

CLARK

PARTS MANUAL

No. 1654-R2 Model 175A MICHIGAN TRACTOR SHOVEL Series II

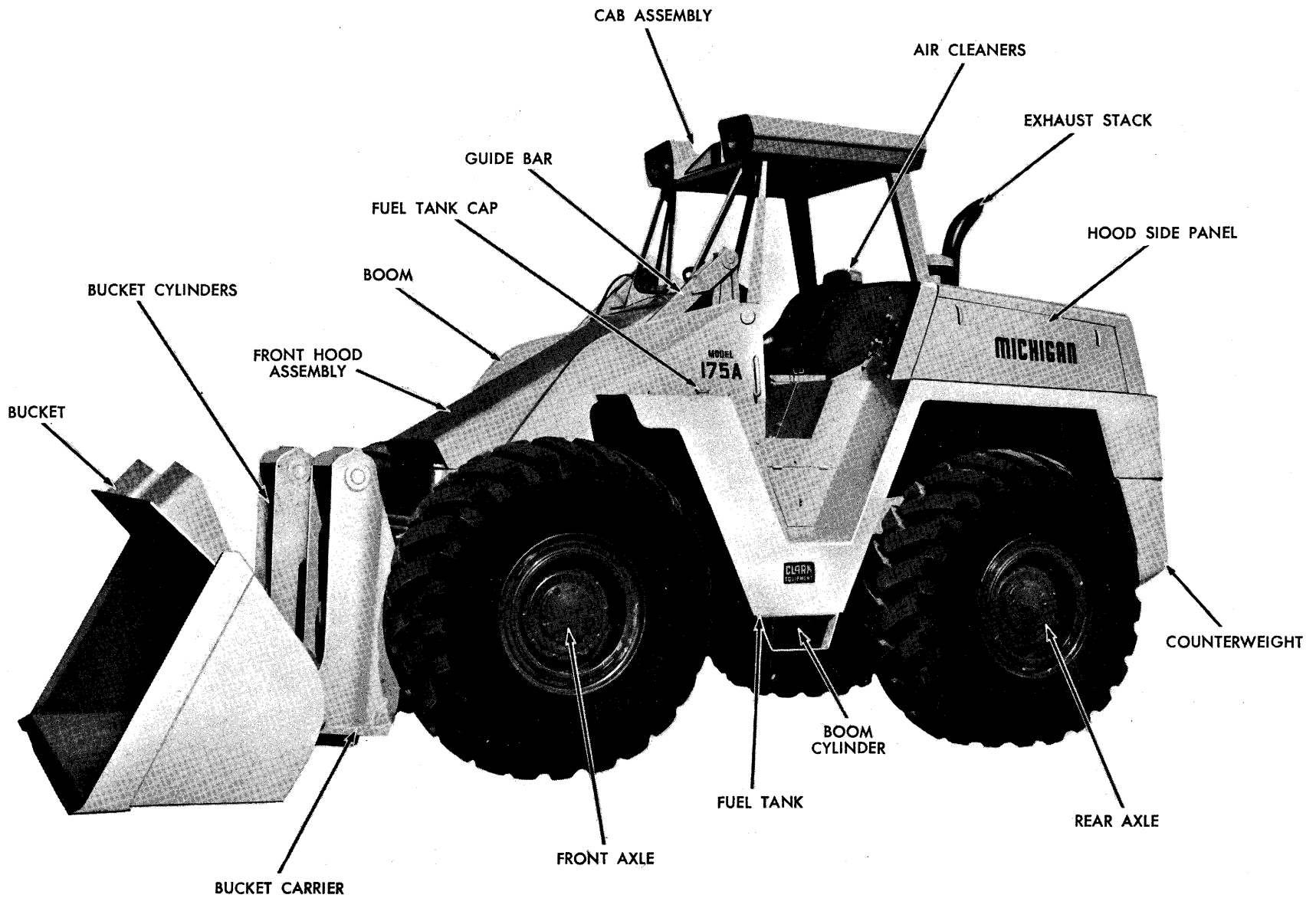
Information contained herein pertains to Machine

Serial Numbers listed below:

175 G.M. - 3HG101 thru 4HG999

175 Cummins - 4HC101 thru 4HC999

**Record Your Machine
Serial Number Here**



MODEL 175A TRACTOR SHOVEL — SERIES II

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.

INDEX MODEL 175A (Series II)

A	Page		Page
Accelerator Pedal and Linkage — G.M.	14	Cigarette Lighter	74
Air Chamber, Front	35	Clip Chart	79
Air Chamber, Rear	37	Control Valve Assembly — Bucket and Boom	71
Air Cleaner Assembly — G.M.	11	Converter Assembly	29, 30
Air Cleaner Connections — G.M.	10	Converter Charging Pump	31
Air Pressure Sender Unit	47	Counterweight	9
Air Reservoir	47	Cradle — Rear Drive Steer Axle	2
Ammeter	75	Cutting Edges, Bucket	5
Axle Assembly — Front Drive	35	Cylinder, Boom	68
Axle Assembly — Rear Drive Steer	37	Cylinder, Bucket	69
Axle Mounting Parts	2	Cylinder, Steering	56
Axle Tie Rod	44		
		D	
		Decals	77
B		Differential and Carrier Assembly — Front	39
Battery and Battery Box	73	Differential and Carrier Assembly — Rear	41
Battery Cables	77	Dipstick, Transmission Oil	33
Boom and Guide Bar	3	Drag Link, Steering	57
Boom Cylinder Assembly	68		
Brake Air Lines	46	E	
Brake Assembly — Front	48	Engine and Accessories	1
Brake Assembly — Parking	50	Engine Controls	14
Brake Assembly — Rear	49	Engine Hourmeter	75
Brake Controls	45	Engine Mounting Parts	1
Bucket and Boom Control Valve	71	Engine Oil Pressure Sender Unit	1
Bucket and Boom Hydraulic Pump	63	Engine Temperature Sender Unit	1
Bucket and Boom Hydraulic System	65	Exhaust Pipes and Muffler	12
Bucket Carrier and Indicator	5		
Bucket Cutting Edges	5	F	
Bucket Cylinder Assembly	69	Fender, Rear	7
Bucket Leveling Hydraulic System	66	Filter, Steering System Oil	59
Bucket Leveling Master Cylinder	67	Filter, Transmission and Converter Oil	33
Bucket Seat Assembly	8	Flood Lamps	6
Bucket Teeth Data	5	Floorboards	52
		Frame and Cradle Assembly	2
C		Front Air Chamber	35
Cab and Front Hood Group	6	Front Brake Assembly	48
Cap, Upper Pivot	6		
Carrier, Bucket	5		

	Page
Front Differential and Carrier Assembly	39
Front Drive Axle Assembly	35
Front Hood	6
Front Instrument Panel	74
Fuel Lines — G.M.	15
Fuel Sender Unit	17
Fuel Tanks	17
G	
Gauge, Clutch Pressure	74
Gauges, Front Instrument Panel	74
Gear Shift Levers and Linkage, Transmission	26
Grille and Counterweight	9
Guide Bar and Boom	3
Guide Bar Pipes	65
H	
Hood, Front	6
Hood, Rear	7
Hourmeter, Engine	75
Hydraulic Oil Reservoir	62
Hydraulic Pump — Bucket and Boom	63
Hydraulic Pump — Converter Charging	31
Hydraulic Pump — Steering	61
Hydraulic System — Bucket and Boom	65
Hydraulic System — Bucket Leveling	66
Hydraulic System — Steering	57
I	
Ignition Switch	75
Indicator, Bucket	5
Instrument Panel, Front	74
Instrument Panel, Side	75
L	
Lamp, Flood	6
Leveler Valve, Bucket	67
Lever Assembly, Brake Hand	50
Lighter, Cigarette	74
Light Switch	74
Light, Tail	9
M	
Master Cylinder, Bucket Leveling	67
Muffler and Exhaust Pipes	12
P	
Panel, Instrument — Front	74
Panel, Instrument — Side	75
Parking Brake Assembly	50
Parking Brake Controls	51
Pipe, Guide Bar	65
Planet Spider Assembly	42
Pressure Relief Valve, Steering System	60
Propeller Shaft Assemblies	43
Pump, Bucket and Boom	63
Pump, Converter Charging	31
Pump, Steering	61
R	
Radiator and Connections	13
Rear Air Chamber	37

	Page
Rear Brake Assembly	49
Rear Differential and Carrier Assembly	41
Rear Drive Steer Axle Assembly	37
Rear Fender	7
Rear Hood and Fender Group	7
Relief Valve, Steering Pressure	60
Reservoir, Air	47
Reservoir, Hydraulic Oil	62
S	
Safety and Pressure Regulating Valve	27
Seat and Support Group	8
Sender Unit, Air Pressure	47
Sender Unit, Converter Temperature	33
Sender Unit, Engine Oil Pressure	1
Sender Unit, Engine Temperature	1
Sender Unit, Fuel	17
Side Instrument Panel	75
Starter Push Button	75
Steering Cylinder Assembly	56
Steering Drag Link	57
Steering Gear Assembly	55
Steering Hydraulic Pump	61
Steering Hydraulic System	59
Steering Linkage Group	53
Steering System Oil Filter	59
Steering System Pressure Relief Valve	60
Steering Wheel	55
Switch, Ignition	75
Switch, Light	74
T	
Tail Light	9
Teeth, Bucket	5
Tie Rod Assembly	44
Tools	77
Torque Converter Assembly	29, 30
Torque Converter Charging Pump	31
Transmission and Torque Converter Hydraulic System ..	33
Transmission Assembly	19, 20, 21
Transmission Control Cover and Valve Assembly	23
Transmission Control Levers and Linkage	25
Transmission Gear Shift Levers and Linkage	26
Transmission Mounting Parts	21
Transmission Oil Dipstick	33
U	
Upper Pivot Cap	6
V	
Valve, Control — Bucket and Boom	71
Valve Control Levers and Linkage	72
Valve, Safety and Pressure Regulating	27
Valve, Steering Pressure Relief	60
Voltage Regulator Mounting Bracket	1
W	
Wheel and Tire Data	80
Wiring and Battery Cables	77
Wiring Diagram	76

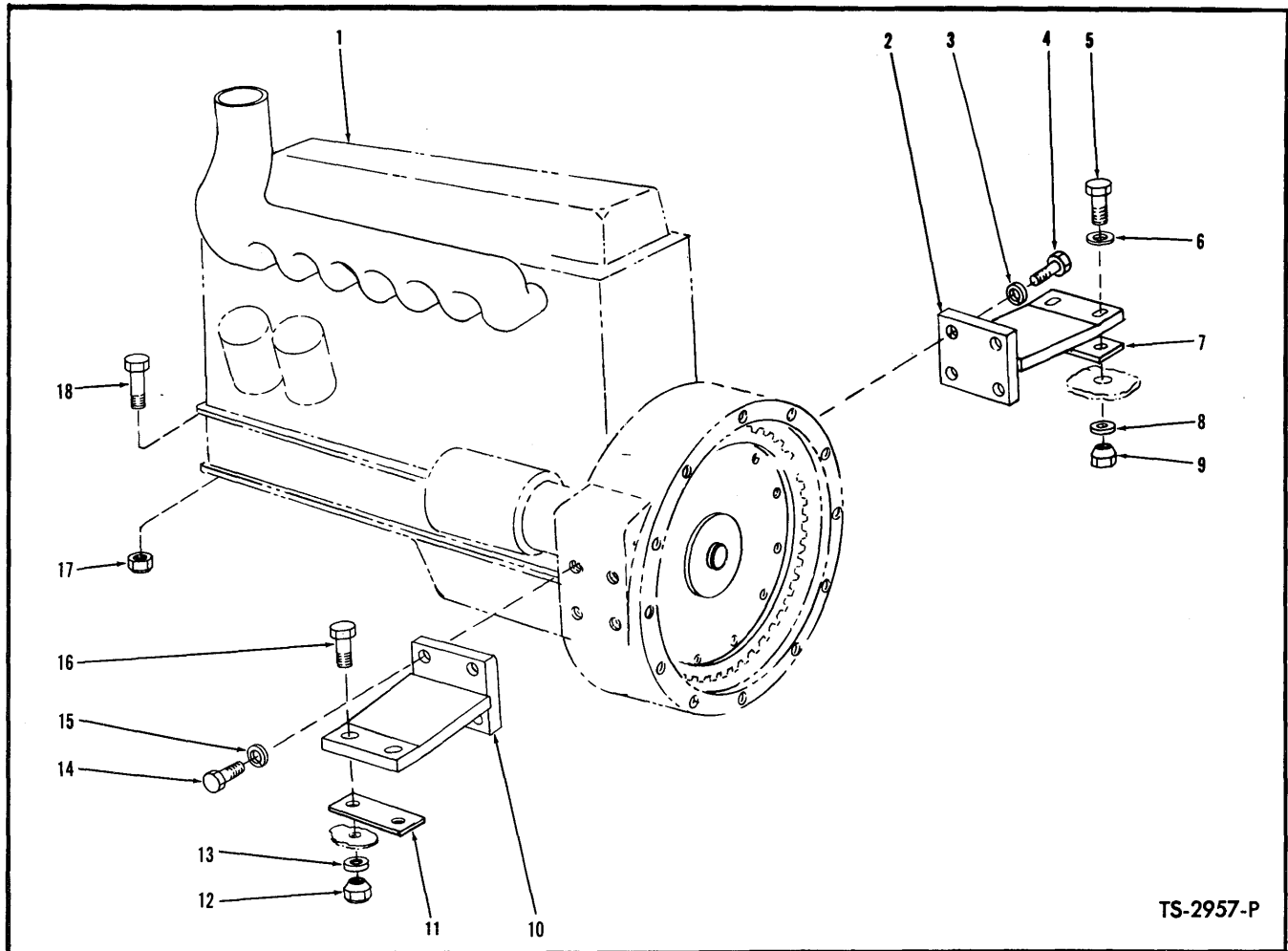
ENGINE AND ACCESSORIES – GM

For Serial: 3HG101 thru 3HG342

All Orders for engine assembly or components thereof should be placed with the nearest G.M. Diesel distributor or dealer. Always give model and serial number of your engine. This data is stamped on the options and accessories plate on the valve rocker cover of your engine. If a type number is shown covering the equipment required, be sure to include this number on your order.

ENGINE ACCESSORIES

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	940643	*SENDER UNIT, Oil Pressure	1	5	540909	BRACKET, Regulator Mounting	1
2	551323	SENDER UNIT, Engine Temperature ..	1	6	18C-424	BOLT, Bracket Attaching	4
3	636260	SWITCH, Hourmeter Pressure	1	7	18D-04	NUT, Bracket Attaching	4
4	-----	FAN, Engine (G.M. 5171229)	1				



TS-2957-P

ENGINE MOUNTING PARTS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	-----	ENGINE — See Engine Parts Manual	—	10	539780	SUPPORT, Engine — Right Hand	1
2	539782	SUPPORT, Engine — Left Hand	1	11	531309	PAD, Engine Support	1
3	4E-08	LKWSHR, Support to Engine	4	12	70D-10	NUT, Support to Frame	2
4	17C-824	BOLT, Support to Engine	4	13	71D-10	BASE, Support to Frame Nut	2
5	18C-1040	BOLT, Support to Frame	2	14	17C-824	BOLT, Support to Engine	4
6	25E-25	WASHER, Support to Frame	2	15	4E-08	LKWSHR, Support to Engine	4
7	531309	PAD, Engine Support	1	16	18C-1040	BOLT, Support to Frame	2
8	71D-10	BASE, Support to Frame Nut	2	17	18D-10	NUT, Front Engine Mounting	2
9	70D-10	NUT, Support to Frame	2	18	18C-1036	BOLT, Front Engine Mounting	2

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

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

ENGINE AND ACCESSORIES – CUMMINS

All orders for engine assembly or components thereof should be placed with the nearest Cummins Engine Distributor. Always give model, specifications and serial number of the engine when ordering parts. This data will be found on the nameplate attached to the side of the engine.

Item No.	Part No.	Description	No. Req'd.
1	945897	*ALTERNATOR (Delco-Remy #1117095)	1
2	-----	*STARTING MOTOR	1
3	556703	*VOLTAGE REGULATOR (Delco-Remy #9000591)	1
4	551323	SENDER UNIT, Engine & Converter Temperature	2
5	940643	**SENDER UNIT, Engine Oil Pressure	1
6	14D-10	NUT, Sender Units	3
7	12E-10	LKWSHR, Sender Units	3
8	636260	SWITCH, Hourmeter & Voltage Regulator Pressure	2
9	26F-1	ELBOW, Engine to Cross	1
10	542646	NIPPLE, Elbow to Cross	1
11	21F-1	CROSS, Sender Units to Engine	1

*NOTE: For service on these items, see your local authorized Delco-Remy or United Distributor and furnish him part number from side of unit.

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

ENGINE AND ACCESSORIES – G.M.

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

Item No.	Part No.	Description	No. Req'd.
12	556702	*ALTERNATOR (Delco-Remy #1117071)	1
13	-----	*STARTING MOTOR	1
14	556703	*VOLTAGE REGULATOR (Delco-Remy #9000591)	1
15	551323	SENDER UNIT, Engine & Converter Temperature	2
16	940643	**SENDER UNIT, Engine Oil Pressure	1
17	14D-10	NUT, Sender Units	3
18	12E-10	LKWSHR, Sender Units	3
19	636260	SWITCH, Hourmeter & Voltage Regulator Pressure	2
20	542646	NIPPLE, Elbow to Cross	1
21	21F-1	CROSS, Sender Units to Engine	1

*NOTE: For service on these items, see your local authorized Delco-Remy or United Distributor and furnish him part number from side of unit.

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



ENGINE MOUNTING PARTS

Item No.	Part No.	Description	No. Req'd.
1	556297	SUPPORT, Engine — Right Hand	1
2	556298	SUPPORT, Engine — Left Hand	1
3	531309	PAD, Support to Frame	2
4	17C-1028	BOLT, Support to Engine	8
5	4E-10	LKWSHR, Support to Engine	8
6	18C-1040	BOLT, Support to Frame	4
7	71D-10	BASE, Support to Frame Nut	4
8	70D-10	NUT, Support to Frame	4
9	18C-1072	BOLT, Engine Trunnion to Frame	2
10	18D-10	NUT, Engine Trunnion to Frame	2
11	774224	SPACER	2
12	25E-25	WASHER, Engine Support — L.H.	2

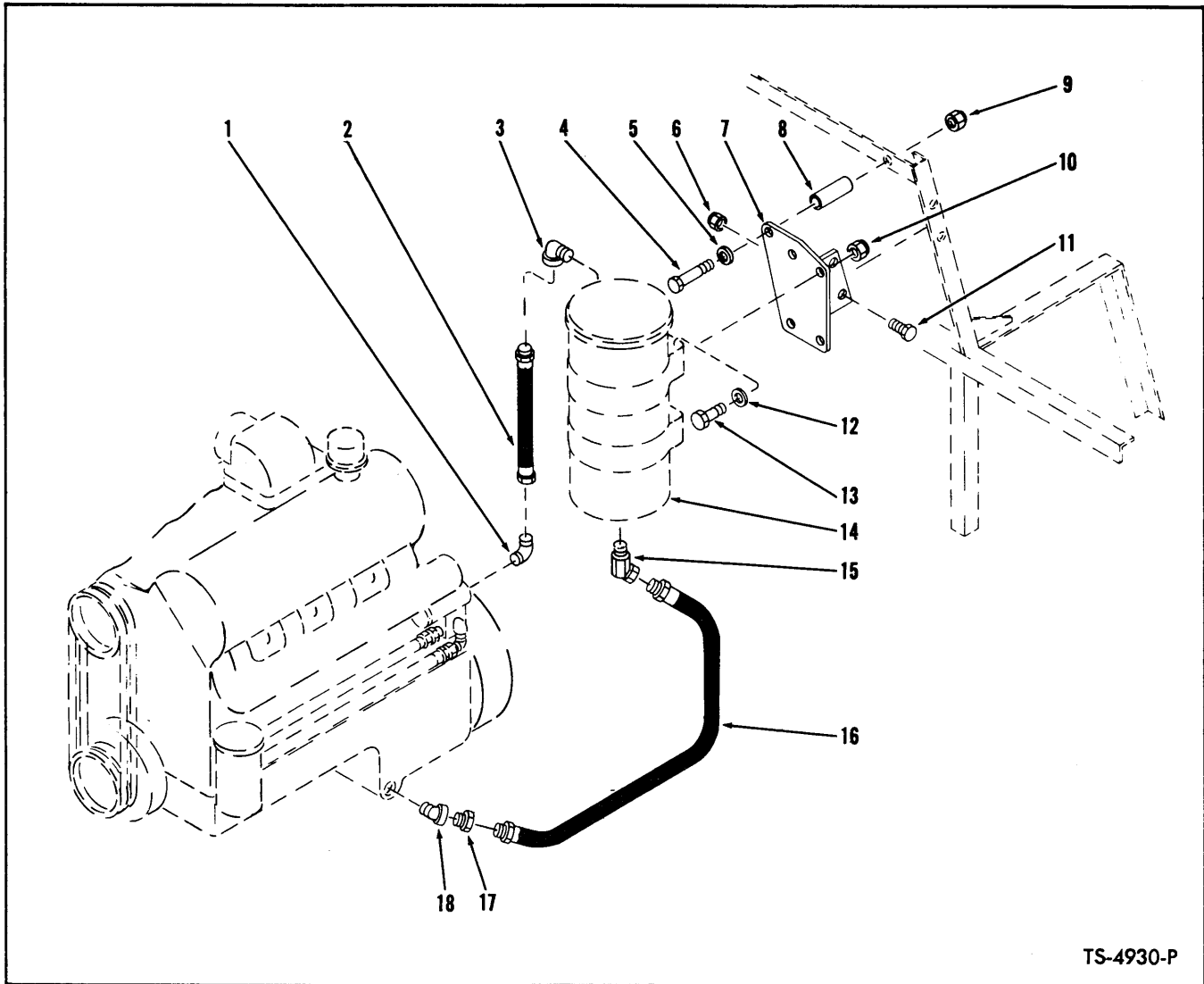
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WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

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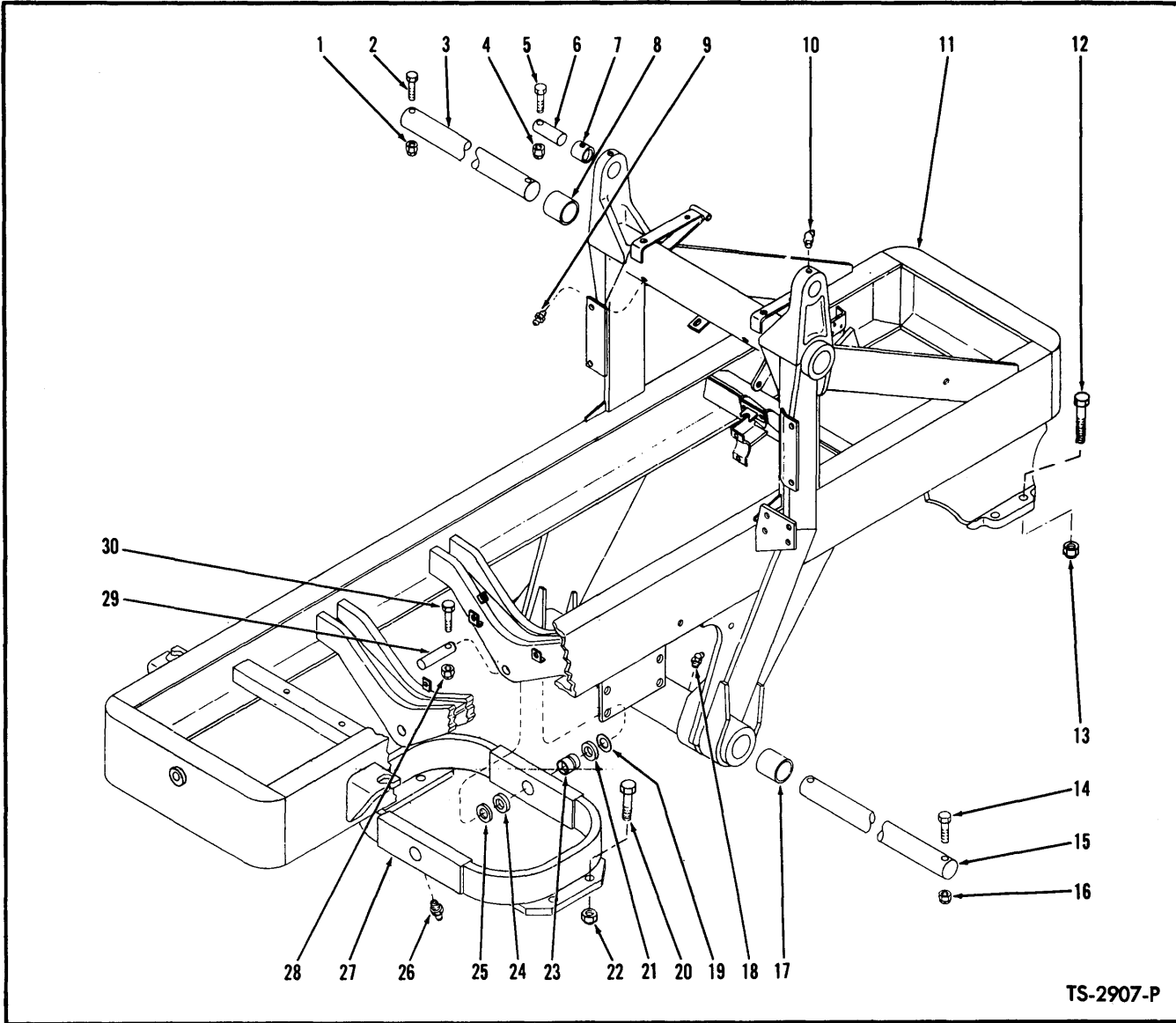


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ENGINE BY-PASS OIL FILTER — CUMMINS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	940638	ELBOW, Hose to Engine	1	10	18D-05	NUT, Filter Mounting	4
2	533506	HOSE, Pressure Regulator to Filter	1	11	18C-820	BOLT, Bracket to Seat Support	2
3	31F-3	ELBOW, Hose to Filter	1	12	25E-15	WASHER, Filter Mounting	4
4	24C-8104	BOLT, Bracket to Seat Support	1	13	18C-516	BOLT, Filter Mounting	4
5	635682	WASHER, Bracket to Seat Support	1	14	—	FILTER, Engine Oil By-Pass—See Index —	—
6	18D-08	NUT, Bracket to Seat Support	2	15	33F-3	ADAPTER UNION	1
7	556301	BRACKET, Oil Filter Mounting	1	16	645493	HOSE, Filter to Oil Pan	1
8	784381	SPACER, Bracket to Seat Support	1	17	356614	BUSHING, Reducing	1
9	18D-08	NUT, Bracket to Seat Support	1	18	25F-4	ELBOW, Oil Pan	1

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



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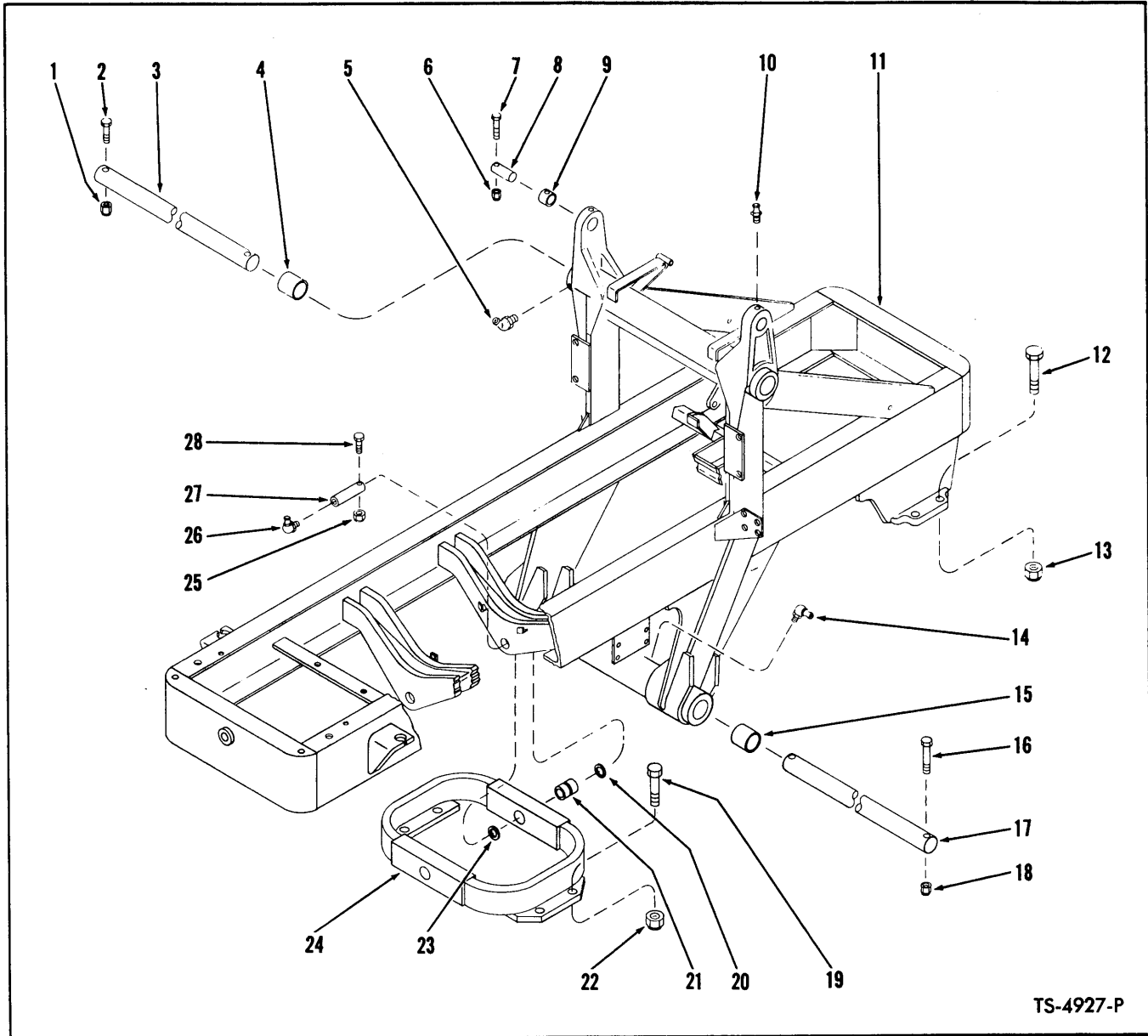
FRAME AND CRADLE ASSEMBLY—G.M.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-12	NUT, Shaft Retaining.....	2	16	18D-12	NUT, Shaft Retaining.....	2
2	24C-12144	BOLT, Shaft Retaining.....	2	17	538306	BUSHING, Lower Pivot Tube.....	2
3	534160	SHAFT, Boom Pivot.....	1	18	11H-15	FITTING, Lower Tube Grease.....	2
4	18D-08	NUT, Pin Retaining.....	2	19	552146	‡WASHER, Cradle to Frame — 1/16".....	—
5	18C-880	BOLT, Pin Retaining.....	2	20	24C-1680	BOLT, Rear Axle to Cradle.....	8
6	534480	PIN, Guide Bar to Frame.....	2	21	538888	SPACER, Cradle to Frame.....	2
7	532369	BUSHING, Guide Bar.....	2	22	68D-16	NUT, Rear Axle to Cradle.....	8
8	538306	BUSHING, Upper Pivot Tube.....	2	23	538605	BUSHING, Cradle.....	2
9	11H-15	FITTING, Upper Pivot Tube Grease.....	2	24	538888	SPACER, Cradle to Frame.....	2
10	11H-15	FITTING, Guide Bar Grease.....	2	25	552147	‡WASHER, Cradle to Frame — 1/8".....	—
11	534488	FRAME ASSY (Inc. 7, 8, 17).....	1	26	10H-25	FITTING, Cradle Grease.....	2
12	24C-16168	BOLT, Axle to Frame.....	8	27	534173	*CRADLE ASSY, Rear Axle (Inc. 23).....	1
13	68D-16	NUT, Axle to Frame.....	8	28	18D-08	NUT, Pin Retaining.....	2
14	24C-12128	BOLT, Shaft Retaining.....	2	29	562412	PIN, Cradle Pivot.....	2
15	534161	SHAFT, Cylinder Pivot.....	1	30	18C-868	BOLT, Pin Retaining.....	2

‡As Required

*NOTE: When replacement is necessary for 534173 Cradle 2—562412 Cradle Pivot Pins and 2—12H-25 Grease Fittings must also be used at the same time.

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



FRAME AND CRADLE ASSEMBLY — CUMMINS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-12	NUT, Shaft Retaining	2	15	538306	BUSHING, Lower Pivot Tube	2
2	24C-12144	BOLT, Shaft Retaining	2	16	24C-12128	BOLT, Shaft Retaining	2
3	534160	SHAFT, Boom Pivot	1	17	534161	SHAFT, Cylinder Pivot	1
4	538306	BUSHING, Upper Pivot Tube	2	18	18D-12	NUT, Shaft Retaining	2
5	11H-15	FITTING, Upper Pivot Tube Grease	2	19	24C-1680	BOLT, Rear Axle to Cradle	8
6	18D-08	NUT, Pin Retaining	2	20	552146	‡WASHER, Cradle to Frame — 1/16"	—
7	18C-880	BOLT, Pin Retaining	2	21	538605	BUSHING, Cradle	2
8	534480	PIN, Guide Bar to Frame	2	22	68D-16	NUT, Rear Axle to Cradle	8
9	532369	BUSHING, Guide Bar	2	23	552147	‡WASHER, Cradle to Frame — 1/8"	—
10	11H-15	FITTING, Guide Bar Grease	2	24	534173	CRADLE ASSY (Inc. 21)	1
11	556675	FRAME ASSY (Inc. 4, 9, 15)	1	25	18D-08	NUT, Pin Retaining	2
12	24C-16168	BOLT, Front Axle to Frame Mounting	8	26	12H-25	FITTING, Cradle Grease	2
13	68D-16	NUT, Front Axle to Frame Mounting	8	27	562412	PIN, Cradle Pivot	2
14	11H-15	FITTING, Lower Pivot Tube Grease	2	28	18C-868	BOLT, Pin Retaining	2

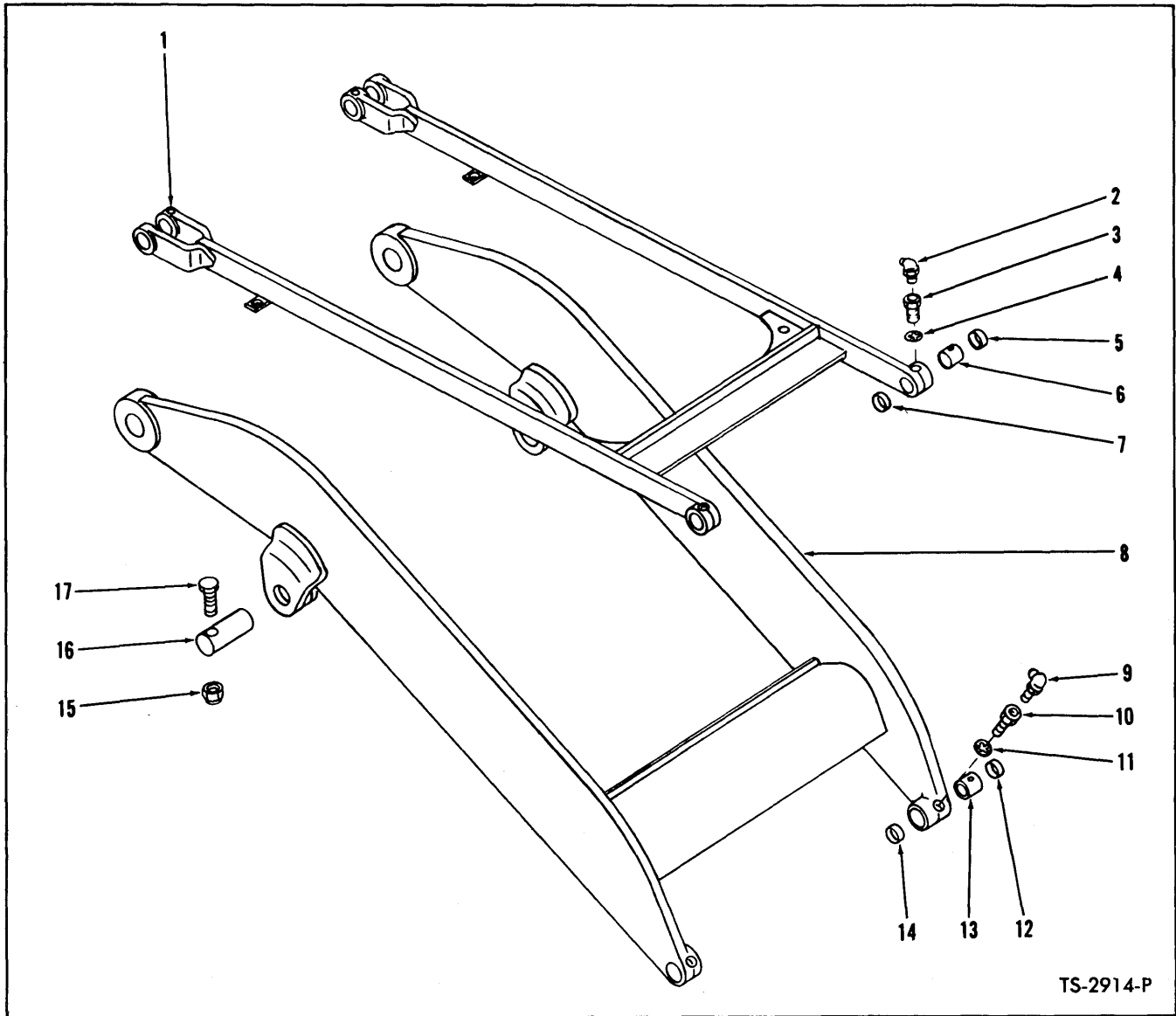
‡As Required

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

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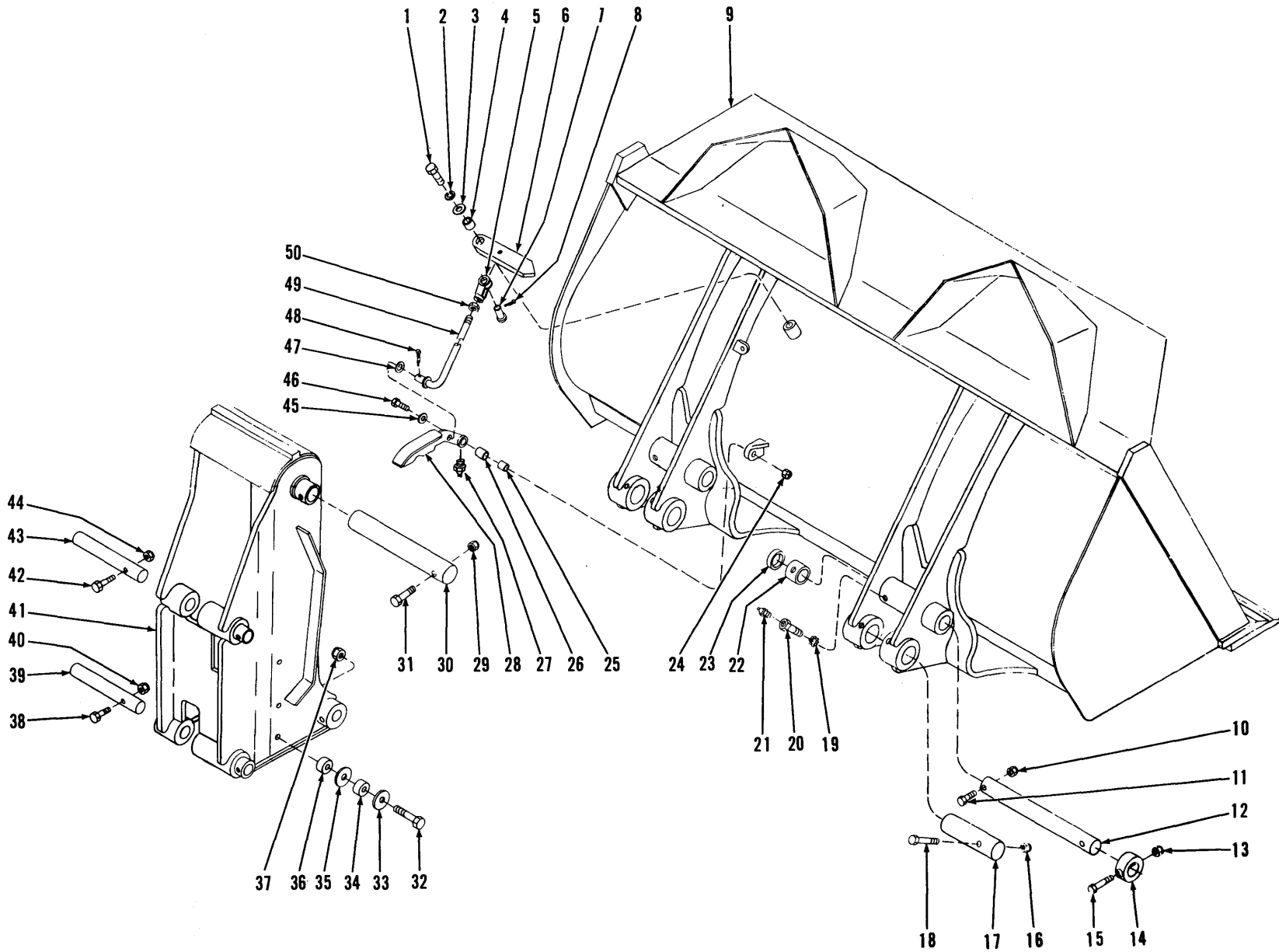
BOOM AND GUIDE BAR

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	534226	GUIDE BAR ASSY (Inc. 3, 4, 6)	1	9	12H-25	*FITTING, Boom Grease	2
1A	548964	†GUIDE, Hose	2	9A	10H-25	**FITTING, Boom Grease	2
1B	180832	†BOLT	2	10	532118	*BOLT, Boom Bushing Retaining	2
1C	635682	†WASHER	2	10A	534895	**BOLT, Boom Bushing Retaining	2
1D	18D-08	†NUT	2	11	7E-08	LKWSHR, Boom Bushing Retaining	2
2	12H-25	FITTING, Guide Bar Grease	2	12	532378	DUST SEAL, Boom	2
3	532118	BOLT, Guide Bar Bushing Retaining	2	13	533735	BUSHING, Boom	2
4	7E-08	LKWSHR, Guide Bar Bushing Retaining	2	14	532378	DUST SEAL, Boom	2
5	532378	DUST SEAL, Guide Bar	2	15	18D-12	NUT, Retaining Pin Bolt	2
6	533735	BUSHING, Guide Bar	2	16	542839	PIN, Boom Cylinder Retaining	2
7	532378	DUST SEAL, Guide Bar	2	17	24C-12104	BOLT, Retaining Pin	2
8	534147	BOOM ASSY (Inc. 10, 11, 13)	1				

†Not Illustrated

*NOTE: For Serial No. - 3HG101 thru 3HG285
 **NOTE: For Serial No. - 3HG286 and thereafter.

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



CARRIER, BUCKET AND INDICATOR

TS-4518-P

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PM 1654

CARRIER, BUCKET AND INDICATOR

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-820	BOLT, Pointer to Bucket	1	26	526767	**BUSHING, Cam—For Serial: Cummins 4HC102 thru 4HC999; G.M.—3HG343 thru 3HG999; 4HG-101 thru 4HG999	1
2	4E-08	LKWSHR, Pointer to Bucket	1	27	12H-15	FITTING, Indicator Cam Grease	1
3	619029	WASHER, Pointer to Bucket	1	28	557076	*CAM, Indicator	1
4	541730	**SLEEVE, Pointer to Bucket	1	29	18D-10	NUT, Carrier to Cyl. Pin Retaining ..	2
5	2J-8300	CLEVIS, Rod to Pointer	1	30		<i>PIN, Carrier to Cylinder</i>	
6	557156	**POINTER, Bucket Indicator	1	30A	537265	For Serial: G.M.—3HG101 thru 3HG999	2
7	4F-08127	PIN, Clevis to Pointer	1	30B	587987	For Serial: Cummins—4HC102 thru 4HC-999; G.M.—4HG101 thru 4HG999..	2
8	1F-418	COTTER, Clevis Pin	1	31	18C-1096	BOLT, Pin Retaining	2
9	-----	BUCKET (Inc. 19, 20, 22) See Chart Below	1	32	18C-1072	BOLT, Tube to Carrier Assy	1
10	18D-12	NUT, Pin Retaining Bolt	2	33	557084	**SPACER, Tube to Carrier—For Serial: Cummins—4HC102 thru 4HC999; G.M.—3HG343 thru 3HG999, 4HG-101 thru 4HG999	1
11	18C-1280	BOLT, Pin Retaining	2	34		<i>TUBE, Cam Follower</i>	
12	564375	PIN, Carrier to Bucket	2	34A	551523	For Serial: G.M.—3HG101 thru 3HG342	1
13	18D-12	NUT, Locking Collar Retaining	2	34B	557085	**For Serial: Cummins—4HC102 thru 4HC-999; G.M.—3HG343 thru 3HG999, 4HG101 thru 4HG999	1
14		<i>COLLAR, Pin Locking</i>		35	557084	**SPACER, Tube to Carrier—For Serial: Cummins—4HC102 thru 4HC999; G.M.—3HG343 thru 3HG999, 4HG-101 thru 4HG999	1
14A	534145	For Serial: G.M.—3HG101 thru 3HG999	2	36	557085	**TUBE, Cam Follower— For Serial: Cummins—4HC102 thru 4HC999; G.M.—3HG343 thru 3HG999, 4HG-101 thru 4HG999	1
14B	587986	For Serial: Cummins—4HC102 thru 4HC-999; G.M.—4HG101 thru 4HG999..	2	37	18D-10	NUT, Tube to Carrier Assy Retaining	1
15	18C-1280	BOLT, Locking Collar Retaining	2	38		<i>BOLT, Pin Retaining</i>	
16	18D-12	NUT, Pin Retaining	2	38A	18C-880	For Serial: G.M.—3HG101 thru 3HG999	2
17	537266	PIN, Cylinder to Bucket	2	38B	18C-872	For Serial: Cummins—4HC102 thru 4HC-999; G.M.—4HG101 thru 4HG999..	2
18	18C-1296	BOLT, Pin Retaining	2	39		<i>PIN, Carrier to Guide Bar & Boom</i>	
19	7E-08	LKWSHR, Grease Fitting Bolt	4	39A	587639	For Serial: G.M.—3HG101 thru 3HG999 — See Note "A"	2
20	532118	BOLT, Grease Fitting	4	39B	564377	For Serial: Cummins—4HC102 thru 4HC-999; G.M.—4HG101 thru 4HG999..	2
21	12H-25	FITTING, Bucket Grease	4				
22	532724	BUSHING, Bucket	4				
23	532725	SEAL, Dust	4				
24	18D-08	NUT, Cam to Bucket	1				
25		<i>SLEEVE, Cam Retaining Bolt</i>					
25A	543406	For Serial: G.M.—3HG101 thru 3HG342	1				
25B	550646	**For Serial: Cummins—4HC102 thru 4HC-999; G.M.—3HG343 thru 3HG999, 4HG101 thru 4HG999	1				

†Not Illustrated

*NOTE: When replacement is necessary for item 28 or 49 on Machine Serial: G.M.—3HG101 thru 3HG342, both items have to be replaced at the same time plus all items marked with a double asterisk (**). Item 49, select rod which is applicable to cover your bucket. Once conversion has been made, individual replacements can be made.

NOTE "A": 587639 Pin Kit consists of 1—564377 Pin, 1—587641 Collar, 1—18C-868 Bolt, 1—18D-08 Nut and Inst. Form #001975.

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.
40	18D-08	NUT, Pin Retaining	2	46B	18C-844	**For Serial: Cummins—4HC102 thru 4HC999; G.M.—3HG343 thru 3HG999; 4HG101 thru 4HG999	1
41	587617	***CARRIER, Bucket—L.H.	1	47	550665	**WASHER, Rod—For Serial: Cummins—4HC102 thru 4HC999; G.M.—3HG343 thru 3HG999, 4HG101 thru 4HG999	1
41A	587616	***†CARRIER, Bucket—R.H.	1	48	1F-418	**COTTER, Rod to Cam Clevis Pin—For Serial: Cummins—4HC102 thru 4HC999; G.M.—3HG343 thru 3HG999, 4HG101 thru 4HG999	1
42		BOLT, Pin Retaining		49		*ROD, Pointer to Indicator Cam	
42A	18C-880	For Serial:G.M.—3HG101 thru 3HG999	2	49A	557193	For 545219 Bucket	1
42B	18C-872	For Serial:Cummins—4HC102 thru 4HC999; G.M.—4HG101 thru 4HG999..	2	49B	557164	For 533877, 544558, 588248 Bucket	1
43		PIN, Carrier to Guide Bar & Boom		49C	557196	For 588919, 545573 Bucket	1
43A	587639	For Serial:G.M.—3HG101 thru 3HG999 (See Note "A")	2	49D	557199	For 546498 Bucket	1
43B	564377	For Serial Cummins—4HC102 thru 4HC999; G.M.—4HG101 thru 4HG999..	2	50	8D-08	NUT, Clevis Jam	1
44	18D-08	NUT, Pin Retaining	2				
45	616796	WASHER, Cam to Bucket	1				
46		BOLT, Cam to Bucket					
46A	18C-840	For Serial:G.M.—3HG101 thru 3HG342	1				

NOTE "A" 587639 Pin Kit consists of 1—564377 Pin, 1—587641 Collar, 1—18C-868 Bolt, 1—18D-08 Nut and Inst. Dwg. #587642.

***When 587616 or 587617 Carrier is installed on machine serial number 3HG101 thru 3HG999, the following items must be used:

2 — 564377 PIN, Items 39B, 43B

1 — 587986 LOCKING COLLAR, Item 14B

1 — 587987 PIN, Item 30B

2 — 18C-872 BOLT, Items 38B, 42B

†Not Illustrated

BUCKET ASSEMBLY DATA

BUCKET			MAIN CUTTING EDGE			SIDE CUTTING EDGE			
Width	Capacity	Part No.	Part No.	Size	Approx. Weight	R.H. Part No.	L.H. Part No.	Size	Approx Weight
98"	2½ cu. yd.	546498	546659	1¾ x 10 x 101¼	346	*546504	*546005	¾ x 6 x 47¼	45
107"	4 cu. yd.	544558	533880	1¾ x 10 x 109¾	379	*544565	*544566	¾ x 6 x 53¾	52
109"	3½ cu. yd.	**533877	533880	1¾ x 10 x 109¾	379	*533884	*533885	¾ x 6 x 48½	46
113"	3½ cu. yd.	588248	1516435	1¾ x 10 x 114¾	390	*533884	*533885	¾ x 6 x 48½	46
112"	3¼ cu. yd.	545219	545222	1¾ x 10 x 112¾	390	---	---	---	---
113"	3½ cu. yd.	588248	588251	1¾ x 10 x 114¾	390	*533884	*533885	¾ x 6 x 48½	46
114"	4¼ cu. yd.	588919	588251	1¾ x 10 x 114¾	390	*544565	*544566	¾ x 6 x 53¾	52
131½"	6 cu. yd.	545573	545576	1¾ x 10 x 132¼	457	*545580	*545581	¾ x 6 x 57¼	56

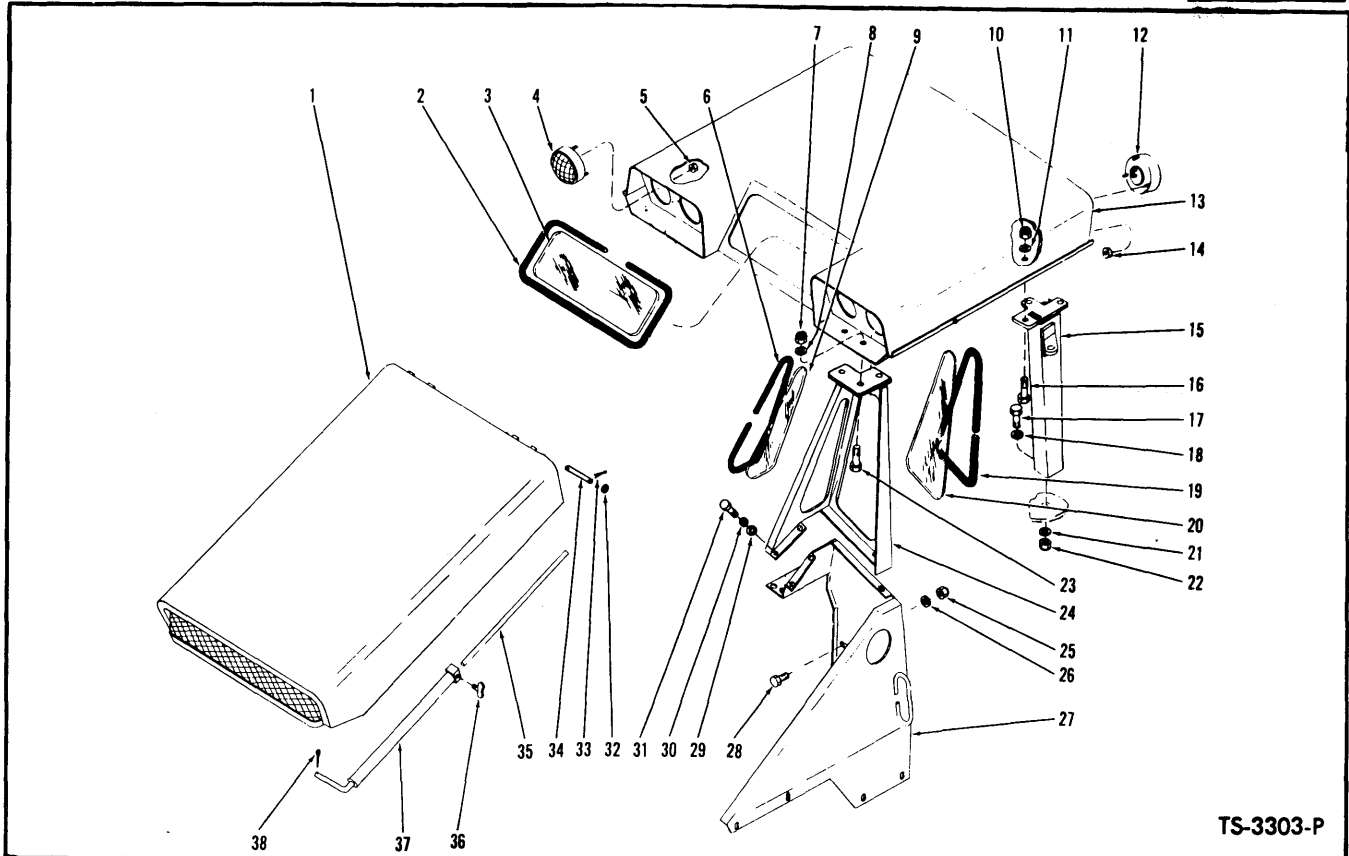
*NOTE: ¾ x 6 x 10 segments are available for above side cutting edges, 548970 R.H. and 548971 L.H. — approximate weight 10 lbs.

**NOTE: For replacement of complete 533877 Bucket Assembly, use 588248 Bucket plus one 557164 Rod.

BUCKET TEETH DATA

Bucket Width	One Piece Tooth No.	Replaceable Tip Tooth No.	No. Req'd.	Replaceable Tip No.	Replaceable Tip Pin No.
97½"	522503	529969	9	529970	529971
107½"	522503	529969	10	529970	529971
109"	522503	529969	10	529970	529971
112"	522503	529969	10	529970	529971
113"	522503	529969	10	529970	529971
114"	522503	529969	10	529970	529971

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



TS-3303-P

CAB AND FRONT HOOD GROUP

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	548598	*HOOD, Front	1	21	635682	WASHER, Rear Post to Rear Hood	2
2	542445	RUBBER, Front Glass Mounting	1	22	18D-08	NUT, Rear Post to Rear Hood	2
3	---	GLASS, Front - See 39	1	23	18C-824	BOLT, Front Post to Cab Roof	6
4	547006	FLOOD LAMP ASSY (Inc. 4A, 4B)	4	24	549010	POST, Cab - L.H. Front	1
4A	551242	†SEALED UNIT, Flood Lamp	4	24A	549009	POST, Cab - R.H. Front	1
4B	944977	†RETAINER ASSY, Sealed Unit	4	24B	588779	†PAD, Front Post to Roof	2
5	12D-10	NUT, Flood Lamp Mounting	12	24C	588795	†PAD, Front Post to Pivot Pad	2
5A	15E-10	†LKWSHR, Flood Lamp Mounting	12	25	18D-08	NUT, Cap to Upper Pivot Bolt	4
6	542445	RUBBER, Side Glass Mounting	2	26	635682	WASHER, Cap to Upper Pivot Bolt	4
7	18D-08	NUT, Front Post to Cab Roof	6	27	539332	CAP, Upper Pivot - L.H.	1
8	635682	WASHER, Front Post to Cab Roof	6	27A	539331	CAP, Upper Pivot - R.H.	1
9	---	GLASS, Side - See 39	2	28	18C-820	BOLT, Cap to Upper Pivot	4
10	18D-08	NUT, Rear Post to Cab Roof	6	29	25E-17	WASHER, Front Post to Cap	6
11	635682	WASHER, Rear Post to Cab Roof	6	30	---	OMIT, Not applicable this model	---
12	547006	FLOOD LAMP ASSY (Inc. 12A, 12B)	2	31	18C-616	BOLT, Front Post to Cap	6
12A	944980	†SEALED UNIT, Flood Lamp	2	31A	18D-06	†NUT, Front Post to Cap	6
12B	944977	†RETAINER ASSY, Sealed Unit	2	32	784057	WASHER, Hood Hinge Pin-See Note A	4
13	548954	ROOF, Cab	1	32A	850818	†**WASHER, Hood to Hinge Pin	2
14	12D-10	NUT, Flood Lamp Mounting	6	33	1F-308	COTTER, Hood Hinge Pin-See Note A	4
14A	15E-10	†LKWSHR, Flood Lamp Mounting	6	33A	1F-314	†**COTTER, Hood to Hinge Pin	2
15	542449	POST, Cab - L.H. Rear	1	34	548695	PIN, Hood Hinge - See Note A	2
15A	542448	POST, Cab - R.H. Rear	1	34A	588969	†**PIN, Hood Hinge	2
15B	588780	†PAD, Rear Post to Roof	2	35	544383	ROD, Hood Support - Adjustable	1
16	18C-824	BOLT, Rear Post to Cab Roof	6	36	544610	THUMB SCREW, Rod Retaining	1
17	18C-824	BOLT, Rear Post to Rear Hood	2	37	544379	ROD, Hood Support	1
18	635682	WASHER, Rear Post to Rear Hood	2	38	1F-414	COTTER, Rod Retaining	1
19	542445	RUBBER, Front Glass Mounting	2	39	944288	GLASS PATTERN KIT (Inc. 3, 9, 20)	1
20	---	GLASS, Front - See 39	2				

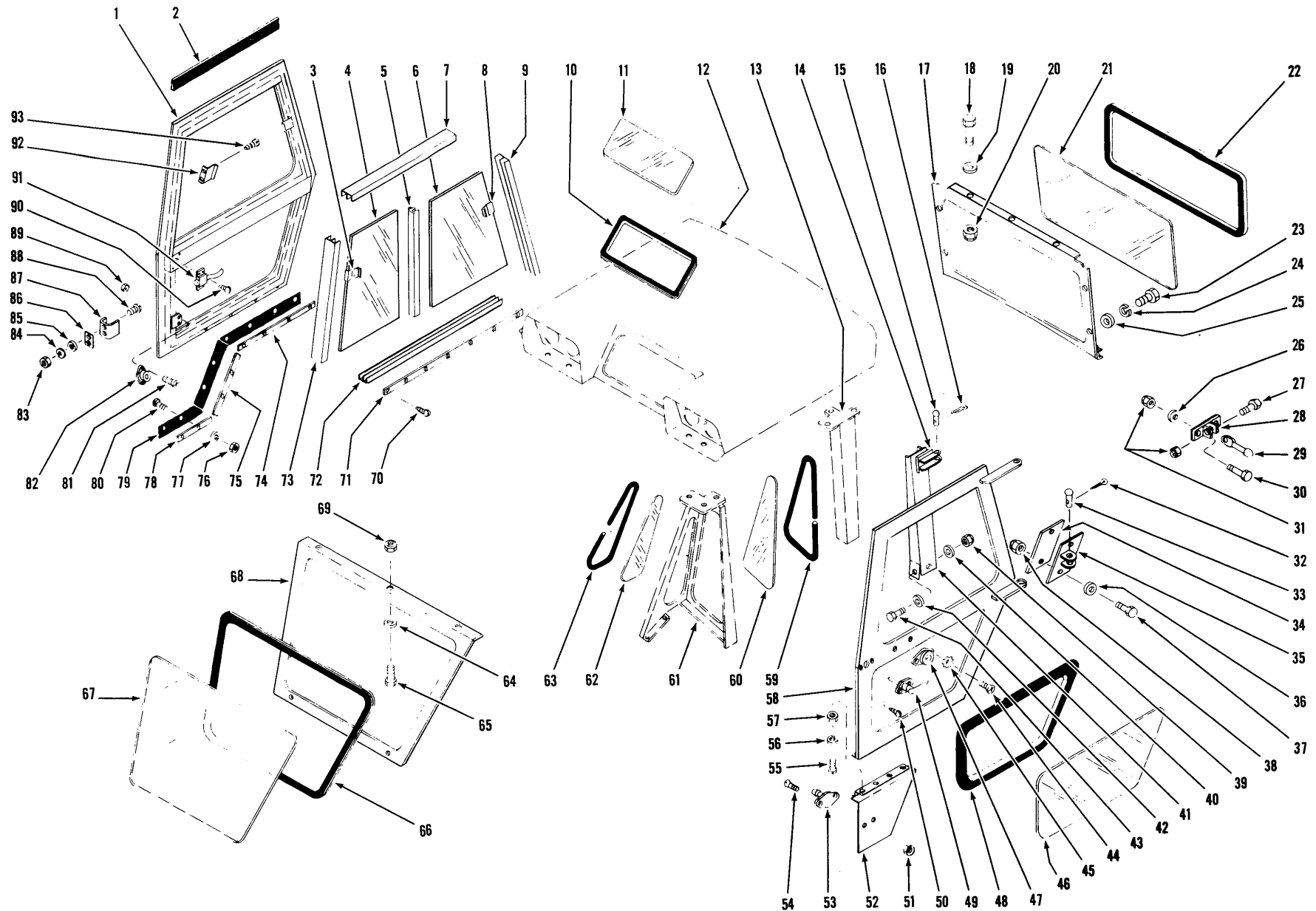
†Not Illustrated

*NOTE: When replacing original Hood with 548598 on machine, S/N G.M. 3HG-101 thru 3HG-137, 2-548969 Pin, 2-850818 Washer, 2-1F-314 Cotter must also be used.

**NOTE: For Serial No. 3HG-138 & after.

NOTE A: For Serial No. 3HG-101 thru 3HG-137.

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



CAB DOOR KITS

TS-4301

6A.1

(1E1)

PM 1654

CAB DOOR KITS

Item No.	175A Series II	DESCRIPTION	No. Req'd.
1	945478	DOOR, R.H. Panel only	1
2	589570	SEAL, Cab Door	2
3	589571	LOCK, Sliding Glass Handle.....	2
3A	589572	†RUBBER GLAZING, Sliding Glass Lock	2
4	(See 94)	GLASS PATTERN, Front, Upper Door	2
5	589560	DIVIDER, Glass Channel	2
6	(See 94)	GLASS PATTERN, Rear, Upper Door	2
7	589553	CHANNEL, Upper Glass Double Run	2
8	589571	LOCK, Sliding Glass Handle	2
8A	589572	†RUBBER GLAZING, Sliding Glass Lock	2
9	589555	CHANNEL, Rear Glass Double Run	2
10	542445	RUBBER, Roof Glass Mounting	1
11	(See 94)	GLASS PATTERN, Roof Glass	1
12	-----	ROOF, Cab - See Index	-
13	-----	POST, L.H. Rear - See Index	-
14	558767	HING, Upper	2
15	4F-08127	PIN, Upper Hinge	2
16	1F-514	COTTER, Upper Hinge Pin	2
17	546543	PANEL, Rear Windshield	1
18	18C-616	BOLT, Upper Rear Windshield Mounting	3
19	619021	WASHER, Upper Rear Windshield Mounting	3
20	18D-06	NUT, Upper Rear Windshield Mounting	3
21	(See 94)	GLASS PATTERN, Rear Windshield	1
22	546474	RUBBER, Rear Windshield Mounting	1
23	17C-616	BOLT, Side Rear Windshield Mounting	4
24	4E-06	LKWSHR, Side Rear Windshield Mounting	4
25	619021	WASHER, Side Rear Windshield Mounting	4
26	25E-15	WASHER, Bracket Mounting	4
27	18C-520	BOLT, Door Check Plug Mounting	2
28	588333	BRACKET, Hood Plunger Check	2
29	549032	PLUG, Door Check Male	2
30	18C-520	BOLT, Bracket Mounting	4
31	18D-05	NUT, Door Check Plug Mounting	6
32	1F-514	COTTER, Lower Hinge Pin	2
33	4F-08127	PIN, Lower Hinge	2
34	589184	SHIM, Lower Hinge	4
35	589181	HINGE, Lower - L.H.	1
35A	589180	†HINGE, Lower - R.H.	1
36	619021	WASHER, Hinge Mounting	4
37	18C-614	BOLT, Hinge Mounting	4
38	18D-06	NUT, Hinge Mounting	4
39	18D-06	NUT, Hinge Panel Mounting	4
40	619021	WASHER, Hinge Panel Mounting	4
41	589109	PANEL, Rear Post Hinge - L.H.	1
41A	589108	†PANEL, Rear Post Hinge - R.H.	1
42	619021	WASHER, Hinge Panel Mounting	4
43	18C-614	BOLT, Hinge Panel Mounting	4
44	76G-412	SCREW, Door Check Socket	4
45	20E-04	LKWSHR, Door Check Socket	4
46	(See 94)	GLASS PATTERN, Lower Door	2
47	547015	SOCKET, Door Check	2
48	589563	WEATHER SEAL, Lower Door Glass	2
49	1525710	HANDLE, Door	2

†Not Illustrated

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

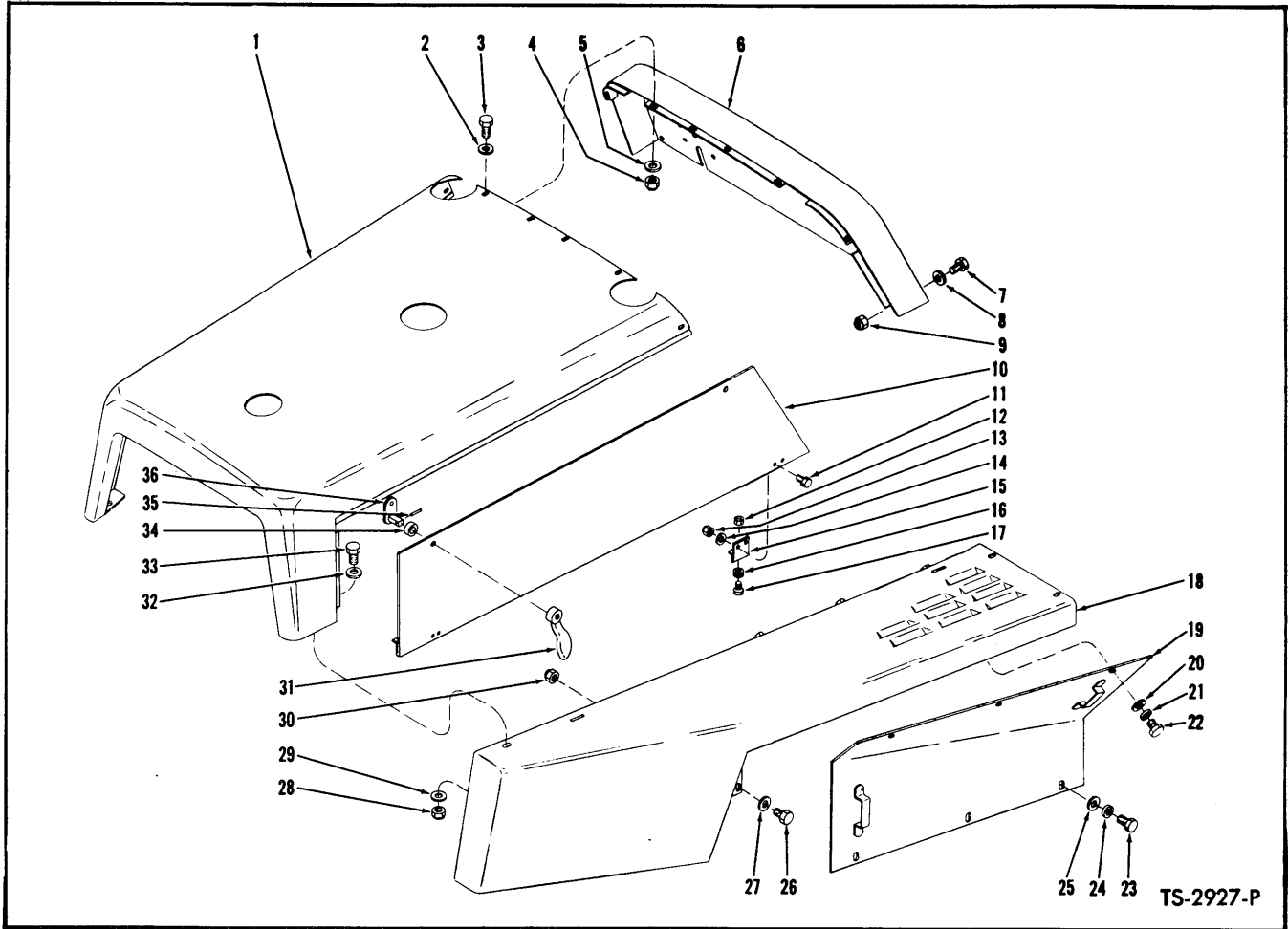
CAB DOOR KITS (Continued)

Item No.	175A Series II	DESCRIPTION	No. Req'd.
50	65G-1008	SCREW, Door Handle Mounting	4
51	62D-04	NUT, Door Flap Plug Mounting	4
52	945480	PANEL, Lower Door Flap – L.H.	1
52A	-----	§†PANEL, Lower Door Flap – R.H.	1
53	547014	PLUG, Lower Door Flap	2
54	78G-412	SCREW, Plug Mounting	4
54A	9E-04	†LKWSHR, Plug Mounting	4
55	82G-410	SCREW, Lower Door Flap Mounting	8
56	4E-04	LKWSHR, Lower Door Flap Mounting	8
57	62D-04	NUT, Lower Door Flap Mounting	8
58	945479	DOOR, L.H. Panel	1
59	542445	RUBBER, Front Glass Mounting	2
60	(See 94)	GLASS PATTERN, Front Post	1
61	-----	POST, L.H. Front – See Index	—
62	(See 94)	GLASS PATTERN, Front Side Post	2
63	542445	RUBBER, Front Side Glass Mounting	2
64	619021	WASHER, Front Windshield Mounting	5
65	18C-616	BOLT, Front Windshield Mounting	5
66	546474	RUBBER, Front Windshield Mounting	1
67	(See 94)	GLASS PATTERN, Front Windshield	1
68	545840	PANEL, Front Windshield	1
69	18D-06	NUT, Front Windshield Mounting	5
70	65G-1008	SCREW, Lower Glass Retainer	14
71	589796	RETAINER, Lower Glass Channel	2
72	589556	CHANNEL, Lower Glass Double Run	2
73	589554	CHANNEL, Front Glass Double Run	2
74	945482	RETAINER, Lower Door Flap Seal	2
75	945483	RETAINER, Lower Door Flap Seal	2
76	12D-8	NUT, Retainer Mounting	18
77	17E-8	LKWSHR, Retainer Mounting	18
78	945484	RETAINER, Lower Door Flap Seal	2
79	589567	SEAL, Lower Door Flap	2
80	3G-808	SCREW, Retainer Mounting	18
81	78G-412	SCREW, Door Check Socket Mounting	4
82	547015	SOCKET, Lower Door Check	2
83	62D-04	NUT, Lockstrike Mounting	4
84	4E-04	LKWSHR, Lockstrike Mounting	4
85	25E-13	WASHER, Lockstrike Mounting	4
86	588332	SHIM, Lockstrike	6
87	588331	LOCKSTRIKE	2
88	82G-410	SCREW, Lockstrike Mounting	4
89	62D-04	NUT, Door Check Socket Mounting	4
89A	9E-04	†LKWSHR, Door Check Socket Mounting	4
90	65G-1008	SCREW, Door Lock Mounting	8
91	942874	LOCK, R.H. Door	1
91A	138249	†LOCK, L.H. Door	1
92	557465	LOCKSTRIKE, Window	4
93	63G-606	SCREW, Window Lockstrike Mounting	8
94	944288	GLASS PATTERN KIT, Cab (inc. 4, 6, 11, 21, 46, 60, 62, 67)	1

†Not Illustrated

*NOTE: Quantity required for 175A Series II for item 86 is 6.

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



REAR HOOD AND FENDER GROUP—G.M.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	542470	HOOD, Rear	1	19	543404	ACCESS PANEL, Right Hand	1
2	619021	WASHER, Hood to Cowl	8	19A	543405	† ACCESS PANEL, Left Hand	1
3	18C-620	BOLT, Hood to Cowl	8	20	635682	WASHER, Access Panel to Fender	6
4	18D-06	NUT, Hood to Cowl	8	21	4E-08	LKWSHR, Access Panel to Fender	6
5	619021	WASHER, Hood to Cowl	8	22	17C-816	BOLT, Access Panel to Fender	6
6	557380	COWL, Hood	1	23	18C-816	BOLT, Access Panel to Frame	6
7	18C-820	BOLT, Cowl to Seat Support	6	24	4E-08	LKWSHR, Access Panel to Frame	6
8	635682	WASHER, Cowl to Seat Support	8	25	635682	WASHER, Access Panel to Frame	6
9	18D-08	NUT, Cowl to Seat Support	6	26	18C-828	BOLT, Fender to Frame	2
10	539338	PANEL, Side — Right Hand	1	27	635682	WASHER, Fender to Frame	2
10A	539339	† PANEL, Side — Left Hand	1	28	18D-06	NUT, Hood to Fender	2
11	18C-412	BOLT, Bracket to Panel	8	29	619021	WASHER, Hood to Fender	2
12	12D-10	NUT, Bumper to Bracket	4	30	18D-08	NUT, Fender to Frame	2
13	18D-04	NUT, Bracket to Panel	8	31	142396	KIT, Handle (Inc. 34, 36)	4
14	25E-13	WASHER, Bracket to Panel	8	32	619021	WASHER, Hood to Fender	2
15	541035	BRACKET, Support	4	33	18C-620	BOLT, Hood to Fender	2
16	551433	BUMPER, Rubber	4	34	—	§ SPACER, Side Panel Handle — See 31	4
17	3G-1008	SCREW, Bumper to Bracket	4	35	730432	PIN, Side Panel Handle Shaft	4
18	545075	REAR FENDER, Right Hand	1	36	—	§ SHAFT, Side Panel Handle — See 31	4
18A	545076	† REAR FENDER, Left Hand	1				

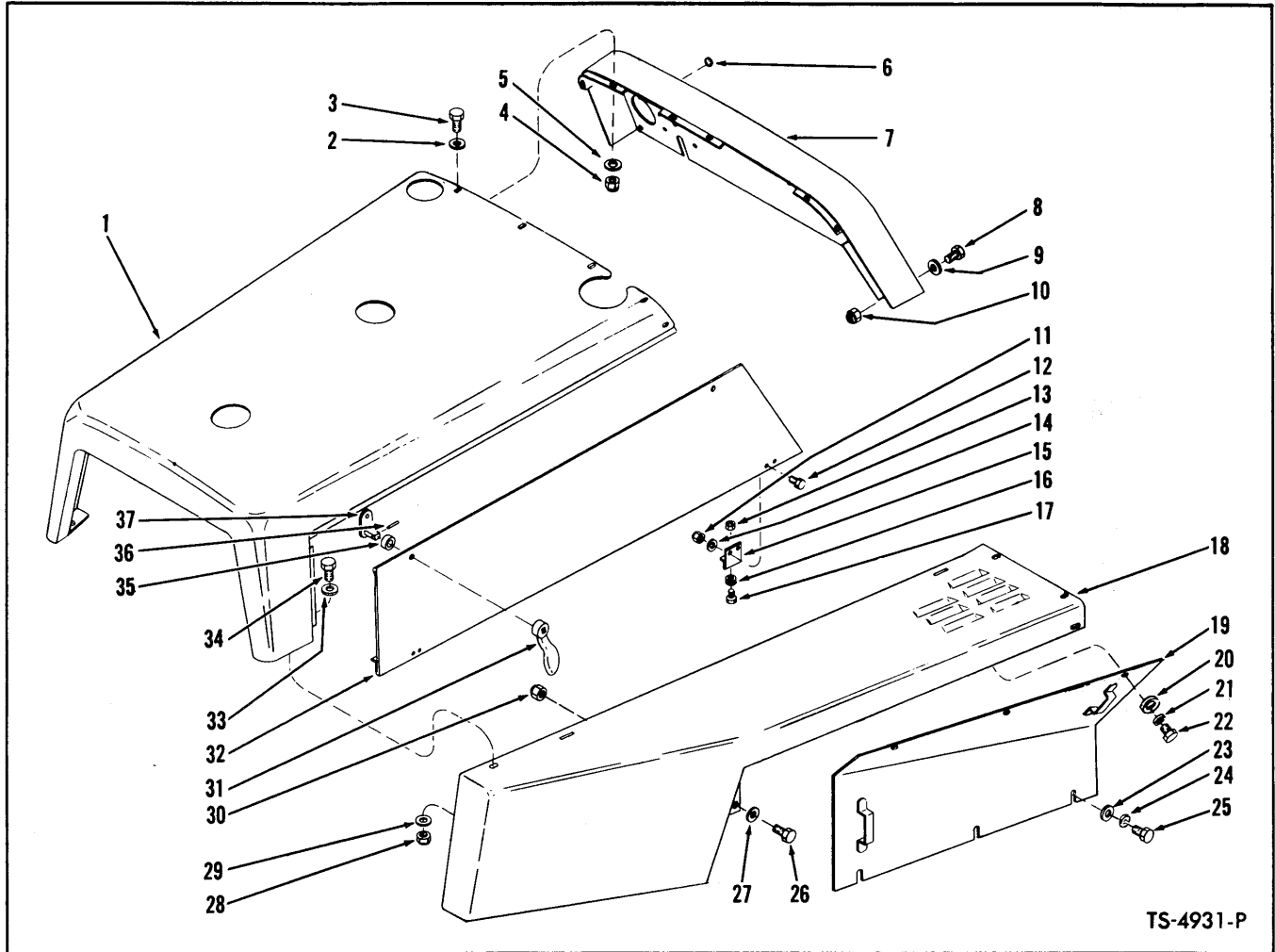
†Not Illustrated
§Not Sold Separately

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

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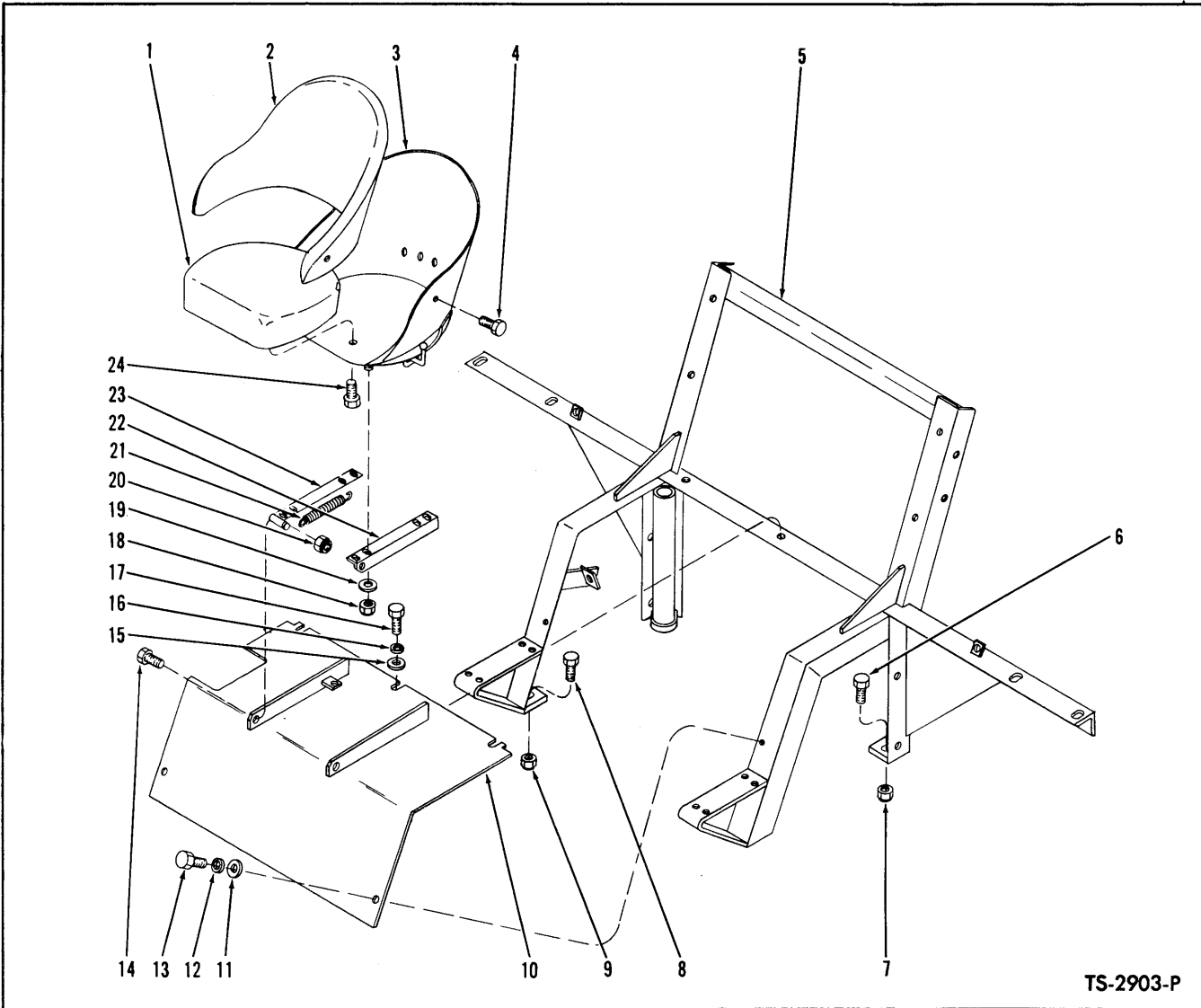
TS-4931-P

REAR HOOD AND FENDER GROUP — CUMMINS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	556683	HOOD, Rear	1	20	635682	WASHER, Access Panel to Fender	6
2	619021	WASHER, Hood to Cowl	8	21	4E-08	LKWSHR, Access Panel to Fender	6
3	18C-620	BOLT, Hood to Cowl	8	22	17C-816	BOLT, Access Panel to Fender	6
4	18D-06	NUT, Hood to Cowl	8	23	635682	WASHER, Access Panel to Frame	6
5	619021	WASHER, Hood to Cowl	8	24	4E-08	LKWSHR, Access Panel to Frame	6
6	743200	PLUG, Button	2	25	18C-816	BOLT, Access Panel to Frame	6
7	557380	COWL, Hood	1	26	18C-828	BOLT, Fender to Frame	2
8	18C-820	BOLT, Cowl to Seat Support	6	27	635682	WASHER, Fender to Frame	2
9	635682	WASHER, Cowl to Seat Support	8	28	619021	WASHER, Hood to Fender	2
10	18D-08	NUT, Cowl to Seat Support	6	29	18D-06	NUT, Hood to Fender	2
11	18D-04	NUT, Bracket to Panel	8	30	18D-08	NUT, Fender to Frame	2
12	18C-412	BOLT, Bracket to Panel	8	31	142396	HANDLE KIT, Side Panel (Inc. 35, 36, 37)	4
13	12D-10	NUT, Bumper to Bracket	4	32	539338	PANEL, Side — Right Hand	1
14	25E-13	WASHER, Bracket to Panel	8	32A	539339	†PANEL, Side — Left Hand	1
15	541035	BRACKET, Support	4	33	619021	WASHER, Hood to Fender	2
16	551433	BUMPER, Rubber	4	34	18C-620	BOLT, Hood to Fender	2
17	3G-1008	SCREW, Bumper to Bracket	4	35	-----	§SPACER, Side Panel Handle	4
18	545075	REAR FENDER, Right Hand	1	36	730432	PIN, Side Panel Handle	4
18A	545076	†REAR FENDER, Left Hand	1	37	-----	§SHAFT, Side Panel Handle	4
19	543404	ACCESS PANEL, Right Hand	1				
19A	543405	†ACCESS PANEL, Left Hand	1				

†Not Illustrated
§Not Sold Separately

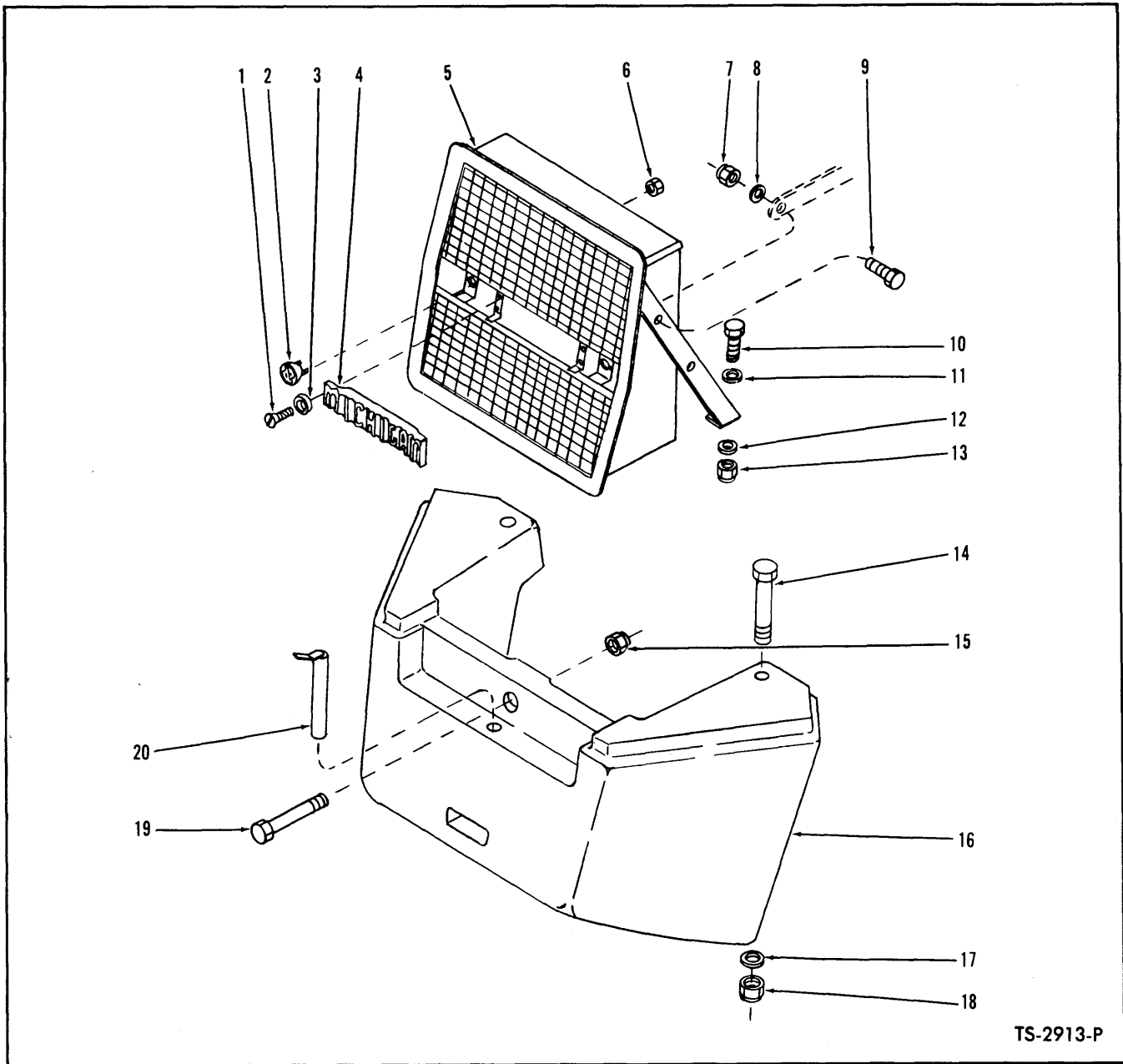
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



SEAT AND SUPPORT GROUP

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1507663	SEAT ASSY, Bucket (Inc. 1, 2, 3, 4, 24)	1	13	17C-820	BOLT, Plate to Support.....	2
1	948144	CUSHION, Seat	1	14	18C-824	BOLT, Seat Pivot	2
2	948143	CUSHION, Back-Rest	1	15	635682	WASHER, Plate to Support.....	3
3	944982	SHELL, Seat	1	16	4E-08	LKWSHR, Plate to Support.....	3
4	1C-610	BOLT, Cushion Mounting.....	3	17	17C-820	BOLT, Plate to Support.....	3
5	539935	SUPPORT, Seat	1	18	18D-05	NUT, Seat Mounting.....	4
6	18C-836	BOLT, Seat Support to Frame.....	2	19	25E-15	WASHER, Seat Mounting	4
7	18D-08	NUT, Seat Support to Frame.....	2	20	18D-08	NUT, Seat Pivot.....	2
8	18C-832	BOLT, Seat Support to Frame.....	2	21	550301	SPRING	1
9	18D-08	NUT, Seat Support to Frame.....	2	22	538707	ANGLE, Left Hand	1
10	536424	PLATE, Seat Support.....	1	23	538708	ANGLE, Right Hand	1
11	635682	WASHER, Plate to Support.....	2	24	1C-610	BOLT, Cushion Mounting	2
12	4E-08	LKWSHR, Plate to Support.....	2				

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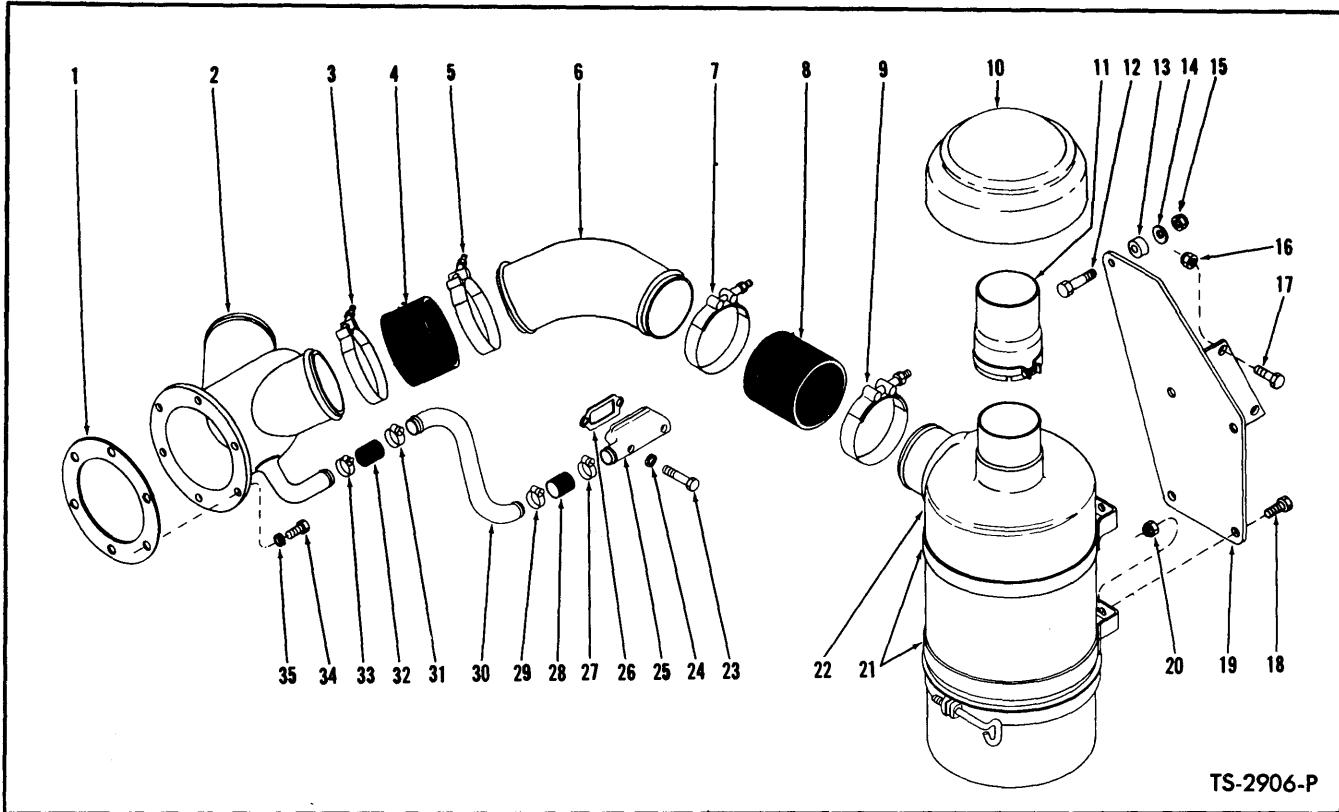
TS-2913-P

COUNTERWEIGHT AND GRILLE

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	11	635682	WASHER, Grille to Frame	4
2	539124	TAIL LIGHT (Inc. 2A, 2B)	2	12	---	OMIT, Not Applicable this Model	—
2A	943224	†BULB, Tail Light Stop	2	13	18D-08	NUT, Grille to Frame	4
2B	940316	†BULB, Tail Light	2	14	24C-20160	BOLT, Counterweight to Frame – Side. 2	2
3	20E-04	LKWSHR, Name Plate to Grille	4	15	60D24	NUT, Counterweight to Frame – Rear. 1	1
4	535649	NAME PLATE, Grille	1	16	587520	COUNTERWEIGHT	1
5	540115	GRILLE, Radiator	1	17	547850	WASHER, Counterweight to Frame – Side	4
6	66D-04	NUT, Tail Light to Grille	4	18	60D20	NUT, Counterweight to Frame – Side	2
7	18D-06	NUT, Radiator Clip to Grille	2	19	24C-24128	BOLT, Counterweight to Frame – Rear. 1	1
8	619021	WASHER, Radiator Clip to Grille	2	19A	589597	†WASHER, Counterweight to Frame	1
9	18C-620	BOLT, Radiator Clip to Grille	2	20	538300	PIN, Drawbar	1
10	18C-828	BOLT, Grille to Frame	4				

†Not Illustrated

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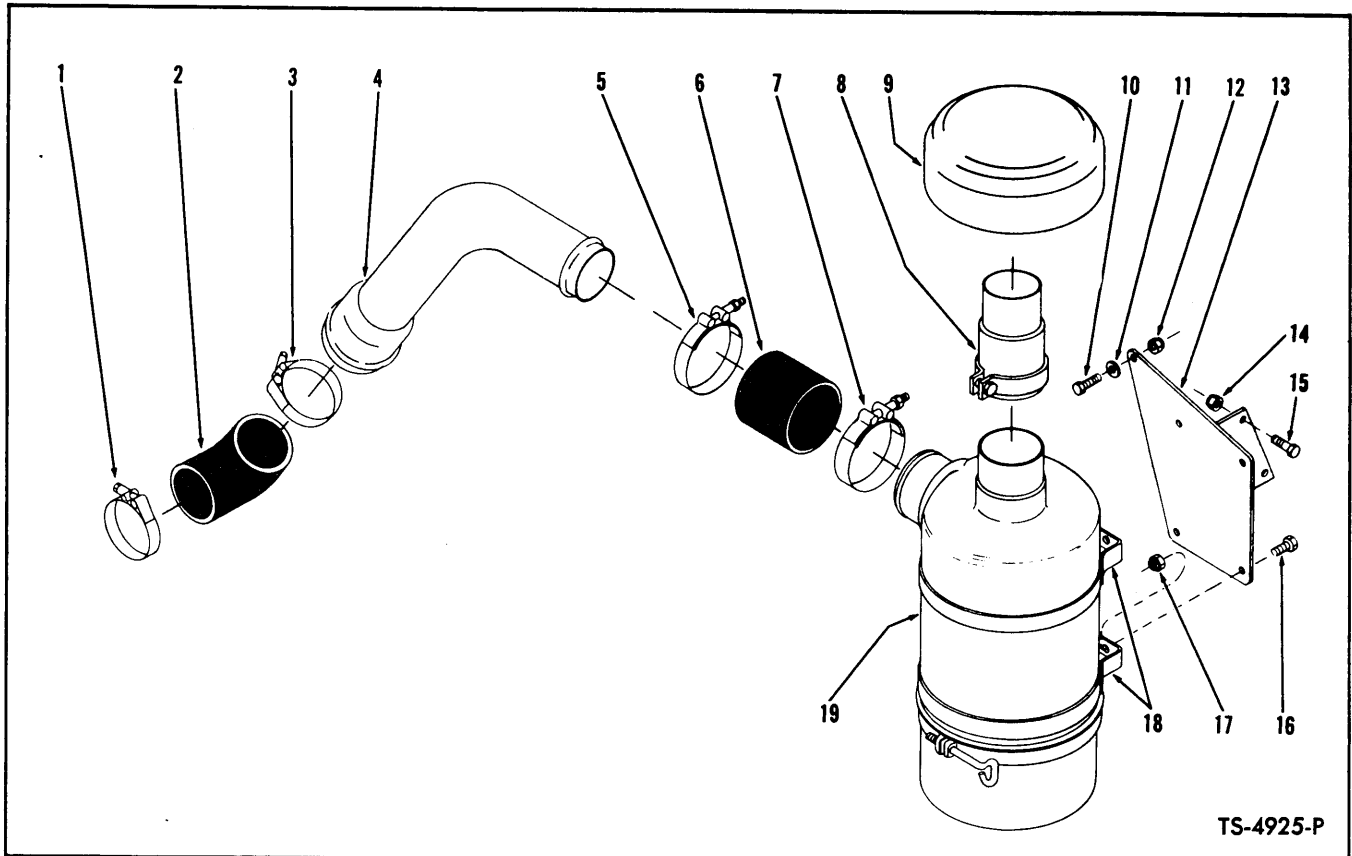
TS-2906-P

AIR CLEANER CONNECTIONS — G.M.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	533286	GASKET, Intake Adapter.....	1	19	539852	BRACKET, Air Cleaner Mounting — Right Hand	1
2	539841	ADAPTER, Air Intake.....	1	19A	539853	† BRACKET, Air Cleaner Mounting — Left Hand	1
3	539042	CLAMP, Hose	2	20	18D-06	NUT, Air Cleaner to Bracket.....	8
4	515424	HOSE, Tube to Adapter.....	2	21	420945	BAND, Air Cleaner Mounting.....	4
5	539042	CLAMP, Hose	2	22	———	AIR CLEANER — See Index.....	2
6	539842	TUBE, Air Intake.....	2	23	17C-532	BOLT, Elbow to Compressor.....	2
7	539042	CLAMP, Hose	2	24	4E-05	LKWSHR, Elbow to Compressor.....	2
8	515424	HOSE, Tube to Air Cleaner.....	2	25	540888	ELBOW, Compressor Inlet.....	1
9	539042	CLAMP, Hose	2	26	875012	GASKET, Compressor Inlet Elbow.....	1
10	511504	CAP, Air Cleaner.....	2	27	1545186	CLAMP, Hose	1
11	539839	EXTENSION, Air Inlet.....	2	28	549243	HOSE, Tube to Compressor.....	1
12	18C-828	BOLT, Bracket to Frame.....	2	29	1545186	CLAMP, Hose	1
13	652448	SPACER	2	30	539856	TUBE, Compressor Intake	1
14	635682	WASHER, Bracket to Frame.....	2	31	1545186	CLAMP, Hose	1
15	18D-08	NUT, Bracket to Frame.....	2	32	549243	HOSE, Tube to Adapter.....	1
16	18D-08	NUT, Bracket to Frame.....	4	33	1545186	CLAMP, Hose	1
17	18C-820	BOLT, Bracket to Frame.....	4	34	18C-616	BOLT, Adapter Mounting	6
18	18C-616	BOLT, Air Cleaner to Bracket.....	8	35	4E-06	LKWSHR, Adapter Mounting	6

†Not Illustrated

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



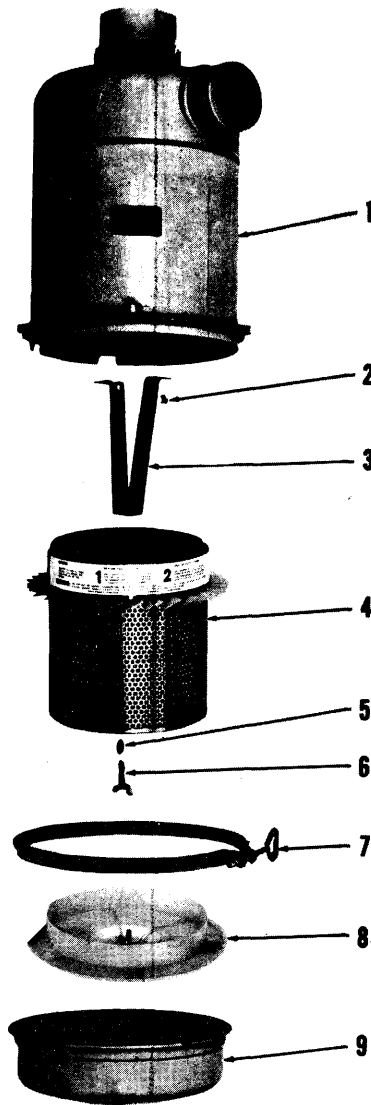
TS-4925-P

AIR CLEANER CONNECTIONS — CUMMINS

Item No.	Part No.	Description	No. Req'd.
1	540797	CLAMP, Hose	1
2	513865	HOSE, Tube to Engine	1
3	540797	CLAMP, Hose	1
4	556280	TUBE, Air Intake	1
5	549696	CLAMP, Hose	1
6	515424	HOSE, Tube to Air Cleaner	1
7	549696	CLAMP, Hose	1
8	549505	EXTENSION, Air Inlet	1
9	511512	CAP, Air Cleaner	1
10	18C-832	BOLT, Bracket to Seat Support	1
10A	652456	†SPACER, Bracket to Seat Support	1
11	635682	WASHER, Bracket to Seat Support	1
12	18D-08	NUT, Bracket to Seat Support	1
13	556281	BRACKET, Air Cleaner Mounting	1
14	18D-08	NUT, Bracket to Seat Support	2
15	18C-820	BOLT, Bracket to Seat Support	2
16	18C-616	BOLT, Air Cleaner to Bracket	4
17	18D-06	NUT, Air Cleaner to Bracket	4
18	941474	BAND, Air Cleaner Mounting	2
19	_____	AIR CLEANER — See Index	1

†Not Illustrated

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



TS-3043-P

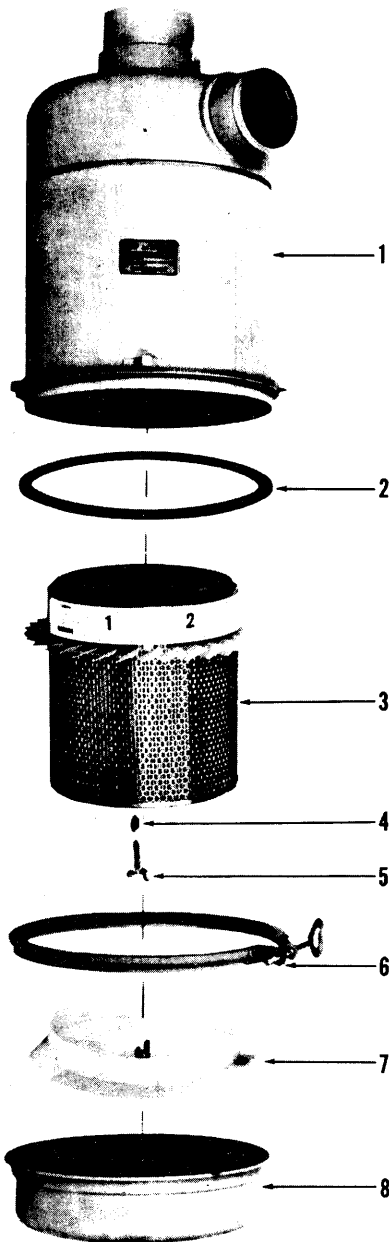
AIR CLEANER ASSEMBLY – G.M.

2 Air Cleaners used on Machine – Quantities indicated below are for one Air Cleaner

Item No.	Part No.	Description	No. Req'd.
A	539821	AIR CLEANER ASSY (Inc. 1 thru 9).....	2
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	894653	BAFFLE	1
8A	894652	†CUP ASSY	1
9	944957	CUP, Dust	1

§Not Sold Separately
†Not Illustrated

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



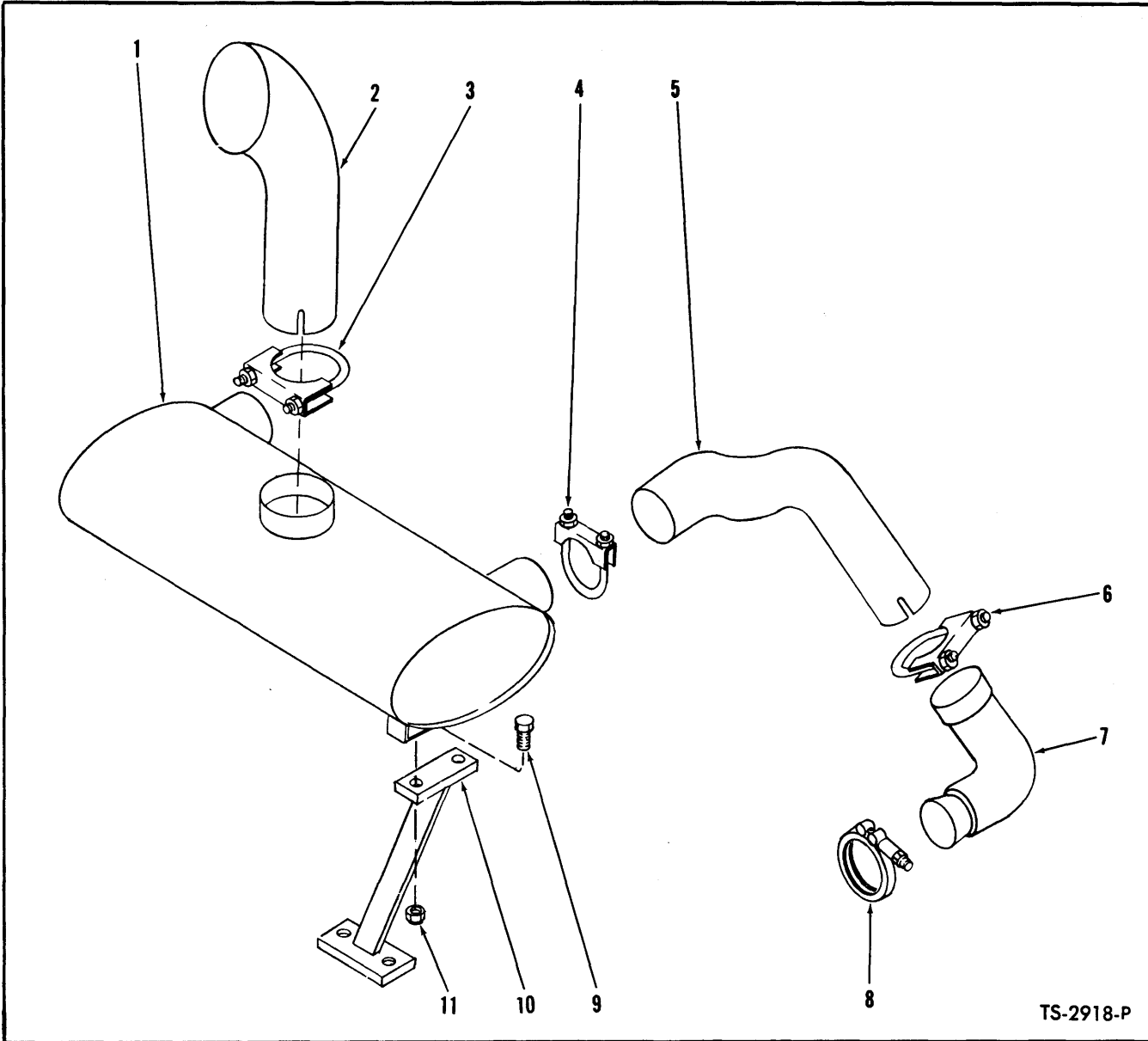
TS-4910-P

AIR CLEANER ASSEMBLY — CUMMINS

Item No.	Part No.	Description	No. Req'd.
A	546409	AIR CLEANER ASSY (Inc. 1 thru 8).....	1
1	-----	§BODY, Air Cleaner — See Item "A"	—
2	892833	GASKET, Air Cleaner	1
3	945059	ELEMENT	1
4	886287	WASHER, Element Attaching	1
5	886285	THUMB SCREW, Element Attaching	1
6	945060	CLAMP, Dust Cup	1
7	945061	BAFFLE	1
8	945062	CUP, Dust	1

§Not Sold Separately

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

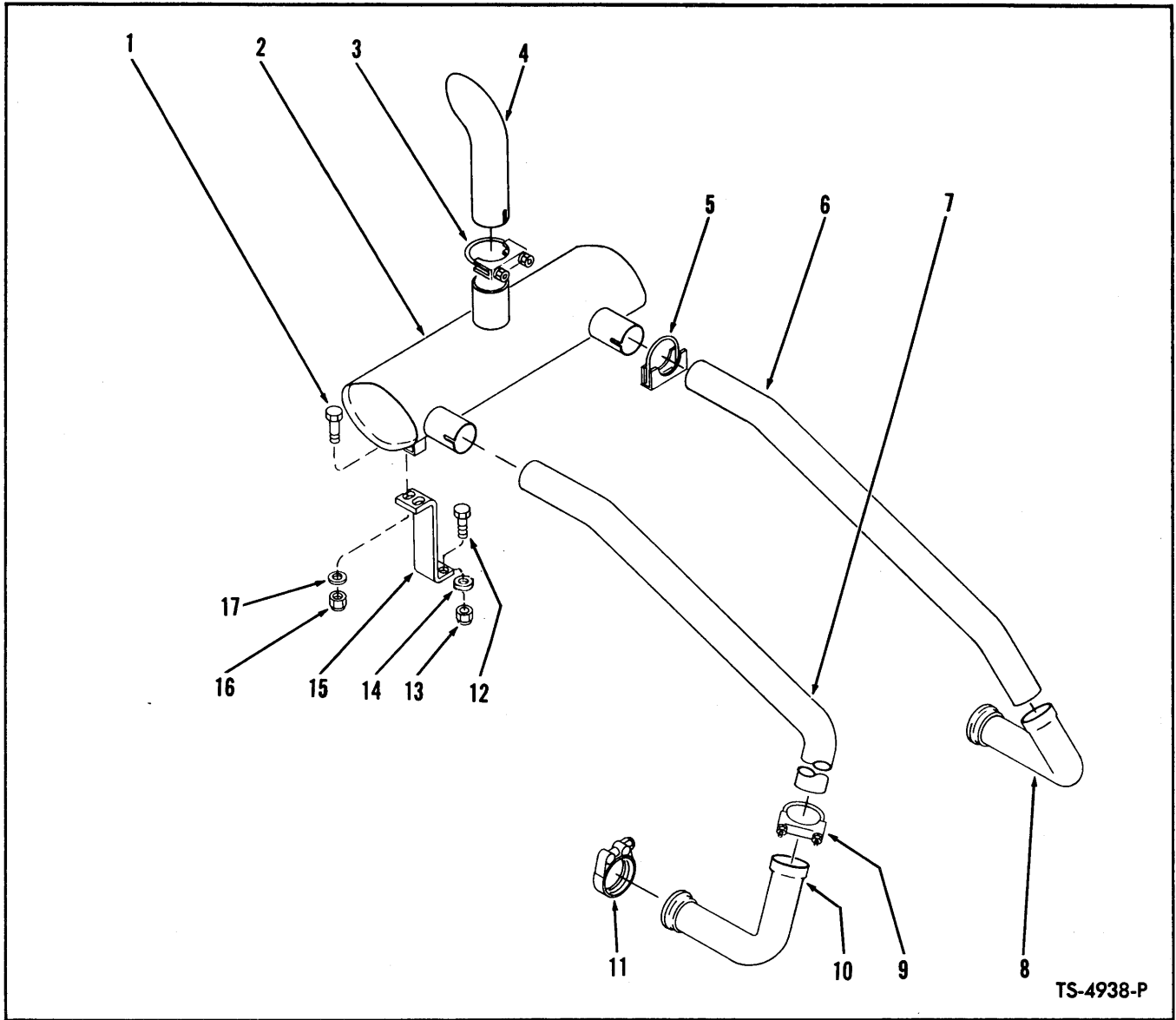


TS-2918-P

MUFFLER AND EXHAUST PIPES — G.M.

Item No.	Part No.	Description	No. Req'd.
1	542836	MUFFLER	1
2	542907	PIPE, Exhaust	1
3	509503	CLAMP, Exhaust Pipe to Muffler	1
4	580282	CLAMP, Pipe to Muffler	2
5	543001	PIPE, Manifold — Left Hand	1
5A	543000	PIPE, Manifold — Right Hand	1
6	580282	CLAMP, Pipe to Stem	2
7	542999	STEM, Exhaust — Left Hand	1
7A	542998	STEM, Exhaust — Right Hand	1
8	539906	CLAMP, Stem to Exhaust Manifold	2
9	18C-616	BOLT, Muffler to Supports	4
10	543003	SUPPORT, Muffler — Left Hand	1
10A	543002	SUPPORT, Muffler — Right Hand	1
11	18D-06	NUT, Muffler to Supports	4

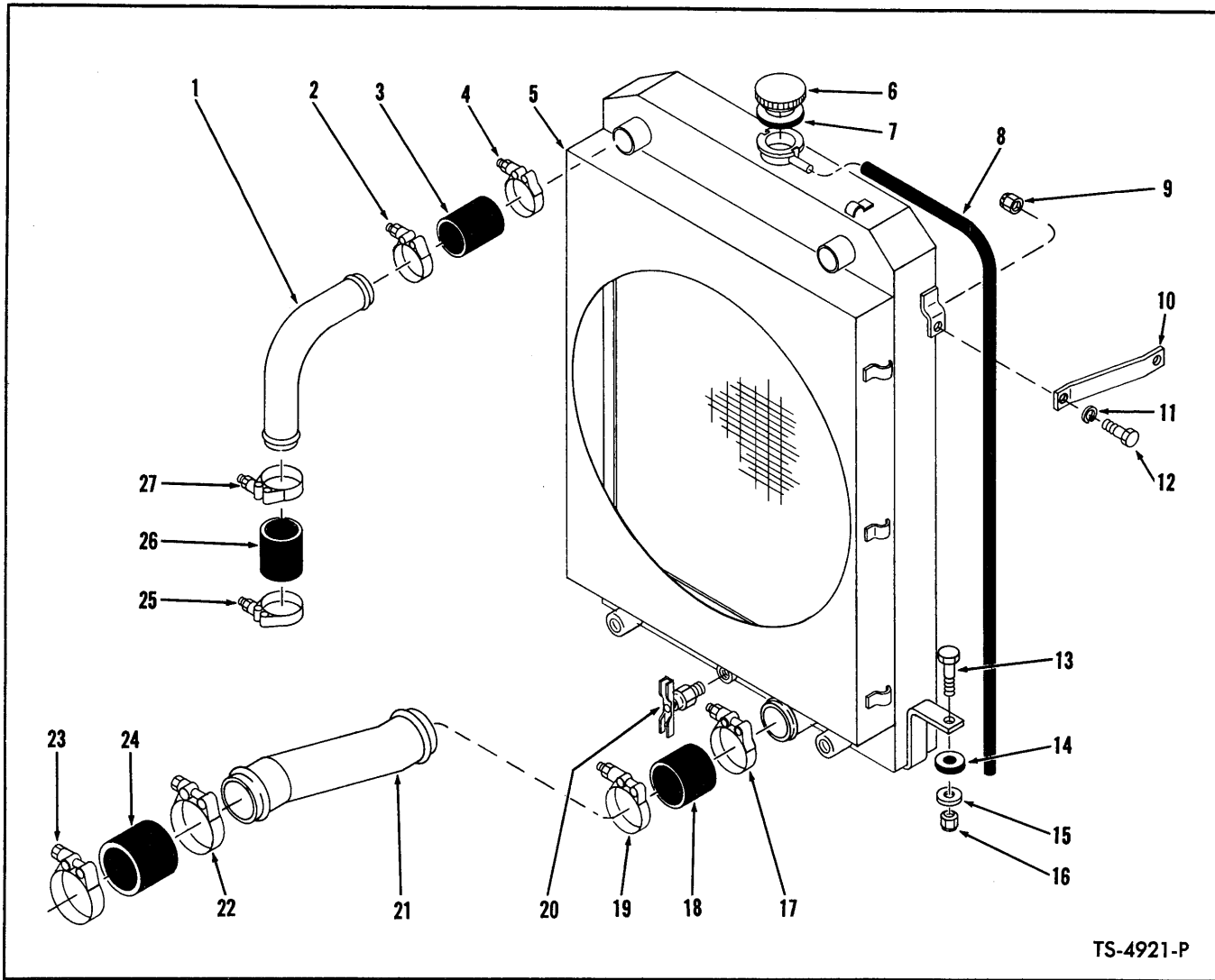
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



MUFFLER AND EXHAUST PIPES — CUMMINS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-620	BOLT, Muffer to Bracket	4	10	556464	STEM, Exhaust — R.H.	1
2	542836	MUFFLER	1	11	556286	CLAMP, Exhaust Stem to Engine	2
3	509503	CLAMP, Exhaust Pipe to Muffer	1	12	18C-620	BOLT, Bracket to Engine Mounting	4
4	542907	PIPE, Exhaust	1	13	18D-06	NUT, Bracket to Engine Mounting	4
5	580282	CLAMP, Manifold Pipe to Muffer	2	14	619021	WASHER, Bracket to Engine Mounting	4
6	556288	PIPE, Manifold — L.H.	1	15	556934	BRACKET, Muffer	2
7	556287	PIPE, Manifold — R.H.	1	16	18D-06	NUT, Muffer to Bracket Mounting ..	4
8	556465	STEM, Exhaust — L.H.	1	17	619021	WASHER, Muffer to Bracket Mounting	4
9	580282	CLAMP, Manifold Pipe to Exhaust Stem	2				

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



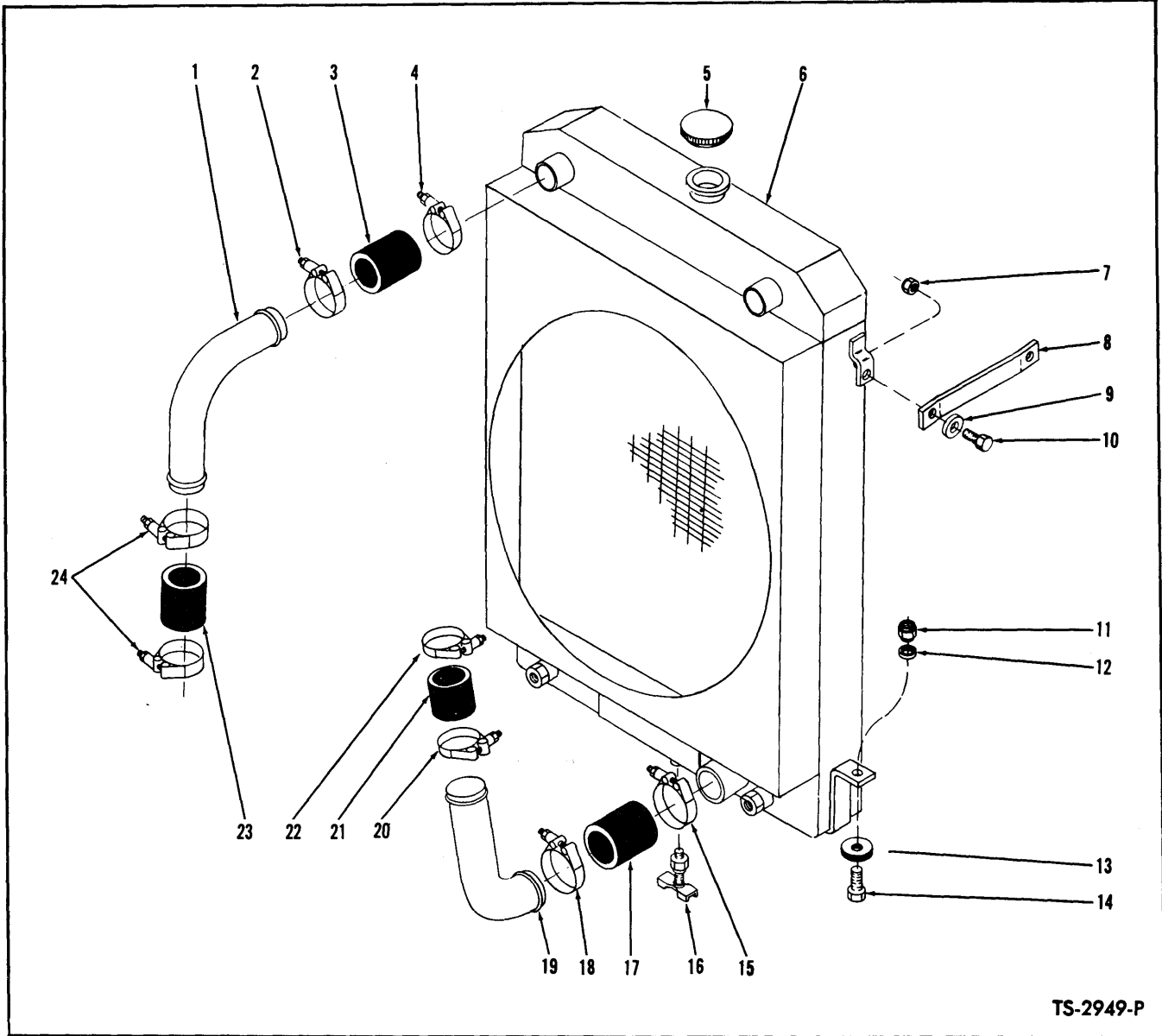
TS-4921-P

RADIATOR AND CONNECTIONS — CUMMINS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	556292	TUBE, Upper Radiator to Engine—L.H.	1	14	518233	PAD, Radiator to Frame	2
1A	556291	†TUBE, Upper Radiator to Engine—R.H.	1	15	71D-08	BASE, Radiator to Frame	2
2	540104	CLAMP, Hose	2	16	70D-08	NUT, Radiator to Frame	2
3	1M-18036	HOSE, Tube to Radiator	2	17	540104	CLAMP, Hose	1
4	540104	CLAMP, Hose	2	18	1M-18036	HOSE, Lower Radiator to Tube	1
5	2503608	RADIATOR (Inc. 6, 7, 8)	1	19	540104	CLAMP, Hose	1
6	863364	CAP, Radiator (Inc. 7)	1	20	73F-2	DRAIN COCK	1
7	862093	GASKET, Radiator Cap	1	21	557825	TUBE, Lower Radiator to Engine	1
8	945460	HOSE, Overflow	1	22	540104	CLAMP, Hose	1
9	18D-06	NUT, Clip to Radiator	2	23	540104	CLAMP, Hose	1
10	540034	CLIP, Radiator to Grille	2	24	1M-18034	HOSE, Tube to Engine	1
11	619021	WASHER, Clip to Radiator	2	25	540104	CLAMP, Hose	2
12	18C-614	BOLT, Clip to Radiator	2	26	1M-18036	HOSE, Upper Tube to Engine	2
13	18C-832	BOLT, Radiator to Frame	2	27	540104	CLAMP, Hose	2

†Not Illustrated

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

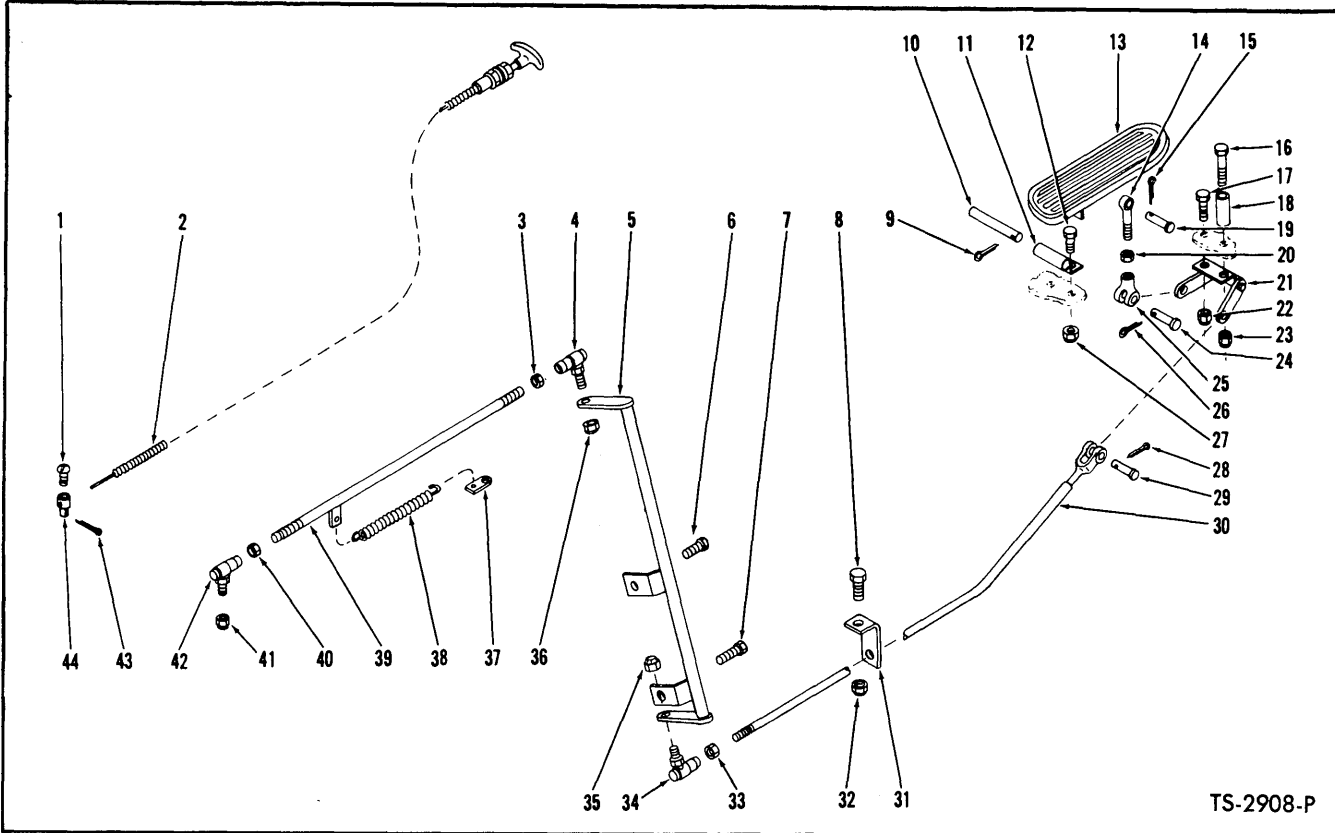


TS-2949-P

RADIATOR AND CONNECTIONS – G.M.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	540031	TUBE, Upper	2	13	518233	PAD, Radiator to Frame	2
2	540104	CLAMP, Hose	2	14	18C-832	BOLT, Radiator to Frame	2
3	1M-18032	HOSE, Tube to Radiator	2	15	540105	CLAMP, Hose	1
4	540104	CLAMP, Hose	2	16	73F-2	DRAIN COCK	1
5	863364	CAP, Radiator	1	17	1M-22030	HOSE, Tube to Radiator.....	1
6	2503607	RADIATOR	1	18	540105	CLAMP, Hose	1
7	18D-06	NUT, Radiator to Clip	2	19	540032	TUBE, Lower	2
8	540034	CLIP, Radiator to Grille	2	20	540105	CLAMP, Hose	1
9	619021	WASHER, Radiator to Clip	2	21	1M-22030	HOSE, Tube to Engine.....	1
10	18C-614	BOLT, Radiator to Clip	2	22	540105	CLAMP, Hose	1
11	70D-08	NUT, Radiator to Frame.....	2	23	1M-18032	HOSE, Tube to Engine.....	2
12	71D-08	BASE, Radiator to Frame Nut.....	2	24	540104	CLAMP, Hose	4

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



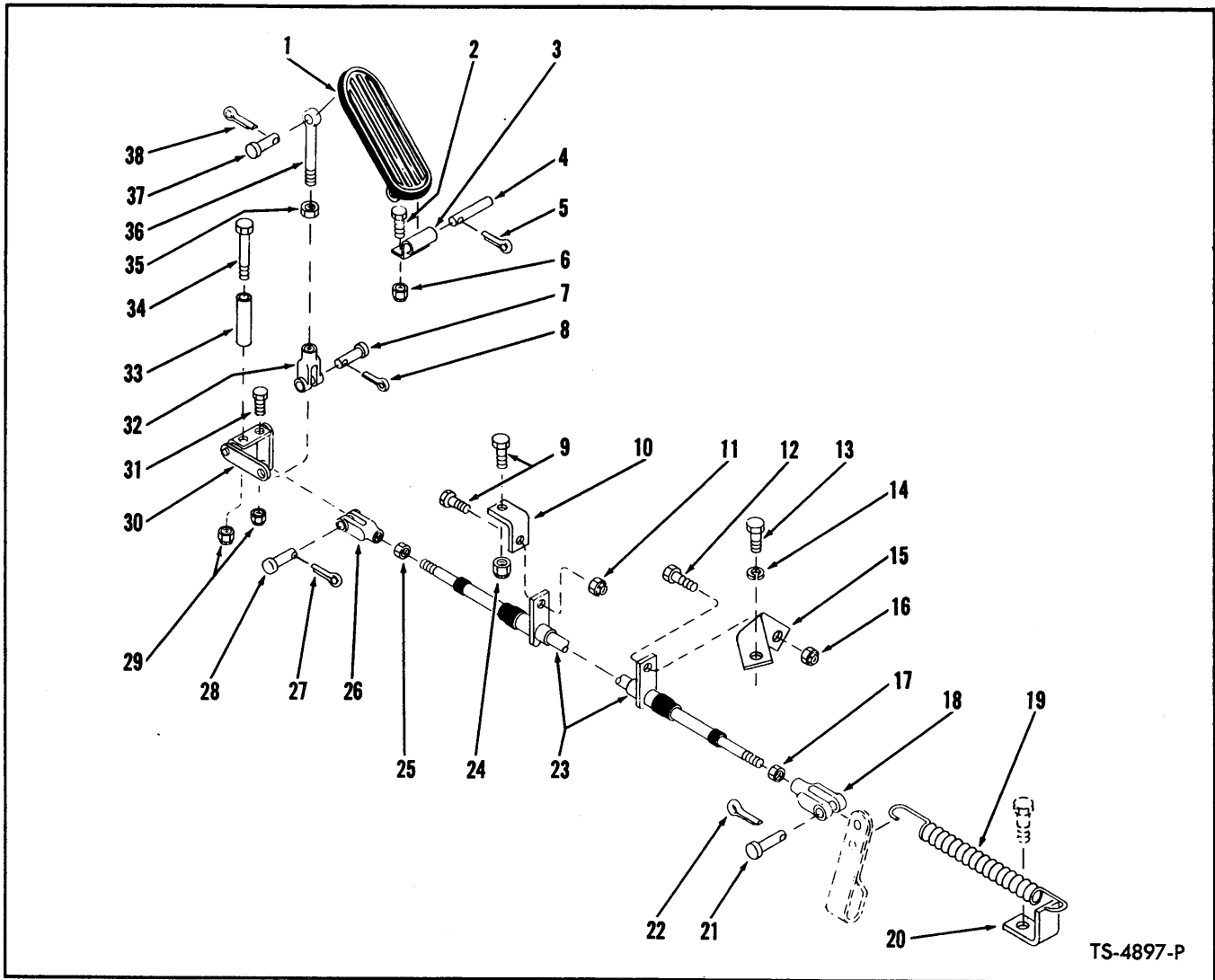
TS-2908-P

ACCELERATOR PEDAL AND LINKAGE – G.M.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	3G-1006	SCREW, Wire Connector	1	24	4F-04051	PIN, Clevis to Bell Crank	1
2	541143	CABLE, Shutoff	1	25	2J-4200	CLEVIS, Rod to Bell Crank	1
3	8D-05	NUT, Ball Joint Jam	1	26	1F-207	COTTER, Clevis Pin	1
4	361939	BALL JOINT	1	27	18D-04	NUT, Bracket to Floorboard	2
5	540204	BELL CRANK	1	28	1F-207	COTTER, Clevis Pin	1
6	18C-680	BOLT, Bell Crank Mounting	1	29	4F-04051	PIN, Accelerator Rod to Bell Crank	1
6A	864106	†WASHER, Bell Crank Mounting	1	30	540272	ROD Accelerator – Front	1
7	17C-672	BOLT, Bell Crank Mounting	1	31	542613	GUIDE, Accelerator Rod	1
7A	864106	†WASHER, Bell Crank Mounting	1	32	18D-06	NUT, Guide Mounting	1
8	18C-616	BOLT, Guide Mounting	1	33	8D-05	NUT, Ball Joint Jam	1
9	1F-316	COTTER, Clevis Pin	1	34	361939	BALL JOINT	1
10	623762	PIN, Pedal to Bracket	1	35	18D-05	NUT, Ball Joint to Bell Crank	1
11	623760	BRACKET, Accelerator Pedal Pivot	1	36	18D-05	NUT, Ball Joint to Bell Crank	1
12	18C-412	BOLT, Bracket to Floorboard	2	37	530509	CLIP, Spring Return	1
13	623829	PEDAL, Accelerator	1	38	551014	SPRING, Accelerator Rod Return	1
14	536140	ROD, Pedal to Bell Crank	1	39	540549	ROD, Accelerator – Rear	1
15	1F-207	COTTER, Clevis Pin	1	40	8D-05	NUT, Ball Joint Jam	1
16	18C-428	BOLT, Stop to Floorboard	1	41	18D-05	NUT, Ball Joint to Engine	1
17	18C-412	BOLT, Bell Crank to Floorboard	1	42	361939	BALL JOINT	1
18	536141	STOP, Accelerator Pedal	1	43	1F-210	COTTER, Wire Connector	1
19	4F-04051	PIN, Pedal to Rod	1	44	351131	CONNECTOR, Shutoff Cable Wire	1
20	8D-04	NUT, Clevis Jam	1	45	-----	†EMERGENCY STOP CABLE – G.M. 1990891 – Cut to 39¼	1
21	550616	BELL CRANK	1				
22	18D-04	NUT, Bell Crank to Floorboard	1				
23	18D-04	NUT, Stop & Bell Crank to Floorboard	1				

†Not Illustrated

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

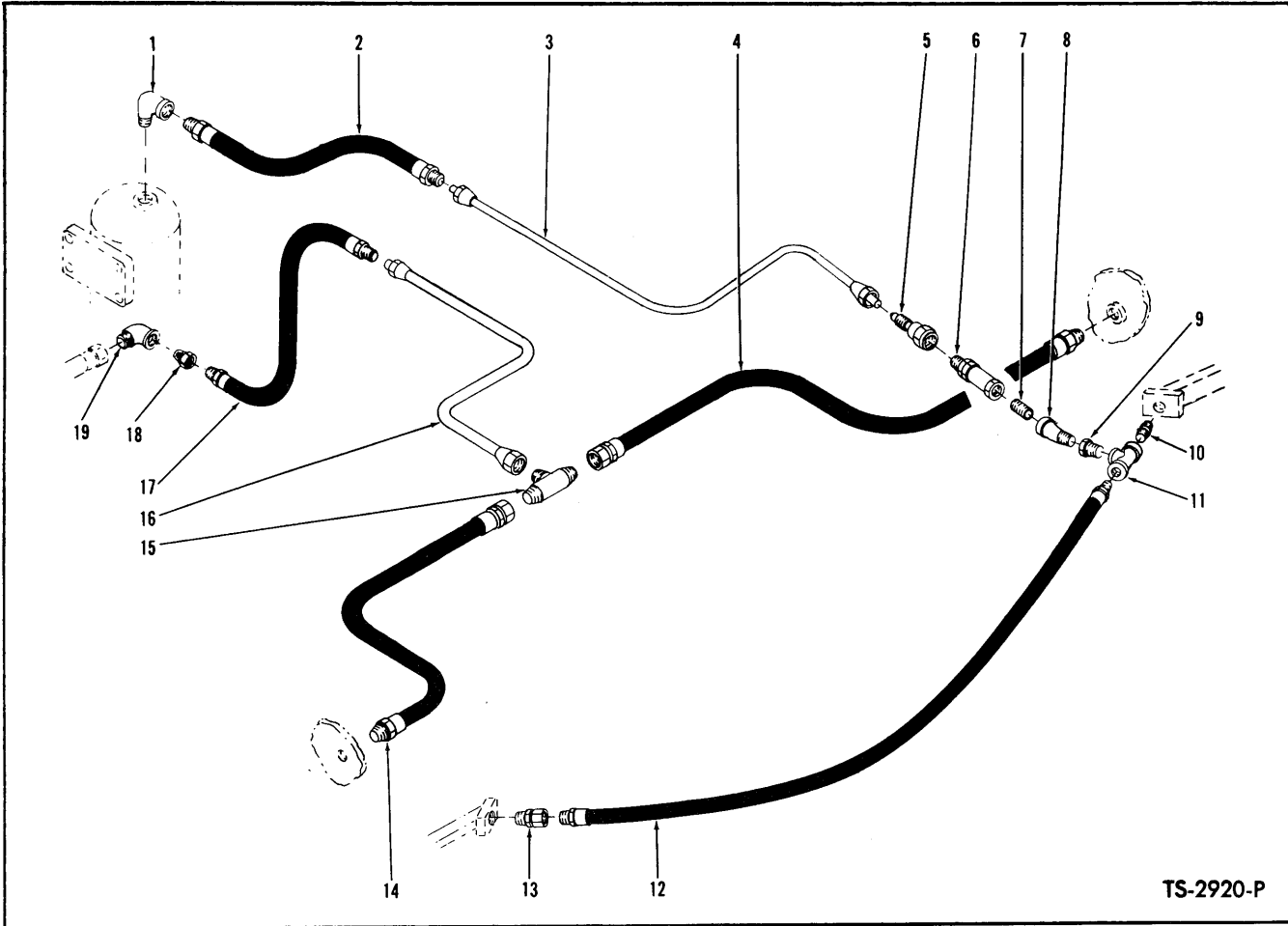


TS-4897-P

ACCELERATOR PEDAL AND CABLE — CUMMINS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	623829	PEDAL, Accelerator	1	21	4F-05062	PIN, Clevis to Engine Governor	1
2	18C-412	BOLT, Bracket to Floorboard	2	22	1F-312	COTTER, Clevis Pin	1
3	623760	BRACKET, Pedal Pivot	1	23	556434	CABLE, Accelerator Control	1
4	623762	PIN, Pedal Pivot	1	24	18D-04	NUT, Lug Mounting	1
5	1F-316	COTTER, Pedal Pivot Pin	1	25	14D-10	NUT, Clevis Jam	1
6	18D-04	NUT, Bracket to Floorboard	2	26	549541	CLEVIS, Cable to Bellcrank	1
7	4F-04051	PIN, Clevis to Bell Crank	1	27	1F-207	COTTER, Clevis Pin	1
8	1F-207	COTTER, Clevis Pin	1	28	4F-04051	PIN, Cable to Bellcrank	1
9	18C-412	BOLT, Cable & Lug Mounting	2	29	18D-04	NUT, Pedal Stop & Bellcrank to Floorboard	2
10	556392	BRACKET, Cable Mounting	1	30	516175	BELLCRANK	1
11	18D-04	NUT, Cable to Lug Mounting	1	31	18C-412	BOLT, Bellcrank to Floorboard	1
12	18C-412	BOLT, Cable to Mounting Bracket	1	32	2J-4200	CLEVIS, Rod to Bellcrank	1
13	17C-612	BOLT, Bracket to Engine	1	33	536141	STOP, Pedal	1
14	4E-06	LKWSHR, Bracket to Engine	1	34	18C-428	BOLT, Stop & Bellcrank to Floorboard	1
15	556393	BRACKET, Cable Mounting	1	35	8D-04	NUT, Clevis Jam	1
16	18D-04	NUT, Cable to Mounting Bracket	1	36	536140	ROD, Pedal to Bellcrank	1
17	14D-10	NUT, Clevis Jam	1	37	4F-04051	PIN, Pedal to Rod	1
18	583611	CLEVIS, Cable to Engine Governor	1	38	1F-207	COTTER, Clevis Pin	1
19	551014	SPRING, Cable Return	1				
20	557935	LUG, Spring Retaining	1				

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

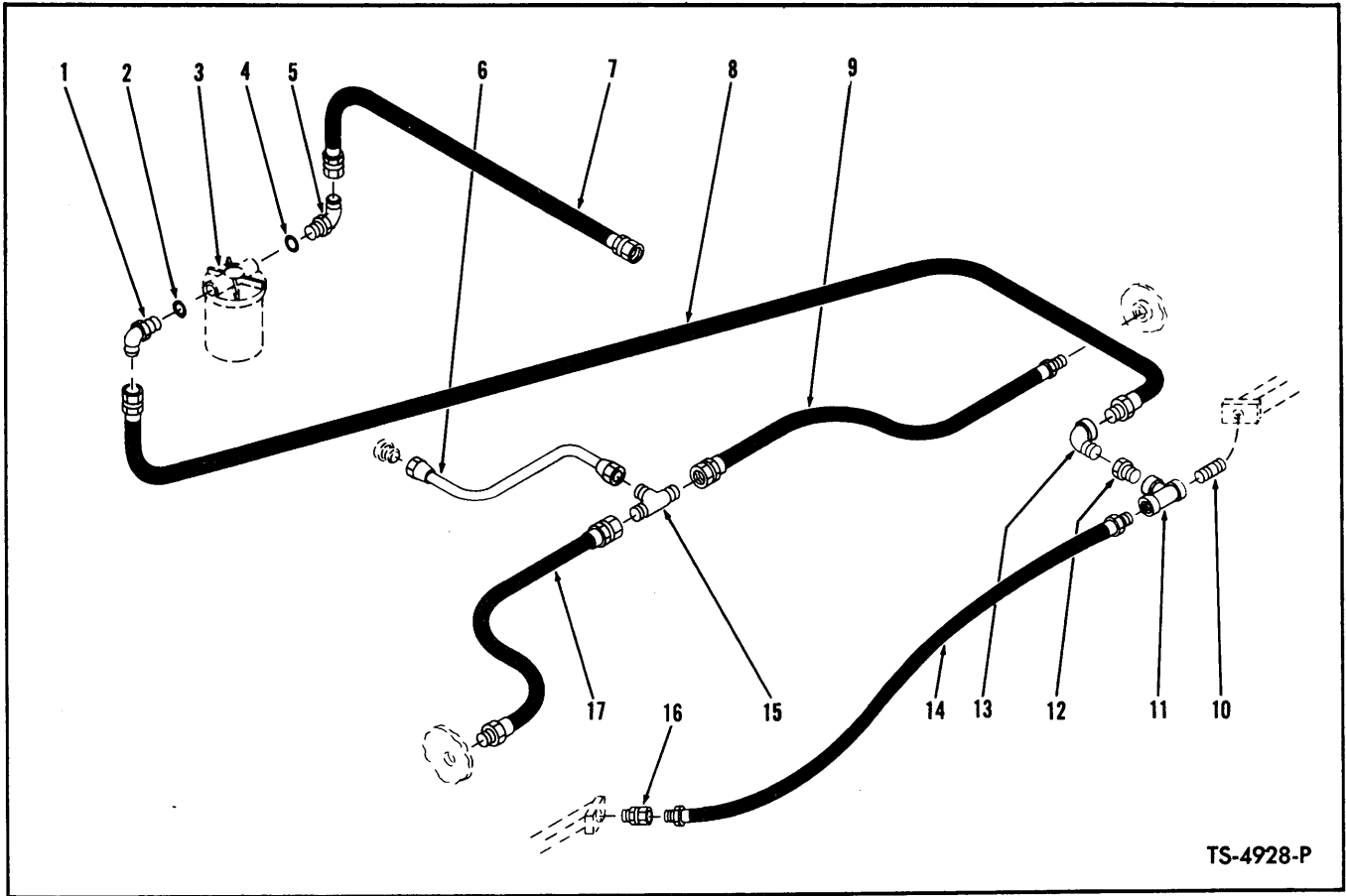


FUEL LINES — G.M.
For Serial: 3HG101 thru 3HG999

Item No.	Part No.	Description	No. Req'd.
1	30K-304	ELBOW	1
2	540156	HOSE, Tube to Filter.....	1
3	542630	LINE, Suction	1
4	545062	HOSE, Tee to LH Tank.....	1
5	540153	COUPLING, Tube to Check Valve.....	1
6	531792	CHECK VALVE	1
7	5K-216	NIPPLE, Check Valve to Elbow.....	1
8	30K-304	ELBOW, Street	1
9	356624	BUSHING, Reducing — Elbow to Tee	1
10	545080	NIPPLE, Restrictor	1
11	18F-6	TEE	1
12	542626	HOSE, Fuel Tank Crossover.....	1
13	36F-6	ADAPTER UNION, Hose to Tank.....	1
14	545063	HOSE, Tee to RH Tank.....	1
15	44F-5	TEE, Return Line	1
16	545008	LINE ASSY, Fuel Injector Return	1
17	540168	HOSE, Injector Return	1
18	356611	BUSHING, Elbow Reducing	1
19	43F-4	ELBOW, Injector Return	1

*NOTE: When replacement is necessary for 542630 Suction Line, 1-558962 Hose must also be used.

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



TS-4928-P

FUEL LINES — CUMMINS

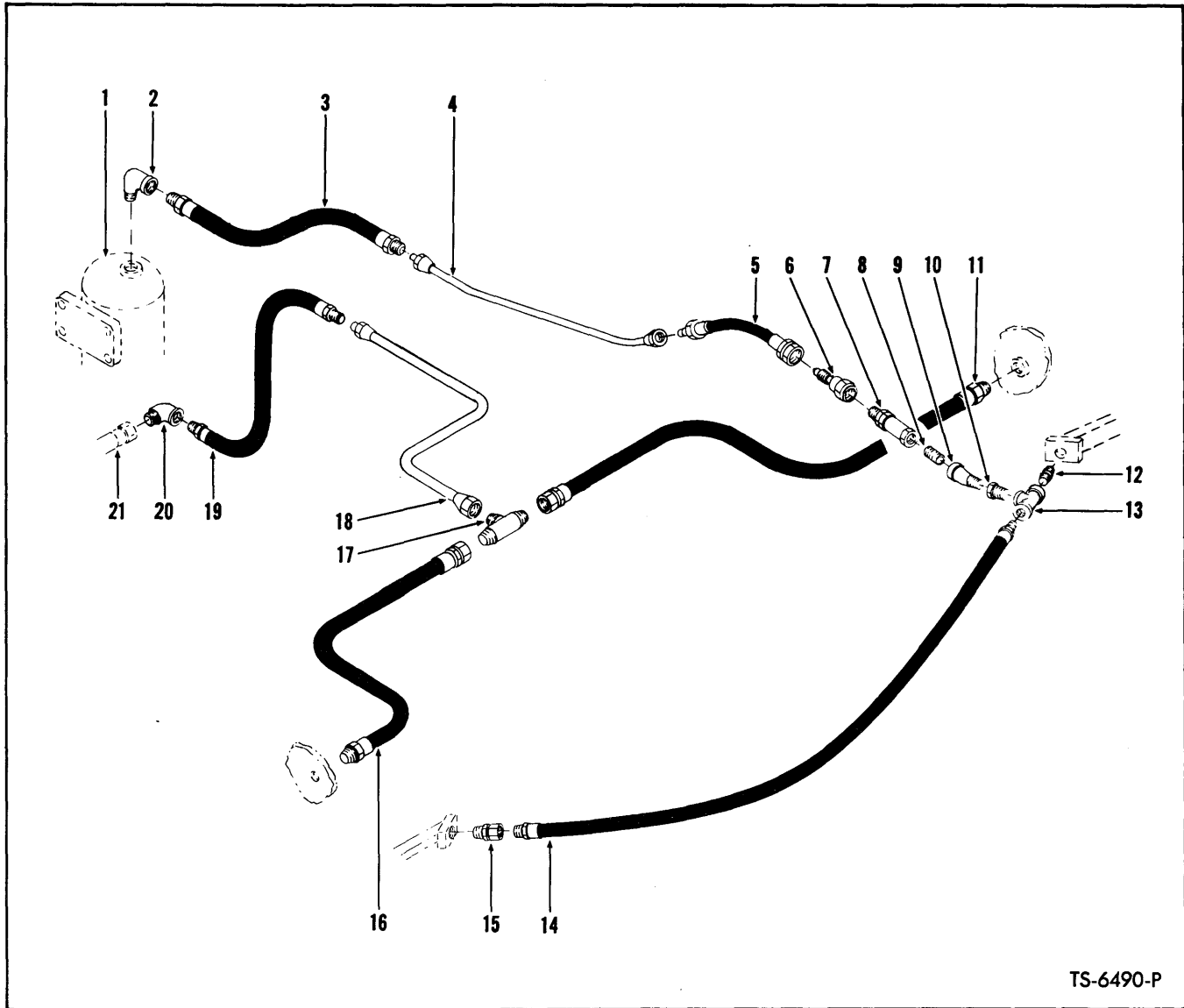
Item No.	Part No.	Description	No. Req'd.
1	17K-7	ELBOW, Hose to Filter (Inc. 2)	1
2	91F-7	"O" RING, Elbow to Filter	1
3	-----	FILTER, Fuel — See Index	—
4	91F-7	"O" RING, Elbow to Filter	1
5	17K-7	ELBOW, Hose to Filter (Inc. 5)	1
6	567890	LINE ASSY, Fuel Return	1
7	557926	HOSE, Filter to Engine Inlet	1
8	557927	HOSE, Tee to Filter	1
9	567889	HOSE, Tee to Tank Return — L.H.	1
10	545080	NIPPLE, Restrictor	1
11	18F-6	TEE	1
12	356622	BUSHING, Reducing — Elbow to Tee	1
13	30K-308	ELBOW, Tee to Hose	1
14	542626	HOSE, Fuel Tank Crossover	1
15	44F-7	TEE	1
16	36F-6	ADAPTER UNION	1
17	567888	HOSE, Tee to Tank Return — R.H.	1

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

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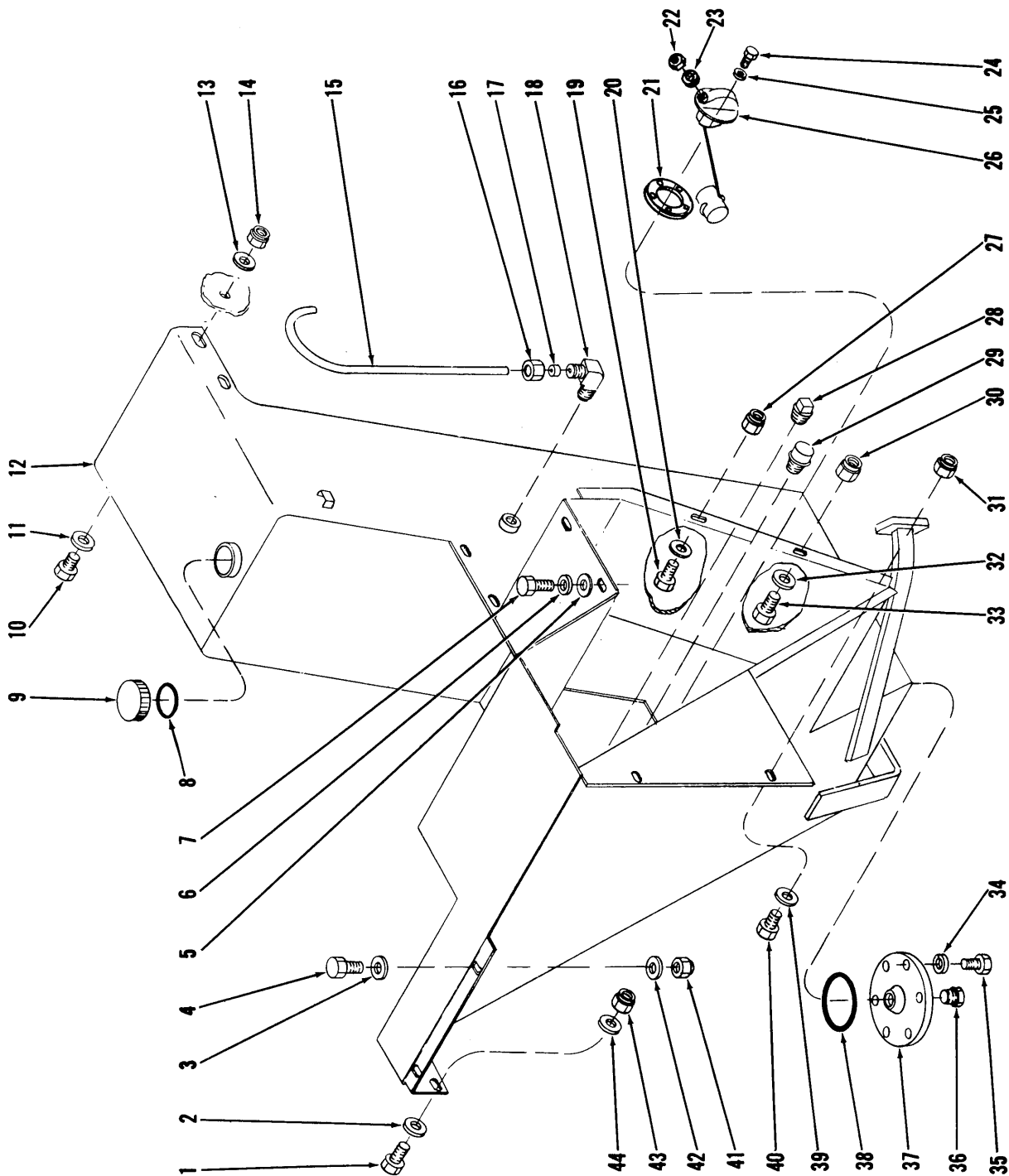
TS-6490-P

**FUEL LINES — G.M.
For Serial: 4HG101 thru 4HG999**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	-----	FUEL FILTER — See Engine Parts Manual	—	12	545080	NIPPLE, Restrictor — Tee to Tank	1
2	30K-304	ELBOW, Hose to Filter	1	13	18F-6	TEE, Connecting	1
3	540156	HOSE, Line to Filter	1	14	542626	HOSE, Fuel Tank Crossover	1
4	542630	LINE, Suction	1	15	36F-6	ADAPTER UNION, Hose to Tank	1
5	558962	HOSE, Line to Coupling	1	16	545063	HOSE, Tee to R.H. Tank	1
6	540153	COUPLING, Hose to Check Valve	1	17	44F-5	TEE, Return Line	1
7	531792	CHECK VALVE	1	18	545008	LINE, Fuel Return	1
8	5K-216	NIPPLE, Check Valve to Elbow	1	19	540168	HOSE, Line to Elbow	1
9	30K-304	ELBOW, Nipple to Bushing	1	20	43F-4	ELBOW, Injector Return	1
10	356624	BUSHING, Reducing — Elbow to Tee..	1	21	-----	LINE, Injector Return — See Engine Parts Manual	—
11	545062	HOSE, Tee to L.H. Tank	1				

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

TS-2921-P

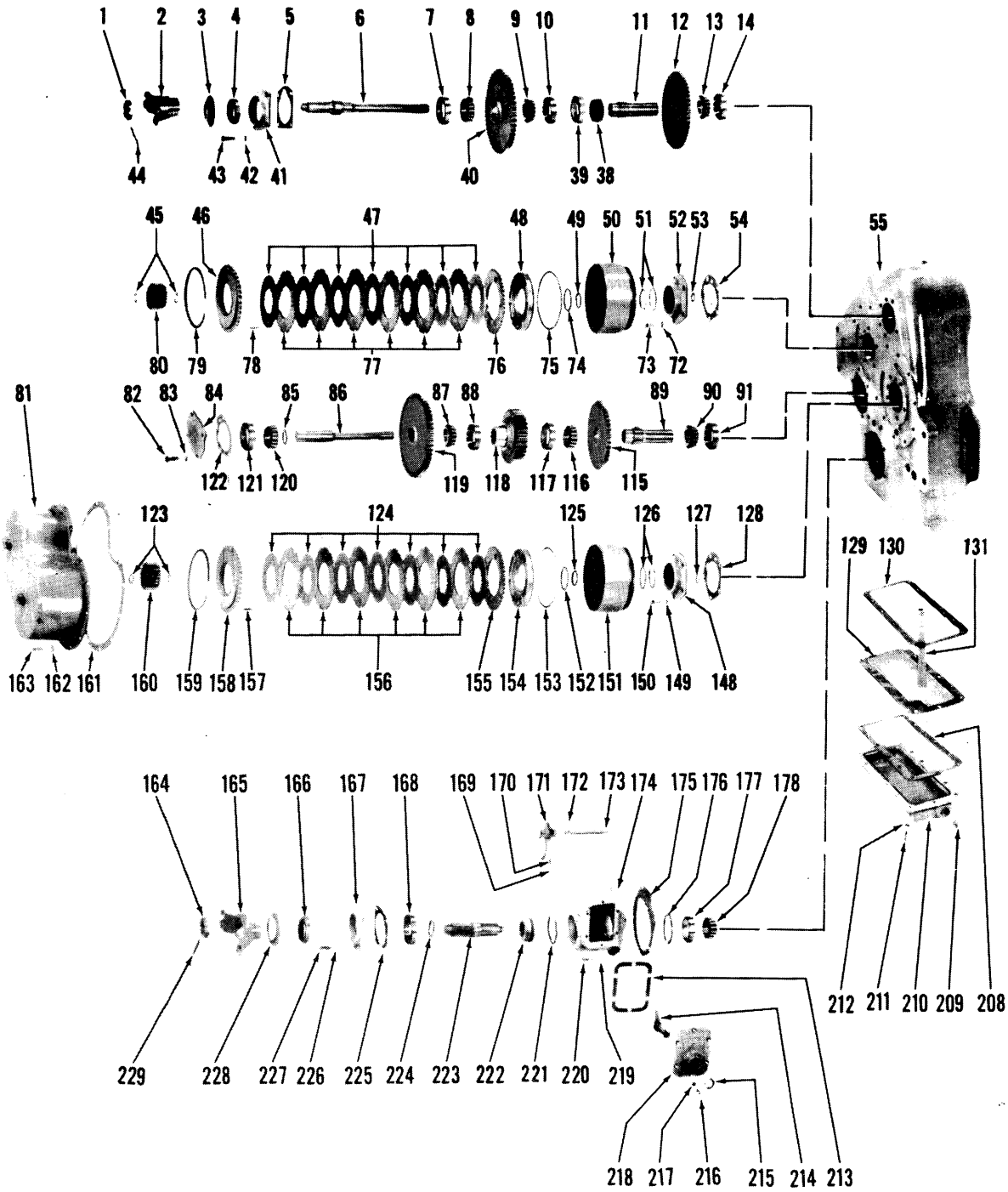


FUEL TANKS

FUEL TANK ASSEMBLY

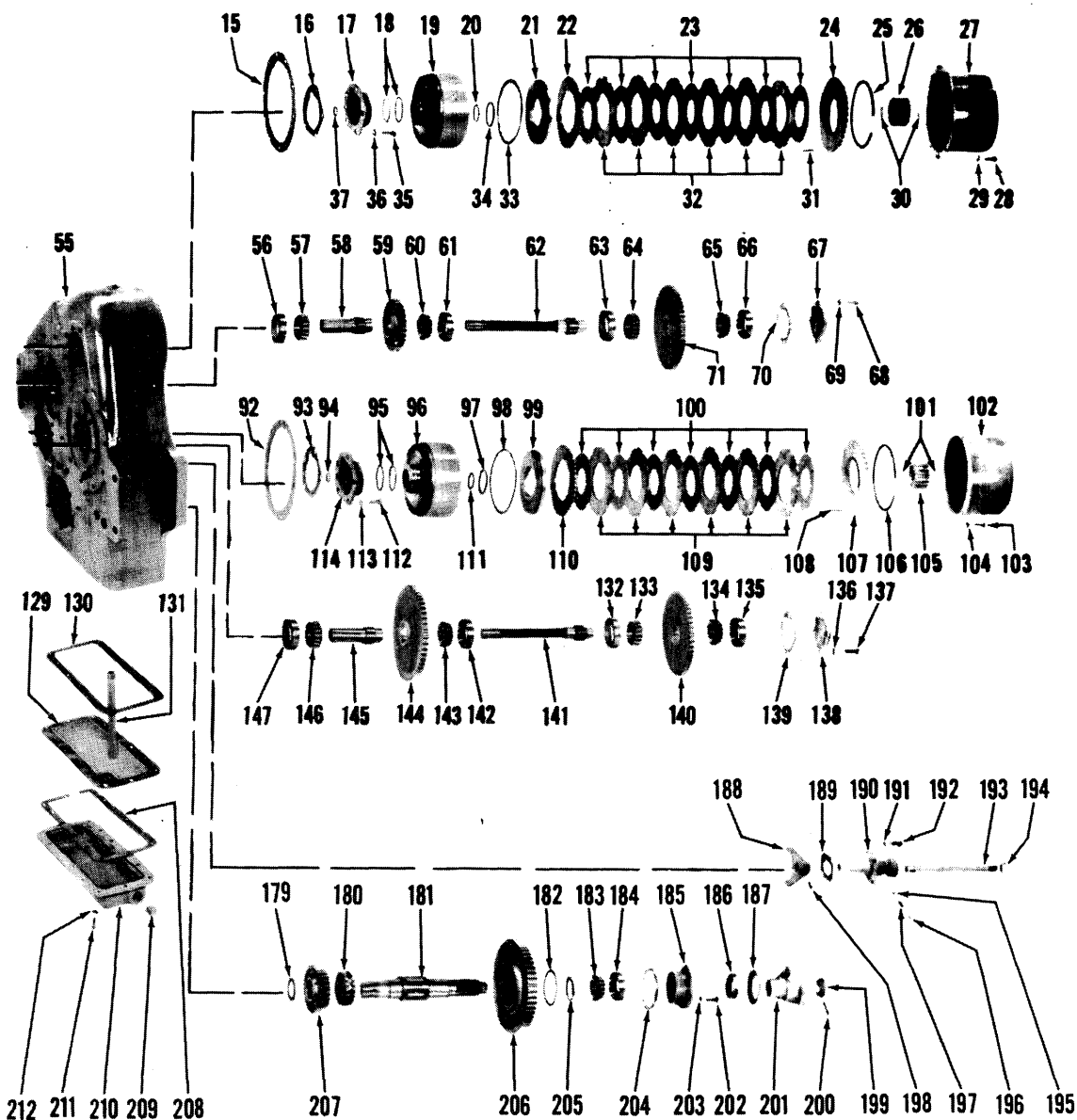
Item No.	Part No.	Description	No. Req'd.
1	18C-820	BOLT, Tank to Fender	2
2	635682	WASHER, Tank to Fender	2
3	635682	WASHER, Tank to Seat Support	4
4	18C-824	BOLT, Tank to Seat Support	4
5	635682	WASHER, Tank to Seat Support	4
6	4E-08	LKWSHR, Tank to Seat Support	4
7	17C-820	BOLT, Tank to Seat Support	4
8	539318	GASKET, Filler Cap	2
9	539195	CAP, Filler (Inc. 8)	2
10	18C-820	BOLT, Tank to Cap	10
11	635682	WASHER, Tank to Cap	10
12	536643	TANK & FENDER ASSY, Left Side (Inc. 8, 9)	1
12A	539319	TANK & FENDER ASSY, Right Side (Inc. 8, 9)	1
13	635682	WASHER, Tank to Cap	10
14	18D-08	NUT, Tank to Cap	10
15	541798	TUBE, Breather — Left Hand	1
15A	541797	TUBE, Breather — Right Hand	1
16	58F-3	NUT, Breather Tube	2
17	57F-3	SLEEVE, Breather Tube	2
18	51F-3	ELBOW, Breather Tube	2
19	18C-828	BOLT, Tank to Frame Channel — Right Side	1
19A	18C-828	BOLT, Tank to Frame Channel — Left Side	2
20	635682	WASHER, Tank to Frame Channel — Right Side	1
20A	635682	WASHER, Tank to Frame Channel — Left Side	2
21	627982	GASKET, Sender Unit	1
22	14D-10	NUT, Sender Terminal	1
23	12E-10	LKWSHR, Sender Terminal	1
24	3G-1008	SCREW, Sender Unit to Tank	5
25	12E-10	LKWSHR, Sender Unit to Tank	5
26	539557	SENDER UNIT, Fuel Tank	1
27	18D-08	NUT, Tank to Frame Channel — Right Side	1
27A	18D-08	NUT, Tank to Frame Channel — Left Side	2
28	13F-06	PLUG, Pipe	1
29	106656	BREATHER, Fuel Tank	2
30	18D-08	NUT, Tank to Lower Pivot	2
31	18D-08	NUT, Tank to Vertical Seat Support	4
32	635682	WASHER, Tank to Lower Pivot	2
33	18C-832	BOLT, Tank to Lower Pivot	2
34	4E-06	LKWSHR, Cover to Tank	12
35	18C-612	BOLT, Cover to Tank	12
36	40K-16	PLUG, Pipe	2
37	587613	COVER, Inspection	2
38	25K-40428	"O" RING	2
39	635682	WASHER, Tank to Vertical Seat Support	4
40	18C-824	BOLT, Tank to Vertical Seat Support	4
41	18D-08	NUT, Tank to Seat Support	4
42	635682	WASHER, Tank to Seat Support	4
43	18D-08	NUT, Tank to Fender	2
44	635682	WASHER, Tank to Fender	2

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



TRANSMISSION ASSEMBLY

TS-1615



TRANSMISSION ASSEMBLY

TS-1615

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C

TRANSMISSION ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	281741	TRANSMISSION ASSY (Inc. 1 thru 230) — R-400FS-11	1	39	658998	CUP, Input Shaft Bearing	1
1	205928	NUT, Input Flange	1	40	209626	GEAR, Input Shaft Reverse (57T).....	1
2	209618	FLANGE ASSY, Input (Inc. 3).....	1	41	209619	CAP, Input Shaft Bearing	1
3	101222	DEFLECTOR, Input Flange	1	42	4E-08	LKWSHR, Bearing Cap	4
4	209623	SEAL, Input Shaft Oil.....	1	43	1C-822	BOLT, Bearing Cap	4
5	209620	‡SHIM, Bearing Cap—.004.....	—	44	1F-432	COTTER, Input Flange Nut.....	1
5A	209621	‡SHIM, Bearing Cap—.007.....	—	45	224104	RING, Clutch Disc Hub Retaining	2
5B	209622	‡SHIM, Bearing Cap—.010.....	—	46	209672	PLATE, Clutch Disc End	1
6	220164	SHAFT, Input	1	47	209929	DISC, Clutch Inner.....	7
7	658998	CUP, Input Shaft Bearing.....	1	48	221513	PISTON, Clutch	1
8	675230	CONE, Input Shaft Bearing.....	1	49	224105	RING, Clutch Drum Hub Retaining	1
9	675230	CONE, Input Shaft Bearing.....	1	50	222408	DRUM ASSY, Clutch (Inc. 50A, 50B) ...	1
10	658998	CUP, Input Shaft Bearing.....	1	50A	222407	†HOUSING, Bleed Valve.....	1
11	220163	SHAFT, Forward Gear Quill.....	1	50B	10J-06	†BALL, Bleed Valve	1
12	209627	GEAR, Input Shaft Forward (54T).....	1	51	209673	RING, Hub Oil Seal.....	2
13	731253	CONE, Input Shaft Bearing.....	1	52	220178	CAP, Clutch Bearing.....	1
14	658998	CUP, Input Shaft Bearing.....	1	53	25K-30016	"O" RING, Bearing Cap	1
15	221400	GASKET, Clutch Cover	1	54	209676	‡SHIM, Clutch Bearing Cap—.004.....	—
16	209676	‡SHIM, Clutch Bearing Cap—.004.....	—	54A	209677	‡SHIM, Clutch Bearing Cap—.007.....	—
16A	209677	‡SHIM, Clutch Bearing Cap—.007.....	—	54B	209678	‡SHIM, Clutch Bearing Cap—.010.....	—
16B	209678	‡SHIM, Clutch Bearing Cap—.010.....	—	54C	221207	‡SHIM, Clutch Bearing Cap—.020.....	—
16C	221207	‡SHIM, Clutch Bearing Cap—.020.....	—	55	220671	CASE, Transmission	1
17	220178	CAP, Clutch Bearing.....	1	56	658998	CUP, 1st & 3rd Shaft Bearing.....	1
18	209673	RING, Hub Oil Seal.....	2	57	731253	CONE, 1st & 3rd Shaft Bearing	1
19	222408	DRUM ASSY, Clutch (Inc. 19A, 19B)....	1	58	220163	SHAFT, 1st & 3rd Quill.....	1
19A	222407	†HOUSING, Bleed Valve.....	1	59	209628	GEAR, 1st & 3rd Drive (37T).....	1
19B	10J-06	†BALL, Bleed Valve.....	1	60	731253	CONE, 1st & 3rd Shaft Bearing.....	1
20	224105	RING, Clutch Drum Hub Retaining.....	1	61	658998	CUP, 1st & 3rd Shaft Bearing.....	1
21	221513	PISTON, Clutch	1	62	220162	SHAFT, 1st & 3rd Drive.....	1
22	221512	DISC, Clutch Outer	1	63	658998	CUP, 1st & 3rd Shaft Bearing.....	1
23	209929	DISC, Clutch Inner	7	64	675230	CONE, 1st & 3rd Shaft Bearing.....	1
24	209672	PLATE, Clutch Disc End.....	1	65	675230	CONE, 1st & 3rd Shaft Bearing.....	1
25	223957	RING, End Plate Retaining.....	1	66	658998	CUP, 1st & 3rd Shaft Bearing.....	1
26	220179	HUB, Clutch Disc.....	1	67	209613	CAP, 1st & 3rd Drive Shaft Bearing ...	1
27	209599	COVER, Clutch	1	68	1C-822	BOLT, Bearing Cap	4
28	1C-614	BOLT, Clutch Cover.....	10	69	4E-08	LKWSHR, Bearing Cap.....	4
29	4E-06	LKWSHR, Clutch Cover.....	10	70	209614	‡SHIM, Bearing Cap—.004.....	—
30	224104	RING, Clutch Disc Hub Retaining	2	70A	209615	‡SHIM, Bearing Cap—.007.....	—
31	220186	SPRING, Clutch Disc Release.....	12	70B	209616	‡SHIM, Bearing Cap—.010.....	—
32	209669	DISC, Clutch Outer.....	6	71	209629	GEAR, 1st & 3rd Drop (55T).....	1
33	220185	SEAL, Clutch Piston Outer.....	1	72	7E-08	LKWSHR, Bearing Cap	5
34	209673	RING, Clutch Piston Inner Sealing	1	73	1C-822	BOLT, Bearing Cap.....	5
35	1C-822	BOLT, Bearing Cap.....	5	74	209673	RING, Clutch Piston Inner Sealing.....	1
36	7E-08	LKWSHR, Bearing Cap	5	75	220185	SEAL, Clutch Piston Outer	1
37	25K-30016	"O" RING, Bearing Cap	1	76	221512	DISC, Clutch Outer.....	1
38	731253	CONE, Input Shaft Bearing	1	77	209669	DISC, Clutch Outer.....	6
				78	220186	SPRING, Clutch Disc Release.....	12

†Not Illustrated
‡As Required

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TRANSMISSION ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
79	223957	RING, End Plate Retaining.....	1	121	658997	CUP, 2nd & 4th Shaft Bearing.....	1
80	220179	HUB, Clutch Disc.....	1	122	209631	‡SHIM, 2nd & 4th Bearing Cap—.004	—
81	209598	COVER, Clutch.....	1	122A	209632	‡SHIM, 2nd & 4th Bearing Cap—.007	—
82	1C-824	BOLT, Bearing Cap.....	5	122B	209633	‡SHIM, 2nd & 4th Bearing Cap—.010	—
83	4E-08	LKWSHR, Bearing Cap.....	5	123	224104	RING, Clutch Disc Hub Retaining.....	2
84	209630	CAP, 2nd & 4th Bearing.....	1	124	209929	DISC, Clutch Inner.....	7
85	224065	RING, 2nd & 4th High Gear Locating	1	125	224105	RING, Hub Retaining.....	1
86	220165	SHAFT, 2nd & 4th Drive.....	1	126	209673	RING, Hub Oil Seal.....	2
87	710789	CONE, 2nd & 4th Shaft Bearing.....	1	127	25K-30016	"O" RING, Bearing Cap.....	1
88	710788	CUP, 2nd & 4th Shaft Bearing.....	1	128	209676	‡SHIM, Clutch Bearing Cap—.004	—
89	220163	SHAFT, 2nd & 4th Quill.....	1	128A	209677	‡SHIM, Clutch Bearing Cap—.007	—
90	731253	CONE, 2nd & 4th Shaft Bearing.....	1	128B	209678	‡SHIM, Clutch Bearing Cap—.010	—
91	658998	CUP, 2nd & 4th Shaft Bearing.....	1	128C	221207	‡SHIM, Clutch Bearing Cap—.020	—
92	221400	GASKET, Clutch Cover.....	1	129	220669	SCREEN, Sump.....	1
93	209676	‡SHIM, Clutch Bearing Cap—.004	—	129A	525293	†MAGNET, Sump Screen.....	1
93A	209677	‡SHIM, Clutch Bearing Cap—.007	—	129B	223780	†SPRING, Magnet Retaining.....	1
93B	209678	‡SHIM, Clutch Bearing Cap—.010	—	130	209353	GASKET, Oil Pan.....	1
93C	221207	‡SHIM, Clutch Bearing Cap—.020	—	131	220673	PIPE, Oil Suction.....	1
94	25K-30016	"O" Ring, Bearing Cap.....	1	132	658998	CUP, Reverse Shaft Bearing.....	1
95	209673	RING, Hub Oil Seal.....	2	133	675230	CONE, Reverse Shaft Bearing.....	1
96	222408	DRUM ASSY, Clutch (Inc. 96A, 96B)	1	134	675230	CONE, Reverse Shaft Bearing.....	1
96A	222407	†HOUSING, Bleed Valve.....	1	135	658998	CUP, Reverse Shaft Bearing.....	1
96B	10J-06	†BALL, Bleed Valve.....	1	136	4E-08	LKWSHR, Reverse Bearing Cap.....	4
97	209673	RING, Clutch Piston Inner Sealing	1	137	1C-822	BOLT, Reverse Bearing Cap.....	4
98	220185	SEAL, Clutch Piston Outer.....	1	138	209613	CAP, Reverse Bearing.....	1
99	221513	PISTON, Clutch.....	1	139	209614	‡SHIM, Reverse Bearing Cap—.004	—
100	209929	DISC, Clutch Inner.....	7	139A	209615	‡SHIM, Reverse Bearing Cap—.007	—
101	224104	RING, Clutch Disc Hub Retaining	2	139B	209616	‡SHIM, Reverse Bearing Cap—.010	—
102	209599	COVER, Clutch.....	1	140	209612	GEAR, Reverse Idler (52T).....	1
103	1C-614	BOLT, Clutch Cover.....	10	141	220162	SHAFT, Reverse.....	1
104	4E-06	LKWSHR, Clutch Cover.....	10	142	658998	CUP, Reverse Shaft Bearing.....	1
105	220179	HUB, Clutch Disc.....	1	143	731253	CONE, Reverse Shaft Bearing.....	1
106	223957	RING, End Plate Retaining.....	1	144	209627	GEAR, Reverse Shaft Drive (54T)	1
107	209672	PLATE, Clutch Disc End.....	1	145	220163	SHAFT, Reverse Quill.....	1
108	220186	SPRING, Clutch Disc Release.....	12	146	731253	CONE, Reverse Shaft Bearing.....	1
109	209669	DISC, Clutch Outer.....	6	147	658998	CUP, Reverse Shaft Bearing.....	1
110	221512	DISC, Clutch Outer.....	1	148	220178	CAP, Clutch Bearing.....	1
111	224105	RING, Hub Retaining.....	1	149	7E-08	LKWSHR, Clutch Bearing Cap.....	5
112	1C-822	BOLT, Clutch Bearing Cap.....	5	150	1C-822	BOLT, Clutch Bearing Cap.....	5
113	7E-08	LKWSHR, Clutch Bearing Cap.....	5	151	222408	DRUM ASSY, Clutch.....	1
114	220178	CAP, Clutch Bearing.....	1	151A	222407	†HOUSING, Bleed Valve.....	1
115	209627	GEAR, 2nd & 4th Drive (54T).....	1	151B	10J-06	†BALL, Bleed Valve.....	1
116	731253	CONE, 2nd & 4th Shaft Bearing.....	1	152	209673	RING, Clutch Piston Inner Sealing	1
117	658998	CUP, 2nd & 4th Shaft Bearing.....	1	153	220185	SEAL, Clutch Piston Outer.....	1
118	209636	GEAR, 2nd & 4th Low Drive (40T)	1	154	221513	PISTON, Clutch.....	1
119	209635	GEAR, 2nd & 4th Drive Shaft Hi. (73T)	1	155	221512	DISC, Clutch Outer.....	1
120	658982	CONE, 2nd & 4th Shaft Bearing.....	1	156	209669	DISC, Clutch Outer.....	6

†Not Illustrated
‡As Required

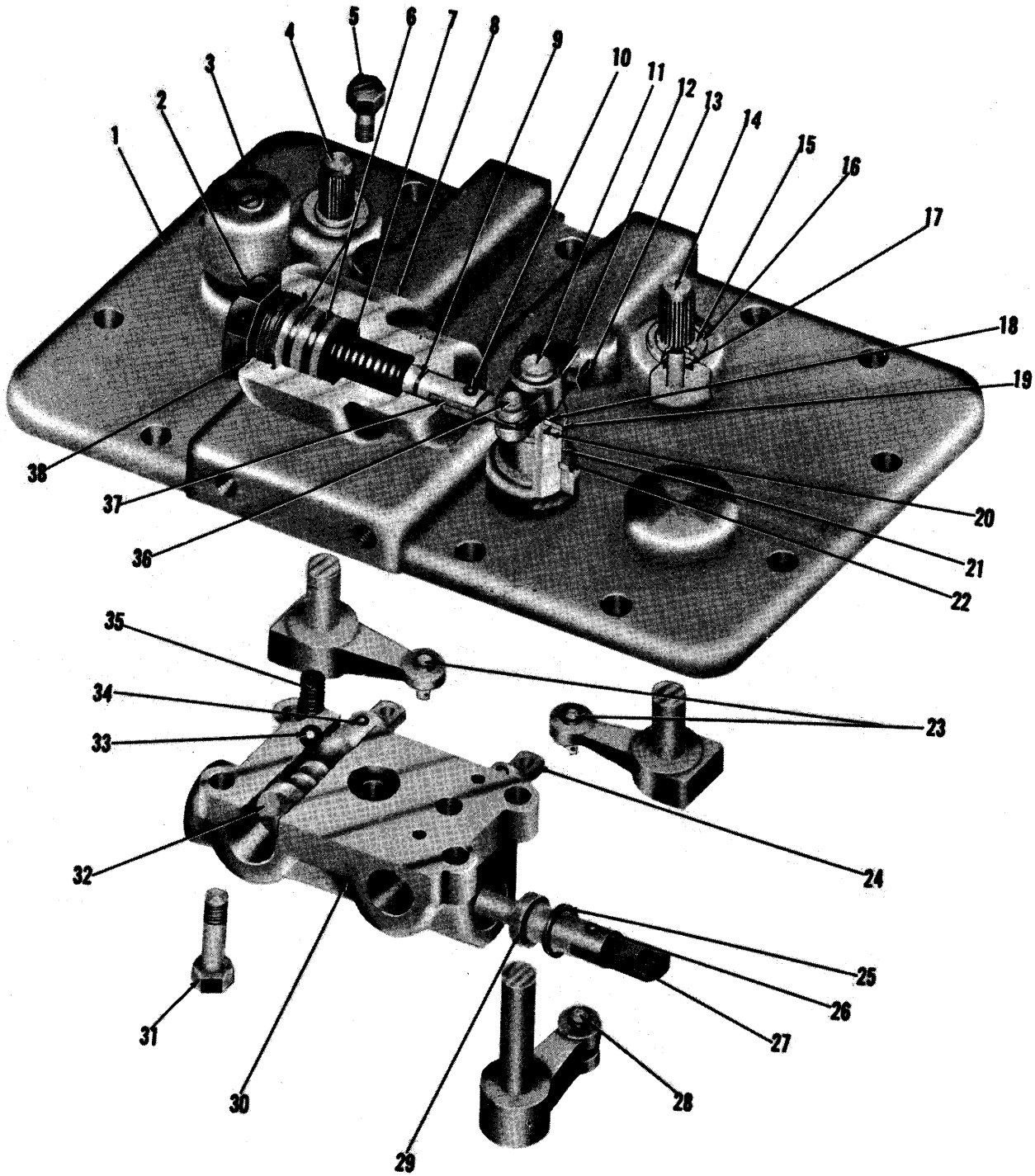
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE

TRANSMISSION ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
157	220186	SPRING, Clutch Disc Release.....	12	201	209638	FLANGE ASSY, Output (Inc. 187).....	1
158	209672	PLATE, Clutch Disc End.....	1	202	1C-822	BOLT, Bearing Cap.....	4
159	223957	RING, End Plate Retaining.....	1	203	4E-08	LKWSHR, Bearing Cap.....	4
160	220179	HUB, Clutch Disc.....	1	204	209705	‡SHIM, Bearing Cap—.004.....	—
161	209607	GASKET, Clutch Cover.....	1	204A	209706	‡SHIM, Bearing Cap—.007.....	—
162	4E-06	LKWSHR, Clutch Cover.....	16	204B	209707	‡SHIM, Bearing Cap—.010.....	—
163	1C-614	BOLT, Clutch Cover.....	16	205	200235	WASHER, Output Shaft Thrust.....	1
164	201262	NUT, Output Shaft Flange.....	1	206	800667	GEAR, Output Shaft Low (Inc. 182, 206A) (69T).....	1
165	209638	FLANGE ASSY, Output (Inc. 228).....	1	206A	209647	†BUSHING, Low Gear.....	1
166	209623	SEAL, Flange Oil.....	1	207	220168	GEAR, Output Shaft High (Inc. 207A) (37T).....	1
167	209654	CAP, Output Shaft Bearing.....	1	207A	220171	†BUSHING, High Gear.....	1
168	713998	BEARING, Output Shaft.....	1	208	209353	GASKET, Oil Pan.....	1
169	10J-14	BALL, Mesh Lock.....	1	209	201120	PLUG, Drain — Magnetic.....	1
170	201413	SPRING, Mesh Lock.....	1	210	215644	PAN, Oil.....	1
171	220177	FORK, Rear Output Shaft Shift.....	1	211	1C-616	BOLT, Oil Pan.....	14
172	201929	PLATE, Shift Shaft Lock.....	1	212	4E-06	LKWSHR, Oil Pan.....	14
173	209661	SHAFT, Rear Output Shaft Shift.....	1	213	209659	GASKET, Rear Output Housing Cover.....	1
174	209656	HOUSING, Rear Output Shaft.....	1	214	209726	ARM, Shift Lever.....	1
175	209657	SHIM, Rear Output Shaft Housing.....	1	215	200133	SEAL, Shift Lever Arm Oil.....	1
176	223885	RING, Output Shaft Brg. Retaining.....	1	216	1C-618	BOLT, Housing Cover.....	6
177	658998	CUP, Output Shaft Bearing.....	1	217	4E-06	LKWSHR, Housing Cover.....	6
178	731253	CONE, Output Shaft Bearing.....	1	218	209658	COVER, Rear Output Shaft Housing.....	1
179	220172	WASHER, Output Shaft High Gear Retaining.....	1	219	4E-08	LKWSHR, Rear Output Shaft Housing.....	7
180	220166	HUB, Work & Travel Range Shift.....	1	220	1C-822	BOLT, Rear Output Shaft Housing.....	7
181	220173	SHAFT, Output (Inc. Bushing).....	1	221	223856	RING, Bearing Locating.....	1
182	209708	RING, Low Gear Oil.....	1	222	220176	HUB, Rear Output Shaft Shift.....	1
183	675229	CONE, Output Shaft Bearing.....	1	223	220175	SHAFT, Rear Output.....	1
184	658998	CUP, Output Shaft Bearing.....	1	224	224075	RING, Rear Output Shaft Locating.....	1
185	209704	CAP, Output Shaft Bearing.....	1	225	209655	GASKET, Bearing Cap.....	1
186	209623	SEAL, Output Shaft Front Oil.....	1	226	4E-08	LKWSHR, Bearing Cap.....	4
187	101222	DEFLECTOR, Output Flange.....	1	227	1C-822	BOLT, Bearing Cap.....	4
188	220167	FORK, High & Low Shift.....	1	228	101222	DEFLECTOR, Output Flange.....	1
189	209406	GASKET, Shift Shaft Support.....	1	229	1F-440	COTTER, Flange Nut.....	1
190	209405	SUPPORT, Shift Shaft.....	1	230	207024	†‡WASHER, Shift Stop.....	—
191	4E-06	LKWSHR, Shift Shaft Support.....	4	231	223885	†RING, Reverse & Input Brg. Locating.....	4
192	1C-616	BOLT, Shift Shaft Support.....	4	TRANSMISSION MOUNTING PARTS			
193	209641	SHAFT, High & Low Shift.....	1	232	533820	†MOUNT, Transmission—R.H.....	1
194	208871	SEAL, Shift Shaft Support Oil.....	1	233	533822	†MOUNT, Transmission—L.H.....	1
195	10J-12	BALL, Mesh Lock.....	1	234	24C-1460	†BOLT, Transmission to Mount.....	8
196	40K-04	PLUG, Mesh Lock.....	1	235	18D-14	†NUT, Transmission to Mount.....	8
197	201844	SPRING, Mesh Lock.....	1	236	24C-1240	†BOLT, Mount to Frame.....	4
198	201566	SCREW, Fork Lock.....	1	237	70D-12	†NUT, Mount to Frame.....	4
199	201262	NUT, Output Shaft Flange.....	1	238	71D-12	†BASE, Mount to Frame Nut.....	4
200	1F-440	COTTER, Flange Nut.....	1				

†Not Illustrated
‡As Required

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TRANSMISSION CONTROL COVER

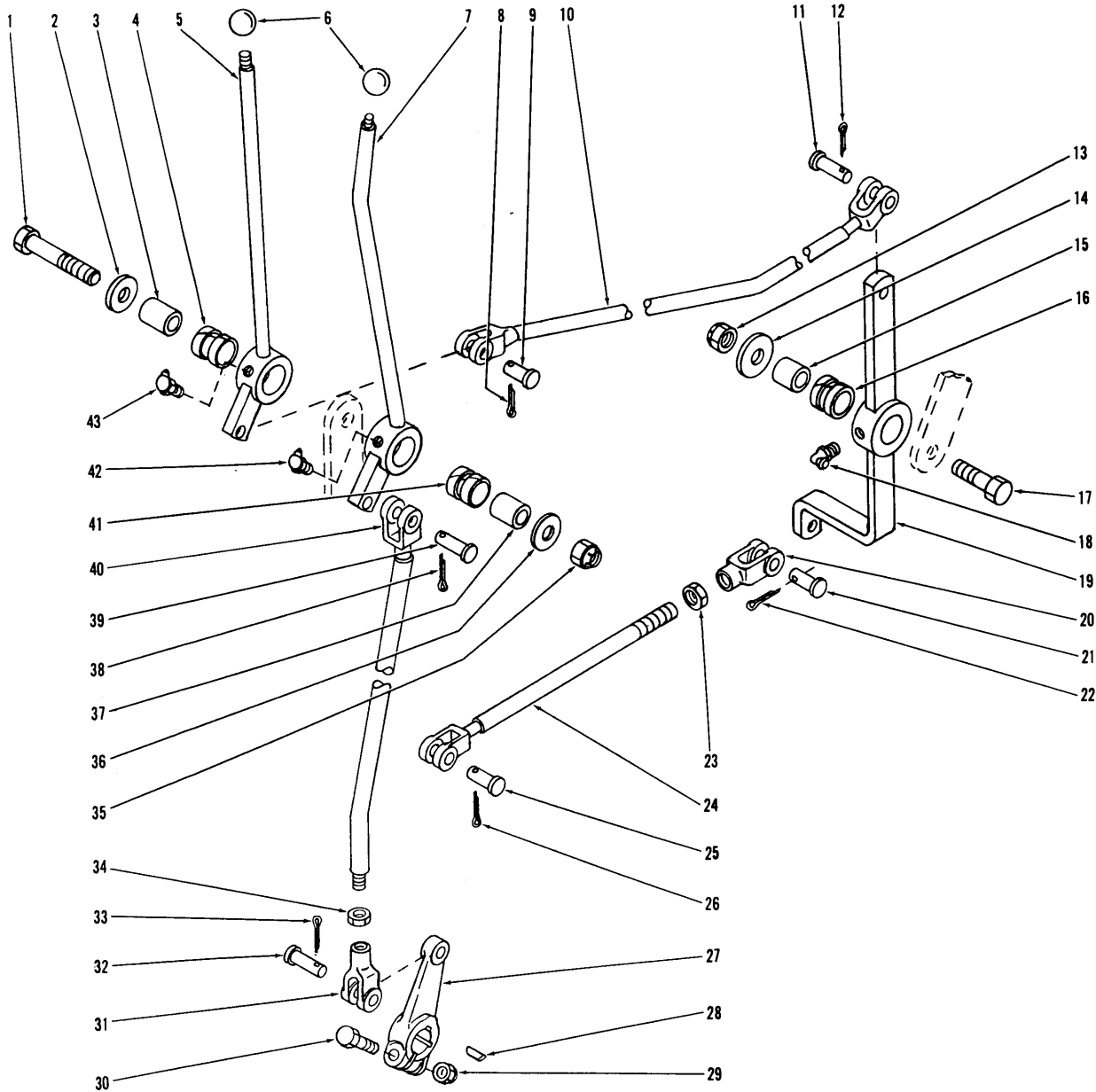
TS-547-P

TRANSMISSION CONTROL COVER AND VALVE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	216729	COVER ASSY, Control (Inc. 1 thru 38)	1	22	710776	RING, Arm Sleeve Retaining	1
B	216730	VALVE ASSY, Control (Inc. 24 thru 27, 29, 30, 32, 34)	1	23	208810	PIN, Selector Arm Link	2
1	222251	COVER, Control	1	23A	1F-208	†COTTER, Selector Arm Link Pin	2
2	221803	NUT, Shutoff Valve	1	24	209382	LINK, Selector Valve to Arm	2
3	104942	BREATHER, Control Cover	1	25	731050	RING, Selector Valve Retaining	2
4	209690	ARM, High & Low Selector	1	26	222537	PIN, Shutoff Valve Link	1
5	1C-512	BOLT, Shutoff Valve to Cover	2	27	209382	LINK, Shutoff Valve to Arm	1
5A	4E-05	†LKWSHR, Shutoff Valve to Cover	2	28	220105	PIN, Selector Valve Link	1
6	25K-40104	"O" RING, Actuating Piston	2	28A	1F-208	†COTTER, Selector Valve Link Pin	1
7	221802	SPRING, Actuating Piston	1	29	-----	§VALVE, Shutoff (See "B")	1
8	221798	AIR CYLINDER ASSY (Inc. 2, 6, 7, 9, 38)	1	30	-----	§HOUSING, Control Valve (See "B")	1
9	25K-30012	"O" RING, Actuating Piston	1	31	1C-640	BOLT, Valve to Cover—2½" long	2
10	220105	PIN, Actuating Piston Link	1	31A	1C-636	BOLT, Valve to Cover—2¼" long	1
10A	1F-208	†COTTER, Actuating Piston Link Pin	1	31B	1C-628	BOLT, Valve to Cover—1¾" long	1
11	222258	ARM, Shutoff Valve	1	31C	4E-06	†LKWSHR, Valve to Cover	4
11A	5J-304	†KEY, Shutoff Valve Arm	1	32	-----	§VALVE, Selector (See "B")	2
12	221805	ARM, Shutoff Valve Outer	1	33	10J-12	BALL, Detent	2
13	2C-420	BOLT, Shutoff Valve Outer Arm	1	33A	222257	†PIN, Detent Ball Stop	2
13A	2D-04	†NUT, Shutoff Valve Outer Arm	1	34	208809	PIN, Selector Valve Link	2
13B	4E-04	†LKWSHR, Shutoff Valve Outer Arm	1	35	222256	SPRING, Detent	2
14	209690	ARM, Forward & Reverse Selector	1	36	220105	PIN, Selector Valve Link	1
15	224095	RING, Selector Arm Retaining	2	36A	1F-208	†COTTER, Selector Valve Link Pin	1
16	209961	WASHER, Oil Seal Retaining	2	37	209382	LINK, Outer Arm to Actuating Piston	1
17	208812	OIL SEAL, Selector Arm	2	38	221804	LKWSHR, Shutoff Valve	1
18	224095	RING, Selector Arm Retaining	1	39	209663	†GASKET, Control Cover to Case	1
19	209961	WASHER, Oil Seal Retaining	1	40	25K-30016	†"O" RING, Control Cover to Case	4
20	208812	OIL SEAL, Selector Arm	1	41	1C-718	†BOLT, Control Cover to Case	11
21	222260	SLEEVE, Selector Arm	1	42	4E-07	†LKWSHR, Control Cover to Case	11
				43	40K-02	†PLUG, Control Cover	4

†Not Illustrated
§Not Sold Separately

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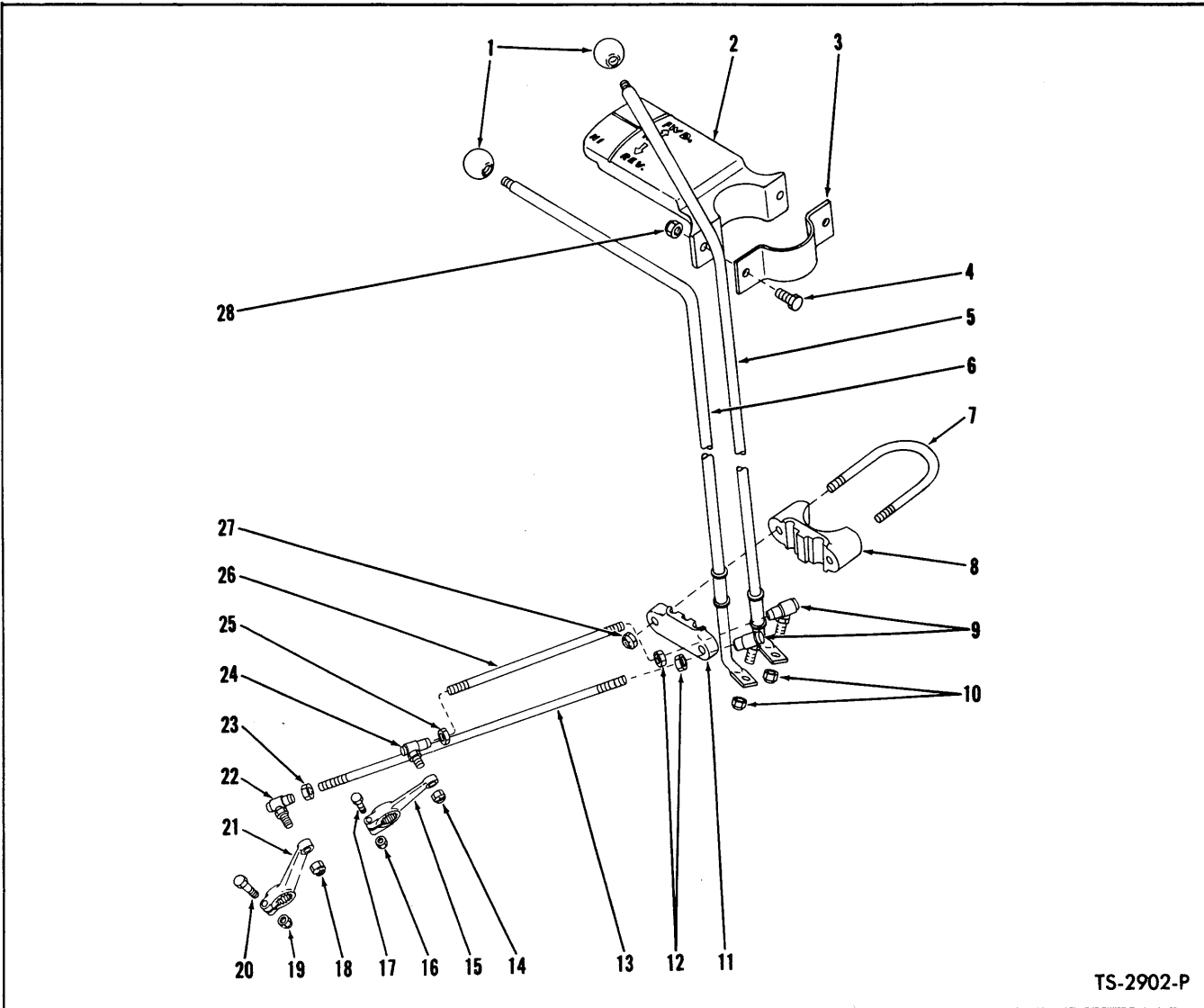
TRANSMISSION CONTROL LEVERS AND LINKAGE

TS-2909-P

TRANSMISSION CONTROL LEVERS AND LINKAGE

Item No.	Part No.	Description	No. Req'd.
1	18C-872	BOLT, Lever Mounting	1
2	616796	WASHER, Lever Mounting	1
3	550646	SLEEVE, Lever Mounting	1
4	526767	BUSHING, Range Lever	1
5	538684	LEVER, Range Shift	1
6	509772	KNOB, Range & 4 WD Lever	2
7	538685	LEVER, 4 WD Shift	1
8	1F-414	COTTER, Clevis Pin	1
9	4F-08127	PIN, Rod to Lever	1
10	538313	ROD, Range — Upper	1
11	4F-08127	PIN, Rod to Lever	1
12	1F-414	COTTER, Clevis Pin	1
13	18D-08	NUT, Bell Crank Mounting	1
14	616796	WASHER, Bell Crank Mounting	1
15	550646	SLEEVE, Bell Crank Mounting	1
16	526767	BUSHING, Bell Crank	1
17	18C-844	BOLT, Bell Crank Mounting	1
18	12H-15	FITTING, Bell Crank Grease	1
19	535300	BELL CRANK	1
20	2J-8300	CLEVIS	1
21	4F-08127	PIN, Rod to Bell Crank	1
22	1F-414	COTTER, Clevis Pin	1
23	8D-08	NUT, Clevis Jam	1
24	535372	ROD, Range — Lower	1
25	4F-06106	PIN, Clevis	1
26	1F-312	COTTER, Clevis Pin	1
27	551410	LEVER, Rod to Transmission	1
28	5J-606	KEY, Lever	1
29	18D-06	NUT, Lever Clamp	1
30	18C-628	BOLT, Lever Clamp	1
31	2J-8300	CLEVIS, Rod to Lever	1
32	4F-08127	PIN, Rod to Lever	1
33	1F-414	COTTER, Clevis Pin	1
34	8D-08	NUT, Clevis Jam	1
35	18D-08	NUT, Lever Mounting	1
36	616796	WASHER, Lever Mounting	1
37	550646	SLEEVE, Lever Mounting	1
38	1F-414	COTTER, Clevis Pin	1
39	4F-08127	PIN, Lever to Rod	1
40	535376	ROD, Lever to Lever	1
41	526767	BUSHING, 4 WD Lever	1
42	11H-15	FITTING, 4 WD Lever Grease	1
43	11H-15	FITTING, Range Lever Grease	1

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



TS-2902-P

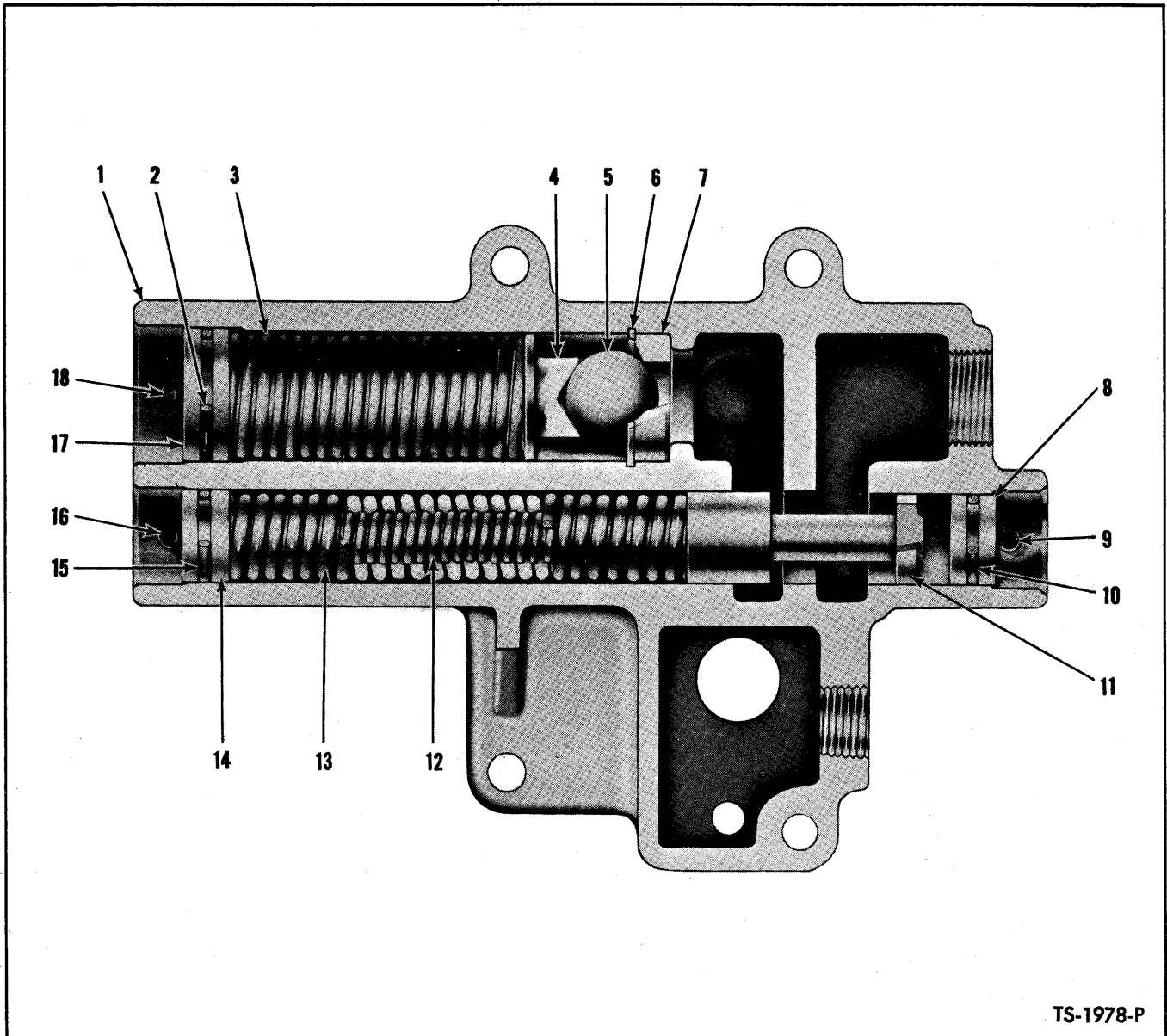
GEAR SHIFT LEVERS AND LINKAGE

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	509772	KNOB, Shift Lever.....	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	18D-06	NUT, Ball Socket to Lever.....	1
5	540656	LEVER, Forward and Reverse Shift.....	1	19	18D-04	NUT, Lever Clamp.....	1
6	540658	LEVER, High and Low Shift.....	1	20	18C-424	BOLT, Lever Clamp.....	1
7	550672	U-BOLT, Shift Levers.....	2	21	521769	LEVER, Transmission	1
8	1508845	SUPPORT, Shift Levers (Inc. 11)	2	22	519793	BALL SOCKET, Rod to Lever.....	1
9	519793	BALL SOCKET, Rod to Lever	2	23	8D-06	NUT, Ball Socket Jam.....	1
10	18D-06	NUT, Ball Socket to Lever.....	2	24	519793	BALL SOCKET, 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	535318	ROD, Forward & Reverse Shift.....	1
13	535316	ROD, High and Low Shift.....	1	27	18D-05	NUT, U-Bolt	4
14	18D-06	NUT, Ball Socket to Lever.....	1	28	18D-04	NUT, Shift Indicator Quadrant.....	2

§Not Sold Separately

*NOTE: For replacement use 947409 Kit. 947409 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 Drawing.

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



TS-1978-P

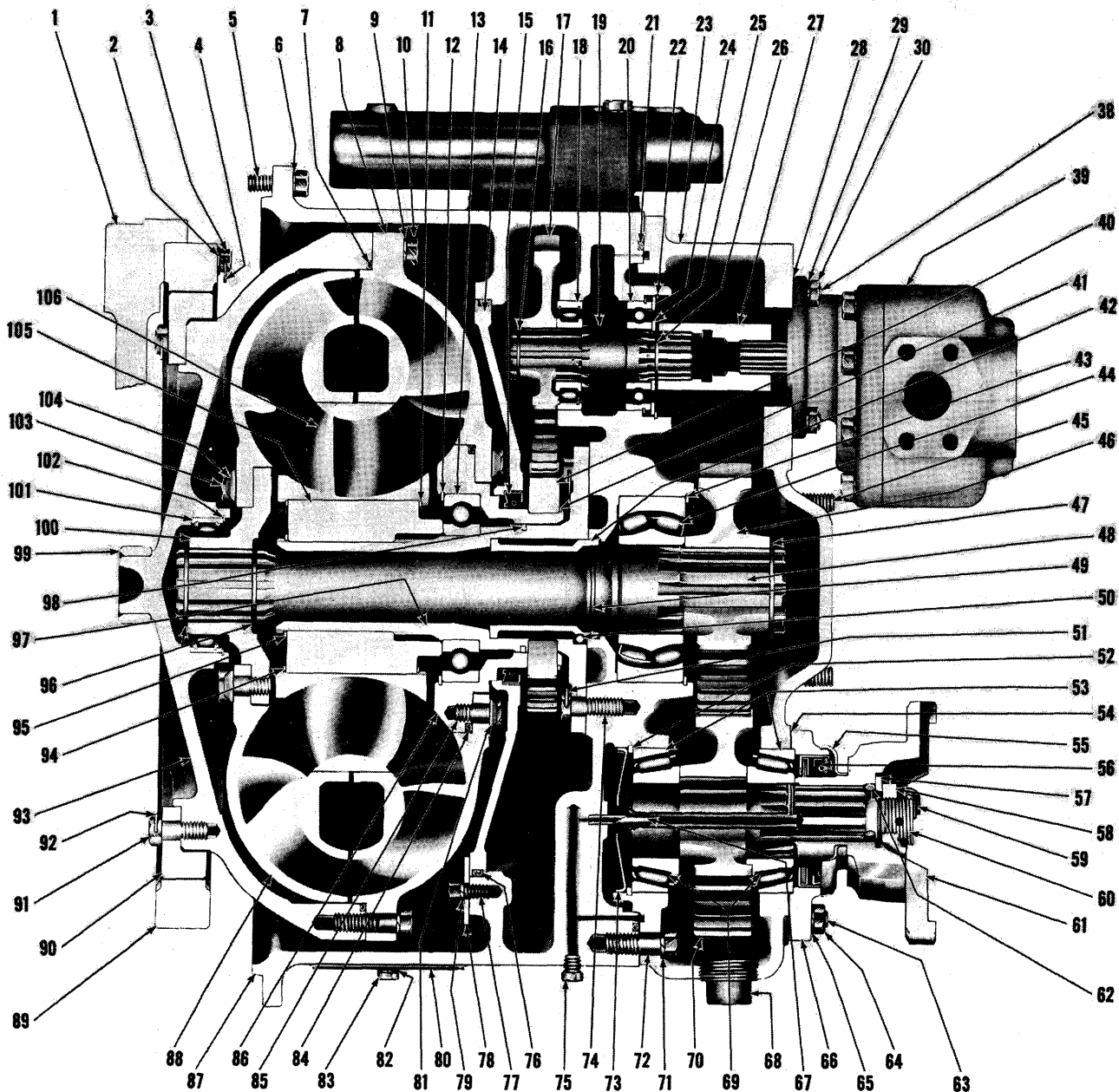
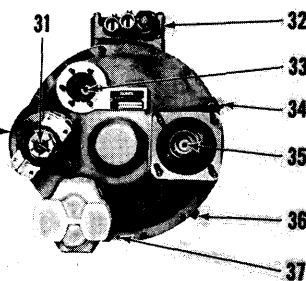
SAFETY AND PRESSURE REGULATING VALVE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	215911	VALVE ASSY (Inc. 1 thru 19).....	1	12	222044	SPRING, Clutch Pressure Valve — Inner	1
B	801167	BODY ASSY, Valve (Inc. 1, 6, 7, 11)....	1	13	222043	SPRING, Clutch Pressure Valve — Outer	1
1	-----	§BODY, Valve (See "B").....	1	14	222041	STOP, Spring	1
2	25K-40106	"O" RING, Spring Stop.....	1	15	58K-210	"O" RING, Spring Stop.....	1
3	215910	SPRING, Converter Pressure Relief Valve	1	16	633157	PIN, Spring Stop Retaining.....	1
4	222045	ADAPTER, Relief Valve Spring.....	1	17	222047	STOP, Spring	1
5	10J-32	BALL, Relief Valve.....	1	18	654722	PIN, Spring Stop Retaining.....	1
6	-----	§RING, Ball Seat Retaining (See "B")....	1	19	40K-02	†PLUG, Pressure Port.....	3
7	-----	§SEAT, Relief Valve Ball (See "B").....	1	20	25K-40112	†"O" RING, Valve to Converter.....	2
8	222041	STOP, Piston	1	21	25K-30014	†"O" RING, Valve to Converter.....	1
9	633157	PIN, Piston Stop Retaining.....	1	22	222034	†GASKET, Valve to Converter.....	1
10	58K-210	"O" RING, Piston Stop.....	1	23	1C-748	†BOLT, Valve to Converter.....	4
11	-----	§PISTON, Valve (See "B").....	1	24	4E-07	†LKWSHR, Valve to Converter.....	4

†Not Illustrated
§Not Sold Separately

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

REAR VIEW OF CONVERTER



TORQUE CONVERTER ASSEMBLY
For Serial No. 3HG101 thru 3HG328

TS-3094-P

TORQUE CONVERTER ASSEMBLY

For Serial: 3HG101 thru 3HG328

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	281706	CONVERTER ASSY (Inc. 7 thru 106)....	1	25	100838	WASHER, Rear Bearing — Inner.....	3
1	-----	FLYWHEEL — See Engine Parts Manual	—	26	224039	RING, Inner Washer Retaining.....	3
2	619021	WASHER, Drive Gear to Flywheel.....	12	27	221992	SLEEVE, Converter Pump Drive.....	1
3	224797	BOLT, Drive Gear to Flywheel.....	12	28	235961	GASKET, Converter Pump.....	1
4	28H-18200	LOCKWIRE	6	29	4E-06	LKWSHR, Converter Pump Attaching ..	6
5	17C-720	BOLT, Converter to Flywheel Housing ..	12	30	8D-06	NUT, Converter Pump Attaching.....	6
6	4E-07	LKWSHR, Converter to Flywheel Housing	12	31	-----	OUTPUT SHAFT — See 60	—
7	209575	"O" RING, Impeller to Drive Disc.....	1	32	-----	PRESSURE REGULATOR VALVE — See Index	—
8	222271	IMPELLER, Converter	1	33	-----	STEERING PUMP GROUP (See Items 16 thru 20, 22, 24, 25, 26).....	—
9	4E-06	LKWSHR, Impeller to Drive Disc.....	30	34	13F-20	PLUG, Housing Drain.....	1
10	1C-622	BOLT, Impeller to Drive Disc	30	35	-----	MAIN PUMP GROUP (See Items 16 thru 20, 22, 24, 25, 26).....	—
11	223965	RING, Reaction Member Hub Locating	1	36	13F-20	PLUG, Housing Drain.....	1
12	223988	RING, Impeller Hub Bearing Locating	1	37	214295	PIN, Housing to Cover Dowel.....	1
13	223368	BEARING, Impeller Hub.....	1	38	207647	STUD, Steering and Converter Pump..	12
14	218721	*BAFFLE, Oil	1	39	-----	CONVERTER CHARGING PUMP — See Index	—
15	214941	SEAL, Oil Baffle Oil.....	1	40	222035	GEAR, Pump Drive.....	1
16	224036	RING, Driven Gear Retaining.....	3	41	224009	RING, Drive Gear Retaining.....	1
17	222037	GEAR, Pump Shaft Driven.....	3	42	218725	SLEEVE, Oil Distributor	1
18	225385	BEARING, Pump Shaft Front.....	3	43	-----	RING, Turbine Shaft Bearing Retaining (Select one at assembly)	—
19	216095	SHAFT, Pump Drive.....	3	43A	223997	‡RING — .095 to .097.....	—
20	731742	BEARING, Pump Shaft — Rear.....	2	43B	223998	‡RING — .098 to .100.....	—
21	218779	"O" RING, Cover to Housing.....	1	43C	223999	‡RING — .101 to .103.....	—
22	-----	RING, Outer Washer Retaining (Select one at assembly)	—	43D	224000	‡RING — .104 to .106.....	—
22A	223959	‡RING — .057 to .059.....	—	44	223334	BEARING, Turbine Shaft.....	1
22B	223960	‡RING — .060 to .062.....	—	45	216555	STUD, Main Pump Mounting.....	4
22C	223961	‡RING — .063 to .065.....	—	46	216594	GEAR, Turbine Shaft Drive.....	1
22D	223962	‡RING — .066 to .068.....	—	47	224120	RING, Drive Gear Retaining.....	1
22E	223963	‡RING — .069 to .071.....	—				
22F	223964	‡RING — .072 to .074.....	—				
23	222001	COVER, Converter	1				
24	222038	WASHER, Rear Bearing — Outer.....	3				

‡As Required

*NOTE: When replacing original Baffle with 218721 Baffle, 1—214941 Baffle Oil Seal must also be used at the same time.

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

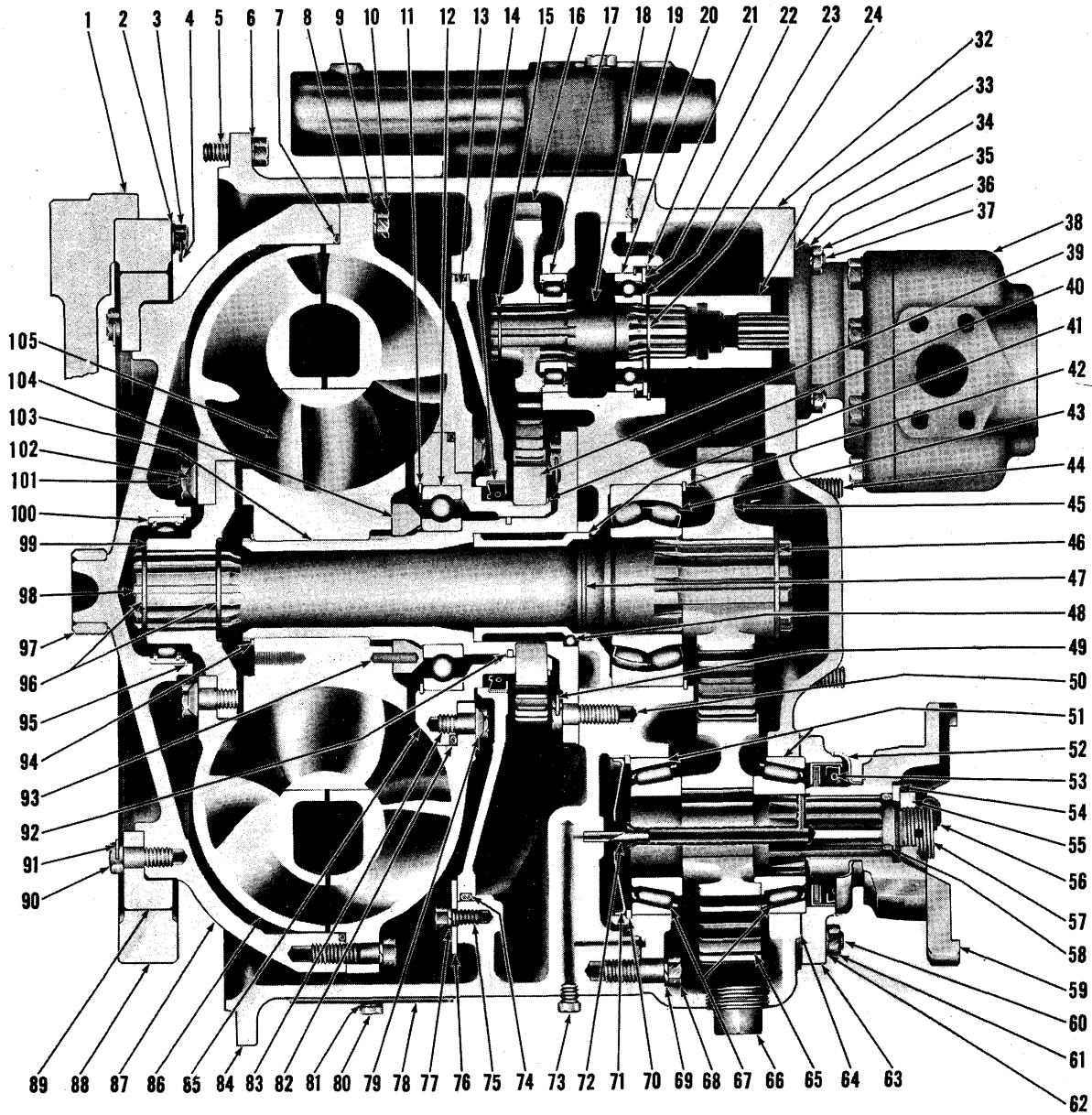
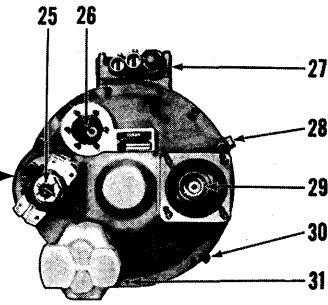
TORQUE CONVERTER ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
48	216290	SHAFT, Turbine	1	77	1C-612	BOLT, Oil Baffle Retaining.....	3
49	223570	RING, Turbine Shaft Sealing.....	1	78	616786	WASHER, Oil Baffle Retaining.....	3
50	10J-08	BALL, Oil Distributor Lock.....	1	79	6E-06	LKWSHR, Oil Baffle Retaining.....	3
51	-----	LOCKWIRE	—	80	201623	PLATE, Converter Housing Inspection ..	3
52	223900	RING, Front Bearing Retaining.....	1	81	222019	PLATE, Impeller to Hub Bolt Lock.....	4
53	675543	CUP, Output Shaft Bearing.....	2	82	4E-04	LKWSHR, Inspection Plate.....	6
54	209589	‡SHIM, Bearing Cap — .004.....	—	83	1C-408	BOLT, Inspection Plate.....	6
54A	209590	‡SHIM, Bearing Cap — .007.....	—	84	60K-40700	“O” RING, Impeller to Hub.....	1
54B	209591	‡SHIM, Bearing Cap — .010.....	—	85	222221	BOLT, Impeller to Hub.....	8
55	100949	DEFLECTOR, Output Flange.....	1	86	222269	HUB, Impeller	1
56	209587	SEAL, Output Shaft Oil.....	1	87	216094	HOUSING, Converter	1
57	222179	WASHER, Output Shaft.....	1	88	222268	TURBINE, Converter	1
58	205928	NUT, Output Shaft.....	1	89	226595	GEAR, Converter Drive.....	1
59	1F-436	COTTER, Output Shaft Nut.....	1	90	222003	GEAR, Converter Driven.....	1
60	222026	SHAFT, Output	1	91	3C-818	BOLT, Driven Gear to Drive Disc.....	12
61	222028	FLANGE ASSY, Output (Inc. 55).....	1	92	-----	LOCKWIRE	—
62	25K-60116	“O” RING, Output Shaft.....	1	93	222261	DRIVE DISC ASSY (Inc. 99).....	1
63	206770	STUD, Output Shaft Bearing Cap.....	4	94	223965	RING, Reaction Member Hub Locating	1
64	2D-08	NUT, Output Shaft Bearing Cap.....	4	95	711161	RING, Reaction Member Hub Retaining	1
65	4E-08	LKWSHR, Output Shaft Bearing Cap..	4	96	224061	RING, Turbine Hub Retaining.....	2
66	209588	CAP, Output Shaft Bearing.....	1	97	218723	SUPPORT, Converter (Inc. 42, 50)....	1
67	222031	TUBE, Output Shaft Oil.....	1	98	209673	RING, Converter Support Sealing.....	1
68	13F-20	PLUG, Housing Drain.....	1	99	222006	SLEEVE, Drive Disc.....	1
69	731283	CONE, Output Shaft Bearing.....	1	100	222007	HUB, Turbine	1
70	216595	GEAR, Output Shaft Driven.....	1	101	223387	BEARING, Drive Disc.....	1
71	4E-07	LKWSHR, Cover to Housing.....	12	102	223859	RING, Drive Disc Bearing Retaining ...	1
72	1C-722	BOLT, Cover to Housing.....	12	103	222223	BOLT, Turbine to Hub.....	8
73	222027	BAFFLE, Rear Bearing Oil.....	1	104	222008	PLATE, Turbine to Hub Bolt Lock.....	4
74	3C-820	BOLT, Support to Housing.....	8	105	-----	§HUB, Reaction Member — See 106 ...	1
75	40K-02	PLUG, Lube Line.....	1	106	801036	REACTION MEMBER ASSY (Inc. 11, 94, 105)	1
76	218777	“O” RING, Oil Baffle.....	1				

‡As Required

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

REAR VIEW OF CONVERTER



TORQUE CONVERTER ASSEMBLY
For Serial No.—Cummins 4HC102 thru 4HC999
For Serial No. G.M. 3HG329 thru 3HG399, 4HG101 thru 4HG999

TS-4767



**CONSTRUCTION MACHINERY DIVISION
TORQUE CONVERTER ASSEMBLY**



**For Serial: Cummins — 4HC102 thru 4HC999
G.M. — 3HG329 thru 3HG399, 4HG101 thru 4HG999**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	282019	CONVERTER ASSY, C-605-9 (Inc. 7 thru 105)	1	22	222038	WASHER, Rear Bearing — Outer	3
1	-----	FLYWHEEL—See Engine Parts Manual —	—	23	100838	WASHER, Rear Bearing — Inner	3
2	619021	WASHER, Drive Gear to Flywheel	12	24	224039	RING, Inner Washer Retaining	3
3	224797	BOLT, Drive Gear to Flywheel	12	25	-----	OUTPUT SHAFT — See Item 57	—
4	-----	LOCKWIRE (18 ga. 20" long)	6	26	-----	STEERING PUMP GROUP — See Items 15 thru 18, 20 thru 24	—
5	17C-720	BOLT, Converter to Flywheel Housing 12		27	-----	PRESSURE REGULATOR VALVE — See Index	—
6	4E-07	LKWSHR, Converter to Flywheel Hsg. 12		28	13F-20	PLUG, Housing Drain	1
7	218778	"O" RING, Impeller to Drive Disc	1	29	-----	MAIN PUMP GROUP — See Items 15 thru 18, 20 thru 24	—
8	222265	IMPELLER, Converter	1	30	13F-20	PLUG, Housing Drain	1
9	4E-06	LKWSHR, Impeller to Drive Disc	30	31	214295	PIN, Housing to Cover Dowel	1
10	1C-622	BOLT, Impeller to Drive Disc	30	32	222001	COVER, Converter	1
11	223988	RING, Impeller Hub Brg. Retaining ..	1	33	221992	SLEEVE, Converter Pump Drive	1
12	223368	BEARING, Impeller Hub	1	34	235961	GASKET, Converter Pump	1
13	218721	BAFFLE, Oil — See Note "A"	1	35	4E-06	LKWSHR, Converter Pump Attaching 6	
14	214941	SEAL, Oil Baffle Oil — See Note "A" 1		36	8D-06	NUT, Converter Pump Attaching	6
15	224036	RING, Driven Gear Retaining	3	37	207647	STUD, Steering & Converter Pump Attaching	12
16	222037	GEAR, Pump Shaft Driven (35T)	3	38	450161	*CONVERTER CHARGING PUMP	1
17	225385	BEARING, Pump Shaft Front	3	39	222035	GEAR, Pump Drive (37T)	1
18	216095	SHAFT, Pump Drive	3	40	224009	RING, Drive Gear Retaining	1
19	218779	"O" RING, Cover to Housing	1	41	218725	SLEEVE, Oil Distributor—See Note "B" 1	
20	731742	BEARING, Pump Shaft — Rear	3	42		RING, Turbine Shaft Bearing Retaining (Select one at assembly)	
21		RING, Outer Washer Retaining (Select one at assembly)		42A	223997	±.095 to .097	—
21A	223959	±.057 to .059	—	42B	223998	±.098 to .100	—
21B	223960	±.060 to .062	—	42C	223999	±.101 to .103	—
21C	223961	±.063 to .065	—	42D	224000	±.104 to .106	—
21D	223962	±.066 to .068	—	43	223334	BEARING, Turbine Shaft	1
21E	223963	±.069 to .071	—	44	216555	STUD, Main Pump Mounting	4
21F	223964	±.072 to .074	—				

‡As Required

Note "A": On machine serial numbers 3HG329 thru 3HG362, 3HG364, 3HG365, 3HG369 and 3HG371, when replacing 222023 Oil Baffle use 218721 (item 13) Oil Baffle and 1 — 214941 (item 14) Baffle Oil Seal must be used at same time. When replacing only 214143 Oil Baffle Seal use 214941 (item 14).

Note "B": On machine serial numbers 3HG329 thru 3HG362, 3HG364, 3HG365, 3HG369, 3HG371 when replacing 223568 Oil Distributor Sleeve use 218725 (item 41).

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

TORQUE CONVERTER ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
45	216594	GEAR, Turbine Shaft Drive	1	75	1C-612	BOLT, Oil Baffle Retaining	3
46	224120	RING, Drive Gear Retaining	1	76	616786	WASHER, Oil Baffle Retaining	3
47	223570	RING, Turbine Shaft Sealing	1	77	6E-06	LKWSHR, Oil Baffle Retaining	3
48	10J-08	BALL, Oil Distributor Lock	1	78	201623	PLATE, Conv. Housing Inspection	3
49	————	‡LOCKWIRE (18 ga.)	—	79	222019	PLATE, Impeller to Hub Bolt Lock	4
50	3C-820	BOLT, Support to Housing	8	80	1C-408	BOLT, Inspection Plate	6
51	675543	CUP, Output Shaft Bearing	2	81	4E-04	LKWSHR, Inspection Plate	6
52	100949	DEFLECTOR, Output Flange	1	82	60K-40700	"O" RING, Impeller to Hub	1
53	209587	SEAL, Output Shaft Oil	1	83	222221	BOLT, Impeller to Hub	8
54	222179	WASHER, Output Shaft	1	84	216094	HOUSING, Converter	1
55	205928	NUT, Output Shaft	1	85	222266	HUB, Impeller	1
56	1F-436	COTTER, Output Shaft Nut	1	86	222263	TURBINE, Converter	1
57	222026	SHAFT, Output	1	87	222261	DRIVE DISC ASSY (Inc. 97)	1
58	25K-60116	"O" RING, Output Shaft	1	88	226595	GEAR, Converter Drive	1
59	222028	FLANGE ASSY, Output (Inc. 52)	1	89	222003	GEAR, Converter Driven	1
60	206770	STUD, Output Shaft Bearing Cap	4	90	3C-818	BOLT, Driven Gear to Drive Disc	12
61	2D-08	NUT, Output Shaft Bearing Cap	4	91	————	‡LOCKWIRE (18 ga.)	—
62	4E-08	LKWSHR, Output Shaft Bearing Cap	4	92	209673	RING, Converter Support Sealing	1
63	209588	CAP, Output Shaft Bearing	1	93	302602	PIN, Reaction Member Spacer Roll	1
64	209589	‡SHIM, Bearing Cap — .004	—	94	711161	RING, Reaction Member Hub Ret.	1
64A	209590	‡SHIM, Bearing Cap — .007	—	95	223859	RING, Drive Disc Bearing Retaining	1
64B	209591	‡SHIM, Bearing Cap — .010	—	96	224061	RING, Turbine Hub Retaining	2
65	216595	GEAR, Output Shaft Driven	1	97	222006	SLEEVE, Drive Disc	1
66	13F-20	PLUG, Housing Drain	1	98	801236	SHAFT, Turbine (Inc. 46)	1
67	731283	CONE, Output Shaft Bearing	2	99	222007	HUB, Turbine	1
68	1C-722	BOLT, Cover to Housing	12	100	223387	BEARING, Drive Disc	1
69	4E-07	LKWSHR, Cover to Housing	12	101	222223	BOLT, Turbine to Hub	8
70	223900	RING, Front Bearing Retaining	1	102	222008	PLATE, Turbine to Hub Lock	4
71	222027	BAFFLE, Rear Bearing Oil	1	103	218723	SUPPORT ASSY, Conv. (Inc. 41, 48) — See Note "C"	1
72	222031	TUBE, Output Shaft Oil	1	104	218782	SPACER, Reaction Member	1
73	40K-02	PLUG, Lube Line	1	105	801007	*REACTION MEMBER & HUB ASSY (Inc. 93, 104) — See Note "D"	1
74	218777	"O" RING, Oil Baffle	1				

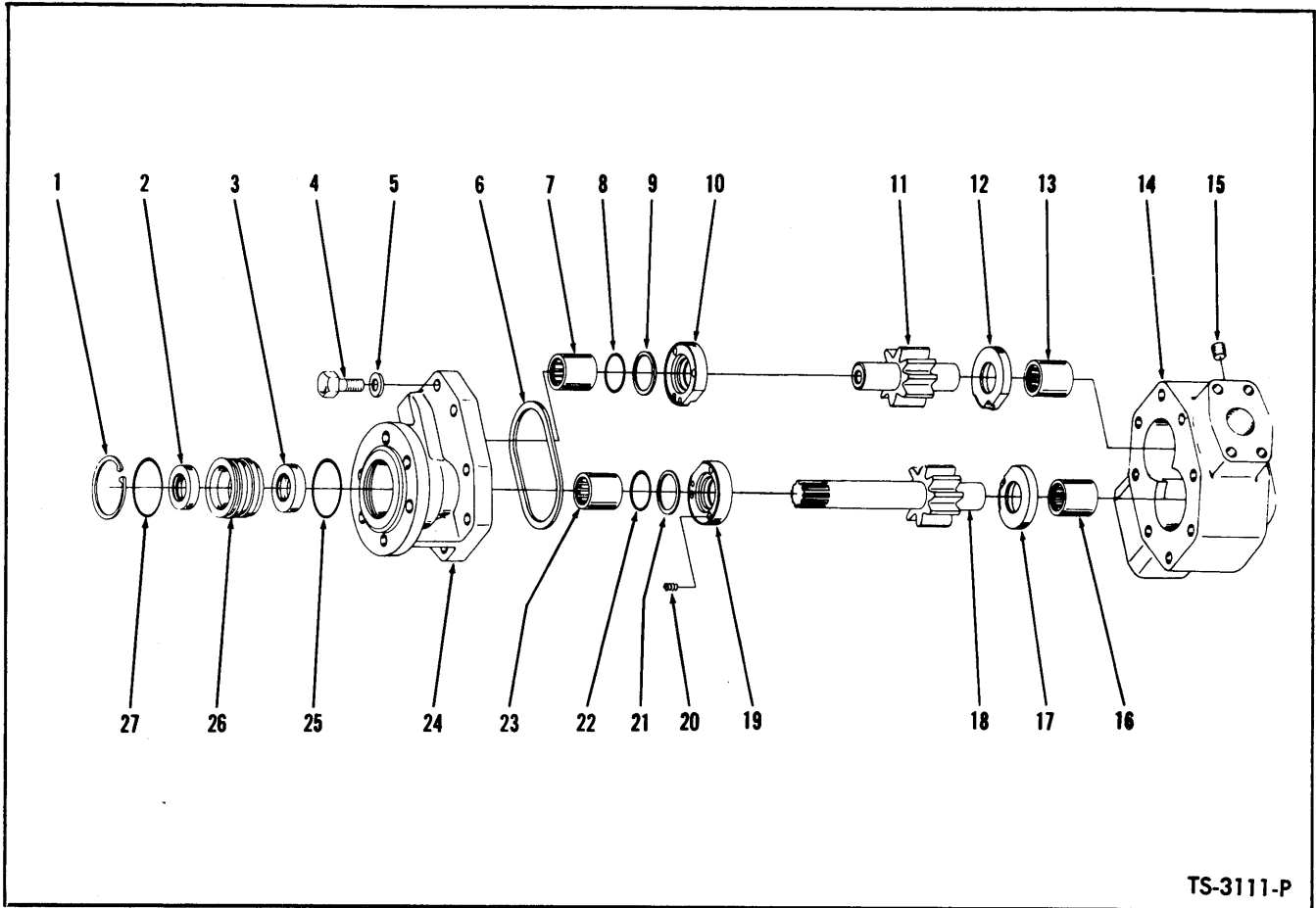
‡As Required

Note "C": On machine serial numbers 3HG329 thru 3HG362, 3HG364, 3HG365, 3HG369, 3HG371 when replacing 223569 Support Assembly use 218723 (item 103).

Note "D": On machine serial numbers 3HG329 thru 3HG362, 3HG364, 3HG365, 3HG369, 3HG371, 222626 Reaction Member Hub will be serviced. The 222264 Reaction Member will not be serviced. If replacement of 222264 Reaction Member is necessary use 801007 Reaction Member and Hub Assembly, consisting of 1 — one-piece Reaction Member and Hub, 1 — 218782 Reaction Member Spacer, 1 — 302602 Roll Pin.

*NOTE: On machine serial numbers 3HG329 thru 3HG362, 3HG364, 3HG365, 3HG369, 3HG371, 2 — 223965 Locating Rings are used to retain Reaction Member Hub to Reaction Member.

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



TS-3111-P

HYDRAULIC PUMP – CONVERTER CHARGING

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	450133	PUMP ASSY (Inc. 1 thru 27)	1	13	§** BEARING, Body – Driven	1	
B	498160	REPAIR KIT, Major (Inc. 10, 12, 17, 19)	1	14	§** BODY	1	
C	498159	*REPAIR KIT, Minor (Inc. 1, 4, 5, 6, 8, 9, 20, 21, 22, 25, 27)	1	15	§ PLUG, Body	1	
D	498019	GEAR SET, Drive & Driven (Inc. 11, 18)	1	16	§** BEARING, Body – Drive	1	
E	498113	REPAIR KIT, Shaft Seal (Inc. 1, 2, 3, 25, 26, 27)	1	17	§ THRUST PLATE, Body	1	
1	---	§RING, Seal Retainer Retaining	1	18	§ GEAR, Drive	1	
2	---	§SEAL, Outer Shaft Oil	1	19	§ THRUST PLATE, Cover	1	
3	---	§SEAL, Inner Shaft Oil	1	20	§ SPRING, Cover Thrust Plate	1	
4	---	§BOLT, Cover to Body	8	21	§ WASHER, "O" Ring Back-Up	1	
5	---	§ WASHER, Cover to Body	8	22	§ "O" RING, Cover Thrust Plate	1	
6	---	§ GASKET, Cover to Body	1	23	§** BEARING, Cover – Drive	1	
7	---	§** BEARING, Cover – Driven	1	24	§** COVER	1	
8	---	§ "O" RING, Cover Thrust Plate	1	25	§ "O" RING, Retainer	1	
9	---	§RING, "O" Ring Back-Up	1	26	§ RETAINER, Shaft Seal	1	
10	---	§ THRUST PLATE, Cover	1	27	§ "O" RING, Retainer	1	
11	---	§ GEAR, Driven	1	28	221992 † SLEEVE, Pump to Converter	1	
12	---	§ THRUST PLATE, Body	1	29	235961 † GASKET, Pump to Converter	1	
				30	4E-06 † LKWSHR, Pump to Converter	6	
				31	8D-06 † NUT, Pump to Converter	6	

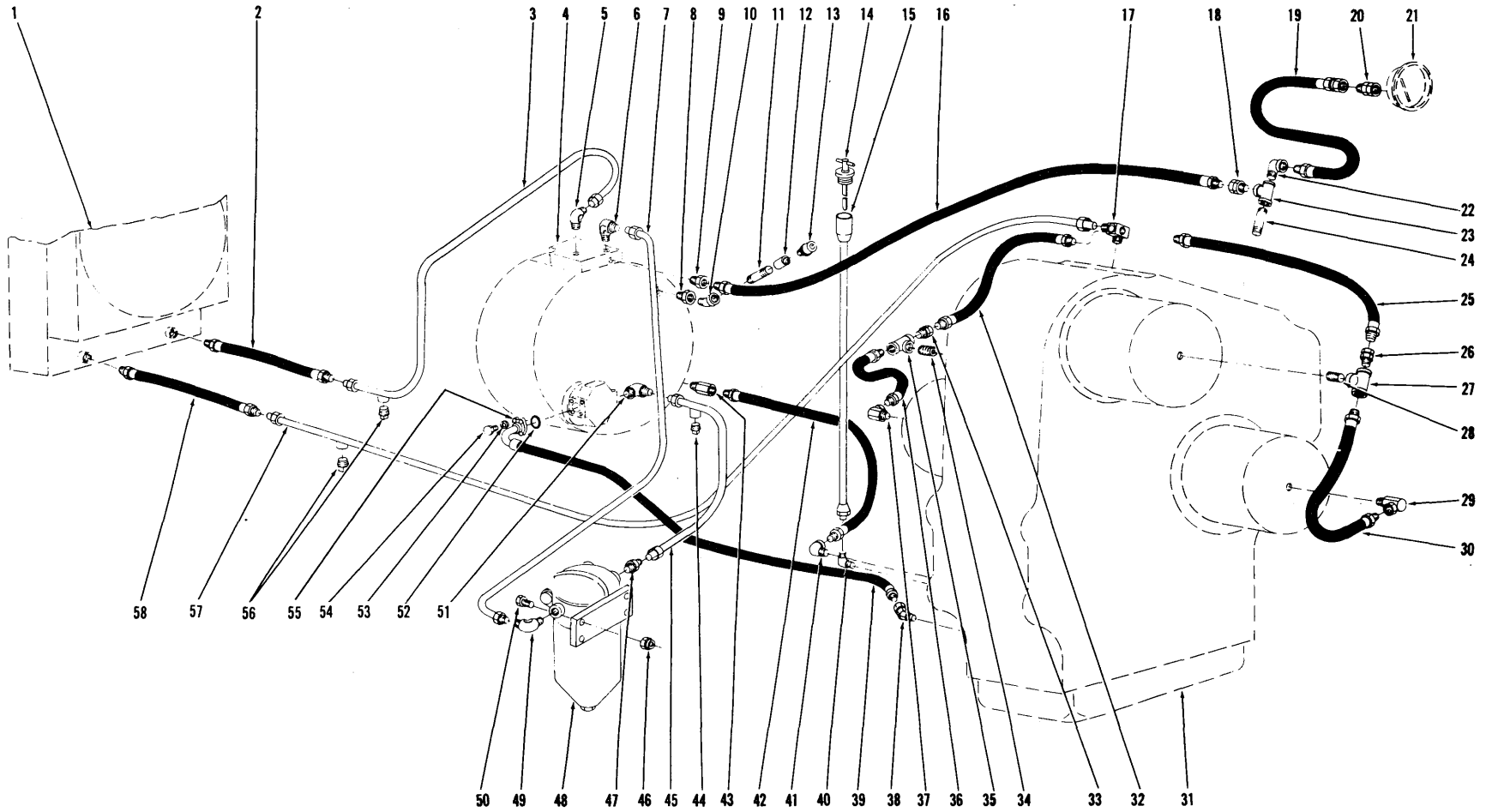
†Not Illustrated

§Not Sold Separately

*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.

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



HYDRAULIC SYSTEM — TRANSMISSION AND TORQUE CONVERTER

TS-2904-P

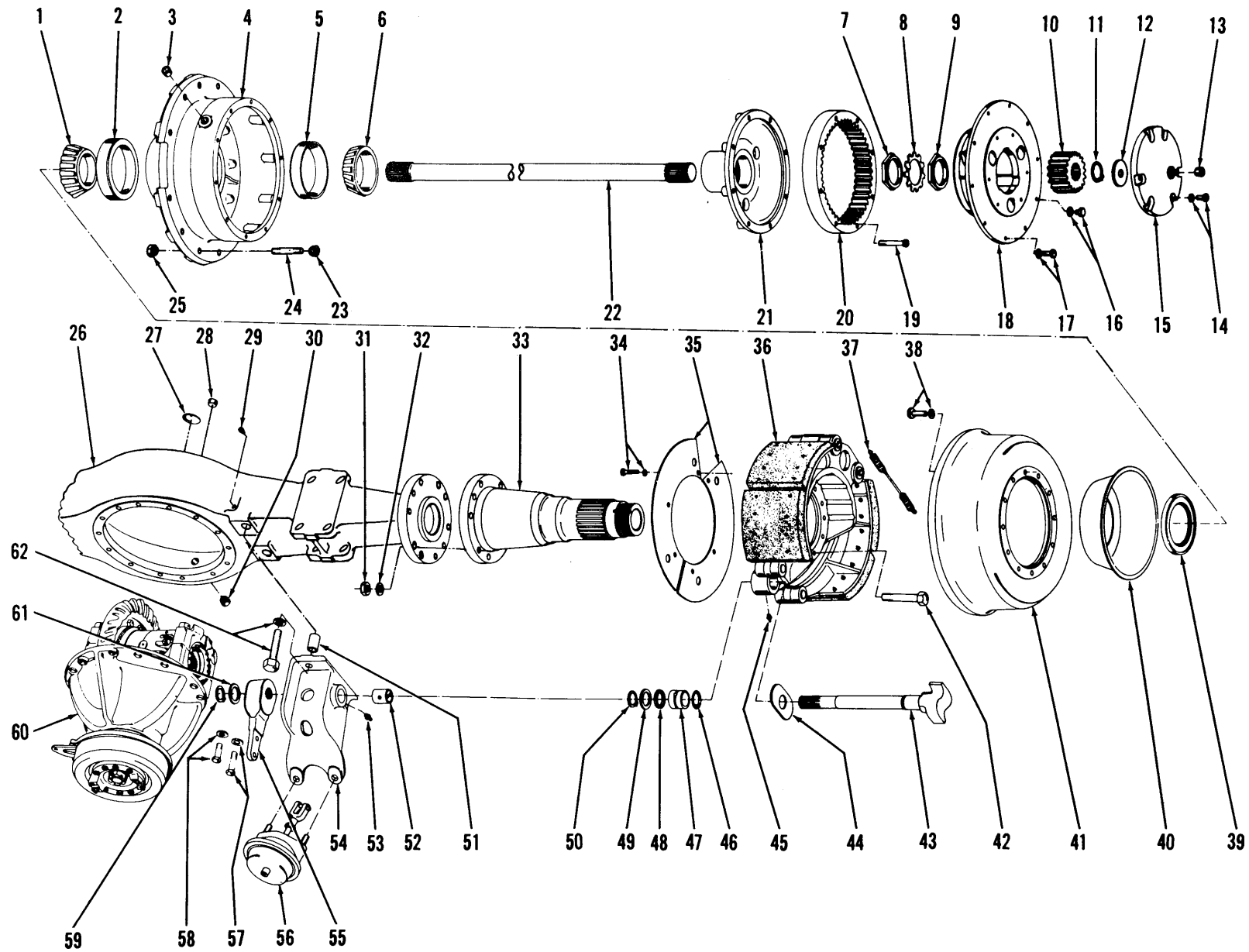
TRANSMISSION AND TORQUE CONVERTER HYDRAULIC SYSTEM

**For Serial: Cummins — 4HC102 and after
G.M. — 4HG101 and after**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	----	RADIATOR — See Index	—	29	31F-2	ADAPTER UNION	1
2	541362	HOSE, Cooler Line to Radiator	1	30	536794	HOSE, Forward to 2nd & 4th Clutch ...	1
3	539900	LINE, Cooler — Converter to Radiator..	1	31	----	TRANSMISSION — See Index	—
4	----	CONVERTER — See Index	—	32	536766	HOSE, Junction Block to 1st & 3rd Clutch	1
4A	19F-16	†*BUSHING, Check Valve to Conv.	1	33	36F-2	ADAPTER UNION	1
4B	227265	†*CHECK VALVE	1	34	5K-207	NIPPLE, Tee to Transmission	1
4C	211433	†*BREATHER, Converter	1	35	18F-2	TEE, Hose to Upper Clutches	1
5	83F-10	ELBOW, Cooler Line to Converter	1	36	536795	HOSE, Tee to Reverse Clutch	1
6	83F-9	ELBOW, Filter Outlet Line to Converter	1	37	31F-2	ADAPTER UNION	1
7	542877	LINE, Filter Outlet	1	38	33F-7	ADAPTER UNION	1
8	356629	BUSHING, Reducing — Elbow to Converter	1	39	542879	HOSE, Transmission to Pump — Suction	1
9	356618	BUSHING, Reducing — Pressure Hose to Converter	1	40	42F-10	ELBOW, Dipstick Tube to Trans.	1
10	25F-3	ELBOW, Nipple to Bushing	1	41	26F-6	ELBOW, Hose to Transmission	1
11	5K-324	NIPPLE, Coupling to Elbow	1	42	582305	HOSE, Converter to Transmission — Drain	1
12	75F-3	COUPLING, Breather to Nipple	1	43	661418	ADAPTER UNION	1
13	104942	BREATHER, Converter	1	44	13F-04	PLUG, Pipe	1
14	541768	DIPSTICK	1	45	542876	LINE, Pump to Filter	1
15	541767	TUBE, Dipstick	1	46	18D-06	NUT, Filter Mounting	4
16	539762	HOSE, Clutch Pressure	1	47	89F-9	CONNECTOR, Line to Filter	1
17	534640	JUNCTION BLOCK, Transmission	1	48	1533615	FILTER, Transmission & Converter Oil (Inc. 48A)	1
18	711186	ADAPTER UNION	1	48A	215502	†CARTRIDGE KIT, Filter	1
19	541822	HOSE, Pressure Gauge	1	49	83F-9	ELBOW, Line to Filter	1
20	39F-4	CONNECTOR, Pressure Hose to Gauge	1	50	18C-628	BOLT, Filter Mounting	4
21	----	GAUGE, Clutch Pressure — See Instrument Panel	—	51	83F-9	ELBOW, Line to Pump	1
22	26F-2	ELBOW, Pressure Hose to Tee	1	52	58K-222	“O” RING, Hose to Pump	1
23	18F-2	TEE, Hose to Transmission	1	53	4E-07	LKWSHR, Flange Half to Pump	4
24	5K-220	NIPPLE, Tee to Transmission	1	54	17C-724	BOLT, Flange Half to Pump	4
25	536794	HOSE, Junction Block to Forward Clutch	1	55	19J20	FLANGE HALF, Hose to Pump	2
26	36F-2	ADAPTER UNION	1	56	13F-08	PLUG, Pipe	2
27	18F-2	TEE, Forward Clutch	1	57	541415	LINE, Cooler — Radiator to Transmission	1
28	5K-207	NIPPLE, Tee to Clutch Cover	1	58	541362	HOSE, Cooler Line to Radiator	1
				59	551323	†SENDER UNIT, Converter Temp.	1

†Not Illustrated

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



AXLE ASSEMBLY — FRONT DRIVE

TS-3015-P

34.1

(1B1)

PM 1654

AXLE ASSEMBLY—FRONT DRIVE

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	130998	§AXLE ASSY (Inc. 1 thru 62A)See B	1	35	118041	COVER, Brake Dust	4
1	127819	CONE, Inner Hub Bearing	2	35A	112695	†PLATE, Dust Cover	2
2	774024	CUP, Inner Hub Bearing	2	36	-----	FRONT BRAKE ASSY — See Index	—
3	11F-12	PLUG, Hub Filler	2	37	110814	SPRING, Brake Shoe Return	2
4	815754	KIT, Hub & Bolt (Inc. 2, 5)—See No See Note A	2	38	17C1024	BOLT, Brake Drum to Hub	24
5	742262	CUP, Outer Hub Bearing	2	38A	104412	WASHER, Brake Drum to Hub	24
6	742263	CONE, Outer Hub Bearing	2	39	125248	SEAL, Hub Oil	2
7	110559	NUT, Inner Spindle	2	40	106221	CATCHER, Oil	2
8	118786	LOCK, Spindle Nut	2	41	118805	DRUM, Brake	2
9	110559	NUT, Outer Spindle	2	42	18C-1064	BOLT, Spindle and Brake Attaching	20
10	110556	GEAR, Sun	2	43	111703	CAM SHAFT — R.H.	1
11	224066	RING, Sun Gear Retaining	2	43A	111702	CAM SHAFT — L.H.	1
12	106457	WASHER, Sun Gear Thrust	2	44	107735	WASHER, Cam Shaft Thrust	2
13	11F-12	PLUG, Thrust Cap	2	45	14H-15	FITTING, Brake Spider Grease	2
14	1C-720	BOLT, Thrust Cap	12	46	25K-60124	“O” RING, Cam Shaft	2
14A	112278	WASHER, Thrust Cap	12	47	107739	BUSHING, Brake Spider	2
15	815565	**THRUST CAP KIT	2	48	11E-135	RETAINER, Brake Spider Grease	2
16	1C-808	BOLT, Planet Puller Hole	4	49	107736	WASHER, Cam Shaft	2
16A	3E-08	LKWSHR, Planet Puller Hole	4	50	660516	RING, Washer Retaining	1
17	100970	BOLT, Planet Carrier to Hub	20	51	110941	SPACER, Air Chamber Bracket	4
17A	106762	WASHER, Planet Carrier to Hub	20	52	102189	BUSHING, Air Chamber Bracket	4
18	-----	PLANET CARRIER — See Index	—	53	10H-25	FITTING, Air Chamber Bracket Grease	2
19	110624	BOLT, Internal Gear to Hub	16	54	107632	BRACKET ASSY, Air Chamber — R.H. (Inc. 52)	1
20	110622	GEAR, Internal	2	54A	107631	BRACKET ASSY, Air Chamber — L.H. (Inc. 52)	1
21	110553	HUB, Internal Gear	2	55	104052	*ADJUSTER, Slack—B.W. 222816	2
22	111701	AXLE SHAFT	2	56	112767	*AIR CHAMBER (Inc. 56A—) B.W. 277024	2
23	103522	NUT, Wheel	20	56A	952109	†DIAPHRAGM, Air Chamber	2
24	103445	STUD, Wheel	20	57	17C-1028	BOLT, Carrier to Axle Housing	10
25	86D12	NUT, Wheel Stud	20	57A	104412	WASHER, Carrier to Axle Housing	10
26	111700	HOUSING, Axle	1	58	124158	BOLT, Carrier to Axle Housing	4
27	12F-204	PLUG, Housing Expansion	1	58A	104412	WASHER, Carrier to Axle Housing	4
28	11F-12	PLUG, Housing Filler	1	59	659764	RING, Slack Adjuster Retaining	2
29	121214	BREATHER, Axle Housing	1	60	-----	DIFFERENTIAL & CARRIER ASSY — See Index	—
30	11F-12	PLUG, Housing Drain	1	60A	110607	†GASKET, Carrier to Housing	1
31	106998	NUT, Spindle and Brake Attaching	20	61	107010	WASHER, Slack Adjuster Retaining	2
32	104412	WASHER, Spindle and Brake Attaching	20	62	1C-1056	BOLT, Air Chamber Bracket	4
33	119852	***SPINDLE, Assy	2	62A	4E-10	LKWSHR, Air Chamber Bracket	4
34	1C-612	BOLT, Dust Cover	4				
34A	1C-616	†BOLT, Dust Cover	4				
34B	4E-06	LKWSHR, Dust Cover	8				

†Not Illustrated

*NOTE: Your local authorized Bendix-Westinghouse Distributor is equipped to service the component parts.

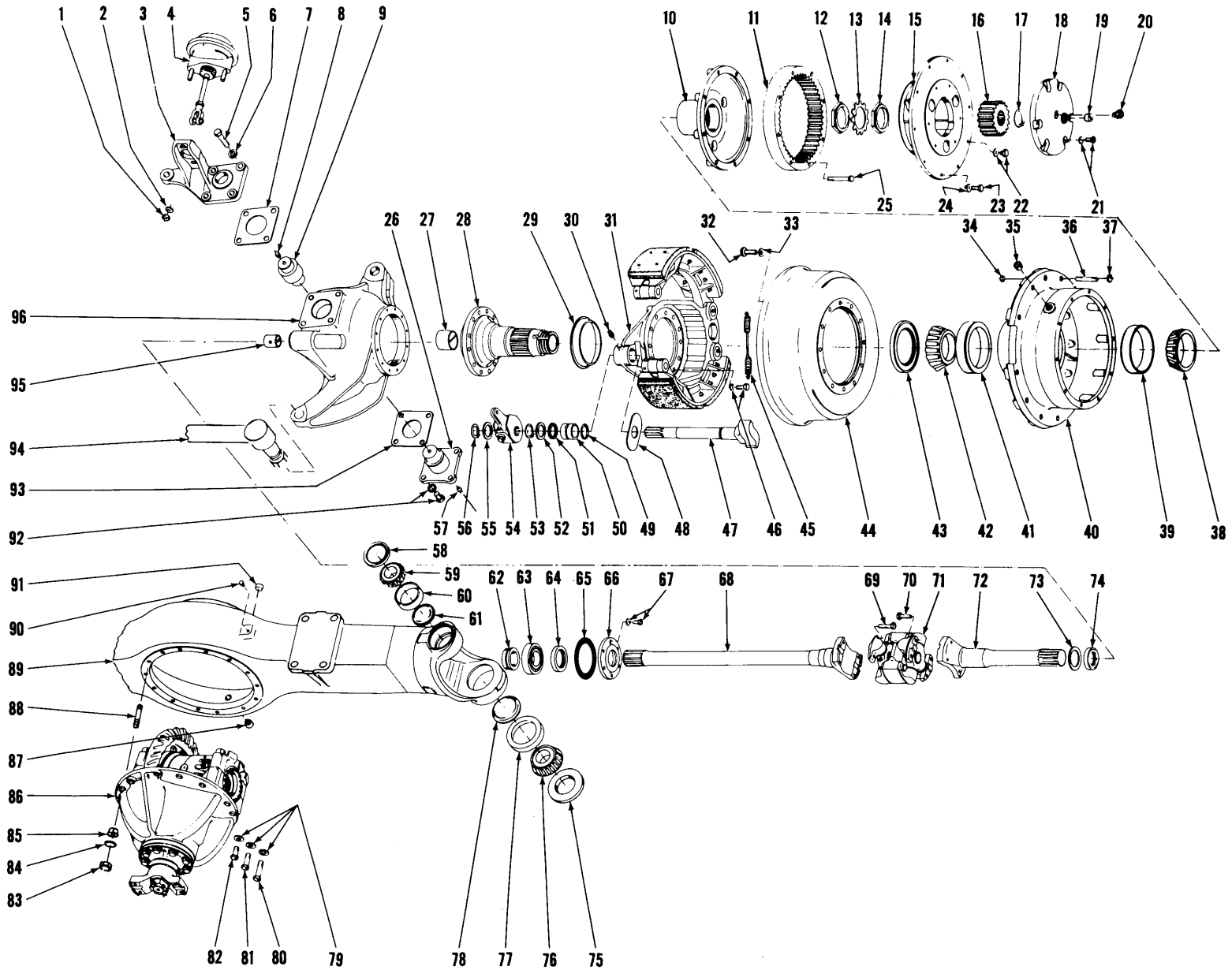
**NOTE: 815565 Thrust Cap Kit consist of 1—113289 Thrust Cap, 6—112278 Washer, 1—113292 O-Ring.

***NOTE: For replacement use 816023 Kit which consists of 1—123945 Spindle & 1—123947 Sleeve.

NOTE "A": When replacing original Hub with 815754 Kit you must also use 1—117445, Oil Catcher.

NOTE "B": For replacement service with components.

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



AXLE ASSEMBLY - REAR DRIVE STEER
For Serial No. G.M. 3HG101 thru 3HG999, 4HG101 thru 4HG178

TS-3121-P

AXLE ASSEMBLY — REAR DRIVE STEER

For Serial: G.M. — 3HG101 thru 3HG999, 4HG101 thru 3HG178

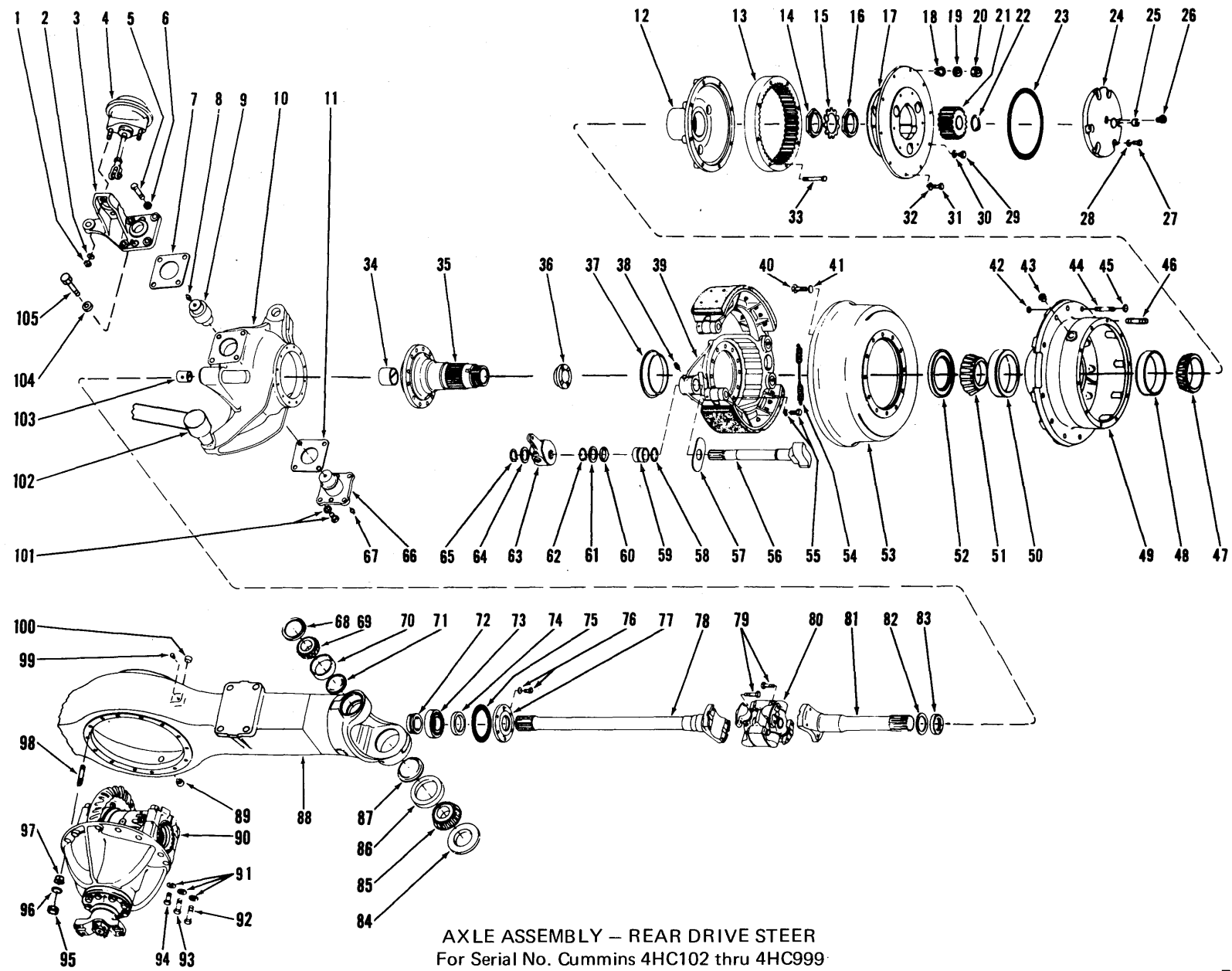
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	131197	AXLE ASSY (Inc. 1 thru 96)	1	51	11E-135	RETAINER, Cam Shaft Grease	2
1	8D-10	NUT, Air Chamber to Bracket	4	52	107736	WASHER, Cam Shaft Retaining	2
2	4E10	LKWSHR, Air Chamber to Bracket	4	53	660516	RING, Cam Shaft Retaining	2
3	110962	BRACKET, Air Chamber — R.H.	1	54	107247	*ADJUSTER, Slack—B.W. 222485	2
3A	111634	BRACKET, Air Chamber — L.H.	1	55	107010	WASHER, Slack Adjuster Retaining	2
4	110203	*CHAMBER, Air (Inc. 4A) B.W. 229346	2	56	659764	RING, Slack Adjuster Retaining	2
4A	952109	DIAPHRAGM, Air Chamber	2	57	10H-25	FITTING, Lower Trunnion Grease	2
5	17C-1232	BOLT, Air Chamber Bracket	8	58	112050	SEAL, Upper Trunnion Oil	2
6	4E-12	LKWSHR, Air Chamber Bracket	8	59	856071	CONE, Upper Trunnion Bearing	2
7	127636	SHIM, Air Chamber Bracket—.010"	—	60	662738	CUP, Upper Trunnion Bearing	2
7A	127637	SHIM, Air Chamber Bracket—.007"	—	61	106291	RETAINER, Upper Trunnion Oil	2
7B	127638	SHIM, Air Chamber Bracket—.004"	—	62	109931	SLEEVE, Axle Shaft	2
8	10H-25	FITTING, Upper Trunnion Grease	2	63	214596	BEARING, Axle Shaft	2
9	110906	TRUNNION, Steering — Upper	2	64	110897	SEAL, Axle Shaft Oil	2
10	110553	HUB, Internal Gear	2	65	108663	GASKET, Bearing Retainer	2
11	110622	GEAR, Internal	2	66	119366	RETAINER, Axle Shaft Bearing	2
12	110559	NUT, Inner Spindle	2	67	1C-620	BOLT, Bearing Retainer	12
13	118786	LOCK, Spindle Nut	2	67A	4E-06	LKWSHR, Bearing Retainer	12
14	110559	NUT, Outer Spindle	2	68	110959	SHAFT, Axle	2
15	—	PLANET CARRIER — See Index	—	69	18C-836	BOLT, U-Joint to Axle Shaft	8
16	106232	GEAR, Sun	2	70	18C-836	BOLT, U-Joint to Wheel Shaft	8
17	224023	RING, Sun Gear Retaining	2	71	124652	U-JOINT ASSY (Inc. 71A, 71B, 71C, 71D)	2
18	815564	KIT, Thrust Cap	2	71A	960111	†SPIDER & BEARING (Inc. 71D, 71E)	4
19	11F-12	PLUG, Thrust Cap	2	71B	944718	†COUPLING PLATE	2
20	111805	VALVE, Relief	2	71C	18C-834	†BOLT, Spider & Brg. to Coupling Plate	16
21	1C-720	BOLT, Thrust Cap	12	71D	1300452	†FITTING, Spider Grease	4
21A	4E-07	LKWSHR, Thrust Cap	12	71E	—	‡SEAL, Spider Grease — See A	16
22	1C-808	BOLT, Planet Puller Hole Plug	4	72	110960	SHAFT, Wheel	2
22A	3E-08	LKWSHR, Planet Puller Hole Plug	4	73	110899	WASHER, Wheel Shaft Oil Seal	2
23	100970	BOLT, Planet Carrier to Hub	20	74	110898	SEAL, Wheel Shaft Oil	2
24	106762	WASHER, Planet Carrier to Hub	20	75	112049	SEAL, Lower Trunnion Oil	2
25	110624	BOLT, Internal Gear to Hub	16	76	784295	CONE, Lower Trunnion Bearing	2
26	110905	TRUNNION, Steering—Lower	2	77	784296	CUP, Lower Trunnion Bearing	2
27	110890	BUSHING, Spindle	2	78	108665	RETAINER, Lower Trunnion Oil	2
28	117500	SPINDLE ASSY (Inc. 27)	2	79	106547	WASHER, Carrier to Axle Housing	11
29	110942	CATCHER, Oil	2	80	17C-940	BOLT, Carrier to Housing — 2½" Long	2
30	12H-15	FITTING, Spider Grease	2	81	17C-932	BOLT, Carrier to Housing — 2" Long	2
31	—	BRAKE ASSY — See Index	—	82	17C-928	BOLT, Carrier to Housing — 1¾" Long	7
32	17C1024	BOLT, Drum to Hub	24	83	2D-09	NUT, Carrier to Housing	3
33	104412	WASHER, Drum to Hub	24	84	106547	WASHER, Carrier to Housing	3
34	86D12	NUT, Wheel Stud	20	85	112295	DOWEL, Carrier to Housing	3
35	11F-12	PLUG, Hub Filler	2	86	—	DIFF. & CARRIER ASSY — See Index	—
36	103445	STUD, Wheel	20	87	11F-12	PLUG, Housing Drain	1
37	103522	NUT, Wheel	20	88	112294	STUD, Carrier to Housing	3
38	742263	CONE, Outer Hub Bearing	2	89	110953	HOUSING, Axle	1
39	742262	CUP, Outer Hub Bearing	2	90	106656	BREATHER, Axle Housing	1
40	815754	KIT HUB, Bolt (Inc. 39, 41)	2	91	11F-12	PLUG, Housing Filler	1
41	774024	CUP, Inner Hub Bearing	2	92	17C-1232	BOLT, Lower Trunnion	8
42	127819	CONE, Inner Hub Bearing	2	92A	4E-12	LKWSHR, Lower Trunnion	8
43	125248	SEAL, Hub Oil	2	93	127636	‡SHIM, Lower Trunnion — .010	—
44	112662	DRUM, Brake	2	93A	127637	‡SHIM, Lower Trunnion — .007	—
45	112215	SPRING, Brake Shoe Return	2	93B	127638	‡SHIM, Lower Trunnion — .004	—
46	110958	BOLT, Spindle & Brake Attaching	24	94	—	TIE ROD ASSY — See Index	—
46A	104412	WASHER, Spindle & Brake Attaching	24	95	102189	BUSHING, Spindle Support	2
47	110984	CAM SHAFT — R.H.	1	96	110954	SUPPORT ASSY, R.H. Spindle (In. 95)	1
47A	110965	CAM SHAFT — L.H.	1	96A	110955	SUPPORT ASSY, L.H. Spindle (Inc. 95)	1
48	107735	WASHER, Cam Shaft Thrust	2	97	10H-25	†FITTING, Support Grease	2
49	25K-60124	"O" RING, Cam Shaft	2				
50	107739	BUSHING, Brake Spider	2				

*NOTE: Your local authorized Bendix-Westinghouse Distributor is equipped to service the component parts.

‡As Required

†Not Illustrated

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



AXLE ASSEMBLY - REAR DRIVE STEER
For Serial No. Cummins 4HC102 thru 4HC999
For Serial No. G.M. 4HG179 thru 4HG999

TS-5041-P

36A.1

(1B7)

PM 1654

AXLE ASSEMBLY — REAR DRIVE STEER
For Serial: Cummins — 4HC102 thru 4HC999
G.M. — 4HG179 thru 4HG999

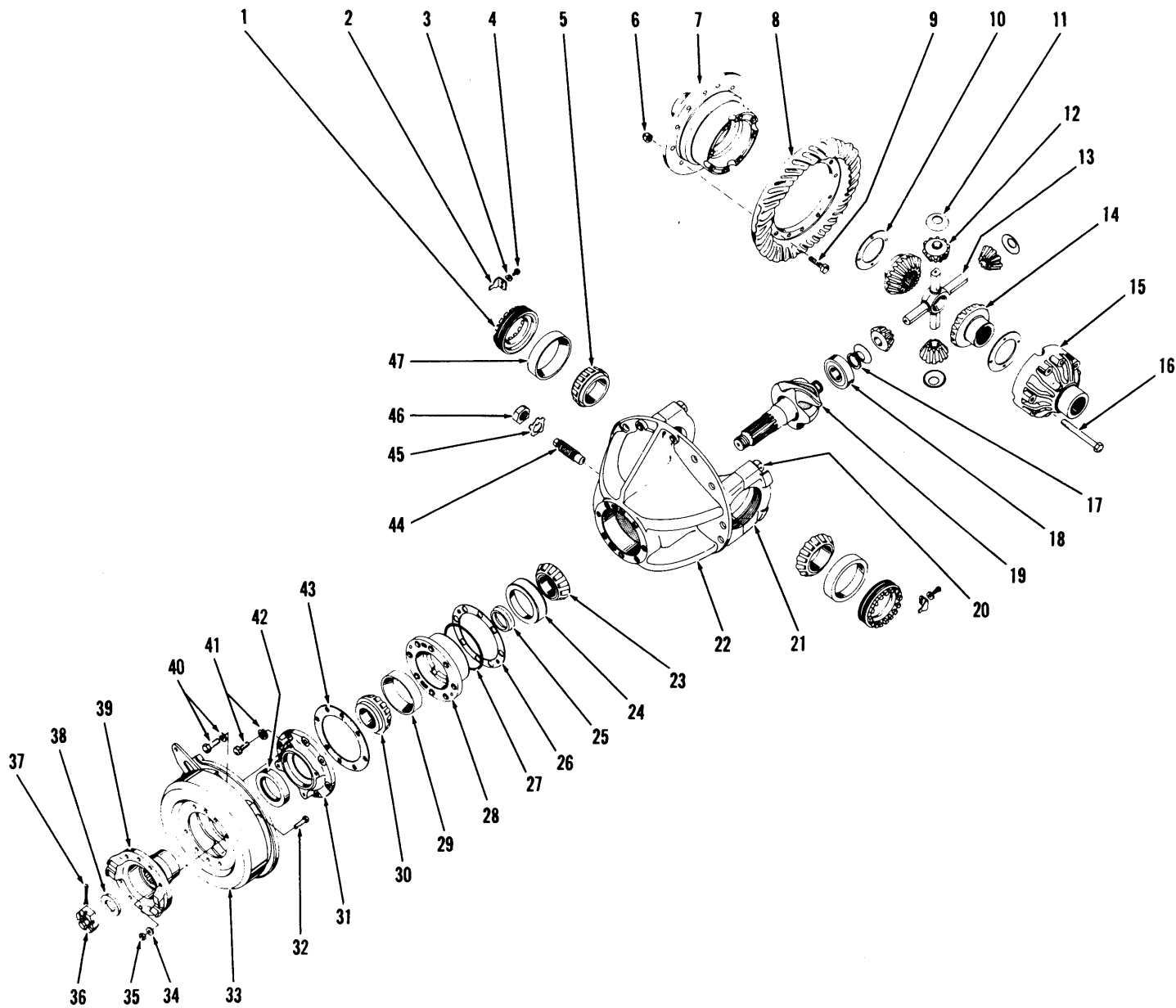
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	131715	§**AXLE ASSY (Inc. 1 thru 105)	1	53	112662	DRUM, Brake	2
1	8D-10	NUT, Air Chamber to Bracket	4	54	112215	SPRING, Brake Shoe Return	2
2	4E-10	LKWSHR, Air Chamber to Bracket	4	55	110958	BOLT, Spindle & Brake Attaching	24
3	111634	BRACKET, Air Chamber — L.H.	1	55A	104412	WASHER, Spindle & Brake Attaching	24
3A	110962	†BRACKET, Air Chamber — R.H.	1	56	110965	CAM SHAFT — L.H.	1
4	110203	*CHAMBER, Air (Inc. 4A) B.W. #227548	2	56A	110984	†CAM SHAFT — R.H.	1
4A	952109	†DIAPHRAGM, Air Chamber — B.W. #234100	2	57	107735	WASHER, Cam Shaft Thrust	2
5	17C-1232	BOLT, Air Chamber Bracket	8	58	25K-60124	"O" RING, Cam Shaft Thrust	2
6	4E-12	LKWSHR, Air Chamber Bracket	8	59	107739	BUSHING, Brake Spider	2
7	127636	‡SHIM, Air Chamber Bracket — .004"	—	60	11E-135	RETAINER, Cam Shaft Grease	2
7A	127637	‡SHIM, Air Chamber Bracket — .007"	—	61	107736	WASHER, Cam Shaft Retaining	2
7B	127638	‡SHIM, Air Chamber Bracket — .010"	—	62	660516	RING, Cam Shaft Retaining	2
8	10H-25	FITTING, Upper Trunnion Grease	2	63	104052	*ADJUSTER, Slack — B.W. #222816	2
9	110906	TRUNNION, Steering — Upper	2	64	107010	WASHER, Slack Adjuster Retaining	2
10	110955	SUPPORT ASSY, L.H. Spindle (Inc. 103)	1	65	659764	RING, Slack Adjuster Retaining	2
10A	110954	†SUPPORT ASSY, R.H. Spindle (Inc. 103)	1	66	110905	TRUNNION, Steering Lower	2
11	127636	‡SHIM, Lower Trunnion — .004"	—	67	10H-25	FITTING, Lower Trunnion Grease	2
11A	127637	‡SHIM, Lower Trunnion — .007"	—	68	112050	SEAL, Upper Trunnion Oil	2
11B	127638	‡SHIM, Lower Trunnion — .010"	—	69	856071	CONE, Upper Trunnion Bearing	2
12	110553	HUB, Internal Gear	2	70	662738	CUP, Upper Trunnion Bearing	2
13	110622	GEAR, Internal	2	71	106291	RETAINER, Upper Trunnion Oil	2
14	110559	NUT, Inner Spindle	2	72	109931	SLEEVE, Axle Shaft	2
15	118786	LOCK, Spindle Nut	2	73	214596	BEARING, Axle Shaft	2
16	110559	NUT, Outer Spindle	2	74	110897	SEAL, Axle Shaft Oil	2
17	—	PLANET CARRIER — See Index	—	75	108663	GASKET, Bearing Retainer	2
18	112287	DOWEL, Carrier to Hub	10	76	1C-620	BOLT, Bearing Retainer	12
19	106762	WASHER, Carrier to Hub	10	76A	4E-06	LKWSHR, Bearing Retainer	12
20	64D-08	NUT, Carrier to Hub	10	77	119366	RETAINER, Axle Shaft Bearing	2
21	106232	GEAR, Sun	2	78	110959	SHAFT, Axle	2
22	224023	RING, Sun Gear Retaining	2	79	18C-836	BOLT, U-Joint to Shafts	16
23	113292	"O" RING, Thrust Cap	2	80	124652	U-JOINT ASSY (Inc. 80A, 80B, 80C, 80D, 80E)	2
24	815564	THRUST CAP KIT (Inc. 23, 25, 28)	2	80A	960111	†SPIDER & BEARING (Inc. 80D, 80E)	4
25	11F-12	PLUG, Thrust Cap	2	80B	944718	†COUPLING PLATE	2
26	111805	VALVE, Relief	2	80C	18C-834	†BOLT, Spider & Brg. to Coupling Plate	16
27	1C-720	BOLT, Thrust Cap	12	80D	1300452	†FITTING, Spider Grease	4
28	112278	LKWSHR, Thrust Cap	12	80E	—	§†SEAL, Spider Grease — See A	16
29	1C-808	BOLT, Planet Puller Hole Plug	4	81	110960	SHAFT, Wheel	2
30	3E-08	LKWSHR, Planet Puller Hole Plug	4	82	110899	WASHER, Wheel Shaft Oil Seal	2
31	100970	BOLT, Planet Carrier to Hub	10	83	110898	SEAL, Wheel Shaft Oil	2
32	106762	WASHER, Planet Carrier to Hub	10	84	112049	SEAL, Lower Trunnion Bearing	2
33	110624	BOLT, Internal Gear to Hub	16	85	784295	CONE, Lower Trunnion Bearing	2
34	110890	BUSHING, Spindle	2	86	784296	CUP, Lower Trunnion Bearing	2
35	117500	SPINDLE ASSY (Inc. 34)	2	87	108665	RETAINER, Lower Trunnion Oil	2
36	128315	RING, Sun Gear Thrust	2	88	110953	HOUSING, Axle	1
37	110942	CATCHER, Oil	2	89	11F-12	PLUG, Housing Drain	1
38	12H-15	FITTING, Spider Grease	2	90	—	DIFF. & CARRIER ASSY — See Index	1
39	—	BRAKE ASSY — See Index	—	91	106547	WASHER, Carrier to Axle Housing	11
40	17C1024	BOLT, Drum to Hub	24	92	17C-940	BOLT, Carrier to Housing — 2½" long	2
41	104412	WASHER, Drum to Hub	24	93	17C-932	BOLT, Carrier to Housing — 2" long	2
42	86D12	NUT, Wheel Stud	20	94	17C-928	BOLT, Carrier to Housing — 1¾" long	7
43	11F-12	PLUG, Hub Filler	2	95	64D-09	NUT, Carrier to Housing	3
44	103445	STUD, Wheel	20	96	106547	WASHER, Carrier to Housing	3
45	103522	NUT, Wheel	20	97	112295	DOWEL, Carrier to Housing	3
46	116419	STUD, Hub	10	98	112294	STUD, Carrier to Housing	3
47	742263	CONE, Outer Hub Bearing	2	99	106656	BREATHER, Axle Housing	1
48	742262	CUP, Outer Hub Bearing	2	100	11F-12	PLUG, Housing Filler	1
49	815754	HUB ASSY (Inc. 48, 50)	2	101	17C-1232	BOLT, Lower Trunnion	8
50	774024	CUP, Inner Hub Bearing	2	101A	4E-12	LKWSHR, Lower Trunnion	8
51	127819	CONE, Inner Hub Bearing	2	102	—	TIE ROD ASSY — See Index	—
52	125248	SEAL, Hub Oil	2	103	102189	BUSHING, Spindle Support	2
				104	4E-10	LKWSHR, Upper & Lower Trunnion Puller	8
				105	1C-1008	BOLT, Upper & Lower Trunnion Puller	8

†Not Illustrated

‡As Required

**NOTE: For replacement service with components.

*Your local authorized Bendix-Westinghouse Distributor is equipped to service components of these parts.



DIFFERENTIAL AND CARRIER ASSEMBLY — FRONT DRIVE

TS-3040-P

38.1

(1B10)

PM 1654

DIFFERENTIAL AND CARRIER ASSEMBLY – FRONT DRIVE

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	815812	**DIFF. & CARRIER ASSY (Inc. 1 thru 47)	1	26B	125574	‡SHIM, Pinion Bearing Cage – .010	—
1	123749	NUT, Differential Adjusting	2	27	25K-40616	“O” RING, Pinion Bearing Cage	1
2	100941	LOCK, Diff. Adjusting Nut	2	28	111691	CAGE ASSY, Pinion Bearing (Inc. 24, 29)	1
3	4E-06	LKWSHR, Diff. Adjusting Nut Lock	2	29	774198	CUP, Outer Pinion Bearing	1
4	3C-614	BOLT, Diff. Adjusting Nut Lock	2	30	774197	CONE, Outer Pinion Bearing	1
5	742261	CONE, Differential Bearing	2	31	111695	RETAINER, Pinion Oil Seal	1
6	86D-10	NUT, Ring Gear Bolt	12	32	104471	BOLT, Brake Drum to Flange	8
7	—	§DIFF. CASE – Flange Half – See 51	1	33	—	PARKING BRAKE ASSY – See Index	—
8	—	§RING GEAR – See 50	1	33A	107481	†DRUM, Parking Brake	1
9	110522	BOLT, Ring Gear	12	34	4E-07	LKWSHR, Brake Drum to Flange	8
10	110531	WASHER, Side Gear Thrust	2	35	2D-07	NUT, Brake Drum to Flange	8
11	110530	WASHER, Diff. Pinion Thrust	4	36	107977	NUT, Pinion Shaft	1
12	815747	*KIT, Differential Pinion	1	37	1F-748	COTTER, Pinion Shaft Nut	1
13	110529	SPIDER, Differential	1	38	107978	WASHER, Pinion Shaft Nut	1
14	110528	GEAR, Differential Side	2	39	111694	FLANGE, Companion	1
15	—	§DIFF. CASE – Plain Half – See 51	1	40	1C-924	BOLT, Brake Attaching	4
16	110532	BOLT, Diff. Case	8	40A	4E-09	LKWSHR, Brake Attaching	4
17	224083	RING, Inner Pinion Bearing Retaining	1	41	1C-1036	BOLT, Oil Seal Retainer	8
18	774199	BEARING, Inner Pinion	1	41A	4E-10	LKWSHR, Oil Seal Retainer	8
19	—	§PINION – See 50	1	42	111750	SEAL, Pinion Oil	1
20	110536	BOLT, Diff. Carrier Cap	4	43	110541	GASKET, Oil Seal Retainer, See “A”	1
20A	111658	†WASHER, Diff. Carrier Cap	4	44	110548	SCREW, Differential Thrust	1
21	—	§CAP, Differential Carrier – See 22	2	45	101227	LOCK, Thrust Screw Nut	1
22	110533	**CARRIER ASSY, Diff. (Inc. 20, 20A & 21)	1	46	8D-18	NUT, Diff. Thrust Screw	1
23	710034	CONE, Center Pinion Bearing	1	47	675255	CUP, Differential Bearing	2
24	710035	CUP, Center Pinion Bearing	1	48	110518	DIFFERENTIAL ASSY (Inc. 6 thru 16, 19)	1
25	815377	SPACER KIT, Pinion Bearing	1	49	119431	DIFF. BODY SUB-ASSY (Inc. 7, 10 thru 15)	1
26	110543	‡SHIM, Pinion Bearing Cage – .004	—	50	110519	GEAR & PINION SET (Inc. 8, 19)	1
26A	125573	‡SHIM, Pinion Bearing Cage – .007	—	51	815786	DIFF. CASE KIT (Inc. 7, 15)	—

§Not Sold Separately

†Not Illustrated

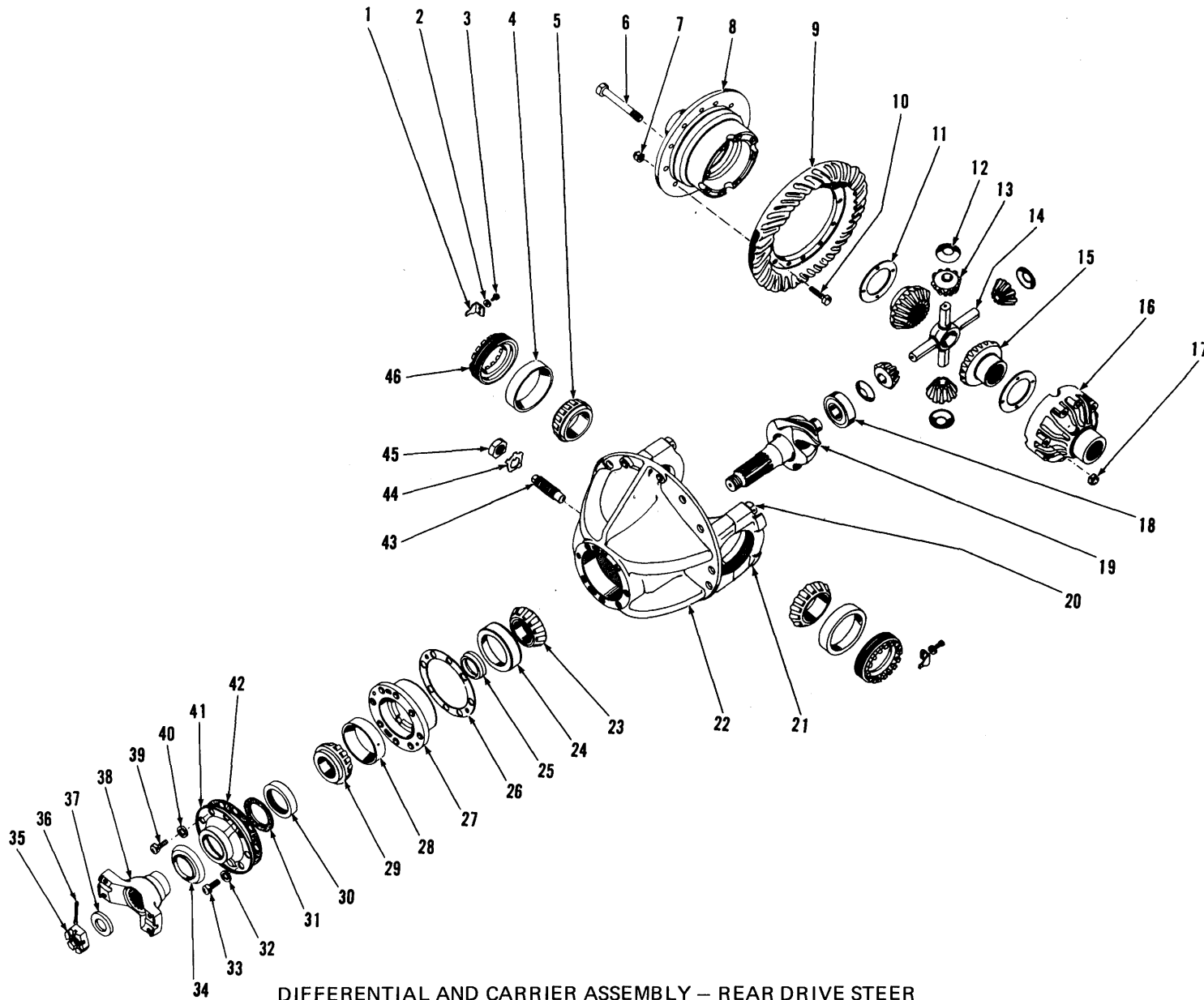
‡As Required

*NOTE: 815747 Kit consists of 4–110527 Differential Pinions.

**NOTE: 815812 & 815780 Kits also include 4–117336 Studs, 4–119141 Dowell Pins, 4–64D-10 Nuts, for mounting.

NOTE “A”: For replacement use Loctite #277.

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



DIFFERENTIAL AND CARRIER ASSEMBLY – REAR DRIVE STEER
For Serial No.—G.M. 3HG101 thru 3HG999, 4HG102 thru 4HG178

TS-2649-P

40.1

(1B12)

PM 1654

DIFFERENTIAL AND CARRIER ASSEMBLY – REAR DRIVE STEER

For Serial: G.M. – 3HG101 thru 3HG999, 4HG102 thru 4HG178

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	112291	**DIFF. & CARRIER ASSY (Inc. 1 thru 50)	1	26A	125578	‡SHIM, Bearing Cage – .007"	—
1	100941	LOCK, Differential Adjusting Nut	2	26B	125579	‡SHIM, Bearing Cage – .010"	—
2	4E-06	LKWSHR, Adjusting Nut Lock	2	27	101211	CAGE ASSY, Pinion Bearing (Inc. 24, 28) See Note "A"	1
3	3C-614	BOLT, Adjusting Nut Lock	2	28	675259	CUP, Outer Pinion Bearing	1
4	675252	CUP, Differential Bearing	2	29	675260	CONE, Outer Pinion Bearing	1
5	675254	CONE, Differential Bearing	2	30	111721	SEAL, Pinion Oil	1
6	111353	BOLT, Differential Case	8	31	101217	GASKET, Pinion Oil Seal	1
7	86D-09	NUT, Ring Gear Bolt	12	32	4E-10	LKWSHR, Oil Seal Retainer	7
8	—	§DIFF. CASE – Flange Half – (See 50)	1	33	1C-1032	BOLT, Oil Seal Retainer	7
9	—	§RING GEAR – (See 49)	1	34	101222	DEFLECTOR, Pinion Dust	1
10	101196	BOLT, Ring Gear	12	35	101223	NUT, Pinion Shaft	1
11	118478	WASHER, Side Gear Thrust	2	36	1F-740	COTTER, Pinion Shaft Nut	1
12	111352	WASHER, Differential Pinion Thrust	4	37	101224	WASHER, Pinion Shaft Nut	1
13	101201	***PINION, Differential	4	38	106209	FLANGE, Companion	1
14	117105	SPIDER, Differential	1	39	1C-828	BOLT, Oil Seal Retainer Locating	1
15	106206	GEAR, Differential Side	2	40	4E-08	LKWSHR, Oil Seal Retainer Locating	1
16	—	§DIFF. CASE – Plain Half – (See 50)	1	41	101214	RETAINER, Pinion Oil Seal	1
17	86D-10	NUT, Differential Case Bolt	8	42	107483	GASKET, Oil Seal Retainer	1
18	675265	BEARING, Inner Pinion	1	43	101226	SCREW, Thrust	1
19	—	§PINION, Differential – (See 49)	1	44	101227	LOCK, Thrust Screw Nut	1
20	101210	BOLT, Differential Carrier Cap	4	45	8D-18	NUT, Thrust Screw	1
20A	111658	WASHER, Carrier Cap Bolt	4	46	123748	NUT, Differential Adjusting	1
21	—	§CAP, Differential Carrier – (See 22)	2	47	108815	DIFFERENTIAL ASSY (Inc. 6 thru 17, 19)	1
22	815521	*CARRIER ASSY, DIFF. (Inc. 20, 20A, 21)	1	48	111349	DIFF. BODY SUB ASSY (Inc. 6, 8, 11 thru 17)	1
23	675263	CONE, Center Pinion Bearing	1	49	815326	GEAR & PINION SET (Inc. 9, 19)	1
24	675262	CUP, Center Pinion Bearing	1	50	815396	DIFF. CASE KIT (Inc. 6, 8, 12, 16, 17)	1
25	815200	SPACER, Pinion Bearing	1				
26	114351	‡SHIM, Bearing Cage – .004"	—				

*NOTE: 815521 Kits also includes 7–17C-928 Bolts, 2–17C-932 Bolts, 2–17C-940 Bolts, 3–112294 Studs, 3–112295 Dowels, 3–2D-09 Nuts, 14–106547 Washers.

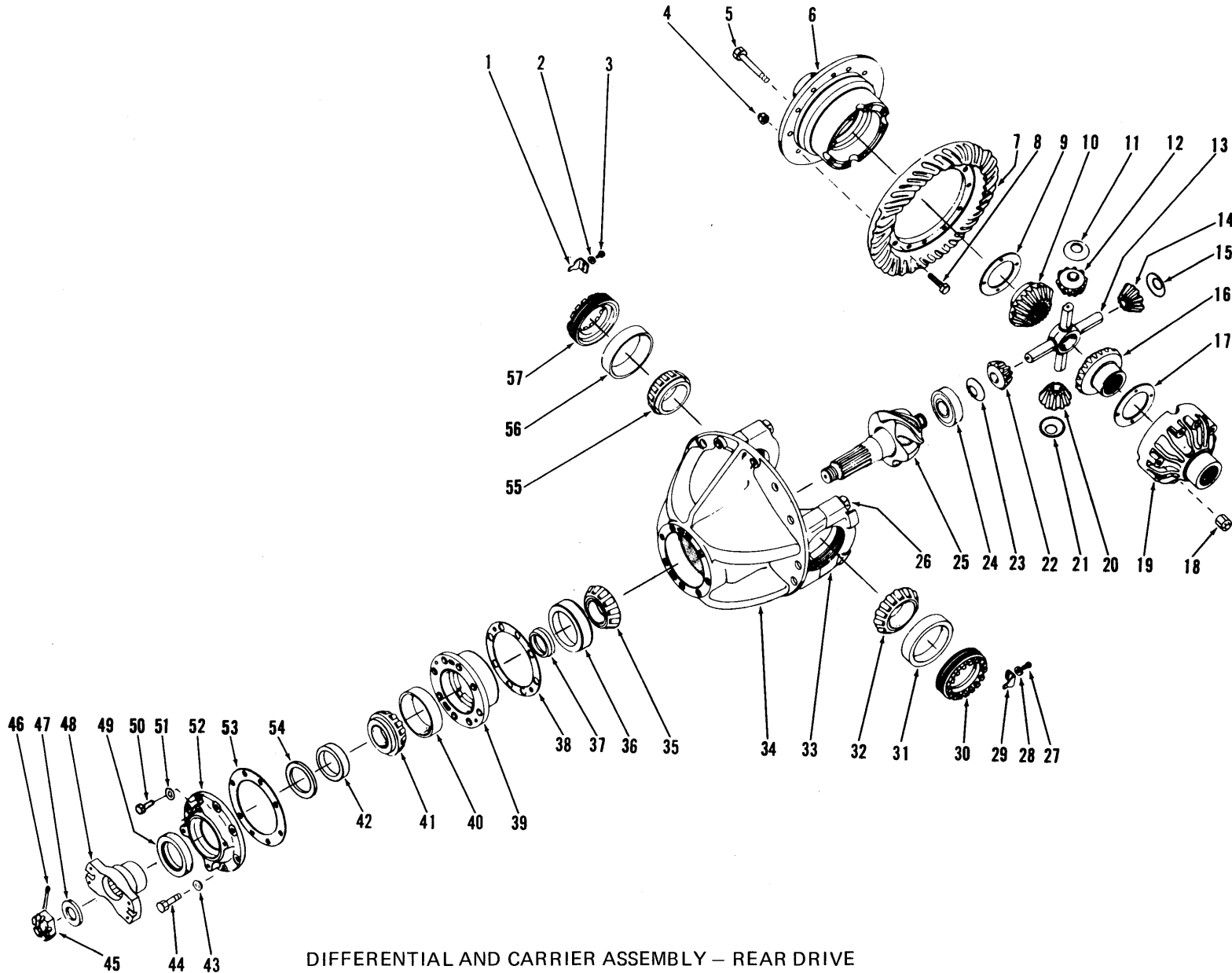
**NOTE: For complete replacement use 815511.

***NOTE: For replacement use 815746 Pinion Set, which consists of 4–117044 Differential Pinion.

NOTE "A": For replacement use 815987 Kit, which consists of 1–107477 Pinion Bearing Cage Assembly which consists of 1–107478 Bearing Cage, 1–675259 Bearing Cup, 1–655262 Bearing Cup; plus 1–122734 Pinion Oil Seal Retainer, 1–118068 Pinion Oil Seal.

§Not Sold Separately

‡As Required



DIFFERENTIAL AND CARRIER ASSEMBLY – REAR DRIVE

For Serial No. Cummins 4HC102 thru 4HC999
For Serial No. G.M. 4HG179 thru 4HG999

TS-5007-P

40A.1

(1C1)

PM 1654

CONSTRUCTION MACHINERY DIVISION
DIFFERENTIAL AND CARRIER ASSEMBLY — REAR DRIVE STEER
 For Serial: Cummins — 4HC102 thru 4HC999
 G.M. — 4HG179 thru 4HG999

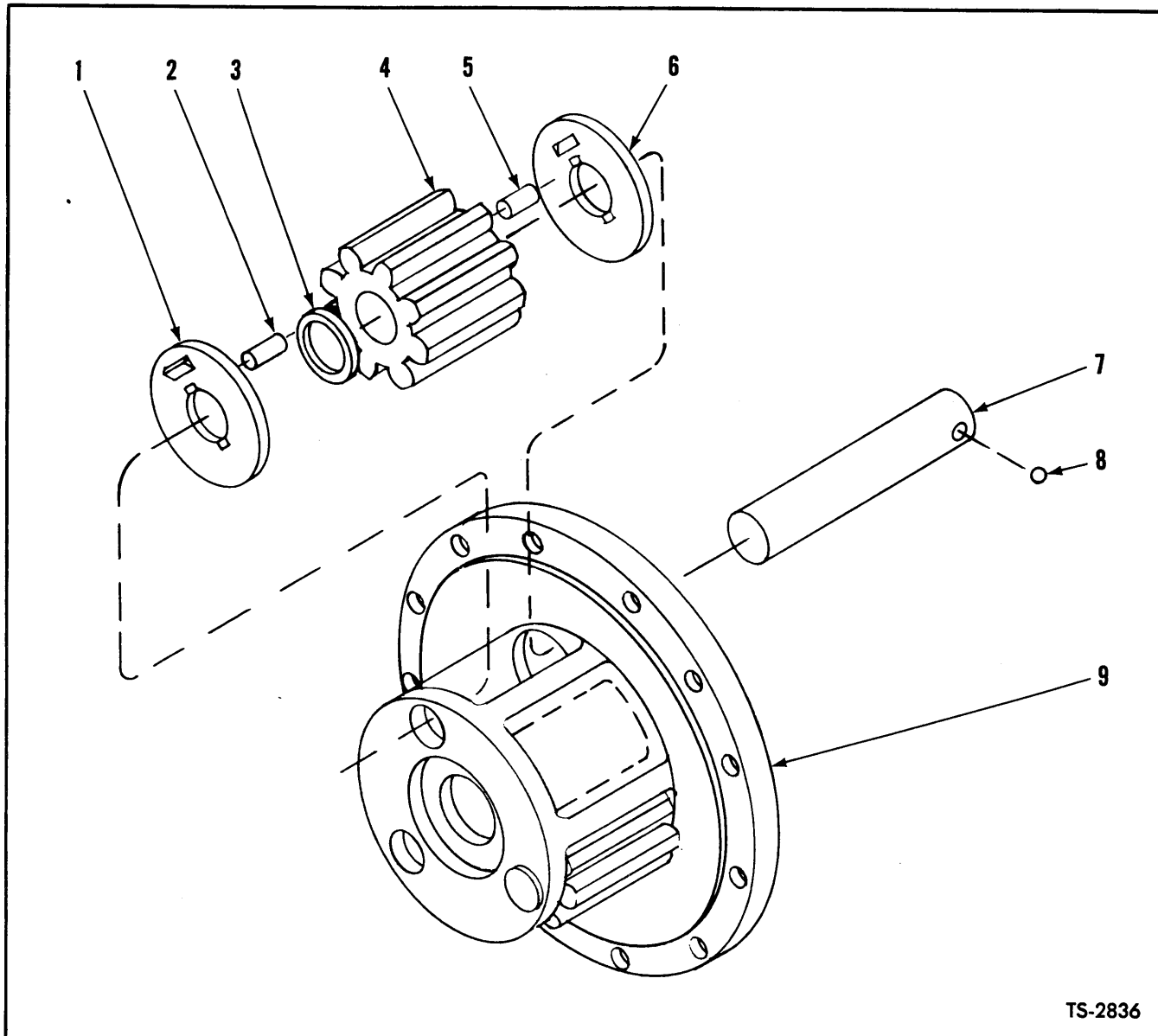
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	815511	DIFF. & CARRIER ASSY (Inc. 1 thru 57)	1	33	—	§CAP, Differential Carrier — See 34	2
1	100941	LOCK, Differential Adjusting Nut	1	34	815521	CARRIER ASSY, Diff. (Inc. 26, 26A, 33)	1
2	4E-06	LKWSHR, Adjusting Nut Lock	1	35	675263	CONE, Center Pinion Bearing	1
3	3C-614	BOLT, Adjusting Nut Lock	1	36	675262	CUP, Center Pinion Bearing	1
4	86D-09	NUT, Ring Gear Bolt	12	37	815200	SPACER, Pinion Bearing	1
5	111353	BOLT, Differential Case	8	38	114351	‡SHIM, Bearing Cage — .004"	—
6	—	§DIFF. CASE — Flange Half — See 61	1	38A	125578	‡SHIM, Bearing Cage — .007"	—
7	—	§RING GEAR — See 60	1	38B	125579	‡SHIM, Bearing Cage — .010"	—
8	101196	BOLT, Ring Gear	12	39	101211	*CAGE ASSY, Pinion Bearing (Inc. 36, 40)	1
9	117046	WASHER, Side Gear Thrust	1	40	675259	CUP, Outer Pinion Bearing	1
10	106206	GEAR, Differential Side	1	41	675260	CONE, Outer Pinion Bearing	1
11	101204	WASHER, Differential Pinion Thrust	1	42	111721	SEAL, Pinion Oil	1
12	815746	PINION, Differential (Inc. 14, 20, 22)	1	43	4E-10	LKWSHR, Oil Seal Retainer	7
13	117105	SPIDER, Differential	1	44	1C-1032	BOLT, Oil Seal Retainer	7
14	—	PINION, Differential—See 12	1	45	101223	NUT, Pinion Shaft	1
15	101204	WASHER, Differential Pinion Thrust	1	46	1F-740	COTTER, Pinion Shaft Nut	1
16	106206	GEAR, Differential Side	1	47	101224	WASHER, Pinion Shaft Nut	1
17	117046	WASHER, Side Gear Thrust	1	48	106209	FLANGE, Companion	1
18	86D-10	NUT, Differential Case	8	49	101222	DEFLECTOR, Pinion Dust	1
19	—	§DIFF. CASE — Plain Half — See 61	1	50	1C-828	BOLT, Oil Seal Retainer Locating	1
20	—	PINION, Differential — See 12	1	51	4E-08	LKWSHR, Oil Seal Retainer Locating	1
21	101204	WASHER, Differential Pinion Thrust	1	52	101214	RETAINER, Pinion Oil Seal	1
22	—	PINION, Differential — See 12	1	53	107483	GASKET, Oil Seal Retainer	1
23	101204	WASHER, Differential Pinion Thrust	1	54	101217	GASKET, Pinion Oil Seal	1
24	675265	BEARING, Inner Pinion	1	55	675254	CONE, Differential Bearing	1
25	—	§PINION, Differential — See 60	1	56	675252	CUP, Differential Bearing	1
26	101210	BOLT, Differential Carrier Cap	4	57	123748	NUT, Differential Adjusting	1
26A	111658	WASHER, Carrier Cap Bolt	4	58	117131	†DIFF. ASSY (Inc. 4 thru 23, 25)	1
27	3C-614	BOLT, Adjusting Nut Lock	1	59	117049	†DIFF. BODY SUB ASSY (Inc. 5, 6, 9 thru 23)	1
28	4E-06	LKWSHR, Adjusting Nut Lock	1	60	815326	†GEAR & PINION SET (Inc. 7, 25)	1
29	100941	LOCK, Differential Adjusting Nut	1	61	815676	†DIFF. CASE KIT (Inc. 6, 19)	1
30	123748	NUT, Differential Adjusting	1				
31	675252	CUP, Differential Bearing	1				
32	675254	CONE, Differential Bearing	1				

§Not Sold Separately

‡As Required

†Not Illustrated

*NOTE: For replacement use 815987 Kit, which consists of 1—107477 Pinion Bearing Cage Assembly which consists of 1—107478 Bearing Cage, 1—675259 Bearing Cup, 1—655262 Bearing Cup; plus 1—122734 Pinion Oil Seal Retainer, 1—118068 Pinion Oil Seal.



TS-2836

PLANET SPIDER ASSEMBLY

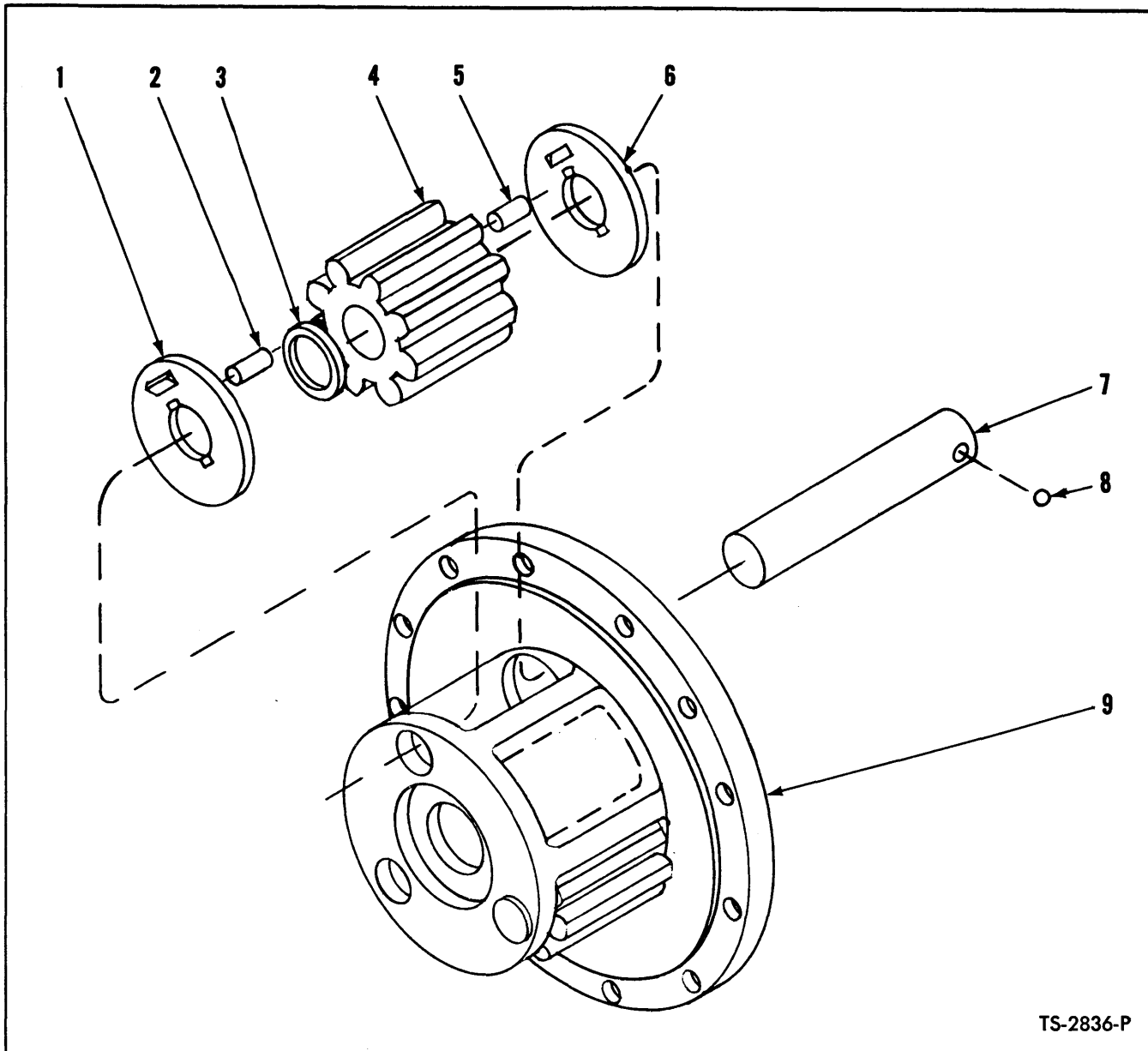
For Serial: G.M. — 3HG101 thru 3HG999, 4HG101 thru 4HG178

4 Planet Spiders Used on Machine — Quantities indicated below are for 1 Planet Spider

Item No.	Part No.	Description	No. Req'd.
A	945125	*PLANET SPIDER KIT (Inc. 1 thru 9).....	1
1	106357	WASHER, Pinion Thrust.....	3
2	106358	ROLLER, Pinion Needle.....	75
3	106359	SPACER, Pinion Roller.....	3
4	106356	PINION, Planet.....	3
5	106358	ROLLER, Pinion Needle.....	75
6	106357	WASHER, Pinion Thrust.....	3
7	106355	SHAFT, Pinion.....	3
8	10J-12	BALL, Pinion Shaft Lock.....	3
9	945126	*SPIDER KIT, Planet.....	1

*NOTE: 945125 & 945126 Kits also includes 5—113016 Studs, 5—112287 Dowels, 5—64D-08 Nuts and 5—106762 Washers.

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



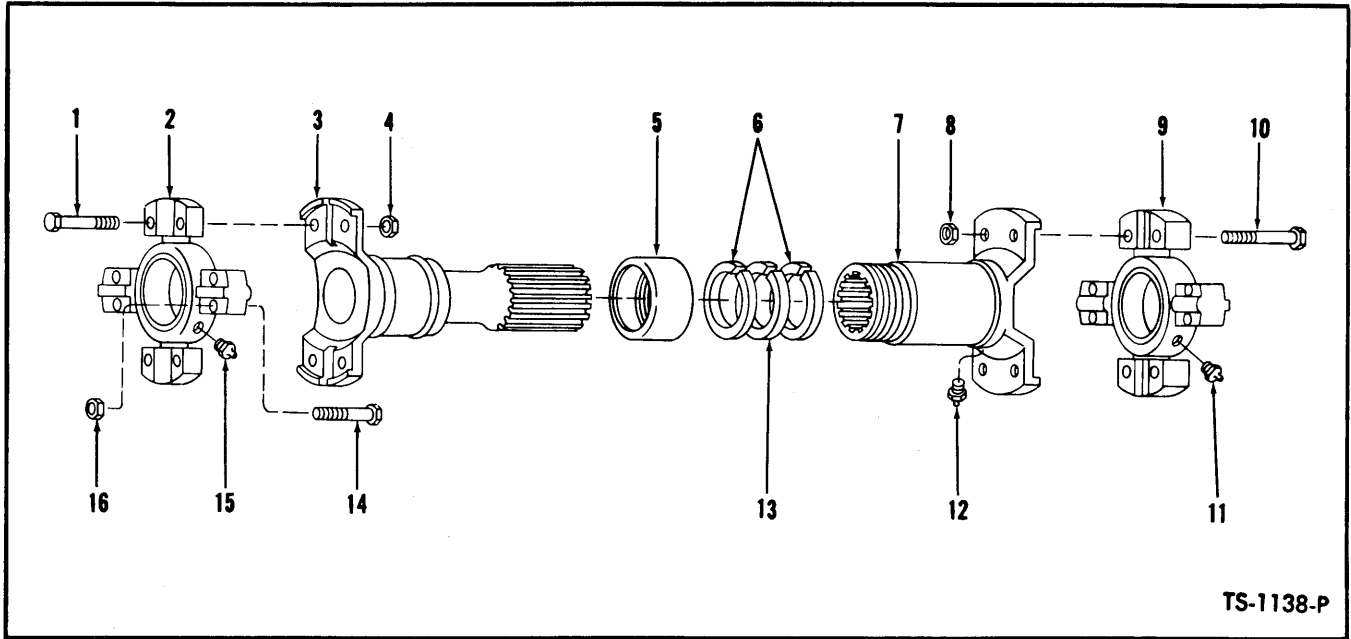
TS-2836-P

PLANET CARRIER ASSEMBLY
For Serial: Cummins - 4HC102 thru 4HC999
G.M. - 4HG179 thru 4HG999

2 Planet Carriers used on each Axle - Quantities indicated are for 1 Planet Carrier

Item No.	Part No.	Description	No. Req'd.
A	117502	PLANET CARRIER ASSY (Inc. 1 thru 9).....	1
1	106357	WASHER, Pinion Thrust	3
2	106358	ROLLER, Pinion Needle	75
3	106359	SPACER, Pinion Roller	3
4	106356	PINION, Planet	3
5	106358	ROLLER, Pinion Needle	75
6	106357	WASHER, Pinion Thrust	3
7	106355	SHAFT, Pinion	3
8	10J-12	BALL, Pinion Shaft Lock	3
9	117503	CARRIER, Planet	1

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



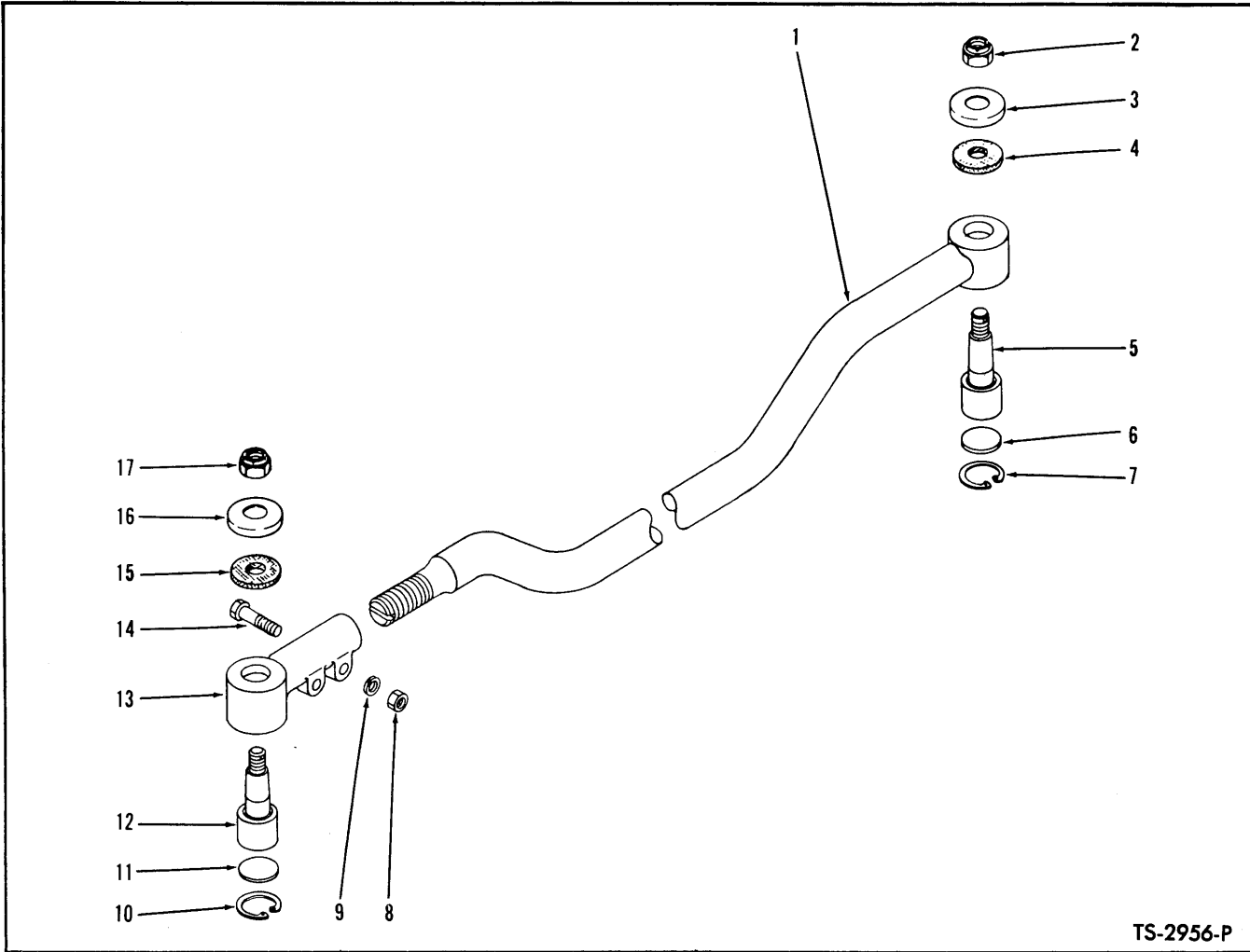
TS-1138-P

PROPELLER SHAFT ASSEMBLIES

ITEM No.	DESCRIPTION	No. REQ'D	CONVERTER TO TRANSMISSION	TRANSMISSION TO FRONT AXLE	TRANSMISSION TO REAR AXLE
A	PROP. SHAFT ASSY (Inc. 1 thru 16).....	1	539774	531025	1506669
1	BOLT, Spider & Brg. to Tube.....	4	18C632	940229	940229
2	SPIDER & BRG. ASSY (Inc. 2A).....	1	944862	941573	941573
3	TUBE	1	944860	944691	947396
4	NUT, Spider & Brg. to Tube.....	4	8D-06	8D-08	8D-08
5	RETAINER, Felt	1	940090	940256	940256
6	WASHER, Felt Retainer.....	2	940091	940257	940257
7	SLIP YOKE	1	940224	949471	949471
8	NUT, Spider & Brg. to Slip Yoke.....	4	8D-06	8D-08	8D-08
9	SPIDER & BRG. ASSY (Inc. 9A).....	1	944862	941573	941573
10	BOLT, Spider & Brg. to Slip Yoke.....	4	18C632	940229	940229
11	FITTING, Spider & Brg. Grease.....	1	10H-35	10H-35	10H-25
12	FITTING, Slip Yoke Grease.....	1	10H-25	10H-25	10H-25
13	FELT WASHER	1	940092	940259	940259
14	BOLT, Spider & Brg. Attaching.....	8	18C632	940229	940229
15	FITTING, Spider & Brg. Grease.....	1	10H-35	10H-35	10H-25
16	NUT, Spider & Brg. Attaching.....	8	8D-06	8D-08	8D-08

†Not Illustrated

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



TS-2956-P

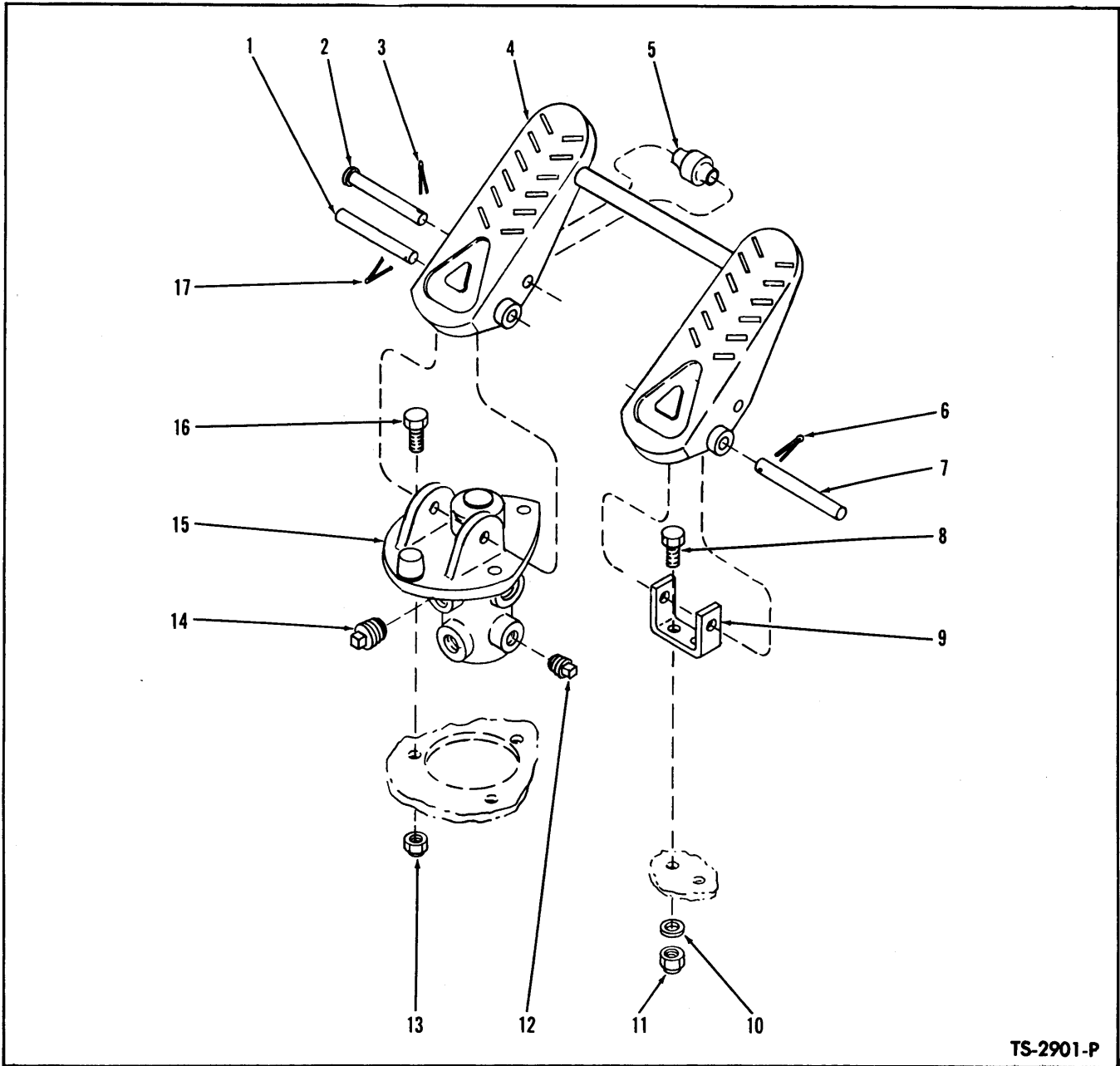
TIE ROD ASSEMBLY

Item No.	Part No.	Description	No. Req'd.
A	112341	TIE ROD ASSY (Inc. 1, 5 thru 14)	1
B	112344	END ASSY, Tie Rod (Inc. 8 thru 14)....	1
1	-----	§TIE ROD — See "A"	1
2	112175	NUT, Ball Stud	1
3	106267	RETAINER, Felt	1
4	106266	FELT, Ball Stud Dust	1
5	523461	BALL STUD	1
6	541880	PLATE, Ball Stud Retaining	1
7	661416	RING, Plate Retaining	1
8	2D-10	NUT, End to Tie Rod	2

Item No.	Part No.	Description	No. Req'd.
9	4E-10	LKWSHR, End to Tie Rod	2
10	661416	RING, Plate Retaining	1
11	541880	PLATE, Ball Stud Retaining	1
12	523461	BALL STUD	1
13	-----	§HOUSING, End — See "B"	1
14	2C-1040	BOLT, End to Tie Rod	2
15	106266	FELT, Ball Stud Dust	1
16	106267	RETAINER, Felt	1
17	112175	NUT, Ball Stud	1

§Not Sold Separately

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



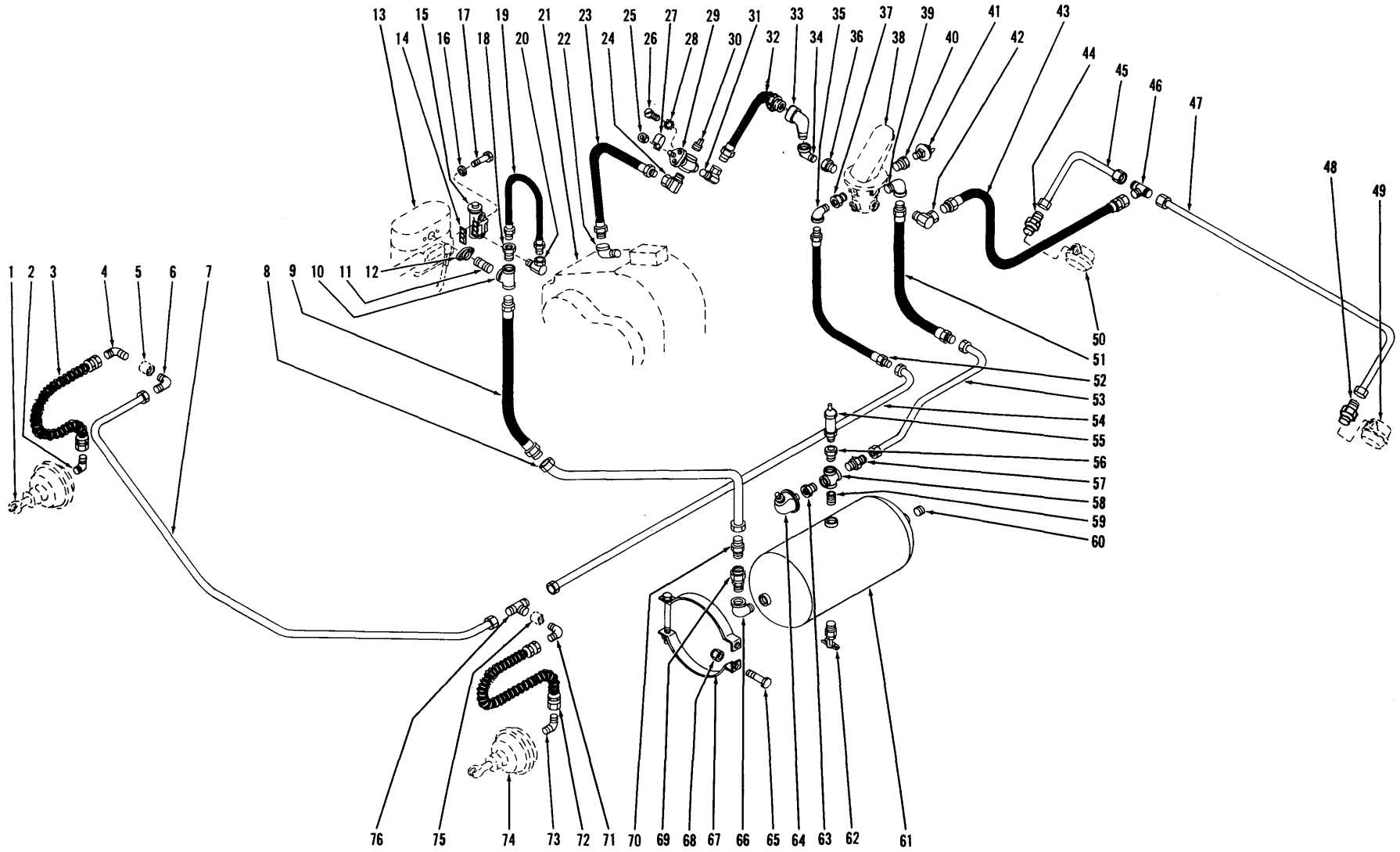
TS-2901-P

BRAKE CONTROLS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	875767	PIN, Pedal to Valve	1	10	25E-15	WASHER, Pedal to Base	1
2	875766	PIN, Roller to Pedal	1	11	18D-05	NUT, Base to Floorboard	2
3	1F-312	COTTER, Clevis Pin	1	12	13F-04	PLUG, Air Brake Valve	2
4	542255	PEDAL, Air Brake	1	13	18D-05	NUT, Valve to Floorboard	3
5	518259	ROLLER, Pedal	1	14	13F-08	PLUG, Air Brake Valve	1
6	1F-320	COTTER, Clevis Pin	1	15	945996	*VALVE, Air Brake—B.W. 277472 ..	1
7	875767	PIN, Pedal to Base	1	16	18C-516	BOLT, Valve to Floorboard	3
8	18C-516	BOLT, Base to Floorboard	2	17	1F-320	COTTER, Clevis Pin	1
9	513873	BASE, Pedal	1				

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

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



BRAKE AIR LINES - G.M.

TS-2928-P

46.1

(1D3)

PM 1654

BRAKE AIR LINES—G.M.

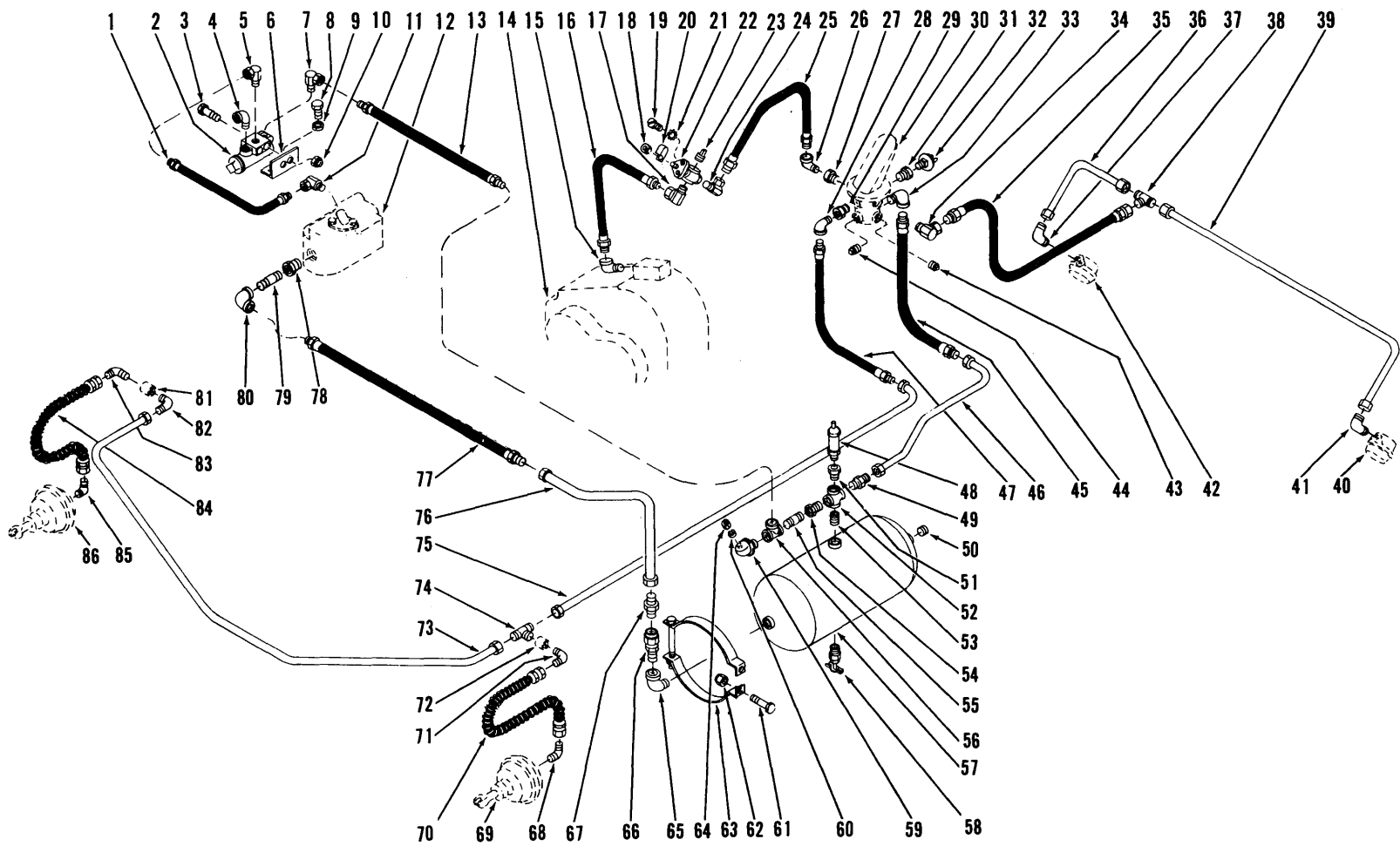
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	—	AIR CHAMBER — See Index	—	39	26F-4	ELBOW, Hose to Valve	1
2	42F-6	ELBOW, Hose to Air Chamber	1	40	356616	BUSHING, Reducing	1
3	524561	HOSE, Rear Crossover Line to Air Chamber	1	41	636260	SWITCH, Stop Light	1
4	42F-6	ELBOW, Coupling to Hose	1	42	31F-4	ADAPTER UNION	1
5	—	§ COUPLING — Welded to Frame	1	43	535030	HOSE, Foot Valve to Front Axle Tee	1
6	42F-6	ELBOW, Rear Crossover Line to Coupling	1	44	38F-7	CONNECTOR, Line to Air Chamber	1
7	535025	LINE, Rear Crossover	1	45	535023	LINE, Air — Left Hand	1
8	539988	LINE, Air Compressor to Reservoir	1	46	44F-5	TEE, Hose to Front Air Lines	1
9	524497	HOSE, Air Compressor to Reservoir	1	47	535022	LINE, Air — Right Hand	1
10	18F-4	TEE, Air Compressor	1	48	38F-7	CONNECTOR, Line to Air Chamber	1
11	5K-424	NIPPLE, Tee to Compressor	1	49	—	AIR CHAMBER — See Index	—
12	510452	FLANGE, Discharge	1	50	—	AIR CHAMBER — See Index	—
13	—	COMPRESSOR — See Engine Parts Manual	—	51	527863	HOSE, Foot Valve to Reservoir Line	1
14	942646	GASKET, Governor to Compressor	1	52	542357	HOSE, Foot Valve to Rear Axle	1
15	540306	*GOVERNOR — B.W. #275200	1	53	535026	LINE, Foot Valve to Reservoir Air	1
16	4E-05	LKWSHR, Governor to Compressor	2	54	535024	LINE, Foot Valve to Rear Axle Air	1
17	17C-544	BOLT, Governor to Compressor	2	55	507815	VALVE, Safety	1
18	356616	BUSHING, Tee Reducing	1	56	356615	BUSHING, Reducing	1
19	536934	HOSE, Governor to Compressor	1	57	38F-10	CONNECTOR, Line to Tee	1
20	31F-1	ADAPTER UNION	1	58	21F-4	CROSS, Reservoir	1
21	—	TRANSMISSION — See Index	—	59	5K-409	NIPPLE, Cross to Reservoir	1
22	26F-2	ELBOW, Hose to Transmission	1	60	16F-08	PLUG, Reservoir	1
23	542355	HOSE, Control Valve to Transmission	1	61	513842	RESERVOIR, Air	1
24	31F-1	ADAPTER UNION	1	62	72F-4	DRAIN COCK, Reservoir	1
25	7D-04	NUT, Spring to Control Valve	1	63	356616	BUSHING, Reducing	1
26	45G-1016	SCREW, Control Valve Mounting	2	64	940643	**SENDER UNIT, Air Pressure	1
27	587751	SPRING	1	65	18C-620	BOLT, Reservoir to Frame	4
28	12E-10	LKWSHR, Control Valve Mounting	2	66	26F-4	ELBOW, Check Valve to Reservoir	1
29	536611	*VALVE, Control — B.W. #229614	1	67	941813	*BRACKET, Reservoir — B.W. #221399	2
30	13F-02	PLUG, Pipe	1	68	18D-06	NUT, Reservoir to Frame	4
31	31F-1	ADAPTER UNION	1	69	593370	*VALVE, Check — B.W. #228194	1
32	542356	HOSE, Foot Valve to Control Valve	1	70	38F-10	CONNECTOR, Line to Check Valve	1
33	25F-2	ELBOW	1	71	42F-6	ELBOW, Coupling to Hose	1
34	26F-2	ELBOW, Hose to Foot Valve	1	72	524561	HOSE, Air Line to Air Chamber	1
35	26F-2	ELBOW, Hose to Valve	1	73	42F-6	ELBOW, Hose to Air Chamber	1
36	356615	BUSHING, Reducing	1	74	—	AIR CHAMBER — See Index	—
37	356615	BUSHING, Reducing	1	75	—	§ COUPLING — Welded to Frame	1
38	—	BRAKE CONTROLS — See Index	—	76	45F-6	TEE, Air Line to Crossover Line	1

§Not Sold Separately

*NOTE: Your local authorized Bendix-Westinghouse distributor is equipped to service components of these parts.

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

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



BRAKE AIR LINES - CUMMINS

TS-4920-P

46A.1

(1D1)

PM 1654

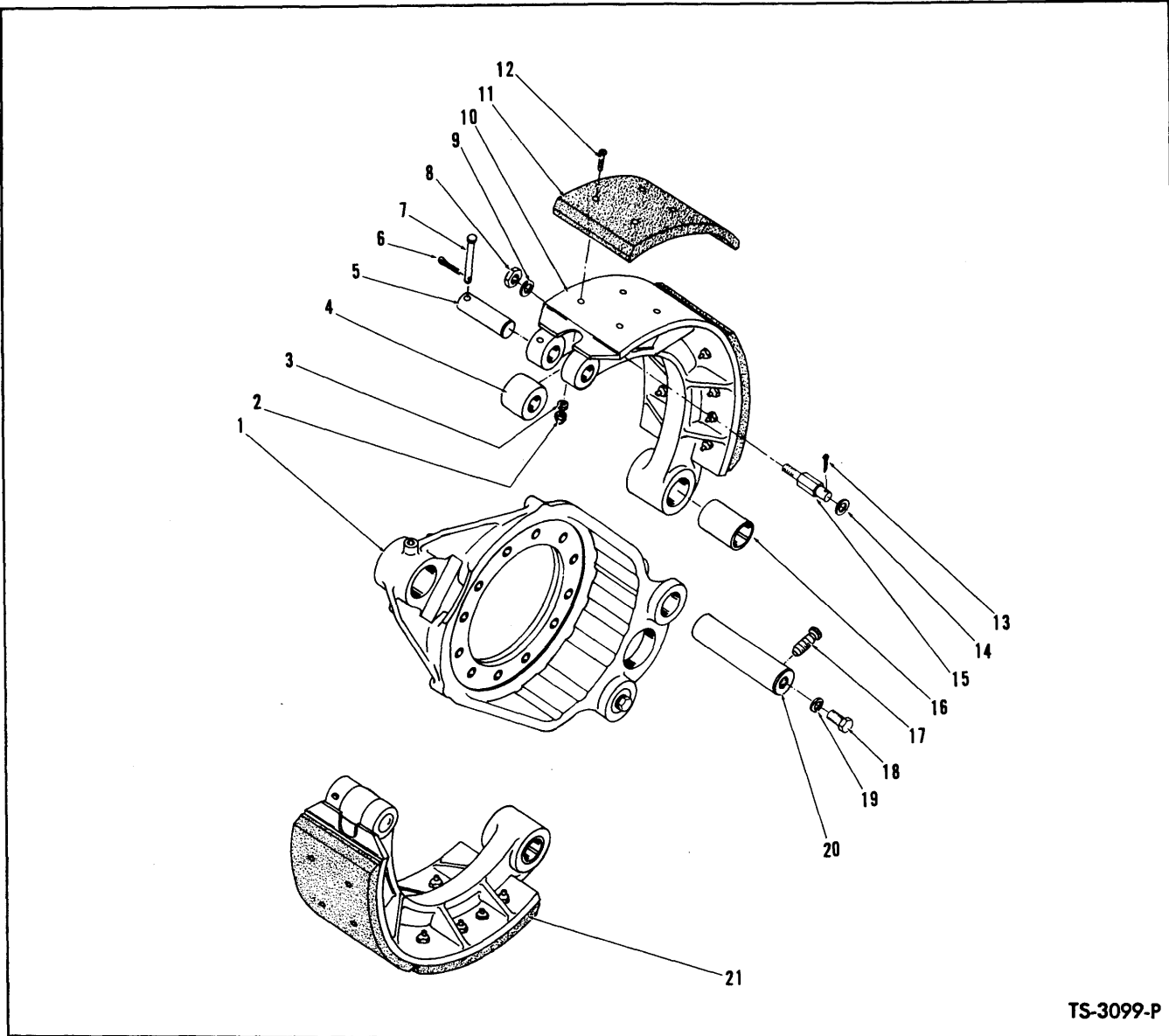
BRAKE AIR LINES — CUMMINS

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	540916	HOSE, Compressor to Governor	1	44	13F-08	PLUG, Pipe	1
2	540306	GOVERNOR, Air Compressor	1	45	527863	HOSE, Foot Control to Line	1
3	18C-548	BOLT, Governor Mounting	2	46	535026	LINE, Foot Control Hose to Reservoir	1
4	26F-1	ELBOW, Pop-Off	1	47	542357	HOSE, Foot Control to Rear Brake Line	1
5	31F-1	ADAPTER UNION	1	48	507815	VALVE, Safety	1
6	556823	BRACKET, Governor Mounting	1	49	38F-10	CONNECTOR, Line to Tee	1
7	31F-1	ADAPTER UNION	1	50	16F-08	PLUG, Pipe	1
8	17C-616	BOLT, Bracket to Engine	2	51	356615	BUSHING, Reducing	1
9	4E-06	LKWSHR, Bracket to Engine	2	52	21F-4	CROSS, Pipe	1
10	18D-05	NUT, Governor Mounting	2	53	5K-409	NIPPLE, Reservoir to Cross	1
11	31F-1	ADAPTER UNION	1	54	356616	BUSHING, Reducing	1
12	-----	AIR COMPRESSOR — See Index	—	55	5K-108	NIPPLE, Tee to Cross	1
13	558066	HOSE, Governor to Reservoir	1	56	18F-1	TEE, Governor to Reservoir	1
14	-----	TRANSMISSION — See Index	—	57	513842	*RESERVOIR — B.W. #227901	1
15	26F-2	ELBOW, Hose to Transmission	1	58	72F-4	DRAIN COCK	1
16	542355	HOSE, Transmission to Control Valve	1	59	940643	**SENDER UNIT, Air Pressure	1
17	31F-1	ADAPTER UNION	1	60	12E-10	LKWSHR, Sender Unit	1
18	7D-04	NUT, Spring to Control Valve	1	61	18C-620	BOLT, Reservoir to Frame	4
19	45G-1016	SCREW, Control Valve Mounting	2	62	18D-06	NUT, Reservoir to Frame	4
20	587751	SPRING	1	63	941813	*BRACKET, Reservoir — B.W. #221399	2
21	12E-10	LKWSHR, Control Valve Mounting	2	64	14D-10	NUT, Sender Unit	1
22	536611	VALVE, Control — B.W. #229614	1	65	26F-4	ELBOW, Check Valve to Reservoir	1
23	13F-02	PLUG, Pipe	1	66	593370	*VALVE, Check — B.W. #228194	1
24	31F-1	ADAPTER UNION	1	67	38F-10	CONNECTOR, Valve to Line	1
25	542356	HOSE, Control Valve to Brake Valve	1	68	42F-6	ELBOW, Coupling to Hose	1
26	26F-2	ELBOW, Brake Valve to Hose	1	69	-----	AIR CHAMBER — See Index	—
27	356615	BUSHING, Reducing	1	70	524561	HOSE, Air Line to Air Chamber	1
28	26F-2	ELBOW, Brake Valve to Hose	1	71	42F-6	ELBOW, Hose to Air Chamber	1
29	356615	BUSHING, Reducing	1	72	-----	§COUPLING, Welded to Frame	—
30	-----	BRAKE CONTROLS — See Index	—	73	535025	LINE, Rear Crossover	1
31	356616	BUSHING, Reducing	1	74	45F-6	TEE, Air Line to Crossover Line	1
32	636260	SWITCH, Stop Light	1	75	535024	LINE, Foot Valve to Rear Axle Air	1
33	26F-4	ELBOW, Brake Valve to Hose	1	76	539988	LINE, Air Compressor to Reservoir	1
34	31F-4	ADAPTER UNION	1	77	536932	HOSE, Air Compressor to Reservoir ..	1
35	535030	HOSE, Foot Valve to Front Axle Tee ..	1	78	356617	BUSHING, Reducing	1
36	535023	LINE, Air — Left Hand	1	79	5K-410	NIPPLE, Compressor	1
37	38F-7	ELBOW, Line to Air Chamber	1	80	24F-4	ELBOW, Nipple to Hose	1
38	44F-5	TEE, Hose to Front Hose Line	1	81	-----	§COUPLING, Welded to Frame.....	—
39	535022	LINE, Air — Right Hand	1	82	42F-6	ELBOW, Line to Coupling	1
40	-----	AIR CHAMBER — See Index	—	83	42F-6	ELBOW, Coupling to Hose	1
41	38F-7	ELBOW, Line to Air Chamber	1	84	524561	HOSE, Air Chamber to Line	1
42	-----	AIR CHAMBER — See Index	—	85	42F-6	ELBOW, Air Chamber to Hose	1
43	13F-04	PLUG, Pipe	2	86	-----	AIR CHAMBER — See Index	—

§Not Sold Separately

*Your local authorized Bendix-Westinghouse Distributor is equipped to service components of these parts.

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



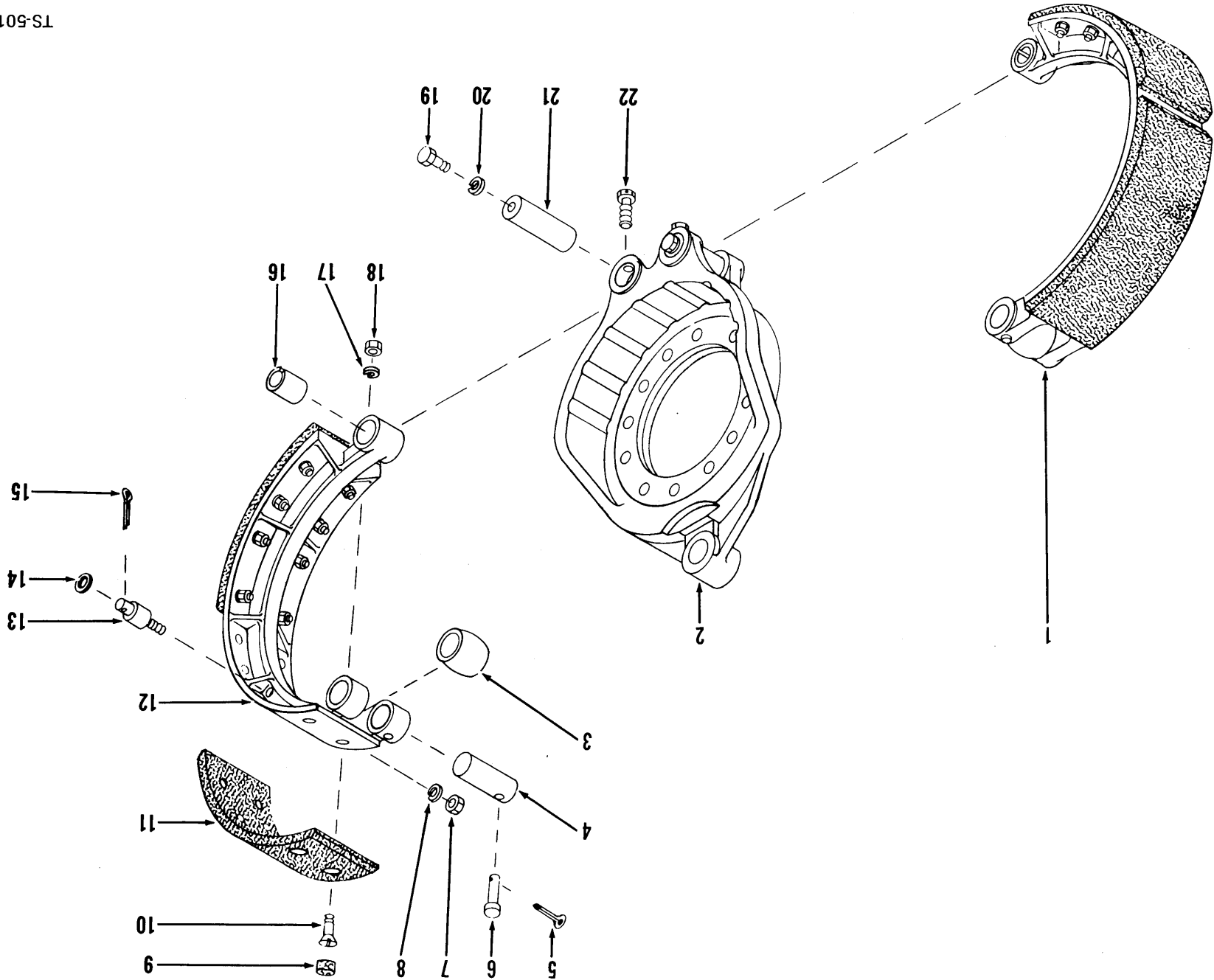
TS-3099-P

FRONT BRAKE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	112409	**BRAKE ASSY (Inc. 1 thru 12, 15 thru 21)	2	11	112411	LINING, Brake Shoe	4
		NOTE: Two Brake Assemblies used on Front Axle, Quantities listed below cover one brake assembly.		11A	112918	LINING, Brake Shoe 1/8 Oversize	1
1	112410	SPIDER, Brake	1	12	107706	SCREW, Lining to Shoe	32
2	2D-06	NUT, Lining to Shoe	32	12A	113249	PLUG, Brake Lining	32
3	24E-06	LKWSHR, Lining to Shoe	32	13	1F-412	COTTER, Spring Anchor Pin	2
4	---	*ROLLER, Brake Cam	2	14	25E-21	WASHER, Spring Anchor Pin	2
5	---	*PIN, Brake Cam Roller	2	15	112216	PIN, Spring Anchor	2
6	1F-308	COTTER, Roller Pin Lock Pin	2	16	---	*Bushing, Brake Shoe	2
7	110855	PIN, Cam Roller Pin Lock, See "B"	2	17	109597	SCREW, Anchor Pin Set	2
8	2D-06	NUT, Spring Anchor Pin	2	18	1C-812	BOLT, Anchor Pin Puller Hole	2
9	4E-06	LKWSHR,, Spring Anchor Pin	2	19	4E-08	LKWSHR, Anchor Pin Puller Hole	2
10	---	§SHOE, Brake	2	20	112213	PIN, Brake Shoe Anchor	2
		§Not Sold Separately		21	112207	SHOE ASSY, Brake (Inc. 2 thru 7, 10, 11, 12, 16) See Note "A"	2

*NOTE: For replacement use 840581 Kit, which consists of 2-126246 Roller, 4-25K-40028 "O" Ring, 2-126247 Pin, 4-126248 Bushing, 2-123821 Pin, & 2-123823 Pin.
 **NOTE: For complete replacement use 116884 Brake Assembly.
 NOTE "A": For replacement use 116885 Brake Shoe Assembly.
 NOTE "B": For replacement use 815971 Kit, which consists of 1-123821 Roll Pin & 1-123823 Roll Pin.

TS-5014



Brake Assembly, Front & Rear

CLARK

No.	Part No.	Qty.	Description
A	^{2,3,4} 116884	2	Brake assy F
B	^{2,5,6} 116883	4	Brake assy R
C	^{2,7,8} 118766	2	Brake assy F
1	⁹ 116885	2	Brake shoe assy
2	112410	1	Spider brake F
2A	112408	1	Spider brake F
2B	118767	1	Spider brake R
3	¹⁰ 840581	2	Roller
4	¹¹ _____	—	Pin
5	¹² 1F-308	2	Cotter
6	815971	2	Pin
7	62D-06	2	Nut
8	4E-06	2	Lockwasher
9	113249	32	Plug
10	107706	32	Bolt
11	116887	4	Lining brake oversze
11A	116888	4	Lining brake stndrd
12	¹³ _____	—	Shoe
13	112216	2	Pin
14	25E-21	2	Washer
15	1F-412	2	Cotter
16	⁷ _____	—	Bushing
17	24E-06	32	Lockwasher
18	62D-08	32	Nut
19	1C-812	2	Bolt
20	4E-08	2	Lockwasher
21	112213	2	Pin
22	109597	2	Screw

² 2 brake assemblies used. Quantities listed are for 1.

³ Cummins 3LC101 → 999, G.M. 3LG101 → 4LG999

⁴ Inc. 1, 2, 3 → 13, 16 → 22

⁵ Cummins 3LC101 → 999, 5LC101 & →, G.M. 3LG102 & →

⁶ Inc. 1, 2A, 3 → 13, 16 → 22

⁷ Cummins 5LC101 & →, G.M. 5LG101 & →

⁸ Inc. 1, 2B, 3 → 13, 16 → 22

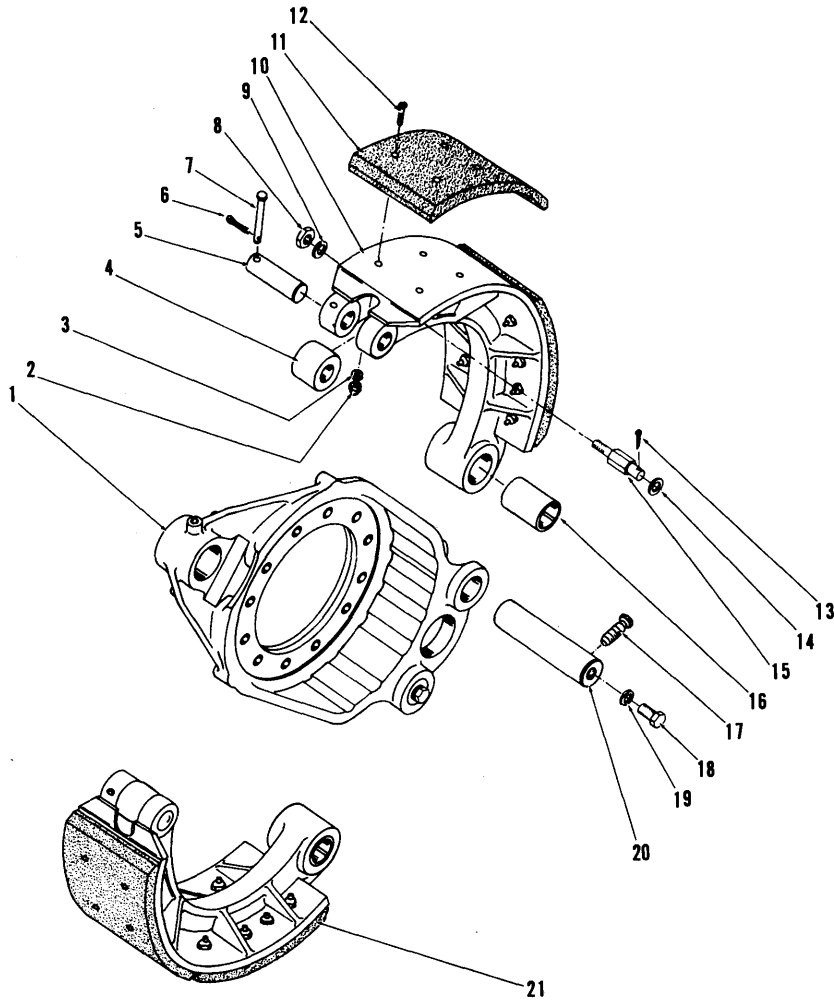
⁹ Inc. 3 → 6, 9 → 12, 16 → 18

¹⁰ Inc. 4, 16

¹¹ See 10

¹² For replacement see 6

¹³ See 1



TS-3099-P

REAR BRAKE ASSEMBLY
For Serial: G.M. — 3HG101 thru 3HG999, 4HG101 thru 4HG178

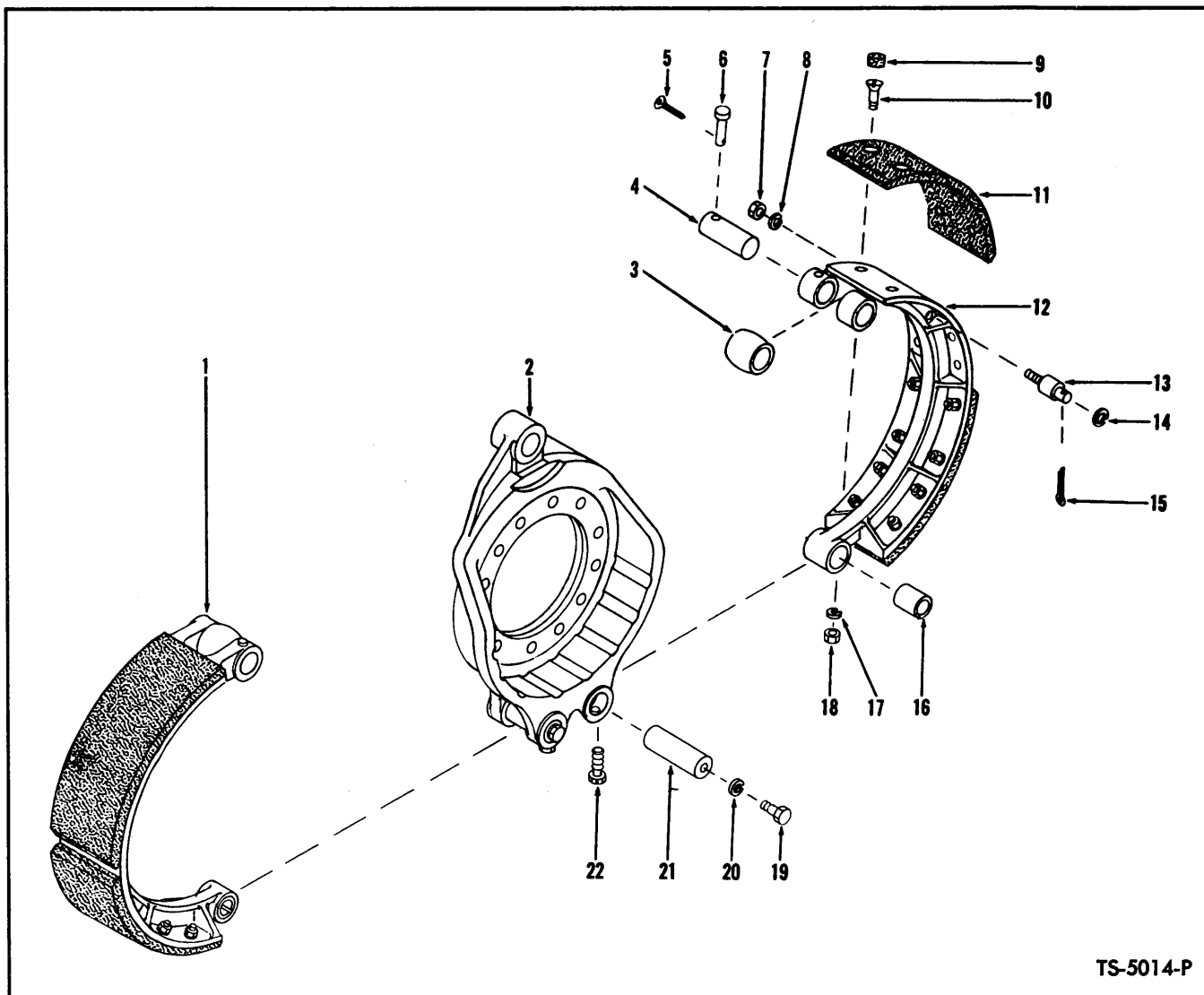
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	112407	BRAKE ASSY (Inc. 1 thru 12, 15 thru 21).....	2	10	-----	§SHOE, Brake	2
		NOTE: Two Brake Assemblies used on Rear Axle, Quantities listed below cover one brake assembly.		11	112411	LINING, Brake Shoe	4
1	112408	SPIDER, Brake	1	12	107706	SCREW, Lining to Shoe	32
1	112408	NUT, Lining to Shoe.....	32	12A	113249	PLUG, Brake Lining	32
2	2D-06	LKWSHR, Lining to Shoe.....	32	13	1F-412	COTTER, Spring Anchor Pin	2
4	-----	*ROLLER, Brake Cam.....	2	14	25E-21	WASHER, Spring Anchor Pin	2
5	-----	*PIN, Brake Cam Roller.....	2	15	112216	PIN, Spring Anchor	2
6	1F-308	COTTER, Roller Pin Lock Pin.....	2	16	-----	*BUSHING, Brake Shoe	2
7	110855	PIN, Cam Roller Pin Lock, See "A".....	2	17	109597	SCREW, Anchor Pin Set	2
8	2D-06	NUT, Spring Anchor Pin	2	18	1C-812	BOLT, Anchor Pin Puller Hole	2
9	4E-06	LKWSHR, Spring Anchor Pin	2	19	4E-08	LKWSHR, Puller Hole Bolt.....	2
				20	112213	PIN, Brake Shoe Anchor	2
				21	112207	**SHOE ASSY, Brake (Inc. 2 thru 7, 10, 11, 12, 16)	2

*NOTE: For replacement use 840581 Kit, which consists of 2-126246 Roller, 4-25K-40028 "O" Ring, 2-126247 Pin, 4-126248 Bushing, 2-123821 Pin, & 2-123823 Pin.

**NOTE: For replacement use 116885 Brake Shoe Assembly.

NOTE "A": For replacement use 815971 Kit, which consists of 1-123821 Roll Pin & 1-123823 Roll Pin.

§Not Sold Separately



TS-5014-P

BRAKE ASSEMBLY
For Serial: Cummins — 4HC102 thru 4HC999
G.M. — 4HG179 thru 4HG999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	116883	BRAKE ASSY (Inc. 1 thru 13, 16 thru 22)	2	11		LINING, Brake Shoe	
<p>NOTE: 2 Brake Assemblies used on axle — Quantities listed below are for 1 Brake Assembly.</p>				11A		STANDARD	4
1	112207	**SHOE ASSY, Brake (Inc. 3 thru 6, 9 thru 12, 16, 17, 18)	2	11B	116888	OVERSIZE (1/8")	4
2	112408	SPIDER, Brake	1	12		§SHOE, Brake — See Item 1	—
3		*ROLLER, Brake Cam	2	13	112216	PIN, Spring Anchor	2
4		*PIN, Brake Cam Roller	2	14	25E-21	WASHER, Spring Anchor	2
5	1F-308	COTTER, Roller Pin Lock Pin	2	15	1F-412	COTTER, Spring Anchor Pin	2
6	110855	PIN, Cam Roller Pin Lock, See "A"	2	16		*BUSHING, Brake Shoe	2
7	2D-06	NUT, Spring Anchor Pin	2	17	24E-06	LKWSHR, Lining to Shoe	32
8	4E-06	LKWSHR, Spring Anchor Pin	2	18	2D-06	NUT, Lining to Shoe	32
9	113249	PLUG, Brake Lining	32	19	1C-812	BOLT, Puller Hole Plug	2
10	107706	SCREW, Lining to Shoe	32	20	4E-08	LKWSHR, Puller Hole Plug	2
				21	112213	PIN, Brake Shoe Anchor	2
				22	109597	SCREW, Anchor Pin Set	2

*NOTE: For replacement use 840581 Kit, which consists of 2-126246 Roller, 4-25K-40028 "O" Ring, 2-126247 Pin, 4-126248 Bushing, 2-123821 Pin, & 2-123823 Pin.

**NOTE: For replacement use 116885 Brake Shoe Assembly.

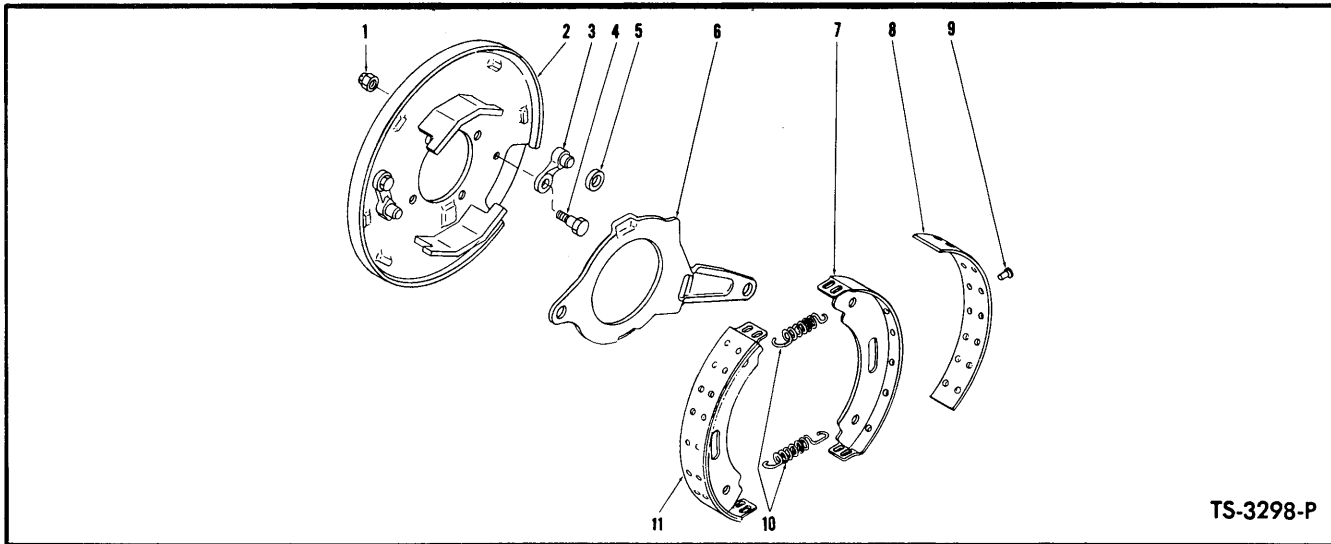
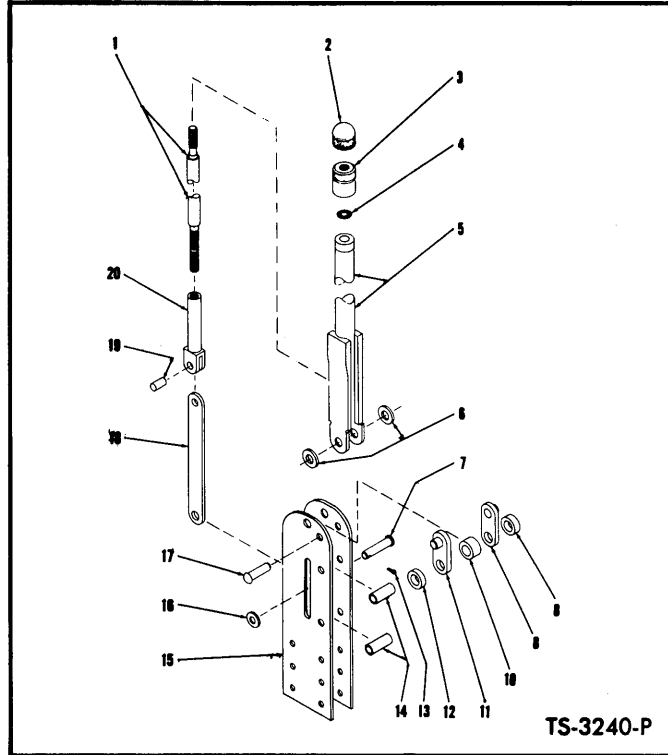
NOTE "A": For replacement use 815971 Roll Pin Kit, which consists of 1-123821 Roll Pin & 1-123823 Roll Pin.

§Not Sold Separately

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	949370	CAP, Adjusting Knob (Inc. 3)	1
3	-----	§BASE, Adjusting Knob - See 2	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

§Not Sold Separately

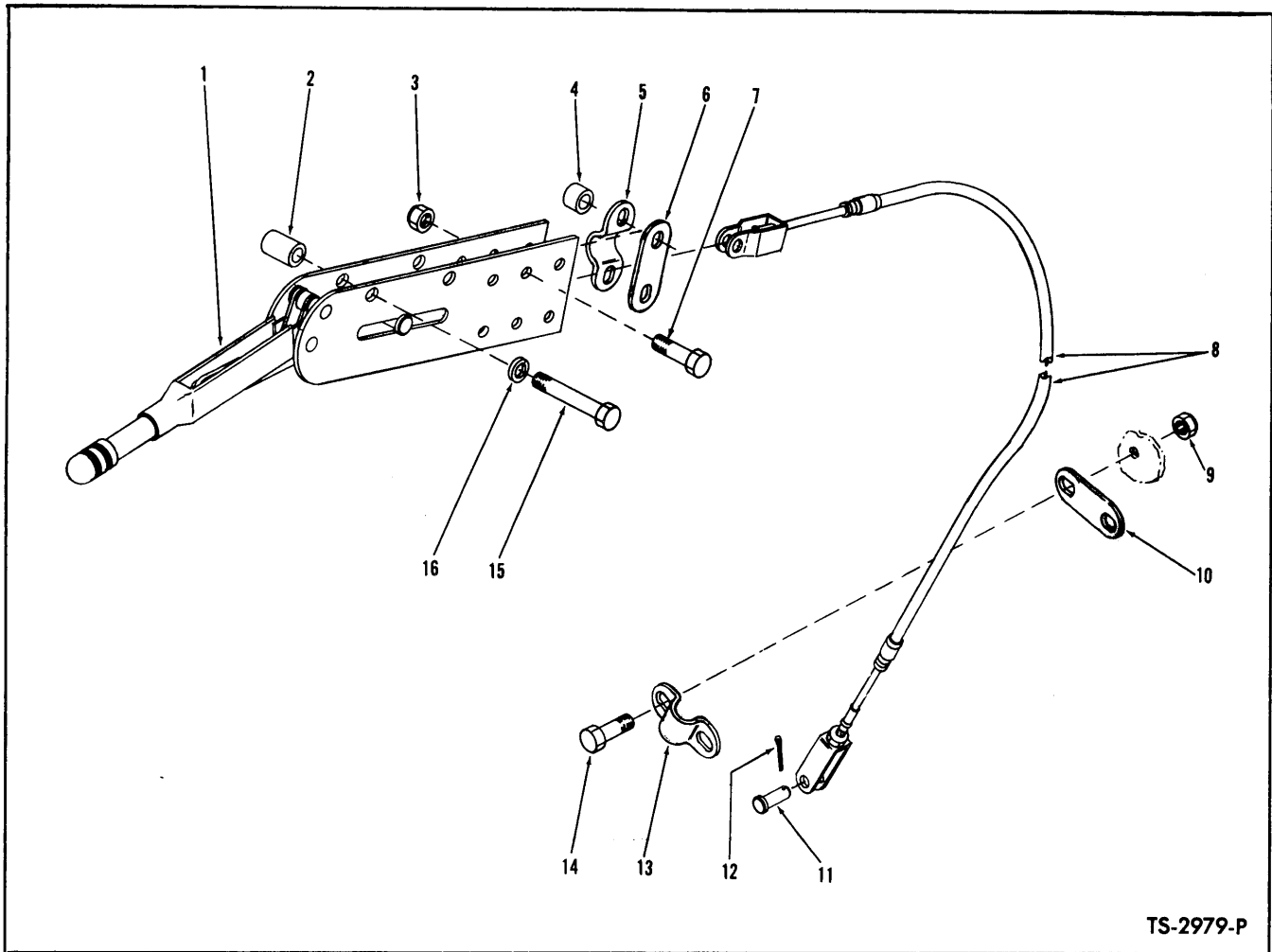


PARKING BRAKE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	111696	BRAKE ASSY (Inc. 1 thru 11)	1	6	220965	LEVER, Operating Cam	1
1	-----	§NUT, Pawl to Plate - See 3	2	7	-----	§SHOE, Brake - See 11	2
2	945047	PLATE, Brake Backing	1	8	942405	LINING KIT, Brake (Inc. 9)	1
3	886719	PAWL KIT, Brake (Inc. 1, 4, 5)	2	9	945051	RIVET, Lining to Shoe	28
4	-----	§BOLT, Pawl to Plate - See 3	2	10	220969	SPRING, Shoe Return	2
5	220968	ROLLER, Brake Actuating	1	11	872712	SHOE ASSY, Brake (Inc. 7, 8, 9)	2

§Not Sold Separately

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

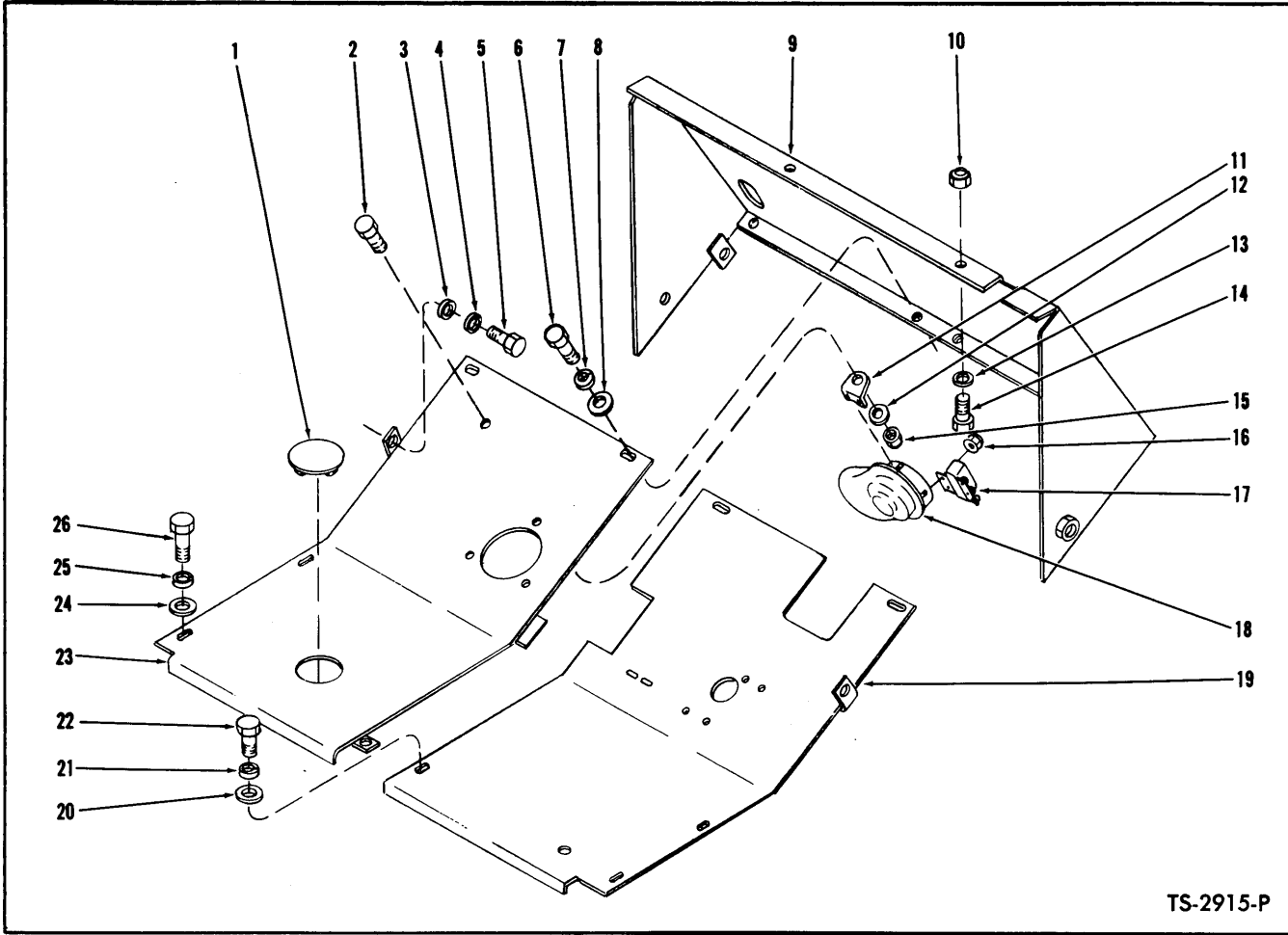


TS-2979-P

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, Clamp	2
2	545005	SPACER, Lever Mounting	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, Clamp	2
7	18C-528	BOLT, Clamp	2	15	18C-628	BOLT, Lever Mounting	2
8	544482	CABLE, Parking Brake	1	16	4E-06	LKWSHR, Lever Mounting	2

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



TS-2915-P

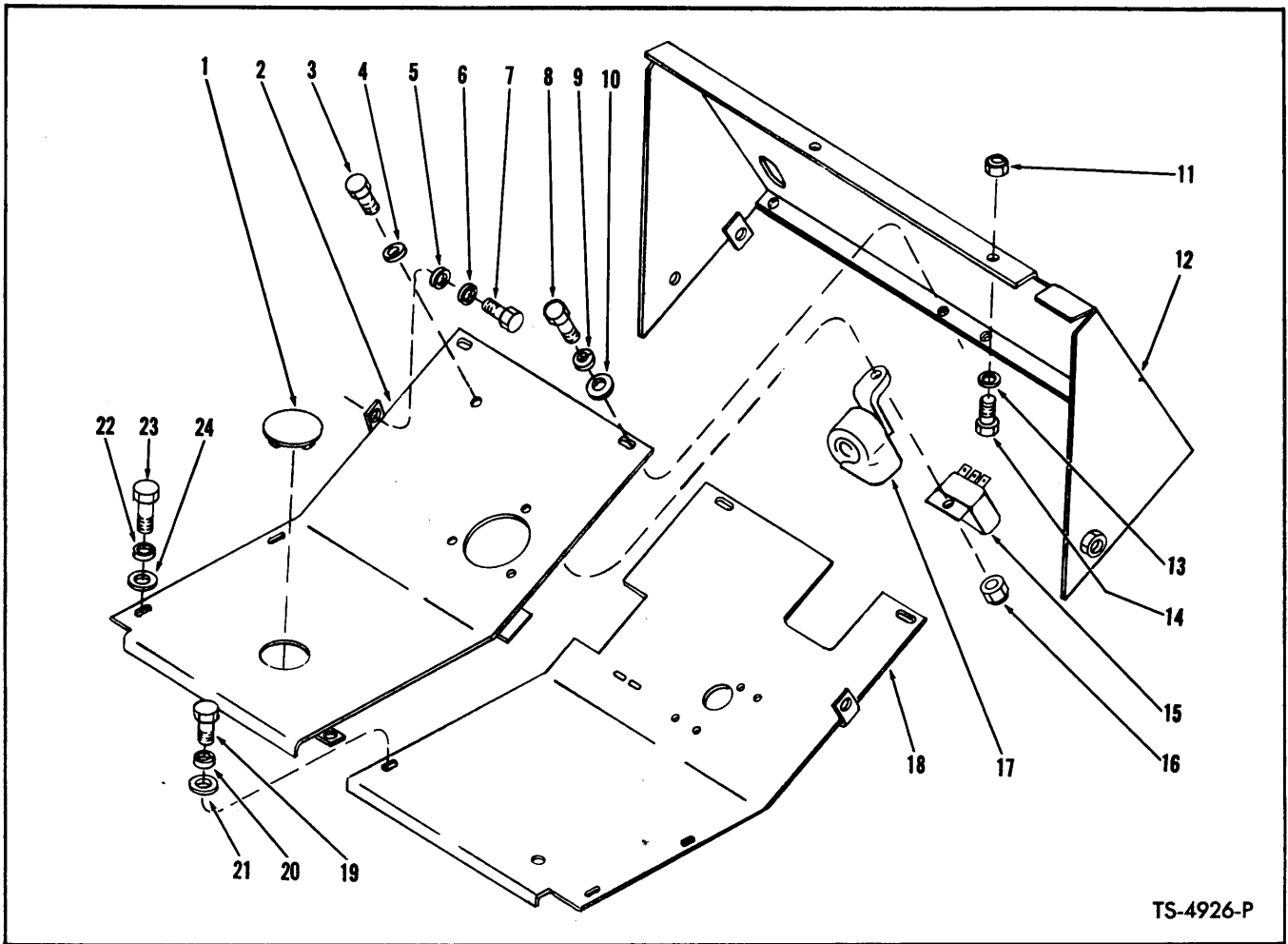
FLOORBOARDS AND HORNS — G.M.

Item No.	Part No.	Description	No. Req'd.
1	542983	COVER PLATE	1
2	18C-616	BOLT, Horn Bracket to Floorboard.....	1
3	635682	WASHER, Floorboard to Support.....	2
4	4E-08	LKWSHR, Floorboard to Support.....	2
5	17C-816	BOLT, Floorboard to Support.....	2
6	17C-816	BOLT, Floorboard to Support	4
7	4E-08	LKWSHR, Floorboard to Support.....	4
8	635682	WASHER, Floorboard to Support.....	4
9	538295	SUPPORT, Floorboard	1
10	18D-08	NUT, Support to Upper Pivot.....	1
11	621279	BRACKET, Horn	1
12	25E-17	WASHER, Horn Bracket to Floorboard	1
13	635682	WASHER, Support to Upper Pivot.....	1

Item No.	Part No.	Description	No. Req'd.
14	18C-824	BOLT, Support to Upper Pivot	1
14A	10E-08	LKWSHR, Support to Upper Pivot	2
15	18D-06	NUT, Horn Bracket to Floorboard	1
16	18D-04	NUT, Relay to Horn	2
17	647310	RELAY, Horn	1
18	733624	*HORN	1
19	538274	FLOORBOARD, Right Hand	1
20	635682	WASHER, Floorboard to Floorboard ...	1
21	4E-08	LKWSHR, Floorboard to Floorboard ..	1
22	17C-816	BOLT, Floorboard to Floorboard	1
23	538276	FLOORBOARD, Left Hand	1
24	635682	WASHER, Floorboard to Support	4
25	4E-08	LKWSHR, Floorboard to Support	4
26	17C-820	BOLT, Floorboard to Support	4

*NOTE: When replacing original with 733624 you must also use 1-557438 Wire. (Horn to Horn Relay) Existing Mounting Bracket can be scrapped.

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



TS-4926-P

FLOORBOARDS AND HORN — CUMMINS

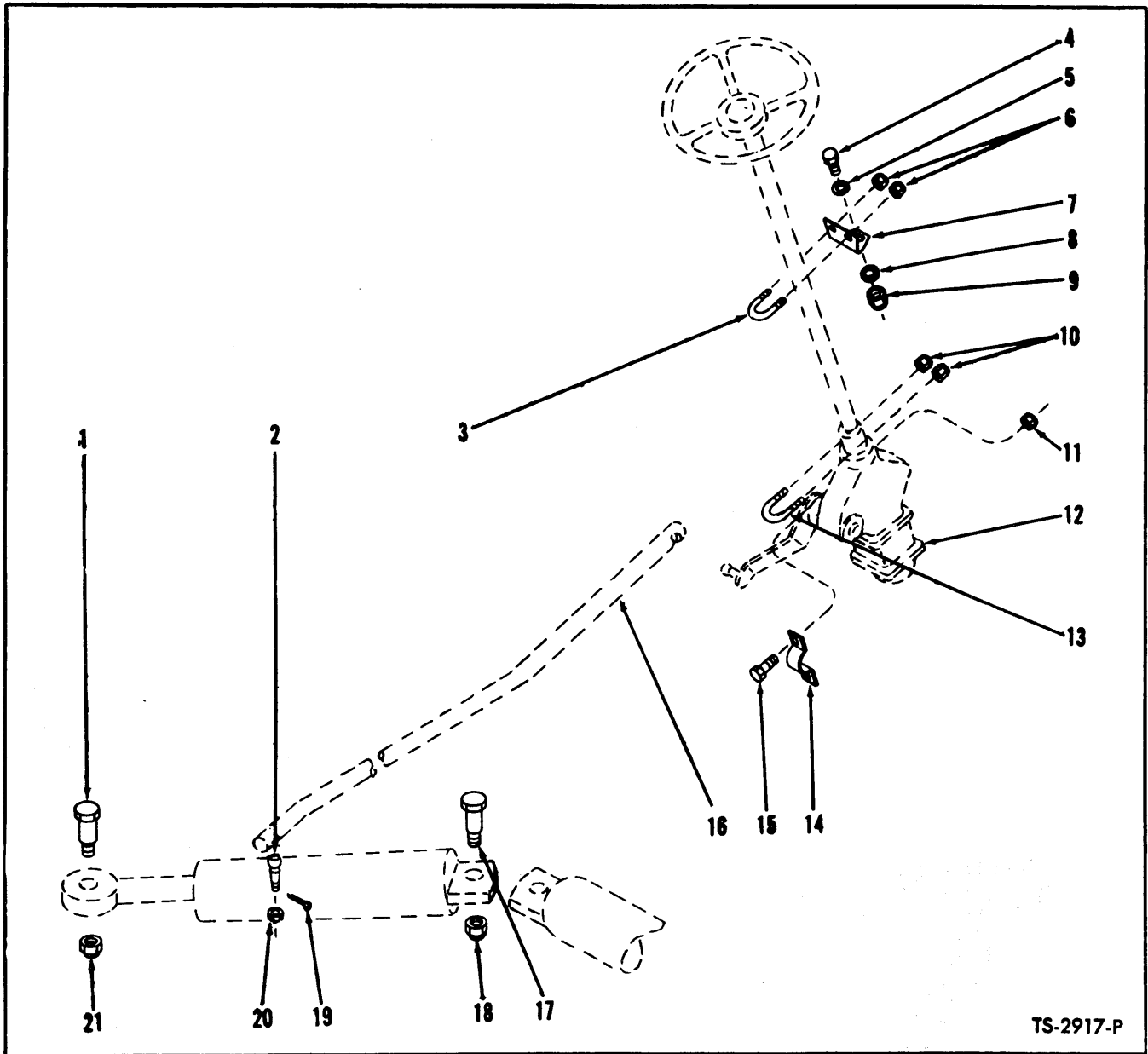
Item No.	Part No.	Description	No. Req'd.
1	542983	COVER PLATE	1
2	538276	FLOORBOARD, Left Hand	1
3	18C-416	BOLT, Horn to Floorboard	1
4	616777	WASHER, Horn to Floorboard	1
5	635682	WASHER, Floorboard to Support	2
6	10E-08	LKWSHR, Floorboard to Support	2
7	17C-816	BOLT, Floorboard to Support	2
8	17C-816	BOLT, Floorboard to Support	4
9	4E-08	LKWSHR, Floorboard to Support	4
10	635682	WASHER, Floorboard to Support	4
11	18D-08	NUT, Support to Upper Pivot	1
12	557261	SUPPORT, Floorboard	1
13	635682	WASHER, Support to Upper Pivot	1
14	18C-824	BOLT, Support to Upper Pivot	1
15	647310	RELAY, Horn	1
16	18D-04	NUT, Horn to Floorboard	1
17	885083	HORN	1
18	556455	FLOORBOARD, Right Hand	1
19	17C-816	BOLT, Floorboard to Floorboard	1
20	4E-08	LKWSHR, Floorboard to Floorboard	1
21	635682	WASHER, Floorboard to Floorboard	1
22	4E-08	LKWSHR, Floorboard to Support	4
23	17C-820	BOLT, Floorboard to Support	4
24	635682	WASHER, Floorboard to Support	4

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

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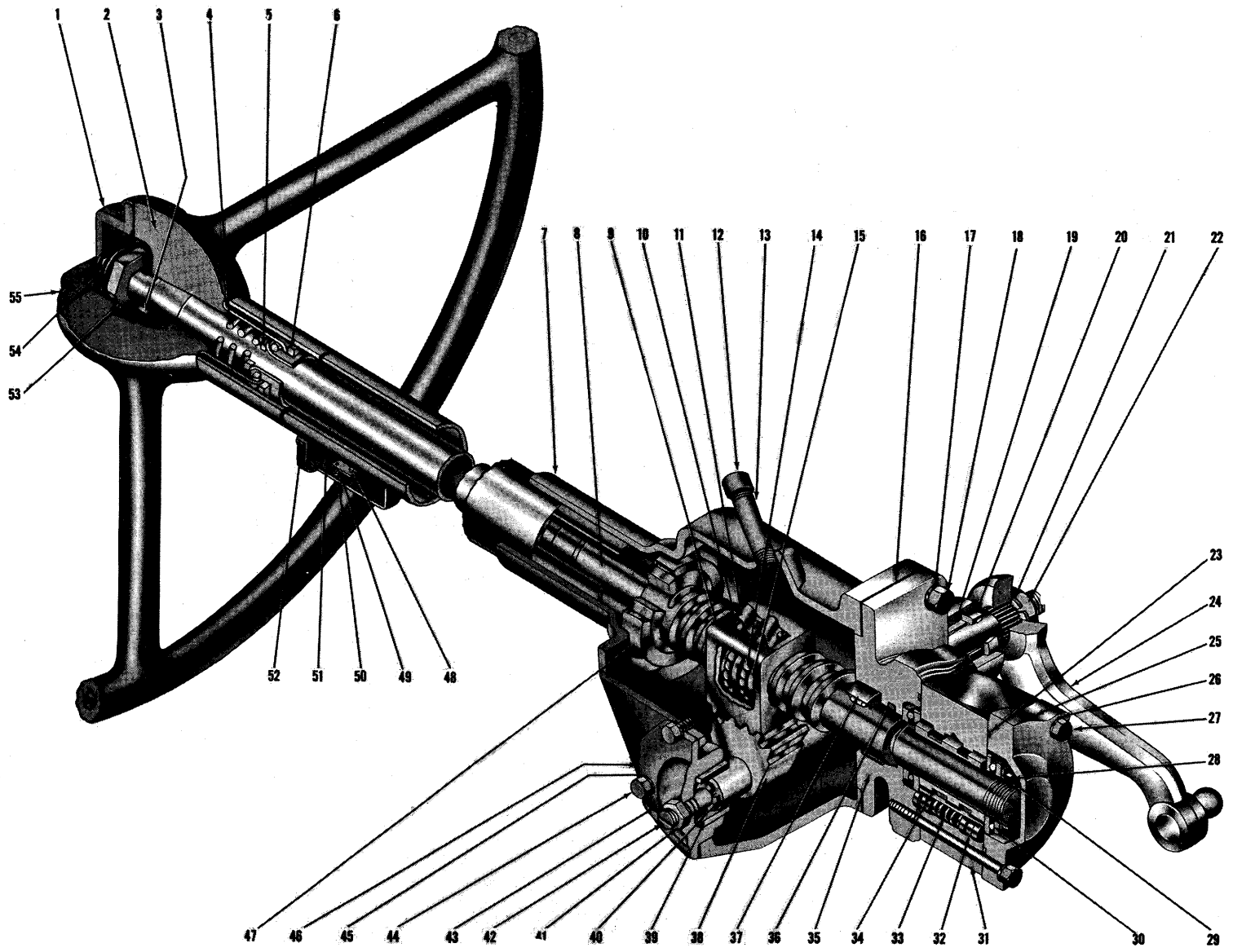


TS-2917-P

STEERING LINKAGE GROUP

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	517355	BOLT, Steering Cylinder Anchor	2	12	-----	STEERING GEAR — See Index	—
2	513122	BALL STUD, Drag Link to Axle	1	13	545941	U-BOLT, Steering Gear to Frame	1
3	537998	U-BOLT, Steering Gear to Frame	1	14	550044	CLAMP, Steering Gear	1
4	18C-620	BOLT, Bracket to Frame	1	15	18C-840	BOLT, Steering Gear Clamp	2
5	619021	WASHER, Bracket to Frame	1	16	-----	DRAG LINK — See Index	—
6	18D-04	NUT, U-Bolt	2	17	517355	BOLT, Steering Cylinder Anchor	2
7	537997	BRACKET, Steering Gear to Frame	1	18	66D-22	NUT, Steering Cylinder Anchor Bolt ..	2
8	619021	WASHER, Bracket to Frame	1	19	1F-332	COTTER, Ball Stud	1
9	18D-06	NUT, Bracket to Frame	1	20	4D-10	NUT, Ball Stud	1
10	18D-08	NUT, U-Bolt	2	21	66D-22	NUT, Steering Cylinder Anchor Bolt ..	2
11	18D-08	NUT, Steering Gear Clamp	2				

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



STEERING GEAR ASSEMBLY

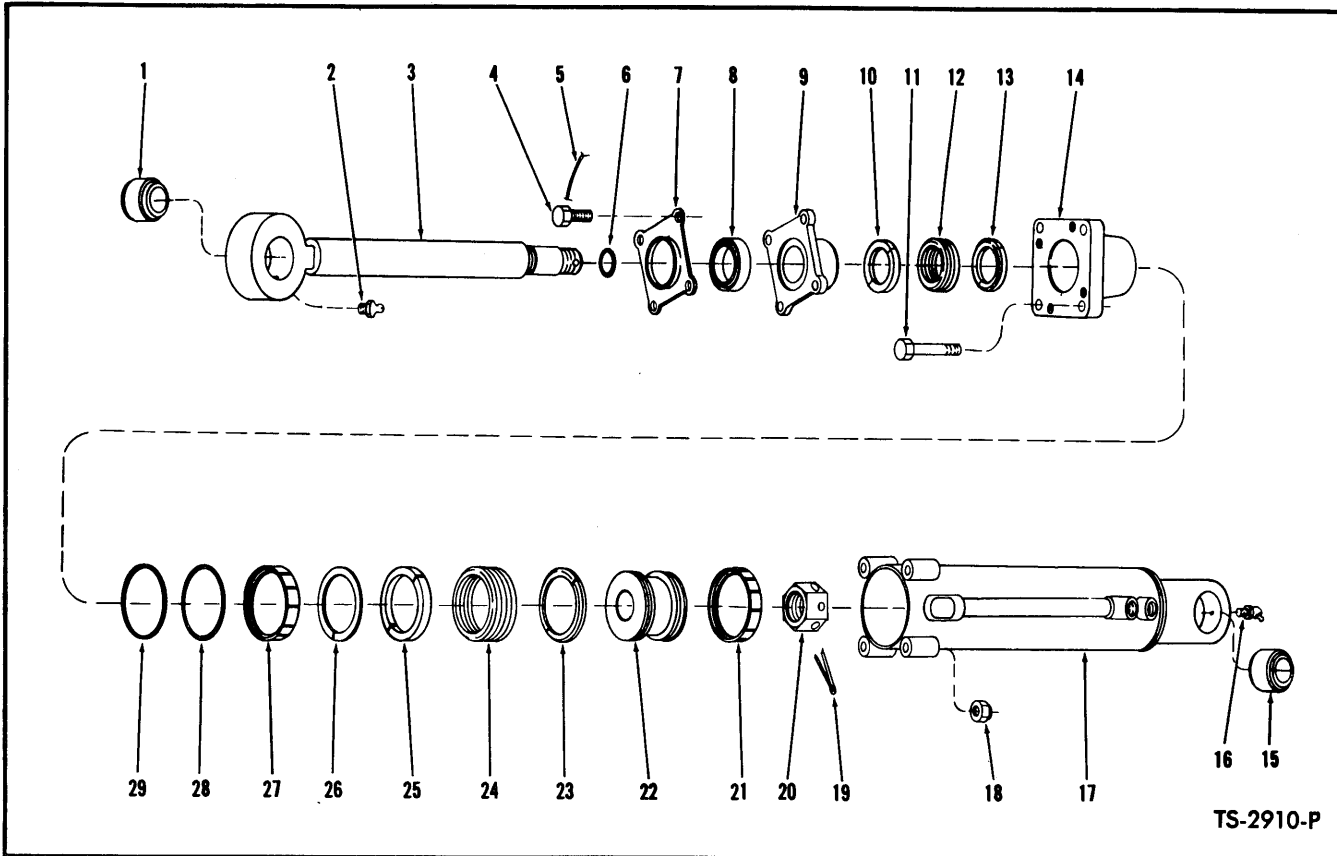
TS-2955-P

STEERING GEAR ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	532764	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	518331	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	945048	HOUSING ASSY (Inc. 19, 47)	1	36	25K-40108	"O" RING, Adapter	1
8	945049	SHAFT ASSY (Inc. 9, 10, 11, 14, 15, 51 and 54)	1	37	861741	BEARING, Adapter	1
9	853408	NUT, Ball	1	38	940111	GEAR, Pitman Shaft	1
10	851762	BOLT AND 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-08	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

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



TS-2910-P

STEERING CYLINDER ASSEMBLY

2 Cylinders Used on Machine – Quantities Listed Below are for 1 Cylinder

Item No.	Part No.	Description	No. Req'd.
A	533645	**CYLINDER ASSY (Inc. 1 thru 29) . . .	1
B	2516074	KIT (Inc. 6, 10, 12, 13, 14A, 14B, 19, 21, 23 thru 29) – See Note "A" . . .	1
1	713418	BUSHING, Piston Rod	1
2	10H-25	FITTING, Piston Rod	1
3	544359	ROD, Piston	1
4	4C-620	BOLT, Wiper Retainer	4
5	28H-16200	LOCKWIRE, Wiper Retainer	1
6	-----	§"O" RING, Piston Rod – See B	1
7	512797	RETAINER, Piston Rod Wiper	1
8	941568	WIPER, Piston Rod	1
9	526451	GLAND, Packing	1
10	-----	§ ADAPTER, Female – See 12	2
11	18C-748	BOLT, Cylinder Cap	4
12	2501106	PACKING SET (Inc. 10, 13)	1
13	-----	§ ADAPTER, Male – See 12	2
14	945112	CAP, Cylinder (Inc. 14A, 14B)	1

Item No.	Part No.	Description	No. Req'd.
14A	-----	§ †O-RING, Cylinder Cap – See B	1
14B	-----	§ RING, Back-Up – See B	1
15	713418	BUSHING, Cylinder	1
16	11H-15	FITTING, Cylinder Grease	1
17	534265	CYLINDER	1
18	18D-07	NUT, Cylinder Cap	4
19	1F-540	COTTER, Piston Rod Nut	1
20	517298	NUT, Piston Rod	1
21	-----	§ RING, Piston Wear – See B	1
22	512789	*PISTON	1
23	-----	§ ADAPTER, Male – See 24	2
24	-----	§ PACKING SET (Inc. 23, 25) See B	1
25	-----	§ ADAPTER, Female – See 24	2
26	-----	§ †SHIM – See B	—
27	-----	§ RING, Piston Wear – See B	1
28	-----	§ "O" RING, Cylinder Cap – See B	1
29	-----	§ RING, "O" Ring Backup – See B	1

†Not Illustrated

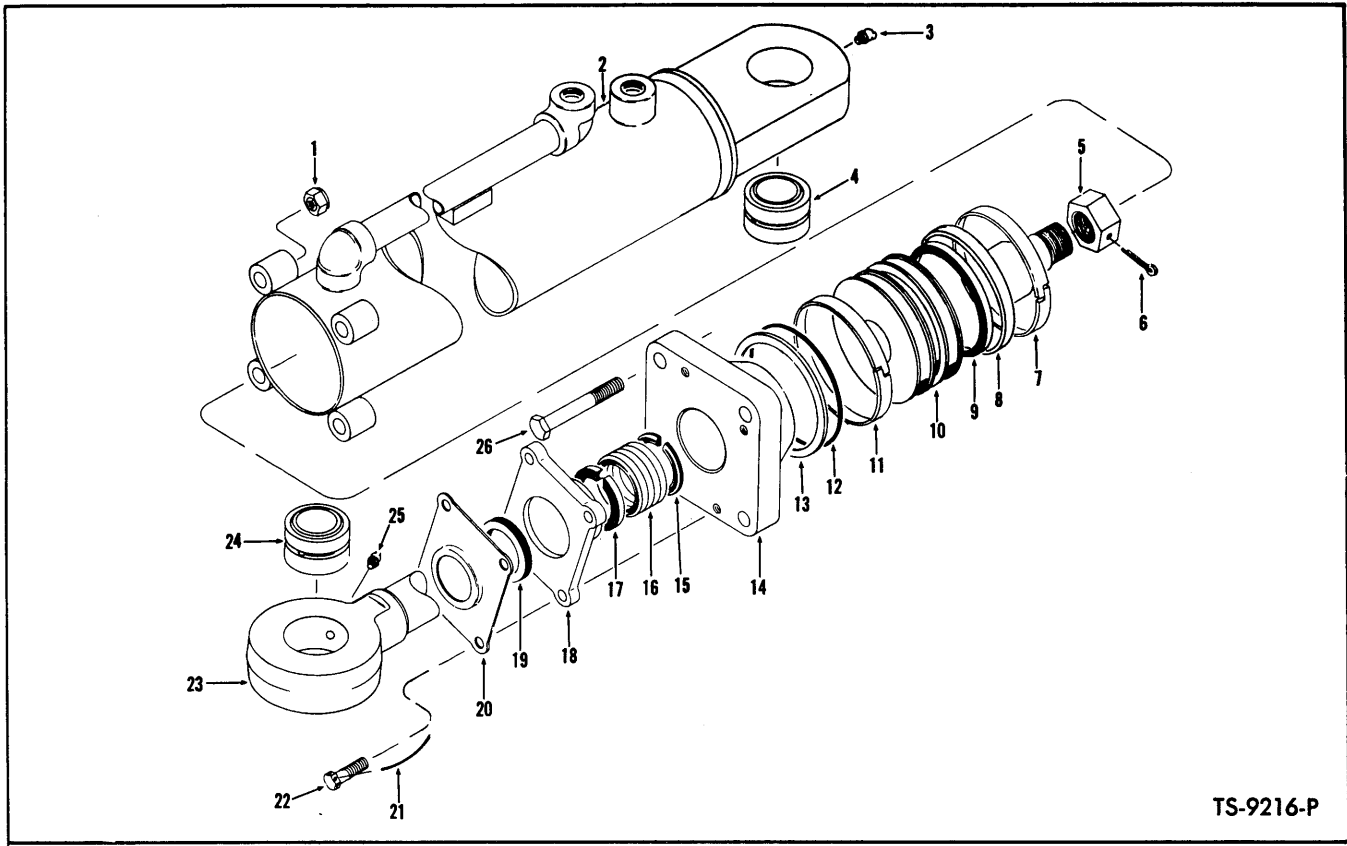
‡As Required

*NOTE: For replacement use 1503639 Piston plus 1-2516071 Kit.

**NOTE: For replacement use 1503987 Cylinder Assy.

NOTE "A": Ref. SG-597A.

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



TS-9216-P

STEERING CYLINDER ASSEMBLY – 3½"

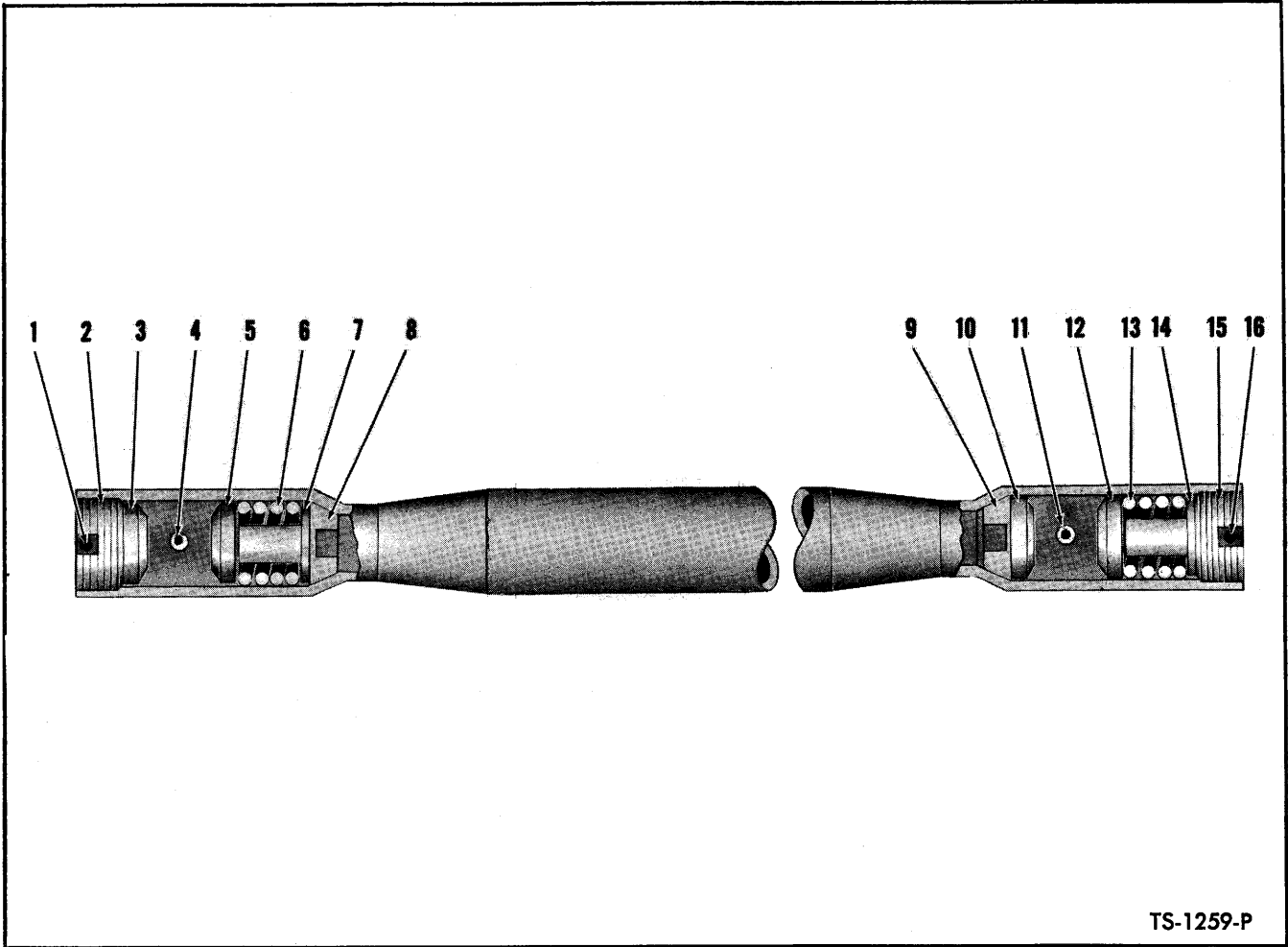
2 Cylinders used on machine – Quantities below are for 1 Cylinder

(SERVICE)

Item No.	Part No.	Description	No. Req'd.
A	1503987	CYLINDER ASSY (Inc. 1, 2, 5 thru 23, 26)	1
B	2516071	*KIT (Inc. 6 thru 9, 11 thru 13, 15 thru 17)	1
1	18D-07	NUT, Cylinder Cap	4
2	534265	CYLINDER	1
3	11H-15	FITTING, Cylinder Grease	1
4	713418	BUSHING, Cylinder	1
5	517298	NUT, Piston Rod	1
6	1F-540	COTTER	1
7	-----	§ RING, Piston Wear – See B	1
8	-----	§ RING, Inner Seal – See B	1
9	-----	§ RING, Outer Seal – See B	1
10	1503639	PISTON	1
11	-----	§ RING, Piston Wear – See B	1
12	-----	§ O-RING, Cylinder Cap – See B	1
13	-----	§ RING, Back-Up – See B	1
14	945112	CAP, Cylinder (Inc. 12, 13)	1
15	-----	§ ADAPTER, Male Chevron Packing - See 16	2
16	2501106	PACKING ASSY (Inc 16,17)	1
17	-----	§ ADAPTER, Female Chevron Packing - See 16	2
18	526451	GLAND, Packing	1
19	941568	SEAL, Piston Rod	1
20	512797	RETAINER, Seal	1
21	-----	LOCKWIRE (16 ga. x 20" lg.)	1
22	4C-620	BOLT, Packing Gland	4
23	544359	ROD, Piston	1
24	713418	BUSHING, Piston Rod	1
25	10H-25	FITTING, Piston Rod Grease	1
26	24C-748	BOLT, Cylinder Cap	4

*NOTE: Ref. SG-597A.

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

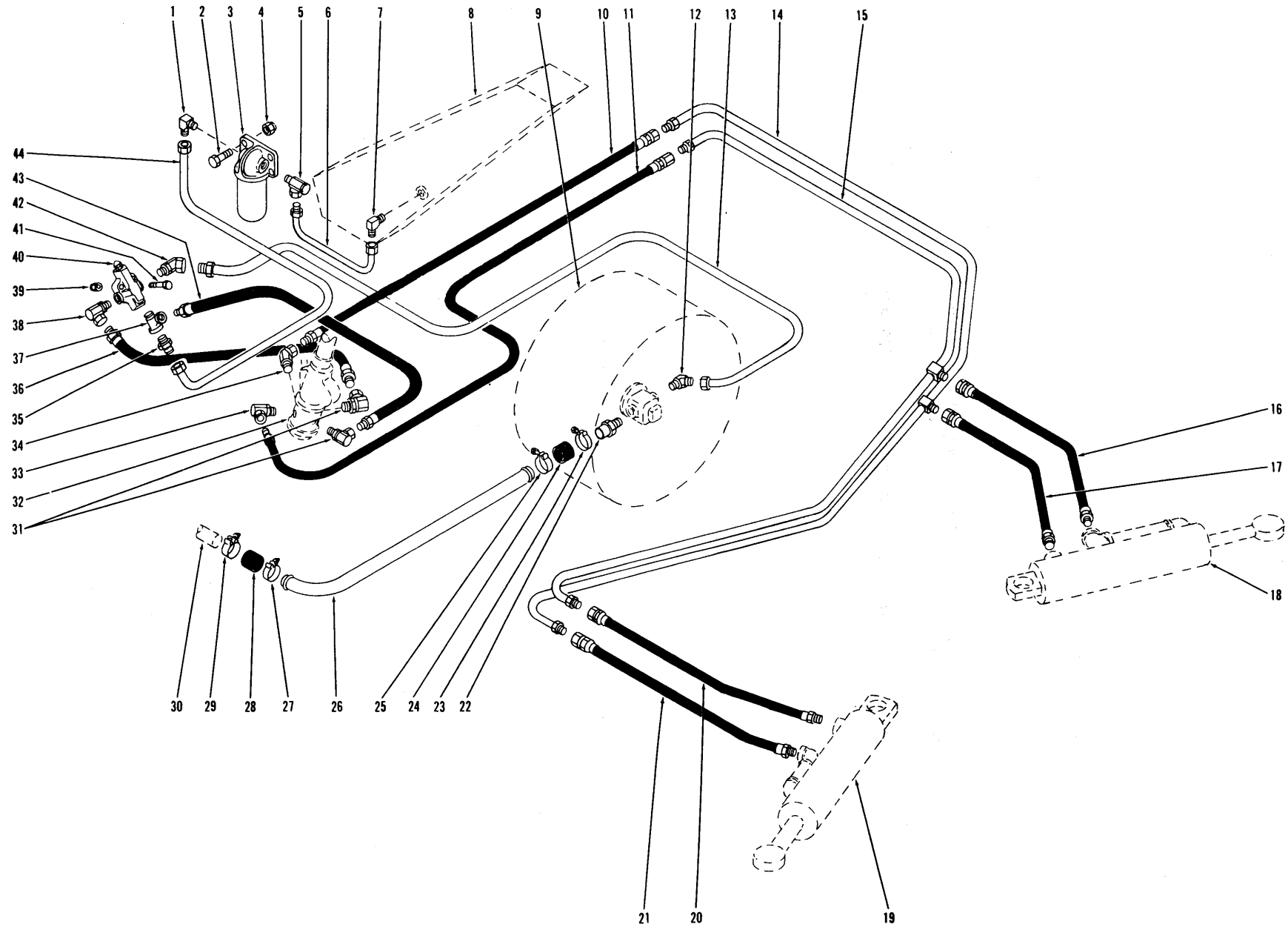


TS-1259-P

STEERING DRAG LINK

Item No.	Part No.	Description	No. Req'd.
A	537342	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
8	865963	SEAT	1
9	865963	SEAT	1
10	865965	SEAT, Ball Stud	1
11	12H-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

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



HYDRAULIC SYSTEM — STEERING

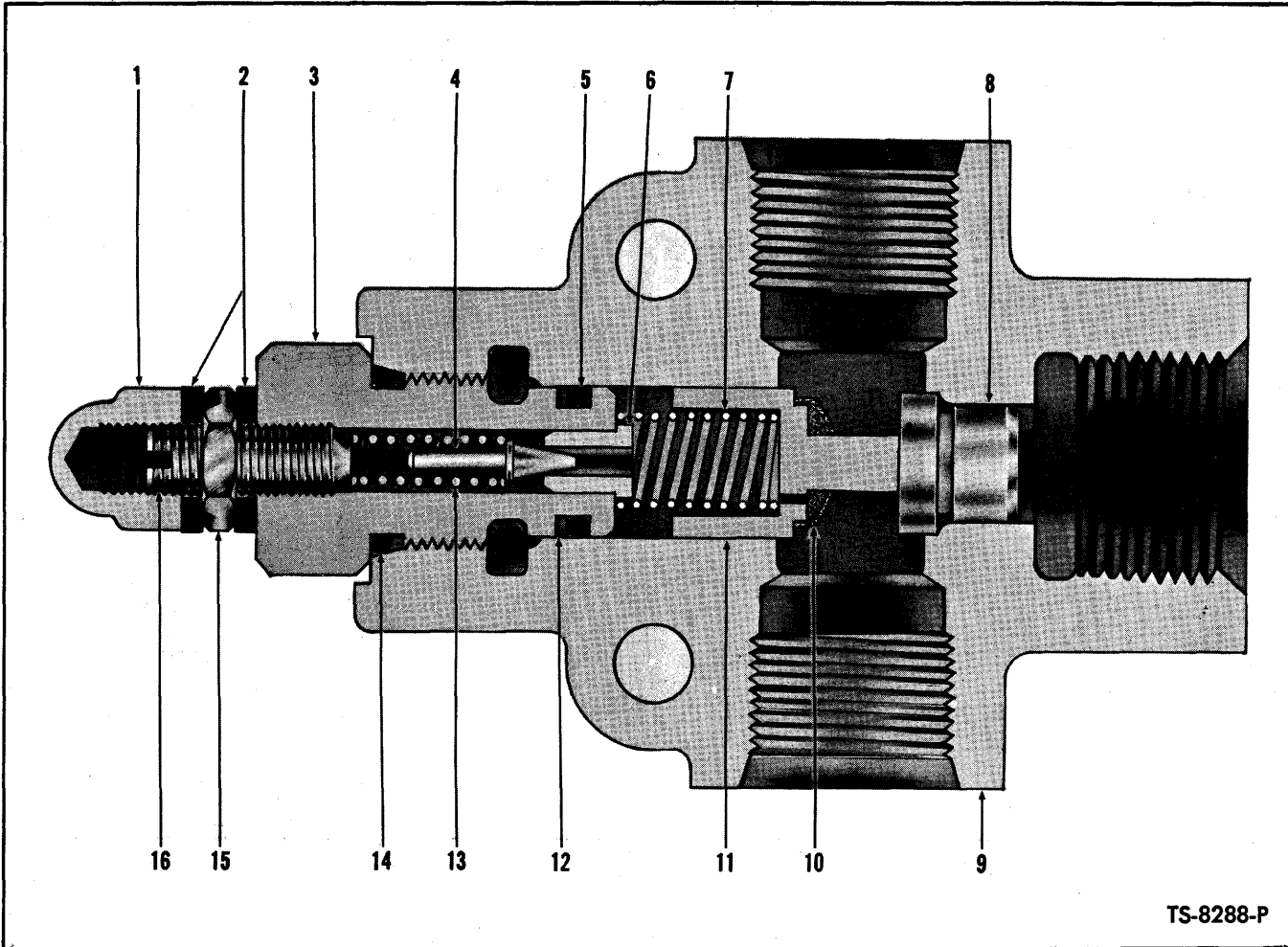
TS-2922-P

HYDRAULIC SYSTEM – STEERING

Item No.	Part No.	Description	No. Req'd.
1	566473	ADAPTER, Line to Filter.....	1
2	18C-624	BOLT, Filter Mounting.....	4
3	1533615	FILTER, Steering System Oil (Inc. 3A).....	1
3A	215502	†CARTRIDGE KIT, Filter.....	1
4	18D-06	NUT, Filter Mounting.....	4
5	6K-12	CHECK VALVE, Filter to Return Line.....	1
6	536521	LINE, Return – Filter to Reservoir.....	1
7	83F-8	ADAPTER, Return Line to Reservoir.....	1
8	-----	RESERVOIR, Hydraulic Oil – See Index.....	—
9	-----	TORQUE CONVERTER – See Index.....	—
10	536073	HOSE, Steering Gear to Tube – Right Turn.....	1
11	533724	HOSE, Steering Gear to Tube – Left Turn.....	1
12	84F-8	ADAPTER, Line to Pump.....	1
13	539801	LINE, Pump to Relief Valve.....	1
14	534917	LINE, Steering – Right Turn.....	1
15	534916	LINE, Steering – Left Turn.....	1
16	675016	HOSE, Steering Line to L.H. Cyl.....	1
17	675015	HOSE, Steering Line to L.H. Cyl.....	1
18	-----	STEERING CYLINDER – See Index.....	—
19	-----	STEERING CYLINDER – See Index.....	—
20	675016	HOSE, Steering Line to R.H. Cyl.....	1
21	675015	HOSE, Steering Line to R.H. Cyl.....	1
22	667290	NIPPLE, Hose.....	1
23	540129	CLAMP, Hose.....	1
24	536749	HOSE, Tube to Pump.....	1
25	540129	CLAMP, Hose.....	1
26	539758	TUBE, Tube to Pump – Suction.....	1
27	540129	CLAMP, Hose.....	1
28	536749	HOSE, Tube to Tube.....	1
29	540129	CLAMP, Hose.....	1
30	-----	TUBE, Suction – See Bucket and Boom Hydraulic System.....	—
31	531684	ADAPTER UNION.....	2
32	-----	STEERING GEAR – See Index.....	—
33	517089	ADAPTER UNION.....	1
34	535625	ADAPTER UNION.....	1
35	89F-8	ADAPTER, Line to Relief Valve Tee.....	1
36	612390	HOSE, Relief Valve to Steering Gear.....	1
37	17F-5	TEE, Relief Valve.....	1
38	531684	ADAPTER UNION.....	1
39	18D-05	NUT, Relief Valve Mounting.....	2
40	-----	RELIEF VALVE, Steering Pressure – See Index.....	1
41	18C-536	BOLT, Relief Valve Mounting.....	2
42	534894	ADAPTER UNION.....	1
43	669953	HOSE, Steering Gear to Relief Valve Tee.....	1
44	536334	LINE, Relief Valve to Filter.....	1

†Not Illustrated

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

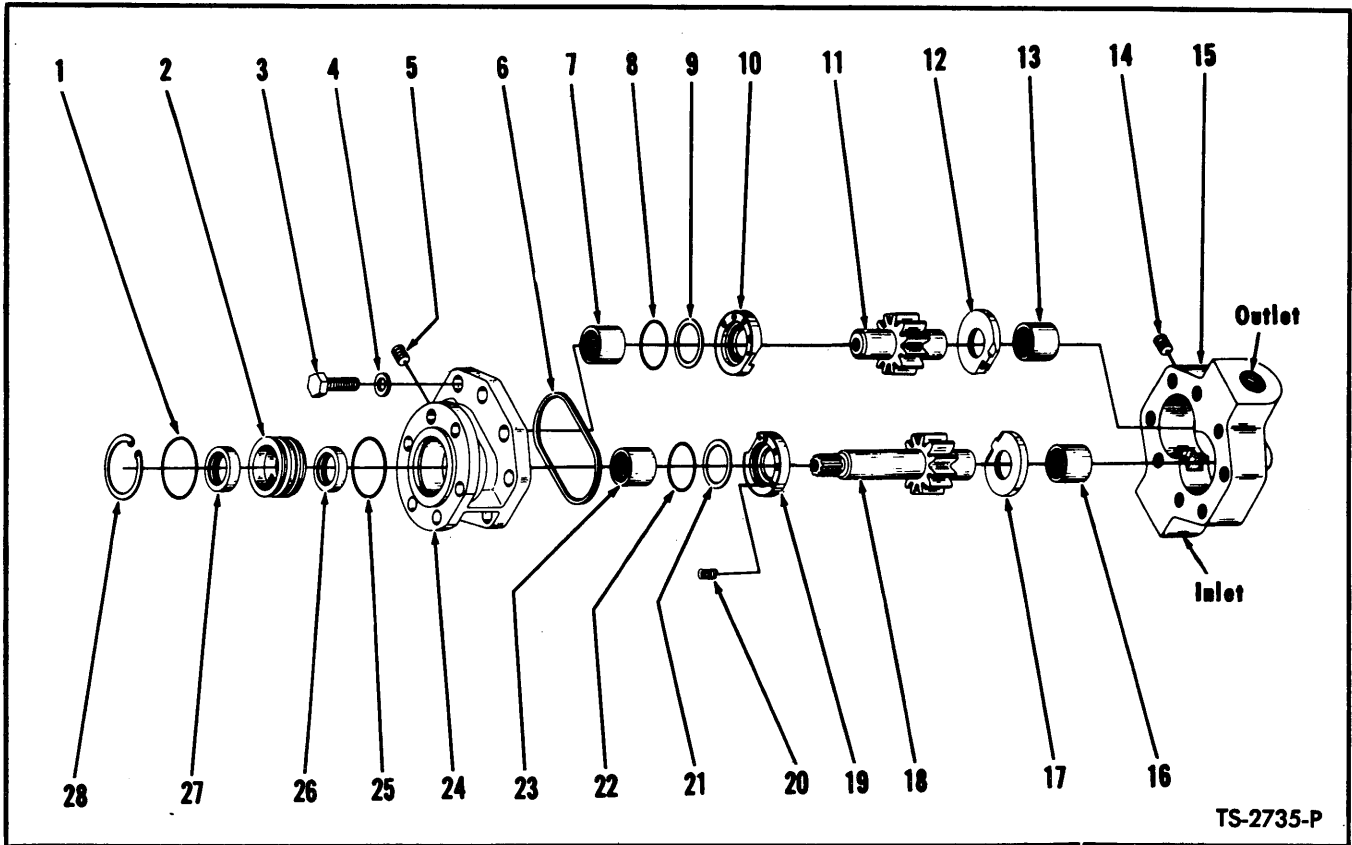


PRESSURE RELIEF VALVE – STEERING SYSTEM

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 PUMP – STEERING

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	450063	PUMP ASSY (Inc. 1 thru 28).....	1	13	---	**§BEARING, Body	1
B	498128	REPAIR KIT, Major (Inc. 10, 12, 17, 19)	1	14	---	§PLUG, Body	1
C	498127	*REPAIR KIT, Minor (Inc. 1, 3, 4, 6, 8, 9, 20, 21, 22, 25).....	1	15	---	**§BODY	1
D	498026	GEAR SET, Drive & Driven (Inc. 11, 18)	1	16	---	**§BEARING, Body	1
E	498113	REPAIR KIT, Shaft Seal (Inc. 1, 2, 25 thru 28)	1	17	---	§THRUST PLATE, Body.....	1
1	---	§"O" RING, Retainer.....	1	18	---	§GEAR, Drive	1
2	---	§RETAINER, Shaft Seal.....	1	19	---	§THRUST PLATE, Cover.....	1
3	---	§BOLT, Cover to Body.....	8	20	---	§SPRING, Cover Thrust Plate.....	6
4	---	§WASHER Cover to Body.....	8	21	---	§WASHER, "O" Ring Back-Up.....	1
5	---	§PLUG, Cover	1	22	---	§"O" RING, Cover Thrust Plate.....	1
6	---	§GASKET, Cover	1	23	---	**§BEARING, Cover	1
7	---	**§BEARING, Cover – Driven	1	24	---	**§COVER	1
8	---	§"O" RING, Cover Thrust Plate.....	1	25	---	§"O" RING, Retainer.....	1
9	---	§WASHER, "O" Ring Back-Up.....	1	26	---	§SEAL, Inner Oil.....	1
10	---	§THRUST PLATE, Cover.....	1	27	---	§SEAL, Outer Oil.....	1
11	---	§GEAR, Driven	1	28	---	§RING, Seal Retaining.....	1
12	---	§THRUST PLATE, Body.....	1	29	221991	†SLEEVE, Pump Drive See Note "A" ..	1
				30	235961	†GASKET, Pump to Converter.....	1
				31	66D-06	†NUT, Pump to Converter.....	6

†Not Illustrated

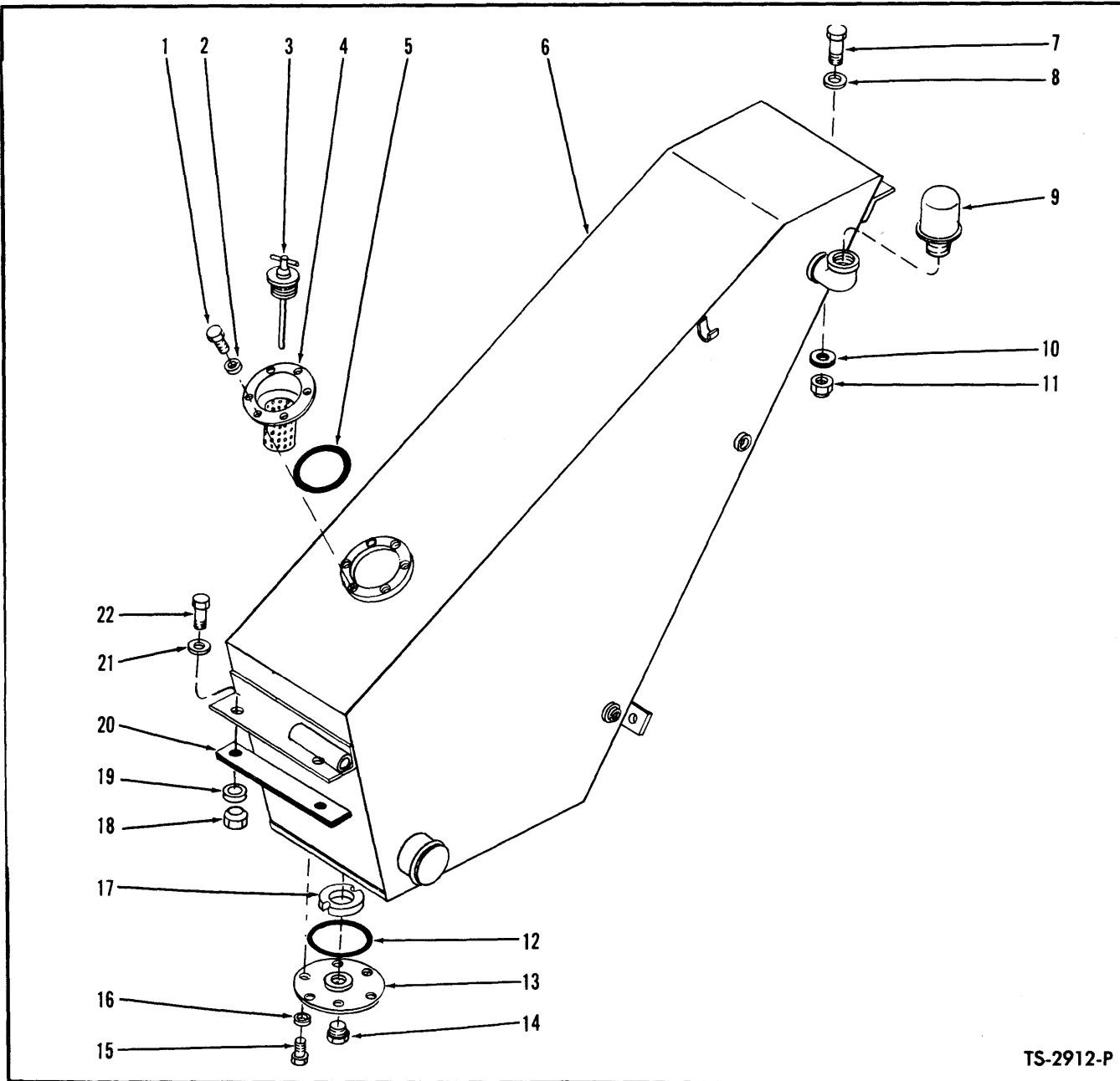
§Not Sold Separately

*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 "A": For replacement use 219412 Drive Sleeve Assy, which includes 1-658130 Retaining Ring.

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

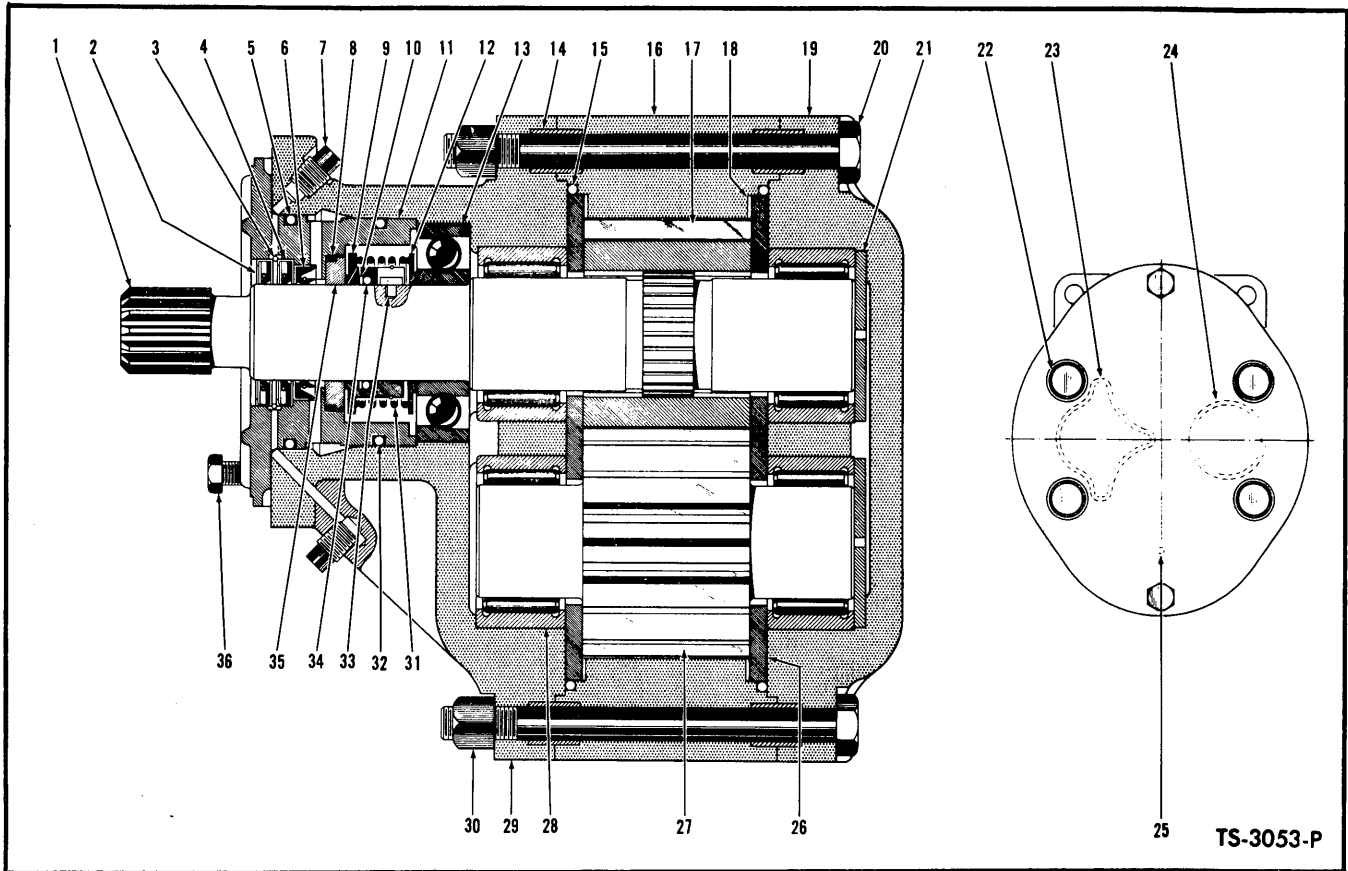


TS-2912-P

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	534380	RESERVOIR, Hydraulic Oil.....	1	18	18D-08	NUT, Reservoir Mounting.....	2
7	18C-828	BOLT, Reservoir Mounting.....	1	19	-----	OMIT, Not Applicable this Model.....	—
8	635682	WASHER, Reservoir Mounting.....	1	20	544125	PAD, Reservoir Mounting — Bottom....	2
9	538240	CAP, Breather	1	21	635682	WASHER, Reservoir Mounting.....	2
10	518233	PAD, Reservoir Mounting — Top.....	1	22	18C-832	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

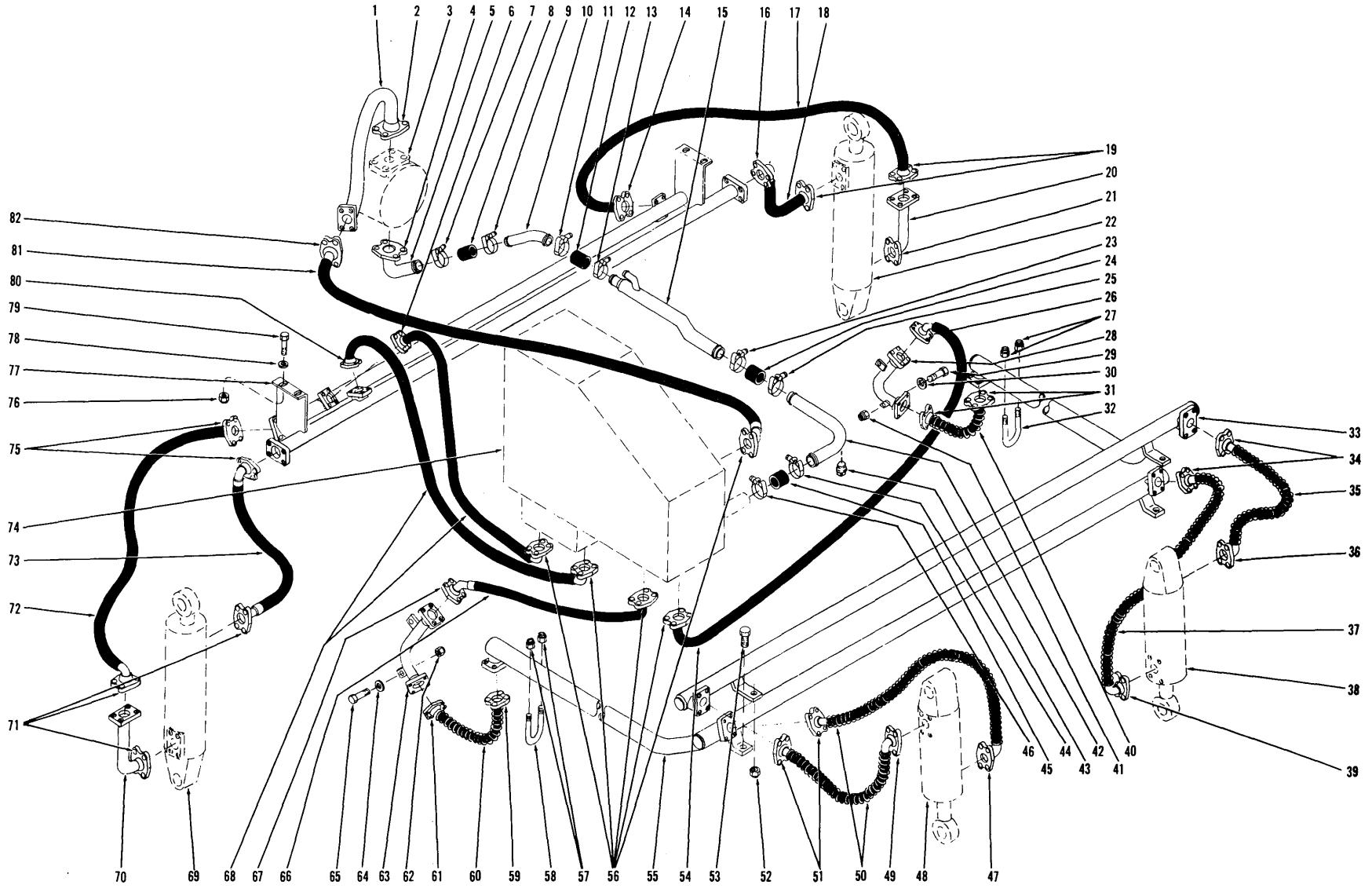


HYDRAULIC PUMP – BUCKET AND BOOM

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	539618	PUMP ASSY (Inc. 1 thru 36)	1	17	-----	§ GEAR, Drive (See D)	1
B	944815	REPAIR KIT, Minor (Inc. 2 thru 6, 8, 9, 15, 18, 23, 23A, 24, 32, 35)	1	18	-----	§ SHIM, Wear Plate (See D)	4
C	944795	SHAFT SEAL KIT (Inc. 2, 3, 4, 5, 6, 32)	1	19	-----	§ COVER, Pump (See A)	1
D	944801	SHAFT & GEAR KIT (Inc. 1, 17, 27)	1	20	14C-8104	BOLT, Cover to Housing & Adapter	2
E	944792	BEARING KIT (Inc. 13, 21, 28)	1	21	875364	PLATE, Thrust (See E)	2
F	944799	WEAR PLATE SET (Inc. 18, 26)	1	22	12G-1488	BOLT, Cover & Adapter to Housing	4
1	-----	§ SHAFT, Drive	1	23	-----	§ "O" RING (See B)	2
2	-----	§ SEAL, Shaft Outer (See B & C)	1	23A	-----	§ † WASHER, "O" Ring Back-Up (See B)	2
3	-----	§ RING, Snap (See B & C)	1	24	-----	§ "O" RING (See B)	2
4	-----	§ SEAL, Shaft Outer (See B & C)	1	25	209968	PIN, Roll	2
5	-----	§ "O" RING, Outer Seal Retainer (See B & C)	1	26	-----	§ PLATE, Wear (See F)	2
6	-----	§ SEAL, Shaft Inner (See B & C)	1	27	-----	§ GEAR, Driven (See D)	1
7	16F-02	PLUG, Adapter Port	3	28	-----	§ BEARING, Roller (See E)	4
8	-----	§ "O" RING, Seal Seat (See B)	1	29	-----	§ ADAPTER, Pump (See A)	1
9	-----	§ SEAL ASSY, High Pressure (Inc. 10, 12, 31, 33, 34) (See B)	1	30	18D-08	NUT, Cover & Adapter to Housing	2
10	-----	§ WASHER, "O" Ring Back-Up (See B)	1	31	-----	§ SPRING, High Pressure Seal (See B)	1
11	944805	RETAINER, Shaft Seal	1	32	-----	§ "O" RING, Retainer (See B)	1
12	-----	§ WASHER, Thrust (See B)	1	33	-----	§ KEY, Drive (See B)	1
13	875254	BEARING, Drive Shaft (See E)	1	34	-----	§ "O" RING, High Pressure Seal (See B)	1
14	944826	DOWEL, Housing to Adapter & Cover	4	35	-----	§ SEAT ASSY, Seal (Inc. 8) (See B)	1
15	-----	§ "O" RING, Housing (See B)	2	36	944827	BOLT, Retainer	6
16	944806	HOUSING, Center Section	1	37	18D-08	† NUT, Pump to Converter	4
				38	552161	† GASKET, Pump to Converter	1
				39	219413	† SLEEVE, Pump Drive	1
				40	664140	† RING, Drive Sleeve Retaining	1

§ Not Sold Separately
† Not Illustrated

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



HYDRAULIC SYSTEM — BUCKET AND BOOM

TS-2929-P

64.1

(2B8)

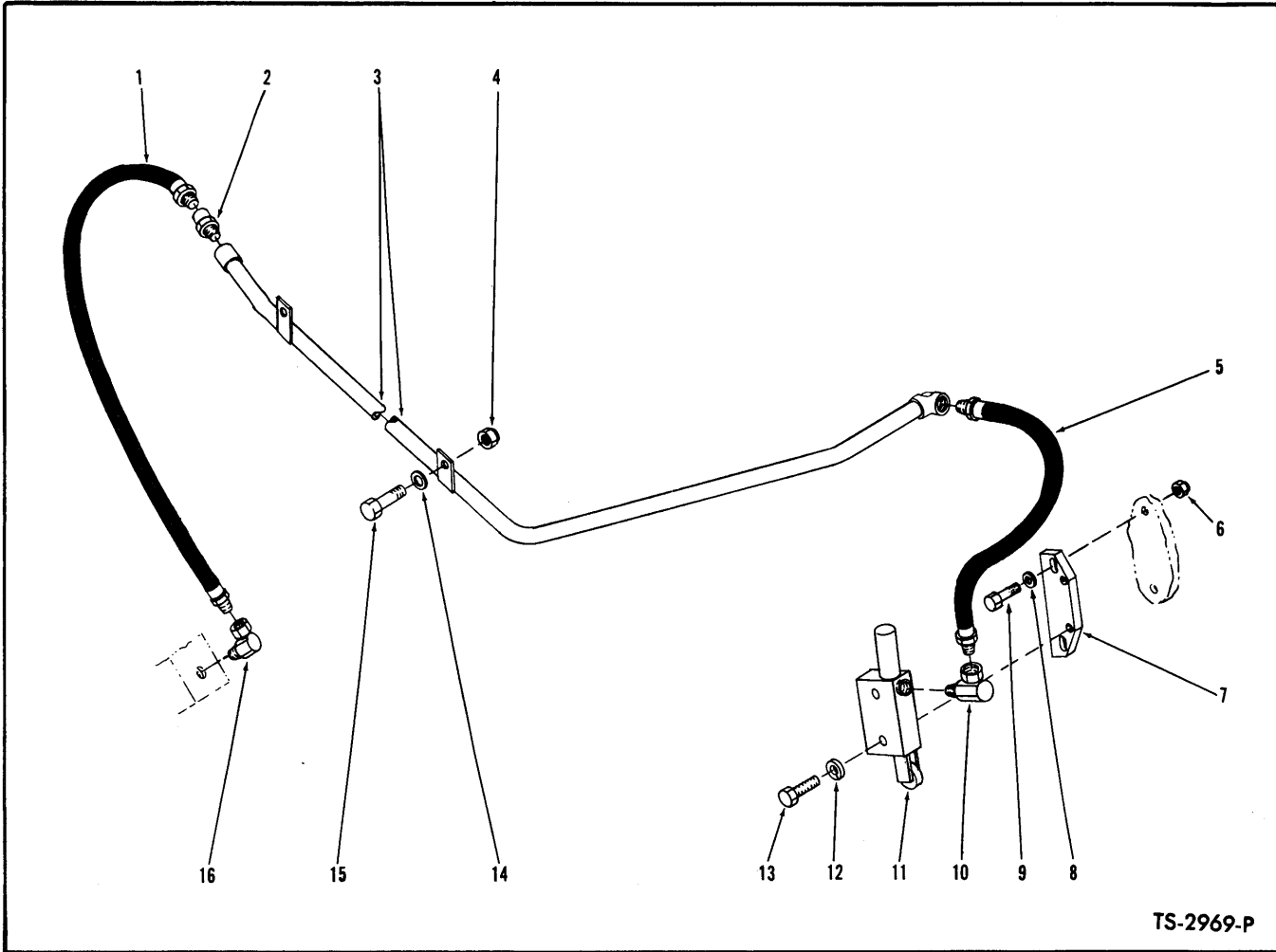
PM 1654

HYDRAULIC SYSTEM – BUCKET AND BOOM

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	539760	TUBE, Pump to Valve – Pressure.....	1	42	534973	TUBE, Suction	1
2	-----	FLANGE HALF – See Group "B" Below	—	43	13F-08	PLUG, Suction Tube.....	1
3	-----	PUMP, Bucket & Boom – See Index.....	—	44	540102	CLAMP, Hose	1
4	-----	FLANGE HALF—See Group "C" Below	—	45	1580530	HOSE, Suction Tube.....	1
5	539895	STEM, Hose to Pump.....	1	46	540102	CLAMP, Hose	1
6	-----	FLANGE HALF—See Group "A" Below	—	47	-----	FLANGE HALF—See Group "A" Below	—
7	540106	CLAMP, Hose	1	48	-----	BUCKET CYLINDER – See Index.....	—
8	533478	HOSE, Suction Tube.....	1	49	-----	FLANGE HALF—See Group "A" Below	—
9	540106	CLAMP, Hose	1	50	537281	HOSE, Guide Bar Pipe to Bucket Cylinder	2
10	539759	TUBE, Tube to Pump – Suction.....	1	51	-----	FLANGE HALF—See Group "D" Below	—
11	540106	CLAMP, Hose	1	52	18D-08	NUT, Guide Bar Pipes to Guide Bar....	2
12	533478	HOSE, Suction Tube.....	1	53	18C-836	BOLT, Guide Bar Pipes to Guide Bar..	2
13	540106	CLAMP, Hose	1	54	535843	HOSE, Valve to Frame Pipe.....	1
14	-----	FLANGE HALF—See Group "A" Below	—	55	537326	PIPE, Guide Bar – Right Hand.....	1
15	538616	TUBE, Center – Reservoir to Pump.....	1	56	-----	FLANGE HALF—See Group "A" Below	—
16	-----	FLANGE HALF—See Group "A" Below	—	57	18D-06	NUT, U-Bolt	2
17	538868	HOSE, Crosspipe to Boom Cylinder Tube	1	58	537477	U-BOLT, Pipe to Frame.....	1
18	534561	HOSE, Crosspipe to Boom Cylinder....	1	59	-----	FLANGE HALF—See Group "A" Below	—
19	-----	FLANGE HALF—See Group "A" Below	—	60	538609	HOSE, Frame Pipe to Guide Bar Pipe	1
20	548958	TUBE, Boom Cylinder.....	1	61	-----	FLANGE HALF—See Group "A" Below	—
21	-----	FLANGE HALF—See Group "A" Below	—	62	18D-08	NUT, Frame Pipe to Frame.....	2
22	-----	BOOM CYLINDER – See Index.....	—	63	538859	PIPE, Frame – Right Hand.....	1
23	540102	CLAMP, Hose	1	64	635682	WASHER, Frame Pipe to Frame.....	2
24	1580530	HOSE, Suction Tube.....	1	65	18C-836	BOLT, Frame Pipe to Frame.....	2
25	540102	CLAMP, Hose	1	66	535843	HOSE, Valve to Frame Pipe.....	1
26	-----	FLANGE HALF—See Group "A" Below	—	67	-----	FLANGE HALF—See Group "A" Below	—
27	18D-06	NUT, U-Bolt	2	68	534559	HOSE, Valve to Rear Crosspipe.....	2
28	538860	PIPE, Frame – Left Hand.....	1	69	-----	BOOM CYLINDER – See Index.....	—
29	18C-836	BOLT, Frame Pipe to Frame.....	1	70	548958	TUBE, Boom Cylinder.....	1
30	635682	WASHER, Frame Pipe to Frame.....	1	71	-----	FLANGE HALF—See Group "A" Below	—
31	-----	FLANGE HALF—See Group "A" Below	—	72	538868	HOSE, Crosspipe to Boom Cylinder Tube	1
32	537477	U-BOLT, Pipe to Frame.....	1	73	534561	HOSE, Crosspipe to Boom Cylinder....	1
33	537327	PIPE, Guide Bar – Left Hand.....	1	74	-----	RESERVOIR, Hydraulic Oil – See Index	—
34	-----	FLANGE HALF—See Group "D" Below	—	75	-----	FLANGE HALF—See Group "A" Below	—
35	537281	HOSE, Guide Bar Pipe to Bucket Cylinder	1	76	18D-08	NUT, Crosspipe to Frame.....	4
36	-----	FLANGE HALF—See Group "A" Below	—	77	538858	CROSSPIPE ASSY, Rear.....	1
37	537281	HOSE, Guide Bar Pipe to Bucket Cylinder	1	78	635682	WASHER, Crosspipe to Frame.....	4
38	-----	BUCKET CYLINDER – See Index.....	—	79	18C-828	BOLT, Crosspipe to Frame.....	4
39	-----	FLANGE HALF—See Group "A" Below	—	80	-----	FLANGE HALF—See Group "A" Below	—
40	538609	HOSE, Frame Pipe to Guide Bar Pipe	1	81	535001	HOSE, Pump to Valve.....	1
41	18D-08	NUT, Frame Pipe to Frame.....	1	82	-----	FLANGE HALF—See Group "A" Below	—

GROUP	FLANGE HALF	"O" RING	BOLT	LKWSHR	SIZE
No. Req'd. Per Connection	2	1	4	4	
A	19J20	58K-222	17C-724	4E-07	1 ¼"
B	19J24	58K-225	17C-824	4E-08	1 ½"
C	19J40	58K-232	17C-828	4E-08	2 ½"
D	19J16	58K-219	17C-620	4E-06	1"

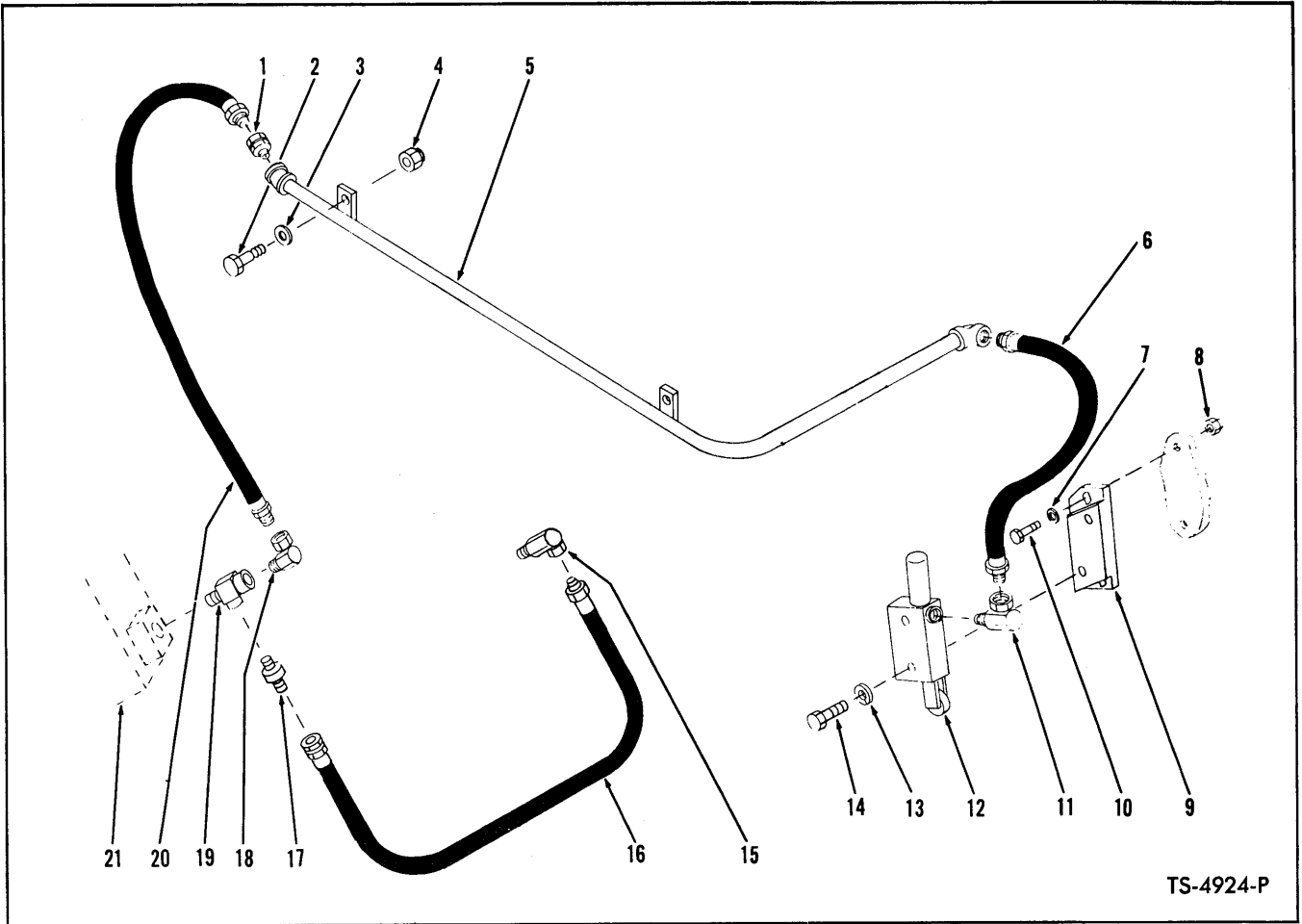
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



**BUCKET LEVELING HYDRAULIC SYSTEM
For Serial: 3HG101 thru 3HG342**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	611179	HOSE, Pipe to Valve	1	9	18C-628	BOLT, Mounting Plate to Carrier	2
2	36F-2	ADAPTER UNION	1	10	31F-2	ADAPTER UNION	1
3	538838	PIPE, Bucket Leveler	1	11	-----	LEVELER VALVE, Bucket — See Index —	—
4	18D-06	NUT, Pipe to Guide Bar	2	12	4E-06	LKWSHR, Leveler Valve Mounting	2
5	545261	HOSE, Cylinder to Pipe	1	13	18C-644	BOLT, Leveler Valve to Plate	2
6	18D-06	NUT, Mounting Plate to Carrier.....	2	14	619021	WASHER, Pipe to Guide Bar	2
7	542639	PLATE, Leveler Valve Mounting	1	15	18C-620	BOLT, Pipe to Guide Bar	2
8	619021	WASHER, Mounting Plate to Carrier .	2	16	31F-2	ADAPTER UNION	1

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

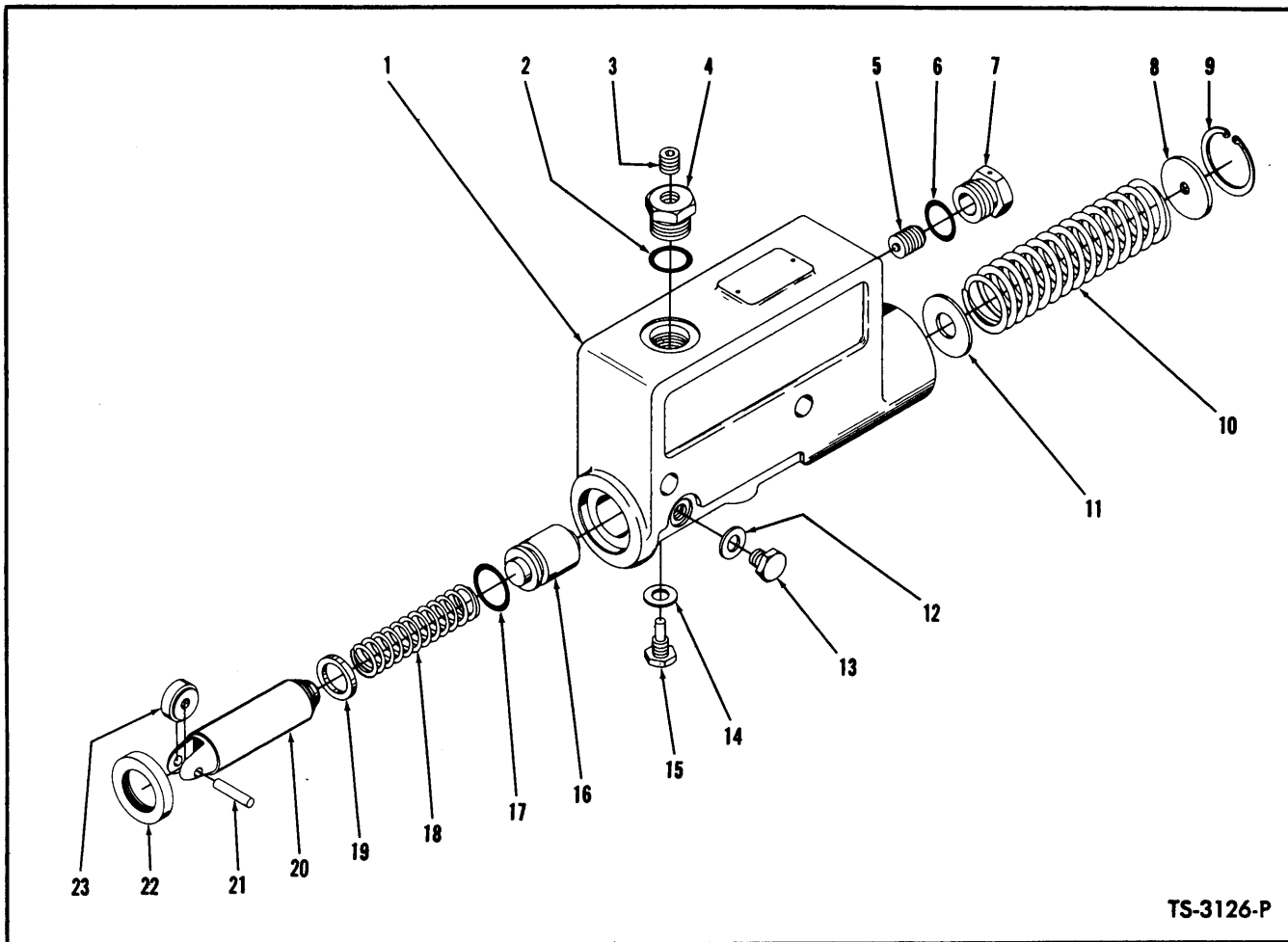


TS-4924-P

HYDRAULIC SYSTEM — BUCKET LEVELING
For Serial: Cummins — 4HC102 thru 4HC999
G.M. — 3HG343 thru 3HG999, 4HG101 thru 4HG999

Item No.	Part No.	Description	No. Req'd.
1	36F-2	ADAPTER UNION	1
2	18C-620	BOLT, Pipe Mounting	2
3	619021	WASHER, Pipe Mounting	2
4	18D-06	NUT, Pipe Mounting	2
5	538838	PIPE ASSY, Control Valve to Leveler Valve	1
6	545261	HOSE, Pipe to Leveler Valve	1
7	619021	WASHER, Mounting Plate to Carrier	2
8	18D-06	NUT, Mounting Plate to Carrier	2
9	588224	PLATE, Leveler Valve Mounting	1
10	18C-628	BOLT, Mounting Plate to Carrier	2
11	31F-2	ADAPTER UNION	1
12	-----	VALVE, Bucket Leveler — See PMS 1791, 1925.....	—
13	4E-06	LKWSHR, Valve Mounting	2
14	18C-644	BOLT, Valve Mounting	2
15	31F-1	ADAPTER UNION, Hose to Steering Hydraulic System	1
16	562751	HOSE, Hydraulic Valve to Steer Filter	1
17	568524	VALVE, Check	1
18	31F-2	ADAPTER UNION	1
19	30F-1	TEE, Control Valve to Hose	1
20	611179	HOSE, Pipe to Valve	1
21	-----	VALVE ASSY, Control — See PMS 1924	—

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



TS-3126-P

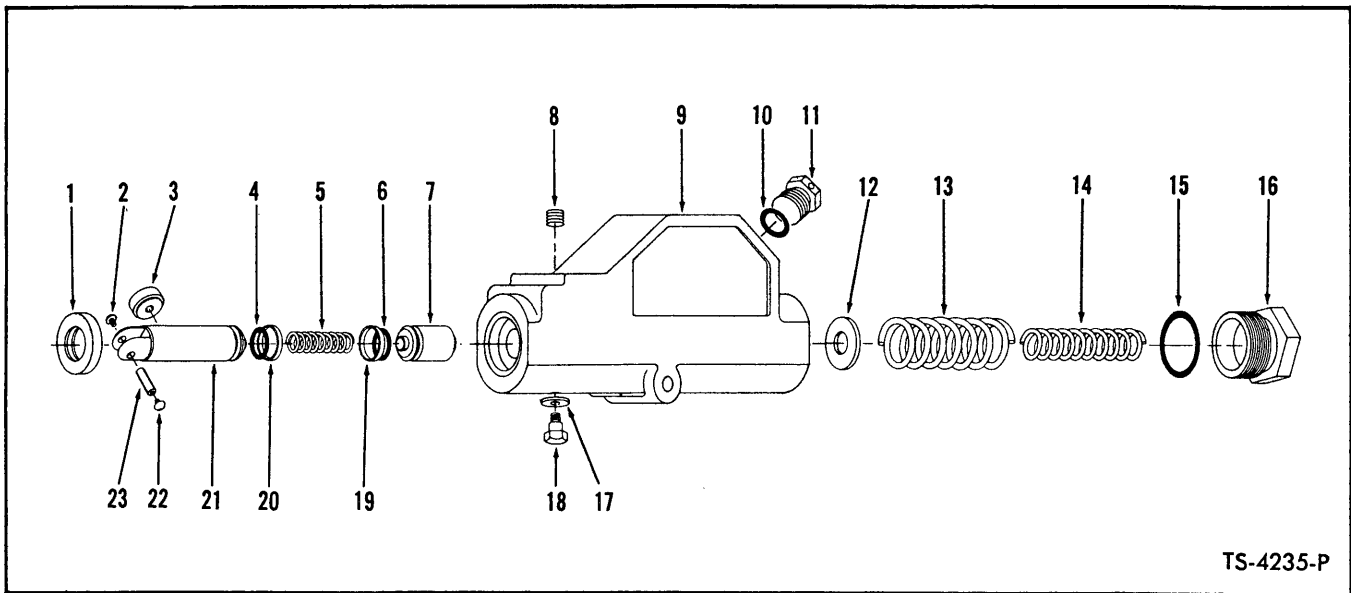
MASTER CYLINDER – BUCKET LEVELING—G.M.

For Serial: 3HG101 thru 3HG327

Item No.	Part No.	Description	No. Req'd.
A	545267	*CYLINDER ASSY (Inc. 1 thru 23)	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	945003	PLUG, Spring Retaining	1
9	868744	RING, Plug Retaining	1
10	945004	SPRING	1
10A	945238	SPRING, Inner	1
11	25E-23	WASHER, Spring	1
12	865149	WASHER	1
13	945005	BOLT	1
14	865149	WASHER	1
15	945006	LOCK SCREW	1
16	945012	PLUG	1
17	25K-30022	"O" RING	1
18	945007	SPRING	1
19	945008	"V" SEAL	1
20	945010	PLUNGER	1
21	876878	ROLL PIN	1
22	945011	SEAL	1
23	945009	ROLLER	1

*NOTE: For complete Cylinder Assy. use 549063 plus 1—588224 Mounting Plate. §Not Sold Separately

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



TS-4235-P

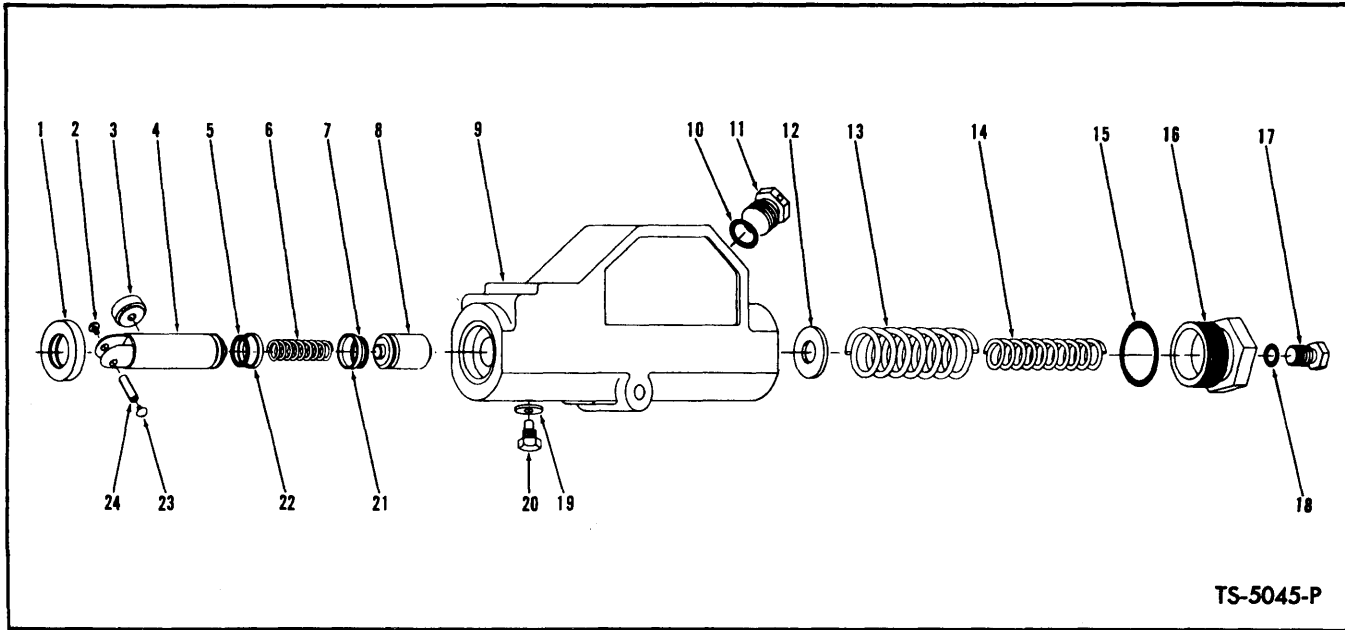
MASTER CYLINDER — BUCKET LEVELING — CUMMINS

For Serial 4HC101 thru 4HC106, 4HC109

Item No.	Part No.	Description	No. Req'd.
A	549063	MASTER CYLINDER ASSY (Inc. 1 thru 23).....	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 (Order Item A).....	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	945873	CAP	1
17	865149	WASHER	1
18	945006	SCREW, Lock	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

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



TS-5045-P

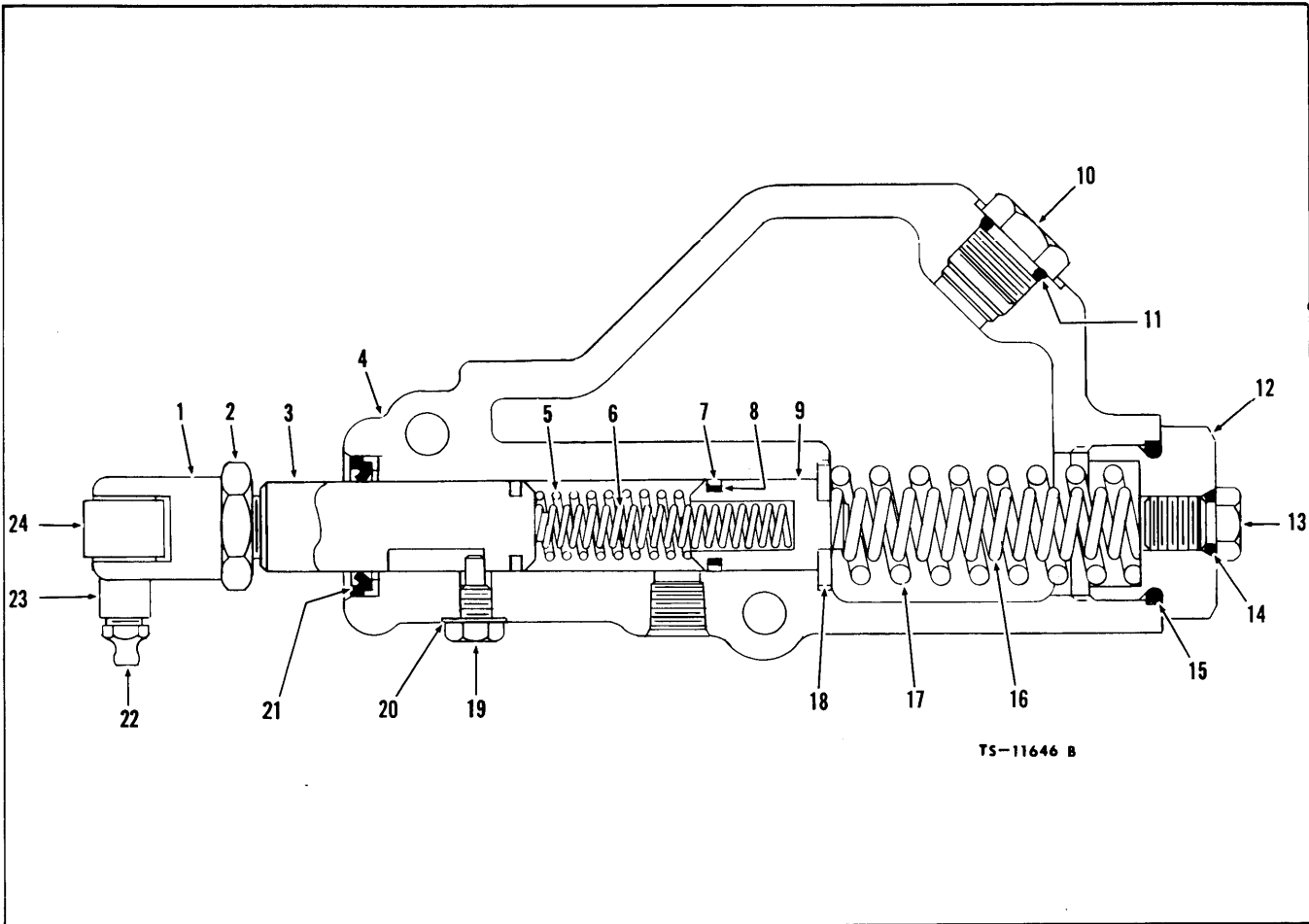
MASTER CYLINDER BUCKET LEVELER
For Serial 4HC107, 4HC108, 4HC110 thru 4HC999
For Serial 4HG224 Thru 4HG999

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	-----	§PLUNGER, 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 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

*NOTE: For replacement service with components.

§Not Sold Separately

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

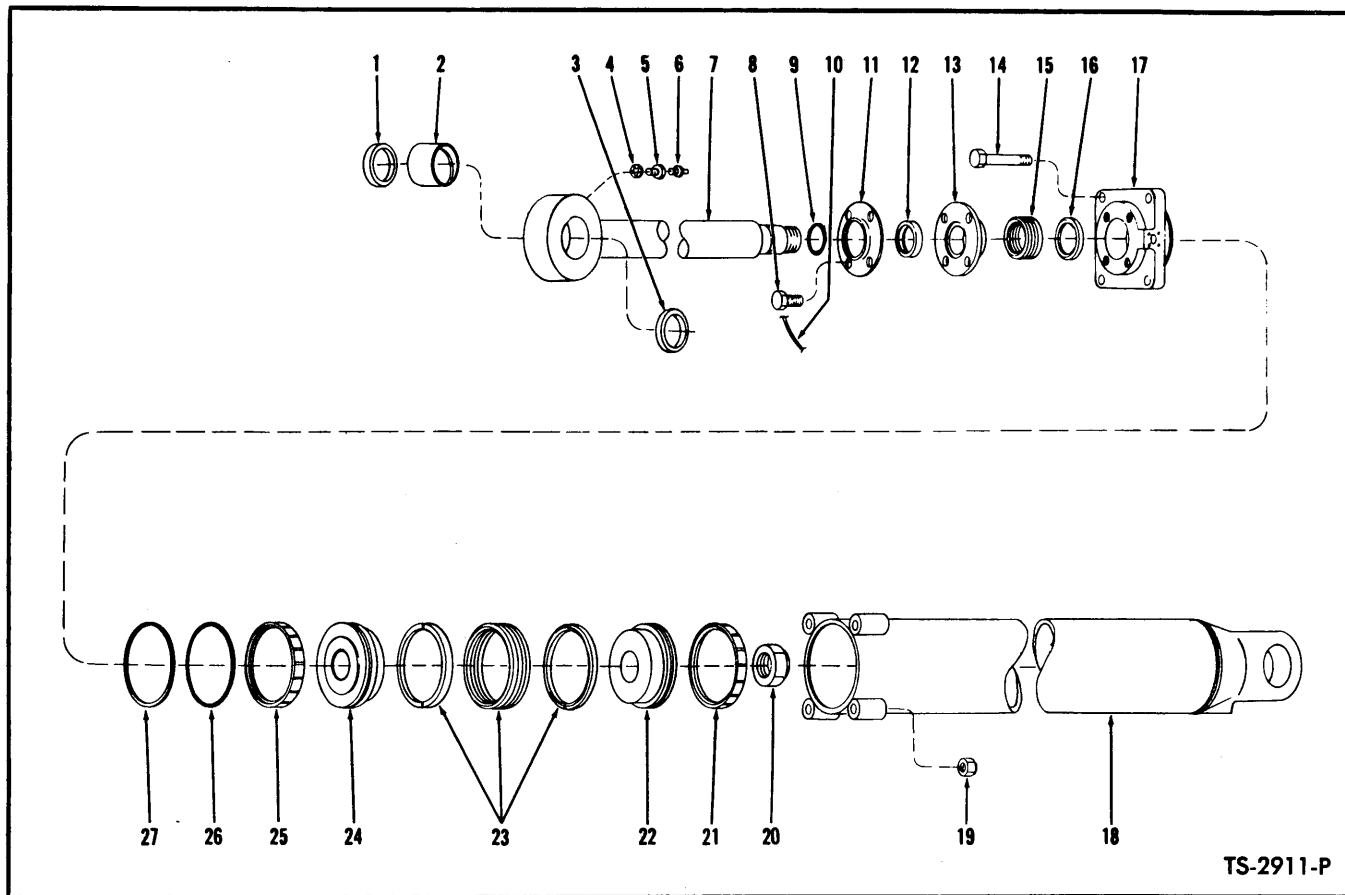


BUCKET LEVELER MASTER CYLINDER ASSEMBLY

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

§ Not Sold Separately

*NOTE: For replacement service with components.



TS-2911-P

BOOM CYLINDER ASSEMBLY

2 Cylinders Used on Machine – Quantities Listed Below are for 1 Cylinder

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	533634	CYLINDER ASSY (Inc. 1 thru 27) . . .	1	13	528103	**GLAND, Packing	1
B	2516077	KIT (Inc. 9, 12, 15, 16, 21, 23, 25 thru 27) See Note "A"	1	14	24C-1696	BOLT, Cylinder Cap	4
1	534736	SEAL, Dust	1	15	2501101	PACKING SET (Inc. 16)	1
2	533794	BUSHING, Piston Rod	1	16	-----	§ ADAPTER, Male (See 15)	2
3	534736	SEAL, Dust	1	17	945117	CAP, Cylinder	1
4	7E-08	LKWSHR, Bushing Retaining Bolt	1	18	533635	CYLINDER	1
5	532118	BOLT, Bushing Retaining	1	19	18D-16	NUT, Cylinder Cap	4
6	10H-35	FITTING, Piston Rod Grease	1	20	536058	NUT, Piston Rod	1
7	538895	ROD ASSY, Piston (Inc. 2, 4, 5)	1	21	-----	§ RING, Wear – See B	1
8	4C-824	BOLT, Packing Gland	4	22	541588	*PISTON	1
9	-----	§ "O" RING, Piston Rod – See B	1	23	-----	§ PACKING ASSY (Inc. Adapters) See B	1
10	28H-16240	LOCKWIRE, Packing Gland	1	24	541588	*PISTON	1
11	512747	RETAINER, Seal	1	25	-----	§ RING, Wear – See B	1
12	941569	SEAL, Piston Rod	1	26	-----	§ "O" RING, Cylinder Cap – See B	1
				27	-----	§ RING, "O" Ring Backup – See B	1

*NOTE: For replacement use 1-1503890 Piston (one-piece) plus 1-2516078 Kit.

**NOTE: For replacement use 1-528101 Flange plus 1-528102 Sleeve.

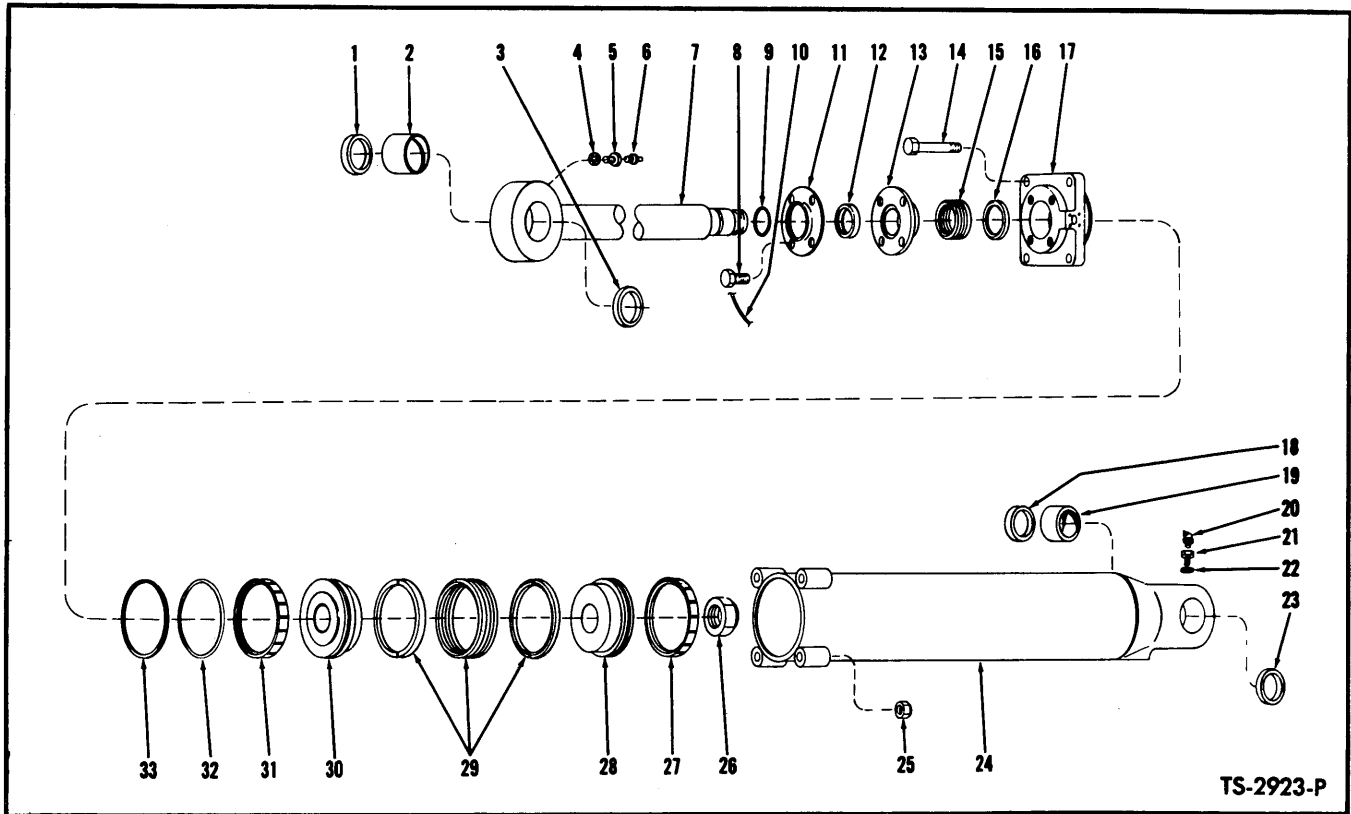
NOTE "A": Ref. SG-597A.

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

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TS-2923-P

BUCKET CYLINDER ASSEMBLY

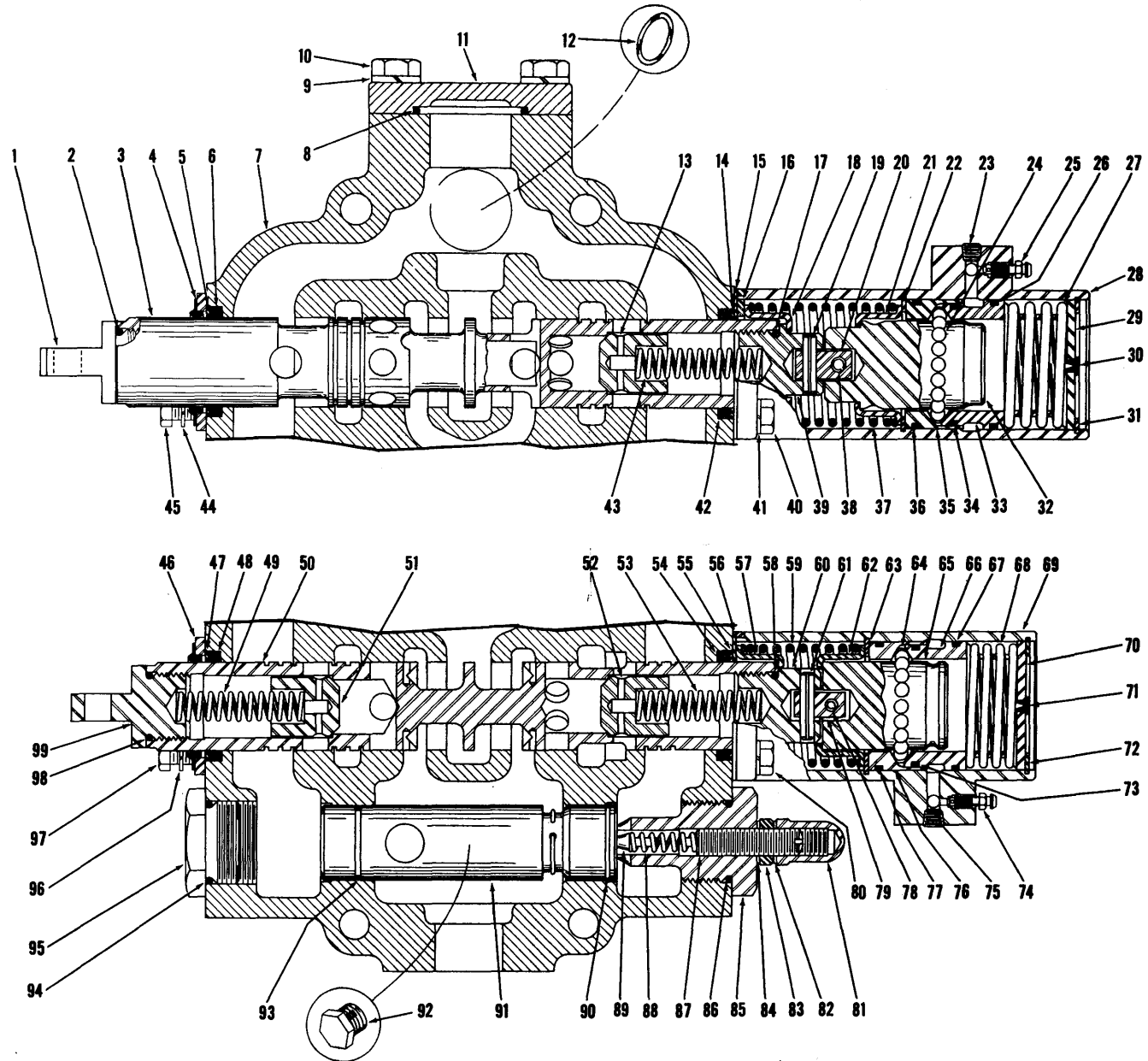
2 Cylinders Used on Machine – Quantities Listed Below are for 1 Cylinder

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	537129	CYLINDER ASSY (Inc. 1 thru 33) . . .	1	17	945117	CAP, Cylinder	1
B	2516077	KIT (Inc. 9, 12, 15, 16, 27, 29, 31 thru 33) See Note "A" . . .	1	18	534736	SEAL, Dust	1
1	534736	SEAL, Dust	1	19	533794	BUSHING, Cylinder	1
2	533794	BUSHING, Piston Rod	1	20	11H-25	FITTING, Cylinder Grease	1
3	534736	SEAL, Dust	1	21	532118	BOLT, Grease Fitting	1
4	7E-08	LKWSHR, Bushing Retaining Bolt . . .	1	22	7E-08	LKWSHR, Grease Fitting Bolt	1
5	532118	BOLT, Bushing Retaining	1	23	534736	SEAL, Dust	1
6	10H-35	FITTING, Piston Rod Grease	1	24	537130	CYLINDER (Inc. 19, 21, 22)	1
7	538893	ROD ASSY, Piston (Inc. 2, 4, 5)	1	25	18D-16	NUT, Cylinder Cap	4
8	4C-824	BOLT, Packing Gland	4	26	536058	NUT, Piston Rod	1
9	-----	§"O" RING, Piston Rod – See B	1	27	-----	§RING, Wear – See B	1
10	28H-16240	LOCKWIRE, Packing Gland Bolt	1	28	541588	*PISTON	1
11	512747	RETAINER, Seal	1	29	-----	PACKING ASSY (Inc. Adapters) See B	1
12	941569	SEAL, Piston Rod	1	30	541588	*PISTON	1
13	528103	**GLAND, Packing	1	31	-----	§RING, Wear – See B	1
14	24C-1696	BOLT, Cylinder Cap	4	32	-----	§"O" RING, Cylinder Cap – See B	1
15	2501101	PACKING SET (Inc. 16)	1	33	-----	§RING, "O" Ring Backup – See B	1
16	-----	§ADAPTER, Male – See 15	2				

*NOTE: For replacement use 1-1503890 Piston plus 1-2516078 Kit.
 **NOTE: For replacement use 1-528101 Flange plus 1-528102 Sleeve

NOTE "A": Ref. SG-597A.

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



CONTROL VALVE ASSEMBLY - CUMMINS
For Serial No. 4HC102 thru 4HC121

TS-4932

70.1

(2E11)

PM 1654

CONTROL VALVE ASSEMBLY — CUMMINS

For Serial: 4HC102 thru 4HC121

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	534394	** VALVE ASSY (Inc. 1 thru 99)	1	52	943184	CHECK	1
1	943180	EYE, Plunger	1	53	944858	SPRING, Check	1
2	58K-214	"O" RING, Plunger Eye	1	54	949150	SEAL, Plunger Oil	1
3	-----	§ PLUNGER, Operating — See "A"	1	55	944837	RING, Back-up	1
4	947521	* WIPER	1	56	944838	PLATE, Seal Retaining	1
5	944837	RING, Back-up	1	57	944851	RETAINER, Spring	1
6	949150	SEAL, Plunger Oil	1	58	58K-214	"O" RING, Cap	1
7	-----	§ HOUSING, Valve — See "A"	1	59	943498	SPRING, Return	1
8	58K-225	"O" RING, Cover	1	60	944854	CAP, Plunger	1
9	4E-08	LKWSHR, Cover to Housing	4	61	660178	ROLL PIN	1
10	1C-820	BOLT, Cover to Housing	4	62	944851	RETAINER, Spring	1
11	943191	COVER	1	63	1301171	RING, Retaining	1
12	25K-40120	"O" RING, Valve to Reservoir	1	64	10J-08	BALL	20
13	943184	CHECK	1	65	944973	CAP, Detent	1
14	944837	RING, Back-up	1	66	944849	RETAINER, Ball	1
15	944838	PLATE, Seal Retaining	1	67	58K-139	"O" RING, Ball Retainer	1
16	944839	SPACER, Spring Guide	1	68	945429	SPRING	1
17	58K-214	"O" RING, Cap	1	69	944848	COVER, Detent	1
18	944840	RETAINER, Spring	1	70	944844	SPACER, Spring	1
19	302602	ROLL PIN	1	71	886763	PLUG, Bleeder	1
20	944148	PIN	1	72	663823	RING, Retaining	1
21	944851	RETAINER, Spring	1	73	58K-137	"O" RING, Ball Retainer	1
22	1301171	RING, Retaining	1	74	641297	SCREW, Bleeder	1
23	16F-02	PLUG, Pipe	1	75	16F-02	PLUG, Pipe	1
24	10J-08	BALL	20	76	944850	RETAINER, Ball	1
25	641297	SCREW, Bleeder	1	77	58K-139	"O" RING	1
26	58K-139	"O" RING, Ball Retainer	1	78	633157	ROLL PIN	1
27	944846	SPRING, Detent	1	79	944148	PIN	1
28	944843	COVER, Detent	1	80	1C-416	BOLT	4
29	944844	SPACER, Spring	1	80A	4E-04	LKWSHR	4
30	886763	PLUG, Bleeder	1	81	944853	NUT, Relief Valve Acorn	1
31	663823	RING, Spacer Retaining	1	82	613750	WASHER	1
32	944845	CAP, Detent	1	83	8D-08	NUT, Relief Valve Jam	1
33	944849	RETAINER, Ball	1	84	613750	WASHER	1
34	58K-137	"O" RING, Ball Retainer	1	85	945497	CAP, Relief Valve Adjusting	1
35	944850	RETAINER, Ball	1	86	25K-40108	"O" RING, Cap	1
36	58K-139	"O" RING, Ball Retainer	1	87	944855	SCREW, Adjusting	1
37	944842	SPRING, Return	1	88	886753	SPRING	1
38	660178	ROLL PIN	1	89	886739	POPPET, Relief	1
39	944841	CAP, Plunger	1	90	944802	RING, Snap	1
40	1C-416	BOLT, Detent Cover to Housing	4	91	945496	VALVE ASSY, Relief (Inc. 90, 93)	1
41	4E-04	LKWSHR, Detent Cover to Housing	4	92	40K-04	PLUG, Pipe	1
42	949150	SEAL, Plunger Oil	1	93	58K-026	"O" RING, Relief Valve	1
43	944858	SPRING, Check	1	94	25K-40108	"O" RING, Cap	1
44	4E-04	LKWSHR, Wiper to Housing	1	95	875279	CAP	1
45	1C-412	BOLT, Wiper to Housing	1	96	4E-04	LKWSHR	2
46	947521	* WIPER	1	97	1C-412	BOLT	2
47	944837	RING, Back-up	1	98	58K-214	"O" RING	1
48	949150	SEAL, Plunger Oil	1	99	943180	EYE, Plunger	1
49	944858	SPRING	1	100	18C-872	† BOLT, Valve to Reservoir	3
50	-----	§ PLUNGER, Operating	1	101	4E-08	† LKWSHR, Valve to Reservoir	3
51	943184	CHECK	1				

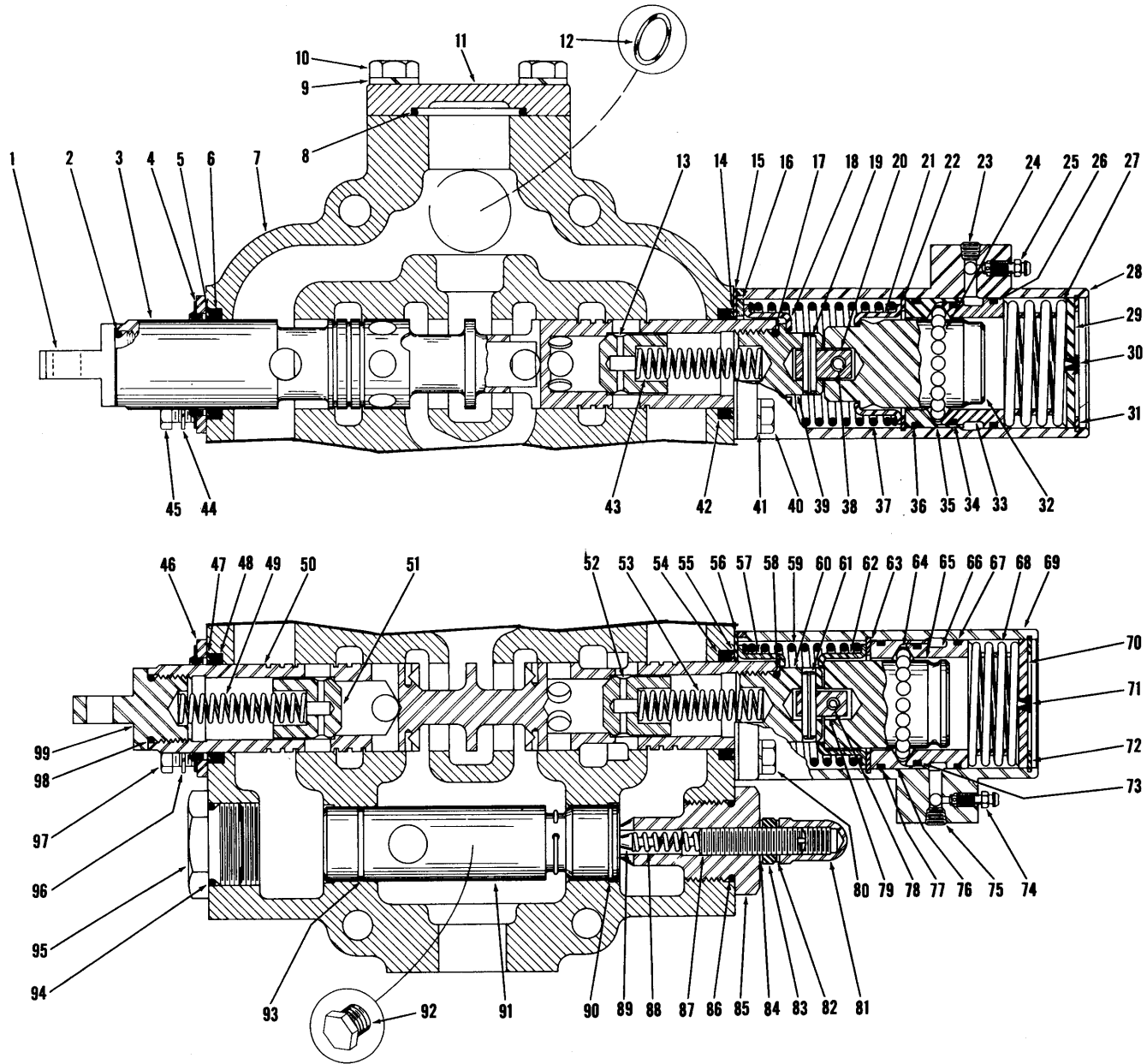
† Not Illustrated

§ Not Sold Separately

* NOTE: For replacement use 949066 Kit, which consists of 1—949150 Seal, 1—949236 Wiper, 1—949237 Plate, & 1—949298 Plate.

** NOTE: For complete replacement use 1512164.

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



CONTROL VALVE ASSEMBLY
For Serial No. G.M. 3HG101 thru 3HG999, 4HG101 thru 4HG258

TS-4932

70A.1

(2E13)

PM 1654

CONTROL VALVE ASSEMBLY — G.M.

For Serial: G.M. — 3HG101 thru 3HG999, 4HG101 thru 4HG258

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	534394	** VALVE ASSY (Inc. 1 thru 99)	1	52	943184	CHECK	1
1	943180	EYE, Plunger	1	53	944858	SPRING, Check	1
2	58K-214	"O" RING, Plunger Eye	1	54	949150	SEAL, Plunger Oil	1
3	-----	§PLUNGER, Operating — See "A"	1	55	944837	RING, Back-up	1
4	947521	*WIPER	1	56	944838	PLATE, Seal Retaining	1
5	944837	RING, Back-up	1	57	944851	RETAINER, Spring	1
6	949150	SEAL, Plunger Oil	1	58	58K-214	"O" RING, Cap	1
7	-----	§HOUSING, Valve — See "A"	1	59	945857	SPRING, Return	1
8	58K-225	"O" RING, Cover	1	60	944854	CAP, Plunger	1
9	4E-08	LKWSHR, Cover to Housing	4	61	660178	ROLL PIN	1
10	1C-820	BOLT, Cover to Housing	4	62	944851	RETAINER, Spring	1
11	943191	COVER	1	63	1301171	RING, Retaining	1
12	25K-40120	"O" RING, Valve to Reservoir	1	64	10J-08	BALL	20
13	943184	CHECK	1	65	944973	CAP, Detent	1
14	944837	RING, Back-up	1	66	944849	RETAINER, Ball	1
15	944838	PLATE, Seal Retaining	1	67	58K-139	"O" RING, Ball Retainer	1
16	944839	SPACER, Spring Guide	1	68	945429	SPRING	1
17	58K-214	"O" RING, Cap	1	69	944848	COVER, Detent	1
18	944840	RETAINER, Spring	1	70	944844	SPACER, Spring	1
19	302602	ROLL PIN	1	71	886763	PLUG, Bleeder	1
20	944148	PIN	1	72	663823	RING, Retaining	1
21	944851	RETAINER, Spring	1	73	58K-137	"O" RING, Ball Retainer	1
22	1301171	RING, Retaining	1	74	641297	SCREW, Bleeder	1
23	16F-02	PLUG, Pipe	1	75	16F-02	PLUG, Pipe	1
24	10J-08	BALL	20	76	944850	RETAINER, Ball	1
25	641297	SCREW, Bleeder	1	77	58K-139	"O" RING	1
26	58K-139	"O" RING, Ball Retainer	1	78	633157	ROLL PIN	1
27	944846	SPRING, Detent	1	79	944148	PIN	1
28	944843	COVER, Detent	1	80	1C-416	BOLT	4
29	944844	SPACER, Spring	1	80A	4E-04	LKWSHR	4
30	886763	PLUG, Bleeder	1	81	944853	NUT, Relief Valve Acorn	1
31	663823	RING, Spacer Retaining	1	82	613750	WASHER	1
32	944845	CAP, Detent	1	83	8D-08	NUT, Relief Valve Jam	1
33	944849	RETAINER, Ball	1	84	613750	WASHER	1
34	58K-137	"O" RING, Ball Retainer	1	85	945497	CAP, Relief Valve Adjusting	1
35	944850	RETAINER, Ball	1	86	25K-40108	"O" RING, Cap	1
36	58K-139	"O" RING, Ball Retainer	1	87	944855	SCREW, Adjusting	1
37	945857	SPRING, Return	1	88	886753	SPRING	1
38	660178	ROLL PIN	1	89	886739	POPPET, Relief	1
39	944841	CAP, Plunger	1	90	944802	RING, Snap	1
40	1C-416	BOLT, Detent Cover to Housing	4	91	945496	VALVE ASSY, Relief (Inc. 90, 93)	1
41	4E-04	LKWSHR, Detent Cover to Housing	4	92	40K-04	PLUG, Pipe	1
42	949150	SEAL, Plunger Oil	1	93	58K-026	"O" RING, Relief Valve	1
43	944858	SPRING, Check	1	94	25K-40108	"O" RING, Cap	1
44	4E-04	LKWSHR, Wiper to Housing	1	95	875279	CAP	1
45	1C-412	BOLT, Wiper to Housing	1	96	4E-04	LKWSHR	2
46	947521	*WIPER	1	97	1C-412	BOLT	2
47	944837	RING, Back-up	1	98	58K-214	"O" RING	1
48	949150	SEAL, Plunger Oil	1	99	943180	EYE, Plunger	1
49	944858	SPRING	1	100	18C-872	†BOLT, Valve to Reservoir	3
50	-----	§PLUNGER, Operating	1	101	4E-08	†LKWSHR, Valve to Reservoir	3
51	943184	CHECK	1				

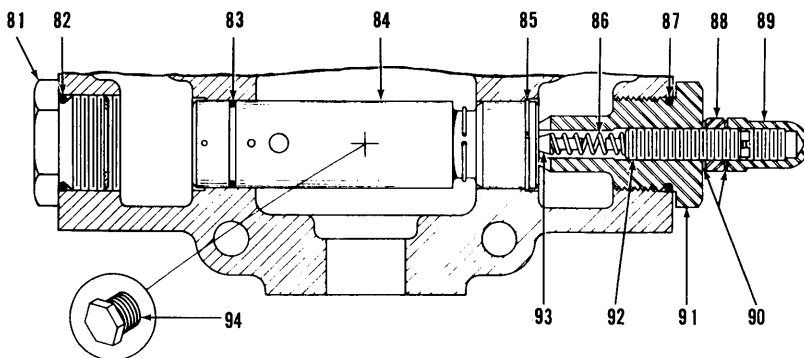
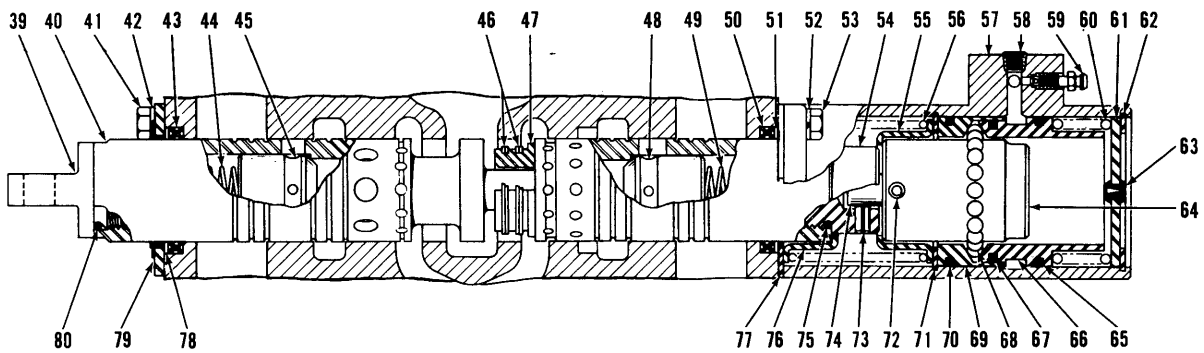
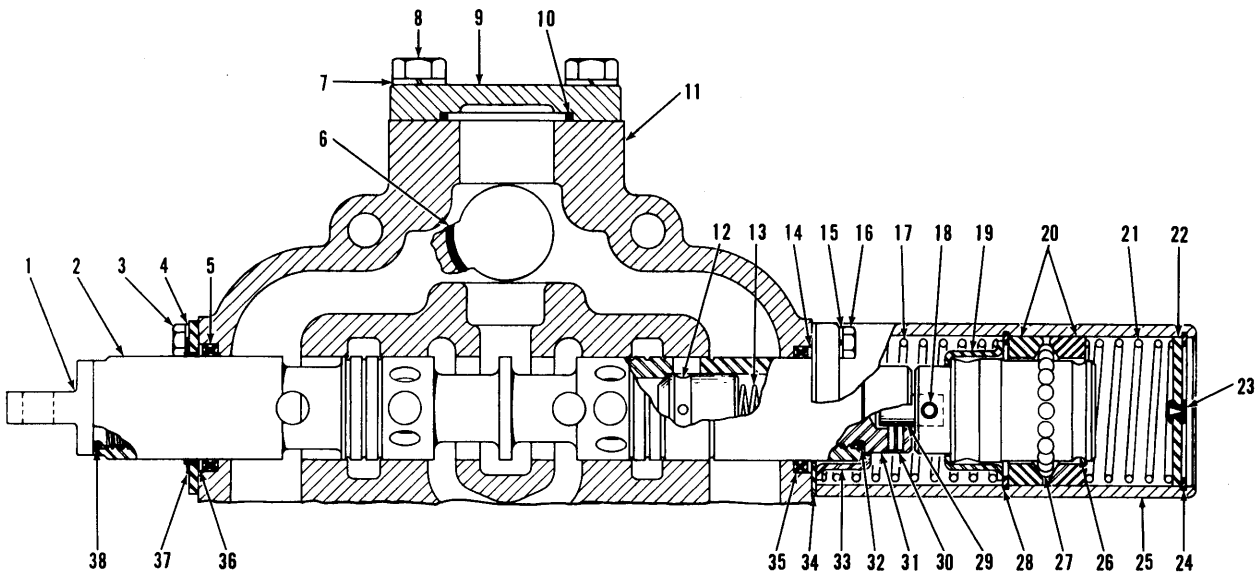
†Not Illustrated

§Not Sold Separately

*NOTE: For replacement use 949066 Kit, which consists of 1—949150 Seal, 1—949236 Wiper, 1—949237 Plate, & 1—949298 Plate.

**NOTE: For complete Valve replacement use 1512164.

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



CONTROL VALVE ASSEMBLY

TS-6401-P

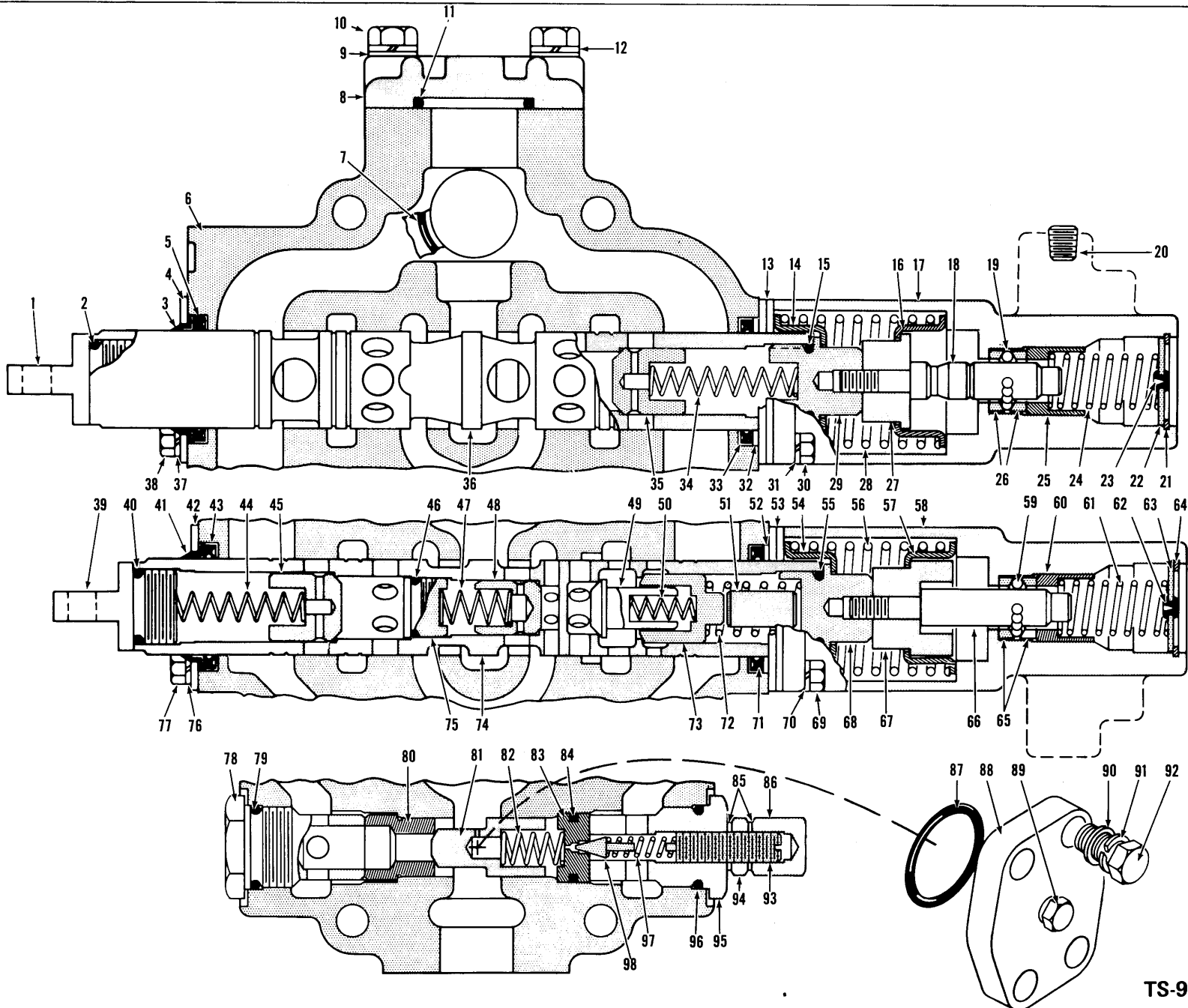
**For Serial: Cummins — 4HC122 and after
G.M. — 4HG259 and after**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	562259	*VALVE ASSY (Inc. 1 thru 94)	1	48	943184	CHECK	1
1	943180	EYE, Plunger	1	49	946047	SPRING, Check	1
2	-----	§PLUNGER, Operating — See "A"	1	50	949150	SEAL, Plunger Oil	1
3	1C-412	BOLT, Wiper to Housing	2	51	944837	RING, Back-up	1
4	4E-04	LKWSHR, Wiper to Housing	2	52	4E-04	LKWSHR, Cover to Housing	4
5	949150	SEAL, Plunger Oil	1	53	1C-416	BOLT, Cover to Housing	4
6	25K-40120	"O" RING	1	54	944854	CAP, Plunger	1
7	4E-08	LKWSHR, Cover to Housing	4	55	944851	GUIDE, Spring	1
8	1C-820	BOLT, Cover to Housing	4	56	945857	SPRING, Return	1
9	943191	COVER	1	57	944848	COVER, Detent	1
10	58K-225	"O" RING, Cover	1	58	16F-02	PLUG, Pipe	1
11	-----	§HOUSING, Valve — See "A"	1	59	641297	SCREW, Bleeder	1
12	943184	CHECK	1	60	945429	SPRING, Detent	1
13	944858	SPRING, Check	1	61	944844	PLUG, Detent	1
14	944837	RING, Back-up	1	62	663823	RING, Retaining	1
15	4E-04	LKWSHR, Cover to Housing	4	63	886763	PLUG, Bleeder	1
16	1C-416	BOLT, Cover to Housing	4	64	944973	CAP, Detent	1
17	945857	SPRING, Return	1	65	58K-139	"O" RING, Ball Retainer	1
18	660178	ROLL PIN	1	66	944849	RETAINER, Ball	1
19	944851	GUIDE, Spring	1	67	58K-137	"O" RING, Ball Retainer	1
20	945290	RETAINER, Ball	2	68	10J-08	BALL	20
21	945494	SPRING, Detent	1	69	944850	RETAINER, Ball	1
22	944844	PLUG, Detent	1	70	58K-139	"O" RING, Ball Retainer	1
23	886763	PLUG, Bleeder	1	71	1301171	RING, Retaining	1
24	663823	RING, Retaining	1	72	633157	ROLL PIN	1
25	945498	COVER, Detent	1	73	660178	ROLL PIN	1
26	946045	CAP, Detent	1	74	944148	PIN	1
27	10J-08	BALL	20	75	58K-214	"O" RING, Cap	1
28	1301171	RING, Retaining	1	76	944851	GUIDE, Spring	1
29	944148	PIN	1	77	944838	PLATE, Retaining	1
30	660178	ROLL PIN	1	78	944837	RING, Back-up	1
31	944854	CAP, Plunger	1	79	947521	**WIPER, Plunger	1
32	58K-214	"O" RING, Cap	1	80	58K-214	"O" RING, Plunger Eye	1
33	944851	GUIDE, Spring	1	81	875279	CAP	1
34	944838	PLATE, Retaining	1	82	25K-40108	"O" RING, Cap	1
35	949150	SEAL, Plunger Oil	1	83	58K-026	"O" RING, Relief Valve	1
36	944837	RING, Back-up	1	84	945496	VALVE ASSY, Relief (Inc. 83, 85)	1
37	947521	**WIPER, Plunger	1	85	944802	RING, Relief Valve Retaining	1
38	58K-214	"O" RING, Plunger Eye	1	86	886753	SPRING, Poppet	1
39	943180	EYE, Plunger	1	87	25K-40108	"O" RING, Adjusting Cap	1
40	-----	§PLUNGER, Operating — See "A"	1	88	8D-08	NUT, Jam	1
41	1C-412	BOLT, Wiper to Housing	4	89	944853	NUT, Acorn	1
42	4E-04	LKWSHR, Wiper to Housing	4	90	613750	WASHER	2
43	949150	SEAL, Plunger Oil	1	91	945497	CAP, Relief Valve Adjusting	1
44	944858	SPRING, Check	1	92	944855	SCREW, Adjusting	1
45	943184	CHECK	1	93	886739	POPPET	1
46	1308117	RING, Retaining	4	94	40K-04	PLUG, Pipe	1
47	946046	CHECK (2 Pc.)	1				

§Not Sold Separately

*NOTE: For Complete replacement use 1512164

**NOTE: For replacement use 949066 Kit, which consists of 1—949150 Seal, 1—949236 Wiper, 1—949237 Plate, & 1—949298 Plate.



TS-9104



CONTROL VALVE ASSEMBLY

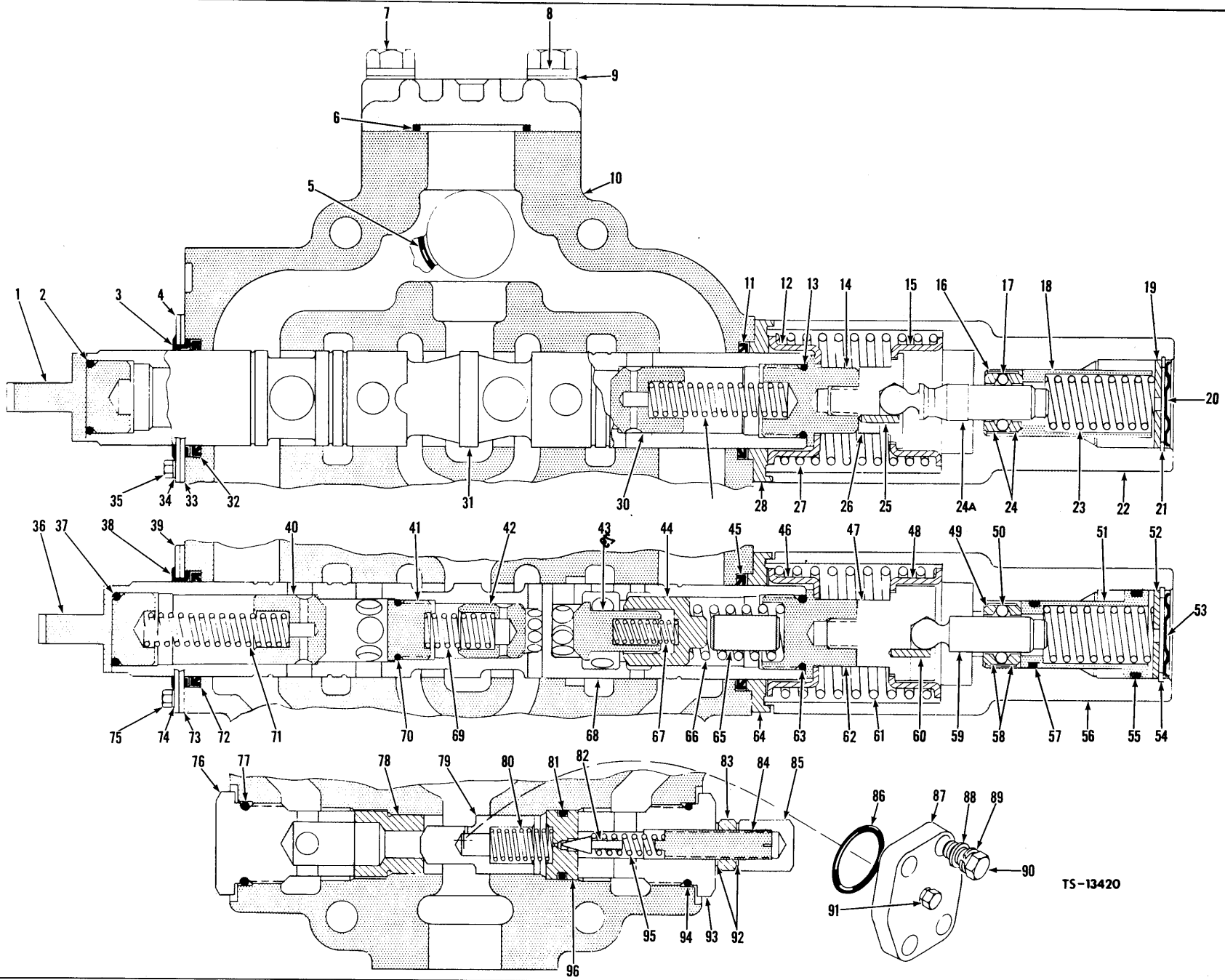
Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
A	1508799	*CONTROL VLV ASSY (Inc. 1-98) . . .	1	50	946813	SPRING, Check	1
1	946077	EYE, Plunger	1	51	947286	SPACER	1
2	943179	O-RING, Plunger Eye	1	52	944837	RING, Back-Up	1
3	946614	**WIPER, Plunger	1	53	946615	PLATE, Seal Retainer	2
4	946613	**PLATE, Wiper and Seal Retainer	1	54	944840	GUIDE, Spring	1
5	949150	SEAL, Plunger Oil	1	55	943179	O-RING, Plunger Cap	1
6	-----	§ HOUSING, Valve - See Item A	-	56	947902	SPRING, Plunger Return	1
7	25K-40120	O-RING, Valve to Plate	1	57	944851	GUIDE, Spring	1
8	947884	COVER	1	58	947883	COVER, Detent	1
9	878233	WASHER, Cover to Housing	4	59	10J-06	BALL	10
10	1C-828	BOLT, Cover to Housing	4	60	947842	GUIDE, Spring	1
11	58K-224	O-RING, Cover to Housing	1	61	947852	SPRING, Detent	1
12	4E-08	LKWSHR, Cover to Housing	4	62	886763	PLUG, Bleeder	1
13	946615	PLATE, Seal Retainer	2	63	947848	PLUG, Detent	1
14	944840	GUIDE, Spring	1	64	666542	RING, Plug Retainer	1
15	943179	O-RING, Cap	1	65	947843	RETAINER, Ball	2
16	944851	GUIDE, Spring	1	66	947892	CAP, Detent - See Note "A"	1
17	947883	COVER, Detent	1	67	947894	SPACER, Return Spring	1
18	947901	CAP, Detent	1	68	947893	CAP, Plunger	1
19	10J-06	BALL	10	69	1C-420	BOLT, Detent to Housing	4
20	16F-04	PLUG, Pipe	1	70	4E-04	LKWSHR, Detent to Housing	4
21	666542	RING, Plug Retainer	1	71	949150	SEAL, Plunger Oil	1
22	947848	PLUG, Detent Cover	1	72	947894	SPRING, Check	1
23	886763	PLUG, Bleeder	1	73	946620	CHECK	1
24	947852	SPRING, Detent	1	74	-----	§ PLUNGER, Operating - See Item A	-
25	947842	GUIDE, Spring	1	75	947766	CAP	1
26	947843	RETAINER, Ball	2	76	4E-04	LKWSHR, Plate to Housing	2
27	947898	SPACER, Return Spring	1	77	1C-412	BOLT, Plate to Housing	2
28	947287	SPRING, Plunger Return	1	78	947845	CAP, Relief Valve	1
29	947895	CAP, Plunger	1	79	25K-40104	O-RING, Cap	1
30	1C-420	BOLT, Detent to Housing	4	80	947840	SEAT, Relief Valve Check	1
31	4E-04	LKWSHR, Detent to Housing	4	81	947844	CHECK, Relief Valve	1
32	944837	RING, Back-Up	1	82	946805	SPRING, Check	1
33	949150	SEAL, Plunger Oil	1	83	947841	SEAT, Relief Valve Poppet	1
34	888304	SPRING, Check	1	84	25K-40030	O-RING	1
35	943184	CHECK	1	85	613750	WASHER, Jam Nut	2
36	-----	§ PLUNGER, Operating - See Item A	-	86	49D-08	NUT, Acorn	1
37	4E-04	LKWSHR, Plate to Housing	2	87	58K-222	O-RING, Cover to Housing	1
38	1C-412	BOLT, Plate to Housing	2	88	947887	COVER	1
39	943180	EYE, Plunger	1	89	40K-04	PLUG, Cover	1
40	943179	O-RING, Plunger Eye	1	90	867747	WASHER, Cover to Housing	4
41	946614	**WIPER, Plunger	1	91	4E-07	LKWSHR, Cover to Housing	4
42	946613	**PLATE, Seal and Wiper Retainer	1	92	1C-724	BOLT, Cover to Housing	4
43	949150	SEAL, Plunger Oil	1	93	944899	SCREW, Relief Valve Adjusting	1
44	944858	SPRING, Check	1	94	8D-08	NUT, Jam	1
45	946817	CHECK	1	95	947846	CAP, Relief Valve	1
46	947766	O-RING, Cap	1	96	25K-40104	O-RING, Cap	1
47	946623	SPRING, Check	1	97	886753	SPRING, Relief Valve	1
48	947765	CHECK	1	98	886739	POPPET, Relief Valve	1
49	946619	CHECK	1				

NOTE "A": For replacement use 961266 Kit.

*NOTE: For complete replacement use 1512164.

**NOTE: For replacement use 949066 Kit, which consists of 1-949150 Seal, 1-949236 Wiper, 1-949237 Plate, & 1-949298 Plate.

§ Not Sold Separately





TWO SPOOL CONTROL VALVE

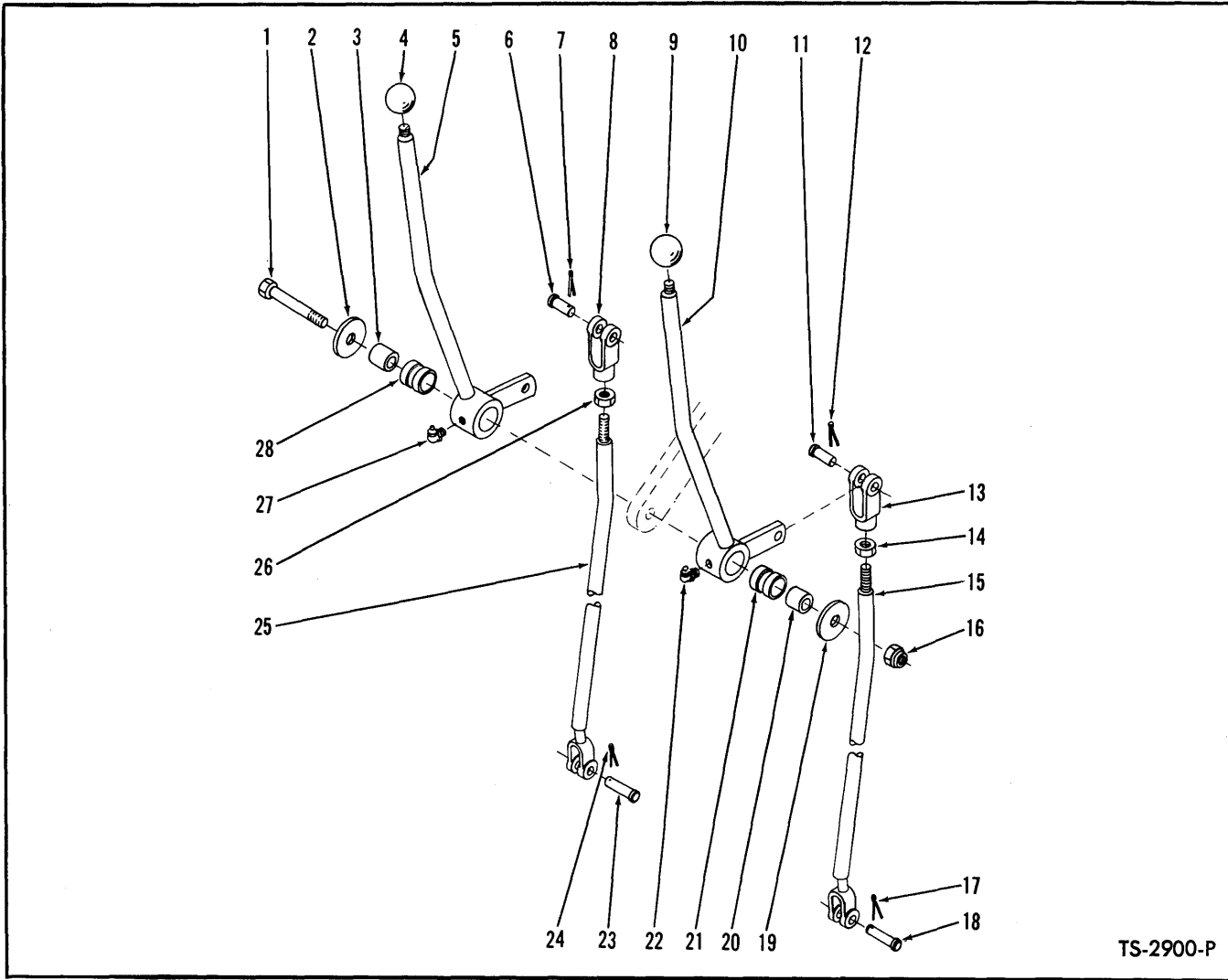
Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
A	1512164	¹ VALVE ASSY	1	48	944851	GUIDE	1
1	943180	PLUNGER EYE	1	49	948727	SLEEVE	1
2	58K-214	O-RING	1	50	948730	BALL	11
3	949236	WIPER	1	51	947867	PISTON	1
4	949237	PLATE	1	52	947848	PLUG	1
5	25K-40120	O-RING	1	53	948202	DIAPHRAGM	1
6	58K-224	O-RING	1	54	666542	RING	1
7	1C-828	BOLT	4	55	25K-40106	O-RING	1
8	4E-08	LOCKWASHER	4	56	948744	COVER	1
9	878233	WASHER	4	56A	11G-420	†SCREW	4
10	-----	² § HOUSING	-	56B	4E-04	†LOCKWASHER	4
11	949150	SEAL	1	57	25K-40028	O-RING	1
12	944840	GUIDE	1	58	947843	RETAINER	2
13	58K-214	O-RING	1	59	948746	PLUNGER	1
14	948749	CAP	1	60	300232	PIN ROLL	1
15	944851	GUIDE	1	61	947902	SPRING	1
16	948727	SLEEVE	1	62	948748	CAP	1
17	948730	BALL	11	63	58K-214	O-RING	1
18	946121	RETAINER	1	64	948837	PLATE	1
19	947848	PLUG	1	65	942286	PIN	1
20	948202	DIAPHRAGM	1	66	946621	SPRING	1
21	666542	RING	1	67	946813	SPRING	1
22	948744	COVER	1	68	-----	² § PLUNGER	-
22A	11G-420	†SCREW	4	69	946623	SPRING	1
22B	4E-04	†LOCKWASHER	4	70	25K-30026	O-RING	1
23	947852	SPRING	1	71	944858	SPRING	1
24	947843	RETAINER	2	72	949150	SEAL	1
24A	948747	PLUNGER	1	73	944838	PLATE	1
25	300232	PIN ROLL	1	74	4E-04	LOCKWASHER	4
26	949271	DETENT SOCKET	1	75	1C-412	BOLT	4
27	947287	SPRING	1	76	947845	CAP	1
28	948837	PLATE	1	77	25K-40104	O-RING	1
29	888304	SPRING	1	78	947840	SEAT	1
30	943184	CHECK	1	79	947844	POPPET	1
31	-----	² § PLUNGER	-	80	946805	SPRING	1
32	949150	SEAL	1	81	25K-40030	O-RING	1
33	944838	PLATE	1	82	886739	POPPET	1
34	4E-04	LOCKWASHER	4	83	8D-08	NUT	1
35	1C-412	BOLT	4	84	944890	SCREW	1
36	943180	PLUNGER EYE	1	85	49D-08	NUT	1
37	58K-214	O-RING	1	86	58K-222	O-RING	1
38	949236	WIPER	1	87	947887	COVER	1
39	949237	PLATE	1	88	867747	WASHER	4
40	946817	CHECK	1	89	4E-07	LOCKWASHER	4
41	947766	CAP	1	90	1C-724	BOLT	4
42	947765	CHECK	1	91	40K-04	PLUG PIPE	1
43	946619	CHECK	1	92	613750	WASHER	2
44	946620	CHECK	1	93	947846	CAP	1
45	949150	SEAL	1	94	25K-40104	O-RING	1
46	944840	GUIDE	1	95	886753	SPRING	1
47	949270	DETENT SOCKET	1	96	947841	SEAT	1

¹ Incl. 1 thru 96

² See A

†Not Illustrated

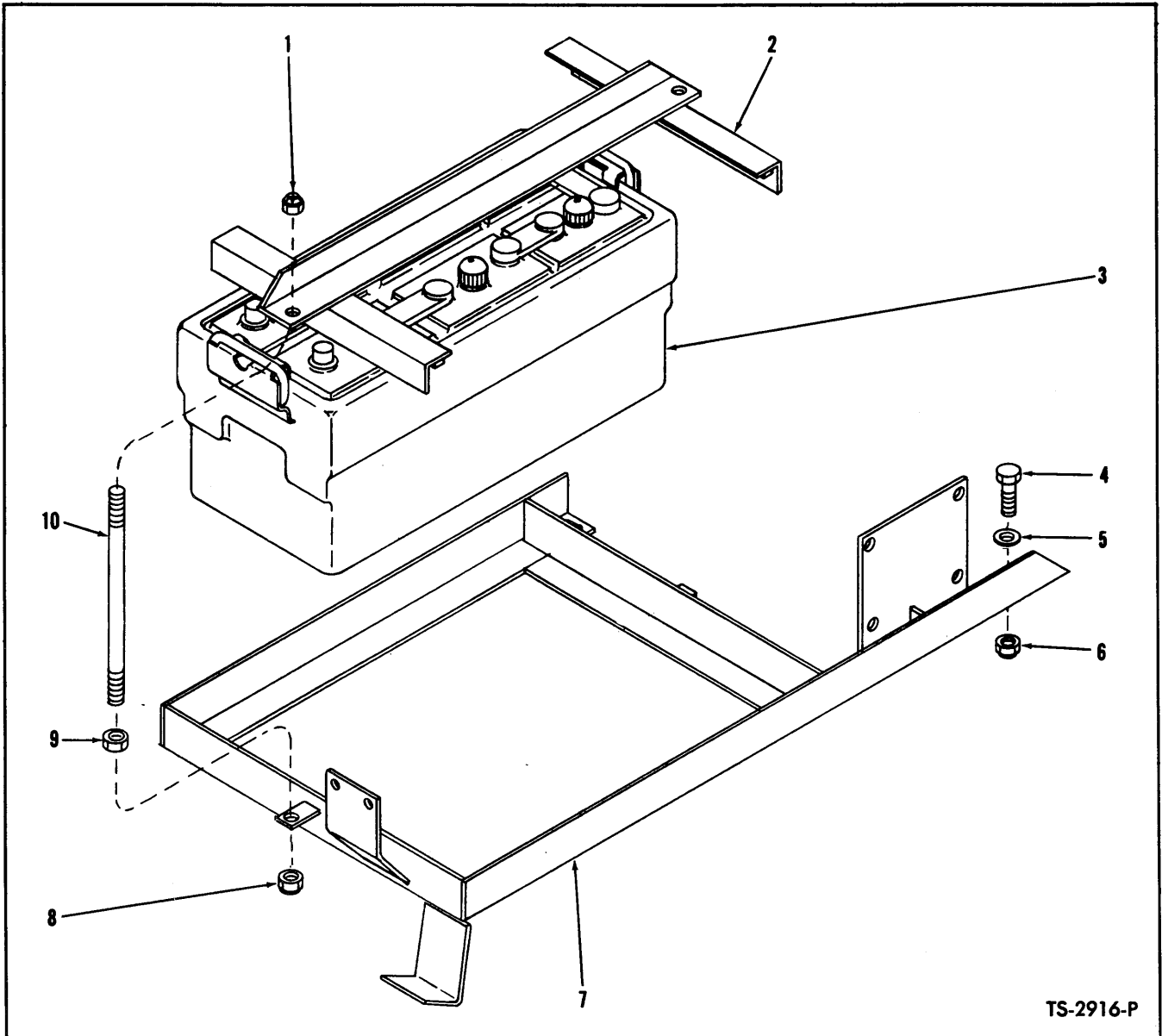
§Not Sold Separately



VALVE CONTROL LEVERS AND LINKAGE

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-872	BOLT, Levers to Frame.....	1	15	534243	ROD, Boom Valve.....	1
2	616796	WASHER, Lever Mounting.....	1	16	18D-08	NUT, Levers to Frame.....	1
3	550646	SLEEVE, Lever Mounting.....	1	17	1F-414	COTTER, Clevis Pin.....	1
4	509772	KNOB, Bucket Lever.....	1	18	4F-08127	PIN, Rod to Valve.....	1
5	536625	LEVER, Bucket Control.....	1	19	616796	WASHER, Lever Mounting.....	1
6	4F-08127	PIN, Clevis to Lever.....	1	20	550646	SLEEVE, Lever Mounting.....	1
7	1F-414	COTTER, Clevis Pin.....	1	21	526767	BUSHING, Boom Control Lever.....	1
8	2J-8300	CLEVIS, Rod to Lever.....	1	22	12H-15	FITTING, Grease.....	1
9	509772	KNOB, Boom Lever.....	1	23	4F-08127	PIN, Rod to Valve.....	1
10	536623	LEVER, Boom Control.....	1	24	1F-414	COTTER, Clevis Pin.....	1
11	4F-08127	PIN, Clevis to Lever.....	1	25	534243	ROD, Bucket Valve.....	1
12	1F-414	COTTER, Clevis Pin.....	1	26	8D-08	NUT, Clevis Jam.....	1
13	2J-8300	CLEVIS, Rod to Lever.....	1	27	12H-15	FITTING, Grease.....	1
14	8D-08	NUT, Clevis Jam.....	1	28	526767	BUSHING, Bucket Control Lever.....	1

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

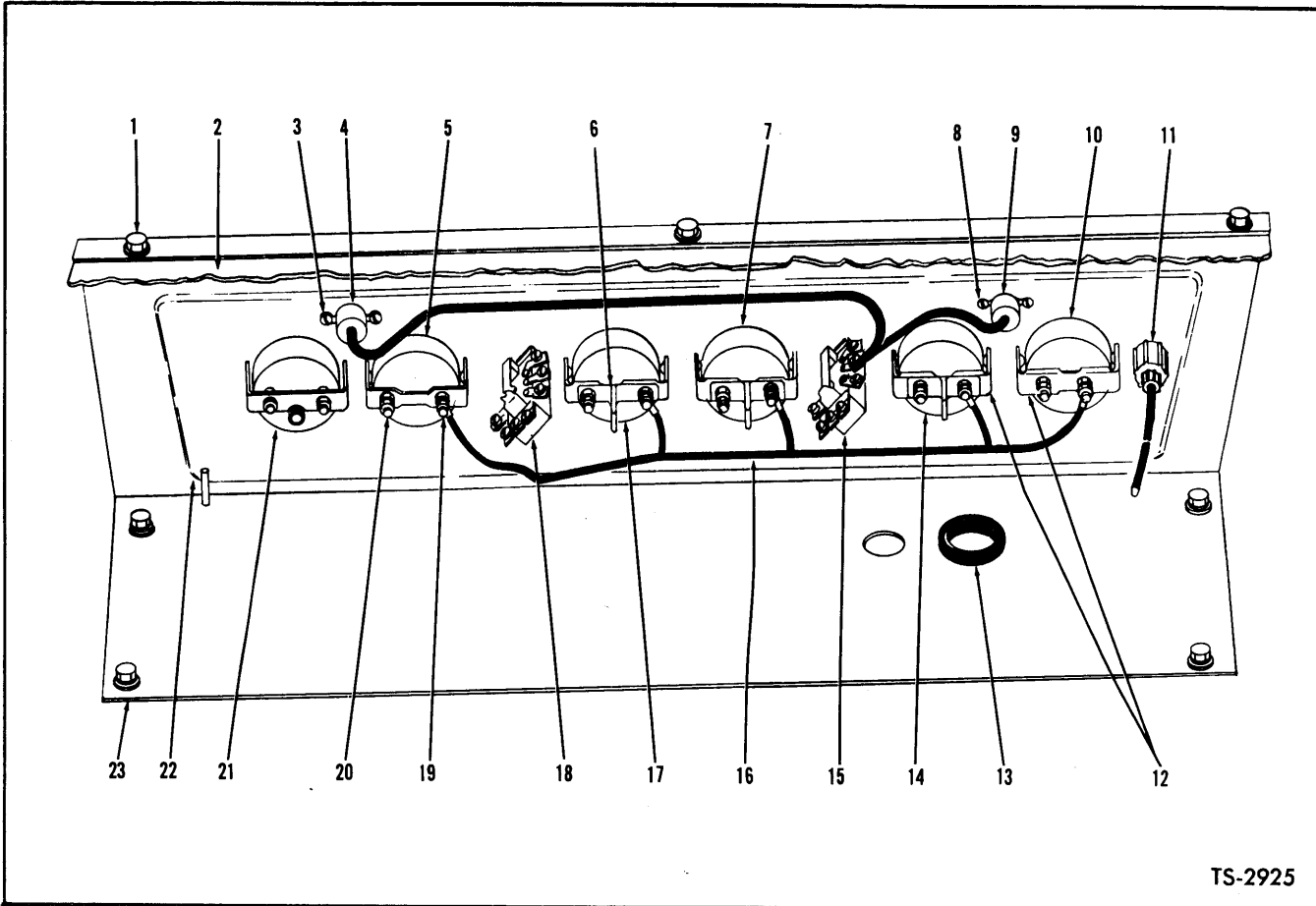


TS-2916-P

BATTERY AND BATTERY BOX

Item No.	Part No.	Description	No. Req'd.
1	17D-2	NUT, Hold Down	2
2	566629	HOLD DOWN, Battery	1
3	---	BATTERY (Exide #4D-1133H)	2
4	18C-828	BOLT, Battery Box Mounting	3
5	635682	WASHER, Hold Down Stud to Box	2
6	18D-08	NUT, Battery Box Mounting	3
7	536193	BOX, Battery	1
8	17D-2	NUT, Hold Down Stud to Box	2
9	7D-05	NUT, Hold Down Stud to Box	2
10	616714	STUD, Hold Down	2

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



TS-2925

FRONT INSTRUMENT PANEL
For Serial: 3HG101 thru 3HG342

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-616	BOLT, Panel & End Plate Attaching	9	12	626530	CLAMP, Instrument	5
1A	619021	†WASHER, Panel & Plate Attaching	9	13	763868	*GROMMET	1
1B	4E-06	†LKWSHR, Panel & Plate Attaching	7	14	523372	GAUGE, Engine Oil Pressure	1
1C	18D-06	†NUT, Panel & Plate Attaching	2	15	2514253	SWITCH, Light – See Note "A"	1
2	535605	PLATE, Hinge	1	15A	550742	†ROD, Light Switch	1
3	18G-606	SCREW, Dash Lamp to Panel	2	15B	550743	†BUSHING, Light Switch	1
3A	12E-6	†LKWSHR, Dash Lamp to Panel	2	16	539985	WIRE, Light Switch to Instruments	1
4	574276	LAMP, Dash (Inc. 4A, 4B)	1	17	551320	GAUGE, Fuel	1
4A	427237	†BULB, Dash Lamp	2	18	2514253	SWITCH, Light – See Note "A"	1
4B	574275	†TAB, Dash Lamp	2	18A	550742	†ROD, Light Switch	1
5	551321	GAUGE, Torque Conv. Temperature	1	18B	550743	†BUSHING, Light Switch	1
6	602350	SEPARATOR, Fuel, Oil & Air Pressure Gauges	3	19	12D-8	NUT, Ignition Terminal	10
7	517228	**GAUGE, Air Pressure	1	19A	12E-8	†LKWSHR, Ignition Terminal	5
8	18G-606	SCREW, Dash Lamp to Panel	2	20	14D-10	NUT, Sender Terminal	10
8A	12E-6	†LKWSHR, Dash Lamp to Panel	2	20A	12E-10	†LKWSHR, Sender Terminal	5
9	574276	LAMP, Dash (Inc. 4A, 4B)	1	21	542642	GAUGE, Clutch Pressure	1
10	551322	**GAUGE, Engine Temperature	1	22		PANEL, Instrument	
11	538677	LIGHTER, Cigarette (Inc. 11A, 11B, 11C)	1	22A	541707	For Serial 3HG101 thru 3HG137	1
11A	944803	†ELEMENT, Lighter	1	22B	547170	For Serial 3HG138 & thereafter	1
11B	549024	†RECEPTACLE, Lighter	1	23	535603	*PLATE, Base	1
11C	944804	†FUSE, Lighter	1				

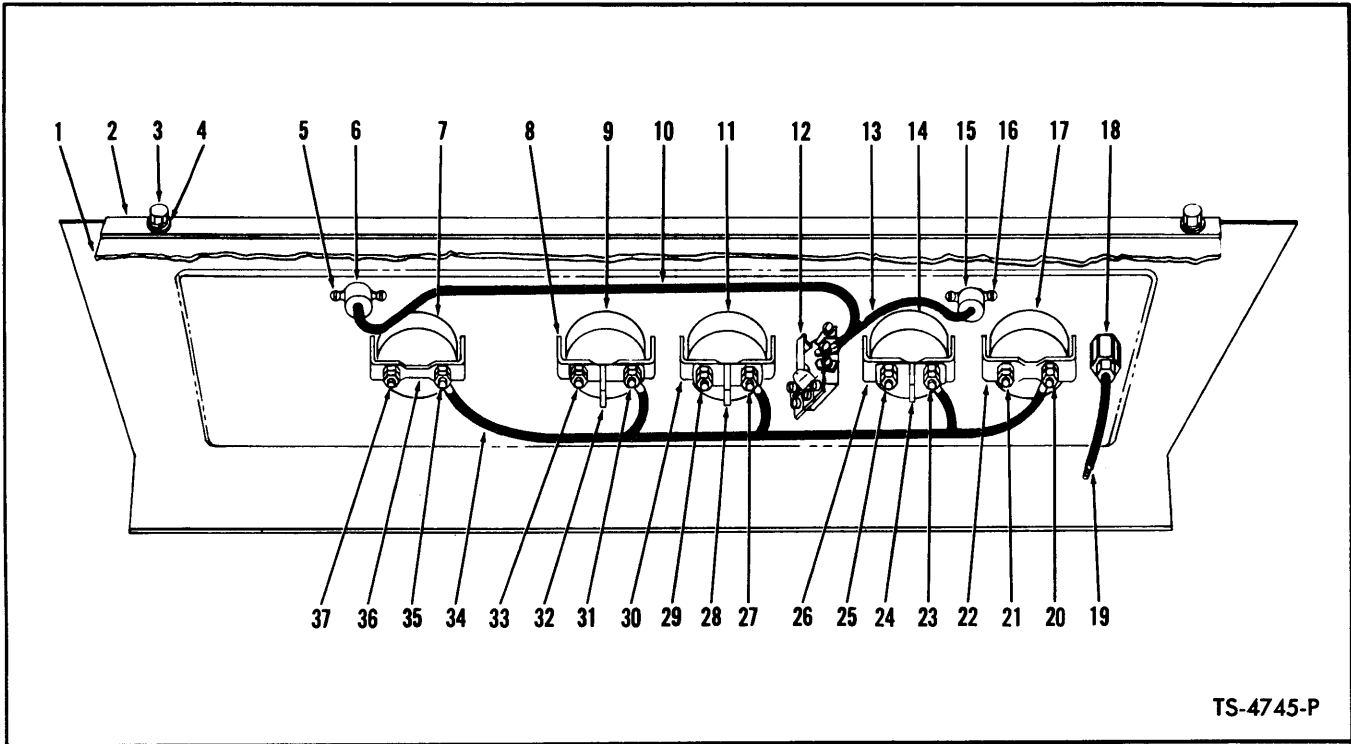
†Not Illustrated

*NOTE: These items for serial 3HG101 thru 3HG137 only.

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

NOTE "A": For replacement the mounting hole must be enlarged to .4688.

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



TS-4745-P

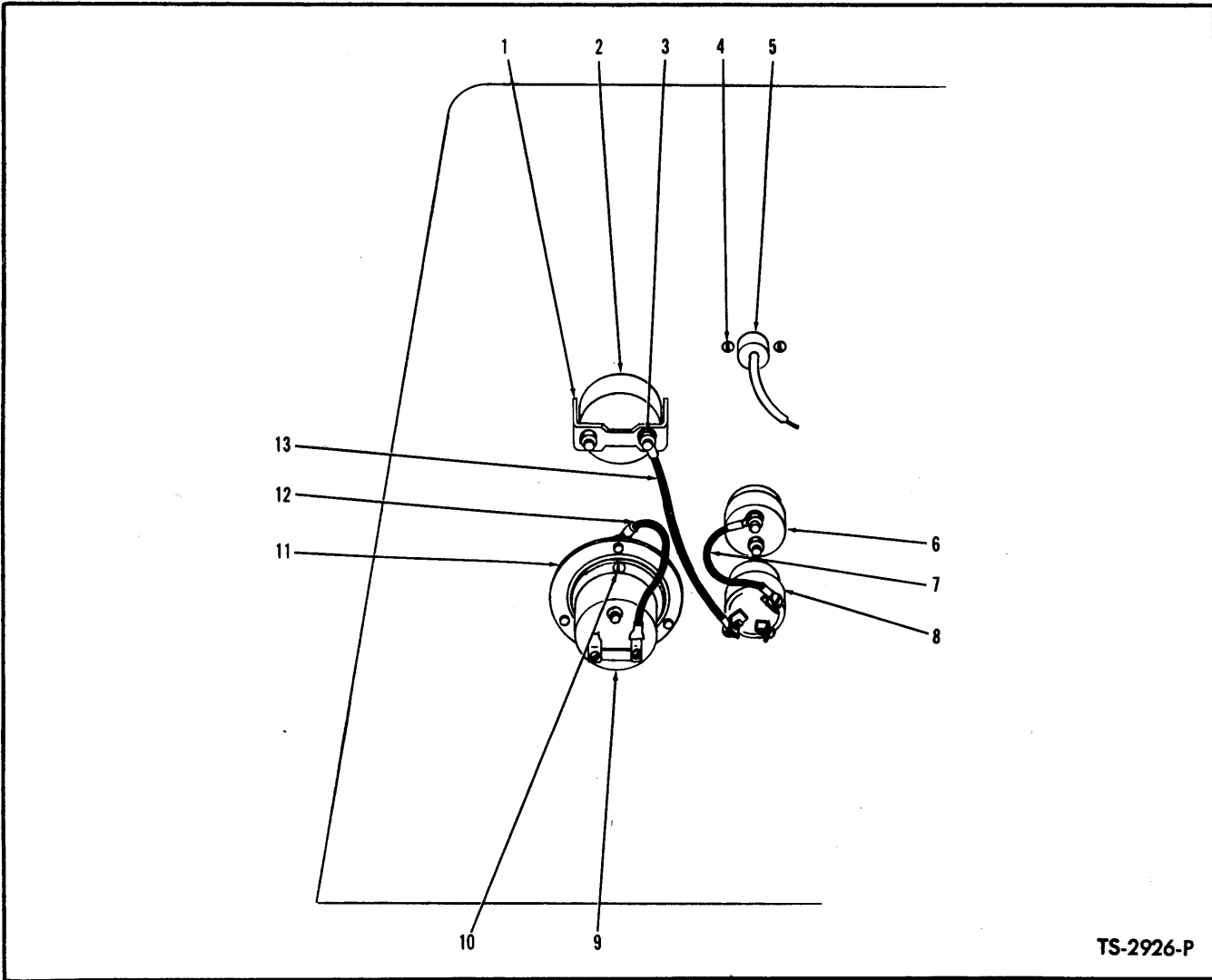
FRONT INSTRUMENT PANEL
For Serial: Cummins - 4HC102 thru 4HC999
G.M. - 3HG343 thru 3HG999, 4HG101 thru 4HG999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	535605	PLATE, Instrument Panel Hinge	1	18B	549024	†RECEPTACLE, Lighter	1
1A	18C-616	†BOLT, Hinge Plate Mounting	2	18C	944804	†FUSE, Lighter	1
1B	619021	†WASHER, Hinge Plate Mounting	2	19	-----	§ WIRE, Cigarette Lighter (See Item 18)	—
1C	18D-06	†NUT, Hinge Plate Mounting	2	20	14D-10	NUT, Temperature Gauge	2
2	556904	PANEL, Instrument	1	20A	12E-10	†LKWSHR, Temperature Gauge	2
3	17C-616	BOLT, Mounting	3	21	12D-8	NUT, Temperature Gauge	2
4	619021	WASHER, Mounting	3	21A	12E-8	†LKWSHR, Temperature Gauge	2
4A	4E-06	†LKWSHR, Mounting	3	22	626530	CLAMP, Temperature Gauge	1
5	18G-606	SCREW, Dash Lamp	2	23	14D-10	NUT, Oil Pressure Gauge	2
5A	12E-6	†LKWSHR, Dash Lamp	2	23A	12E-10	†LKWSHR, Oil Pressure Gauge	2
6	574276	LAMP, Dash (Inc. 6A, 6B)	1	24	602350	SEPARATOR, Oil Pressure Gauge	1
6A	945055	†BULB, Dash Lamp	2	25	12D-8	NUT, Oil Pressure Gauge	2
6B	574275	†TAB, Dash Lamp	2	25A	12E-8	†LKWSHR, Oil Pressure Gauge	2
7	551321	GAUGE, Torque Conv. Temperature	1	26	626530	CLAMP, Pressure Gauge	1
8	626530	CLAMP, Fuel Gauge	1	27	14D-10	NUT, Air Pressure Gauge	2
9	551320	GAUGE, Fuel	1	27A	12E-10	†LKWSHR, Air Pressure Gauge	2
10	-----	§ WIRE, Light Switch to Dash Lamp (See Item 6)	—	28	602350	SEPARATOR, Air Pressure Gauge	1
11	517228	* GAUGE, Air Pressure	1	29	12D-8	NUT, Air Pressure Gauge	2
12	2514253	** SWITCH, Light	1	29A	12E-8	†LKWSHR, Air Pressure Gauge	2
12A	550742	†ROD, Light Switch	1	30	626530	CLAMP, Pressure Gauge	1
12B	550743	†BUSHING, Light Switch	1	31	14D-10	NUT, Fuel Gauge	2
13	-----	§ WIRE, Light Switch to Dash Lamp (See Item 15)	—	31A	12E-10	†LKWSHR, Fuel Gauge	2
14	523372	GAUGE, Engine Oil Pressure	1	32	602350	SEPARATOR, Fuel Gauge	1
15	574276	LAMP, Dash (Inc. 6A, 6B)	1	33	12D-8	NUT, Fuel Gauge	2
16	18G-606	SCREW, Dash Lamp	2	33A	12E-8	†LKWSHR, Fuel Gauge	2
16A	12E-6	†LKWSHR, Dash Lamp	2	34	539985	WIRE ASSY, Instruments	1
17	551322	* GAUGE, Engine Temperature	1	35	14D-10	NUT, Temperature Gauge	2
18	538677	LIGHTER, Cigarette (Inc. 18A, 18B, 18C, 19)	1	35A	12E-10	†LKWSHR, Temperature Gauge	2
18A	944803	†ELEMENT, Lighter	1	36	626530	CLAMP, Temperature Gauge	1
				37	12D-8	NUT, Temperature Gauge	2
				37A	12E-8	†LKWSHR, Temperature Gauge	2

†Not Illustrated
 §Not Sold Separately

*NOTE: For replacement refer to Service Gram SG-326B.
 **NOTE: For replacement the mounting hole must be enlarged to .4688.

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



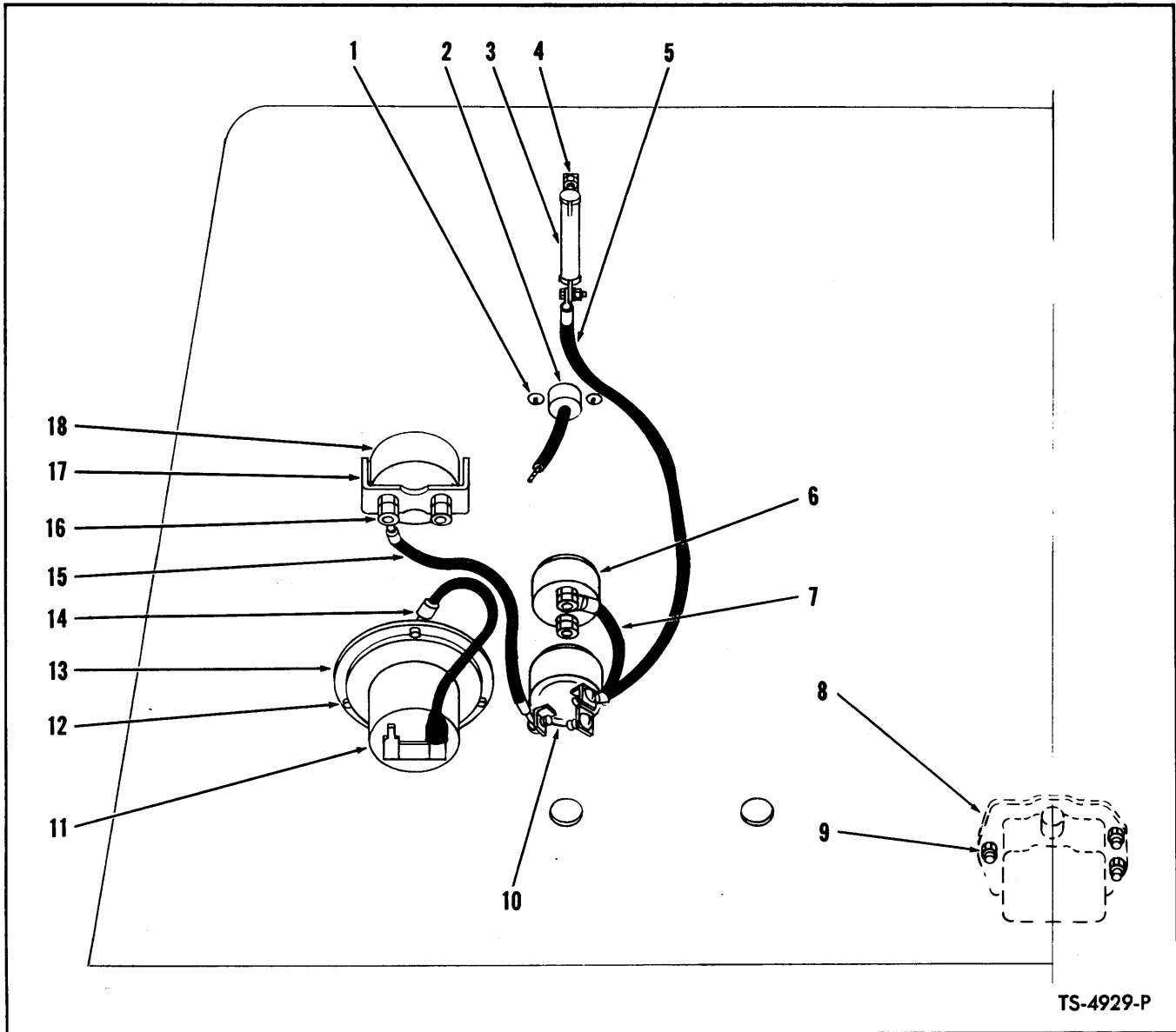
TS-2926-P

SIDE INSTRUMENT PANEL
For Serial: 3HG101 thru 3HG342

Item No.	Part No.	Description	No. Req'd.
1	601212	CLAMP, Ammeter	1
2	550735	AMMETER	1
3	14D-10	NUT, Ammeter Terminal.....	4
3A	12E-10	†LKWSHR, Ammeter Terminal.....	2
4	18G-606	SCREW, Dash Lamp to Panel.....	2
4A	12E-6	†LKWSHR, Dash Lamp to Panel.....	2
5	946282	LAMP, Dash	1
6	600259	BUTTON, Starter Push.....	1
6A	857420	†RUBBER BOOT, Starter Push Button.....	1
7	696048	WIRE, Ignition Switch to Starter Button.....	1
8	573548	SWITCH, Ignition (Key).....	1
9	1743825	HOURMETER	1
10	3G-604	SCREW, Hourmeter to Panel.....	3
10A	12E-6	†LKWSHR, Hourmeter to Panel.....	3
11	685514	DAMPENER, Vibration	1
12	536999	WIRE, Hourmeter Ground.....	1
13	636228	WIRE, Ammeter to Ignition Switch.....	1

†Not Illustrated

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



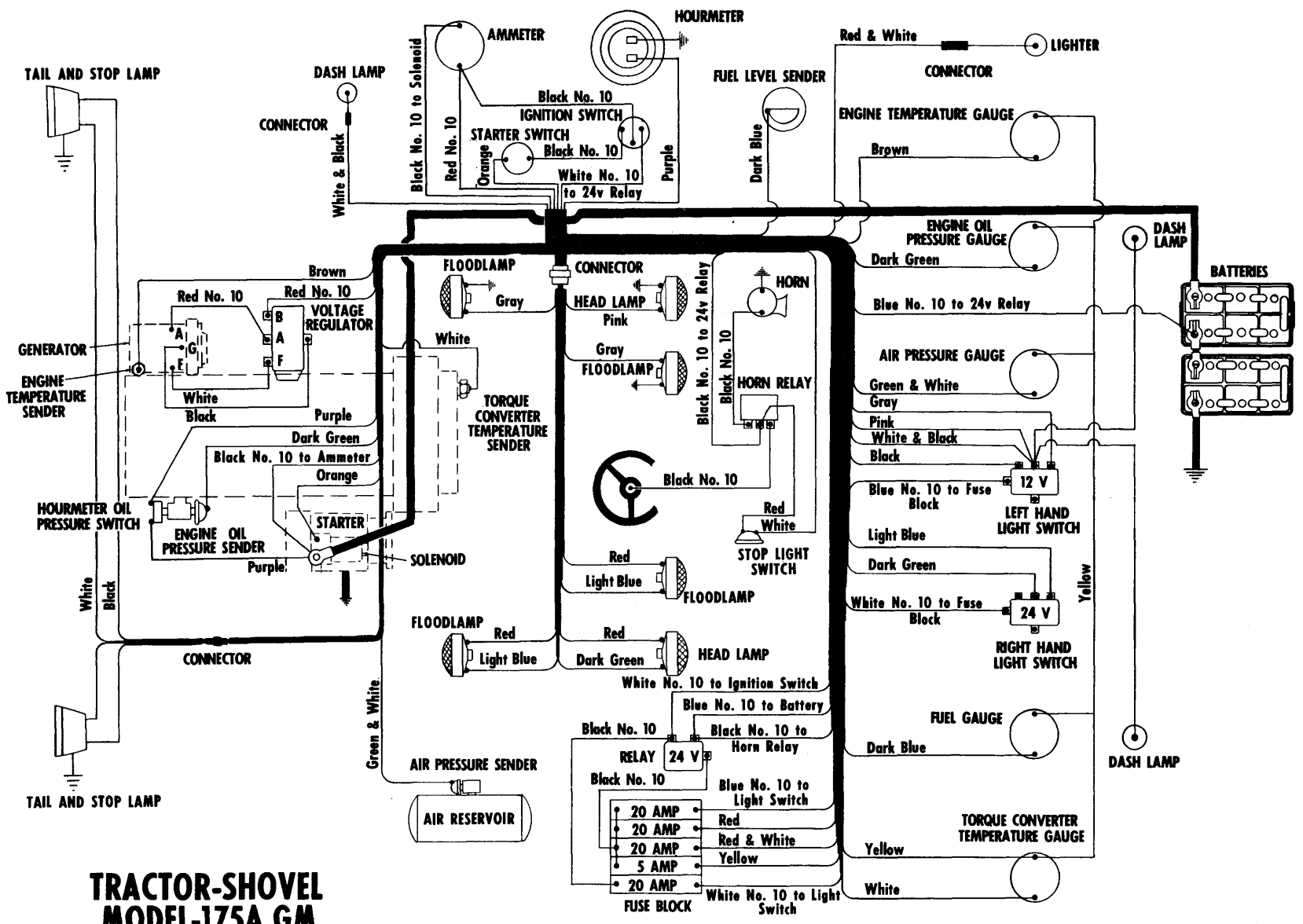
TS-4929-P

SIDE INSTRUMENT PANEL
For Serial: Cummins — 4HC102 thru 4HC999
G.M. — 3HG343 thru 3HG999, 4HG101 thru 4HG999

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18G-606	SCREW, Dash Lamp Mounting	2	9	18C-420	BOLT, Regulator Mounting	3
1A	12E-6	†LKWSHR, Dash Lamp Mounting	2	9A	18D-04	NUT, Regulator Mounting	3
2	946282	DASH LAMP (Inc. 2A)	1	10	573548	SWITCH, Ignition (Key)	1
2A	945055	BULB, Dash Lamp	1	11	1743825	HOURMETER	1
3	556489	RESISTOR	1	12	3G-606	SCREW, Hourmeter to Panel	3
4	3G-606	SCREW	2	12A	12E-6	LKWSHR, Hourmeter to Panel	3
4A	12E-6	LKWSHR	2	13	551251	DAMPENER, Vibration	1
4B	12D-6	NUT	2	14	536999	WIRE, Hourmeter Ground	1
5	557108	WIRE, Resistor to Ignition Switch.....	1	15	636228	WIRE, Ignition Switch to Ammeter	1
6	600259	BUTTON, Starter Push (Inc. 6A)	1	16	14D-10	NUT, Ammeter Terminal	4
6A	857420	†RUBBER BOOT, Starter Push Button ..	1	16A	12E-10	†LKWSHR, Ammeter Terminal	2
7	696048	WIRE, Starter Button to Ignition Switch	1	17	601212	CLAMP, Ammeter	1
8	-----	VOLTAGE REGULATOR—	—	18	550735	AMMETER	1
		See Eng. Acc.	—				

†Not Illustrated

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



TRACTOR-SHOVEL MODEL-175A GM

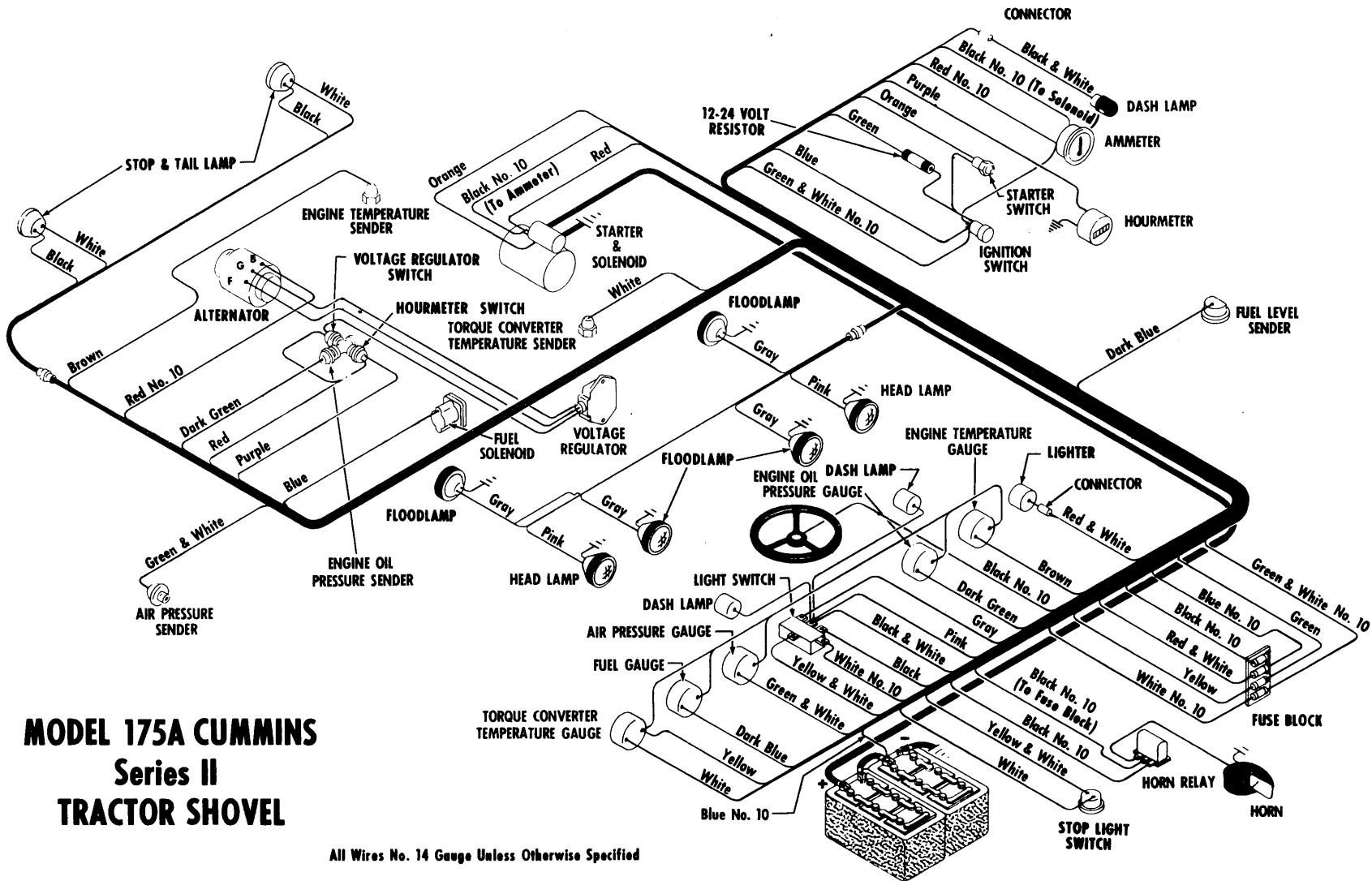
(All Wires No. 14 Gauge Unless Otherwise Specified)
WIRING DIAGRAM
For Serial No.—G.M. 3HG101 thru 3HG342

TS-3200-P

76.1

(2G11)

PM 1654



All Wires No. 14 Gauge Unless Otherwise Specified

MODEL 175A CUMMINS
Series II
TRACTOR SHOVEL

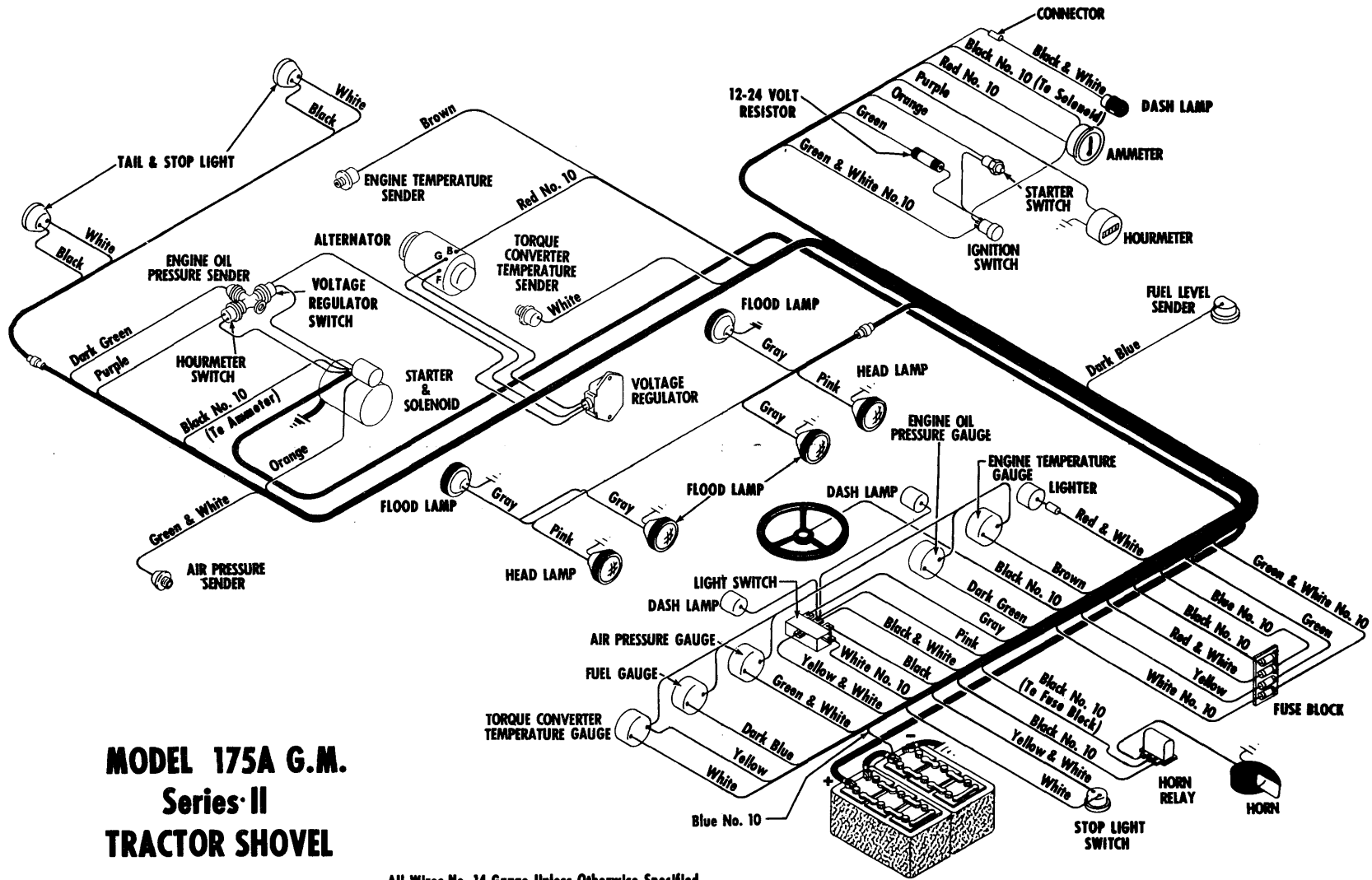
WIRING DIAGRAM — CUMMINS

TS-4870-P

76A.1

(2G10)

PM 1654



MODEL 175A G.M.
Series II
TRACTOR SHOVEL

All Wires No. 14 Gauge Unless Otherwise Specified.

WIRING DIAGRAM - G.M.
For Serial No. 3HG343 thru 3HG999, 4HG101 thru 4HG999

TS-4424-P



CONSTRUCTION MACHINERY DIVISION



WIRING AND BATTERY CABLES
For Serial: 3HG101 thru 3HG342

Table with 4 columns: Item No., Part No., Description, No. Req'd. Lists various wiring and cable components such as HARNESS, WIRE, and CABLE with their respective quantities.

*NOTE: 550855 is used with 647300 Horn and 557438 is used with 733624 Horn. New Horn includes a permanent Mounting Bracket for identification purposes.

DECALS

Table with 4 columns: Item No., Part No., Description, No. Req'd. Lists various decal items such as TRANSMISSION DRAIN, STARTER, MODEL, and MICHIGAN with their respective quantities.

TOOLS

Table with 4 columns: Item No., Part No., Description, No. Req'd. Lists various tools such as WRENCH, HANDLE, RING, and SLEEVE with their respective quantities.

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

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CONSTRUCTION MACHINERY DIVISION



WIRING HARNESS AND CABLES

For Serial: Cummins - 4HC102 thru 4HC999

G.M. - 3HG343 thru 3HG999, 4HG101 thru 4HG999

Item No.	Part No.	Description	No. Req'd.
1		HARNESS, Main Wiring	
1A	557421	For Cummins Powered Machines	1
1B	557377	For G.M. Powered Machines	1
2		HARNESS, Alternator Wiring	
2A	558012	For Cummins Powered Machines	1
2B	557567	For G.M. Powered Machines	1
3	539365	HARNESS, Tail Light Wiring	1
4	557438	WIRE, Horn Relay to Horn	1
5	695120	WIRE, Steering Column to Horn Relay	1
6		WIRE, Pressure Switch to Solenoid	

Item No.	Part No.	Description	No. Req'd.
6A	557929	For Cummins Powered Machines	1
6B	536881	For G.M. Powered Machines	2
7	553312	WIRE, Pressure Switch to Pressure Switch for Cummins Powered Machines	1
8	557334	CABLE, Battery to Ground	1
9	538085	CABLE, Battery to Battery	1
10	541063	CABLE, Starter to Ground	1
11		CABLE, Battery to Starter	
11A	558011	For Cummins Powered Machines	1
11B	557417	For G.M. Powered Machines	1

CAB WIRING

Item No.	Part No.	Description	No. Req'd.
12	557230	HARNESS, Cab Wiring	1

Item No.	Part No.	Description	No. Req'd.
13	540882	WIRE, Flood Lamp Ground	6

LIGHTS

Item No.	Part No.	Description	No. Req'd.
14	946464	LAMP, Tail & Stop	2
15	945055	BULB, Tail Lamp	2
16	945734	BULB, Stop Lamp	2
17	66D-04	NUT, Tail Lamp Mounting	4
18	3G-808	SCREW, Harness to Tail Light	4

Item No.	Part No.	Description	No. Req'd.
19	12E-8	LKWSHR, Harness to Tail Light	4
20	582057	FLOOD LAMP, Cab	6
21	551244	SEALED UNIT, Head Lamp	6
22	944977	RETAINER, Head Lamp	6

FUSE BLOCK AND FUSES

Item No.	Part No.	Description	No. Req'd.
23	556971	BLOCK, Fuse	1
24	7G-410	SCREW, Fuse Block Mounting	2
25	17D-1	NUT, Fuse Block Mounting	2

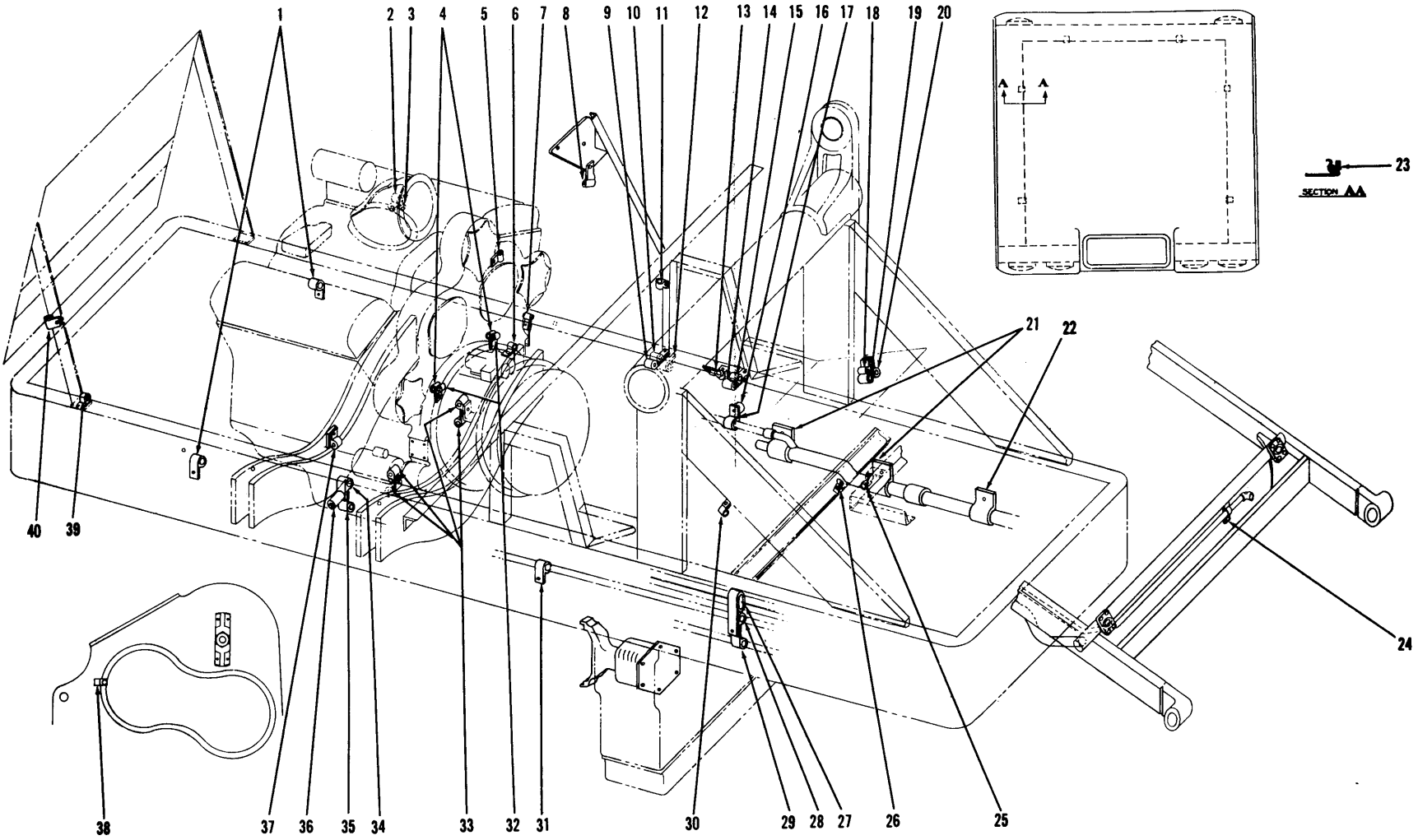
Item No.	Part No.	Description	No. Req'd.
26	611074	FUSE - 20 Amp	3
27	542321	FUSE - 5 Amp	1

DECALS AND NAME PLATE

Item No.	Part No.	Description	No. Req'd.
28	538256	DECAL, Transmission Drain	1
29	538258	DECAL, Starter	1
30	547816	DECAL, Model	2
31	547851	DECAL, Clark Equipment	2
32	547852	DECAL, Michigan	2
33	1505537	DECAL, Safety Warning	2
34	541570	DECAL, Instrument Panel	1
35	549096	DECAL, Pointer	2

Item No.	Part No.	Description	No. Req'd.
36	1505581	DECAL, Safety Wiring	1
37	538250	PLATE, Shift	1
38	6C-605	DRIVE SCREW, Shift Plate	4
39	1510525	DECAL, Lube Instruction	1
40	6C-605	DRIVE SCREWS, Lube Plate	4
41	542074	PLATE, Patent	1
42	6C-605	SCREW, Plate Mounting	4

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



78.1

(1E7)

PM 1654

CLIP DIAGRAM G.M.

TS-2945-P

**CLIP DIAGRAM—G.M.
Model 175 ADGM**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	6H-24	CLIP, Cooler Line	2	22A	535239	†PAD	1
1A	18C-828	†BOLT, Clip to Frame	2	22B	18C-840	†BOLT, Clip to Frame	1
1B	18D-08	†NUT, Clip to Frame	2	22C	18D-08	†NUT, Clip to Frame	1
2	6H-4	CLIP, Engine Shutdown Cable	1	23	541988	CLIP, Cab Harness	6
3	30H-27	CLIP, Wiring Harness	1	24	29H-21	CLIP, Leveler Valve Pipe to Guard Bar Pipe	1
4	30H-39	CLIP, Starter Cable	2	24A	18C-612	†BOLT, Clip to Bracket	1
5	30H-27	CLIP, Wiring Harness	1	24B	18D-06	†NUT, Clip to Bracket	1
6	30H-24	CLIP, Fuel Pump Return Line	1	25	30H-31	CLIP, Parking Brake Cable	1
7	30H-23	CLIP, Fuel Pump Return Line	1	25A	18C-616	†BOLT, Clip to Battery Box	1
7A	540179	†BRACKET, Clip Mounting	1	25B	18D-06	†NUT, Clip to Battery Box	1
7B	18C-620	†BOLT, Clip to Bracket	1	26	539303	CLIP, Front Air Hose	1
7C	18D-06	†NUT, Clip to Bracket	1	26A	18C-616	†BOLT, Clip to Bracket	1
8	541144	CLIP, Engine Shutdown Cable	1	26B	18D-06	†NUT, Clip to Bracket	1
8A	3G-1008	†SCREW, Clip to Frame	1	27	534908	CLIP, Steering Tubes	1
8B	12D-10	†NUT, Clip to Frame	1	27A	18C-832	†BOLT, Clips to Frame	1
9	538231	CLIP, Starter Cable	1	27B	18D-08	†NUT, Clips to Frame	1
10	30H-48	CLIP, Wiring Harness	1	28	537755	CLIP, Air Line	1
11	30H-44	CLIP, Wiring Harness	1	29	30H-40	CLIP, Air Line	1
12	538235	CLIP, Fuel Suction Line	1	30	30H-38	CLIP, Leveler Valve Hose	1
13	537875	CLIP, Main Hydraulic Pressure Hose	1	30A	18C-616	†BOLT, Clip to Frame	1
13A	539939	†BRACKET, Clip to Frame	1	30B	18D-06	†NUT, Clip to Frame	1
13B	635682	†WASHER, Clip and Bracket Mounting	2	31	537755	CLIP, Air Line	1
13C	18C-820	†BOLT, Clip to Bracket	1	31A	18C-828	†BOLT, Clip to Frame	1
13D	18C-828	†BOLT, Bracket to Frame	1	31B	18D-08	†NUT, Clip to Frame	1
13E	18D-08	†NUT, Clip and Bracket Mounting	2	32	30H-36	CLIP, Wiring Harness	2
14	538231	CLIP, Starter Cable	1	33	30H-46	CLIP, Steering Tubes	4
15	30H-48	CLIP, Wiring Harness	1	33A	18C-616	†BOLT, Clips to Bracket	2
16	208158	SPACER, Clip to Frame	1	33B	18D-06	†NUT, Clips to Bracket	2
17	537754	CLIP, Steering Suction Line	1	34	538235	CLIP, Wiring Harness	1
17A	18C-848	†BOLT, Clip and Spacer to Frame	1	34A	18C-848	†BOLT, Clips to Frame	1
17B	18D-08	†NUT, Clip and Spacer to Frame	1	34B	18D-08	†NUT, Clips to Frame	1
18	30H-40	CLIP, Clutch Pressure Hose	1	35	30H-40	CLIP, Starter Cable	1
18A	18C-824	†BOLT, Clips to Floorboard	1	36	208158	SPACER, Clips to Frame	1
18B	18D-08	†NUT, Clips to Floorboard	1	37	6H-10	CLIP, Air Line	1
19	538231	CLIP, Starter Cable	1	37A	18C-616	†BOLT, Clip to Frame	1
20	30H-48	CLIP, Wiring Harness	1	37B	18D-06	†NUT, Clip to Frame	1
21	535240	CLIP, Main Suction Tube	2	38	6H-18	CLIP, Transmission Oil Dipstick Tube	1
21A	535239	†PAD	2	39	538234	CLIP, Wiring Harness	1
21B	18C-836	†BOLT, Clip to Frame	2	40	30H-23	CLIP, Wiring Harness	1
21C	18D-08	†NUT, Clip to Frame	2	40A	18C-620	†BOLT, Clip to Grille Support	1
22	535240	CLIP, Main Suction Tube	1	40B	18D-06	†NUT, Clip to Grille Support	1

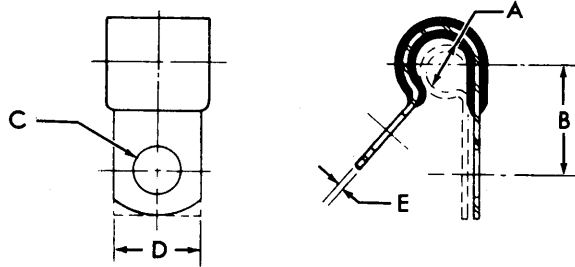
†Not Illustrated

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

WIRING, PIPE AND HOSE CLIPS — CUMMINS

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

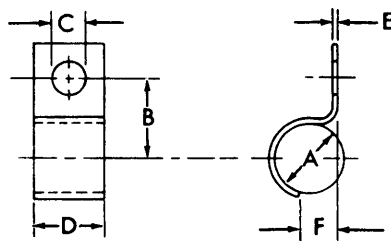
INSULATED CLIP



TS-5008-P

ITEM NO.	PART NUMBER	A	B	C	D	E	F	G
1	29H-21	1/2	3/4	1 3/32	1/2	.025		
2	30H-20	5/16	1 1/16	1 3/32	3/4	.036		
3	30H-23	3/8	2 3/32	1 3/32	3/4	.036		
4	30H-24	3/8	2 5/32	1 5/32	7/8	.036		
5	30H-31	1/2	2 5/32	1 3/32	3/4	.050		
6	30H-32	1/2	2 7/32	1 5/32	7/8	.050		
7	30H-33	5/16	1 1/16	7/32	1/2	.050		
8	30H-38	5/8	2 7/32	1 3/32	3/4	.050		
9	30H-40	5/8	3 1/32	1 7/32	1	.050		
10	30H-44	1 1/16	1	1 7/32	1	.050		
11	30H-46	1 3/16	1 5/16	1 3/32	3/4	.050		
12	30H-48	1 3/16	1 1/16	1 7/32	1	.050		
13	30H-50	1 5/16	1	1 3/32	3/4	.050		
14	30H-52	1 5/16	1 1/8	1 7/32	1	.050		
15	538234	3/8	1 5/16	1 7/32	1	.050		
16	538231	5/8	2 1/2	1 7/32	1	1/16		
17	539303	3/4	1 1/2	7/16	3/4	.050		
18	557934	1 1/8	1 1/2	1 7/32	1	.050		
19	537875	1 1/16	1 3/4	1 7/32	1	.083		

OPEN CLIP



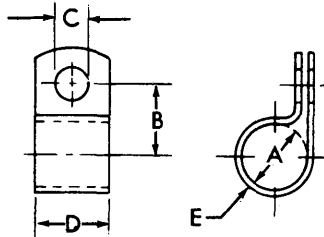
TS-5011-P

ITEM NO.	PART NUMBER	A	B	C	D	E	F	G
20	535240	3 3/4	2 3/4	7/16	1 1/4	3/16	2 5/16	

WIRING, PIPE AND HOSE CLIPS — CUMMINS

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

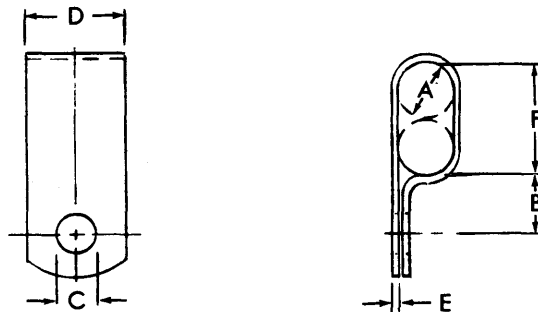
CLOSED CLIP



TS-5009-P

ITEM NO.	PART NUMBER	A	B	C	D	E	F	G
21	6H-10	3/8	3/4	1 3/32	5/8	.032		
22	6H-18	3/4	1 1/8	1 3/32	3/4	.035		
23	6H-24	1	1 3/8	1 7/32	1	.065		
24	537755	3/8	3/4	1 7/32	1	.036		
25	537754	1 1/4	1 3/8	1 7/32	1 1/8	.062		

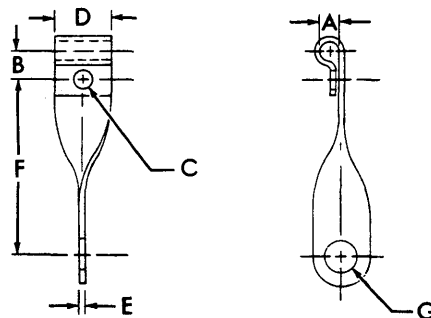
DOUBLE CLIP



TS-5010-P

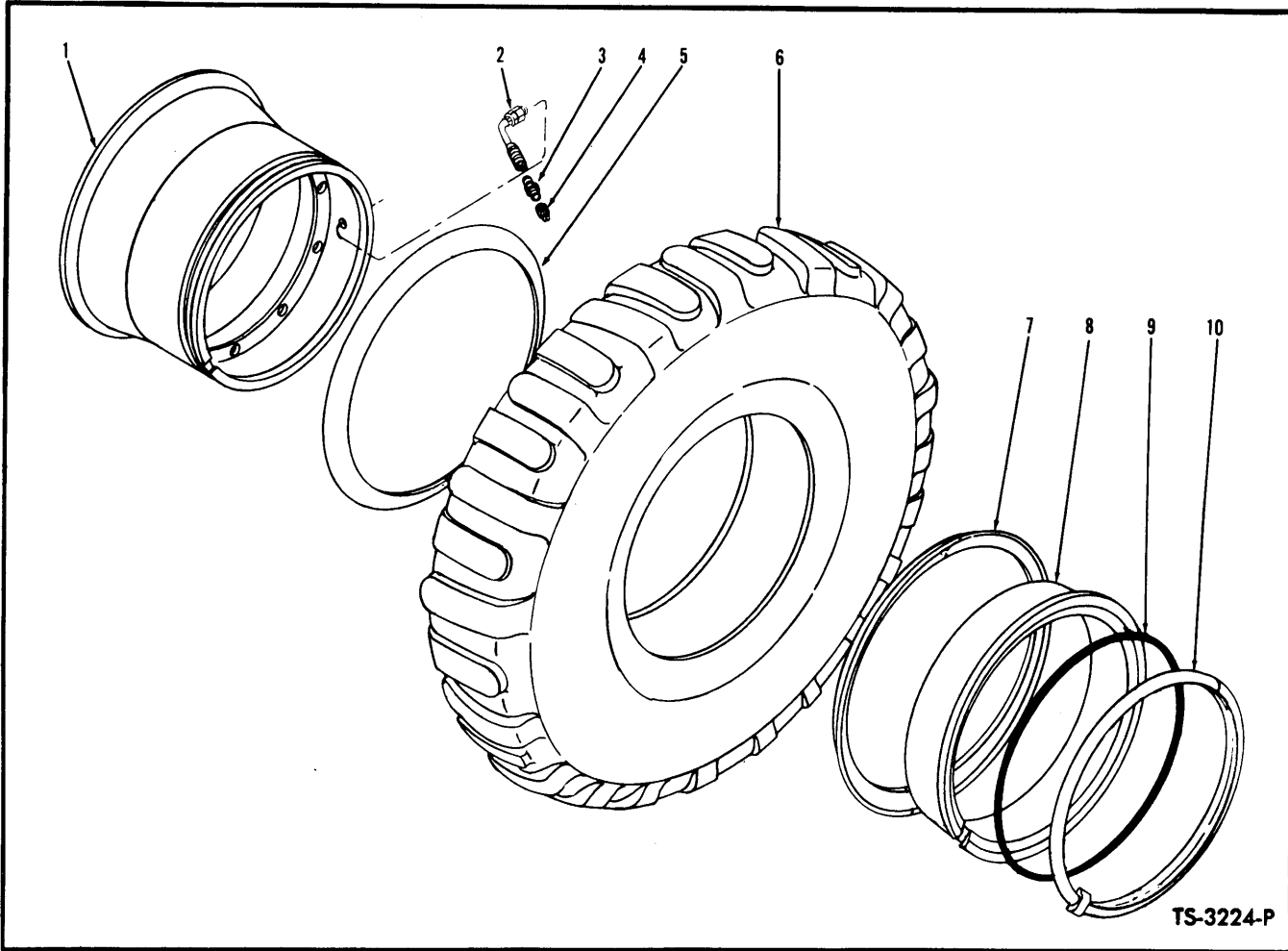
ITEM NO.	PART NUMBER	A	B	C	D	E	F	G
26	534908	3/4	3 1/8	1 7/32	1	.060	1 1/2	

HANGER CLIP



TS-5074-P

ITEM NO.	PART NUMBER	A	B	C	D	E	F	G
27	551902	1/4	3/8	7/32	3/4	.0625	2 3/8	1 5/32



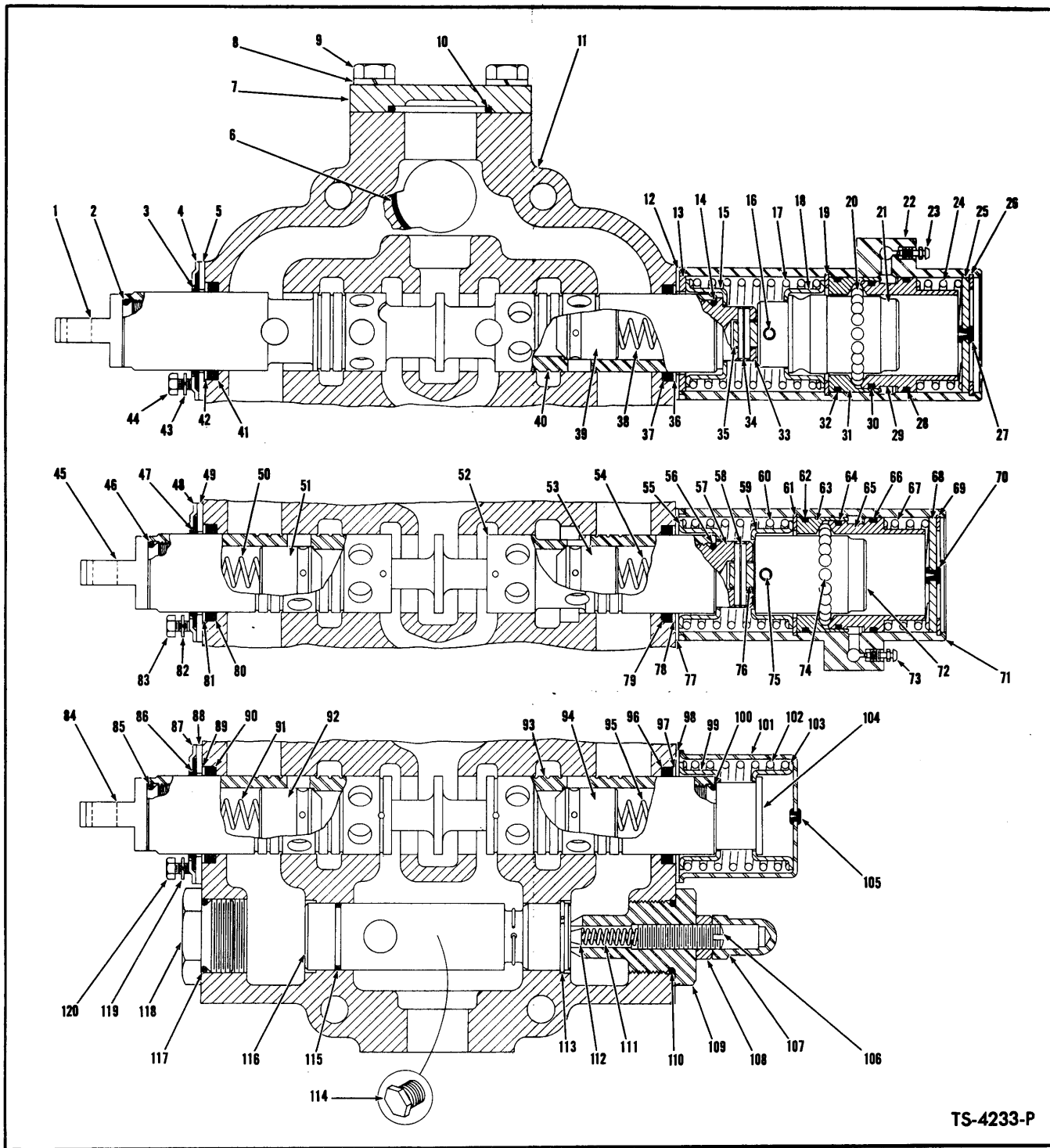
WHEEL AND TIRE

Item No.	Part No.	Description	No. Req'd.
1	553954	*WHEEL (18:00 x 25)	4
1A	509440	WHEEL (23.5 x 25)	4
2	509445	STEM ASSY, Valve (Inc. 3, 4)	4
3	551684	ADAPTER, Valve Stem	4
4	551685	CAP, Valve Stem	4
5	551341	FLANGE	4
6	---	§TIRE	4
7	551341	FLANGE	4
8	553956	BAND, Bead Seat	4
9	580278	"O" RING	4
10	580274	LOCK RING	4
11	531112	STEM, Water Filling (23.5 x 25)	4
11A	529605	NUT, Water Filling Stem (23.5 x 5)	4
11B	529606	GROMMET, Water Filling Stem (23.5 x 5)	4
12	531111	CAP, Water Stem (23.5 x 25)	4

§Not Sold Separately

*NOTE: For replacement use 1536090 plus 3-15G-1210 Screws.

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



TS-4233-P

THREE SPOOL CONTROL VALVE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req.
A	548596	*VALVE ASSY (Inc. 1 thru 120)	1	4	§PLATE, Retaining (See Item 3)	—
1	943180	EYE, Plunger	1	5	§PLATE, Retaining (See Item 3)	—
2	58K-214	"O" RING	1	6	25K-40120 "O" RING	1
3	947521	**WIPER, Plunger (Inc. Items 4 & 5)	1	7	943191 COVER	1

*NOTE: For complete replacement of 548596 Control Valve Assembly use 1508798 Control Valve Assembly.

**NOTE: For replacement use 949066 Kit, which consists of 1-949150 Seal, 1-949236 Wiper, 1-949237 Plate, & 1-949298 Plate.

§Not Sold Separately

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

THREE SPOOL CONTROL VALVE ASSEMBLY (Continued)

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
8	4E-08	WASHER, Lock	4	65	944849	RETAINER, Ball	1
9	1C-820	CAP SCREW	4	66	58K-139	"O" RING	1
10	58K-225	"O" RING	1	67	945429	SPRING	1
11	—	§HOUSING, Valve (See Item "A")	1	68	944844	PLUG	1
12	944838	PLATE, Retaining	1	69	663823	RING, Retaining	1
13	944839	SPACER, Spring	1	70	886763	PLUG, Bleeder	1
14	58K-214	"O" RING	1	71	944848	COVER, Detent	1
15	944840	GUIDE, Spring	1	72	944973	CAP, Detent	1
16	660178	PIN, Roll	1	73	641297	SCREW, Bleeder	1
17	945857	SPRING	1	74	10J-08	BALL, Steel	20
18	944851	RETAINER, Spring	1	75	633157	PIN, Roll	1
19	1301171	RING, Retaining	1	76	944148	PIN	1
20	10J-08	BALL, Steel	20	77	944838	PLATE, Retaining	1
21	944845	CAP, Detent	1	78	944837	RING, Back-up	1
22	944843	COVER, Detent	1	79	949150	RING, Quad	1
23	641297	SCREW, Bleeder	1	80	949150	RING, Quad	1
24	944846	SPRING	1	81	944837	RING, Back-up	1
25	944844	PLUG	1	82	4E-04	WASHER, Lock	6
26	663823	RING, Retaining	1	83	1C-412	CAP, Screw	6
27	886763	PLUG, Bleeder	1	84	943180	EYE, Plunger	1
28	58K-139	"O" RING	1	85	58K-214	"O" RING	1
29	944849	RETAINER, Ball	1	86	947521	***WIPER, Plunger (Inc. Items 87, 88)	1
30	58K-137	"O" RING	1	87	—	§PLATE, Retaining (See Item 86)	—
31	944850	RETAINER, Ball	1	88	—	§PLATE, Retaining (See Item 86)	—
32	58K-139	"O" RING	1	89	944837	RING, Back-up	1
33	944841	CAP, Plunger	1	90	949150	RING, Quad	1
34	302602	PIN, Roll	1	91	944858	SPRING, Check	1
35	944148	PIN	1	92	943184	CHECK, Plunger	1
36	944837	RING, Back-up	1	93	—	§PLUNGER, Operating (See Item "A")	1
37	949150	RING, Quad	1	94	943184	CHECK, Plunger	1
38	944858	SPRING, Check	1	95	944858	SPRING, Check	1
39	943184	CHECK, Plunger	1	96	949150	RING, Quad	1
40	—	§PLUNGER, Operating (See Item "A")	1	97	944837	RING, Back-up	1
41	949150	RING, Quad	1	98	944838	PLATE, Retaining	1
42	944837	RING, Back-up	1	99	944851	RETAINER, Spring	1
43	4E-04	WASHER, Lock	6	100	58K-214	"O" RING	1
44	1C-412	CAP SCREW	6	101	945294	COVER, Spring	1
45	943180	EYE, Plunger	1	102	945857	SPRING	1
46	58K-214	"O" RING	1	103	944851	RETAINER, Spring	1
47	947521	***WIPER, Plunger (Inc. Items 48, 49)	1	104	945289	CAP, Plunger	1
48	—	§PLATE, Retaining (See Item 47)	—	105	886745	PLUG, Bleeder	1
49	—	§PLATE, Retaining (See Item 47)	—	106	944855	SCREW, Adjusting	1
50	944858	SPRING, Check	1	107	944853	NUT, Acorn	1
51	943184	CHECK, Plunger	1	108	8D-08	NUT, Jam	1
52	—	§PLUNGER, Operating (See Item "A")	1	108A	613750	†WASHER, Jam Nut	2
53	943184	CHECK, Plunger	1	109	945497	CAP, Adjusting	1
54	944858	SPRING, Check	1	110	25K-40108	"O" RING	1
55	944851	RETAINER, Spring	1	111	886753	SPRING, Relief	1
56	58K-214	"O" RING	1	112	886739	POPPET, Relief	1
57	944854	CAP, Plunger	1	113	944802	RING, Retaining	1
58	660178	PIN, Roll	1	114	40K-04	CAP	1
59	944851	RETAINER, Spring	1	115	25K-20108	"O" RING	1
60	945857	SPRING	1	116	944857	**VALVE ASSY, Relief (Inc. Items 113 & 115)	1
61	1301171	RING, Retaining	1	117	25K-20108	"O" RING	1
62	58K-139	"O" RING	1	118	875279	CAP	1
63	944850	RETAINER, Ball	1	119	4E-04	WASHER, Lock	6
64	58K-137	"O" RING	1	120	1C-412	CAP SCREW	6

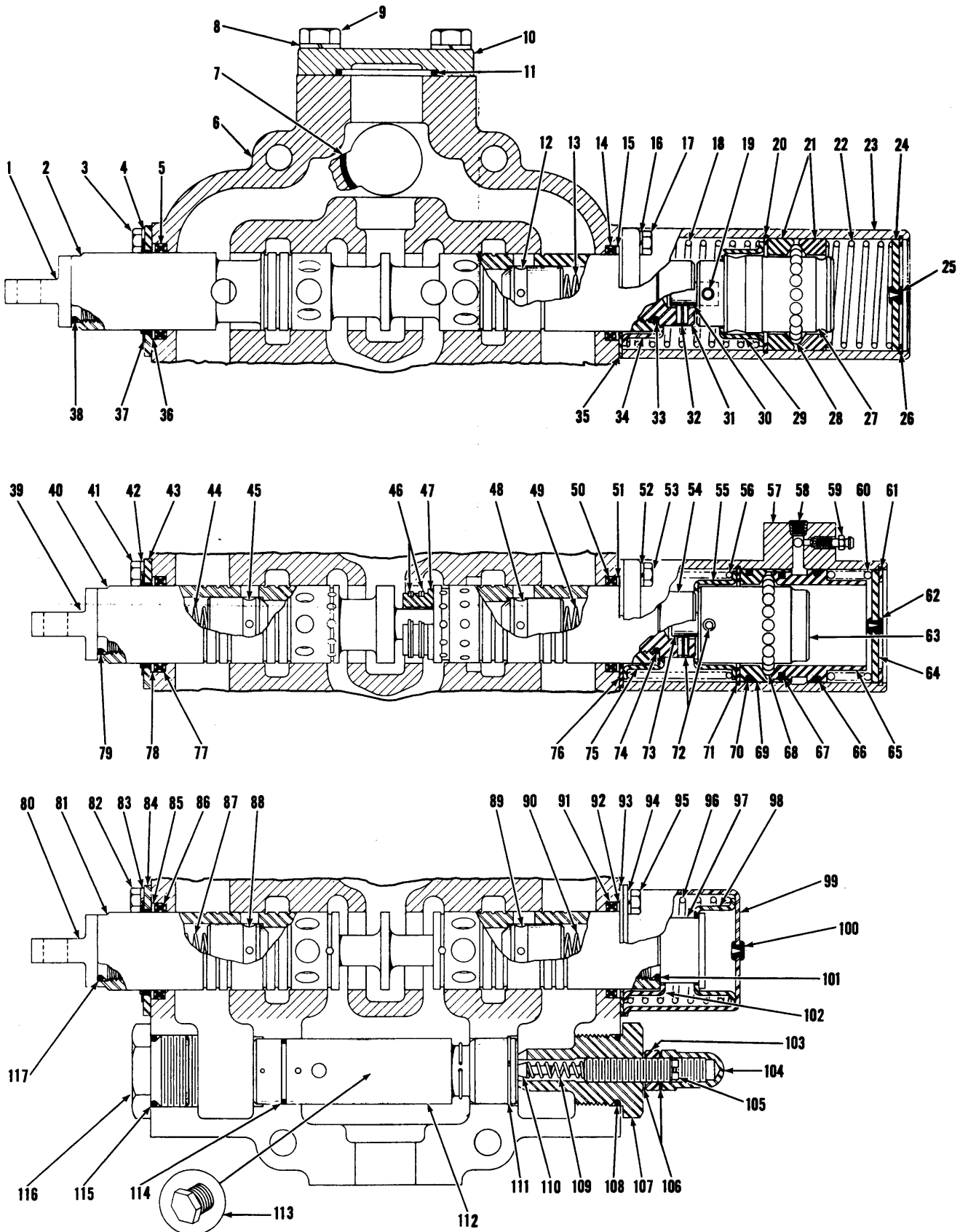
§Not Sold Separately

†Not Illustrated

**NOTE: 945496 Relief Valve Assembly replaces 944857 Relief Valve Assembly. Once replacement has been made Item 115 (25K-20108)

"O" Ring must be serviced with 58K26 "O" Ring.

***NOTE: For replacement use 949066 Kit, which consists of 1—949150 Seal, 1—949236 Wiper, 1—949237 Plate, & 1—949298 Plate.



THREE SPOOL CONTROL VALVE ASSEMBLY

TS-6693-P

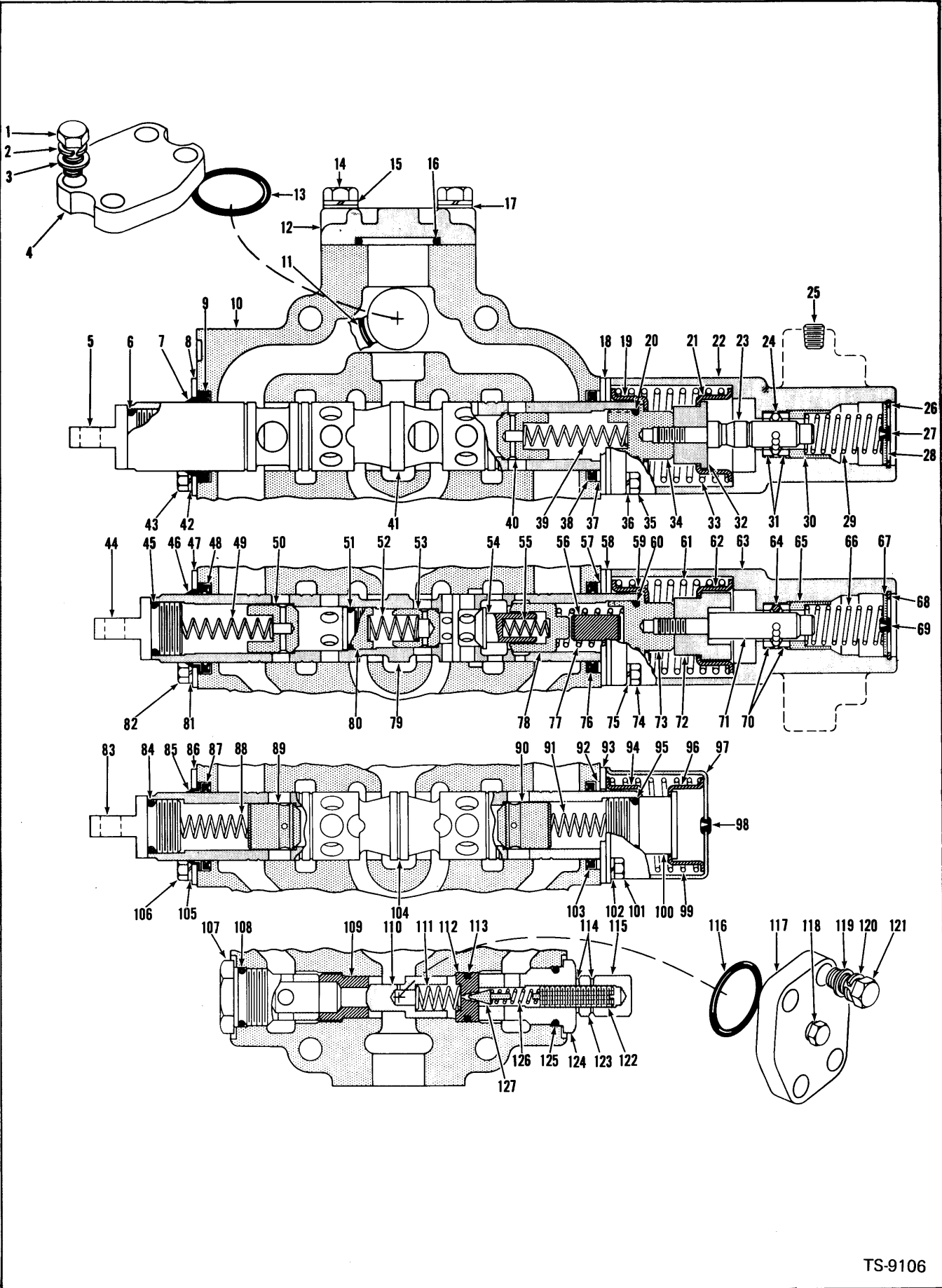
THREE SPOOL CONTROL VALVE ASSEMBLY

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	564010	*VALVE ASSY, Control (Inc. 1 thru 117)	1	59	641297	SCREW, Bleeder	1
1	943180	EYE, Plunger	1	60	945429	SPRING, Detent	1
2	-----	§PLUNGER, Operating — See "A"	1	61	663823	RING, Retaining	1
3	1C-412	BOLT, Wiper to Housing	2	62	886763	PLUG, Bleeder	1
4	4E-04	LKWSHR, Wiper to Housing	2	63	944973	CAP, Detent	1
5	946585	SEAL, Plunger Oil	1	64	944844	PLUG	1
6	-----	§HOUSING — See "A"	1	65	944849	RETAINER, Ball	1
7	25K-40120	"O" RING	1	66	58K-139	"O" RING, Ball Retainer	1
8	4E-08	LKWSHR, Cover to Housing	4	67	58K-137	"O" RING, Ball Retainer	1
9	1C-820	BOLT, Cover to Housing	4	68	10J-08	BALL	20
10	943191	COVER, Housing	1	69	944850	RETAINER, Ball	1
11	58K-225	"O" RING, Cover	1	70	58K-139	"O" RING, Ball Retainer	1
12	943184	CHECK	1	71	1301171	RING, Retaining	1
13	944858	SPRING, Check	1	72	660178	ROLL PIN	2
14	949150	SEAL, Plunger Oil	1	73	944148	PIN	1
15	944837	RING, Back-up	1	74	58K-214	"O" RING, Cap	1
16	4E-04	LKWSHR, Cover to Housing	4	75	944851	GUIDE, Spring	1
17	1C-416	BOLT, Cover to Housing	4	76	944838	PLATE, Retaining	1
18	945857	SPRING	1	77	949150	SEAL, Plunger Oil	1
19	660178	ROLL PIN	1	78	944837	RING, Back-up	1
20	1301171	RING, Retaining	1	79	58K-214	"O" RING, Plunger	1
21	945290	RETAINER, Ball	2	80	943180	EYE, Plunger	1
22	945494	SPRING, Detent	1	81	-----	§PLUNGER, Operating — See "A"	1
23	945498	COVER, Detent	1	82	1C-412	BOLT, Wiper to Housing	2
24	944844	PLUG	1	83	4E-04	LKWSHR, Wiper to Housing	2
25	886763	PLUG, Bleeder	1	84	947521	*WIPER, Plunger	1
26	663823	RING, Retaining	1	85	944837	RING, Back-up	1
27	946045	CAP, Detent	1	86	949150	SEAL, Plunger Oil	1
28	10J-08	BALL	20	87	944858	SPRING, Check	1
29	944851	GUIDE, Spring	1	88	943184	CHECK	1
30	944148	PIN	1	89	943184	CHECK	1
31	944854	CAP, Plunger	1	90	944858	SPRING, Check	1
32	660178	ROLL PIN	1	91	949150	SEAL, Plunger Oil	1
33	58K-214	"O" RING, Cap	1	92	944837	RING, Back-up	1
34	944851	GUIDE, Spring	1	93	944838	PLATE, Retaining	1
35	944838	PLATE, Retaining	1	94	4E-04	LKWSHR, Cover to Housing	4
36	944837	RING, Back-up	1	95	1C-412	BOLT, Cover to Housing	4
37	947521	*WIPER, Plunger	1	96	945857	SPRING, Detent	1
38	58K-214	"O" RING, Plunger	1	97	945289	CAP, Plunger	1
39	943180	EYE, Plunger	1	98	944851	GUIDE, Spring	1
40	-----	§PLUNGER, Operating — See "A"	1	99	945294	COVER, Detent	1
41	1C-412	BOLT, Wiper to Housing	2	100	886745	PLUG, Bleeder	1
42	4E-04	LKWSHR, Wiper to Housing	2	101	58K-214	"O" RING, Cap	1
43	947521	*WIPER, Plunger	1	102	944851	GUIDE, Spring	1
44	944858	SPRING, Check	1	103	8D-08	NUT, Jam	1
45	943184	CHECK	1	104	944853	NUT, Acorn	1
46	1308117	RING, Retaining	4	105	944855	SCREW, Adjusting	1
47	946046	CHECK (2 Pc.)	1	106	613750	WASHER	2
48	943184	CHECK	1	107	945497	CAP, Adjusting	1
49	946047	SPRING, Check	1	108	25K-40108	"O" RING, Adjusting Cap	1
50	949150	SEAL, Plunger Oil	1	109	886753	SPRING, Poppet	1
51	944837	RING, Back-up	1	110	886739	POPPET	1
52	4E-04	LKWSHR, Cover to Housing	4	111	944802	RING, Retaining	1
53	1C-416	BOLT, Cover to Housing	4	112	945496	VALVE ASSY, Relief (Inc. 111, 114)	1
54	944854	CAP, Plunger	1	113	40K-04	PLUG, Pipe	1
55	944851	GUIDE, Spring	1	114	58K-026	"O" RING, Relief Valve	1
56	945429	SPRING	1	115	25K-40108	"O" RING, Cap	1
57	944848	COVER, Detent	1	116	875279	CAP	1
58	16F-02	PLUG, Pipe	1	117	58K-214	"O" RING, Eye	1

§Not Sold Separately

*NOTE: For complete replacement use 1508798 Valve.

**NOTE: For replacement use 949066 Kit, which consists of 1—949150 Seal, 1—949236 Wiper, 1—949237 Plate, & 1—949298 Plate.



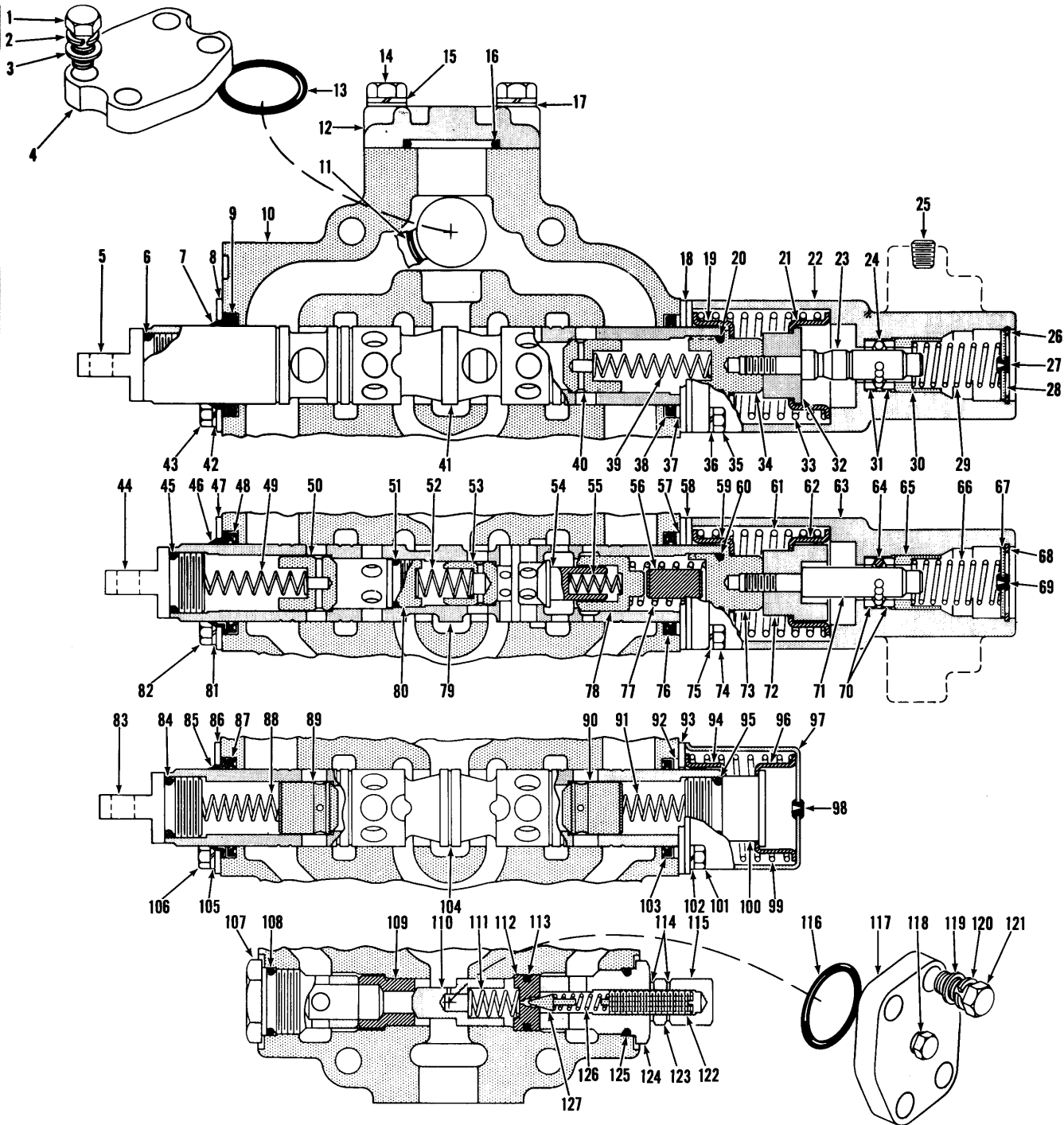
TS-9106



CONTROL VALVE ASSEMBLY

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
A	1508798	CONTROL VALVE ASSY (Inc. 1 thru 127)	1	35	1C-420	BOLT, Detent to Housing	4
1	1C-828	BOLT, Cover to Housing	4	36	4E-04	LKWSHR, Detent to Housing	4
2	4E-08	LKWSHR, Cover to Housing	4	37	944837	RING, Back-Up	1
3	878233	WASHER, Cover to Housing	4	38	949150	SEAL, Plunger Oil	1
4	947888	COVER	1	39	888304	SPRING, Check	1
5	946077	EYE, Plunger	1	40	943184	CHECK	1
6	943179	O-RING, Plunger Eye	1	41	-----	§ PLUNGER, Operating — See A	—
7	946614	WIPER, Plunger	1	43	4E-04	LKWSHR, Plate to Housing	2
8	946613	PLATE, Wiper & Seal Retainer	1	43	1C-412	BOLT, Plate to Housing	2
9	949150	SEAL, Plunger Oil	1	44	943180	EYE, Plunger	1
10	-----	§ HOUSING, Valve — See A	—	45	943179	O-RING, Plunger Eye	1
11	25K-40120	O-RING, Valve to Plate	1	46	946614	WIPER, Plunger	1
12	947884	COVER	1	47	946613	PLATE, Seal & Wiper Retainer	1
13	58K-224	O-RING, Cover to Housing	1	48	949150	SEAL, Plunger Oil	1
14	1C-828	BOLT, Cover to Housing	4	49	944858	SPRING, Check	1
15	4E-08	LKWSHR, Cover to Housing	4	50	946817	CHECK	1
16	58K-224	O-RING, Cover to Housing	1	51	947788	O-RING, Cap	1
17	878233	WASHER, Cover to Housing	4	52	946623	SPRING, Check	1
18	946615	PLATE, Seal Retainer	2	53	947765	CHECK	1
19	944840	GUIDE, Spring	1	54	946619	CHECK	1
20	943179	O-RING, Cap	1	55	946813	SPRING, Check	1
21	944851	GUIDE, Spring	1	56	947286	SPACER	1
22	947883	COVER, Detent	1	57	944837	RING, Back-Up	1
23	947901	CAP, Detent	1	58	946615	PLATE, Seal Retainer	2
24	10J-06	BALL	10	59	944840	GUIDE, Spring	1
25	16F-04	PLUG, Pipe	1	60	943179	O-RING, Plunger Cap	1
26	666542	RING, Plug Retainer	1	61	947902	SPRING, Plunger Return	1
27	886763	PLUG, Bleeder	1	62	944851	GUIDE, Spring	1
28	947848	PLUG, Detent Cover	1	63	947883	COVER, Detent	1
29	947852	SPRING, Detent	1	64	10J-06	BALL	10
30	947842	GUIDE, Detent Spring	1	65	947842	GUIDE, Spring	1
31	947843	RETAINER, Ball	2	66	947852	SPRING, Detent	1
32	947898	SPACER, Return Spring	1	67	947848	PLUG, Detent	1
33	947287	SPRING, Plunger Return	1	68	666542	RING, Plug Retainer	1
34	947895	CAP, Plunger	1	69	886763	PLUG, Bleeder	1

§ Not Sold Separately

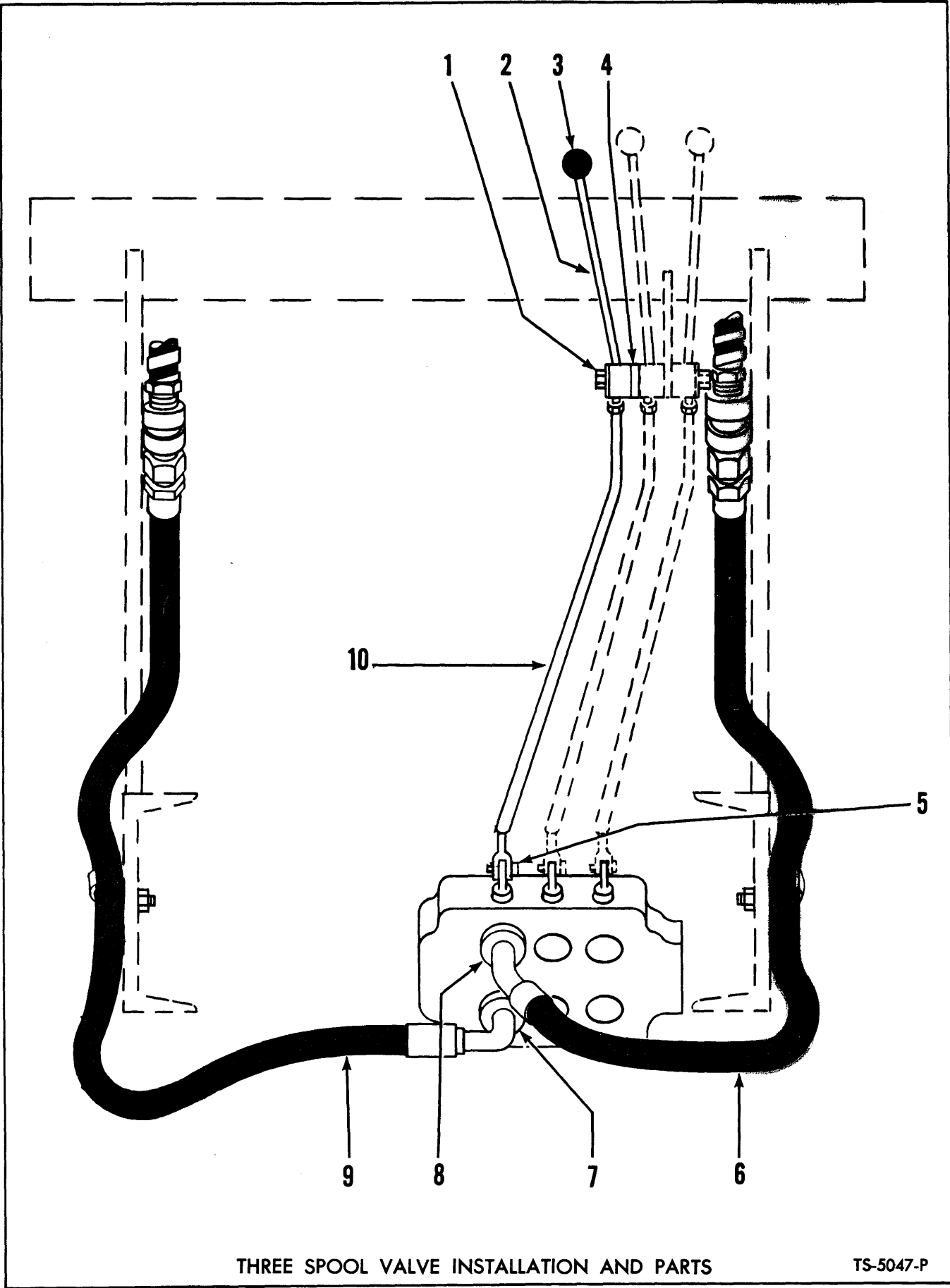


TS-9106

CONTROL VALVE ASSEMBLY (Continued)

Item	Part No.	Description	Qty.
70	947843	RETAINER, Ball	2
71	947892	CAP, Detent	1
72	947894	SPACER, Return Spring	1
73	947893	CAP, Plunger	1
74	1C-420	BOLT, Detent to Housing	4
75	4E-04	LKWSHR, Detent to Housing	4
76	949150	SEAL, Plunger Oil	1
77	947894	SPRING, Check	1
78	946620	CHECK	1
79	-----	§ PLUNGER, Operating – See A	—
80	947766	CAP	1
81	4E-04	LKWSHR, Plate to Housing	2
82	1C-412	BOLT, Plate to Housing	2
83	943180	EYE, Plunger	1
84	943179	O-RING, Plunger Eye	1
85	946614	WIPER, Plunger	1
86	946613	PLATE, Seal & Wiper Retainer	1
87	949150	SEAL, Plunger Oil	1
88	888304	SPRING, Check	1
89	943184	CHECK	1
90	943184	CHECK	1
91	888304	SPRING, Check	1
92	944837	RING, Back-Up	1
93	946615	PLATE, Seal Retainer	1
94	944851	GUIDE, Spring	1
95	943179	O-Ring, Plunger Cap	1
96	944851	GUIDE, Spring	1
97	945294	COVER, Spring Return	1
98	886745	PLUG, Bleeder	1
99	947326	SPRING, Plunger Return	1
100	945289	CAP, Plunger	1
101	1C-412	BOLT, Cover to Housing	4
102	4E-04	LKWSHR, Cover to Housing	4
103	949150	SEAL, Plunger Oil	1
104	-----	§ PLUNGER, Operating – See A	—
105	4E-04	LKWSHR, Plate to Housing	2
106	1C-412	BOLT, Plate to Housing	2
107	947845	CAP, Relief Valve	1
108	25K-40104	O-RING, Cap	1
109	947840	SEAT, Check	1
110	947844	CHECK, Relief Valve	1
111	946805	SPRING, Check	1
112	947841	SEAT, Poppet	1
113	25K-40030	O-RING, Poppet Seat	1
114	613750	WASHER, Jam Nut	2
115	49D-08	NUT, Acorn	1
116	58K-222	O-RING, Cover to Housing	1
117	947887	COVER	1
118	40K-04	PLUG, Cover	1
119	867747	WASHER, Cover to Housing	4
120	4E-07	LKWSHR, Cover to Housing	4
121	1C-724	BOLT, Cover to Housing	4
122	944899	SCREW, Relief Valve Adjusting	1
123	8D-08	NUT, Jam	1
124	947846	CAP, Relief Valve	1
125	25K-40104	O-RING, Cap	1
126	886753	SPRING, Relief Valve	1
127	886739	POPPET, Relief Valve	1

§ Not Sold Separately



THREE SPOOL VALVE INSTALLATION AND PARTS

TS-5047-P



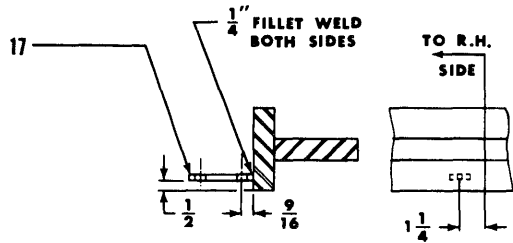
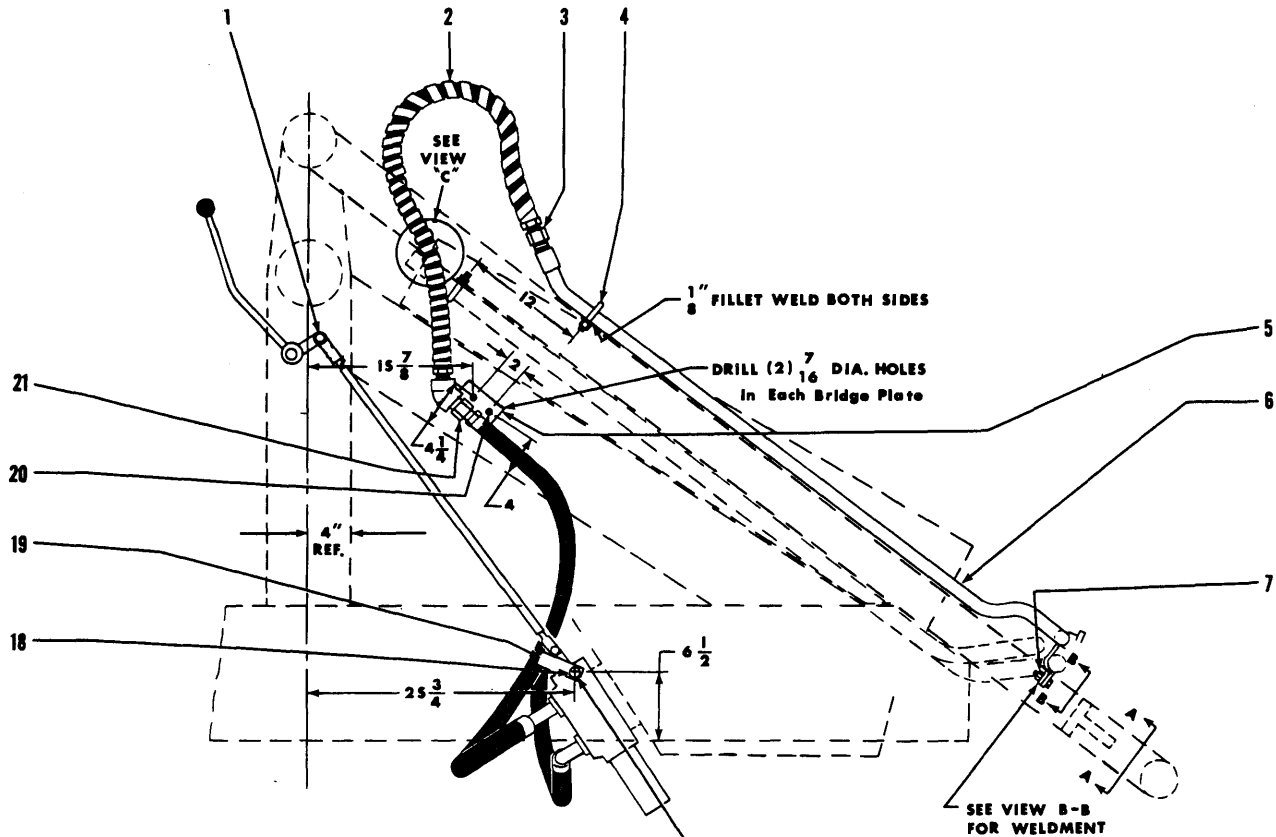
THREE SPOOL VALVE INSTALLATION AND PARTS

Item No.	Part No.	Description	No. Req'd.
1	18C-8104	BOLT, Valve Lever Mounting	1
1A	550646	†SLEEVE, Valve Lever Mounting	1
1B	526767	†BUSHING, Nylon — Lever Mounting	1
1C	12H-15	†FITTING, Grease	1
2	587605	LEVER, Valve	1
3	509772	KNOB, Valve Lever	1
4	548808	SPACER, Valve Lever	1
5	4F-08127	PIN, Clevis	1
5A	1F-414	†COTTER, Clevis Pin	1
6	557583	HOSE, Valve to R.H. Elbow Assy	1
7	19J20	FLANGE, Split	2
7A	58K-222	†"O" RING, Split Flange	1
7B	17C-724	†BOLT, Split Flange Mounting	4
7C	4E-07	†LKWSHR, Split Flange Mounting	4
8	19J20	FLANGE, Split	2
8A	58K-222	†"O" RING, Split Flange	1
8B	17C-724	†BOLT, Split Flange Mounting	4
8C	4E-07	†LKWSHR, Split Flange Mounting	4
9	591887	HOSE, Valve to L.H. Elbow Assy	1
10	587826	ROD ASSY (Inc. 10A, 10B)	1
10A	2J-8300	†CLEVIS, Rod End	1
10B	8D-08	†NUT, Rod End Jam	1

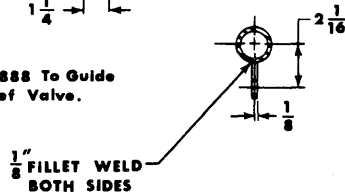
†Not Illustrated

NOTES

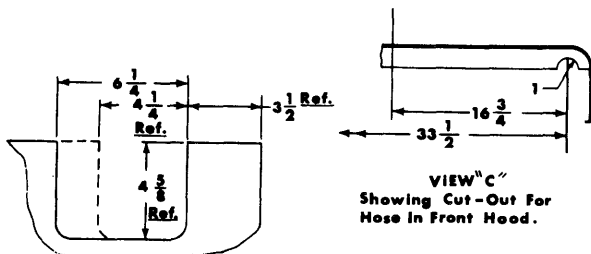
WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE



VIEW A-A
Showing Welding Of S87888 To Guide Bar When Mounting Relief Valve.



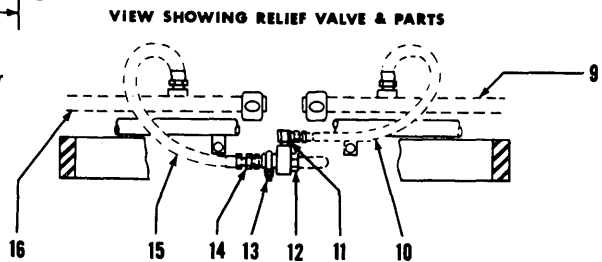
VIEW B-B
Showing Weldment Of Lug To Pipe Assembly R.H.



VIEW C
Showing Cut-Out For Hose In Front Head.

Revise Floorboard Cut-Out As Shown When Adding Three Spool Valve.

USE ITEMS 10 THRU 15 & 17 ONLY WHEN RELIEF VALVE IS CALLED FOR. RELIEF VALVE IS USED ON SIDE DUMP, BUT IS NOT USED ON ULRICH BUCKET.



THREE SPOOL VALVE INSTALLATION AND PARTS

TS-5046-P

THREE SPOOL VALVE INSTALLATION AND PARTS

Item No.	Part No.	Description	No. Req'd.
1	4F-08127	PIN, Clevis	1
1A	1F-414	COTTER	1
2	557584	HOSE, Elbow Assy to Guide Bar Pipe	2
3	36F-6	ADAPTER UNION	2
4	537477	"U" BOLT	2
4A	536289	†BRACKET, Anchor	2
4B	18D-06	†NUT, "U" Bolt	4
5	557857	ELBOW ASSY — R.H.	1
5A	557858	†ELBOW ASSY — L.H.	1
6	587813	PIPE ASSY, Guide Bar — R.H.	1
6A	587815	†PIPE ASSY, Guide Bar — L.H.	1
7	18C-820	BOLT, Pipe to R.H. Guide Bar Pipe.....	2
7A	18D-08	†NUT, Pipe to R.H. Guide Bar Pipe	2
8	538532	LUG (Welded to Pipe Assy)	2
9	—	PIPE ASSY — L.H. (See Item 6A)	—
10	581405	*HOSE, Pipe to Relief Valve	1
11	31F-4	*ADAPTER	1
12	540681	*VALVE ASSY, Relief	1
13	686040	*"U" BOLT	1
13A	18D-04	*NUT, "U" Bolt	2
14	36F-4	*ADAPTER	1
15	581405	*HOSE, Pipe to Relief Valve	1
16	—	PIPE ASSY — R.H. (See Item 6)	—
17	587888	*PLATE, Mounting (Welded to Guide Bar)	1
18	18C-624	BOLT, Clip Attaching	2
18A	18D-06	NUT, Clip Attaching	2
19	557521	CLIP, Hose to Frame Channel	2
20	18C-636	BOLT, Elbow Assy Attaching	4
20A	18D-06	†NUT, Elbow Assy Attaching	4
21	36F-6	ADAPTER UNION	2

†Not Illustrated

*NOTE: Use items 10 thru 15, 17 only when Relief Valve is called for. Relief Valve is used on Side Dump, but is not used on Ulrich Bucket.

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

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NUMERICAL INDEX

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
100838	29.1, 29A.1	109931	37.1, 37A.1	112210	48.1, 49.1, 49A.1	207647	29.1, 29A.1
100941	39.1, 41.1, 41A.1	110203	37.1, 37A.1	112211	48.1, 49.1, 49A.1	208158	79.1
100949	30.1, 30A.1	110518	39.1	112212	48.1, 49.1, 49A.1	208809	23.1
100970	35.3, 37.1, 37A.1	110519	39.1	112213	48.1, 49.1, 49A.1	208810	23.1
101196	41.1, 41A.1	110522	39.1	112215	37.1, 37A.1	208812	23.1
101201	41.1	110523	39.1, 41.1, 41A.1	112216	48.1, 49.1, 49A.1	208871	21.1
101203	41.1	110527	39.1	112278	35.3, 37A.1	209353	20, 21.1
101204	41A.1	110528	39.1	112287	37A.1, 42.2	209382	23.1
101205	41.1	110529	39.1	112291	41.1	209405	21.1
101210	41.1, 41A.1	110530	39.1	112294	37.1, 37A.1, 41.1	209406	21.1
101211	41.1, 41A.1	110531	39.1	112295	37.1, 37A.1, 41.1	209575	29.1
101213	41.1, 41A.1	110532	39.1	112341	44	209587	30.1, 30A.1
101214	41.1, 41A.1	110533	39.1	112344	44	209588	30.1, 30A.1
101217	41.1, 41A.1	110536	39.1	112407	49.1	209589	30.1, 30A.1
101218	41.1	110539	39.1	112408	49.1, 49A.1	209590	30.1, 30A.1
101219	41.1	110541	39.1	112409	48.1	209591	30.1, 30A.1
101220	41.1	110543	39.1	112410	48.1	209598	20
101222	19, 21.1, 41.1, 41A.1	110544	39.1	112411	48.1, 49.1	209599	19, 20
101223	41.1, 41A.1	110545	39.1	112412	35.3, 37.1, 37A.1	209607	21.1
101224	41.1, 41A.1	110548	39.1	112662	37.1, 37A.1	209612	20
101226	41.1	110553	35.3, 37.1, 37A.1	112695	35.3	209613	19, 20
101227	39.1, 41.1	110556	35.3	112767	35.3	209614	19, 20
102189	35.3, 37A.1	110559	35.3, 37.1, 37A.1	112918	48.1	209615	19, 20
103445	35.3, 37.1, 37A.1	110560	35.3, 37.1, 37A.1	113016	42.2	209616	19, 20
103522	35.3, 37.1, 37A.1	110607	35.3	113249	48.1, 49.1, 49A.1	209618	19
104052	35.3, 37A.1	110622	35.3, 37.1, 37A.1	113289	35.3	209619	19
104168	41.1, 41A.1	110624	35.3, 37.1, 37A.1	113292	35.3, 37A.1	209620	19
104412	35.3, 37.1, 37A.1	110814	35.3	114351	41A.1	209621	19
104471	39.1	110855	48.1, 49.1, 49A.1	114352	41A.1	209622	19
104942	23.1, 33.2	110890	37.1, 37A.1	114353	41A.1	209623	19, 21.1
106206	41.1, 41A.1	110894	35.3	116419	37A.1	209626	19
106209	41.1, 41A.1	110897	37.1, 37A.1	116883	49A.1	209627	19, 20
106221	35.3	110898	37.1, 37A.1	116888	49A.1	209628	19
106232	37.1, 37A.1	110899	37.1, 37A.1	117046	41A.1	209629	19
106266	44	110905	37.1, 37A.1	117049	41A.1	209630	20
106267	44	110906	37.1, 37A.1	117105	41A.1	209631	20
106291	37.1, 37A.1	110941	35.3	117131	41A.1	209632	20
106316	37.1, 37A.1	110942	37.1, 37A.1	117336	39.1	209633	20
106317	37.1, 37A.1	110953	37.1, 37A.1	117445	35.3	209635	20
106318	37.1, 37A.1	110954	37.1, 37A.1	117500	37.1, 37A.1	209636	20
106355	42.2, 42A.1	110955	37.1, 37A.1	117502	42A.1	209638	21.1
106356	42.2, 42A.1	110958	37.1, 37A.1	117503	42A.1	209641	21.1
106357	42.2, 42A.1	110959	37.1, 37A.1	117506	37A.1	209647	21.1
106358	42.2, 42A.1	110960	37.1, 37A.1	118041	35.3	209654	21.1
106359	42.2, 42A.1	110962	37.1, 37A.1	118786	35.3	209655	21.1
106457	35.3	110964	37.1, 37A.1	118805	35.3	209656	21.1
106547	37.1, 37A.1, 41.1	110965	37.1, 37A.1	119141	39.1	209657	21.1
106656	17.1, 37.1, 37A.1	111349	41.1	119366	37.1, 37A.1	209658	21.1
106762	35.3, 37.1, 37A.1, 42.2	111352	41.1	119431	39.1	209659	21.1
106998	35.3	111353	41.1, 41A.1	119852	35.3	209661	21.1
107010	35.3, 37.1, 37A.1	111439	48.1, 49.1, 49A.1	121062	35.3, 37.1, 37A.1	209663	23.1
107247	37.1	111634	37.1, 37A.1	121214	35.3	209669	19, 20
107256	35.3, 37.1, 37A.1	111658	39.1, 41.1, 41A.1	130998	35.3	209672	19, 20
107481	39.1	111691	39.1	131197	37.1	209673	21.1
107483	41.1, 41A.1	111694	39.1	138249	6C.1	209673	19, 20, 30.1, 30A.1
107631	35.3	111695	39.1	142396	7.1, 7A.1	209676	19, 20
107632	35.3	111696	50.1	180832	3.1	209677	19, 20
107735	35.3, 37.1, 37A.1	111700	35.3	200133	21.1	209678	19, 20
107736	35.3, 37.1, 37A.1	111701	35.3	200235	21.1	209690	23.1
107739	35.3, 37.1, 37A.1	111702	35.3	201120	21.1	209704	21.1
107977	39.1	111703	35.3	201262	21.1	209705	21.1
107978	39.1	111721	41.1, 41A.1	201413	21.1	209706	21.1
108658	37.1	111750	39.1	201566	21.1	209707	21.1
108663	37.1, 37A.1	111805	37.1, 37A.1	201623	30.1, 30A.1	209708	21.1
108665	37.1, 37A.1	112049	37.1, 37A.1	201844	21.1	209726	21.1
108815	41.1	112050	37.1, 37A.1	201929	21.1	209929	19, 20
109597	48.1, 49.1, 49A.1	112175	44	205928	19, 30.1, 30A.1	209961	23.1
		112176	37.1, 37A.1	206770	30.1, 30A.1	209968	63.1
		112207	48.1, 49.1, 49A.1	207024	21.1		

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
211433	33.2	222035	29.1, 29A.1	282019	29A.1	527496	56.3
214143	29A.1	222037	29.1, 29A.1	302602	30A.1, 71.3, 71A.3	527497	56.3
214295	29.1, 29A.1	222038	29.1, 29A.1	302602	82.2	527863	47.1, 47A.1
214596	37.1, 37A.1	222041	27.1	351131	14.1	528103	68.2, 69.2
214941	29.1, 29A.1	222043	27.1	356611	15.1	529605	80.2
214944	29.1	222044	27.1	356614	1C.1	529606	80.2
215502	33.2, 59.2	222045	27.1	356615	47.1, 47A.1	529969	5A.1
215644	21.1	222047	27.1	356616	47.1, 47A.1	529970	5A.1
215910	27.1	222179	30.1, 30A.1	356617	47A.1	529971	5A.1
215911	27.1	222221	30.1, 30A.1	356618	33.2	530509	14.1
216094	30.1, 30A.1	222223	30.1, 30A.1	356622	15A.1	531025	43.1
216095	29.1, 29A.1	222251	23.1	356624	15.1, 15B.1	531111	80.2
216290	30.1	222256	23.1	356629	33.2	531112	80.2
216555	29.1, 29A.1	222257	23.1	357214	77.2	531309	1.1, 1B.1
216594	29.1, 30A.1	222258	23.1	361939	14.1	531606	56.3
216595	30.1, 30A.1	222260	23.1	420945	10.1	531684	59.2
216729	23.1	222261	30.1, 30A.1	427237	74.1	531792	15.1, 15B.1
216730	23.1	222263	30A.1	450063	61	532118	3.1, 5.1, 68.2, 69.2
218721	29.1, 29A.1	222264	30A.1	450133	31.1	532369	2.1, 2A.1
218723	30.1, 30A.1	222265	29A.1	450161	29A.1	532378	3.1
218725	29.1, 29A.1	222266	30A.1	498019	31.1	532724	5.1
218777	30.1, 30A.1	222268	30.1	498026	61	532725	5.1
218778	29A.1	222269	30.1	498113	31.1, 61	532764	55
218779	29.1, 29A.1	222271	29.1	498127	61	532917	56.3, 56A.1
218782	30A.1	222407	19, 20	498128	61	533286	10.1
219413	63.1	222408	19, 20	498159	31.1	533478	65.1
220105	23.1	222537	23.1	498160	31.1	533506	1C.1
220162	19, 20	222626	30.1, 30A.1	507815	47.1, 47A.1	533634	68.2
220163	19, 20	223334	29.1, 29A.1	509440	80.2	533635	68.2
220164	19	223368	29.1, 29A.1	509445	80.2	533641	68.2, 69.2
220165	20	223387	30.1, 30A.1	509503	12.1, 12A.1	533645	56.3
220166	21.1	223568	29A.1	509772	25, 26.1, 72, 82B.1	533724	59.2
220167	21.1	223569	30A.1	510452	47.1	533735	3.1
220168	21.1	223570	30.1, 30A.1	511504	10.1	533794	68.2, 69.2
220171	21.1	223780	20	511512	10A.1	533820	21.1
220172	21.1	223856	21.1	512747	68.2, 69.2	533822	21.1
220173	21.1	223859	30.1, 30A.1	512789	56.3	533877	5A.1
220175	21.1	223885	21.1	512789	56.3	533880	5A.1
220176	21.1	223900	30.1, 30A.1	512797	56.3, 56A.1	533884	5A.1
220177	21.1	223957	19, 20	513122	53.1	533885	5A.1
220178	19, 20	223957	21.1	513842	47.1, 47A.1	534145	5.1
220179	19, 20, 21.1	223959	29.1, 29A.1	513865	10A.1	534147	3.1
220185	19, 20	223960	29.1, 29A.1	513873	45.1	534160	2.1, 2A.1
220186	19, 20, 21.1	223961	29.1, 29A.1	514740	68.2, 69.2	534161	2.1, 2A.1
220669	20	223962	29.1, 29A.1	515201	77.2	534173	2.1, 2A.1
220671	19	223963	29.1, 29A.1	515424	10.1, 10A.1	534226	3.1
220673	20	223964	29.1, 29A.1	516175	14A.1	534243	72
220965	50.1	223965	29.1, 30.1, 30A.1	517089	59.2	534265	56.3, 56A.1
220968	50.1	223988	29.1, 29A.1	517228	74.1, 74A.1	534380	62.1
220969	50.1	223997	29.1, 29A.1	517298	56.3, 56A.1	534394	71.3, 71A.3
221207	19, 20	223998	29.1, 29A.1	517355	53.1	534480	2.1, 2A.1
221400	19, 20	223999	29.1, 29A.1	518233	13.1, 13A.1, 62.1	534488	2.1
221512	19, 20	224000	29.1, 29A.1	518259	45.1	534559	65.1
221513	19, 20	224009	29.1, 29A.1	518331	55	534561	65.1
221798	23.1	224023	37.1, 31A.1	518346	55	534606	26.1
221802	23.1	224032	35.3, 37.1, 37A.1	519324	77.2	534640	33.2
221803	23.1	224036	29.1, 29A.1	519793	26.1	534736	68.2, 69.2
221804	23.1	224039	29.1, 29A.1	520399	56.3, 56A.1	534894	59.2
221805	23.1	224061	30.1, 30A.1	520400	56.3, 56A.1	534895	3.1
221991	61	224065	20	520405	56.3	534908	79.1, 79A.1
221992	29.1, 29A.1, 31.1	224066	35.3	521769	26.1	534916	59.2
222001	29.1, 29A.1	224075	21.1	522503	5A.1	534917	59.2
222003	30.1, 30A.1	224083	39.1	523029	77.2	534973	65.1
222006	30.1, 30A.1	224095	23.1	523257	77.2	535001	65.1
222007	30.1, 30A.1	224104	19, 20	523372	74.1, 74A.1	535022	47.1, 47A.1
222008	30.1, 30A.1	224105	19, 20	523461	44	535023	47.1, 47A.1
222019	30.1, 30A.1	224120	29.1, 30A.1	524057	68.2, 69.2	535024	47.1, 47A.1
222023	29A.1	224797	29.1, 29A.1	524497	47.1	535025	47.1, 47A.1
222026	30.1, 30A.1	225385	29.1, 29A.1	524561	47.1, 47A.1	535026	47.1, 47A.1
222027	30.1, 30A.1	226595	30.1, 30A.1	525293	20, 62.1	535030	47.1, 47A.1
222028	30.1, 30A.1	227265	33.2	526451	56.3, 56A.1	535239	79.1
222031	30.1, 30A.1	281706	29.1	526767	5.1, 25, 72, 82B.1	535240	79.1
222034	27.1	281741	19				

Part No.	Page No.
535300	25
535316	26.1
535318	26.1
535372	25
535376	25
535603	74.1
535605	74.1, 74A.1
535625	59.2
535649	9.1
535843	65.1
536058	68.2, 69.2
536073	59.2
536140	14.1, 14A.1
536141	14.1, 14A.1
536193	73.1
536289	82C.1
536334	59.2
536424	8.1
536521	59.2
536539	60.1
536611	47.1, 47A.1
536623	72
536625	72
536643	17.1
536749	59.2
536766	33.2
536794	33.2
536795	33.2
536835	9.1
536881	77.2, 77A.2
536932	47A.1
536934	47.1
536942	65.1
536999	75.2, 75A.2
537015	9.1
537129	69.2
537130	69.2
537265	5.1
537266	5.1
537281	65.1
537326	65.1
537327	65.1
537342	57.1
537477	65.1, 82C.1
537754	79.1, 79A.1
537755	79.1, 79A.1
537875	78A.1, 79.1
537997	53.1
537998	53.1
538068	56.3, 56A.1
538085	77.2, 77A.2
538087	77.2
538163	68.2, 69.2
538231	78A.1, 79.1
538234	78A.1, 79.1
538235	79.1
538240	62.1
538250	77.2, 77A.2
538256	77.2, 77A.2
538258	77.2, 77A.2
538274	52.1
538276	52.1, 52A.1
538286	62.1
538295	52.1
538300	9.1
538306	2.1, 2A.1
538313	25
538532	82C.1
538605	2.1, 2A.1
538609	65.1
538616	65.1
538677	74.1, 74A.1
538684	25

Part No.	Page No.
538685	25
538707	8.1
538708	8.1
538838	66.1, 66A.1
538858	65.1
538859	65.1
538860	65.1
538868	65.1
538888	2.1
538891	26.1
538893	69.2
538895	68.2
539042	10.1
539124	9.1
539195	17.1
539303	78A.1, 79.1
539318	17.1
539319	17.1
539331	6.1
539332	6.1
539338	7.1, 7A.1
539339	7.1, 7A.1
539365	77.2, 77A.2
539557	17.1
539618	63.1
539758	59.2
539759	65.1
539760	65.1
539762	33.2
539774	43.1
539780	1.1
539782	1.1
539801	59.2
539821	11.1
539839	10.1
539841	10.1
539842	10.1
539852	10.1
539853	10.1
539856	10.1
539895	65.1
539900	33.2
539906	12.1
539935	8.1
539939	79.1
539985	74.1, 74A.1
539987	62.1
539988	47.1, 47A.1
540031	13.1
540032	13.1
540034	13.1, 13A.1
540102	65.1
540103	10.1
540104	13.1, 13A.1
540105	13.1
540106	65.1
540115	9.1
540129	59.2
540153	15.1, 15B.1
540156	15.1, 15B.1
540168	15.1, 15B.1
540179	79.1
540204	14.1
540272	14.1
540306	47.1, 47A.1
540549	14.1
540656	26.1
540658	26.1
540681	82C.1
540732	77.2
540733	77.2
540752	77.2
540797	10A.1

Part No.	Page No.
540882	77.2, 77A.2
540888	10.1
540909	1.1
540916	47A.1
541035	7.1, 7A.1
541046	77.2
541063	77.2, 77A.2
541143	14.1
541144	79.1
541362	33.2
541415	33.2
541570	77.2, 77A.2
541587	68.2, 69.2
541588	68.2, 69.2
541707	74.1
541730	5.1
541767	33.2
541768	33.2
541797	17.1
541798	17.1
541822	33.2
541880	44
541908	77.2
541988	79.1
542074	77.2, 77A.2
542255	45.1
542265	77.2
542321	77.2, 77A.2
542355	47.1, 47A.1
542356	47.1, 47A.1
542357	47.1, 47A.1
542445	6.1, 6B.2, 6C.1
542448	6.1
542449	6.1
542470	7.1
542613	14.1
542626	15.1, 15A.1, 15B.1
542630	15.1, 15B.1
542639	66.1
542642	74.1
542646	1A.1
542836	12.1, 12A.1
542839	3.1
542876	33.2
542877	33.2
542879	33.2
542907	12.1, 12A.1
542983	52.1, 52A.1
542998	12.1
542999	12.1
543000	12.1
543001	12.1
543002	12.1
543003	12.1
543404	7.1, 7A.1
543405	7.1, 7A.1
543406	5.1
544125	62.1
544208	13.1
544359	56.3, 56A.1
544379	6.1
544383	6.1
544482	51.1
544512	51.1
544558	5A.1
544565	5A.1
544566	5A.1
544610	6.1
544998	50.1
545005	51.1
545006	51.1
545008	15.1, 15B.1
545062	15.1, 15B.1

Part No.	Page No.
545063	15.1, 15B.1
545075	7.1, 7A.1
545076	7.1, 7A.1
545080	15.1, 15A.1, 15B.1
545219	5A.1
545222	5A.1
545261	66.1, 66A.1
545267	67.1
545573	5A.1
545576	5A.1
545580	5A.1
545581	5A.1
545840	6C.1
545941	53.1
546005	5A.1
546409	11A.1
546474	6B.2, 6C.1
546498	5A.1
546504	5A.1
546543	6B.2
546659	5A.1
547006	6.1
547014	6C.1
547015	6B.2, 6C.1
547170	74.1
547816	77.2, 77A.2
547850	9.1
547851	77.2, 77A.2
547852	77.2, 77A.2
548596	81.2
548598	6.1
548695	6.1
548808	82B.1
548954	6.1
548958	65.1
548964	3.1
548969	6.1
548970	5A.1
548971	5A.1
549009	6.1
549010	6.1
549024	74.1, 74A.1
549032	6B.2
549063	67.1, 67A.2, 67C.2
549096	77A.2
549243	10.1
549505	10A.1
549541	14A.1
549696	10A.1
550044	53.1
550301	8.1
550616	14.1
550646	5.1, 25, 72, 82B.1
550665	5A.1
550672	26.1
550735	75.2, 75A.2
550741	74.1, 74A.1
550742	74.1, 74A.1
550743	74.1, 74A.1
550803	26.1
550855	77.2
551014	14.1, 14A.1
551242	6.1
551244	77A.2
551251	75A.2
551320	74.1, 74A.1
551321	74.1, 74A.1
551322	74.1, 74A.1
551323	1.1, 1A.1, 33.2
551341	80.2
551410	25
551433	7.1, 7A.1

Part No.	Page No.
551523	5.1
551684	80.2
551685	80.2
551902	79A.1
551906	29.1, 29A.1, 31.1, 61
552146	2.1, 2A.1
552147	2.1, 2A.1
552161	63.1
552164	77.2
552767	56.3
553312	77A.2
553954	80.2
553956	80.2
556280	10A.1
556281	10A.1
556286	12A.1
556287	12A.1
556288	12A.1
556291	13A.1
556292	13A.1
556297	1B.1
556298	1B.1
556301	1C.1
556392	14A.1
556393	14A.1
556434	14A.1
556455	52A.1
556464	12A.1
556465	12A.1
556489	75A.2
556611	13A.1
556675	2A.1
556683	7A.1
556702	1A.1
556703	1A.1
556823	47A.1
556904	74A.1
556934	12A.1
556971	77A.2
557076	5.1
557084	5.1
557085	5.1
557108	75A.2
557156	5.1
557164	5A.1
557193	5A.1
557196	5A.1
557199	5A.1
557230	77A.2
557261	52A.1
557334	77A.2
557377	77A.2
557380	7.1, 7A.1
557417	77A.2
557421	77A.2
557438	52.1, 77.2, 77A.2
557465	6C.1
557521	82C.1
557567	77A.2
557583	82B.1
557584	82C.1
557825	13A.1
557857	82C.1
557858	82C.1
557926	15A.1
557927	15A.1
557929	77A.2
557934	78A.1
557935	14A.1
558011	77A.2
558012	77A.2
558066	47A.1

Part No.	Page No.
558767	6B.2
558962	15.1, 15B.1
562259	71.3, 71B.2
562302	77.2, 77A.2
562412	2.1, 2A.1
562751	66A.1
564010	81.2, 82A.2
564375	5.1
564377	5.1, 5A.1
566473	59.2
566629	73.1
567842	67B.1, 67D.1
567888	15A.1
567889	15A.1
567890	15A.1
567945	26.1
567946	26.1
567947	26.1
567977	26.1
568524	66A.1
573548	75.2, 75A.2
574275	74.1, 74A.1
574276	74.1, 74A.1
580274	80.2
580278	80.2
580282	12.1, 12A.1
581405	82C.1
582057	77A.2
582305	33.2
583611	14A.1
587520	9.1
587605	82B.1
587613	17.1, 62.1
587616	5A.1
587617	5A.1
587639	5.1, 5A.1
587641	5.1, 5A.1
587642	5A.1
587751	47.1, 47A.1
587813	82C.1
587815	82C.1
587826	82B.1
587888	82C.1
587986	5.1, 5A.1
587987	5.1, 5A.1
588224	66A.1, 67.1
588248	5A.1
588251	5A.1
588331	6C.1
588332	6C.1
588333	6B.2
588779	6.1
588780	6.1
588795	6.1
588919	5A.1
588969	6.1
589108	6B.2
589109	6B.2
589180	6B.2
589181	6B.2
589184	6B.2
589553	6B.2
589554	6C.1
589555	6B.2
589556	6C.1
589560	6B.2
589563	6B.2
589567	6C.1
589570	6B.2
589571	6B.2
589572	6B.2
589597	9.1
589796	6C.1

Part No.	Page No.
591887	82B.1
593370	47.1, 47A.1
600259	75.2, 75A.2
601212	75.2, 75A.2
602350	74.1, 74A.1
611074	77.2, 77A.2
611179	66.1, 66A.1
612390	59.2
613750	71.3, 71A.3, 71B.3, 82.2, 82A.2
616714	73.1
616777	52A.1
616786	30.1, 30A.1
616796	5A.1, 25, 72
619018	6C.1, 7.1, 7A.1
619019	1C.1, 6B.2, 8.1, 45.1, 50.1
619021	6B.2, 6C.1, 7.1, 7A.1, 9.1, 12A.1, 13.1, 13A.1, 29.1, 29A.1, 53.1, 66.1, 66A.1, 74.1, 74A.1
619024	50.1
619027	48.1, 49.1, 49A.1
619029	5.1
619031	1.1, 1B.1
621279	52.1
622026	55
622027	55
622028	55
623760	14.1, 14A.1
623762	14.1, 14A.1
623829	14.1, 14A.1
626530	74.1, 74A.1
627982	17.1
633157	27.1, 71.3, 71A.3, 71B.3, 82.2
635682	1C.1, 3.1, 6.1, 7.1, 7A.1, 8.1, 9.1, 10.1, 10A.1, 17.1, 52.1, 52A.1, 62.1, 65.1, 73.1, 79.1
636228	75.2, 75A.2
636260	1.1, 1A.1, 47.1, 47A.1
637279	77.2
639796	55
641297	71.3, 71A.3, 71B.3, 82.2, 82A.2
645092	51.1
645095	50.1
645493	1C.1
647300	77.2
647310	52.1, 52A.1
648304	55
652448	10.1
652456	10A.1
654722	27.1
658982	20
658997	20
658998	19, 20, 21.1
660178	71.3, 71A.3, 71B.3, 82.2, 82A.2
660516	35.3, 37.1, 37A.1
661416	44
661418	33.2
662691	57.1
662738	37.1, 37A.1
663093	65.1
663094	33.2, 65.1, 82B.1
663095	65.1
663097	65.1

Part No.	Page No.
663792	60.1
663823	71.3, 71A.3, 71B.3, 82.2, 82A.2
664140	63.1
664423	6.1, 52.1
664426	67.1
667290	59.2
669953	59.2
675015	59.2
675016	59.2
675229	21.1
675230	19, 20
675252	41.1, 41A.1
675254	41.1, 41A.1
675255	39.1
675259	41.1, 41A.1
675260	41.1, 41A.1
675262	41.1, 41A.1
675263	41.1, 41A.1
675265	41.1, 41A.1
675543	30.1, 30A.1
685514	75.2
686040	82C.1
695120	77.2, 77A.2
695930	55
696048	75.2, 75A.2
696104	77.2
710034	39.1
710035	39.1
710776	23.1
710788	20
710789	20
711161	30.1, 30A.1
711186	33.2
711264	77.2
713418	56.3, 56A.1
713998	21.1
730143	55
730432	7.1, 7A.1
731050	23.1
731253	19, 20, 21.1
731283	30.1, 30A.1
731742	29.1, 29A.1
733624	52.1, 77.2
742261	39.1
742262	35.3, 37.1, 37A.1
742263	35.3, 37.1, 37A.1
743200	7A.1
763868	74.1
774024	35.3, 37.1, 37A.1
774025	35.3, 37.1, 37A.1
774197	39.1
774198	39.1
774199	39.1
774224	1B.1
784057	6.1
784295	37.1, 37A.1
784296	37.1, 37A.1
784381	1C.1
791553	71.3, 71A.3, 71B.3,
800667	21.1
801007	30A.1
801036	30.1
801167	27.1
801236	30A.1
815200	41.1, 41A.1
815254	35.3
815326	41.1, 41A.1
815377	39.1
815396	41.1
815511	41.1, 41A.1
815521	41.1, 41A.1
815564	37.1, 37A.1

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
815565	35.3	894652	11.1	944837	71.3, 71A.3, 71B.3, 82.2, 82A.2	945060	11A.1
815676	41A.1	894653	11.1			945061	11A.1
815746	41A.1	899038	60.1	944838	71.3, 71A.3, 71B.3, 82.2, 82A.2	945062	11A.1
815747	39.1	899039	60.1			945112	56.3, 56A.1
815754	37.1, 37A.1	940089	43.1	944839	71.3, 71A.3, 82.2	945117	68.2, 69.2
815780	39.1	940090	43.1	944840	71.3, 71A.3, 82.2	945125	42.2
815786	39.1	940091	43.1	944841	71.3, 71A.3, 82.2	945126	42.2
815812	39.1	940092	43.1	944842	71.3	945131	77.2
850756	55	940093	43.1	944843	71.3, 71A.3, 82.2	945238	67.1
850818	6.1	940111	55	944844	71.3, 71A.3, 71B.3, 82.2, 82A.2	945289	82.2, 82A.2
851756	55	940125	55			945290	71B.3, 82A.2
851762	55	940227	43.1	944845	71.3, 71A.3, 82.2	945294	82.2, 82A.2
851770	55	940229	43.1	944846	71.3, 71A.3, 82.2	945429	71.3, 71A.3, 71B.3, 82.2, 82A.2
853182	55	940256	43.1	944848	71.3, 71A.3, 71B.3, 82.2, 82A.2		
853187	55	940257	43.1			945431	67A.2, 67B.1, 67C.2, 67D.1
853357	55	940259	43.1	944849	71.3, 71A.3, 71B.3, 82.2, 82A.2		
853368	55	940316	9.1			945432	67A.2, 67B.1, 67C.2, 67D.1
853380	55	940638	1C.1	944850	71.3, 71A.3, 71B.3, 82.2, 82A.2		
853384	55	940643	1.1, 1A.1, 47.1, 47A.1			945433	67A.2, 67B.1, 67D.1
853391	55			944851	71.3, 71A.3, 71B.3, 82.2, 82A.2	945434	67A.2, 67C.2
853395	55	941226	50.1			945435	67A.2, 67B.1, 67C.2, 67D.1
853408	55	941227	50.1	944853	71.3, 71A.3, 71B.3, 82.2, 82A.2		
853412	55	941238	50.1			945436	67A.2, 67B.1, 67C.2, 67D.1
853464	55	941474	10A.1	944854	71.3, 71A.3, 71B.3, 82.2, 82A.2		
856071	37.1, 37A.1	941509	43.1			945437	67A.2, 67B.1, 67C.2, 67D.1
857420	75.2, 75A.2	941568	56.3, 56A.1	944855	71.3, 71A.3, 71B.3, 82.2, 82A.2		
857729	55	941569	68.2, 69.2			945460	13A.1
860320	14.1	941573	43.1	944857	82.2	945478	6B.2
860997	55	941813	47.1, 47A.1	944858	71.3, 71A.3, 71B.3, 82.2, 82A.2	945479	6C.1
861738	55	942405	50.1			945480	6C.1
861741	55	942646	47.1	944860	43.1	945481	6C.1
861755	55	942874	6C.1	944861	43.1	945482	6C.1
861768	55	943180	71.3, 71A.3, 71B.3, 81.2, 82.2, 82A.2	944862	43.1	945483	6C.1
862093	13A.1			944953	11.1	945484	6C.1
862652	50.1	943184	71.3, 71A.3, 71B.3, 82.2, 82A.2	944954	11.1	945494	71B.3, 82A.2
862653	50.1			944955	11.1	945496	71.3, 71A.3, 71B.3, 82.2, 82A.2
862655	50.1	943191	71.3, 71A.3, 71B.3, 81.2, 82A.2	944957	11.1		
862656	50.1			944968	50.1	945497	71.3, 71A.3, 71B.3, 82.2, 82A.2
862738	50.1	943224	9.1	944969	50.1		
863364	13.1, 13A.1	943420	37.1, 37A.1	944971	71.3, 71A.3, 71B.3, 82.2, 82A.2	945498	71B.3, 82A.2
865149	67.1, 67A.2, 67B.1, 67C.2, 67D.1	943429	55			945734	77A.2
		943498	71.3	944972	71.3, 71A.3, 71B.3, 82.2, 82A.2	945857	71A.3, 71B.3, 82.2, 82A.2
865961	57.1	943667	55			945860	71.3, 71A.3, 71B.3, 82.2, 82A.2
865963	57.1	944052	55	944973	71.3, 71A.3, 71B.3, 82.2, 82A.2		
865965	57.1	944053	55			945872	67B.1, 67D.1
866348	50.1	944054	50.1	944977	6.1, 77A.2	945873	67A.2, 67B.1, 67C.2, 67D.1
866349	50.1	944148	71.3, 71A.3, 71B.3, 82.2, 82A.2	944980	6.1		
868744	67.1			944981	8.1	945874	67B.1, 67D.1
872712	50.1	944288	6.1, 6C.1	944982	8.1		
873250	55	944467	60.1	944999	67.1	945897	1A.1
875012	10.1	944469	60.1	945000	67.1	945996	45.1
875254	63.1	944471	60.1	945001	67.1	946045	71B.3, 82A.2
875279	71.3, 71A.3, 71B.3, 82.2, 82A.2	944499	8.1	945002	67.1	946046	71B.3, 82A.2
		944643	60.1	945003	67.1	946047	71B.3, 82A.2
875364	63.1	944645	60.1	945004	67.1	946163	50.1
875766	45.1	944646	60.1	945005	67.1	946282	75.2, 75A.2
875767	45.1	944686	37.1, 37A.1	945006	67.1, 67A.2, 67B.1, 67C.2, 67D.1	946464	77A.2
876575	57.1	944687	37.1, 37A.1			946585	71.3, 71A.3, 71B.3, 82.2, 82A.2
876878	67.1, 67A.2, 67B.1, 67C.2, 67D.1	944691	43.1	945007	67.1		
		944718	37.1, 37A.1	945008	67.1	947396	43.1
883734	60.1	944792	63.1	945009	67.1, 67A.2, 67B.1, 67C.2, 67D.1	947409	26.1
885083	52A.1	944795	63.1			947521	71.3, 71A.3, 71B.3, 81.2, 82.2, 82A.2
886285	11.1, 11A.1	944799	63.1	945010	67.1		
886287	11.1, 11A.1	944801	63.1	945011	67.1, 67A.2, 67B.1, 67C.2, 67D.1	952109	35.3, 37.1, 37A.1
886719	50.1	944802	71.3, 71A.3, 71B.3, 82.2, 82A.2			1300452	37.1, 37A.1
886739	71.3, 71A.3, 71B.3, 82.2, 82A.2			945012	67.1	1301171	71.3, 71A.3, 71B.3, 82.2, 82A.2
		944803	74.1, 74A.1	945047	50.1		
886745	82.2, 82A.2	944804	74.1, 74A.1	945048	55	1308117	71B.3, 82A.2
886753	71.3, 71A.3, 71B.3, 82.2, 82A.2	944805	63.1	945049	55		
		944806	63.1	945050	55	1503015	68.2
886763	71.3, 71A.3, 71B.3, 82.2, 82A.2	944815	63.1	945051	50.1	1503021	68.2
		944826	63.1	945055	74A.1, 75A.2, 77A.2	1503469	68.2
892833	11A.1	944827	63.1	945059	11A.1	1503629	56.3, 56A.1
						1503631	56.3, 56A.1

