

# CLARK

## PARTS MANUAL

No. 1698-R1

## MODEL 75A

Series II

## TRACTOR SHOVEL

Information contained herein pertains to Machine Serial Numbers listed below:

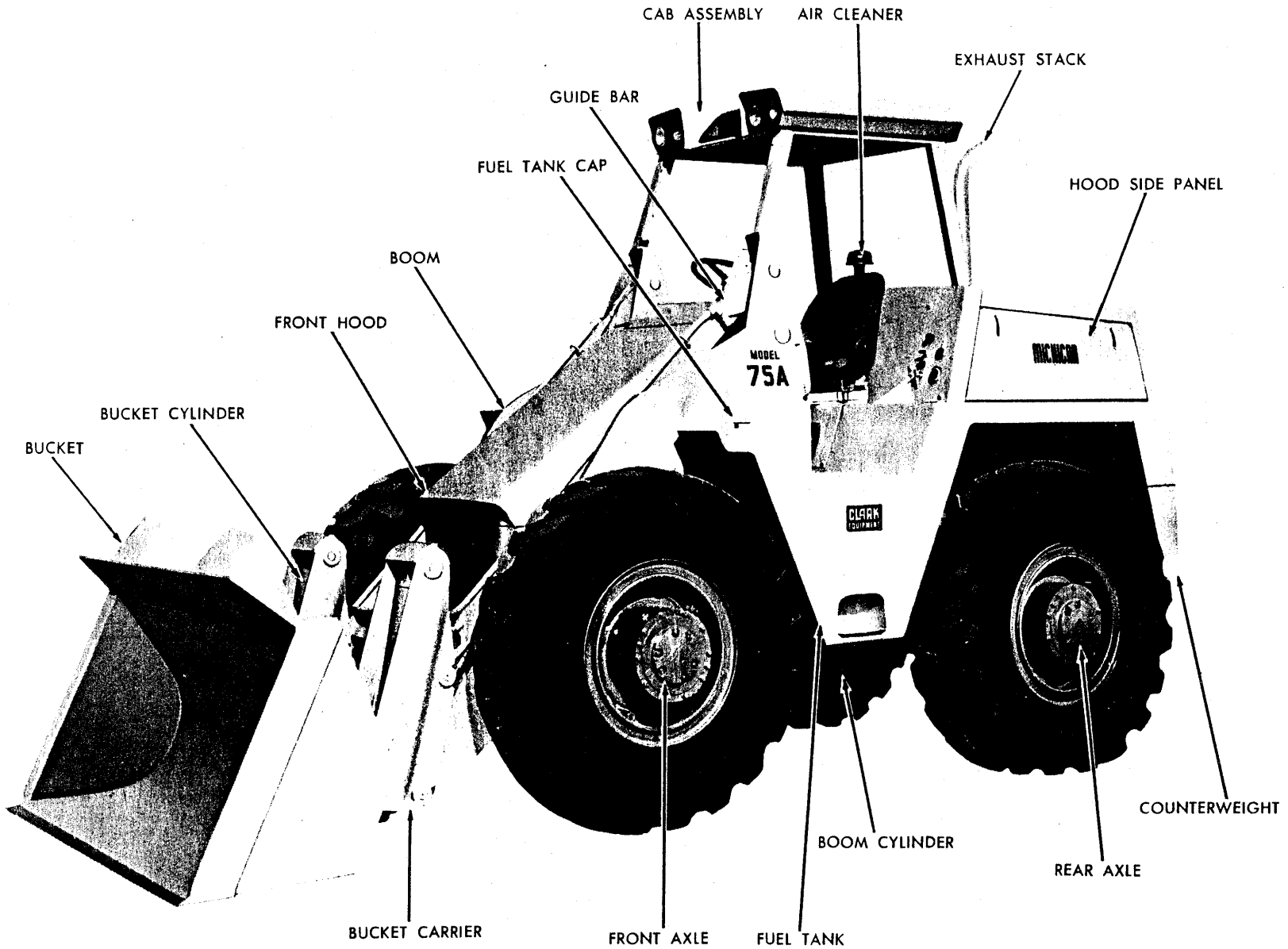
**75A Waukesha Gas — 2CA101 thru 2CA999,  
3CA101 thru 3CA999**

**75A G.M. Diesel — 2CG101 thru 2CG999,  
3CG101 thru 3CG999**

Data covering Machine Serial Ranges prefixed with designations 4CA, 5CA, 4CG, 5CG, 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

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**MODEL 75A SERIES II TRACTOR SHOVEL**

TS-3698

## WHEN ORDERING REPAIR PARTS

To assure the best results and to maintain the original quality built into the machine it is important that genuine "Clark" 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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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.

Table with 4 columns: Item No., Part No., Description, No. Req'd. Lists parts 1-24 including starting motor, generator, distributor, voltage regulator, bracket, bolts, nuts, coil, switch, solenoid, sender unit, and pressure switches.

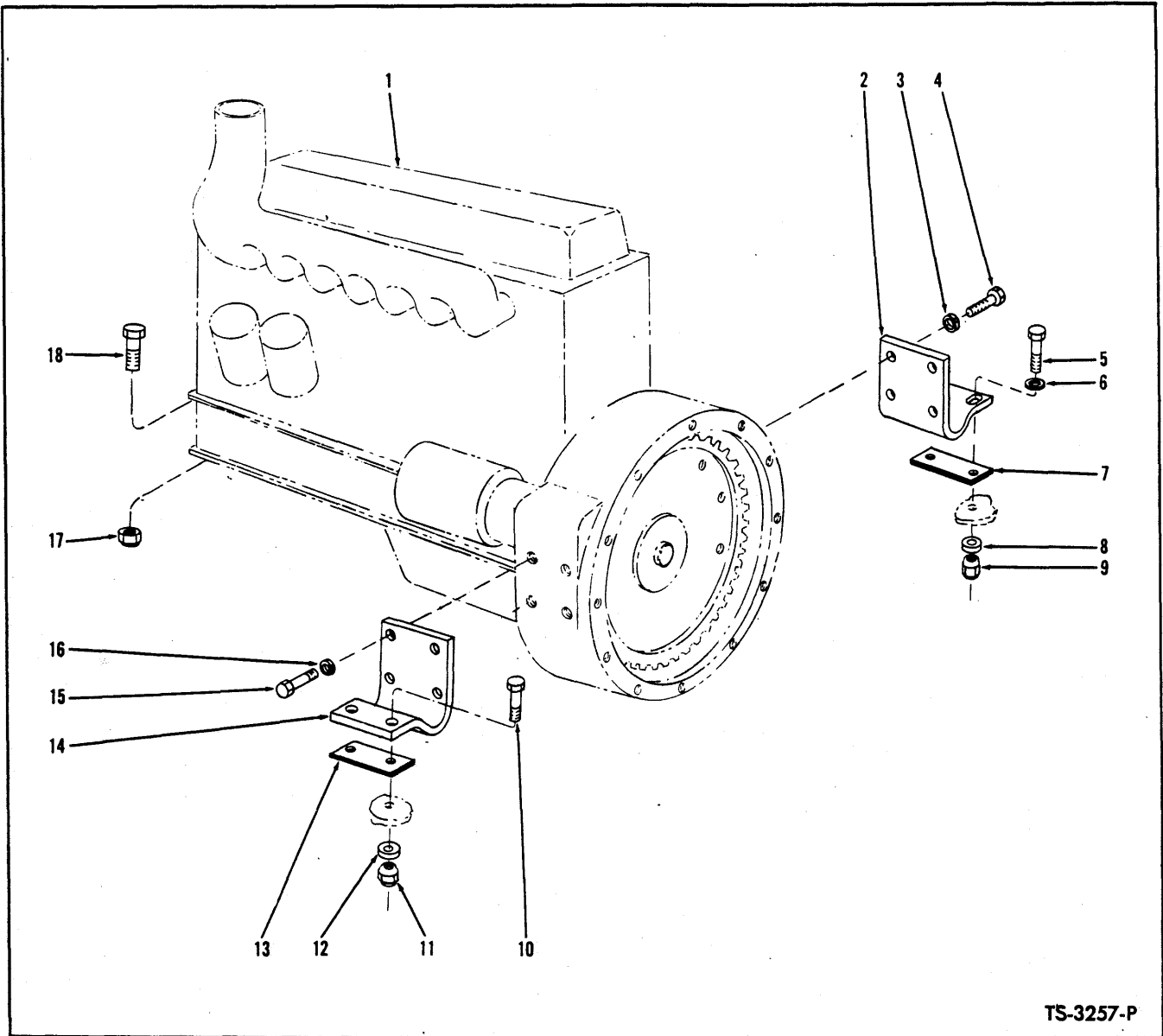
ENGINE AND ACCESSORIES - G.M.

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

Table with 4 columns: Item No., Part No., Description, No. Req'd. Lists parts 25-37 including starting motor, generator, voltage regulator, bracket, bolts, nuts, sender unit, and pressure switches.

\*NOTE: These parts furnished with engine. See your nearest engine distributor for repair and replacement of same.
\*\*NOTE: For replacement refer to Service Gram S.G.-326B.

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

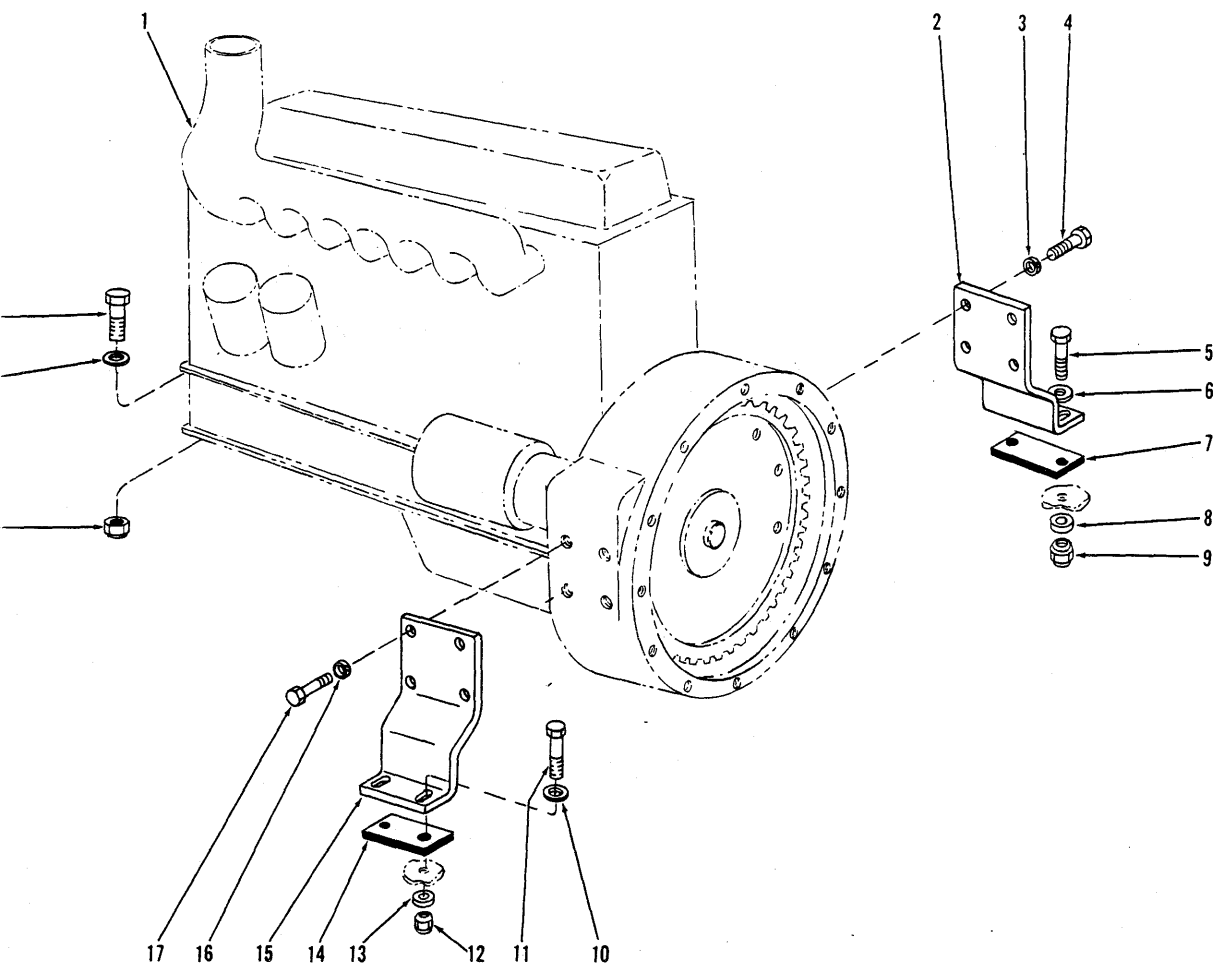


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**ENGINE MOUNTING PARTS — GAS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	ENGINE—See Engine Parts Manual	—	10	18C-832	BOLT, Support to Frame	2
2	535650	SUPPORT, Engine, L.H.	1	11	70D-08	NUT, Support to Frame	2
3	4E-08	LKWSHR, Support to Engine	4	12	71D-08	BASE, Support to Frame Nut	2
4	17C-824	BOLT, Support to Engine	4	13	536746	PAD, Support to Engine	1
5	18C-832	BOLT, Support to Frame	2	14	537781	SUPPORT, Engine	1
6	619029	WASHER, Support to Frame	2	15	17C-824	BOLT, Support to Engine	4
7	536746	PAD, Support to Frame	1	16	4E-08	LKWSHR, Support to Engine	4
8	71D-08	BASE, Support to Frame Nut	2	17	18D-08	NUT, Engine Trunnion to Frame	2
9	70D-08	NUT, Support to Frame	2	18	18C-836	BOLT, Engine Trunnion to Frame	2

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



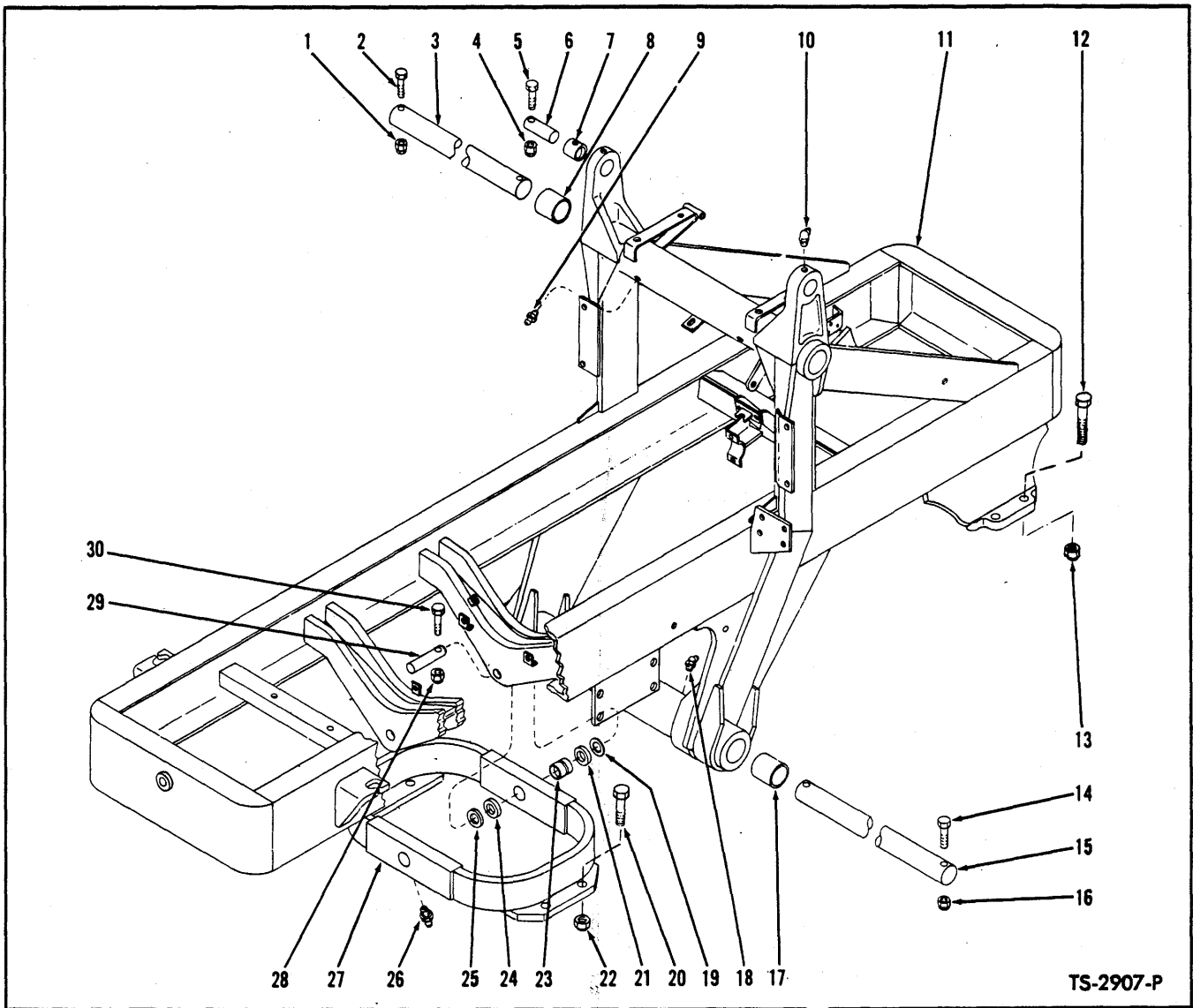
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**ENGINE MOUNTING PARTS —G.M.**

Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
—	ENGINE — See Engine Parts Manual	—	11	18C-832	BOLT, Support to Frame	2
44150	SUPPORT, Engine	1	12	70D-08	NUT, Support to Frame	2
4E-08	LKWSHR, Support to Engine	4	13	71D-08	BASE, Support to Frame Nut	2
17C-824	BOLT, Support to Engine	4	14	536746	PAD, Support to Frame	1
18C-832	BOLT, Support to Frame	2	15	544150	SUPPORT, Engine	1
25E-21	WASHER, Support to Frame	2	16	4E-08	LKWSHR, Support to Engine	4
536746	PAD, Support to Frame	1	17	17C-824	BOLT, Support to Engine	4
70D-08	BASE, Support to Frame Nut	2	18	68D-08	NUT, Engine Trunnion to Frame	2
71D-08	NUT, Support to Frame	2	19	25E-21	WASHER, Engine Trunnion to Frame	2
25E-21	WASHER, Support to Frame	2	20	18C-832	BOLT, Engine Trunnion to Frame	2

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



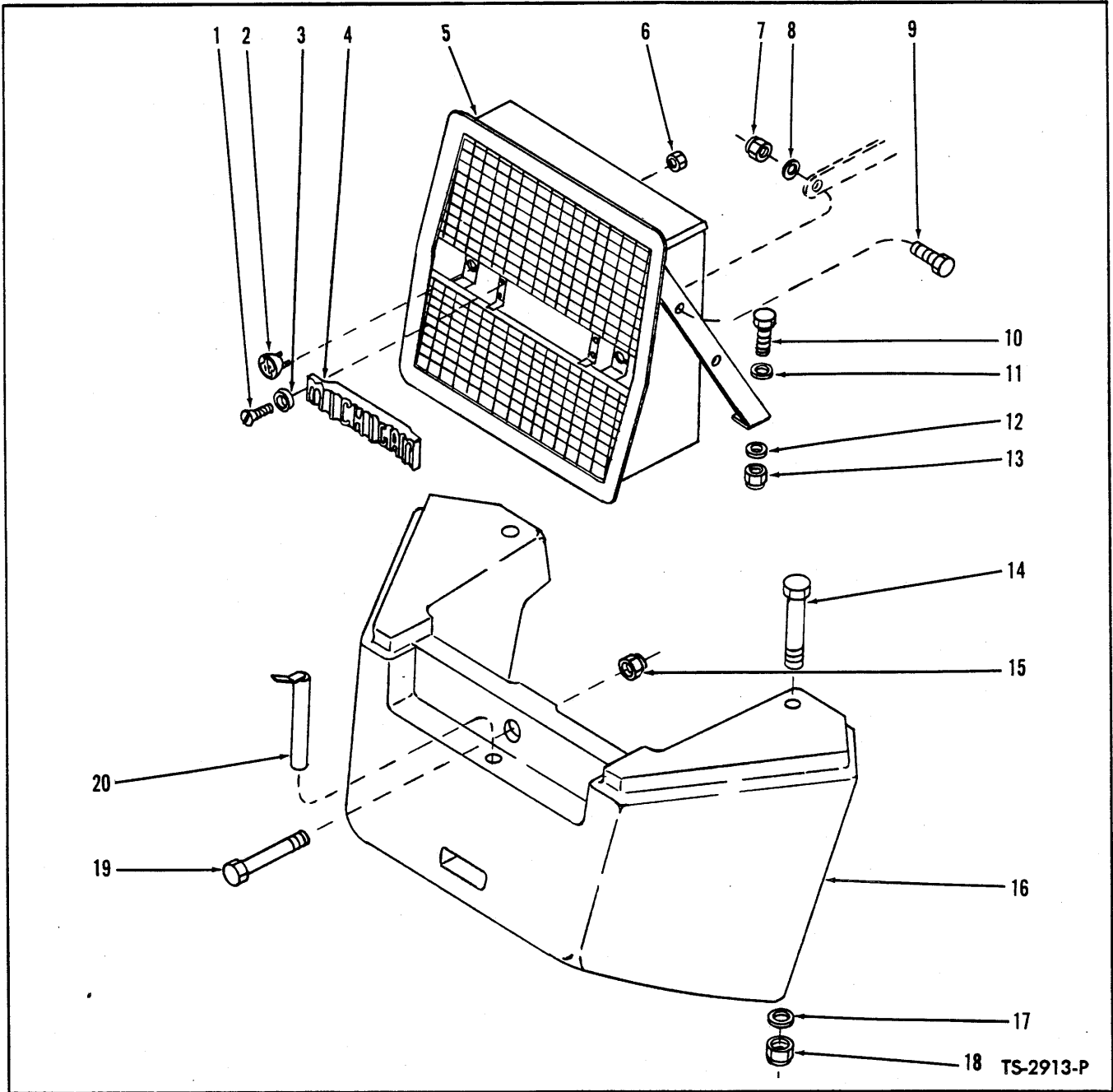


**FRAME AND CRADLE ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-08	NUT, Shaft Retaining	2	14	18C-872	BOLT, Shaft Retaining	2
2	18C-872	BOLT, Shaft Retaining	2	15	532251	SHAFT, Cylinder Pivot	1
3	535195	SHAFT, Boom Pivot	1	16	18D-08	NUT, Shaft Retaining	2
4	18D-08	NUT, Pin Retaining	2	17	538598	BUSHING, Lower Pivot Tube	2
5	18C-872	BOLT, Pin Retaining	2	18	10H-25	FITTING, Lower Tube Grease	2
6	532249	PIN, Guide Bar to Frame	2	19	551347	‡WASHER, Cradle to Frame — 1/8"	—
7	532122	BUSHING, Guide Bar	2	20	24C-1252	BOLT, Rear Axle to Cradle	8
8	538598	BUSHING, Upper Pivot Tube	2	21	551348	‡WASHER, Cradle to Frame — 1/8"	—
9	10H-25	FITTING, Upper Tube Grease	2	22	68D-12	NUT, Rear Axle to Cradle	8
10	10H-35	FITTING, Guide Bar Grease	2	23	538585	BUSHING, Cradle	2
11		FRAME ASSY (Inc. 7, 8, 17)		24	551348	‡WASHER, Cradle to Frame — 1/8"	—
11A	544236	For G.M. Powered Machines	1	25	551347	‡WASHER, Cradle to Frame — 1/8"	—
11B	534323	For Waukesha Gas Powered Machines	1	26	10H-25	FITTING, Cradle Pivot Grease	2
12	24C-12144	BOLT, Front Axle to Frame	8	27	538847	CRADLE ASSY, Rear Axle (Inc. 23)	1
13	68D-12	NUT, Front Axle to Frame	8	28	18D-08	NUT, Pin Retaining	2
				29	542631	PIN, Cradle Pivot	2
				30	18C-856	BOLT, Pin Retaining	2

‡As Required

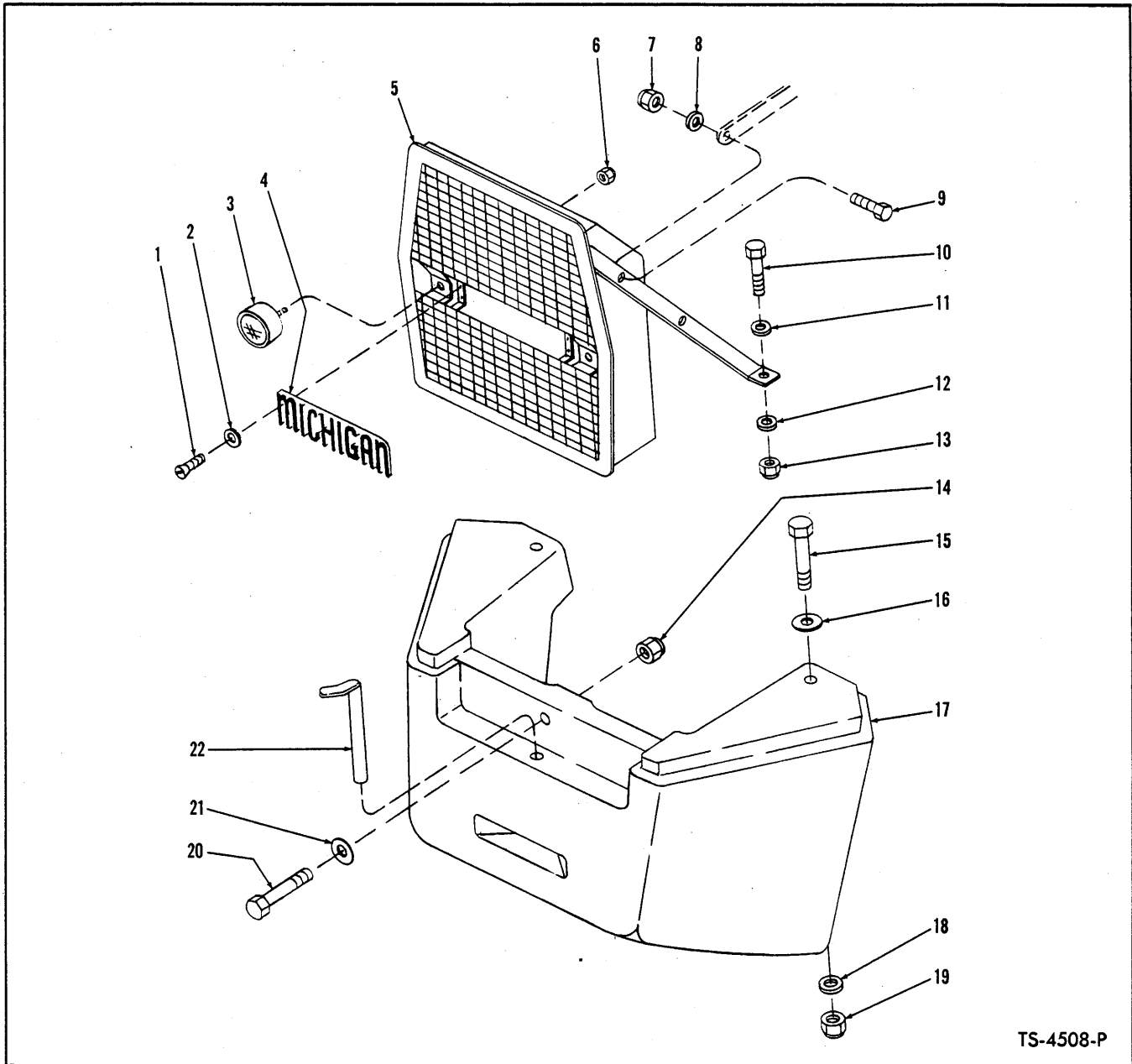
**WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE**



**COUNTERWEIGHT AND GRILLE**  
**For Serial: G.M. — 2CG101 thru 3CG999,**  
**Wauk. — 2CA101 and after**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	7G-418	SCREW, Name Plate to Grille .....	4	12	71D-08	BASE, Grille to Frame Nut .....	4
2	5203855	TAIL LIGHT .....	2	13	70D-08	NUT, Grille to Frame .....	4
3	20E-04	LKWSHR, Name Plate to Grille .....	4	14	24C-12104	BOLT, Counterweight to Frame—Side	2
4	535649	NAME PLATE, Grille .....	1	15	68D-16	NUT, Counterweight to Frame—Rear	1
5	538175	GRILLE, Radiator .....	1	16	587517	COUNTERWEIGHT .....	1
6	17D-1	NUT, Tail Light to Grille .....	4	17	588187	WASHER, Counterweight to Frame—Side	2
7	18D-06	NUT, Radiator Clip to Grille .....	2	18	68D-12	NUT, Counterweight to Frame—Side	2
8	619023	WASHER, Radiator Clip to Grille .....	2	19	24C-16104	BOLT, Counterweight to Frame—Rear	1
9	18C-620	BOLT, Radiator Clip to Grille .....	2	20	538201	PIN, Drawbar .....	1
10	18C-828	BOLT, Grille to Frame .....	4				
11	619029	WASHER, Grille to Frame .....	4				

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



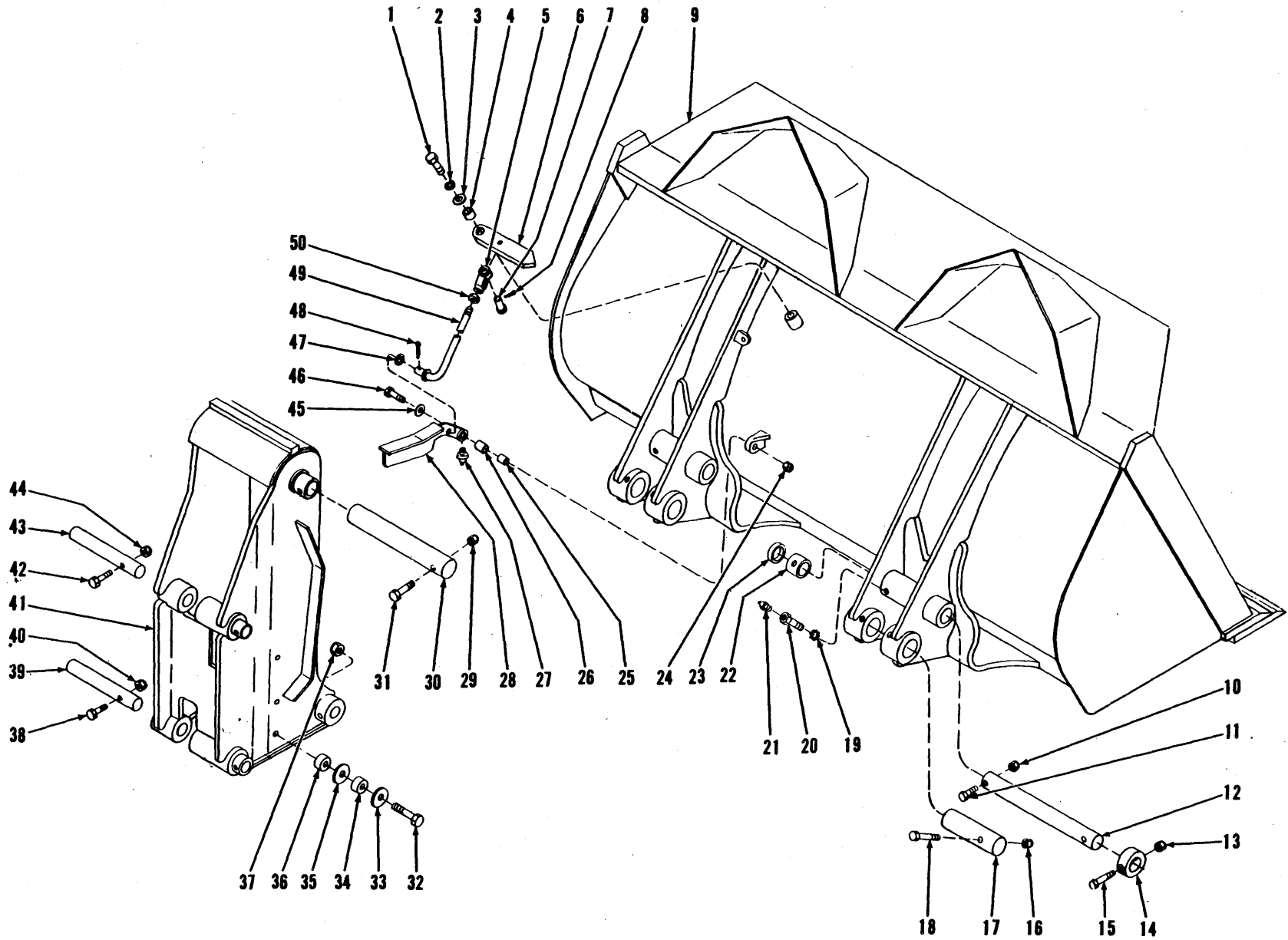
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**COUNTERWEIGHT AND GRILLE — G.M.**

**For Serial: 4CG101 and after**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	7G-418	SCREW, Name Plate to Grille .....	4	14	68D-16	NUT, Counterweight to Frame — Rear	1
2	20E-04	LKWSHR, Name Plate to Grille .....	4	15	24C-12104	BOLT, Counterweight to Frame—Side	2
3	5203855	TAIL LIGHT .....	2	16	588187	WASHER, Counterweight to Frame — Side .....	2
4	535649	NAME PLATE, Grille .....	1	17	587517	COUNTERWEIGHT .....	1
5	538175	GRILLE, Radiator .....	1	18	588187	WASHER, Counterweight to Frame — Side .....	2
6	17D-1	NUT, Tail Light to Grille .....	4	19	68D-12	NUT, Counterweight to Frame — Side	2
7	18D-06	NUT, Radiator Clip to Grille .....	2	20	18C-1696	BOLT, Counterweight to Frame—Rear	1
8	25E-18	WASHER, Radiator Clip to Grille ....	2	21	589596	WASHER, Counterweight to Frame — Rear .....	1
9	18C-620	BOLT, Radiator Clip to Grille .....	2	22	538201	PIN, Drawbar .....	1
10	18C-828	BOLT, Grille to Frame .....	4				
11	619029	WASHER, Grille to Frame .....	4				
12	71D-08	BASE, Grille to Frame Nut .....	4				
13	70D-08	NUT, Grille to Frame .....	4				

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



6.1

(1B13)

PM 1698

CARRIER, BUCKET AND INDICATOR

TS-4501



CONSTRUCTION MACHINERY DIVISION



CARRIER, BUCKET AND INDICATOR
For Serial: G.M. - 2CG101 and after
Wauk. - 2CA101 and after

Table with 4 columns: Item No., Part No., Description, No. Req'd. It lists various mechanical parts and their quantities for different machine serials.

\*NOTE: When replacement is necessary for Items 28 or 49 on Machine Serial: Waukesha-2CA101 thru 2CA999, 3CA101 thru 3CA148; G.M.-2CG101 thru 2CG999, 3CG101 thru 3CG999, 4CG101 thru 4CG135, both items have to be replaced at the same time, plus all items marked with a double \*\* (Asterisk). Item 49, select rod that is applicable to your bucket. Once conversion has been made individual replacements can be made.

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

**CARRIER, BUCKET AND INDICATOR (Continued)**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
38B	18C-844	For Serial: Waukesha — 4CA101 & thereafter, G.M. — 4CG101 & thereafter .....	2	43		PIN, Carrier to Guide Bar & Boom	
39		PIN, Carrier to Guide Bar & Boom		43A	532172	For Serial: Waukesha — 2CA101 thru 2CA999, 3CA101 thru 3CA999; G.M. — 2CG101 thru 2CG999, 3CG101 thru 3CG999 .....	2
39A	532172	For Serial: Waukesha — 2CA101 thru 2CA999, 3CA101 thru 3CA999; G.M. — 2CG101 thru 2CG999, 3CG101 thru 3CG999 .....	2	43B	588826	For Serial: Waukesha — 4CA101 & thereafter, G.M. — 4CG101 & thereafter .....	2
39B	588826	For Serial: Waukesha — 4CA101 & thereafter, G.M. — 4CG101 & thereafter .....	2	44	18D-08	NUT, Pin Retaining Bolt .....	2
40	18D-08	NUT, Pin Retaining .....	2	45	616796	WASHER, Cam to Bucket .....	1
41	588842	***CARRIER, Bucket — L.H. ....	1	46	18C-844	**BOLT, Cam. to Bucket .....	1
41A	588809	***†CARRIER, Bucket — R.H. ....	1	47	550665	**WASHER, Rod For Serial: Waukesha — 3CA149 & thereafter, G.M. — 4CG136 & thereafter .....	1
42		BOLT, Pin Retaining		48	1F-418	**COTTER, Rod to Cam Clevis Pin For Serial: Waukesha — 3CA149 & thereafter, G.M. — 4CG136 & thereafter .....	1
42A	18C-856	For Serial: Waukesha — 2CA101 thru 2CA999, 3CA101 thru 3CA999; G.M. — 2CG101 thru 2CG999, 3CG101 thru 3CG999 .....	2	49		ROD, Pointer to Indicator Cam	
42B	18C-844	For Serial: Waukesha — 4CA101 & thereafter, G.M. — 4CG101 & thereafter .....	2	49A	557158	For 545637, 537306 Bucket .....	1
				49B	557175	For 548666, 545752 Bucket .....	1
				50	8D-08	NUT, Clevis Jam.....	1

\*\*\*NOTE: When 588842 or 588809 Carrier is installed on machine serial: Waukesha — 2CA101 thru 2CA999, 3CA101 thru 3CA999; G.M. — 2CG101 thru 2CG999, 3CG101 thru 3CG999, the following items must also be used:

- |             |                |             |      |
|-------------|----------------|-------------|------|
| 2 — 588826  | PIN            | 2 — 18C-844 | BOLT |
| 2 — 18C-844 | BOLT           | 2 — 18D-08  | NUT  |
| 2 — 18D-08  | NUT            | 1 — 588841  | PIN  |
| 1 — 562594  | PIN            | 1 — 18C-844 | BOLT |
| 1 — 588806  | LOCKING COLLAR | 1 — 18D-08  | NUT  |

†Not Illustrated

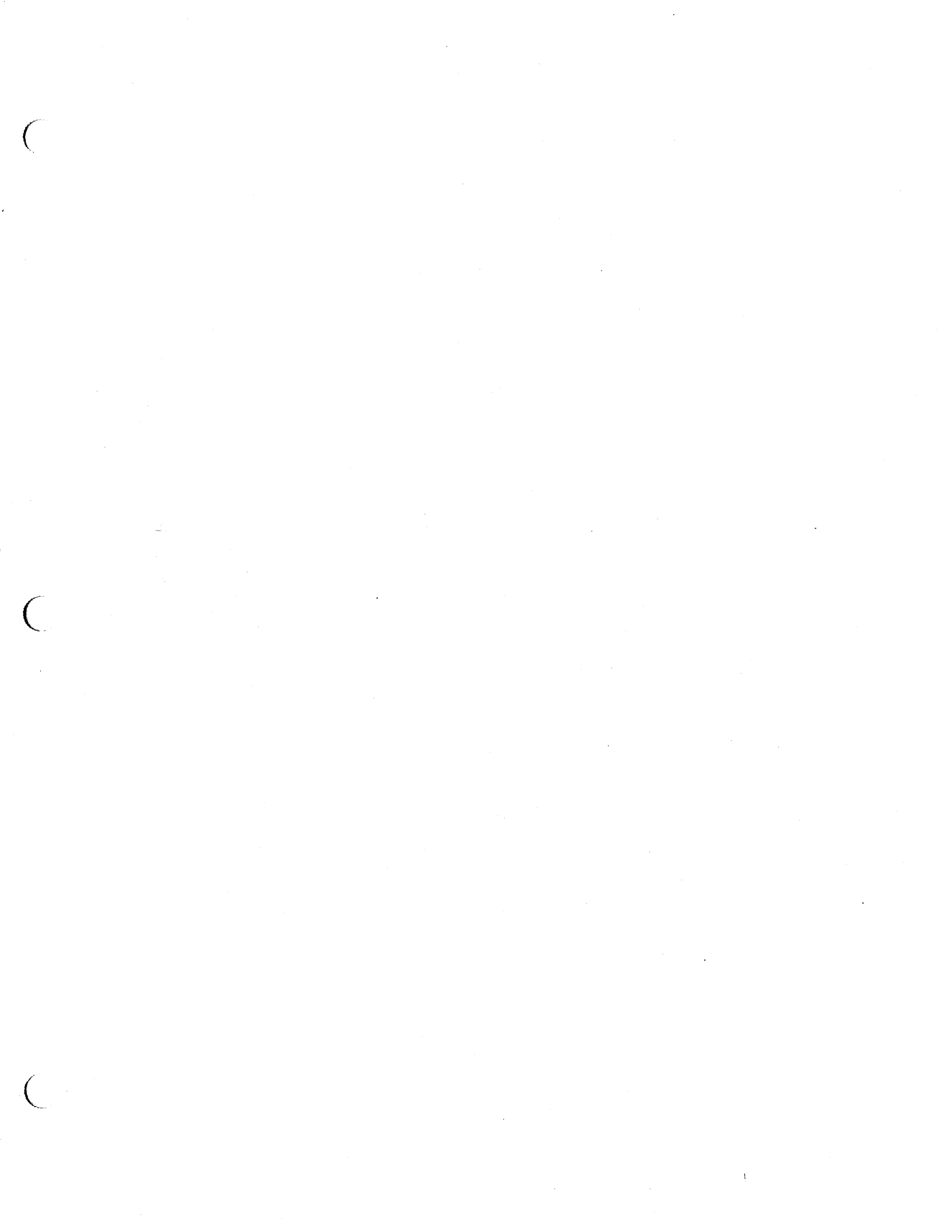
**BUCKET ASSEMBLY DATA**

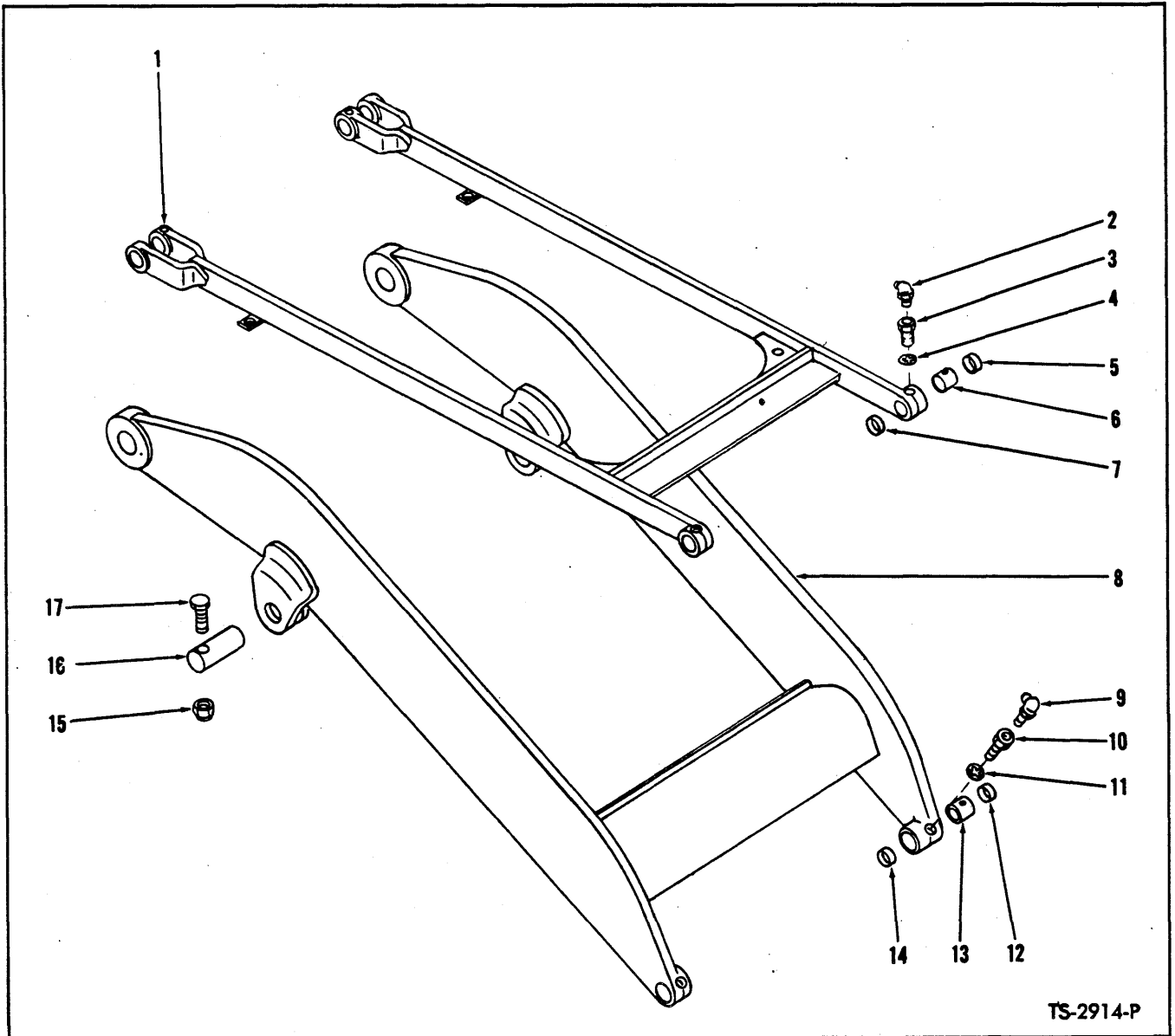
BUCKET			MAIN CUTTING EDGE			SIDE CUTTING EDGE			
Width	Capacity	Part No.	Part No.	Size	Approx. Wt.	R.H. Part No.	L.H. Part No.	Size	Approx. Wt.
76¼"	⅞ cu. yd.	545637	545640	1 x 9 x 76¼"	170	545702	545703	¾ x 6 x 36%	38
86¼"	1¼ cu. yd.	537306	534113	1 x 9 x 86¼"	192	534116	534118	¾ x 6 x 39%	41
100¼"	1½ cu. yd.	548666	545620	1 x 9 x 100¼"	224	548673	548674	¾ x 6 x 40¼%	42
112¼"	2½ cu. yd.	545752	545602	1 x 9 x 112¼"	250	545759	545760	¾ x 6 x 46%	47

**BUCKET TEETH DATA**

Bucket Width	One Piece Tooth No.	Replaceable Tip Tooth No.	No Req'd.	Replaceable Tip No.	Replaceable Tip Pin No.
76¼"	552154	529968	8	529970	529971
86¼"	552154	529968	8	529970	529971
100¼"	552154	529968	9	529970	529971
112¼"	552154	529968	10	529970	529971

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





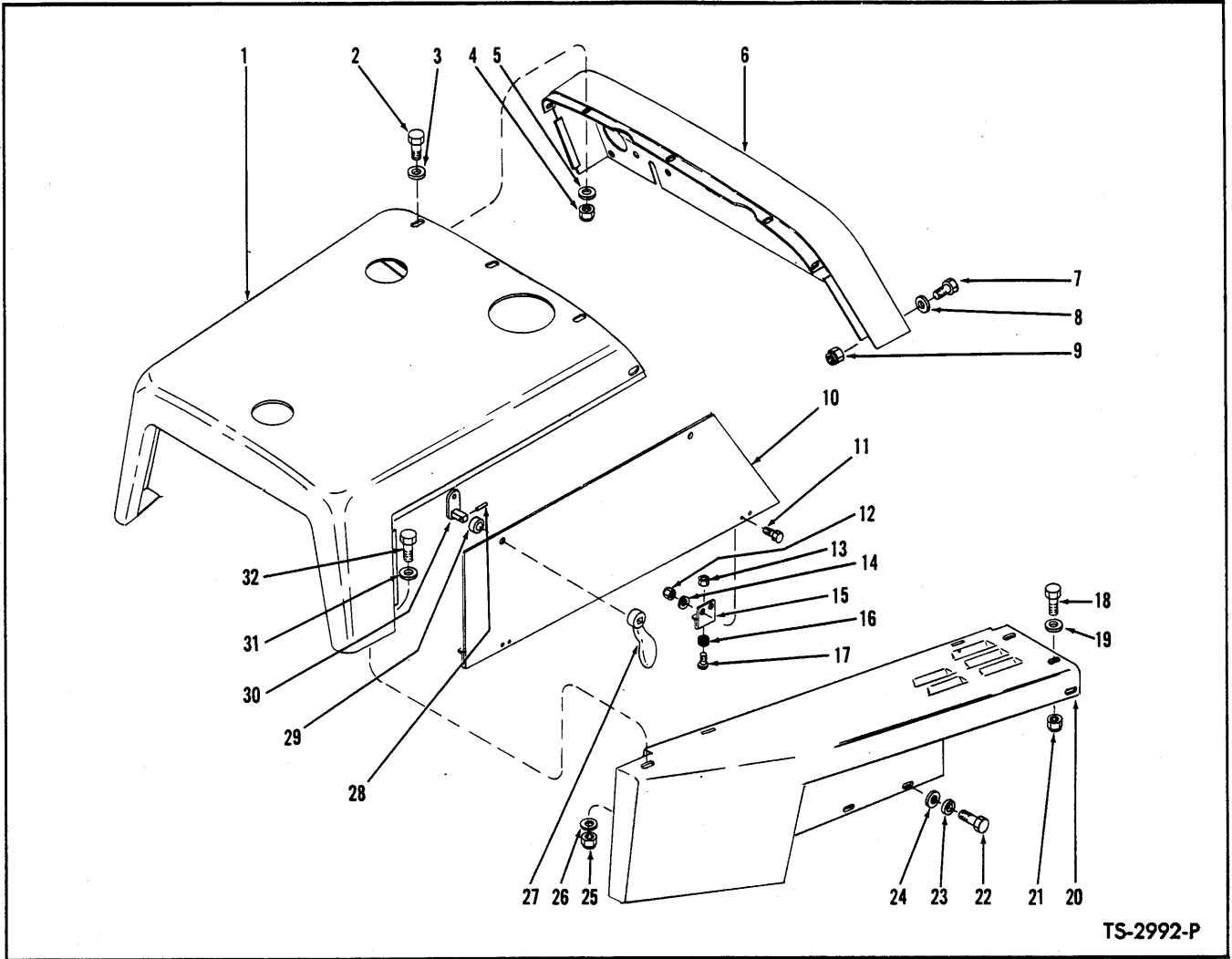
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**BOOM AND GUIDE BAR**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	534220	GUIDE BAR ASSY (Inc. 3, 4, 6)	1	10	532118	BOLT, Bushing Retaining	2
2	12H-25	FITTING, Guide Bar Grease	2	11	7E-08	LKWSHR, Bushing Retaining Bolt	2
3	532118	BOLT, Bushing Retaining	2	12	532119	SEAL, Dust	2
4	7E-08	LKWSHR, Bushing Retaining Bolt	2	13	532005	BUSHING, Boom	2
5	532119	SEAL, Dust	2	14	532119	SEAL, Dust	2
6	532005	BUSHING, Guide Bar	2	15	18D-06	NUT, Pin Retaining Bolt	2
7	532119	SEAL, Dust	2	16	514921	PIN, Boom to Cylinder	2
8	534246	BOOM ASSY (Inc. 10, 11, 13)	1	17	18C-656	BOLT, Pin Retaining	2
9	12H-25	FITTING, Boom Grease	2				

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





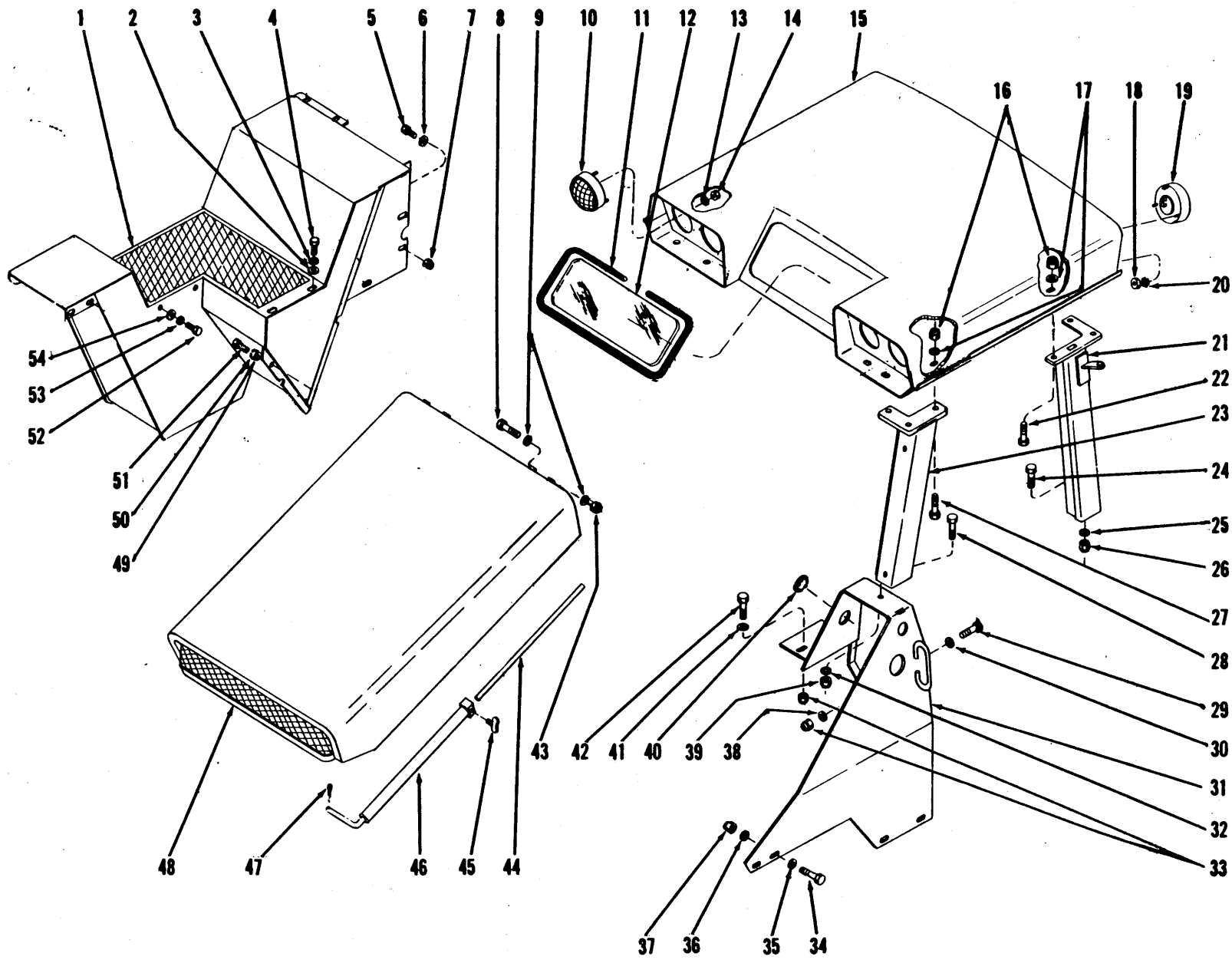
TS-2992-P

**REAR HOOD AND FENDERS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1		HOOD, Rear		14	25E-13	WASHER, Bracket to Panel	8
1A	545921	For Gas Powered Machines	1	15	541035	BRACKET, Side Panel Support	4
1B	546935	For G.M. Powered Machines	1	16	551433	BUMPER, Side Panel — Rubber	4
2	18C-620	BOLT, Hood to Cowl	5	17	3G-1008	SCREW, Bumper to Bracket	4
3	619021	WASHER, Hood to Cowl	5	18	18C-620	BOLT, Fender to Seat Support	6
4	18D-06	NUT, Hood to Cowl	5	19	619021	WASHER, Fender to Seat Support	8
5	619021	WASHER, Hood to Cowl	5	20	545892	FENDER, R.H. Rear	1
6		COWL, Rear Hood		20A	545893	FENDER, L.H. Rear	1
6A	545916	For Gas Powered Machines	1	21	18D-06	NUT, Fender to Seat Support	6
6B	546936	For G.M. Powered Machines	1	22	18C-616	BOLT, Fender to Frame	6
7	18C-620	BOLT, Cowl to Seat Support	6	23	4E-06	LKWSHR, Fender to Frame	6
8	619021	WASHER, Cowl to Seat Support	6	24	619021	WASHER, Fender to Frame	6
9	18D-06	NUT, Cowl to Seat Support	6	25	18D-06	NUT, Rear Hood to Fender	2
10	545932	PANEL, Hood Side — R.H.	1	26	619021	WASHER, Rear Hood to Fender	2
10A	545933	PANEL, Hood Side — L.H.	1	27	142396	KIT, Handle (Inc. 28, 29, 30)	4
11	18C-412	BOLT, Bracket to Panel	8	28	730432	PIN, Handle to Shaft	4
12	18D-04	NUT, Bracket to Panel	8	29		§SPACER, Handle — See 27	4
13	12D-10	NUT, Bumper to Bracket	4	30		§SHAFT, Handle — See 27	4
				31	619021	WASHER, Hood to Fender	2
				32	18C-620	BOLT, Hood to Fender	2

§Not Sold Separately

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



**CAB AND FRONT HOOD GROUP**  
For Serial: G.M.—2CG101 thru 5CG999. Wauk.—2CA101 thru 4CA999

TS-2961-P

10.1

(1B17)

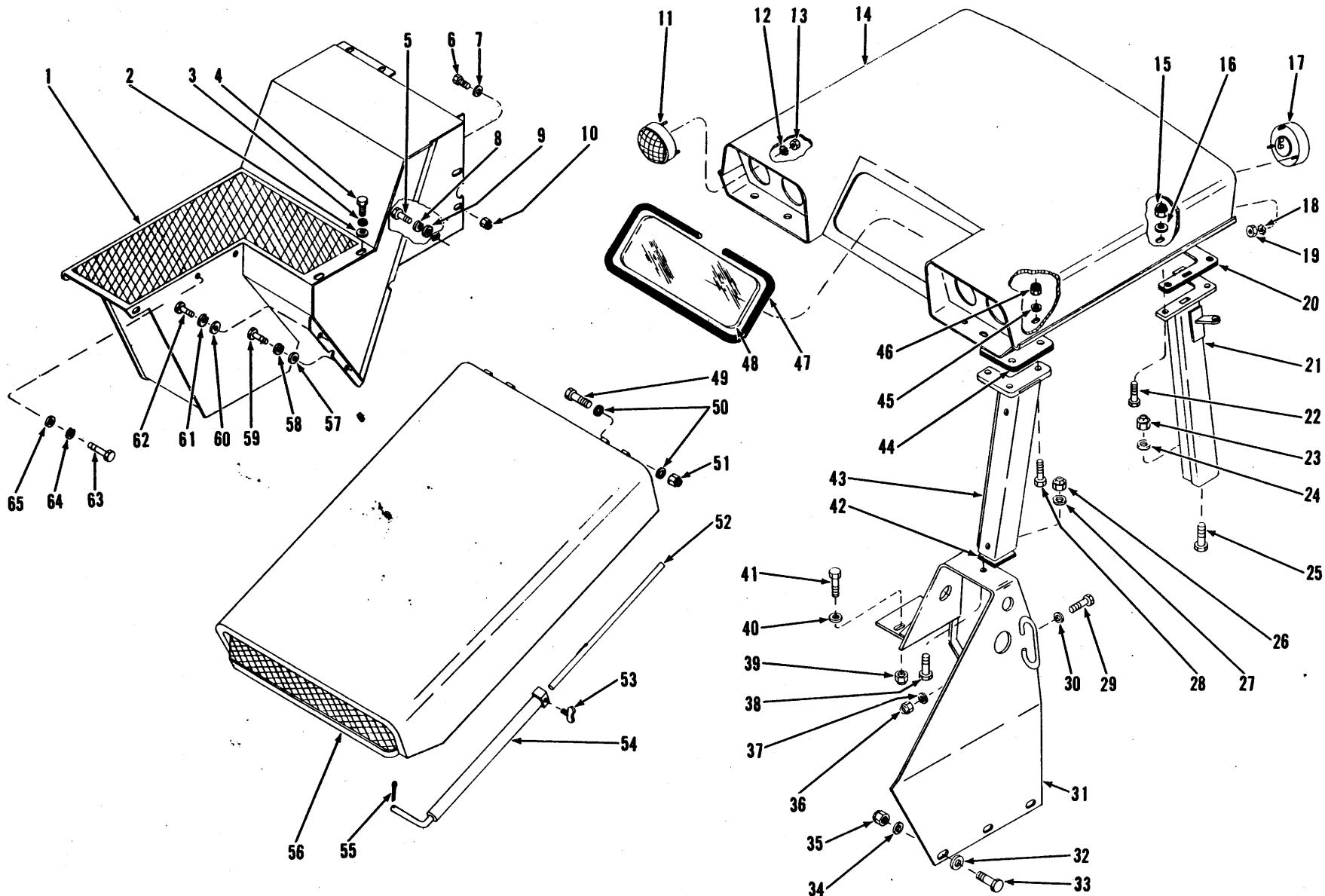
PM 1698

**CONSTRUCTION MACHINERY DIVISION  
CAB AND FRONT HOOD GROUP  
For Serial: G.M. — 2CG101 thru 5CG999  
Wauk. — 2CA101 thru 4CA999**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	545873	FENDER, R.H. Front .....	1	24	18C-820	BOLT, Rear Post to Rear Hood .....	2
2	619021	WASHER, Fender to Seat Support ....	2	25	25E-21	WASHER, Rear Post to Rear Hood ....	2
3	4E-06	LKWSHR, Fender to Seat Support ....	2	26	18D-08	NUT, Rear Post to Rear Hood .....	2
4	17C-616	BOLT, Fender to Seat Support .....	2	27	18C-620	BOLT, Front Post to Roof .....	6
5	18C-628	BOLT, Fender to Seat Support .....	3	28	18C-820	BOLT, Front Post to Pivot Cap .....	2
6	619021	WASHER, Fender to Seat Support ....	3	29	18C-620	BOLT, Pivot Cap to Frame .....	4
7	18D-06	NUT, Fender to Seat Support .....	3	30	619021	WASHER, Pivot Cap to Frame .....	4
8	18C-588	BOLT, Hood Hinge .....	2	31	545905	CAP, Upper Pivot—L.H. ....	1
9	25E-15	WASHER, Hood Hinge Bolt .....	4	31A	545904	CAP, Upper Pivot—R.H. ....	1
10	546920	LAMP ASSY, Head (Inc. 10B, 10D) ....	2	32	25E-21	WASHER, Front Post to Pivot Cap .....	2
10A	546921	†LAMP ASSY, Flood—Front (Inc. 10C, 10D) .....	2	33	18D-06	NUT, Pivot Cap Attaching .....	8
10B	877752	†SEALED UNIT, Head Lamp .....	2	34	18C-620	BOLT, Pivot Cap to Tank & Fender ..	4
10C	944907	†SEALED UNIT, Flood Lamp .....	2	35	619021	WASHER, Pivot Cap to Tank & Fender	4
10D	946389	†RETAINER ASSY, Sealed Unit .....	4	36	619021	WASHER, Pivot Cap to Tank & Fender	4
11	544985	RUBBER, Front Glass Mounting .....	1	37	18D-06	NUT, Pivot Cap to Tank & Fender ....	4
12	544984	GLASS PATTERN .....	1	38	619021	WASHER, Pivot Cap to Frame .....	4
13	12E-10	LKWSHR, Front Lamp Mounting .....	12	39	18D-08	NUT, Front Post to Pivot Cap .....	2
14	12D-10	NUT, Front Lamp Mounting .....	12	40	648825	PLUG BUTTON, Pivot Cap .....	2
15	544962	ROOF, Cab .....	1	41	619021	WASHER, Pivot Cap to Frame .....	4
16	18D-06	NUT, Post to Roof .....	12	42	18C-620	BOLT, Pivot Cap to Frame .....	4
17	619023	WASHER, Post to Roof .....	12	43	18D-05	NUT, Hood Hinge Bolt .....	2
18	12D-10	NUT, Rear Lamp Mounting .....	6	44	544383	ROD, Hood Support .....	1
19	546921	LAMP ASSY, Flood—Rear (Inc. 19A, 19B) .....	2	45	544610	THUMB SCREW .....	1
19A	944907	†SEALED UNIT, Flood Lamp .....	2	46	544379	TUBE, Hood Support .....	1
19B	946389	†RETAINER ASSY, Sealed Unit .....	2	47	1F-414	COTTER, Tube to Reservoir .....	1
20	12E-10	LKWSHR, Rear Lamp Mounting .....	6	48	545934	HOOD, Front .....	1
21	544971	POST, L.H. Rear .....	1	49	619029	WASHER, Fender to Frame .....	2
21A	544970	POST, R.H. Rear .....	1	50	4E-08	LKWSHR, Fender to Frame .....	2
22	18C-620	BOLT, Rear Post to Roof .....	6	51	18C-816	BOLT, Fender to Frame .....	2
23	544964	POST, L.H. Front .....	1	52	17C-616	BOLT, Fender to Pivot Cap .....	2
23A	544963	POST, R.H. Front .....	1	53	4E-06	LKWSHR, Fender to Pivot Cap .....	2
				54	619021	WASHER, Fender to Pivot Cap .....	2

†Not Illustrated

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



**CAB AND FRONT HOOD GROUP**  
For Serial: G.M. - 6CG101 and after. Wauk. - 5CA101 and after

TS-5148-P

10A.1

(1B19)

PM 1698



CONSTRUCTION MACHINERY DIVISION

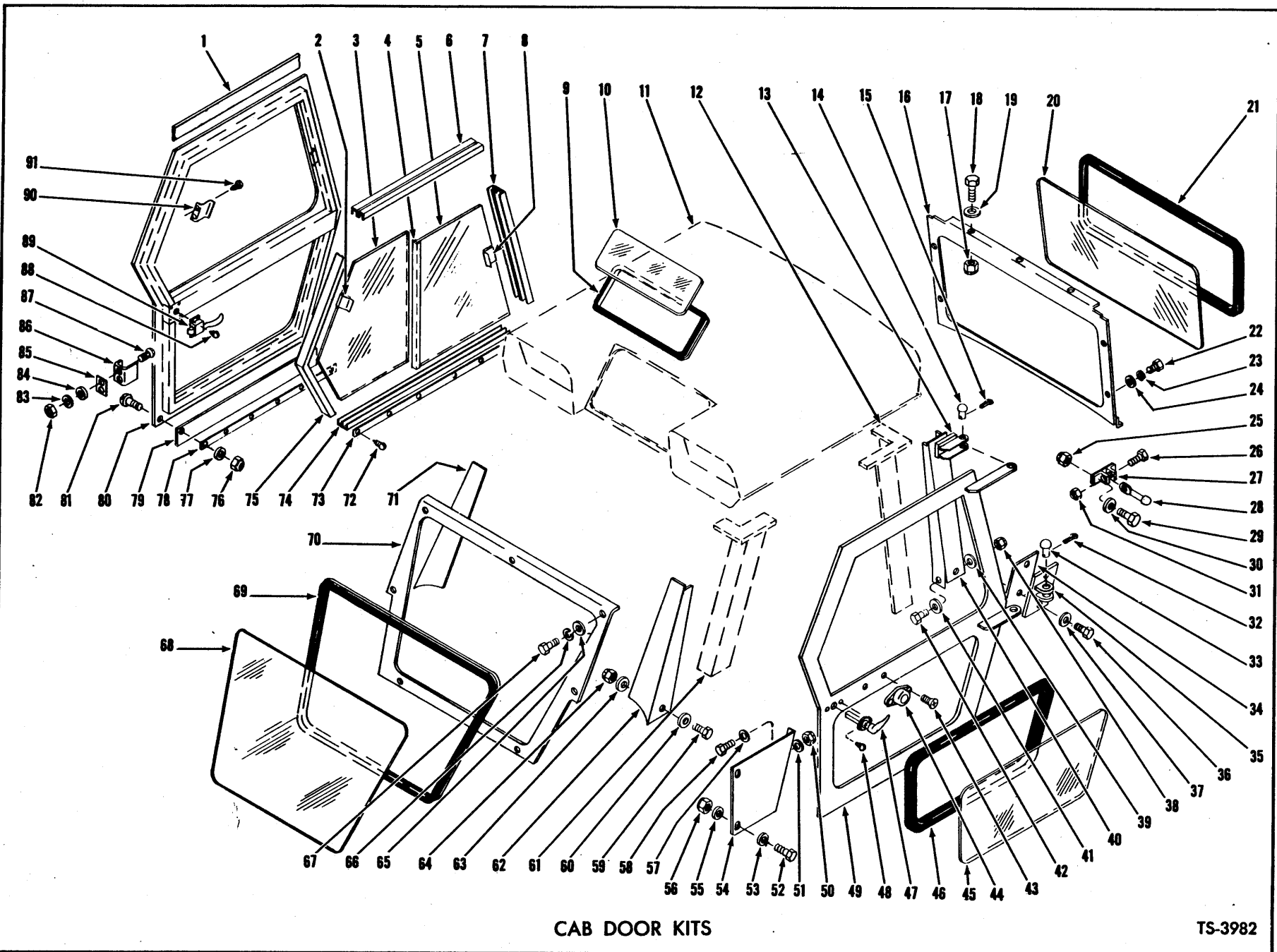


CAB AND FRONT HOOD GROUP
For Serial: G.M. - 6CG101 and after
Wauk. - 5CA101 and after

Table with 4 columns: Item No., Part No., Description, No. Req'd. It lists various mechanical parts such as fenders, washers, bolts, nuts, lamps, and hoods with their respective quantities.

†Not Illustrated

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



CAB DOOR KITS

TS-3982

10B.1

(1B21)

PM 1698

**CAB DOOR KITS**

Item No.	Part No.	Description	No. Req'd.
1	589569	SEAL, Cab Door .....	2
2	589571	LOCK, Sliding Glass Handle .....	2
2A	589572	†RUBBER GLAZING – Sliding Glass Lock .....	2
3	(See 92)	GLASS PATTERN – Front, Upper Door .....	2
4	589558	DIVIDER, Glass Channel .....	2
5	(See 92)	GLASS PATTERN – Rear, Upper Door .....	2
6	589546	CHANNEL, Upper Glass Double Run .....	2
7	589548	CHANNEL, Rear Glass Double Run .....	2
8	589571	LOCK, Sliding Glass Handle .....	2
8A	589572	†RUBBER GLAZING, Sliding Glass Lock .....	2
•9	544985	RUBBER, Roof Glass Mounting .....	1
10	(See 92)	GLASS PATTERN – Roof Glass .....	1
11	----	ROOF, Cab – See Index .....	–
12	----	POST, L.H. Rear – See Index .....	–
13	556985	HINGE, Upper .....	2
14	4F-08127	PIN, Upper Hinge .....	2
15	1F-514	COTTER, Upper Hinge Pin .....	2
16	547648	PANEL, Rear Windshield .....	1
17	18D-05	NUT, Upper Rear Windshield Mounting .....	3
18	18C-512	BOLT, Upper Rear Windshield Mounting .....	3
19	626787	WASHER, Upper Rear Windshield Mounting .....	3
20	(See 92)	GLASS PATTERN, Rear Windshield .....	1
21	547652	RUBBER, Rear Windshield Mounting .....	1
22	17C-616	BOLT, Side Rear Windshield Mounting .....	4
23	4E-06	LKWSHR, Side Rear Windshield Mounting .....	4
24	656672	WASHER, Side Rear Windshield Mounting .....	4
25	18D-05	NUT, Bracket Mounting .....	4
26	18C-520	BOLT, Door Check Plug Mounting .....	2
27	588333	BRACKET, Hood Plunger Check .....	2
28	549032	PLUG, Door Check Male .....	2
29	18C-520	BOLT, Bracket Mounting .....	4
30	25E-15	WASHER, Bracket Mounting .....	4
31	18D-05	NUT, Door Check Plug Mounting .....	2
32	1F-514	COTTER, Lower Hinge Pin .....	2
33	4F-08127	PIN, Lower Hinge .....	2
34	556958	SHIM, Lower Hinge .....	10
34A	589024	†SHIM, Lower Hinge .....	2
35	588368	HINGE, Lower – R.H. .....	1
35A	588369	†HINGE, Lower – L.H. .....	1
36	18C-616	BOLT, Hinge Mounting .....	4
36A	18D-06	†NUT, Hinge Mounting .....	4
37	619021	WASHER, Hinge Mounting .....	4
38	18D-06	NUT, Hinge Panel Mounting .....	4
39	619021	WASHER, Hinge Panel Mounting .....	2
40	589045	PANEL, Rear Post Hinge – L.H. .....	1
40A	589044	†PANEL, Rear Post Hinge – R.H. .....	1
41	619021	WASHER, Hinge Panel Mounting .....	4
42	18C-616	BOLT, Hinge Panel Mounting .....	4
43	76G-412	SCREW, Door Check Socket .....	4
43A	20E-04	†LKWSHR, Socket Screw .....	4
44	547015	SOCKET, Door Check .....	2
45	(See 92)	GLASS PATTERN, Lower Door .....	2
46	589562	WEATHER-SEAL, Lower Door Glass .....	2
47	1525710	HANDLE, Door .....	2

†Not Illustrated

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

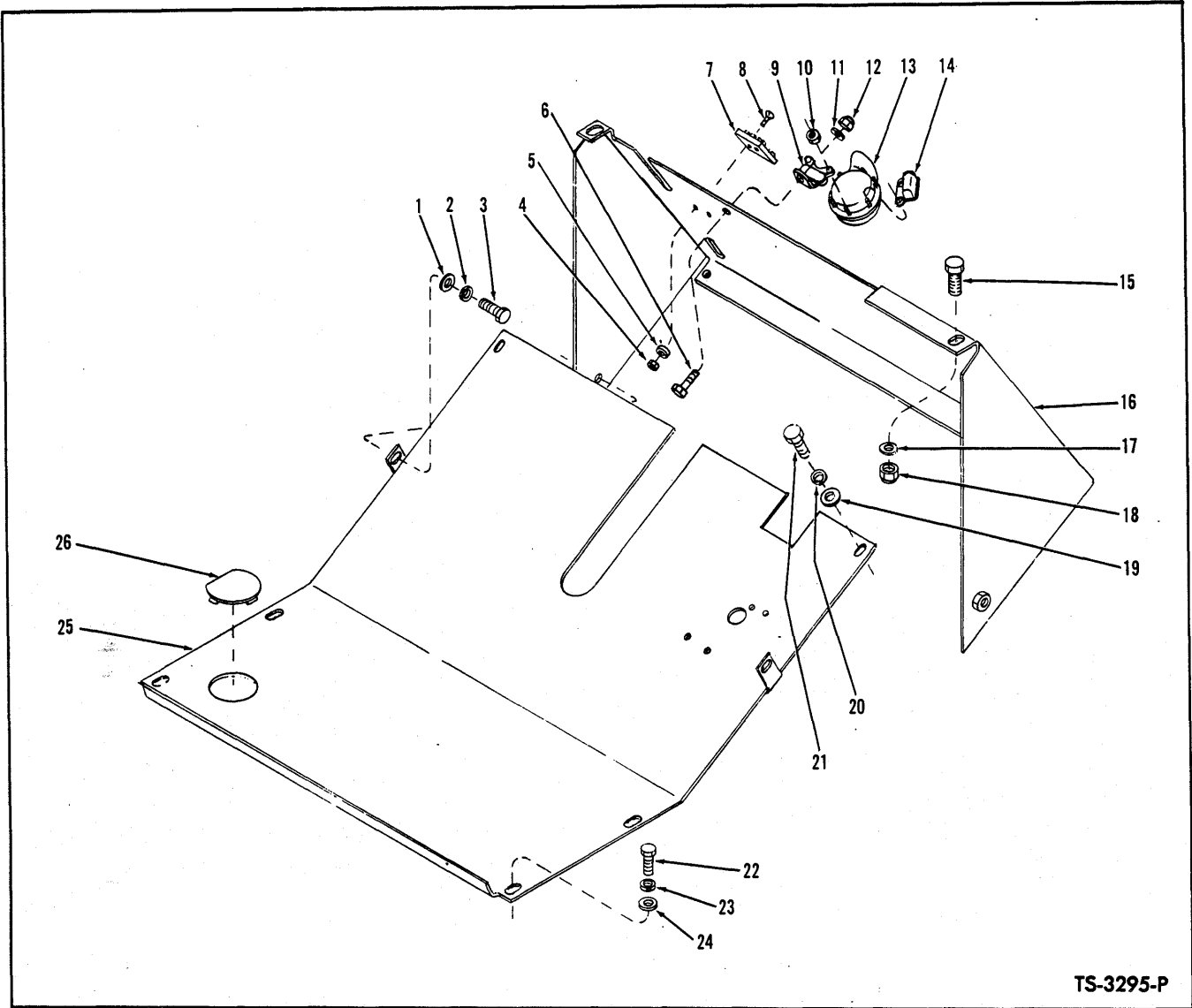
**CAB DOOR KITS (Continued)**

Item No.	Part No.	Description	No. Req'd.
48	65G-1008	SCREW, Door Handle Mounting	4
49	945426	DOOR, L.H. Panel	1
50	18D-06	NUT, Panel Mounting	4
51	619021	WASHER, Panel Mounting	4
52	18C-616	BOLT, Panel Mounting	4
53	619021	WASHER, Panel Mounting	4
54	547683	PANEL, Lower Side - L.H.	1
54A	547682	†PANEL, Lower Side - R.H.	1
55	619021	WASHER, Panel Mounting	4
56	18D-06	NUT, Panel Mounting	4
57	619021	WASHER, Panel Mounting	4
57A	-----	†LKWSHR, Panel Mounting	2
58	18C-616	BOLT, Panel Mounting	4
58A	-----	†BOLT, Panel Mounting	2
59	18C-616	BOLT, Panel Mounting	2
60	619021	WASHER, Panel Mounting	2
61	-----	POST, L.H. Front - See Index	—
62	589047	PANEL, Front Post Hinge - L.H.	1
63	619021	WASHER, Panel Mounting	2
64	18D-06	NUT, Panel Mounting	2
65	656672	WASHER, Windshield Side Mounting	4
65A	626787	†WASHER, Windshield Mounting	4
66	4E-06	LKWSHR, Windshield Mounting	4
67	17C-616	BOLT, Windshield Side Mounting	4
67A	18C-516	†BOLT, Windshield Mounting	4
67B	18D-05	†NUT, Windshield Mounting	4
68	(See 92)	GLASS PATTERN, Front Windshield	1
69	547652	RUBBER, Front Windshield Mounting	1
70	547644	PANEL, Front Windshield	1
71	589046	PANEL, Front Post Hinge - R.H.	1
72	65G-1008	SCREW, Lower Glass Retainer	12
73	595082	RETAINER, Lower Glass Channel	2
74	589549	CHANNEL, Lower Glass Double Run	2
75	589547	CHANNEL, Front Glass Double Run	2
76	12D-8	NUT, Drag Strip Retainer Mounting	12
77	17E-8	LKWSHR, Drag Strip Retainer Mounting	12
78	595083	RETAINER, Door Seal Drag Strip	2
79	589565	SEAL, Bottom Drag Strip Door	2
80	945425	DOOR, R.H. Panel	1
81	3G-808	SCREW, Drag Strip Retainer Mounting	12
82	62D-04	NUT, Lockstrike Mounting	4
83	4E-04	LKWSHR, Lockstrike Mounting	4
84	25E-13	WASHER, Lockstrike Mounting	4
85	588332	SHIM, Lockstrike	6
86	589043	LOCKSTRIKE	2
87	82G-410	SCREW, Lockstrike Mounting	4
88	65G-1008	SCREW, Door Lock Mounting	8
89	942874	LOCK, R.H. Door	1
89A	138249	†LOCK, L.H. Door	1
90	557465	LOCKSTRIKE, Window	4
91	63G-606	SCREW, Window Lockstrike Mounting	8
92	945138	GLASS PATTERN KIT, Cab Glass (Inc. 3, 5, 10, 20, 45, 68)	1

†Not Illustrated

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





TS-3295-P

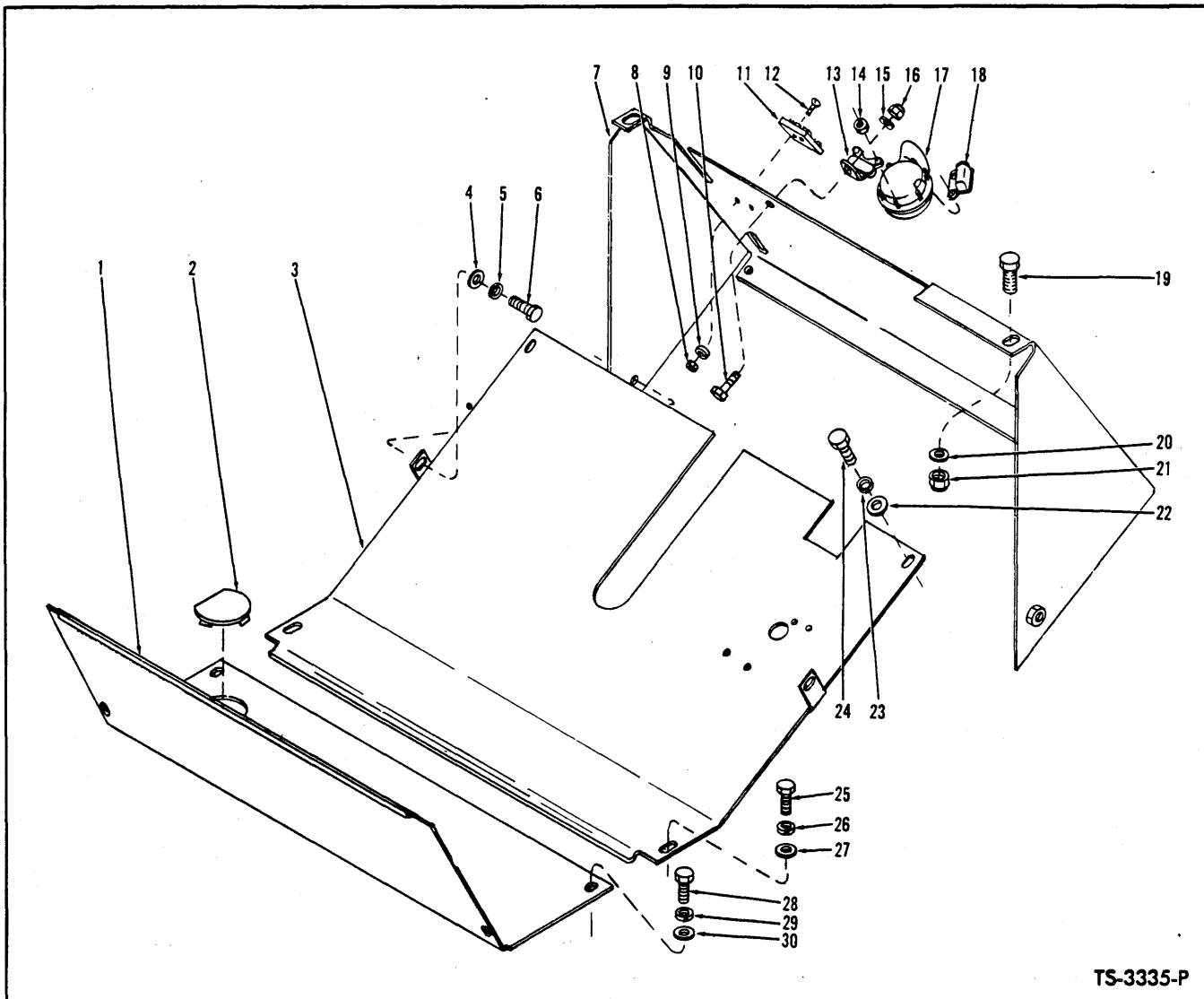
**FLOORBOARDS AND HORN**

**For Serial: GAS – 2CA101 thru 2CA999  
G.M. – 2CG101 thru 2CG999**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	25E-16	WASHER, Floorboard to Support	2	15	18C-618	BOLT, Floorboard Support to Mounting Plate – Tank	2
2	4E-06	LKWSHR, Floorboard to Support	2	16	540093	SUPPORT, Floorboard	1
3	17C-612	BOLT, Floorboard to Support	2	17	25E-16	WASHER, Floorboard Support to Mounting Plate – Tank	2
4	14D-6	NUT, Fuse Block to Support	2	18	18D-06	NUT, Floorboard Support to Mounting Plate – Tank	2
5	17E-6	LKWSHR, Fuse Block to Support	2	19	25E-16	WASHER, Floorboard to Support	2
6	18C-516	BOLT, Horn Bracket to Support	1	20	4E-06	LKWSHR, Floorboard to Support	2
7	542272	FUSE BLOCK	1	21	17C-612	BOLT, Floorboard to Support	2
8	20G-608	SCREW, Fuse Block to Support	2	22	17C-616	BOLT, Floorboard to Support Bracket	4
9	621279	BRACKET, Horn	1	23	4E-06	LKWSHR, Floorboard to Bracket	4
10	18D-04	NUT, Horn to Bracket	2	24	25E-16	WASHER, Floorboard to Bracket	4
11	619023	WASHER, Horn Bracket to Support	1	25	540095	FLOORBOARD	1
12	18D-05	NUT, Horn Bracket to Support	1	26	542983	PLATE, Cover	1
13	647300	*HORN	1				
14	647310	RELAY, Horn	1				

\*NOTE: For replacement use 733624 plus 1-557438 Wire, Horn to Relay.

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



TS-3335-P

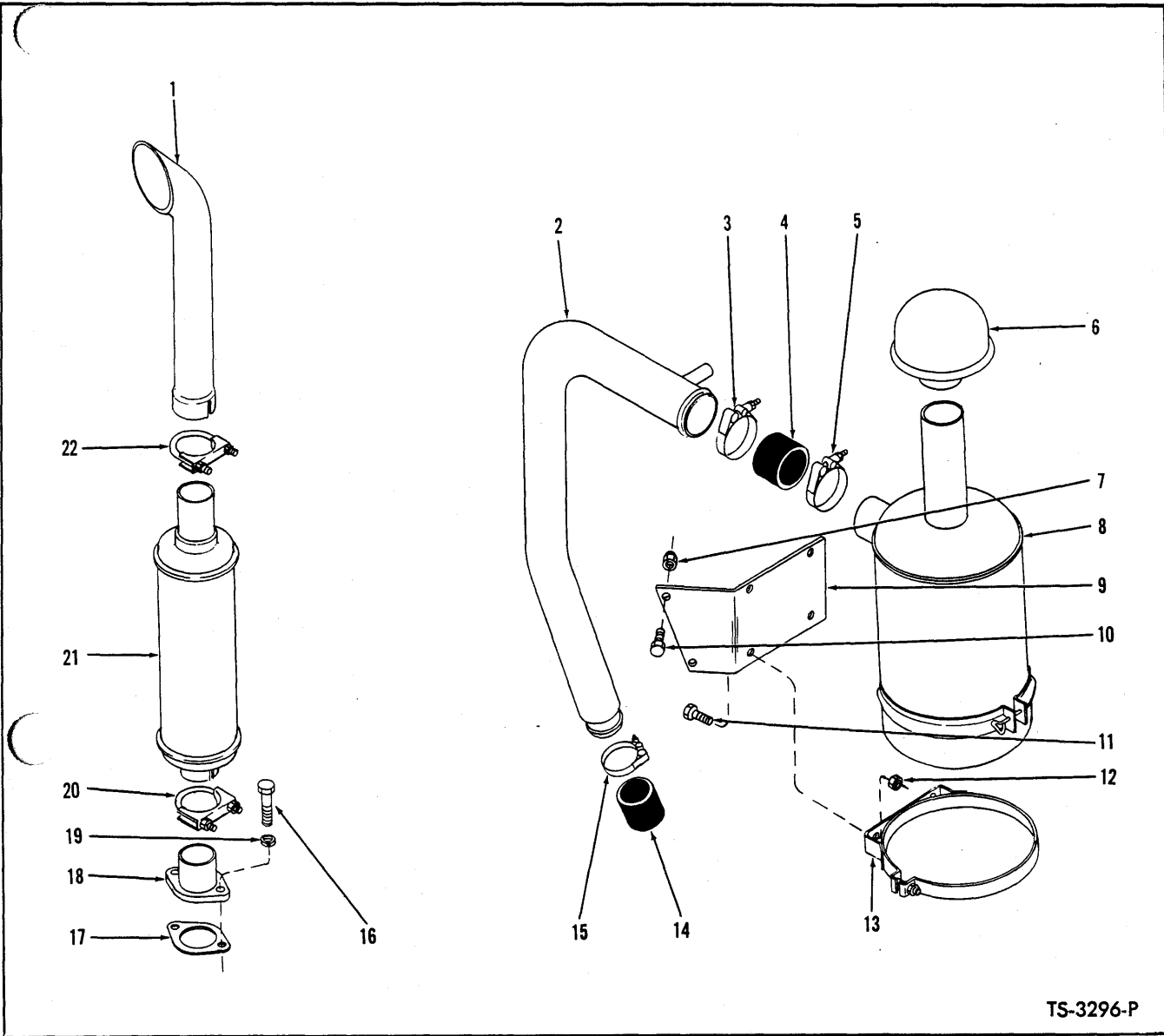
**FLOORBOARDS AND HORN**

**For Serial: Gas – 3CA101 and thereafter  
G.M. – 3CG101 and thereafter**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	547487	FLOORBOARD, Rear	1	18	647310	RELAY, Horn	1
2	542983	PLATE, Cover	1	19	18C-620	BOLT, Floorboard Support to Mounting Plate Tank	2
3	548612	FLOORBOARD, Front	1	20	619021	WASHER, Floorboard Support to Mounting Plate Tank	2
4	619021	WASHER, Flbd. to Flbd. Support	2	21	18D-06	NUT, Floorboard Support to Mounting Plate Tank	2
5	4E-06	LKWSHR, Flbd. to Flbd. Support	2	22	619021	WASHER, Front Flbd. to Flbd. Support	2
6	17C-616	BOLT, Flbd. to Flbd. Support	2	23	4E-06	LKWSHR, Front Flbd. to Flbd. Support	2
7	540093	SUPPORT, Floorboard	1	24	17C-616	BOLT, Front Flbd. to Flbd. Support	2
8	14D-6	NUT, Fuse Block to Flbd. Support	2	25	17C-616	BOLT, Front Flbd. to Support Bracket	4
9	17E-6	LKWSHR, Fuse Block to Flbd. Support	2	26	4E-06	LKWSHR, Front Flbd. to Support Brkt.	4
10	18C-516	BOLT, Horn Bracket to Flbd. Support	1	27	619021	WASHER, Front Flbd. to Support Brkt.	4
11	542272	FUSE BLOCK	1	28	17C-616	BOLT, Rear Flbd. to Support Bracket	2
12	20G-608	SCREW, Fuse Block to Flbd. Support	2	29	4E-06	LKWSHR, Rear Flbd. to Support Brkt.	2
13	621279	BRACKET, Horn	1	30	619021	WASHER, Rear Flbd. to Support Brkt.	2
14	18D-04	NUT, Horn to Bracket	2				
15	619023	WASHER, Horn Brkt. to Flbd. Support	1				
16	18D-05	NUT, Horn Bracket to Flbd. Support	1				
17	647300	*HORN	1				

\*NOTE: For replacement use 733624 plus 1-557438 Wire, Horn to Relay.

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

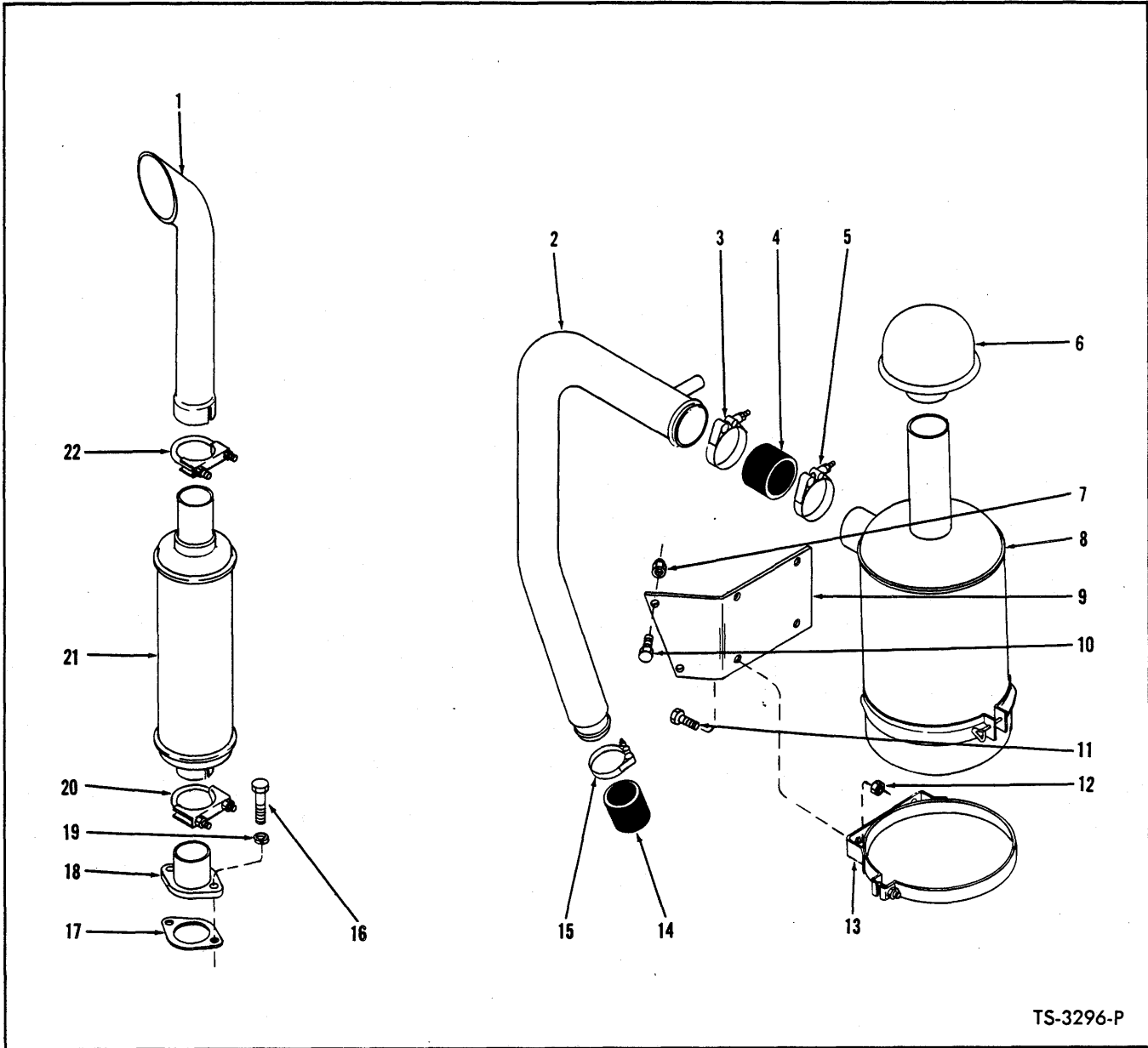


TS-3296-P

**AIR CLEANER AND MUFFLER – GAS \***  
**For Serial: 2CA101 thru 3CA175**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	543576	PIPE, Tail .....	1	13	550659	STRAP, Air Cleaner to Bracket .....	2
2	535199	TUBE, Air Cleaner .....	1	14	540285	HOSE, Tube to Carburetor .....	1
3	540104	CLAMP, Hose .....	1	15	540108	CLAMP, Hose .....	1
4	568469	HOSE, Tube to Air Cleaner .....	1	16	17C-820	BOLT, Adapter to Exhaust Manifold ..	2
5	540104	CLAMP, Hose .....	1	17	422079	GASKET, Adapter to Exhaust Manifold .....	1
6	550653	CAP, Air Cleaner .....	1	18	544465	ADAPTER, Muffler to Exhaust Manifold .....	1
7	18D-06	NUT, Bracket Mounting .....	2	19	4E-08	LKWSHR, Adapter to Exhaust Manifold .....	2
8	537471	AIR CLEANER .....	1	20	507069	CLAMP, Muffler to Adapter .....	1
	540394	BRACKET, Air Cleaner Mounting .....	1	21	543575	MUFFLER .....	1
	18C-616	BOLT, Bracket Mounting .....	2	22	507068	CLAMP, Tail Pipe to Muffler .....	1
11	18C-512	BOLT, Air Cleaner to Bracket .....	4				
12	18D-05	NUT, Air Cleaner to Bracket .....	4				

\*Ref. SG-711

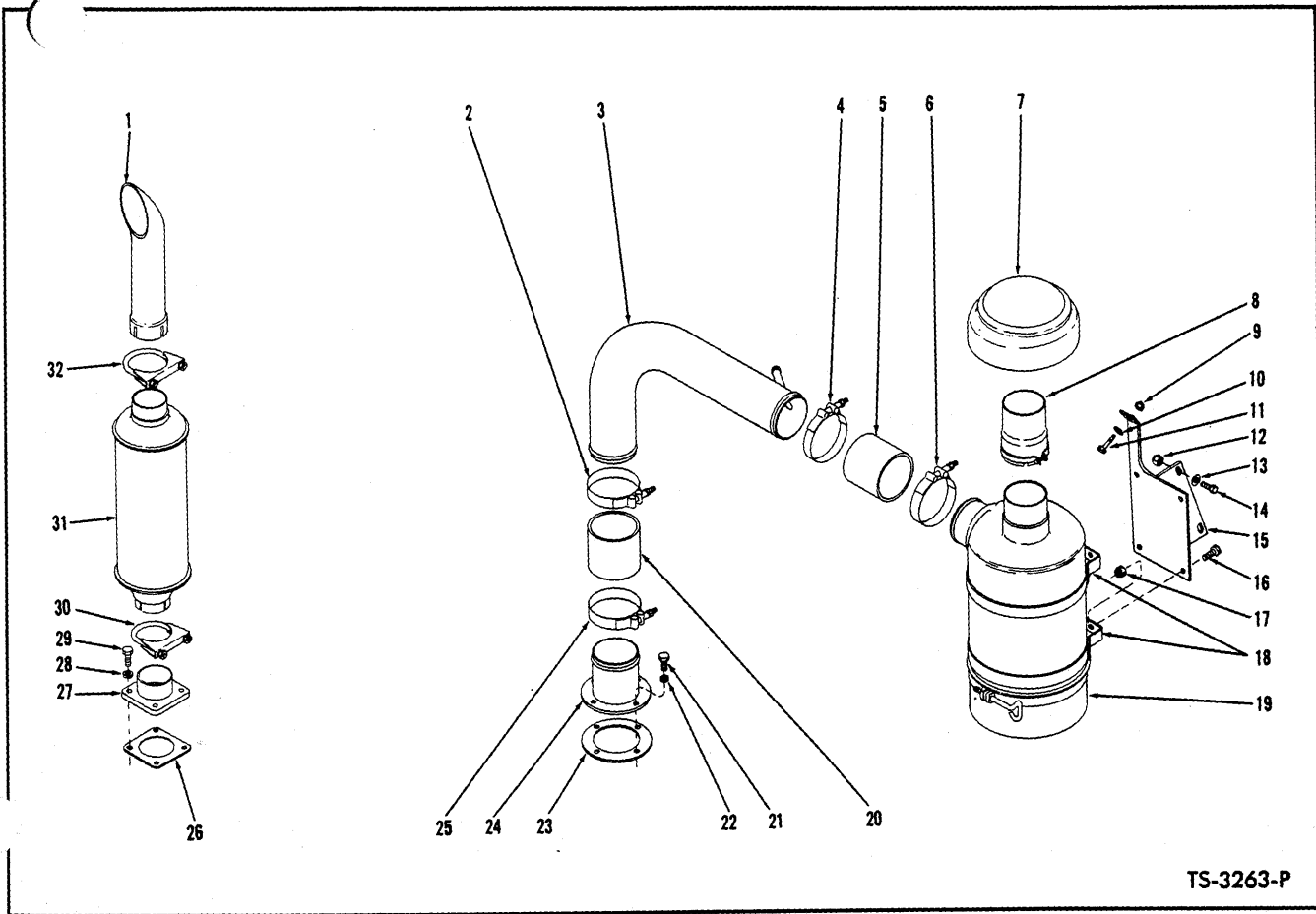


TS-3296-P

**AIR CLEANER AND MUFFLER – GAS \***  
For Serial: 3CA176 thru 3CA999, 4CA101 and thereafter

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	543576	PIPE, Tail .....	1	14	557360	HOSE, Tube to Carburetor .....	1
2	557358	TUBE, Air Cleaner .....	1	15	540104	CLAMP, Hose .....	2
3	540104	CLAMP, Hose .....	1	16	17C-820	BOLT, Adapter to Exhaust Manifold ..	2
4	568469	HOSE, Tube to Air Cleaner .....	1	17	422079	GASKET, Adapter to Exhaust Manifold .....	1
5	540104	CLAMP, Hose .....	1	18	544465	ADAPTER, Muffler to Exhaust Manifold .....	1
6	550653	CAP, Air Cleaner .....	1	19	4E-08	LKWSHR, Adapter to Exhaust Manifold .....	2
7	18D-06	NUT, Bracket Mounting .....	2	20	507069	CLAMP, Muffler to Adapter .....	1
8	537471	AIR CLEANER .....	1	21	543575	MUFFLER .....	1
9	540394	BRACKET, Air Cleaner Mounting .....	1	22	507068	CLAMP, Tail Pipe to Muffler .....	1
10	18C-616	BOLT, Bracket Mounting .....	2				
11	18C-512	BOLT, Air Cleaner to Bracket .....	4				
12	18D-05	NUT, Air Cleaner to Bracket .....	4				
13	550659	STRAP, Air Cleaner to Bracket .....	2				

\*Ref. SG-711

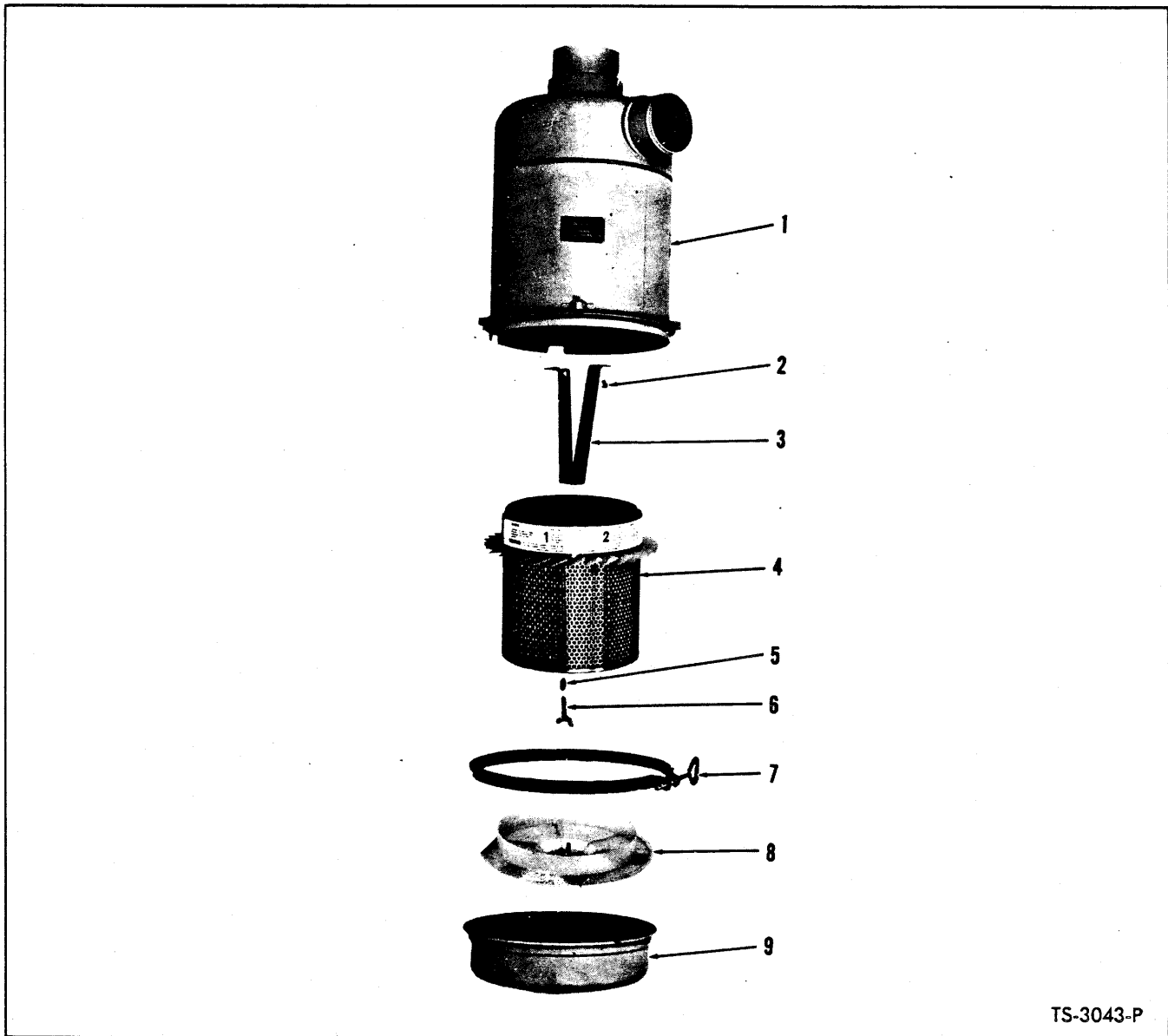


TS-3263-P

**AIR CLEANER CONNECTIONS AND MUFFLER — G.M.\***

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	543576	PIPE, Tail	1	23	527096	GASKET, Adapter	1
2	539042	CLAMP, Hose	1	24	527095	ADAPTER, Intake Manifold	1
3	544139	TUBE, Air Cleaner	1	25	539042	CLAMP, Hose	1
4	539042	CLAMP, Hose	1	26		GASKET, Exhaust Manifold Adapter	
5	515425	HOSE, Tube to Air Cleaner	1	26A	509303	For Serial 2CG101 thru 2CG999	1
6	539042	CLAMP, Hose	1	26B	549088	For Serial 3CG101 & thereafter	1
7	420946	CAP, Air Cleaner	1	27		ADAPTER, Exhaust Manifold	
8	539839	EXTENSION, Air Cleaner	1	27A	509300	For Serial 2CG101 thru 2CG999	1
9	18D-06	NUT, Bracket Mounting	1	27B	549086	For Serial 3CG101 & thereafter	1
10	25E-18	WASHER, Bracket Mounting	1	28		LKWSHR, Adapter to Manifold	
11	18C-620	BOLT, Bracket Mounting	1	28A	4E-07	For Serial 2CG101 thru 2CG999	4
12	18D-06	NUT, Bracket Mounting	2	28B	4E-06	For Serial 3CG101 & thereafter	4
13	25E-18	WASHER, Bracket Mounting	2	29		BOLT, Adapter to Manifold	
14	18C-620	BOLT, Bracket Mounting	2	29A	17C-720	For Serial 2CG101 thru 2CG999	4
15	544136	BRACKET, Air Cleaner Mounting	1	29B	17C-620	For Serial 3CG101 & thereafter	4
16	18C-616	BOLT, Air Cleaner to Bracket	4	30	507069	CLAMP, Muffler to Adapter	1
17	18D-06	NUT, Air Cleaner to Bracket	4	31	543575	MUFFLER	1
18	420945	STRAP, Air Cleaner	2	32	507068	CLAMP, Tail Pipe to Muffler	1
19		AIR CLEANER—See Index	1				
20	515424	HOSE, Tube to Adapter	1				
21	17C-512	BOLT, Adapter Mounting	4				
22	4E-05	LKWSHR, Adapter Mounting	4				

\*Ref. SG-711



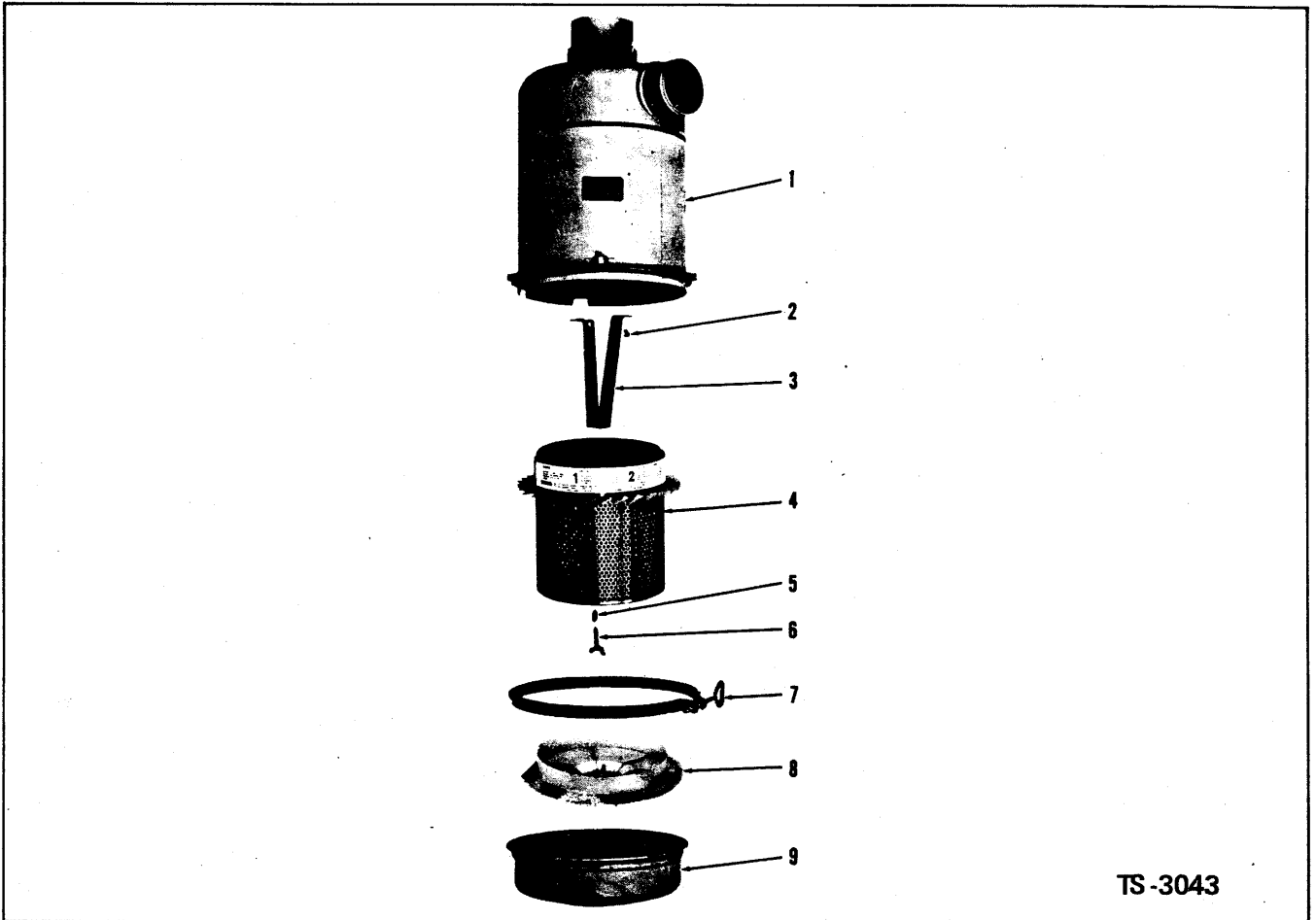
TS-3043-P

**AIR CLEANER ASSEMBLY — G.M.**

Item No.	Part No.	Description	No. Req'd.
A	539821	** AIR CLEANER ASSY (Inc. 1 thru 9)	1
1	-----	§ BODY, Air Cleaner — See "A"	1
2	4G-508	SCREW, Yoke to Body	2
2A	8E-05	LKWSHR, Yoke to Body	2
3	944953	YOKE, Element Retaining	1
4	944954	ELEMENT	1
5	886287	WASHER	1
6	886285	THUMB SCREW	1
7	947242	CLAMP, Dust Cup	1
8	944956	* BAFFLE	1
9	944957	CUP, Dust	1

§ Not Sold Separately  
 \* NOTE: For replacement use 894653 plus 1—894652 Cup.  
 \*\* NOTE: For replacement use 1655729.

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

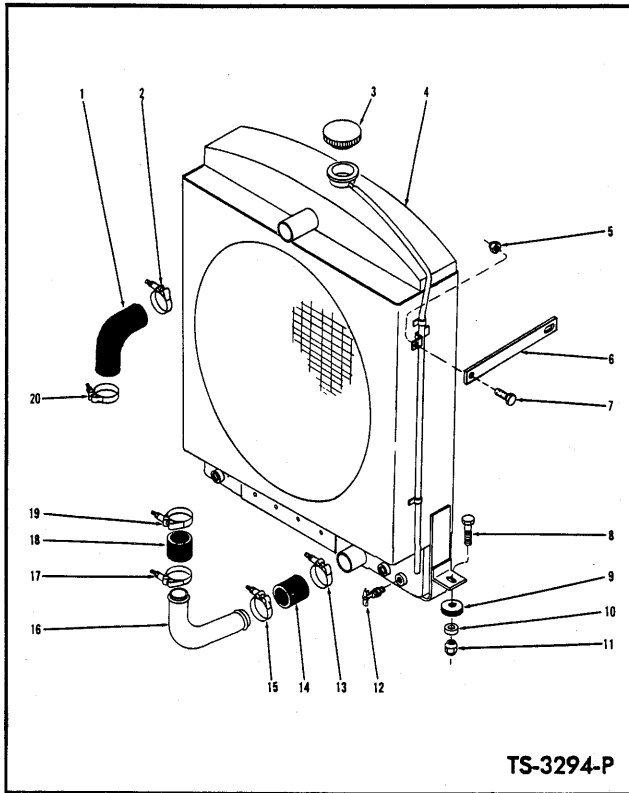


**AIR CLEANER ASSEMBLY – G.M.  
(SERVICE REPLACEMENT)**

Item	Part No.	Description	Qty.
A	1655729	Air cleaner assy (Incl. 1 thru 9) .....	1
1	----	§Body, air cleaner (See "A") .....	1
2	4G-508	Screw, yoke to body (Incl. 2A) .....	2
2A	8E-05	†Lkwsr, yoke to body .....	2
3	944953	Yoke, element retaining .....	1
4	944954	Element .....	1
5	886287	Washer .....	1
6	886285	Thumb screw .....	1
7	947242	Clamp, dust cap .....	1
8	894653	Baffle .....	1
9	894652	Cup, dust .....	1
9A	886288	†Gasket, dust cap .....	1

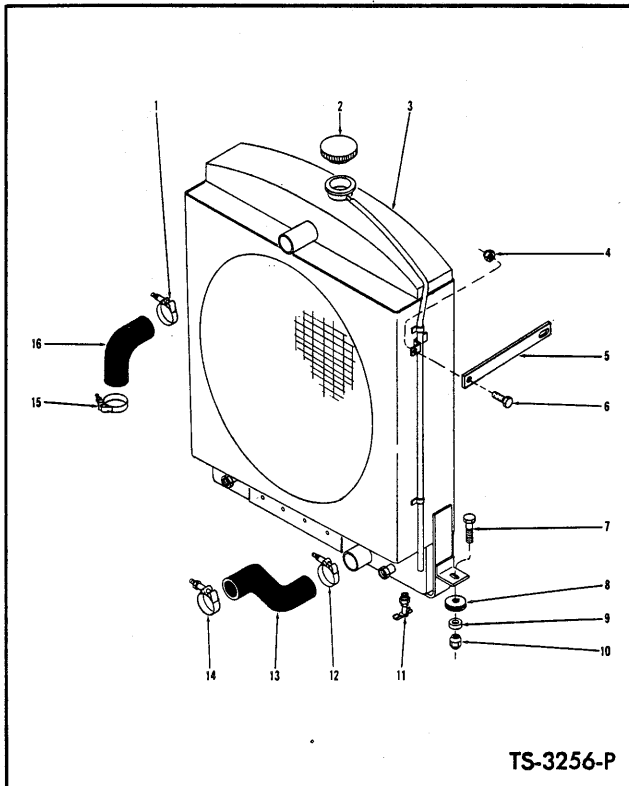
**WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE**

**RADIATOR AND CONNECTIONS — GAS**  
For Serial: 2CA101 thru 3CA175



Item No.	Part No.	Description	No. Req'd.
1	539682	HOSE, Upper Radiator	1
2	540108	CLAMP, Hose	1
3	351495	CAP, Radiator	1
4	545854	RADIATOR (Inc. 3)	1
5	18D-06	NUT, Clip to Radiator	2
6	539038	CLIP, Radiator to Grille	2
7	18C-614	BOLT, Clip to Radiator	2
8	18C-828	BOLT, Radiator to Frame	2
9	518233	PAD, Radiator to Frame	2
10	71D-08	BASE, Radiator to Frame Nut	2
11	70D-08	NUT, Radiator to Frame	2
12	73F-2	DRAIN COCK	1
13	540128	CLAMP, Hose	1
14	1M-14034	HOSE, Tube to Radiator	1
15	540128	CLAMP, Hose	1
16	539683	TUBE, Lower Radiator	1
17	540128	CLAMP, Hose	1
18	1M-14034	HOSE, Tube to Pump	1
19	540128	CLAMP, Hose	1
20	540108	CLAMP, Hose	1

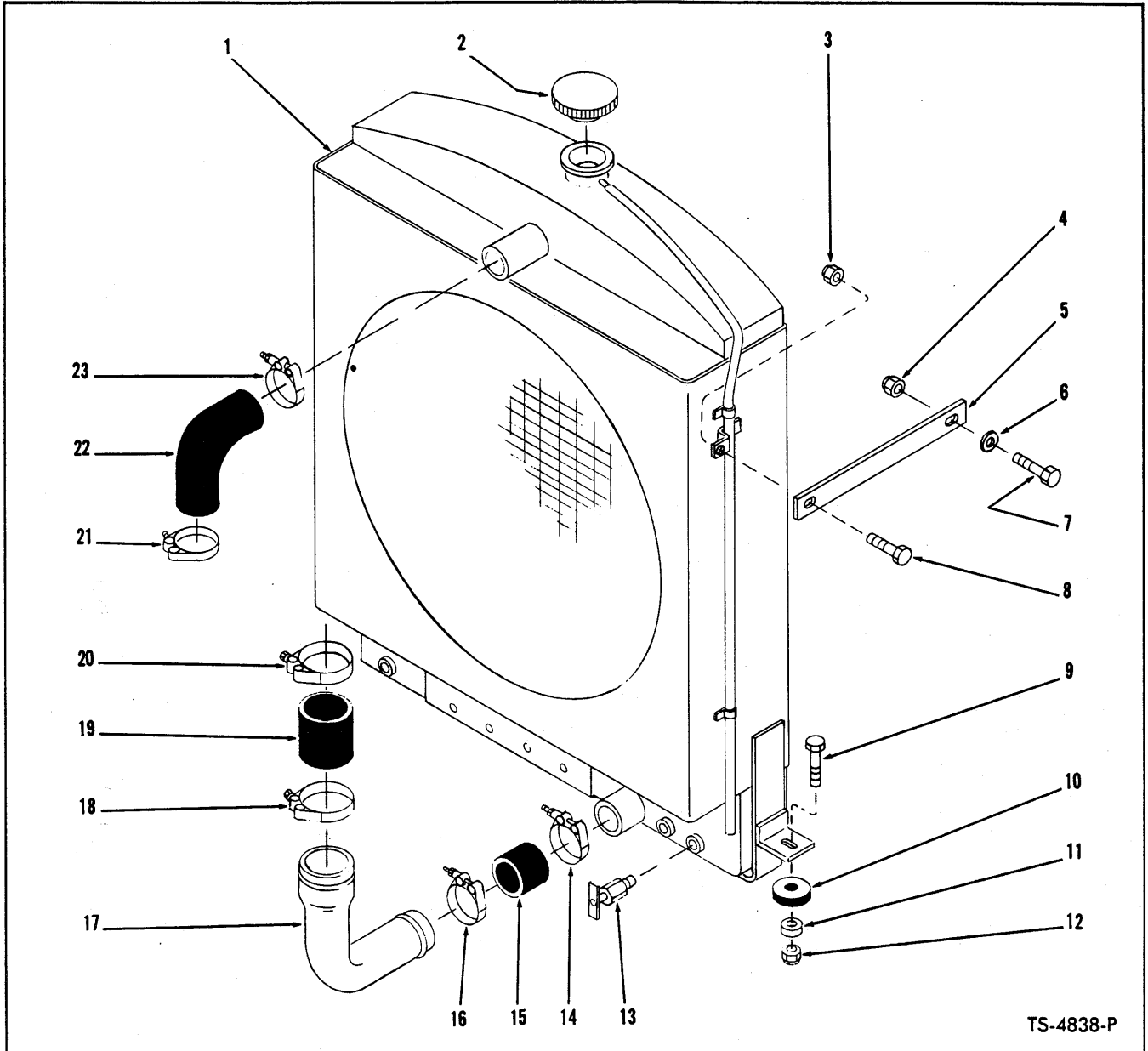
**RADIATOR AND CONNECTIONS — G.M.**



Item No.	Part No.	Description	No. Req'd.
1	540266	CLAMP, Hose	1
2	351495	CAP, Radiator	1
3	544013	RADIATOR (Inc. 2)	1
4	18D-06	NUT, Radiator to Clip	2
5	544017	CLIP, Radiator to Grille	2
6	18C-616	BOLT, Radiator to Clip	2
7	18C-828	BOLT, Radiator to Frame	2
8	518233	PAD, Radiator to Frame	2
9	71D-08	BASE, Radiator to Frame Nut	2
10	70D-08	NUT, Radiator to Frame	2
11	73F-2	DRAIN COCK	1
12	540108	CLAMP, Hose	1
13	544016	HOSE, Lower Radiator	1
14	540108	CLAMP, Hose	1
15	540266	CLAMP, Hose	1
16	544015	HOSE, Upper Radiator	1

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





TS-4838-P

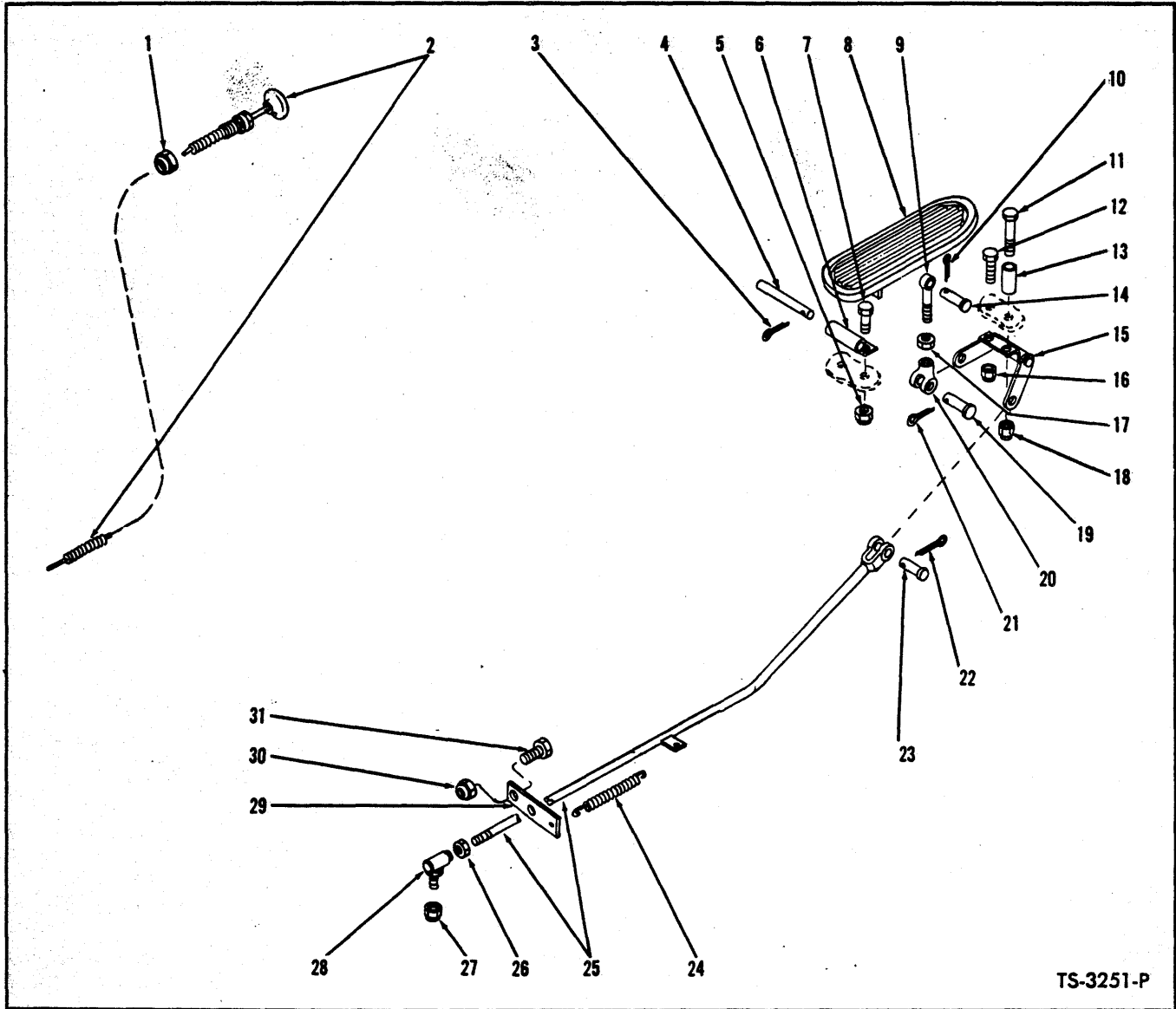
**RADIATOR AND CONNECTION – GAS**

For Serial: 3CA176 thru 3CA999, 4CA101 and thereafter

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	545854	RADIATOR (Inc. 2)	1	13	73F-2	DRAIN COCK	1
2	351495	CAP, Radiator	1	14	540128	CLAMP, Hose	1
3	18D-06	NUT, Clip to Radiator	2	15	1M-14034	HOSE, Tube to Radiator	1
4	18D-06	NUT, Clip to Grille	2	16	540128	CLAMP, Hose	1
5	539038	CLIP, Radiator to Grille	2	17	564382	*TUBE, Lower Radiator	1
6	25E-18	WASHER, Clip to Grille	2	18	540104	CLAMP, Hose	1
7	18C-618	BOLT, Clip to Grille	2	19	556415	HOSE, Tube to Pump	1
8	18C-614	BOLT, Clip to Radiator	2	20	540104	CLAMP, Hose	1
9	18C-828	BOLT, Radiator to Frame	2	21	540108	CLAMP, Hose	1
10	518233	PAD, Radiator to Frame	2	22	539682	HOSE, Upper Radiator	1
11	71D-08	BASE, Radiator to Frame Nut	2	23	540108	CLAMP, Hose	1
12	70D-08	NUT, Radiator to Frame	2				

\*NOTE: Use Waukesha Engine Parts Manual No. 1900, Model F-283-G, Form 576-4107, 5/64 for this installation.

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

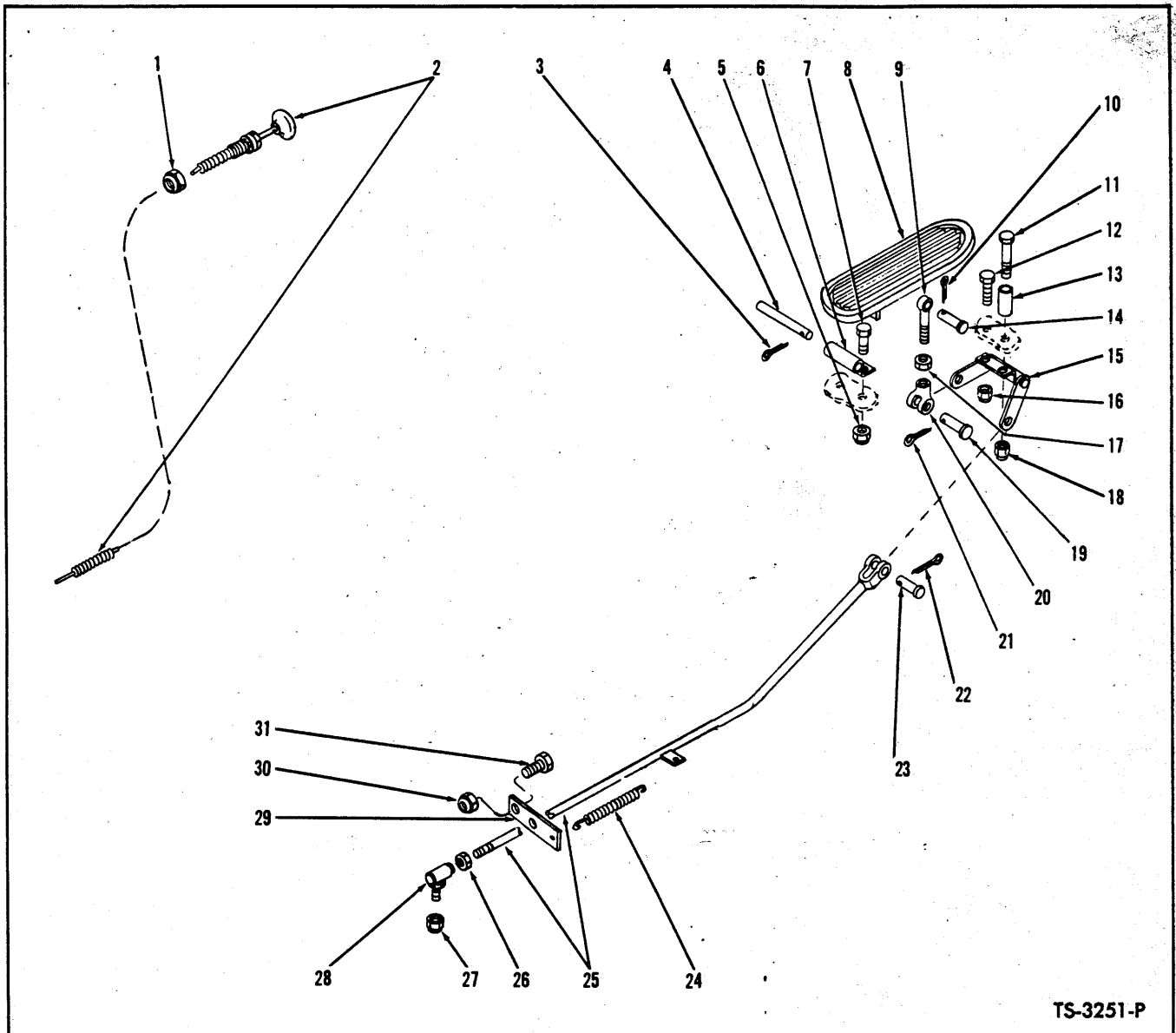


TS-3251-P

**ACCELERATOR PEDAL AND LINKAGE – GAS**  
For Serial: 3CA176 thru 3CA999, 4CA101 and thereafter

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	66D-06	NUT, Choke Cable Mounting	1	17	8D-04	NUT, Clevis Jam	1
2	7H-20	CABLE, Choke	1	18	18D-04	NUT, Pedal Stop & Bell Crank	1
3	1F-316	COTTER, Clevis Pin	1	19	4F-04051	PIN, Clevis to Bell Crank	1
4	623762	PIN, Accelerator Pedal Pivot	1	20	2J-4200	CLEVIS, Rod to Bell Crank	1
5	18D-04	NUT, Pivot Bracket to Floorboard	2	21	1F-207	COTTER, Clevis Pin	1
6	623760	BRACKET, Accelerator Pedal Pivot	1	22	1F-207	COTTER, Clevis Pin	1
7	18C-412	BOLT, Pivot Bracket to Floorboard	2	23	4F-04051	PIN, Rod to Bell Crank Clevis	1
8	623829	PEDAL, Accelerator	1	24	551090	SPRING, Accelerator Rod Return	1
9	536140	ROD, Pedal to Bell Crank	1	25	557355	ROD ASSY, Accelerator (Inc. 26, 28, 29)	1
10	1F-207	COTTER, Clevis Pin	1	26	8D-04	NUT, Ball Joint Jam	1
11	18C-428	BOLT, Pedal Stop & Bell Crank	1	27	66D-04	NUT, Ball Joint to Engine	1
12	18C-412	BOLT, Bell Crank to Floorboard	1	28	1306167	BALL JOINT	1
13	536141	STOP, Pedal	1	29	529364	GUIDE, Accelerator Rod	1
14	4F-04051	PIN, Rod to Pedal	1	30	18D-06	NUT, Guide Mounting	1
15	550616	BELL CRANK	1	31	18C-612	BOLT, Guide Mounting	1
16	18D-04	NUT, Bell Crank to Floorboard	1				

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

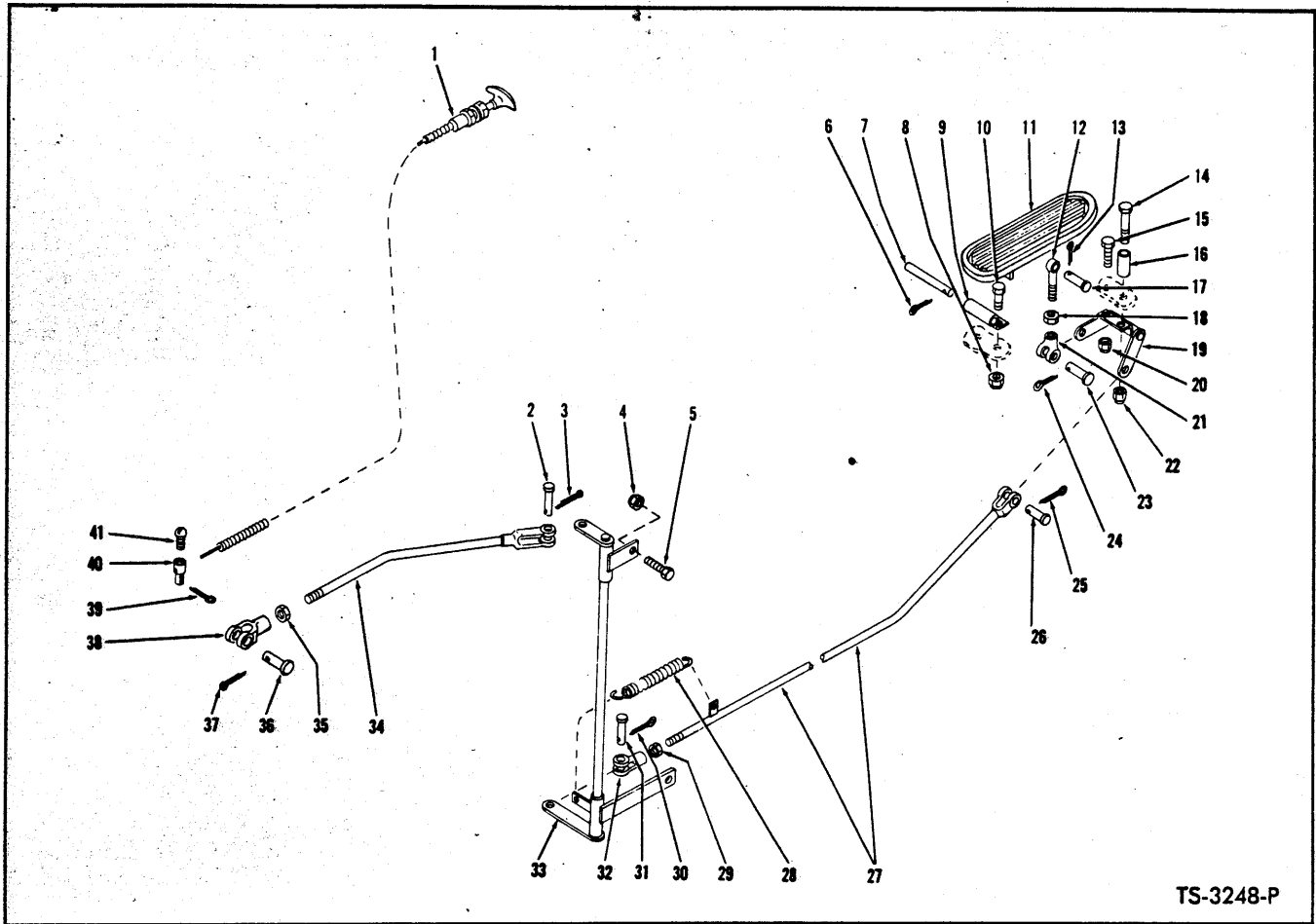


TS-3251-P

**ACCELERATOR PEDAL AND LINKAGE — GAS**  
For Serial: 2CA101 thru 3CA175

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	66D-06	NUT, Choke Cable Mounting	1	17	8D-04	NUT, Clevis Jam	1
2	7H-20	CABLE, Choke	1	18	18D-04	NUT, Pedal Stop & Bell Crank	1
3	1F-316	COTTER, Clevis Pin	1	19	4F-04051	PIN, Clevis to Bell Crank	1
4	623762	PIN, Accelerator Pedal Pivot	1	20	2J-4200	CLEVIS, Rod to Bell Crank	1
5	18D-04	NUT, Pivot Bracket to Floorboard	2	21	1F-207	COTTER, Clevis Pin	1
6	623760	BRACKET, Accelerator Pedal Pivot	1	22	1F-207	COTTER, Clevis Pin	1
7	18C-412	BOLT, Pivot Bracket to Floorboard	2	23	4F-04051	PIN, Rod to Bell Crank Clevis	1
8	623829	PEDAL, Accelerator	1	24	551090	SPRING, Accelerator Rod Return	1
9	536140	ROD, Pedal to Bell Crank	1	25	535285	ROD, Accelerator	1
10	1F-207	COTTER, Clevis Pin	1	26	8D-04	NUT, Ball Joint Jam	1
11	18C-428	BOLT, Pedal Stop & Bell Crank	1	27	66D-04	NUT, Ball Joint to Engine	1
12	18C-412	BOLT, Bell Crank to Floorboard	1	28	1306167	BALL JOINT	1
13	536141	STOP, Pedal	1	29	529364	GUIDE, Accelerator Rod	1
14	4F-04051	PIN, Rod to Pedal	1	30	18D-06	NUT, Guide Mounting	1
15	550616	BELL CRANK	1	31	18C-612	BOLT, Guide Mounting	1
16	18D-04	NUT, Bell Crank to Floorboard	1				

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

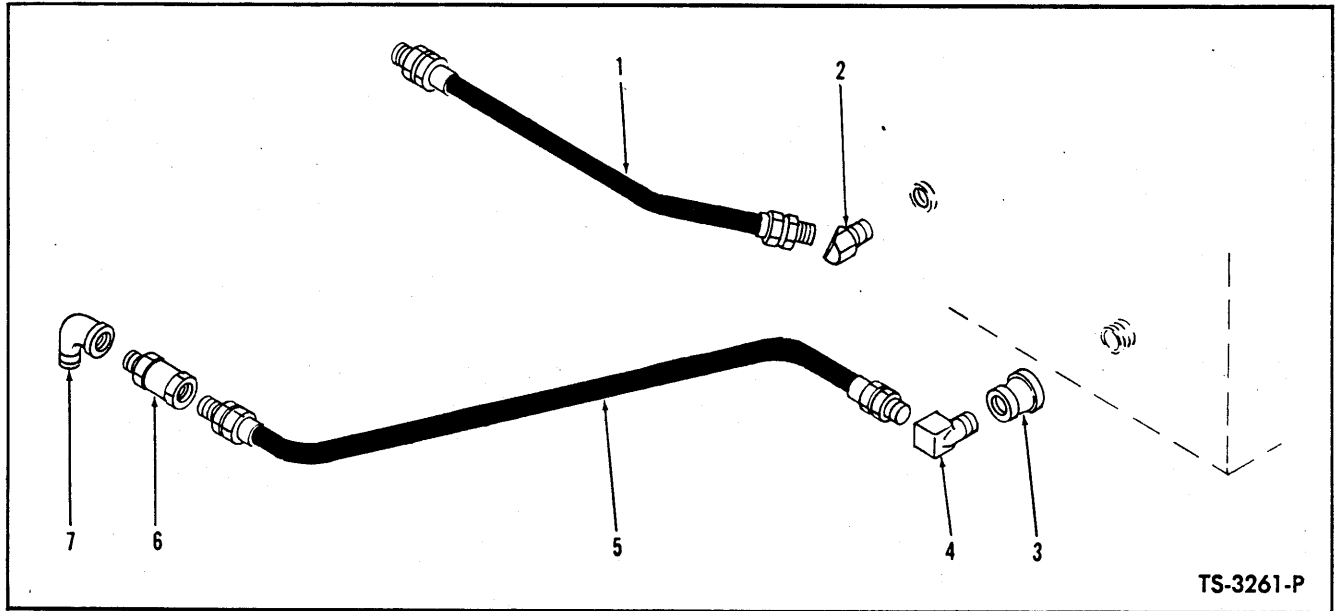


TS-3248-P

**ACCELERATOR PEDAL AND LINKAGE – G.M.**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	1520193	CABLE, Engine Shutoff	1	22	18D-04	NUT, Pedal Stop & Bell Crank	1
2	4F-04051	PIN, Rod to Bell Crank Clevis	1	23	4F-04051	PIN, Rod to Bell Crank Clevis	1
3	1F-207	COTTER, Clevis Pin	1	24	1F-207	COTTER, Clevis Pin	1
4	18D-06	NUT, Bell Crank to Seat Support	2	25	1F-207	COTTER, Clevis Pin	1
5	18C-620	BOLT, Bell Crank to Seat Support	2	26	4F-04051	PIN, Rod to Bell Crank Clevis	1
6	1F-316	COTTER, Clevis Pin	1	27	540858	ROD, Accelerator	1
7	623762	PIN, Accelerator Pedal Pivot	1	28	551090	SPRING, Accelerator Rod Return	1
8	18D-04	NUT, Pivot Bracket to Floorboard	2	29	66D-05	NUT, Clevis Jam	1
9	623760	BRACKET, Accelerator Pedal Pivot	1	30	1F-310	COTTER, Clevis Pin	1
10	18C-412	BOLT, Pivot Bracket to Floorboard	2	31	4F-05062	PIN, Rod to Bell Crank Clevis	1
11	623829	PEDAL, Accelerator	1	32	2J-5204	CLEVIS, Rod to Bell Crank	1
12	536140	ROD, Pedal to Bell Crank	1	33	541133	BELL CRANK	1
13	1F-207	COTTER, Clevis Pin	1	34	544318	ROD, Bell Crank to Engine	1
14	18C-428	BOLT, Pedal Stop & Bell Crank	1	35	8D-05	NUT, Clevis Jam	1
15	18C-412	BOLT, Bell Crank to Floorboard	1	36	4F-05062	PIN, Clevis	1
16	536141	STOP, Pedal	1	37	1F-310	COTTER, Clevis Pin	1
17	4F-04051	PIN, Rod to Pedal	1	38	2J-5204	CLEVIS, Rod to Engine	1
18	8D-04	NUT, Clevis Jam	1	39	1F-308	COTTER, Wire Connector	1
19	550616	BELL CRANK	1	40	351131	CONNECTOR, Wire	1
20	18D-04	NUT, Bell Crank to Floorboard	1	41	3G-1008	SCREW, Wire Connector	1
21	2J-4200	CLEVIS, Rod to Bell Crank	1				

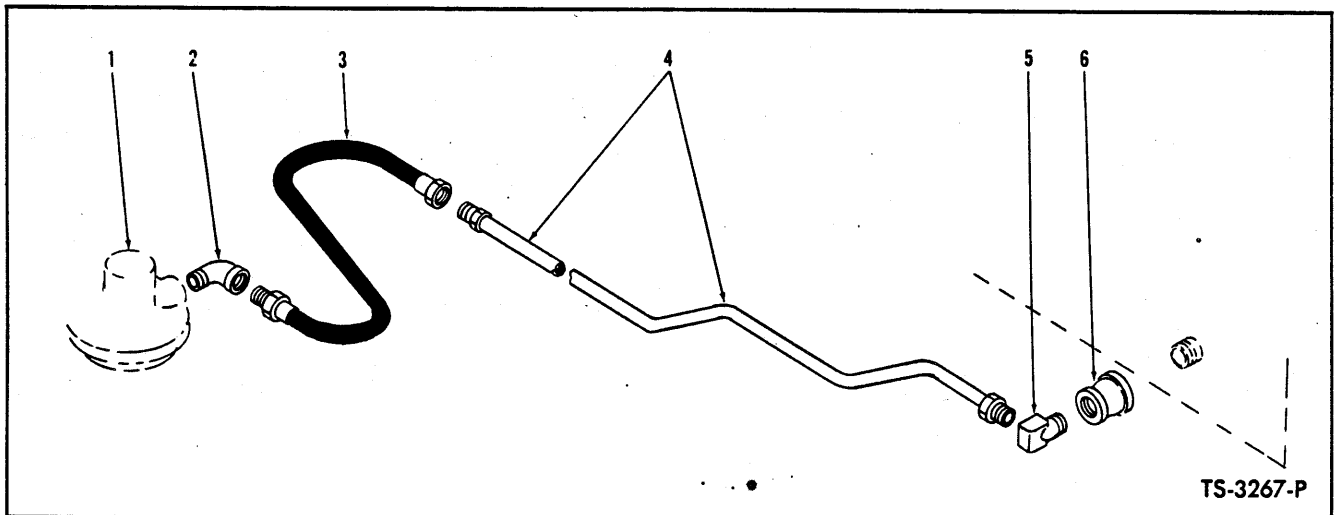
**WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE**



TS-3261-P

**FUEL LINES — G.M.**

Item No.	Part No.	Description	No. Req'd.
1	547269	HOSE, Fuel Return .....	1
2	547242	ELBOW, Return Line to Tank .....	1
3	76F-2	COUPLING, Reducing — Elbow to Tank .....	1
4	62F-6	ELBOW, Hose to Tank .....	1
5	547268	HOSE, Suction .....	1
6	531792	CHECK VALVE .....	1
7	30K-304	ELBOW .....	1

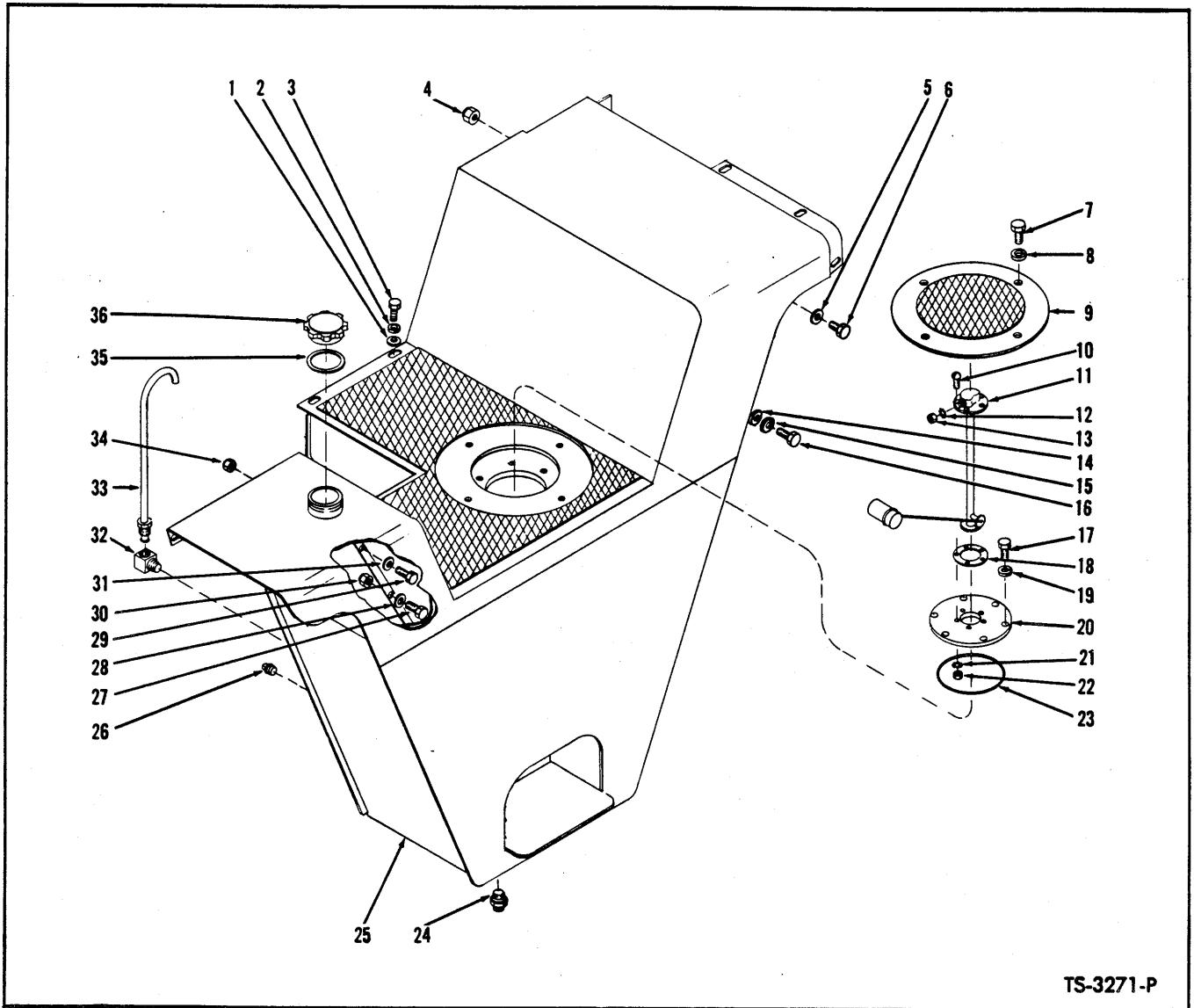


TS-3267-P

**FUEL LINES — GAS**

Item No.	Part No.	Description	No. Req'd.
1	-----	FUEL PUMP — See Engine Parts Manual .....	1
2	30K-302	ELBOW, Hose to Pump .....	1
3	550984	HOSE, Pump to Line .....	1
4	534833	LINE, Tank to Pump .....	1
5	62F-5	ELBOW, Line to Coupling .....	1
6	76F-2	COUPLING, Reducing — Line to Fuel Tank .....	1

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

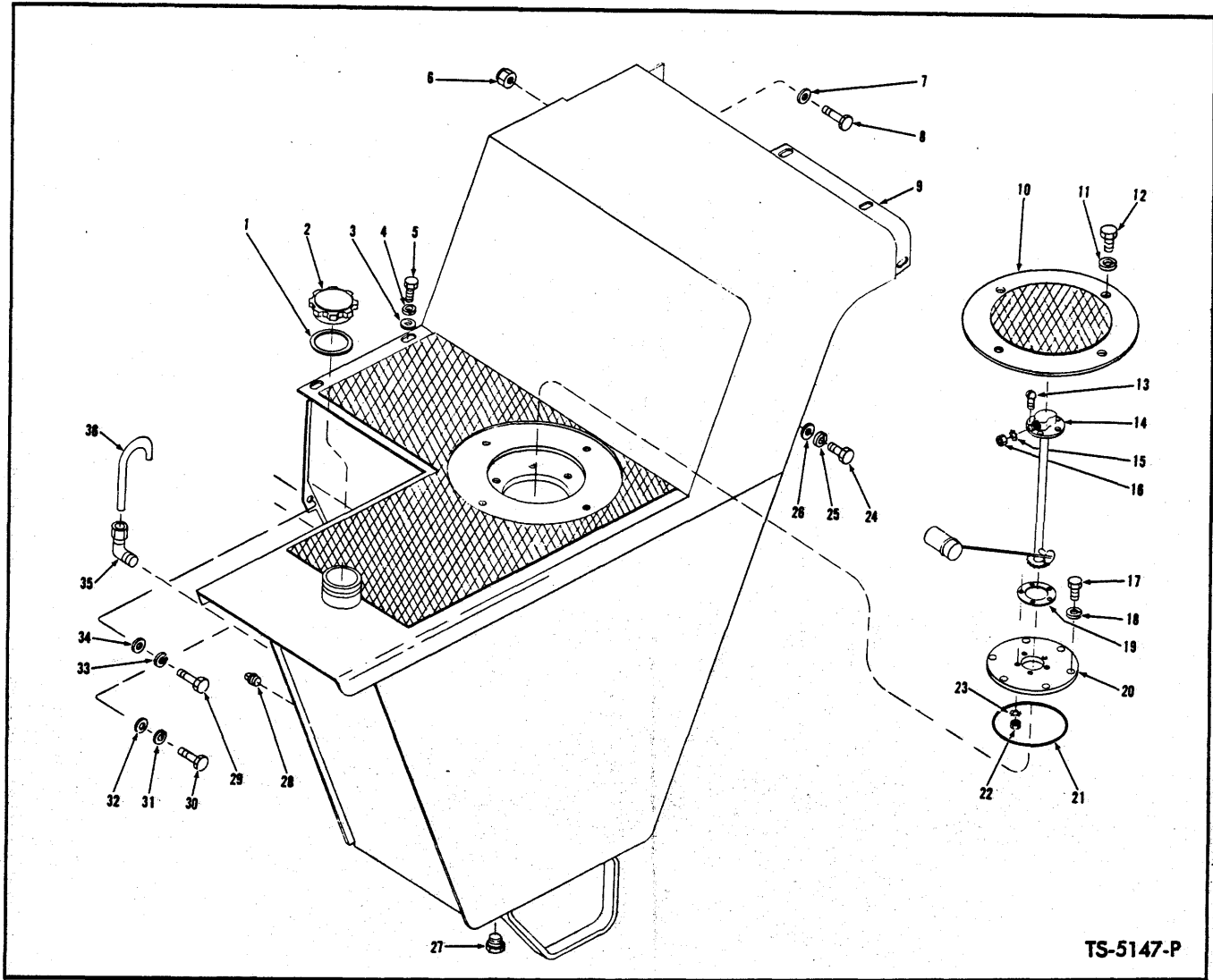


TS-3271-P

**FUEL TANK**  
**For Serial: G.M. — 2CG101 thru 5CG999**  
**Wauk. — 2CA101 thru 4CA999**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	619021	WASHER, Tank to Seat Support	2	19	4E-06	LKWSHR, Support Ring Cover to Tank	6
2	4E-06	LKWSHR, Tank to Seat Support	2	20	536274	COVER, Support Ring	1
3	17C-616	BOLT, Tank to Seat Support	2	21	12E-10	LKWSHR, Sender Unit to Cover	5
4	18D-06	NUT, Tank to Seat Support	2	22	12D-10	NUT, Sender Unit to Cover	5
5	619021	WASHER, Tank to Seat Support	2	23	25K-40428	"O" RING, Cover to Ring	1
6	18C-620	BOLT, Tank to Seat Support	2	24	13F-04	PLUG, Tank	1
7	17C-608	BOLT, Cover to Tank	4	25	535872	TANK, Fuel	1
8	4E-06	LKWSHR, Cover to Tank	4	26	13F-04	PLUG, Fuel Tank — GAS Only	1
9	540056	COVER, Sender Unit Access	1	27	18C-828	BOLT, Tank to Lower Pivot	1
10	3G-1008	SCREW, Sender Unit to Cover	5	28	619029	WASHER, Tank to Lower Pivot	1
11	536204	SENDER UNIT, Fuel	1	29	18C-832	BOLT, Tank to Frame	1
12	12E-10	LKWSHR, Sender Unit Terminal	1	30	18D-08	NUT, Tank to Lower Pivot	1
13	14D-10	NUT, Sender Unit Terminal	1	31	619029	WASHER, Tank to Frame	1
14	619029	WASHER, Tank to Frame	1	32	62F-3	ELBOW, Breather Tube to Tank	1
15	4E-08	LKWSHR, Tank to Frame	1	33	543034	TUBE, Fuel Tank Breather	1
16	18C-816	BOLT, Tank to Frame	1	34	18D-08	NUT, Tank to Frame	1
17	18C-612	BOLT, Support Ring Cover to Tank	6	35	539318	GASKET, Filler Cap	1
18	627982	GASKET, Sender Unit to Ring	1	36	539195	CAP, Filler	1

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



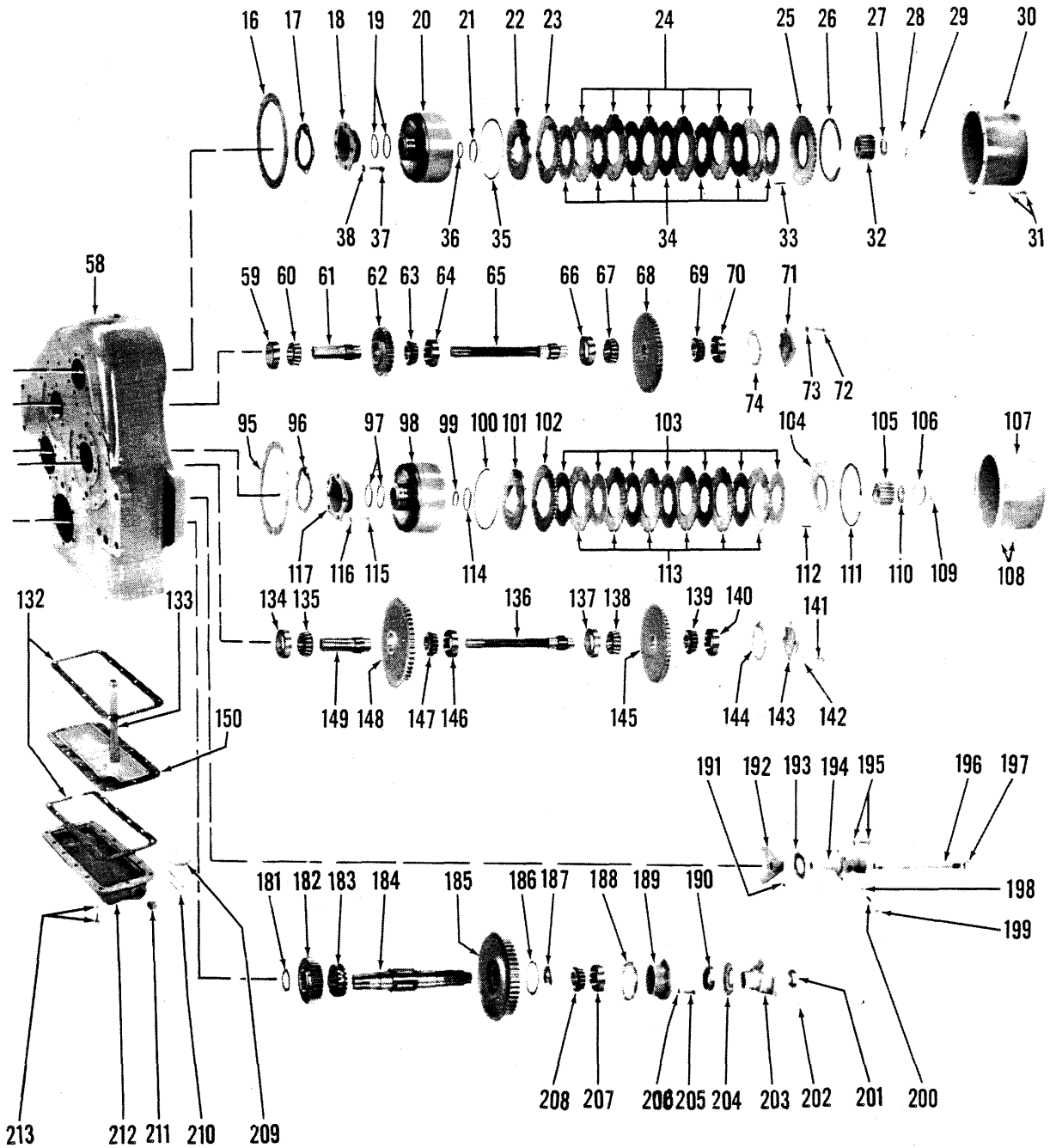
TS-5147-P

**FUEL TANK**  
For Serial: G.M. — 6CG101 and after  
Wauk. — 5CA101 and after

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	539318	GASKET, Fuel Filler Cap .....	1	20	536274	RING, Sender Unit Support .....	1
2	539195	CAP, Fuel Filler (Inc. 1) .....	1	21	25K-40428	"O" RING, Support Ring to Tank .....	1
3	619021	WASHER, Tank to Seat Support .....	2	22	12D-10	NUT, Sender Unit to Ring .....	5
4	4E-06	LKWSHR, Tank to Seat Support .....	2	23	12E-10	LKWSHR, Sender Unit to Ring .....	5
5	17C-616	BOLT, Tank to Seat Support .....	2	24	18C-816	BOLT, Tank to Frame .....	1
6	18D-06	NUT, Tank to Frame .....	2	25	4E-08	LKWSHR, Tank to Frame .....	1
7	619021	WASHER, Tank to Frame .....	2	26	619029	WASHER, Tank to Frame .....	1
8	18C-620	BOLT, Tank to Frame .....	2	27	13F-04	PLUG, Fuel Drain .....	1
9	566060	TANK, Fuel (Inc. 1, 2) .....	1	28	13F-04	PLUG, Fuel Tank—GAS MODEL ONLY	1
10	540056	COVER, Fuel Tank .....	1	29	18C-832	BOLT, Tank to Frame—Upper .....	1
11	4E-06	LKWSHR, Cover to Tank .....	4	29A	18D-08	†NUT, Tank to Frame—Upper .....	1
12	17C-608	BOLT, Cover to Tank .....	4	30	18C-828	BOLT, Tank to Frame—Lower .....	1
13	3G-1008	SCREW, Sender Unit to Ring .....	5	31	4E-08	LKWSHR, Tank to Frame .....	1
14	536204	SENDER UNIT, Fuel .....	1	32	619029	WASHER, Tank to Frame .....	1
15	12E-10	LKWSHR, Sender Unit .....	1	33	————	NOT REQUIRED THIS APPLICATION	1
16	14D-10	NUT, Sender Unit .....	1	34	619029	WASHER, Tank to Frame .....	1
17	18C-612	BOLT, Ring to Tank .....	6	35	51F-3	ELBOW, Tube to Frame .....	1
18	4E-06	LKWSHR, Ring to Tank .....	6	36	567847	TUBE, Fuel Tank Breather .....	1
19	627982	GASKET, Sender Unit to Ring .....	1				

†Not Illustrated

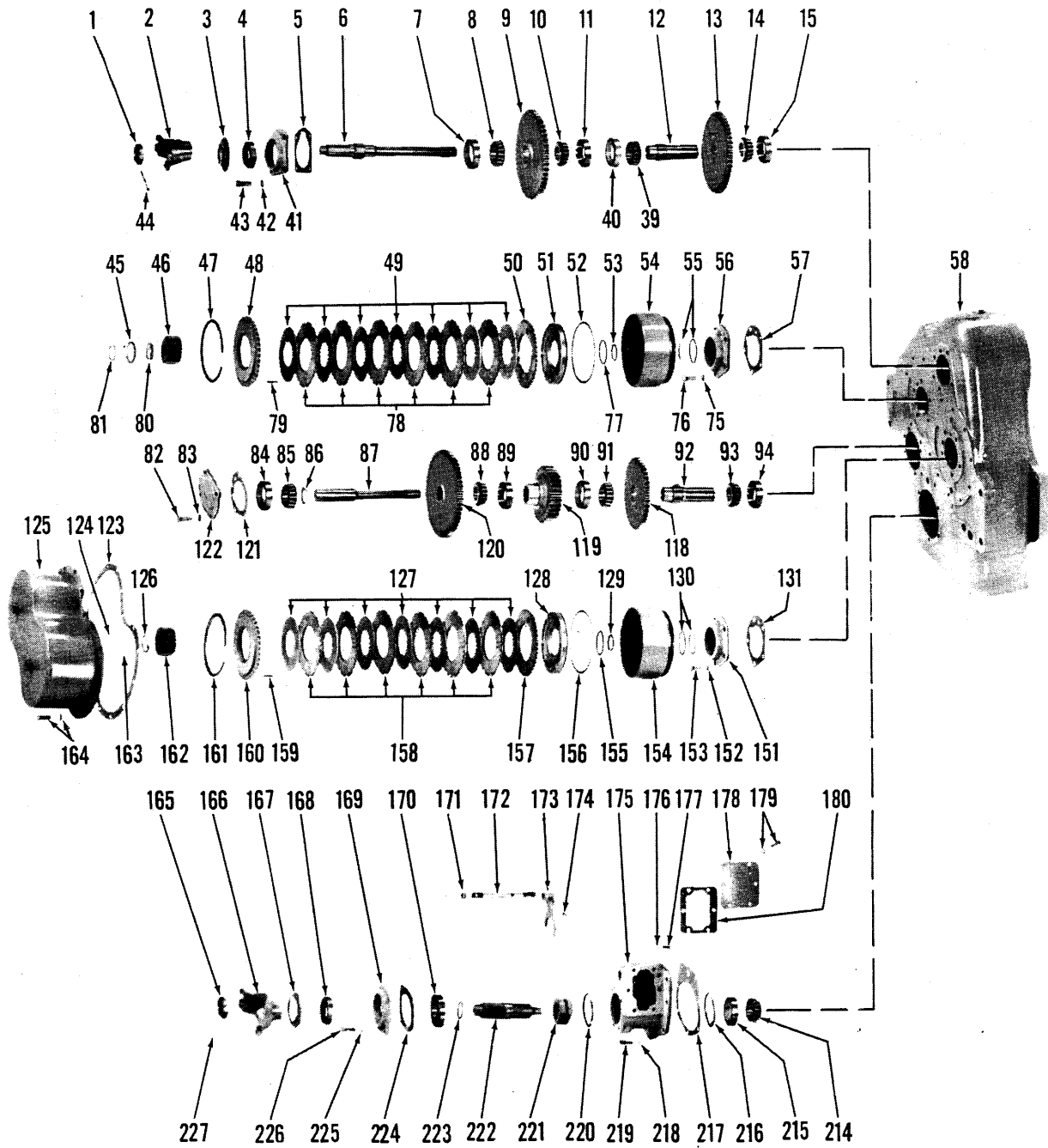
**WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE**



TRANSMISSION ASSEMBLY

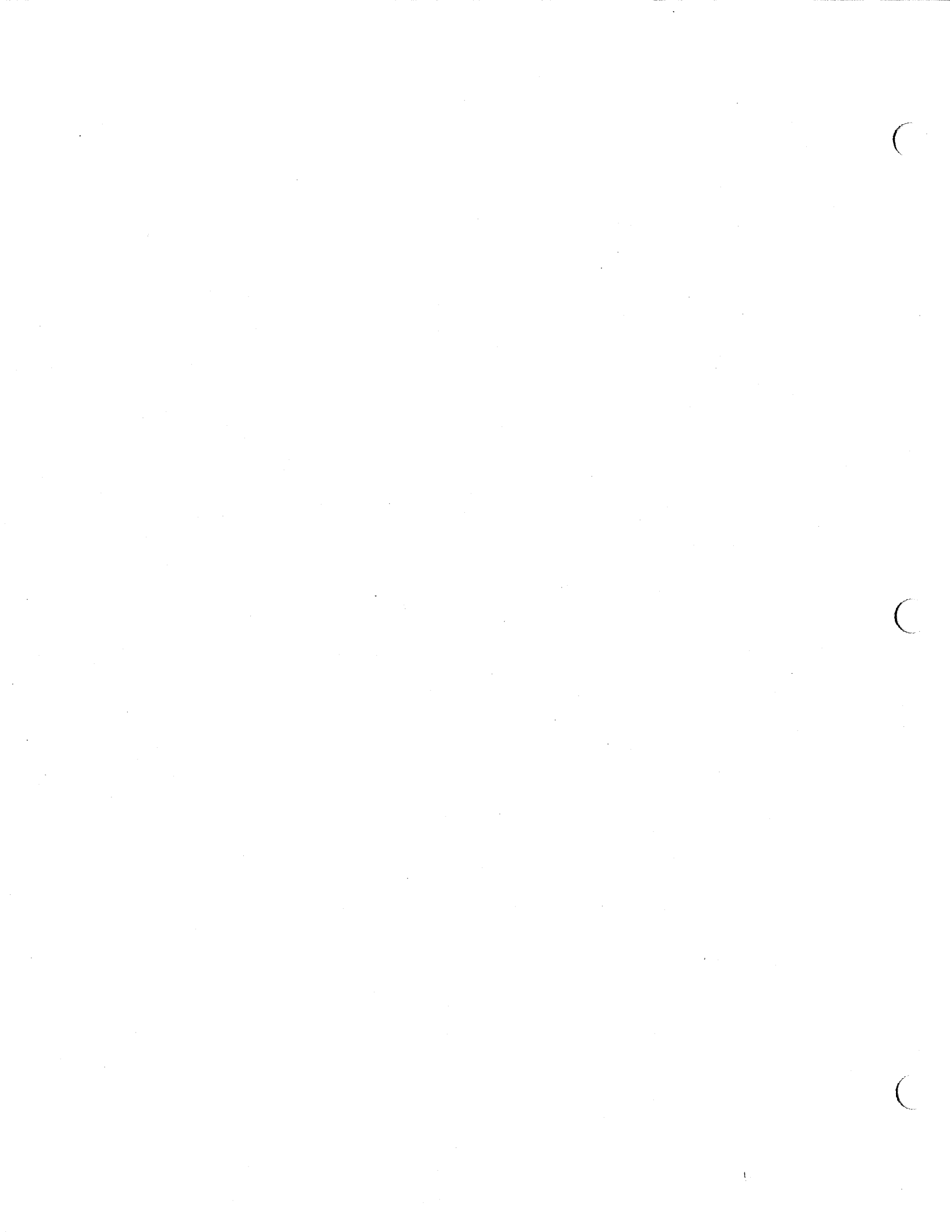
TS-1617





TRANSMISSION ASSEMBLY

TS-1617



**TRANSMISSION ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	281740	TRANSMISSION ASSY — R-300FS-5 (Inc. 1 thru 227)	1	40A	223881	†RING, Bearing Locating	1
1	201951	NUT, Input Flange	1	41	209339	CAP, Input Shaft Bearing	1
2	209343	FLANGE ASSY, Input (Inc. 3)	1	42	4E-07	LKWSHR, Bearing Cap	4
3	100949	DEFLECTOR, Input Flange	1	43	1C-718	BOLT, Bearing Cap	4
4	206864	SEAL, Input Shaft Oil	1	44	1F-424	COTTER, Flange Nut	1
5	209340	‡SHIM, Bearing Cap — .004"	—	45	223867	RING, Hub Washer Locating	1
5A	209341	‡SHIM, Bearing Cap — .007"	—	46	220398	HUB, Clutch Disc	1
5B	209342	‡SHIM, Bearing Cap — .010"	—	47	223942	RING, End Plate Retaining	1
6	220390	SHAFT, Input	1	48	208760	PLATE, Clutch Disc End	1
7	675544	CUP, Input Shaft Bearing	1	49	216677	DISC, Clutch Inner	7
8	675547	CONE, Input Shaft Bearing	1	50	221998	DISC, Clutch Outer	1
9	209377	GEAR, Input Shaft Reverse (45T)	1	51	221996	PISTON, Clutch	1
10	675547	CONE, Input Shaft Bearing	1	52	208776	RING, Piston Outer Sealing	1
11	675544	CUP, Input Shaft Bearing	1	53	224106	RING, Drum Hub Retaining	1
11A	223881	†RING, Bearing Locating	1	54	222409	DRUM ASSY, Clutch (Inc. 54A, 54B)	1
12	220389	SHAFT, Forward Gear Quill	1	54A	222407	†HOUSING, Bleed Valve	1
13	209369	GEAR, Input Shaft Forward (43T)	1	54B	10J-06	†BALL, Bleed Valve	1
14	731321	CONE, Quill Shaft Bearing	1	55	209387	RING, Drum Hub Sealing	2
15	731319	CUP, Quill Shaft Bearing	1	56	220469	CAP, Clutch Bearing	1
16	221401	GASKET, Clutch Cover	1	57	220471	‡SHIM, Bearing Cap — .004"	—
17	220471	‡SHIM, Bearing Cap — .004"	—	57A	220472	‡SHIM, Bearing Cap — .007"	—
17A	220472	‡SHIM, Bearing Cap — .007"	—	57B	220473	‡SHIM, Bearing Cap — .010"	—
17B	220473	‡SHIM, Bearing Cap — .010"	—	57C	221209	‡SHIM, Bearing Cap — .020"	—
17C	221209	‡SHIM, Bearing Cap — .020"	—	58	220934	CASE ASSY, Transmission	1
18	220469	CAP, Clutch Bearing	1	59	731319	CUP, Quill Shaft Bearing	1
19	209387	RING, Clutch Drum Sealing	2	60	731321	CONE, Quill Shaft Bearing	1
20	222409	DRUM ASSY, Clutch (Inc. 20A, 20B)	1	61	220389	SHAFT, 1st & 3rd Quill	1
20A	222407	†HOUSING, Bleed Valve	1	62	209374	GEAR, 1st & 3rd Drive (29T)	1
20B	10J-06	†BALL, Bleed Valve	1	63	675548	CONE, Quill Shaft Bearing	1
21	234038	RING, Piston Inner Sealing	1	64	675544	CUP, Quill Shaft Bearing	1
22	221996	PISTON, Clutch	1	64A	223881	†RING, Bearing Locating	1
23	221998	DISC, Clutch Outer	1	65	220388	SHAFT, 1st & 3rd Drive	1
24	208773	DISC, Clutch Outer	6	66	675544	CUP, Drive Shaft Bearing	1
25	208760	PLATE, Clutch Disc End	1	66A	223881	†RING, Bearing Locating	1
26	223942	RING, End Plate Retaining	1	67	675547	CONE, Drive Shaft Bearing	1
27	220468	WASHER, Disc Hub Retaining	1	68	209375	GEAR, 1st & 3rd Drop (44T)	1
28	223867	RING, Hub Washer Locating	1	69	675547	CONE, Drive Shaft Bearing	1
29	224047	RING, Hub Washer Retaining	1	70	675544	CUP, Drive Shaft Bearing	1
30	220391	COVER, Clutch	1	71	209364	CAP, Drive Shaft Bearing	1
31	5C-614	BOLT & LKWSHR, Clutch Cover	10	72	1C-718	BOLT, Bearing Cap	4
32	220398	HUB, Clutch Disc	1	73	4E-07	LKWSHR, Bearing Cap	4
33	220186	SPRING, Clutch Disc Release	10	74	209365	‡SHIM, Bearing Cap — .004"	—
34	216677	DISC, Clutch Inner	7	74A	209366	‡SHIM, Bearing Cap — .007"	—
35	208776	RING, Piston Outer Sealing	1	74B	209367	‡SHIM, Bearing Cap — .010"	—
36	224106	RING, Drum Hub Retaining	1	75	4E-07	LKWSHR, Bearing Cap	4
37	1C-718	BOLT, Bearing Cap	4	76	1C-718	BOLT, Bearing Cap	4
38	4E-07	LKWSHR, Bearing Cap	4	77	234038	RING, Piston Inner Sealing	1
39	675548	CONE, Quill Shaft Bearing	1	78	208773	DISC, Clutch Outer	6
40	675544	CUP, Quill Shaft Bearing	1	79	220186	SPRING, Clutch Disc Release	10
				80	220468	WASHER, Disc Hub Retaining	1

‡As Required  
†Not Illustrated

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

**TRANSMISSION ASSEMBLY (Continued)**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
81	224047	RING, Hub Washer Retaining	1	121	220513	‡SHIM, Bearing Cap — .004"	—
82	1C-718	BOLT, Bearing Cap	5	121A	220514	‡SHIM, Bearing Cap — .007"	—
83	4E-07	LKWSHR, Bearing Cap	5	121B	220515	‡SHIM, Bearing Cap — .010"	—
84	731336	CUP, Drive Shaft Bearing	1	122	220508	CAP, Drive Shaft Bearing	1
85	711124	CONE, Drive Shaft Bearing	1	123	209370	GASKET, Clutch Cover	1
86	224031	RING, High Gear Locating	1	124	224047	RING, Hub Washer Retaining	1
87	220393	SHAFT, 2nd & 4th Drive	1	125	220386	COVER, Clutch	1
88	654875	CONE, Drive Shaft Bearing	1	126	220468	WASHER, Disc Hub Retaining	1
89	731336	CUP, Drive Shaft Bearing	1	127	216677	DISC, Clutch Inner	7
89A	223951	†RING, Bearing Shaft Locating	1	128	221996	PISTON, Clutch	1
90	675544	CUP, Quill Shaft Tapered Bearing	1	129	224106	RING, Clutch Drum Hub Retaining	1
91	675548	CONE, Quill Shaft Tapered Bearing	1	130	209387	RING, Drum Hub Sealing	2
92	220389	SHAFT, 2nd & 4th Quill	1	131	220471	‡SHIM, Bearing Cap — .004"	—
93	731321	CONE, Quill Shaft Tapered Bearing	1	131A	220472	‡SHIM, Bearing Cap — .007"	—
94	731319	CUP, Quill Shaft Tapered Bearing	1	131B	220473	‡SHIM, Bearing Cap — .010"	—
95	221401	GASKET, Clutch Cover	1	131C	221209	‡SHIM, Bearing Cap — .020"	—
96	220471	‡SHIM, Bearing Cap — .004"	—	132	209353	GASKET, Oil Pan	2
96A	220472	‡SHIM, Bearing Cap — .007"	—	133	220673	PIPE, Oil Suction	1
96B	220473	‡SHIM, Bearing Cap — .010"	—	134	731319	CUP, Quill Shaft Bearing	1
96C	221209	‡SHIM, Bearing Cap — .020"	—	135	731321	CONE, Quill Shaft Bearing	1
97	209387	RING, Drum Hub Sealing	2	136	220388	SHAFT, Reverse Drive	1
98	222409	DRUM ASSY, Clutch (Inc. 98A, 98B)	1	137	675544	CUP, Drive Shaft Bearing	1
98A	222407	†HOUSING, Bleed Valve	1	137A	223881	†RING, Bearing Locating	1
98B	10J-06	†BALL, Bleed Valve	1	138	675547	CONE, Drive Shaft Bearing	1
99	224106	RING, Drum Hub Retaining	1	139	675547	CONE, Drive Shaft Bearing	1
100	208776	RING, Piston Outer Sealing	1	140	675544	CUP, Drive Shaft Bearing	1
101	221996	PISTON, Clutch	1	141	1C-718	BOLT, Bearing Cap	4
102	221998	DISC, Clutch Outer	1	142	4E-07	LKWSHR, Bearing Cap	4
103	216677	DISC, Clutch Inner	7	143	209364	CAP, Reverse Shaft Bearing	1
104	208760	PLATE, Clutch Disc End	1	144	209365	‡SHIM, Bearing Cap — .004"	—
105	220398	HUB, Clutch Disc	1	144A	209366	‡SHIM, Bearing Cap — .007"	—
106	223867	RING, Hub Washer Locating	1	144B	209367	‡SHIM, Bearing Cap — .010"	—
107	220391	COVER, Clutch	1	145	209372	GEAR, Reverse Idler (52T)	1
108	5C-614	BOLT & LKWSHR, Clutch Cover	10	146	675544	CUP, Drive Shaft Bearing	1
109	224047	RING, Hub Washer Retaining	1	146A	223881	†RING, Bearing Locating	1
110	220468	WASHER, Disc Hub Retaining	1	147	675548	CONE, Drive Shaft Bearing	1
111	223942	RING, End Plate Retaining	1	148	209371	GEAR, Reverse Shaft Drive (54T)	1
112	220186	SPRING, Clutch Disc Release	10	149	220389	SHAFT, Drive Gear Quill	1
113	208773	DISC, Clutch Outer	6	150	220669	SCREEN, Oil	1
114	234038	RING, Piston Inner Sealing	1	151	220469	CAP, Clutch Bearing	1
115	1C-718	BOLT, Bearing Cap	4	152	4E-07	LKWSHR, Bearing Cap	4
116	4E-07	LKWSHR, Bearing Cap	4	153	1C-718	BOLT, Bearing Cap	4
117	220469	CAP, Clutch Bearing	1	154	222409	DRUM ASSY, Clutch (Inc. 154A, 154B)	1
118	209369	GEAR, 2nd & 4th Drive (43T)	1	154A	222407	†HOUSING, Bleed Valve	1
119	220395	GEAR, 2nd & 4th Low (32T)	1	154B	10J-06	†BALL, Bleed Valve	1
120	220394	GEAR, 2nd & 4th High (57T)	1				

‡As Required  
†Not Illustrated

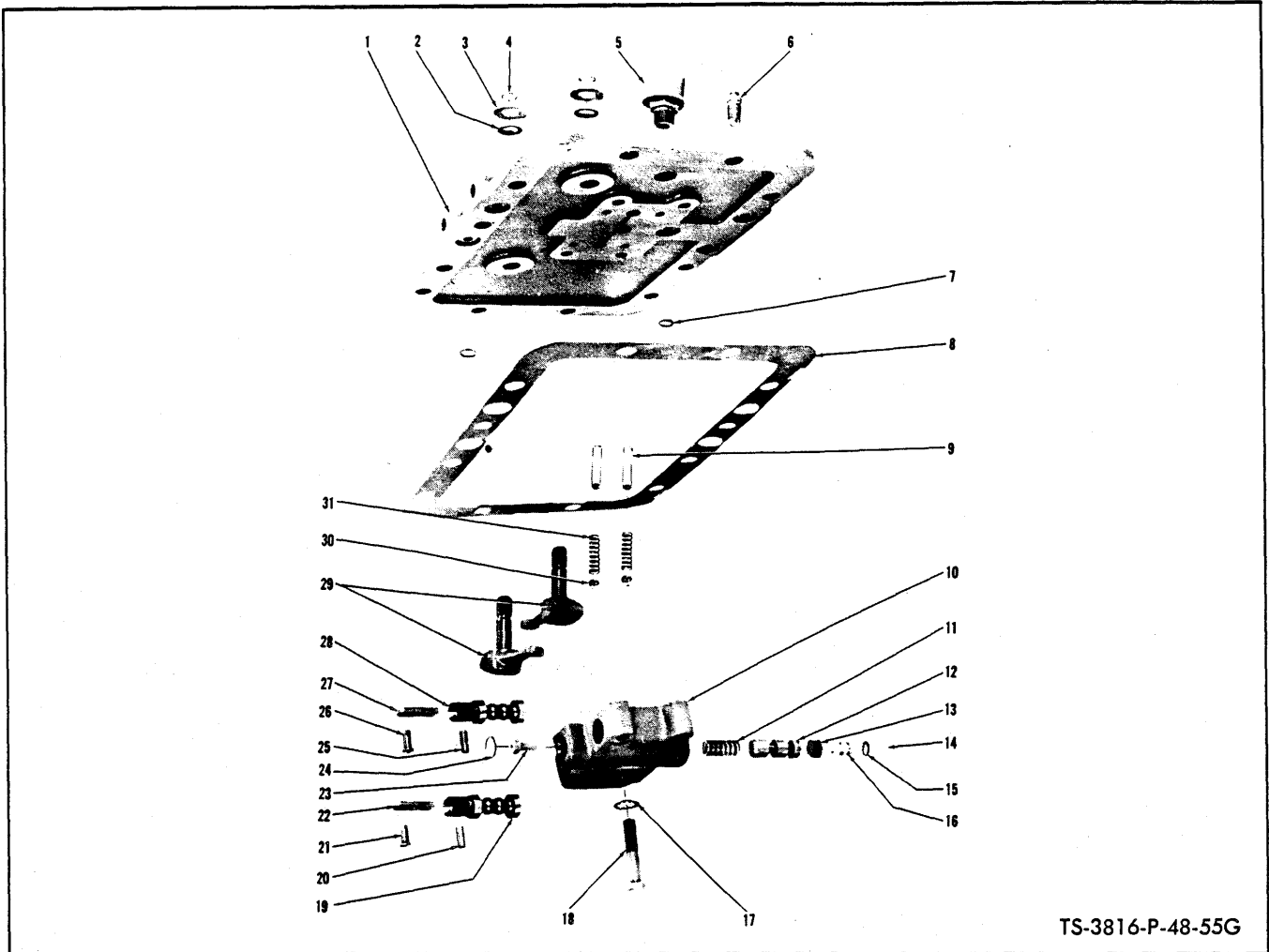
**WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE**

**TRANSMISSION ASSEMBLY (Continued)**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
155	234038	RING, Piston Inner Sealing .....	1	194	209405	SUPPORT, High & Low Shift Shaft ....	1
156	208776	RING, Piston Outer Sealing .....	1	195	5C-616	BOLT & LKWSHR, Shift Shaft Support	4
157	221998	DISC, Clutch Outer .....	1	196	209404	SHAFT, High & Low Shift .....	1
158	208773	DISC, Clutch Outer .....	6	197	208871	SEAL, Shift Shaft Support Oil .....	1
159	220186	SPRING, Clutch Disc Release .....	10	198	10J-12	BALL, Mesh Lock .....	1
160	208760	PLATE, Clutch Disc End .....	1	199	13F-04	PLUG, Mesh Lock .....	1
161	223942	RING, End Plate Retaining .....	1	200	201844	SPRING, Mesh Lock .....	1
162	220398	HUB, Clutch Disc .....	1	201	205928	NUT, Output Shaft Flange .....	1
163	223867	RING, Hub Washer Locating .....	1	202	1F-432	COTTER, Flange Nut .....	1
164	5C-614	BOLT & LKWSHR, Clutch Cover .....	16	203	209414	FLANGE ASSY, Output (Inc. 204) ....	1
165	205928	NUT, Output Flange .....	1	204	100949	DEFLECTOR, Output Flange .....	1
166	209414	FLANGE ASSY, Output (Inc. 167) ....	1	205	1C-718	BOLT, Front Bearing Cap .....	4
167	100949	DEFLECTOR, Output Flange .....	1	206	4E-07	LKWSHR, Front Bearing Cap .....	4
168	206864	SEAL, Bearing Cap Oil .....	1	207	675544	CUP, Output Shaft Bearing .....	1
169	209428	CAP, Rear Output Shaft Bearing .....	1	208	675548	CONE, Output Shaft Bearing .....	1
170	713997	BEARING, Rear Output Shaft .....	1	209	525293	MAGNET, Oil Screen .....	1
171	234650	SEAL, Shift Shaft Oil .....	1	210	223780	SPRING, Magnet Retaining .....	1
172	209434	SHAFT, Rear Output Shaft Shift .....	1	211	201120	PLUG, Drain (Magnetic) .....	1
173	209433	FORK, Rear Output Shaft Shift .....	1	212	215644	PAN, Oil .....	1
174	201566	SCREW, Shift Fork Lock .....	1	213	5C-616	BOLT & LKWSHR, Oil Pan .....	14
175	209430	HOUSING, Rear Output Shaft .....	1	214	675548	CONE, Output Shaft Bearing .....	1
176	10J-12	BALL, Mesh Lock .....	1	215	675544	CUP, Output Shaft Bearing .....	1
177	201844	SPRING, Mesh Lock .....	1	216	223881	RING, Bearing Retaining .....	1
178	209431	PLATE, Rear Housing Cover .....	1	217	209411	SHIM, Output Shaft Housing .....	1
179	5C-612	BOLT & LKWSHR, Cover Plate .....	6	218	4E-07	LKWSHR, Housing to Case .....	7
180	209432	GASKET, Cover Plate .....	1	219	1C-720	BOLT, Housing to Case .....	7
181	209407	WASHER, Output Shaft Gear Thrust ..	1	220	224069	RING, Bearing Retaining .....	1
182	209396	GEAR ASSY, Output Shaft High (Inc. Bushing) .....	1	221	209427	HUB, Rear Output Shaft Shift .....	1
183	209409	HUB, High & Low Shift .....	1	222	209426	SHAFT, Rear Output .....	1
184	209423	SHAFT ASSY, Output (Inc. 184A) ....	1	223	223925	RING, Bearing Locating .....	1
184A	225408	†BUSHING, Output Shaft .....	1	224	209429	GASKET, Rear Bearing Cap .....	1
185	800656	GEAR ASSY, Output Shaft Low (Inc. Bushing) (Inc. 186) .....	1	225	4E-07	LKWSHR, Rear Bearing Cap .....	4
186	209673	RING, Low Gear Oil .....	1	226	1C-718	BOLT, Rear Bearing Cap .....	4
187	209407	WASHER, Output Shaft Gear Thrust ..	1	227	1F-432	COTTER, Flange Nut .....	1
188	209701	‡SHIM, Front Bearing Cap — .004" ....	—	<b>TRANSMISSION MOUNTING PARTS</b>			
188A	209702	‡SHIM, Front Bearing Cap — .007" ....	—	228	532184	†MOUNT, Transmission — R.H. ....	1
188B	209703	‡SHIM, Front Bearing Cap — .010" ....	—	229	532187	†MOUNT, Transmission — L.H. ....	1
189	209692	CAP, Output Shaft Front Bearing .....	1	230	18C-828	†BOLT, Bracket to Frame .....	4
190	206864	SEAL, Bearing Cap Oil .....	1	231	70D-08	†NUT, Bracket to Frame .....	4
191	201566	SCREW, Shift Fork Lock .....	1	232	71D-08	†BASE, Bracket to Frame Nut .....	4
192	209403	FORK, High & Low Shift .....	1	233	18C-1044	†BOLT, Bracket to Transmission .....	8
193	209406	GASKET, Shift Shaft Support .....	1	234	18D-10	†NUT, Bracket to Transmission .....	8

†Not Illustrated  
‡As Required

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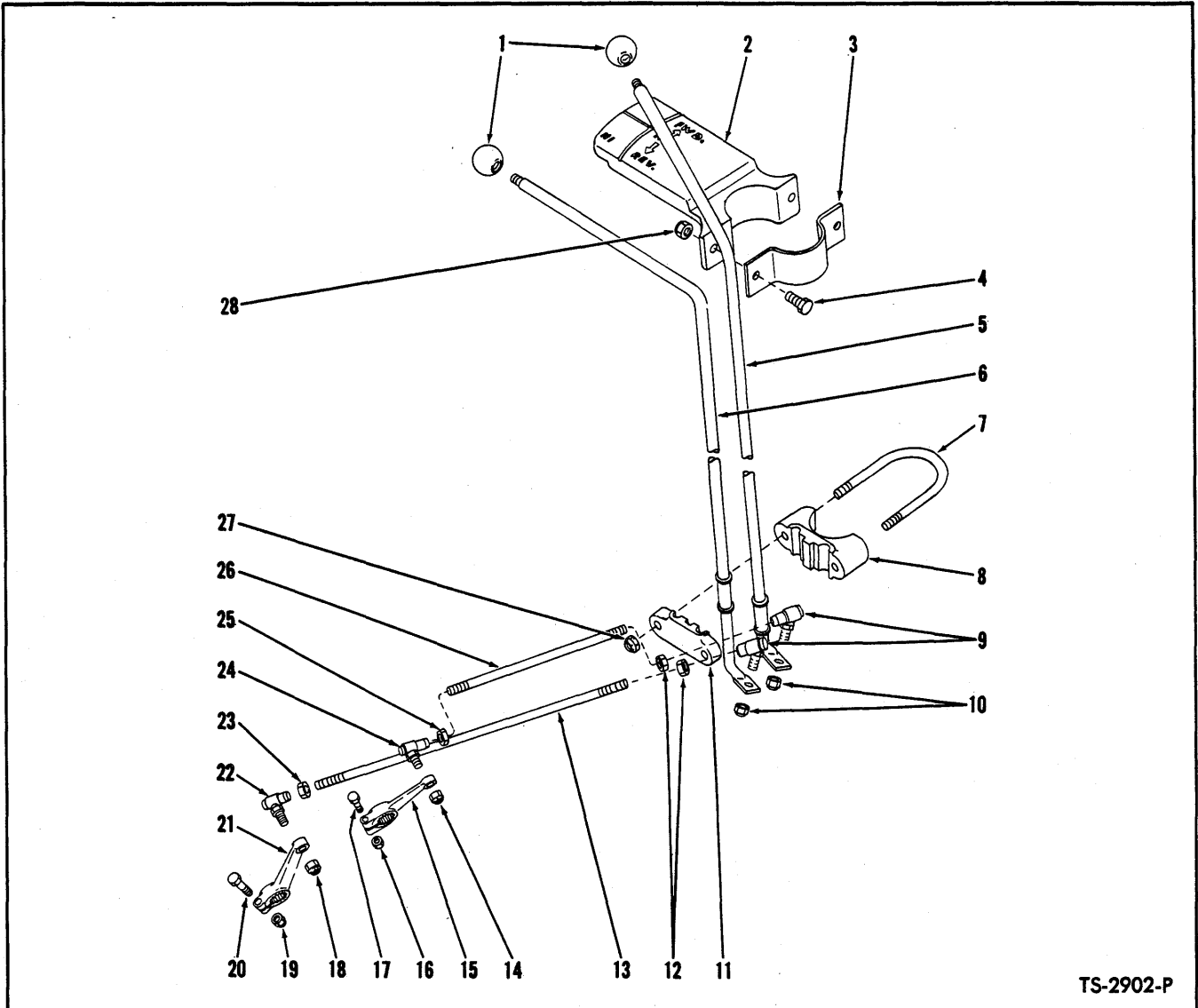
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**TRANSMISSION CONTROL COVER**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	225854	COVER ASSY, Control (Inc. 1 thru 35)	1	17	4E-06	LKWSHR, Valve to Cover Bolt	4
B	227872	VALVE ASSY, Selector Control (Inc. 10 thru 16, 19, 20, 22 thru 25, 27, 28)	1	18	1C-626	BOLT, Valve to Cover	4
1	220957	COVER, Control	1	19	---	§VALVE, Selector—See "B"	1
2	208812	SEAL, Selector Arm Shaft Oil	2	20	208809	PIN, Selector Valve Link	1
3	25E-21	WASHER, Selector Arm Shaft Seal	2	21	208810	PIN, Selector Valve Link Clevis	1
4	224095	RING, Selector Arm Shaft Washer Retaining	2	21A	1F-208	†COTTER, Clevis Pin	1
5	104942	BREATHER, Control Cover	1	22	209382	LINK, Selector Valve	1
6	208805	VALVE, Bleeder	1	23	227873	GUIDE, Valve Spring	1
7	25K-30016	"O" RING, Oil Passage	5	24	223944	RING, Shut-Off Valve Spring Retainer	1
8	209379	GASKET, Cover to Case	1	25	208809	PIN, Selector Valve Link	1
9	209874	STOP, Selector Valve Detent Ball	2	26	208810	PIN, Selector Valve Link Clevis	1
10	---	§HOUSING, Selector Valve—See "B"	—	26A	1F-208	†COTTER, Clevis Pin	1
11	220363	SPRING, Shut-Off Valve	1	27	209382	LINK, Selector Valve	1
12	---	§VALVE, Shut-Off—See "B"	1	28	---	§VALVE, Selector—See "B"	1
13	208820	CUP, Shut-Off Valve Sealing	1	29	209690	SHAFT ASSY, Selector	2
14	223944	RING, Shut-Off Valve Stop Retaining	1	30	10J-12	BALL, Selector Valve Detent	2
15	25K-30014	"O" RING, Shut-Off Valve Stop	1	31	203647	SPRING, Selector Valve Detent	2
16	209878	STOP, Shut-Off Valve	1	32	40K-02	†PLUG, Control Cover Oil Passage	5
				33	220947	†BAFFLE, Oil	1
				34	1C-718	†BOLT, Control Cover to Case	9
				35	4E-07	†LKWSHR, Control Cover to Case	9

§Not Sold Separately  
†Not Illustrated

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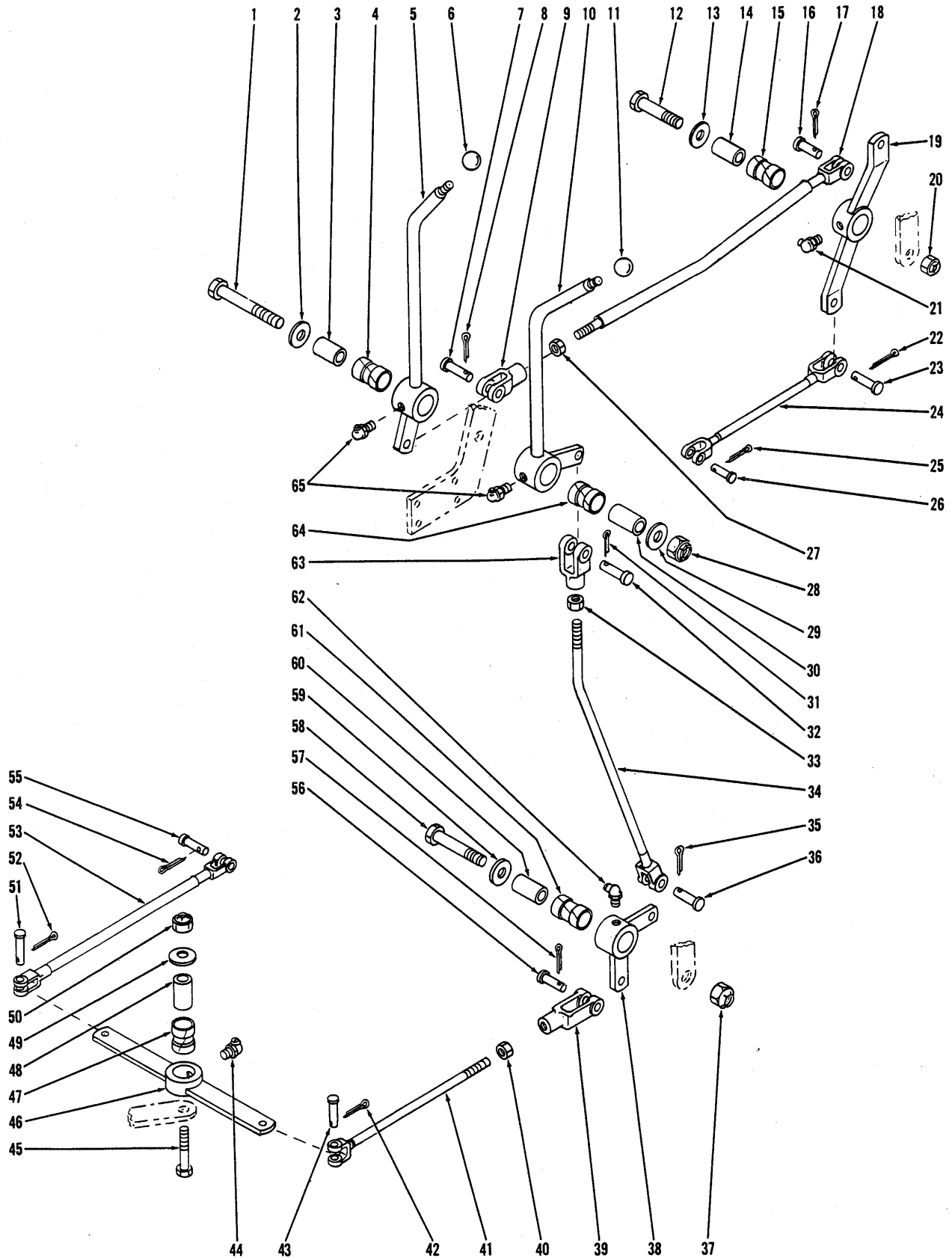


**GEAR SHIFT LEVERS AND LINKAGE**  
**High and Low, Forward and Reverse**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	509772	KNOB, Shift Levers .....	2	15	550803	LEVER, Transmission .....	1
2	538891	*QUADRANT, Shift Indicator .....	1	16	18D-04	NUT, Lever Clamp .....	1
3	534606	CLAMP, Shift Indicator Quadrant ....	1	17	18C-424	BOLT, Lever Clamp .....	1
4	18C-412	BOLT, Shift Indicator Quadrant ....	2	18	66D-06	NUT, Ball Socket to Lever .....	1
5	536286	LEVER, Forward & Reverse Shift ....	1	19	18D-04	NUT, Lever Clamp .....	1
6	536287	LEVER, High & Low Shift .....	1	20	18C-424	BOLT, Lever Clamp .....	1
7	550672	U-BOLT, Shift Levers .....	2	21	550803	LEVER, Transmission .....	1
8	1508845	SUPPORT, Shift Levers (Inc. 11).....	2	22	2520677	BALL JOINT, Rod to Lever .....	1
9	2520677	BALL JOINT, Rod to Lever .....	2	23	8D-06	NUT, Ball Socket Jam .....	1
10	66D-06	NUT, Ball Socket to Lever .....	2	24	2520677	BALL JOINT, Rod to Lever .....	1
11	-----	§SUPPORT, Shift Levers (See 8) .....	2	25	8D-06	NUT, Ball Socket Jam .....	1
12	8D-06	NUT, Ball Socket Jam .....	2	26	533533	ROD, Forward & Reverse Shift ....	1
13	535094	ROD, High & Low Shift .....	1	27	18D-05	NUT, U-Bolt .....	4
14	66D-06	NUT, Ball Socket to Lever .....	1	28	18D-04	NUT, Shift Quadrant Clamp .....	2

§Not Sold Separately

\*NOTE: For replacement use 947409 Kit. 947409 Kit consists of 1-567946 Quadrant, 1-567947 F&R Plate, 1-567977 H-L Plate, 6-6C-605 Screws, 1-567945 Clamp, 2-24C-412 Bolts, 2-18D-04 Nuts & 1-002553 Installation Form.



TRANSMISSION CONTROL LEVERS AND LINKAGE

TS-2972-P



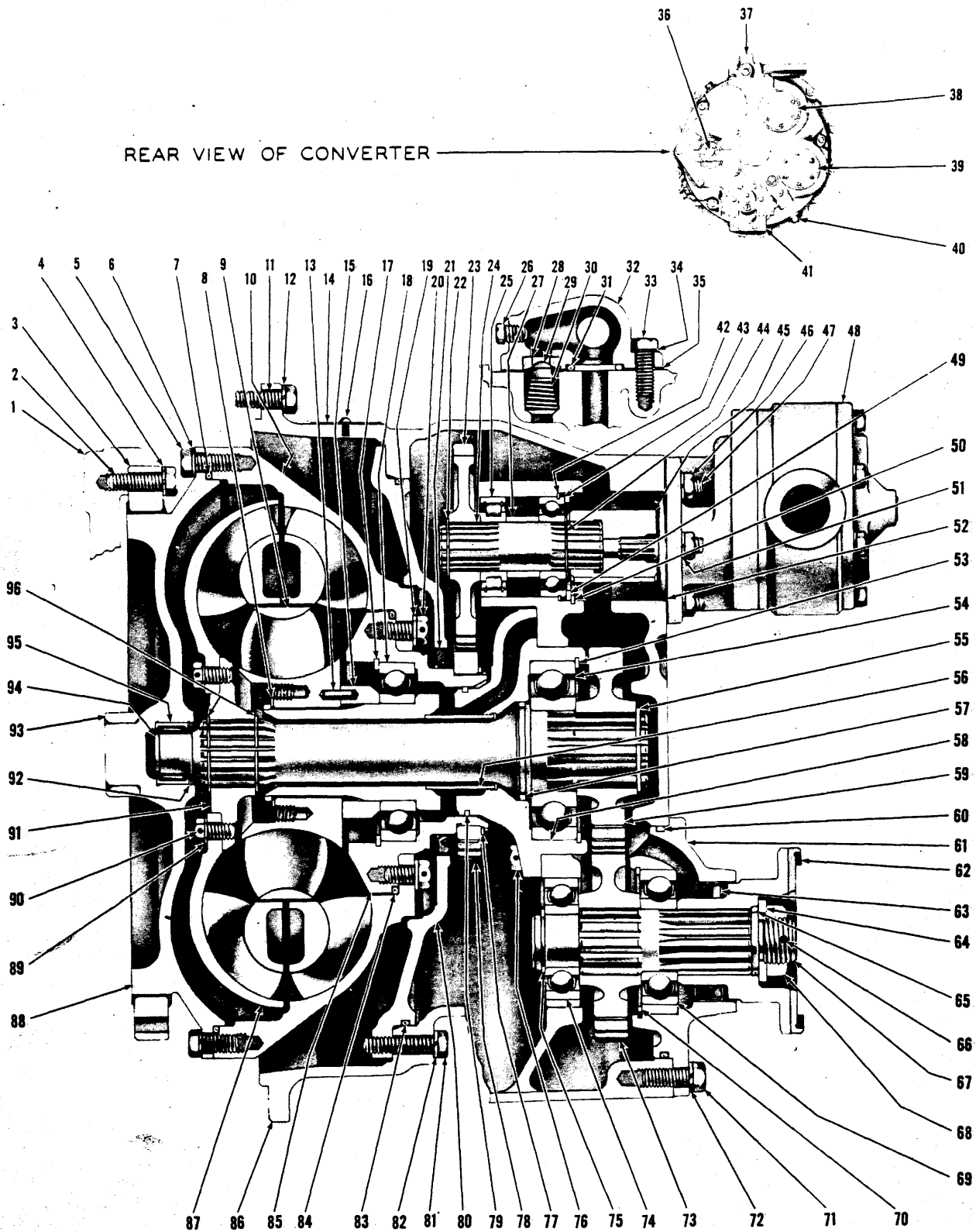
**TRANSMISSION CONTROL LEVERS AND LINKAGE**

**Work and Travel, Two- and Four-Wheel Drive**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-868	BOLT, Lever Mounting .....	1	34	535868	ROD, Lever to Bell Crank .....	1
2	616796	WASHER, Lever Mounting .....	1	35	1F-412	COTTER, Clevis Pin .....	1
3	550646	SLEEVE, Lever Mounting .....	1	36	4F-08127	PIN, Rod to Bell Crank Clevis .....	1
4	526767	BUSHING, Range Lever .....	1	37	18D-08	NUT, Bell Crank Mounting .....	1
5	534929	LEVER, Range .....	1	38	535712	BELL CRANK .....	1
6	509772	KNOB, Range Lever .....	1	39	2J-8300	CLEVIS, Rod to Bell Crank .....	1
7	4F-08127	PIN, Rod to Lever Clevis .....	1	40	8D-08	NUT, Clevis Jam .....	1
8	1F-412	COTTER, Clevis Pin .....	1	41	535735	ROD, 4 WD Shift .....	1
9	2J-8300	CLEVIS, Rod to Lever .....	1	42	1F-312	COTTER, Clevis Pin .....	1
10	534927	LEVER, 4 WD Shift .....	1	43	4F-06106	PIN, Rod to Bell Crank Clevis .....	1
11	509772	KNOB, 4 WD Shift Lever .....	1	44	12H-15	FITTING, Bell Crank Grease .....	1
12	18C-844	BOLT, Bell Crank Mounting .....	1	45	18C-844	BOLT, Bell Crank Mounting .....	1
13	616796	WASHER, Bell Crank Mounting .....	1	46	535713	BELL CRANK .....	1
14	550646	SLEEVE, Bell Crank Mounting .....	1	47	526767	BUSHING, Bell Crank .....	1
15	526767	BUSHING, Bell Crank .....	1	48	550646	SLEEVE, Bell Crank Mounting .....	1
16	4F-08127	PIN, Rod to Bell Crank Clevis .....	1	49	616796	WASHER, Bell Crank Mounting .....	1
17	1F-412	COTTER, Clevis Pin .....	1	50	18D-08	NUT, Bell Crank Mounting .....	1
18	535865	ROD, Range Lever to Bell Crank .....	1	51	4F-06106	PIN, 4 WD Shift Rod to Bell Crank Clevis .....	1
19	538237	BELL CRANK .....	1	52	1F-312	COTTER, Clevis Pin .....	1
20	18D-08	NUT, Bell Crank Mounting .....	1	53	535725	ROD, 4 WD Shift .....	1
21	12H-15	FITTING, Bell Crank Grease .....	1	54	1F-312	COTTER, Clevis Pin .....	1
22	1F-412	COTTER, Clevis Pin .....	1	55	4F-06106	PIN, Rod to Transmission Clevis .....	1
23	4F-08127	PIN, Bell Crank to Rod Clevis .....	1	56	4F-08127	PIN, Rod to Bell Crank Clevis .....	1
24	535863	ROD, Bell Crank to Transmission .....	1	57	1F-412	COTTER, Clevis Pin .....	1
25	1F-312	COTTER, Clevis Pin .....	1	58	18C-844	BOLT, Bell Crank Mounting .....	1
26	4F-06106	PIN, Rod to Transmission Clevis .....	1	59	616796	WASHER, Bell Crank Mounting .....	1
27	8D-08	NUT, Clevis Jam .....	1	60	550646	SLEEVE, Bell Crank Mounting .....	1
28	18D-08	NUT, Lever Mounting .....	1	61	526767	BUSHING, Bell Crank .....	1
29	616796	WASHER, Lever Mounting .....	1	62	12H-15	FITTING, Bell Crank Grease .....	1
30	550646	SLEEVE, Lever Mounting .....	1	63	2J-8300	CLEVIS, Rod to Lever .....	1
31	1F-412	COTTER, Clevis Pin .....	1	64	526767	BUSHING, 4 WD Lever .....	1
32	4F-08127	PIN, Rod to Lever Clevis .....	1	65	12H-15	FITTING, Control Lever Grease .....	2
33	8D-08	NUT, Clevis Jam .....	1				

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

REAR VIEW OF CONVERTER



**TORQUE CONVERTER ASSEMBLY**

For Serial: Wauk. — 2CA101 thru 3CA148. G.M. — 2CG101 thru 4CG120

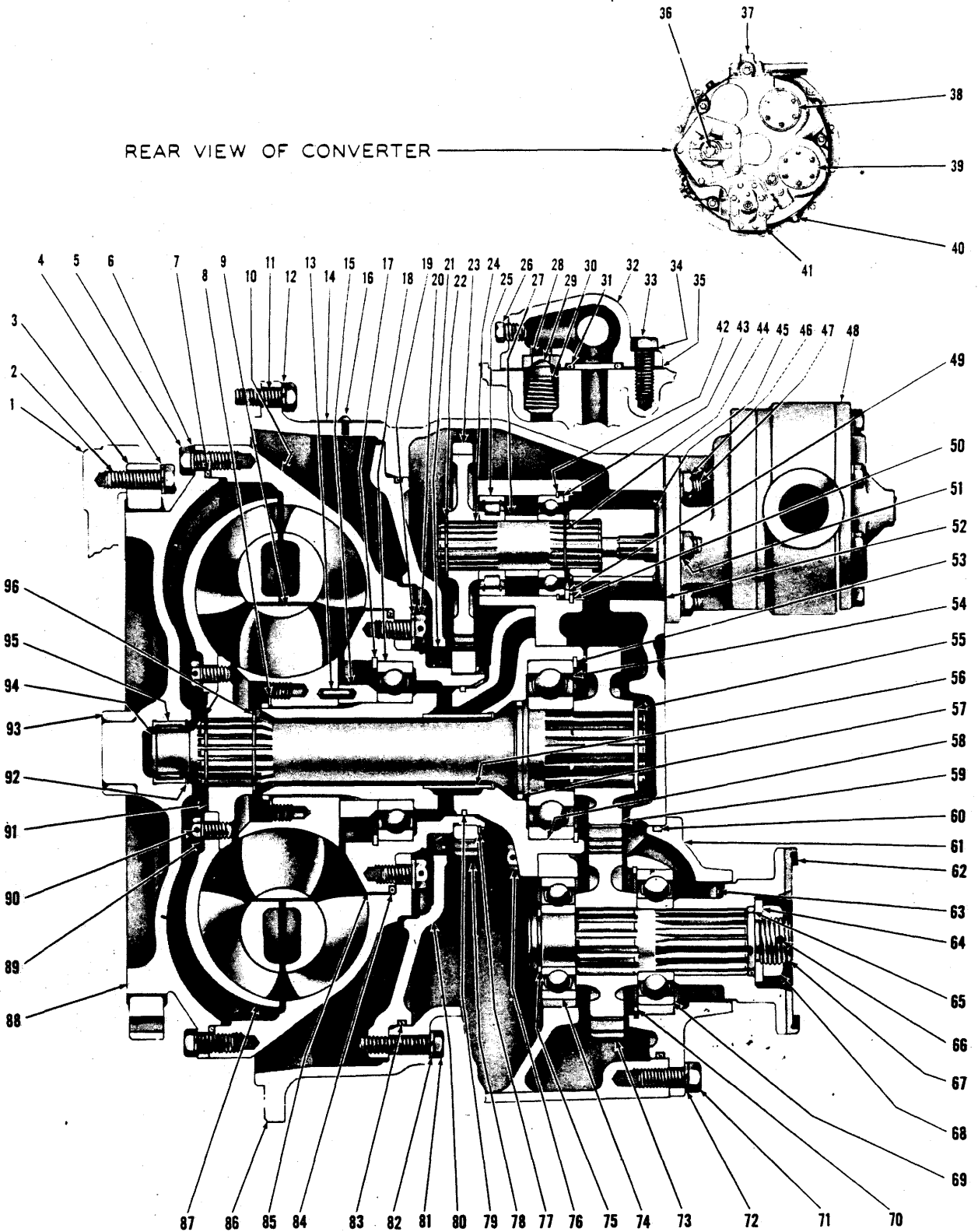
**TS-1566-P**

**CONSTRUCTION MACHINERY DIVISION  
TORQUE CONVERTER ASSEMBLY  
For Serial. Wauk. — 2CA101 thru 3CA148  
G.M. — 2CG101 thru 4CG120**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	281022	CONVERTER ASSY (C-272-2) (Inc. 3, 5 thru 96)	1	49	214929	WASHER, Pump Shaft	3
1	-----	FLYWHEEL, Engine	—	50	713186	RING, Washer Retaining	3
2	233092	BOLT, Drive Gear to Flywheel	8	51	4E-06	LKWSHR, Pump Stud	6
3	233089	GEAR, Converter Drive	1	52	235961	GASKET, Pump Mounting	1
4	215909	WASHER, Drive Gear to Flywheel	8	53	214953	RING, Bearing Retaining	1
5	1C-616	BOLT, Impeller to Drive Disc	24	54	231554	BEARING, Turbine Shaft	1
6	4E-06	LKWSHR, Impeller to Drive Disc	24	55	224116	RING, Gear Retaining	1
7	60K41200	"O" RING, Impeller to Drive Disc	1	56	-----	§SLEEVE, Stator Support (See 58)	—
8	743035	RING, Reaction Member Retaining	1	57	222079	RING, Turbine Shaft Sealing	1
9	743035	MEMBER, Reaction	1	58	214932	SUPPORT ASSY (Inc. 56)	1
10	801607	IMPELLER	1	59	214935	GEAR, Turbine Shaft	1
11	17C-620	BOLT, Converter to Engine	12	60	25K-40512	"O" RING, Bearing Retainer	1
12	4E-06	LKWSHR, Converter to Engine	12	61	-----	*RETAINER, Bearing	1
13	658244	PIN, Spacer to Reaction Member Lock	1	62	214940	FLANGE, Companion	1
14	220725	PLATE, Name	1	63	206864	SEAL, Oil	1
15	214934	SPACER, Reaction Member	1	64	102745	WASHER, Output Shaft	1
16	207873	SCREW, Name Plate Drive	2	65	25K-40112	"O" RING, Companion Flange	1
17	214953	RING, Hub Bearing Retaining	1	66	1F-424	COTTER, Output Shaft	1
18	214596	BEARING, Impeller Hub	1	67	214937	SHAFT, Output	1
19	25E-19	WASHER, Hub to Impeller Bolt	8	68	201951	NUT, Output Shaft	1
20	4C-714	BOLT, Hub to Impeller	8	69	743439	BEARING, Output Shaft Rear	1
21	214941	SEAL, Oil Baffle	1	70	223901	RING, Bearing Retaining	1
22	711298	RING, Gear Retaining	3	71	1C-720	BOLT, Bearing Retainer	3
23	214931	GEAR, Pump Drive (39T)	3	71A	214730	†STUD, Bearing Retainer	2
24	237548	SHAFT, Pump Drive	3	71B	8D-07	†NUT, Bearing Retainer	2
25	214936	BEARING, Pump Drive Shaft	3	72	4E-07	LKWSHR, Bearing Retainer	5
26	40K-02	PLUG, Valve Housing	2	73	214938	GEAR, Output Shaft	1
27	214930	SPACER, Pump Shaft	3	74	235057	BEARING, Output Shaft Front	1
28	214946	SEAT, Safety Valve	1	75	214955	RING, Bearing Retaining	1
29	222318	PLUNGER, Safety Valve	1	76	3C-820	BOLT, 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 (41-T)	1
32	-----	REGULATOR VALVE ASSY (Same as 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 67)	—	83	60K41200	"O" RING, Oil Baffle	1
37	-----	VALVE ASSY, Pressure Regulator (See Index)	—	84	25K-40616	"O" RING, Impeller Hub	1
38	-----	PAD, Steering Pump Mounting	—	85	214923	HUB, Impeller	1
39	-----	PAD, Main Pump Mounting	—	86	214950	HOUSING, Converter	1
40	13F-16	PLUG, Pipe	4	86A	14F-08	†PLUG, Pipe	1
41	-----	PUMP, Conv. Charging (See Index)	—	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	801524	COVER	1
45	214961	SLEEVE, Pump Drive Adapter	1	89	619023	WASHER, Turbine Hub Bolt	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	-----	PUMP, Conv. Charging (See Index)	—	92	666542	RING, Bearing Retaining	1
				93	222006	SLEEVE	1
				94	214933	SHAFT, Turbine	1
				95	214988	BEARING, Impeller Cover	1
				96	659065	RING, Turbine Hub Retaining	2

\*For replacement use 235091 Cap & 1 — 206864 Seal.  
§Not Sold Separately  
†Not Illustrated

REAR VIEW OF CONVERTER



**TORQUE CONVERTER ASSEMBLY**  
For Serial: G.M. 4CG121 and after. Wauk.—3CA149 and after.

TS-1566-P

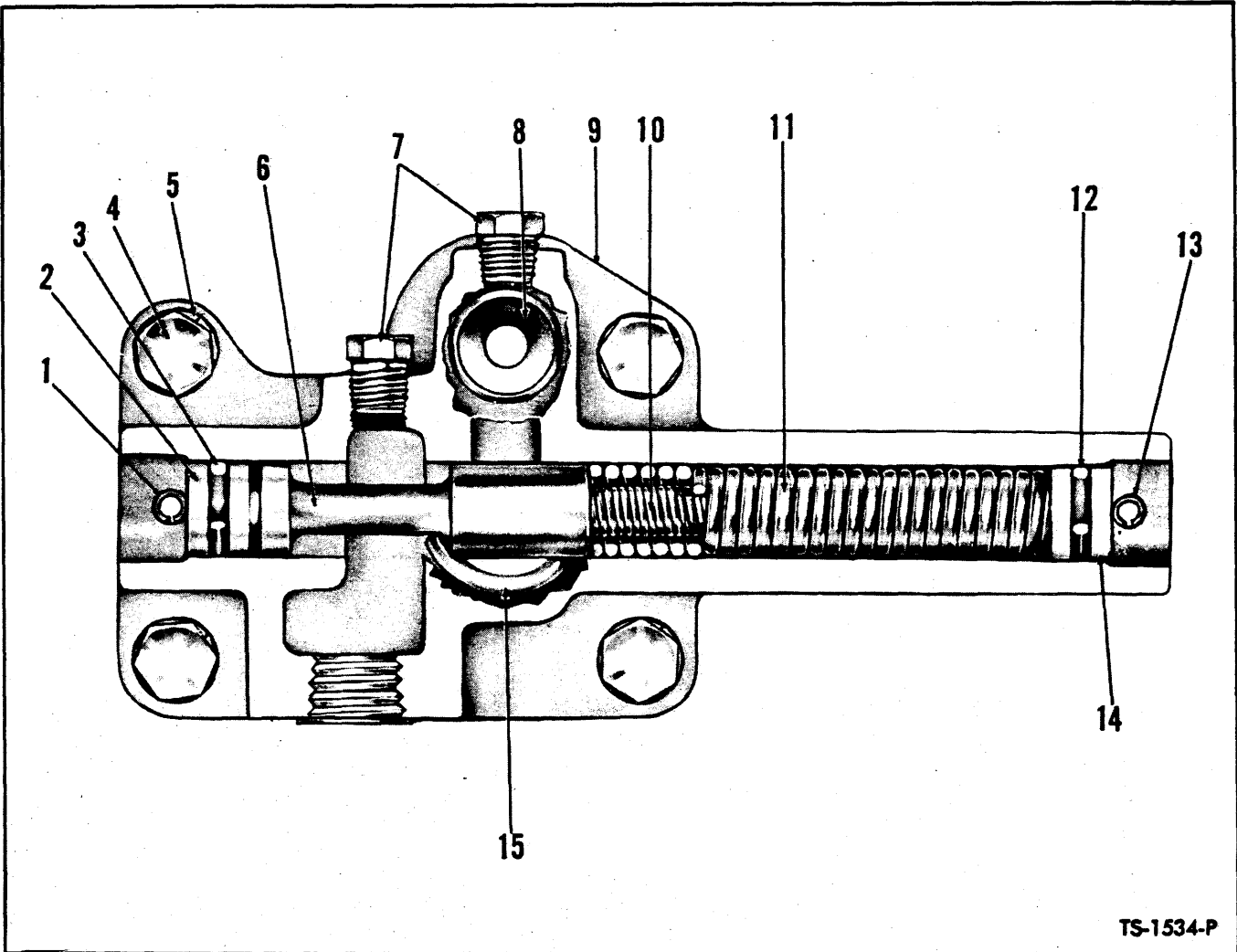
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	281958	CONVERTER ASSY (C-272-22) (Inc. 3, 5 thru 96)	1	50	713186	RING, Washer Retaining	3
1	—	FLYWHEEL—See Engine Parts Manual	—	51	4E-06	LKWSHR, Pump Stud	6
2	233092	BOLT, Drive Gear to Flywheel	8	52	235961	GASKET, Pump Mounting	1
3	233089	GEAR, Converter Drive	1	53	214953	RING, Bearing Retaining	1
4	215909	WASHER, Drive Gear to Flywheel	8	54	231554	BEARING, Turbine Shaft	1
5	1C-616	BOLT, Impeller to Drive Disc	24	55	224026	RING, Gear Retaining	1
6	4E-06	LKWSHR, Impeller to Drive Disc	24	56	—	§SLEEVE, Stator Support (See Index)	—
7	60K41200	"O" RING, Impeller to Drive Disc	1	57	222079	RING, Turbine Shaft Sealing	1
8	743035	RING, Reaction Member Retaining	1	58	214932	SUPPORT ASSY (Inc. 56)	1
9	801607	MEMBER, Reaction	1	59	216937	GEAR, Turbine Shaft (26T)	1
10	214920	IMPELLER	1	60	25K-40512	"O" RING, Bearing Retainer	1
11	17C-620	BOLT, Converter to Engine	12	61	235091	RETAINER, Bearing	1
12	4E-06	LKWSHR, Converter to Engine	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	COTTER, Output Shaft	1
17	214953	RING, Hub Bearing Retaining	1	67	214937	SHAFT, Output	1
18	214596	BEARING, Impeller Hub	1	68	201951	NUT, Output Shaft	1
19	25E-19	WASHER, Hub to Impeller Bolt	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	237548	SHAFT, Pump Drive	3	72	4E-07	LKWSHR, Bearing Retainer	5
25	214936	BEARING, Pump Drive Shaft	3	73	216938	GEAR, Output Shaft (29-T)	1
26	40K-02	PLUG, Valve Housing	2	74	235057	BEARING, Output Shaft Front	1
27	214930	SPACER, Pump Shaft	3	75	214955	RING, Bearing Retaining	1
28	214946	SEAT, Safety Valve	1	76	3C-820	BOLT, Support	6
29	222318	PLUNGER, Safety Valve	1	77	224009	RING, Gear Retaining	1
30	222312	SPRING, Safety Valve	1	78	214951	GEAR, Impeller Hub (41-T)	1
31	25K-40104	"O" RING, Valve to Converter	1	79	221653	RING, Sealing	1
32	—	REGULATOR VALVE ASSY (Same as Item 37)	—	80	214925	BAFFLE, Oil	1
33	1C-616	BOLT, Valve Body	4	81	1C-628	BOLT, Oil Baffle	3
34	4E-06	LKWSHR, Valve Body	4	82	4E-06	LKWSHR, Oil Baffle	3
35	214949	GASKET, Valve to Converter	1	83	60K41200	"O" RING, Oil Baffle	1
36	—	SHAFT, Output (See Index)	—	84	25K-40616	"O" RING, Impeller Hub	1
37	—	VALVE ASSY, Pressure Regulator (See Index)	—	85	214923	HUB, Impeller	1
38	—	PAD, Steering Pump Mounting	—	86	214950	HOUSING, Converter	1
39	—	PAD, Main Pump Mounting	—	86A	14F-08	†PLUG, Pipe	1
40	13F-16	PLUG, Pipe	4	86B	40K-02	†PLUG, Pipe	1
41	—	PUMP, Conv. Charging (See Note A)	—	86C	13F-20	†PLUG, Pipe	1
42	214954	RING, Bearing Retaining	3	87	222684	TURBINE	1
43	214956	BEARING, Shaft	3	88	234503	*DISC, Converter Drive	1
44	224039	RING, Bearing Retaining	3	89	619023	WASHER, Turbine Hub Bolt	8
45	214961	SLEEVE, Pump Drive Adapter	1	90	209313	BOLT, Turbine to Hub	8
46	8D-06	NUT, Pump Stud	6	91	214924	HUB, Turbine	1
47	207647	STUD, Pump	6	92	666542	RING, Bearing Retaining	1
48	450072	PUMP, Conv. Charging (See Note A)	1	93	222006	SLEEVE	1
49	214929	WASHER, Pump Shaft	3	94	214933	SHAFT, Turbine	1
				95	214988	BEARING, Impeller Cover	1
				96	659065	RING, Turbine Hub Retaining	2

§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.

\*NOTE: For replacement use 801524 Kit, which consists of 1—234503 Cover & 1—222006 Bushing.

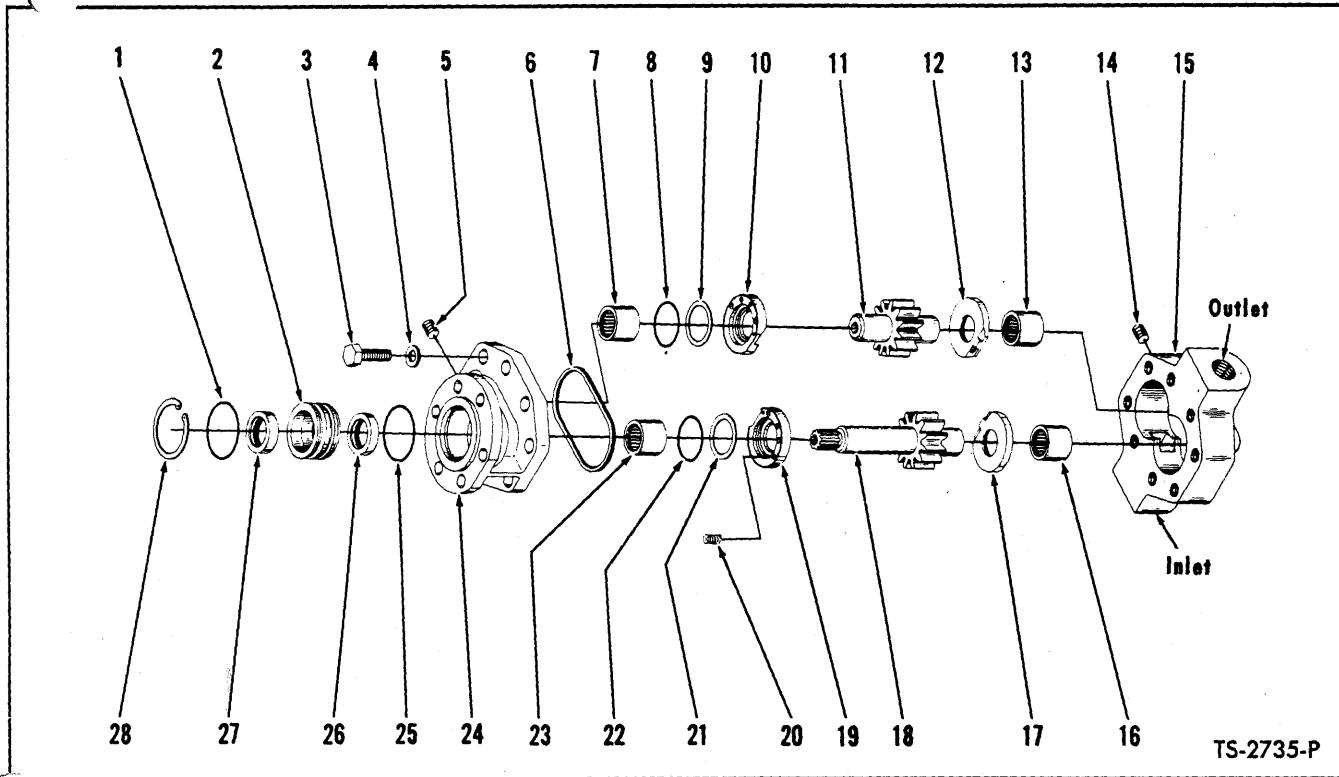


**PRESSURE REGULATOR VALVE ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	214969	VALVE ASSY, Pressure Regulator (Inc. 1 thru 3, 6, 8 thru 15).....	1	8	214946	SEAT, Safety Valve .....	1
1	660178	PIN, Piston Stop .....	1	9	---	§BODY, Valve (See Item A) .....	—
2	220983	STOP, Piston .....	1	10	220981	SPRING, Valve — Inner .....	1
3	25K-30018	"O" RING, Piston Stop .....	1	11	220982	SPRING, Valve — Outer .....	1
4	1C-616	BOLT, Valve to Converter .....	4	12	25K-30018	"O" RING, Piston Stop .....	1
5	4E-06	LKWSHR, Valve to Converter .....	4	13	660178	PIN, Piston Stop .....	1
6	---	§PISTON, Valve (See Item A) .....	—	14	220983	STOP, Piston .....	1
7	40K-02	PLUG, Valve Housing Pipe .....	2	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**



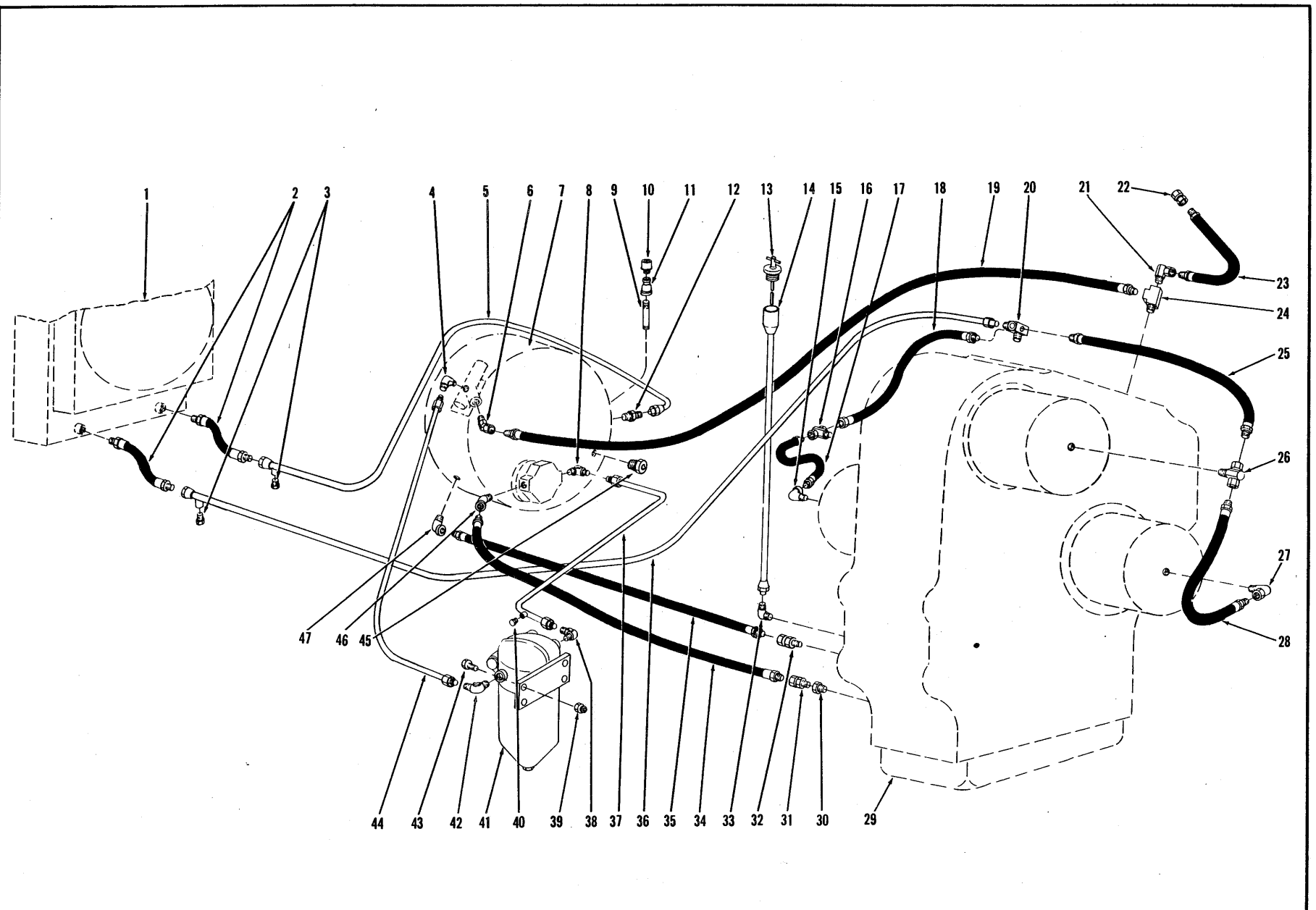
**HYDRAULIC PUMP – CONVERTER CHARGING AND STEERING**

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

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

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

\*\*\*NOTE: For complete replacement on Converter Charging Pump use 450229 Pump. For complete replacement of Steering Pump use 2522608 Pump, plus 1-2522413 Gasket.



**TRANSMISSION AND CONVERTER HYDRAULIC SYSTEM**  
For Serial: G.M. - 2CG101 thru 3CG999. Wauk. - 2CA101 and after

TS-3297-P

34.1

(1E9)

PM 1698

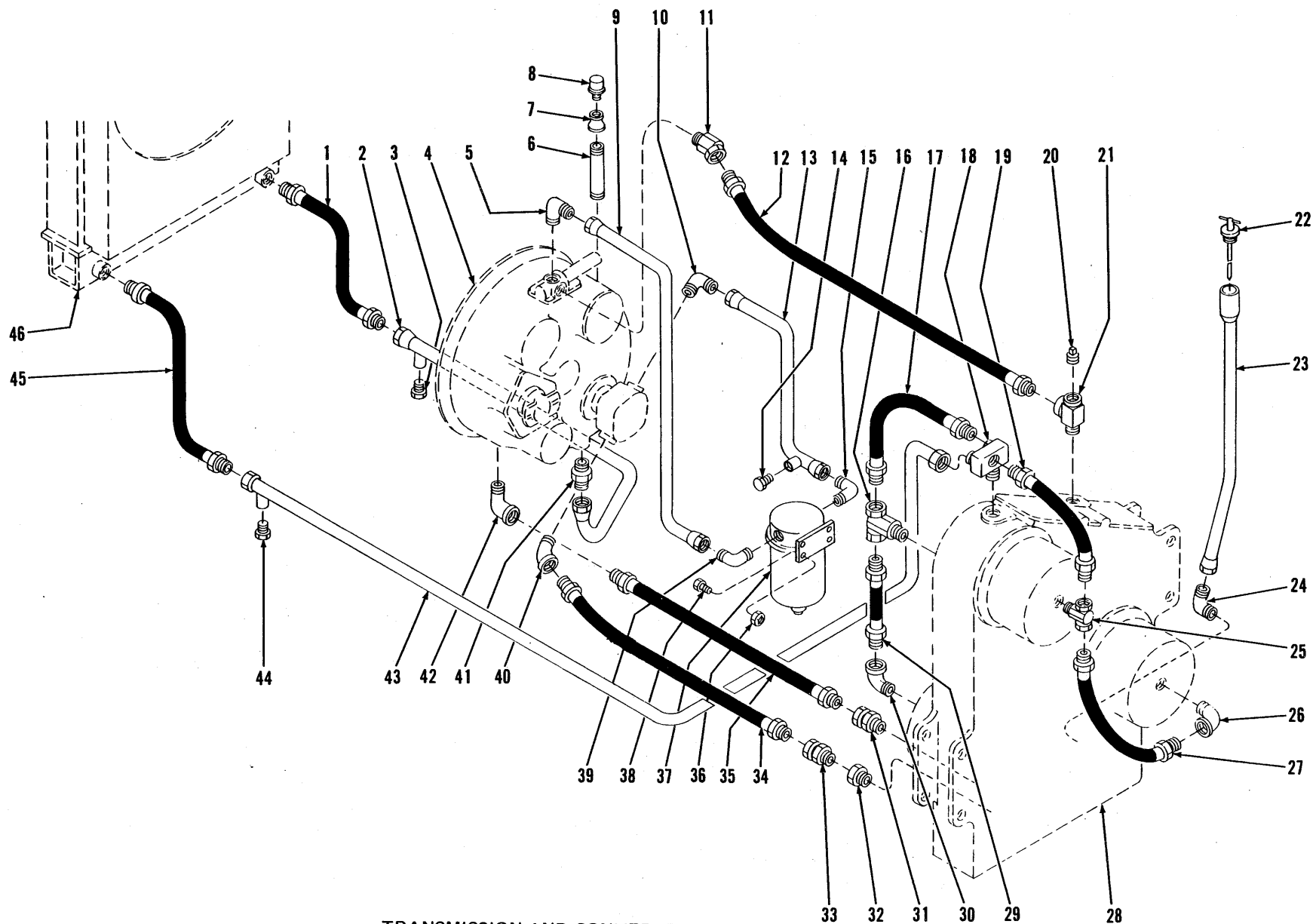


**CONSTRUCTION MACHINERY DIVISION  
TRANSMISSION AND CONVERTER HYDRAULIC SYSTEM  
For Serial: G.M. — 2CG101 thru 3CG999  
Wauk. — 2CA101 and after**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	RADIATOR — See Index	—	26	791879	TEE, Forward Clutch	1
2	526847	HOSE, Line to Cooler	2	27	26F-2	ELBOW, Hose to 2nd & 4th Clutch	1
3	13F-04	PLUG, Cooler Line	2	28	536794	HOSE, Forward to 2nd & 4th Clutch	1
4	83F-8	ELBOW, Line to Valve	1	29	—	TRANSMISSION — See Index	—
5		LINE, Cooler to Radiator		30	356626	BUSHING, Transmission Reducing	1
5A	535016	For Gas Powered Machines	1	31	36F-6	ADAPTER UNION	1
5B	544339	For G.M. Powered Machines	1	32	36F-6	ADAPTER UNION — G.M. Only	1
6	33F-3	ADAPTER UNION	1	33	42F-10	ELBOW, Dipstick Tube to Transmission	1
7	—	TORQUE CONVERTER — See Index	—	34		HOSE, Transmission to Pump — Suction	
8	83F-8	ELBOW, Line to Pump	1	34A	536775	For Gas Powered Machines	1
9	—	OMIT, Not Used This Application	—	34B	667009	For G.M. Powered Machines	1
10	211433	BREATHER, Converter	1	35		HOSE, Conv. to Trans. — Drain	
11	227265	COUPLING, Breather	1	35A	538206	For Gas Powered Machines	1
12		CONNECTOR, Line to Converter		35B	536367	For G.M. Powered Machines	1
12A	83F-8	For Gas Powered Machines	1	36	535017	LINE, Radiator to Transmission	1
12B	89F-8	For G.M. Powered Machines	1	37		LINE, Pump to Filter	
13	542195	DIPSTICK, Transmission Oil	1	37A	538047	For Gas Powered Machines	1
14	542194	TUBE, Transmission Oil Dipstick	1	37B	544338	For G.M. Powered Machines	1
15	26F-2	ELBOW, Hose to Clutch	1	38	83F-8	ELBOW, Line to Filter	1
16	791879	TEE, 1st & 3rd Clutch	1	39	18D-06	NUT, Filter Mounting	4
17	536777	HOSE, 1st & 3rd to Reverse Clutch	1	40	13F-04	PLUG, Pipe	1
18	536794	HOSE, Junction Block to 1st & 3rd Clutch	1	41	1533615	FILTER, Transmission & Converter Oil (Inc. 41A)	1
19		HOSE, Converter to Transmission		41A	215502	†CARTRIDGE KIT, Filter	1
19A	542375	For Gas Powered Machines	1	42	83F-8	ELBOW, Line to Filter	1
19B	547327	For G.M. Powered Machines	1	43	18C-624	BOLT, Filter Mounting	4
20	524543	BLOCK, Junction	1	44		LINE, Filter to Valve	
21	31F-2	ADAPTER UNION	1	44A	538048	For Gas Powered Machines	1
22	37F-1	ADAPTER UNION	1	44B	544340	For G.M. Powered Machines	1
23	537082	HOSE, Transmission to Clutch Pressure Gauge	1	45	551323	SENDER UNIT, Conv. Temperature	1
24	30F-1	TEE, Hoses to Transmission	1	46	25F-6	ELBOW, Hose to Pump — G.M. Only	1
25	536767	HOSE, Junction Block to Forward Clutch	1	47		ELBOW, Hose to Converter	
				47A	83F-10	For Gas Powered Machines	1
				47B	26F-6	For G.M. Powered Machines	1

†Not Illustrated

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



TRANSMISSION AND CONVERTER - HYDRAULIC SYSTEM - G.M.  
For Serial: 4CG101 and after

TS-4510-P

34A.1

(1E11)

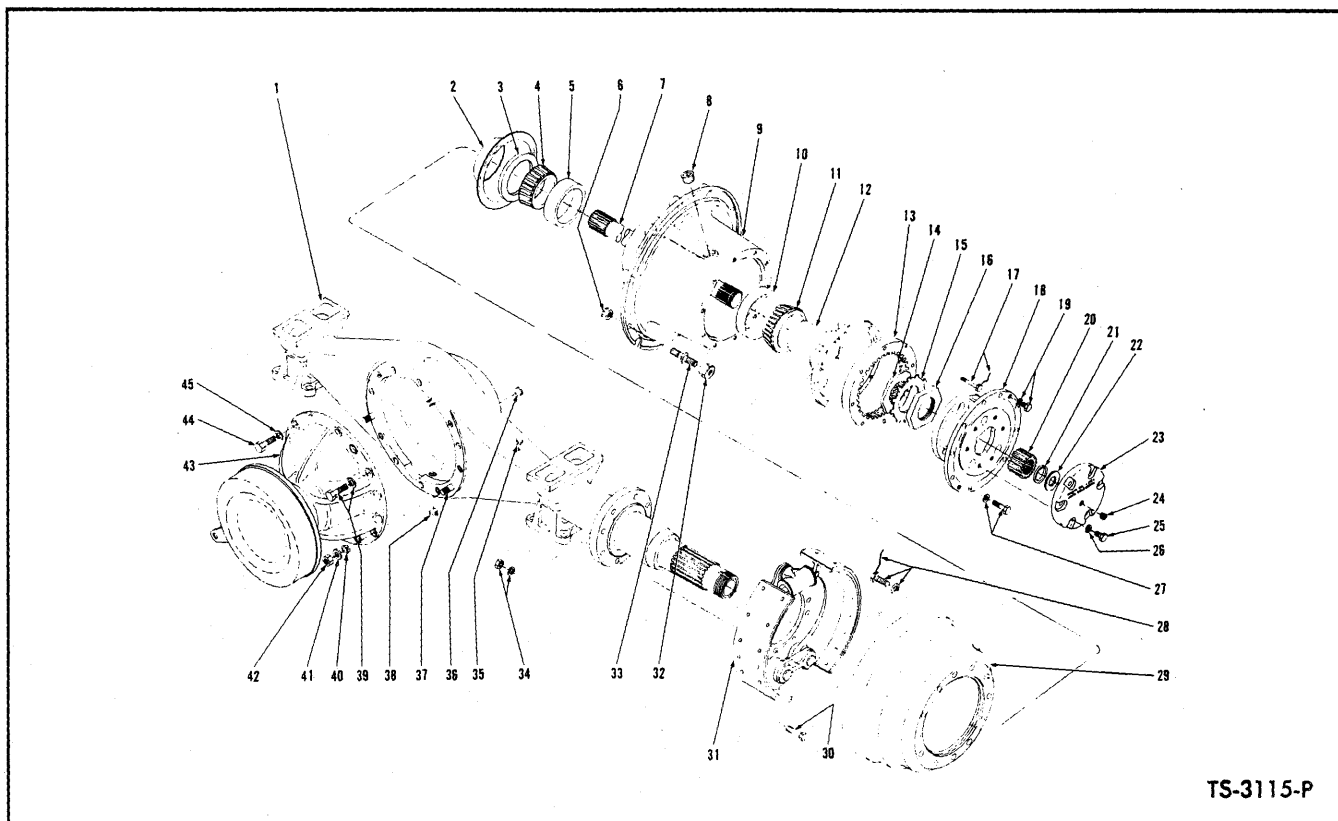
PM 1698

**TRANSMISSION AND CONVERTER HYDRAULIC SYSTEM —G.M.  
For Serial: 4CG101 and after**

Item No.	Part No.	Description	No. Req'd.
1	526847	HOSE, Line to Cooler .....	1
2	544339	LINE, Cooler to Radiator (Inc. 3) .....	1
3	40K-04	PLUG, Cooler Line .....	1
4	-----	TORQUE CONVERTER — See Index .....	—
5	83F-8	ELBOW, Line to Valve .....	1
6	-----	OMIT, Not Used this Application .....	—
7	227265	VALVE, Check .....	1
8	211433	BREATHER, Converter .....	1
9	544340	LINE, Filter to Valve .....	1
10	83F-8	ELBOW, Line to Pump .....	1
11	33F-3	ADAPTER UNION .....	1
12	547327	HOSE, Converter to Transmission .....	1
13	544338	LINE, Pump to Filter (Inc. 14) .....	1
14	40K-04	PLUG, Pipe .....	1
15	83F-8	ELBOW, Line to Filter .....	1
16	791879	TEE, 1st & 3rd Clutch .....	1
17	536794	HOSE, Junction Block to 1st & 3rd Clutch.....	1
18	524543	BLOCK, Junction .....	1
19	536767	HOSE, Junction Block to Forward Clutch .....	1
20	13F-04	PLUG, Tee .....	1
21	30F-1	TEE, Hose to Transmission .....	1
22	542195	DIPSTICK, Transmission Oil .....	1
23	542194	TUBE, Transmission Oil Dipstick .....	1
24	42F-10	ELBOW, Dipstick Tube to Transmission .....	1
25	791879	TEE, Forward Clutch .....	1
26	26F-2	ELBOW, Hose to 2nd & 4th Clutch .....	1
27	536794	HOSE, Forward to 2nd & 4th Clutch .....	1
28	-----	TRANSMISSION — See Index .....	—
29	536777	HOSE, 1st & 3rd Reverse Clutch .....	1
30	26F-2	ELBOW, Hose to Clutch .....	1
31	36F-6	ADAPTER UNION .....	1
32	356626	BUSHING, Transmission Reducing .....	1
33	36F-6	ADAPTER UNION .....	1
34	667009	HOSE, Transmission to Pump — Suction .....	1
35	536367	HOSE, Converter to Transmission — Drain .....	1
36	18D-06	NUT, Filter Mounting .....	4
37	1533615	FILTER, Transmission & Converter Oil (Inc. 37A) .....	1
37A	215502	†CARTRIDGE KIT, Filter .....	1
38	18C-624	BOLT, Filter Mounting .....	4
39	83F-8	ELBOW, Line to Filter .....	1
40	25F-6	ELBOW, Hose to Pump .....	1
41	89F-8	CONNECTOR, Line to Converter .....	1
42	26F-6	ELBOW, Hose to Converter .....	1
43	535017	LINE, Radiator to Transmission (Inc. 44).....	1
44	40K-04	PLUG, Cooler Line .....	1
45	526847	HOSE, Line to Cooler .....	1
46	-----	RADIATOR — See Index .....	—

†Not Illustrated

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

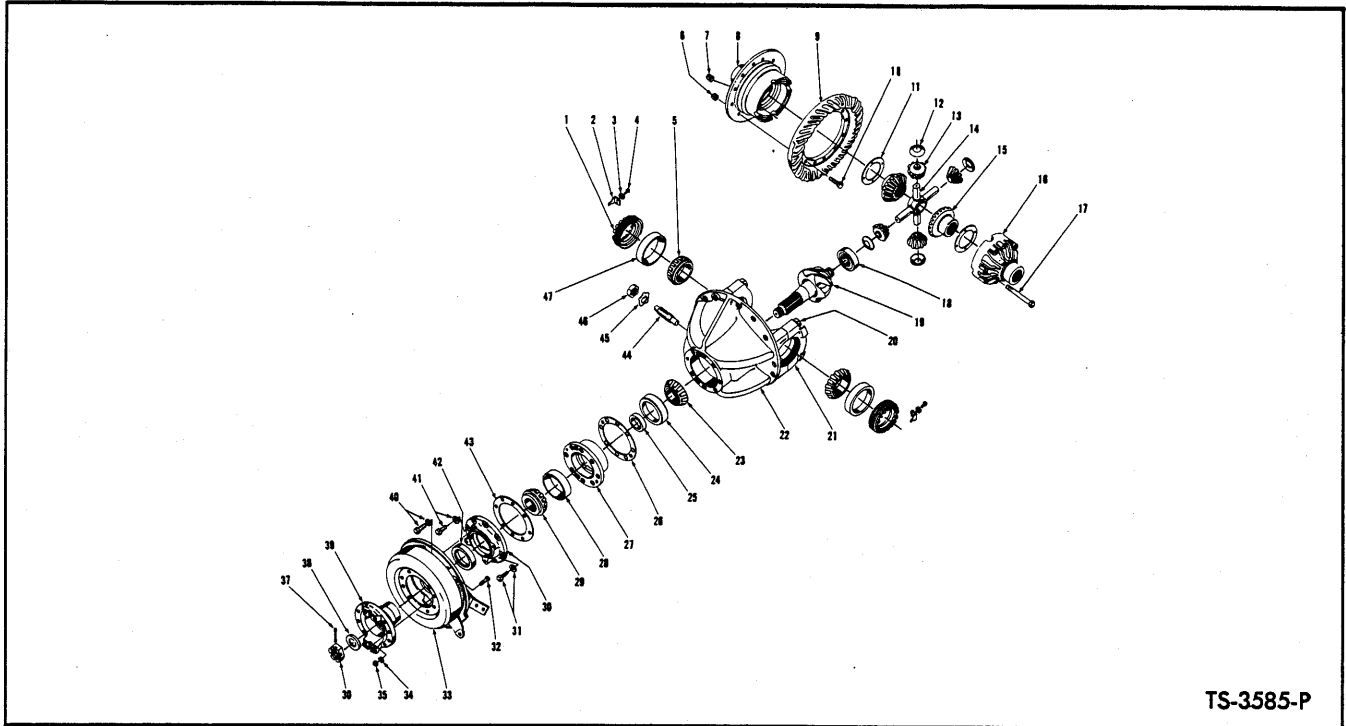


TS-3115-P

**AXLE ASSEMBLY — FRONT DRIVE**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	-----	§ AXLE ASSY (Use components)	1	24	11F-04	PLUG, Hub Oil Level	2
1	105705	HOUSING, Axle	1	25	1C-720	BOLT, Thrust Cap	12
2	109055	CATCHER, Oil	2	26	112278	WASHER, Thrust Cap	12
3	112055	SEAL, Hub Oil	2	27	100970	BOLT, Planet Spider to Hub	20
4	799408	CONE, Inner Hub Bearing	2	27A	106762	WASHER, Planet Spider to Hub	20
5	658985	CUP, Inner Hub Bearing	2	28	17C1024	BOLT, Brake Drum to Hub	24
6	86D12	NUT, Wheel Stud	20	28A	104412	WASHER, Brake Drum to Hub	24
7	112054	SHAFT, Axle	2	28B	-----	LOCKWIRE, Brake Drum to Hub Bolt	—
8	11F-12	PLUG, Hub Filler & Drain	2	29	112075	DRUM, Brake	2
9	112073	HUB ASSY (Inc. 5, 10)	2	30	112058	BOLT, Brake Attaching	16
10	672181	CUP, Outer Hub Bearing	2	31	-----	BRAKE ASSY — See Index	2
11	672182	CONE, Outer Hub Bearing	2	32	103522	NUT, Wheel	20
12	125482	HUB, Internal Gear	2	33	103445	STUD, Wheel	20
13	106059	GEAR, Internal	2	34	1D-10	NUT, Brake Attaching	16
14	114433	NUT, Inner Spindle	2	34A	104412	WASHER, Brake Attaching	16
15	101274	LOCK, Spindle Nut	2	35	106656	BREATHER, Axle Housing	1
16	114433	NUT, Outer Spindle	2	36	11F-12	PLUG, Housing Filler	1
17	106880	BOLT, Internal Gear to Hub	16	37	112277	STUD, Carrier to Axle Housing	3
17A	-----	LOCKWIRE, Internal Gear Bolt	—	38	11F-12	PLUG, Housing Drain	1
18	-----	PLANET SPIDER ASSY — See Index	—	39	17C-728	BOLT, Carrier to Axle Housing	8
19	1C-808	BOLT, Planet Puller Hole Plug	4	39A	112278	WASHER, Carrier to Axle Housing	8
19A	3E-08	LKWSHR, Planet Puller Hole Plug	4	40	103216	DOWEL CARRIER STUD	3
20	106058	GEAR, Sun	2	41	112278	WASHER, Carrier Stud	3
21	224028	RING, Sun Gear Retaining	2	42	64D-07	NUT, Carrier Stud	3
22	106455	WASHER, Sun Gear Thrust	2	43	-----	DIFFERENTIAL & CARRIER ASSY See Index	1
23	945127	CAP KIT, Sun Gear Thrust (Inc. 23A, 26)	2	44	17C-722	BOLT, Carrier to Axle Housing	3
23A	114089	†RING, Thrust Cap Seal	2	45	112278	WASHER, Carrier to Axle Housing	3

†Not Illustrated



TS-3585-P

**DIFFERENTIAL AND CARRIER ASSEMBLY – FRONT DRIVE**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	124906	DIFF. & CARRIER ASSY (Inc. 1 thru 47)	1	27	124041	CAGE ASSY, Pinion Bearing (Inc. 28)	1
1	100940	NUT, Differential Adjusting	2	28	675257	CUP, Outer Pinion Bearing	1
2	126468	LOCK, Differential Adjusting Nut	2	29	710288	CONE, Outer Pinion Bearing	1
3	4E-06	LKWSHR, Adjusting Nut Lock	2	30	112357	RETAINER, Pinion Oil Seal	1
4	3C-614	BOLT, Adjusting Nut Lock	2	31	1C-840	BOLT, Oil Seal Retainer Locating	1
5	675248	CONE, Differential Bearing	2	31A	4E-08	LKWSHR, Retainer Locating Bolt	1
6	86D8	NUT, Ring Gear Bolt	12	32	101144	BOLT, Brake Drum to Flange	6
7	86D8	NUT, Differential Case Bolt	8	33	107261	DRUM, Parking Brake	1
8	—	§DIFF. CASE, Flange Half—See 51	1	33A	—	PARKING BRAKE ASSY—See Index	—
9	—	§RING GEAR—See 50	1	34	2E-06	LKWSHR, Brake Drum to Flange	6
10	100176	BOLT, Ring Gear	12	35	2D-06	NUT, Brake Drum to Flange	6
11	100173	WASHER, Side Gear Thrust	2	36	100950	NUT, Pinion Shaft	1
12	100172	WASHER, Differential Pinion Thrust	4	37	1F-428	COTTER, Pinion Shaft Nut	1
13	815744	*KIT, Diff. Pinion	1	38	119298	WASHER, Pinion Shaft Nut	1
14	100171	SPIDER, Differential	1	39	107262	FLANGE, Companion	1
15	100170	GEAR, Differential Side	2	40	1C-1022	BOLT, Brake Attaching	4
16	—	§DIFF. CASE—Plain Half—See 51	1	40A	4E-10	LKWSHR, Brake Attaching Bolt	4
17	100174	BOLT, Differential Case	8	41	1C-940	BOLT, Oil Seal Retainer Attaching	5
18	675536	BEARING, Inner Pinion	1	41A	4E-09	LKWSHR, Retainer Attaching Bolt	5
19	—	§PINION—See 50	1	42	111720	SEAL, Pinion Oil	1
20	100937	BOLT, Differential Carrier Cap	4	43	112353	GASKET, Oil Seal Retainer	1
20A	111656	†WASHER, Carrier Cap Bolt	4	44	123800	SCREW, Differential Thrust	1
21	—	§CAP, Differential Carrier—See 22	2	45	100954	LOCK, Differential Thrust Screw	1
22	112279	CARRIER ASSY, Differential (Inc. 20, 20A, 21)	1	46	8D-14	NUT, Differential Thrust Screw	1
23	667277	CONE, Center Pinion Bearing	1	47	675249	CUP, Differential Bearing	1
24	667278	CUP, Center Pinion Bearing	1	48	124443	DIFFERENTIAL ASSY (Inc. 6 thru 17, 19)	1
25	815040	SPACER KIT, Pinion Bearing	1	49	124444	DIFF. BODY SUB-ASSY (Inc. 7, 8, 11 thru 17)	1
26	112354	‡SHIM, Pinion Bearing Cage—.004"	—	50	815202	GEAR & PINION SET (Inc. 9, 19)	1
26A	125576	‡SHIM, Pinion Bearing Cage—.007"	—	51	815033	DIFF. CASE KIT (Inc. 7, 8, 16, 17)	1
26B	125577	‡SHIM, Pinion Bearing Cage—.010"	—				

§Not Sold Separately  
 †Not Illustrated  
 ‡As Required  
 \*NOTE: 815744 Kit consists of 4-100169 Diff. Pinions

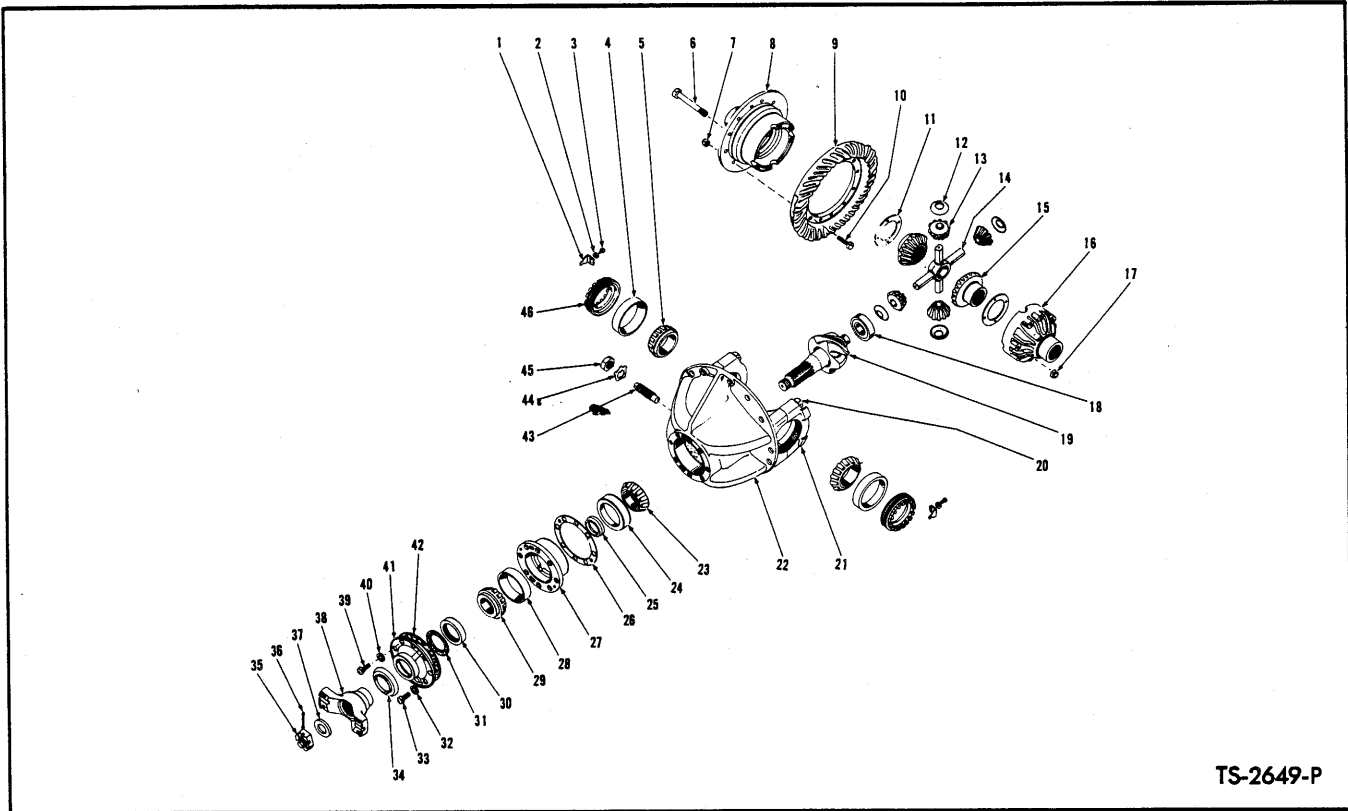


**AXLE ASSEMBLY — REAR DRIVE STEER**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	-----	§ AXLE ASSY (Use components)	1	42	11F-12	PLUG, Spindle Support Filler	2
1	675305	CONE, Upper Trunnion Bearing	2	43	945136	*SUPPORT ASSY, L.H. Spindle (Inc. 59)	1
2	106136	RING, Outer End Seal Retaining	4	43A	945137	*SUPPORT ASSY, R.H. Spindle (Inc. 59)	1
3	106135	RING, Outer End Dust Seal Retaining	2	44	106099	BUSHING, Spindle	2
4	106133	SEAL, Outer End Dust	2	45	117925	SPINDLE ASSY, Steering (Inc. 44)	2
5	106134	SPRING, Outer End Dust Seal	2	46	-----	BRAKE ASSY — See Index	2
6	106132	SEAL, Outer End Oil	2	47	117913	SLINGER, Oil	2
7	106130	RETAINER, Outer End Oil Seal	2	48	17C1024	BOLT, Brake Drum to Hub	12
8	106131	GASKET, Oil Seal Retainer	2	48A	104412	WASHER, Brake Drum to Hub	12
9	106128	WASHER, Oil Seal	2	49	107608	PLUG BUTTON, Brake Drum	2
10	106127	SEAL, Universal Joint Oil	2	50	675253	CONE, Inner Hub Bearing	2
11	106129	WASHER, Universal Joint Thrust	2	51	675252	CUP, Inner Hub Bearing	2
12	120124	U-JOINT ASSY (Inc. 12A, 12B)	2	52	111719	SEAL, Hub Oil	2
12A	675436	†PIN, Spiral	2	53	107646	DRUM, Brake	2
12B	874260	†PIN, Center Ball	2	54	114415	*BOLT, Spindle & Brake Attaching	20
13	106129	WASHER, Universal Joint Thrust	2	54A	106762	WASHER, Spindle & Brake Attaching	38
14	106127	SEAL, Universal Joint Oil	2	54B	106539	†BOLT, Spindle & Brake Attaching	18
15	106322	BOLT, Steering Arm	2	55	106125	‡SHIM, Steering Trunnion — .004"	—
15A	106547	WASHER, Steering Arm Bolt	2	55A	106124	‡SHIM, Steering Trunnion — .007"	—
16	112047	HUB ASSY (Inc. 21, 51)	2	55B	106123	‡SHIM, Steering Trunnion — .010"	—
17	103076	NUT, Wheel Stud	20	56	106119	TRUNNION, Lower Steering	2
18	11F-12	PLUG, Hub Filler & Drain	2	57	4E-09	LKWSHR, Trunnion Attaching	12
19	103445	STUD, Wheel	20	58	2D-09	NUT, Trunnion Attaching	12
20	103522	NUT, Wheel	20	59	112587	STUD, Trunnion Attaching	12
21	675255	CUP, Outer Hub Bearing	20	60	-----	TIE ROD ASSY — See Index	1
22	675256	CONE, Outer Hub Bearing	2	61	112045	HOUSING, Axle	1
23	106879	HUB, Internal Gear	2	62	112090	BOLT, Outer End to Housing	16
24	106059	GEAR, Internal	2	63	11F-12	PLUG, Housing Drain	1
25	114463	NUT, Inner Spindle	2	64	112278	WASHER, Carrier Attaching	11
26	100967	LOCK, Steering Spindle Nut	2	65	-----	OMIT — Not Applicable this Model	—
27	114463	NUT, Outer Spindle	2	66	17C-728	BOLT, Carrier Attaching	8
28	-----	PLANET SPIDER — See Index	2	67	17C-722	BOLT, Carrier Attaching	3
29	106058	GEAR, Sun	2	68	64D-07	NUT, Carrier Stud	3
30	945128	CAP, Sun Gear Thrust (Inc. 31)	2	69	112278	WASHER, Carrier Stud	3
31	111805	VALVE, Relief	2	70	103216	DOWEL, Carrier Stud	3
32	11F-04	PLUG, Oil Level	2	71	-----	DIFF. & CARRIER ASSY — See Index	1
33	1C-720	BOLT, Thrust Cap	12	72	112277	STUD, Carrier Attaching	2
33A	4E-07	LKWSHR, Thrust Cap	12	72A	112924	STUD, Carrier Attaching	1
34	1C-808	BOLT, Planet Puller Hole	4	73	106656	BREATHER, Axle Housing	1
34A	3E-08	LKWSHR, Planet Puller Hole	4	74	12F-204	PLUG, Housing Expansion	1
35	100970	BOLT, Planet Spider to Hub	20	75	11F-12	PLUG, Housing Filler	1
35A	106762	WASHER, Planet Spider to Hub	20	76	675305	CONE, Lower Trunnion Bearing	2
36	106880	BOLT, Internal Gear to Hub	16	77	675306	CUP, Lower Trunnion Bearing	2
37	106313	BOLT, Steering Arm	2	78	1C-612	BOLT, Outer End Retainer	24
37A	111656	WASHER, Steering Arm	2	78A	4E-06	LKWSHR, Outer End Retainer	24
38	110712	ARM, Steering	1	79	106998	NUT, Outer End to Housing	16
39	106321	‡SHIM, Steering Arm — .004"	—	80	104412	WASHER, Outer End to Housing	16
39A	106320	‡SHIM, Steering Arm — .007"	—	81	118048	OUTER END, Housing	2
39B	106319	‡SHIM, Steering Arm — .010"	—	82	106121	RETAINER, Upper Trunnion Oil	2
40	10H-25	FITTING, Upper Trunnion Grease	2	83	675306	CUP, Upper Trunnion Bearing	2
41	106120	TRUNNION, Upper Steering — L.H.	1	84	24C-1252	†BOLT, Axle to Cradle	8
41A	108432	TRUNNION, Upper Steering — R.H.	1	85	68D-12	†NUT, Axle to Cradle	8

†Not Illustrated  
‡As Required

\*NOTE: Spindle Support Kits include 10-114415 Bolts. When installing bolts only it will be necessary to rework existant Spindle Support. See Service Gram SG-229 for installation instructions.



TS-2649-P

**DIFFERENTIAL AND CARRIER ASSEMBLY — REAR DRIVE STEER**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	124936	DIFF. & CARRIER ASSY (Inc. 1 thru 46)	1	26	112354	‡SHIM, Bearing Cage —.004"	—
1	126468	LOCK, Adjusting Nut	2	26A	125576	‡SHIM, Bearing Cage —.007"	—
2	4E-06	LKWSHR, Adjusting Nut Lock Bolt	2	26B	125577	‡SHIM, Bearing Cage —.010"	—
3	3C-614	BOLT, Adjusting Nut Lock	2	27	124041	CAGE ASSY, Pinion Bearing (Inc. 28)	1
4	675249	CUP, Differential Bearing	2	28	675257	CUP, Outer Pinion Bearing	1
5	675248	CONE, Differential Bearing	2	29	710288	CONE, Outer Pinion Bearing	1
6	100174	BOLT, Differential Case	8	30	111720	SEAL, Pinion Oil	1
7	86D8	NUT, Ring Gear Bolt	12	31	100945	GASKET, Pinion Oil Seal	1
8	—	§DIFF. CASE — Flanged Half — See 50	1	32	4E-09	LKWSHR, Oil Seal Retainer	5
9	—	§RING GEAR — See 49	1	33	1C-928	BOLT, Oil Seal Retainer	5
10	100176	BOLT, Ring Gear	12	34	—	OMIT — Not applicable this model	—
11	100173	WASHER, Side Gear Thrust	2	35	100950	NUT, Pinion Shaft	1
12	100172	WASHER, Pinion Thrust	4	36	1F-428	COTTER, Pinion Shaft Nut	1
13	815744	*KIT, Diff. Pinion	1	37	119298	WASHER, Pinion Shaft Nut	1
14	100171	SPIDER, Differential	1	38	106081	FLANGE, Companion	1
15	100170	GEAR, Side	2	39	1C-828	BOLT, Oil Seal Retainer Locating	1
16	—	§DIFF. CASE — Plain Half — See 50	1	40	4E-08	LKWSHR, Oil Seal Retainer Locating	1
17	86D8	NUT, Differential Case Bolt	8	41	112352	RETAINER, Pinion Oil Seal	1
18	675536	BEARING, Inner Pinion	1	42	112353	GASKET, Oil Seal Retainer	1
19	—	§PINION — See 49	1	43	100953	SCREW, Differential Thrust	1
20	100937	BOLT, Carrier Cap	4	44	100954	LOCK, Differential Thrust Screw	1
20A	111656	†WASHER, Carrier Cap Bolt	4	45	8D-14	NUT, Differential Thrust Screw	1
21	—	§CAP, Carrier — See 22	2	46	100940	NUT, Differential Adjusting	2
22	112279	CARRIER ASSY (Inc. 20, 20A, 21)	1	47	124995	DIFF. ASSY (Inc. 6 thru 17, 19)	1
23	667277	CONE, Center Pinion Bearing	1	48	124444	DIFF. BODY SUB. ASSY (Inc. 6, 8, 11 thru 17)	1
24	667278	CUP, Center Pinion Bearing	1	49	815204	GEAR & PINION SET (Inc. 9, 19)	1
25	815040	SPACER KIT, Pinion Bearing	1	50	815033	DIFF. CASE KIT (Inc. 6, 8, 16, 17)	1

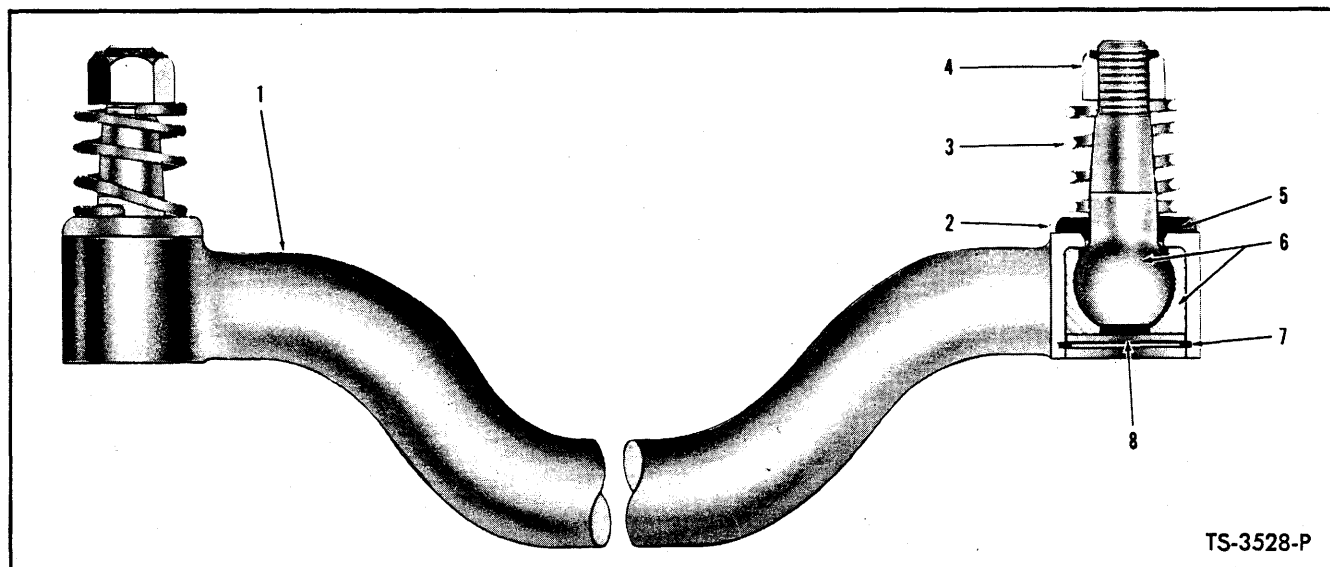
§Not Sold Separately

†Not Illustrated

‡As Required

\*NOTE: 815744 Kit includes 4—100169 Pinions



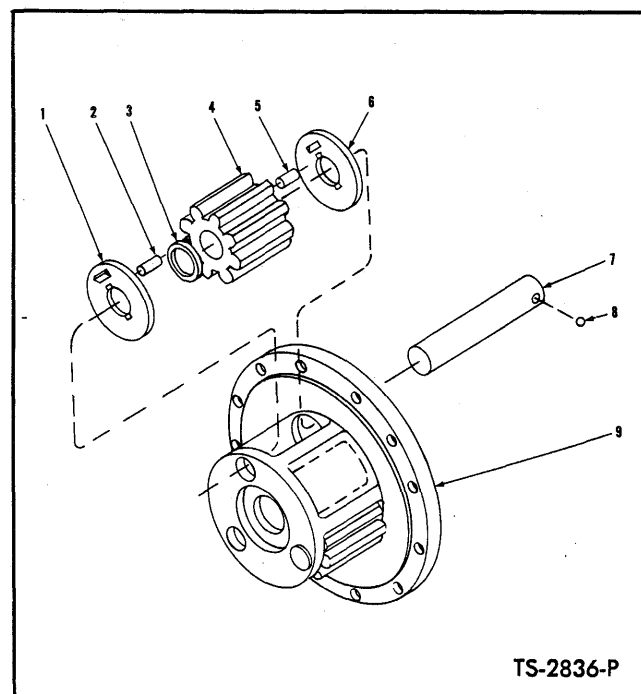


**TIE ROD ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.
A	117226	TIE ROD ASSY (Inc. 1 thru 8) .....	1
1	---	SHOUSING, Tie Rod — See A .....	1
2	106138	RETAINER, Felt .....	2
3	106268	SPRING .....	2
4	112174	NUT, Ball Stud .....	2

Item No.	Part No.	Description	No. Req'd.
5	106137	FELT .....	2
6	117228	BALL STUD .....	2
7	815841	PLATE, Ball Stud Retainer .....	2
8	507695	RING, Plate Retaining .....	2

§Not Sold Separately



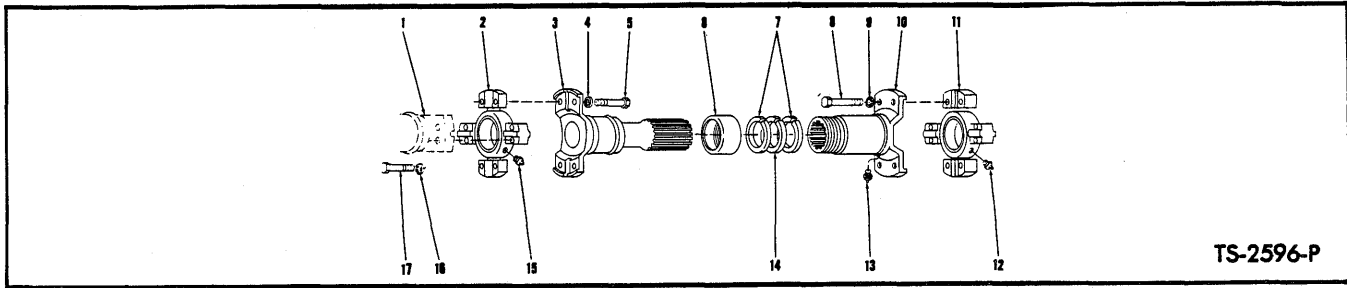
**PLANET SPIDER ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.
A	945608	*SPIDER ASSY, Planet (Inc. 1 thru 8) ..	4
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	945609	SPIDER, Planet .....	1

**NOTE:** Four (4) Planet Spider Assemblies used on machine. Quantities listed below are for 1 Planet Spider.

\*NOTE: 945608 also includes 5—112287 Dowels, 5—116419 Studs & 5—64D-08 Nuts to replace existant 5 Bolts on axle from spider to Hub.

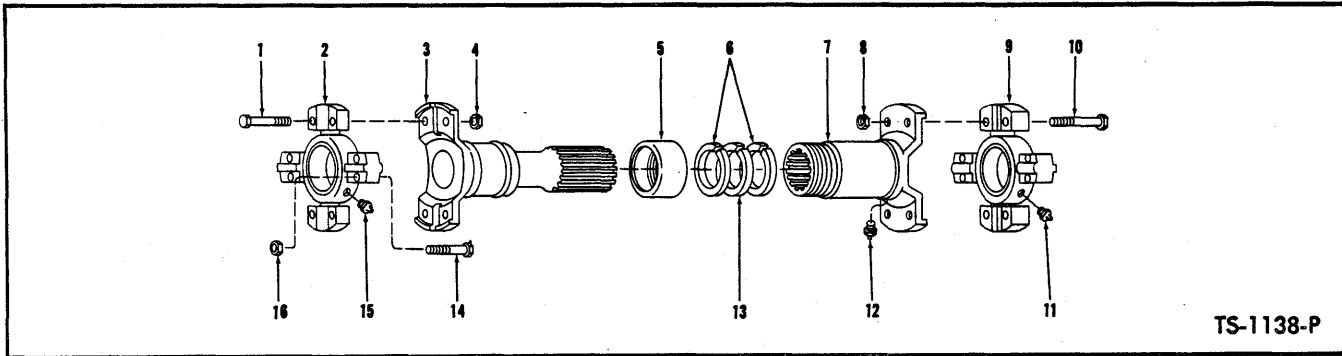
**WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE**



TS-2596-P

**PROPELLER SHAFT — CONVERTER TO TRANSMISSION — WAUKESHA GAS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	534039	PROP SHAFT ASSY (Inc. 1 thru 17)	1	9	4E-05	LKWSHR, Spider to Slip Yoke . . . . .	4
1	----	FLANGE — See Converter & Transmission Listings . . . . .	—	10	944868	SLIP YOKE . . . . .	1
2	946067	SPIDER & BEARING (Inc. 15)	1	11	946067	SPIDER & BRG. (Inc. 12)	1
3	945276	TUBE . . . . .	1	12	10H-35	FITTING, Spider & Brg. Grease . . . . .	1
4	4E-05	LKWSHR, Spider to Tube . . . . .	4	13	10H-25	FITTING, Slip Yoke Grease . . . . .	1
5	695811	BOLT, Spider to Tube . . . . .	4	14	940081	FELT WASHER . . . . .	1
6	940654	RETAINER, Felt . . . . .	1	15	10H-35	FITTING, Spider & Brg. Grease . . . . .	1
7	940653	WASHER, Felt Retainer . . . . .	2	16	4E-05	LKWSHR, Spider Attaching . . . . .	8
8	695811	BOLT, Spider to Slip Yoke . . . . .	4	17	695811	BOLT, Spider Attaching . . . . .	8

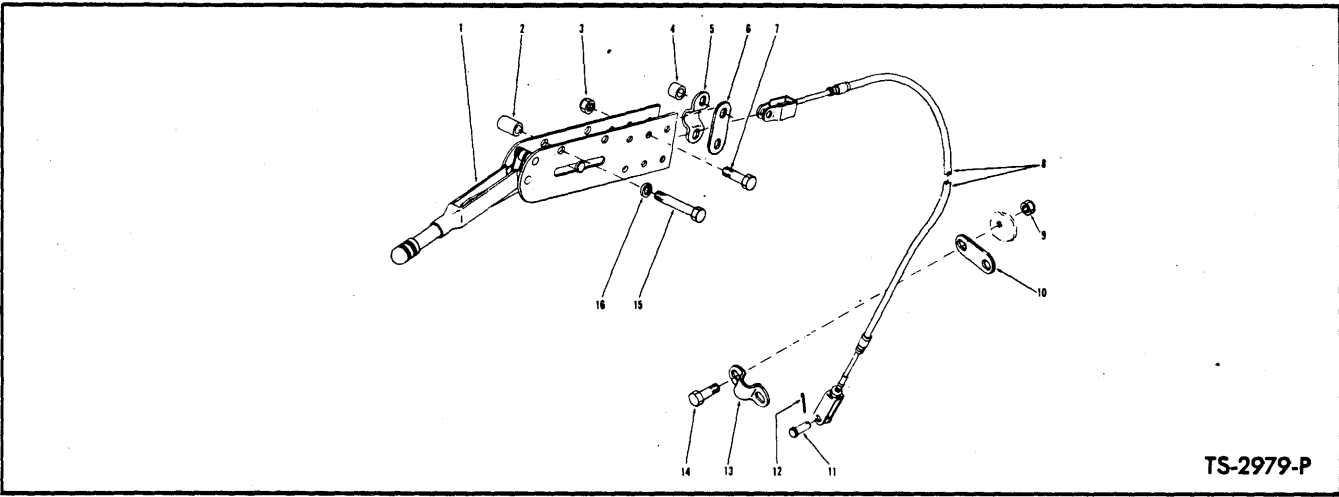


TS-1138-P

**PROPELLER SHAFT ASSEMBLIES**

Item No.	Description	Converter to Transmission G.M.	Transmission to Front Axle Waukesha Gas and G.M.	Transmission to Rear Axle Waukesha Gas and G.M.	No. Req'd.
A	PROPELLER SHAFT ASSY (Inc. 1 thru 16)	544200	1911537	550580	1
1	BOLT, Spider & Bearing to Tube . . . . .	695808	18C632	18C632	4
2	SPIDER & BEARING ASSY . . . . .	887737	944862	944862	1
3	TUBE . . . . .	945277	943154	940084	1
4	NUT, Spider & Bearing to Tube . . . . .	8D-05	8D-06	8D-06	4
5	RETAINER, Felt . . . . .	940654	940090	940090	1
6	WASHER, Felt Retainer . . . . .	940653	940091	940091	2
7	SLIP YOKE . . . . .	942658	940224	940224	1
8	NUT, Spider & Bearing to Slip Yoke . . . . .	8D-05	8D-06	8D-06	4
9	SPIDER & BEARING ASSY . . . . .	887737	944862	944862	1
10	BOLT, Spider & Bearing to Slip Yoke . . . . .	695808	18C632	18C632	4
11	FITTING, Spider & Bearing Grease . . . . .	10H-35	10H-35	10H-35	1
12	FITTING, Slip Yoke Grease . . . . .	10H-25	10H-25	10H-25	1
13	FELT WASHER . . . . .	940081	940092	940092	1
14	BOLT, Spider & Bearing Attaching . . . . .	945256	18C632	18C632	8
15	FITTING, Spider & Bearing Grease . . . . .	10H-35	10H-35	10H-35	1
16	NUT, Spider & Bearing Attaching . . . . .	*8D-05	8D-06	8D-06	8

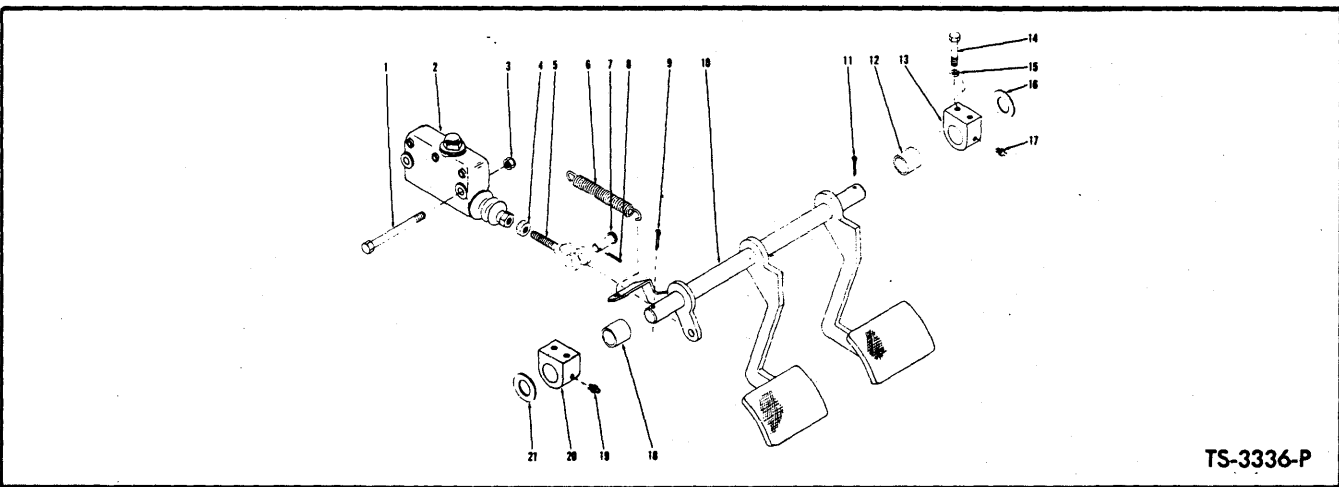
\*NOTE: Quantity required in this location (16).



TS-2979-P

**PARKING BRAKE CONTROLS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1		LEVER ASSY, Brake Hand—See Index	1	9	18D-05	NUT, Cable Clamp	2
2	545005	SPACER	2	10	645092	LINK, Cable Clamp	1
3	18D-05	NUT, Cable Clamp	2	11	4F-06106	PIN, Cable Clevis	1
4	545006	SPACER	2	12	1F-312	COTTER, Clevis Pin	1
5	544512	CLAMP, Cable	1	13	544512	CLAMP, Cable	1
6	645092	LINK, Cable Clamp	1	14	18C-516	BOLT, Cable Clamp	2
7	18C-528	BOLT, Cable Clamp	2	15	18C-628	BOLT, Lever Mounting	2
8	545560	CABLE, Parking Brake	1	16	4E-06	LKWSHR, Lever Mounting	2



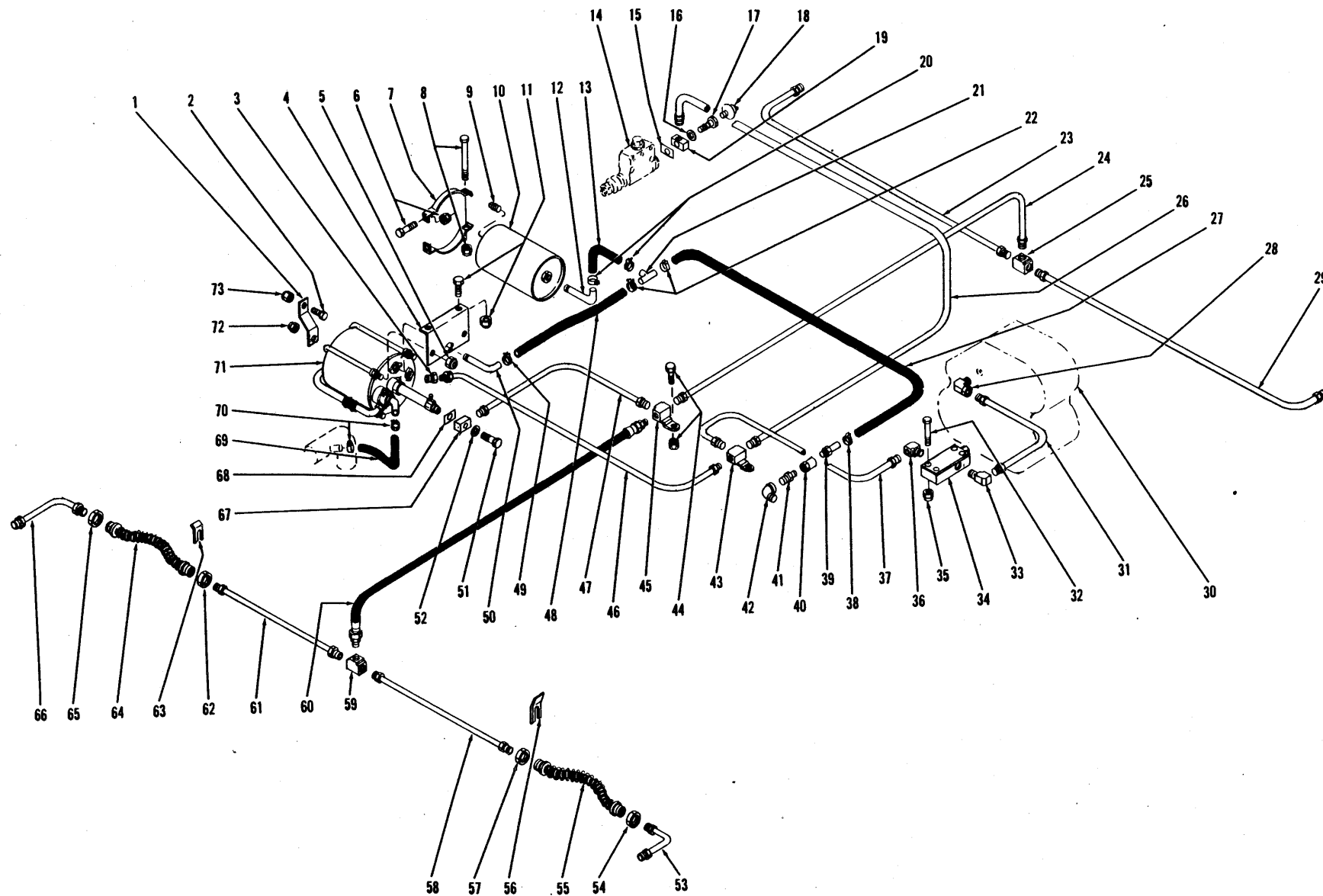
TS-3336-P

**BRAKE CONTROLS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-656	BOLT, Master Cylinder Mounting	2	11	1F-624	COTTER, Brake Pedal Shaft	1
2	550302	MASTER CYLINDER	1	12	526767	BUSHING, Pedal Support	1
2A	940171	†REPAIR KIT, Master Cylinder	1	13	538546	SUPPORT, Brake Pedal	1
3	18D-06	NUT, Master Cylinder Mounting	2	14	18C-614	BOLT, Pedal Support Mounting	4
4	8D-07	NUT, Push Rod Jam	1	15	4E-06	LKWSHR, Pedal Support Mounting	4
5	540144	PUSH ROD, Master Cylinder	1	16	101158	WASHER, Brake Pedal Shaft	1
6	550301	SPRING, Pedal Return	1	17	10H-25	FITTING, Brake Pedal Shaft Grease	1
7	4F-08127	PIN, Push Rod Clevis	1	18	526767	BUSHING, Pedal Support	1
8	1F-412	COTTER, Clevis Pin	1	19	10H-25	FITTING, Brake Pedal Shaft Grease	1
9	1F-624	COTTER, Brake Pedal Shaft	1	20	538546	SUPPORT, Brake Pedal	1
10	542647	PEDAL, Brake	1	21	101158	WASHER, Brake Pedal Shaft	1

†Not Illustrated

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



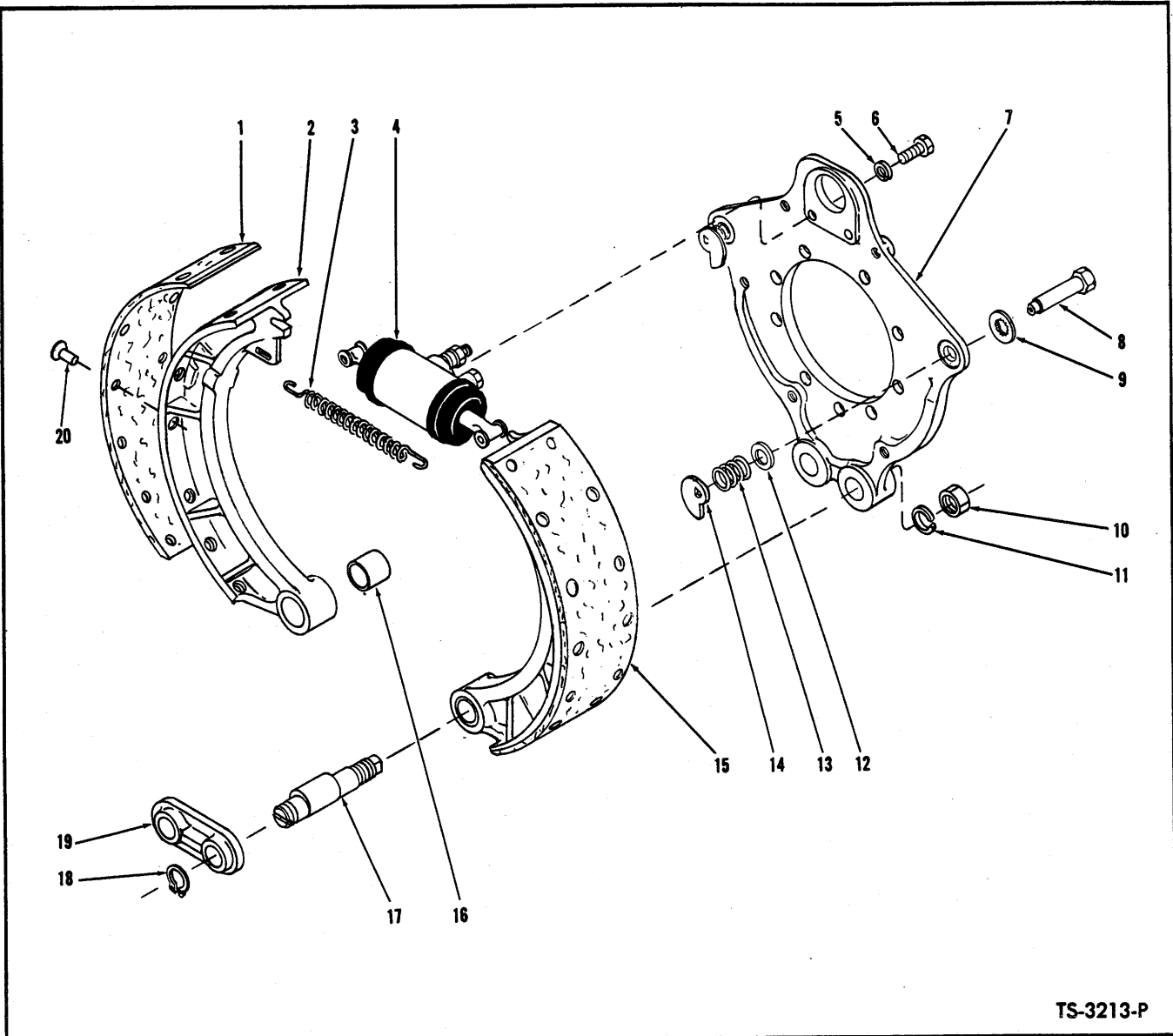
**BRAKE LINES**

TS-3273-P

**BRAKE LINES \***

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	540419	BRACKET, Hydrovac Mounting .....	1	35	18D-04	NUT, Valve Mounting .....	4
2	18C-616	BOLT, Bracket Attaching .....	1	36	507729	ELBOW, Line to Valve .....	1
3	699005	ADAPTER, Line to Hydrovac .....	1	37	547046	LINE, Tee to Valve .....	1
4	540420	BRACKET, Hydrovac Mounting .....	1	38	4H-15	CLAMP, Hose .....	1
5	66D-06	NUT, Hydrovac to Bracket .....	2	39	711393	NIPPLE, Hose .....	1
6	18C-516	BOLT, Reservoir Bracket Attaching ..	4	40	691941	VALVE, Check .....	1
6A	18D-05	NUT, Reservoir Bracket Attaching ....	4	41	5K-308	NIPPLE, Pipe .....	1
7	691943	STRAP, Reservoir Mounting .....	4	42	26F-3	ELBOW .....	1
8	18C-432	BOLT, Strap to Strap .....	2	42A	356618	BUSHING, Reducing .....	1
8A	18D-04	NUT, Strap to Strap .....	2	43	100582	TEE, Brake Line .....	1
9	13F-08	PLUG, Reservoir .....	1	44	18C-520	BOLT, Tee Attaching .....	1
10	550343	RESERVOIR, Vacuum .....	1	44A	18D-05	NUT, Tee Attaching .....	1
11	18C-616	BOLT, Bracket Attaching .....	2	45	100582	TEE, Brake Line .....	1
11A	18D-06	NUT, Bracket Attaching .....	2	46	547047	LINE, Tee to Hydrovac .....	1
12	691938	ELBOW, Reservoir .....	1	47	547045	LINE, Hydrovac to Tee .....	1
13	663077	HOSE, Reservoir to Tee .....	1	48	694021	HOSE, Hydrovac to Tee .....	1
14	550302	MASTER CYLINDER .....	1	49	4H-15	CLAMP, Hose .....	1
14A	940171	†KIT, Master Cylinder Repair .....	1	50	691938	ELBOW, Hydrovac .....	1
15	613750	GASKET, Master Cylinder Fitting ....	1	51	692722	BOLT, Hydrovac Fitting .....	1
16	620238	GASKET, Fitting Bolt .....	1	52	620238	GASKET, Fitting Bolt .....	1
17	620236	BOLT, Master Cylinder Fitting .....	1	53	552387	LINE, Drive Steer Axle Brake .....	1
18	620313	SWITCH, Stop Light .....	1	54	8D-10	NUT, Hose to Line .....	1
19	620235	FITTING, Master Cylinder .....	1	55	552374	HOSE, Brake .....	1
20	4H-15	CLAMP, Hose .....	2	56	550325	CLIP, Brake Hose .....	1
21	550346	TEE, Hose Connection .....	1	57	8D-10	NUT, Hose to Line .....	1
22	4H-15	CLAMP, Hose .....	2	58	534259	LINE, R.H. Drive Steer Axle Brake ...	1
23	535049	LINE, L.H. Drive Axle Brake .....	1	59	550320	TEE, Brake Line .....	1
24	547048	LINE, Tee to Axle Tee .....	1	60	546853	HOSE, Tee to Tee .....	1
25	609733	TEE, Brake Line .....	1	61	534260	LINE, L.H. Drive Steer Axle Brake ...	1
26	547049	LINE, Master Cylinder to Tee .....	1	62	8D-10	NUT, Hose to Line .....	1
27		<i>HOSE, Vacuum</i> .....		63	550325	CLIP, Brake Hose .....	1
27A	550350	For Gas Powered Machines .....	1	64	552374	HOSE, Line to Line .....	1
27B	588143	For G.M. Powered Machines .....	1	65	8D-10	NUT, Hose to Line .....	1
28	62F-3	ELBOW, Line to Transmission .....	1	66	552387	LINE, Drive Steer Axle Brake .....	1
29	535050	LINE, R.H. Drive Axle Brake .....	1	67	620235	FITTING, Hydrovac .....	1
30	-----	TRANSMISSION - See Index .....	-	68	613750	GASKET, Fitting .....	1
31	542689	LINE, Valve to Transmission .....	1	69	542638	HOSE, Hydrovac to Tube .....	1
32	18C-440	BOLT, Valve Mounting .....	4	70	4H-19	CLAMP, Hose .....	2
33	507729	ELBOW, Line to Valve .....	1	71	351580	HYDROVAC .....	1
34	-----	BRAKE DE-CLUTCH VALVE - See Index .....	-	72	66D-06	NUT, Hydrovac to Bracket .....	1
				73	18D-06	NUT, Bracket Attaching .....	1

\*Ref. SG-681



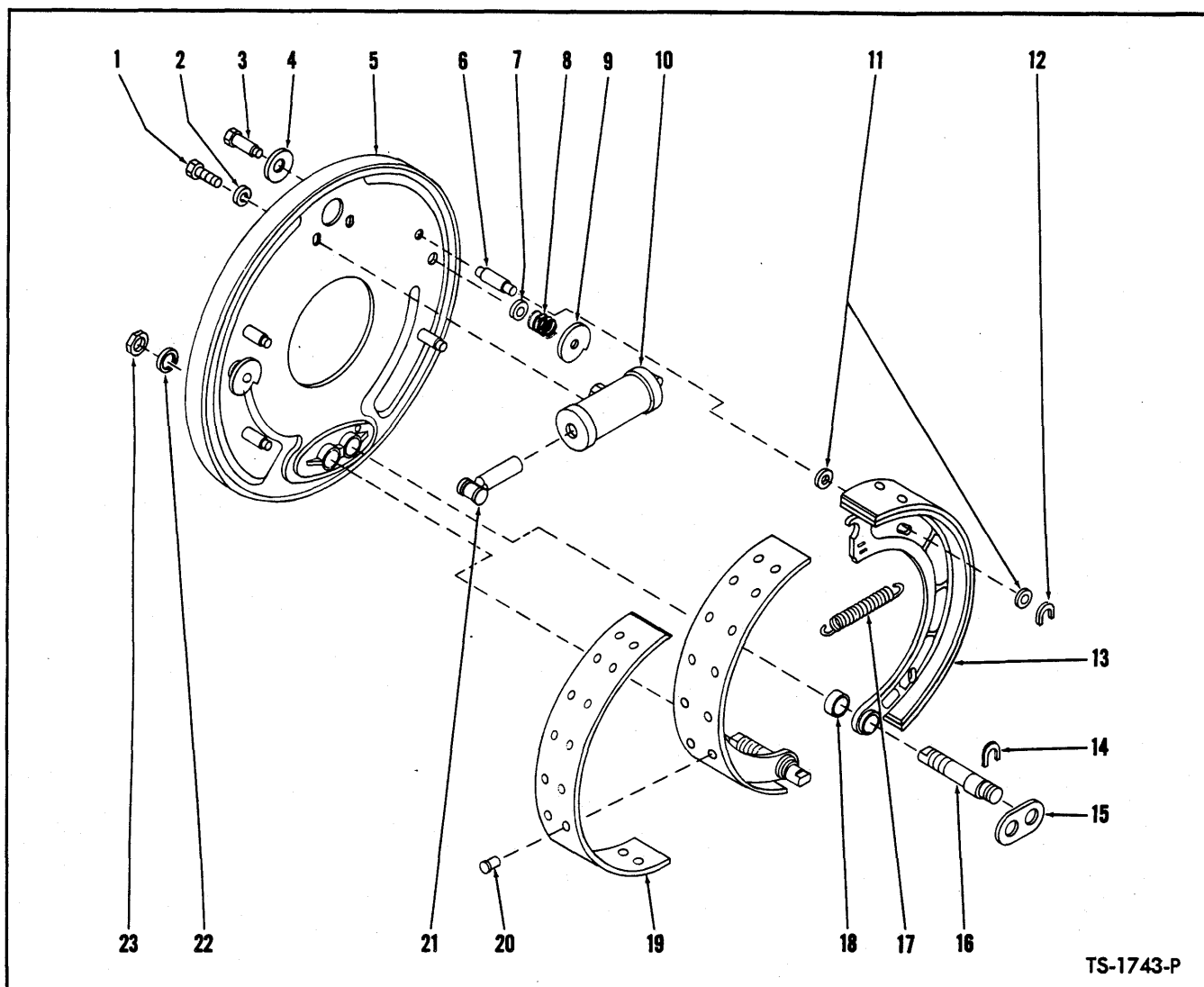
TS-3213-P

**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
<b>NOTE: 2 Brake Assemblies used on axle – Quantities listed below are for 1 Brake Assembly.</b>				9	100867	WASHER, Brake Shoe Adj. 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	<sup>2</sup> 1/16" Oversize	1	12	851771	WASHER, Cam Spring	2
1		§LINING, Brake Shoe – See C & D	2	13	943859	SPRING, Adj. Cam (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 Cyl. 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	28

\*Ref. SG-681

<sup>2</sup>When 945621 Lining Kit is utilized drums must be turned down to 17.370" – 17.380". DO NOT EXCEED THIS DIMENSION.



TS-1743-P

**BRAKE ASSEMBLY – REAR \***

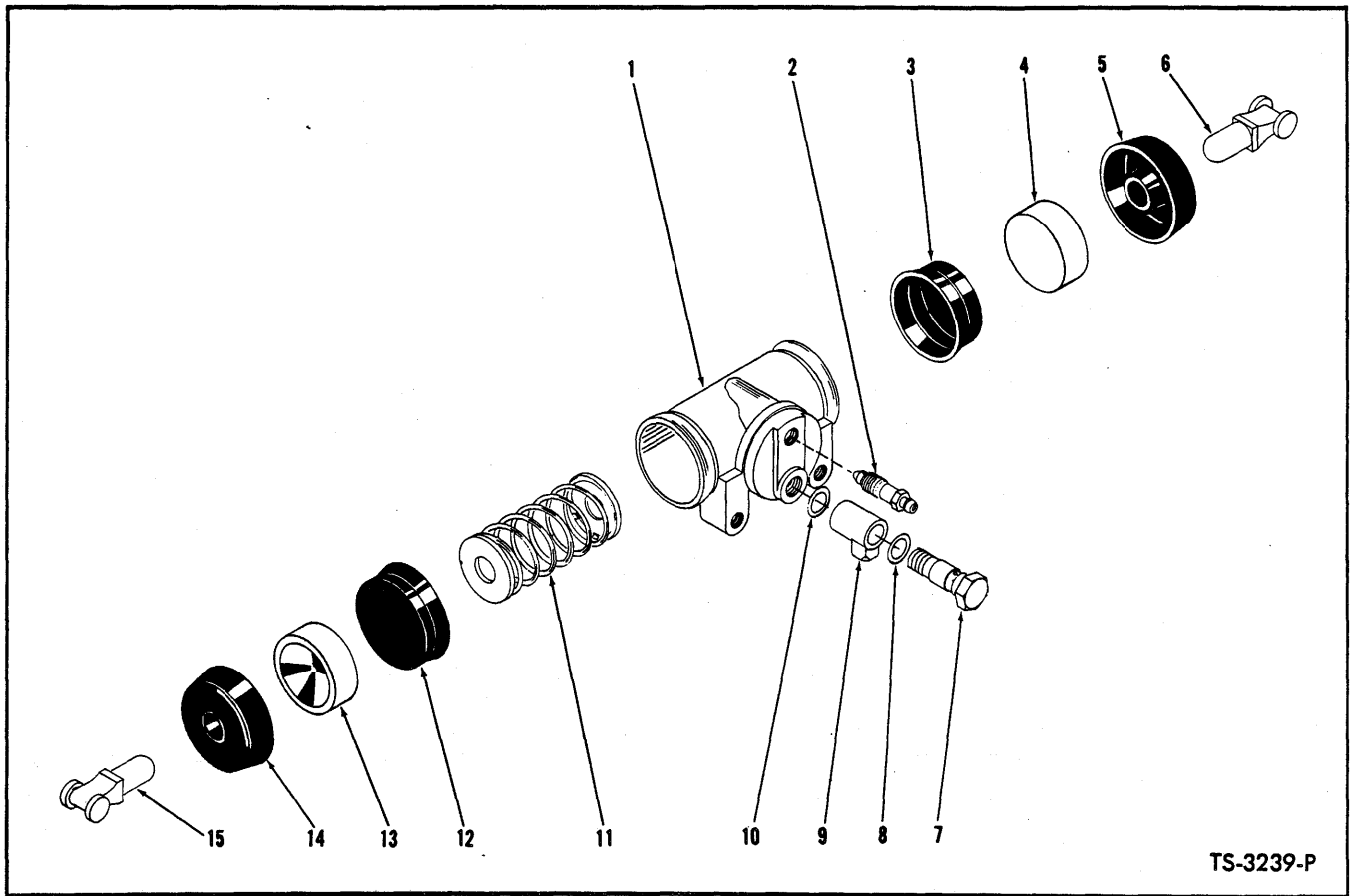
**2 Brakes Used on Axle – Quantity Indicated is for 1 Brake**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	117914	BRAKE ASSY (Inc. 1 thru 23)	1	13	118254	SHOE ASSY, Brake (Inc. 18, 19A, 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	117915	DISC ASSY, Brake (Inc. 3, 4, 6 thru 9)	1	18	201966	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	<sup>2</sup> 1/16" Oversize	1
9	100864	CAM, Brake Shoe Adjusting	2	20	3H-1216	RIVET, Lining to Shoe	36
10	124251	CYLINDER, Wheel (Inc. 21)	1	21	958553	LINK, Wheel Cylinder Connector	2
10A	940130	†REPAIR KIT, Wheel Cylinder	1	22	4E-12	LKWSHR, Anchor Pin	2
11	102322	WASHER, Guide Pin	8	23	2D-12	NUT, Anchor Pin	2
12	100878	"C" WASHER, Guide Pin	4				

\*Ref. SG-681

†Not Illustrated

<sup>2</sup>When 945100 Lining Kit is utilized drums must be turned down to 16.370" – 16.380". DO NOT EXCEED THIS DIMENSION.



TS-3239-P

**BRAKE WHEEL CYLINDER**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A		CYLINDER ASSY (Inc. 1 thru 15)		7		BOLT, Fitting to Cylinder	
B	112072	For Front Brake .....	2	7A	944966	For Front Cylinder .....	1
C	124251	For Rear Brake .....	2	7B	692722	For Rear Cylinder .....	1
<p><b>NOTE: 2 wheel cylinders used per axle. Quantities listed below are for 1 wheel cylinder.</b></p>				8	620238	GASKET, Outer Cylinder .....	1
D		REPAIR KIT, Cylinder (Inc. 3, 5, 12, 14)		9		FITTING, Cylinder	
E	957995	For Front Cylinder .....	1	9A	944967	For Front Cylinder .....	1
F	940130	For Rear Cylinder .....	1	9B	620235	For Rear Cylinder .....	1
1		§CYLINDER, Wheel — See "A" .....	1	10	613750	GASKET, Inner Fitting .....	1
2		SCREW, Bleeder		11		SPRING, Cylinder	
2A	861356	For Front Cylinder .....	1	11A	956664	For Front Cylinder .....	1
2B	208805	For Rear Cylinder .....	1	11B	956622	For Rear Cylinder .....	1
3		§CUP, Piston — See "D" .....	1	12		§CUP, Piston — See "D" .....	1
4		§PISTON — See "A" .....	1	13		§PISTON — See "A" .....	1
5		§BOOT — See "D" .....	1	14		§BOOT — See "D" .....	1
6	958553	ROD, Push .....	1	15	958553	ROD, Push .....	1

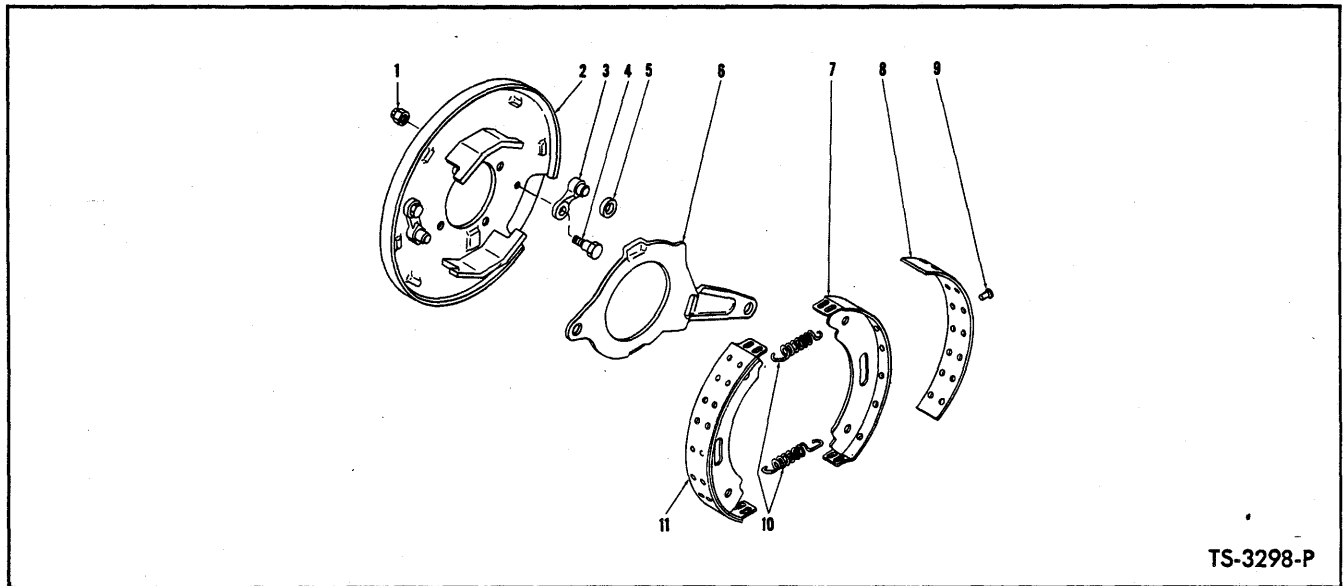
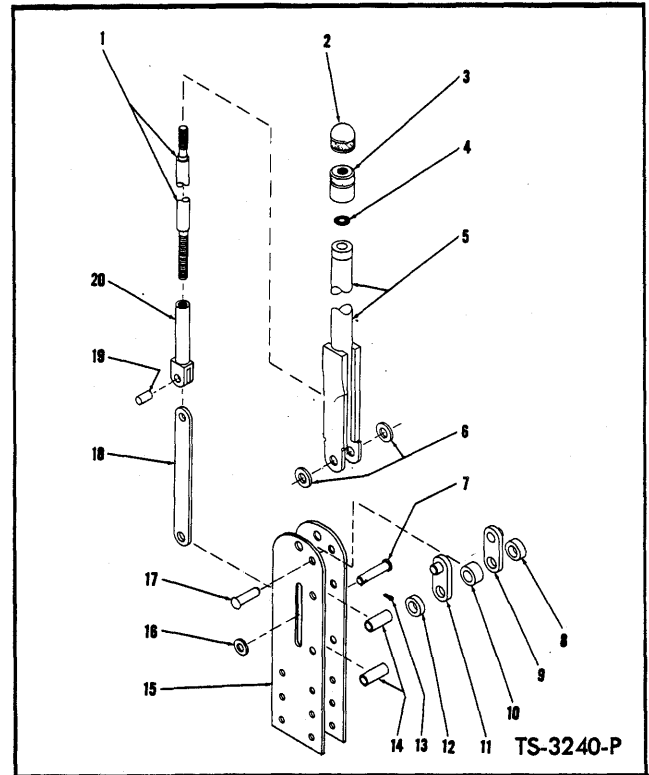
§Not Sold Separately

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



**PARKING BRAKE LEVER ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.
A	3951954	LEVER ASSY (Inc. 1 thru 20)	1
1	866349	SCREW, Adjusting	1
2	941227	CAP, Adjusting Knob	1
3	941226	BASE, Adjusting Knob	1
4	946163	WASHER, Base to Body	1
5	-----	§BODY, Brake Lever — See A	1
6	25E-18	WASHER, Body to Bracket	2
7	862738	PIN, Adjusting Screw Link Pivot	1
8	862656	SPACER, Pivot Bracket	1
9	862653	BRACKET, Pivot	1
10	862655	SPACER, Pivot Bracket	1
11	862653	BRACKET, Pivot	1
12	862656	SPACER, Pivot Bracket	1
13	1F-312	COTTER, Link Pivot Pin	1
14	645095	SPACER, Mounting Bracket	2
15	944969	BRACKET, Lever Mounting	2
16	25E-15	WASHER, Link Pivot Pin	1
17	-----	§RIVET, Pivot Bracket — See A	1
18	862652	LINK, Adjusting Screw	1
19	941238	PIN, Link to Tube	1
20	-----	§TUBE, Adjusting Screw — See A	1

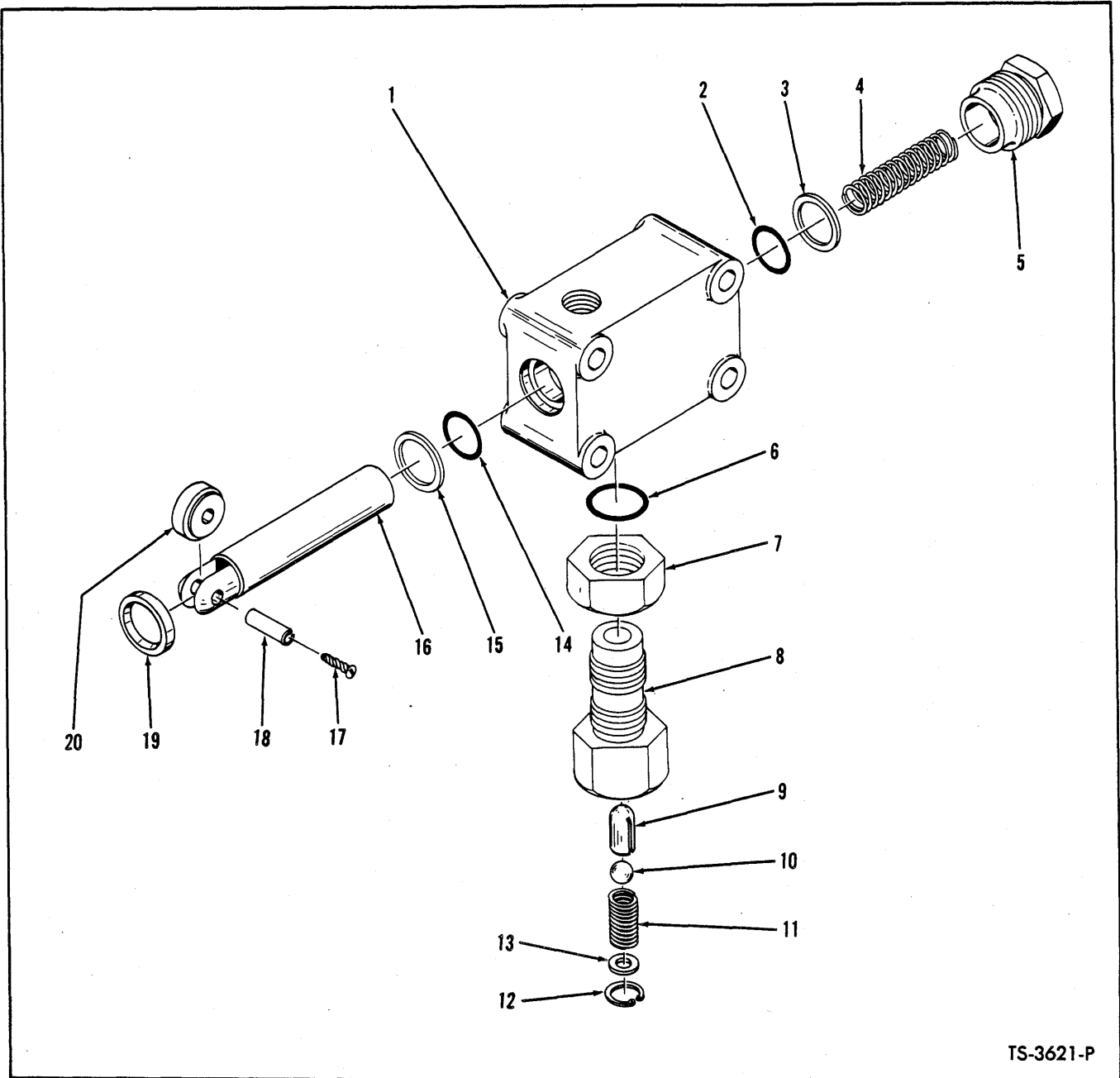


**PARKING BRAKE ASSEMBLY \***

Item No.	Part No.	Description	No. Req'd.
A	110280	BRAKE ASSY (Inc. 1 thru 11)	1
1	-----	§NUT, Pawl to Plate — See 3	2
2	945083	PLATE, Brake Backing	1
3	886719	PAWL KIT, Brake (Inc. 1, 4, 5)	2
4	-----	§BOLT, Pawl to Plate — See 3	2
5	220968	ROLLER, Brake Actuating	1

Item No.	Part No.	Description	No. Req'd.
6	220965	LEVER, Operating Cam	1
7	-----	§SHOE, Brake — See 11	2
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  
\*Ref. SG-681



TS-3621-P

**VALVE ASSEMBLY — BRAKE DE-CLUTCH**

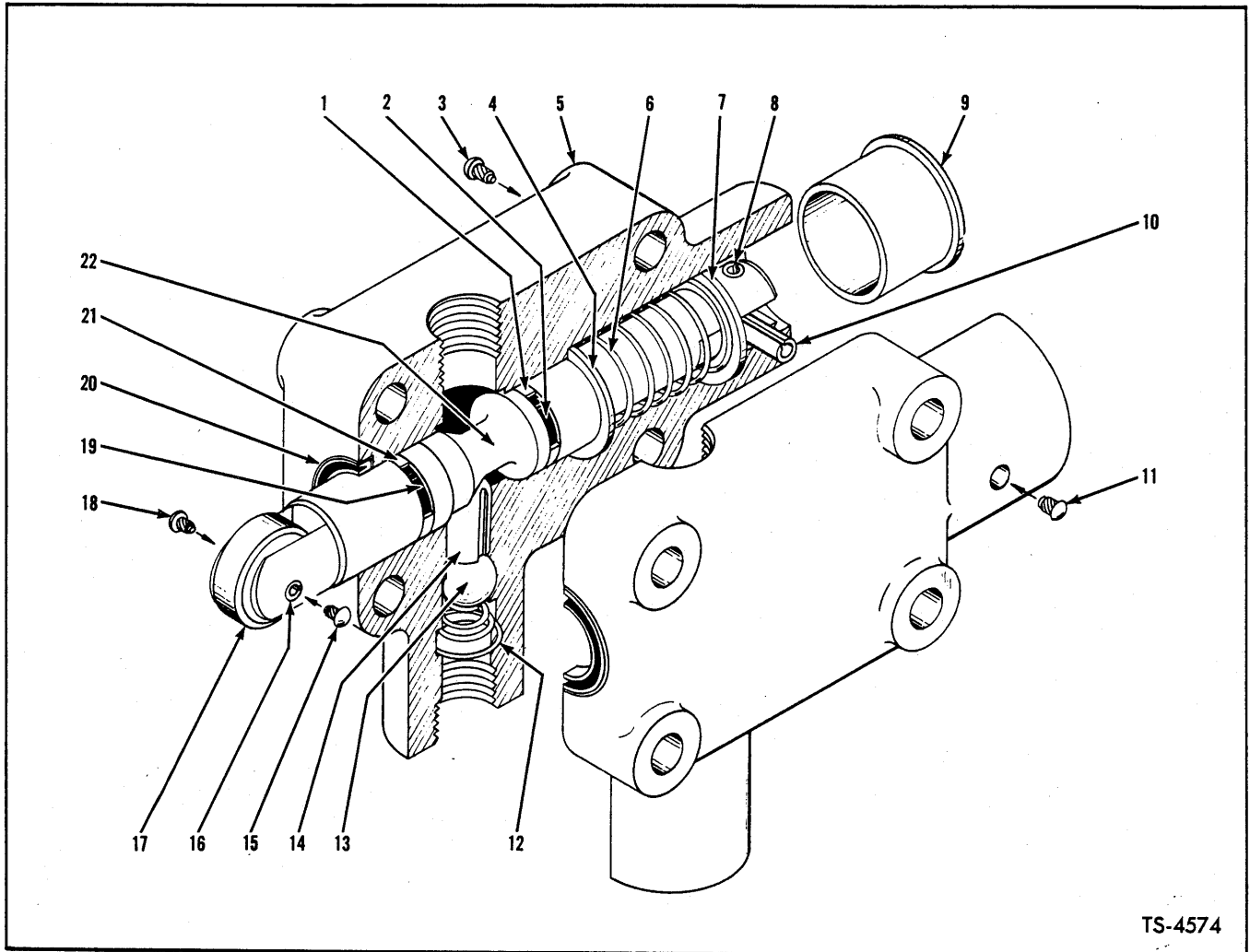
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	546830	*VALVE ASSY (Inc. 1 thru 20)	1	11	949960	SPRING	1
1	—	§HOUSING, Valve — See "A"	1	12	209964	RING, Retaining	1
2	25K-30020	"O" RING, Plunger	1	13	25E-6	WASHER	1
3	945244	RING, "O" Ring Back-up	1	14	25K-30020	"O" RING, Plunger	1
4	945245	SPRING	1	15	945244	RING, "O" Ring Back-up	1
5	945246	CAP	1	16	—	§PLUNGER — See "A"	1
6	91F-6	"O" RING	1	17	6C-403	SCREW, Drive	2
7	8D-12	NUT	1	18	1302554	ROLL PIN	1
8	945247	HOUSING, Check Valve	1	19	945250	SEAL, Plunger	1
9	945248	PIN, Check	1	20	945009	BEARING	1
10	10J-12	BALL	1				

†Not Illustrated

§Not Sold Separately

\*NOTE: For replacement use 556398.

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



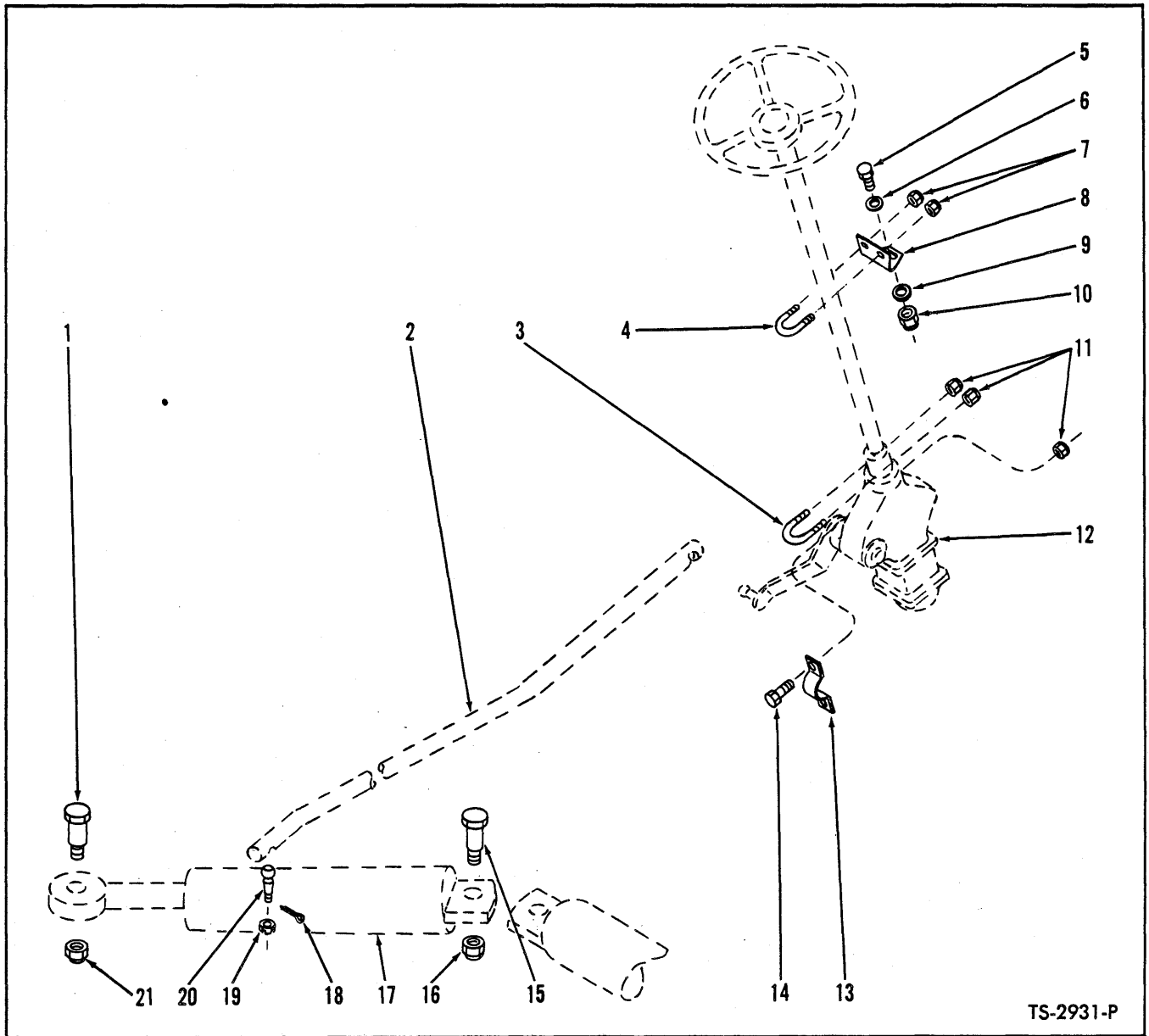
TS-4574

**VALVE ASSEMBLY — BRAKE DE-CLUTCH  
(SERVICE ONLY)**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	556398	VALVE ASSY (Inc. 1 thru 22).....	1	13	10J-12	BALL .....	1
1	945764	RING, "O" Ring Back-Up .....	1	14	945248	PIN, Check .....	1
2	38K-20010	"O" RING, Plunger .....	1	15	6C-403	SCREW, Drive .....	1
3	6C-403	SCREW, Drive .....	1	16	1302554	ROLL PIN .....	1
4	945767	SPACER, Spring .....	1	17	945009	BEARING (Roller) .....	1
5	—	§HOUSING, Valve (See Item A).....	1	18	6C-403	SCREW, Drive .....	1
6	946411	SPRING .....	1	19	38K-20010	"O" RING, Plunger .....	1
7	945767	SPACER, Spring .....	1	20	945250	SEAL, Plunger .....	1
8	742306	ROLL PIN .....	1	21	945764	RING, "O" Ring Back-Up .....	1
9	—	§PLUG .....	—	22	—	§PLUNGER (See Item A) .....	1
10	654724	ROLL PIN .....	1	23	18C-440	†BOLT, Valve Attaching .....	4
11	6C-403	SCREW, Drive .....	1	24	18D-04	†NUT, Valve Attaching .....	4
12	945769	SPRING .....	1				

§Not Sold Separately  
†Not Illustrated

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

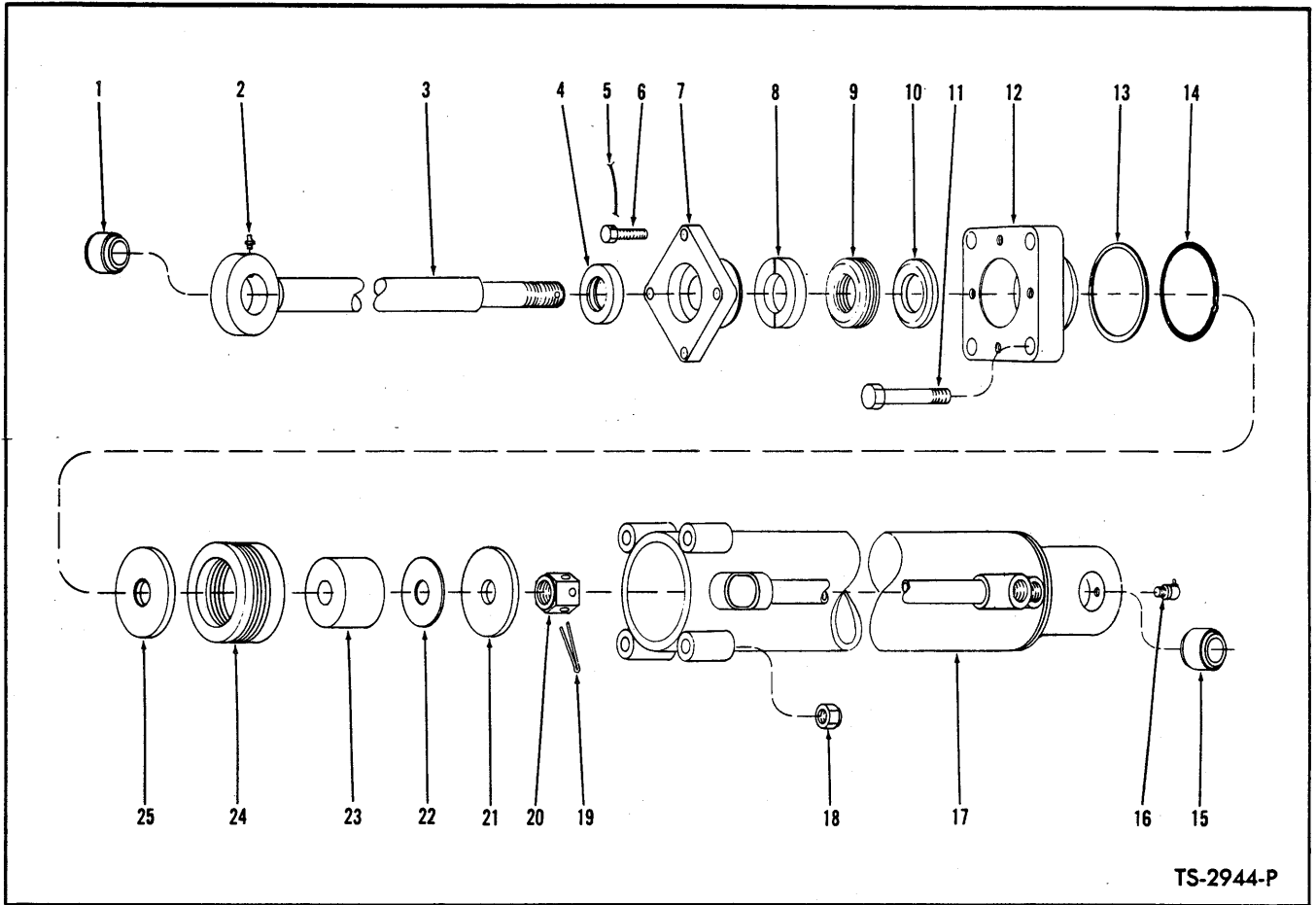


TS-2931-P

**STEERING LINKAGE GROUP**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	24C-1244	BOLT, Steering Cylinder Anchor	2	12	—	STEERING GEAR — See Index	—
2	—	DRAG LINK — See Index	—	13	550044	CLAMP, Steering Gear	1
3	545941	U-BOLT, Steering Gear to Frame	1	14	18C-836	BOLT, Steering Gear Clamp	2
4	537998	U-BOLT, Steering Gear to Frame	1	15	24C-1244	BOLT, Steering Cylinder Anchor	2
5	18C-620	BOLT, Bracket to Frame	1	16	18D-12	NUT, Steering Cylinder Anchor Bolt	2
6	25E-18	WASHER, Bracket to Frame	1	17	—	STEERING CYLINDER — See Index	—
7	18D-04	NUT, U-Bolt	2	18	—	OMIT — Not applicable this model	—
8	537997	BRACKET, Steering Gear to Frame	1	19	18D-10	NUT, Ball Stud	1
9	25E-18	WASHER, Bracket to Frame	1	20	513122	BALL STUD, Drag Link to Axle	1
10	18D-06	NUT, Bracket to Frame	1	21	18D-12	NUT, Steering Cylinder Anchor Bolt	2
11	18D-08	NUT, U-Bolt & Clamp Bolt	4				

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

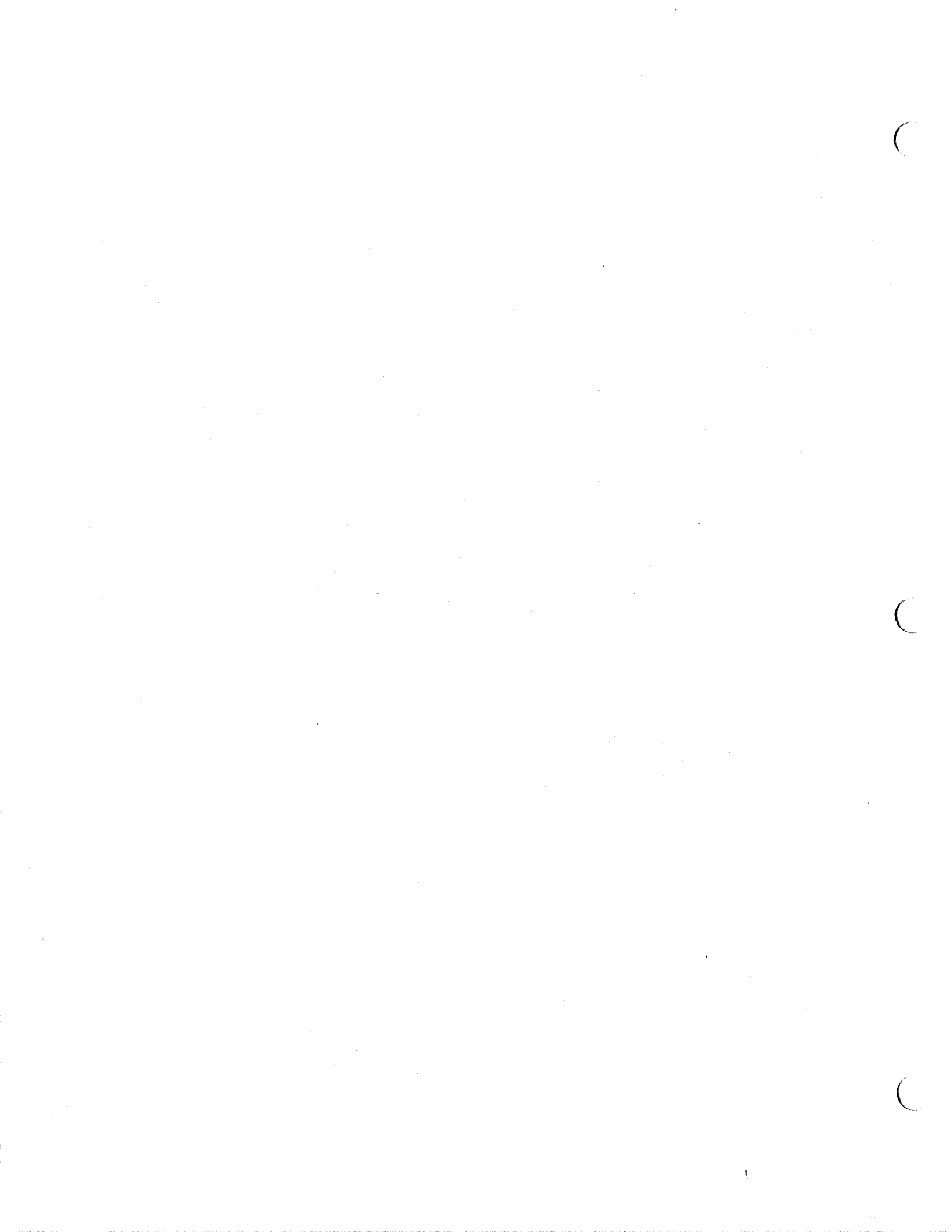


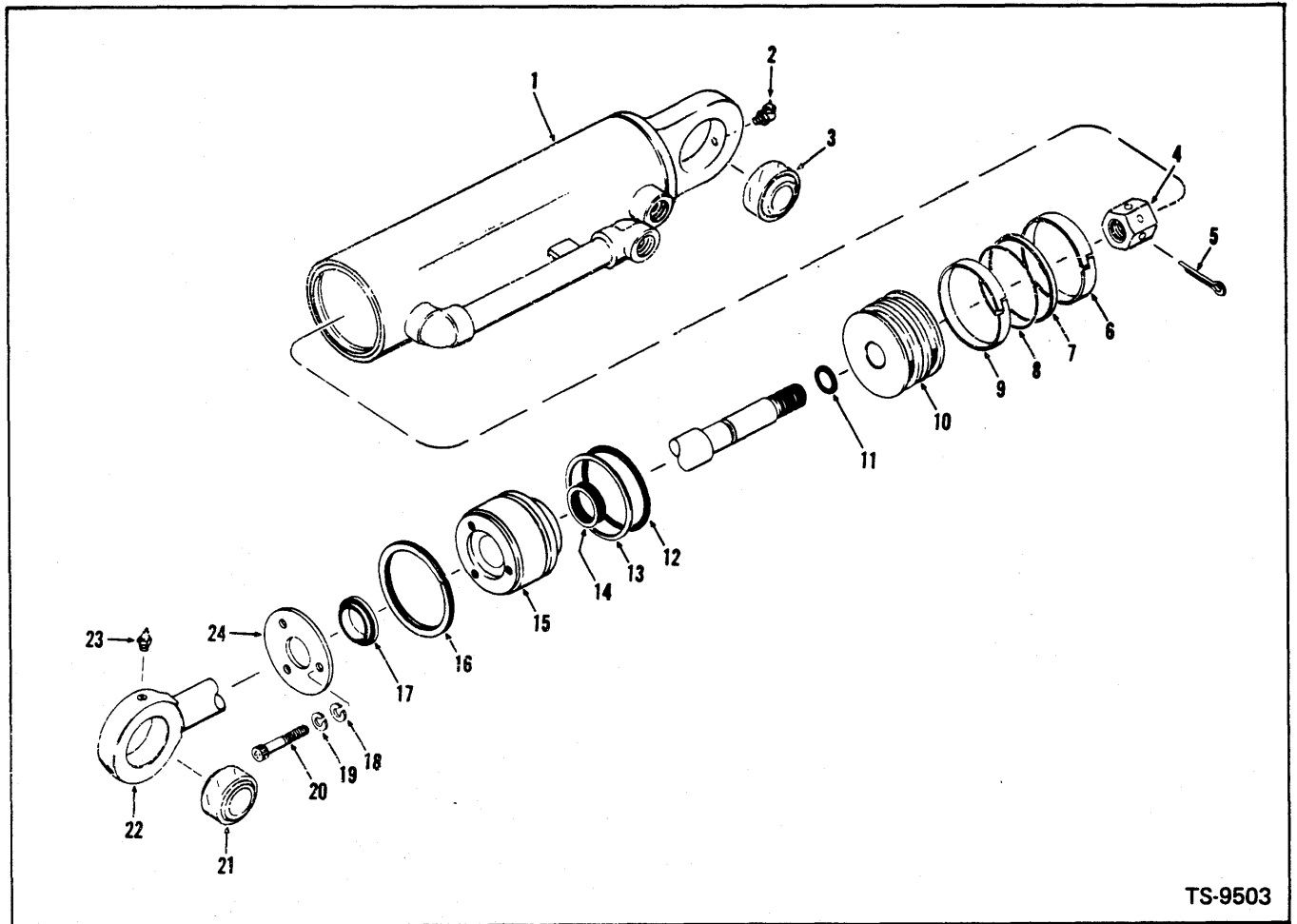
TS-2944-P

**STEERING CYLINDER ASSEMBLY**  
 2 Cylinders Used on Machine – Quantity Indicated is for 1 Cylinder

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
A	533489	*CYLINDER ASSY (Inc. 1 thru 25) . . .	1	12	532947	CAP, Cylinder . . . . .	1
B	2516056	**KIT (Inc. 8 → 10, 13, 14, 19, 22, 24) . . . . .	1	13	-----	§RING, Backup – See B . . . . .	1
1	763451	BUSHING, Piston Rod . . . . .	1	14	-----	§"O" RING – See B . . . . .	1
2	10H-35	FITTING, Piston Rod Grease . . . . .	1	15	763451	BUSHING, Cylinder . . . . .	1
3	545155	ROD, Piston . . . . .	1	16	12H-24	FITTING, Cylinder Grease . . . . .	1
4	526415	SEAL . . . . .	1	17	533490	CYLINDER . . . . .	1
5	28H-16130	LOCKWIRE . . . . .	2	18	18D-06	NUT, Cap to Cylinder . . . . .	4
6	4C-414	BOLT, Gland to Cap . . . . .	4	19	1F-424	COTTER, Piston Rod Nut . . . . .	1
7	526414	GLAND, Packing . . . . .	1	20	523325	NUT, Piston Rod . . . . .	1
8	-----	§ADAPTER, Female – See 9 . . . . .	2	21	526423	PLATE, Backing . . . . .	1
9	2501105	PACKING SET (Inc. 9, 11) . . . . .	1	22	-----	§‡SHIM – See B . . . . .	—
10	-----	§ADAPTER, Male – See 9 . . . . .	2	23	526422	SLEEVE . . . . .	1
11	18C-648	BOLT, Cap to Cylinder . . . . .	4	24	-----	§PACKING SET – See B . . . . .	1
				25	526423	PLATE, Backing . . . . .	1

‡As Required  
 \*NOTE: For replacement use 1503828 Cylinder Assy.  
 \*\*NOTE: For reference see Service Gram S.G.-597





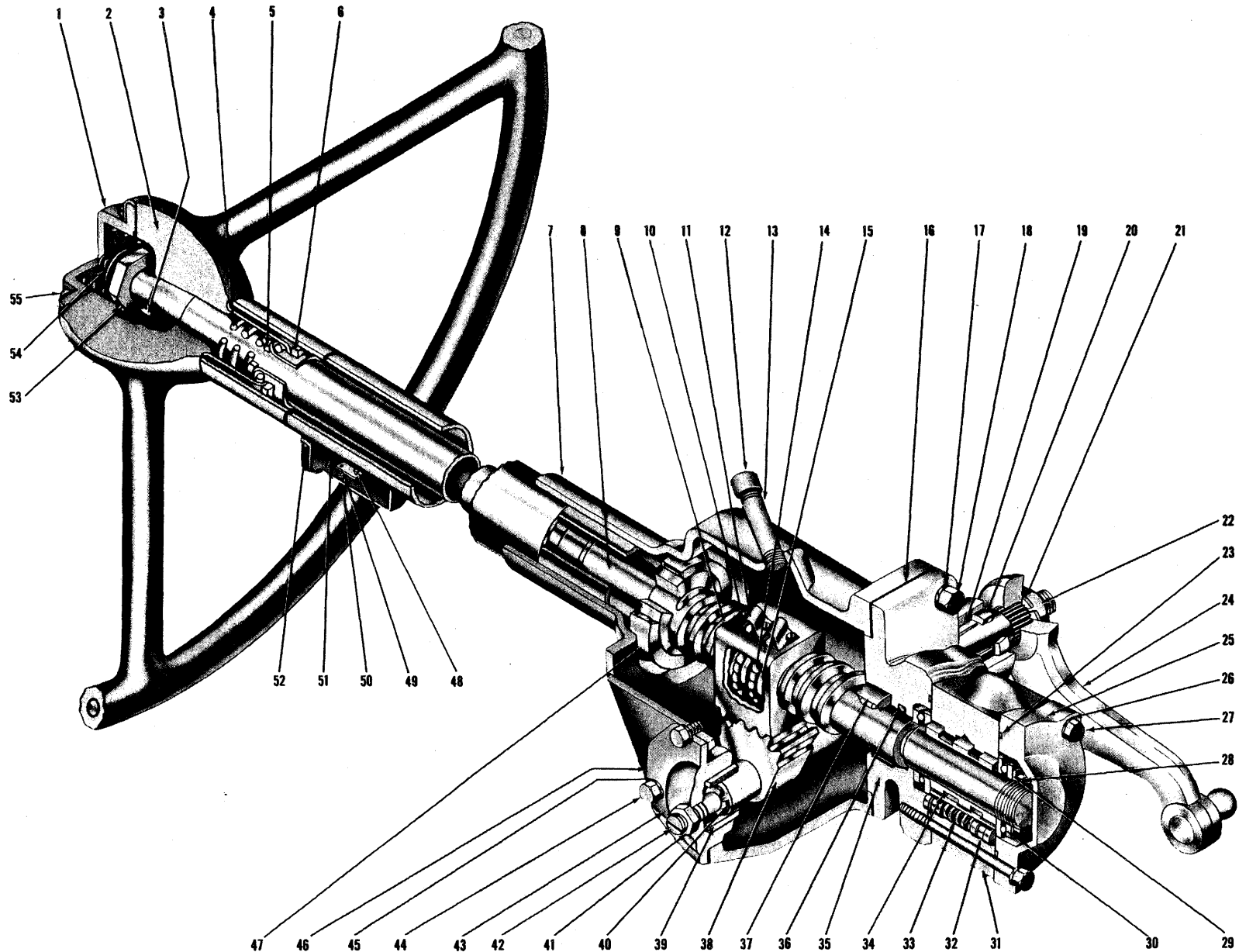
TS-9503

**STEERING CYLINDER ASSEMBLY**  
(Service Only)

Item	Part No.	Description	Qty.
A	1503828	CYLINDER ASSEMBLY (Inc. 1 thru 24)	2
B	2516055	**KIT (Inc. 5 → 9, 11 → 14, 17)	1
NOTE: 2 Cylinders used per Machine — Quantities Listed Below are for 1 Cylinder			
1	1503827	CYLINDER	1
2	12H-25	FITTING, Cylinder Grease	1
3	763451	BUSHING, Cylinder	1
4	523325	NUT, Piston Rod	1
5	1F-424	COTTER, Piston Rod Nut	1
6	---	§RING, Piston Wear — See B	1
7	---	§RING, Piston Sealing — See B	1
8	---	OMIT, Not Used This Application	—
9	---	§RING, Piston Wear — See B	1
10	1503568	PISTON	1

Item	Part No.	Description	Qty.
11	---	§O-RING, Piston Rod — See B	1
12	---	§O-RING, Cylinder Cap — See B	1
13	---	§RING, Back-up — See B	1
14	---	§“T” RING — See B	1
15	1503570	CAP, Cylinder	1
16	713186	RING, Cap Retaining	1
17	1522535	WIPER, Piston Rod	1
18	---	OMIT, Not Used This Application	—
19	4E-05	LKWSHR, Retaining Plate	3
20	71G-514	SCREW, Retaining Plate	3
21	763451	BUSHING, Piston Rod	1
22	545155	ROD, Piston	1
23	10H-35	FITTING, Piston Rod Grease	1
24	1503567	PLATE, Wiper Retaining	1

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



STEERING GEAR ASSEMBLY

For Serial: G.M. - 6CG101 and after. Wauk. - 5CA101 and after

TS-2955-P

54A.1

(1F-1)

PM 1698





**CONSTRUCTION MACHINERY DIVISION**  
**STEERING GEAR ASSEMBLY**  
**For Serial: G.M. — 2CG101 thru 5CG999**  
**Wauk. — 2CA101 thru 4CA999**

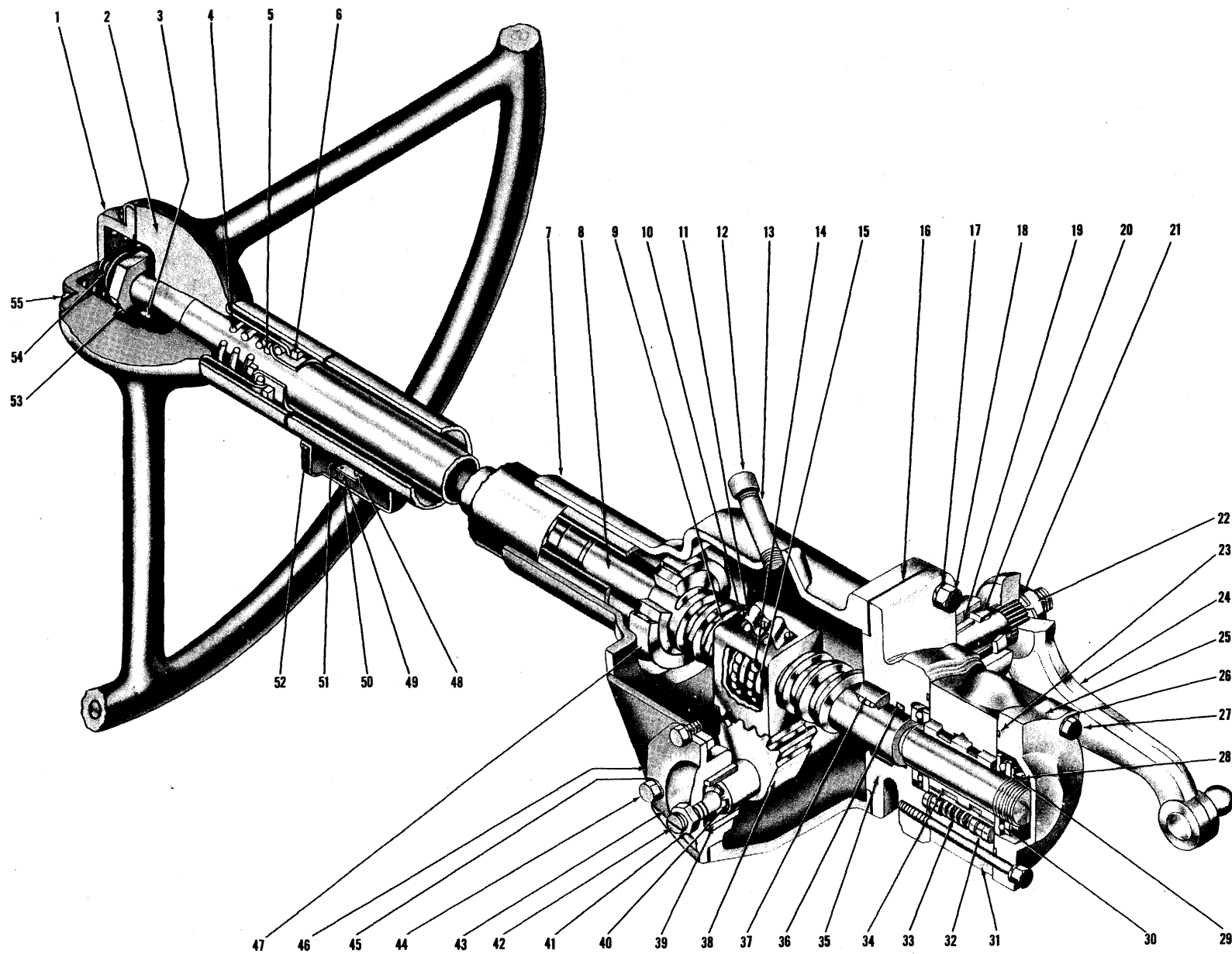


Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	532192	*STEERING GEAR ASSY (Inc. 1, 3 thru 23, 25 thru 54)	1	29	943429	SPRING, Worm Bearing	1
1	639796	HORN BUTTON ASSY	1	30	860997	BEARING, Worm Thrust	2
2	1508704	WHEEL, Steering	1	31	944052	VALVE ASSY, Hydraulic (Inc. 32 thru 34)	1
3	853384	KEY, Steering Wheel	1	32	861755	PLUNGER, Valve Centering	6
4	853395	SPRING, Steering Shaft Upper	1	33	944053	SPRING, Valve Centering	3
5	861768	WASHER, Steering Shaft Upper	1	34	—	§SPOOL, Valve (See 31)	1
6	857729	BEARING ASSY, Upper	1	35	861738	ADAPTER ASSY (Inc. 36, 37)	1
7	945205	HOUSING ASSY (Inc. 19, 47)	1	36	25K-40108	"O" RING, Adapter	1
8	945206	SHAFT ASSY (Inc. 9, 10, 11, 14, 15, 51 & 54)	1	37	861741	BEARING, Adapter	1
9	853408	NUT, Ball	1	38	940111	GEAR, Pitman Shaft	1
10	851762	BOLT & WASHER, Clamp	3	39	—	§BUSHING, Housing Side Cover (See Item 43)	1
11	853464	CLAMP, Ball Return	1	40	853187	SHIM KIT, Lash Adjuster	1
12	22F-4	CAP, Filler	1	41	8D-07	NUT, Lash Adjuster	1
13	5K-432	NIPPLE, Filler	1	42	851770	ADJUSTER, Lash	1
14	10J-09	BALL	106	43	853182	COVER ASSY, Housing Side (Inc. 39)	1
15	853412	GUIDE, Ball Return	4	44	1C-612	BOLT, Side Cover	3
16	853380	GASKET, Adapter	1	45	2E-06	LKWSHR, Side Cover	3
17	3E-07	LKWSHR, Adapter	4	46	851756	GASKET, Side Cover	1
18	1C-720	BOLT, Adapter	4	47	730143	BEARING, Housing	1
19	853357	BUSHING, Pitman Shaft	1	48	622026	CONNECTOR ASSY, Horn Cable	1
20	853391	SEAL, Pitman Shaft Grease	1	48A	518346	GASKET, Horn Connector	1
21	4E-18	LKWSHR, Pitman Shaft	1	49	622027	SCREW, Horn Connector	2
22	850756	NUT, Pitman Arm	1	50	622028	COVER, Horn Cable Connector	1
23	58K-232	"O" RING, Valve	2	51	945050	CONTACT ASSY, Horn Cable	1
24	940125	ARM, Pitman	1	52	3G-1003	SCREW, Connector Cover	2
25	943667	COVER, Valve End	1	52A	17E-10	LKWSHR, Connector Cover	2
26	2E-06	LKWSHR, End Cover	3	53	648304	NUT, Steering Wheel	1
27	1C-656	BOLT, End Cover	3	54	853368	TERMINAL ASSY, Horn	1
28	873250	NUT, Worm Bearing	1	55	695930	SCREW, Horn Button	4

§Not Sold Separately

\*NOTE: For replacement use 562502.

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



**STEERING GEAR ASSEMBLY**

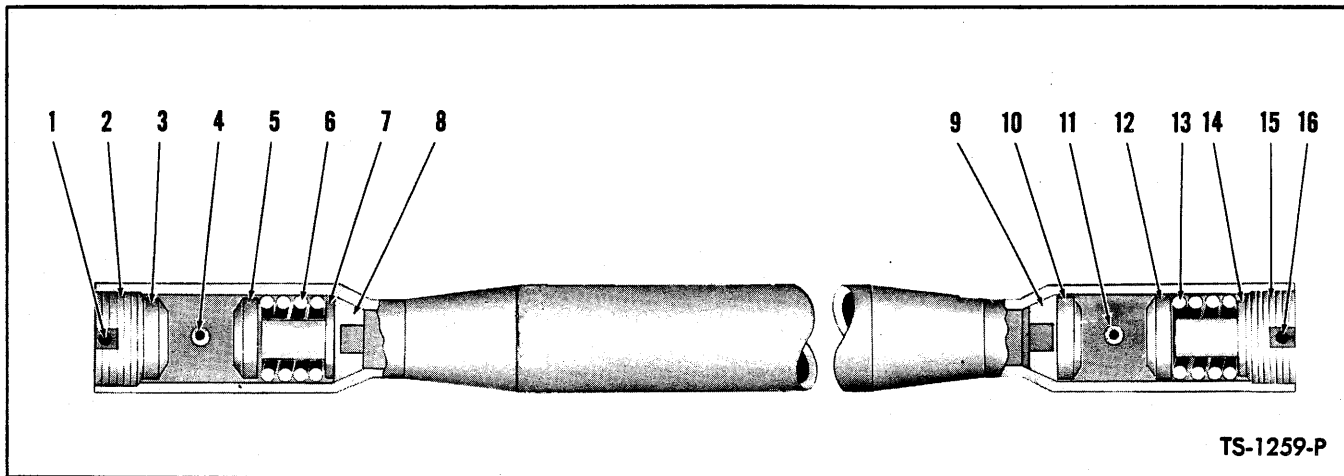
For Serial: G.M. - 2CG101 thru 5CG999. Wauk. - 2CA101 thru 4CA999

TS-2955-P

**STEERING GEAR ASSEMBLY**  
**For Serial: G.M. — 6CG101 and after**  
**Wauk. — 5CA101 and after**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	562502	STEERING GEAR ASSY (Inc. 3 thru 23, 25 thru 47, 51, 54)	1	29	943429	SPRING, Worm Bearing	1
1	639796	HORN BUTTON ASSY	1	30	860997	BEARING, Worm Thrust	2
2	1508704	WHEEL, Steering	1	31	961542	VALVE ASSY, Hydraulic (Inc. 32 thru 34)	1
3	853384	KEY, Steering Wheel	1	32	861755	PLUNGER, Valve Centering	10
4	853395	SPRING, Steering Shaft — Upper	1	33	945774	SPRING, Valve Centering	5
5	861768	WASHER, Steering Shaft — Upper	1	34	—	§SPOOL, Valve (See 31)	1
6	857729	BEARING ASSY, Upper	1	35	861738	ADAPTER ASSY (Inc. 36, 37)	1
7	945205	HOUSING ASSY (Inc. 19, 47)	1	36	25K-40108	"O" RING, Adapter	1
8	945206	SHAFT ASSY (Inc. 9, 10, 11, 14, 15, 51, 54)	1	37	861741	BEARING, Adapter	1
9	853408	NUT, Ball	1	38	940111	GEAR, Pitman	1
10	851762	BOLT & WASHER, Clamp	3	39	—	§BUSHING, Housing Side Gear Cover (See Item 43)	1
11	853464	CLAMP, Ball Return Guide	1	40	853187	SHIM KIT, Lash Adjuster	1
12	22F-4	CAP, Filler	1	41	8D-07	NUT, Lash Adjuster	1
13	5K-432	NIPPLE, Filler	1	42	851770	ADJUSTER, Lash	1
14	10J-09	BALL	106	43	853182	COVER ASSY, Housing Side (Inc. 39)	1
15	853412	GUIDE, Ball Return	4	44	1C-612	BOLT, Side Cover	3
16	853380	GASKET, Adapter	1	45	2E-06	LKWSHR, Side Cover	3
17	3E-07	LKWSHR, Adapter	4	46	851756	GASKET, Side Cover	1
18	1C-720	BOLT, Adapter	4	47	730143	BEARING, Housing	1
19	853357	BUSHING, Pitman Shaft	1	48	622026	CONNECTOR ASSY, Horn Cable	1
20	853391	SEAL, Pitman Shaft Grease	1	48A	518346	†GASKET, Horn Connector	1
21	3E-18	LKWSHR, Pitman Shaft	1	49	622027	SCREW, Horn Connector	2
22	850756	NUT, Pitman Shaft	1	50	622028	COVER, Horn Cable Connector	1
23	58K-232	"O" RING, Valve	2	51	945775	CONTACT ASSY, Horn Cable	1
24	940125	PITMAN ARM	1	52	3G-1003	SCREW, Connector Cover	2
25	943667	COVER, Valve End	1	52A	17E-10	†LKWSHR, Connector Cover	2
26	2E-06	LKWSHR, End Cover	3	53	648304	NUT, Steering Wheel	1
27	1C-656	BOLT, End Cover	3	54	853368	TERMINAL ASSY, Horn	1
28	873250	NUT, Worm Bearing	1	55	695930	SCREW, Horn Button	4

§Not Sold Separately  
 †Not Illustrated

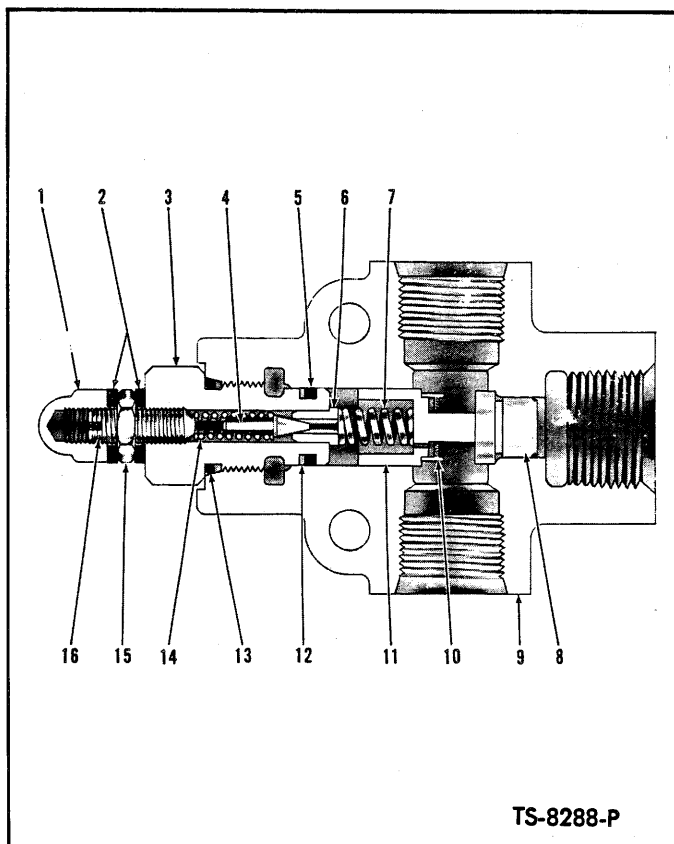


TS-1259-P

**STEERING DRAG LINK**

Item No.	Part No.	Description	No. Req'd.
A	533228	DRAG LINK ASSY (Inc. 2, 3, 5 thru 10, 12 thru 15)	1
1	1F-432	COTTER, Adjusting Nut	1
2	876575	NUT, Adjusting	1
3	865965	SEAT, Ball Stud	1
4	12H-15	FITTING, Drag Link Grease	1
5	865965	SEAT, Ball Stud	1
6	865961	SPRING	1
7	662691	SEAT, Spring	1

Item No.	Part No.	Description	No. Req'd.
8	865963	SEAT	1
9	865963	SEAT	1
10	865965	SEAT, Ball Stud	1
11	10H-25	FITTING, Drag Link 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, Adjusting Nut	1



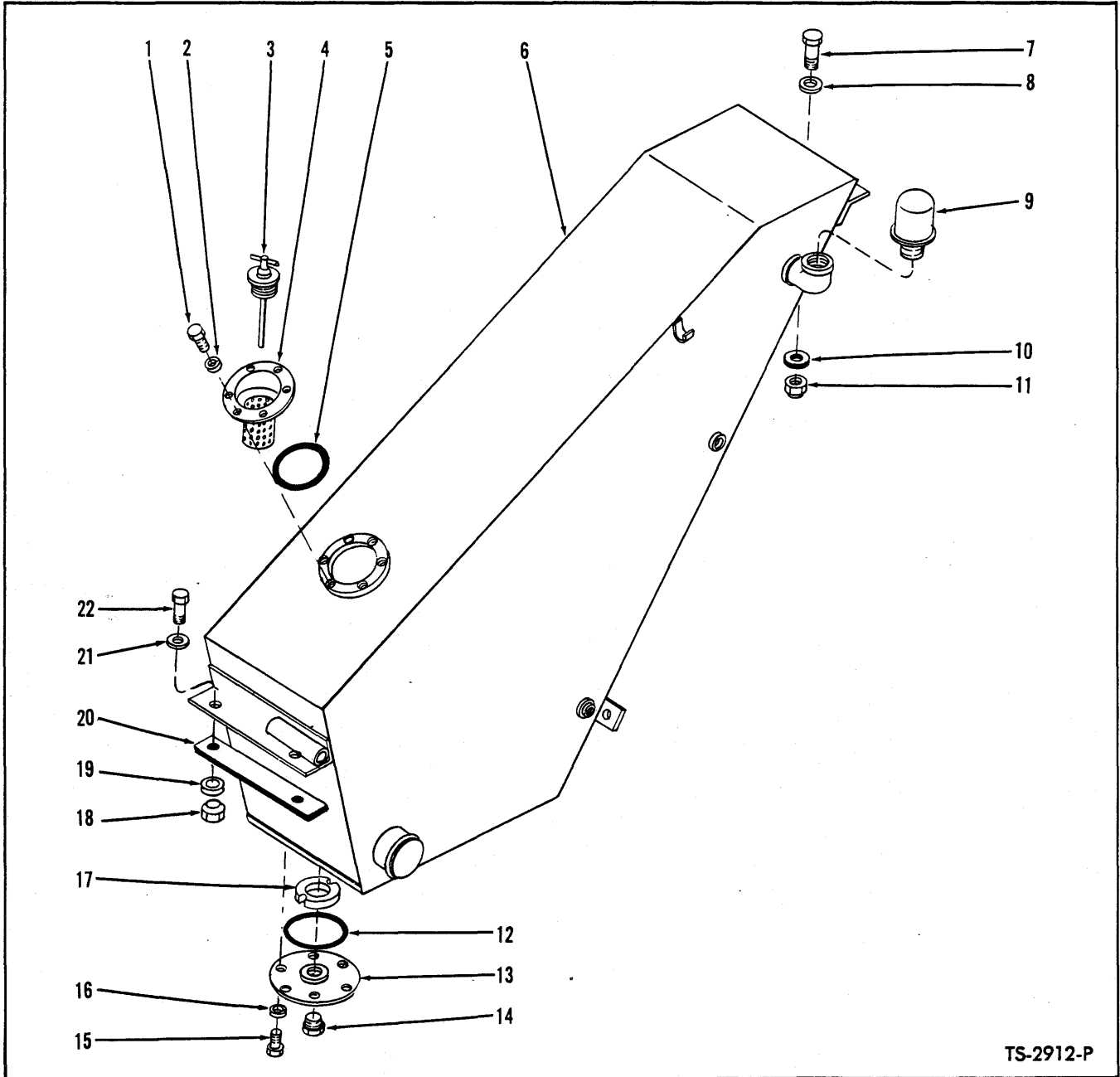
TS-8288-P

**PRESSURE RELIEF VALVE — STEERING SYSTEM**

Item No.	Part No.	Description	No. Req'd.
A	536539	VALVE ASSY (Inc. 1 thru 17)	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	899039	"O" RING	1
6	944469	SEAT, Pilot	1
7	944646	SPRING	1
8	944645	SEAT, Poppet	1
9	—	§BODY, Valve — Order Item "A"	—
10	—	§SCREEN, Poppet — Order Item 11	—
11	944643	POPPET ASSY (Inc. 10)	1
12	899038	RING, Back-Up	1
13	944471	SPRING, Pilot	1
14	91F-6	"O" RING, Valve Cap	1
15	8D-05	NUT, Jam	1
16	33G-514	SCREW, Adjusting Set	1
17	40K-02	†PLUG	2

§Not Sold Separately  
†Not Illustrated

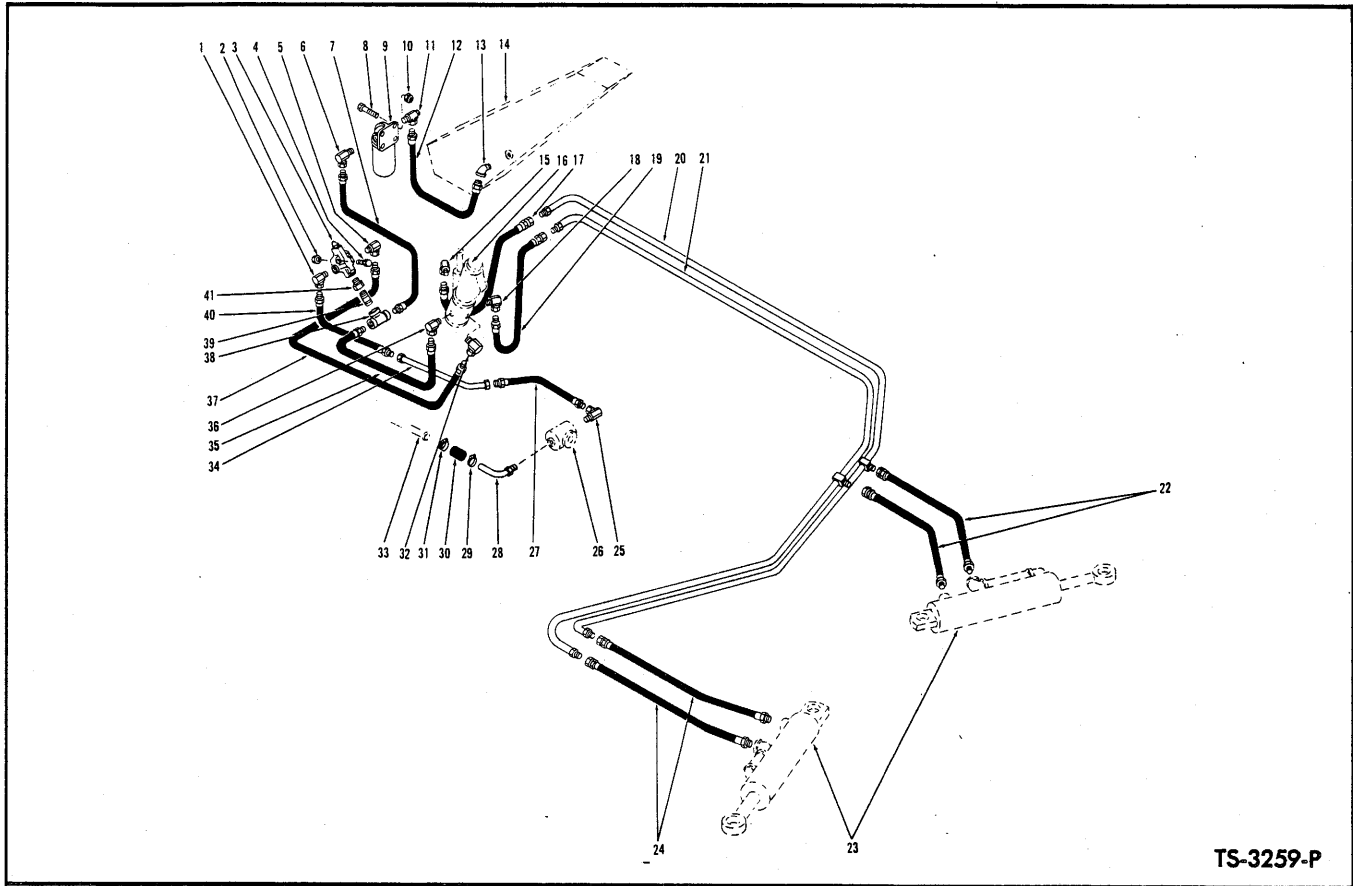
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



**HYDRAULIC OIL RESERVOIR**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-612	BOLT, Filler Cap to Reservoir	6	13	587613	COVER, Inspection	1
2	4E-06	LKWSHR, Filler Cap to Reservoir	6	14	40K-16	PLUG, Inspection Cover	1
3	538286	PLUG, Filler	1	15	18C-612	BOLT, Inspection Cover to Reservoir	6
4	539987	CAP, Filler	1	16	4E-06	LKWSHR, Inspection Cover to Reservoir	6
5	25K-40428	"O" RING, Filler Cap	1	17	525293	MAGNET	1
6	535873	RESERVOIR, Hydraulic Oil	1	18	70D-08	NUT, Reservoir Mounting	2
7	18C-828	BOLT, Reservoir Mounting	1	19	71D-08	BASE, Reservoir Mounting Nut	2
8	25E-21	WASHER, Reservoir Mounting	1	20	549281	PAD, Reservoir Mounting - Bottom	2
9	538240	CAP, Breather	1	21	25E-21	WASHER, Reservoir Mounting	2
10	518233	PAD, Reservoir Mounting - Top	1	22	18C-836	BOLT, Reservoir Mounting	2
11	18D-08	NUT, Reservoir Mounting	1				
12	25K-40428	"O" RING, Inspection Cover	1				

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

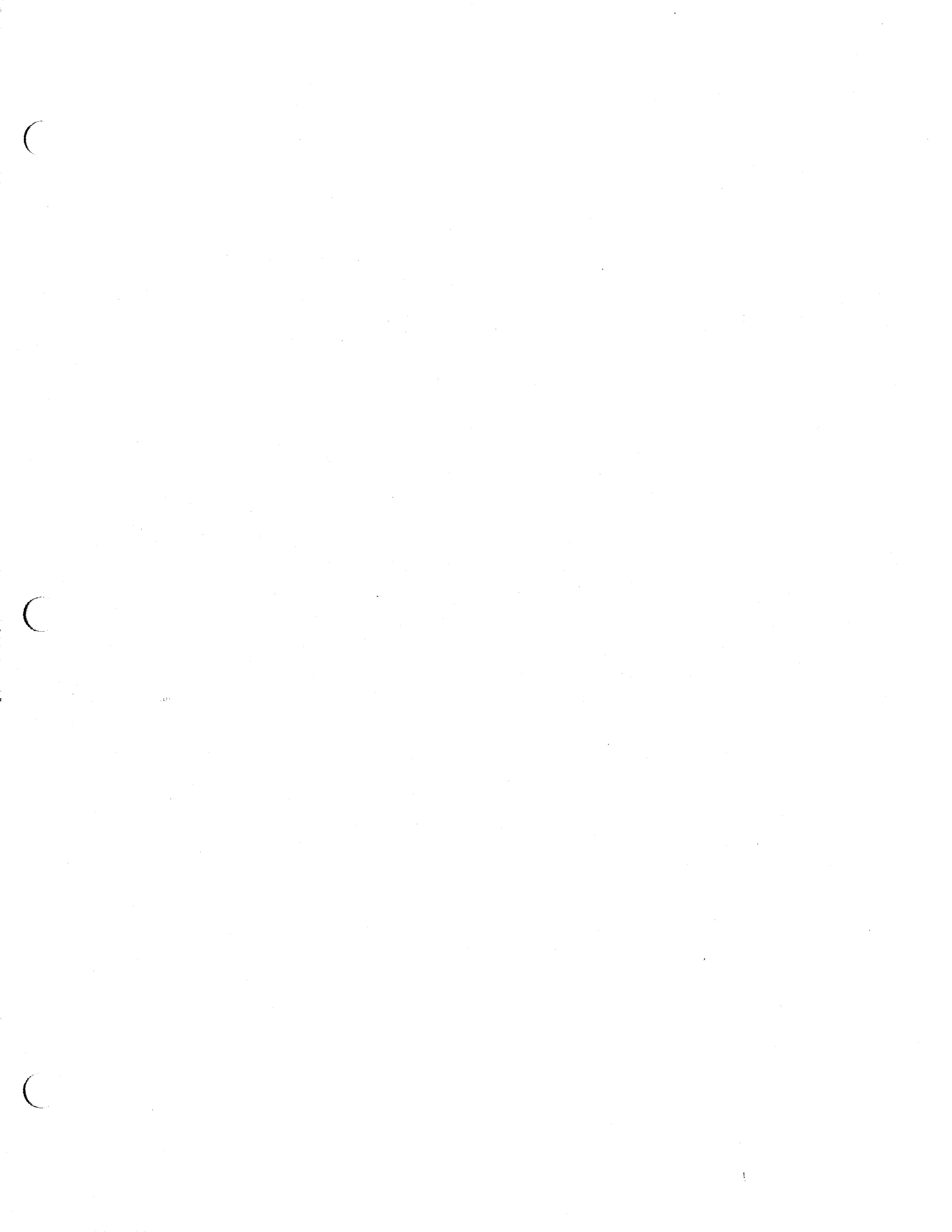


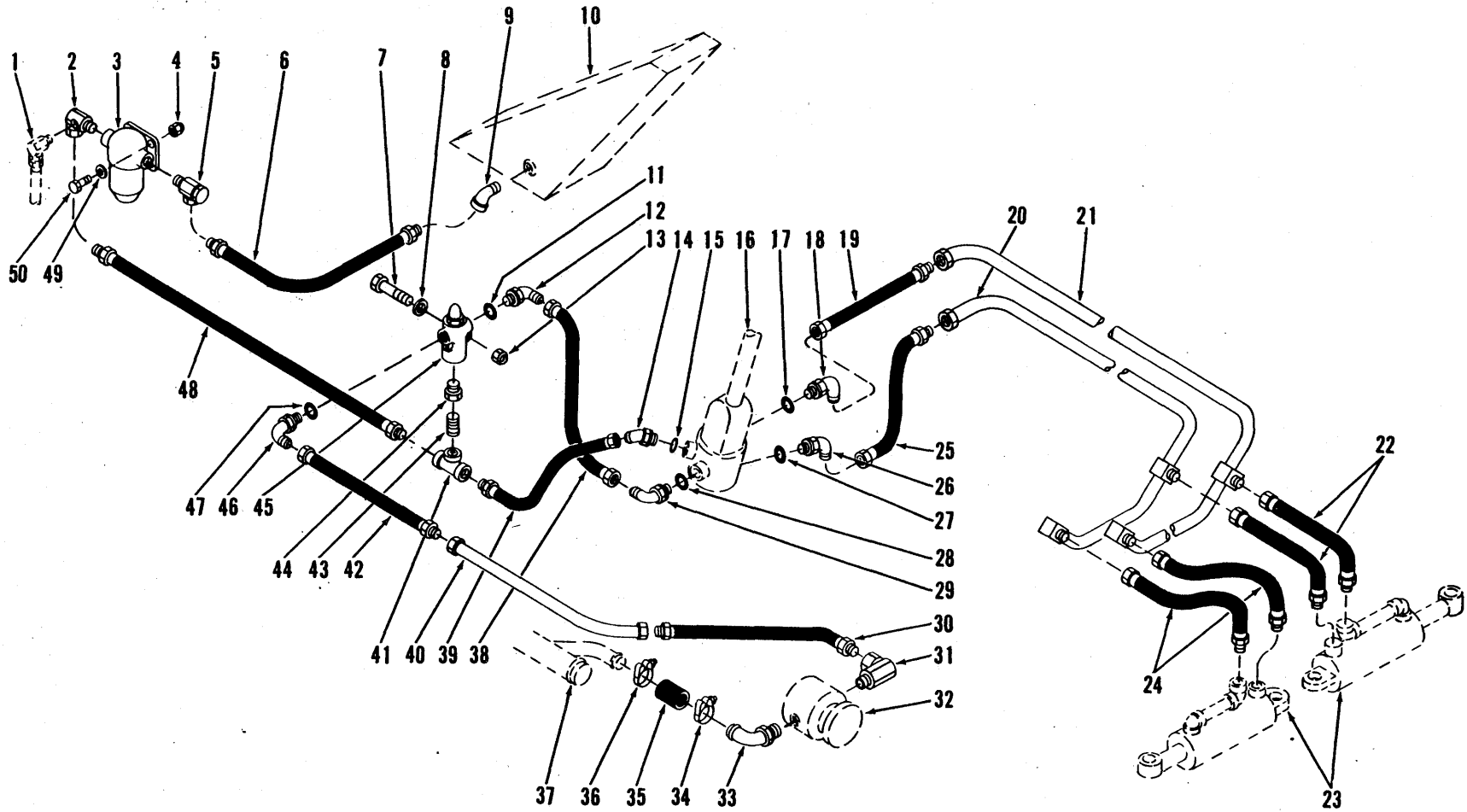
**STEERING HYDRAULIC SYSTEM – GAS**  
**For Serial: 2CA101 thru 3CA185**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	17K-7	ADAPTER UNION (Inc. 1A)	1	19	541050	HOSE, Steering Gear to Tube – Right Turn	1
1A	91F-7	†“O” RING, Adapter Union	1	20	535106	LINE, Lower Steering – Left Turn	1
2	18D-05	NUT, Relief Valve Mounting	2	21	535105	LINE, Upper Steering – Right Turn	1
3	—	RELIEF VALVE, Steering Pressure – See Index	—	22	533927	HOSE, Steering Lines to Cylinder	2
4	18C-540	BOLT, Relief Valve Mounting	2	23	—	STEERING CYLINDER – See Index	—
5	17K-7	ADAPTER UNION (Inc. 5A)	1	24	533927	HOSE, Steering Lines to Cylinders	2
5A	91F-7	†“O” RING, Adapter Union	1	25	711053	ADAPTER UNION	1
6	711053	ADAPTER UNION	1	26	—	STEERING PUMP – See Index	1
7	518390	HOSE, Relief Valve Tee to Filter	1	27	799068	HOSE, Pump to Line – Pressure	1
8	18C-624	BOLT, Filter Mounting	4	28	535325	STEM, Pump Suction	1
8A	25E-18	†WASHER, Filter Mounting	4	29	540129	CLAMP, Hose	1
9	1533615	FILTER, Steering System Oil (Inc. 9A)	1	30	536749	HOSE, Tube to Stem	1
9A	215502	†CARTRIDGE KIT, Oil Filter	1	31	540129	CLAMP, Hose	1
10	18D-06	NUT, Filter Mounting	4	32	17K-7	ADAPTER UNION (Inc. 32A)	1
11	6K-12	CHECK VALVE, Filter to Return Line	1	32A	91F-7	†“O” RING, Adapter Union	1
12	542813	HOSE, Filter to Reservoir	1	33	—	TUBE, Main Suction (See Bucket & Boom Hydraulic System)	—
13	25F-5	ELBOW, Hose to Reservoir	1	34	536089	LINE, Pump to Relief Valve	1
14	—	RESERVOIR, Hydraulic Oil—See Index	—	35	675015	HOSE, Steering Gear to Valve Tee	1
15	17K-6	ADAPTER UNION (Inc. 15A)	1	36	18K-7	ADAPTER UNION (Inc. 36A)	1
15A	91F-6	†“O” RING, Adapter Union	1	36A	91F-7	†“O” RING, Adapter Union	1
16	—	STEERING GEAR – See Index	—	37	547230	HOSE, Steering Gear to Relief Valve	1
17	541050	HOSE, Steering Gear to Tube – Left Turn	1	38	18F-4	TEE, Relief Valve	1
18	17K-6	ADAPTER UNION (Inc. 18A)	1	39	5K-409	NIPPLE, Tee to Valve	1
18A	91F-6	†“O” RING, Adapter Union	1	40	544265	HOSE, Pressure Line to Relief Valve	1
				41	356617	BUSHING, Reducing—Nipple to Valve	1

†Not Illustrated

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





HYDRAULIC SYSTEM – STEERING – GAS

For Serial: 3CA186 thru 3CA999, 4CA101 thru 4CA999, 5CA101 thru 5CA999

TS-5134-P

58A.1

(1E4)

PM 1698



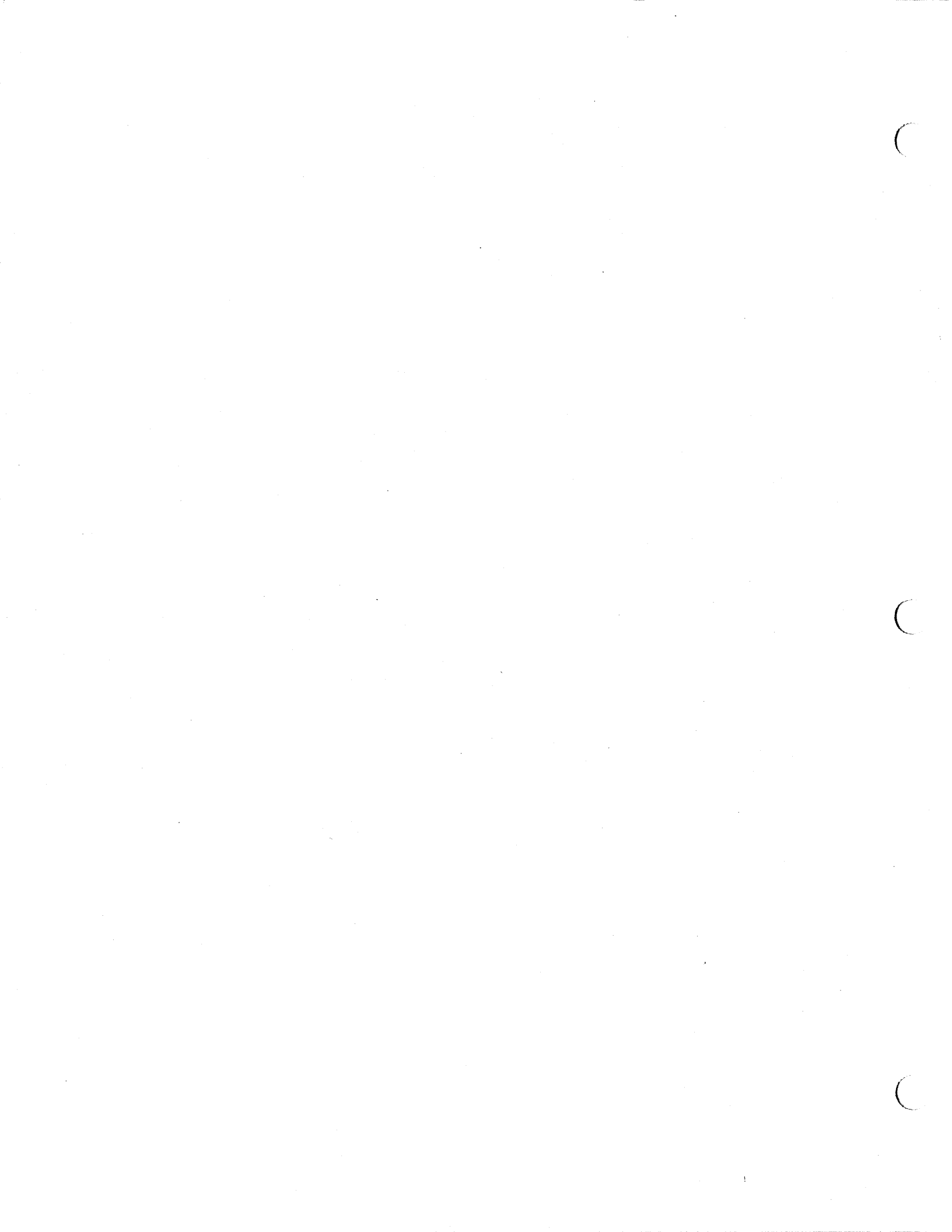
**HYDRAULIC SYSTEM — STEERING — GAS**

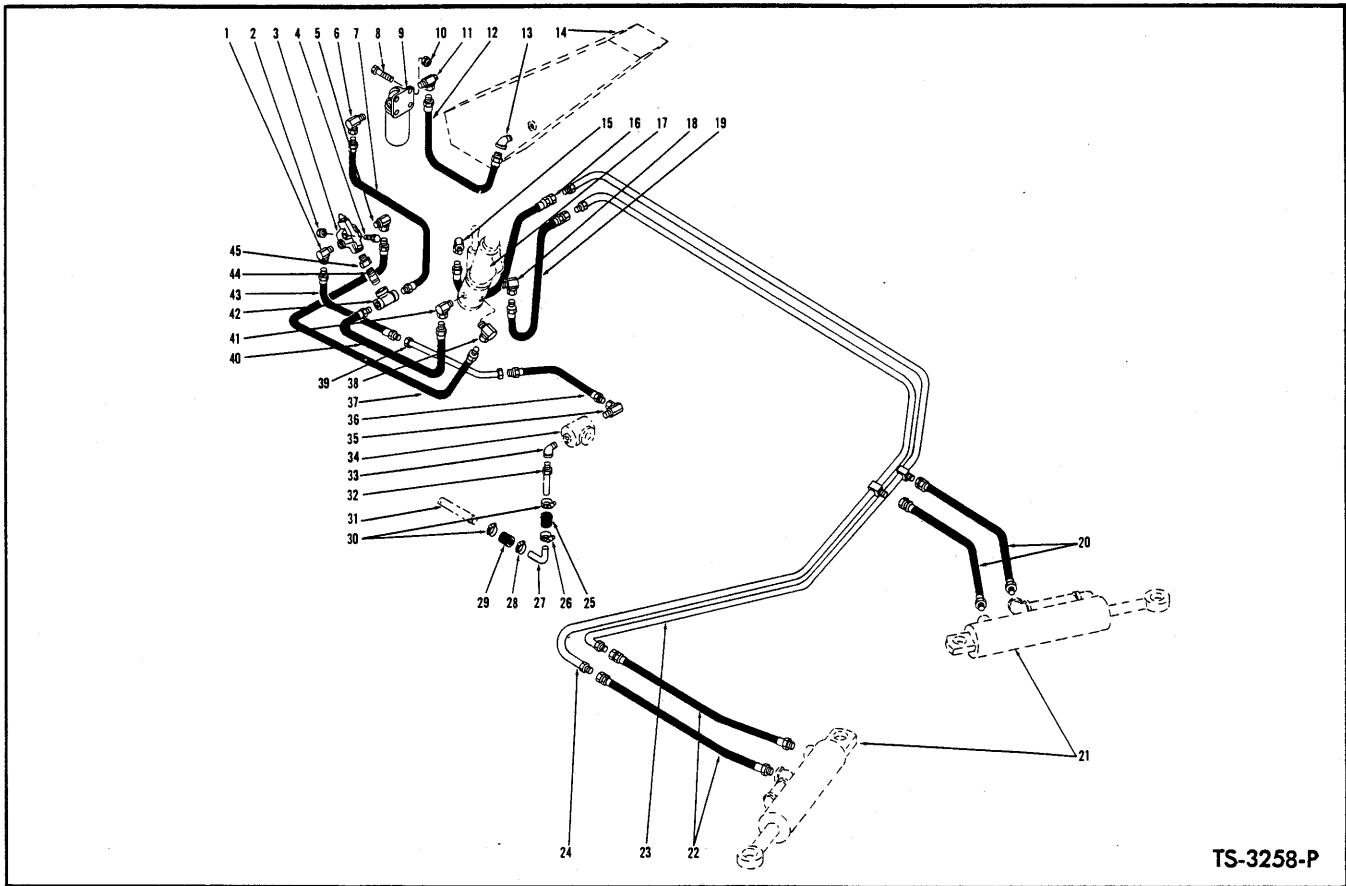
**For Serial 3CA186 thru 3CA999, 4CA101 thru 4CA999, 5CA101 thru 5CA999**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	-----	HOSE, Bucket Leveling Hydraulic System — See Index .....	—	26	17K-6	ADAPTER UNION, Steering Gear to Hose (Inc. 27) .....	1
2	566472	ADAPTER UNION, Filter to Hose .....	1	27	91F-6	"O" RING, Adapter Union .....	1
3	1533615	FILTER, Steering System Oil (Inc. 3A) .....	1	28	91F-7	"O" RING, Adapter Union .....	1
3A	215502	†CARTRIDGE KIT, Oil Filter .....	1	29	17K-7	ADAPTER UNION, Steering Gear to Hose (Inc. 28) .....	1
4	18D-06	NUT, Oil Filter Mounting .....	4	30	799068	HOSE, Pump to Relief Valve Line .....	1
5	6K-12	CHECK VALVE, Filter to Reservoir Hose .....	1	31	711053	ADAPTER UNION, Hose to Pump .....	1
6	542813	HOSE, Filter to Reservoir .....	1	32	-----	STEERING PUMP — See Index .....	—
7	18C-540	BOLT, Relief Valve Mounting .....	2	33	535325	STEM, Pump Suction .....	1
8	25E-15	WASHER, Relief Valve Mounting .....	2	34	540129	CLAMP, Hose .....	1
9	25F-5	ELBOW, Filter Hose to Reservoir .....	1	35	536749	HOSE, Tube to Stem .....	1
10	-----	RESERVOIR, Hydraulic Oil — See Index .....	—	36	540129	CLAMP, Hose .....	1
11	91F-7	"O" RING, Adapter Union .....	1	37	-----	SUCTION TUBE, See Bucket & Boom Hydraulic—See Index .....	—
12	17K-7	ADAPTER UNION, Hose to Relief Valve (Inc. 11) .....	1	38	547230	HOSE, Steering Gear to Relief Valve .....	1
13	18D-05	NUT, Relief Valve Mounting .....	2	39	675015	HOSE, Steering Gear to Valve Tee .....	1
14	18K-7	ADAPTER UNION, Hose to Steering Gear (Inc. 15) .....	1	40	536089	LINE, Pump to Relief Valve .....	1
15	91F-7	"O" RING, Adapter Union .....	1	41	18F-4	TEE, Hoses to Relief Valve Dump .....	1
16	-----	STEERING GEAR — See Index .....	—	42	544265	HOSE, Pressure Line to Relief Valve .....	1
17	91F-6	"O" RING, Adapter Union .....	1	43	5K-409	NIPPLE, Tee to Valve .....	1
18	17K-6	ADAPTER UNION, Hose to Steering Gear (Inc. 17) .....	1	44	356617	BUSHING, Reducing—Nipple to Valve .....	1
19	541050	HOSE, Steering Gear to Tube — L.H. .....	1	45	-----	RELIEF VALVE — See Index .....	—
20	535105	LINE, Upper Steering — R.H. .....	1	46	17K-7	ADAPTER UNION, Hose to Relief Valve (Inc. 47) .....	1
21	535106	LINE, Upper Steering — L.H. .....	1	47	91F-7	"O" RING, Adapter Union .....	1
22	533927	HOSE — Steering Lines to Cylinder .....	2	48	518390	HOSE, Relief Valve Tee to Filter .....	1
23	-----	STEERING CYLINDER — See Index .....	—	49	25E-18	WASHER, Filter Mounting .....	4
24	533927	HOSE, Steering Lines to Cylinder .....	2	50	18C-624	BOLT, Filter Mounting .....	4
25	541050	HOSE, Steering Gear to Tube — R.H. .....	1				

†Not Illustrated

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



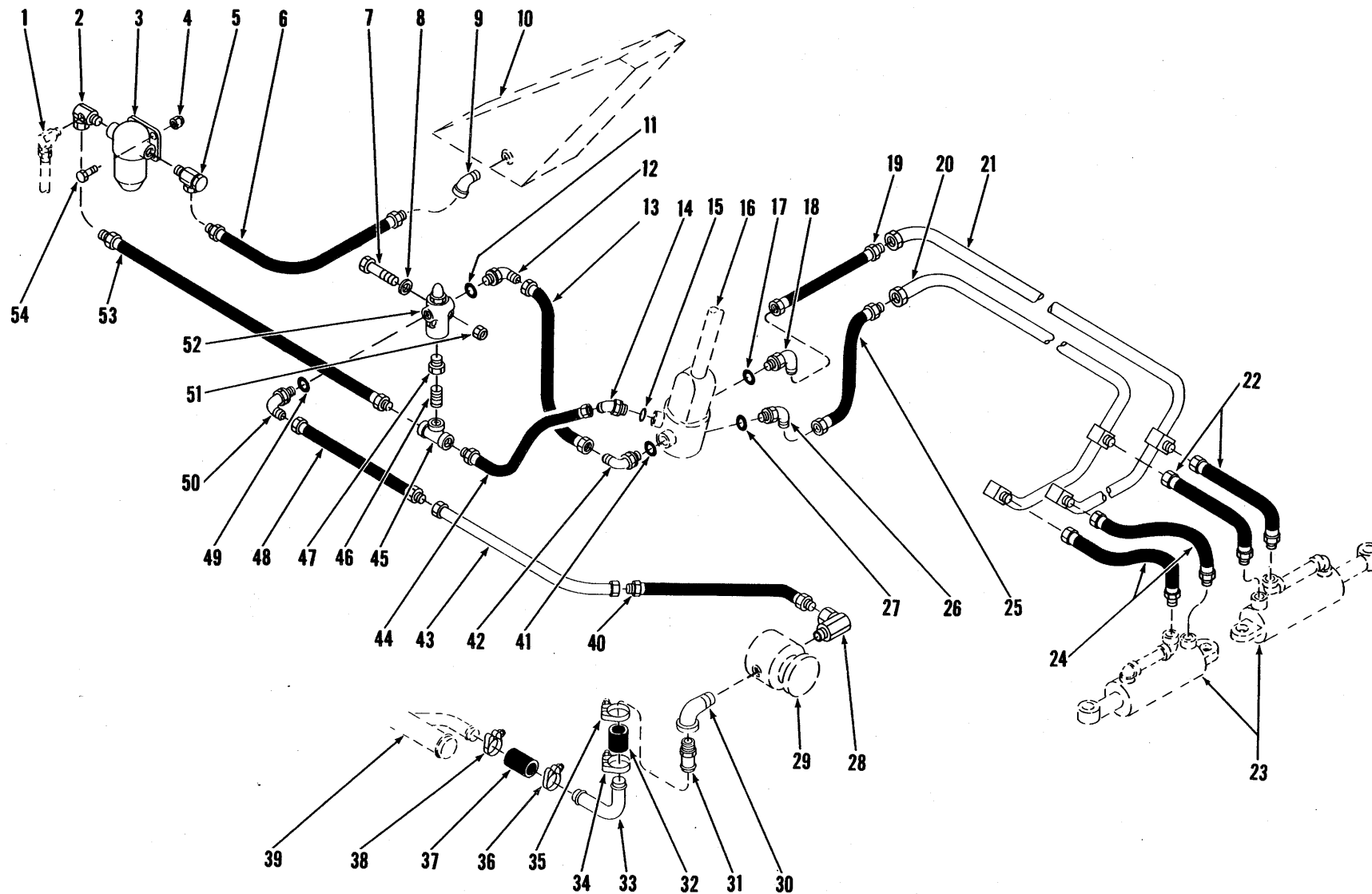


**STEERING HYDRAULIC SYSTEM — G.M.**  
**For Serial: 2CG101 thru 5CG170**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	17K-7	ADAPTER UNION (Inc. 1A)	1	21	-----	STEERING CYLINDER—See Index	—
1A	91F-7	†"O" RING, Adapter Union	1	22	675016	HOSE, Steering Lines to Cylinders	2
2	18D-05	NUT, Relief Valve Mounting	2	23	535105	LINE, Upper Steering—Right Turn	1
3	-----	RELIEF VALVE, Steering Pressure — See Index	—	24	535106	LINE, Lower Steering—Left Turn	1
4	18C-540	BOLT, Relief Valve Mounting	2	25	536749	HOSE, Nipple to Elbow	1
5	17K-7	ADAPTER UNION (Inc. 5A)	1	26	540129	CLAMP, Hose	1
5A	91F-7	†"O" RING, Adapter Union	1	27	544266	ELBOW, Suction	1
6	711053	ADAPTER UNION	1	28	540129	CLAMP, Hose	1
7	518390	HOSE, Relief Valve Tee to Filter	1	29	536749	HOSE, Tube to Elbow	1
8	18C-624	BOLT, Filter Mounting	4	30	540129	CLAMP, Hose	2
9	1533615	FILTER, Steering System Oil (Inc. 9A)	1	31	-----	TUBE, Main Suction (See Bucket & Boom Hydraulic System)	—
9A	215502	†CARTRIDGE KIT, Oil Filter	1	32	667290	NIPPLE, Hose	1
10	18D-06	NUT, Filter Mounting	4	33	26F-6	ELBOW, Nipple to Pump	1
11	6K-12	CHECK VALVE, Filter to Return Line	1	34	-----	STEERING PUMP—See Index	—
12	542813	HOSE, Filter to Reservoir—Return	1	35	711053	ADAPTER UNION	1
13	25F-5	ELBOW, Return Hose to Reservoir	1	36	544264	HOSE, Pump to Line—Pressure	1
14	-----	RESERVOIR, Hydraulic Oil—See Index	—	37	547230	HOSE, Valve to Steering Gear	1
15	17K-6	ADAPTER UNION (Inc. 15A)	1	38	17K-7	ADAPTER UNION (Inc. 38A)	1
15A	91F-6	†"O" RING, Adapter Union	1	38A	91F-7	†"O" RING, Adapter Union	1
16	541050	HOSE, Steering Gear to Tube— Left-Turn	1	39	536089	LINE, Pump to Valve—Pressure	1
17	-----	STEERING GEAR—See Index	—	40	675015	HOSE, Steering Gear to Valve Tee	1
18	17K-6	ADAPTER UNION (Inc. 18A)	1	41	18K-7	ADAPTER UNION (Inc. 41A)	1
18A	91F-6	†"O" RING, Adapter Union	1	41A	91F-7	†"O" RING, Adapter Union	1
19	541050	HOSE, Steering Gear to Tube— Right Turn	1	42	18F-4	TEE, Relief Valve	1
20	675016	HOSE, Steering Lines to Cylinders	2	43	544265	HOSE, Line to Valve	1
				44	5K-409	NIPPLE, Tee to Valve	1
				45	356617	BUSHING, Reducing—Nipple to Valve	1

†Not Illustrated

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



STEERING HYDRAULIC SYSTEM – G.M.  
For Serial: 5CG171 thru 5CG999, 6CG101 thru 6CG999

TS-5159-P

59A.1

(1E7)

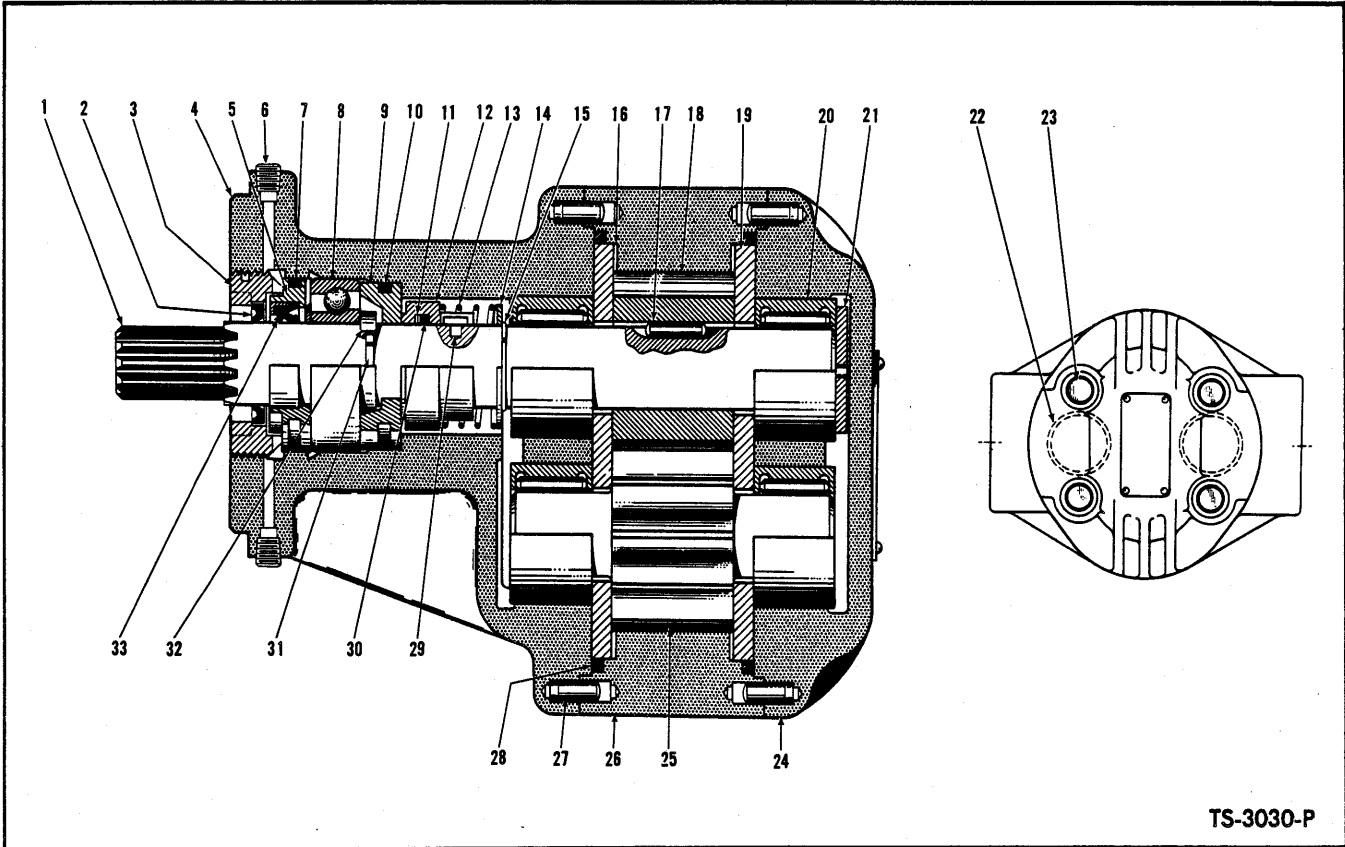
PM 1698

**STEERING HYDRAULIC SYSTEM — G.M.**  
For Serial 5CG171 thru 5CG999, 6CG101 thru 6CG999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	HOSE, Bucket Leveling Hydraulic System — See Index .....	—	27	91F-6	"O" RING, Adapter Union .....	1
2	566472	ADAPTER UNION .....	1	28	711053	ADAPTER UNION, Hose to Pump .....	1
3	1533615	FILTER, Steering Oil (Inc. 3A) .....	1	29	—	PUMP, Steering — See Index .....	—
3A	215502	† CARTRIDGE KIT, Steering Oil Filter ..	1	30	26F-6	ELBOW, Stem to Pump .....	1
4	18D-06	NUT, Oil Filter Mounting .....	4	31	667290	NIPPLE .....	1
5	6K-12	CHECK VALVE, Filter to Reservoir Hose .....	1	32	536749	HOSE, Tube to Stem .....	1
6	542813	HOSE, Filter to Reservoir .....	1	33	544266	TUBE, Suction .....	1
7	18C-540	BOLT, Relief Valve Mounting .....	2	34	540129	CLAMP, Hose .....	1
8	25E-15	WASHER, Relief Valve Mounting .....	2	35	540129	CLAMP, Hose .....	1
9	25F-5	ELBOW, Filter Hose to Reservoir .....	1	36	540129	CLAMP, Hose .....	1
10	—	RESERVOIR, Hydraulic Oil— See Index .....	—	37	536749	HOSE, Tube to Tube .....	1
11	91F-7	"O" RING, Adapter Union .....	1	38	540129	CLAMP, Hose .....	1
12	17K-7	ADAPTER UNION, Relief Valve to Hose (Inc. 11) .....	1	39	—	TUBE, Main Suction — See Index .....	—
13	547230	HOSE, Relief Valve to Steering Gear ..	1	40	544264	HOSE, Pump to Line Pressure .....	1
14	18K-7	ADAPTER UNION, Steering Gear to Hose (Inc. 15) .....	1	41	91F-7	"O" RING, Adapter Union .....	1
15	91F-7	"O" RING, Adapter Union .....	1	42	17K-7	ADAPTER UNION, Steering Gear to Hose (Inc. 41) .....	1
16	—	STEERING GEAR — See Index .....	—	43	536089	TUBE, Pump to Relief Valve .....	1
17	91F-6	"O" RING, Adapter Union .....	1	44	675015	HOSE, Relief Valve to Line Pressure ..	1
18	17K-6	ADAPTER UNION, Steering Gear to Hose (Inc. 17) .....	1	45	18F-4	TEE, Relief Valve .....	1
19	541050	HOSE, Steering Gear to Tube — L.H. ..	1	46	5K-409	NIPPLE, Tee to Valve .....	1
20	535105	LINE, Upper Steering — R.H. .....	1	47	356617	BUSHING, Reducing—Nipple to Valve ..	1
21	535106	LINE, Lower Steering — L.H. .....	1	48	544265	HOSE, Pressure Line to Relief Valve ..	1
22	675016	HOSE, Steering Lines to Cylinder .....	2	49	91F-7	"O" RING, Adapter Union .....	1
23	—	STEERING CYLINDERS — See Index .....	—	50	17K-7	ADAPTER UNION, Hose to Relief Valve (Inc. 49) .....	1
24	675016	HOSE, Steering Lines to Cylinder .....	2	51	—	RELIEF VALVE — See Index .....	—
25	541050	HOSE, Steering Gear to Tube — R.H. ..	1	52	18D-05	NUT, Relief Valve Mounting .....	2
26	17K-6	ADAPTER UNION, Steering Gear to Hose (Inc. 27) .....	1	53	518390	HOSE, Relief Valve Tee to Filter .....	1
				54	18C-624	BOLT, Filter Mounting .....	4

†Not Illustrated

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

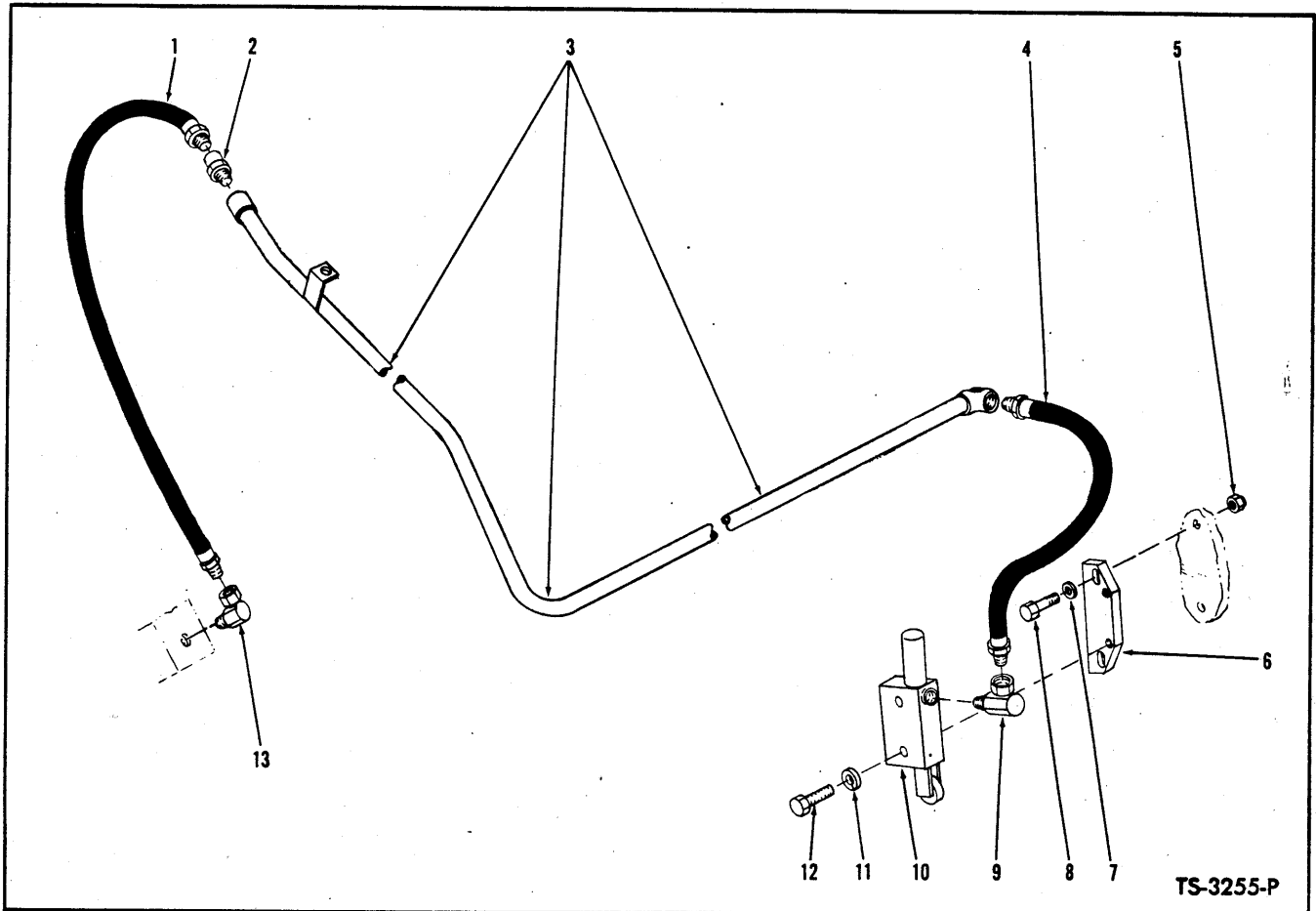


**HYDRAULIC PUMP – BUCKET AND BOOM**

Item No.	Part No.	Description	No. Req'd.
A	539744	PUMP ASSY (Inc. 1 thru 33)	1
B	944710	REPAIR KIT, Minor (Inc. 2, 7, 9, 12, 15, 16, 22, 28, 31, 32, 33)	1
C	944712	GEAR & SHAFT SET (Inc. 1, 17, 18, 25)	1
D	944776	SEAL KIT, Shaft (Inc. 2, 7, 33)	1
E	944777	BEARING KIT (Inc. 8, 20)	1
F	944787	WEAR PLATE SET (Inc. 16, 19)	1
1	---	§SHAFT, Drive (See C)	1
2	---	§SEAL, Shaft Outer (See B & D)	1
3	944782	RETAINER, Shaft Outer Seal	1
4	---	§ADAPTER, Pump (See A)	1
5	944783	RETAINER, Shaft Inner Seal	1
6	16F-01	PLUG, Adapter Port	3
7	---	§"O" RING, Retainer (See B & D)	1
8	884605	BEARING, Shaft (See E)	1
9	---	§SEAT ASSY, Seal (Inc. 10) (See B)	1
10	---	§"O" RING, Seal Seat (See B)	1
11	---	§WASHER, "O" Ring Back-Up (See B)	1
12	---	§SEAL ASSY, High Pressure (Inc. 11, 13, 14, 29, 30) (See B)	1
13	---	§SPRING, High Pressure Seal (See B)	1
14	---	§WASHER, High Pressure Seal (See B)	1

Item No.	Part No.	Description	No. Req'd.
15	---	§RING, Snap (See B)	1
16	---	§SHIM, Wear Plate (See B & F)	3
17	---	§PIN, Shaft to Gear Dowel (See C)	1
18	---	§GEAR, Drive (See C)	1
19	---	§PLATE, Wear (See F)	2
20	---	§BEARING, Roller (See E)	4
21	884614	WASHER, Thrust	1
22	---	§"O" RING (See B)	4
23	12G-1072	BOLT, Cover & Housing to Adapter	4
24	---	§COVER, Pump (See A)	1
25	---	§GEAR, Driven (See C)	1
26	944779	HOUSING, Pump Center Section	1
27	867753	PIN, Housing to Adapter & Cover Dowel	4
28	---	§"O" RING, Housing (See B)	2
29	---	§KEY, Drive (See B)	1
30	---	§"O" RING, High Pressure Seal (See B)	1
31	---	§RING, Drive Shaft Snap (See B)	1
32	---	§RETAINER, Shaft Snap Ring (See B)	1
33	---	§SEAL, Shaft Inner (See B & D)	1
34	235961	†GASKET, Pump to Converter	1
35	8D-06	†NUT, Pump to Converter	6
36	214962	†SLEEVE, Pump Drive	1
37	4E-06	†LKWSHR, Pump to Converter	6

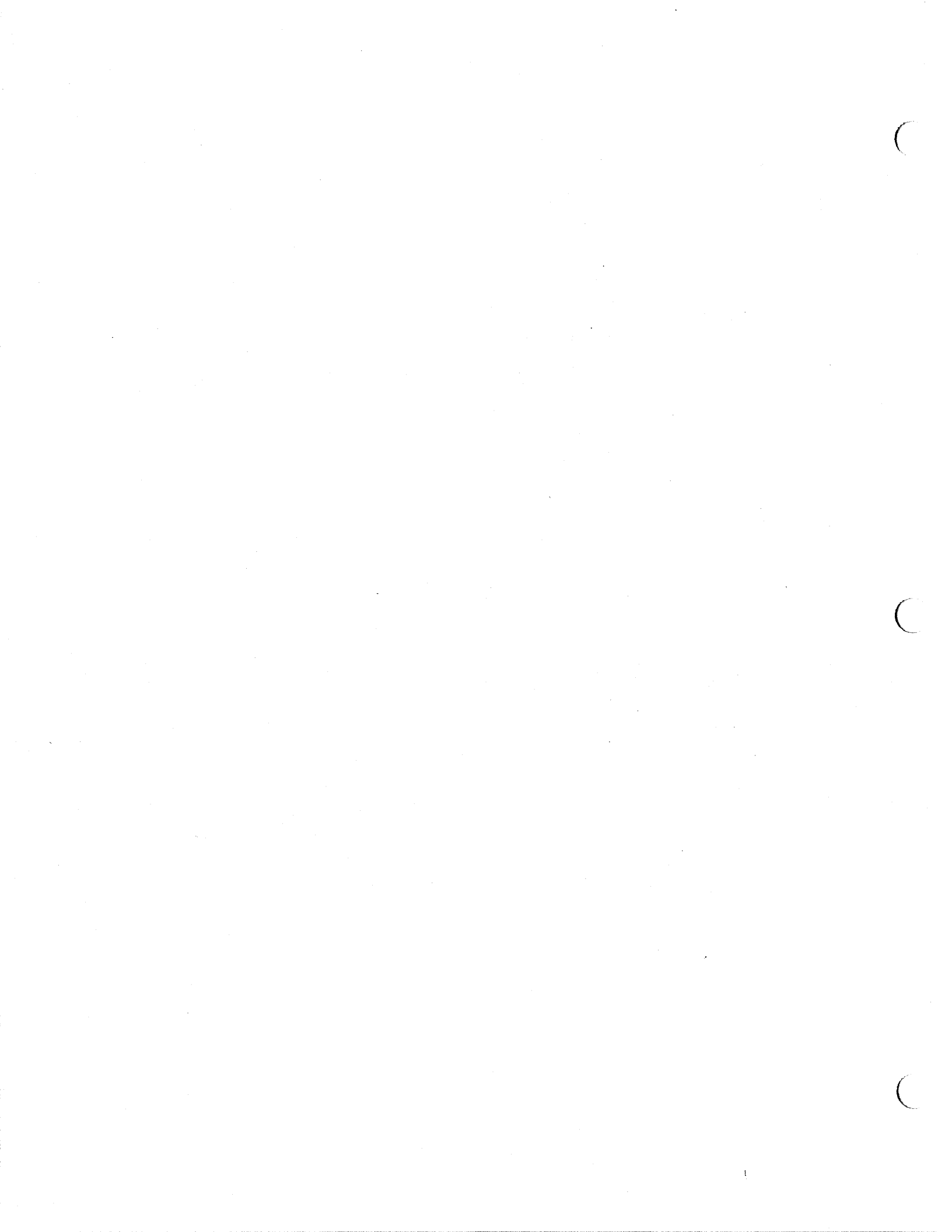
§Not Sold Separately – Order Kits.  
†Not Illustrated



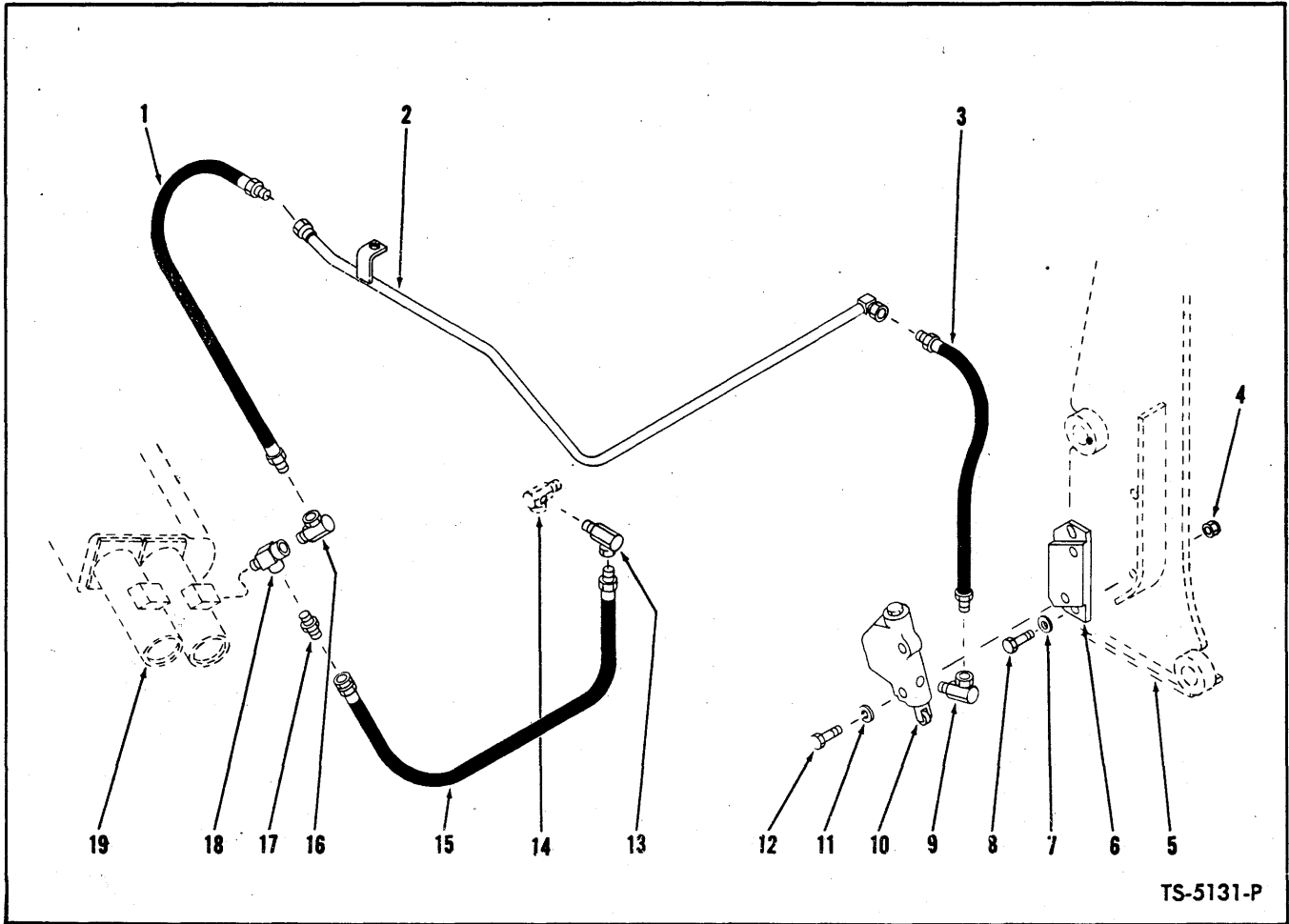
**HYDRAULIC SYSTEM — BUCKET LEVELING**  
**For Serial: G.M. — 2CG101 thru 5CG170**  
**Wauk. — 2CA101 thru 3CA185**

Item No.	Part No.	Description	No. Req'd.
1	541794	HOSE, Main Hydraulic Valve to Pipe .....	1
2	36F-2	ADAPTER UNION .....	1
3	539158	PIPE ASSY .....	1
4	610236	HOSE, Master Cylinder to Pipe .....	1
5	18D-06	NUT, Mounting Plate to Carrier .....	2
6	542639	PLATE, Mounting .....	1
7	619023	WASHER, Mounting Plate to Carrier .....	2
8	18C-628	BOLT, Mounting Plate to Carrier .....	2
9	31F-2	ADAPTER UNION .....	1
10	—	MASTER CYLINDER, Bucket Leveling — See Index .....	—
11	4E-06	LKWSHR, Master Cylinder to Mounting Plate .....	2
12	18C-644	BOLT, Master Cylinder to Mounting Plate .....	2
13	31F-2	ADAPTER UNION .....	1

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







**HYDRAULIC SYSTEM — BUCKET LEVELING**

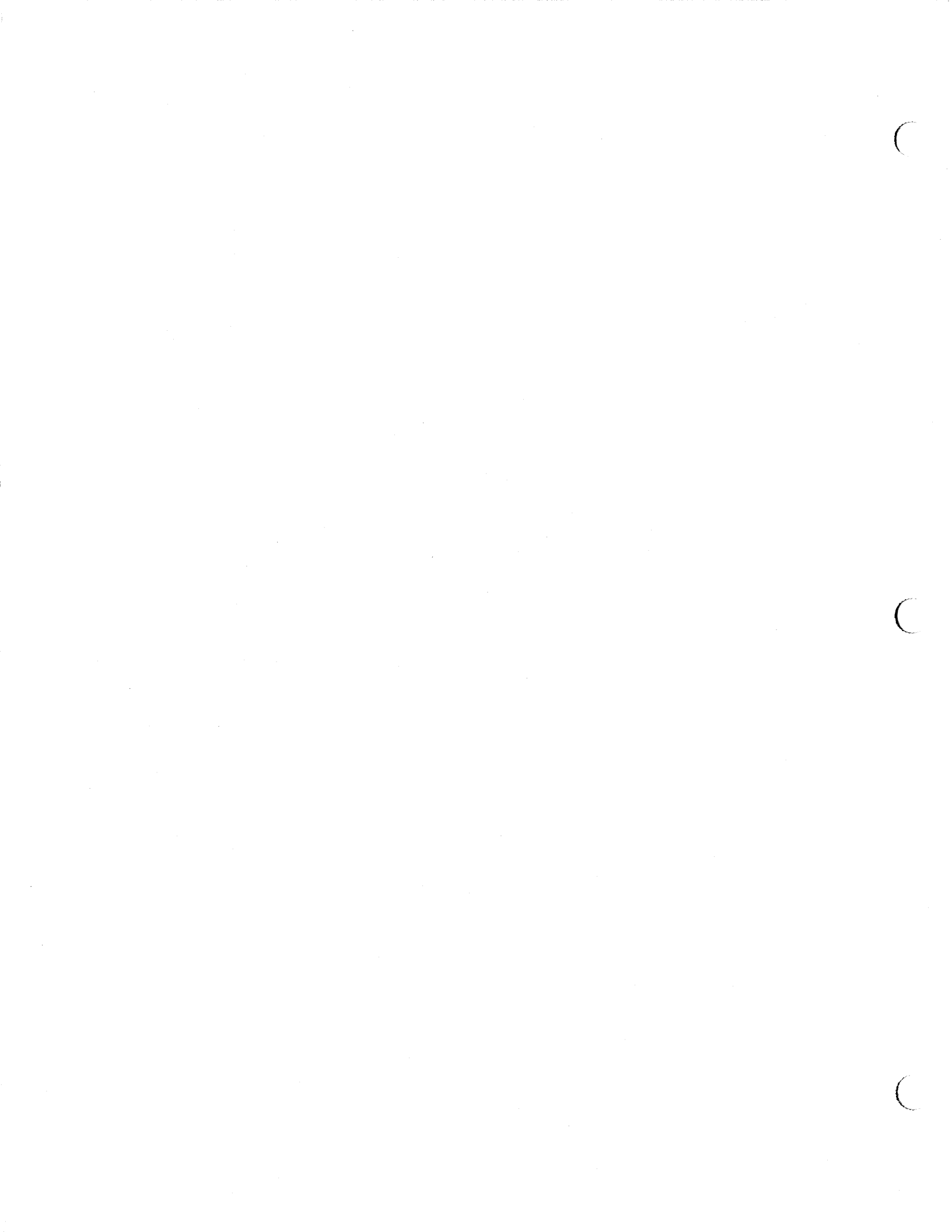
**For Serial: G.M. — 5CG171 and after**

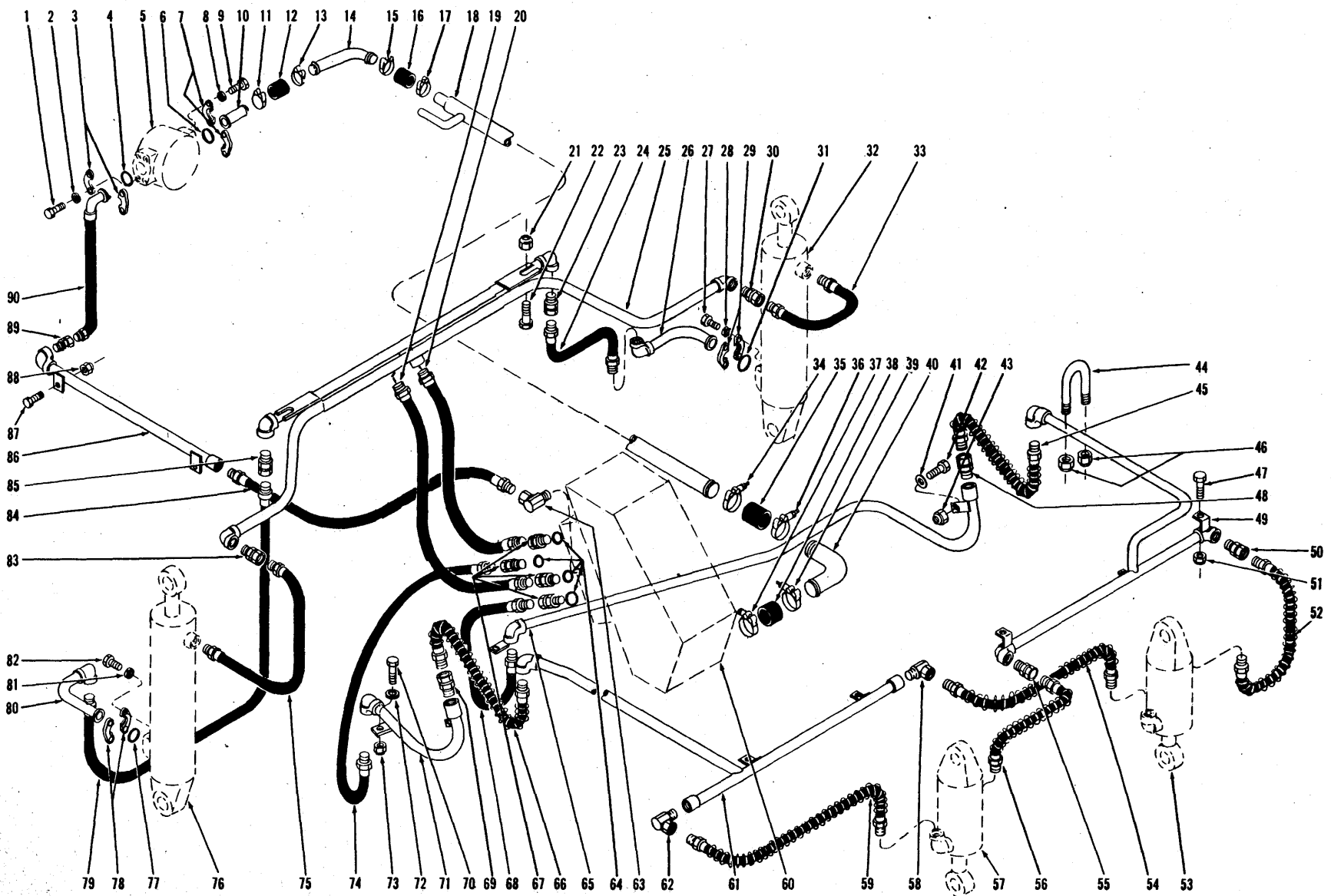
**Wauk. — 3CA186 and after**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	541794	HOSE, Control Valve to Line .....	1	11	4E-06	LKWSHR, Master Cylinder Mounting	2
2	589742	*LINE, Control Valve to Leveler Valve	1	12	18C-644	BOLT, Master Cylinder Mounting ....	2
3	610236	HOSE, Leveler Valve to Line .....	1	13	31F-1	ADAPTER UNION, Hose to Steering Elbow .....	1
4	18D-06	NUT, Plate Mounting .....	2	14	—	ELBOW, See Index .....	—
5	—	BUCKET CARRIER — See Index .....	—	15	562751	HOSE, Adapter Union to Check Valve	1
6	588224	PLATE, Master Cylinder Mounting ....	1	16	31F-2	ADAPTER UNION .....	1
7	619023	WASHER, Plate Mounting .....	2	17	568524	CHECK VALVE .....	1
8	18C-628	BOLT, Plate Mounting .....	2	18	30F-1	TEE, Hose to Control Valve .....	1
9	31F-2	ADAPTER UNION, Master Cylinder ..	1	19	—	CONTROL VALVE — See Index .....	—
10	—	MASTER CYLINDER — See Index ...	—				

\*NOTE: For replacement use 539158 plus 1—36F-2 Adapter Union.

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





HYDRAULIC SYSTEM - BUCKET AND BOOM - GAS

TS-3299-P

62

(1D17)

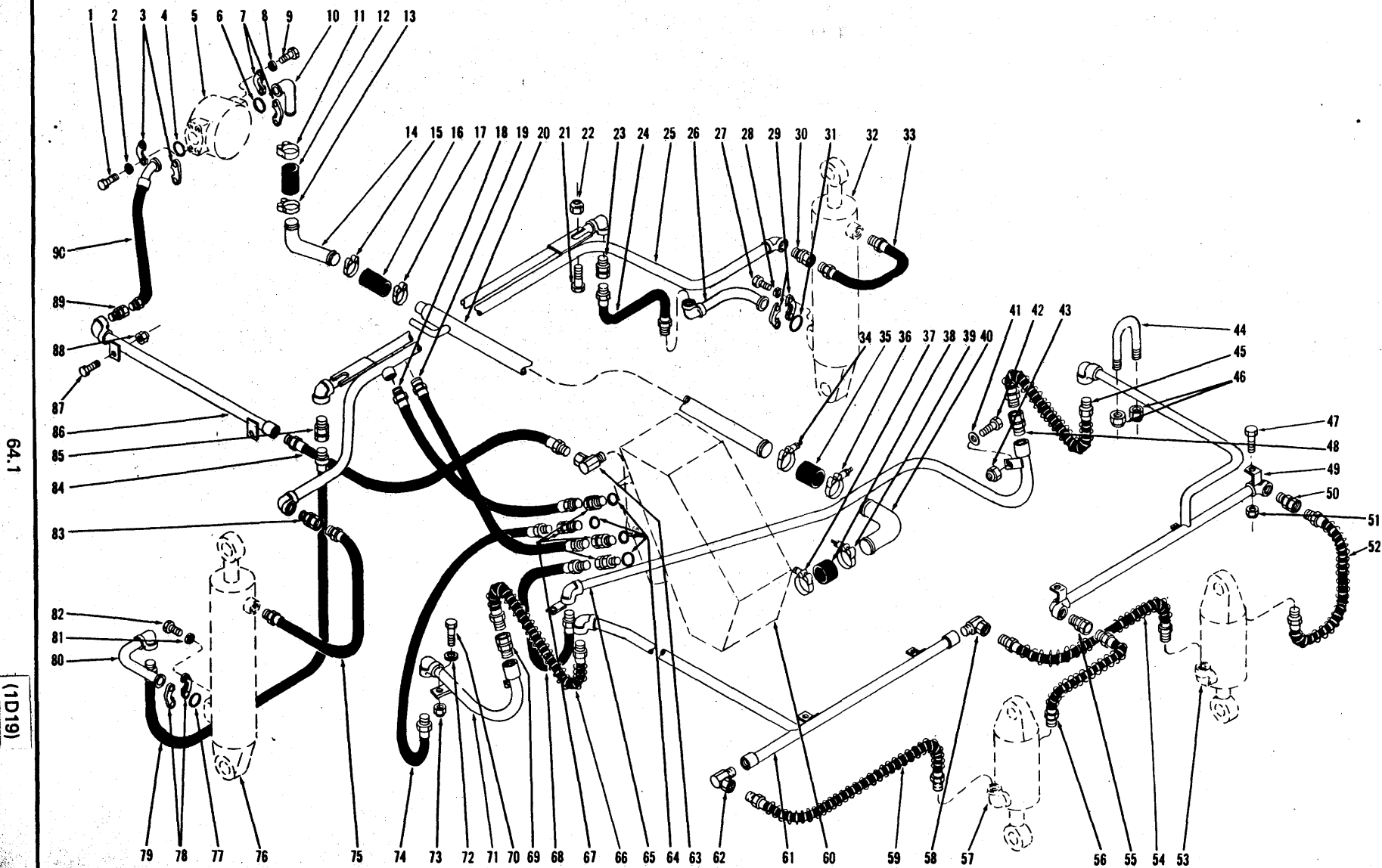
PM-1698

**HYDRAULIC SYSTEM — BUCKET AND BOOM — GAS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	17C-620	BOLT, Flange Half to Pump .....	4	46	18D-06	NUT, U-Bolt .....	4
2	4E-06	LKWSHR, Flange Half to Pump .....	4	47	18C-628	BOLT, Guide Bar Pipe's Mounting .....	2
3	19J16	FLANGE HALF, Hose to Pump .....	2	48	36F-5	ADAPTER UNION .....	1
4	58K-219	"O" RING, Hose to Pump .....	1	49	534472	PIPE, Guide Bar — L.H. ....	1
5	-----	PUMP, Bucket & Boom — See Index ..	—	50	36F-4	ADAPTER UNION .....	1
6	58K-225	"O" RING, Stem to Pump .....	1	51	18D-06	NUT, Guide Bar Pipe's Mounting .....	2
7	19J24	FLANGE HALF, Stem to Pump .....	2	52	537527	HOSE, Pipe to Bucket Cylinder .....	1
8	4E-08	LKWSHR, Flange Half to Pump .....	4	53	-----	BUCKET CYLINDER — See Index .....	—
9	17C-824	BOLT, Flange Half to Pump .....	4	54	774303	HOSE, Pipe to Bucket Cylinder .....	1
10	535327	STEM, Suction .....	1	55	36F-4	ADAPTER UNION .....	1
11	540128	CLAMP, Hose .....	1	56	537527	HOSE, Pipe to Bucket Cylinder .....	1
12	535332	HOSE, Stem to Tube .....	1	57	-----	BUCKET CYLINDER — See Index .....	—
13	540128	CLAMP, Hose .....	1	58	31F-4	ADAPTER UNION .....	1
14	538611	TUBE, Suction—Tube to Stem .....	1	59	774303	HOSE, Pipe to Bucket Cylinder .....	1
15	540128	CLAMP, Hose .....	1	60	-----	RESERVOIR, Hydraulic Oil—See Index ..	—
16	535332	HOSE, Tube to Tube .....	1	61	534467	PIPE, Guide Bar — R.H. ....	1
17	540128	CLAMP, Hose .....	1	62	31F-4	ADAPTER UNION .....	1
18	535858	TUBE, Suction — Center .....	1	63	535450	ADAPTER UNION .....	1
19	552156	HOSE, Valve to Pipe .....	1	64	91F-10	"O" RING, Adapter Union to Valve ..	4
20	551893	HOSE, Valve to Crosspipe .....	1	65	535496	PIPE, Valve to Bucket Cylinder — L.H. ..	1
21	18D-06	NUT, Crosspipe to Frame .....	2	66	523543	HOSE, Pipe to Guide Bar Pipe .....	1
22	18C-622	BOLT, Crosspipe to Frame .....	2	67	533481	ADAPTER UNION .....	4
22A	619021	†WASHER, Crosspipe to Frame .....	2	68	536589	HOSE, Valve to L.H. Pipe .....	1
23	36F-5	ADAPTER UNION .....	1	69	36F-5	ADAPTER UNION .....	1
24	691800	HOSE, Pipe to Tube .....	1	70	18C-628	BOLT, Pipe Mounting .....	2
25	536346	CROSSPIPE, Boom Cylinder .....	1	71	535498	PIPE, Valve to Bucket Cylinder — R.H. ..	1
26	539105	TUBE, Boom Cylinder — L.H. ....	1	72	619023	WASHER, Pipe Mounting .....	1
27	17C-620	BOLT, Flange Half to Cylinder .....	4	73	18D-06	NUT, Pipe Mounting .....	2
28	4E-06	LKWSHR, Flange Half to Cylinder ...	4	74	536590	HOSE, Valve to R.H. Pipe .....	1
29	19J16	FLANGE HALF, Tube to Cylinder ....	2	75	550724	HOSE, Crosspipe to Boom Cylinder ...	1
30	36F-5	ADAPTER UNION .....	1	76	-----	BOOM CYLINDER — See Index .....	—
31	58K-219	"O" RING, Tube to Boom Cylinder ..	1	77	58K-219	"O" RING, Tube to Boom Cylinder ...	1
32	-----	BOOM CYLINDER — See Index .....	—	78	19J16	FLANGE HALF, Tube to Boom Cyl. ....	2
33	550724	HOSE, Crosspipe to Boom Cylinder ...	1	79	691800	HOSE, Pipe to Tube .....	1
34	540106	CLAMP, Hose .....	1	80	539104	TUBE, Boom Cylinder — R.H. ....	1
35	533478	HOSE, Tube to Tube .....	1	81	4E-06	LKWSHR, Flange Half to Cylinder ....	4
36	540106	CLAMP, Hose .....	1	82	17C-620	BOLT, Flange Half to Cylinder .....	4
37	540106	CLAMP, Hose .....	1	83	36F-5	ADAPTER UNION .....	1
38	533478	HOSE, Tube to Reservoir .....	1	84	536591	HOSE, Pipe to Valve .....	1
39	540106	CLAMP, Hose .....	1	85	36F-5	ADAPTER UNION .....	1
40	535860	TUBE, Reservoir to Tube .....	1	86	533186	PIPE, Pump to Valve .....	1
41	619023	WASHER, L.H. Pipe Mounting .....	1	87	18C-624	BOLT, Pipe Mounting .....	2
42	18C-628	BOLT, L.H. Pipe Mounting .....	2	88	18D-06	NUT, Pipe Mounting .....	2
43	18D-06	NUT, L.H. Pipe Mounting .....	2	89	36F-6	ADAPTER UNION .....	1
44	537477	U-BOLT, Guide Bar Pipe Mounting ...	2	90	546888	HOSE, Pump to Pipe .....	1
45	523543	HOSE, Pipe to Guide Bar Pipe .....	1				

†Not Illustrated

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



64.1

(1D19)

PM 1698

HYDRAULIC SYSTEM - BUCKET AND BOOM - G.M.  
For Serial: 2CG101 thru 3CG999

TS-3300-P



CONSTRUCTION MACHINERY DIVISION

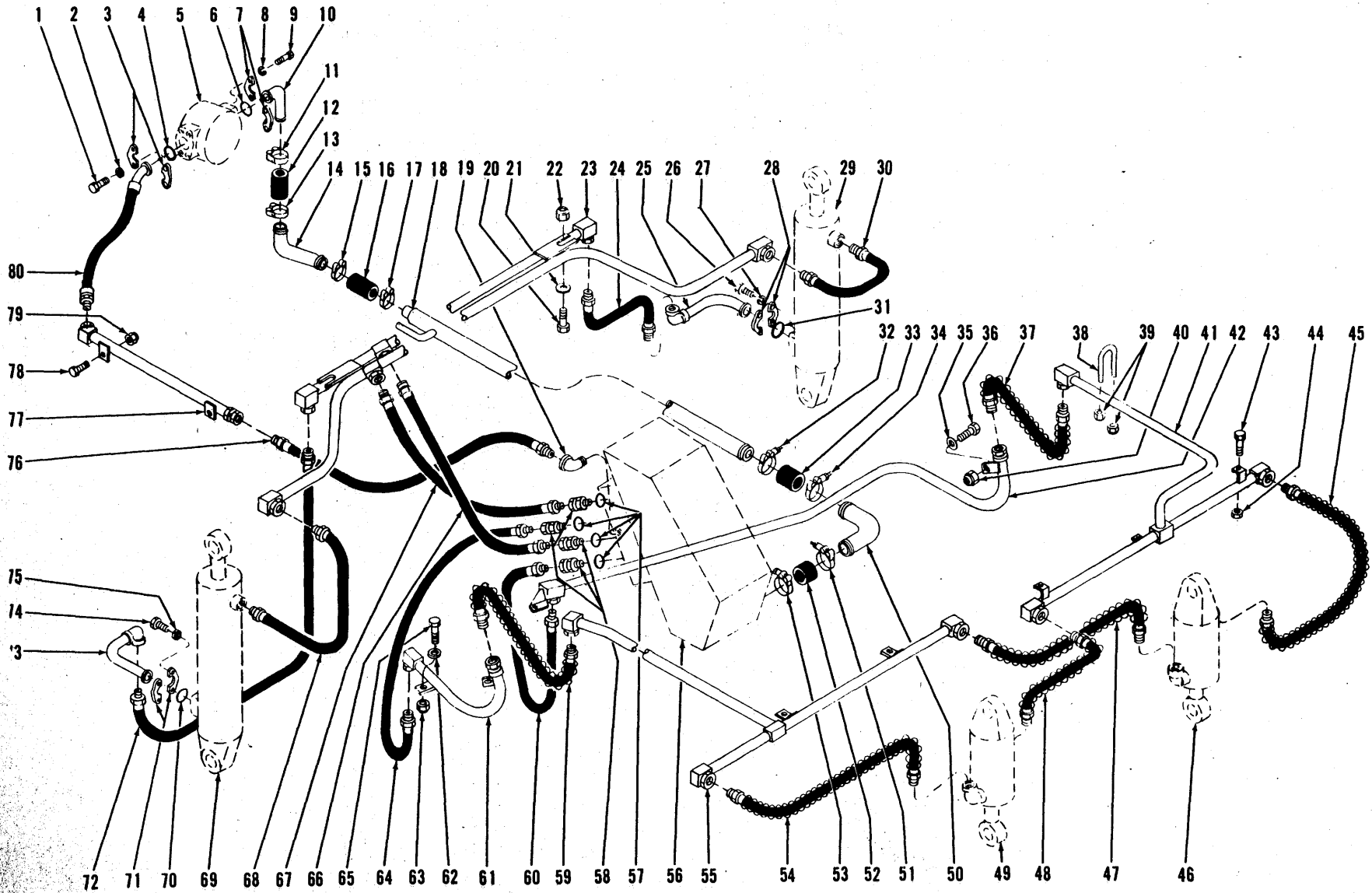


HYDRAULIC SYSTEM — BUCKET AND BOOM — G.M.

For Serial: 2CG101 thru 3CG999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	17C-620	BOLT, Flange Half to Pump .....	4	46	18D-06	NUT, U-Bolt .....	4
2	4E-06	LKWSHR, Flange Half to Pump .....	4	47	18C-628	BOLT, Guide Bar Pipe's Mounting .....	2
3	19J16	FLANGE HALF, Hose to Pump .....	2	48	36F-5	ADAPTER UNION .....	1
4	58K-219	"O" RING, Hose to Pump .....	1	49	534472	PIPE, Guide Bar — L.H. ....	1
5	-----	PUMP, Bucket & Boom—See Index ...	—	50	36F-4	ADAPTER UNION .....	1
6	58K-225	"O" RING, Tube Elbow to Pump .....	1	51	18D-06	NUT, Guide Bar Pipe's Mounting .....	2
7	19J24	FLANGE HALF, Tube Elbow to Pump .....	2	52	537527	HOSE, Guide Bar Pipe to Bucket Cyl. ....	1
8	4E-08	LKWSHR, Flange Half to Pump .....	4	53	-----	BUCKET CYLINDER — See Index .....	—
9	17C-824	BOLT, Flange Half to Pump .....	4	54	774303	HOSE, Guide Bar Pipe to Bucket Cyl. ....	1
10	544308	STEM, Suction .....	1	55	36F-4	ADAPTER UNION .....	1
11	540128	CLAMP, Hose .....	1	56	537527	HOSE, Guide Bar Pipe to Bucket Cyl. ....	1
12	535332	HOSE, Stem to Elbow .....	1	57	-----	BUCKET CYLINDER — See Index .....	—
13	540128	CLAMP, Hose .....	1	58	31F-4	ADAPTER UNION .....	1
14	544307	ELBOW, Tube — Hose to Hose .....	1	59	774303	HOSE, Guide Bar Pipe to Bucket Cyl. ....	1
15	540128	CLAMP, Hose .....	1	60	-----	RESERVOIR, Hydraulic Oil—See Index .....	—
16	535332	HOSE, Elbow to Suction Tube .....	1	61	534467	PIPE, Guide Bar — R.H. ....	1
17	540128	CLAMP, Hose .....	1	62	31F-4	ADAPTER UNION .....	1
18	551893	HOSE, Valve to Crosspipe .....	1	63	535450	ADAPTER UNION .....	1
19	552156	HOSE, Valve to Pipe .....	1	64	91F-10	"O" RING, Adapter Union to Valve ...	4
20	535858	TUBE, Suction .....	1	65	535496	PIPE, Valve to Bucket Cylinders—L.H....	1
21	18D-06	NUT, Crosspipe to Frame .....	2	66	523543	HOSE, Pipe to Guide Bar Pipe .....	1
22	18C-622	BOLT, Crosspipe to Frame .....	2	67	533481	ADAPTER UNION .....	4
22A	619021	†WASHER, Crosspipe to Frame .....	2	68	536589	HOSE, Valve to Pipe .....	1
23	36F-5	ADAPTER UNION .....	1	69	36F-5	ADAPTER UNION .....	1
24	691800	HOSE, Pipe to Tube .....	1	70	18C-628	BOLT, Pipe Mounting .....	2
25	536346	CROSSPIPE, Boom Cylinder Base .....	1	71	535498	PIPE, Valve to Bucket Cylinders—R.H. ....	1
26	539105	TUBE, Hose to Boom Cylinder .....	1	72	619023	WASHER, Pipe Mounting .....	1
27	17C-620	BOLT, Flange Half to Pump .....	4	73	18D-06	NUT, Pipe Mounting .....	2
28	4E-06	LKWSHR, Flange Half to Pump .....	4	74	536590	HOSE, Valve to R.H. Pipe .....	1
29	19J16	FLANGE HALF, Tube to Boom Cyl. ....	2	75	550724	HOSE, Crosspipe to Boom Cylinder ...	1
30	36F-5	ADAPTER UNION .....	1	76	-----	BOOM CYLINDER — See Index .....	—
31	58K-219	"O" RING, Tube to Boom Cylinder .....	1	77	58K-219	"O" RING, Tube to Boom Cylinder ...	1
32	-----	BOOM CYLINDER — See Index .....	—	78	19J16	FLANGE HALF, Tube to Boom Cylinder ....	2
33	550724	HOSE, Crosspipe to Boom Cylinder ...	1	79	691800	HOSE, Pipe to Tube .....	1
34	540106	CLAMP, Hose .....	1	80	539104	TUBE, Hose to Boom Cylinder .....	1
35	533478	HOSE, Suction Tube to Tube Elbow .....	1	81	4E-06	LKWSHR, Flange Half to Boom Cyl....	4
36	540106	CLAMP, Hose .....	1	82	17C-620	BOLT, Flange Half to Boom Cylinder ....	4
37	540106	CLAMP, Hose .....	1	83	36F-5	ADAPTER UNION .....	1
38	533478	HOSE, Tube Elbow to Reservoir .....	1	84	536591	HOSE, Pipe to Valve .....	1
39	540106	CLAMP, Hose .....	1	85	36F-5	ADAPTER UNION .....	1
40	535860	ELBOW, Tube .....	1	86	533186	PIPE, Pump to Valve .....	1
41	619023	WASHER, L.H. Pipe Mounting .....	1	87	18C-624	BOLT, Pipe Mounting .....	2
42	18C-628	BOLT, L.H. Pipe Mounting .....	2	88	18D-06	NUT, Pipe Mounting .....	2
43	18D-06	NUT, L.H. Pipe Mounting .....	2	89	36F-6	ADAPTER UNION .....	1
44	537477	U-BOLT, Guide Bar Pipe Mounting ...	2	90	546888	HOSE, Pipe to Pump .....	1
45	523543	HOSE, Pipe to Guide Bar Pipe .....	1				

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



HYDRAULIC SYSTEM - BUCKET AND BOOM - G.M.  
For Serial: 4CG101 and after

TS-4512-P

64A-1

(1D21)

PM-1564

**HYDRAULIC SYSTEM — BUCKET AND BOOM — G.M.**

**For Serial: 4CG101 and after**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	17C-620	BOLT, Flange Half to Pump .....	4	42	589739	PIPE, Vlv. to Bkt. Cyl.—L.H. (See "B")	1
2	4E-06	LKWSHR, Flange Half to Pump .....	4	43	18C-628	BOLT, Guide Bar Pipe Mounting .....	2
3	19J16	FLANGE HALF, Hose to Pump .....	2	44	18D-06	NUT, Guide Bar Pipe Mounting .....	2
4	58K-219	"O" RING, Hose to Pump .....	1	45	589787	HOSE, Guide Bar Pipe to Bucket Cyl.	1
5	-----	PUMP, Bucket & Boom — See Index..	—	46	-----	BUCKET CYLINDER —	
6	58K-225	"O" RING, Tube Elbow to Pump .....	1			See Index .....	—
7	19J24	FLANGE HALF, Tube Elbow to Pump .....	2	47	774303	HOSE, Guide Bar Pipe to Bucket Cyl.	1
8	4E-08	LKWSHR, Flange Half to Pump .....	4	48	589787	HOSE, Guide Bar Pipe to Bucket Cyl.	1
9	17C-824	BOLT, Flange Half to Pump .....	4	49	-----	BUCKET CYLINDER —	
10	544308	STEM, Suction .....	1			See Index .....	—
11	540128	CLAMP, Hose .....	1	50	535860	ELBOW, Tube .....	1
12	535332	HOSE, Stem to Elbow .....	1	51	540106	CLAMP, Hose .....	1
13	540128	CLAMP, Hose .....	1	52	533478	HOSE, Tube Elbow to Reservoir .....	1
14	544307	ELBOW, Tube — Hose to Hose .....	1	53	540106	CLAMP, Hose .....	1
15	540128	CLAMP, Hose .....	1	54	774303	HOSE, Guide Bar to Bucket Cylinder	1
16	535332	HOSE, Elbow to Suction Tube .....	1	55	589734	*PIPE, Guide Bar — R.H. ....	1
17	540128	CLAMP, Hose .....	1	56	-----	RESERVOIR, Hydraulic Oil—See Index	—
18	535858	TUBE, Suction .....	1	57	91F-10	"O" RING, Adapter Union to Valve..	4
19	535450	ELBOW, Hose to Reservoir .....	1	58	533481	ADAPTER UNION .....	4
20	18C-622	BOLT, Crosspipe to Frame .....	2	59	589786	HOSE, Pipe to Guide Bar .....	1
21	619021	WASHER, Crosspipe to Frame Bolt ..	2	60	536589	HOSE, Valve to Pipe .....	1
22	18D-06	NUT, Crosspipe to Frame Bolt .....	2	61	589726	*PIPE, Valve to Bucket Cylinder — R.H.	1
23	589728***	CROSSPIPE, Boom Cylinder Base .....	1	62	619023	WASHER, Pipe Mounting .....	1
24	669952	HOSE, Pipe to Tube .....	1	63	18D-06	NUT, Pipe Mounting .....	2
25	539105	TUBE, Hose to Boom Cylinder .....	1	64	536590	HOSE, Valve to R.H. Pipe .....	1
26	17C-620	BOLT, Flange Half to Pump .....	4	65	18C-628	BOLT, Pipe Mounting .....	2
27	4E-06	LKWSHR, Flange Half to Pump .....	4	66	552156	HOSE, Valve to Pipe .....	1
28	19J16	FLANGE HALF, Tube to Boom Cyl. ...	2	67	551893	HOSE, Valve to Crosspipe .....	1
29	-----	BOOM CYLINDER — See Index .....	—	68	584265	HOSE, Crosspipe to Boom Cylinder..	1
30	584265	HOSE, Crosspipe to Boom Cylinder ..	1	69	-----	BOOM CYLINDER — See Index .....	—
31	58K-219	"O" RING, Tube to Boom Cylinder ..	1	70	58K-219	"O" RING, Tube to Boom Cylinder ..	1
32	540106	CLAMP, Hose .....	1	71	19J16	FLANGE HALF, Tube to Boom Cyl. ....	2
33	533478	HOSE, Suction Tube to Tube Elbow ..	1	72	669952	HOSE, Pipe to Tube .....	1
34	540106	CLAMP, Hose .....	1	73	539104	TUBE, Hose to Boom Cylinder .....	1
35	619023	WASHER, L.H. Pipe Mounting .....	2	74	17C-620	BOLT, Flange Half to Boom Cylinder	4
36	18C-628	BOLT, L.H. Pipe Mounting .....	2	75	4E-06	LKWSHR, Flange Half to Boom Cyl. ...	4
37	589786	HOSE, Pipe to Guide Bar Pipe .....	1	76	536591	HOSE, Pipe to Valve .....	1
38	537477	U-BOLT, Guide Bar Pipe Mounting ..	2	77	589723	PIPE, Pump to Valve (See "A") .....	1
39	18D-06	NUT, U-Bolt .....	4	78	18C-624	BOLT, Pipe Mounting .....	2
40	18D-06	NUT, L.H. Pipe Mounting .....	2	79	18D-06	NUT, Pipe Mounting .....	2
41	589744	PIPE, Guide Bar—L.H. (See "C") .....	1	80	538204	HOSE, Pipe to Pump .....	1

\*NOTE: For replacement use 534467 plus 2—31F-4 Adapter Unions.

\*\*NOTE: For replacement use 535948 plus 1—36F-5 Adapter Union.

\*\*\*NOTE: For replacement use 536346 plus 4—36F-5 Adapter Unions.

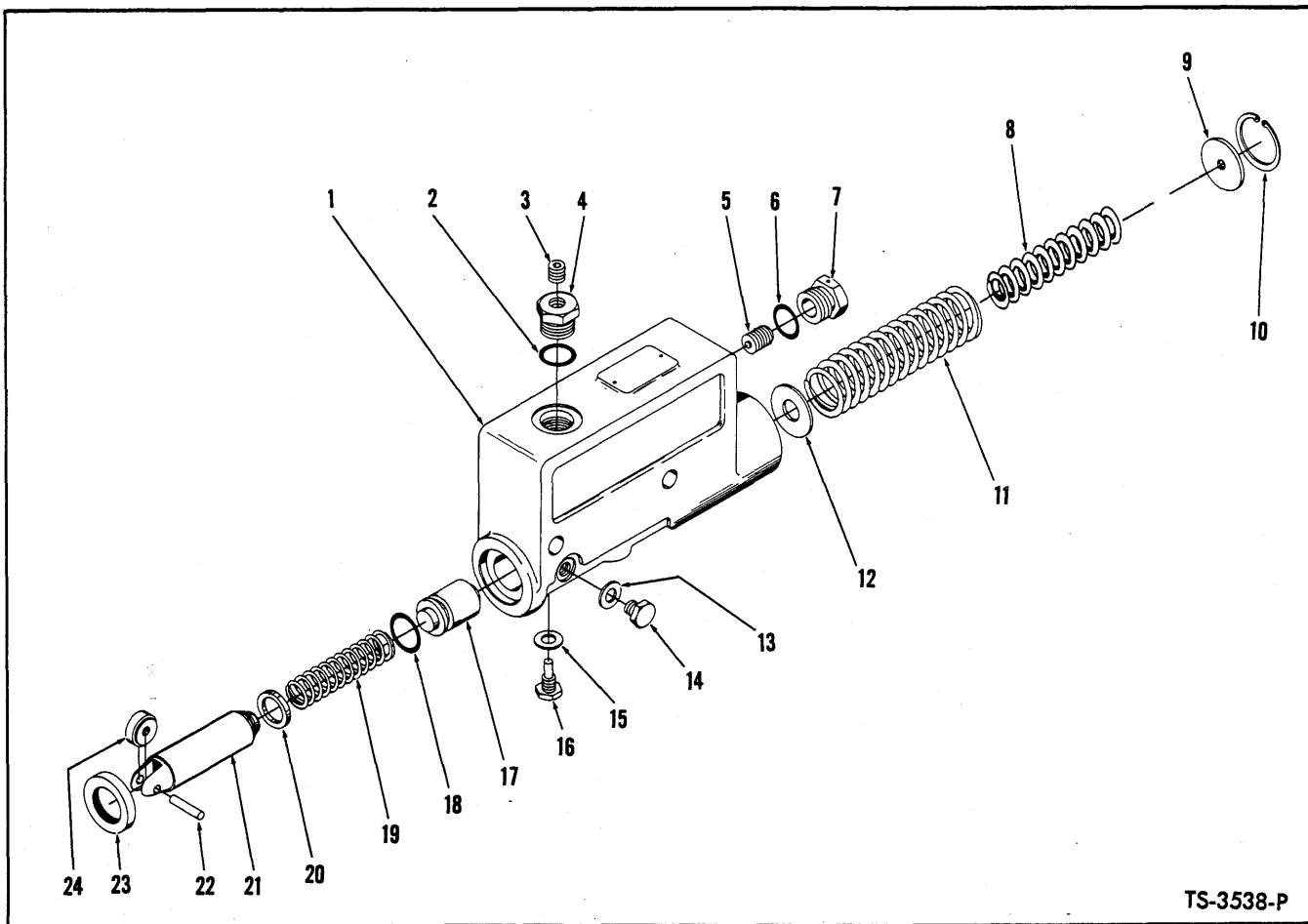
NOTE "A": For replacement use 533186 plus 1—36F-6 Adapter Union.

NOTE "B": For replacement use 535496 Pipe plus 1—36F-5 Adapter Union.

NOTE "C": For replacement use 534472 Pipe plus 1—36F-4 Adapter Union.

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

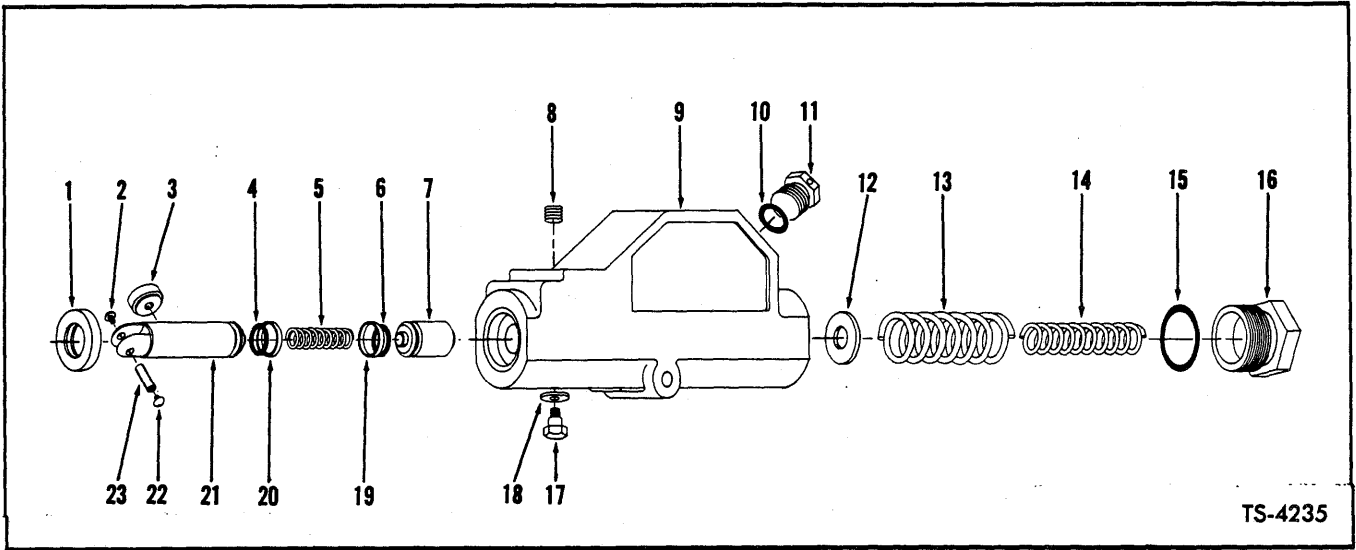




TS-3538-P

**MASTER CYLINDER – BUCKET LEVELING**  
For Serial: G.M. – 2CG101 thru 4CG120  
Wauk. – 2CA101 thru 3CA148

Item No.	Part No.	Description	No. Req'd.
A	545268	§ CYLINDER ASSY (Inc. 1 thru 24) – Service with components	1
1		§ HOUSING, Cylinder – See "A"	1
2	91F-6	"O" RING, Cap	1
3	16F-02	PLUG, Cap	1
4	945000	CAP	1
5	945001	VALVE, Relief	1
6	91F-6	"O" RING, Cap	1
7	945002	CAP, Relief Valve	1
8	945238	SPRING, Inner	1
9	945003	PLUG, Spring Retaining	1
10	868744	RING, Plug Retaining	1
11	945004	SPRING, Outer	1
12	25E-23	WASHER, Spring	1
13	865149	WASHER	1
14	945005	BOLT	1
15	865149	WASHER	1
16	945006	LOCK SCREW	1
17	945012	PLUG	1
18	25K-30022	"O" RING	1
19	945007	SPRING	1
20	945008	"V" SEAL	1
21	945010	PLUNGER	1
22	876878	ROLL PIN	1
23	945011	SEAL	1
24	945009	ROLLER	1



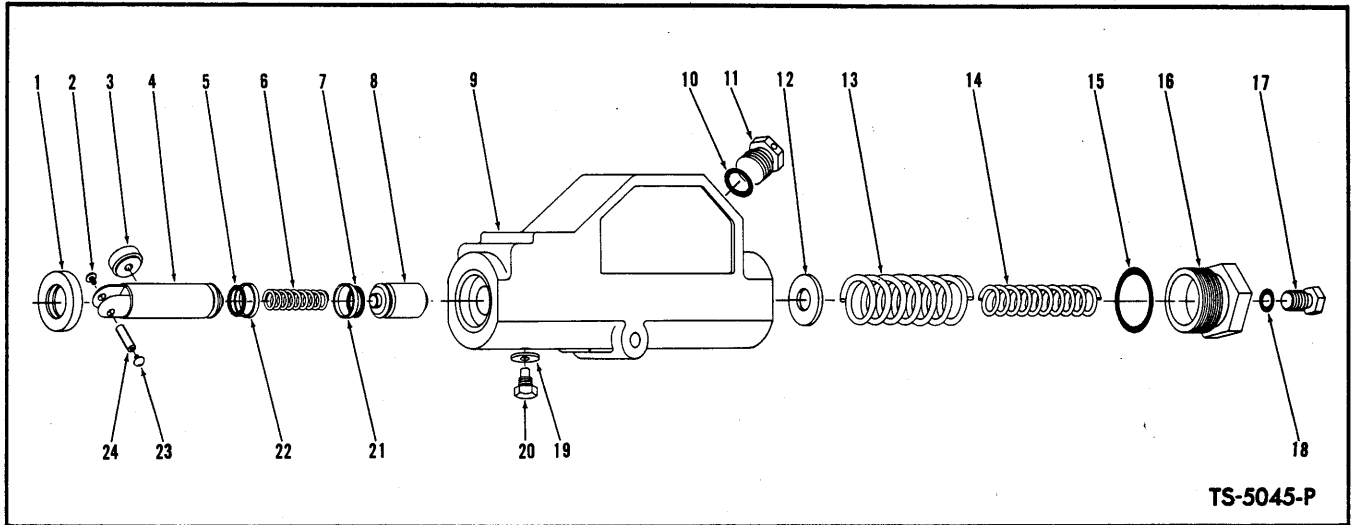
**BUCKET LEVELER MASTER CYLINDER ASSEMBLY**

**For Serial: G.M. — 4CG121 thru 5CG999**

**Wauk. — 3CA149 thru 5CA102, 5CA104**

Item No.	Part No.	Description	No. Req'd.
A	549063	§MASTER CYLINDER ASSY (Inc. 1 thru 23) — Service with components .....	1
1	945011	SEAL .....	1
2	6C-403	SCREW, Drive .....	1
3	945009	BEARING .....	1
4	25K-20020	"O" RING .....	1
5	945432	SPRING, Plunger .....	1
6	25K-20020	"O" RING .....	1
7	945433	PLUG .....	1
8	16F-02	PLUG .....	1
9	-----	§HOUSING, Master Cylinder .....	1
10	91F-6	"O" RING .....	1
11	945434	CAP .....	1
12	945435	SPACER .....	1
13	945436	SPRING .....	1
14	945437	SPRING .....	1
15	25K-40108	"O" RING .....	1
16	945438	CAP .....	1
17	945006	SCREW, Lock .....	1
18	865149	WASHER .....	1
19	945431	RING, Teflon .....	1
20	945431	RING, Teflon .....	1
21	-----	§PLUNGER, Operating (Order Item A) .....	1
22	6C-403	SCREW, Drive .....	1
23	876878	PIN, Roll .....	1

§Not Sold Separately



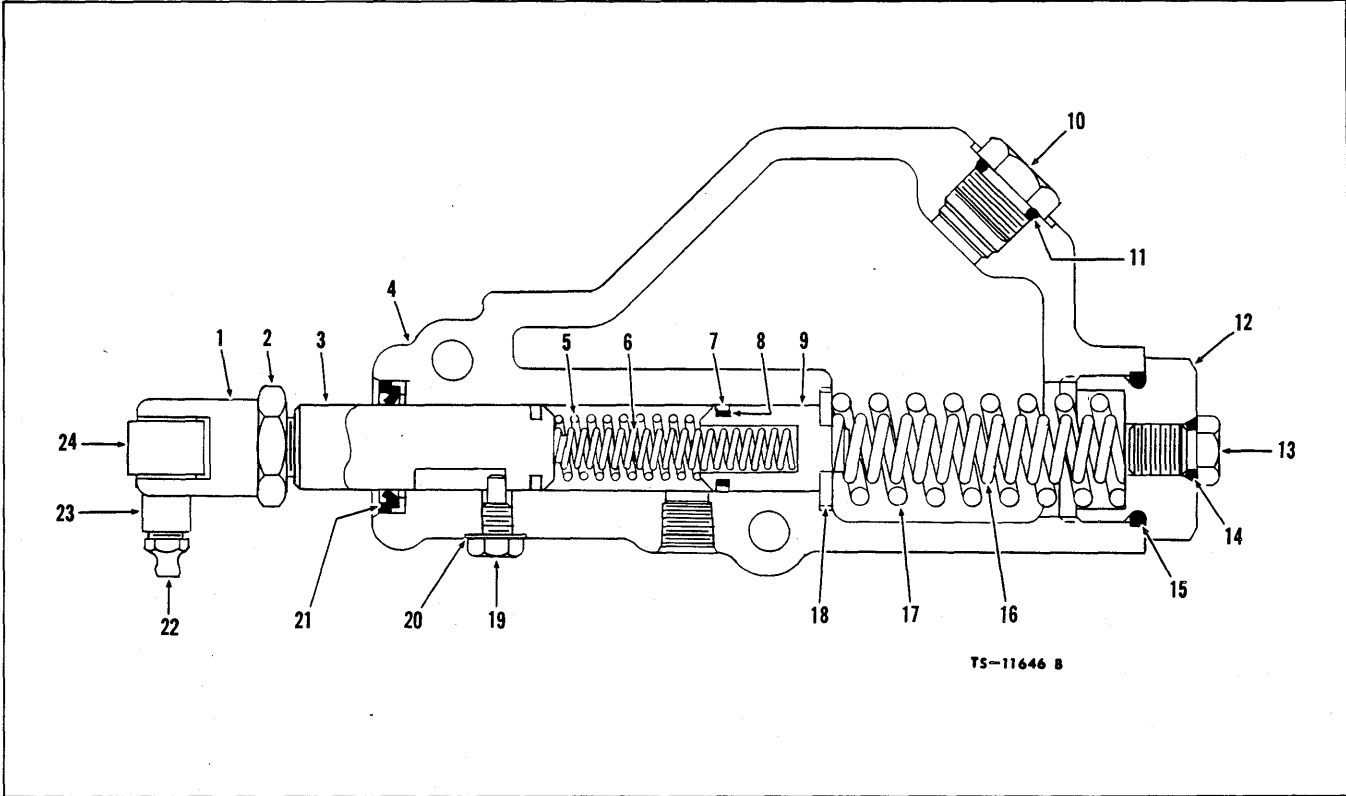
**BUCKET LEVELER MASTER CYLINDER ASSEMBLY**  
**For Serial: G.M. — 6CG101 and after**  
**WAUK. — 5CA103, 5CA105 and after**

Item No.	Part No.	Description	No. Req'd.
A	567842	* MASTER CYLINDER ASSY (Inc. 1 thru 24) .....	1
1	945011	SEAL .....	1
2	6C-403	SCREW, Drive .....	1
3	945009	BEARING .....	1
4	-----	§ SPLUNGER, Operating — See Item A .....	1
5	25K-20020	"O" RING .....	1
6	945432	SPRING .....	1
7	25K-20020	"O" RING .....	1
8	945433	ACCUMULATOR .....	1
9	-----	§ HOUSING, Master Cylinder — See Item A .....	1
10	91F-6	"O" RING .....	1
11	945872	CAP .....	1
12	945435	WASHER .....	1
13	945436	SPRING .....	1
14	945437	SPRING .....	1
15	25K-40108	"O" RING .....	1
16	945873	CAP .....	1
17	945874	PLUG .....	1
18	91F-4	"O" RING .....	1
19	865149	WASHER .....	1
20	945006	SCREW, Lock .....	1
21	945431	RING, Teflon Back-up .....	1
22	945431	RING, Teflon Back-up .....	1
23	6C-403	SCREW, Drive .....	1
24	876878	PIN, Roll .....	1

§ Not Sold Separately

\*NOTE: For replacement service with components.

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

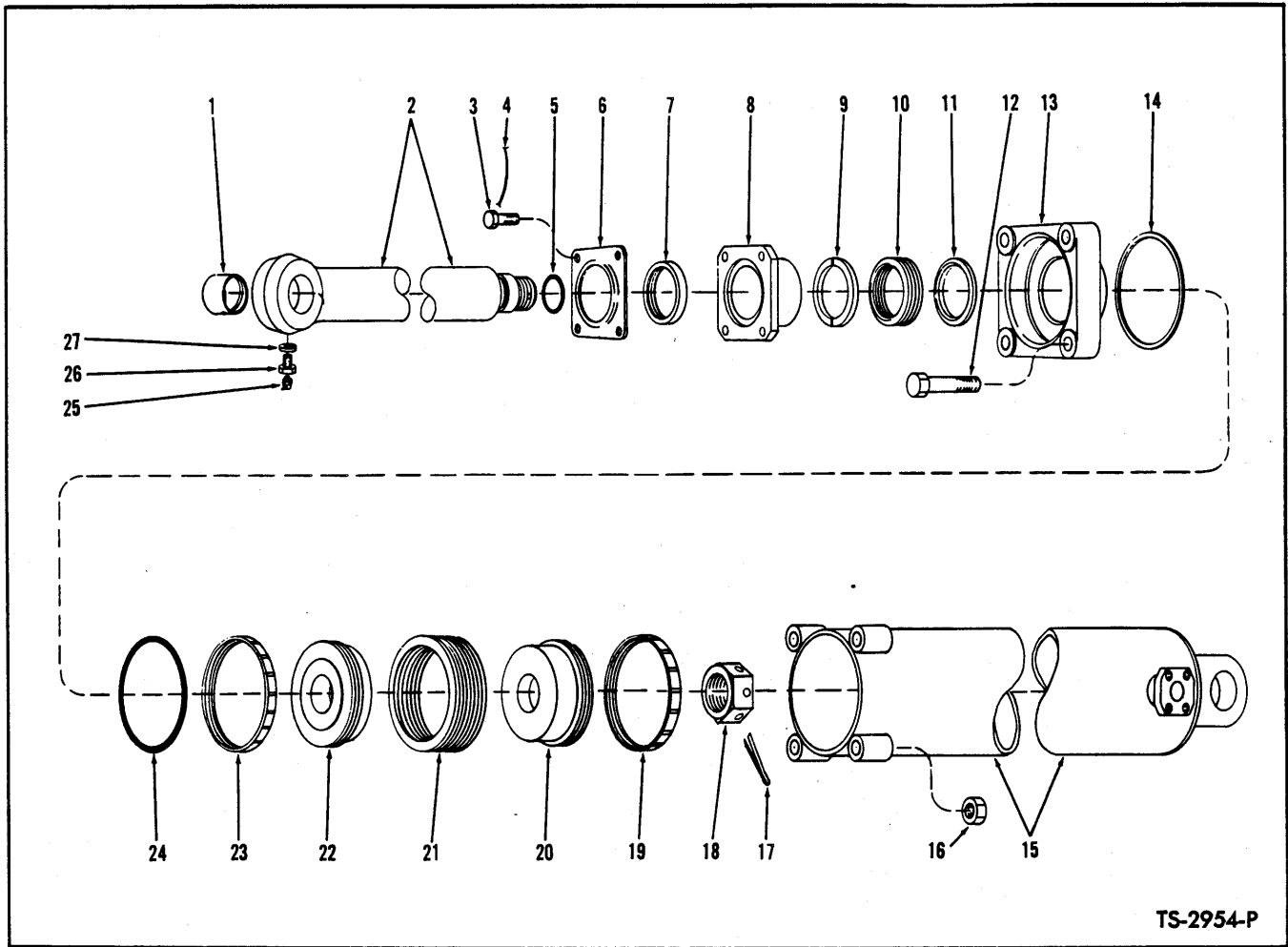


**BUCKET LEVELER MASTER CYLINDER ASSEMBLY**

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
A	1520300	*MASTER CYLINDER ASSY (Inc. 1 thru 26)	1	12	945873	CAP	1
1	949540	YOKE	1	13	945874	PLUG	1
2	949541	NUT	1	14	91F-4	O-RING	1
3	949542	PLUNGER	1	15	25K-40108	O-RING	1
4	-----	§HOUSING, Master Cylinder—See "A"	—	16	945437	SPRING, Inner	1
5	946468	SPRING, Outer	1	17	945436	SPRING, Outer	1
6	946467	SPRING, Inner	1	18	945435	WASHER	1
7	945431	RING, Teflon Back-up	1	19	945006	SCREW, Lock	1
8	25K-20020	O-RING	1	20	865149	WASHER	1
9	945433	ACCUMULATOR PLUG	1	21	945011	SEAL	1
10	945872	CAP	1	22	10H-2	FITTING, Grease	1
11	91F-6	O-RING	1	23	946911	PIN	1
				24	667213	BEARING	1

\*NOTE: For complete replacement service with components.

§Not Sold Separately



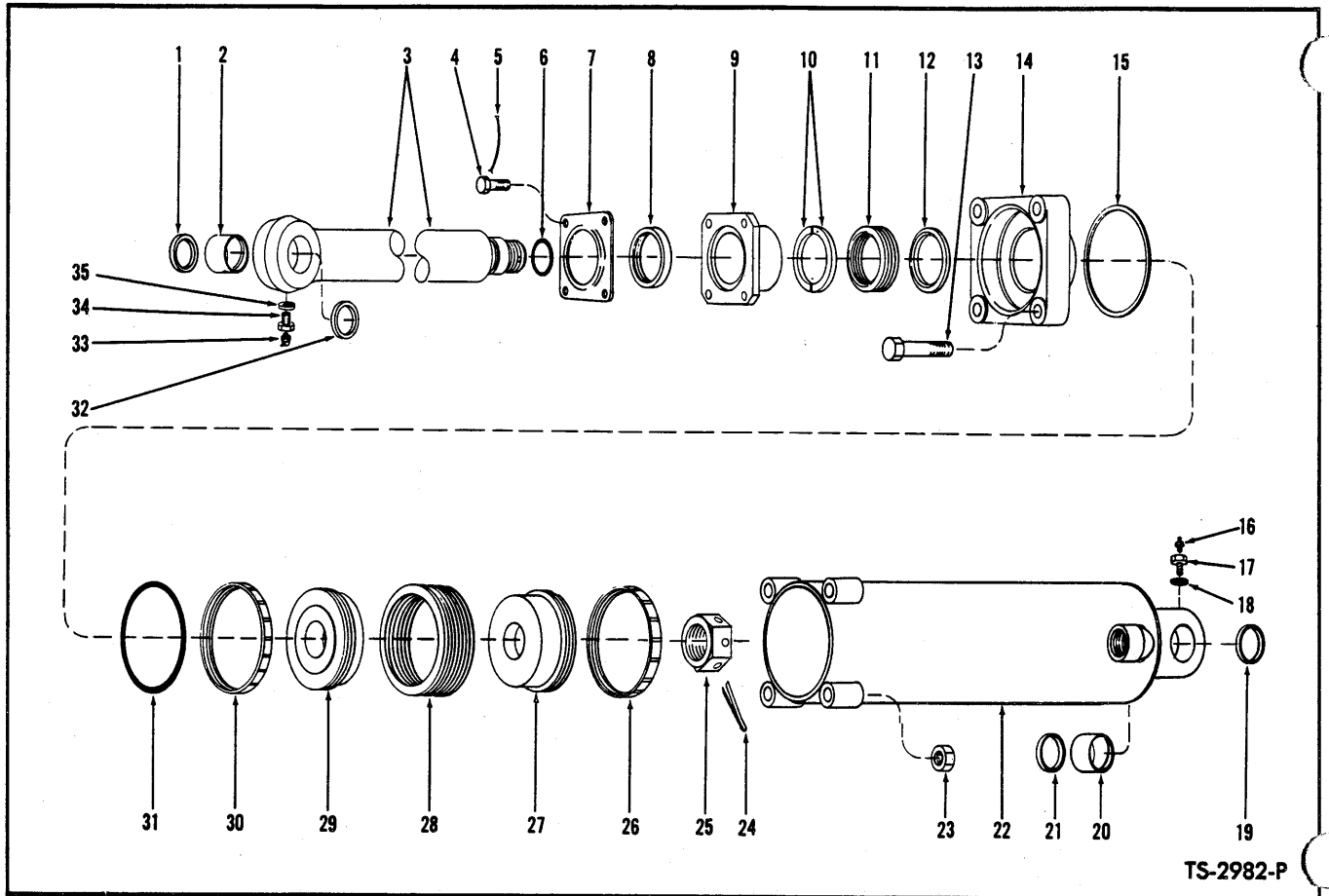
**BOOM CYLINDER ASSEMBLY**

2 Cylinders used on machine – Quantities listed below are for 1 Cylinder

Item	Part No.	Description	Qty.
A	533783	CYLINDER ASSY (Inc. 1 thru 27) . . .	1
B	2523430	**KIT (Inc. 5, 7, 9 → 11, 14, 17, 19, 21, 23, 24) . . . . .	1
1	533789	BUSHING, Piston Rod . . . . .	1
2	533787	ROD ASSY, Piston (Inc. 1, 26, 27) . . .	1
3	4C-616	BOLT, Seal Retainer . . . . .	4
4	28H-16130	LOCKWIRE, Seal Retainer . . . . .	2
5	-----	§"O" RING, Piston Rod – See B . . . . .	1
6	550089	RETAINER, Seal . . . . .	1
7	2516952	SEAL, Piston Rod . . . . .	1
8	550087	GLAND, Packing . . . . .	1
9	-----	§ADAPTER, Female – See 10 . . . . .	2
10	2501107	PACKING SET (Inc. 9 & 11) . . . . .	1
11	-----	§ADAPTER, Male – See 10 . . . . .	2
12	18C-856	BOLT, Cylinder Cap . . . . .	4

Item	Part No.	Description	Qty.
13	945120	CAP, Cylinder . . . . .	1
14	-----	§RING, "O" Ring Backup – See B . . . . .	1
15	533784	CYLINDER . . . . .	1
16	18D-08	NUT, Cylinder Cap . . . . .	4
17	1F-648	COTTER, Piston Rod Nut . . . . .	1
18	551605	NUT, Piston Rod . . . . .	1
19	-----	§RING, Piston Wear – See B . . . . .	1
20	542549	*PISTON, Bottom Half . . . . .	1
21	-----	§PACKING SET, Piston – See B . . . . .	1
22	542548	*PISTON, Top Half . . . . .	1
23	-----	§RING, Piston Wear – See B . . . . .	1
24	-----	§"O" RING, Cylinder Cap – See B . . . . .	1
25	12H-25	FITTING, Piston Rod Grease . . . . .	1
26	532118	BOLT, Bushing Retaining . . . . .	1
27	7E-08	LKWSHR, Bushing Retaining . . . . .	1

\*NOTE: For replacement of item 20 or 22 use 1-1503597 Piston plus 1-2516059 Kit.  
 \*\*NOTE: For reference refer to Service Gram S.G.-597

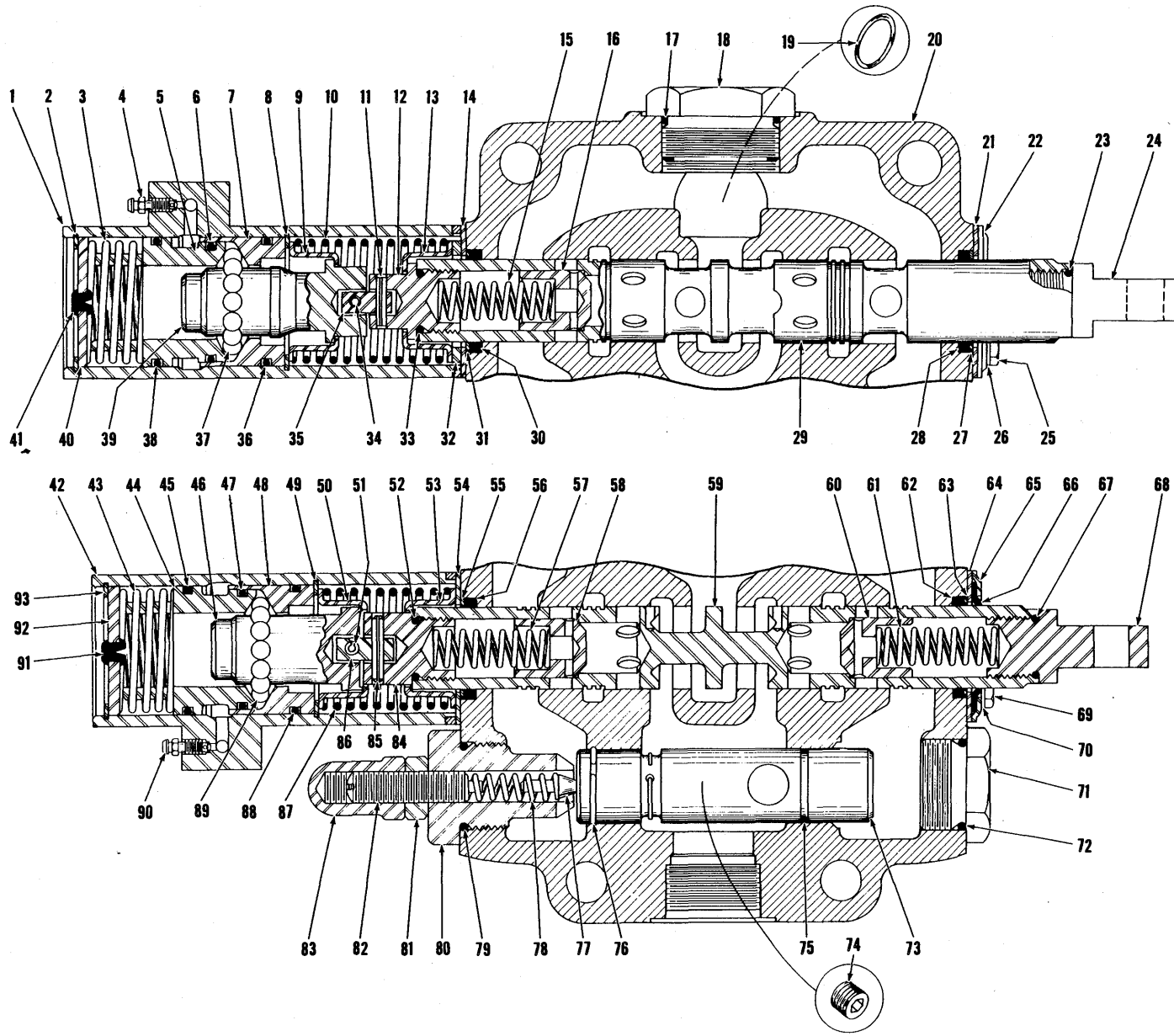


**BUCKET CYLINDER ASSEMBLY**

2 Cylinders used on machine – Quantities listed below are for 1 Cylinder

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
A	537141	CYLINDER ASSY (Inc. 1 thru 35) . . .	1	17	532118	BOLT, Bushing Retaining . . . . .	1
B	2523430	**KIT (Inc. 6, 8, 10 → 12, 15, 24, 26, 28, 30, 31) . . . . .	1	18	7E-08	LKWSHR, Bushing Retaining Bolt . . . .	1
1	532119	SEAL, Piston Rod Dust . . . . .	1	19	532119	SEAL, Cylinder Dust . . . . .	1
2	533902	BUSHING, Piston Rod . . . . .	1	20	533902	BUSHING, Cylinder . . . . .	1
3	537147	ROD ASSY, Piston (Inc. 2, 34, 35) . . .	1	21	532119	SEAL, Cylinder Dust . . . . .	1
4	4C-616	BOLT, Seal Retainer . . . . .	4	22	537142	CYLINDER (Inc. 17, 18, 20) . . . . .	1
5	28H-16130	LOCKWIRE, Seal Retainer Bolt . . . . .	2	23	18D-08	NUT, Cylinder Cap . . . . .	4
6	-----	§"O" RING, Piston Rod – See B . . . . .	1	24	1F-648	COTTER, Piston Rod Nut . . . . .	1
7	550089	RETAINER, Seal . . . . .	1	25	551605	NUT, Piston Rod . . . . .	1
8	2516952	SEAL, Piston Rod . . . . .	1	26	-----	§RING, Piston Wear – See B . . . . .	1
9	550087	GLAND, Packing . . . . .	1	27	542549	*PISTON, Bottom Half . . . . .	1
10	-----	§ADAPTER, Female – See 11 . . . . .	2	28	-----	§PACKING SET, Piston – See B . . . . .	1
11	2501107	PACKING SET (Inc. 10, 11) . . . . .	1	29	542548	*PISTON, Top Half . . . . .	1
12	-----	§ADAPTER, Male – See 11 . . . . .	2	30	-----	§RING, Piston Wear – See B . . . . .	1
13	18C-856	BOLT, Cylinder Cap . . . . .	4	31	-----	§"O" RING, Piston – See B . . . . .	1
14	945120	CAP, Cylinder . . . . .	1	32	532119	SEAL, Piston Rod Dust . . . . .	1
15	-----	§RING, "O" Ring Back-up – See B . . . .	1	33	10H-35	FITTING, Piston Rod Grease . . . . .	1
16	10H-35	FITTING, Cylinder Grease . . . . .	1	34	532118	BOLT, Bushing Retaining . . . . .	1
				35	7E-08	LKWSHR, Bushing Retaining Bolt . . . .	1

\*NOTE: For replacement of item 27 or 29 use 1-1503597 Piston plus 1-2516059 Kit.  
 \*\*NOTE: For reference refer to Service Gram S.G.-597



CONTROL VALVE ASSEMBLY  
For Serial: G.M. - 2CG101 thru 6CG140. Wauk. - 2CA101 thru 5CA110

TS-3716-P

70.1

(1F19)

PM 1698



**CONSTRUCTION MACHINERY DIVISION**  
**CONTROL VALVE ASSEMBLY**  
 For Serial: G.M. — 2CG101 thru 6CG140  
 Wauk. — 2CA101 thru 5CA110



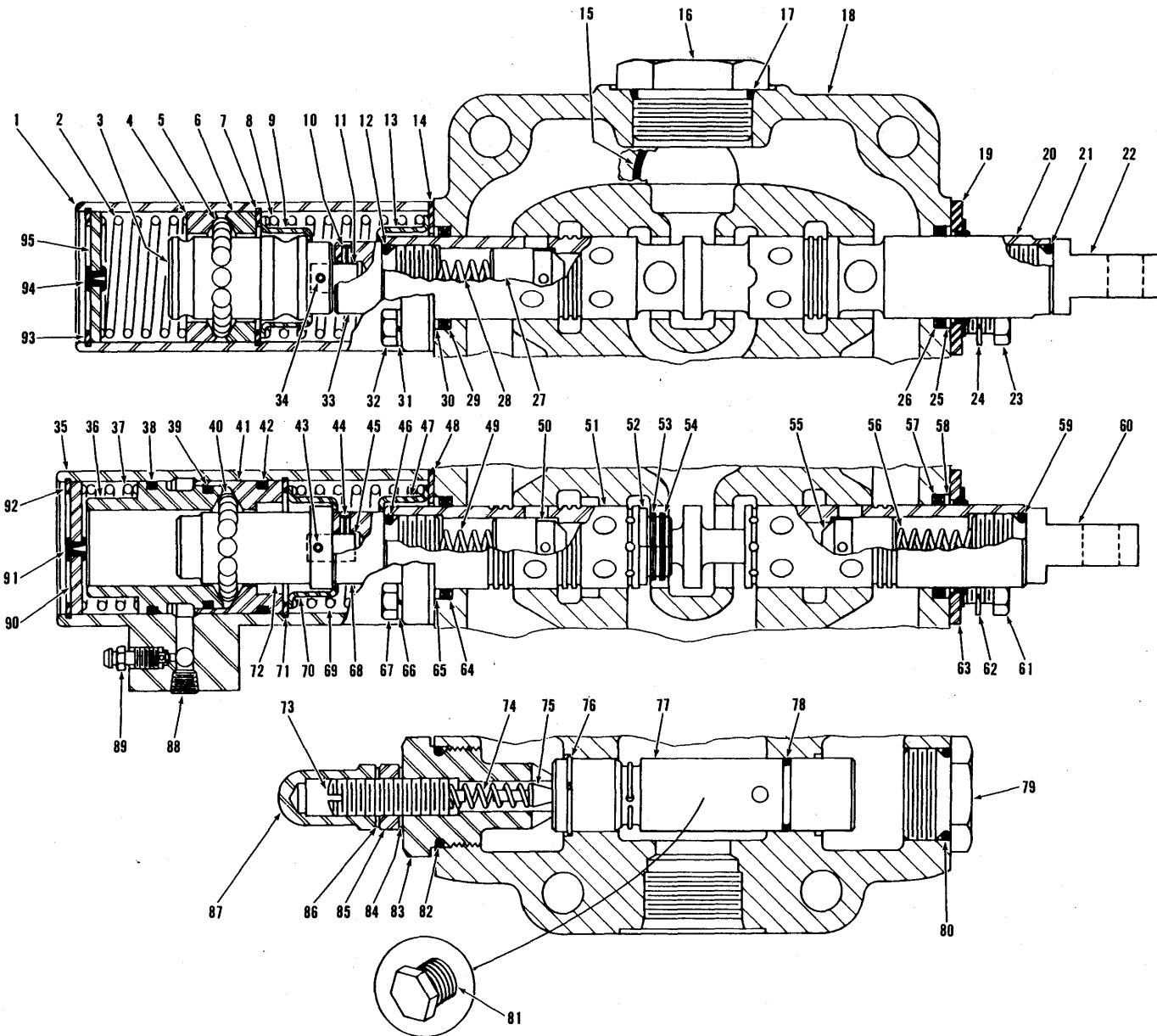
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	532175	*VALVE ASSY (Inc. 1 thru 93)	1	48	944901	RETAINER, Ball	1
1	945085	COVER, Detent	1	49	1301194	RING, Snap	1
2	507695	RING, Snap	1	50	944878	GUIDE, Spring	1
3	945086	SPRING	1	51	108301	ROLL PIN	1
4	641297	SCREW, Bleeder	1	52	25K-30022	"O" RING	1
5	944903	RETAINER, Ball	1	53	944878	GUIDE, Spring	1
6	58K-127	"O" RING	1	54	944882	PLATE, Seal Retainer	1
7	944901	RETAINER, Ball	1	55	944883	PLATE, Seal Retainer	1
8	1301194	RING, Snap	1	56	946583	SEAL, Plunger Oil	1
9	944878	GUIDE, Spring	1	57	944884	SPRING, Check	1
10	945090	SPRING	1	58	944885	CHECK	1
11	300232	ROLL PIN	1	59	—	§PLUNGER, Operating — See "A"	1
12	945091	CAP	1	60	944885	CHECK	1
13	945092	GUIDE, Spring	1	61	944884	SPRING, Check	1
14	944882	PLATE, Seal Retainer	1	62	946583	SEAL, Plunger Oil	1
15	944884	SPRING, Check	1	63	944883	RING, Back-Up	1
16	944885	CHECK	1	64	893294	RETAINER, Seal	1
17	91F-11	"O" RING	1	65	893294	RETAINER, Wiper	1
18	24K-11	PLUG	1	66	893294	WIPER, Plunger	2
19	58K-222	"O" RING	1	67	25K-30022	"O" RING	1
20	—	§HOUSING, Valve — See "A"	1	68	944889	EYE, Plunger	1
21	893294	RETAINER, Seal	1	69	1C-410	BOLT	6
22	893294	RETAINER, Wiper	1	70	4E-04	LKWSHR	6
23	25K-30022	"O" RING	1	71	944894	CAP	1
24	944889	EYE, Plunger	1	72	58K-214	"O" RING	1
25	1C-410	BOLT	6	73	893298	VALVE ASSY, Relief (Inc. 75, 76)	1
26	4E-04	LKWSHR	6	74	16F-04	PLUG	1
27	944883	RING, Back-Up	1	75	58K-020	"O" RING, Relief Valve	1
28	946583	SEAL, Plunger Oil	1	76	944892	RING, Snap	1
29	—	§PLUNGER, Operating — See "A"	1	77	886739	POPPET, Relief	1
30	946583	SEAL, Plunger Oil	1	78	886753	SPRING, Poppet	1
31	944883	RING, Back-Up	1	79	58K-214	"O" RING	1
32	946028	SPACER	1	80	893296	CAP, Adjusting	1
33	25K-30022	"O" RING	1	81	8D-08	NUT, Jam	1
34	108301	ROLL PIN	1	82	944890	SCREW, Adjusting	1
35	888449	PIN	1	83	944853	NUT, Acorn	1
36	945089	"O" RING	1	84	945095	CAP	1
37	10J-08	BALL	13	85	108301	ROLL PIN	1
38	945089	"O" RING	1	86	888449	PIN	1
39	945087	CAP, Detent	1	87	944879	SPRING	1
40	944900	SPACER	1	88	945089	"O" RING	1
41	886763	PLUG, Bleeder	1	89	10J-08	BALL	13
42	945097	COVER, Detent	1	90	641297	SCREW, Bleeder	1
43	945086	SPRING	1	91	886763	PLUG, Bleeder	1
44	944903	RETAINER, Ball	1	92	944900	SPACER	1
45	945089	"O" RING	1	93	507695	RING, Snap	1
46	945096	CAP, Detent	1	94	18C-860	†BOLT, Valve to Reservoir	3
47	58K-127	"O" RING	1	95	4E-08	†LKWSHR, Valve to Reservoir	3

§Not Sold Separately

†Not Illustrated

\*NOTE: For complete replacement use 2511462 Valve Assy plus 1—1512420 Plate, 1—1512419 Spacer, 1—58K222 O-Ring, 3—18C880 Bolt, & 9—25E21 Washer.





CONTROL VALVE ASSEMBLY  
For Serial: G.M. - 6CG141 and after. Wauk. - 5CA111

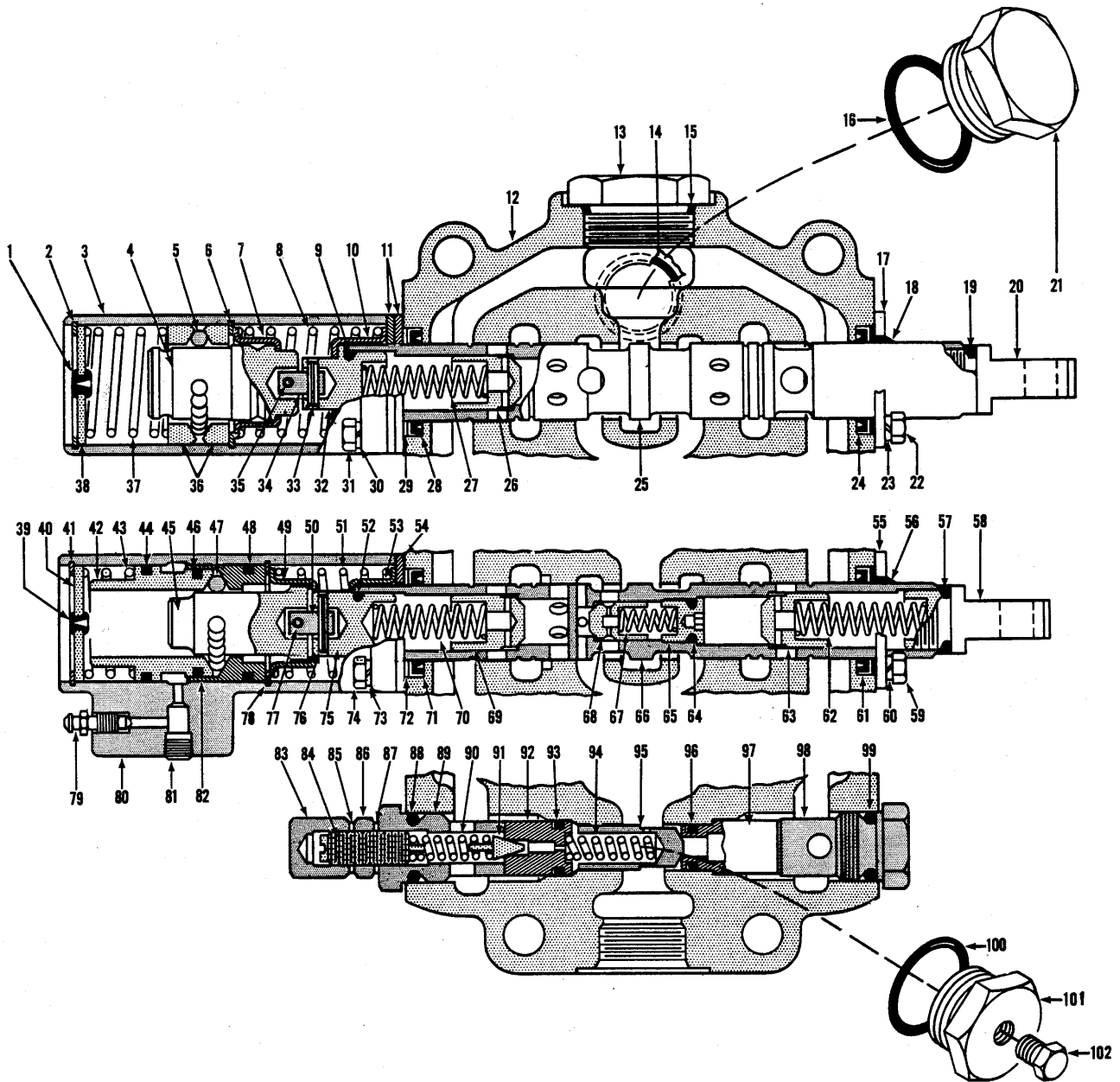
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PM 1698





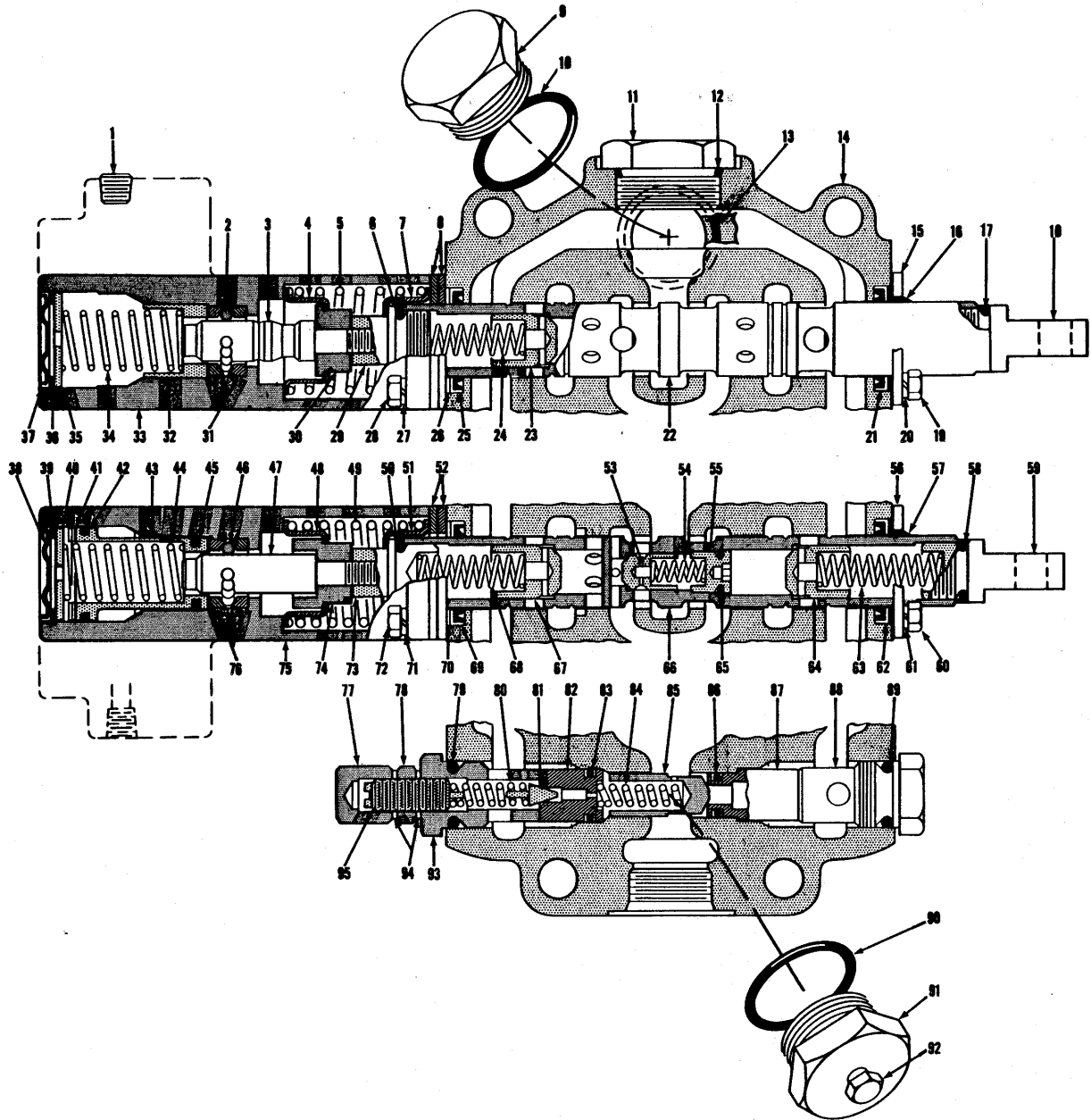
CONTROL VALVE ASSEMBLY — TWO SPOOL

TS-8906

**CONTROL VALVE ASSEMBLY – TWO SPOOL  
SERVICE**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1536689	*CONTROL VALVE (Inc. 1 thru 102)	—	52	25K-30022	O-RING	1
1	886763	PLUG, Bleeder	1	53	944878	GUIDE, Spring	1
2	507695	RING, Plug Retaining	1	54	980832	RETAINER, Seal	1
3	947776	COVER, Detent	1	55	980831	RETAINER, Wiper	1
4	947786	CAP, Detent	1	56	946918	WIPER	1
5	10J-08	BALL, Detent	15	57	25K-30022	O-RING, Plunger Eye	1
6	1301194	RING, Retaining	1	58	893295	EYE, Plunger	1
7	944878	GUIDE, Spring	1	59	1C-610	BOLT, Retainer to Housing	2
8	945090	SPRING	1	60	4E-06	LKWSHR, Retainer to Housing	2
9	25K-30022	O-RING	1	61	946583	SEAL, Plunger Oil	1
10	945092	GUIDE, Spring	1	62	893293	SPRING, Check	1
11	980832	RETAINER, Seal	2	63	944885	CHECK	1
12	—	§HOUSING, Valve (See "A")	—	64	25K-30014	O-RING, Cap	1
13	24K-11	CAP	1	65	946555	CAP	1
14	58K-222	O-RING	1	66	—	§PLUNGER, Valve (See "A")	—
15	91F-11	O-RING, Cap	1	67	946536	SPRING, Check	1
16	91F-11	O-RING, Cap	1	68	945590	CHECK	1
17	980831	RETAINER, Wiper	1	69	944885	CHECK	1
18	946918	WIPER	1	70	892942	SPRING, Check	1
19	25K-30022	O-RING, Plunger Eye	1	71	946583	SEAL, Plunger Oil	1
20	893295	EYE, Plunger	1	72	944883	RING, Back-Up	1
21	24K-11	CAP	1	73	4E-06	LKWSHR, Cover to Housing	1
22	1C-610	BOLT, Retainer	2	74	1C-614	BOLT, Cover to Housing	1
23	4E-06	LKWSHR, Retainer	2	75	945095	CAP, Plunger	1
24	946583	SEAL, Plunger Oil	1	76	108301	PIN, Roll	1
25	—	§PLUNGER, Valve (See "A")	—	77	305307	PIN, Roll	1
26	944885	CHECK	1	78	1301194	RING, Retainer	1
27	893293	SPRING, Check	1	79	641297	SCREW, Bleeder	1
28	946583	SEAL, Plunger Oil	1	80	947777	COVER, Detent	1
29	944883	RING, Back-Up	1	81	16F-02	PLUG, Pipe	1
30	4E-06	LKWSHR, Cover to Housing	2	82	944901	RETAINER, Ball	1
31	1C-616	BOLT, Cover to Housing	2	83	49D-08	NUT, Acorn	1
32	945091	CAP, Plunger	1	84	980834	SCREW, Adjusting	1
33	300232	PIN, Roll	1	85	613750	WASHER	1
34	888449	PIN	1	86	8D-08	NUT, Jam	1
35	108301	PIN, Roll	1	87	613750	WASHER	1
36	944897	RETAINER, Ball	2	88	58K-210	O-RING, Cap	1
37	946029	SPRING	1	89	980835	CAP, Adjusting	1
38	944900	PLUG, Cover	1	90	886753	SPRING, Relief	1
39	886763	PLUG, Bleeder	1	91	886739	POPPET, Relief	1
40	944900	PLUG, Cover	1	92	980836	SEAT, Relief	1
41	507695	RING, Retainer	1	93	25K-30020	O-RING, Seat	1
42	944903	RETAINER, Ball	1	94	947791	SPRING, Check	1
43	945086	SPRING	1	95	960965	CHECK	1
44	945089	O-RING, Ball Retainer	1	96	25K-30016	O-RING, Seat	1
45	945096	CAP, Detent	1	97	980840	SEAT, Check	1
46	945089	O-RING, Ball Retainer	1	98	980838	CAP	1
47	10J-08	BALL, Detent	15	99	58K-210	O-RING, Cap	1
48	945089	O-RING	1	100	91F-10	O-RING, Cap	1
49	944878	GUIDE, Spring	1	101	946882	CAP	1
50	888449	PIN	1	102	40K-04	PLUG, Plug	1
51	944879	SPRING	1				

\*NOTE: For complete replacement of 1536689 Control Valve Assembly use 2511462.  
§ Not Sold Separately



CONTROL VALVE ASSEMBLY — TWO SPOOL

TS-9476

70C.1

(1G1)

PM 1698



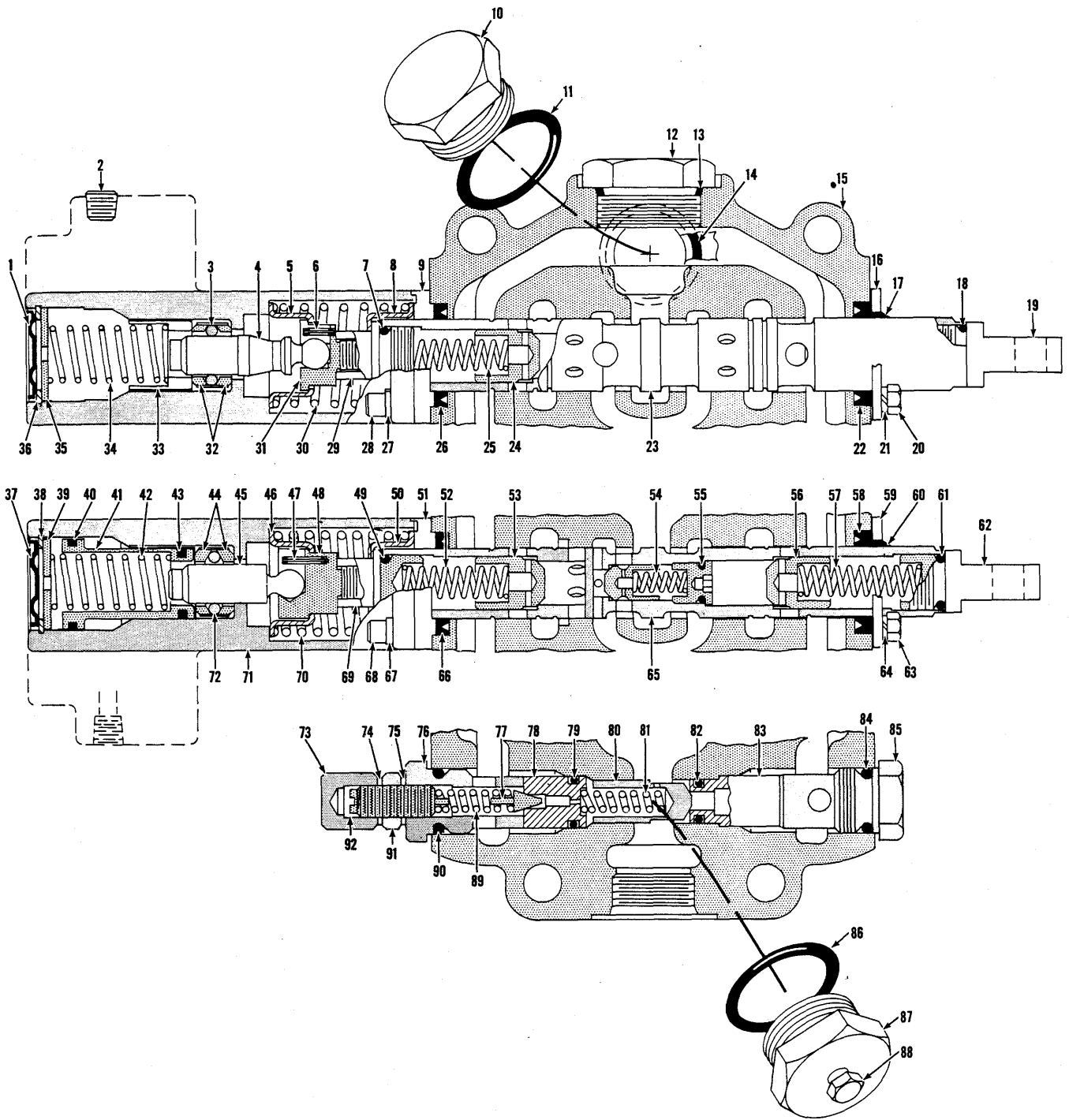
CONTROL VALVE ASSEMBLY - TWO SPOOL SERVICE

Table with 4 columns: Item No., Part No., Description, No. Req'd. It lists various components like PLUG, BALL, CAP, GUIDE, SPRING, O-RING, PLATE, WIPER, EYE, BOLT, SEAL, RING, COVER, RETAINER, NUT, SHIM, PISTON, DIAPHRAGM, and SCREW with their respective quantities.

†Not Illustrated

§Not Sold Separately \*For replacement use 2511462.

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



# Valve Assembly, Main

# CLARK

No.	Part No.	Qty.	Description
A	<sup>3</sup> 11510344	1	Valve assy
1	948202	1	Diaphragm
2	16F-04	1	Plug
3	948730	11	Ball
4	948723	1	Plunger
5	944878	1	Retainer
6	742306	1	Pin
7	25K-30022	1	O-ring
8	945092	1	Retainer
9	949066	1	Kit
10	24K-11	1	Cap
11	91F-11	1	O-ring
12	24K-11	1	Cap
13	91F-11	1	O-ring
14	58K-222	1	O-ring
15	<sup>S</sup> 2-----	—	Housing
16	980831	1	Retainer
17	946918	1	Wiper
18	25K-30022	1	O-ring
19	893295	1	Plunger eye
20	1C-612	2	Bolt
21	4E-06	2	Lockwasher
22	946583	1	Seal
23	<sup>S</sup> 2-----	—	Plunger
24	944885	1	Check
25	893293	1	Spring
26	946583	1	Seal
27	4E-06	2	Lockwasher
28	11G-620	2	Bolt
29	948732	1	Cap
30	945090	1	Spring
31	949278	1	Socket
32	947843	2	Retainer
32A	<sup>†</sup> 948727	1	Sleeve
33	947842	1	Retainer
34	947852	1	Spring
35	947848	1	Plug
36	666542	1	Snap ring
37	948202	1	Diaphragm
38	666542	1	Snap ring
39	947848	1	Plug
40	25K-40106	1	O-ring
41	947867	1	Piston
42	947852	1	Spring
43	25K-40028	1	O-ring
44	947843	2	Retainer
44A	948727	1	Sleeve
45	948722	1	Plunger
46	944878	1	Retainer

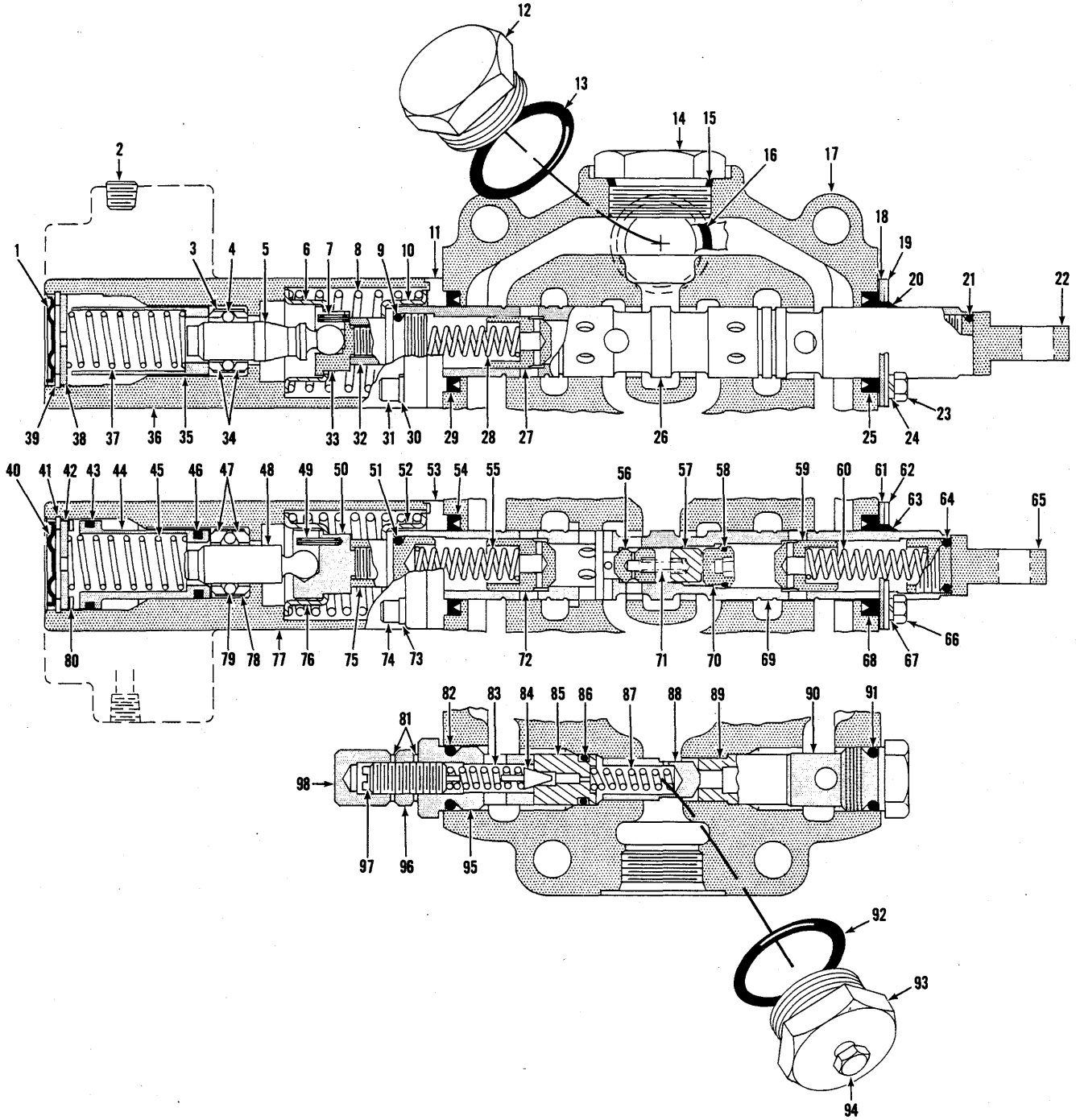
No.	Part No.	Qty.	Description
47	300232	1	Roll pin
48	949279	1	Socket
49	25K-30022	1	O-ring
50	945092	1	Retainer
51	949066	1	Kit
51A	948717	1	Retainer
51B	948840	1	Retainer
52	946544	1	Spring
53	944885	1	Check
54	946536	1	Spring
55	25K-30014	1	O-ring
56	944885	1	Check
57	893293	1	Spring
58	946583	1	Seal
59	980831	1	Retainer
60	946918	1	Wiper
61	25K-30022	1	O-ring
62	893295	1	Plunger eye
63	1C-612	2	Bolt
64	4E-06	2	Lockwasher
65	<sup>S</sup> 2-----	—	Plunger
66	946583	1	Seal
67	4E-06	2	Lockwasher
68	11G-620	2	Bolt
69	948732	1	Cap
70	945090	1	Spring
71	948720	2	Housing
72	948730	11	Ball
73	49D-08	1	Nut
74	613750	1	Washer
75	613750	1	Washer
76	980835	1	Cap
77	886739	1	Poppet
78	980836	1	Seat
79	25K-30020	1	O-ring
80	960965	1	Check
81	947791	1	Spring
82	25K-30016	1	O-ring
83	980840	1	Seat
84	58K-210	1	O-ring
85	980838	1	Cap
86	91F-10	1	O-ring
87	946882	1	Plug
88	40K-04	1	Plug
89	886753	1	Spring
90	58K-210	1	O-ring
91	8D-08	1	Nut
92	980834	1	Screw

<sup>1</sup>Inc. 1 → 92

<sup>2</sup>See A

<sup>3</sup>For replacement use 2511462.





# Valve Assembly, Main

# CLARK

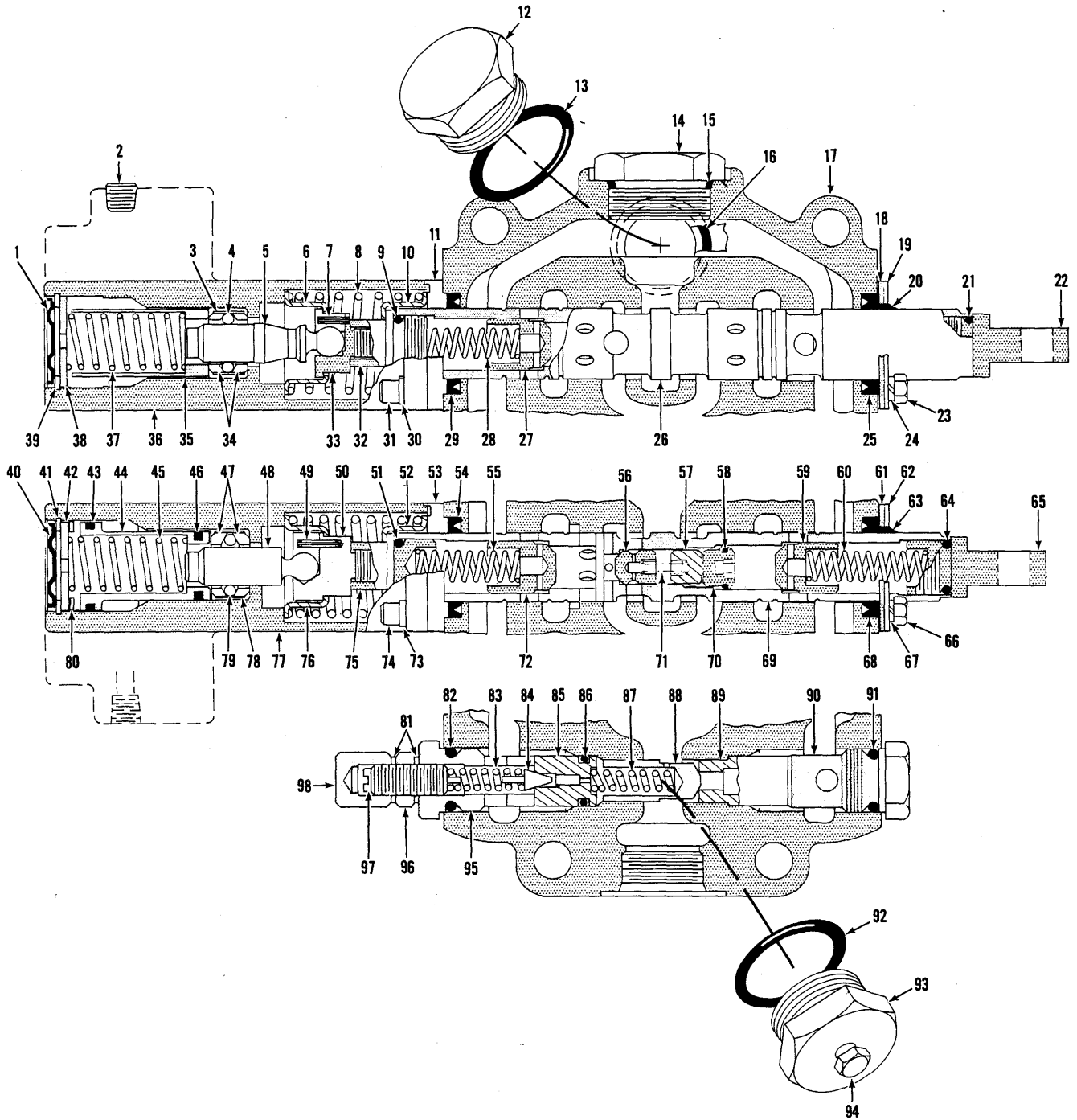
No.	Part No.	Qty.	Description
A	<sup>4</sup> 21512853	1	Valve assy
1	948202	1	Diaphragm
2	16F-04	1	Plug
3	948727	1	Sleeve
4	948730	11	Ball
5	948723	1	Plunger
6	944878	1	Retainer
7	742306	1	Roll pin
8	945090	1	Spring
9	25K-30022	1	O-ring
10	945092	1	Retainer
11	949300	1	Plate
12	24K-11	1	Plug
13	91F-11	1	O-ring
14	24K-11	1	Plug
15	91F-11	1	O-ring
16	58K-222	1	O-ring
17	§ <sup>3</sup> _____	—	Housing
18	949302	1	Plate
19	949303	1	Plate
20	949305	1	Wiper
21	25K-30022	1	O-ring
22	893295	1	Plunger eye
23	1C-612	2	Bolt
24	4E-06	2	Lockwasher
25	949304	1	Seal
26	§ <sup>3</sup> _____	—	Plunger
27	944885	1	Check
28	893293	1	Spring
29	949304	1	Seal
30	4E-06	2	Lockwasher
31	11G-620	2	Bolt
32	948732	1	Cap
33	949278	1	Socket
34	947843	2	Retainer
35	948954	1	Retainer
36	948720	1	Cover
37	947852	1	Spring
38	947848	1	Plug
39	666542	1	Snap ring
40	948202	1	Diaphragm
41	666542	1	Snap ring
42	947848	1	Plug
43	25K-40106	1	O-ring
44	947867	1	Piston
45	947852	1	Spring
46	25K-40028	1	O-ring
47	947843	2	Retainer
48	948722	1	Plunger
49	300232	1	Roll pin
50	949279	1	Socket

No.	Part No.	Qty.	Description
51	25K-30022	1	O-ring
52	945092	1	Retainer
53	949300	1	Plate
54	949304	1	Seal
55	946544	1	Spring
56	§ <sup>3</sup> _____	—	Check
57	_____	—	Omit
58	§ <sup>3</sup> _____	—	Omit
59	944885	1	Check
60	893293	1	Spring
61	949302	1	Plate
62	949303	1	Plate
63	949305	1	Wiper
64	25K-30022	1	O-ring
65	893295	1	Plunger eye
66	1C-612	2	Bolt
67	4E-06	2	Lockwasher
68	949304	1	Seal
69	§ <sup>3</sup> _____	—	Plunger
70	§ <sup>3</sup> _____	—	Cap
71	§ <sup>3</sup> _____	—	Spring
72	944885	1	Check
73	4E-06	2	Lockwasher
74	11G-620	2	Bolt
75	948732	1	Cap
75A	945090	1	Spring
76	944878	1	Retainer
77	948720	1	Cover
78	948727	1	Sleeve
79	948730	11	Ball
80	_____	—	Omit
81	613750	2	Washer
82	58K-210	1	O-ring
83	886753	1	Spring
84	886739	1	Poppet
85	980836	1	Seat
86	25K-30020	1	O-ring
87	947791	1	Spring
88	960965	1	Check
89	980840	1	Seat
89A	†25K-30016	1	O-ring
90	980838	1	Cap
91	58K-210	1	O-ring
92	91F-10	1	O-ring
93	946882	1	Plug
94	40K-04	1	Pipe plug
95	980835	1	Cap
96	8D-08	1	Nut
97	980834	1	Screw
98	49D-08	1	Nut

<sup>2</sup>Incl. 1→98

<sup>3</sup>See A

<sup>4</sup>For replacement use 2511462.



# Valve Assembly, Main

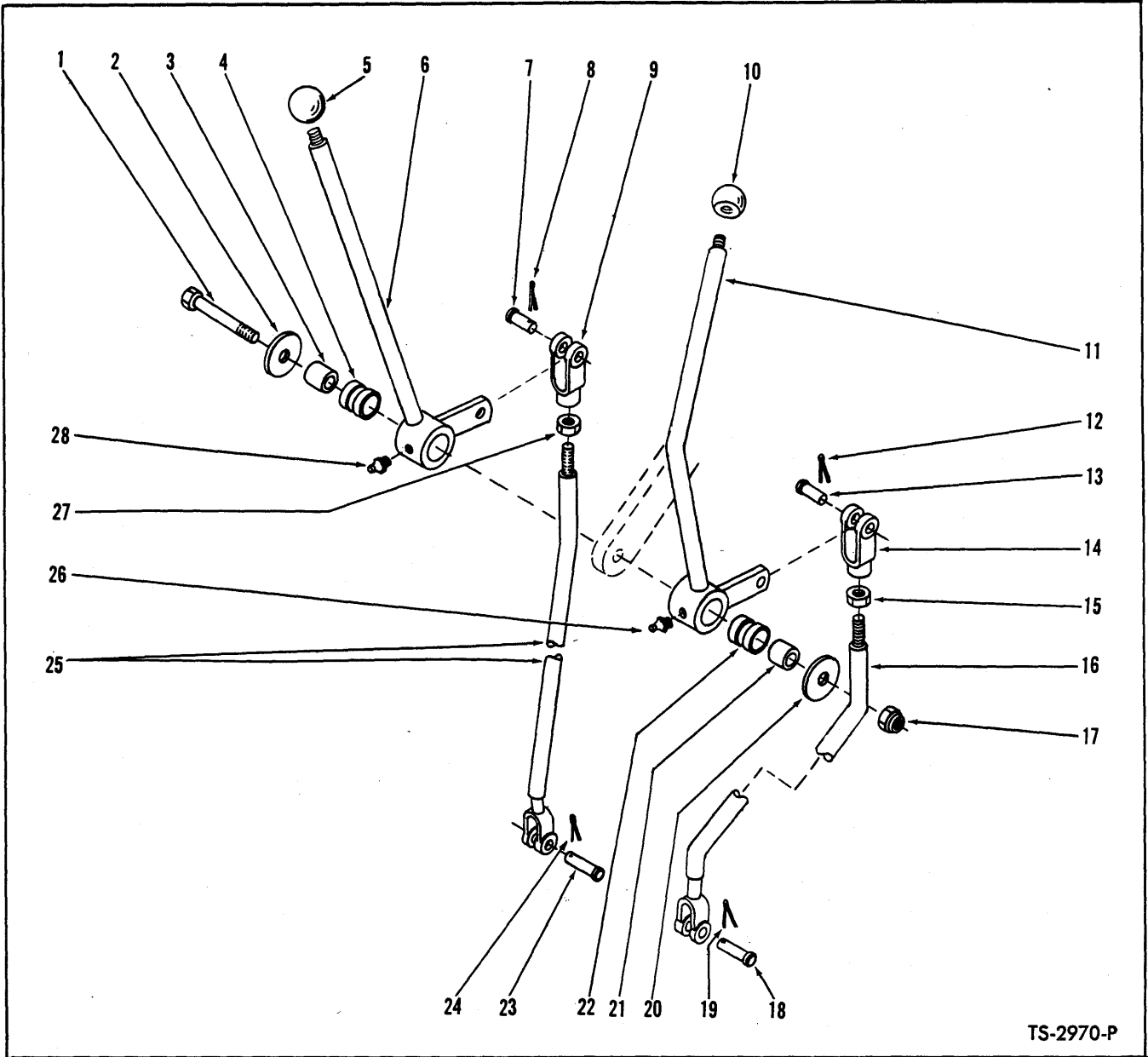
**CLARK**

No.	Part No.	Qty.	Description
A	2511462	1	Valve assy
1	948202	1	Diaphragm
2	16F-04	1	Plug
3	948727	1	Sleeve
4	948730	11	Ball
5	948723	1	Plunger
6	944878	1	Retainer
7	742306	1	Roll-pin
8	945090	1	Spring
9	25K-30022	1	O-ring
10	945092	1	Retainer
11	949300	1	Plate
12	24K-11	1	Plug
13	91F-11	1	O-ring
14	24K-11	1	Plug
15	91F-11	1	O-ring
16	58K-222	1	O-ring
17	§ <sup>3</sup> -----	—	Housing
18	949302	1	Plate
19	949303	1	Plate
20	949305	1	Wiper
21	25K-30022	1	O-ring
22	893295	1	Plunger eye
23	1C-612	2	Bolt
24	4E-06	2	Lockwasher
25	949304	1	Seal
26	§ <sup>3</sup> -----	—	Plunger
27	944885	1	Check
28	893293	1	Spring
29	949304	1	Seal
30	4E-06	2	Lockwasher
31	11G-620	2	Bolt
32	948732	1	Cap
33	949278	1	Socket
34	947843	2	Retainer
35	948954	1	Retainer
36	960900	1	Housing
37	947852	1	Spring
38	947848	1	Plug
39	666542	1	Snap ring
40	948202	1	Diaphragm
41	666542	1	Snap ring
42	947848	1	Plug
43	961157	1	O-ring
44	961155	1	Piston
45	947852	1	Spring
46	961156	1	O-ring
47	947843	2	Retainer
48	948722	1	Plunger
49	300232	1	Roll pin

No.	Part No.	Qty.	Description
50	949279	1	Socket
51	25K-30022	1	O-ring
52	945092	1	Retainer
53	949300	1	Plate
54	949304	1	Seal
55	960975	1	Spring
56	§ <sup>3</sup> -----	—	Check
57	§ <sup>3</sup> -----	—	Piston
58	§ <sup>3</sup> -----	—	O-ring
59	944885	1	Check
60	893293	1	Spring
61	949302	1	Plate
62	949303	1	Plate
63	949305	1	Wiper
64	25K-30022	1	O-ring
65	893295	1	Plunger eye
66	1C-612	2	Bolt
67	4E-06	2	Lockwasher
68	949304	1	Seal
69	§ <sup>3</sup> -----	—	Plunger
70	§ <sup>3</sup> -----	—	Cap
71	§ <sup>3</sup> -----	—	Spring
72	960901	1	Check
73	4E-06	2	Lockwasher
74	11G-620	2	Bolt
75	948732	1	Cap
75A	945090	1	Spring
76	944878	1	Retainer
77	960900	1	Housing
78	948727	1	Sleeve
79	948730	11	Ball
80	947772	1	Spacer
81	613750	2	Washer
82	58K-210	1	O-ring
83	886753	1	Spring
84	886739	1	Poppet
85	980836	1	Seat
86	25K-30020	1	O-ring
87	947791	1	Spring
88	960965	1	Check
89	980840	1	Seat
90	980838	1	Cap
91	58K-210	1	O-ring
92	91F-10	1	O-ring
93	946882	1	Plug
94	40K-04	1	Plug
95	980835	1	Cap
96	8D-08	1	Nut
97	980834	1	Screw
98	49D-08	1	Nut

<sup>2</sup>Incl. 1 → 98

<sup>3</sup>See A

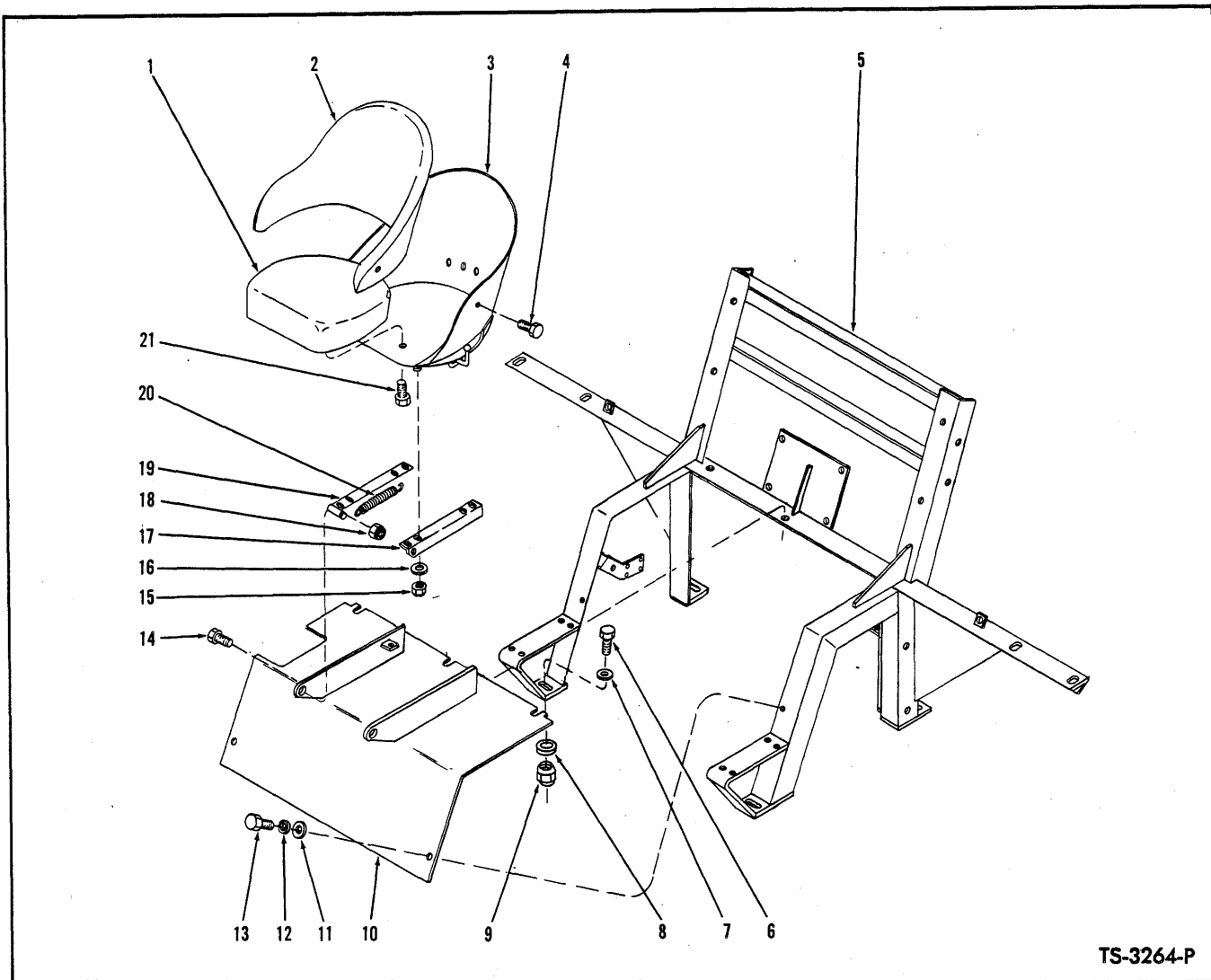


TS-2970-P

**VALVE CONTROL LEVERS AND LINKAGE**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-868	BOLT, Lever Mounting	1	15	8D-08	NUT, Clevis Jam	1
2	616796	WASHER, Lever Mounting	1	16	535012	ROD, Boom Control	1
3	550646	SLEEVE, Lever Mounting	1	17	18D-08	NUT, Lever Mounting	1
4	526767	BUSHING, Bucket Lever	1	18	4F-08127	PIN, Rod to Valve Clevis	1
5	509772	KNOB, Bucket Lever	1	19	1F-414	COTTER, Clevis Pin	1
6	536577	LEVER, Bucket Control	1	20	616796	WASHER, Lever Mounting	1
7	4F-08127	PIN, Rod to Lever Clevis	1	21	550646	SLEEVE, Lever Mounting	1
8	1F-414	COTTER, Clevis Pin	1	22	526767	BUSHING, Boom Lever	1
9	2J-8300	CLEVIS, Rod to Lever	1	23	4F-08127	PIN, Rod to Valve Clevis	1
10	509772	KNOB, Boom Lever	1	24	1F-414	COTTER, Clevis Pin	1
11	536578	LEVER, Boom Control	1	25	535010	ROD, Bucket Control	1
12	1F-414	COTTER, Clevis Pin	1	26	10H-25	FITTING, Bucket Lever Grease	1
13	4F-08127	PIN, Rod to Lever Clevis	1	27	8D-08	NUT, Clevis Jam	1
14	2J-8300	CLEVIS, Rod to Lever	1	28	10H-25	FITTING, Boom Lever Grease	1

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

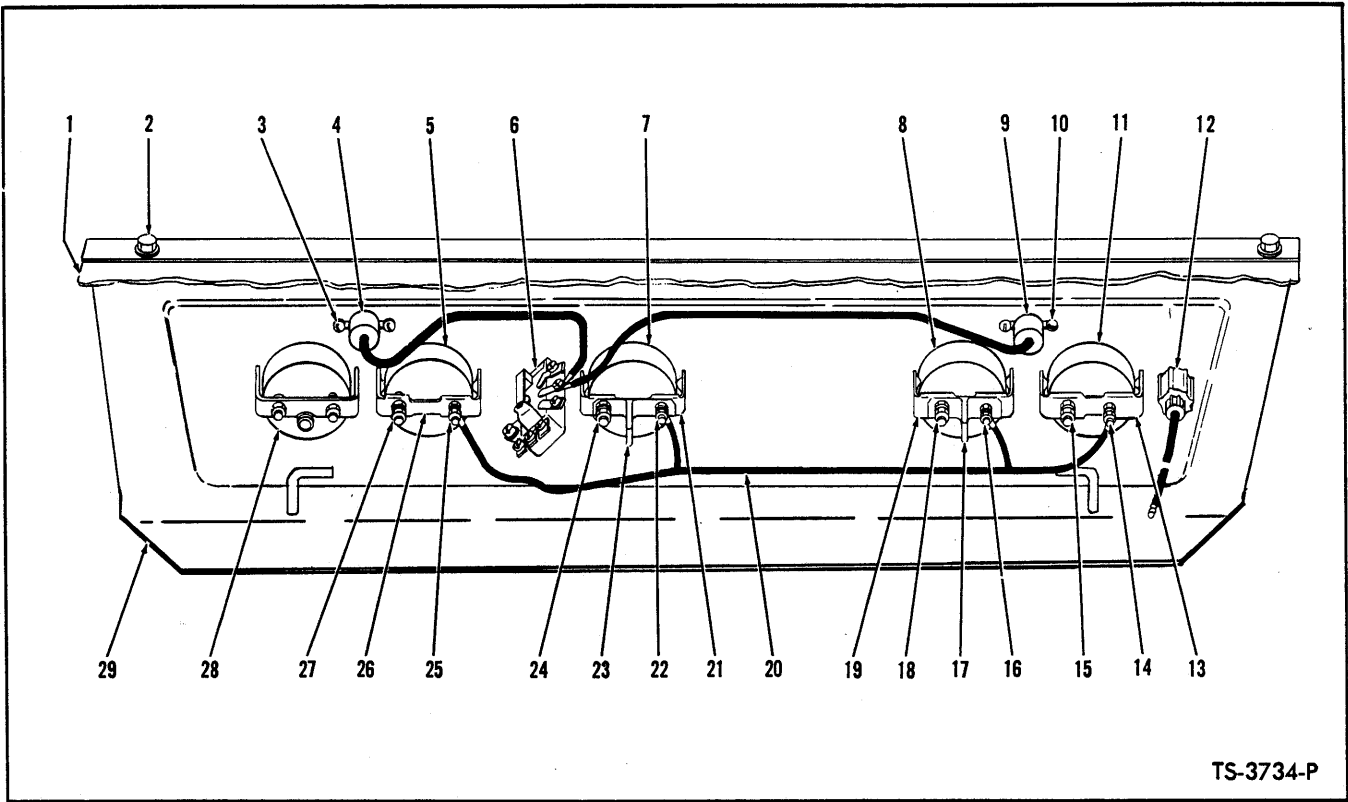


TS-3264-P

**SEAT AND SUPPORT GROUP**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1507663	SEAT ASSY (Inc. 1, 2, 3, 4, 21)	1	10		PLATE, Seat Support	
1	948144	CUSHION, Seat	1	10A	534738	For Serial - Gas - 2CA101 thru 2CA999	
2	948143	CUSHION, Back-Rest	1			G.M. - 2CG101 thru 2CG999	1
3	944982	BUCKET	1	10B	547500	For Serial - Gas - 3CA101 & thereafter	
4	1C-610	BOLT, Cushion Mounting	3			G.M. - 3CG101 & thereafter	1
5		SUPPORT, Seat		11	619021	WASHER, Plate to Seat Support	5
5A	535380	For Serial - Gas - 2CA101 thru 2CA999		12	4E-06	LKWSHR, Plate to Seat Support	5
		G.M. - 2CG101 thru 2CG999	1	13	17C-616	BOLT, Plate to Seat Support	5
5B	548603	For Serial - Gas - 3CA101 & thereafter		14	18C-820	BOLT, Seat Angle to Bracket	2
		G.M. - 3CG101 & thereafter	1	15	18D-05	NUT, Seat to Angle	4
6	18C-828	BOLT, Seat Support to Frame	4	16	25E-15	WASHER, Seat to Angle	4
7	619029	WASHER, Seat Support to Frame	4	17	538707	ANGLE, Seat Mounting - L.H.	1
8	71D-08	BASE, Seat Support to Frame Nut	4	18	18D-08	NUT, Seat Mounting Angle to Bracket	2
9	70D-08	NUT, Seat Support to Frame	4	19	538708	ANGLE, Seat Mounting - R.H.	1
				20	550301	SPRING	1
				21	1C-610	BOLT, Cushion Mounting	2

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



**FRONT INSTRUMENT PANEL**

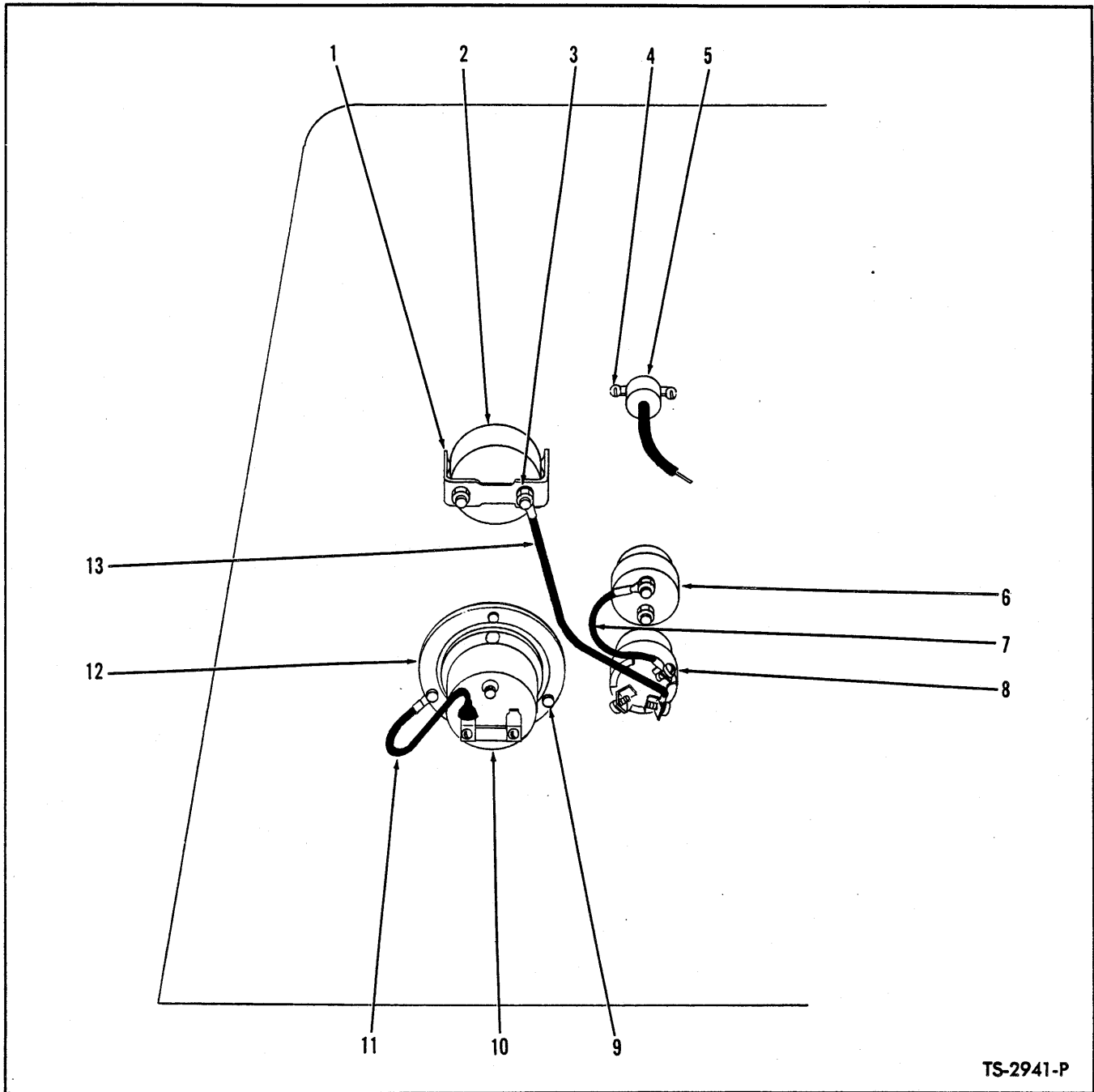
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	535289	PLATE, Upper	1	13	626530	CLAMP, Engine Temp. Gauge	1
1A	18C-612	†BOLT, Upper Plate Attaching	4	14	12D-8	NUT, Ignition Terminal	2
1B	619023	†WASHER, Upper Plate Attaching	4	14A	12E-8	†LKWSHR, Ignition Terminal	1
1C	18D-06	†NUT, Upper Plate Attaching	4	15	14D-10	NUT, Sender Terminal	2
2	17C-612	BOLT, Panel to Plate	2	15A	12E-10	†LKWSHR, Sender Terminal	1
2A	619023	†WASHER, Panel to Plate	2	16	12D-8	NUT, Ignition Terminal	2
2B	4E-06	†LKWSHR, Panel to Plate	2	16A	12E-8	†LKWSHR, Ignition Terminal	1
3	18G-606	SCREW, Dash Lamp to Panel	2	17	602350	SEPARATOR, Oil Pressure Gauge	1
3A	12E-6	†LKWSHR, Dash Lamp to Panel	2	18	14D-10	NUT, Sender Terminal	2
4	539045	*LAMP, Dash	1	18A	12E-10	†LKWSHR, Sender Terminal	1
5	551321	GAUGE, Torque Conv. Temperature	1	19	626530	CLAMP, Oil Pressure Gauge	1
6	2514253	SWITCH, Light—See Note "A"	1	20	541758	WIRE, Instruments	1
6A	550742	†ROD, Light Switch	1	21	626530	CLAMP, Fuel Gauge	1
6B	550743	†BUSHING, Light Switch	1	22	12D-8	NUT, Ignition Terminal	2
7	551320	GAUGE, Fuel	1	22A	12E-8	†LKWSHR, Ignition Terminal	1
8	551319	**GAUGE, Engine Oil Pressure	1	23	602350	SEPARATOR, Fuel Gauge	1
9	538161	*LAMP, Dash	1	24	14D-10	NUT, Sender Terminal	2
10	18G-606	SCREW, Dash Lamp	2	24A	12E-10	†LKWSHR, Sender Terminal	1
10A	12E-6	LKWSHR, Dash Lamp	2	25	12D-8	NUT, Ignition Terminal	2
11	551322	**GAUGE, Engine Temperature	1	25A	12E-8	†LKWSHR, Ignition Terminal	1
12	538677	LIGHTER, Cigarette (Inc. 12A, 12B)	1	26	626530	CLAMP, Converter Temp. Gauge	1
12A	944803	†ELEMENT, Lighter	1	27	14D-10	NUT, Sender Terminal	2
12B	549024	†RECEPTACLE, Lighter	1	27A	12E-10	†LKWSHR, Sender Terminal	1
				28	---	OMIT, Not Used this Application	—
				29	535293	PANEL, Instrument	1

†Not Illustrated

\*NOTE: For replacement use 574276 Lamp plus 1—427237 Bulb and 1—574275 Tab.

\*\*NOTE: For replacement See SG-326

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



TS-2941-P

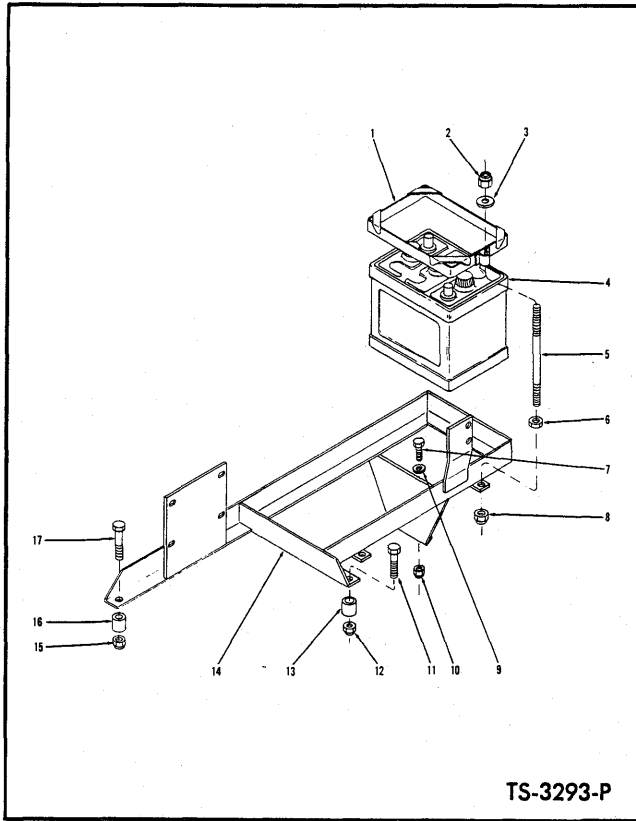
**SIDE INSTRUMENT PANEL**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	601212	CLAMP, Ammeter .....	1	7	696048	WIRE, Ignition Switch to Starter Button .....	1
2	550735	AMMETER .....	1	8	573548	SWITCH, Ignition (Keyed) .....	1
3	14D-10	NUT .....	4	9	3G-604	SCREW, Hourmeter to Panel .....	3
3A	12E-10	LKWSHR .....	2	9A	12E-6	LKWSHR, Hourmeter to Panel .....	3
4	18G-606	SCREW, Dash Lamp to Panel .....	2	10	1743825	HOURMETER .....	1
4A	12E-6	LKWSHR, Dash Lamp to Panel .....	2	11	536999	WIRE, Hourmeter Ground .....	1
5	534960	*LAMP, Dash .....	1	12	685514	DAMPENER, Hourmeter Vibration .....	1
6	600259	BUTTON, Starter Push .....	1	13	553405	WIRE, Ignition Switch to Ammeter .....	1

\*NOTE: For replacement use 946282 plus 1-940316 Bulb.

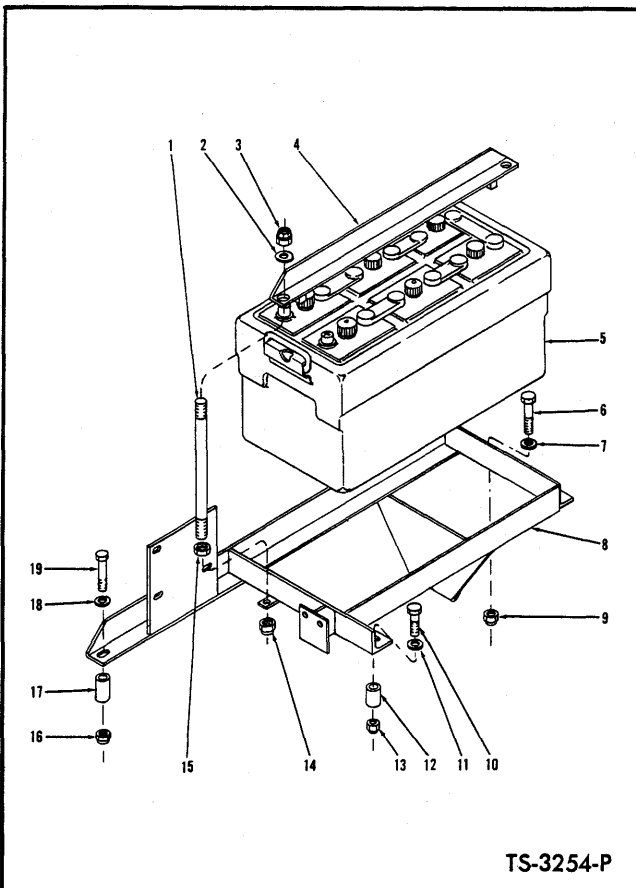
**WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE**





**BATTERY AND BATTERY BOX – GAS**

Item No.	Part No.	Description	No. Req'd.
1	536488	HOLD DOWN, Battery	2
2	17D-2	NUT, Battery Hold Down	4
3	25E-15	WASHER, Battery Hold Down	4
4	----	BATTERY – EXIDE #CX-1-105	2
5	600183	STUD, Battery Hold Down	4
6	7D-05	NUT, Hold Down Stud to Battery Box	4
7	18C-624	BOLT, Battery Box to Frame	1
8	17D-2	NUT, Hold Down Stud to Battery Box	4
9	25E-18	WASHER, Battery Box to Frame	1
10	18D-06	NUT, Battery Box to Frame	1
11	18C-652	BOLT, Battery Box to Frame	1
12	18D-06	NUT, Battery Box to Frame	1
13	537825	SPACER, Battery Box to Frame	1
14	536641	BOX, Battery	1
15	18D-06	NUT, Battery Box to Frame	1
16	537825	SPACER, Battery Box	1
17	18C-652	BOLT, Battery Box to Frame	1



**BATTERY AND BATTERY BOX – G.M.**

Item No.	Part No.	Description	No. Req'd.
1	540969	STUD, Battery Hold Down	2
2	25E-15	WASHER, Battery Hold Down	2
3	17D-2	NUT, Battery Hold Down	2
4	572394	HOLD DOWN, Battery	1
5	----	BATTERY—EXIDE #Hycap 8D-1145H	1
6	18C-624	BOLT, Battery Box to Frame	1
7	25E-18	WASHER, Battery Box to Frame	1
8	544254	BOX, Battery	1
9	18D-06	NUT, Battery Box to Frame	1
10	18C-652	BOLT, Battery Box to Frame	1
11	25E-18	WASHER, Battery Box to Frame	1
12	537825	SPACER, Battery Box to Frame	1
13	18D-06	NUT, Battery Box to Frame	1
14	17D-2	NUT, Stud to Battery Box	2
15	7D-05	NUT, Stud to Battery Box	2
16	18D-06	NUT, Battery Box to Frame	1
17	537825	SPACER, Battery Box to Frame	1
18	25E-18	WASHER, Battery Box to Frame	1
19	18C-652	BOLT, Battery Box to Frame	1

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

**WIRING AND BATTERY CABLES — GAS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	539694	HARNESS, Main Wiring .....	1	9	653976	*WIRE, Horn Relay to Horn .....	1
2	539043	HARNESS, Generator to Regulator Wiring .....	1	9A	557438	*WIRE, Horn Relay to Horn .....	1
3	541657	HARNESS, Tail Light Wiring .....	1	10	539728	CABLE, Battery Connector .....	1
4	541659	HARNESS, Cab Light Wiring .....	1	11	539721	CABLE, Solenoid to Battery .....	1
5	550745	WIRE, Cab Light Ground .....	6	12	539718	CABLE, Starter to Solenoid .....	1
6	539077	WIRE, Distributor to Coil .....	1	13	550827	CABLE, Battery Ground .....	1
7	539703	WIRE, Hourmeter Pressure Switch to Coil .....	1	14	539701	CABLE, Starter Ground .....	1
8	653976	WIRE, Steering Column to Horn Relay .....	1	15	18C-620	BOLT, Ground Cable to Frame .....	1
				16	18D-06	NUT, Ground Cable to Frame .....	1
				17	25E-18	WASHER, Ground Cable to Frame .....	1

\*NOTE: 653976 is used with 647300 Horn. 557438 is used with 733624 Horn. 733624 Horn has a permanent mounting bracket for identification purposes.

**WIRING AND BATTERY CABLES — G.M.**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
18	547232	HARNESS, Main Wiring .....	1	25	653976	WIRE, Steering Column to Horn Relay .....	1
19	541509	HARNESS, Generator to Regulator Wiring .....	1	26	653976	*WIRE, Horn Relay to Horn .....	1
20	541657	HARNESS, Tail Light Wiring .....	1	26A	557438	*WIRE, Horn Relay to Horn .....	1
21	541659	HARNESS, Cab Light Wiring .....	1	27	547229	CABLE, Battery to Starter .....	1
22	550745	WIRE, Cab Light Ground .....	1	28	550845	CABLE, Battery Ground .....	1
23	551879	WIRE, Regulator Ground .....	1	29	18C-620	BOLT, Ground Cable to Frame .....	1
24	547227	WIRE, Solenoid to Hourmeter Switch .....	1	30	18D-06	NUT, Ground Cable to Frame .....	1
				31	25E-18	WASHER, Ground Cable to Frame .....	1

\*NOTE: 653976 is used with 647300 Horn. 557438 is used with 733624 Horn. 733624 Horn has a permanent mounting bracket for identification purposes.

**FUSES**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
32	611074	FUSE — 20 Amp. ....	2	33	542321	FUSE — 5 Amp. ....	2

**DECALS**

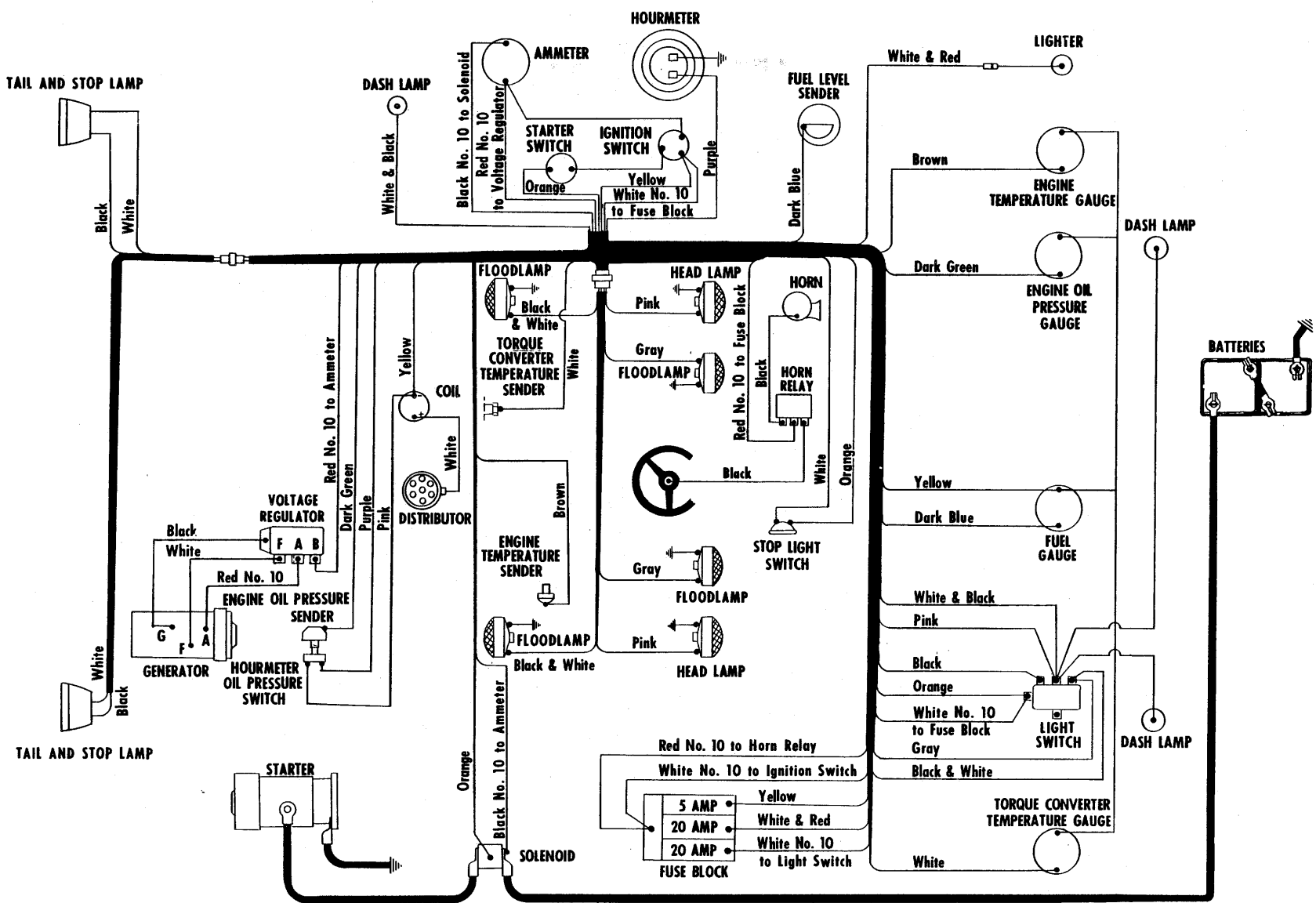
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
34	2513351	DECAL, Clark .....	2	39	1505537	DECAL, Safety Warning .....	1
35	—	OMIT .....	2	40	541570	DECAL, Instrument Panel .....	1
36	2513635	<sup>2</sup> DECAL, Model .....	2	41	—	OMIT .....	—
37	538258	DECAL, Starter .....	1	42	542074	PLATE, Patent .....	1
38	538256	DECAL, Transmission Drain .....	1	43	538250	PLATE, Range Shift .....	1
				44	6C-605	SCREW .....	8

<sup>2</sup>For replacement remove Letter "B".

**TOOLS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
45	711264	WRENCH, Wheel .....	1	49	—	*RING, Packing Compressor .....	—
46	552164	HANDLE, Wheel Wrench .....	1	49A	527499	For Boom & Bucket Cylinders .....	1
47	552172	WRENCH, Hub Bearing—3 <sup>3</sup> / <sub>8</sub> " Hex .....	1	49B	526643	For Steering Cylinders .....	1
48	552170	WRENCH, Hub Bearing—3 <sup>1</sup> / <sub>4</sub> " Hex .....	1	50	—	*SLEEVE, Piston Rod Wiper Taper .....	—
				50A	953065	For Boom & Bucket Cylinders .....	1
				50B	530822	For Steering Cylinders .....	1

\*Optional Equipment — Not furnished with machine.

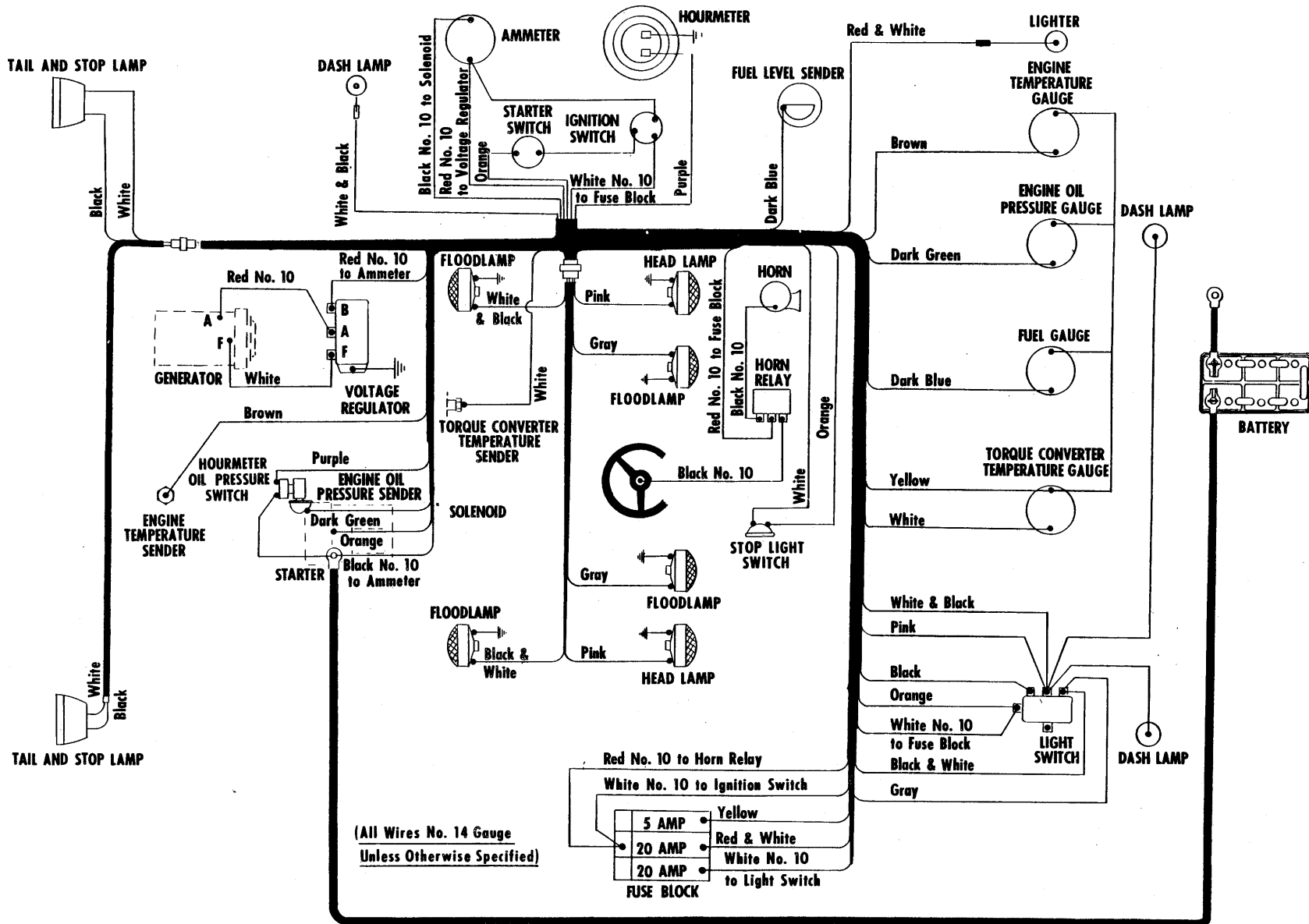


(All Wires No. 14 Gauge Unless Otherwise Specified)

— FRONT OF MACHINE —>

WIRING DIAGRAM — GAS

TS-3272-P



FRONT OF MACHINE →  
**WIRING DIAGRAM — G.M.**

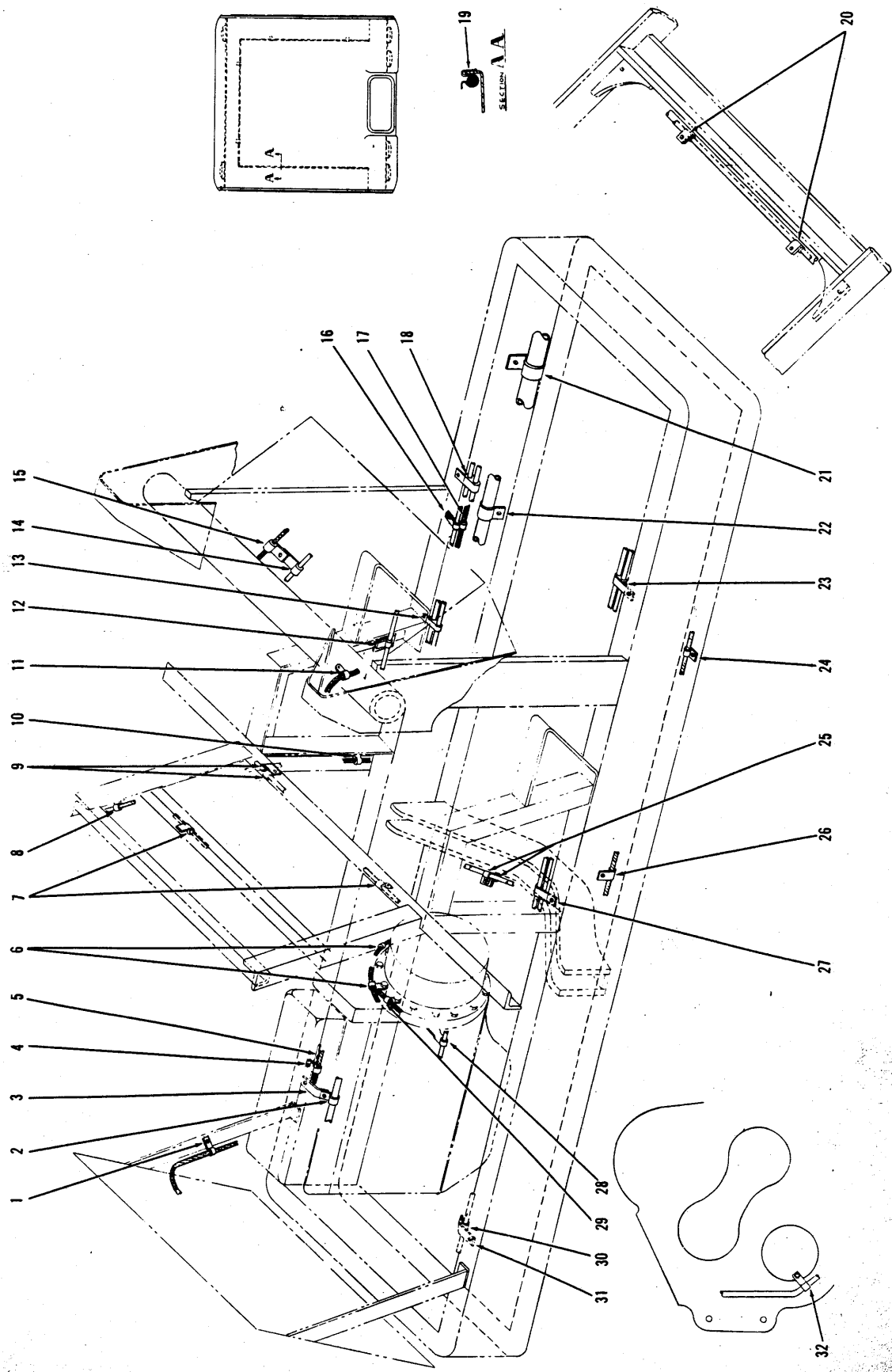
TS-3270-P



CONSTRUCTION MACHINERY DIVISION



TS-3222-P



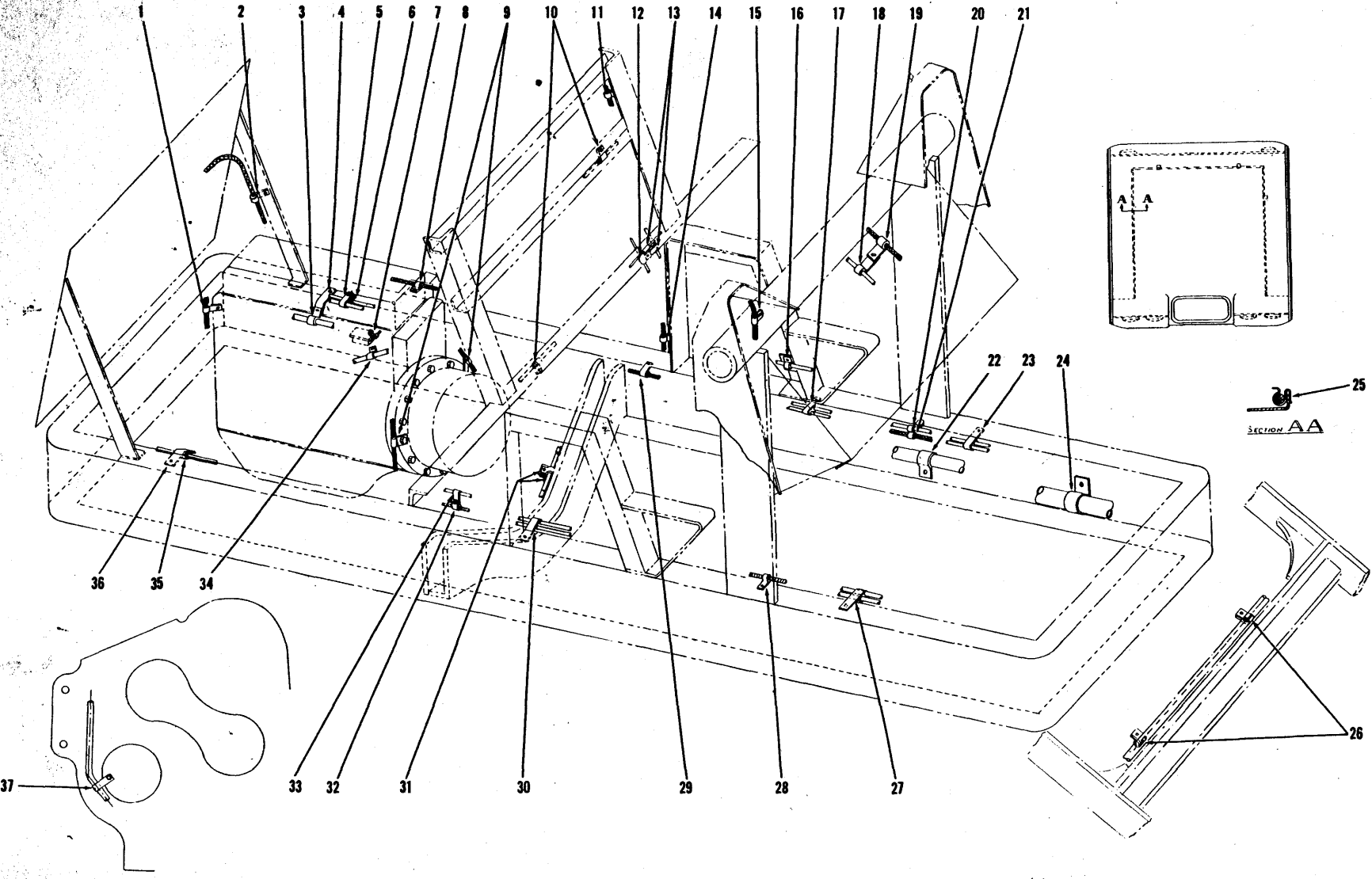
CLIP DIAGRAM — GAS

**CLIP DIAGRAM — GAS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	30H-16	CLIP, Wiring Harness	1	19	541988	CLIP, Cab Harness	6
1A	18C-618	†BOLT, Clip to Grille Support	1	20	30H-35	CLIP, Bucket Leveler Pipe	2
1B	18D-06	†NUT, Clip to Grille Support	1	20A	18C-616	†BOLT, Clip Mounting	2
2	30H-42	CLIP, Cooler Line	1	20B	18D-06	†NUT, Clip Mounting	2
2A	18C-612	†BOLT, Clip to Bracket	1	21	533482	CLIP, Main Hydraulic Line	1
2B	18D-06	†NUT, Clip to Bracket	1	21A	533483	†PAD, Rubber Strap	1
3	535018	BRACKET, Clip Mounting	1	21B	18C-828	†BOLT, Clip to Frame	1
4	30H-16	CLIP, Wiring Harness	1	21C	18D-08	†NUT, Clip to Frame	1
5	30H-20	CLIP, Fuel Line	1	22	533482	CLIP, Main Hydraulic Line	1
6	30H-27	CLIP, Wiring Harness	2	22A	533483	†PAD, Rubber Strap	1
7	30H-16	CLIP, Brake Line	2	23	31H-34	CLIP, Steering Pipes	1
7A	18C-616	†BOLT, Clip to Seat Support	2	23A	18C-624	†BOLT, Clip to Frame	1
7B	18D-06	†NUT, Clip to Seat Support	2	23B	18D-06	†NUT, Clip to Frame	1
8	30H-27	CLIP, Cab Harness	1	24	30H-35	CLIP, Battery Cable	1
9	30H-16	CLIP, Brake Line	2	24A	18C-616	†BOLT, Clip to Frame	1
9A	18C-616	†BOLT, Clips to Seat Support	1	24B	18D-06	†NUT, Clip to Frame	1
9B	18D-06	†NUT, Clips to Seat Support	1	25	30H-38	CLIP, Steering Pipes	2
10	30H-27	CLIP, Wiring Harness	1	25A	18C-624	†BOLT, Clips to Frame	1
11	30H-38	CLIP, Bucket Leveler Hose	1	25B	18D-06	†NUT, Clips to Frame	1
11A	18C-616	†BOLT, Clip to Frame	1	26	30H-35	CLIP, Battery Cable	1
11B	4E-06	†LKWSHR, Clip to Frame	1	26A	18C-616	†BOLT, Clip to Frame	1
12	30H-20	CLIP, Fuel Line	1	26B	18D-06	†NUT, Clip to Frame	1
12A	18C-616	†BOLT, Clip to Seat Support	1	27	31H-36	CLIP, Steering Pipes	1
12B	18D-06	†NUT, Clip to Seat Support	1	28	551902	CLIP, Choke Cable	1
13	547043	CLIP, Brake Line	1	28A	2G-1006	†SCREW	1
14	30H-38	CLIP, Clutch Pressure Hose	1	28B	13E-10	†LKWSHR	1
15	30H-38	CLIP, Wiring Harness	1	28C	14D-10	†NUT	1
15A	18C-616	†BOLT, Clip Mounting	1	29	30H-12	CLIP, Choke Cable	1
15B	18D-06	†NUT, Clip Mounting	1	30	30H-42	CLIP, Cooler Line	1
16	30H-38	CLIP, Steering Line	1	30A	18C-612	†BOLT, Clip to Bracket	1
17	30H-38	CLIP, Wiring Harness	1	30B	18D-06	†NUT, Clip to Bracket	1
17A	18C-620	†BOLT, Clips to Frame	1	31	535462	BRACKET, Clip Mounting	1
17B	18D-06	†NUT, Clips to Frame	1	31A	18C-620	†BOLT, Bracket to Frame	1
18	31H-12	CLIP, Brake Line	1	31B	18D-06	†NUT, Bracket to Frame	1
18A	18C-624	†BOLT, Clip to Frame	1	32	30H-47	CLIP, Transmission Dipstick Tube	1
18B	18D-06	†NUT, Clip to Frame	1				

†Not Illustrated

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



CLIP DIAGRAM — G.M.

TS-3320-P

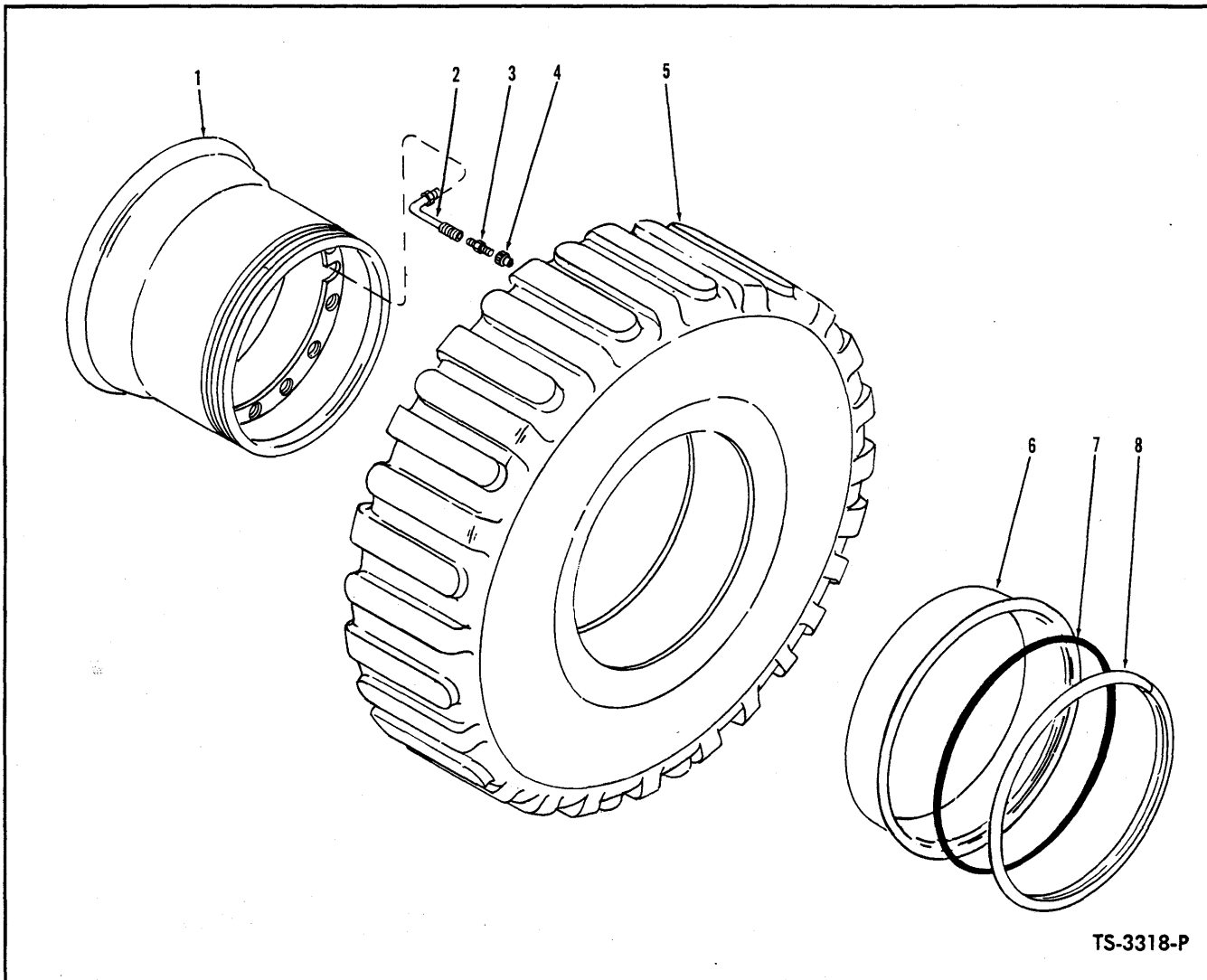
**CLIP DIAGRAM — G.M.**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	30H-23	CLIP, Engine Temperature Sender	1	21B	18D-06	†NUT, Clips to Frame	1
1A	17C-612	†BOLT, Clip to Engine	1	22	533482	CLIP, Suction Tube—Main Hyd. Line	1
1B	4E-06	†LKWSHR, Clip to Engine	1	22A	533483	†PAD, Rubber Strap — Suction Tube	1
2	30H-16	CLIP, Wiring Harness	1	23	31H-12	CLIP, Brake Line	1
2A	18C-618	†BOLT, Clip to Frame	1	23A	18C-624	†BOLT, Clip to Frame	1
2B	18D-06	†NUT, Clip to Frame	1	23B	18D-06	†NUT, Clip to Frame	1
3	30H-42	CLIP, Cooler Line	1	24	533482	CLIP, Suction Tube—Main Hyd. Line	1
3A	18C-612	†BOLT, Clip to Bracket	1	24A	533483	†PAD, Rubber Strap — Suction Tube	1
3B	18D-06	†NUT, Clip to Bracket	1	24B	18C-828	†BOLT, Clip to Frame	1
4	535018	BRACKET, Clip Mounting	1	24C	18D-08	†NUT, Clip to Frame	1
5	30H-16	CLIP, Wiring Harness	1	25	541988	CLIP, Cab Harness	6
6	30H-20	CLIP, Fuel Line	1	26	30H-35	CLIP, Bucket Lever Pipe	2
7	30H-16	CLIP, Engine Stop Cable	1	26A	18C-616	†BOLT, Clip to Bracket	2
8	30H-23	CLIP, Wiring Harness	1	26B	18D-06	†NUT, Clip to Bracket	2
9	30H-27	CLIP, Wiring Harness	2	27	31H-34	CLIP, Steering Pipes	1
10	30H-16	CLIP, Brake Line	2	27A	18C-624	†BOLT, Clip to Frame	1
10A	18C-616	†BOLT, Clip to Seat Support	2	27B	18D-06	†NUT, Clip to Frame	1
10B	18D-06	†NUT, Clip to Seat Support	2	28	30H-35	CLIP, Battery Cable	1
11	30H-27	CLIP, Cab Harness	1	28A	18C-616	†BOLT, Clip to Frame	1
12	30H-38	CLIP, Fuel Hose Suction Line	1	28B	18D-06	†NUT, Clip to Frame	1
13	30H-16	CLIP, Brake Line	2	29	538235	CLIP, Wiring Harness	1
13A	18C-616	†BOLT, Clips to Seat Support	1	30	31H-36	CLIP, Steering Pipes	1
13B	18D-06	†NUT, Clips to Seat Support	1	31	30H-38	CLIP, Steering Pipes	2
14	30H-27	CLIP, Wiring Harness	1	31A	18C-624	†BOLT, Clips to Frame	1
15	30H-38	CLIP, Bucket Leveler Hose	1	31B	18D-06	†NUT, Clips to Frame	1
15A	18C-616	†BOLT, Clip to Pivot Tube	1	32	30H-35	CLIP, Battery Cable	1
15B	4E-06	†LKWSHR, Clip to Pivot Tube	1	33	30H-46	CLIP, Cooler Line	1
16	30H-20	CLIP, Fuel Line	1	33A	18C-614	†BOLT, Clips to Cooler Line	1
16A	18C-616	†BOLT, Clip to Seat Support	1	33B	18D-06	†NUT, Clips to Cooler Line	1
16B	18D-06	†NUT, Clip to Seat Support	1	34	30H-46	CLIP, Cooler Line	1
17	547043	CLIP, Brake Lines	1	35	30H-42	CLIP, Cooler Line	1
18	30H-38	CLIP, Clutch Pressure Hose	1	35A	18C-612	†BOLT, Clip to Bracket	1
19	30H-38	CLIP, Wiring Harness	1	35B	18D-06	†NUT, Clip to Bracket	1
19A	18C-616	†BOLT, Clip to Wiring Harness	1	36	535462	BRACKET, Clip Mounting	1
19B	18D-06	†NUT, Clip to Wiring Harness	1	36A	18C-620	†BOLT, Bracket to Frame	1
20	30H-38	CLIP, Steering Line	1	36B	18D-06	†NUT, Bracket to Frame	1
21	30H-38	CLIP, Wiring Harness	1	37	30H-47	CLIP, Transmission Dipstick Tube	1
21A	18C-620	†BOLT, Clips to Frame	1				

†Not Illustrated

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



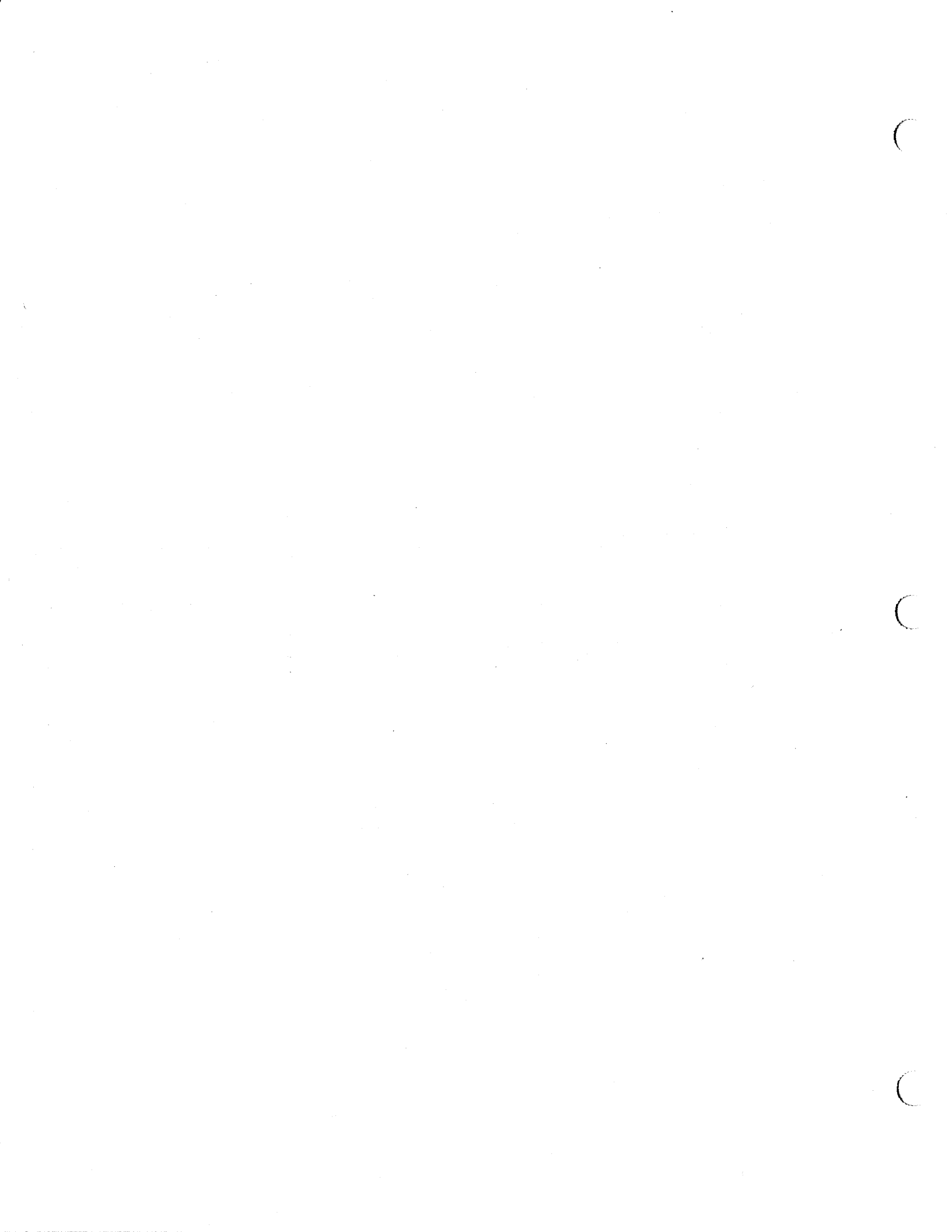


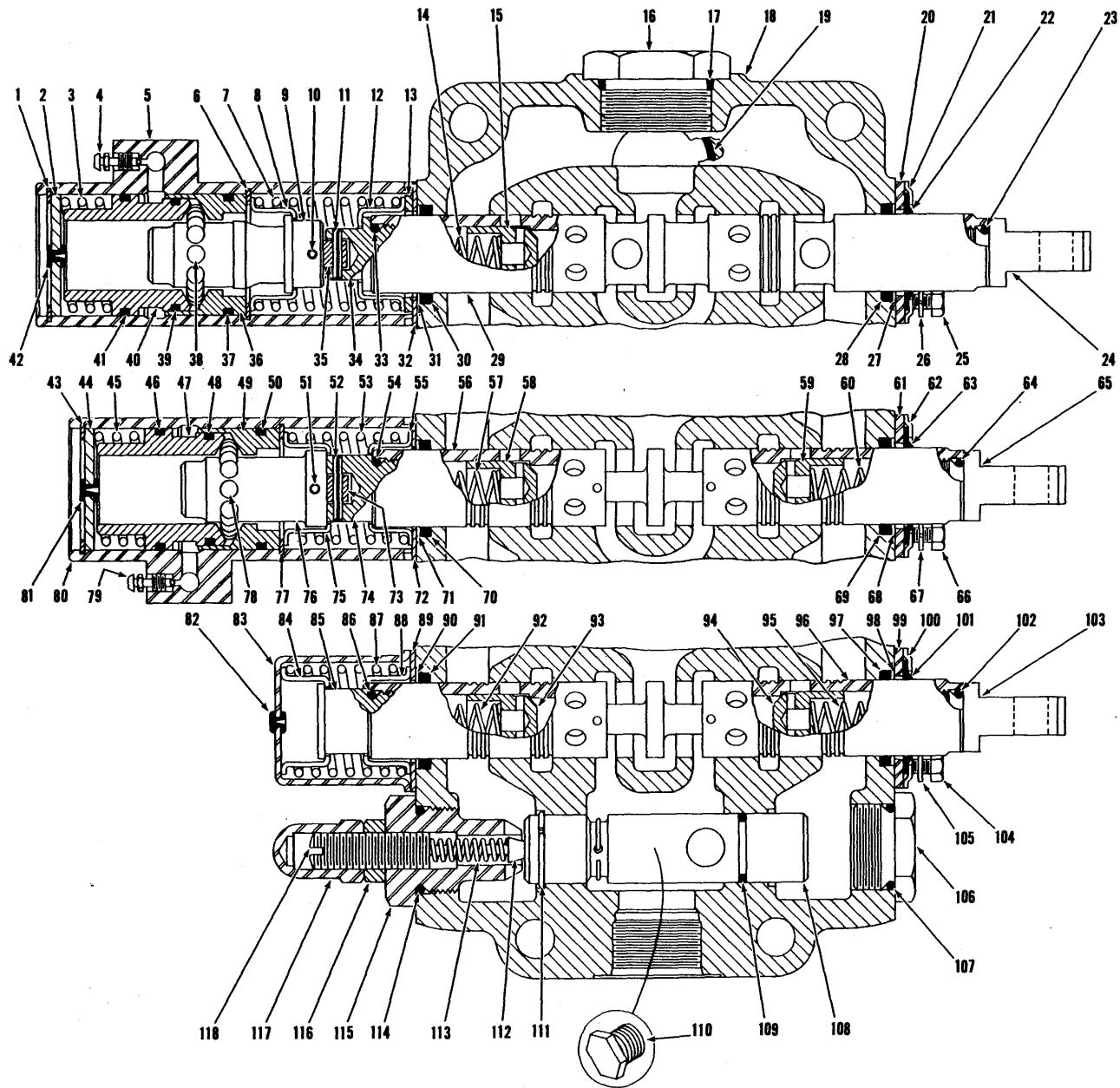
**WHEEL AND TIRE DATA**

Item No.	Part No.		Description	No. Req'd.
	14:00 x 24	17.5 x 25		
1	532253	545957	WHEEL .....	4
2	517963	509445	STEM, Valve (Inc. 3, 4) .....	4
3	551684	551684	ADAPTER, Valve Stem .....	4
4	551685	551685	CAP, Valve .....	4
5	---	---	§TIRE .....	4
6	941326	112461	FLANGE .....	4
7	941329	112462	"O" RING .....	4
8	941325	112460	LOCK RING .....	4

§Not Sold Separately

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





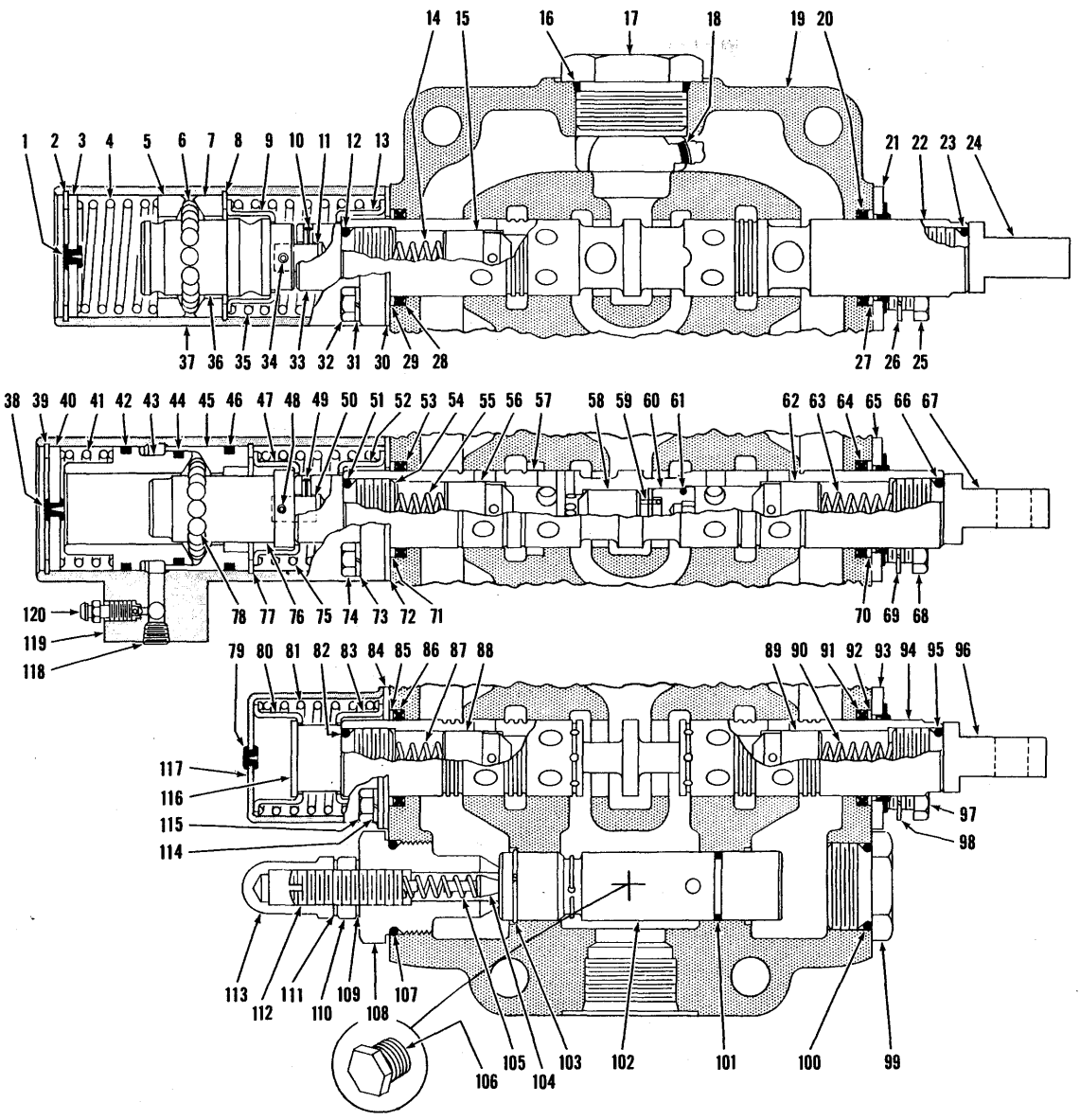
THREE SPOOL CONTROL VALVE ASSEMBLY

TS-4232-P

**THREE SPOOL CONTROL VALVE ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	548594	*VALVE ASSY (Inc. 1 thru 118)	1	60	944884	SPRING, Check	1
1	507695	RING, Retaining	1	61	—	§PLATE, Retaining — See 63	—
2	944900	PLUG	1	62	—	§PLATE, Retaining — See 63	—
3	945086	SPRING	1	63	893294	WIPER, Plunger (Inc. 61, 62)	1
4	641297	SCREW, Bleeder	1	64	25K-30022	"O" RING	1
5	945085	COVER, Detent	1	65	944889	EYE, Plunger	1
6	1301194	RING, Retaining	1	66	1C-410	BOLT	6
7	945090	SPRING	1	67	4E-04	WASHER, Lock	6
8	944878	GUIDE, Spring	1	68	944883	RING, Back-up	1
9	945087	CAP, Detent	1	69	946583	RING, Quad	1
10	108301	PIN, Roll	1	70	946583	RING, Quad	1
11	300232	PIN, Roll	1	71	944883	RING, Back-up	1
12	945092	GUIDE, Spring	1	72	944882	PLATE, Retaining	1
13	945093	SPACER, Spring	1	73	888449	PIN	1
14	944884	SPRING, Check	1	74	945095	CAP, Plunger	1
15	944885	CHECK, Plunger	1	75	944878	GUIDE, Spring	1
16	24K-11	CAP	1	76	945096	CAP, Detent	1
17	91F-11	"O" RING	1	77	1301194	RING, Retaining	1
18	—	§HOUSING, Valve (See Item "A")	1	78	10J-08	BALL, Steel	13
19	58K-222	"O" RING	1	79	641297	SCREW, Bleeder	1
20	—	§PLATE, Retaining — See 22	—	80	945097	COVER, Detent	1
21	—	§PLATE, Retaining — See 22	—	81	886763	PLUG, Bleeder	1
22	893294	WIPER, Plunger (Inc. 20, 21)	1	82	886745	PLUG, Bleeder	1
23	25K-30022	"O" RING	1	83	944896	COVER, Spring	1
24	944889	EYE, Plunger	1	84	945348	GUIDE, Spring	1
25	1C-410	BOLT	6	85	944895	CAP, Plunger	1
26	4E-04	WASHER, Lock	6	86	25K-30022	"O" RING	1
27	944883	RING, Back-up	1	87	944879	SPRING	1
28	946583	RING, Quad	1	88	945348	GUIDE, Spring	1
29	—	§PLUNGER, Operating (See Item "A")	1	89	944882	PLATE, Retaining	1
30	946583	RING, Quad	1	90	944883	RING, Back-up	1
31	944883	RING, Back-up	1	91	946583	RING, Quad	1
32	944882	PLATE, Retaining	1	92	944884	SPRING, Check	1
33	25K-30022	"O" RING	1	93	944885	CHECK, Plunger	1
34	945091	CAP, Plunger	1	94	944885	CHECK, Plunger	1
35	888449	PIN	1	95	944884	SPRING, Check	1
36	944901	RETAINER, Ball	1	96	—	§PLUNGER, Operating (See Item "A")	1
37	945089	"O" RING	1	97	946583	RING, Quad	1
38	10J-08	BALL, Steel	13	98	944883	RING, Back-up	1
39	58K-127	"O" RING	1	99	—	§PLATE, Retaining — See 101	—
40	944903	RETAINER, Ball	1	100	—	§PLATE, Retaining — See 101	—
41	945089	"O" RING	1	101	893294	WIPER, Plunger (Inc. 99, 100)	1
42	886763	PLUG, Bleeder	1	102	25K-30022	"O" RING	1
43	507695	RING, Retaining	1	103	944889	EYE, Plunger	1
44	944900	PLUG	1	104	1C-410	BOLT	6
45	945086	SPRING	1	105	4E-04	WASHER, Lock	6
46	945089	"O" RING	1	106	944894	CAP	1
47	944903	RETAINER, Ball	1	107	58K-214	"O" RING	1
48	58K-127	"O" RING	1	108	893298	VALVE ASSY, Relief (Inc. Items 109 & 111)	1
49	944901	RETAINER, Ball	1	109	58K-021	"O" RING	1
50	945089	"O" RING	1	110	40K-04	CAP	1
51	305307	PIN, Roll	1	111	944892	RING, Retaining	1
52	108301	PIN, Roll	1	112	886739	POPPET, Relief	1
53	944879	SPRING	1	113	886753	SPRING, Relief	1
54	25K-30022	"O" RING	1	114	58K-214	"O" RING	1
55	944878	GUIDE, Spring	1	115	893296	CAP, Adjusting	1
56	—	§PLUNGER, Operating (See Item "A")	1	116	8D-08	NUT, Jam	1
57	944884	SPRING, Check	1	117	944853	NUT, Acorn	1
58	944885	CHECK, Plunger	1	118	944890	SCREW, Adjusting	1
59	944885	CHECK, Plunger	1				

\*NOTE: For complete replacement use 2511463 Valve, plus 1-1512420 Plate, 1-1512419 Spacer, 1-58K222 O-Ring, 3-18C880 Bolt, & 9-25E21 Washer.  
§Not Sold Separately



THREE SPOOL CONTROL VALVE ASSEMBLY

TS-7723-P

86A.1

(1G13)

PM 1698

**THREE SPOOL CONTROL VALVE ASSEMBLY**

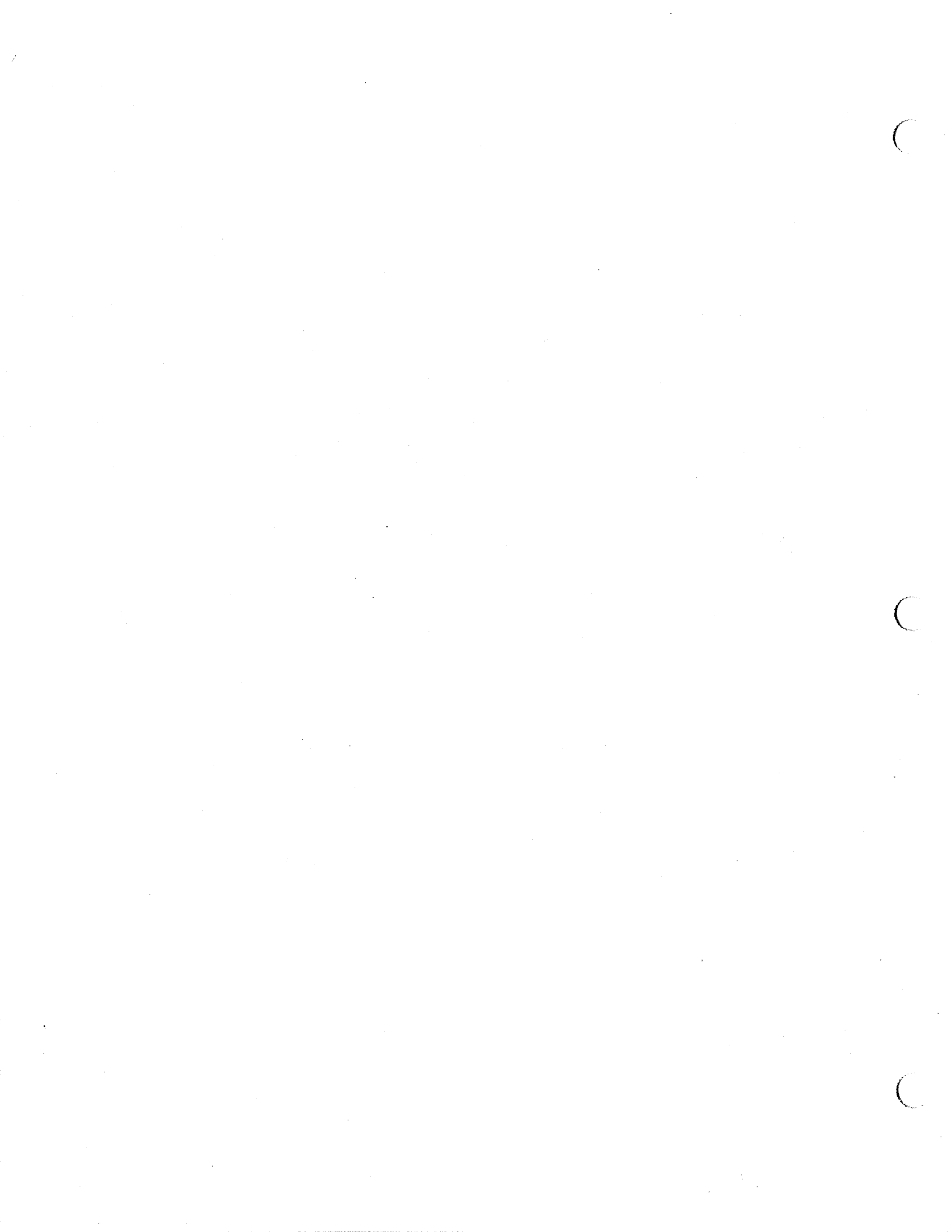
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	563939	*VALVE ASSY, Control (Inc. 1 thru 120)	1	41	945086	SPRING, Detent .....	1
1	886763	PLUG, Bleeder .....	1	42	945089	"O" RING, Ball Retainer .....	1
2	507695	RING, Retaining .....	1	43	944903	RETAINER, Ball .....	1
3	944900	PLUG .....	1	44	58K-127	"O" RING, Ball Retainer .....	1
4	946029	SPRING, Detent .....	1	45	944901	RETAINER, Ball .....	1
5	944897	RETAINER, Ball .....	1	46	945089	"O" RING, Ball Retainer .....	1
6	10J-08	BALL .....	15	47	944878	GUIDE, Spring .....	1
7	944897	RETAINER, Ball .....	1	48	305307	ROLL PIN .....	1
8	1301194	RING, Retaining .....	1	49	108301	ROLL PIN .....	1
9	944878	GUIDE, Spring .....	1	50	888449	PIN .....	1
10	108301	ROLL PIN .....	1	51	25K-30022	"O" RING, Plunger .....	1
11	888449	PIN .....	1	52	944878	GUIDE, Spring .....	1
12	25K-30022	"O" RING, Cap .....	1	53	946583	SEAL, Plunger Oil .....	1
13	944878	GUIDE, Spring .....	1	54	945095	CAP, Plunger .....	1
14	893293	SPRING, Check .....	1	55	892942	SPRING, Check .....	1
15	944885	CHECK .....	1	56	944885	CHECK .....	1
16	91F-11	"O" RING, Cap .....	1	57	————	§PLUNGER, Operating — See "A" .....	—
17	24K-11	CAP .....	1	58	945590	CHECK .....	1
18	58K-222	"O" RING .....	1	59	946536	SPRING, Check .....	1
19	————	§HOUSING — See "A" .....	—	60	946555	PLUG .....	1
20	946583	SEAL, Plunger Oil .....	1	61	25K-30014	"O" RING, Plug .....	1
21	893294	WIPER, Plunger .....	1	62	944885	CHECK .....	1
22	————	§PLUNGER, Operating — See "A" .....	—	63	893293	SPRING, Check .....	1
23	25K-30022	"O" RING, Eye .....	1	64	946583	SEAL, Plunger Oil .....	1
24	893295	EYE, Plunger .....	1	65	893294	WIPER, Plunger .....	1
25	1C-410	BOLT, Wiper to Housing .....	2	66	25K-30022	"O" RING, Eye .....	1
26	4E-04	LKWSHR, Wiper to Housing .....	2	67	893295	EYE, Plunger .....	1
27	944883	RING, Back-up .....	1	68	1C-410	BOLT, Wiper to Housing .....	2
28	946583	SEAL, Plunger Oil .....	1	69	4E-04	LKWSHR, Wiper to Housing .....	2
29	944883	RING, Back-up .....	1	70	944883	RING, Back-up .....	1
30	944882	PLATE, Retaining .....	1	71	944883	RING, Back-up .....	1
31	4E-04	LKWSHR, Cover to Housing .....	4	72	946535	PLATE, Retaining .....	1
32	1C-416	BOLT, Cover to Housing .....	4	73	4E-04	LKWSHR, Cover to Housing .....	4
33	945095	CAP, Plunger .....	1	74	1C-416	BOLT, Cover to Housing .....	4
34	108301	ROLL PIN .....	1	75	944879	SPRING, Return .....	1
35	945090	SPRING, Return .....	1	76	945096	CAP, Detent .....	1
36	946030	CAP, Detent .....	1	77	1301194	RING, Retaining .....	1
37	945805	COVER, Detent .....	1	78	10J-08	BALL .....	13
38	886763	PLUG, Bleeder .....	1	79	886745	COVER, Detent .....	1
39	507695	RING, Retaining .....	1	80	945348	GUIDE, Spring .....	1
40	944900	PLUG .....	1				

\*NOTE: For complete replacement use 2511463 Valve, plus 1—1512420 Plate, 1—1512419 Spacer, 1—58K222 O-Ring, 3—18C880 Bolts, & 9—25E21 Washer.

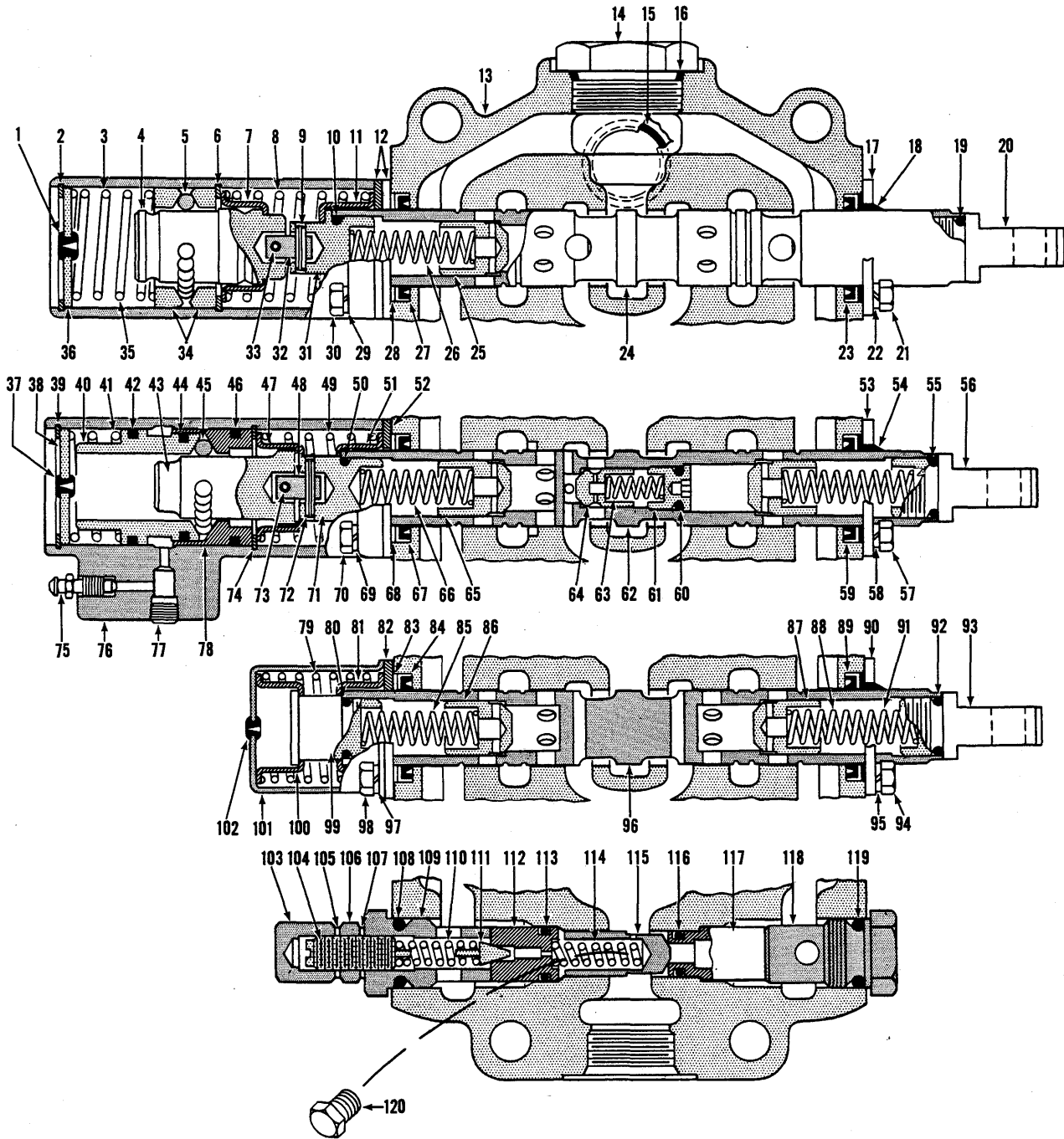
§Not Sold Separately

†Not Illustrated



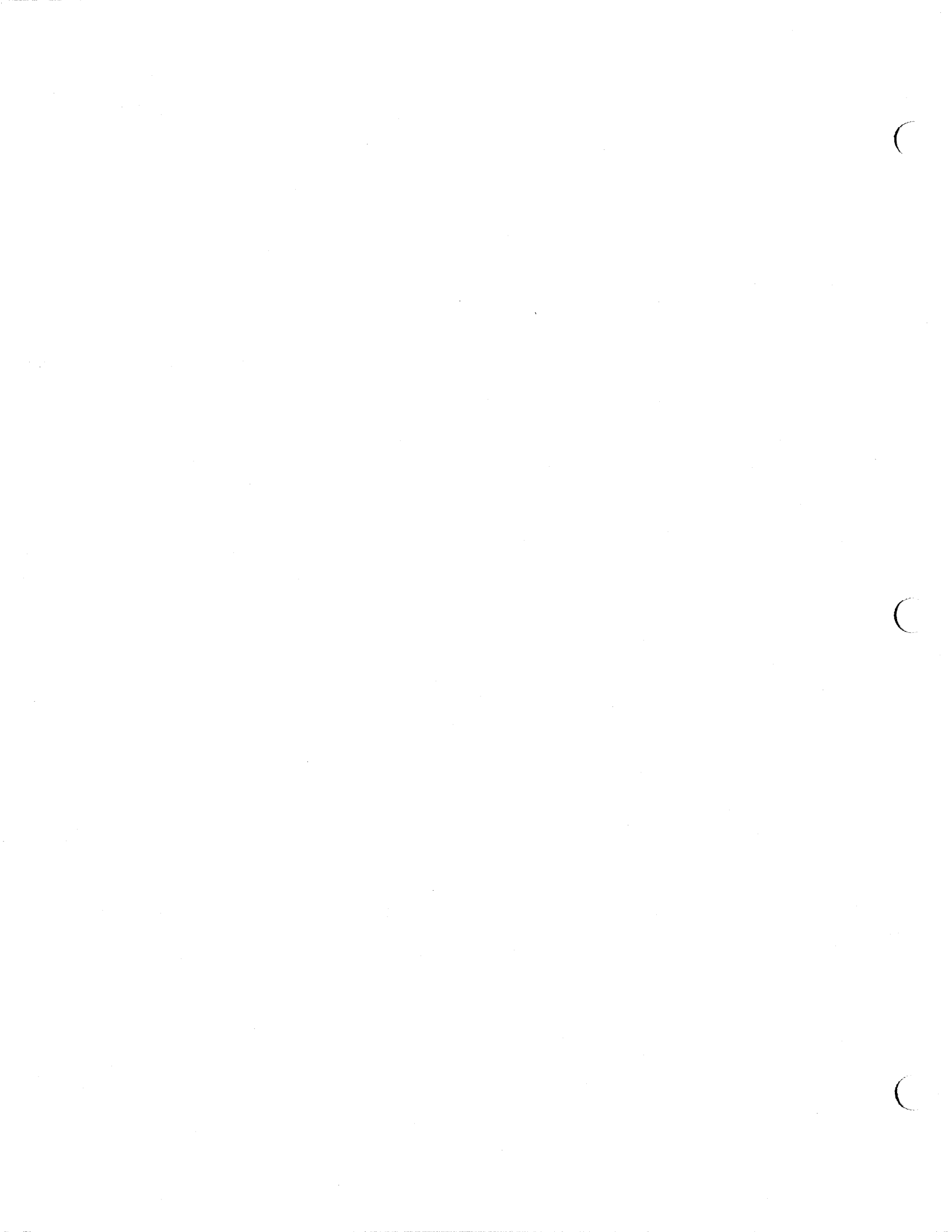






CONTROL VALVE ASSEMBLY — THREE SPOOL

TS-8907



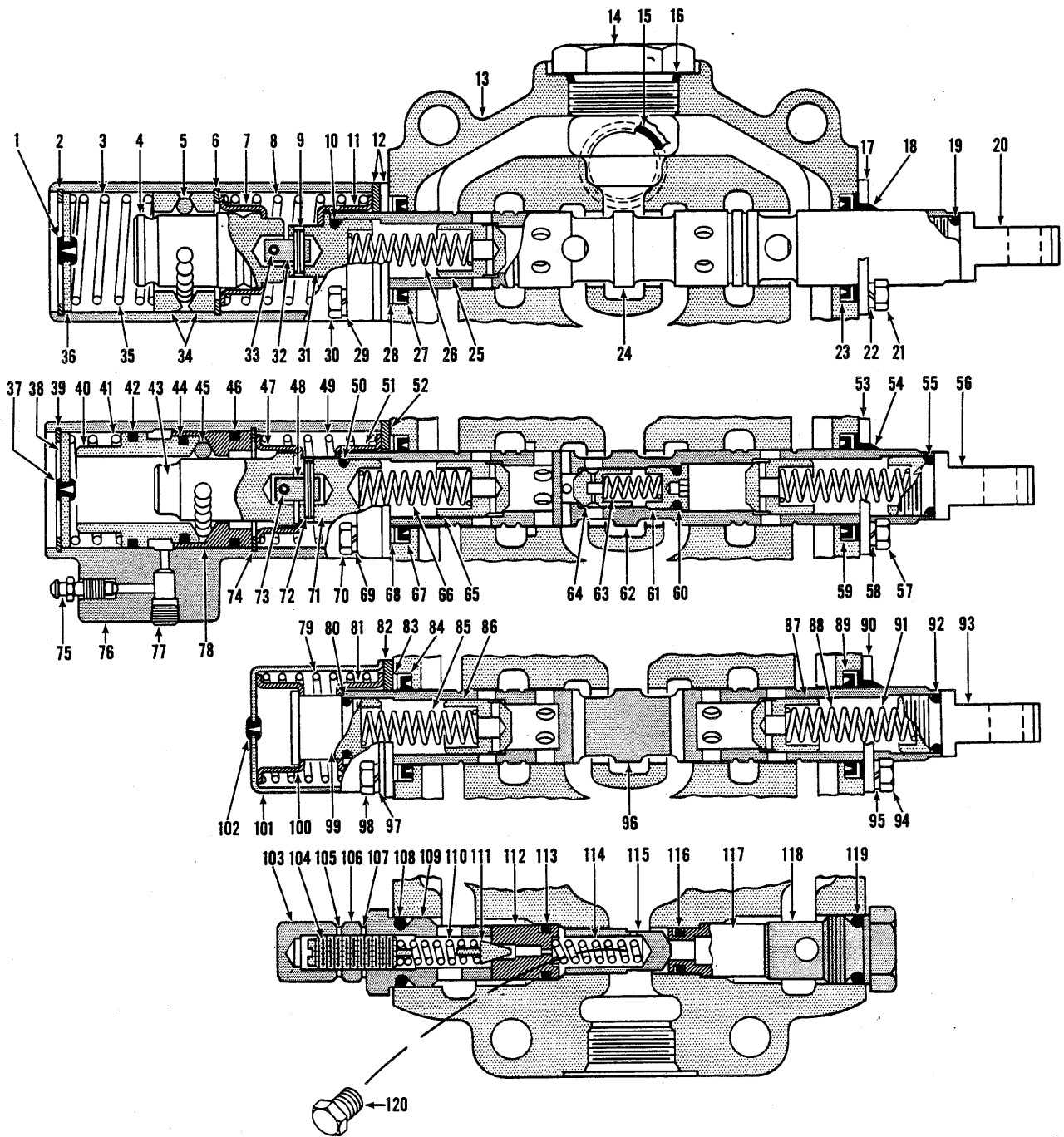


CONTROL VALVE ASSEMBLY — THREE SPOOL SERVICE

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1536688	*CONTROL VALVE (Inc. 1 thru 120)....	—	31	945091	CAP, Plunger .....	1
1	886763	PLUG, Bleeder .....	1	32	888449	PIN .....	1
2	507695	RING, Plug Retaining .....	1	33	108301	PIN, Roll .....	1
3	947776	COVER, Detent .....	1	34	944897	RETAINER, Ball .....	2
4	947786	CAP, Detent .....	1	35	946029	SPRING, Detent .....	1
5	10J-08	BALL, Detent .....	15	36	944900	PLUG .....	1
6	1301194	RING, Retainer .....	1	37	886763	PLUG, Bleeder .....	1
7	944878	GUIDE, Spring .....	1	38	944900	PLUG .....	1
8	945090	SPRING .....	1	39	507695	RING, Retainer .....	1
9	300232	PIN, Roll .....	1	40	944903	RETAINER, Ball .....	1
10	25K-30022	O-RING, Cap .....	1	41	945086	SPRING, Detent .....	1
11	945092	GUIDE, Spring .....	1	42	945089	O-RING .....	1
12	980832	RETAINER, Seal .....	2	43	945096	CAP, Detent .....	1
13	—	§HOUSING, Valve (See "A") .....	—	44	945089	O-RING .....	1
14	24K-11	CAP .....	1	45	10J-08	BALL .....	13
15	58K-222	O-RING .....	1	46	945089	O-RING .....	1
16	91F-11	O-RING, Cap .....	1	47	944878	GUIDE, Spring .....	1
17	980831	RETAINER, Wiper .....	1	48	888449	PIN .....	1
18	946918	WIPER, Plunger Oil .....	1	49	944879	SPRING .....	1
19	944881	O-RING, Plunger Eye .....	1	50	25K-30022	O-RING .....	1
20	893295	EYE, Plunger .....	1	51	944878	GUIDE, Spring .....	1
21	1C-610	BOLT, Retainer to Housing .....	2	52	980832	RING, Retaining .....	1
22	4E-06	LKWSHR, Retainer to Housing .....	2	53	980831	RETAINER, Wiper .....	1
23	946583	SEAL, Plunger Oil .....	2	54	946918	WIPER .....	1
24	—	§PLUNGER, Valve (See "A") .....	—	55	25K-30022	O-RING .....	1
25	944885	CHECK .....	1	56	893295	EYE, Plunger .....	1
26	893293	SPRING, Check .....	1	57	1C-610	BOLT, Retainer to Housing .....	2
27	946583	SEAL, Plunger Oil .....	1	58	4E-06	LKWSHR, Retainer to Housing .....	2
28	944883	RING, Back-Up .....	1	59	946583	SEAL, Plunger Oil .....	1
29	4E-06	LKWSHR, Cover to Housing .....	2	60	25K-30014	O-RING .....	1
30	1C-616	BOLT, Cover to Housing .....	2				

§Not Sold Separately

\*For replacement use 2511463 Valve.



CONTROL VALVE ASSEMBLY — THREE SPOOL

TS-8907

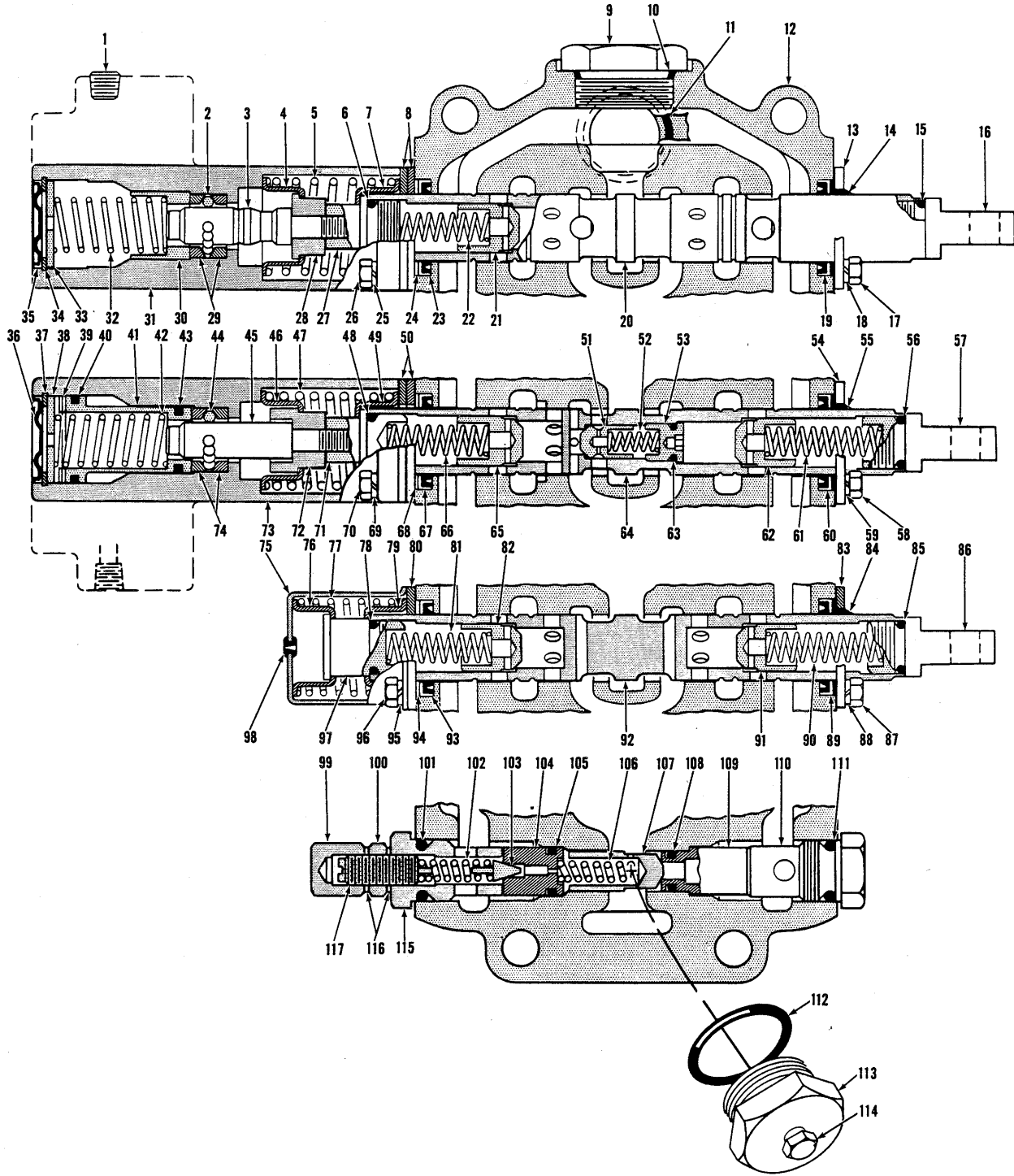
**CONTROL VALVE ASSEMBLY — THREE SPOOL (Continued)**

**SERVICE**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
61	946555	CAP .....	1	91	946918	WIPER .....	1
62	-----	§PLUNGER, Valve (See "A") .....	—	92	25K-30022	O-RING, Plunger Eye .....	1
63	946536	SPRING, Check .....	1	93	893295	EYE, Plunger .....	1
64	945590	CHECK .....	1	94	1C-610	BOLT, Retainer to Housing .....	2
65	944885	CHECK .....	1	95	4E-06	LKWSHR, Retainer to Housing .....	2
66	892942	SPRING, Check .....	1	96	-----	§PLUNGER, Valve (See "A") .....	—
67	946583	SEAL, Plunger Oil .....	1	97	4E-06	LKWSHR, Cover to Housing .....	2
68	944883	RING, Back-Up .....	1	98	1C-614	BOLT, Cover to Housing .....	2
69	4E-06	LKWSHR, Cover to Housing .....	2	99	944895	CAP, Plunger .....	1
70	1C-614	BOLT, Cover to Housing .....	2	100	945348	GUIDE, Spring .....	1
71	945095	CAP, Plunger .....	1	101	980828	COVER, Detent .....	1
72	108301	PIN, Roll .....	1	102	886745	PLUG, Bleeder .....	1
73	305307	PIN, Roll .....	1	103	49D-08	NUT, Acorn .....	1
74	1301194	RING, Retainer .....	1	104	980834	SCREW, Adjusting .....	1
75	641287	SCREW, Bleeder .....	1	105	613750	WASHER .....	1
76	947777	COVER, Detent .....	1	106	8D-08	NUT, Jam .....	1
77	16F-02	PLUG, Pipe .....	1	107	613750	WASHER .....	1
78	944901	RETAINER, Ball .....	1	108	58K-210	O-RING, Cap .....	1
79	980830	SPRING .....	1	109	980835	CAP, Adjusting .....	1
80	25K-30022	O-RING .....	1	110	886753	SPRING, Relief .....	1
81	945348	GUIDE, Spring .....	1	111	886739	POPPET, Relief .....	1
82	980832	RETAINER, Seal .....	1	112	980836	SEAT, Relief .....	1
83	944883	RING, Back-Up .....	1	113	25K-30020	O-RING, Relief Seat .....	1
84	946583	SEAL, Plunger Oil .....	1	114	947791	SPRING, Relief .....	1
85	893293	SPRING, Check .....	1	115	960965	CHECK, Relief .....	1
86	944885	CHECK .....	1	116	25K-30016	O-RING, Seal .....	1
87	944885	CHECK .....	1	117	980840	SEAT, Check .....	1
88	893293	SPRING, Check .....	1	118	980838	CAP .....	1
89	946583	SEAL, Plunger Oil .....	1	119	58K-210	O-RING, Cap .....	1
90	980831	RETAINER, Seal .....	1	120	40K-04	PLUG, Pipe .....	1

§Not Sold Separately

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



CONTROL VALVE ASSEMBLY

TS-9479



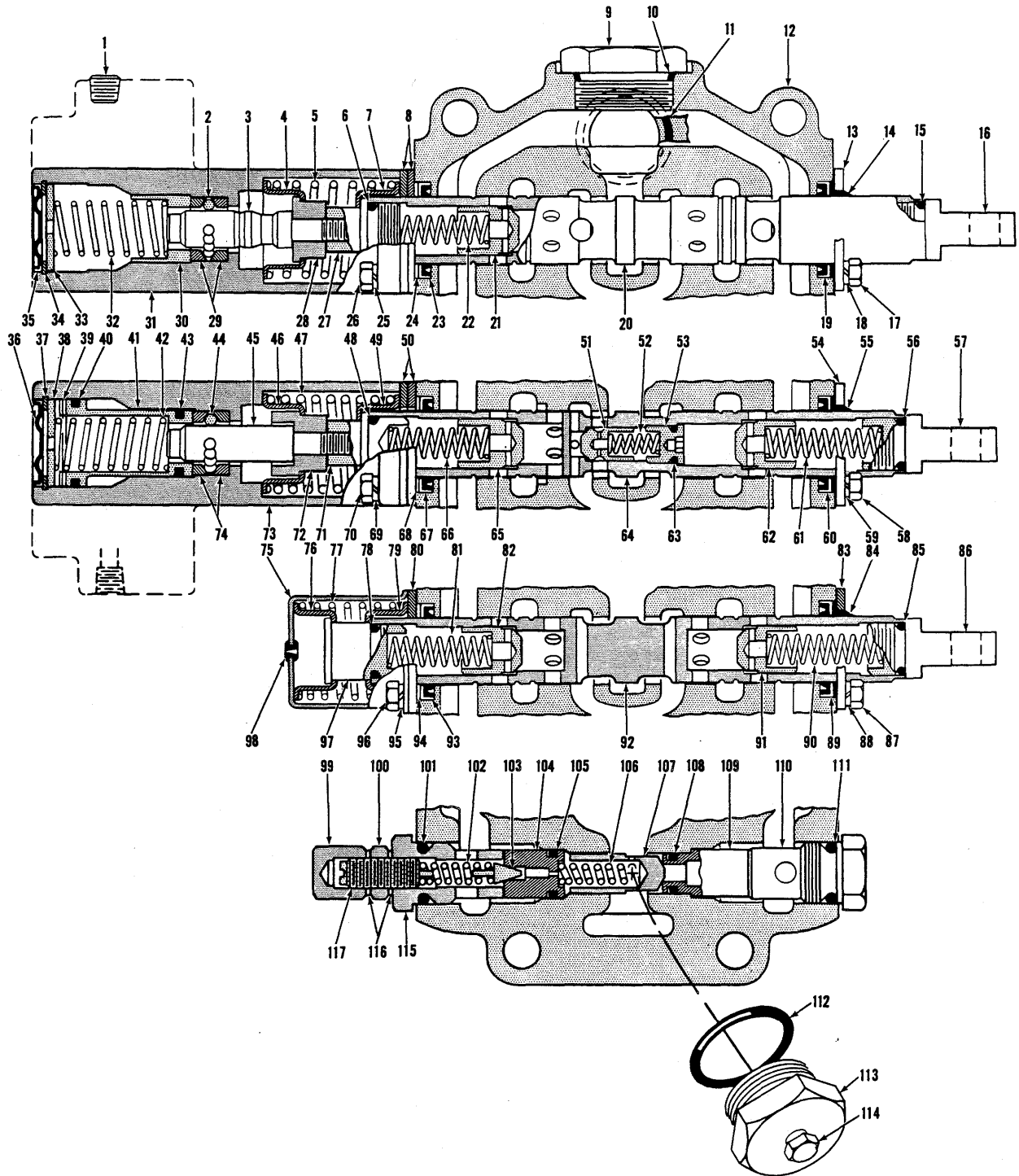
CONTROL VALVE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.
A	1543337	*CONTROL VALVE ASSY. (Inc. 1 thru 117)	1
1	16F-04	PLUG, Pipe	1
2	10J-06	BALL, Detent	10
3	948204	CAP, Detent	1
4	944878	GUIDE, Return Spring	1
5	945358	SPRING, Plunger Return	1
6	25K-30022	O-RING, Plunger Cap	1
7	945092	GUIDE, Spring Return	1
8	946535	PLATE, Seal Retainer	2
9	24K-11	CAP, Housing	1
10	91F-11	O-RING, Cap	1
11	58K-222	O-RING, Valve to Plate	1
12	—	§HOUSING, Valve — See Item A	—
13	980831	PLATE, Wiper & Seal Retainer	1
14	946918	WIPER, Plunger	1
15	25K-30022	O-RING, Plunger Eye	1
16	893295	EYE, Plunger	1
17	1C-610	BOLT, Plate to Housing	2
18	4E-06	LKWSHR, Plate to Housing	2
19	946583	SEAL, Plunger Oil	1
20	—	§PLUNGER, Operating — See Item A	1
21	944885	CHECK	1
22	893293	SPRING, Check	1
23	946583	SEAL, Plunger Oil	1
24	944883	RING, Seal Back-Up	1
25	4E-06	LKWSHR, Detent Cover to Housing	2
26	1C-618	BOLT, Detent Cover to Housing	2
27	948203	CAP, Plunger	1
28	948205	SPACER, Return Spring	1

Item No.	Part No.	Description	No. Req'd.
29	947843	RETAINER, Ball	2
30	947842	GUIDE, Detent Spring	1
31	948201	COVER, Detent	1
32	948515	SPRING, Detent	1
33	947848	PLUG, Detent End	1
34	666542	RING, End Plug Retainer	1
35	948202	DIAPHRAGM	1
36	948202	DIAPHRAGM	1
37	666542	RING, End Plug Retainer	1
38	947848	PLUG, Detent End	1
39	948286	‡SHIM, Detent	—
40	25K-40106	O-RING, Piston	1
41	947867	PISTON, Detent	1
42	948515	SPRING, Detent	1
43	25K-40028	O-RING, Piston	1
44	10J-06	BALL, Detent	10
45	948206	CAP, Detent	1
46	944878	GUIDE, Return Spring	1
47	945090	SPRING, Plunger Return	1
48	25K-30022	O-RING, Plunger Cap	1
49	945092	GUIDE, Spring Return	1
50	946535	PLATE, Seal Retainer	2
51	944885	CHECK	1
52	946536	SPRING, Check	1
53	946555	CAP	1
54	980831	PLATE, Wiper & Seal Retainer	1
55	946918	WIPER, Plunger	1
56	25K-30022	O-RING, Plunger Eye	1
57	893295	EYE, Plunger	1

\*For complete valve replacement use Valve Assembly 2511463.  
 §Not Sold Separately  
 ‡As Required

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



CONTROL VALVE ASSEMBLY

TS-9479

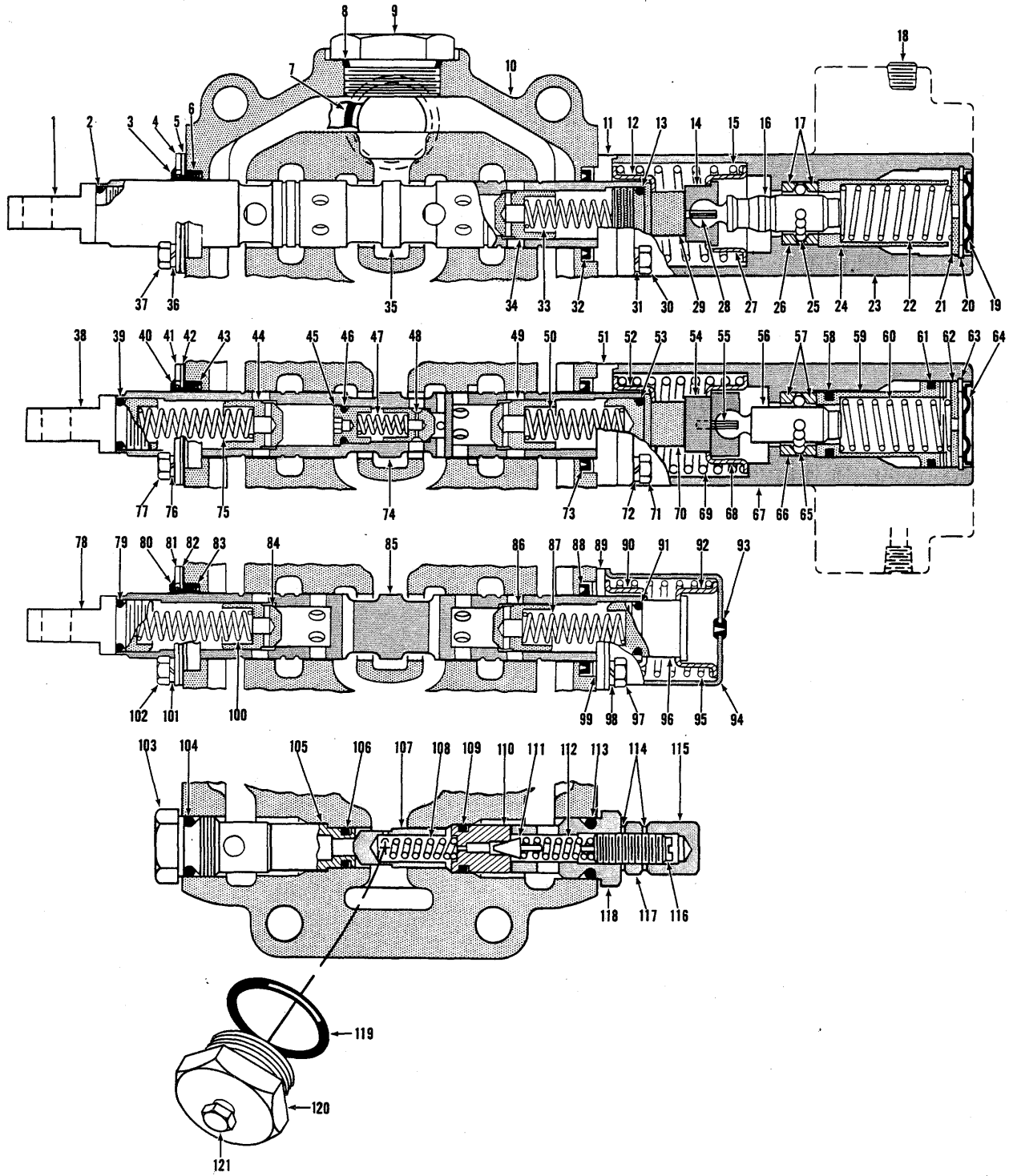


**CONTROL VALVE ASSEMBLY (Continued)**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
58	1C-610	BOLT, Plate to Housing .....	2	88	4E-06	LKWSHR, Plate to Housing .....	2
59	4E-06	LKWSHR, Plate to Housing .....	2	89	946583	SEAL, Plunger Oil .....	1
60	946583	SEAL, Plunger Oil .....	1	90	893293	SPRING, Check .....	1
61	893293	SPRING, Check .....	1	91	944885	CHECK .....	1
62	944885	CHECK .....	1	92	-----	§PLUNGER, Operating — See Item A ...	—
63	25K-30022	O-RING, Cap .....	1	93	946583	SEAL, Plunger Oil .....	1
64	-----	§PLUNGER, Operating — See Item A ...	—	94	944883	RING, Seal Back-Up .....	1
65	944885	CHECK .....	1	95	4E-06	LKWSHR, Spring Cover to Housing ...	2
66	946544	SPRING, Check .....	1	96	1C-618	BOLT, Spring Cover to Housing .....	2
67	946583	SEAL, Plunger Oil .....	1	97	944895	CAP, Plunger .....	1
68	944883	RING, Seal Back-Up .....	1	98	886763	PLUG, Bleeder .....	1
69	4E-06	LKWSHR, Detent Cover to Housing .....	2	99	49D-08	NUT, Acorn .....	1
70	1C-618	BOLT, Detent Cover to Housing .....	2	100	8D-08	NUT, Jam .....	1
71	948203	CAP, Plunger .....	1	101	58K-210	O-RING, Relief Valve Cap .....	1
72	948207	SPACER, Spring Return .....	1	102	886753	SPRING, Relief Valve .....	1
73	948201	COVER, Detent .....	1	103	886739	POPPET, Relief Valve .....	1
74	947843	RETAINER, Ball .....	2	104	980836	SEAT, Poppet .....	1
75	980828	COVER, Spring Return .....	1	105	25K-30020	O-RING, Poppet Seat .....	1
76	945348	GUIDE, Spring Return .....	1	106	947791	SPRING, Check .....	1
77	980830	SPRING, Plunger Return .....	1	107	960965	CHECK .....	1
78	25K-20006	O-RING, Plunger Cap .....	1	108	25K-30016	O-RING, Check Seat .....	1
79	945348	GUIDE, Spring Return .....	1	109	980840	SEAT, Check .....	1
80	980832	PLATE, Seal Retainer .....	1	110	980838	CAP, Relief Valve .....	1
81	893293	SPRING, Check .....	1	111	58K-210	O-RING, Relief Valve Cap .....	1
82	944885	CHECK .....	1	112	91F-10	O-RING, Cap .....	1
83	980831	PLATE, Wiper & Seal Retainer .....	1	113	946882	CAP, Housing .....	1
84	946918	WIPER, Plunger .....	1	114	40K-04	PLUG, Pipe .....	1
85	25K-20006	O-RING, Plunger Eye .....	1	115	980835	CAP, Relief Valve .....	1
86	893295	EYE, Plunger .....	1	116	613750	WASHER, Jam Nut .....	2
87	1C-610	BOLT, Plate to Housing .....	2	117	980834	SCREW, Adjusting .....	1

§Not Sold Separately

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



CONTROL VALVE ASSEMBLY

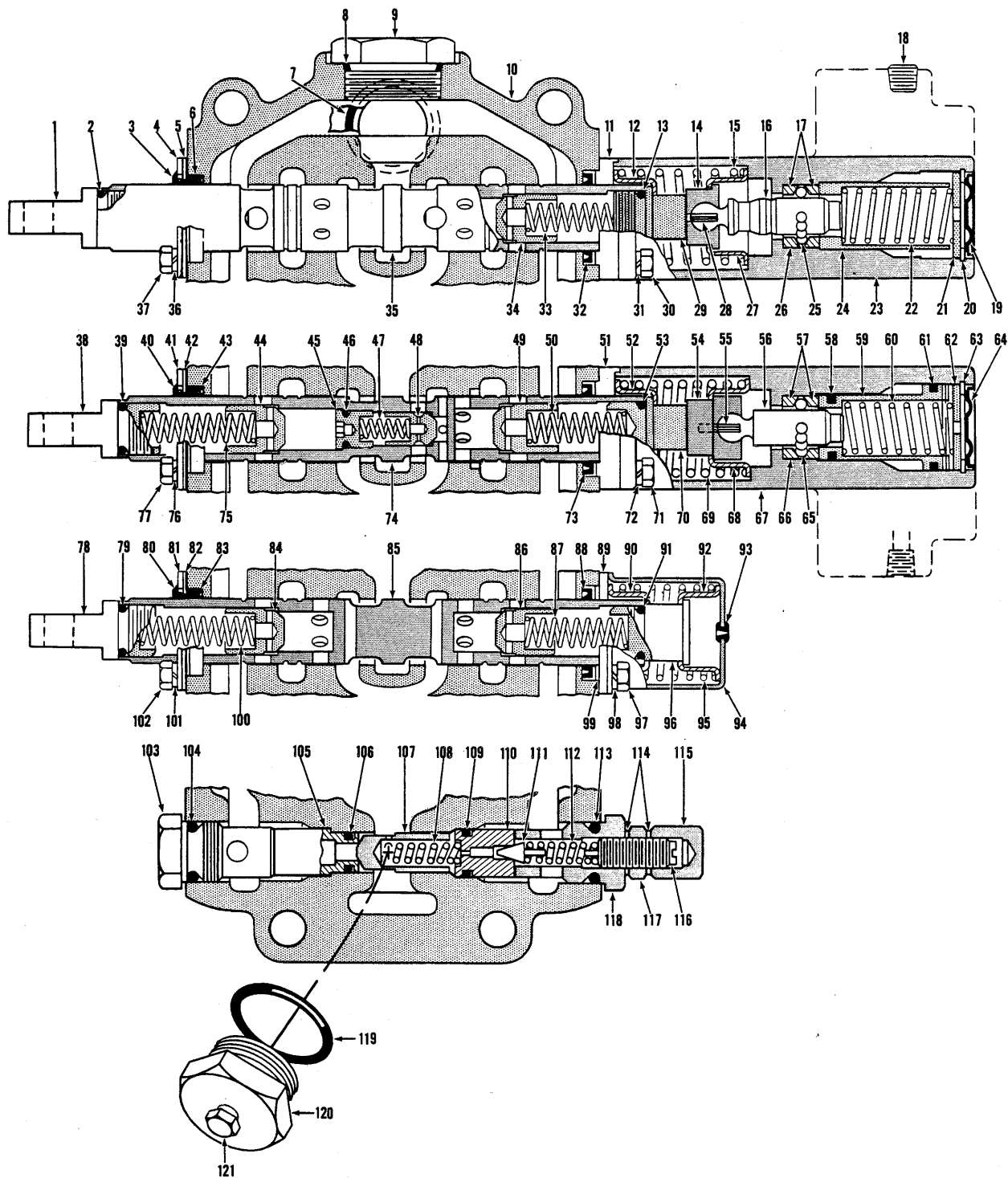
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**CONTROL VALVE ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1517923	*CONTROL VALVE ASSY (Inc. 1 thru 121)	1	30	11G-620	BOLT, Cover to Housing	2
1	893295	EYE, Plunger	1	31	4E-06	LKWSHR, Cover to Housing	2
2	25K-30022	O-RING, Plunger Eye	1	32	949304	SEAL, Plunger Oil	1
3	949305	WIPER, Plunger	1	33	893293	SPRING, Check	1
4	949303	PLATE, Wiper Retaining	1	34	944885	CHECK	1
5	949302	PLATE, Seal Retaining	1	35	-----	§PLUNGER, Operating — See "A"	—
6	949304	SEAL, Plunger Oil	1	36	4E-06	LKWSHR, Plate to Housing	2
7	58K-222	O-RING, Valve Mounting	1	37	1C-612	BOLT, Plate to Housing	2
8	91F-11	O-RING, Cap	1	38	893295	EYE, Plunger	1
9	24K-11	CAP, Housing	1	39	25K-30022	O-RING, Plunger Eye	1
10	-----	§HOUSING — See "A"	—	40	949305	WIPER, Plunger	1
11	949300	PLATE, Seal Retaining	1	41	949303	PLATE, Wiper Retaining	1
12	945092	GUIDE, Spring	1	42	949302	PLATE, Seal Retaining	1
13	25K-30022	O-RING, Cap	1	43	949304	SEAL, Plunger Oil	1
14	949278	SOCKET, Detent	1	44	944885	CHECK	1
15	945090	SPRING, Plunger Return	1	45	946555	CAP	1
16	948723	PLUNGER, Detent	1	46	25K-30014	O-RING, Cap	1
17	947843	RETAINER, Ball	2	47	946536	SPRING, Check	1
18	16F-04	PLUG, Pipe	1	48	945590	CHECK	1
19	948202	DIAPHRAGM, Detent	1	49	944885	CHECK	1
20	666542	RING, End Plug Retainer	1	50	893293	SPRING, Check	1
21	947848	PLUG, Detent End	1	51	949300	PLATE, Seal Retaining	1
22	948515	SPRING, Detent	1	52	945092	GUIDE, Spring	1
23	948720	COVER, Detent	1	53	25K-30022	O-RING, Cap	1
24	948954	RETAINER, Spring	1	54	949279	SOCKET, Detent	1
25	948730	BALL, Detent	11	55	300232	PIN, Roll	1
26	948727	SLEEVE, Ball Retainer	1	56	948722	PLUNGER, Detent	1
27	944878	GUIDE, Spring	1	57	947843	RETAINER, Ball	2
28	742306	PIN, Roll	1	58	25K-40028	O-RING, Piston	1
29	948732	CAP, Plunger	1	59	947867	PISTON	1
				60	948515	SPRING, Detent	1

\*For replacement use 2511463.  
§Not Sold Separately

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



CONTROL VALVE ASSEMBLY

TS-11618 B

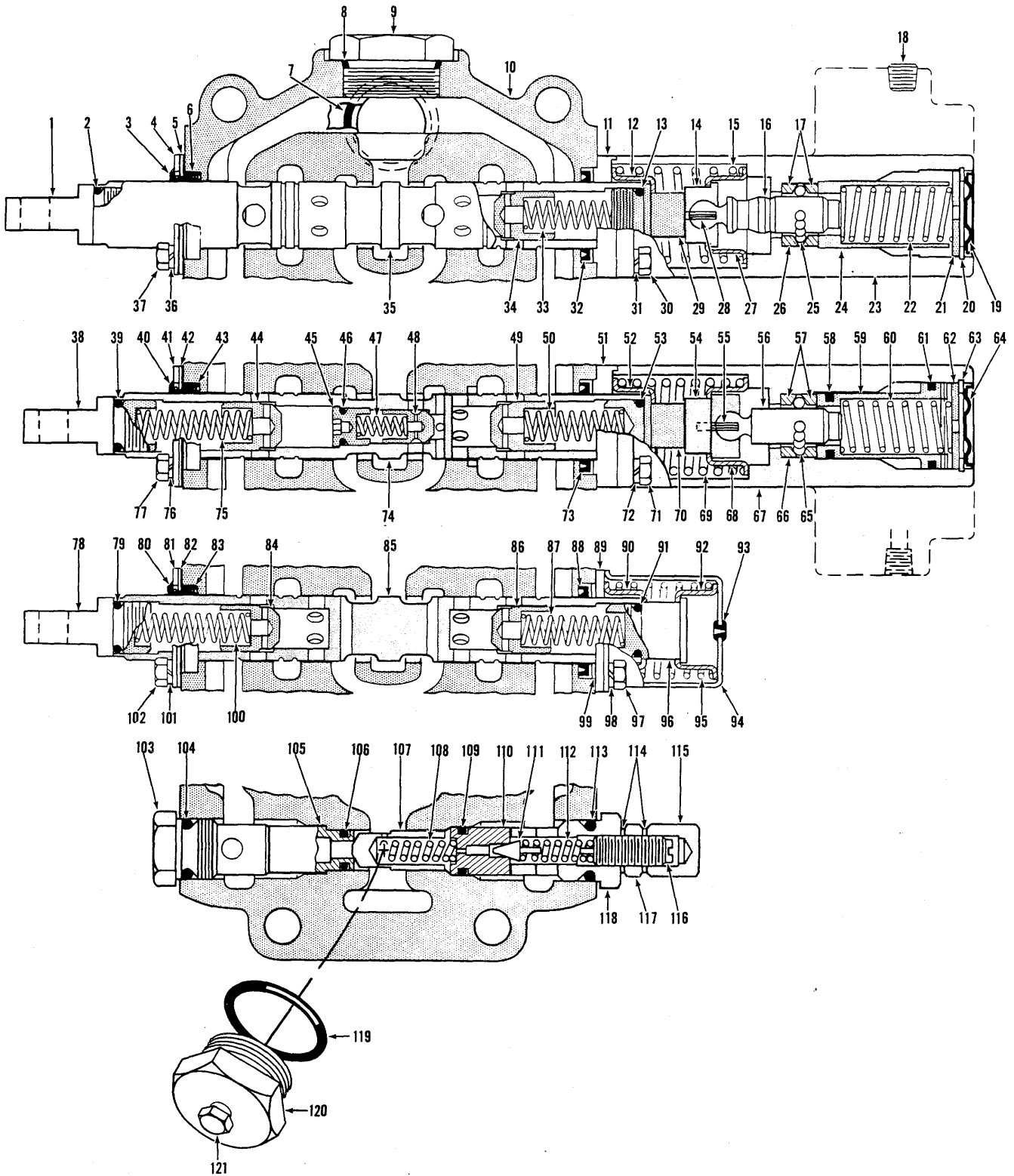


CONTROL VALVE ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
61	25K-40106	O-RING, Piston	1	92	945348	GUIDE, Spring	1
62	947848	PLUG, Detent End	1	93	886745	PLUG, Bleeder	1
63	666542	RING, End Plug Retaining	1	94	980828	COVER, Spring	1
64	948202	DIAPHRAGM, Detent	1	95	980830	SPRING, Plunger Return	1
65	948730	BALL, Detent	11	96	944895	CAP	1
66	948727	SLEEVE, Ball Retainer	1	97	1C-612	BOLT, Cover to Housing	2
67	948720	COVER, Detent	1	98	4E-06	LKWSHR, Cover to Housing	2
68	944878	GUIDE, Spring	1	99	949349	RING, Back-Up	1
69	945090	SPRING, Plunger Return	1	100	893293	SPRING, Check	1
70	948732	CAP, Plunger	1	101	4E-06	LKWSHR, Plate to Housing	2
71	11G-620	BOLT, Cover to Housing	2	102	1C-612	BOLT, Plate to Housing	2
72	4E-06	LKWSHR, Cover to Housing	2	103	980838	CAP, Housing	1
73	949304	SEAL, Plunger Oil	1	104	58K-210	O-RING, Cap	1
74	-----	§PLUNGER, Operating — See "A"	—	105	980840	SEAT, Relief Valve	1
75	893293	SPRING, Check	1	106	58K-210	O-RING, Relief Seat	1
76	4E-06	LKWSHR, Plate to Housing	2	107	960965	POPPET, Relief Valve	1
77	1C-612	BOLT, Plate to Housing	2	108	947791	SPRING, Poppet	1
78	893295	EYE, Plunger	1	109	25K-30016	O-RING	1
79	25K-30022	O-RING, Plunger Eye	1	110	980836	SEAT, Pilot	1
80	949305	WIPER, Plunger	1	111	886739	POPPET	1
81	949303	PLATE, Wiper Retaining	1	112	886753	SPRING, Poppet	1
82	949302	PLATE, Seal Retaining	1	113	58K-210	O-RING, Cap	1
83	949304	SEAL, Plunger Oil	1	114	613750	WASHER	2
84	944885	CHECK	1	115	49D-08	ACORN, Nut	1
85	-----	§PLUNGER, Operating — See "A"	—	116	980834	SCREW, Adjusting	1
86	944885	CHECK	1	117	8D-08	JAM NUT	1
87	893293	SPRING, Check	1	118	980835	CAP, Adjusting	1
88	949304	SEAL, Plunger Oil	1	119	91F-10	O-RING, Cap	1
89	980832	PLATE, Seal Retaining	1	120	946882	CAP, Housing	1
90	945348	GUIDE, Spring	1	121	40K-04	PLUG, Pipe	1
91	25K-30022	O-RING, Cap	1				

§Not Sold Separately

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



TS-11618

# Valve Assembly, Main (3 Spool)



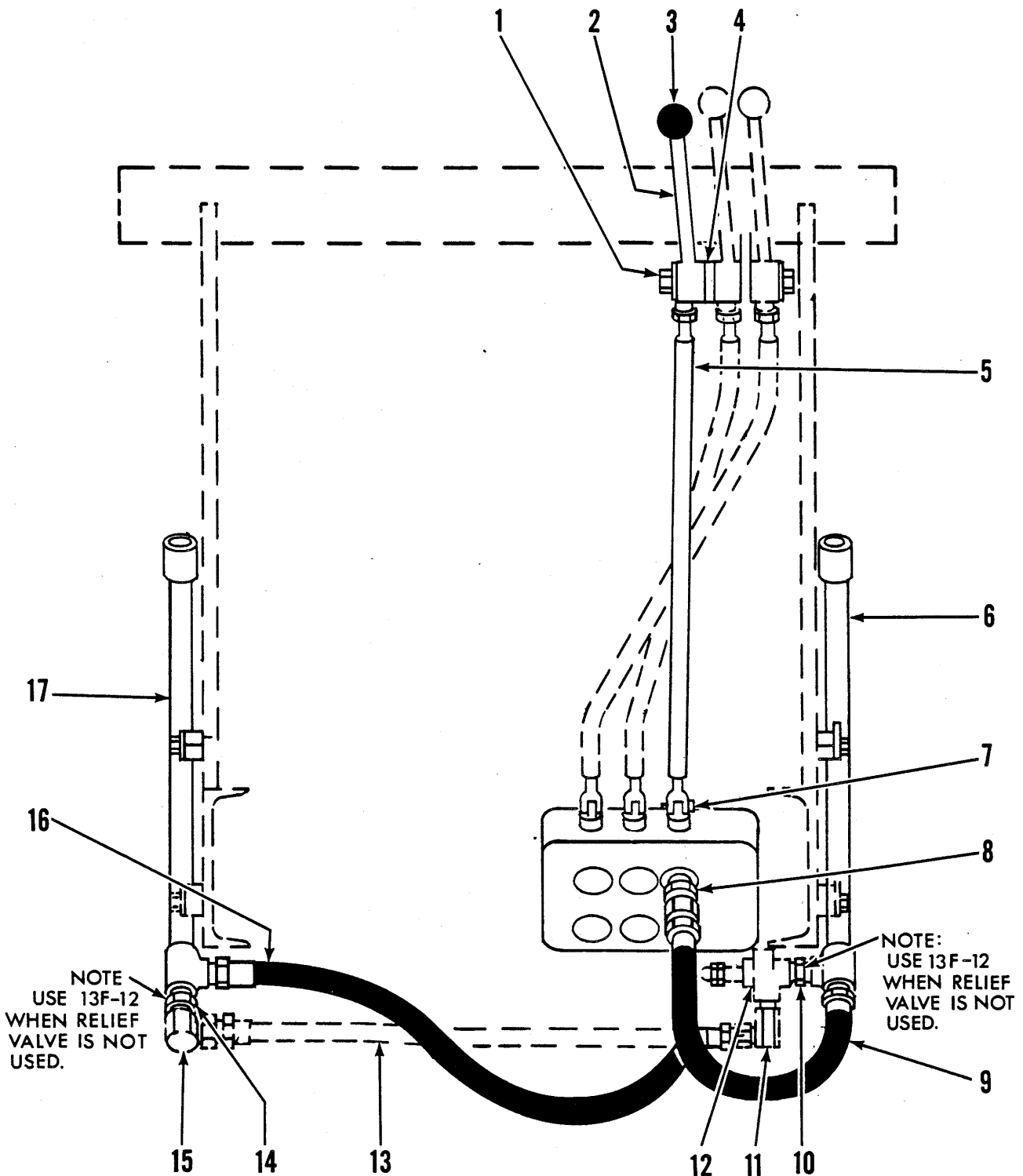
No.	Part No.	Qty.	Description
A	2511463	1	Valve assy
1	893295	1	Plunger eye
2	25K-30022	1	O-ring
3	949305	1	Wiper
4	949303	1	Plate
5	949302	1	Plate
6	949304	1	Seal
7	58K-222	1	O-ring
8	91F-11	1	O-ring
9	24K-11	1	Plug
10	§ <sup>2</sup> -----	—	Housing
11	949300	1	Plate
12	945092	1	Retainer
13	25K-30022	1	O-ring
14	949278	1	Cap
15	945090	1	Spring
16	948723	1	Plunger
17	947843	2	Retainer
18	16F-04	1	Plug
19	948202	1	Diaphragm
20	666542	1	Snap ring
21	947848	1	Plug
22	947852	1	Spring
23	960900	1	Housing
24	948954	1	Retainer
25	948730	11	Ball
26	948727	1	Sleeve
27	944878	1	Retainer
28	742306	1	Roll pin
29	948732	1	Cap
30	11G-620	2	Bolt
31	4E-06	2	Lockwasher
32	949304	1	Seal
33	893293	1	Spring
34	944885	1	Check
35	§ <sup>2</sup> -----	—	Plunger
36	4E-06	2	Lockwasher
37	1C-612	2	Bolt
38	893295	1	Plunger eye
39	25K-30022	1	O-ring
40	949305	1	Wiper
41	949303	1	Plate
42	949302	1	Plate
43	949304	1	Seal
44	944885	1	Check
45	§ <sup>2</sup> -----	—	Cap
46	§ <sup>2</sup> -----	—	O-ring
47	§ <sup>2</sup> -----	—	Spring
48	§ <sup>2</sup> -----	—	Check
49	960901	1	Check
50	960975	1	Spring
51	949300	1	Plate
52	945092	1	Retainer
53	25K-30022	1	O-ring
54	949279	1	Cap
55	300232	1	Roll pin
56	948722	1	Plunger
57	947843	2	Retainer
58	961156	1	O-ring
59	961155	1	Piston
60	947852	1	Spring

No.	Part No.	Qty.	Description
61	961157	1	O-ring
62	947848	1	Plug
63	666542	1	Snap ring
64	948202	1	Diaphragm
65	948730	11	Ball
66	948727	1	Sleeve
67	960900	1	Housing
68	944878	1	Retainer
69	945090	1	Spring
70	§ <sup>2</sup> -----	—	Cap
71	11G-620	2	Bolt
72	4E-06	2	Lockwasher
73	949304	1	Seal
74	§ <sup>2</sup> -----	—	Plunger
75	893293	1	Spring
76	4E-06	2	Lockwasher
77	1C-612	2	Bolt
78	893295	1	Plunger eye
79	25K-30022	1	O-ring
80	949305	1	Wiper
81	949303	1	Plate
82	949302	1	Plate
83	949304	1	Seal
84	944885	1	Check
85	§ <sup>2</sup> -----	—	Plunger
86	944885	1	Check
87	893293	1	Spring
88	949304	1	Seal
89	980832	1	Plate
90	945348	1	Retainer
91	25K-30022	1	O-ring
92	945348	1	Retainer
93	886745	1	Plug
94	980828	1	Cover
95	980830	1	Spring
96	944895	1	Cap
97	1C-612	2	Bolt
98	4E-06	2	Lockwasher
99	949349	1	Back-up ring
100	893293	1	Spring
101	4E-06	2	Lockwasher
102	1C-612	2	Bolt
103	980838	1	Cap
104	58K-210	1	O-ring
105	980840	1	Seat
106	-----	—	Omit
107	960965	1	Poppet
108	947791	1	Spring
109	25K-30020	1	O-ring
110	980836	1	Seat
111	886739	1	Poppet
112	886753	1	Spring
113	58K-210	1	O-ring
114	613750	2	Washer
115	49D-08	1	Nut
116	980834	1	Screw
117	8D-08	1	Nut
118	980835	1	Cap
119	91F-10	1	O-ring
120	946882	1	Plug
121	40K-04	1	Plug

<sup>1</sup>Inc. 1 → 121

<sup>2</sup>See A

<sup>3</sup>See 14



NOTE:  
USE 13F-12  
WHEN RELIEF  
VALVE IS NOT  
USED.

NOTE:  
USE 13F-12  
WHEN RELIEF  
VALVE IS NOT  
USED.

USE ITEMS 10 THRU 15 ONLY WHEN RELIEF VALVE IS CALLED FOR.  
RELIEF VALVE IS USED ON SIDE DUMP, BUT IS NOT USE ON  
ULRICH BUCKET.

THREE SPOOL VALVE INSTALLATION AND PARTS

TS-5049-P





CONSTRUCTION MACHINERY DIVISION



THREE SPOOL VALVE INSTALLATION AND PARTS

Item No.	Part No.	Description	No. Req'd.
1	18C-8100	BOLT, Valve Lever Mounting .....	1
1A	550646	†SLEEVE, Valve Lever Mounting .....	1
1B	526767	†BUSHING, Nylon — Lever Mounting .....	1
1C	10H-25	†FITTING, Grease .....	1
2	549562	LEVER, Valve .....	1
3	509772	KNOB, Valve Lever .....	1
4	548808	SPACER, Valve Lever .....	1
5	549564	ROD ASSY (inc. 5A, 5B) .....	1
5A	2J-8300	†CLEVIS, Rod End .....	1
5B	8D-08	†NUT, Rod End Jam .....	1
6	549558	PIPE ASSY — R.H. ....	1
7	4F-08127	PIN, Clevis .....	1
7A	1F-414	†COTTER, Clevis Pin .....	1
8	587075	ADAPTER UNION .....	2
8A	91F-10	"O" RING, Adapter Union to Valve .....	2
9	691800	HOSE, Valve to R.H. Pipe .....	1
10	550358	*NIPPLE, Pipe Reducing .....	1
11	31F-4	*ADAPTER .....	1
12	540681	*VALVE ASSY, Relief .....	1
13	604616	*HOSE, Relief Valve to L.H. Pipe Assy.....	1
14	356617	*BUSHING .....	1
15	31F-4	*ADAPTER .....	1
16	594032	*HOSE, Valve to L.H. Pipe .....	1
17	549559	PIPE ASSY — L.H. ....	1

†Not Illustrated

\*NOTE: Use items 10 thru 15 only when Relief Valve is called for. Relief Valve is used on Side Dump, but is not used on Ulrich Bucket.

NOTES

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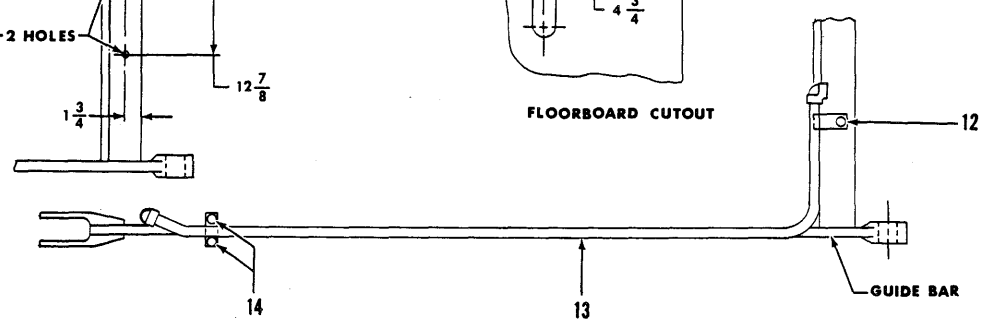
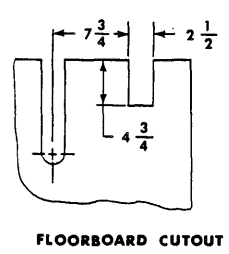
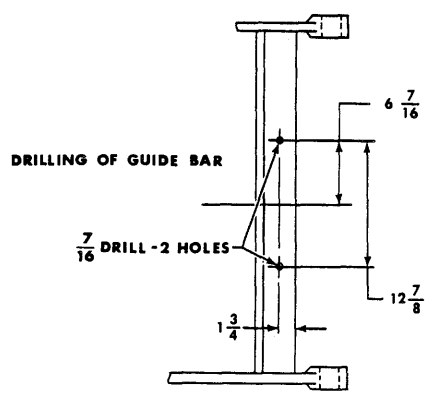
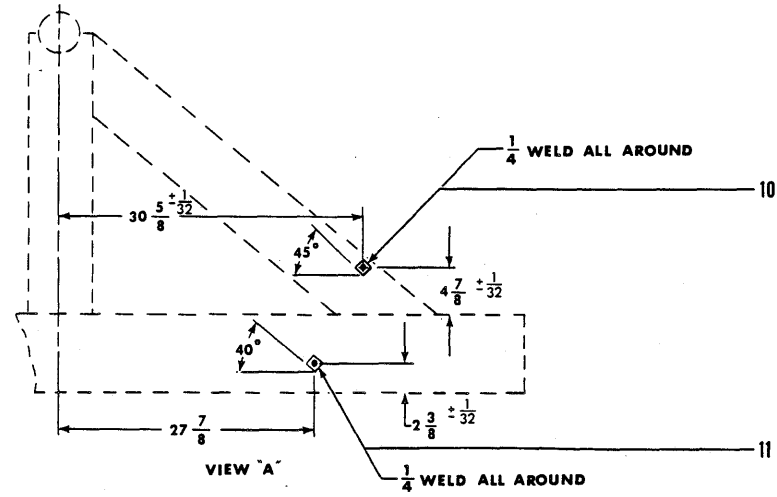
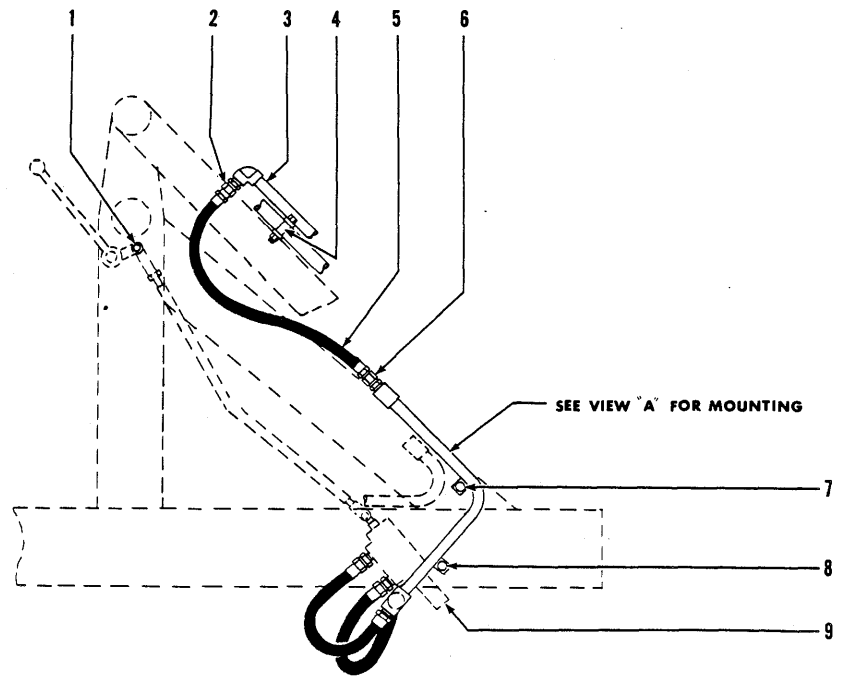
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WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



THREE SPOOL VALVE INSTALLATION AND PARTS

TS-5048-P





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