G-606	SCREW & LKWSHR ASSY, Window Lock Attaching	8
19	569694	MOULDING, Lower Windshield	10 ft.	57	945577	RETAINER, Door Channel	2
20	-----	§ GLASS PATTERN, Lower Windshield — See Item 76	—	58	63G-1008	SCREW, Channel Retainer to Door	14
21	541988	CLIP, Wiring Harness	4	59	569696	CHANNEL, Side Glass Track	4 ft.
22	568654	WIRING HARNESS, Cab	1	60	569696	CHANNEL, Top Glass Track	4 ft.
23	515069	GROMMET, Cab Wiring Harness	1	61	946115	RUBBER, Lock to Glass Mounting	1 ft.
24	1521844	WEATHERSTRIP, Cab to Cockpit	4 ft.	62	589571	LOCK, Sliding Glass	4
25	18C-628	BOLT, Cab Attaching — Front Mount	2	63	-----	§ GLASS PATTERN, Sliding Door — See Item 76	—
25A	18C-624	† BOLT, Cab Attaching — Side Mount	4	64	76G-512	SCREW, Hinge Attaching	8
26	616783	WASHER, Cab Attaching	6	65	945554	HINGE, Door — R.H. Lower & L.H. Upper	2
27	18D-06	NUT, Cab Attaching	6	65A	945555	HINGE, Door — R.H. Upper & L.H. Lower	2
28	569692	WEATHERSTRIP, Cab — Front	6 ft.	66	943623	WEATHERSTRIP, Door — Rear	8 ft.
29	1D-04	NUT, Door Lock Strike Attaching	4	67	943623	WEATHERSTRIP, Door — Top	6 ft.
30	4E-04	LKWSHR, Door Lock Strike Attaching	4	68	3G-1016	SCREW, Bumper to Latch Strike	2
31	945576	STRIKE, Door Lock	2	69	560651	BUMPER, Rubber	2
32	568686	PANEL, Lower Quarter — R.H.	1	70	943623	WEATHERSTRIP, Cab Seal Rear	2 ft.
32A	568687	PANEL, Lower Quarter — L.H.	1	71	874767	SPACER, Bumper to Latch	2
33	47G-412	BOLT, Door Lock Strike Attaching	4	72	574992	STRIKE, Door Latch	2
34	1D-05	NUT, Cab Door Hinge Attaching	8	73	17C-416	BOLT, Door Latch Strike Attaching	2
35	4E-05	LKWSHR, Cab Door Hinge Attaching	8	73A	619018	WASHER, Door Latch Strike Attaching	2
36	568700	BUSHING, Cab Door Hinge	4	74	12D-10	NUT, Bumper to Latch Strike	2
37	4E-04	LKWSHR, Lower Quarter Panel Attaching	6	74A	17E-10	LKWSHR, Bumper to Latch Strike	2
38	17C-410	BOLT, Lower Quarter Panel Attaching	6	75	619018	WASHER, Door Latch Strike Attaching	2
				75A	4E-04	LKWSHR, Door Latch Strike Attaching	2
				75B	1D-04	NUT, Door Latch Strike Attaching	2
				76	945903	† GLASS PATTERN KIT (Inc. 2, 13, 16, 18, 20, 41, 47, 63)	1

§ Not Sold Separately

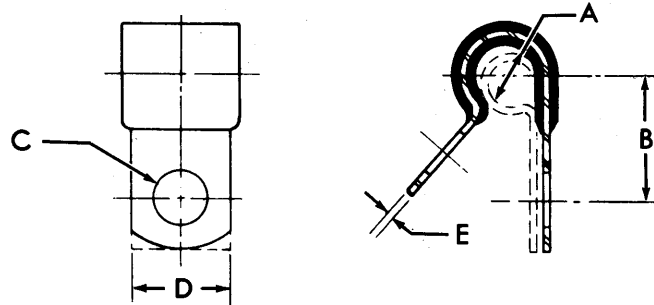
† Not Illustrated

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

WIRING, PIPE AND HOSE CLIPS

The following types of clips are used in connection with the various wiring, fuel, air and hydraulic piping systems employed in this unit. When replacing clips identification can be made by checking type and physical dimensions listed to obtain part number.

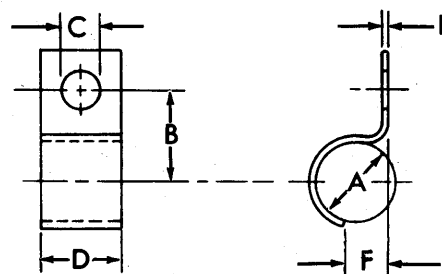
INSULATED CLIP



TS-5008-P

Item No.	PART NUMBER	A	B	C	D	E	F
1	30H-14	$\frac{1}{4}$	$1\frac{1}{32}$	$\frac{3}{32}$	$\frac{1}{2}$	.036	
2	30H-16	$\frac{1}{4}$	$2\frac{1}{32}$	$1\frac{3}{32}$	$\frac{3}{4}$	.032	
3	30H-20	$\frac{5}{16}$	$1\frac{1}{16}$	$1\frac{3}{32}$	$\frac{3}{4}$	.036	
4	30H-31	$\frac{1}{2}$	$2\frac{5}{32}$	$1\frac{3}{32}$	$\frac{3}{4}$	.050	
5	30H-36	$\frac{5}{16}$	$\frac{7}{8}$	$1\frac{5}{32}$	$\frac{7}{8}$	.048	
6	30H-38	$\frac{5}{8}$	$2\frac{7}{32}$	$1\frac{3}{32}$	$\frac{3}{4}$	.050	
7	30H-40	$\frac{5}{8}$	$3\frac{1}{32}$	$1\frac{7}{32}$	1	.050	
8	30H-46	$1\frac{3}{16}$	$1\frac{5}{16}$	$1\frac{3}{32}$	$\frac{3}{4}$	.050	
9	30H-48	$1\frac{3}{16}$	$1\frac{1}{16}$	$1\frac{7}{32}$	1	.048	
10	30H-50	$1\frac{5}{16}$	1	$1\frac{3}{32}$	$\frac{3}{4}$	.050	
11	30H-52	$1\frac{5}{16}$	$1\frac{1}{8}$	$1\frac{7}{32}$	1	.050	
12	538234	$\frac{7}{16}$	$1\frac{5}{16}$	$1\frac{7}{32}$	1	.049	
13	574261	$1\frac{3}{16}$	2	$1\frac{3}{32}$	$\frac{7}{8}$	.062	

OPEN CLIP

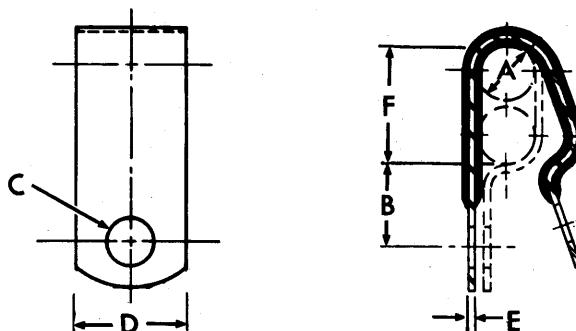


TS-5011-P

Item No.	PART NUMBER	A	B	C	D	E	F
14	533482	$2\frac{3}{4}$	$2\frac{3}{8}$	$\frac{5}{16}$	$1\frac{1}{4}$	$\frac{3}{16}$	$1\frac{3}{4}$

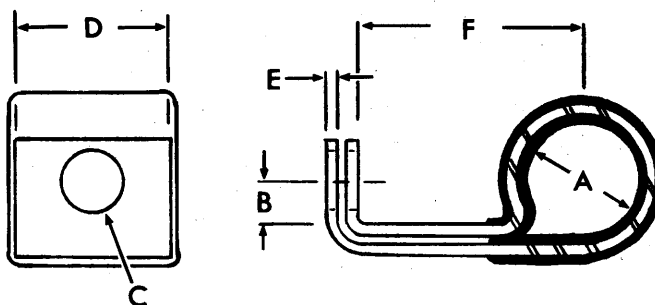
WIRING, PIPE AND HOSE CLIPS

The following types of clips are used in connection with the various wiring, fuel, air and hydraulic piping systems employed in this unit. When replacing clips identification can be made by checking type and physical dimensions listed to obtain part number.

INSULATED DOUBLE CLIP

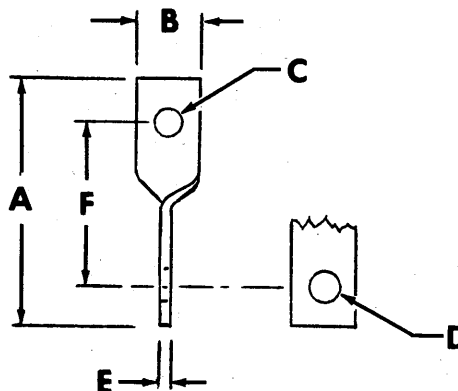
TS-6372-P

Item No.	PART NUMBER	A	B	C	D	E	F
1	31H-36	$\frac{5}{8}$	$2\frac{1}{32}$	$1\frac{7}{32}$	1	.050	$1\frac{1}{4}$

INSULATED CLIP

TS-6373-P

Item No.	PART NUMBER	A	B	C	D	E	F
2	562600	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{7}{16}$	1	.050	$1\frac{5}{8}$

BRACKET CLIP

TS-6758-P

Item No.	PART NUMBER	A	B	C	D	E	F
3	574270	$4\frac{1}{2}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{1}{16}$	1046	$3\frac{1}{2}$



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

WIRING AND CABLES

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	558952	HARNESS, Cockpit Wiring	1	6	558960	WIRE, Hourmeter Ground	1
2	558674	HARNESS, Engine Wiring	1	7	564384	WIRE, Battery to Horn Button	1
3	562010	HARNESS, Floodlight Wiring	1	8	568462	WIRE, Head Lamp Feed	1
4	562008	HARNESS, Tail Light Wiring	1	9	675739	CABLE, Battery Ground	1
5	630292	WIRE, Floodlight Ground	2	10	566502	CABLE, Battery to Solenoid	1

BATTERY, BATTERY HOLD DOWN AND HOURMETER

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
11	799044	BATTERY	1	16	886619	HOURLMETER KIT	1
12	572394	HOLD DOWN, Battery	1	17	551251	DAMPENER, Hourmeter Vibration	1
13	536582	STUD, Battery Hold Down	2	18	3G-608	SCREW, Hourmeter Mounting	3
14	8D-05	NUT, Stud Jam	2	19	12E-06	LKWSHR, Hourmeter Mounting	3
15	18D-05	NUT, Hold Down to Battery Box	4				

DECALS AND PLATES

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
20	547852	*DECAL, Michigan	2	31	548074	PLATE, Operating Precaution	1
21	547851	*DECAL, Clark Equipment	2	32	65G-406	SCREW, Plate Mounting	4
22	571099	*DECAL, Model	2	33	542074	PLATE, Patent	1
23	538256	*DECAL, Transmission Drain	1	34	6C-605	SCREW, Plate Mounting	4
24	557461	*DECAL, Safety Wiring	1	35	562302	PLATE, Lubrication Instruction	1
25	547794	*DECAL, Safety Warning	1	36	6C-605	SCREW, Plate Mounting	4
26	569451	*DECAL, Warning Light	1	37	567977	PLATE, Shift Quadrant — Hi-Lo	1
27	569331	*DECAL, Bucket Indicator	1	38	6C-605	SCREW, Plate Mounting	2
28	1520495	*DECAL, "Best on Earth"	2	39	567947	PLATE, Shift Quadrant — Forward, Neutral, Reverse	1
29	569389	PLATE, Emergency Stop	1	40	6C-605	SCREW, Plate Mounting	4
30	6C-605	SCREW, Plate Mounting	2	40a	1503064	Hi-Low Range	1

WINDSHIELD WIPER — FRONT (OPTIONAL)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
41	568969	WIPER MOTOR (12V)	1	47	546535	BRACKET, Mounting	1
42	31G-428	SCREW, Mounting	3	48	30H-18	CLIP, Wire Mounting	1
43	8E-04	LKWSHR, Mounting	3	49	784870	WIRE, Harness to Switch	1
44	568967	WIPER ARM (15" long)	1	50	18C-412	BOLT, Mounting	2
45	568968	WIPER BLADE (17" long)	1	51	655629	WASHER, Mounting	2
46	891308	SWITCH & KNOB ASSY	1	52	18D-04	NUT, Mounting	2

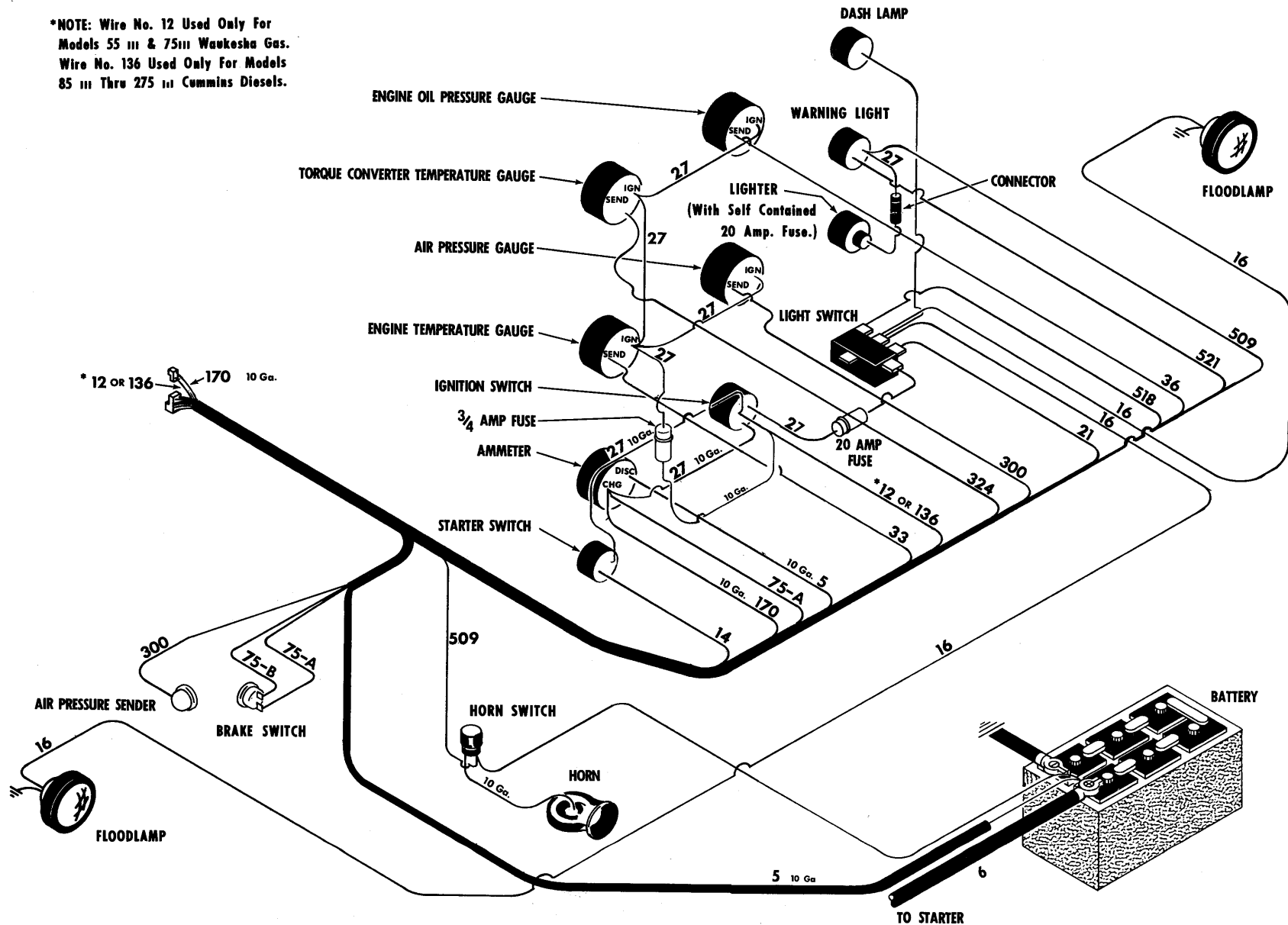
WINDSHIELD WIPER — REAR (OPTIONAL)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
53	568969	WIPER MOTOR (12V)	1	60	560517	WIPER ARM (14" Long)	1
54	574730	BRACKET, Wiper Motor	1	61	568968	WIPER BLADE (17" Long)	1
55	574729	LINK, Wiper Motor	1	62	891308	SWITCH & KNOB ASSY	1
56	18C-412	BOLT, Mounting	5	63	546535	BRACKET, Switch Mounting	1
57	18D-04	NUT, Mounting	5	64	672313	WIRE, Harness to Switch	1
58	41G-1010	SCREW, Mounting	2	65	30H-14	CLIP, Wire Mounting	2
59	50D-10	NUT, Mounting	2	66	655629	WASHER, Mounting	1

*NOTE: Contact your local Michigan Distributor for the above listed Decals.

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

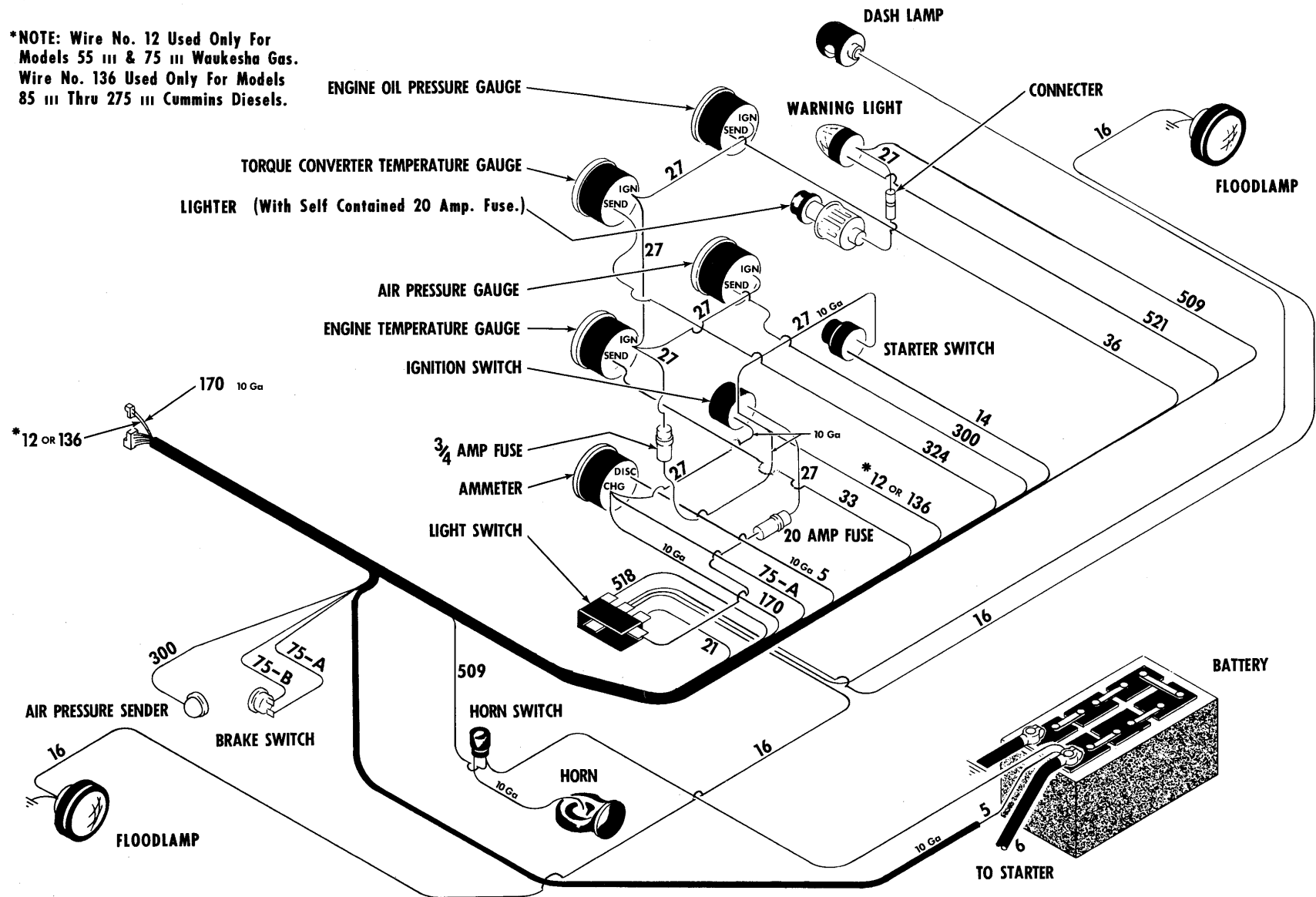
*NOTE: Wire No. 12 Used Only For Models 55 III & 75III Waukesha Gas.
Wire No. 136 Used Only For Models 85 III Thru 275 III Cummins Diesels.



(All Wires No. 14 Gauge Unless Otherwise Specified)
WIRING DIAGRAM — COCKPIT
For Serial 7CG101 thru 7CG196

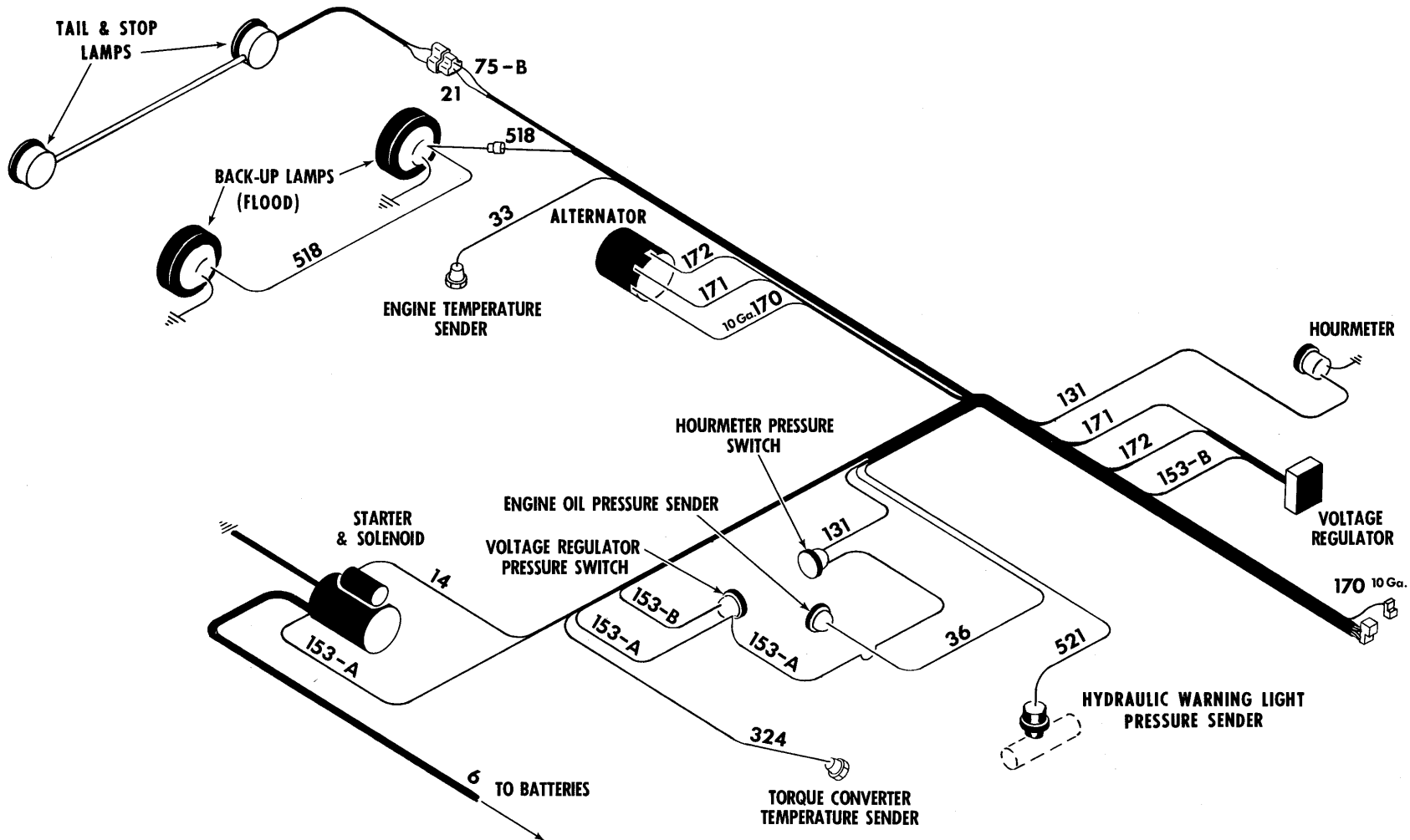
TS-6752-P

*NOTE: Wire No. 12 Used Only For
Models 55 III & 75 III Waukesha Gas.
Wire No. 136 Used Only For Models
85 III Thru 275 III Cummins Diesels.



(All Wires No. 14 Gauge Unless Otherwise Specified.)
WIRING DIAGRAM — COCKPIT
For Serial 7CG197 and thereafter

TS-6669-P



(All Wires No.14 Gauge Unless Otherwise Specified)

WIRING DIAGRAM — ENGINE

TS-6670-P



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CONSTRUCTION MACHINERY DIVISION



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NOTES

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DROTT (4 in 1) BUCKET

MICHIGAN

PARTS MANUAL SUPPLEMENT

No 2331



For Model 75 III



Bucket Part No. 1527291



**This Supplement covers Drott (4 in 1) Bucket
for 75 III MICHIGAN Tractor Shovel**



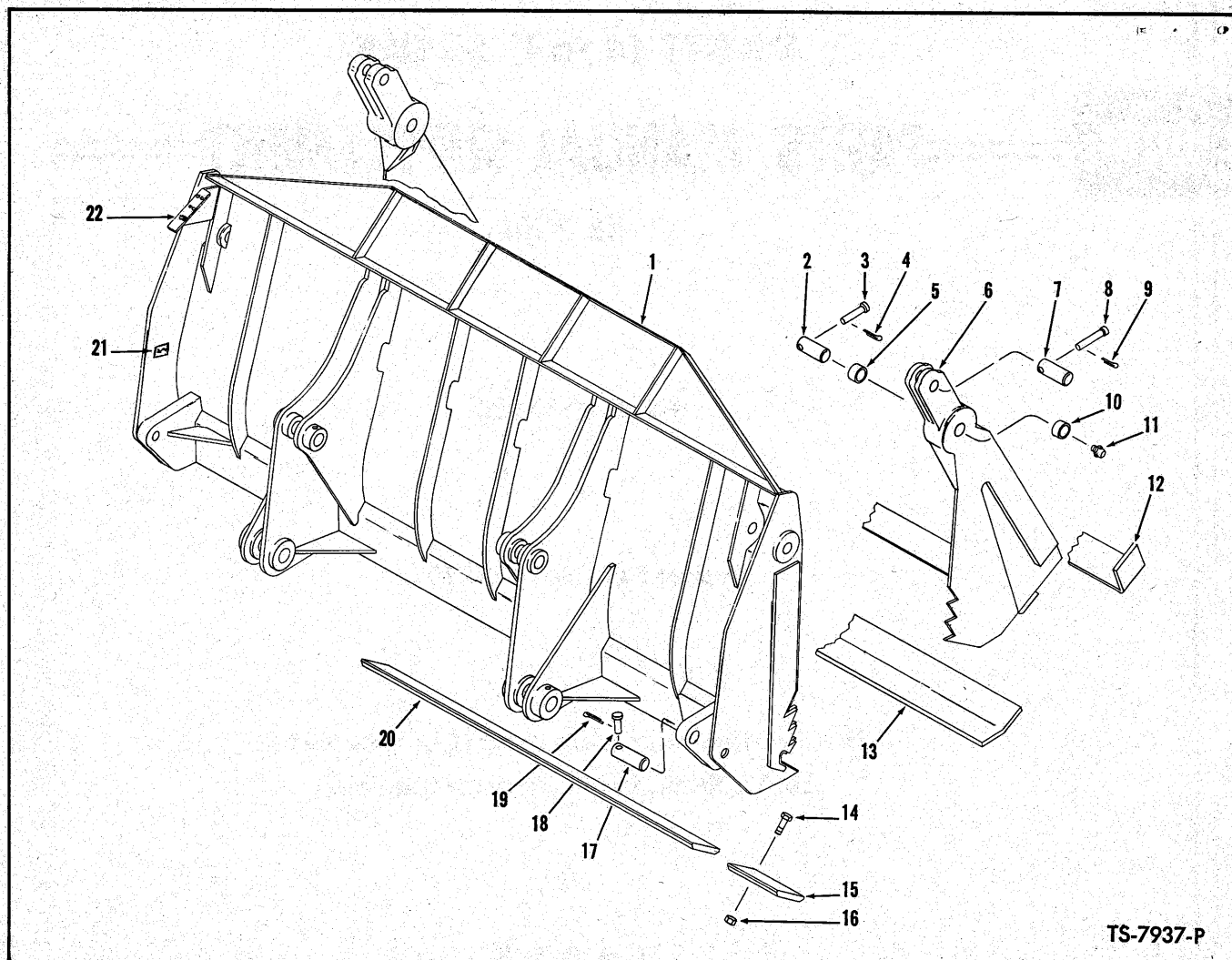
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**Use this Supplement with 75 III Parts Manual No. 2083 and
Parts Manual Supplements to Parts Manual No. 2083.**

CLARK EQUIPMENT COMPANY
Construction Machinery Division



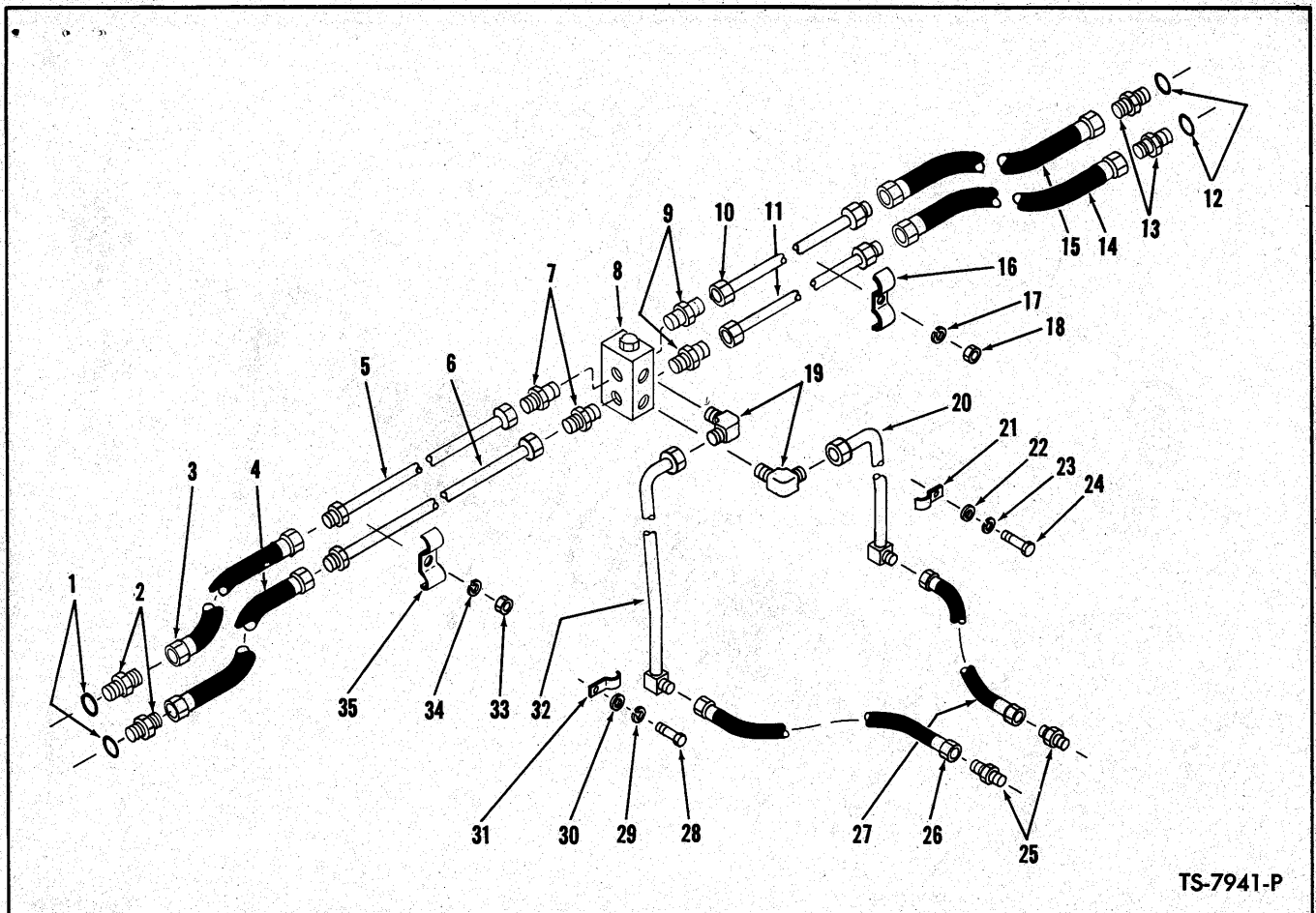
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DROTT (4 in 1) BUCKET ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1527296	BUCKET ASSY, Less Bucket Teeth (Inc. 1 thru 24 & all items listed on pages 3, 4)	1	11	10H-25	FITTING, Grease	2
1	1533385	BUCKET BACK ASSY (Inc. 14 thru 16, 20)	1	12	1533366	CUTTING EDGE — Front, Bucket Front	1
2	1533353	PIN, Bucket Front to Bucket Back	2	13	1533346	CUTTING EDGE — Rear, Bucket Front	1
3	1534323	PIN, Clevis	2	14	513603	BOLT, Plow (Inc. 16)	19
4	1F-416	COTTER	2	15	1533344	CORNER BIT, Bucket Back	2
5	1533356	BUSHING, Bucket Front	2	16	1D-12	NUT, Plow Bolt	19
6	1533377	BUCKET FRONT ASSY (Inc. 5, 6A, 10, 12, 13)	1	17	1533343	PIN, Cylinder to Bucket Back	2
6A	1533378	HINGE EAR	2	18	1534322	PIN, Clevis	2
7	1533352	PIN, Cylinder to Bucket Front	2	19	1F-416	COTTER	2
8	1534323	PIN, Clevis	2	20	1533367	CUTTING EDGE, Bucket Back	1
9	1F-416	COTTER	2	21	1533342	DECAL, Clean	2
10	1533356	BUSHING, Bucket Front	2	22	1533380	DECAL, Clam Opening	1
				23	1533384	†DECAL, Tilt Cylinder	1
				24	1533383	†INDICATOR, Tilt Cylinder	1

†Not Illustrated

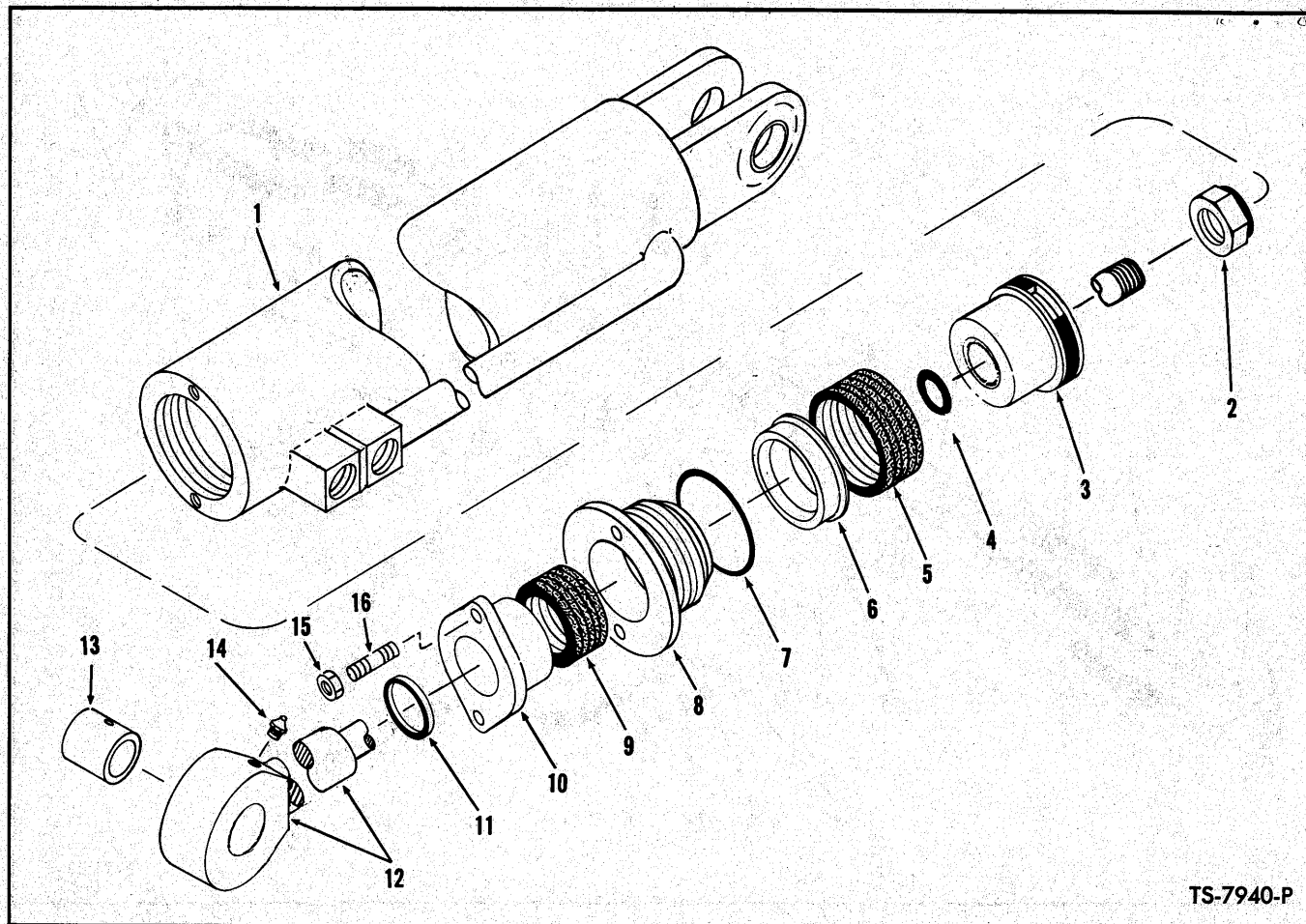
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



HYDRAULIC SYSTEM — DROTT BUCKET

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	91F-6	"O" RING, Connector	2	18	1D-06	NUT, Clamp Attaching	1
2	15K-6	CONNECTOR, Hose to Cylinder (Inc. 1)	2	19	730149	ELBOW, Tube to Valve	2
3	1533555	HOSE, Cylinder to Tube	1	20	1533381	TUBE, Valve to Hose	1
4	1533555	HOSE, Cylinder to Tube	1	21	1533347	CLAMP, Tube Attaching	1
5	1533368	TUBE, Hose to Relief Valve	1	22	664403	WASHER, Clamp Attaching	1
6	1533368	TUBE, Hose to Relief Valve	1	23	4E-06	LKWSHR, Clamp Attaching	1
7	89F-7	CONNECTOR, Tube to Relief Valve	2	24	17C-616	BOLT, Clamp Attaching	1
8	1533372	RELIEF VALVE	1	25	663013	ADAPTER	2
9	89F-7	CONNECTOR — Relief Valve to Tube	2	26	1306410	HOSE, Jumper	1
10	1533368	TUBE, Relief Valve to Hose	1	27	1306410	HOSE, Jumper	1
11	1533368	TUBE, Relief Valve to Hose	1	28	17C-616	BOLT, Clamp Attaching	1
12	91F-6	"O" RING, Connector	1	29	4E-06	LKWSHR, Clamp Attaching	1
13	15K-6	CONNECTOR, Hose to Cylinder (Inc. 12)	2	30	664403	WASHER, Clamp Attaching	1
14	1533555	HOSE, Cylinder to Tube	1	31	1533347	CLAMP, Tube Attaching	1
15	1533555	HOSE, Cylinder to Tube	1	32	1533382	TUBE, Valve to Hose	1
16	1533350	CLAMP, Tube Attaching	1	33	1D-06	NUT, Clamp Attaching	1
17	4E-06	LKWSHR, Clamp Attaching	1	34	4E-06	LKWSHR, Clamp Attaching	1
				35	1533350	CLAMP, Tube Attaching	1

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



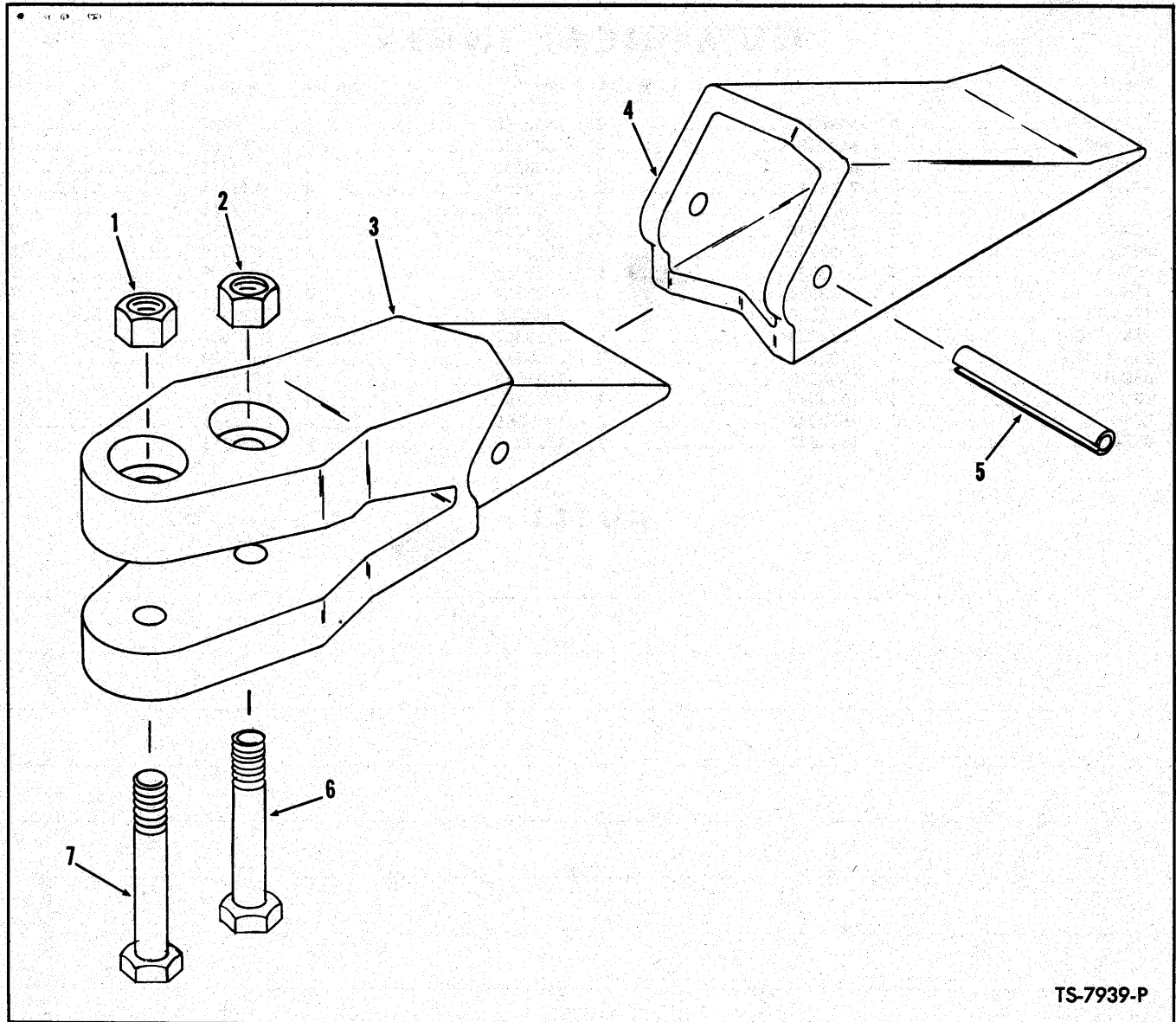
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CLAMP CYLINDER ASSEMBLY

(Quantities Shown for Items 1 thru 16 for One Cylinder Only)

Item No.	Part No.	Description	No. Req'd.
A	1533374	CLAMP CYLINDER ASSY — R.H. (Inc. 1, 2 thru 16)	1
B	1533375	CLAMP CYLINDER ASSY — L.H. (Inc. 1A thru 16)	1
1	1533359	CYLINDER & BASE — R.H.	1
1A	1533360	CYLINDER & BASE — L.H.	1
2	67D-20	NUT, Piston Rod	1
3	1533363	PISTON	1
3A	1533354	WEAR RING	1
4	25K-40108	"O" RING	1
5	1533357	V-PACKING SET	1
6	1533364	PISTON	1
7	25K-40400	"O" RING	1
8	1533362	CAP, Cylinder	1
9	1533361	V-PACKING SET	1
10	1533365	FLANGE, Packing	1
11	1533340	WIPER RING	1
12	1533358	ROD, Cylinder (Inc. 13)	1
13	1533355	BUSHING, Cylinder Rod	1
14	10H-25	FITTING, Grease	1
15	66D-06	NUT, Cylinder Cap	2
16	1533339	STUD, Cylinder Cap	2

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



TS-7939-P

BUCKET TOOTH ASSEMBLY

No. Item	No. Part	Description	No. Req'd.
A	1533335	BUCKET TOOTH ASSY (Inc. 1 thru 7)	9
1	1D-10	NUT, Bolt Attaching	9
2	1D-10	NUT, Bolt Attaching	9
3	—	ADAPTER, Tooth — See "A"	—
4	1533336	TIP (Tooth Point)	9
5	730131	PIN, Flex	9
6	1C-1048	BOLT, Tooth Attaching	9
7	1C-1052	BOLT, Tooth Attaching	9

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

(C) • • (D)

NOTES

PMS 2331

MICHIGAN

PARTS MANUAL SUPPLEMENT

No. 2274



**This Supplement Voids and Supersedes Parts Manual
Supplement No. 2113**



**This Supplement covers Three Spool Valve Installation and Parts
for 75 III and 85 III Michigan Tractor Shovels.**



I N D E X

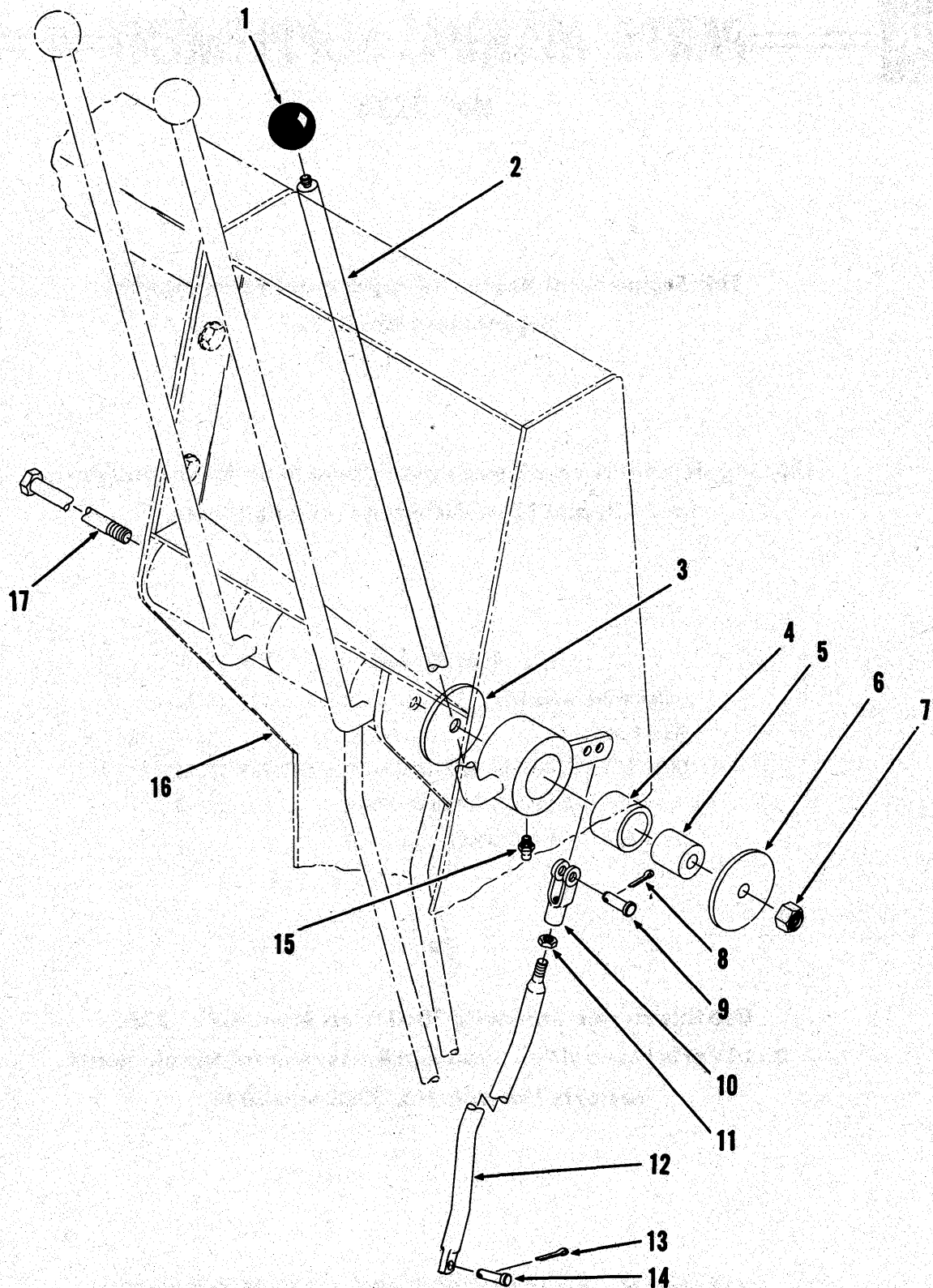
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**Use this Supplement with 75 III Parts Manual No. 2083,
85 III Parts Manual No. 2086 and Parts Manual Supplements
to Parts Manuals No. 2083 and 2086**



CLARK EQUIPMENT COMPANY
Construction Machinery Division



THREE SPOOL VALVE CONTROLS

TS-6932-P



CONSTRUCTION MACHINERY DIVISION

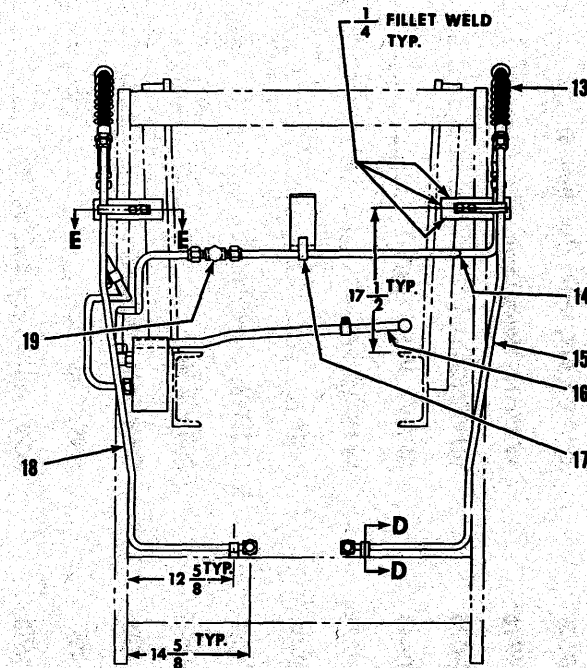
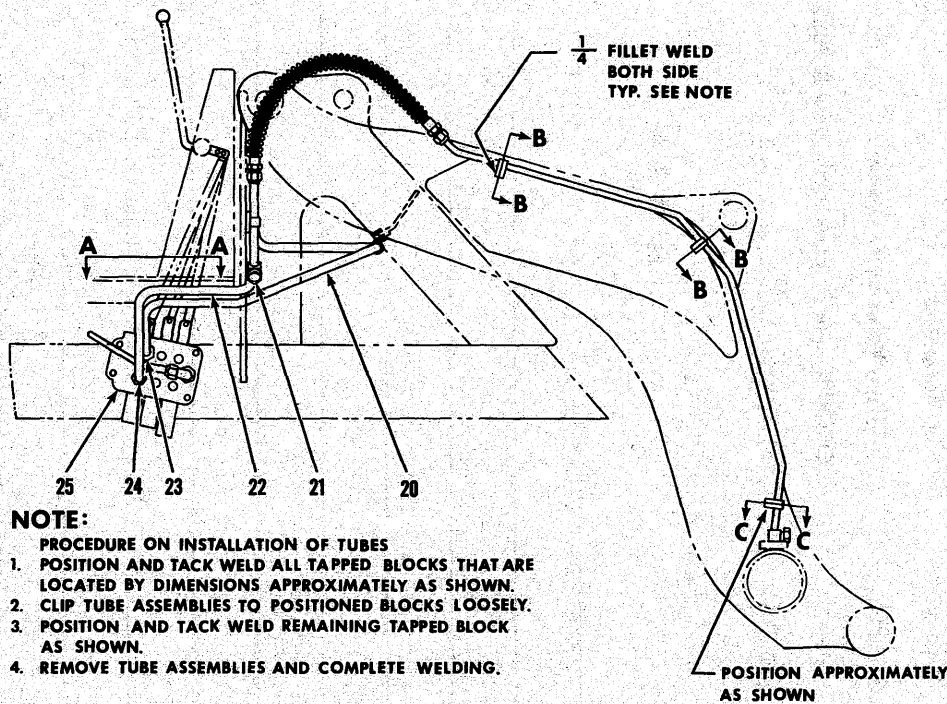
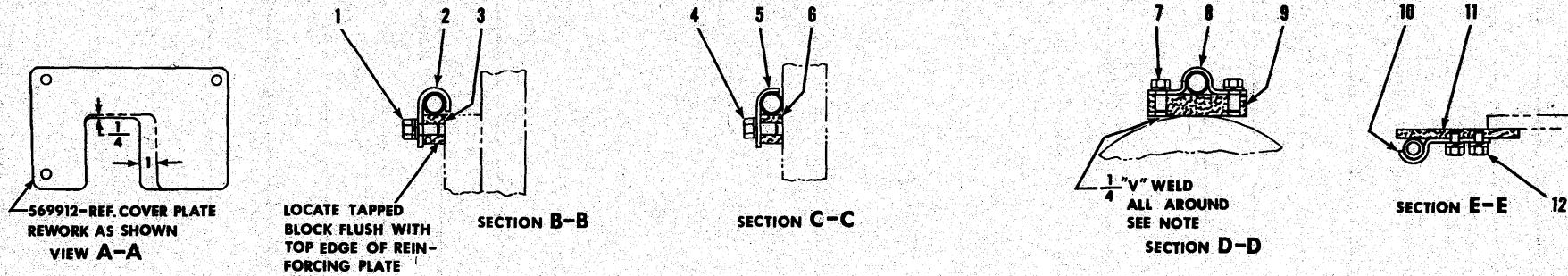
MICHIGAN

THREE SPOOL VALVE CONTROLS

Item No.	Part No.	Description	No. Req'd.
1	509772	KNOB	1
2	567607	LEVER ASSY, Valve (Inc. Item 4)	1
3	616796	WASHER, Valve Lever	1
4	569055	BUSHING, Lever	1
5	550646	SLEEVE, Valve Lever	1
6	616796	WASHER, Valve Lever	1
7	18D-08	NUT	1
8	1F-414	COTTER, Clevis Pin	1
9	4F-08127	PIN, Clevis	1
10	2J-8300	CLEVIS, Valve Rod	1
11	8D-08	NUT, Clevis Jam	1
12	563640	ROD, Valve Assy (Inc. 10, 11)	1
13	1F-312	COTTER, Rod Pin	1
14	4F-06106	PIN, Valve Rod	1
15	10H-25	FITTING, Valve Lever Grease	1
16	—	COCKPIT, See Parts Manuals 2083 & 2086	—
17	18C-8160	BOLT, Valve Lever	1

NOTES

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



THREE SPOOL VALVE INSTALLATION AND PARTS

TS-6936-P



CONSTRUCTION MACHINERY DIVISION

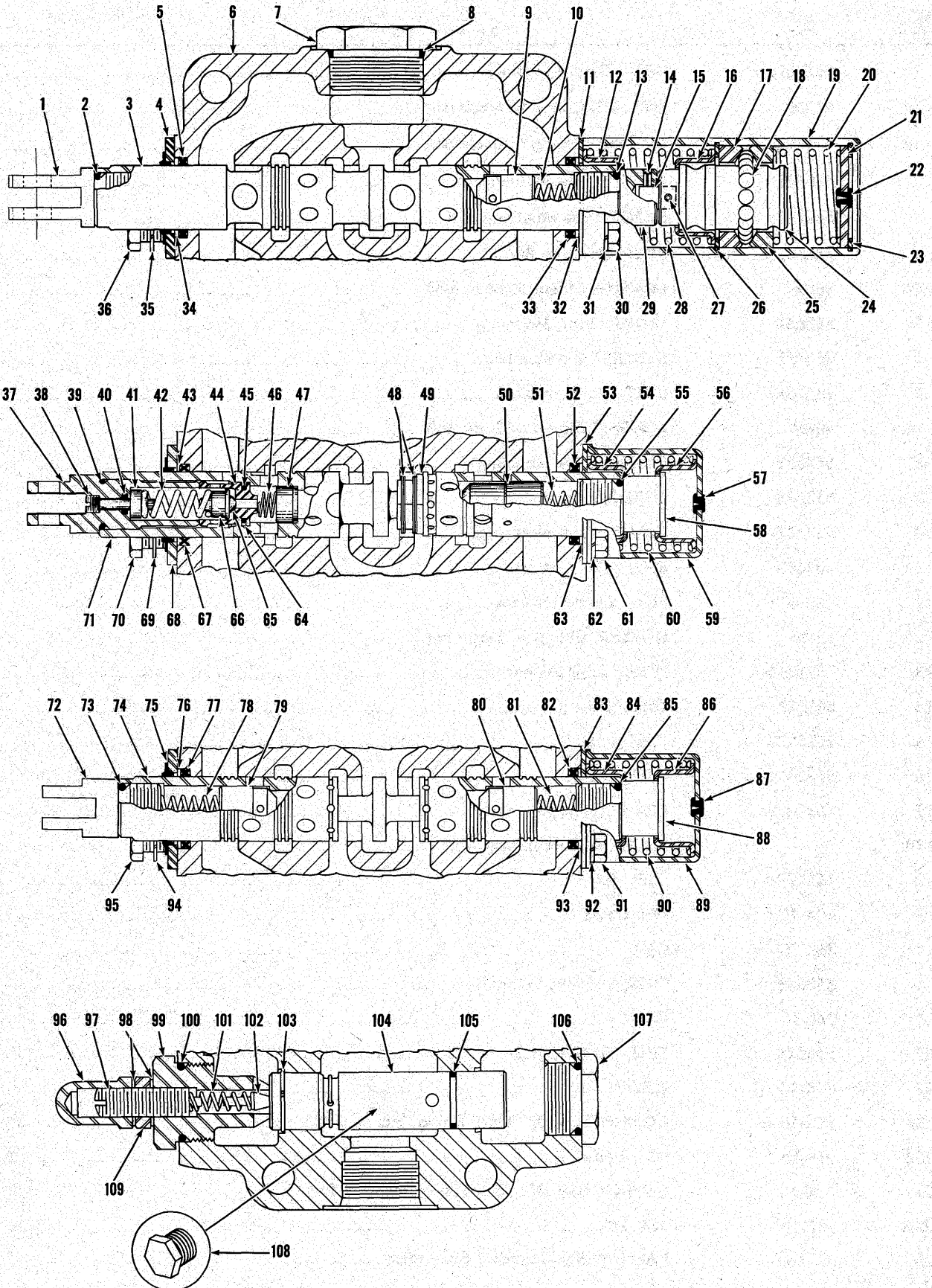
MICHIGAN

THREE SPOOL VALVE INSTALLATION AND PARTS

Item No.	Part No.	Description	No. Req'd.
1	18C-612	BOLT, Clamp to Block	4
1A	4E-06	†LKWSHR, Clamp to Block Bolt	4
1B	619024	†WASHER, Clamp to Block Bolt	4
2	563638	CLAMP, Tube Mounting	4
3	564771	BLOCK, Tube Mounting	4
4	18C-612	BOLT, Clamp to Block	2
4A	4E-06	†LKWSHR, Clamp to Block Bolt	2
5	563664	CLAMP, Tube Mounting	2
6	564771	BLOCK, Tube Mounting	2
7	18C-612	BOLT, Clamp to Block	4
7A	4E-06	†LKWSHR, Clamp to Block Bolt	4
8	563639	CLAMP, Tube Mounting	2
9	563634	BLOCK, Tube Mounting	2
10	563637	CLAMP, Tube Mounting	2
11	563633	BLOCK, Tube Mounting	2
12	18C-612	BOLT, Clamp to Block	4
12A	4E-06	†LKWSHR, Clamp to Block Bolt	4
13	1521360	HOSE, Tube Connecting	2
14	563647	TUBE, Cross	1
15	1521975	TUBE, L.H.	1
16	563642	TUBE, Rear	1
17	1521359	CLAMP, Tube Mounting	1
17A	—	†BOLT, Use Cockpit Mtg. Bolt	1
18	1521974	TUBE, R.H.	1
19	10K-10	TEE, Union	1
19A	36K-10	†CAP	1
20	563648	TUBE, Valve to Crosstube	1
21	36K-10	CAP	1
22	563646	TUBE, Valve to Hose	1
23	11K-10	ELBOW, 90°	1
23A	15K-10	†CONNECTOR, 37° Flare Fitting (Inc. Item 23B)	1
23B	91F-10	†"O" RING	1
24	15K-10	CONNECTOR, 37° Flare Fitting (Inc. Item 24A)	1
24A	91F-10	†"O" RING	1
25	—	VALVE ASSY, Control — See Index	1

†Not Illustrated

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



THREE SPOOL CONTROL VALVE ASSEMBLY

TS-6788-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

THREE SPOOL CONTROL VALVE ASSEMBLY

Two Varieties of Control Valves have been used for 75 III, 85 III MICHIGAN Tractor Shovel Three spool Valve Installations. These are as follows.

Clark Part Number

572484

1523012

Hydrec Model Number

V36DWF-20

V36DWF-21

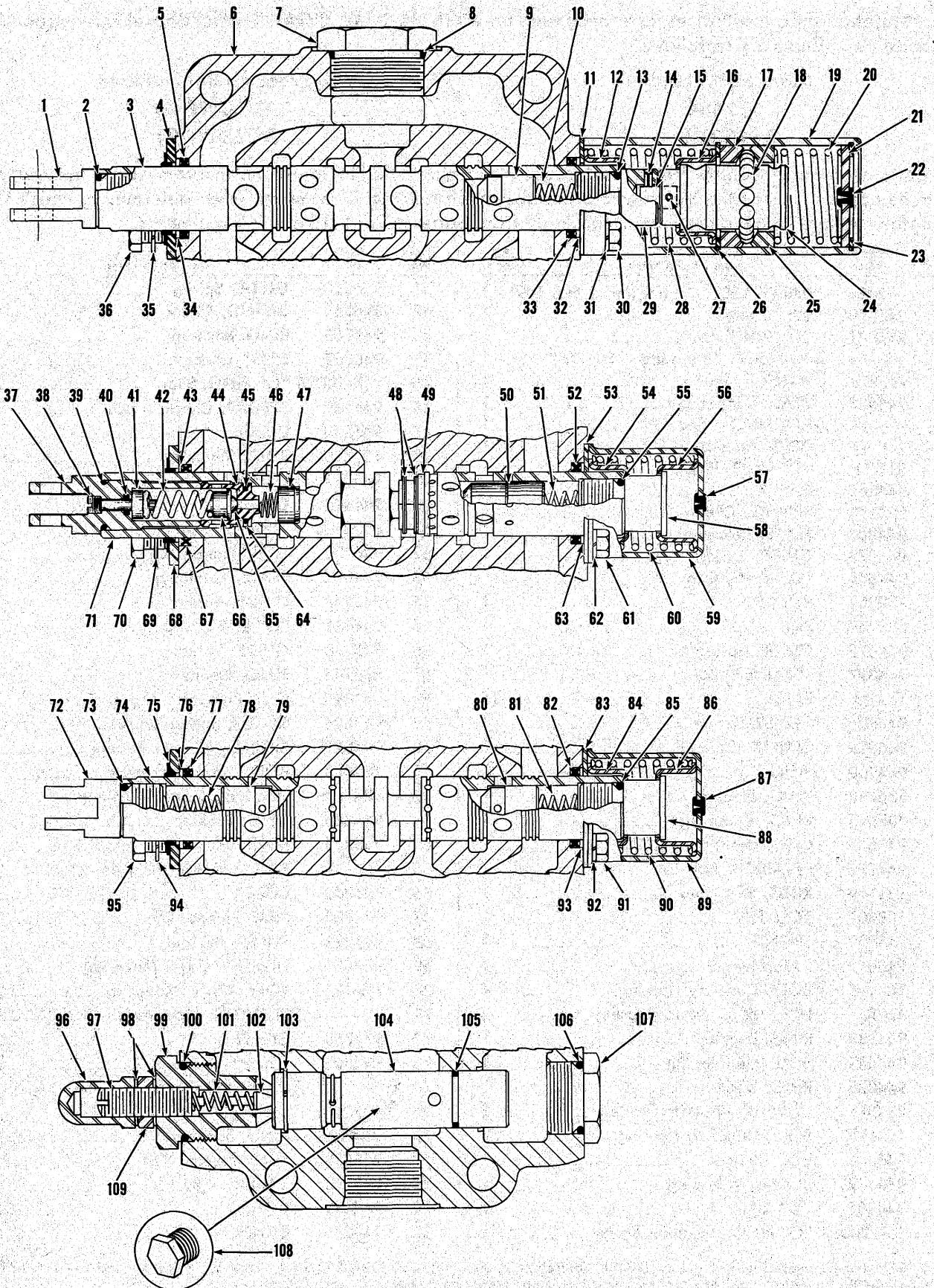
To determine which Control Valve is on a given machine refer to the manufacturers' serial number plate attached to the face of the Valve where the above information is stamped. After determining which Valve is on the machine you may service accordingly from pages 7, 9, 11, 13 of this Supplement.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	572484	* VALVE ASSY, Control (Inc. 1 thru 109)	1	41	946363	GUIDE, Spring	1
1	946360	EYE, Plunger	1	42	946364	SPRING, Check	1
2	944881	"O" RING, Eye	1	43	944883	RING, Back-up	1
3		§ PLUNGER, Operating — See "A"	1	44	946367	SEAT, Check	1
4	947228	WIPER, Plunger	1	45	25K-20016	"O" RING, Seat	1
5	946583	SEAL, Plunger Oil	1	46	946369	SPRING, Check	1
6		§ HOUSING — See "A"	1	47	946370	CHECK	1
7	24K-11	PLUG, Housing	1	48	1308105	RING, Retaining	4
8	91F-11	"O" RING, Plug	1	49	946032	CHECK	2
9	944885	CHECK	1	50	946368	CHECK	1
10	893293	SPRING, Check	1	51	893293	SPRING, Check	1
11	944882	PLATE, Retaining	1	52	946583	SEAL, Plunger Oil	1
12	944878	GUIDE, Spring	1	53	944882	PLATE, Retaining	1
13	944881	"O" RING, Cap	1	54	945348	GUIDE, Spring	1
14	108301	ROLL PIN	1	55	944881	"O" RING, Cap	1
15	888449	PIN	1	56	945348	GUIDE, Spring	1
16	944878	GUIDE, Spring	1	57	886745	PLUG, Bleeder	1
17	944897	RETAINER, Ball	1	58	944895	CAP, Plunger	1
18	10J-08	BALL	15	59	944896	COVER, Spring Return	1
19	945805	COVER, Detent	1	60	944879	SPRING, Plunger Return	1
20	946029	SPRING, Detent	1	61	1C-410	BOLT, Cover Mounting	4
21	944900	PLUG	1	62	4E-04	LKWSHR, Cover Mounting	4
22	886763	PLUG, Bleeder	1	63	944883	RING, Back-up	1
23	507695	RING, Retaining	1	64	946366	RING, Back-up	1
24	946030	CAP, Detent	1	65		BALL (Inc. with Item 66)	1
25	944897	RETAINER, Ball	1	66	946365	CHECK	1
26	1301194	RING, Retaining	1	67	946583	SEAL, Plunger Oil	1
27	108301	ROLL PIN	1	68	947228	WIPER, Plunger	1
28	945090	SPRING	1	69	4E-04	LKWSHR, Cover Mounting	2
29	945095	CAP, Plunger	1	70	1C-410	BOLT, Cover Mounting	2
30	1C-416	BOLT, Cover to Housing	4	71		§ PLUNGER, Operating — See "A"	1
31	4E-04	LKWSHR, Cover to Housing	4	72	946360	EYE, Plunger	1
32	944883	RING, Back-up	1	73	944881	"O" RING, Eye	1
33	946583	SEAL, Plunger Oil	1	74		§ PLUNGER, Operating — See "A"	1
34	944883	RING, Back-up	1	75	947228	WIPER, Plunger	1
35	4E-04	LKWSHR, Wiper to Housing	2	76	944883	RING, Back-up	1
36	1C-410	BOLT, Wiper to Housing	2	77	946583	SEAL, Plunger Oil	1
37	946361	EYE, Plunger	1	78	893293	SPRING, Check	1
38	946362	SCREW, Adjusting	1	79	944885	CHECK	1
39	944881	"O" RING, Eye	1	80	944885	CHECK	1
40	25K-20007	"O" RING, Adjusting Screw	1				

*NOTE: For complete replacement of 572484 Control Valve Assembly use 1523012 plus 1 — 15K-10 Connector and 1 — 11K-10 Elbow. Refer to SG-285 for installation. After replacement has been made refer to Pages 11 and 13 for service.

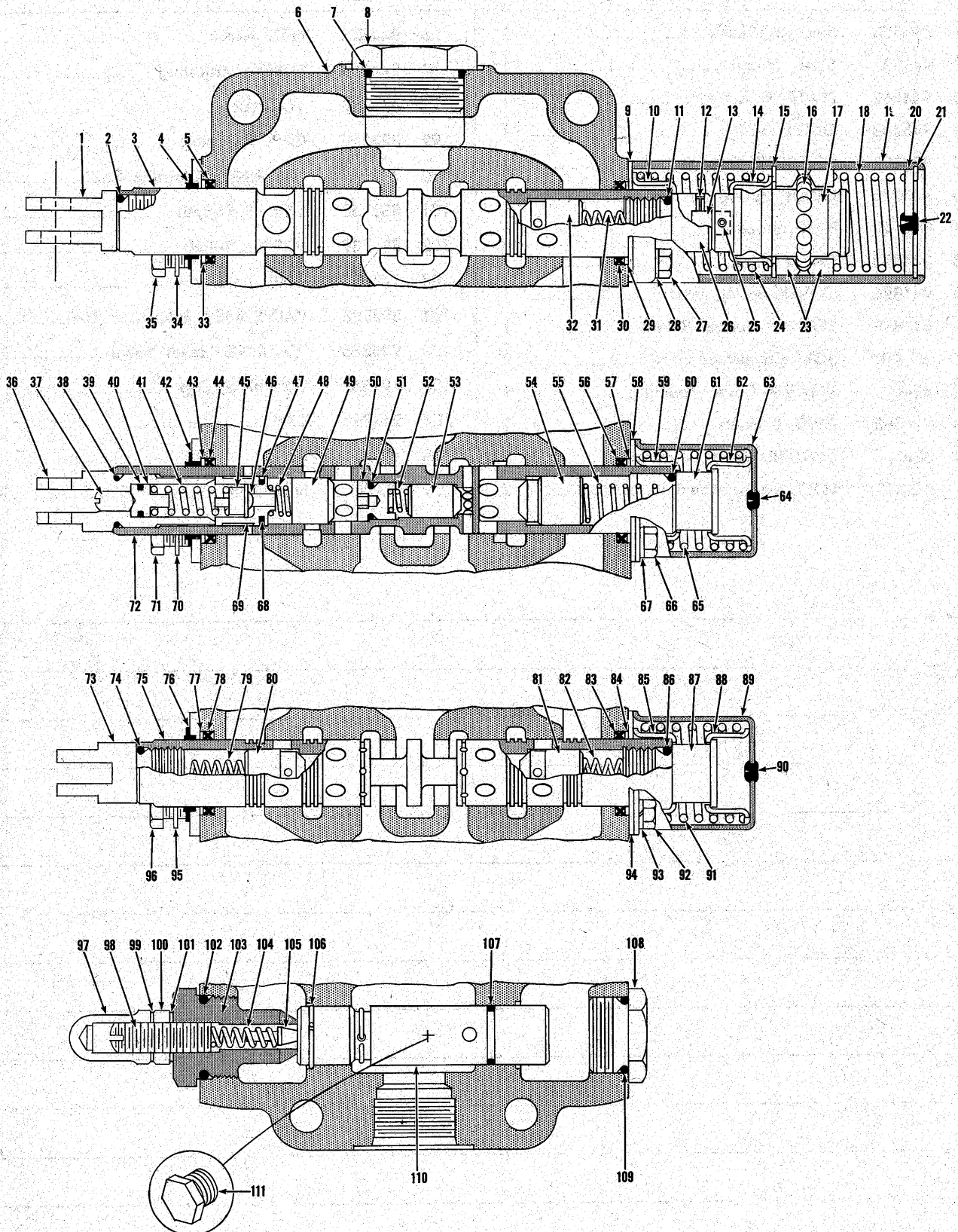
§Not Sold Separately

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



THREE SPOOL CONTROL VALVE ASSEMBLY

TS-6788-P



THREE SPOOL CONTROL VALVE ASSEMBLY

TS-7722-P



CONSTRUCTION MACHINERY DIVISION

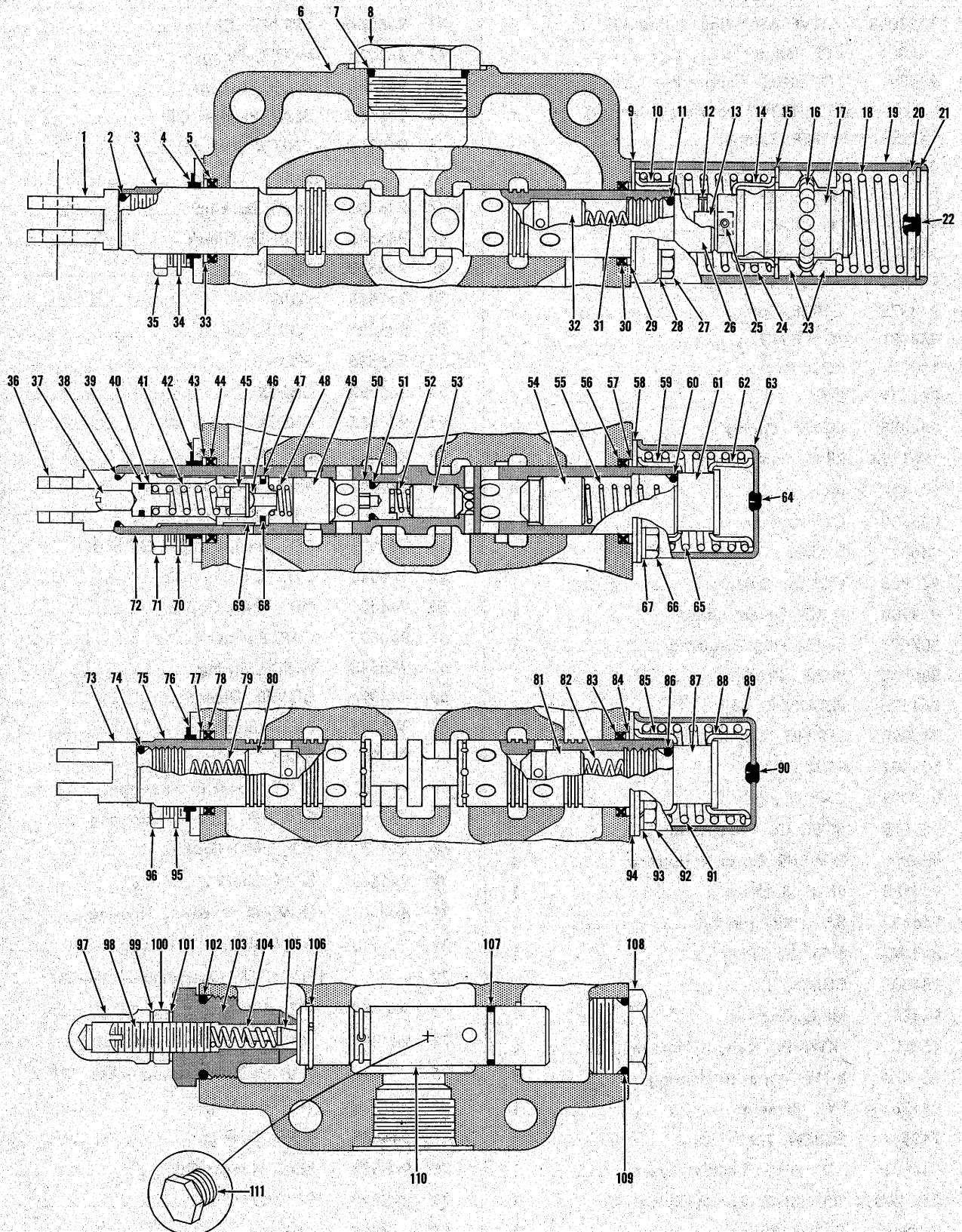
MICHIGAN

CONTROL VALVE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1523012	VALVE ASSY (Inc. 1 thru 11)	1	41	946364	SPRING, Check	1
1	946360	EYE, Plunger	1	42	947228	WIPER, Plunger	1
2	944881	"O" RING, Plunger Eye	1	43	944883	RING, Back-up	1
3	—	§ PLUNGER, Operating — See "A"	—	44	946583	SEAL, Plunger Oil	1
4	947228	WIPER, Plunger	1	45	946365	CHECK (Inc. 46)	1
5	946583	SEAL, Plunger Oil	1	46	—	§ BALL — See 45	—
6	—	§ HOUSING, Valve — See "A"	—	47	946556	RING, Back-up	1
7	91F-11	"O" RING, Cap	1	48	946545	SPRING, Check	1
8	24K-11	PLUG, Valve	1	49	946543	CHECK	1
9	944882	RETAINER, Plunger Oil Seal	1	50	946555	PLUG	—
10	944878	GUIDE, Spring	1	51	945221	"O" RING	—
11	944881	"O" RING, Cap	1	52	946536	SPRING	—
12	108301	ROLL PIN	1	53	945590	CHECK	—
13	888449	PIN	1	54	944885	CHECK	—
14	944878	GUIDE, Spring	1	55	946544	SPRING, Check	1
15	1301194	RING, Retaining	1	56	946583	SEAL, Plunger Oil	1
16	10J-08	BALL	15	57	944883	RING, Back-up	1
17	946030	CAP, Detent	1	58	946535	RETAINER, Plunger Oil Seal	1
18	946029	SPRING, Detent	1	59	945348	GUIDE, Spring	1
19	945805	COVER, Detent	1	60	944881	"O" RING, Cap	1
20	944900	PLUG, Detent Cover	1	61	944895	CAP, Plunger	1
21	507695	RING, Plug Retaining	1	62	945348	GUIDE, Spring	1
22	886763	PLUG, Bleeder	1	63	944896	COVER, Detent	1
23	944897	RETAINER, Ball	2	64	886745	PLUG, Bleeder	1
24	945090	SPRING, Return	1	65	944879	SPRING	1
25	108301	ROLL PIN	1	66	1C-410	BOLT, Cover to Housing	4
26	945095	CAP, Plunger	1	67	4E-04	LKWSHR, Cover to Housing	4
27	1C-416	BOLT, Cover to Housing	4	68	25K-20018	"O" RING, Seat	1
28	4E-04	LKWSHR, Cover to Housing	4	69	946542	SEAT, Check	1
29	944883	RING, Back-up	1	70	4E-04	LKWSHR, Wiper to Housing	2
30	946583	SEAL, Plunger Oil	1	71	1C-410	BOLT, Wiper to Housing	2
31	893293	SPRING, Check	1	72	—	§ PLUNGER, Operating — See "A"	—
32	944885	CHECK	1	73	946360	EYE, Plunger	1
33	944883	RING, Back-up	1	74	944881	"O" RING, Plunger Eye	1
34	4E-04	LKWSHR, Wiper to Housing	2	75	—	§ PLUNGER, Operating — See "A"	1
35	1C-410	BOLT, Wiper to Housing	2	76	947228	WIPER, Plunger	1
36	946361	EYE, Plunger	1	77	944883	RING, Back-up	1
37	946541	SCREW, Adjusting	1	78	946583	SEAL, Plunger Oil	1
38	944881	"O" RING, Plunger Eye	1	79	893293	SPRING, Check	1
39	25K-20014	"O" RING, Spring Guide	1	80	944885	CHECK	1
40	946363	GUIDE, Spring	1				

§ Not Sold Separately — Order Kits.

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



THREE SPOOL CONTROL VALVE ASSEMBLY

TS-7722-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

CONTROL VALVE ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
81	944885	CHECK	1	98	944890	SCREW, Relief Valve Adjusting	1
82	893293	SPRING, Check	1	99	613750	WASHER, Jam Nut	1
83	946583	SEAL, Plunger Oil	1	100	8D-08	NUT, Jam	1
84	944883	RING, Back-up	1	101	613750	WASHER, Jam Nut	1
85	945348	GUIDE, Spring	1	102	791553	"O" RING, Cap	1
86	944881	"O" RING, Cap	1	103	893296	CAP, Relief Valve Adjusting	1
87	944895	CAP	1	104	886753	SPRING, Poppet	1
88	945348	GUIDE, Spring	1	105	886739	POPPET	1
89	944896	COVER, Detent	1	106	946033	RING, Relief Valve Retaining	1
90	886745	PLUG, Bleeder	1	107	945816	"O" RING, Relief Valve	1
91	944879	SPRING	1	108	944894	CAP	1
92	1C-410	BOLT, Cover to Housing	4	109	791553	"O" RING, Cap	1
93	4E-04	LKWSHR, Cover to Housing	4	110	893298	RELIEF VALVE (Inc. 106, 107)	1
94	944882	RETAINER, Plunger Oil Seal	1	111	40K-04	PLUG	1
95	4E-04	LKWSHR, Wiper to Housing	2	112	18C-864	†BOLT, Valve Mounting	3
96	1C-410	BOLT, Wiper to Housing	2	113	4E-08	†LKWSHR, Valve Mounting	2
97	944853	NUT, Acorn	1	114	66D-08	†NUT, Valve Mounting	1

†Not Illustrated

NOTES

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

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NOTES

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

75 III TRACTOR SHOVEL

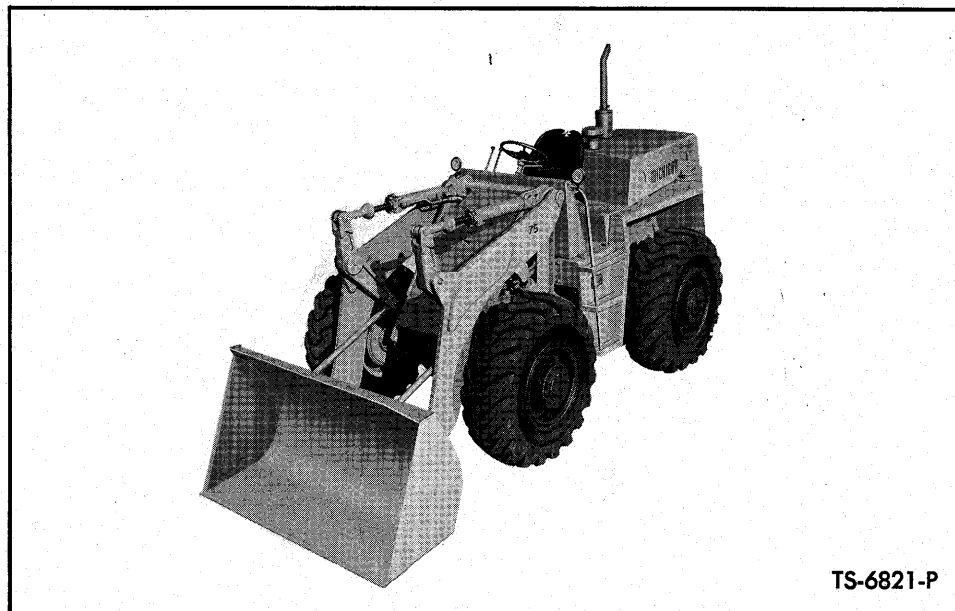
MICHIGAN

PARTS MANUAL SUPPLEMENT

No. 2091



This Supplement covers the 75 III MICHIGAN Tractor Shovel equipped with Waukesha Engine effective on machines listed below:
WAUKESHA Machine Serial Numbers 6CA101 thru 6CA999



Use 75 III Parts Manual No. 2083 with this Supplement



CLARK EQUIPMENT COMPANY • Construction Machinery Division • Benton Harbor, Michigan
IN CANADA: Canadian Clark, Ltd., St. Thomas, Ontario



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

WHEN ORDERING REPAIR PARTS

To assure the best results and to maintain the original quality built into the machine it is important that only Clark-Approved Parts be used when new parts are required.

IMPORTANT: Always furnish the distributor with the machine serial number when ordering parts.

Order through your nearest Clark Distributor, for THE MICHIGAN LINE.

Always give serial number of machine.

Furnish: Quantity, Part Number and Description.

WHEN PARTS ARE RECEIVED

Check immediately for quantity, correctness and condition.

Advise your Michigan Distributor of any error.

Claims for damages, during shipment, should be made to the carrier immediately.

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CONSTRUCTION MACHINERY DIVISION

MICHIGAN

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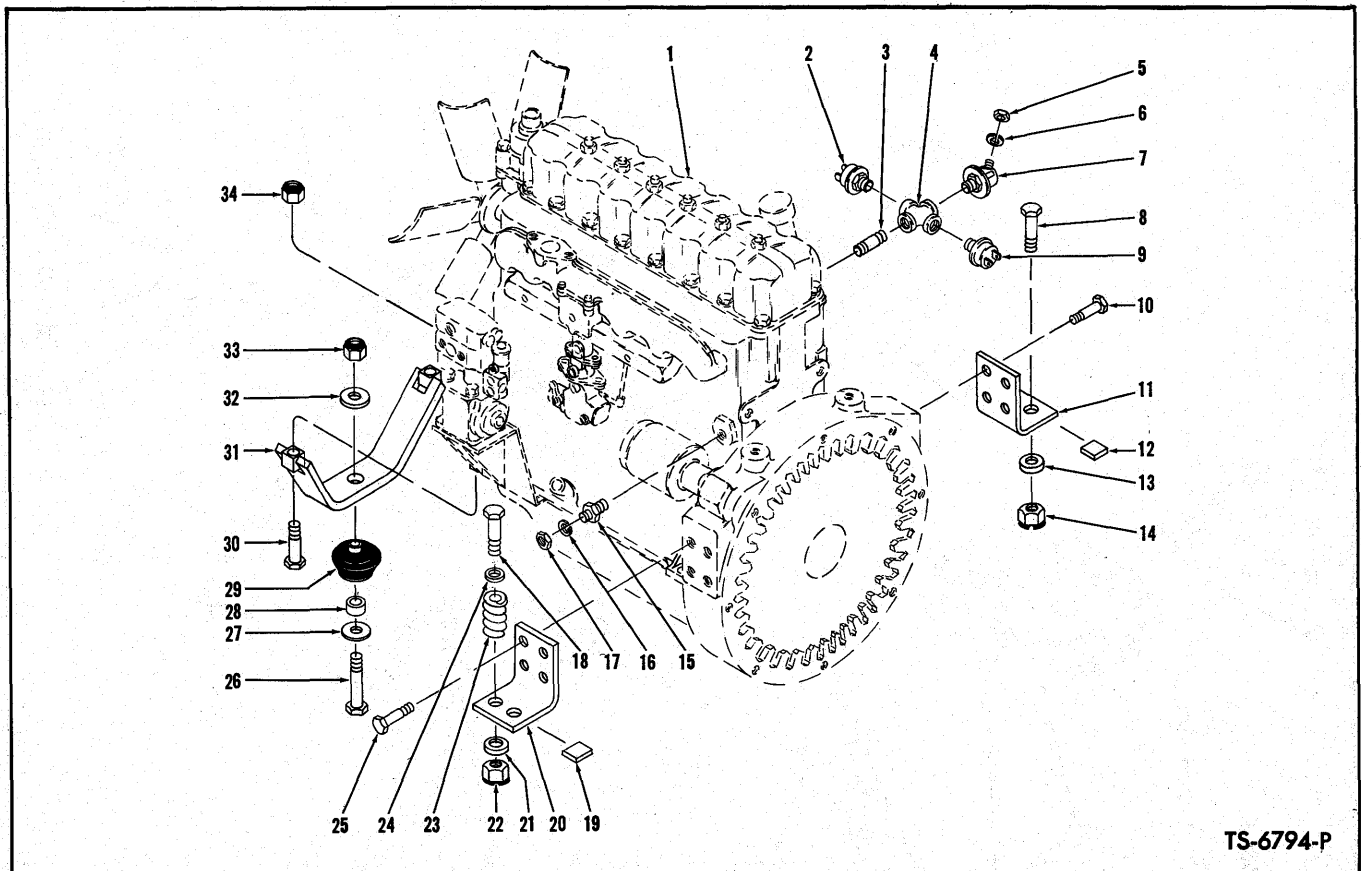
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**CLARK
EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN****ENGINE AND ACCESSORIES — WAUKESHA GAS**

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



TS-6794-P

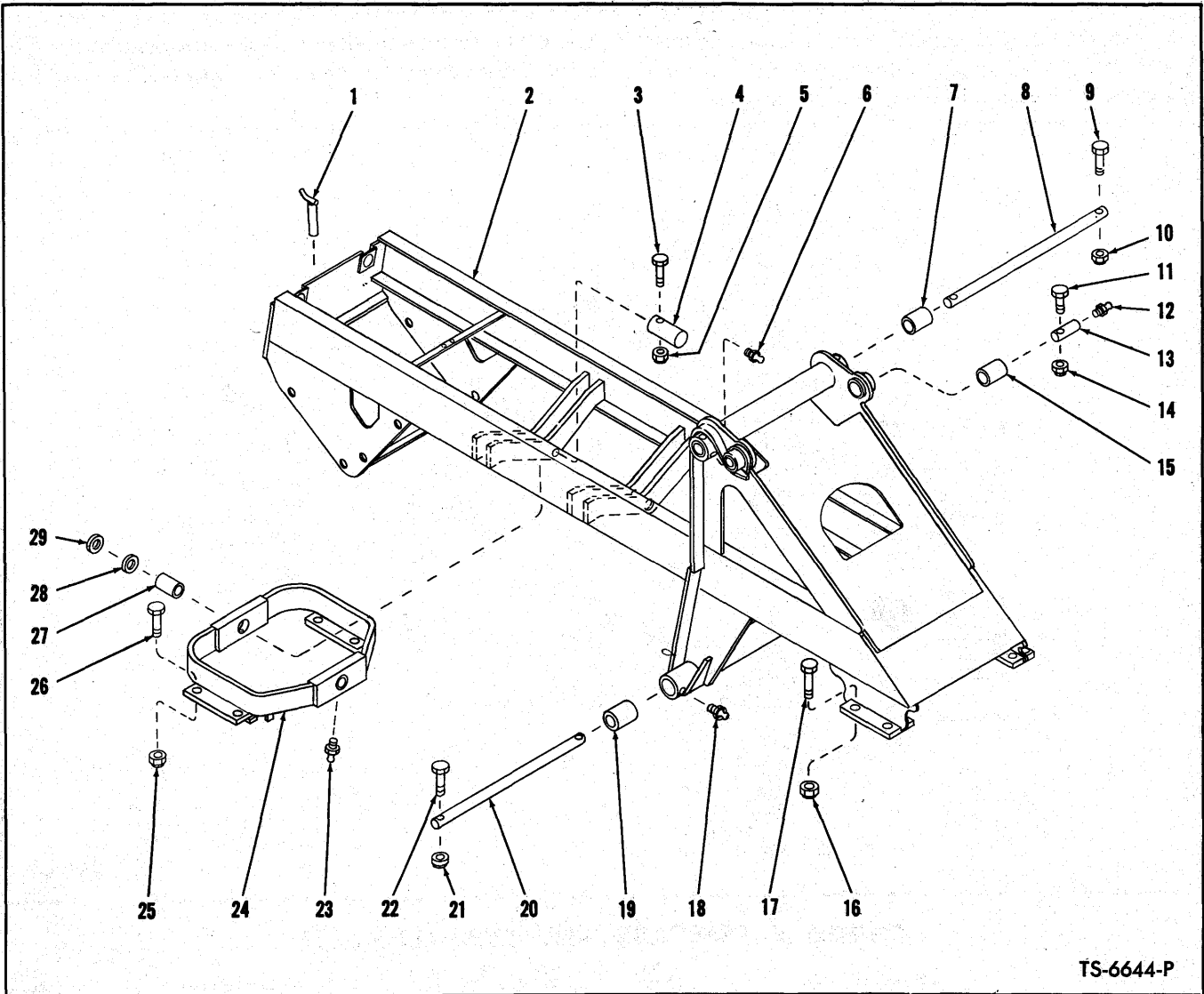
ENGINE ACCESSORIES AND SUPPORT PARTS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	ENGINE — See Waukesha Engine Parts Manual	—	20	572719	to Frame Only	2
2	636260	SWITCH, Hourmeter Pressure	1	21	71D-08	SUPPORT, Engine	1
3	5K-112	NIPPLE, Cross to Engine — Pipe	1	22	70D-08	BASE, Support to Frame Bolt	2
4	21F-1	CROSS, Connecting — Pipe	1	23	570935	NUT, Support to Frame Bolt	2
5	14D-10	NUT, Sender Unit	1			*SPRING, Engine Mounting — R.H. Only	2
6	12E-10	LKWSHR, Sender Unit	1	24	616792	*WASHER, Engine Mounting — R.H. Only	2
7	940643	SENDER UNIT, Engine Oil Pressure	1	25	8C-824	BOLT, Support to Engine	4
8	18C-836	BOLT, Support to Frame — L.H.	2	26	18C-856	BOLT, Engine Mount to Frame	1
9	636260	SWITCH, Regulator Pressure	1	27	1520449	WASHER, Engine Mount — Lower	1
10	8C-824	BOLT, Support to Engine	4	28	567822	SLEEVE, Engine Mount	1
11	572719	SUPPORT, Engine	1	29	567415	MOUNT, Engine — Rubber	1
12	518624	*BLOCK, Support Mounting — Welded to Frame Only	2	30	18C-848	BOLT, Mount to Engine	2
13	71D-08	BASE, Support to Frame Bolt	2	31	567703	MOUNT, Engine — Rear	1
14	70D-08	NUT, Support to Frame Bolt	2	32	567731	WASHER, Engine Mount — Upper	1
15	551323	SENDER UNIT, Engine Temperature	1	33	18D-08	NUT, Engine Mount to Frame Bolt	1
16	12E-10	LKWSHR, Sender Unit	1	34	18D-08	NUT, Mount to Engine Bolt	2
17	14D-10	NUT, Sender Unit	1	35	1520607	† HARNESS, Engine Wiring	1
18	18C-864	*BOLT, Support to Frame — R.H.	2	36	1520606	† CABLE, Battery to Solenoid	1
19	518624	*BLOCK, Support Mounting — Welded		37	553466	† CABLE, Solenoid to Starter	1

*NOTE: Items 12, 18, 19, 23 and 24 were installed on Machine Serial 6CA101 thru 6CA116 only. For Machine Serial 6CA117 and thereafter, item 18 should be 18C-836 the same as item 8.

†Not Illustrated

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



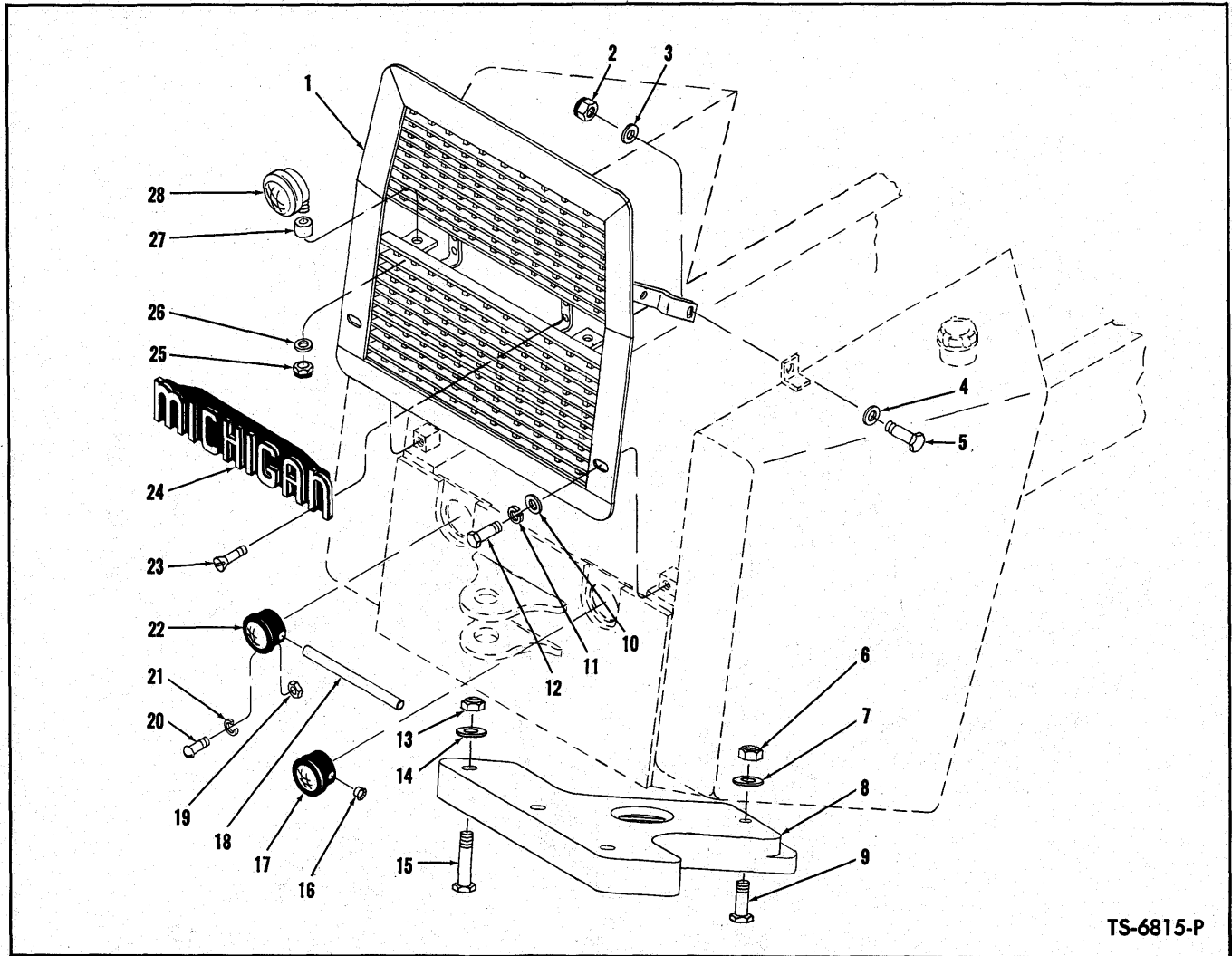
TS-6644-P

FRAME AND CRADLE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	549988	PIN ASSY, Drawbar	1	16	68D-12	NUT, Front Axle to Frame	8
2	572749	FRAME ASSY (Inc. 7, 15, 19)	1	17	24C-12144	BOLT, Front Axle to Frame	8
3	18C-856	BOLT, Pin Retaining	2	18	10H-25	FITTING, Lower Pivot Tube Grease	2
4	536100	PIN, Cradle Pivot	2	19	564129	BUSHING, Lower Pivot Tube	2
5	18D-08	NUT, Pin Retaining	2	20	587960	SHAFT, Cylinder Pivot	1
6	10H-25	FITTING, Upper Pivot Tube Grease	2	21	18D-08	NUT, Pivot Shaft Retaining	2
7	564126	BUSHING, Upper Pivot Tube	2	22	18C-872	BOLT, Pivot Shaft Retaining	2
8	571022	SHAFT, Boom Pivot — Upper	1	23	10H-25	FITTING, Cradle Pin Grease	2
9	18C-880	BOLT, Pivot Shaft Retaining	2	24	564137	CRADLE ASSY, Rear Axle (Inc. 27)	1
10	18D-08	NUT, Pivot Shaft Retaining	2	25	68D-12	NUT, Rear Axle to Cradle	8
11	18C-880	BOLT, Pivot Pin Retaining	2	26	18C-1252	BOLT, Rear Axle to Cradle	8
12	10H-25	FITTING, Pivot Pin Grease	2	27	538585	BUSHING, Cradle Pivot	2
13	556960	PIN, Bucket Cylinder Pivot	2	28	551348	‡SHIM, Cradle to Frame	—
14	18D-08	NUT, Pivot Pin Retaining	2	29	551347	‡SHIM, Cradle to Frame	—
15	585007	BUSHING, Upper Pivot	2				

‡As Required

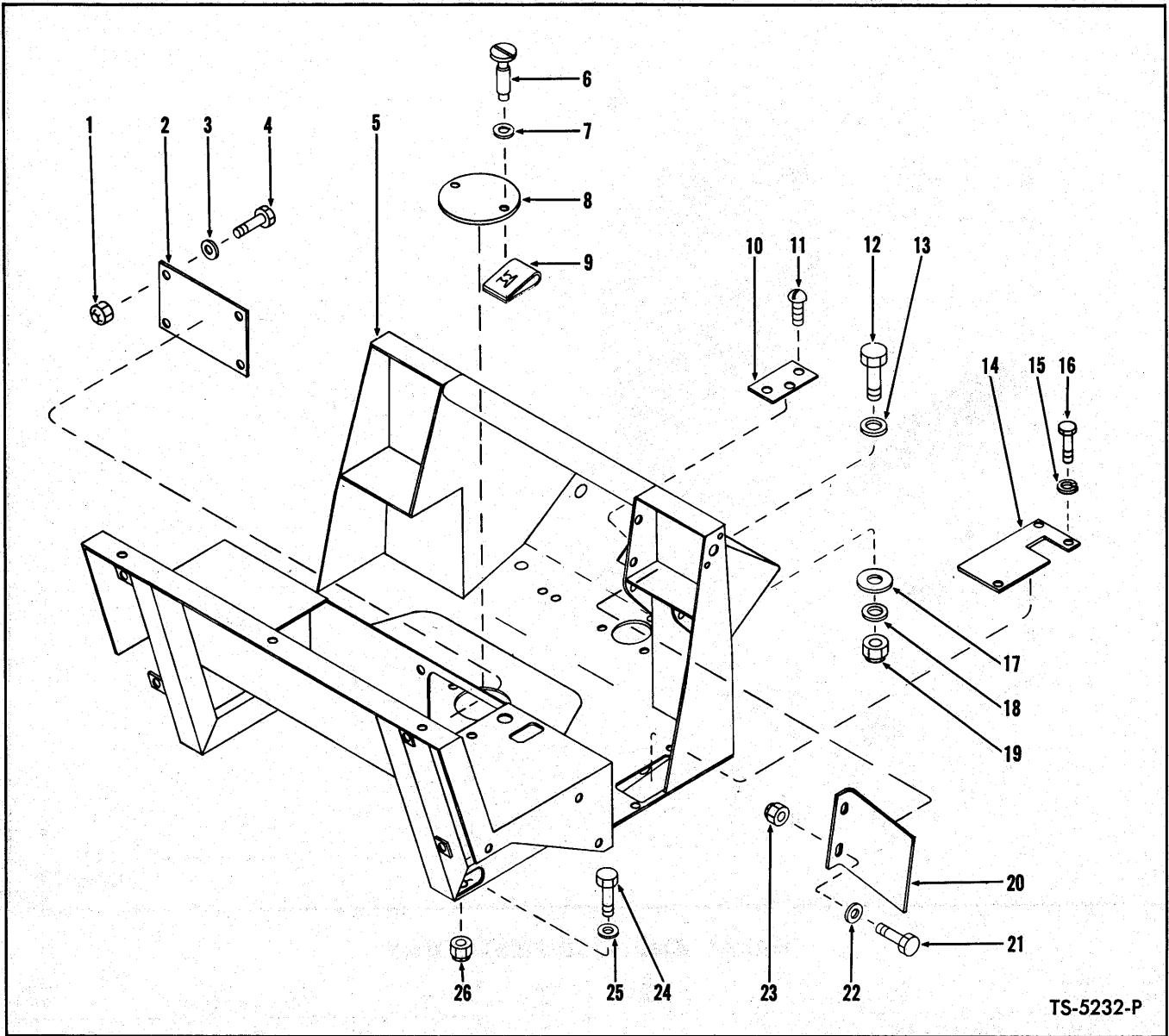
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

**CLARK
EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN****GRILLE AND COUNTERWEIGHT**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	563881	GRILLE ASSY, Rear	1	17A	1103680	† LENS, Tail Lamp	1
2	18D-08	NUT, Grille to Tank Bolt	2	17B	942746	† BULB, Tail & Stop Lamp	1
3	619029	WASHER, Grille to Tank Bolt	2	18	566849	CONDUIT, Tail & Stop Lamp Wire Protector	1
4	619029	WASHER, Grille to Tank Bolt	2	19	14D-10	NUT, Lamp Mounting Screw	6
5	18C-824	BOLT, Grille to Tank	2	20	2G-1012	SCREW, Lamp Mounting	6
6	18D-12	NUT, Counterweight to Frame Bolt	1	21	17E-10	LKWSHR, Lamp Mounting Screw	6
7	590499	WASHER, Counterweight to Frame Bolt	1	22	562641	LAMP ASSY, Tail & Stop — L.H. (Inc. 22A)	1
8	1520287	COUNTERWEIGHT	1	22A	1103680	† LENS, Tail Lamp	1
9	24C-1296	BOLT, Counterweight to Frame	1	22B	942746	† BULB, Tail & Stop Lamp	1
10	619029	WASHER, Grille to Frame Bolt	2	23	44G-418	SCREW, Name Plate to Grille	4
11	4E-08	LKWSHR, Grille to Frame Bolt	2	24	564011	NAME PLATE, Michigan	1
12	18C-816	BOLT, Grille to Frame	2	25	17D-6	NUT, Back — Up Lamp Mounting	2
13	18D-12	NUT, Counterweight to Frame Bolt	2	26	584092	WASHER, Back — Up Lamp Mounting	2
14	590499	WASHER, Counterweight to Frame Bolt	2	27	509320	SPACER, Back — Up Lamp	2
15	24C-12168	BOLT, Counterweight to Frame	2	28	547529	LAMP ASSY, Back-Up (Inc. 29)	2
16	1010736	PLUG, Lamp — R.H. Only	1	29	944907	† SEALED UNIT, Back-Up Lamp	2
17	562641	LAMP ASSY, Tail & Stop — R.H. (Inc. 17A)	1				

†Not Illustrated

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EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN**

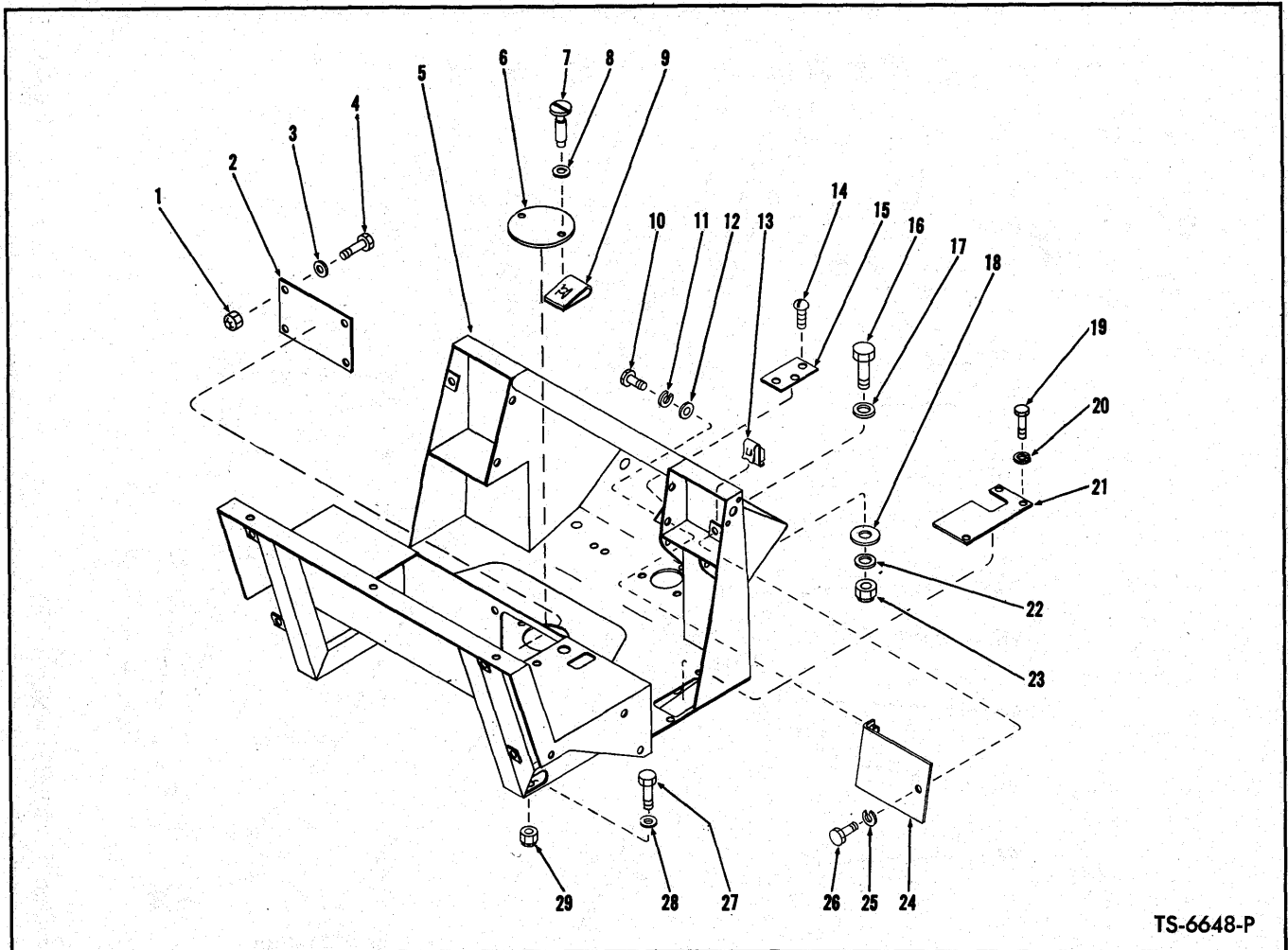
TS-5232-P

COCKPIT AND INSPECTION PLATES**For Serial 6CA101 thru 6CA106**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-04	NUT, Cover Plate Mounting	4	14	569912	PLATE, Valve Levers Cover	1
2	557057	PLATE, Heater Cover	1	15	4E-06	LKWSHR, Cover Plate Mounting	3
3	664421	WASHER, Cover Plate Mounting	4	16	18C-612	BOLT, Cover Plate Mounting	3
4	18C-412	BOLT, Cover Plate Mounting	4	17	616798	‡SPACER, Cockpit Mounting	—
5	588021	COCKPIT	1	18	619029	WASHER, Cockpit Mounting	1
6	568829	SCREW, Cover Mounting	2	19	18D-08	NUT, Cockpit Mounting	1
7	1612583	WASHER, Cover Mounting	2	20	589991	PLATE, Panel — R.H.	1
8	568828	COVER, Transmission Check (Inc. 6, 7)	1	21	18C-616	BOLT, Plate Mounting	2
9	568830	NUT, Cover Mounting	2	22	619024	WASHER, Plate Mounting	2
10	566649	PLATE, Steer Cover	1	23	18D-06	NUT, Plate Mounting	2
11	18G-806	SCREW, Cover Plate Mounting	3	24	18C-824	BOLT, Cockpit Mounting	4
12	18C-832	BOLT, Cockpit Mounting	1	25	619029	WASHER, Cockpit Mounting	8
13	619029	WASHER, Cockpit Mounting	1	26	18D-08	NUT, Cockpit Mounting	4

‡As Required

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**CLARK
EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN**

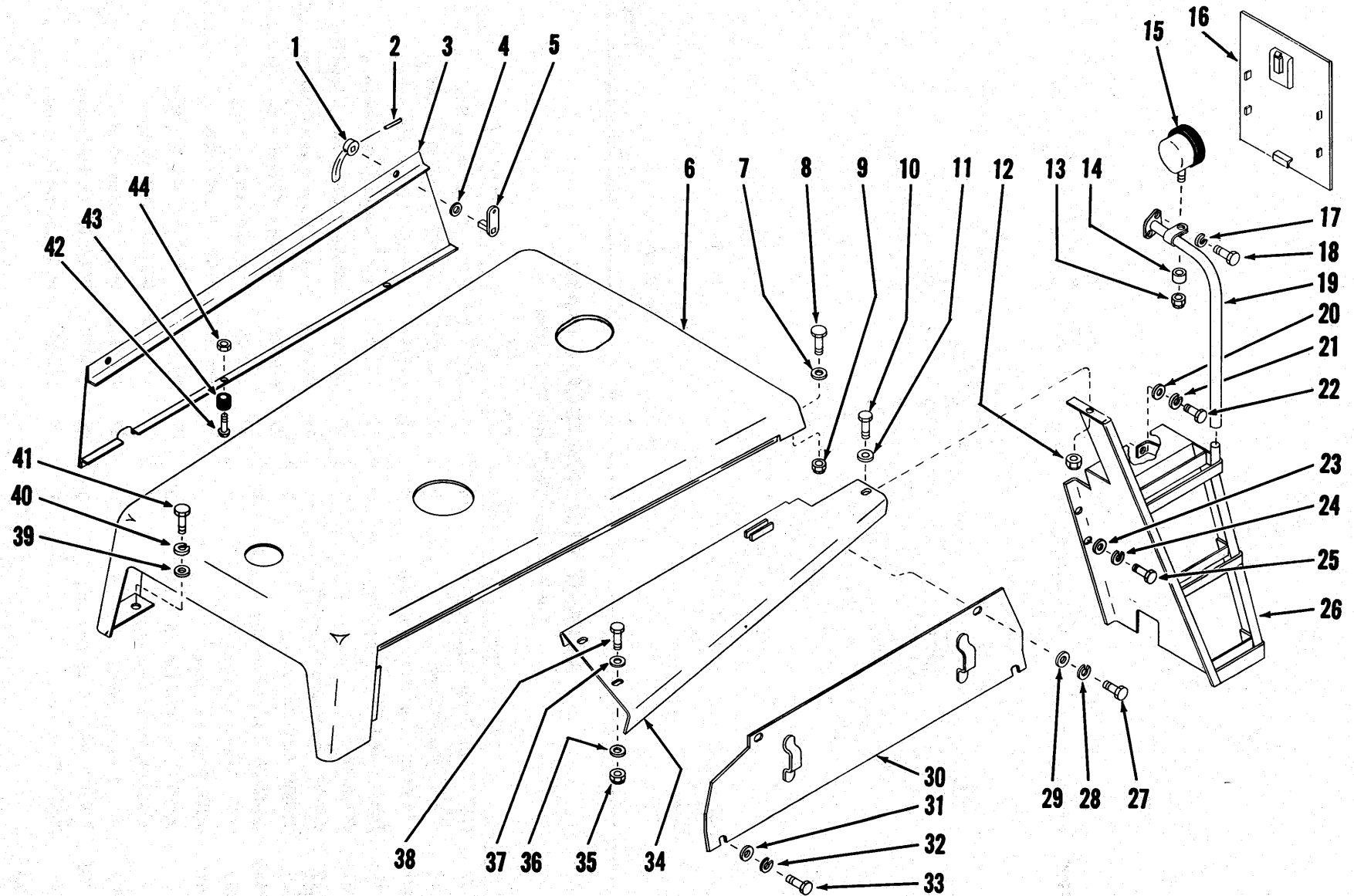
TS-6648-P

COCKPIT AND INSPECTION PLATES**For Serial 6CA107 and Thereafter**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-04	NUT, Cover Plate Mounting	4	16	18C-832	BOLT, Cockpit Mounting	1
2	557057	PLATE, Heater Cover	1	17	619029	WASHER, Cockpit Mounting	1
3	664421	WASHER, Cover Plate Mounting	4	18	616798	‡ SPACER, Cockpit Mounting	—
4	18C-412	BOLT, Cover Plate Mounting	4	19	17C-612	BOLT, Cover Plate Mounting	3
5	588021	COCKPIT	1	20	4E-06	LKWSHR, Cover Plate Mounting	3
6	568828	COVER, Transmission Check (Inc. 7, 8)	1	21	569912	PLATE, Valve Levers Mounting	1
7	568829	SCREW, Cover Mounting	2	22	619029	WASHER, Cockpit Mounting	1
8	1612583	WASHER, Cover Mounting	2	23	18D-08	NUT, Cockpit Mounting	1
9	568830	NUT, Cover Mounting	2	24	574026	PLATE, Panel — R.H.	1
10	17C-616	BOLT, Plate Mounting	2	25	4E-06	LKWSHR, Plate Mounting	1
11	4E-06	LKWSHR, Plate Mounting	2	26	17C-616	BOLT, Plate Mounting	1
12	656672	WASHER, Plate Mounting	2	27	18C-828	BOLT, Cockpit Mounting	4
13	572729	NUT, Plate Mounting	1	28	619029	WASHER, Cockpit Mounting	8
14	18G-806	SCREW, Cover Plate Mounting	3	29	18D-08	NUT, Cockpit Mounting	4
15	566649	PLATE, Steer Cover	1				

‡As Required

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



HOOD, COVER, PANELS, FENDERS AND STEPS

TS-6804-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

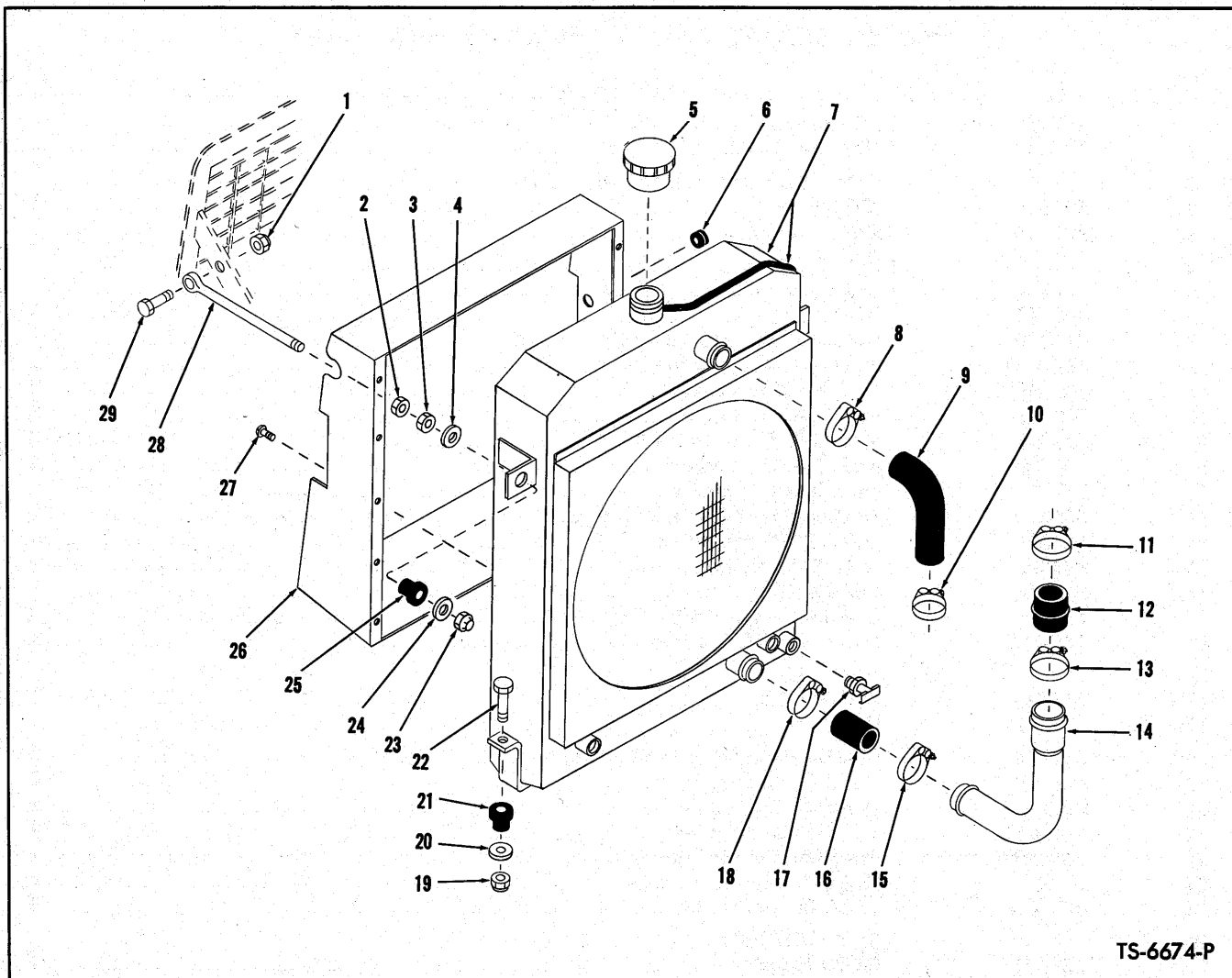
HOOD, COVER, PANELS, FENDERS AND STEPS

Item No.	Part No.	Description	No. Req'd.
1	142396	KIT, Handle (Inc. 2, 4, 5)	4
2	730432	PIN, Handle Roll	4
3		PANEL, Side (Inc. 1, 2, 4, 5, 42, 43, 44)	
3A	571646	LEFT HAND	1
3B	571645	†RIGHT HAND	1
4	-----	§SPACER, Shaft	—
5	-----	§SHAFT, Handle	—
6	572750	HOOD	1
7	619029	WASHER, Hood to Cockpit	2
8	18C-820	BOLT, Hood to Cockpit	2
9	18D-08	NUT, Hood to Cockpit	2
10	18C-824	BOLT, Fender to Step	2
11	619029	WASHER, Fender to Step	2
12	18D-08	NUT, Fender to Step	2
13	17D-6	NUT, Head Lamp Mounting	2
14	509320	SPACER, Head Lamp Mounting	2
15	547529	LAMP ASSY, Head (Inc. 15A)	2
15A	944907	†SEALED UNIT, Head Lamp	2
16	566764	COVER ASSY, Front	1
17	4E-06	LKWSHR, Hand Rail to Cockpit	4
18	17C-620	BOLT, Hand Rail to Cockpit	4
19		HAND RAIL	
19A	563980	RIGHT HAND	1
19B	563981	†LEFT HAND	1
19C	563994	CLAMP, Head Lamp to Hand Rail	2
20	619029	WASHER, Step to Frame	2
21	4E-08	LKWSHR, Step to Frame	2
22	18C-816	BOLT, Step to Frame	2
23	619029	WASHER, Step to Frame	4
24	4E-08	LKWSHR, Step to Frame	4
25	18C-816	BOLT, Step to Frame	4
26		STEP ASSEMBLY	
26A	556691	RIGHT HAND	1
26B	556692	†LEFT HAND	1
27	18C-812	BOLT, Panel to Fender	4
28	4E-08	LKWSHR, Panel to Fender	4
29	619029	WASHER, Panel to Fender	4
30		SIDE PANEL	
30A	563928	RIGHT HAND	1
30B	563929	†LEFT HAND	1
31	619029	WASHER, Panel to Frame	4
32	4E-08	LKWSHR, Panel to Frame	4
33	18C-812	BOLT, Panel to Frame	4
34		FENDER	
34A	557847	RIGHT HAND	1
34B	557848	†LEFT HAND	1
35	18D-08	NUT, Fender to Tank	4
36	619029	WASHER, Fender to Tank	4
37	619029	WASHER, Fender to Tank	4
38	18C-824	BOLT, Fender to Tank	4
39	619029	WASHER, Hood to Tank	2
40	4E-08	LKWSHR, Hood to Tank	2
41	18C-816	BOLT, Hood to Tank	2
42	3G-1008	SCREW, Side Panel Mounting	4
43	551433	BUMPER, Side Panel Mounting	4
44	12D-10	NUT, Side Panel Mounting	4

†Not Illustrated

‡As Required

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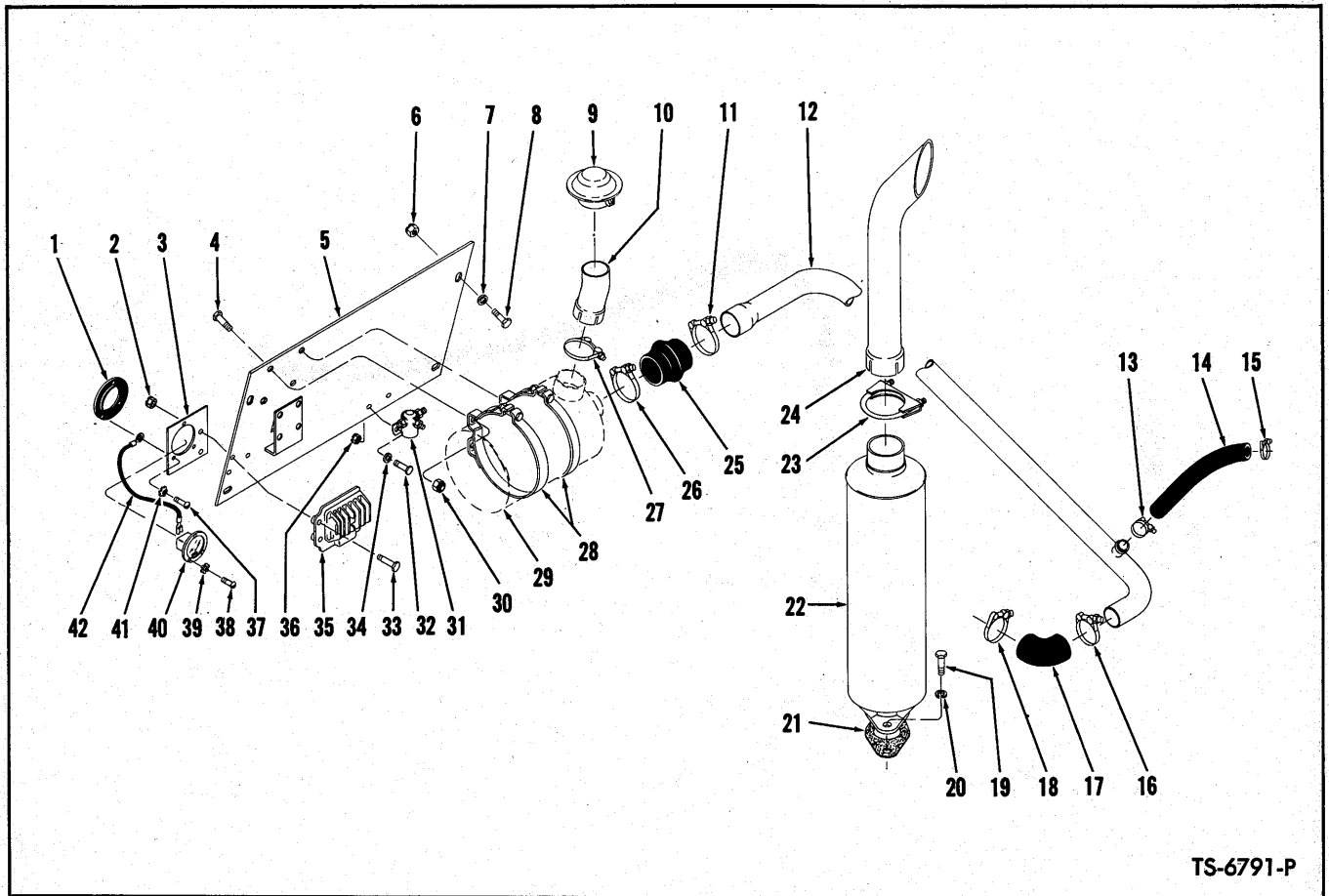


TS-6674-P

RADIATOR AND CONNECTIONS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-08	NUT, Rod to Grille Bolt	2	15	540128	CLAMP, Hose	1
2	8D-08	NUT, Rod Jam	2	16	535332	HOSE, Tube to Radiator	1
3	8D-08	NUT, Rod Jam	2	17	73F-2	DRAIN COCK, Radiator	1
4	584502	WASHER, Rod Mounting	2	18	540128	CLAMP, Hose	1
5	351495	CAP, Radiator	1	19	18D-08	NUT, Radiator to Frame Bolt	2
6	585950	GROMMET, Radiator Shroud	1	20	584502	WASHER, Radiator to Frame	2
7	571273	RADIATOR ASSY (Inc. 5, 7A)	1	21	584501	MOUNT, Radiator to Frame	2
7A	945460	HOSE, Overflow	1	22	18C-836	BOLT, Radiator to Frame	2
8	540108	CLAMP, Hose	1	23	18D-08	NUT, Rod Mounting	2
9	572785	HOSE, Radiator (Upper)	1	24	584502	WASHER, Rod Mounting	2
10	540108	CLAMP, Hose	1	25	584501	MOUNT, Rod to Radiator	2
11	540104	CLAMP, Hose	1	26	572802	SHROUD, Radiator	1
12	572798	HOSE, Tube to Engine	1	27	18G-806	SCREW, Shroud to Radiator	10
13	540104	CLAMP, Hose	1	28	570499	ROD, Radiator to Grille	2
14	572786	TUBE, Radiator to Engine	1	29	18C-828	BOLT, Rod to Grille	2

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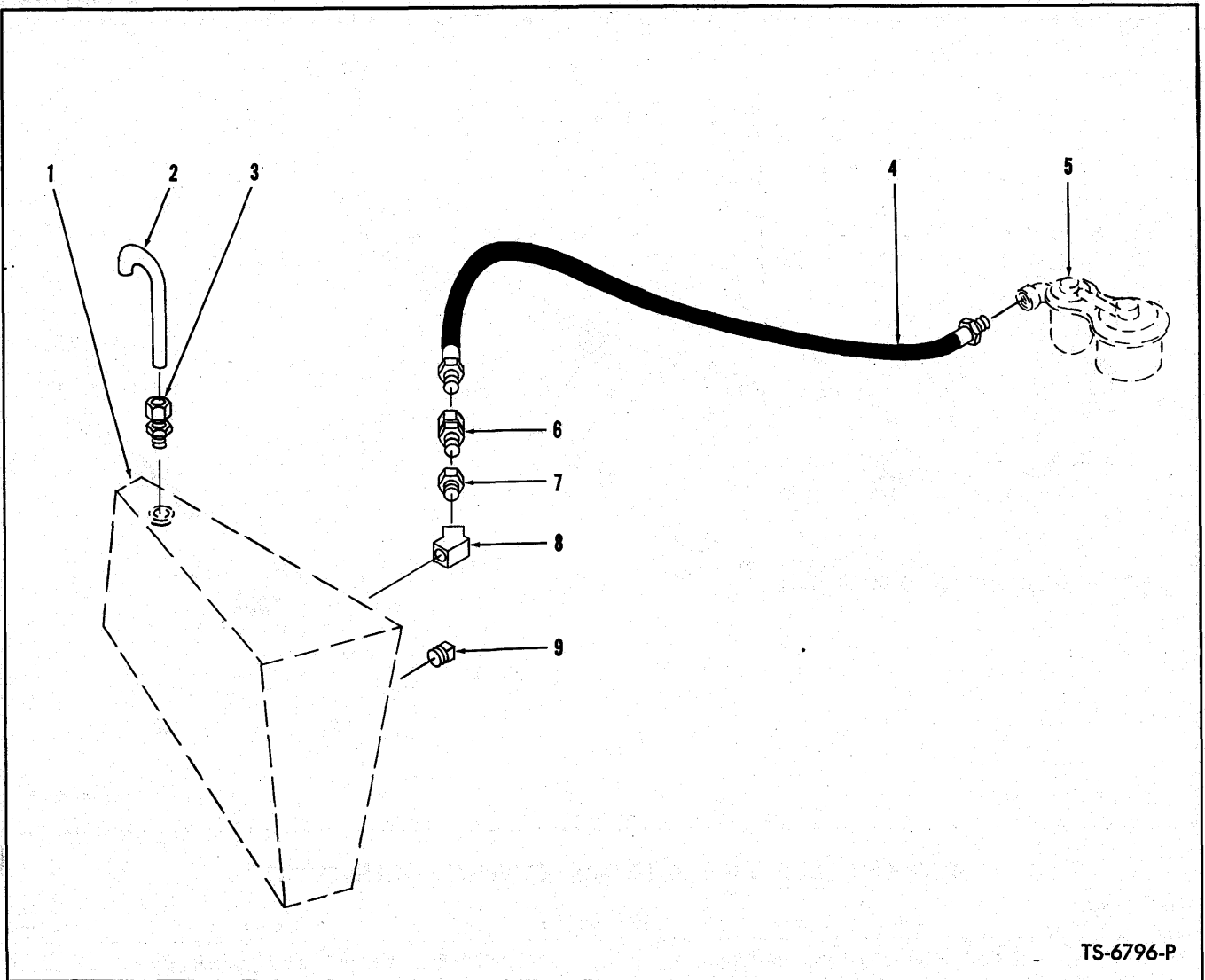
**CLARK
EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN**

TS-6791-P

MUFFLER, TAIL PIPE AND AIR CLEANER CONNECTIONS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	551251	DAMPENER, Hourmeter Vibration	1	23	507068	CLAMP, Tail Pipe to Muffler	1
2	18D-04	NUT, Regulator Mounting Bolt	3	24	543576	TAIL PIPE	1
3	569414	BRACKET, Hourmeter Mounting	1	25	515424	HOSE, Tube to Air Cleaner	1
4	18C-616	BOLT, Mounting Band to Bracket	4	26	539042	CLAMP, Hose	1
5	571389	BRACKET, Air Cleaner Mounting	1	27	543531	CLAMP, Extension to Air Cleaner	1
6	18D-08	NUT, Bracket to Cockpit Bolt	4	28	420945	BAND, Air Cleaner Mounting	2
7	619029	WASHER, Bracket to Cockpit Bolt	4	29	—	AIR CLEANER ASSY — See P.M. 2083	—
8	18C-824	BOLT, Bracket to Cockpit	4	30	18D-06	NUT, Mounting Band to Bracket Bolt..	4
9	568391	CAP, Air Inlet	1	31	551530	SOLENOID, Starter — Furnished With Engine	1
10	571386	EXTENSION, Air Inlet	1	32	18C-412	BOLT, Solenoid to Bracket	2
11	539042	CLAMP, Hose	1	33	18C-424	BOLT, Regulator to Bracket	3
12	1520427	TUBE, Air Intake	1	34	619018	WASHER, Solenoid to Bracket Bolt	2
13	540103	CLAMP, Hose	1	35	1621888	VOLTAGE REGULATOR	1
14	1520434	HOSE, Tube to Compressor	1	36	18D-04	NUT, Solenoid to Bracket Bolt	2
15	540103	CLAMP, Hose	1	37	3G-608	SCREW, Dampener to Bracket	3
16	879717	CLAMP, Hose	1	38	3G-608	SCREW, Hourmeter to Dampener	3
17	571880	HOSE, Tube to Carburetor	1	39	12E-6	LKWSHR, Hourmeter to Dampener Screw	3
18	879717	CLAMP, Hose	1	40	886619	HOURLMETER KIT (Inc. 38, 39)	1
19	17C-820	BOLT, Muffler to Engine	2	41	12E-6	LKWSHR, Dampener to Bracket Screw	3
20	4E-08	LKWSHR, Muffler to Engine Bolt	2	42	558960	WIRE, Hourmeter Ground	1
21	422079	GASKET, Muffler to Engine	1				
22	572696	MUFFLER	1				

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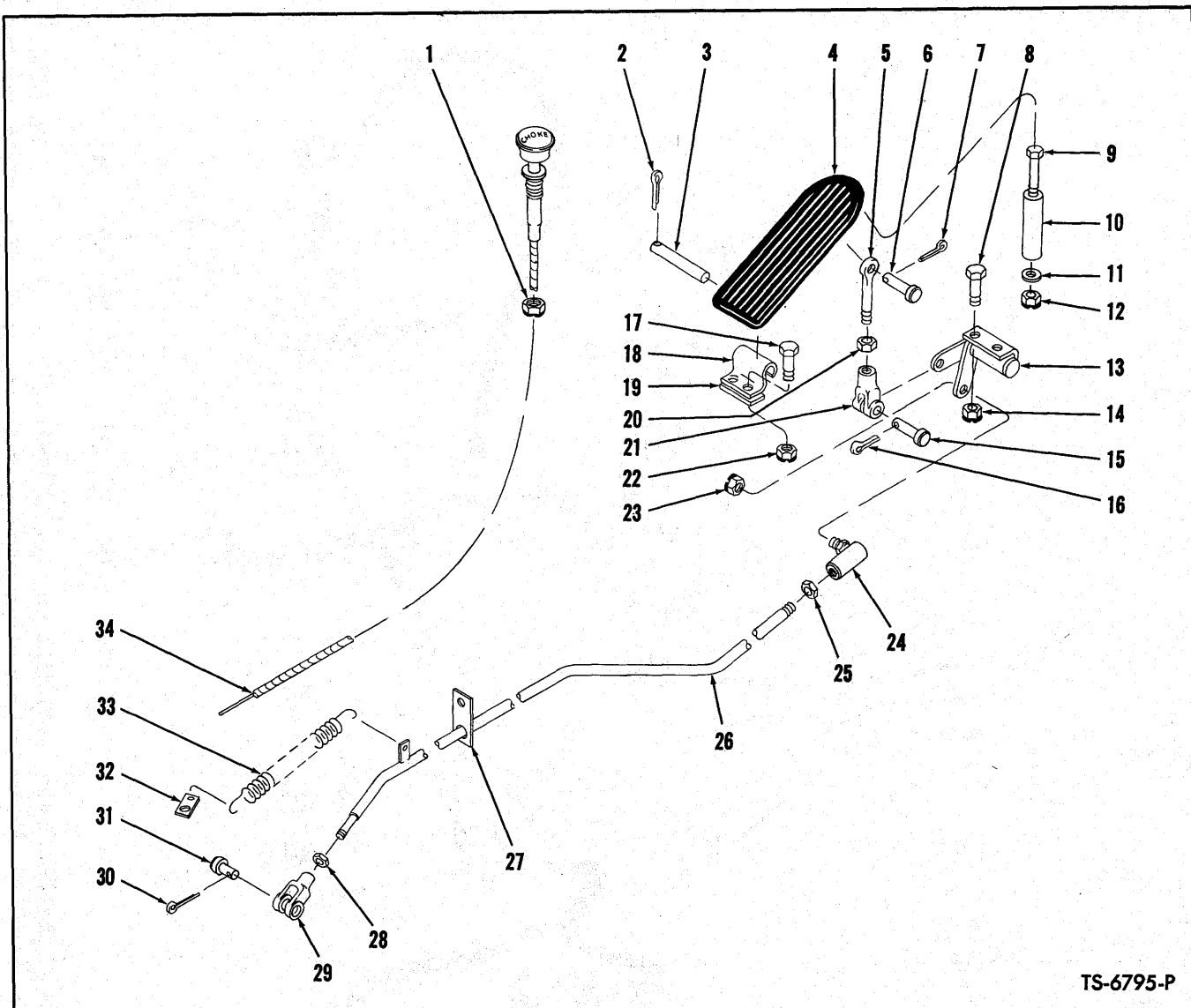


TS-6796-P

FUEL LINES

Item No.	Part No.	Description	No. Req'd.
1	—	FUEL TANK ASSY — See PM 2083	—
2	567847	TUBE, Breather	1
3	49F-3	CONNECTOR, Tube to Tank	1
4	1521606	HOSE, Tank to Pump	1
5	—	FUEL PUMP ASSY — See Waukesha Engine Parts Manual	—
6	36F-1	ADAPTER UNION, Bushing to Hose	1
7	19F-4	BUSHING, Tank Reducing	1
8	82F-3	ELBOW, Hose to Tank	1
9	13F-04	PLUG, Tank Pipe	1

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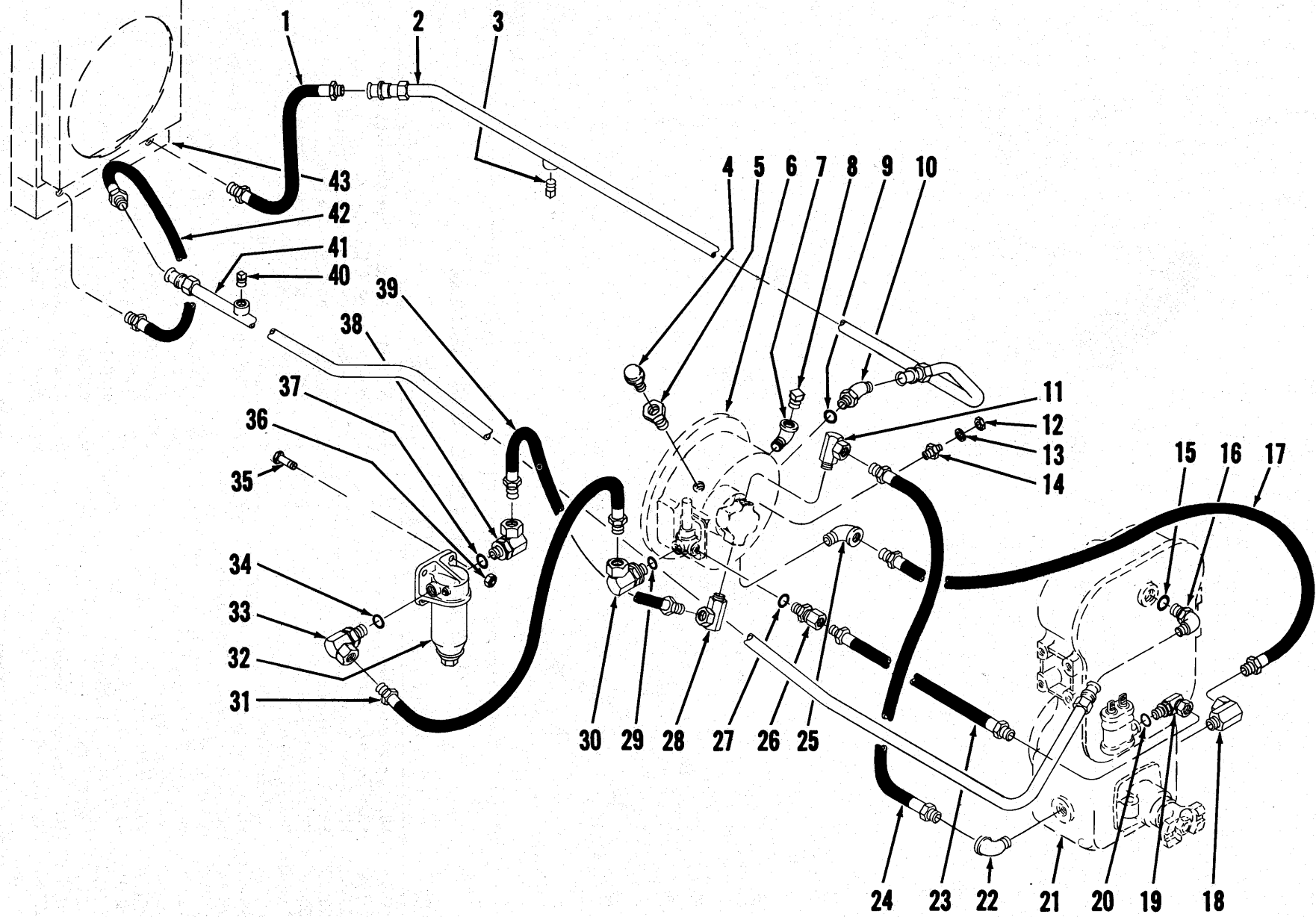
**CLARK
EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN**

TS-6795-P

ACCELERATOR PEDAL AND LINKAGE

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	66D-06	NUT, Cable Mounting	1	19	572556	SPACER, Bracket to Floorboard	1
2	1F-316	COTTER, Pivot Pin	1	20	8D-04	NUT, Clevis Jam	1
3	623762	PIN, Pedal Pivot	1	21	2J-4200	CLEVIS, Rod to Bellcrank	1
4	623829	PEDAL, Accelerator	1	22	18D-04	NUT, Bracket Bolt	2
5	550619	ROD, Pedal to Clevis	1	23	18D-05	NUT, Ball Joint to Bellcrank	1
6	4F-04051	PIN, Rod to Pedal	1	24	1301361	BALL JOINT	1
7	1F-207	COTTER, Pedal Pin	1	25	8D-05	NUT, Ball Joint Jam	1
8	18C-412	BOLT, Bellcrank to Floorboard	2	26	1520468	ROD ASSY, Accelerator (Inc. 24, 25, 27, 28, 29)	1
9	18C-448	BOLT, Pedal Stop to Floorboard	1	27	1520450	FLAT, Rod Guide — Rectangular	1
10	551016	STOP, Pedal	1	28	8D-04	NUT, Clevis Jam	1
11	774337	WASHER, Pedal Stop Bolt	1	29	2J-4200	CLEVIS	1
12	18D-04	NUT, Pedal Stop Bolt	1	30	1F-216	COTTER, Clevis Pin	1
13	572174	BELLCRANK	1	31	2F-04051	PIN, Clevis to Carburetor	1
14	18D-04	NUT, Bellcrank Bolt	2	32	545568	ANCHOR, Spring	1
15	4F-04051	PIN, Clevis to Bellcrank	1	33	551090	SPRING	1
16	1F-216	COTTER, Clevis Pin	1	34	7H-17	CABLE, Choke	1
17	18C-416	BOLT, Bracket to Floorboard	2				
18	623760	BRACKET, Pedal Pivot	1				

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HYDRAULIC SYSTEM — TRANSMISSION AND TORQUE CONVERTER

TS-6800-P



CONSTRUCTION MACHINERY DIVISION

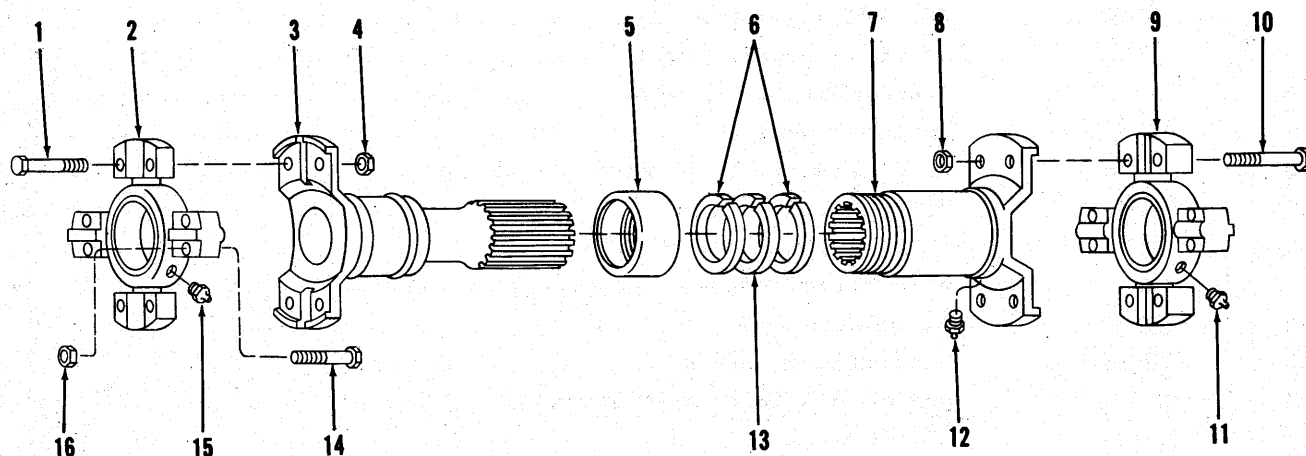
MICHIGAN

HYDRAULIC SYSTEM — TRANSMISSION AND TORQUE CONVERTER

Item No.	Part No.	Description	No. Req'd.
1	563465	HOSE, Radiator to Cooler Line	1
2	571412	LINE, Radiator to Converter — Cooler (Inc. 3)	1
3	40K-04	PLUG, Cooler Line	1
4	211433	BREATHER, Converter Air	1
5	227265	VALVE, Air Breather Check	1
6	—	CONVERTER — See P.M. 2083	—
7	25F-6	ELBOW, Converter Fill	1
8	13F-16	PLUG, Converter Fill — Furnished With Converter	1
9	91F-8	"O" RING, Elbow	1
10	18K-8	ELBOW, Line to Converter (Inc. 9)	1
11	31F-6	ADAPTER UNION, Hose to Converter Pump	1
12	14D-10	NUT, Sender Unit	1
13	12E-10	LKWSHR, Sender Unit	1
14	551323	SENDER UNIT, Converter Temperature	1
15	91F-8	"O" RING, Elbow	1
16	17K-8	ELBOW, Cooler Line to Transmission (Inc. 15)	1
17	543280	HOSE, Converter Drain	1
18	31F-6	ADAPTER UNION, Drain Hose to Transmission	1
19	362653	ELBOW, Hose to Transmission (Inc. 20)	1
20	91F-6	"O" RING, Elbow	1
21	—	TRANSMISSION — See P.M. 2083	—
22	26F-6	ELBOW, Hose to Transmission	1
23	712699	HOSE, Converter to Transmission	1
24	589367	HOSE, Converter to Transmission	1
25	26F-6	ELBOW, Drain Hose to Converter	1
26	690279	CONNECTOR, Hose to Converter Valve (Inc. 27)	1
27	91F-6	"O" RING, Connector	1
28	31F-5	ADAPTER UNION, Hose to Converter Pump	1
29	91F-8	"O" RING, Elbow	1
30	526676	ELBOW, Hose to Converter Valve (Inc. 30)	1
31	546810	HOSE, Filter to Valve	1
32	228190	FILTER, Converter & Transmission (Inc. 32A)	1
32A	215502	† CARTRIDGE KIT, Filter	1
33	526676	ELBOW, Hose to Filter (Inc. 34)	1
34	91F-8	"O" RING, Elbow	1
35	18C-620	BOLT, Filter Mounting	4
36	66D-06	NUT, Filter Mounting Bolt	4
37	91F-8	"O" RING, Elbow	1
38	526676	ELBOW, Hose to Filter	1
39	538090	HOSE, Filter to Pump	1
40	40K-04	PLUG, Cooler Line	1
41	571523	LINE, Transmission to Radiator — Cooler (Inc. 40)	1
42	563465	HOSE, Radiator to Cooler Line	1
43	—	RADIATOR — See P.M. 2083	—

† Not Illustrated

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



TS-1138-P

PROPELLER SHAFT ASSEMBLY – CONVERTER TO TRANSMISSION

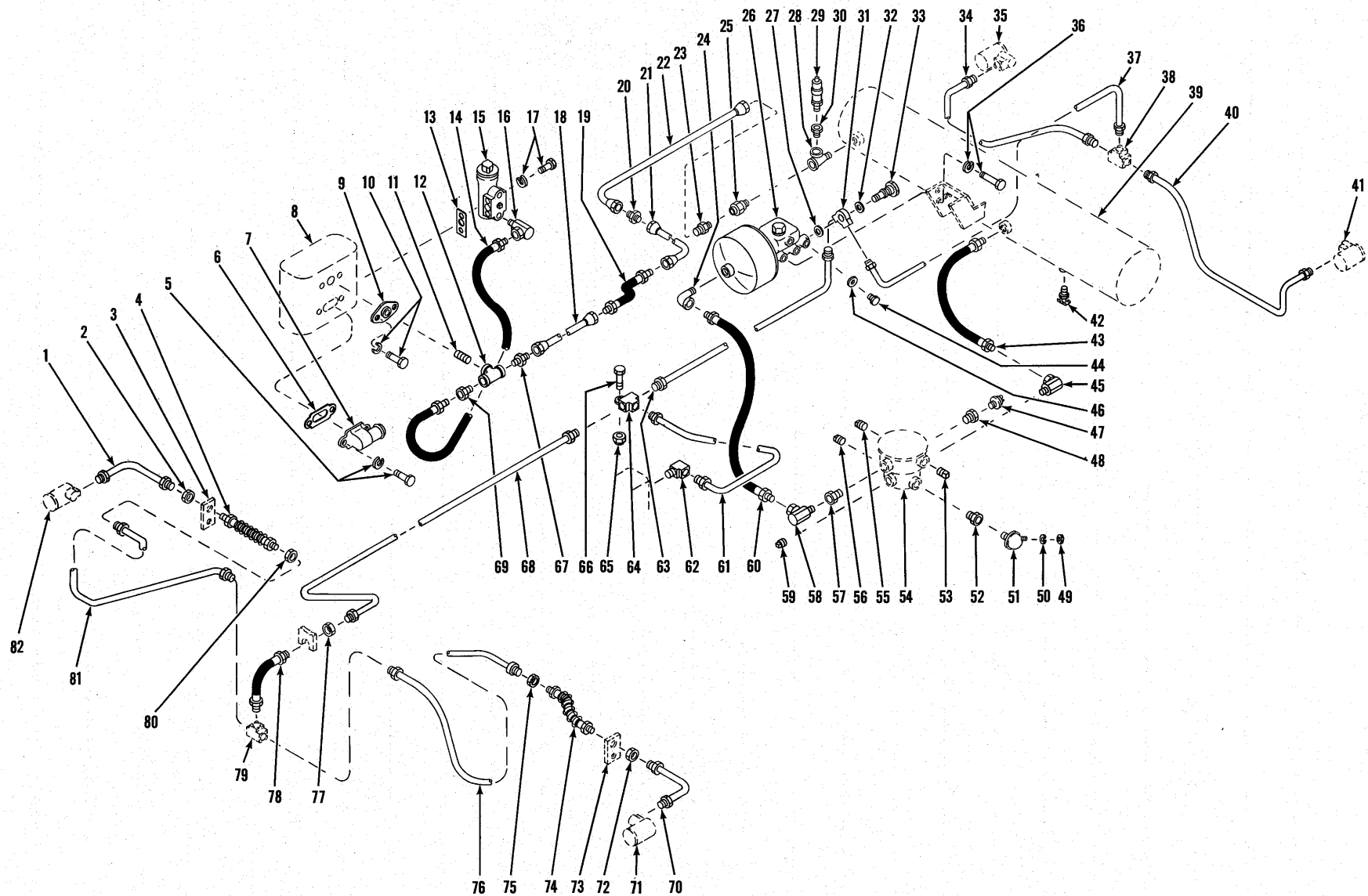
Item No.	Part No.	Description	No. Req'd.
A	574386	PROPELLER SHAFT ASSY (Inc. 1 thru 16)	1
1	695808	BOLT, Spider & Bearing to Tube	4
2	944866	SPIDER & BEARING ASSY (Inc. 2A, 15)	1
2A	944863	† SEAL, Spider & Bearing Grease	4
3	946288	STUB END	1
4	8D-05	NUT, Spider & Bearing to Stud End	4
5	940654	RETAINER, Felt	1
6	940653	WASHER, Felt Retainer	2
7	942658	SLIP YOKE (Inc. 12)	1
8	8D-05	NUT, Spider & Bearing to Slip Yoke	4
9	944866	SPIDER & BEARING ASSY (Inc. 9A, 11)	1
9A	944863	† SEAL, Spider & Bearing Grease	4
10	695808	BOLT, Spider & Bearing to Slip Yoke	4
11	10H-35	FITTING, Spider & Bearing Grease	1
12	10H-25	FITTING, Slip Yo e Grease	1
13	940081	WASHER, Felt	1
14	~~945256~~ 947391	BOLT, Spider & Bearing <i>SPG 2144</i>	8
15	10H-35	FITTING, Spider & Bearing Grease	1
16	18D-05	NUT, Spider & Bearing Attaching	8

†Not Illustrated

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

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

[16]



BRAKE AIR LINES

TS-6793-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

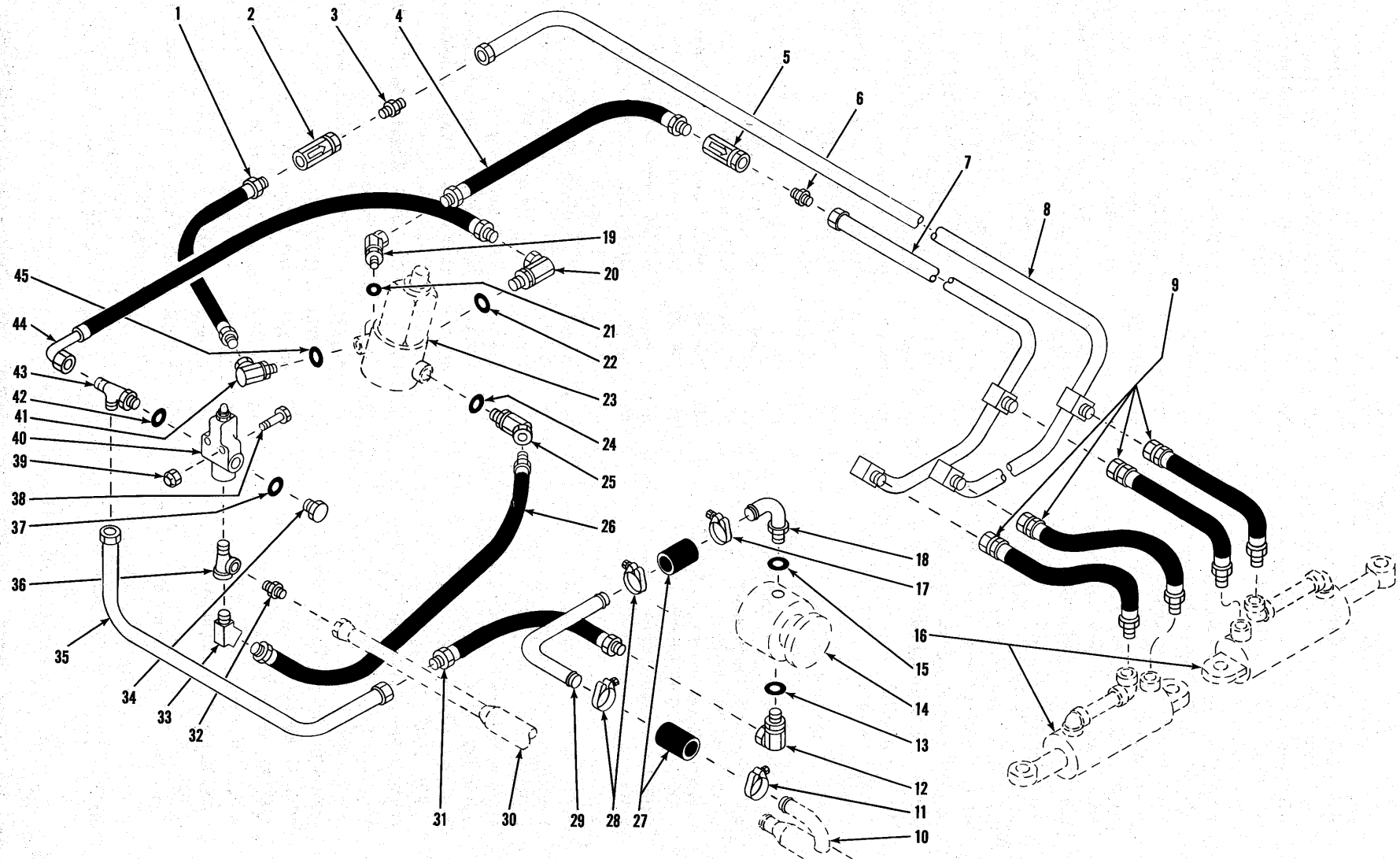
BRAKE AIR LINES

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	558547	LINE, Hose to Wheel Cylinder — L.H. Rear Axle	1	37	589429	TUBE, Power Cluster to Front Axle Tee	1
2	8D-10	NUT, Hose Jam	1	38	609733	TEE, Brake Line — Furnished With Axle	1
3	550325	CLIP, Hose — Furnished with Axle	1	39	—	§ AIR RESERVOIR — Welded to Frame ..	—
4	552374	HOSE, Line to Line	1	40	535050	LINE, Tee to Wheel Cylinder — R.H. Front Axle	1
5	—	BOLT, Elbow to Compressor — Furnished with Engine	—	41	—	CYLINDER, Wheel — See P.M. 2083 ..	—
5A	—	LKWSHR, Elbow to Compressor Bolt — Furnished with Engine	—	42	72F-4	DRAIN COCK, Air Reservoir	1
6	—	GASKET, Elbow to Compressor — Furnished with Engine	—	43	574439	HOSE, Reservoir to Brake Valve	1
7	540664	ELBOW, Compressor Air Inlet	1	44	874007	PLUG, Master Cylinder	2
8	—	AIR COMPRESSOR — See Engine Parts Manual — Furnished with Engine ..	—	45	31F-4	ADAPTER UNION, Hose to Valve	1
9	510452	* FLANGE, Discharge (B.W.#213042)	1	46	613750	GASKET, Master Cylinder Plug	2
10	17C-520	BOLT, Flange to Compressor	2	47	636260	SWITCH, Stop Light	1
10A	4E-05	LKWSHR, Flange to Compressor Bolt ..	2	48	19F-4	BUSHING, Switch Reducing	1
11	5K-409	NIPPLE, Tee to Compressor	1	49	14D-10	NUT, Sender Unit	1
12	18F-4	TEE, Connecting	1	50	12E-10	LKWSHR, Sender Unit	1
13	—	GASKET, Governor — Furnished with Engine	—	51	940643	SENDER UNIT, Air Pressure (Inc. 49, 50)	1
14	593650	HOSE, Compressor to Governor	1	52	19F-1	BUSHING, Sender Unit Reducing	1
15	—	GOVERNOR — Furnished with Engine ..	—	53	13F-08	PLUG, Brake Valve	1
16	31F-1	ADAPTER UNION, Hose to Governor ..	1	54	—	BRAKE VALVE — See P.M. 2083	—
17	—	BOLT, Governor to Compressor — Furnished with Engine	—	55	13F-08	PLUG, Brake Valve	1
17A	—	LKWSHR, Governor to Compressor Bolt — Furnished with Engine	—	56	13F-04	PLUG, Brake Valve	1
18	571889	TUBE, Compressor to Hose	1	57	19F-6	BUSHING, Adapter Reducing	1
19	571882	HOSE, Tube to Tube	1	58	31F-3	ADAPTER UNION, Hose to Valve	1
20	40F-8	ADAPTER UNION, Tube to Tube	1	59	13F-08	PLUG, Brake Valve	1
21	571545	TUBE, Hose to Tube	1	60	592784	HOSE, Power Cluster to Brake Valve ..	1
22	571546	TUBE, Tube to Air Reservoir	1	61	589428	TUBE, Tee to Declutch Valve	1
23	38F-10	CONNECTOR, Tube to Valve	1	62	62F-3	ELBOW, Tube to Valve	1
24	26F-3	ELBOW, Hose to Power Cluster	1	63	589427	TUBE, Power Cluster to Tee	1
25	593370	VALVE, Check	1	64	609733	TEE, Connecting	1
26	—	POWER CLUSTER ASSY — See P.M. 2083	—	65	18D-07	NUT, Tee to Frame Bolt	1
27	620238	GASKET, Fitting to Master Cylinder	1	66	18C-724	BOLT, Tee to Frame	1
28	17F-4	TEE, Valve to Air Reservoir	1	67	38F-10	CONNECTOR, Tube	1
29	507815	VALVE, Safety	1	68	589426	TUBE, Tee to Clip	1
30	19F-5	BUSHING, Valve to Tee Reducing	1	69	19F-4	BUSHING, Hose to Tee Reducing	1
31	633242	FITTING, Connecting	1	70	558547	LINE, Hose to Wheel Cylinder — R.H. Rear Axle	1
32	613750	GASKET, Bolt to Fitting	1	71	—	CYLINDER, Wheel — See P.M. 2083 ..	—
33	692722	BOLT, Fitting to Master Cylinder	1	72	8D-10	NUT, Hose Jam	1
34	535049	LINE, Tee to Wheel Cylinder — L.H. Front Axle	1	73	550325	CLIP, Hose — Furnished with Axle	1
35	—	CYLINDER, Wheel — See P.M. 2083 ..	—	74	552374	HOSE, Line to Line	1
36	18C-720	BOLT, Power Cluster to Reservoir	3	75	8D-10	NUT, Hose Jam	1
36A	4E-07	LKWSHR, Power Cluster to Reservoir Bolt	3	76	534259	LINE, Tee to Hose	1
				77	8D-10	NUT, Hose Jam	1
				78	533814	HOSE, Tube to Rear Axle Tee	1
				79	550320	TEE, Brake Line — Furnished with Axle	1
				80	8D-10	NUT, Hose Jam	1
				81	534260	LINE, Tee to Hose	1
				82	—	CYLINDER, Wheel — See P.M. 2083 ..	—

*NOTE: Your local authorized Bendix-Westinghouse Distributor is equipped to service and supply these parts.
§Not Sold Separately

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

[18]



HYDRAULIC SYSTEM — STEERING

TS-6641-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

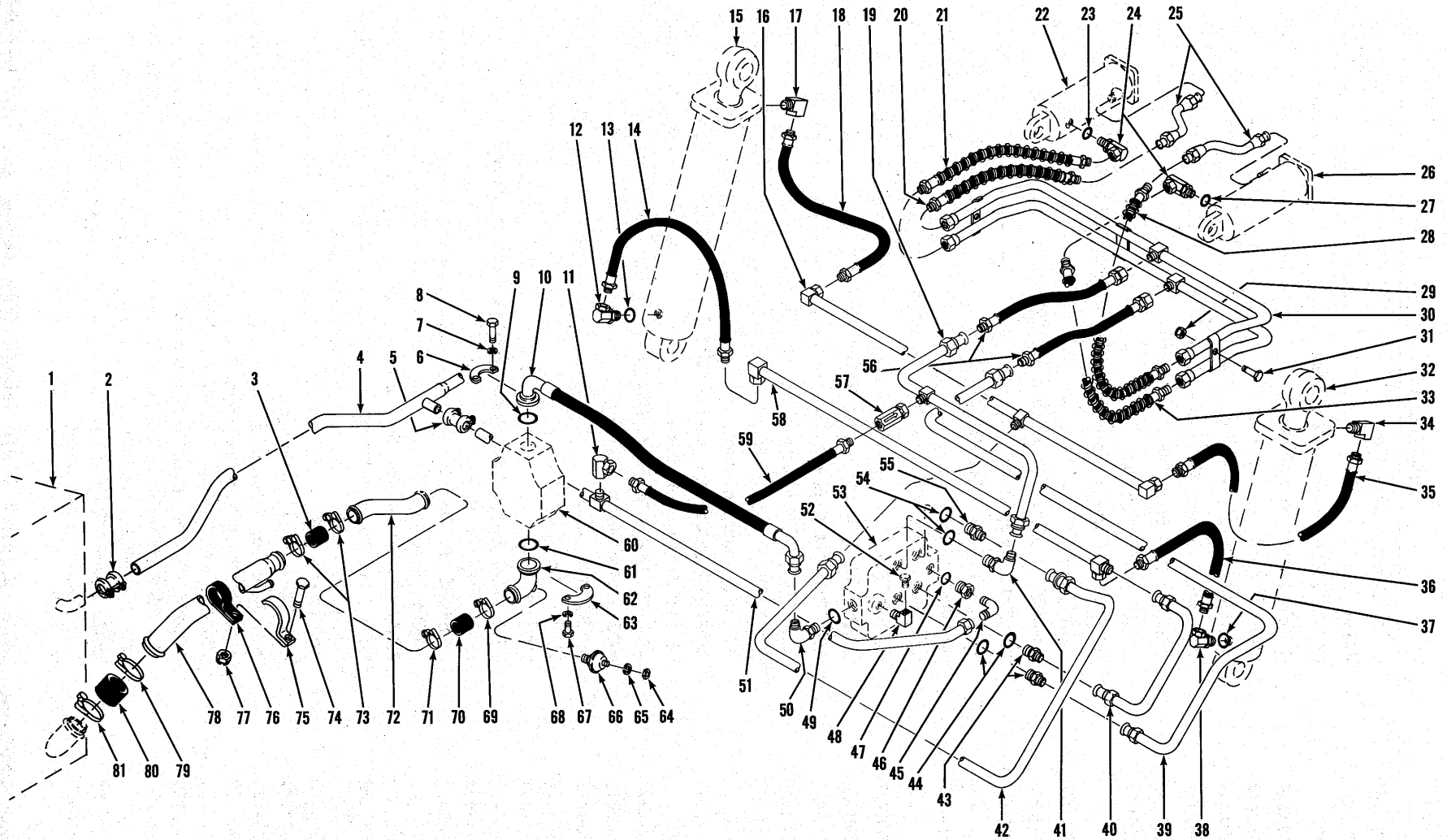
HYDRAULIC SYSTEM — STEERING

Item No.	Part No.	Description	No. Req'd.
1	784398	HOSE, Check Valve to Gear	1
2	572731	VALVE, Check	1
3	89F-7	CONNECTOR, Check Valve to Tube	1
4	784398	HOSE, Check Valve to Gear	1
5	572731	VALVE, Check	1
6	89F-7	CONNECTOR, Check Valve to Tube	1
7	589487	TUBE ASSY, Gear to Cylinder — Right Turn	1
8	589488	TUBE ASSY, Gear to Cylinder — Left Turn	1
9	533927	HOSE, Tube to Cylinder	4
10	—	TUBE ASSY, Suction — See Bucket & Boom Hydraulic System	—
11	540127	CLAMP, Hose	1
12	526676	ADAPTER UNION, Hose to Pump (Inc. 13)	1
13	91F-8	"O" RING, Adapter Union	1
14	—	STEERING PUMP — See PM No. 2083	—
15	91F-11	"O" RING, Elbow	1
16	—	STEERING CYLINDER — See PM No. 2083	—
17	540127	CLAMP, Hose	1
18	564087	ELBOW ASSY, Suction — Hose to Pump (Inc. 15)	1
19	535625	ADAPTER UNION, Hose to Gear (Inc. 21)	1
20	519275	ADAPTER UNION, Hose to Gear (Inc. 22)	1
21	91F-6	"O" RING, Adapter Union	1
22	91F-7	"O" RING, Adapter Union	1
23	—	STEERING GEAR — See PM No. 2083	—
24	91F-7	"O" RING, Adapter Union	1
25	534894	ADAPTER UNION, Hose to Gear (Inc. 24)	1
26	542813	HOSE, Relief Valve to Gear	1
27	536749	HOSE, Stem to Tube	2
28	540127	CLAMP, Hose	2
29	571411	TUBE, Suction	1
30	—	TUBE ASSY, Return — See Bucket & Boom Hydraulic System	—
31	563483	HOSE, Pump to Tube	1
32	656532	CONNECTOR, Tube	1
33	81F-4	ELBOW, Hose to Tee	1
34	24K-7	PLUG, Relief Valve (Inc. 37)	1
35	563466	TUBE ASSY, Pump to Valve	1
36	17F-5	TEE, Relief Valve	1
37	91F-7	"O" RING, Plug	1
38	18C-540	BOLT, Relief Valve Mounting	2
39	18D-05	NUT, Relief Valve Mounting	2
39A	619019	†WASHER, Relief Valve Mounting	2
40	—	VALVE, Pressure Relief — See PM No. 2083	—
41	517089	ADAPTER UNION, Hose to Gear (Inc. 45)	1
42	91F-7	"O" RING, Tube Fitting Tee	1
43	21K-7	TEE, Tube Fitting (Inc. 42)	1
44	568785	HOSE, Gear to Relief Valve	1
45	91F-6	"O" RING, Adapter Union	1

†Not Illustrated

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

[20]



HYDRAULIC SYSTEM — BUCKET AND BOOM

TS-6803-P



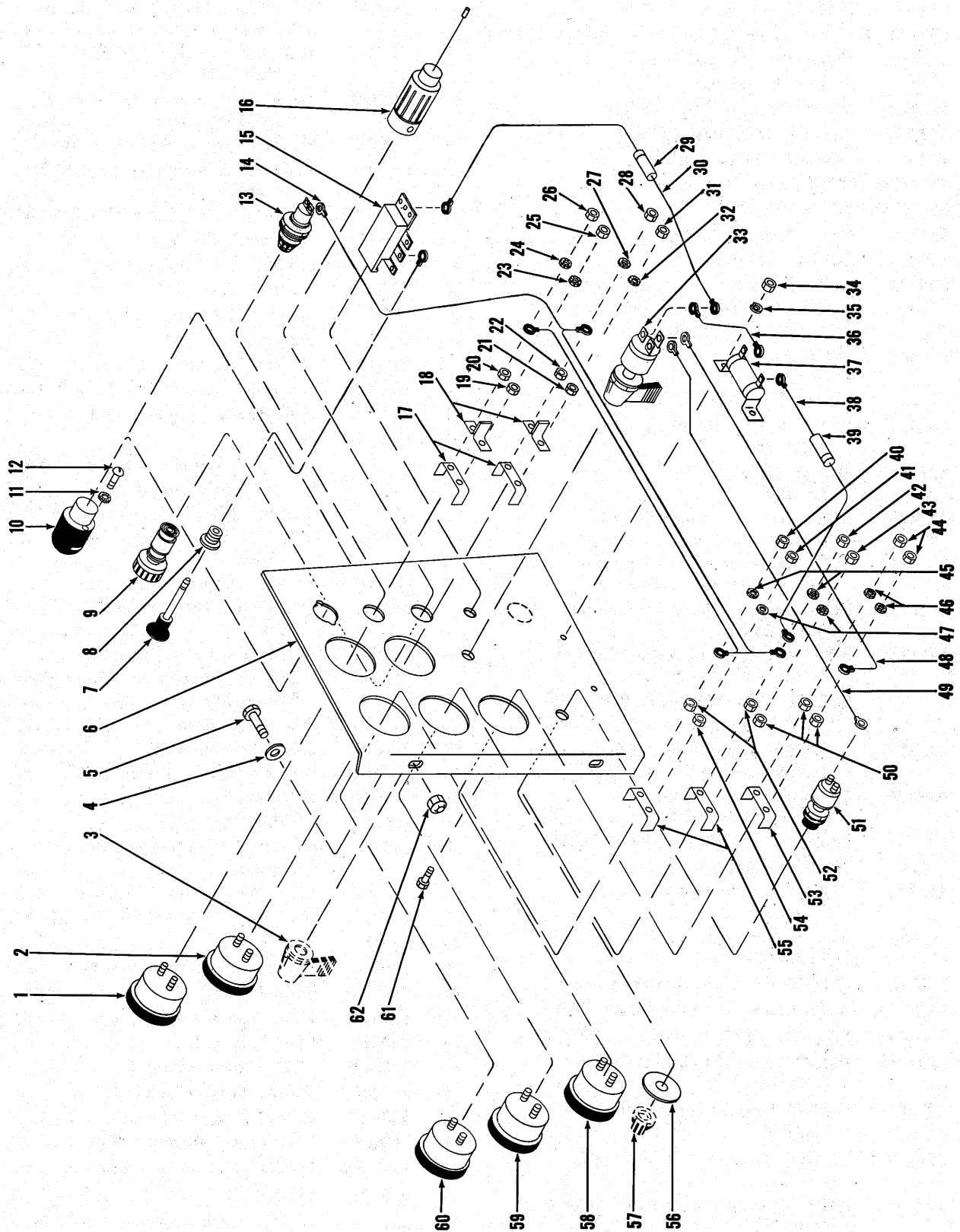
CONSTRUCTION MACHINERY DIVISION

MICHIGAN

HYDRAULIC SYSTEM — BOOM AND BUCKET

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	RESERVOIR — See P.M. 2083	—	38	526676	ADAPTER UNION, Hose to Boom Cylinder — Base End (Inc. 37)	1
2	573423	JOINT, Tube to Reservoir — Return	1	39	563788	TUBE ASSY, Bucket Cylinder Crosstube to Valve	1
3	536710	HOSE, Tube to Tube — Suction	1	40	563790	TUBE ASSY, Boom Cylinder Base Crosstube to Valve	1
4	574500	TUBE ASSY, Return	1	41	17K-10	ELBOW, Tube to Valve (Inc. 54)	1
5	573422	JOINT, Tube to Tube — Return	1	42	563791	TUBE ASSY, Boom Cylinder Rod End Crosstube to Valve	1
6	663094	FLANGE HALF, Hose to Pump	2	43	15K-10	CONNECTOR, Tube to Valve (Inc. 44)	2
7	4E-07	LKWSHR, Flange Half Bolt	4	44	91F-10	"O" RING, Connector	2
8	17C-724	BOLT, Flange Half to Pump	4	45	83F-10	ELBOW, Tube to Adapter	1
9	25K-40116	"O" RING, Hose	1	46	588399	ADAPTER (Inc. 47)	1
10	571409	HOSE, Pump to Valve	1	47	91F-13	"O" RING, Adapter	1
11	32F-5	ELBOW, Hose to Tube	1	48	29F-1	ELBOW	1
12	526676	ADAPTER UNION, Hose to Boom Cylinder — Base End (Inc. 13)	1	49	91F-10	"O" RING, Elbow	1
13	91F-8	"O" RING, Adapter Union	1	50	17K-10	ELBOW, Tube to Valve (Inc. 49)	1
14	574442	HOSE, Boom Cylinder Base to Crosstube	1	51	563808	TUBE ASSY, Valve to Return Tube	1
15	—	BOOM CYLINDER — See P.M. 2083	—	52	40K-04	PLUG	1
16	563801	CROSSTUBE ASSY, Boom Cylinder — Rod End	1	53	—	CONTROL VALVE — See P.M. 2083	—
17	29F-4	ELBOW, Hose to Boom Cylinder — Rod End	1	54	91F-10	"O" RING, Connector	2
18	574442	HOSE, Boom Cylinder Rod End to Crosstube	1	55	15K-10	CONNECTOR, Tube to Valve (Inc. 54)	1
19	563789	TUBE ASSY, Valve to Crosstube — Bucket Cylinder Rod End	1	56	571207	HOSE, Bucket Cylinder Crosstube to Tube	2
20	563810	HOSE, Crosstube to Bucket Cylinder — Rod End	1	57	661707	VALVE, Check	1
21	571176	HOSE, Crosstube to Bucket Cylinder — Base End	1	58	563798	CROSSTUBE ASSY, Boom Cylinder — Base End	1
22	—	BUCKET CYLINDER — See P.M. 2083	—	59	542813	HOSE, Check Valve to Tube	1
23	91F-8	"O" RING, Adapter Union	1	60	—	PUMP, Bucket & Boom — See P.M. 2083	—
24	526676	ADAPTER UNION, Hose to Bucket Cylinder — Base End (Inc. 23, 27)	2	61	25K-40128	"O" RING, Stem	1
25	563805	TUBE ASSY, Hose to Bucket Cylinder — Rod End	2	62	571407	STEM, Suction	1
26	—	BUCKET CYLINDER — See P.M. 2083	—	63	663095	FLANGE HALF, Stem to Pump	2
27	91F-8	"O" RING, Adapter Union	1	64	14D-08	NUT, Indicator	1
28	563810	HOSE, Crosstube to Bucket Cylinder — Rod End	1	65	12E-8	LKWSHR, Indicator	1
29	18D-08	NUT, Bucket Crosstube Assy to Frame Bolt	2	66	562112	INDICATOR, Reservoir Filter — Vacuum	1
30	563792	CROSSTUBE ASSY, Bucket Cylinder	1	67	17C-824	BOLT, Flange Half to Pump	4
31	18C-820	BOLT, Bucket Crosstube Assy to Frame	2	68	4E-08	LKWSHR, Flange Half to Pump Bolt	4
32	—	BOOM CYLINDER — See P.M. 2083	—	69	540130	CLAMP, Hose	1
33	571176	HOSE, Crosstube to Bucket Cylinder — Base End	1	70	536710	HOSE, Stem to Tube — Suction	1
34	29F-4	ELBOW, Hose to Boom Cylinder — Rod End	1	71	540130	CLAMP, Hose	1
35	574442	HOSE, Crosstube to Boom Cylinder — Rod End	1	72	572920	TUBE, Suction — Front	1
36	574442	HOSE, Crosstube to Boom Cylinder — Base End	1	73	540130	CLAMP, Hose	2
37	91F-8	"O" RING, Adapter Union	1	74	18C-828	BOLT, Clamp Mounting	1
				75	533482	CLAMP, Suction Tube	1
				76	533483	STRAP, Suction Tube Clamp	1
				77	18D-08	NUT, Clamp Mounting Bolt	1
				78	1520362	TUBE ASSY, Suction — Rear	1
				79	540106	CLAMP, Hose	1
				80	533478	HOSE, Tube to Reservoir — Suction	1
				81	540106	CLAMP, Hose	1

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



INSTRUMENT PANEL ASSEMBLY

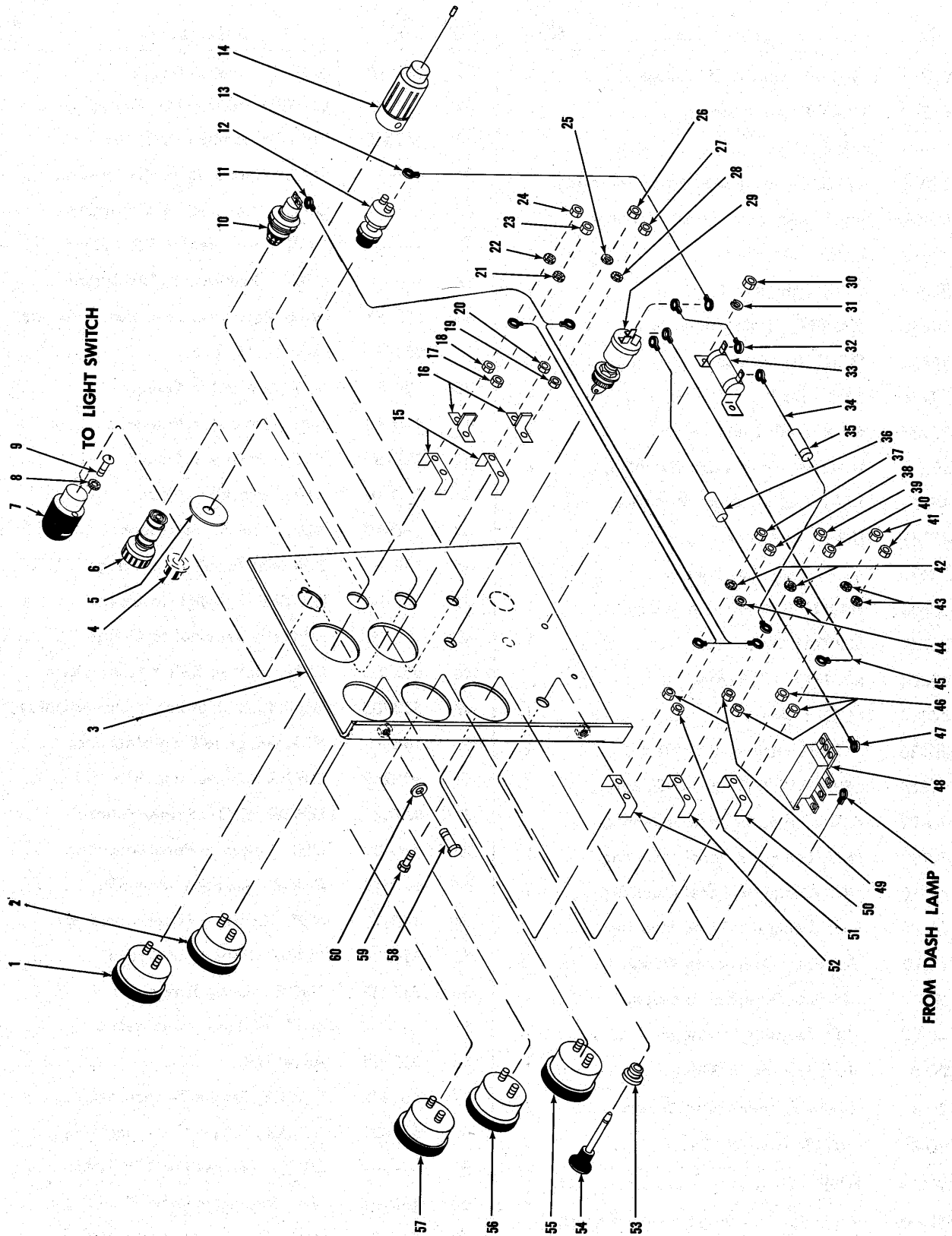
**CLARK
EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN****INSTRUMENT PANEL ASSEMBLY****For Serial 6CA101 thru 6CA106**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	523372	GAUGE, Engine Oil Pressure	1	31	14D-10	NUT, Terminal to Gauge	1
2	517228	GAUGE, Air Pressure	1	32	12E-10	LKWSHR, Terminal to Gauge	1
3	—	OMIT	—	33	573548	SWITCH, Ignition (Key)	1
4	619024	WASHER, Instrument Panel Mounting		34	—	OMIT — Not used on 12V System	—
5	18C-616	BOLT, Instrument Panel Mounting	2	35	—	OMIT — Not used on 12V System	—
6	589992	PANEL, Instrument	1	36	—	OMIT — Not used on 12V System	—
7	550742	ROD, Light Switch	1	37	—	OMIT — Not used on 12V System	—
8	550743	BUSHING, Light Switch	1	38	573587	WIRE, Resistor to Temperature Gauge	1
9	944803	ELEMENT, Lighter	1	39	571021	FUSE — .75 Amp	1
10	574276	LAMP, Dash	1	40	12D-8	NUT, Terminal to Gauge	1
10A	427237	†BULB, Dash Lamp (12V)	1	41	14D-10	NUT, Terminal to Gauge	1
11	12E-6	LKWSHR, Dash Lamp Mounting	2	42	12D-8	NUT, Terminal to Gauge	1
12	18G-606	SCREW, Dash Lamp Mounting	2	43	14D-10	NUT, Terminal to Gauge	1
13	562141	LIGHT, Indicator	1	44	14D-10	NUT, Terminal to Gauge	2
13A	876574	†BULB, Indicator Light	1	45	12E-8	LKWSHR, Terminal to Gauge	2
14	558673	HARNESS, Instrument Wiring	1	46	12E-10	LKWSHR, Terminal to Gauge	2
15	550741	SWITCH, Light	1	47	12E-10	LKWSHR, Terminal to Gauge	2
16	549024	RECEPTACLE, Lighter	1	48	553405	WIRE, Ignition Switch to Ammeter	1
16A	944804	†FUSE, Lighter	1	49	553405	WIRE, Ignition Switch to Starter Button	1
17	626530	CLAMP, Instrument Mounting	2	50	14D-10	NUT, Gauge to Panel Mounting	3
18	602350	SEPARATOR, Oil & Air Gauge	2	51	600259	BUTTON, Starter (Inc. 51A, 57)	1
19	14D-10	NUT, Gauge to Panel Mounting	1	51A	857420	†RUBBER BOOT, Starter Button	1
20	12D-8	NUT, Gauge to Panel Mounting	1	52	12D-8	NUT, Gauge to Panel Mounting	2
21	14D-10	NUT, Gauge to Panel Mounting	1	53	601212	CLAMP, Ammeter Mounting	1
22	12D-8	NUT, Gauge to Panel Mounting	1	54	14D-10	NUT, Gauge to Panel Mounting	1
23	12E-10	LKWSHR, Terminal to Gauge	1	55	626530	CLAMP, Instrument Mounting	2
24	12E-8	LKWSHR, Terminal to Gauge	1	56	547237	PLATE, Starter Button	1
25	14D-10	NUT, Terminal to Gauge	1	57	—	§BUTTON, Push — See Item 51	—
26	12D-8	NUT, Terminal to Gauge	1	58	550735	AMMETER	1
27	12E-8	LKWSHR, Terminal to Gauge	1	59	551322	GAUGE, Engine Temperature	1
28	12D-8	NUT, Terminal to Gauge	1	60	551321	GAUGE, Torque Converter Temp.	1
29	611074	FUSE — 20 Amp	1	61	—	OMIT — Not used on 12V System	—
30	552946	WIRE, Ignition Switch to Light Switch (Inc. 29)	1	62	18D-06	NUT, Instrument Panel Mounting	2
				63	565430	†WIRE, Lighter to Indicator Light	1

†Not Illustrated
§Not Sold Separately

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

TS-6666-P



INSTRUMENT PANEL ASSEMBLY

FROM DASH LAMP



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

INSTRUMENT PANEL ASSEMBLY

For Serial 6CA107 and Thereafter

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	523372	GAUGE, Engine Oil Pressure	1	31	-----	OMIT — Not used on 12V System	—
2	517228	GAUGE, Air Pressure	1	32	-----	OMIT — Not used on 12V System	—
3	574117	PANEL, Instrument	1	33	-----	OMIT — Not used on 12V System	—
4	-----	§BUTTON, Push — See Item 12	—	34	573587	WIRE, Ignition Switch to Temperature Gauge	1
5	547237	PLATE, Starter Button	1	35	571021	FUSE — .75 Amp	1
6	944803	ELEMENT, Lighter	1	36	611074	FUSE — 20 Amp	1
7	574276	LAMP, Dash	1	37	12D-8	NUT, Terminal to Gauge	1
7A	427237	†BULB, Dash Lamp (12V)	1	38	14D-10	NUT, Terminal to Gauge	1
8	12E-6	LKWSHR, Dash Lamp Mounting	2	39	12D-8	NUT, Terminal to Gauge	1
9	18G-606	SCREW, Dash Lamp Mounting	2	40	14D-10	NUT, Terminal to Gauge	1
10	562141	LIGHT, Indicator	1	41	14D-10	NUT, Terminal to Gauge	2
10A	427237	†BULB, Indicator Light	1	42	12E-8	LKWSHR, Terminal to Gauge	2
11	558673	HARNESS, Instrument Wiring	1	43	12E-10	LKWSHR, Terminal to Gauge	2
12	600259	BUTTON, Starter (Inc. 4, 12A)	1	44	12E-10	LKWSHR, Terminal to Gauge	2
12A	857420	†RUBBER BOOT, Starter Button	1	45	553405	WIRE, Ignition Switch to Ammeter	1
13	553405	WIRE, Ignition Switch to Starter Button	1	46	14D-10	NUT, Gauge to Panel Mounting	3
14	549024	RECEPTACLE, Lighter	1	47	552946	WIRE, Ignition Switch to Light Switch (Inc. 36)	1
14A	944804	†FUSE, Lighter	1	48	550741	SWITCH, Light	1
15	626530	CLAMP, Instrument Mounting	2	49	12D-8	NUT, Gauge to Panel Mounting	2
16	602350	SEPARATOR, Oil & Air Gauges	2	50	601212	CLAMP, Ammeter Mounting	1
17	14D-10	NUT, Gauge to Panel Mounting	1	51	14D-10	NUT, Gauge to Panel Mounting	1
18	12D-8	NUT, Gauge to Panel Mounting	1	52	626530	CLAMP, Instrument Mounting	2
19	14D-10	NUT, Gauge to Panel Mounting	1	53	550743	BUSHING, Light Switch	1
20	12D-8	NUT, Gauge to Panel Mounting	1	54	550742	ROD, Light Switch	1
21	12E-10	LKWSHR, Terminal to Gauge	1	55	550735	AMMETER	1
22	12E-8	LKWSHR, Terminal to Gauge	1	56	551322	GAUGE, Engine Temperature	1
23	14D-10	NUT, Terminal to Gauge	1	57	551321	GAUGE, Torque Conv. Temperature ..	1
24	12D-8	NUT, Terminal to Gauge	1	58	17C-616	BOLT, Instrument Panel Mounting	3
25	12E-8	LKWSHR, Terminal to Gauge	1	59	-----	OMIT — Not used on 12V System	—
26	12D-8	NUT, Terminal to Gauge	1	60	656672	WASHER, Instrument Panel Mounting ..	2
27	14D-10	NUT, Terminal to Gauge	1	60A	4E-06	†LKWSHR, Instrument Panel Mounting..	3
28	12E-10	LKWSHR, Terminal to Gauge	1	60B	572729	†CAGED NUT, Instrument Panel Mounting	1
29	573548	SWITCH, Ignition	1				
30	-----	OMIT — Not used on 12V System	—				

§Not Sold Separately
†Not Illustrated

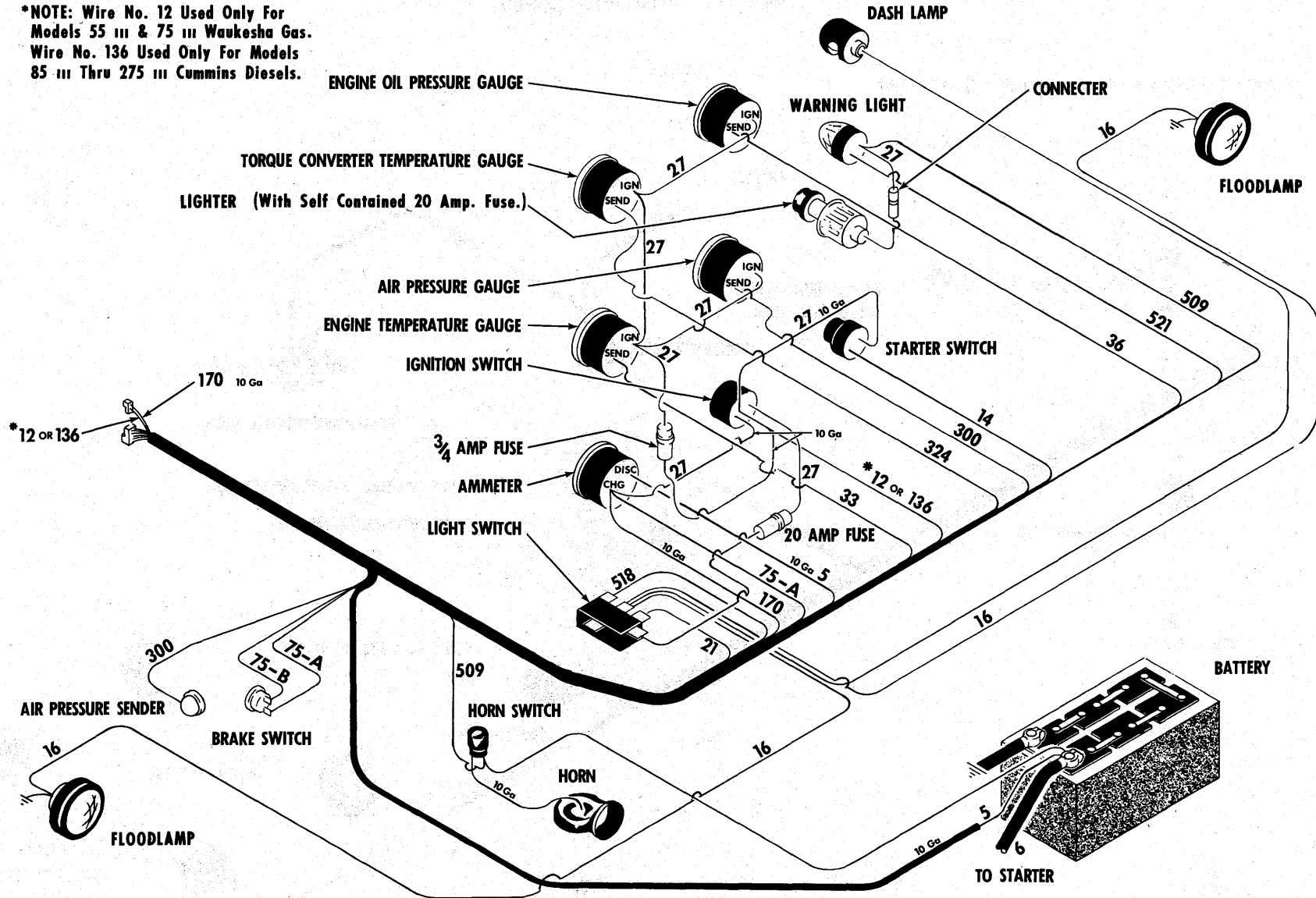
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

[26]



TS-6752-P

*NOTE: Wire No. 12 Used Only For
Models 55 III & 75 III Waukesha Gas.
Wire No. 136 Used Only For Models
85 III Thru 275 III Cummins Diesels.

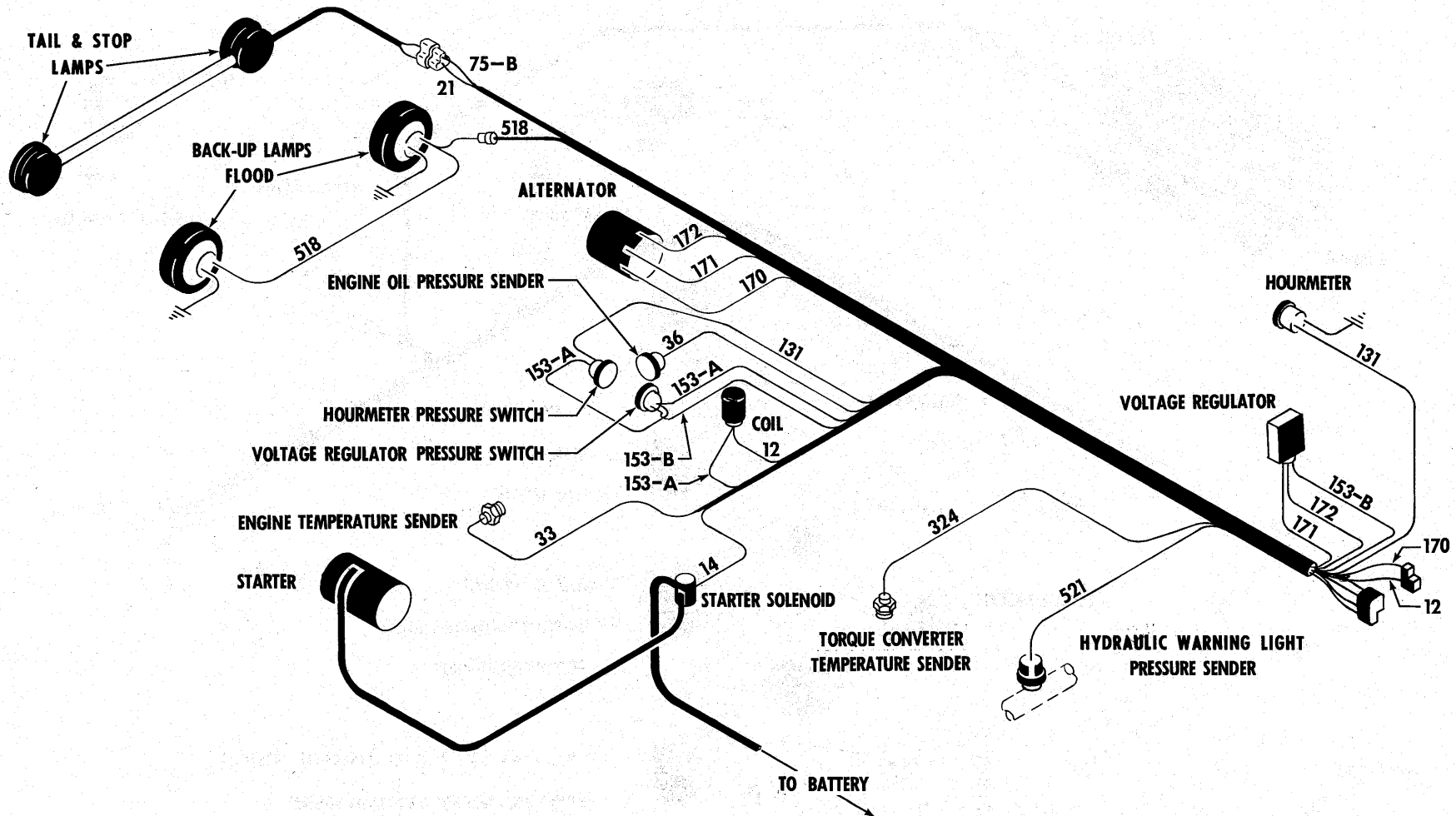


(All Wires No. 14 Gauge Unless Otherwise Specified.)

WIRING DIAGRAM — COCKPIT
For Serial 6CA107 and thereafter

TS-6669-P

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(All Wires No. 14 Gauge Unless Otherwise Specified)

WIRING DIAGRAM — ENGINE

TS-6801-P



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17C-520	17	40F-8	17	543531	9	567703	1
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17C-620	7	49F-3	10	546810	13	567847	10
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18C-880	2	510452	17	557848	7	572696	9
18C-1252	2	515424	9	558547	17	572719	1

MICHIGAN

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MICHIGAN

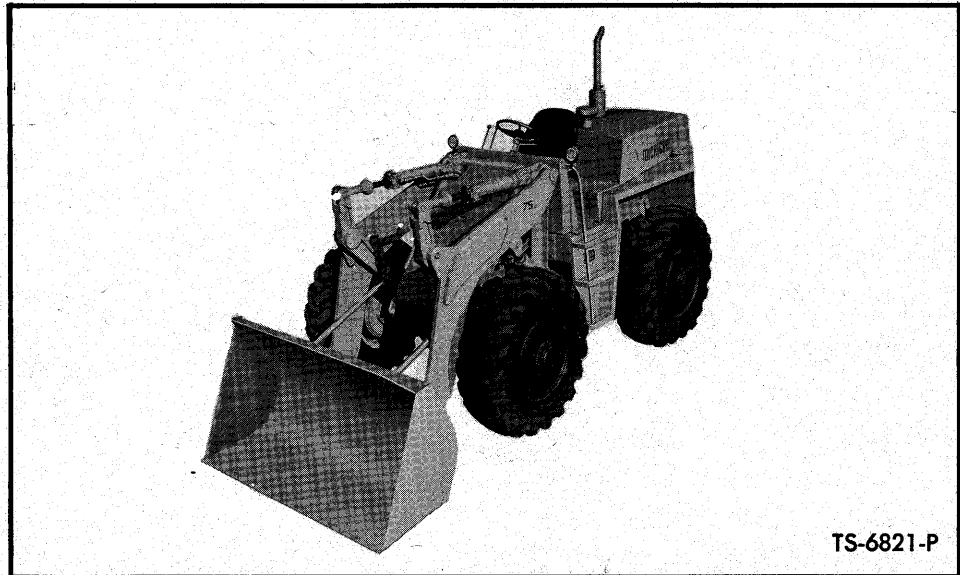
75III TRACTOR SHOVEL PARTS MANUAL SUPPLEMENT

No. 2188



**This Supplement covers the 75 III MICHIGAN Tractor Shovel
Machine Serial Numbers listed below:**

**75 III G.M. — 8CG-101 and thereafter
75 III Waukesha — 7CA-101 and thereafter**



**Use this Supplement with 75 III Parts Manual No. 2083
and Parts Manual Supplements to Parts Manual No. 2083**

CLARK EQUIPMENT COMPANY
Construction Machinery Division





WHEN ORDERING REPAIR PARTS

To assure the best results and to maintain the original quality built into the machine it is important that only Clark-Approved Parts be used when new parts are required.

IMPORTANT: Always furnish the distributor with the machine serial number when ordering parts.

Order through your nearest Clark Distributor, for THE MICHIGAN LINE.

Always give serial number of machine.

Furnish: Quantity, Part Number and Description.

WHEN PARTS ARE RECEIVED

Check immediately for quantity, correctness and condition.

Advise your Michigan Distributor of any error.

Claims for damages, during shipment, should be made to the carrier immediately.

INDEX MODEL 75 III

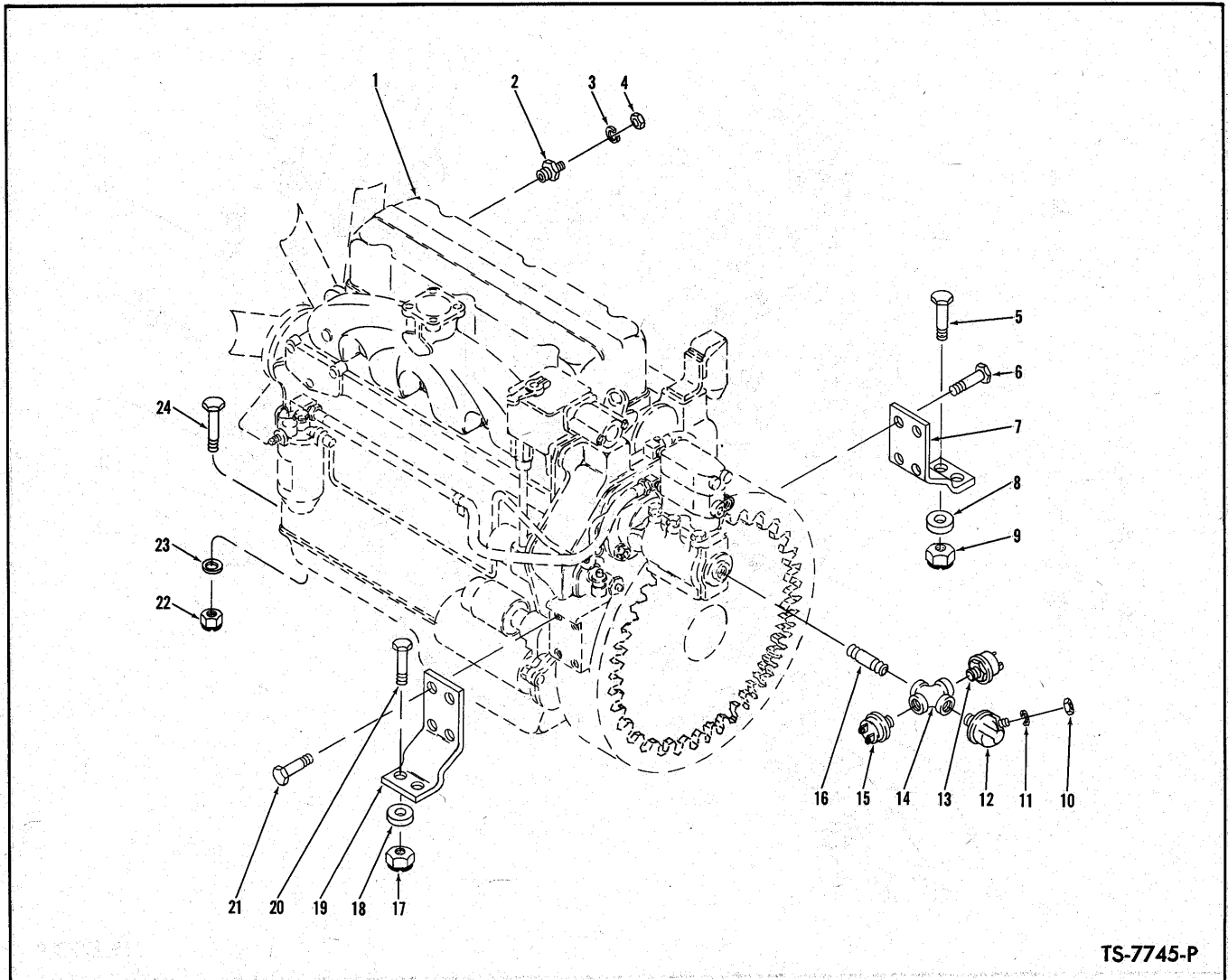
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MICHIGAN

NOTES

**CLARK
EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN****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 necessary group type number for the equipment required. This data is stamped on the options and accessories plate on the rocker cover of engine.



TS-7745-P

ENGINE ACCESSORIES AND SUPPORT PARTS — G.M.

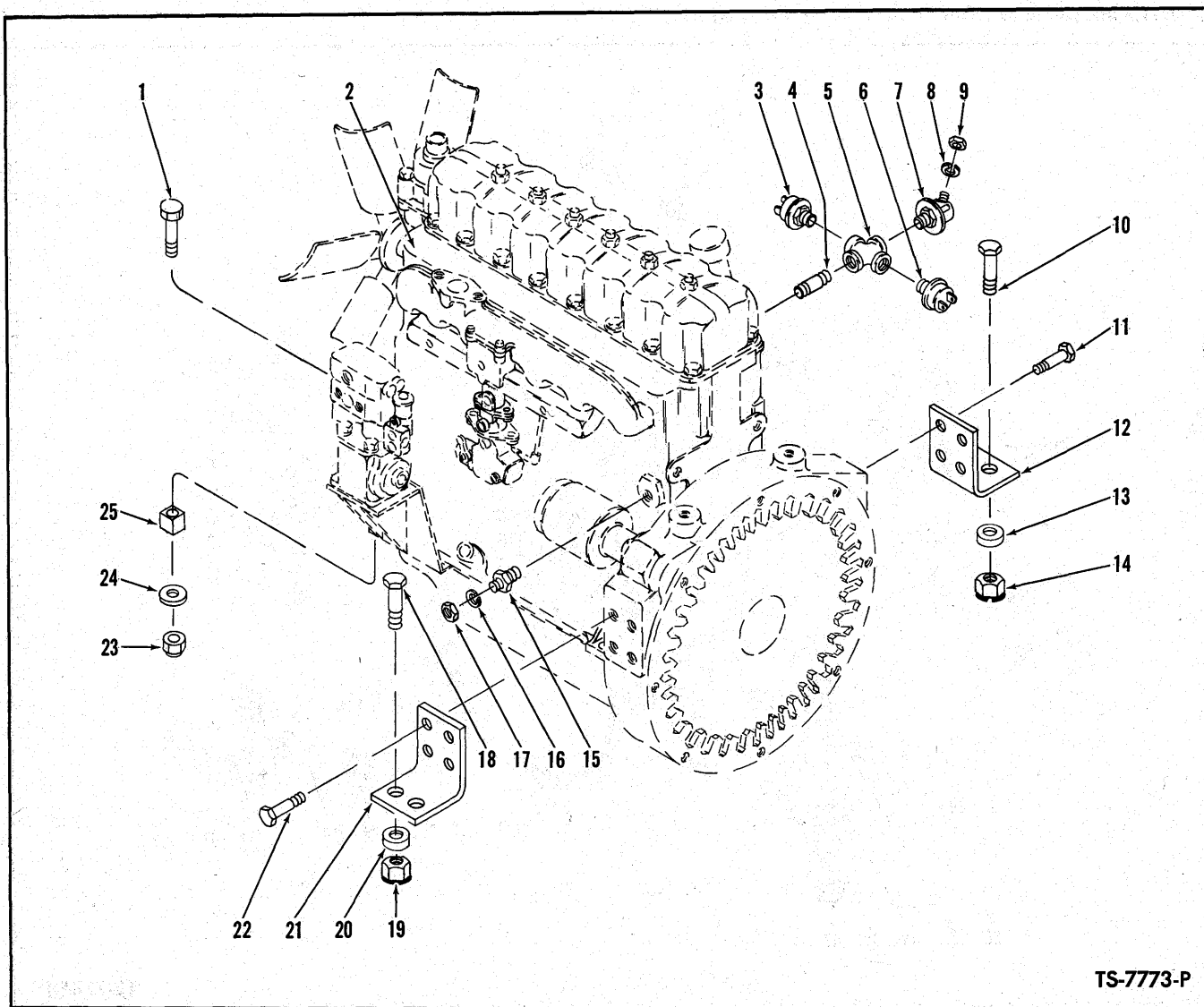
Item No.	Part No.	Description	No. Req'd.
1	—	ENGINE — See G.M. Engine Parts Manual	—
2	551323	SENDER UNIT, Engine Temperature	1
3	12E-10	LKWSHR, Sender Unit	1
4	14D-10	NUT, Sender Unit	1
5	18C-836	BOLT, Support to Frame	2
6	8C-824	BOLT, Support to Engine	4
7	570938	SUPPORT, Engine	1
8	71D-08	BASE, Support to Frame	2
9	70D-08	NUT, Support to Frame	2
10	14D-10	NUT, Sender Unit	1
11	12E-10	LKWSHR, Sender Unit	1
12	550832	SENDER UNIT, Engine Oil Pressure	1

Item No.	Part No.	Description	No. Req'd.
13	636260	SWITCH, Hourmeter Pressure	1
14	21F-1	CROSS, Pressure Switch and Sender Unit Connecting	1
15	636260	SWITCH, Voltage Regulator Pressure ..	1
16	5K-106	NIPPLE, Cross to Engine	1
17	70D-08	NUT, Support to Frame	2
18	71D-08	BASE, Support to Frame	2
19	570938	SUPPORT, Engine	1
20	18C-836	BOLT, Support to Frame	2
21	8C-824	BOLT, Support to Engine	4
22	18D-08	NUT, Engine to Frame	2
23	619029	WASHER, Engine to Frame	2
24	18C-832	BOLT, Engine to Frame	2

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

ENGINE AND ACCESSORIES – WAUKESHA GAS

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

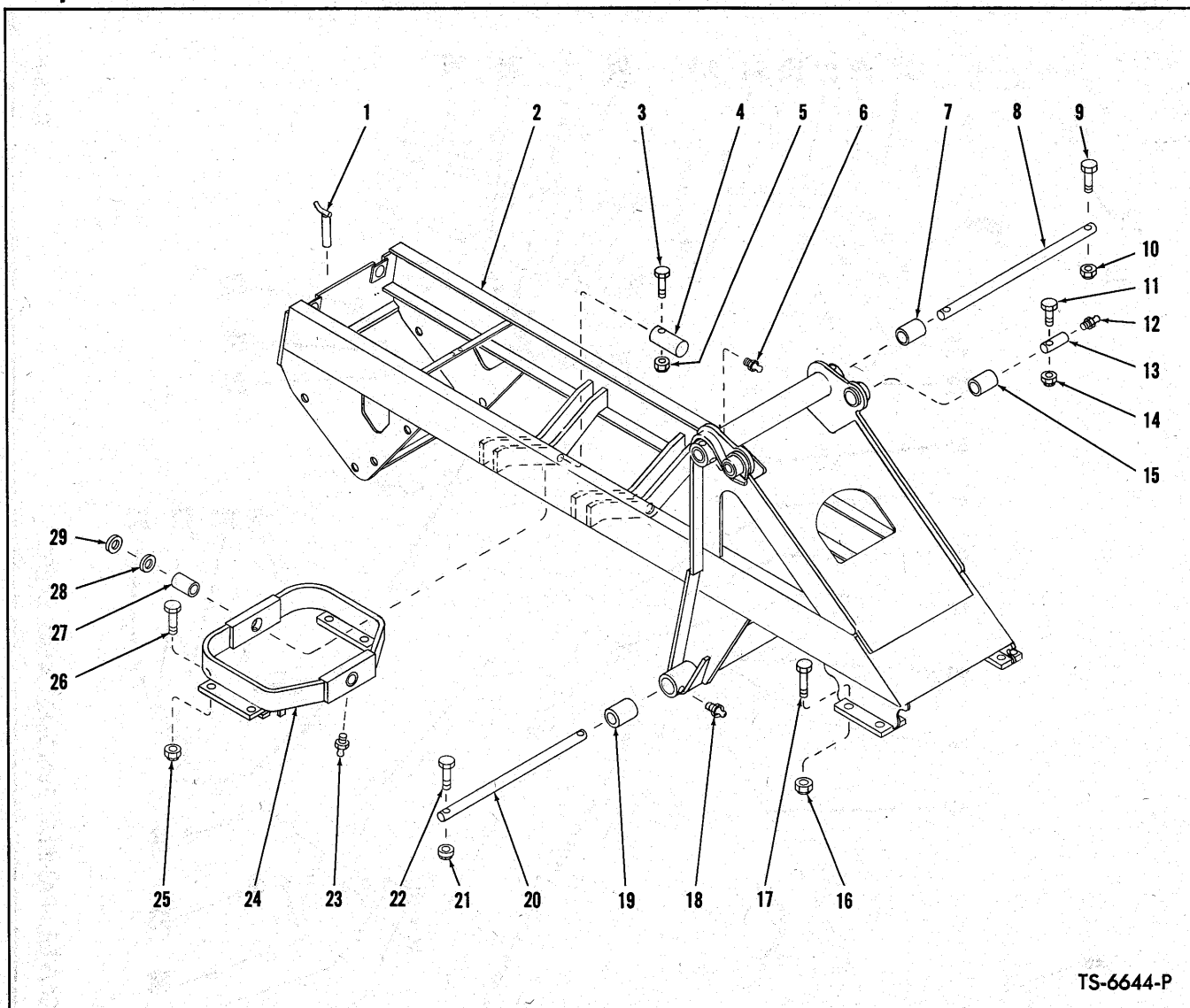


TS-7773-P

ENGINE ACCESSORIES AND SUPPORT PARTS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-856	BOLT, Engine to Frame	2	13	71D-08	BASE, Support to Frame	2
2	—	ENGINE — See Waukesha Engine Parts Manual	—	14	70D-08	NUT, Support to Frame	2
3	636260	SWITCH, Hourmeter Pressure	1	15	551323	SENDER UNIT, Engine Temperature	1
4	5K-112	NIPPLE, Cross to Engine	1	16	12E-10	LKWSHR, Sender Unit	1
5	21F-1	CROSS, Connecting	1	17	14D-10	NUT, Sender Unit	1
6	636260	SWITCH, Voltage Regulator Pressure ..	1	18	18C-836	BOLT, Support to Frame	2
7	550832	SENDER UNIT, Engine Oil Pressure	1	19	70D-08	NUT, Support to Frame	2
8	12E-10	LKWSHR, Sender Unit	1	20	71D-08	BASE, Support to Frame	2
9	14D-10	NUT, Sender Unit	1	21	572719	SUPPORT, Engine to Frame	1
10	18C-836	BOLT, Support to Frame	2	22	8C-824	BOLT, Support to Engine	4
11	8C-824	BOLT, Support to Engine	4	23	18D-08	NUT, Engine to Frame	2
12	572719	SUPPORT, Engine to Frame	1	24	1520449	WASHER, Engine to Frame	2
				25	546167	BLOCK, Spacer	2

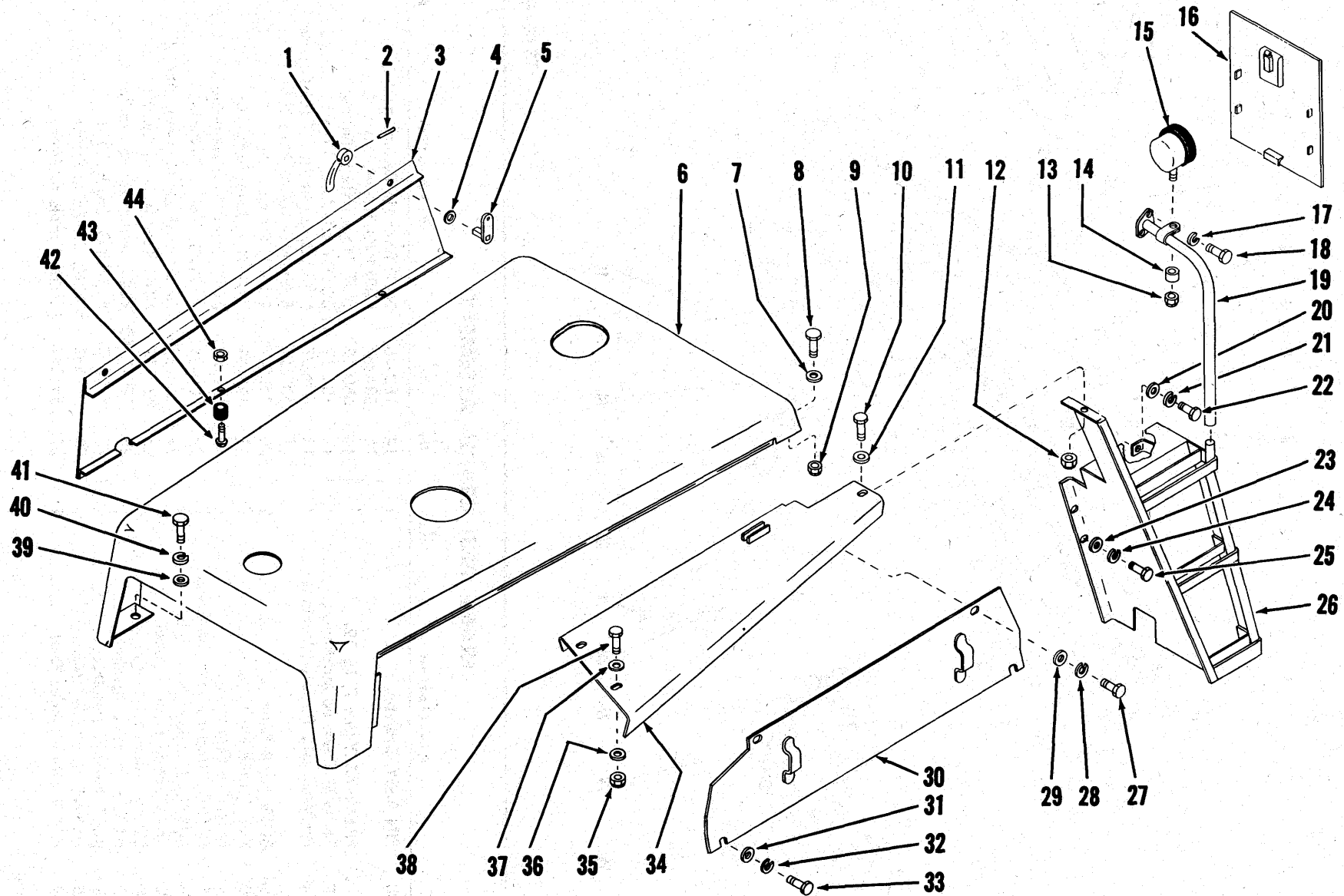
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

**FRAME AND CRADLE ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	549988	PIN ASSY, Drawbar	1	14	18D-08	NUT, Pivot Pin Retaining	2
2		FRAME ASSY (Inc. 7, 15, 19)		15	585007	BUSHING, Upper Pivot	2
2A	572749	For G.M. Powered Machines	1	16	68D-12	NUT, Front Axle to Frame	8
2B	1522640	For Waukesha Powered Machines	1	17	18C-12144	BOLT, Front Axle to Frame	8
3	18C-856	BOLT, Pin Retaining	2	18	10H-25	FITTING, Lower Pivot Tube Grease	2
4	536100	PIN, Cradle Pivot	2	19	564129	BUSHING, Lower Pivot Tube	2
5	18D-08	NUT, Pin Retaining	2	20	1530602	SHAFT, Cylinder Pivot	1
6	10H-25	FITTING, Upper Pivot Tube Grease	2	21	18D-08	NUT, Pivot Shaft Retaining	2
7	564126	BUSHING, Upper Pivot Tube	2	22	18C-872	BOLT, Pivot Shaft Retaining	2
8	571022	SHAFT, Boom Pivot — Upper	1	23	10H-25	FITTING, Cradle Pin Grease	2
9	18C-880	BOLT, Pivot Shaft Retaining	2	24	564137	CRADLE ASSY, Rear Axle (Inc. 27)	1
10	18D-08	NUT, Pivot Shaft Retaining	2	25	68D-12	NUT, Rear Axle to Cradle	8
11	18C-880	BOLT, Pivot Pin Retaining	2	26	18C-1260	BOLT, Rear Axle to Cradle	8
12	10H-25	FITTING, Pivot Pin Grease	2	27	538585	BUSHING, Cradle Pivot	2
13	556960	PIN, Bucket Cylinder Pivot	2	28	551348	‡SHIM, Cradle to Frame	—
				29	551347	‡SHIM, Cradle to Frame	—

‡As Required

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



HOOD, COVER, PANELS, FENDERS AND STEPS

TS-6804-P



CONSTRUCTION MACHINERY DIVISION

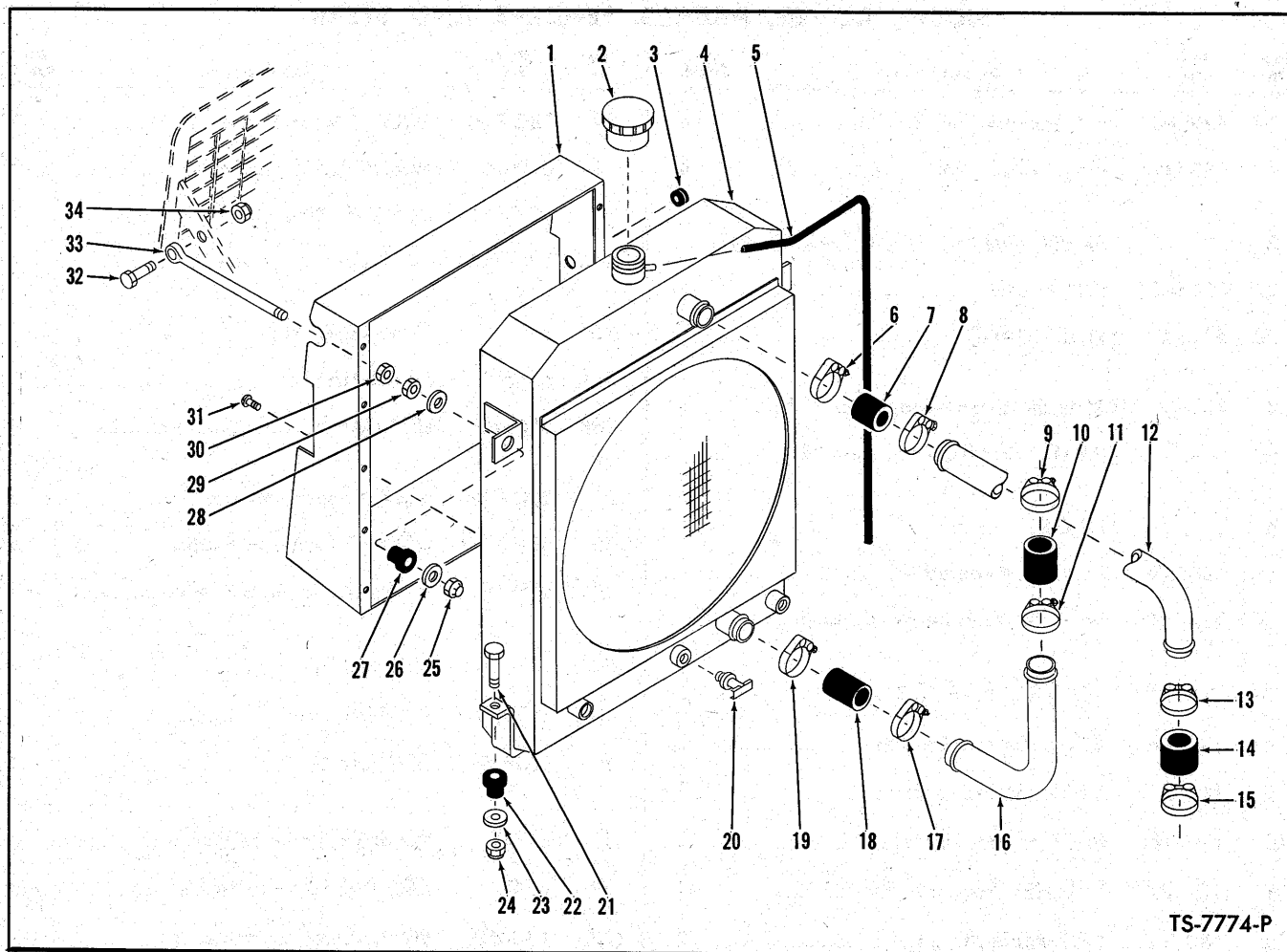
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HOOD, COVER, PANELS, FENDERS AND STEPS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	142396	KIT, Handle (Inc. 2, 4, 5)	4	22	18C-816	BOLT, Step to Frame	2
2	730432	PIN, Handle Roll	4	23	619029	WASHER, Step to Frame	4
3		PANEL, Side (Inc. 1, 2, 4, 5, 42, 43, 44)		24	4E-08	LKWSHR, Step to Frame	4
3A	571646	LEFT HAND	1	25	18C-816	BOLT, Step to Frame	4
3B	571645	†RIGHT HAND	1	26		STEP ASSEMBLY	
4	—	§SPACER, Shaft — See Item "1"	—	26A	556691	RIGHT HAND	1
5	—	§SHAFT, Handle — See Item "1"	—	26B	556692	†LEFT HAND	1
6		HOOD		27	18C-812	BOLT, Panel to Fender	4
6A	556323	For G.M. Powered Machines	1	28	4E-08	LKWSHR, Panel to Fender	4
6B	1522679	For Waukesha Powered Machines	1	29	619029	WASHER, Panel to Fender	4
7	619029	WASHER, Hood to Cockpit	2	30		SIDE PANEL	
8	18C-820	BOLT, Hood to Cockpit	2	30A	563928	RIGHT HAND	1
9	18D-08	NUT, Hood to Cockpit	2	30B	563929	†LEFT HAND	1
10	18C-824	BOLT, Fender to Step	2	31	619029	WASHER, Panel to Frame	4
11	619029	WASHER, Fender to Step	2	32	4E-08	LKWSHR, Panel to Frame	4
12	18D-08	NUT, Fender to Step	2	33	18C-812	BOLT, Panel to Frame	4
13	17D-6	NUT, Head Lamp Mounting	2	34		FENDER	
14	509320	SPACER, Head Lamp Mounting	2	34A	557847	RIGHT HAND	1
15	547529	LAMP ASSY, Head (Inc. 15A)	2	34B	557848	†LEFT HAND	1
15A	944907	†SEALED UNIT, Head Lamp	2	35	18D-08	NUT, Fender to Tank	4
16	566764	COVER ASSY, Front	1	36	619029	WASHER, Fender to Tank	4
17	4E-06	LKWSHR, Hand Rail to Cockpit	4	37	619029	WASHER, Fender to Tank	4
18	17C-620	BOLT, Hand Rail to Cockpit	4	38	18C-824	BOLT, Fender to Tank	4
19		HAND RAIL		39	571049	WASHER, Hood to Tank	2
19A	563980	RIGHT HAND	1	40	4E-08	LKWSHR, Hood to Tank	2
19B	563981	†LEFT HAND	1	41	18C-820	BOLT, Hood to Tank	2
19C	1522201	†CLAMP, Head Lamp to Hand Rail	2	42	3G-1008	SCREW, Side Panel Mounting	4
20	619029	WASHER, Step to Frame	2	43	551433	BUMPER, Side Panel Mounting	4
21	4E-08	LKWSHR, Step to Frame	2	44	12D-10	NUT, Side Panel Mounting	4

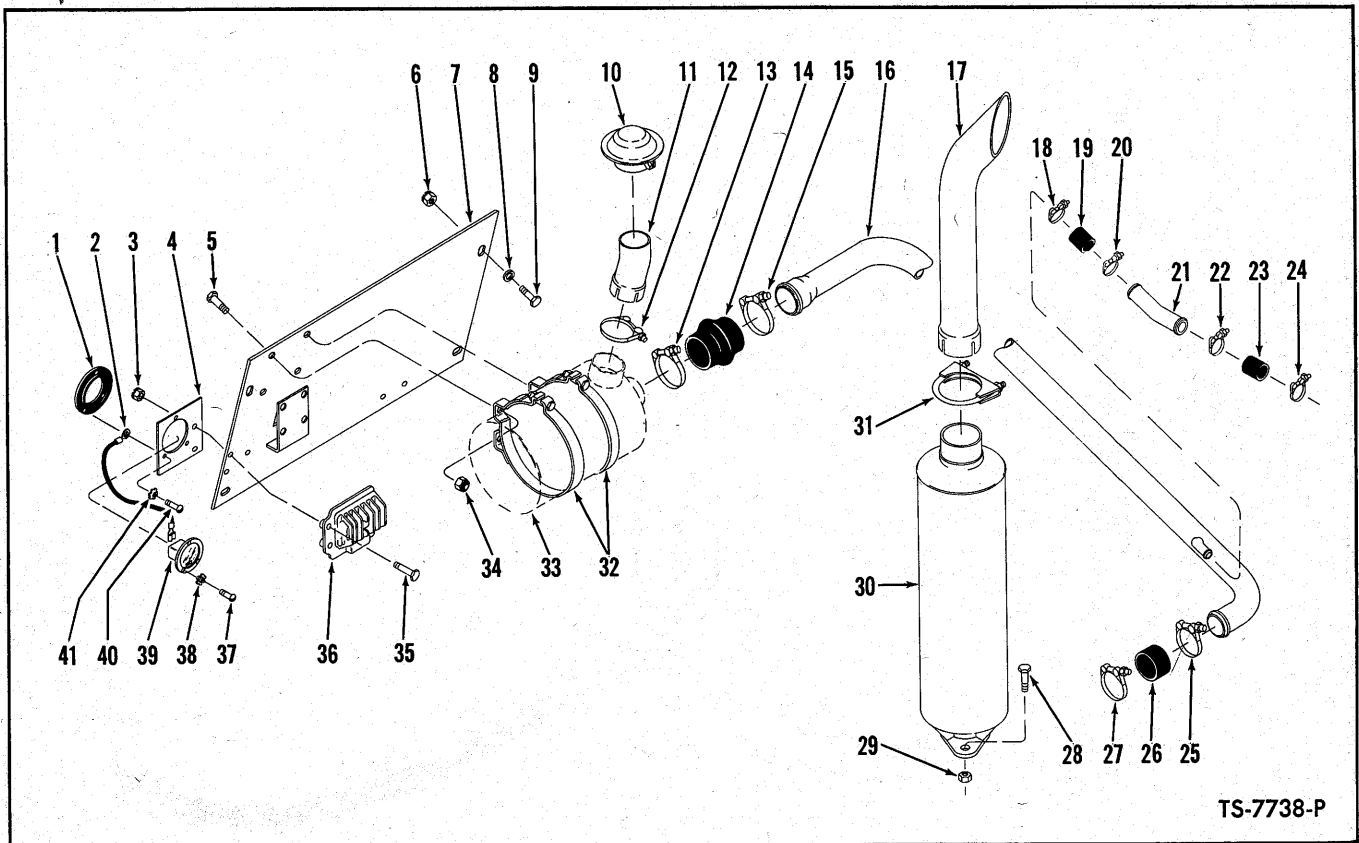
†Not Illustrated
‡As Required
§Not Sold Separately

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

**RADIATOR AND CONNECTIONS — WAUKESHA**

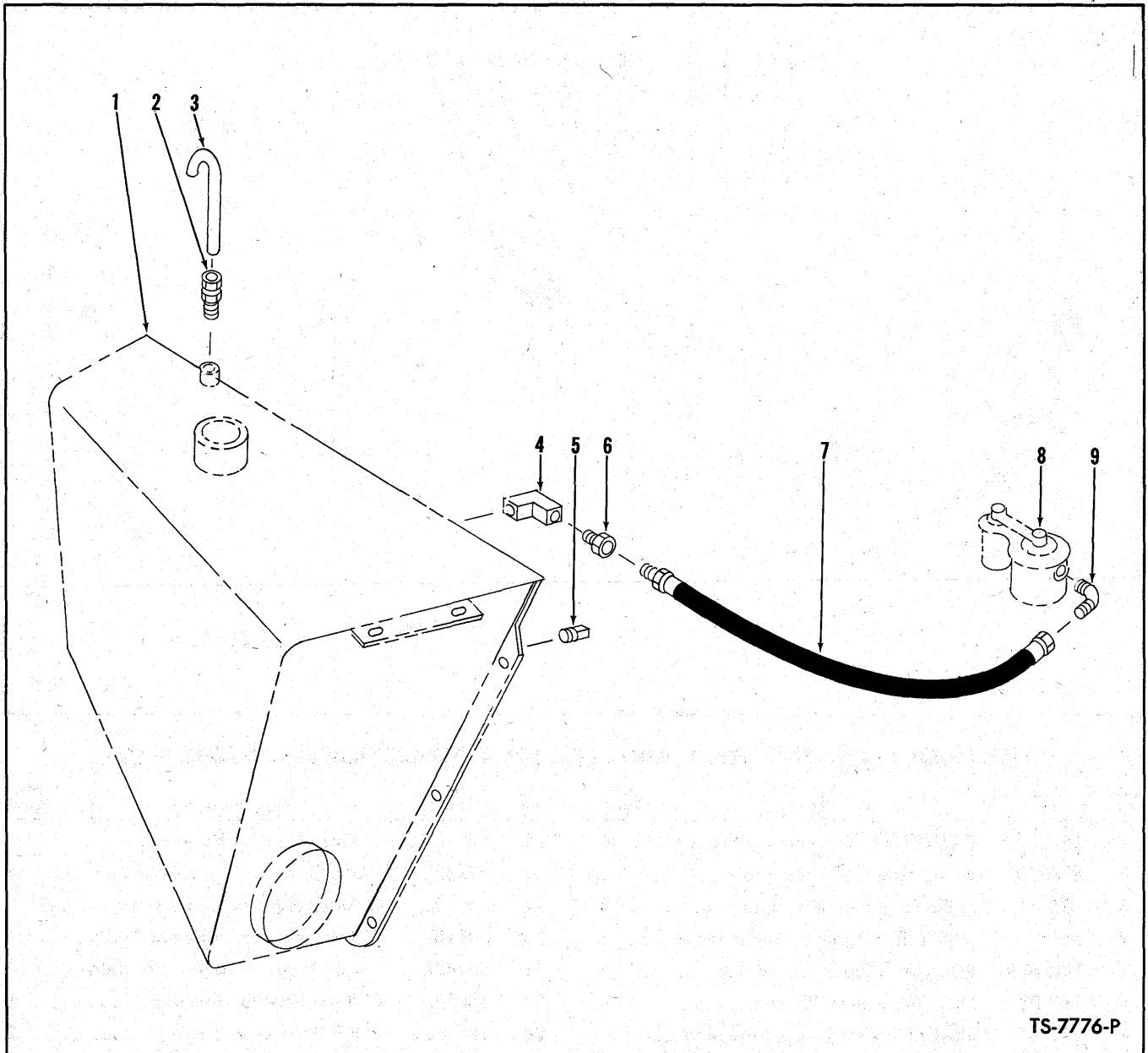
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	563672	SHROUD, Radiator to Grille	1	18	1M-16030	HOSE, Tube to Engine	1
2	351495	CAP, Radiator	1	19	540108	CLAMP, Hose to Radiator	1
3	585950	GROMMET, Shroud	1	20	72F-2	DRAIN COCK	1
4	1522421	RADIATOR (Inc. 2, 5)	1	21	18C-836	BOLT, Radiator to Frame	2
5	945460	HOSE, Overflow	1	22	584501	MOUNT, Radiator to Frame	2
6	540108	CLAMP, Hose to Radiator	1	23	584502	WASHER, Radiator to Frame	2
7	1M-16030	HOSE, Tube to Radiator	1	24	18D-08	NUT, Radiator to Frame	2
8	540108	CLAMP, Hose to Tube	1	25	18D-08	NUT, Rod to Radiator	2
9	540108	CLAMP, Hose to Engine	1	26	584502	WASHER, Rod to Radiator	2
10	1M-16030	HOSE, Tube to Engine	1	27	584501	MOUNT, Rod to Radiator	2
11	540108	CLAMP, Hose to Tube	1	28	584502	WASHER, Rod to Radiator	2
12	1522633	TUBE, Radiator to Engine — Upper	1	29	8D-08	NUT, Jam	2
13	540108	CLAMP, Hose to Tube	1	30	8D-08	NUT, Jam	2
14	1M-16030	HOSE, Tube to Engine	1	31	18G-806	SCREW, Shroud to Radiator	10
15	540108	CLAMP, Hose to Engine	1	32	18C-828	BOLT, Rod to Grille	2
16	1522631	TUBE, Radiator to Engine — Lower	1	33	570499	ROD, Radiator Support	2
17	540108	CLAMP, Tube to Hose	1	34	18D-08	NUT, Rod to Grille	2

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

**MUFFLER, TAIL PIPE AND AIR CLEANER CONNECTIONS — WAUKESHA**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	551251	DAMPENER, Hourmeter Vibration	1	22	540103	CLAMP, Tube to Hose	1
2	558960	WIRE, Hourmeter Ground	1	23	524225	HOSE, Tube to Compressor	1
3	18D-04	NUT, Regulator Mounting	3	24	540103	CLAMP, Hose to Compressor	1
4	569414	BRACKET, Hourmeter Mounting	1	25	540107	CLAMP, Hose to Air Intake Tube	1
5	18C-616	BOLT, Air Cleaner to Bracket	4	26	551627	HOSE, Intake Tube to Carburetor	1
6	18D-08	NUT, Bracket to Cockpit	4	27	540107	CLAMP, Hose to Carburetor	1
7	571389	BRACKET, Air Cleaner Mounting	1	28	18C-828	BOLT, Muffler to Engine	2
8	619029	WASHER, Bracket to Cockpit	4	29	18D-08	NUT, Muffler to Engine	2
9	18C-824	BOLT, Bracket to Cockpit	4	30	1522636	MUFFLER	1
10	568391	CAP, Air Cleaner Inlet	1	31	507068	CLAMP, Tail Pipe to Muffler	1
11	571386	EXTENSION, Air Cleaner Inlet	1	32	420945	BAND, Air Cleaner Mounting	2
12	543531	CLAMP, Extension to Air Cleaner	1	33	-----	AIR CLEANER ASSY — See P.M. 2083	—
13	539042	CLAMP, Hose to Air Cleaner	1	34	18D-06	NUT, Air Cleaner to Bracket	4
14	515424	HOSE, Air Cleaner to Intake Tube	1	35	18C-424	BOLT, Regulator Mounting	3
15	539042	CLAMP, Hose to Intake Tube	1	36	1621888	VOLTAGE REGULATOR	1
16	1522638	TUBE, Air Intake	1	37	3G-608	SCREW, Hourmeter to Dampener	3
17	543576	TAIL PIPE	1	38	12E-6	LKWSHR, Hourmeter to Dampener	3
18	540103	CLAMP, Hose to Intake Tube	1	39	886619	HOURLMETER KIT (Inc. 37, 38)	1
19	524225	HOSE, Tube to Tube	1	40	3G-608	SCREW, Dampener to Bracket	3
20	540103	CLAMP, Hose to Compressor Tube	1	41	12E-6	LKWSHR, Dampener to Bracket	3
21	1522630	TUBE, Air Intake to Compressor	1				

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



TS-7776-P

FUEL LINES — WAUKESHA

Item No.	Part No.	Description	No. Req'd.
1	—	FUEL TANK — See P.M. 2083	—
2	49F-3	CONNECTOR, Tube to Tank	1
3	567847	TUBE, Breather	1
4	27F-3	ELBOW, Hose to Tank	1
5	13F-04	PLUG, Tank	1
6	19F-4	BUSHING, Hose to Elbow	1
7	1522807	HOSE, Tank to Fuel Pump	1
8	—	FUEL PUMP — See Waukesha Engine Parts Manual	—
9	83F-3	ELBOW, Hose to Fuel Pump	1

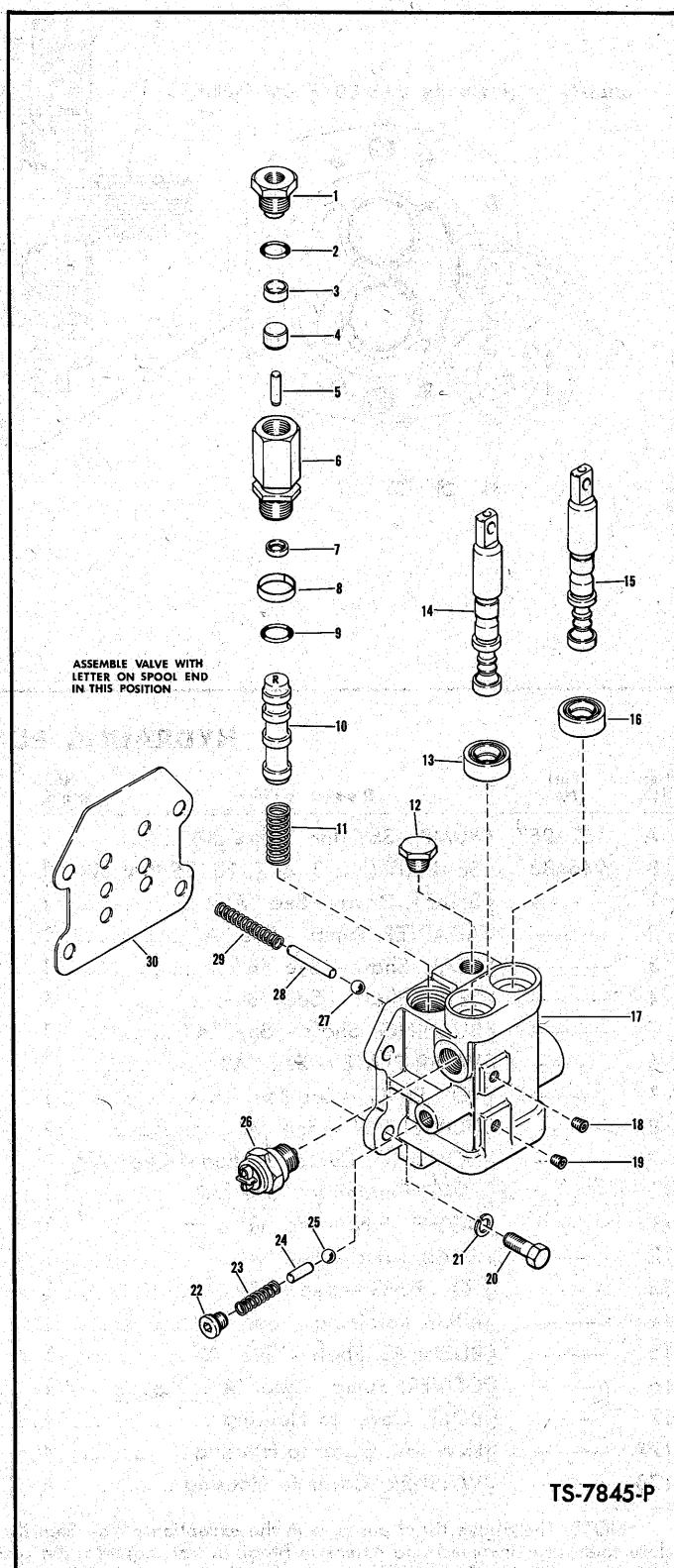
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

CONTROL VALVE — TRANSMISSION

(For Serial 8CG128 and thereafter, 7CA122 and thereafter)

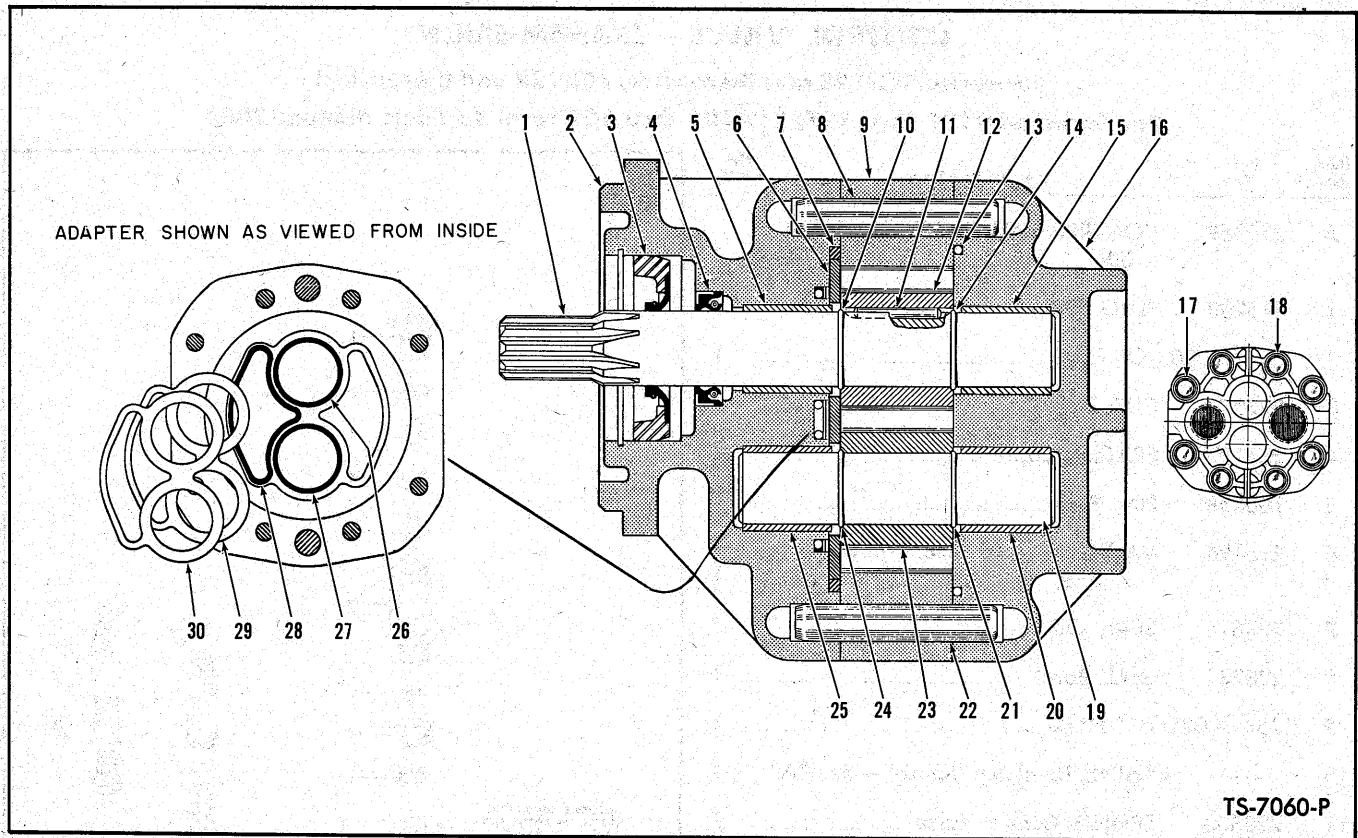
For Serial 8CG101 thru 127, 7CA101 thru 121 refer to Parts Manual 2083

Item No.	Part No.	Description	No. Req'd.
A	229369	CONTROL VALVE ASSY (Inc. 1 thru 30)	1
1	215200	PLUG, Stop	1
2	25K-30020	"O" RING	1
3	227874	CUP, Piston	1
4	215199	SPACER, Cup	1
5	106358	PIN, Push	1
6	215196	VALVE, De-clutch (Inc. 1 thru 5, 7, 8, 9, 12)	1
7	224315	SEAL, Oil	1
8	228931	SEAL, Band	1
9	25K-30022	"O" RING	1
10	—	*§VALVE, De-clutch Control — See "A" ..	—
11	220363	SPRING, Control Valve	1
12	40K-02	PLUG	1
13	225075	SEAL, Manual Control Valve Oil	1
14	—	§VALVE, Manual Control — See "A"	—
15	—	§VALVE, Manual Control — See "A"	—
16	225075	SEAL, Manual Control Valve Oil	1
17	—	§HOUSING, Control Valve — See "A" ..	—
18	16F-01	PLUG	1
19	16F-01	PLUG	1
20	1C-718	BOLT, Housing to Cover	4
21	4E-07	LKWSHR, Housing to Cover	4
22	47K-3	PLUG, Detent	1
23	202200	SPRING, Detent	1
24	229010	PIN, Detent	1
25	10J-12	BALL, Detent	1
26	224620	SWITCH, Neutral Start	1
27	10J-12	BALL, Detent	1
28	215194	PIN, Detent Stop	1
29	215147	SPRING, Detent	1
30	229009	GASKET, Housing to Cover	1



*NOTE: For correct operation of De-Clutch feature in this application Item 10 must be installed with the letter "R" in the upright position.
§Not Sold Separately

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

**HYDRAULIC PUMP — STEERING**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1521257	*PUMP ASSY (Inc. 1 thru 30)	1	18	—	§BOLT, Cover to Housing	4
B	946483	SEAL KIT (Inc. 3, 4, 7, 13, 26 thru 30)	1	18A	—	§LKWSHR, Cover to Housing	4
1	—	§SHAFT, Drive — See "A"	1	18B	—	§WASHER, Cover to Housing	4
2	—	§ADAPTER, Pump — See "A"	1	19	—	§SHAFT, Drive — See "A"	1
3	—	§SEAL, Shaft — See "B"	1	20	—	§BUSHING, Shaft — See "A"	1
4	—	§SEAL, Shaft — See "B"	1	21	—	§RING, Retaining — See "A"	1
5	—	§BUSHING, Shaft — See "A"	1	22	—	§DOWEL PIN — See "A"	1
6	—	§WEAR PLATE — See "A"	1	23	—	§GEAR, Driven — See "A"	1
7	—	§"O" RING — See "B"	1	24	—	§RING, Retaining — See "A"	1
8	—	§DOWEL PIN — See "A"	1	25	—	§BUSHING — See "A"	1
9	—	§HOUSING, Center Section — See "A"	1	26	—	§"O" RING — See "B"	1
10	—	§RING, Retaining — See "A"	1	27	—	§"O" RING — See "B"	1
11	—	§DOWEL PIN — See "A"	1	28	—	§"O" RING — See "B"	1
12	—	§GEAR, Drive — See "A"	1	29	—	§RING, Back-up — See "B"	1
13	—	§"O" RING — See "B"	1	30	—	§RING, Back-up — See "B"	1
14	—	§RING, Retaining — See "A"	1	31	214961	†SLEEVE, Pump Drive	1
15	—	§BUSHING, Shaft — See "A"	1	32	551906	†GASKET, Pump to Converter	1
16	—	§COVER, Pump — See "A"	1	33	9E-06	†LKWSHR, Pump Mounting	3
17	—	§BOLT, Cover to Housing	4	34	103293	†WASHER, Pump Mounting	3
17A	—	§LKWSHR, Cover to Housing	4	35	8D-06	†NUT, Pump Mounting	3
17B	—	§WASHER, Cover to Housing	4				

*NOTE: The above listed pump, with the exception of the Seal Kit listed, is not considered rebuildable in the field. Due to extremely close tolerances involved and extensive break in test required, the cost of equipment needed and parts plus labor would exceed cost of replacement pump. Order replacement Pump by part number listed.

§Not Sold Separately

†Not Illustrated

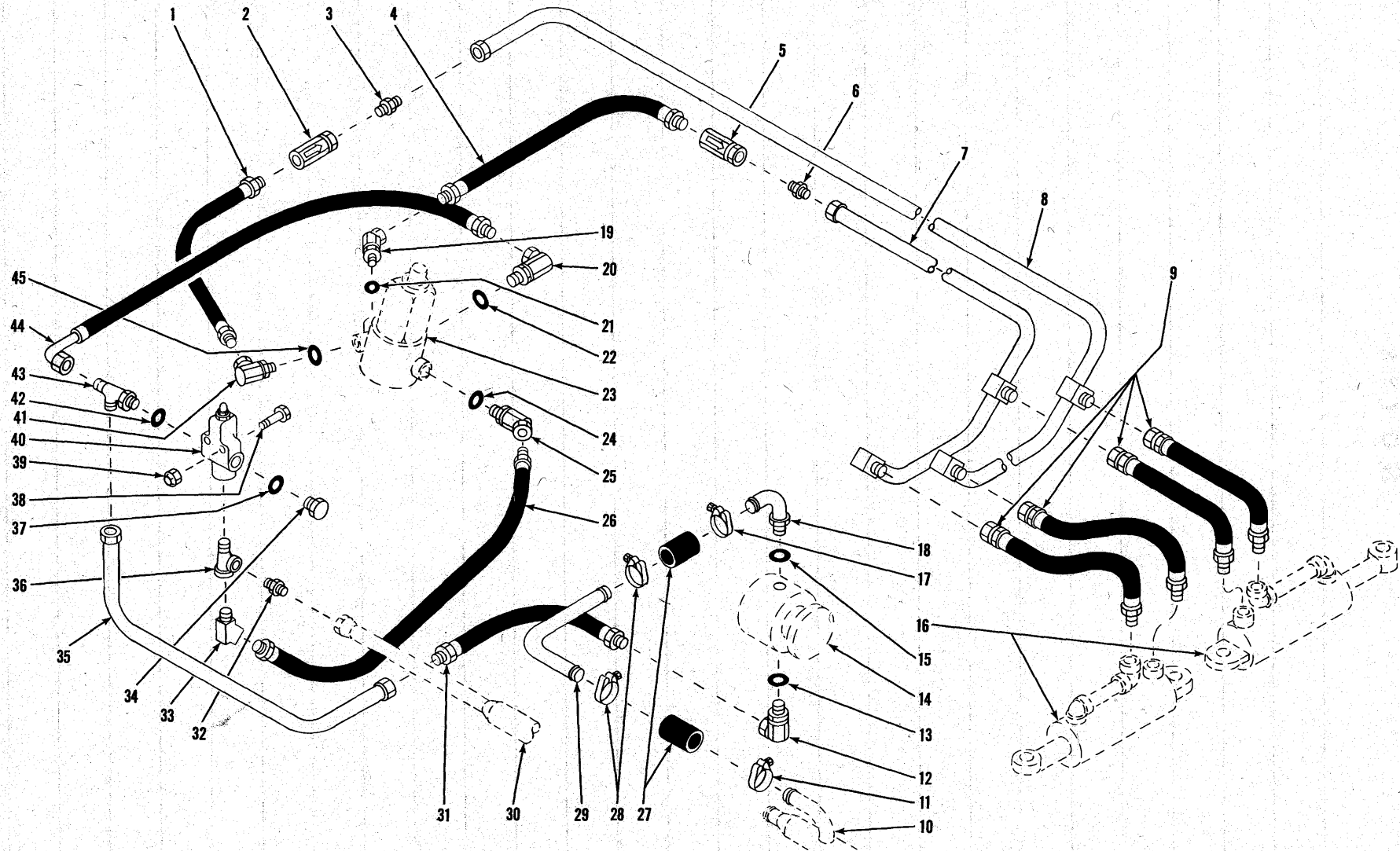
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



NOTES

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[12]



HYDRAULIC SYSTEM — STEERING

TS-6641-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

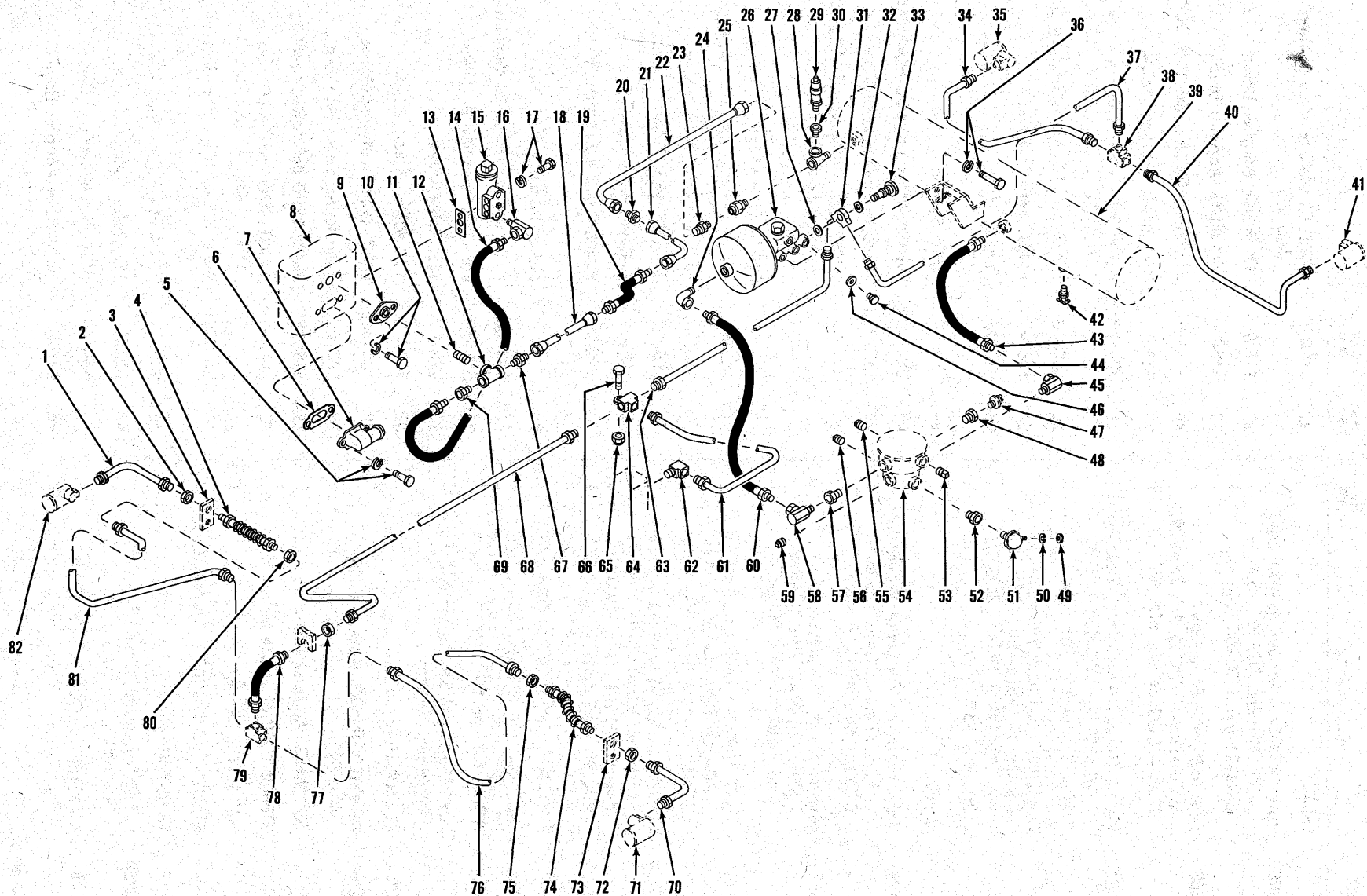
HYDRAULIC SYSTEM — STEERING

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1		HOSE		20	519275	ADAPTER UNION, Hose to Gear (Inc. 22)	1
1A	784398	Valve to Gear — For Serial: Waukesha — 7CA101 thru 7CA121, G.M. — 8CG101 thru 8CG155 only	1	21	91F-6	"O" RING, Adapter Union	1
1B	540883	†Tube to Gear — For Serial: Waukesha — 7CA122 thru 7CA999, G.M. — 8CG156 thru 8CG999	1	22	91F-7	"O" RING, Adapter Union	1
2	572731	VALVE, Check — For Serial: Waukesha — 7CA101 thru 7CA121 & G.M. — 8CG101 thru 8CG155 only	1	23	—	STEERING GEAR — See P.M. 2083	—
3	89F-7	CONNECTOR, Check Valve to Tube — For Serial: Waukesha — 7CA101 thru 7CA121 & G.M. — 8CG101 thru 8CG155 only	1	24	91F-7	"O" RING, Adapter Union	1
4		HOSE		25	534894	ADAPTER UNION, Hose to Gear (Inc. 24)	1
4A	784398	Valve to Gear — For Serial: Waukesha — 7CA101 thru 7CA121, G.M. — 8CG101 thru 8CG155 only	1	26	542813	HOSE, Relief Valve to Steering Gear	1
4B	540883	†Tube to Gear — For Serial: Waukesha — 7CA122 thru 7CA999, G.M. — 8CG156 thru 8CG999	1	27	536749	HOSE, Stem to Tube	2
5	572731	VALVE, Check — For Serial: Waukesha — 7CA101 thru 7CA121 & G.M. — 8CG101 thru 8CG155 only	1	28	540127	CLAMP, Hose	2
6	89F-7	CONNECTOR, Check Valve to Tube — For Serial: Waukesha — 7CA101 thru 7CA121 & G.M. — 8CG101 thru 8CG155 only	1	29		TUBE, Suction	
7	589487	TUBE, Gear to Cylinder — Right Turn	1	29A	1521354	For Waukesha Powered Machines	1
8	589488	TUBE, Gear to Cylinder — Left Turn	1	29B	1521255	For G.M. Powered Machines	1
9	533927	HOSE, Tube to Cylinder	4	30	—	TUBE, Return — See Bucket and Boom Hydraulic System	—
10	—	TUBE, Suction — See Bucket & Boom Hydraulic System	—	31		HOSE, Pump to Tube	
11	540127	CLAMP, Hose	1	31A	563483	For Waukesha Powered Machines	1
12	526676	ADAPTER UNION, Hose to Pump (Inc. 13)	1	31B	564107	For G.M. Powered Machines	1
13	91F-8	"O" RING, Adapter Union	1	32	656532	CONNECTOR, Tube	1
14	—	STEERING PUMP — See Index	—	33	81F-4	ELBOW, Hose to Tee	1
15	91F-11	"O" RING, Elbow	1	34	24K-7	PLUG, Relief Valve (Inc. 37)	1
16	—	STEERING CYLINDER — See P.M. 2083	—	35		TUBE, Pump to Valve	
17	540127	CLAMP, Hose	1	35A	563466	For Waukesha Powered Machines	1
18	1521254	ELBOW, Pump to Suction Tube (Inc. 15)	1	35B	558570	For G.M. Powered Machines	1
19	535625	ADAPTER UNION, Hose to Gear (Inc. 21)	1	36	17F-5	TEE, Relief Valve	1
				37	91F-7	"O" RING, Plug	1
				38	18C-540	BOLT, Relief Valve Mounting	2
				39	18D-05	NUT, Relief Valve Mounting	2
				39A	619029	†WASHER, Relief Valve Mounting	2
				40	—	VALVE, Pressure Relief — See P.M. 2083	—
				41	517089	ADAPTER UNION, Hose to Gear (Inc. 45)	1
				42	91F-7	"O" RING, Tube Fitting Tee	1
				43	21K-7	TEE, Tube Fitting	1
				44	568785	HOSE, Relief Valve to Gear	1
				45	91F-6	"O" RING, Adapter Union	1

†Not Illustrated

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

[14]



BRAKE AIR LINES — WAUKESHA

TS-6793-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

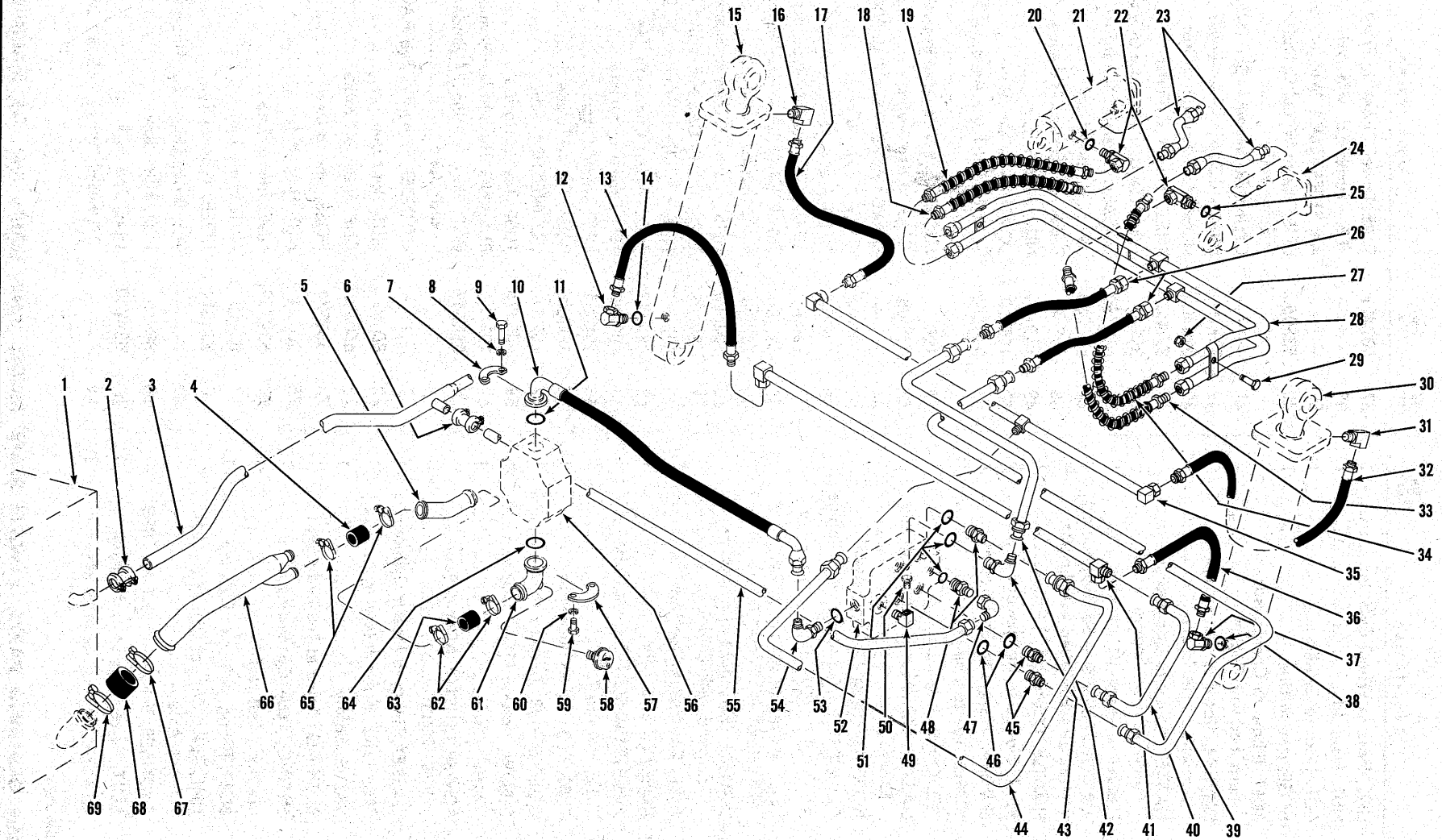
BRAKE AIR LINES — WAUKESHA

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	558547	LINE, Hose to Wheel Cylinder	1	37	589429	TUBE, Power Cluster to Front Axle Tee	1
2	8D-10	NUT, Hose Jam	1	38	-----	TEE — Furnished with Axle	1
3	550325	CLIP, Hose to Cradle	1	39	-----	§AIR RESERVOIR — Welded to Frame ..	—
4	552374	HOSE, Line to Line	1	40	535050	LINE, Tee to Wheel Cylinder — R.H.	1
5	-----	BOLT, Elbow to Compressor — Furnished with Engine	—	41	-----	Front Axle	1
5A	-----	LKWSHR, Elbow to Compressor — Furnished with Engine	—	42	72F-4	CYLINDER, Wheel — See P.M. 2083 ..	—
6	-----	GASKET, Elbow to Compressor — Furnished with Engine	—	43	574439	DRAIN COCK, Air Reservoir	1
7	540664	ELBOW, Compressor Air Inlet	1	44	874007	HOSE, Air Reservoir to Brake Valve	1
8	-----	AIR COMPRESSOR — See Engine Parts Manual — Furnished with Engine	—	45	31F-4	PLUG, Master Cylinder	2
9	510452	FLANGE, Discharge	1	46	613750	ADAPTER UNION, Hose to Valve	1
10	17C-516	BOLT, Flange to Compressor	2	47	636260	GASKET, Master Cylinder Plug	2
10A	4E-05	LKWSHR, Flange to Compressor	2	48	19F-4	SWITCH, Stop Light	1
11	5K-409	NIPPLE, Tee to Compressor	1	49	14D-10	BUSHING, Switch Reducing	1
12	18F-4	TEE, Connecting	1	50	12E-10	NUT, Sender Unit	1
13	-----	GASKET, Governor — Furnished with Engine	—	51	940643	LKWSHR, Sender Unit	1
14	593650	HOSE, Governor to Compressor	1	52	19F-1	SENDER UNIT, Air Pressure (Inc. 49, 50)	1
15	-----	GOVERNOR — Furnished with Engine ..	—	53	13F-08	BUSHING, Sender Unit Reducing	1
16	31F-1	ADAPTER UNION, Hose to Governor ..	1	54	-----	PLUG, Brake Valve	1
17	-----	BOLT, Governor to Compressor — Furnished with Engine	—	55	13F-08	BRAKE VALVE — See P.M. 2083	—
17A	-----	LKWSHR, Governor to Compressor — Furnished with Engine	—	56	13F-04	PLUG, Brake Valve	1
18	1524266	TUBE, Compressor to Hose	1	57	19F-6	PLUG, Brake Valve	1
19	571882	HOSE, Tube to Tube	1	58	19F-6	BUSHING, Adapter Reducing	1
20	40F-8	ADAPTER UNION, Tube to Tube	1	59	31F-3	ADAPTER UNION, Hose to Valve	1
21	571545	TUBE, Hose to Tube	1	60	13F-08	PLUG, Brake Valve	1
22	571546	TUBE, Tube to Air Reservoir	1	61	592784	HOSE, Power Cluster to Brake Valve ..	1
23	38F-10	CONNECTOR, Tube to Valve	1	62	589428	TUBE, Tee to Declutch Valve	1
24	26F-3	ELBOW, Hose to Power Cluster	1	63	62F-3	ELBOW, Tube to Valve	1
25	593370	VALVE, Check	1	64	589427	TUBE, Power Cluster to Tee	1
26	-----	POWER CLUSTER ASSY — See P.M. 2083	—	65	609733	TEE, Tube Connecting	1
27	620238	GASKET, Fitting to Master Cylinder	1	66	18D-07	NUT, Tee to Frame	1
28	17F-4	TEE, Valve to Air Reservoir	1	67	18C-724	BOLT, Tee to Frame	1
29	507815	VALVE, Safety	1	68	38F-10	CONNECTOR, Tube	1
30	19F-5	BUSHING, Valve to Tee Reducing	1	69	589426	TUBE, Tee to Hose	1
31	633242	FITTING, Tube Connecting	1	70	19F-4	BUSHING, Hose to Tee Reducing	1
32	613750	GASKET, Bolt to Fitting	1	71	558547	LINE, Hose to Wheel Cylinder — R.H.	1
33	692722	BOLT, Fitting to Master Cylinder	1	72	-----	Rear Axle	1
34	535049	LINE, Tee to Wheel Cylinder — L.H. Front Axle	1	73	-----	CYLINDER, Wheel — See P.M. 2083 ..	—
35	-----	CYLINDER, Wheel — See P.M. 2083 ..	—	74	8D-10	NUT, Hose Jam	1
36	18C-720	BOLT, Power Cluster to Reservoir	3	75	550325	CLIP, Hose to Cradle	1
36A	4E-07	LKWSHR, Power Cluster to Reservoir ..	3	76	552374	HOSE, Line to Line	1
				77	8D-10	NUT, Hose Jam	1
				78	534259	LINE, Tee to Hose	1
				79	8D-10	NUT, Hose Jam	1
				80	533814	HOSE, Tube to Tee	1
				81	-----	TEE, Brake Line — Furnished with Axle	—
				82	8D-10	NUT, Hose Jam	1
					534260	LINE, Tee to Hose	1
					-----	CYLINDER, Wheel — See P.M. 2083 ..	—

§Not Sold Separately

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

[16]



HYDRAULIC SYSTEM — BUCKET AND BOOM

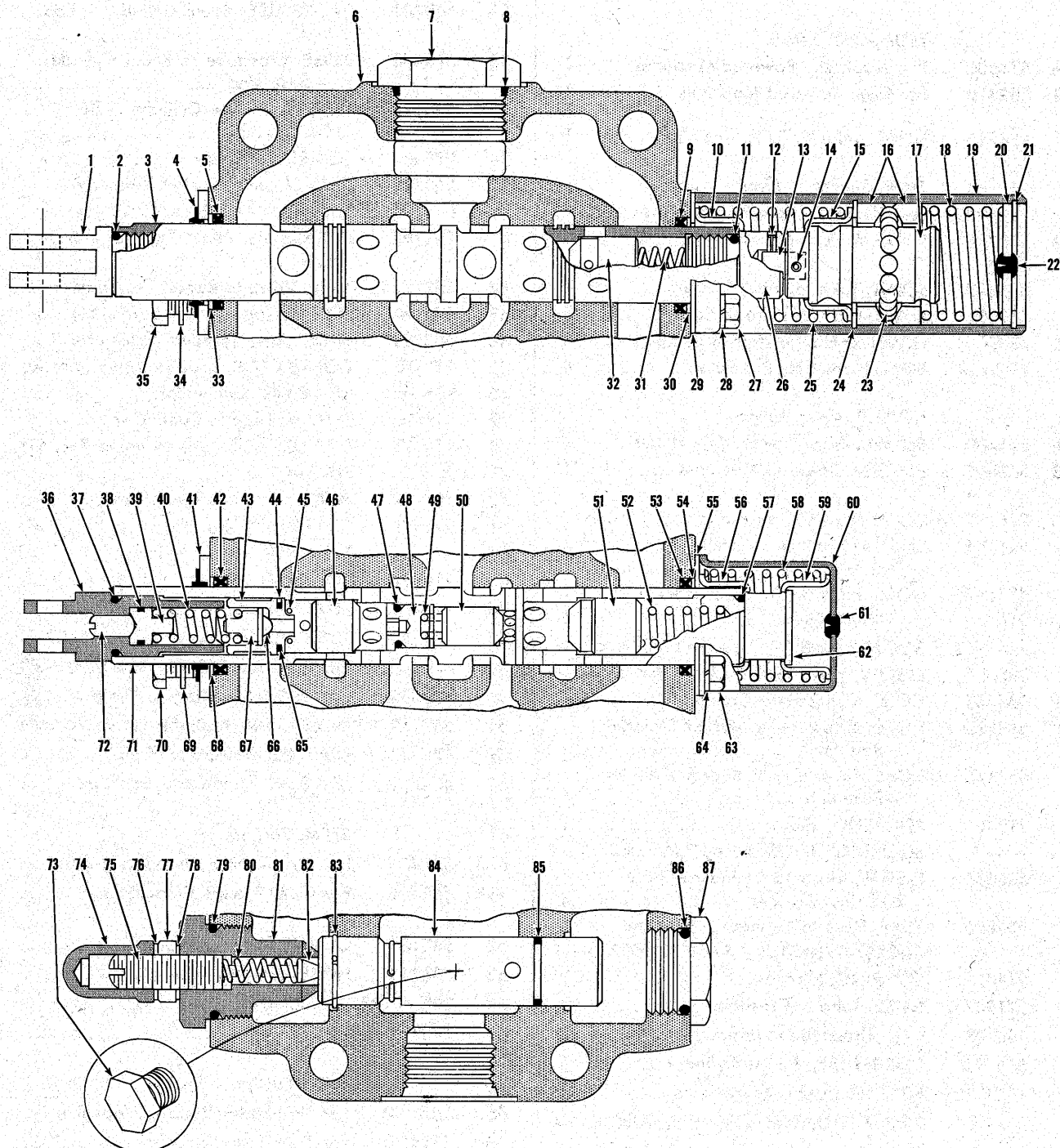
TS-7823-P

**CLARK
EQUIPMENT****CONSTRUCTION MACHINERY DIVISION****MICHIGAN****HYDRAULIC SYSTEM — BUCKET AND BOOM**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	RESERVOIR — See P.M. 2083	—	34	563810	HOSE, Crosstube to Bucket Cylinder — Rod End	1
2	573423	JOINT, Tube to Reservoir — Return	1	35	563801	CROSSTUBE, Boom Cylinder — Rod End	1
3	—	TUBE ASSY, Return	—	36	574442	HOSE, Crosstube to Boom Cylinder — Base End	1
3A	574500	For Waukesha Powered Machines	1	37	526676	ELBOW, Hose to Cylinder — Base End (Inc. 38)	1
3B	589419	For G.M. Powered Machines	1	38	91F-8	"O" RING, Elbow	1
4	536710	HOSE, Tube to Tube — Suction	1	39	563788	TUBE, Valve to Bucket Crosstube	1
5	—	TUBE, Suction — Front	—	40	563790	TUBE, Valve to Boom Crosstube	1
5A	1521392	For Waukesha Powered Machines	1	41	563798	CROSSTUBE, Boom Cylinder — Base End	1
5B	563785	For G.M. Powered Machines	1	42	1522525	TUBE, Valve to Bucket Crosstube	1
6	573422	JOINT, Tube to Tube — Return	1	43	17K-10	ELBOW, Tube to Valve (Inc. 51)	1
7	663094	FLANGE HALF, Hose to Pump	2	44	563791	TUBE, Valve to Boom Crosstube	1
8	4E-07	LKWSHR, Flange Half to Pump	4	45	15K-10	CONNECTOR, Tube to Valve (Inc. 46)	2
9	17C-724	BOLT, Flange Half to Pump	4	46	91F-10	"O" RING, Connector	2
10	—	HOSE, Pump to Valve	—	47	11K-10	ELBOW, Tube to Connector	1
10A	571409	For Waukesha Powered Machines	1	48	15K-10	CONNECTOR, Tube to Valve (Inc. 51)	2
10B	563809	For G.M. Powered Machines	1	49	29F-1	ELBOW	1
11	25K-40116	"O" RING, Hose to Pump	1	50	40K-04	PLUG — Furnished with Valve	1
12	526676	ELBOW, Hose to Cylinder — Base End (Inc. 14)	1	51	91F-10	"O" RING, Connector	3
13	574442	HOSE, Boom Cylinder to Crosstube	1	52	—	CONTROL VALVE — See Index	—
14	91F-8	"O" RING, Elbow	1	53	91F-10	"O" RING, Elbow	1
15	—	BOOM CYLINDER — See P.M. 2083	—	54	17K-10	ELBOW, Hose to Valve (Inc. 53)	1
16	29F-4	ELBOW, Hose to Cylinder — Rod End	1	55	1522526	TUBE, Valve Return	1
17	574442	HOSE, Cylinder to Crosstube	1	56	—	PUMP, Bucket & Boom—See P.M. 2083	—
18	563810	HOSE, Crosstube to Bucket Cylinder — Rod End	1	57	663095	FLANGE HALF, Stem to Pump	2
19	571176	HOSE, Crosstube to Bucket Cylinder — Base End	1	58	562112	*INDICATOR, Reservoir Filter—Vacuum	1
20	91F-8	"O" RING, Elbow	1	59	17C-824	BOLT, Flange Half to Pump	4
21	—	BUCKET CYLINDER — See P.M. 2083	—	60	4E-08	LKWSHR, Flange Half to Pump	4
22	526676	ELBOW, Hose to Cylinder — Base End (Inc. 20, 25)	2	61	—	STEM, Suction	—
23	563805	TUBE, Hose to Cylinder — Rod End	2	61A	571407	For Waukesha Powered Machines	1
24	—	BUCKET CYLINDER — See P.M. 2083	—	61B	569506	For G.M. Powered Machines	1
25	91F-8	"O" RING, Elbow	1	62	540130	CLAMP, Hose	2
26	571207	HOSE, Tube to Crosstube	2	63	536710	HOSE, Stem to Tube	1
27	18D-08	NUT, Crosstube to Frame	2	64	25K-40128	"O" RING, Stem	1
28	563792	CROSSTUBE, Bucket Cylinder	1	65	540130	CLAMP, Hose	2
29	18C-820	BOLT, Crosstube to Frame	2	66	—	TUBE, Suction — Rear	—
30	—	BOOM CYLINDER — See P.M. 2083	—	66A	1521349	For Waukesha Powered Machines	1
31	29F-4	ELBOW, Hose to Cylinder — Rod End	1	66B	589422	For G.M. Powered Machines	1
32	574442	HOSE, Crosstube to Boom Cylinder — Rod End	1	67	540106	CLAMP, Hose	1
33	571176	HOSE, Crosstube to Bucket Cylinder — Base End	1	68	533478	HOSE, Tube to Reservoir	1
				69	540106	CLAMP, Hose	1

*NOTE: 562112 Indicator used on machine serial 7CA101 thru 7CA121, 8CG101 thru 8CG140 only. For machine serial 7CA122 and thereafter, 8CG141 and thereafter one (1) 40K-04 Pipe Plug must be used in place of 562112 Indicator.

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



CONTROL VALVE ASSEMBLY

TS-7721-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

CONTROL VALVE ASSEMBLY

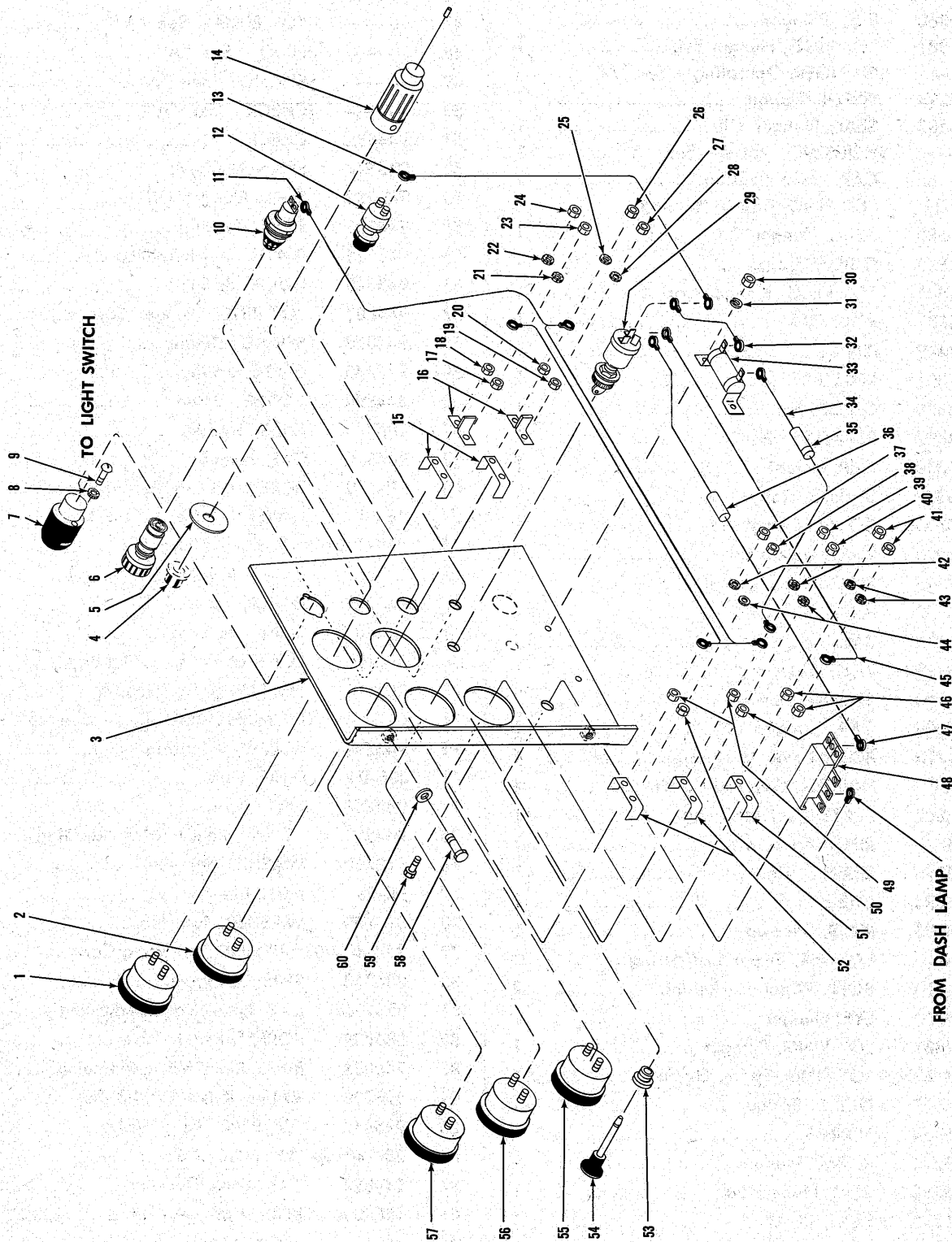
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1520075	VALVE ASSY (Inc. 1 thru 87)	1	46	946543	CHECK	1
1	946360	EYE, Plunger	1	47	—	§"O" RING — See "A"	—
2	944881	"O" RING, Plunger Eye	1	48	—	§PLUG — See "A"	—
3	—	§PLUNGER, Operating — See "A"	—	49	—	§SPRING — See "A"	—
4	893294	WIPER, Plunger	1	50	—	§CHECK — See "A"	—
5	946583	SEAL, Plunger Oil	1	51	944885	CHECK	1
6	—	§HOUSING, Valve — See "A"	1	52	946544	SPRING, Check	1
7	24K-11	CAP, Valve Housing	1	53	946583	SEAL, Plunger Oil	1
8	91F-11	"O" RING, Cap to Housing	1	54	944883	RING, Back-up	1
9	946583	SEAL, Plunger Oil	1	55	946535	PLATE, Seal Retaining	1
10	944878	GUIDE, Spring	1	56	945348	GUIDE, Spring	1
11	944881	"O" RING, Plunger Cap	1	57	944881	"O" RING, Plunger Cap	1
12	108301	ROLL PIN	1	58	944879	SPRING, Detent	1
13	888449	PIN	1	59	945348	GUIDE, Spring	1
14	108301	ROLL PIN	1	60	944896	COVER, Detent	1
15	944878	GUIDE, Spring	1	61	886745	PLUG, Bleeder	1
16	944897	RETAINER, Ball	2	62	944895	CAP, Plunger	1
17	946030	CAP, Detent	1	63	1C-410	BOLT, Cover to Housing	4
18	946029	SPRING, Return	1	64	4E-04	LKWSHR, Cover to Housing	4
19	945805	COVER, Detent	1	65	25K-20018	"O" RING, Check Seat	1
20	944900	PLUG, Detent Cover	1	66	—	§BALL — See 67	—
21	507695	RING, Plug Retaining	1	67	946365	CHECK (Inc. 66)	1
22	886763	PLUG, Bleeder	1	68	944883	RING, Back-up	1
23	10J-08	BALL	15	69	4E-04	LKWSHR, Wiper to Housing	2
24	1301194	RING, Retaining	1	70	1C-410	BOLT, Wiper to Housing	2
25	945090	SPRING, Detent	1	71	—	§PLUNGER, Operating — See "A"	—
26	945095	CAP, Plunger	1	72	946541	SCREW, Adjusting	1
27	1C-416	BOLT, Cover to Housing	4	73	40K-04	PLUG, Pipe	1
28	4E-04	LKWSHR, Cover to Housing	4	74	944853	NUT, Acorn	1
29	944882	PLATE, Seal Retaining	1	75	944890	SCREW, Relief Valve Adjusting	1
30	944883	RING, Back-up	1	76	613750	WASHER, Jam Nut	1
31	893293	SPRING, Check	1	77	8D-08	NUT, Jam	1
32	944885	CHECK	1	78	613750	WASHER, Jam Nut	1
33	944883	RING, Back-up	1	79	25K-40100	"O" RING, Adjusting Cap	1
34	4E-04	LKWSHR, Wiper to Housing	2	80	886753	SPRING, Poppet	1
35	1C-410	BOLT, Wiper to Housing	2	81	893296	CAP, Relief Valve Adjusting	1
36	946361	EYE, Plunger	1	82	886739	POPPET, Relief Valve	1
37	944881	"O" RING, Plunger	1	83	946033	RING, Relief Valve Retaining	1
38	25K-20014	"O" RING, Spring Guide	1	84	893298	VALVE, Relief (Inc. 83, 85)	1
39	946363	GUIDE, Spring	1	85	945816	"O" RING, Relief Valve	1
40	946364	SPRING	1	86	25K-40100	"O" RING, Cap	1
41	893294	WIPER, Plunger	1	87	944894	CAP, Valve Housing	1
42	946583	SEAL, Plunger Oil	1	88	18C-864	†BOLT, Valve Mounting	3
43	946542	SEAT, Check	1	89	4E-08	†LKWSHR, Valve Mounting	2
44	946556	RING, Back-up	1	90	66D-08	†NUT, Valve Mounting	1
45	946545	SPRING, Check	1				

†Not Illustrated

§Not Sold Separately

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

TS-6666-P



INSTRUMENT PANEL ASSEMBLY



CONSTRUCTION MACHINERY DIVISION



INSTRUMENT PANEL ASSEMBLY

For Serial 7CA101 thru 7CA121, 8CG101 thru 8CG140

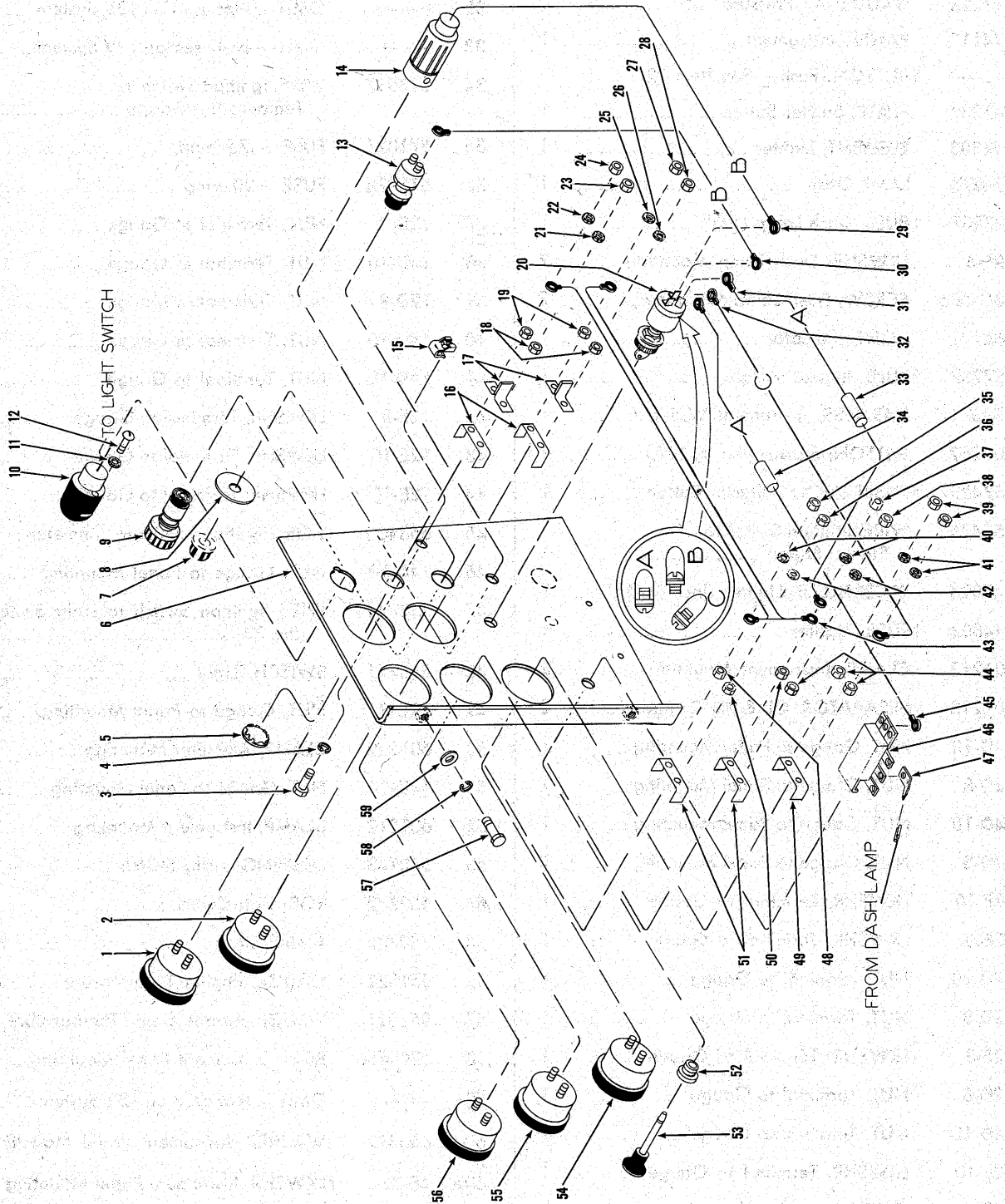
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	551319	GAUGE, Engine Oil Pressure	1	31	———	OMIT — Not used on 12V System	—
2	517228	GAUGE, Air Pressure	1	32	———	OMIT — Not used on 12V System	—
3	574117	PANEL, Instrument	1	33	———	OMIT — Not used on 12V System	—
4	———	§BUTTON, Push — See Item 12	—	34	573587	WIRE, Ignition Switch to Temperature Gauge	1
5	547237	PLATE, Starter Button	1	35	571021	FUSE — .75 Amp.	1
6	944803	ELEMENT, Lighter	1	36	611074	FUSE — 20 Amp	1
7	574276	LAMP, Dash	1	37	12D-8	NUT, Terminal to Gauge	1
7A	427237	†BULB, Dash Lamp (12V)	1	38	14D-10	NUT, Terminal to Gauge	1
8	12E-6	LKWSHR, Dash Lamp Mounting	2	39	12D-8	NUT, Terminal to Gauge	1
9	18G-606	SCREW, Dash Lamp Mounting	2	40	14D-10	NUT, Terminal to Gauge	1
10	562141	LIGHT, Indicator	1	41	14D-10	NUT, Terminal to Gauge	2
10A	427237	†BULB, Indicator Light	1	42	12E-8	LKWSHR, Terminal to Gauge	2
11	558673	HARNESS, Instrument Wiring	1	43	12E-10	LKWSHR, Terminal to Gauge	2
12	600259	BUTTON, Starter (Inc. 4, 12A)	1	44	12E-10	LKWSHR, Terminal to Gauge	2
12A	857420	†RUBBER BOOT, Starter Button	1	45	553405	WIRE, Ignition Switch to Ammeter	1
13	553405	WIRE, Ignition Switch to Starter Button	1	46	14D-10	NUT, Gauge to Panel Mounting	3
14	549024	RECEPTACLE, Lighter (Inc. 14A)	1	47	552946	WIRE, Ignition Switch to Light Switch (Inc. 36)	1
14A	944804	†FUSE, Lighter	1	48	550741	SWITCH, Light	1
15	601212	CLAMP, Instrument Mounting	2	49	12D-8	NUT, Gauge to Panel Mounting	2
16	601212	SEPARATOR, Oil & Air Gauges	2	50	601212	CLAMP, Ammeter Mounting	1
17	14D-10	NUT, Gauge to Panel Mounting	1	51	14D-10	NUT, Gauge to Panel Mounting	1
18	12D-8	NUT, Gauge to Panel Mounting	1	52	601212	CLAMP, Instrument Mounting	2
19	14D-10	NUT, Gauge to Panel Mounting	1	53	550743	BUSHING, Light Switch	1
20	12D-8	NUT, Gauge to Panel Mounting	1	54	550742	ROD, Light Switch	1
21	12E-10	LKWSHR, Terminal to Gauge	1	55	550735	AMMETER	1
22	12E-8	LKWSHR, Terminal to Gauge	1	56	551322	GAUGE, Engine Temperature	1
23	14D-10	NUT, Terminal to Gauge	1	57	551321	GAUGE, Torque Conv. Temperature ..	1
24	12D-8	NUT, Terminal to Gauge	1	58	17C-616	BOLT, Instrument Panel Mounting	3
25	12E-8	LKWSHR, Terminal to Gauge	1	59	———	OMIT — Not used on 12V System	—
26	12D-8	NUT, Terminal to Gauge	1	60	656672	WASHER, Instrument Panel Mounting ..	2
27	14D-10	NUT, Terminal to Gauge	1	60A	4E-06	†LKWSHR, Instrument Panel Mounting ..	3
28	12E-10	LKWSHR, Terminal to Gauge	1	60B	572729	†CAGED NUT, Instrument Panel Mounting	1
29	573548	SWITCH, Ignition	1				
30	———	OMIT — Not used on 12V System	—				

§Not Sold Separately

†Not Illustrated

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

TS-7829-P



INSTRUMENT PANEL ASSEMBLY



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

INSTRUMENT PANEL ASSEMBLY

For Serial 7CA122 and thereafter, 8CG141 and thereafter

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	551319	GAUGE, Engine Oil Pressure	1	29	565430	WIRE, Switch to Lighter	1
2	517228	GAUGE, Air Pressure	1	30	553405	WIRE, Switch to Starter Button	1
3	17C-616	BOLT, Instrument Panel Mounting	1	31	573587	WIRE, Switch to Harness (Inc. 33)	1
4	4E-06	LKWSHR, Instrument Panel Mounting ..	1	32	553405	WIRE, Switch to Ammeter	1
5	742710	PLUG, Instrument Panel	1	33	571021	FUSE — .75 Amp.	1
6	574117	PANEL, Instrument	1	34	611074	FUSE — 20 Amp.	1
7	—	§BUTTON, Starter Push — See 13	—	35	12D-8	NUT, Terminal to Gauge	1
8	547237	PLATE, Starter Button	1	36	14D-10	NUT, Terminal to Gauge	1
9	944803	ELEMENT, Lighter	1	37	12D-8	NUT, Terminal to Gauge	1
10	574276	LAMP, Dash	1	38	14D-10	NUT, Terminal to Gauge	1
10A	427237	†BULB, Dash Lamp	1	39	14D-10	NUT, Terminal to Gauge	2
11	12E-6	LKWSHR, Dash Lamp Mounting	2	40	12E-8	LKWSHR, Terminal to Gauge	2
12	18G-606	SCREW, Dash Lamp Mounting	2	41	12E-10	LKWSHR, Terminal to Gauge	2
13	600259	SWITCH, Starter Push Button (Inc. 7, 13A)	1	42	12E-10	LKWSHR, Terminal to Gauge	2
13A	857420	†BOOT, Starter Button	1	43	558673	HARNESS, Instrument Wiring	1
14	549024	RECEPTACLE, Lighter (Inc. 14A)	1	44	14D-10	NUT, Gauge to Panel Mounting	3
14A	944804	†FUSE, Lighter — 20 Amp	1	45	552946	WIRE, Switch to Light Switch (Inc. 34) ..	1
15	572729	CAGED NUT, Panel Retaining	1	46	550741	SWITCH, Light	1
16	601212	CLAMP, Instrument Mounting	2	47	574275	TAB, Dash Lamp Wire to Light Switch ..	1
17	602350	SEPARATOR, Oil & Air Gauges	2	48	12D-8	NUT, Gauge to Panel Mounting	2
18	14D-10	NUT, Gauge to Panel Mounting	2	49	601212	CLAMP, Instrument Mounting	1
19	12D-8	NUT, Gauge to Panel Mounting	2	50	14D-10	NUT, Gauge to Panel Mounting	1
20	573548	SWITCH, Ignition	1	51	601212	CLAMP, Instrument Mounting	2
21	12E-10	LKWSHR, Terminal to Gauge	1	52	550743	BUSHING, Light Switch	1
22	12E-8	LKWSHR, Terminal to Gauge	1	53	550742	ROD, Light Switch	1
23	14D-10	NUT, Terminal to Gauge	1	54	550735	AMMETER	1
24	12D-8	NUT, Terminal to Gauge	1	55	551322	GAUGE, Engine Temperature	1
25	12E-8	LKWSHR, Terminal to Gauge	1	56	551321	GAUGE, Torque Converter Temperature	1
26	12E-10	LKWSHR, Terminal to Gauge	1	57	17C-616	BOLT, Instrument Panel Mounting	2
27	12D-8	NUT, Terminal to Gauge	1	58	4E-06	LKWSHR, Instrument Panel Mounting ..	2
28	14D-10	NUT, Terminal to Gauge	1	59	656672	WASHER, Instrument Panel Mounting ..	2

†Not Illustrated
§Not Sold Separately

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



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

WIRING AND CABLES

Item No.	Part No.	Description	No. Req'd.
1	558952	HARNESS, Cockpit	1
2		HARNESS, Engine	
2A	558674	For G.M. Powered Machines	1
2B	1520607	For Waukesha Powered Machines	1
3	562010	HARNESS, Floodlight	1
4	562008	HARNESS, Taillight	1
5	1526729	HARNESS, Neutral Start Switch — For Serial 8CG128 & thereafter, 7CA122 & thereafter	1
6	558960	WIRE, Hourmeter Ground	1
7	564384	WIRE, Battery to Horn Button	1
8	675739	CABLE, Battery Ground	1
9		CABLE, Battery to Solenoid	
9A	566502	For G.M. Powered Machines	1
9B	1520606	For Waukesha Powered Machines	1
10	553466	CABLE, Solenoid to Starter — Waukesha Powered Machines Only	1

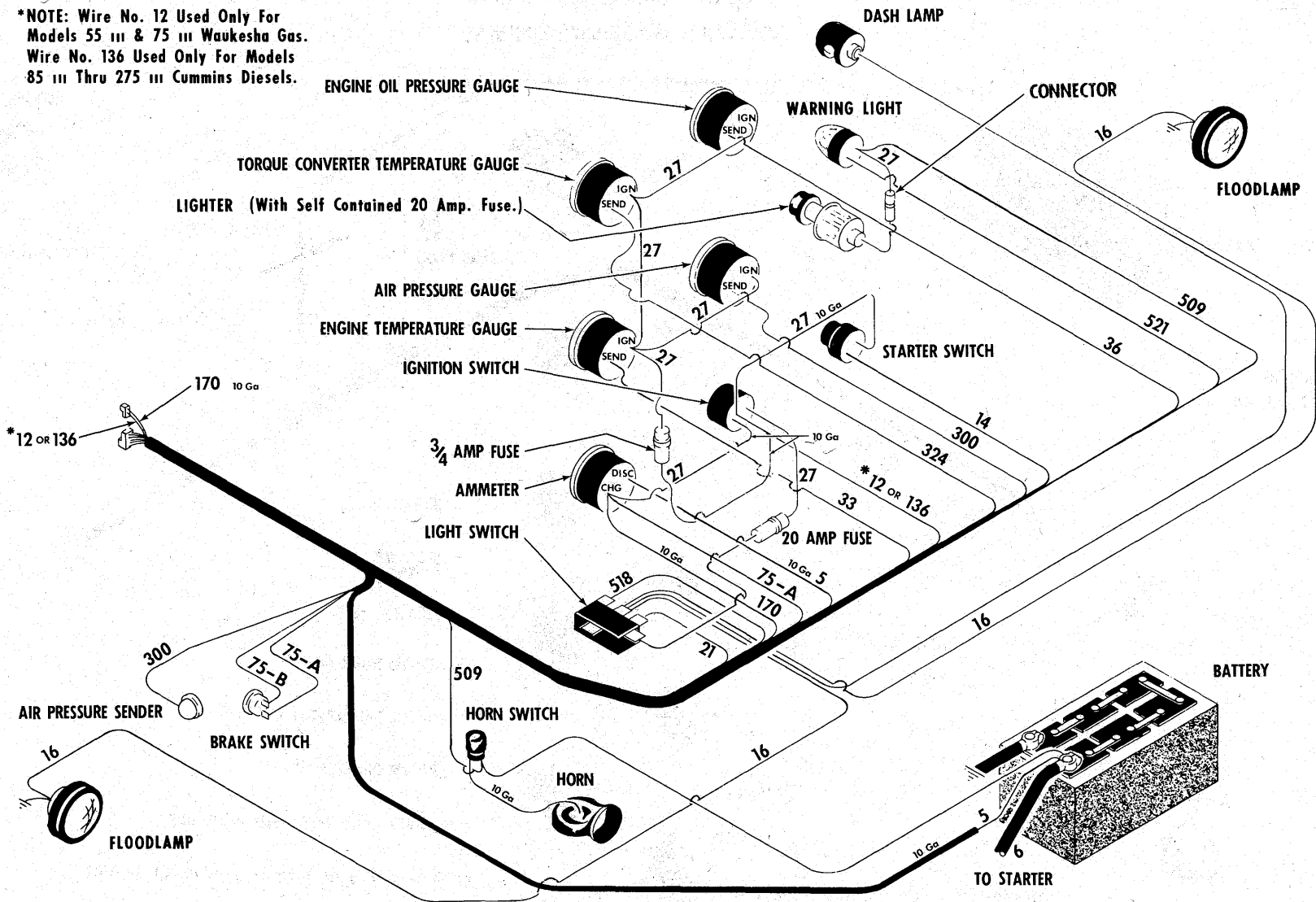
DECALS AND NAMEPLATES

Item No.	Part No.	Description	No. Req'd.
1	547852	*DECAL, Michigan	2
2	547851	*DECAL, Clark Equipment	2
3	571099	*DECAL, Model	2
4	538256	*DECAL, Transmission Drain	1
5	557461	*DECAL, Safety Wiring	1
6	547794	*DECAL, Safety Warning	1
7	569451	*DECAL, Warning Light—For Serial 7CA101 thru 7CA121, 8CG101 thru 8CG140 only	1
8	569331	*DECAL, Bucket Indicator	1
9	1520495	*DECAL, "Best on Earth"	2
10	569389	PLATE, Emergency Stop	1
11	6C-605	SCREW, Plate Mounting	2
12	548074	PLATE, Operating Precaution	1
13	65G-406	SCREW, Plate Mounting	4
14	542074	PLATE, Patent	1
15	6C-605	SCREW, Plate Mounting	4
16	562302	PLATE, Lubrication Instruction	1
17	6C-605	SCREW, Plate Mounting	4
18	567977	PLATE, Shift Quadrant — Hi-Lo	1
19	6C-605	SCREW, Plate Mounting	2
20	567947	PLATE, Shift Quadrant — Forward, Neutral, Reverse	1
21	6C-605	SCREW, Plate Mounting	4
22	1527430	PLATE, Reservoir Strainer Service (For Serial 7CA122 & thereafter, 8CG141 & thereafter)	1

22a
Hi-Low Range
*NOTE: Contact your local MICHIGAN distributor for the above listed Decals.

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

*NOTE: Wire No. 12 Used Only For Models 55 III & 75 III Waukesha Gas.
Wire No. 136 Used Only For Models 85 III Thru 275 III Cummins Diesels.



(All Wires No. 14 Gauge Unless Otherwise Specified.)

WIRING DIAGRAM — COCKPIT
For Serial 7CA101 thru 7CA121, 8CG101 thru 8CG127

TS-6669-P

[26]

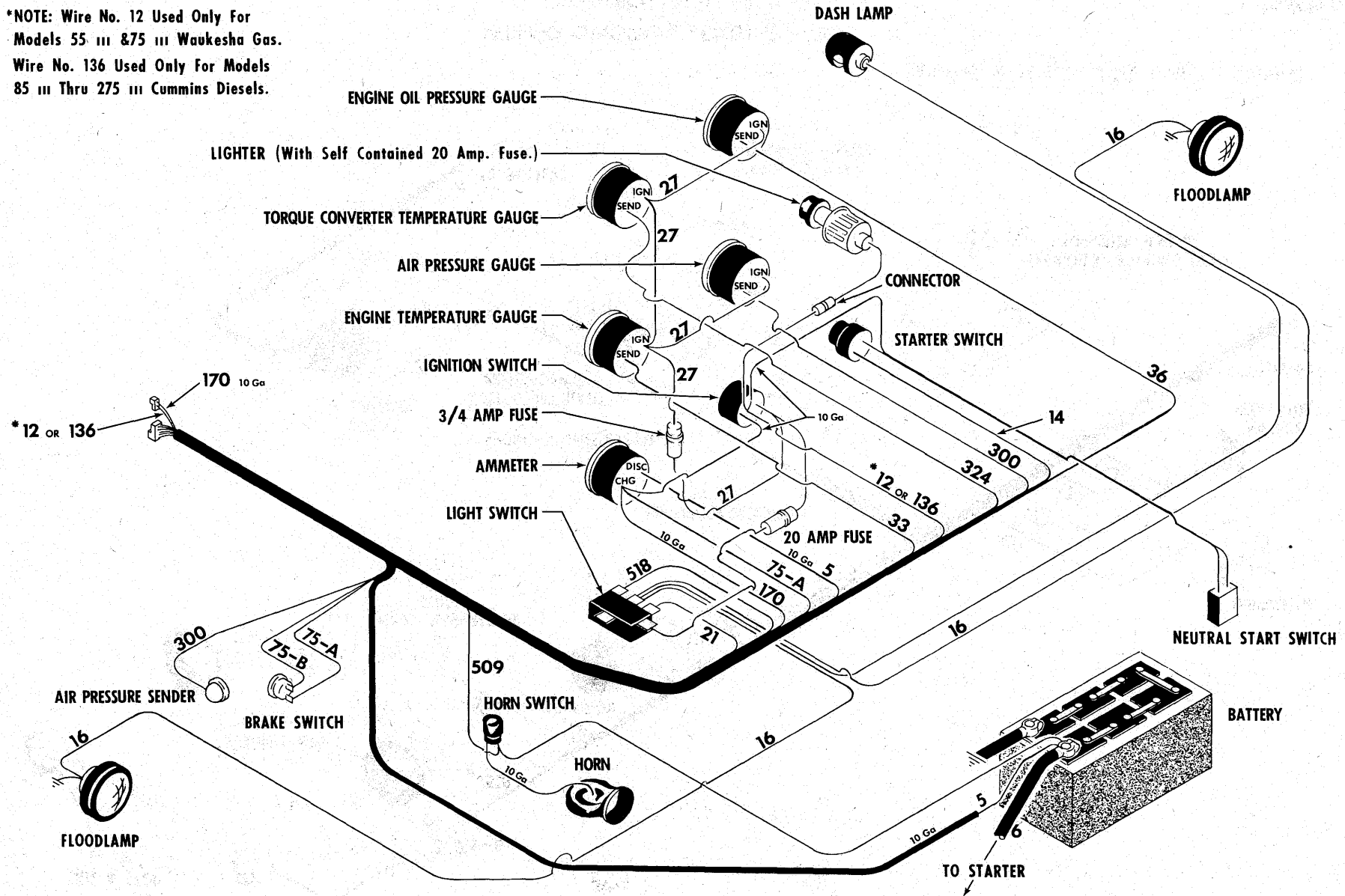


WIRING DIAGRAM — COCKPIT

For Serial 8CG128 thru 8CG140

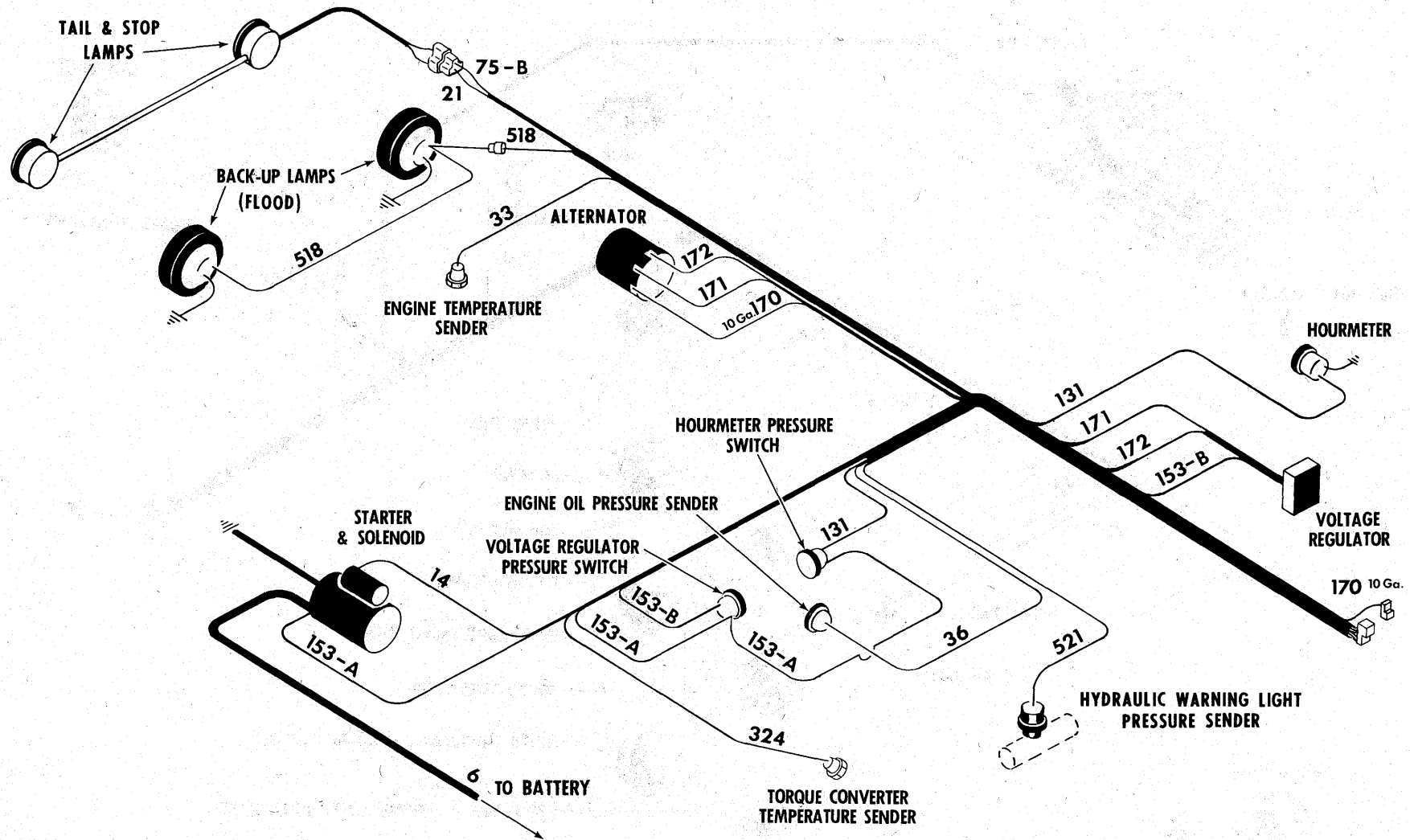
TS-7875-P

*NOTE: Wire No. 12 Used Only For
Models 55 III & 75 III Waukesha Gas.
Wire No. 136 Used Only For Models
85 III Thru 275 III Cummins Diesels.



WIRING DIAGRAM — COCKPIT
For Serial 7CA122 and thereafter; 8CG141 and thereafter

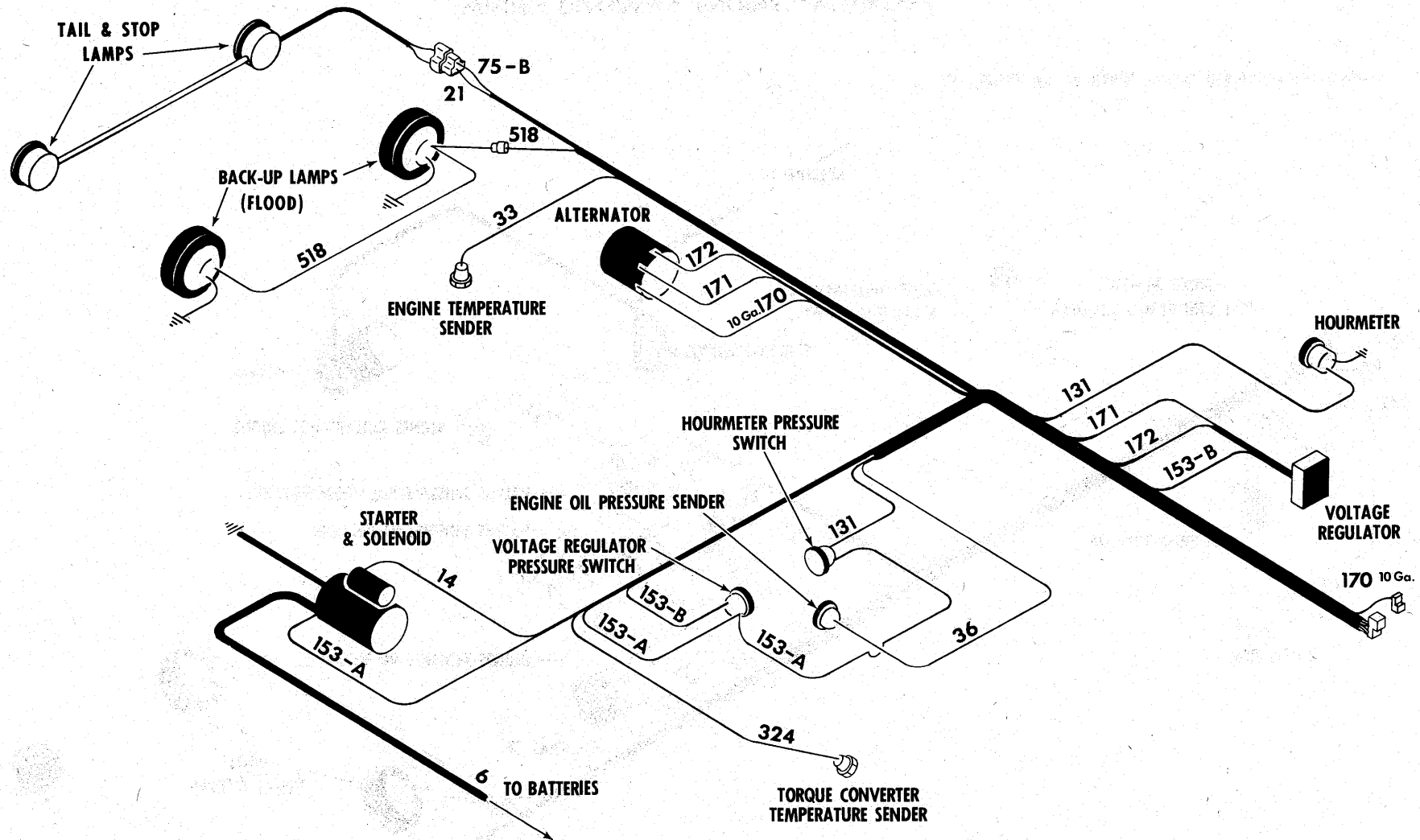
TS-7868-P



(All Wires No.14 Gauge Unless Otherwise Specified)

WIRING DIAGRAM — ENGINE — G.M.
For Serial 8CG101 thru 8CG140

TS-6670-P

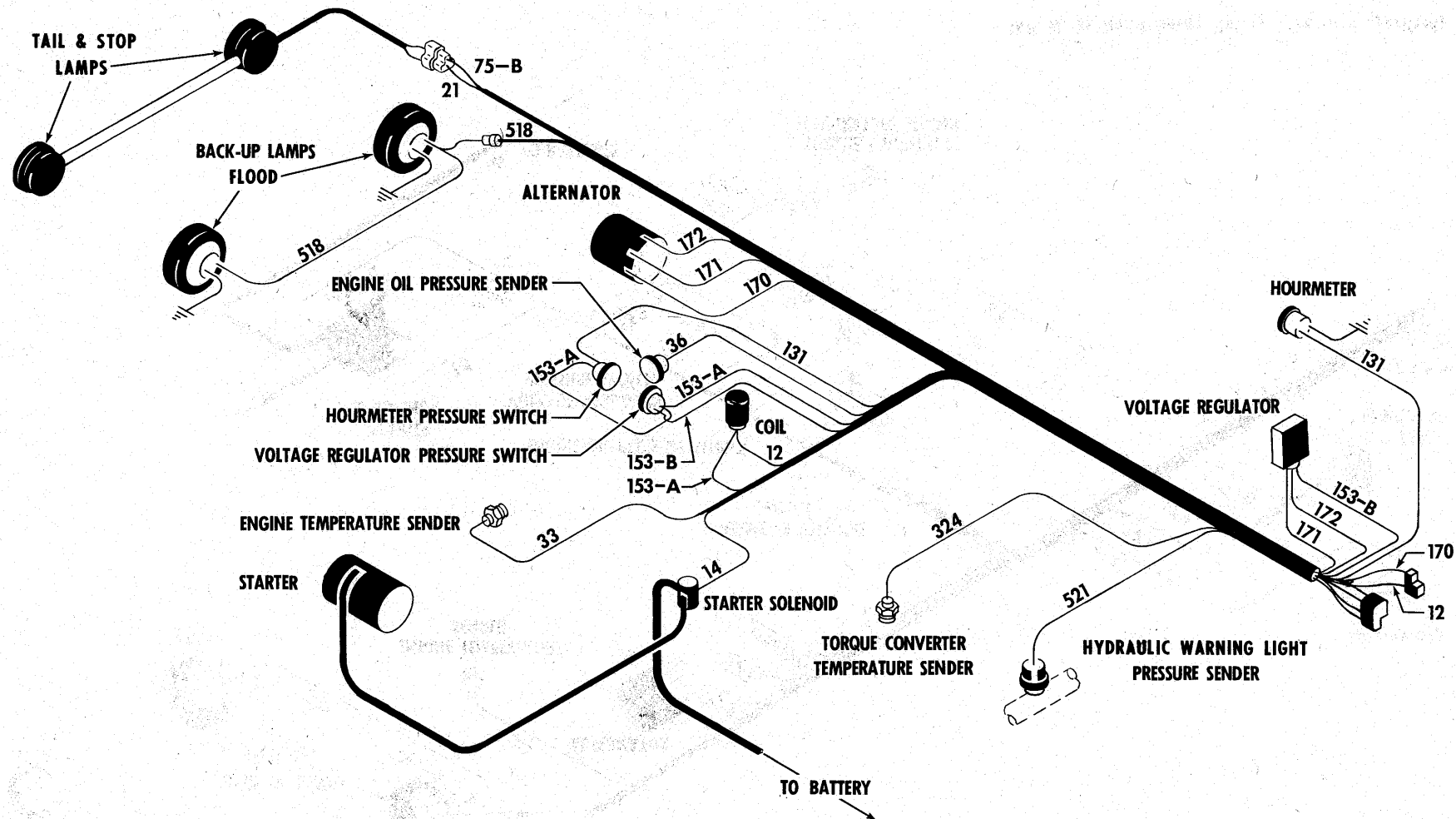


(All Wires No.14 Gauge Unless Otherwise Specified)

WIRING DIAGRAM — ENGINE — G.M.
For Serial 8CG141 & thereafter

TS-7870-P

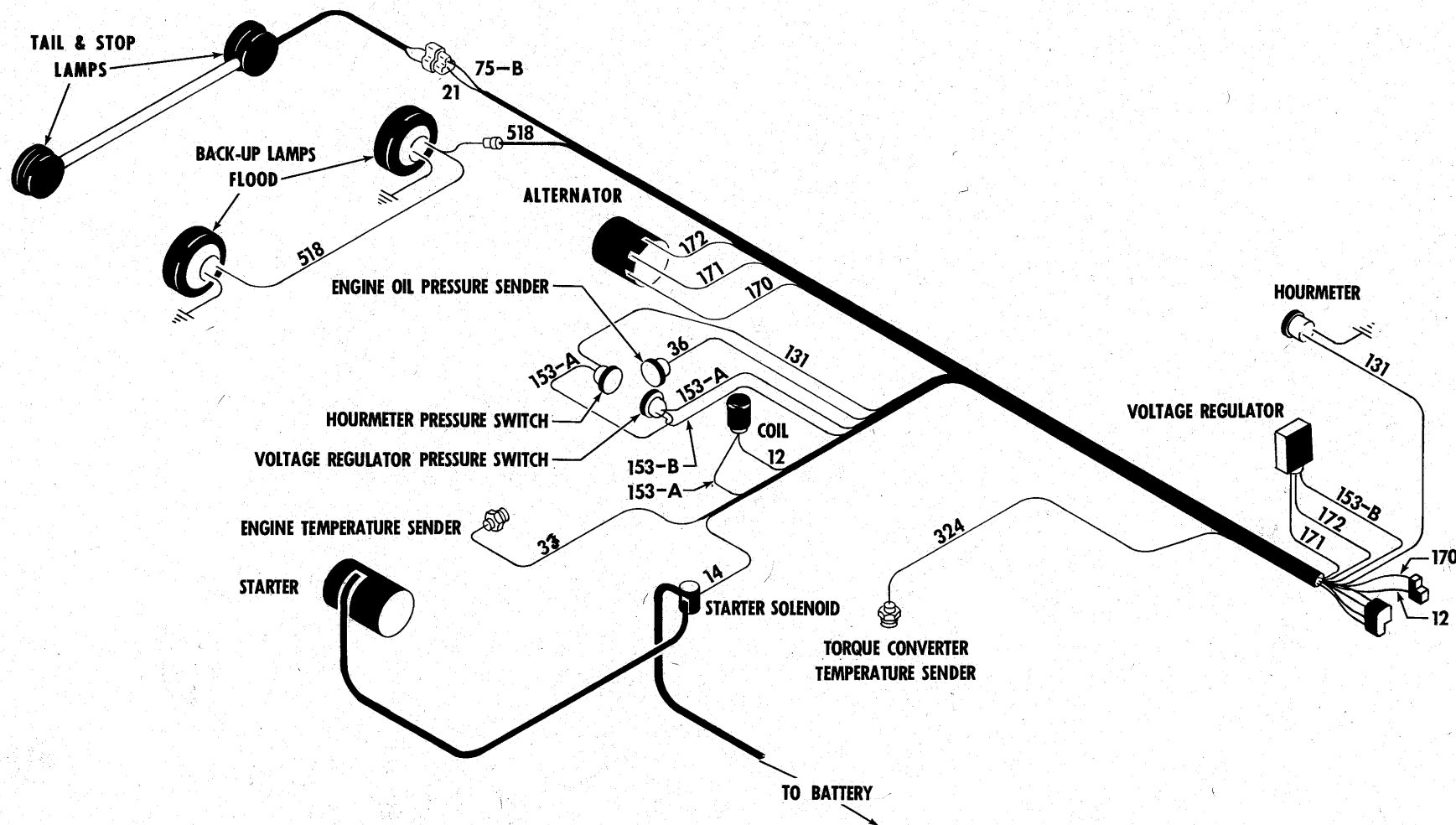
[30]



(All Wires No. 14 Gauge Unless Otherwise Specified)

WIRING DIAGRAM — ENGINE — WAUKESHA
For Serial 7CA101 thru 7CA121

TS-6801-P



(All Wires No. 14 Gauge Unless Otherwise Specified)

WIRING DIAGRAM — ENGINE — WAUKESHA
For Serial 7CA122 and thereafter

TS-7869-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN



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18C-880	3	225075	9	551627	7	571407	17
18C-1260	3	227874	9	551906	10	571409	17
18C-12144	3	228931	9	552374	15	571545	15
18D-04	7	229009	9	552946	21, 23	571546	15
18D-05	13	229010	9	553405	21, 23	571645	5
18D-06	7	229369	9	553466	24	571646	5
18D-07	15	351495	6	556323	5	571882	15
18D-08	1, 2, 3, 5, 6, 7, 17	420945	7	556691	5	572719	2
18F-4	15	427237	21, 23	556692	5	572729	21, 23
18G-606	21, 23	507068	7	556960	3	572731	13

MICHIGAN



**75 III TRACTOR SHOVEL
85 III TRACTOR SHOVEL**

MICHIGAN

PARTS MANUAL SUPPLEMENT

No. 2167



This Supplement pertains to the Model 75 III and 85 III MICHIGAN Tractor Shovel covering revisions to the Hydraulic Oil Reservoir and Accessories which became effective on Machine Serial Numbers listed below:

75 III G.M. — 7CG297 and thereafter

75 III WAUKESHA — 7CA101 and thereafter

85 III G.M. — 6DG227 and thereafter

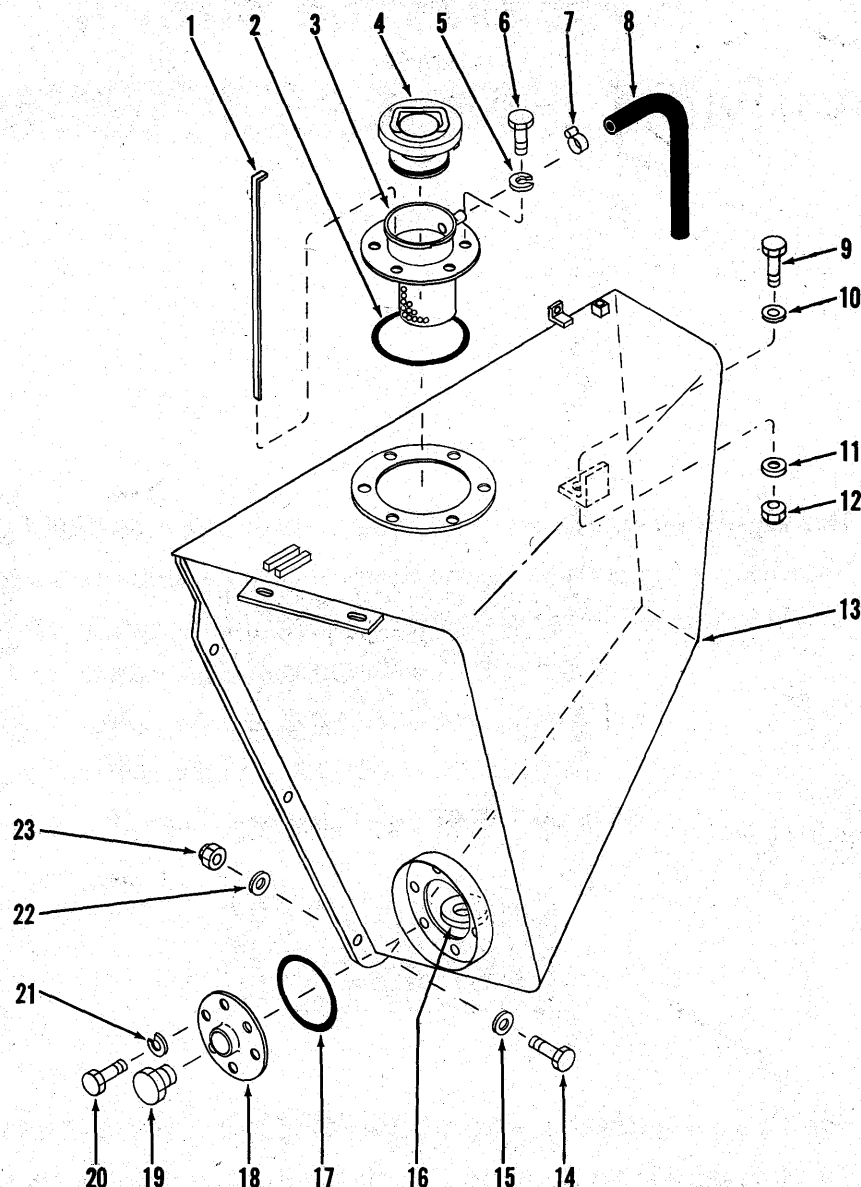
85 III CUMMINS — 5DC167 and thereafter



Use this Supplement with 75 III Parts Manual No. 2083, 85 III Parts Manual No. 2086 and Parts Manual Supplements to Parts Manuals No. 2083 and 2086



CLARK EQUIPMENT COMPANY
Construction Machinery Division



TS-7717-P

HYDRAULIC OIL RESERVOIR AND ACCESSORIES

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	567741	DIPSTICK	1	13	589186	RESERVOIR, Hydraulic Oil	1
2	25K-40624	"O" RING, Filler Neck	1	14	18C-1244	BOLT, Reservoir to Side Plate	5
3	567742	NECK, Filler	1	15	616813	WASHER, Reservoir to Side Plate	5
4	569759	CAP, Filler	1	16	525293	MAGNET	1
5	4E-06	LKWSHR, Filler Neck to Reservoir	6	17	25K-40428	"O" RING, Inspection Plate	1
6	18C-612	BOLT, Filler Neck to Reservoir	6	18	587613	PLATE, Inspection	1
7	521874	CLAMP, Overflow Hose to Filler Neck	1	19	40K-16	PLUG, Inspection Plate	1
8	743563	HOSE, Overflow — 48" Lg.	1	20	18C-612	BOLT, Inspection Plate to Reservoir	6
9	18C-1244	BOLT, Reservoir to Frame	1	21	4E-06	LKWSHR, Inspection Plate to Reservoir	6
10	616813	WASHER, Reservoir to Frame	1	22	616813	WASHER, Reservoir to Side Plate	5
11	71D-12	BASE, Reservoir to Frame	1	23	18D-12	NUT, Reservoir to Side Plate	5
12	70D-12	NUT, Reservoir to Frame	1				

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

MICHIGAN

PARTS MANUAL SUPPLEMENT

No. 2113



**This Supplement covers Three Spool Valve Installation and Parts
for 75 III and 85 III Michigan Tractor Shovels.**



I N D E X

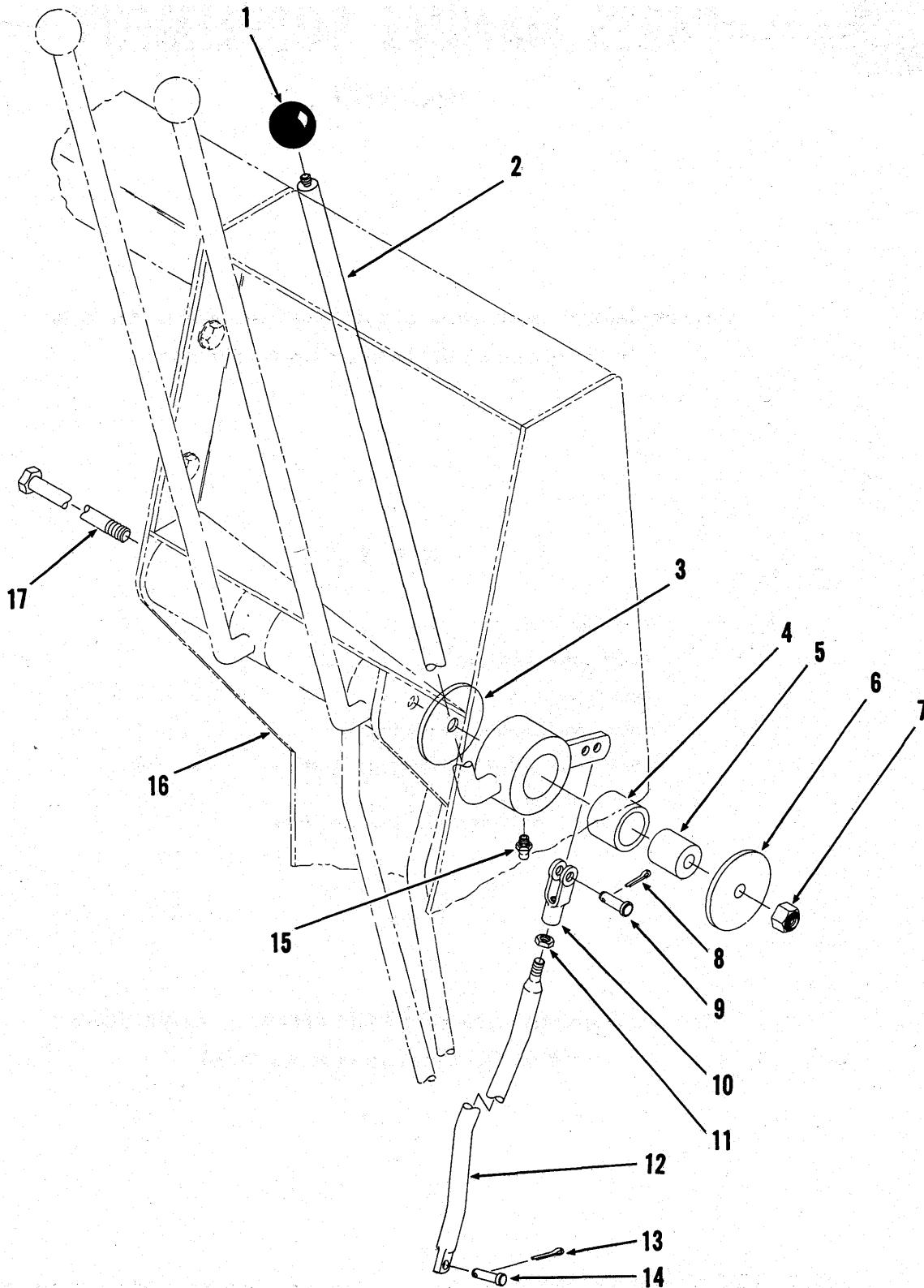
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Side Panel	4
Three Spool Control Valve Assembly	7
Three Spool Valve Installation and Parts	5
Valve Controls	
Three Spool Valve Installation and Parts	3



**Use this Supplement with 75 III Parts Manual No. 2083
and 85 III Parts Manual No. 2086**

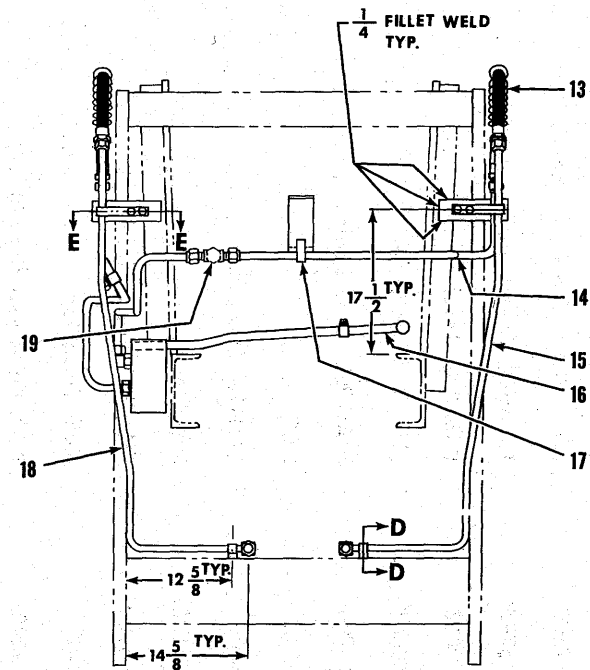
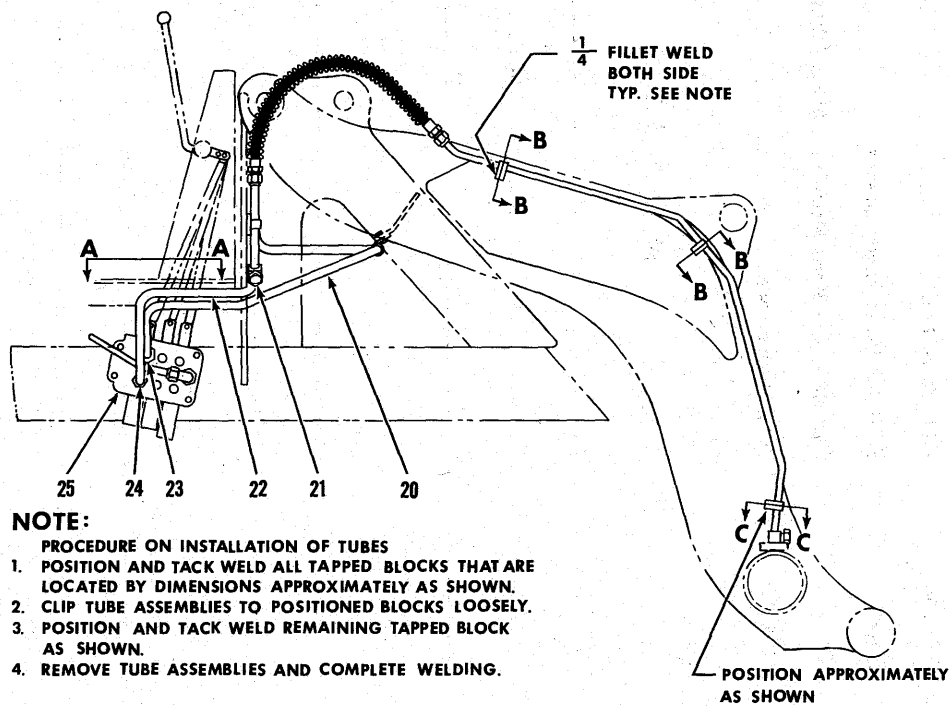
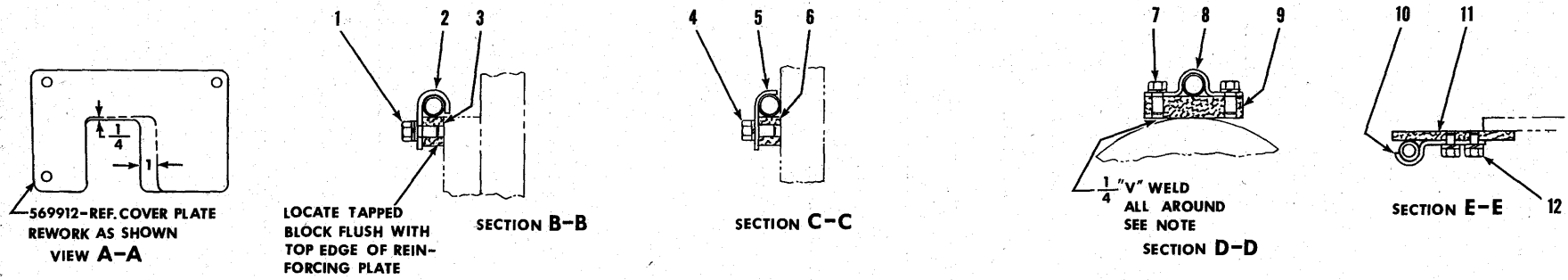


CLARK EQUIPMENT COMPANY • Construction Machinery Division • Benton Harbor, Michigan
IN CANADA: Clark Equipment of Canada, St. Thomas, Ontario



THREE SPOOL VALVE INSTALLATION AND PARTS

TS-6932-P



THREE SPOOL VALVE INSTALLATION AND PARTS

TS-6936-P



CONSTRUCTION MACHINERY DIVISION

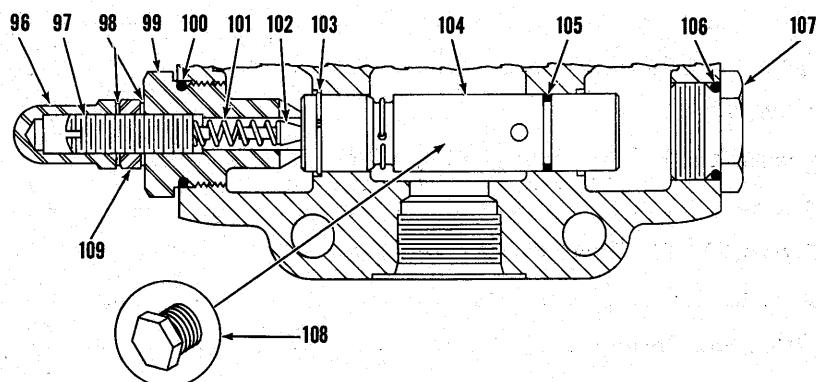
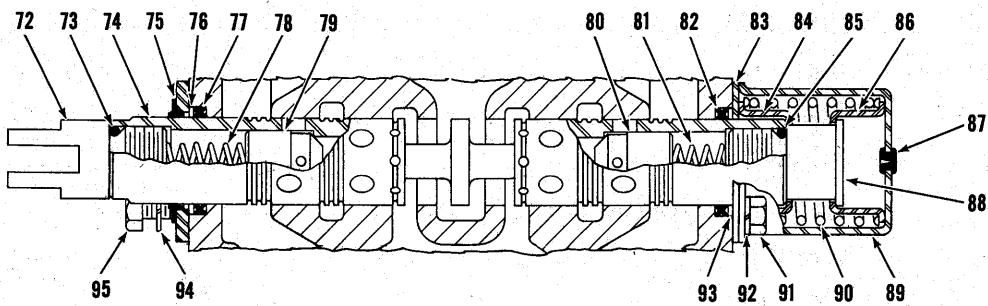
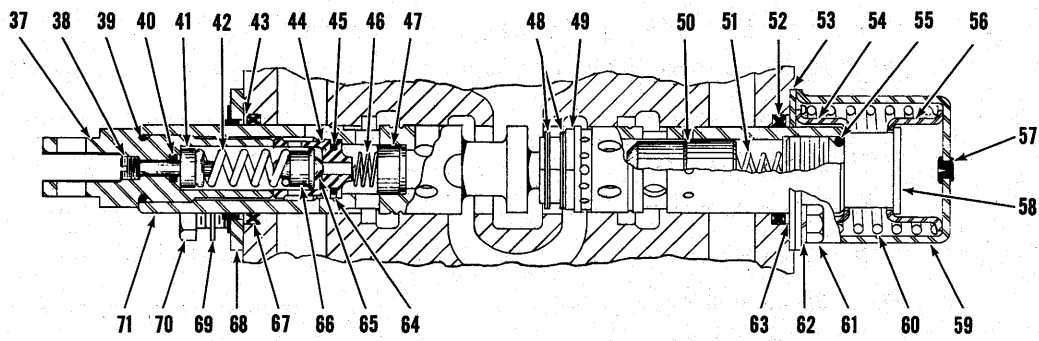
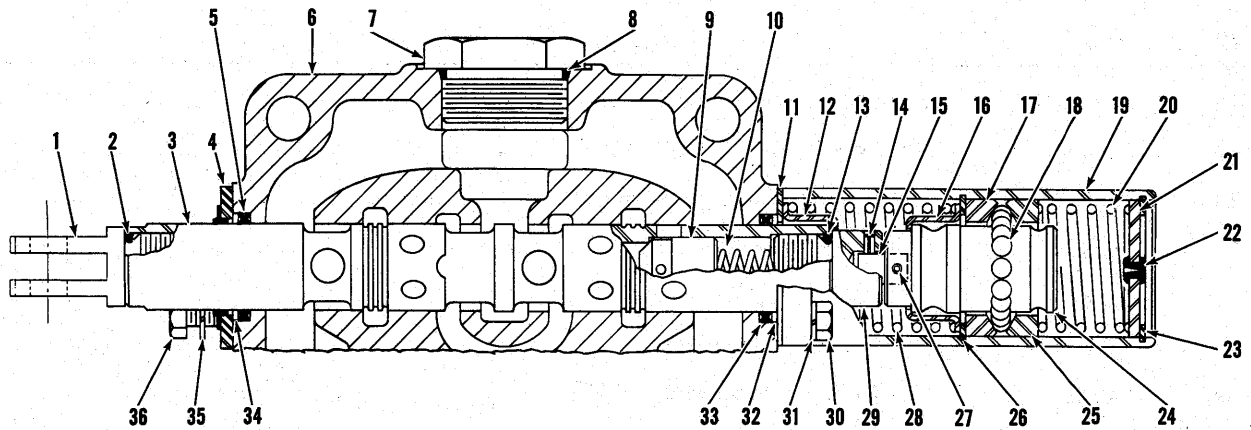
MICHIGAN

THREE SPOOL VALVE INSTALLATION AND PARTS

Item No.	Part No.	Description	No. Req'd.
1	18C-612	BOLT, Clamp to Block	4
1A	4E-06	† LKWSHR, Clamp to Block Bolt	4
1B	619024	† WASHER, Clamp to Block Bolt	4
2	563638	CLAMP, Tube Mounting	4
3	564771	BLOCK, Tube Mounting	4
4	18C-612	BOLT, Clamp to Block	2
4A	4E-06	† LKWSHR, Clamp to Block Bolt	2
5	563664	CLAMP, Tube Mounting	2
6	564771	BLOCK, Tube Mounting	2
7	18C-612	BOLT, Clamp to Block	4
7A	4E-06	† LKWSHR, Clamp to Block Bolt	4
8	563639	CLAMP, Tube Mounting	2
9	563634	BLOCK, Tube Mounting	2
10	563637	CLAMP, Tube Mounting	2
11	563633	BLOCK, Tube Mounting	2
12	18C-612	BOLT, Clamp to Block	4
12A	4E-06	† LKWSHR, Clamp to Block Bolt	4
13	1521360	HOSE, Tube Connecting	2
14	563647	TUBE, Cross	1
15	1521975	TUBE, L.H.	1
16	563642	TUBE, Rear	1
17	1521359	CLAMP, Tube Mounting	1
17A	-----	† BOLT, Use Cockpit Mtg. Bolt	1
18	1521974	TUBE, R.H.	1
19	10K-10	TEE, Union	1
19A	36K-10	† CAP	1
20	563648	TUBE, Valve to Crosstube	1
21	36K-10	CAP	1
22	563646	TUBE, Valve to Hose	1
23	11K-10	ELBOW, 90°	1
23A	15K-10	† CONNECTOR, 37° Flare Fitting (Inc. Item 23B)	1
23B	91F-10	† "O" RING	1
24	15K-10	CONNECTOR, 37° Flare Fitting (Inc. Item 24A)	1
24A	91F-10	† "O" RING	1
25	572484	VALVE ASSY, Control	1

†Not Illustrated

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



THREE SPOOL CONTROL VALVE ASSEMBLY

TS-6788-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

THREE SPOOL CONTROL VALVE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	572484	VALVE ASSY, Control (Inc. 1 thru 109)	1	41	946363	GUIDE, Spring	1
1	946360	EYE, Plunger	1	42	946364	SPRING, Check	1
2	944881	"O" RING, Eye	1	43	944883	RING, Back-up	1
3	—	§ PLUNGER, Operating — See "A"	1	44	946367	SEAT, Check	1
4	893294	WIPER, Plunger	1	45	25K-20016	"O" RING, Seat	1
5	784559	SEAL, Plunger Oil	1	46	946369	SPRING, Check	1
6	—	§ HOUSING — See "A"	1	47	946370	CHECK	1
7	24K-11	PLUG, to Housing	1	48	1308105	RING, Retaining	4
8	91F-11	"O" RING, Plug	1	49	946032	CHECK	2
9	944885	CHECK	1	50	946368	CHECK	1
10	893293	SPRING, Check	1	51	893293	SPRING, Check	1
11	944882	PLATE, Retaining	1	52	784559	SEAL, Plunger	1
12	944878	GUIDE, Spring	1	53	944882	PLATE, Retaining	1
13	944881	"O" RING, Cap	1	54	945348	GUIDE, Spring	1
14	108301	ROLL PIN	1	55	944881	"O" RING, Cap	1
15	888449	PIN	1	56	945348	GUIDE, Spring	1
16	944878	GUIDE, Spring	1	57	886745	PLUG, Bleeder	1
17	944897	RETAINER, Ball	1	58	944895	CAP, Plunger	1
18	10J-08	BALL	15	59	944896	COVER, Spring Return	1
19	945805	COVER, Detent	1	60	944879	SPRING, Plunger Return	1
20	946029	SPRING, Detent	1	61	1C-410	BOLT, Cover Mounting	4
21	944900	PLUG	1	62	4E-04	LKWSHR, Cover Mounting	4
22	886763	PLUG, Bleeder	1	63	944883	RING, Back-up	1
23	507695	RING, Retaining	1	64	946366	RING, Back-up	1
24	946030	CAP, Detent	1	65	—	BALL (Inc. with Item 66)	1
25	944897	RETAINER, Ball	1	66	946365	CHECK	1
26	1301194	RING, Retaining	1	67	784559	SEAL, Plunger	1
27	108301	ROLL PIN	1	68	893294	WIPER, Plunger	1
28	945090	SPRING	1	69	4E-04	LKWSHR, Cover Mounting	2
29	945095	CAP, Plunger	1	70	1C-410	BOLT, Cover Mounting	2
30	1C-416	BOLT, Cover to Housing	4	71	—	§ PLUNGER, Operating — See "A"	1
31	4E-04	LKWSHR, Cover to Housing	4	72	946360	EYE, Plunger	1
32	944883	RING, Back-up	1	73	944881	"O" RING, Eye	1
33	784559	SEAL, Plunger Oil	1	74	—	§ PLUNGER, Operating — See "A"	1
34	944883	RING, Back-up	1	75	893294	WIPER, Plunger	1
35	4E-04	LKWSHR, Wiper to Housing	2	76	944883	RING, Back-up	1
36	1C-410	BOLT, Wiper to Housing	2	77	784559	SEAL, Plunger	1
37	946361	EYE, Plunger	1	78	893293	SPRING, Check	1
38	946362	SCREW, Adjusting	1	79	944885	CHECK	1
39	944881	"O" RING, Eye	1	80	944885	CHECK	1
40	25K-20007	"O" RING, Adjusting Screw	1				

§Not Sold Separately

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



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

THREE SPOOL CONTROL VALVE ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
81	893293	SPRING, Check	1	96	944853	NUT, Acorn	1
82	784559	SEAL, Plunger	1	97	944890	SCREW, Adjusting	1
83	944882	PLATE, Retaining	1	98	613750	WASHER	2
84	945348	GUIDE, Spring	1	99	893296	CAP, Adjusting	1
85	944881	"O" RING, Cap	1	100	25K-40100	"O" RING, Adjusting Cap	1
86	945348	GUIDE, Spring	1	101	886753	SPRING, Poppet	1
87	886745	PLUG, Bleeder	1	102	886739	POPPET, Relief	1
88	944895	CAP, Plunger	1	103	946033	RING, Retaining	1
89	944896	COVER, Spring Return	1	104	893298	VALVE ASSY, Relief (Inc. 103, 105)....	1
90	944879	SPRING, Plunger Return	1	105	945816	"O" RING, Relief Valve	1
91	1C-410	BOLT, Cover Mounting	2	106	25K-40100	"O" RING, Cap	1
92	4E-04	LKWSHR, Cover Mounting	2	107	944894	CAP	1
93	944883	RING, Back-up	1	108	40K-04	PLUG	1
94	4E-04	LKWSHR, Wiper Mounting	2	109	8D-08	NUT, Jam	1
95	1C-410	BOLT, Wiper Mounting	2				

NUMERICAL INDEX

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1C-410	7, 8	91F-10	5	886739	8	945348	7, 8
1C-416	7	91F-11	7	886745	7, 8	945805	7
1F-312	3	108301	7	886753	8	945816	8
1F-414	3	507695	7	886763	7	946029	7
2J-8300	3	509772	3	888449	7	946030	7
4E-04	7, 8	550646	3	893293	7, 8	946032	7
4E-06	5	563633	5	893294	7	946033	8
4F-06106	3	563634	5	893296	8	946360	7
4F-08127	3	563637	5	893298	8	946361	7
8D-08	3, 8	563638	5	944853	8	946362	7
10H-25	3	563639	5	944878	7	946363	7
10J-08	7	563640	3	944879	7, 8	946364	7
10K-10	5	563642	5	944881	7, 8	946365	7
11K-10	5	563646	5	944882	7, 8	946366	7
15K-10	5	563647	5	944883	7, 8	946367	7
18C-612	5	563648	5	944885	7	946368	7
18D-08	3	563664	5	944890	8	946369	7
24C-8160	3	564771	5	944894	8	946370	7
24K-11	7	567607	3	944895	7, 8	1301194	7
25K-20007	7	569055	3	944896	7, 8	1308105	7
25K-20016	7	572484	5, 7	944897	7	1521359	5
25K-40100	8	613750	8	944900	7	1521360	5
36K-10	5	616796	3	945090	7	1521974	5
40K-04	8	619024	5	945095	7	1521975	5
		784559	7, 8				

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

**75 III TRACTOR SHOVEL
85 III TRACTOR SHOVEL**

MICHIGAN

PARTS MANUAL SUPPLEMENT

No. 2353



**This Supplement covers 1501994 Control Valve Assembly as used on
Models 75 III, 85 III MICHIGAN Tractor Shovels.**



**This Control Valve Assembly became effective in production with
Machine Serial Numbers listed below:**

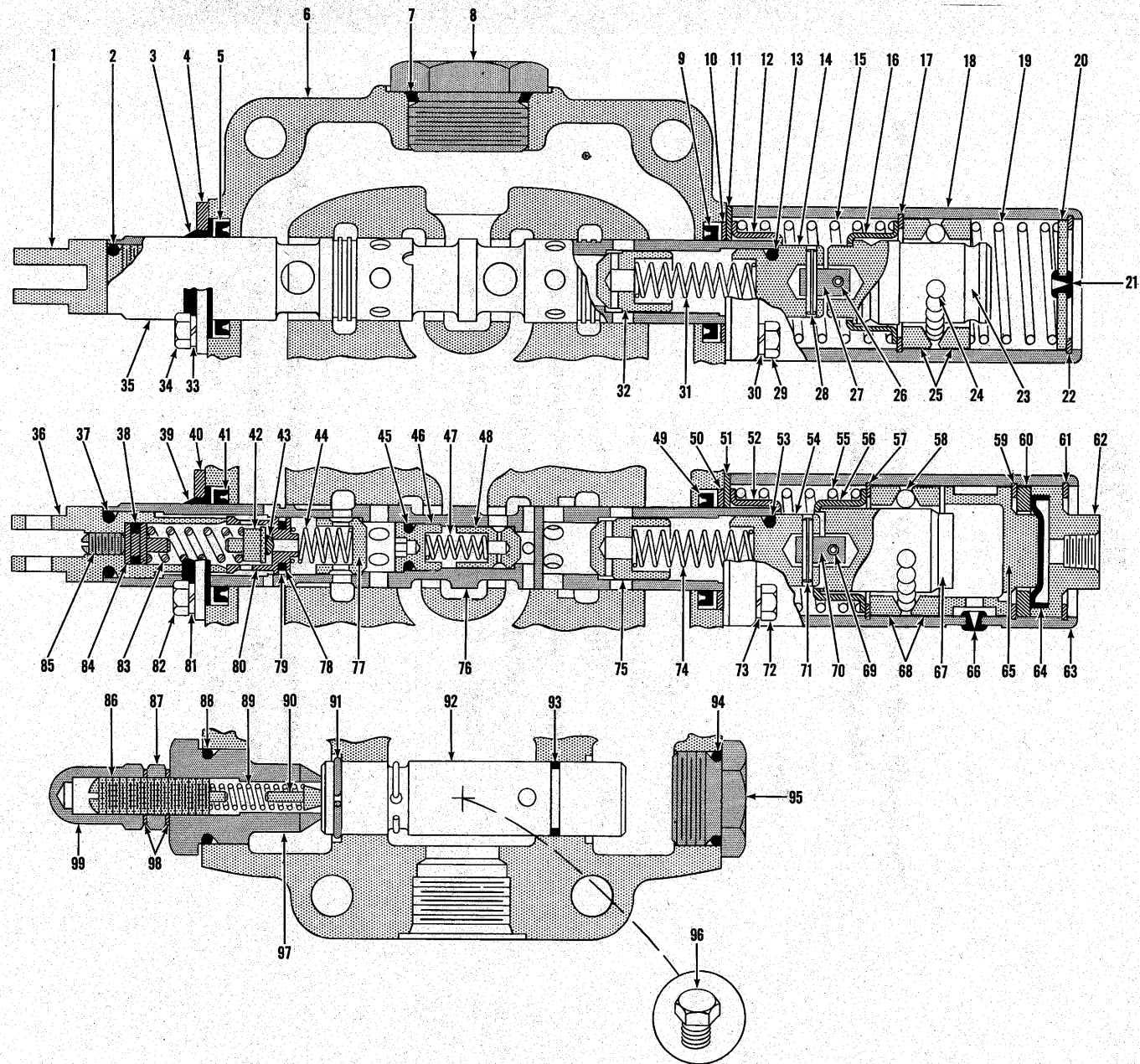
**75 III — G.M. — 9CG161 and thereafter
75 III — Waukesha — 8CA101 and thereafter
85 III — G.M. — 8DG101 and thereafter
85 III — Cummins — 7DC101 and thereafter**



**Use this Supplement with 75 III Parts Manual No. 2083, 85 III
Parts Manual No. 2086 and Parts Manual Supplements
to Parts Manuals No. 2083 and 2086.**



CLARK EQUIPMENT COMPANY
Construction Machinery Division



CONTROL VALVE ASSEMBLY

TS-8494-P



CONSTRUCTION MACHINERY DIVISION

MICHIGAN

CONTROL VALVE ASSEMBLY

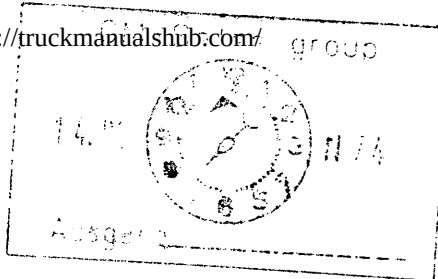
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1501994	CONTROL VALVE ASSY (Inc. 1 thru 99)	1	50	944883	RING, Back-Up	1
1	946360	EYE, Plunger	1	51	946535	PLATE, Seal Retaining	1
2	944881	"O" RING, Plunger Eye	1	52	944878	GUIDE, Spring	1
3	946918	WIPER, Plunger	1	53	944881	"O" RING, Cap	1
4	946914	PLATE, Wiper & Seal Retaining	1	54	945095	CAP, Plunger	1
5	946583	SEAL, Plunger Oil	1	55	944879	SPRING	1
6	—	SHOUSING, Valve — See "A"	—	56	944878	GUIDE, Spring	1
7	91F-11	"O" RING, Cap	1	57	1301194	RING, Retaining	1
8	24K-11	CAP, Housing	1	58	10J-08	BALL	15
9	946583	SEAL, Plunger Oil	1	59	507695	RING, Retaining	1
10	944883	RING, Back-Up	1	60	946916	SPACER	1
11	944882	PLATE, Seal Retaining	1	61	507695	RING, Retaining	1
12	944878	GUIDE, Spring	1	62	946915	PLUG	1
13	944881	"O" RING, Cap	1	63	946913	COVER, Detent	1
14	945095	CAP, Plunger	1	64	946919	DIAPHRAGM	1
15	945090	SPRING	1	65	946917	PLUG	1
16	944878	GUIDE, Spring	1	66	886763	PLUG, Bleeder	1
17	1301194	RING, Retaining	1	67	946912	CAP, Detent	1
18	945805	COVER, Detent	1	68	944897	RETAINER, Ball	2
19	946029	SPRING	1	69	305307	ROLL PIN	1
20	944900	PLUG	1	70	888449	PIN, Connecting	1
21	886763	PLUG, Bleeder	1	71	305307	ROLL PIN	1
22	507695	RING, Retaining	1	72	1C-416	BOLT, Cover to Housing	4
23	946030	CAP, Detent	1	73	4E-04	LKWSHR, Cover to Housing	4
24	10J-08	BALL	15	74	946544	SPRING, Check	1
25	944897	RETAINER, Ball	2	75	944885	CHECK	1
26	108301	ROLL PIN	1	76	—	SPLUNGER — See "A"	—
27	888449	PIN, Connecting	1	77	946543	CHECK	1
28	108301	ROLL PIN	1	78	25K-20018	"O" RING, Seat	1
29	1C-416	BOLT, Cover to Housing	4	79	946556	RING, Sealing	1
30	4E-04	LKWSHR, Cover to Housing	4	80	946883	SEAT, Relief Valve	1
31	893293	SPRING, Check	1	81	4E-04	LKWSHR, Plate to Housing	2
32	944885	CHECK	1	82	1C-410	BOLT, Plate to Housing	2
33	4E-04	LKWSHR, Plate to Housing	2	83	946364	SPRING	1
34	1C-410	BOLT, Plate to Housing	2	84	946363	GUIDE, Spring	1
35	—	SPLUNGER — See "A"	—	85	946541	SCREW, Adjusting	1
36	946361	EYE, Plunger	1	86	944890	SCREW, Adjusting	1
37	944881	"O" RING, Plunger Eye	1	87	8D-08	NUT, Jam	1
38	25K-20014	"O" RING, Guide	1	88	791553	"O" RING, Adjusting Cap	1
39	946918	WIPER, Plunger	1	89	886753	SPRING, Relief	1
40	946914	PLATE, Wiper & Seal Retaining	1	90	886739	POPPET, Relief	1
41	946583	SEAL, Plunger Oil	1	91	947361	SNAP RING	1
42	946884	POPPET ASSY (Inc. 43)	1	92	893298	RELIEF VALVE ASSY (Inc. 91, 93)	1
43	—	SBALL — See 42	—	93	945816	"O" RING, Relief Valve	1
44	946545	SPRING	1	94	791553	"O" RING, Cap	1
45	945221	"O" RING, Cap	1	95	944894	CAP	1
46	946555	*CAP	1	96	40K-04	PLUG	1
47	946536	SPRING	1	97	893296	CAP, Adjusting	1
48	945590	CHECK	1	98	613750	WASHER, Jam Nut	2
49	946583	SEAL, Plunger Oil	1	99	944853	NUT, Acorn	1

§Not Sold Separately

*NOTE: Torque to 25 Ft/Lbs.

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





EMP

MICHIGAN

OPERATORS MANUAL SUPPLEMENT

No. 2991



SUBJECT: Recommended Service Interval for Cleaning Hydraulic Reservoir Suction Filters and Replacement of Return Filter Elements

Old Specification: Service every 500 operating hours.

New Specification: Service every 250 operating hours.



Accumulation of test data and field experience has established that 250 operating hours is the most effective interval for cleaning hydraulic reservoir suction filters and replacing return filters under all operating conditions. The data contained in this supplement provides servicing procedures to be followed at the new recommended time interval.

This supplement supersedes and replaces Operators Manual Supplement No. 2531 and information contained in existant operators manuals listed in the table below.

Use this supplement with the following operators manuals:

Model	Manual No.	Model	Manual No.
**45 B	2856-R2	125-III A	2454
55-III	2115	125 B	2921-R1
55-III A	2533-R1	175-III	2028
75-III	2097	175-III A	2139
75-III A	2592	175 B & 275 B	2653-R1
75 B	2771-R1	275-III	2081
* 75 B	2944	475 B	2827
85-III	2098	675 B	2811
85-III A	2450	280-III A	2361-R1
125-III A	2347	380-III A	2515

*Model 75 B Operators Manual No. 2944-R1 does not require this supplement.

**Model 45 B Operators Manual No. 2856-R3 does not require this supplement.

CLARK EQUIPMENT COMPANY
Construction Machinery Division

250 HOUR MAINTENANCE OPERATIONS

Service Reservoir Return Filter Assemblies:

The hydraulic reservoir return filter assemblies installed inside the hydraulic reservoir consist of a head and handle assembly, "O" ring, two filter elements secured between a holder assembly with retaining plates (center and bottom), a spring and attaching hardware. The reservoir return filter assemblies are designed and installed in a manner that permits the filter assembly to act as a relief valve so that oil can be by-passed if the filter element becomes excessively plugged with foreign material.

During normal operation, hydraulic system oil flows through the return filter assemblies from inside to outside before entering the reservoir. However, when the filter elements become excessively plugged with foreign material or contaminants, a difference in pressure within the inner side of the filter elements and reservoir will be created. When the pressure differential reaches approximately 11 psi, the filter assembly is forced downward permitting the hydraulic oil to by-pass the plugged filter elements entering directly into the hydraulic reservoir.

Remove the hydraulic return filter assemblies and replace filter elements as follows, See Figure 1.

Caution: *Extreme care must be exercised when removing filter while oil is hot to prevent hands from getting burned.*

1. Remove filter assembly from hydraulic reservoir by removing mounting bolts and lockwashers.

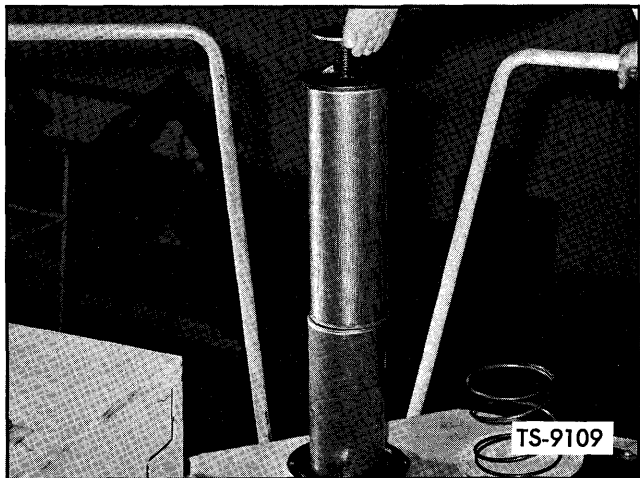


Fig. 1. Reservoir Return Filter Assembly

2. Remove attaching hardware securing the bottom retaining plate and filter elements in the holder assembly. Discard the retaining plate sealing washer.
3. Remove both filter elements and center retaining plate from holder assembly. Discard the filter elements.

Note: *Do not attempt to clean or re-use the dirty filter elements.*

4. Reinstall new filter elements in holder assembly with the center retaining plate positioned between the top and bottom filter elements. Re-secure the elements in the holder assembly with bottom retaining plate, using a new sealing washer, and attaching hardware.
5. Reinstall and secure the return filter assemblies in the hydraulic reservoir with mounting bolts and lockwashers.

Clean Hydraulic Reservoir Suction Filter Assemblies: The hydraulic reservoir filter assemblies installed inside the hydraulic reservoir consist of a pleated metal filter element with sealing gaskets secured between a mounting base and cover type relief valve.

Recommended servicing procedures for cleaning the reservoir filter element are described below.

During normal operation, oil is drawn from the reservoir through the filter element under equal pressure by the main hydraulic pump before entering the hydraulic system. However, when the filter element becomes excessively plugged with foreign material or contaminants, a difference in pressure within the reservoir and inner side of the filter element will be created. When the pressure difference reaches 2.4 psi, the cover type relief valve incorporated at the top of the filter assembly will open permitting the hydraulic oil to by-pass the plugged filter element entering directly into the hydraulic system.

1. Loosen reservoir cap slowly to relieve pressure in hydraulic reservoir. Remove reservoir cap, dipstick, and hand hole cover as shown in Figure 2. On models using two filters, the second filter is located under the plate next to the reservoir filler cap.
2. Unscrew filter element from element mounting base and remove filter element as shown in Figure 3.

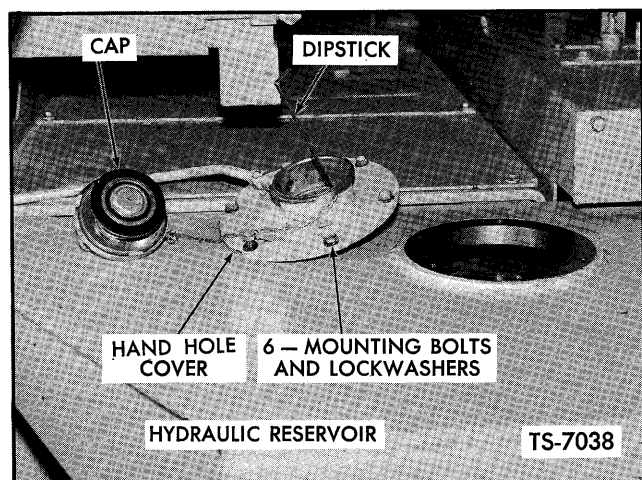


Fig. 2. Remove Reservoir Cap, Dipstick and Hand Hole Cover

3. Immerse filter element in hot soapy water. Soak and intermittently agitate element and relief valve components for approximately 30 minutes to loosen dirt particles. Remove any remaining deposits between element pleats with a stiff bristled **non-metallic** brush as shown in Figure 4. Flush element and relief valve components with clean hot water until drain water is clear.
4. Air dry element and relief valve components with filtered low pressure air as shown in Figure 5. Examine general condition of filter element checking for element cleanliness, deteriorated sealing gaskets, or screen damage. Replace deteriorated sealing gaskets with new gaskets using RUSCOE EPOXY CEMENT to secure new gaskets on element. If filter screen is damaged, replace with new element. Check relief valve components for any sign of damage replacing any component not in good service-

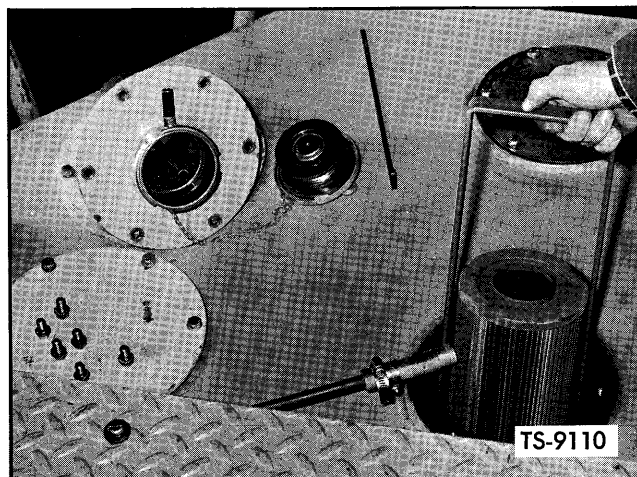


Fig. 3. Remove Filter Element

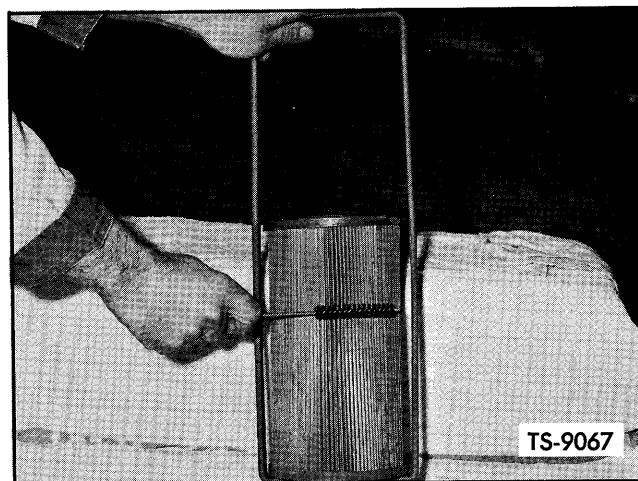


Fig. 4. Cleaning Filter Element with Stiff Bristled Brush

able condition.

Note: RUSCOE EPOXY CEMENT can be obtained in 5 and 10 Cent Stores or by ordering directly from the W. J. RUSCOE COMPANY in Akron, Ohio. RUSCOE EPOXY CEMENT is available in various sizes and can be ordered by the following assigned Catalog Numbers. 1½ oz. Tubes (Cat. # x - 1), and Piggy-Back Cans of 6 ozs. (Cat. # x - 24), 12 ozs. (Cat. # x - 48) and 18 ozs. (Cat. # x - 612). Directions for use are printed on each container. Because raw materials in Ruscoe Epoxy have a minimum degree of toxicity, precautions such as avoiding direct contact with the skin and washing hands thoroughly after use is recommended.

Note: Not all of the models affected by this supplement use both return and suction filters. In such cases, use only the individual application suited to the specific machine.

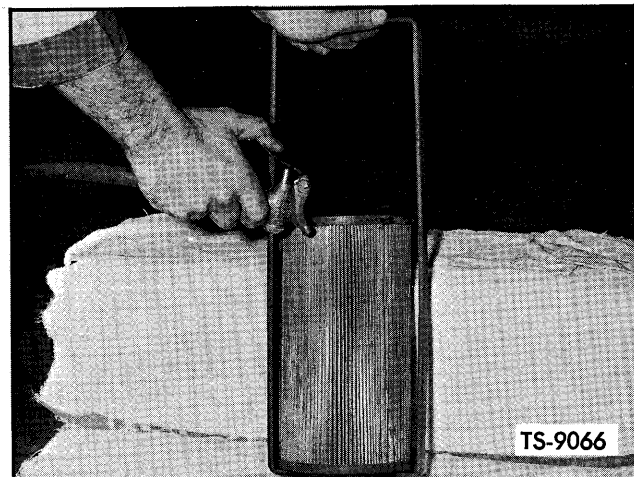


Fig. 5. Air Dry Filter Element and Inspect for Damage

