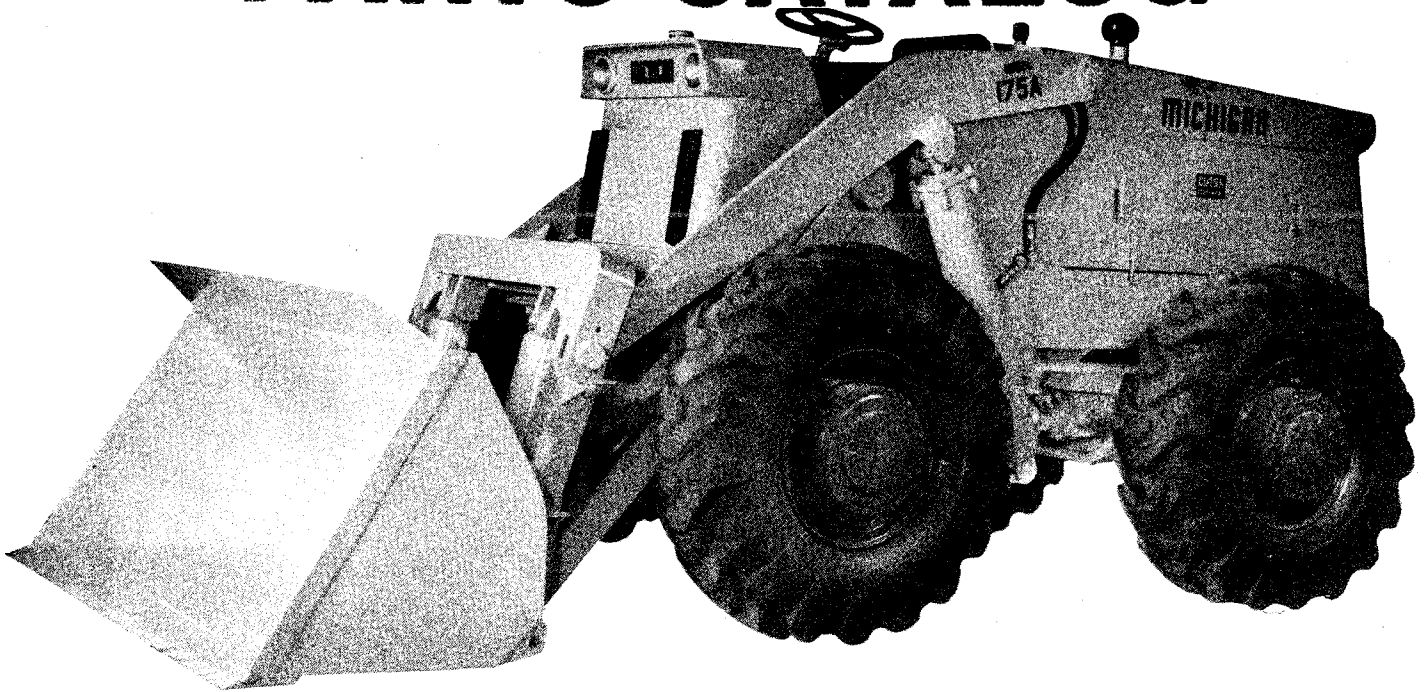


**CLARK  
EQUIPMENT**

**MICHIGAN**

# **MICHIGAN TRACTOR SHOVEL PARTS CATALOG**



## **MODEL 85A-II/85-III**

**Cummins S/N 2DC101 and After**

**GM S/N 2DG101 and After**

**Wauk S/N 2DA101 and After**

**1669**

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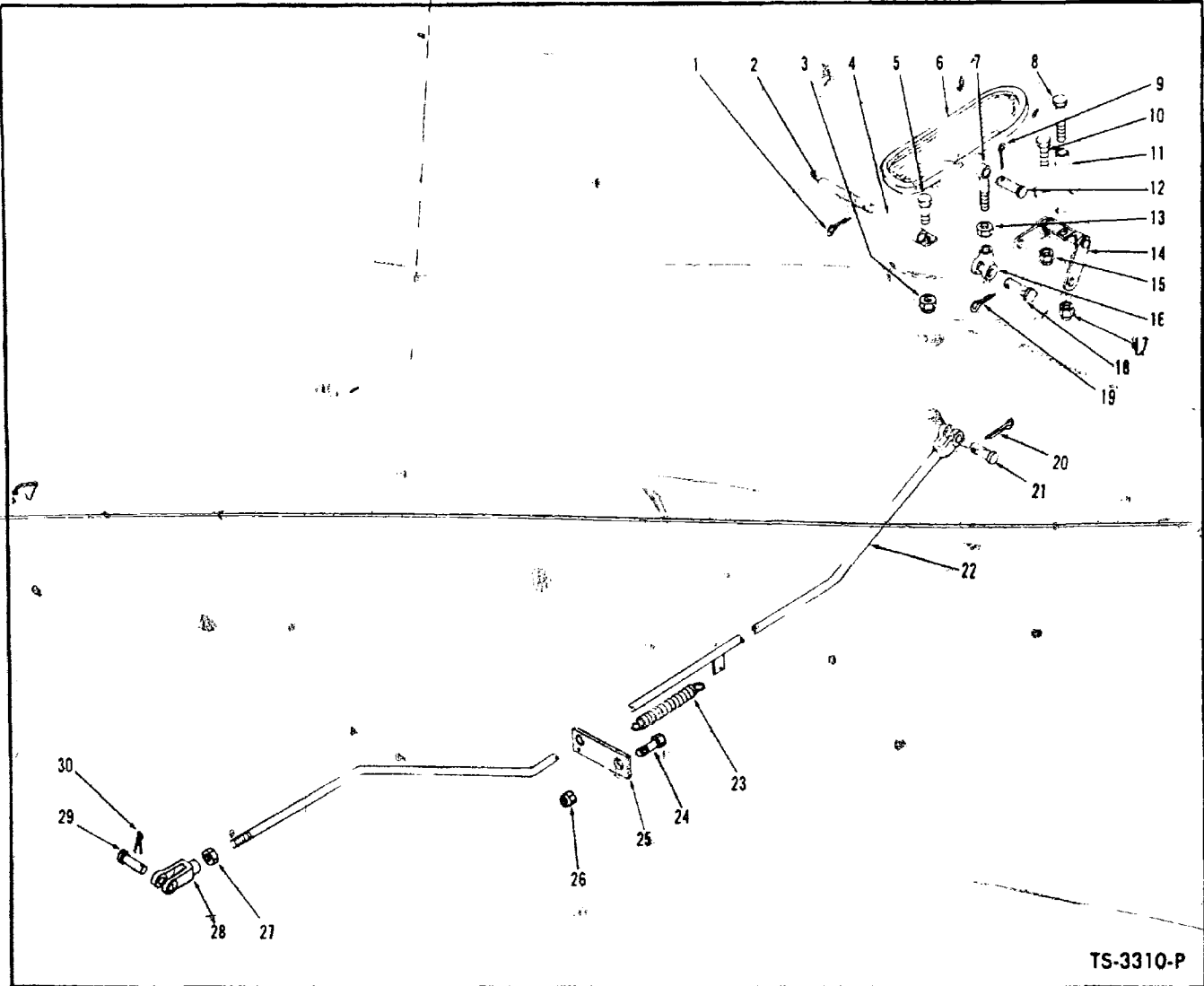
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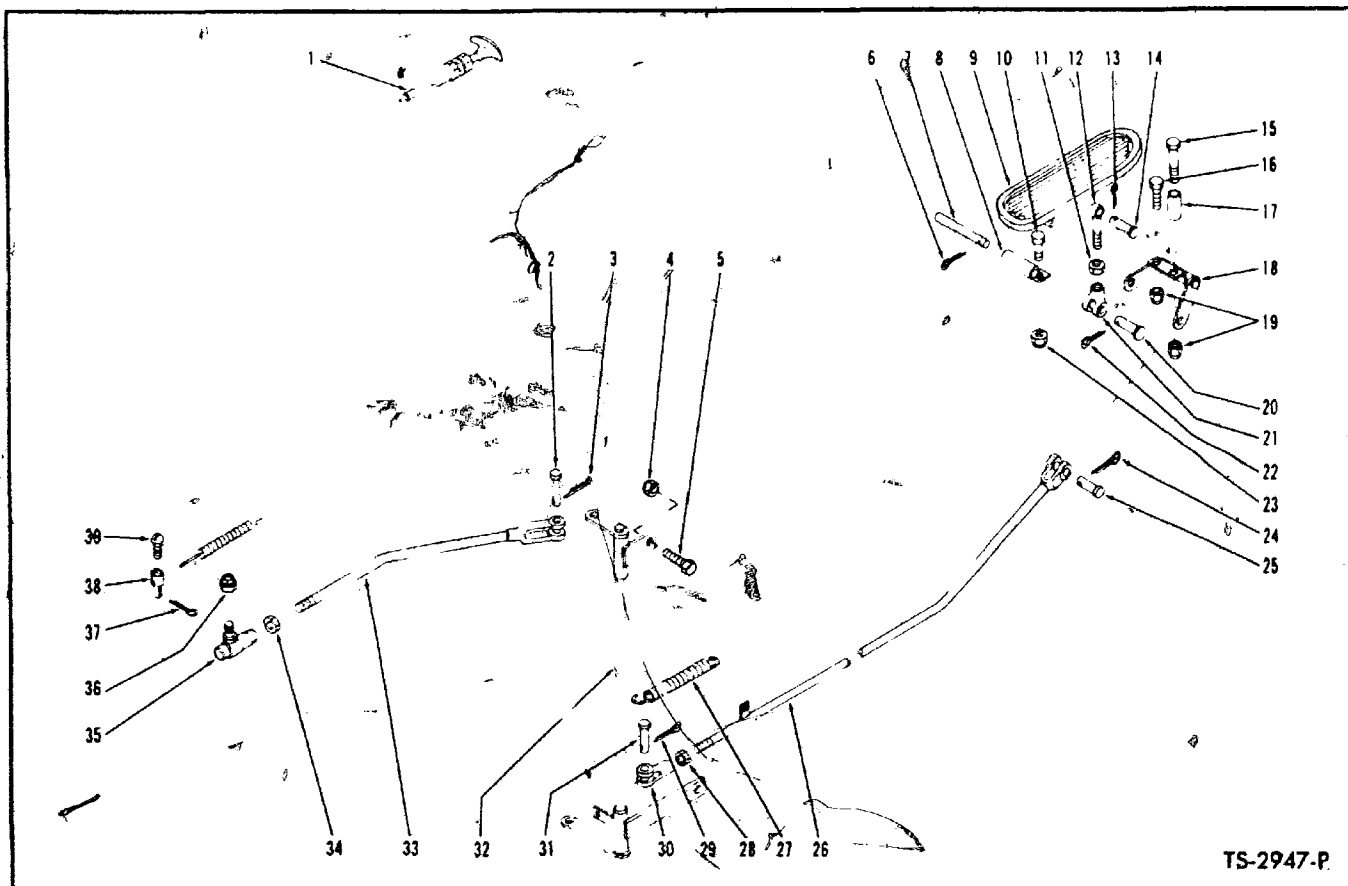
TS-3310-P

**ACCELERATOR PEDAL AND LINKAGE — CUMMINS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	1F-316	COTTER, Pedal Pivot Pin	1	16	2J-4200	CLEVIS, Rod to Bell Crank	1
2	623762	PIN, Pedal Pivot	1	17	18D-04	NUT, Pedal Stop & Bell Crank to Floorboard	1
3	18D-04	NUT, Pivot Bracket to Floorboard	2	18	4F-04051	PIN, Rod to Bell Crank Clevis	1
4	623760	BRACKET, Pedal Pivot	1	19	1F-207	COTTER, Rod to Bell Crank Clevis Pin	1
5	18C-412	BOLT, Pivot Bracket to Floorboard	2	20	1F-207	COTTER, Accelerator Rod Clevis Pin	1
6	623829	PEDAL, Accelerator	1	21	4F-04051	PIN, Accelerator Rod Clevis	1
7	536140	ROD, Pedal to Bell Crank	1	22	547537	ROD, Accelerator — Pedal to Engine	1
8	18C-428	BOLT, Pedal Stop & Bell Crank to Floorboard	1	23	551090	SPRING, Accelerator Rod Return	1
9	1F-207	COTTER, Rod to Pedal Pin	1	24	18C-716	BOLT, Rod Guide Mounting	1
10	18C-412	BOLT, Bell Crank to Floorboard	1	25	524556	GUIDE, Accelerator Rod	1
11	536141	STOP, Pedal	1	26	18D-07	NUT, Rod Guide Mounting	1
12	4F-04051	PIN, Rod to Pedal	1	27	8D-05	NUT, Clevis Jam	1
13	8D-04	NUT, Clevis Jam	1	28	2J-5204	CLEVIS, Accelerator Rod	1
14	516175	BELL CRANK, Pedal to Accelerator Rod	1	29	4F-05062	PIN, Accelerator Rod Clevis	1
15	18D-04	NUT, Bell Crank to Floorboard	1	30	1F-414	COTTER, Accelerator Rod Clevis Pin	1

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



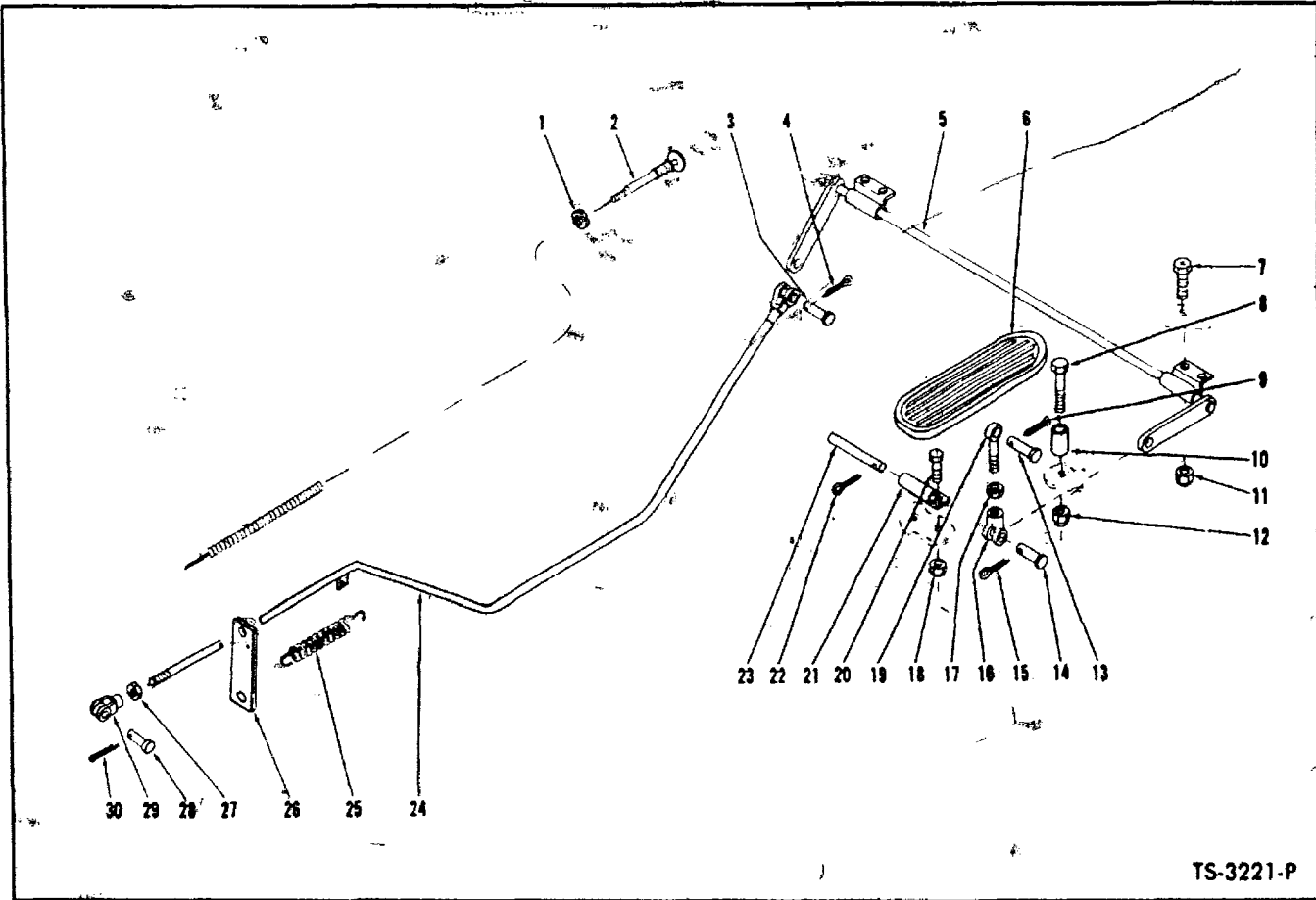


TS-2947-P

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

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	1520193	CABLE, Shutoff	1	21	2J-4200	CLEVIS, Rod to Bell Crank	1
2	4F-04051	PIN, Rod to Bell Crank	1	22	1F-207	COTTER, Clevis Pin	1
3	1F-207	COTTER, Clevis Pin	1	23	18D-04	NUT, Bracket to Floorboard	2
4	18D-06	NUT Bell Crank Attaching Bolt	2	24	1F-207	COTTER, Clevis Pin	1
5	18C-620	BOLT, Bell Crank Attaching	2	25	4F-04051	PIN, Rod to Bell Crank	1
6	1F-316	COTTER, Clevis Pin	1	26	540858	ROD, Accelerator	1
7	623762	PIN, Pedal to Bracket	1	27	551090	SPRING, Accelerator Rod Return	1
8	623760	BRACKET, Accelerator Pedal Pivot	1	28	66D-05	NUT Clevis Jam	1
9	623829	PEDAL, Accelerator	1	29	1F-310	COTTER, Clevis Pin	1
10	18C-412	BOLT, Bracket to Floorboard	2	30	2J-5204	CLEVIS, Rod to Bell Crank	1
11	8D-04	NUT Clevis Jam	1	31	4F-05062	PIN, Rod to Bell Crank	1
12	536140	ROD, Pedal to Bell Crank	1	32	541133	BELL CRANK	1
13	1F-207	COTTER, Clevis Pin	1	33	540861	ROD, Accelerator	1
14	4F-04051	PIN, Pedal to Rod	1	34	8D-05	NUT Ball Joint Jam	1
15	18C-428	BOLT, Stop to Floorboard	1	35	361939	BALL JOINT	1
16	18C-412	BOLT Bell Crank to Floorboard	1	36	66D-05	NUT Ball Joint	1
17	536141	STOP Pedal	1	37	1F-308	COTTER, Wire Connector	1
18	550616	BELL CRANK	1	38	351131	CONNECTOR, Wire	1
19	18D-04	NUT Bell Crank to Floorboard	2	39	3G-1008	SCREW, Wire Connector	1
20	4F-40451	PIN, Clevis to Bell Crank	1				

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

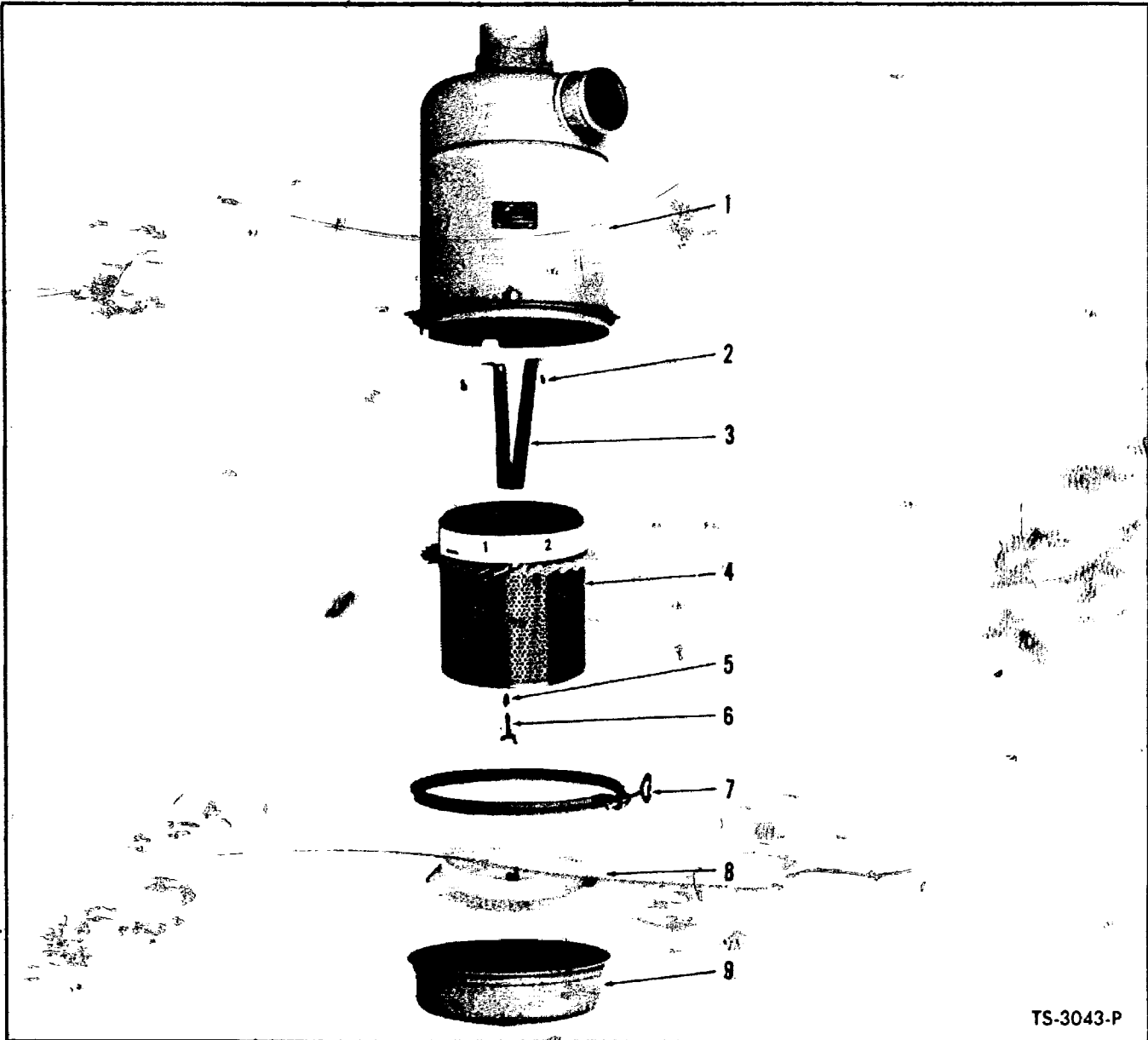


TS-3221-P

**ACCELERATOR PEDAL AND LINKAGE – GAS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	66D-06	NUT Choke Control Mounting	1	16	2J-4200	CLEVIS, Rod to Bell Crank	1
2	7H-11	CABLE, Choke Control	1	17	8D-04	NUT, Clevis Jam	1
3	4F-04051	PIN, Rod to Bell Crank	1	18	18D-04	NUT, Pivot Bracket to Floorboard	2
4	1F-207	COTTER, Clevis Pin	1	19	536140	ROD, Pedal to Bell Crank	1
5	525522	BELL CRANK ASSY	1	20	18C-412	BOLT, Pivot Bracket to Floorboard	2
6	623829	PEDAL, Accelerator	1	21	623760	BRACKET, Accelerator Pivot	1
7	18C-412	BOLT Bell Crank to Floorboard	4	22	1F-216	COTTER, Pedal to Bracket Pin	1
8	18C-428	BOLT Pedal Stop to Floorboard	1	23	623762	PIN, Pedal to Bracket	1
9	1F-207	COTTER, Clevis Pin	1	24	544421	ROD, Accelerator	1
10	536141	STOP Pedal	1	25	551090	SPRING, Accelerator Rod Return	1
11	18D-04	NUT Bell Crank to Floorboard	4	26	527936	GUIDE, Accelerator Rod	1
12	18D-04	NUT Pedal Stop to Floorboard	1	27	8D-04	NUT Clevis Jam	1
13	4F-04051	PIN, Pedal to Rod	1	28	4F-04051	PIN, Clevis to Pump	1
14	4F-04051	PIN, Clevis to Bell Crank	1	29	2J-4200	CLEVIS, Rod to Pump	1
15	1F-207	COTTER, Clevis Pin	1	30	1F-207	COTTER, Clevis Pin	1

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



TS-3043-P

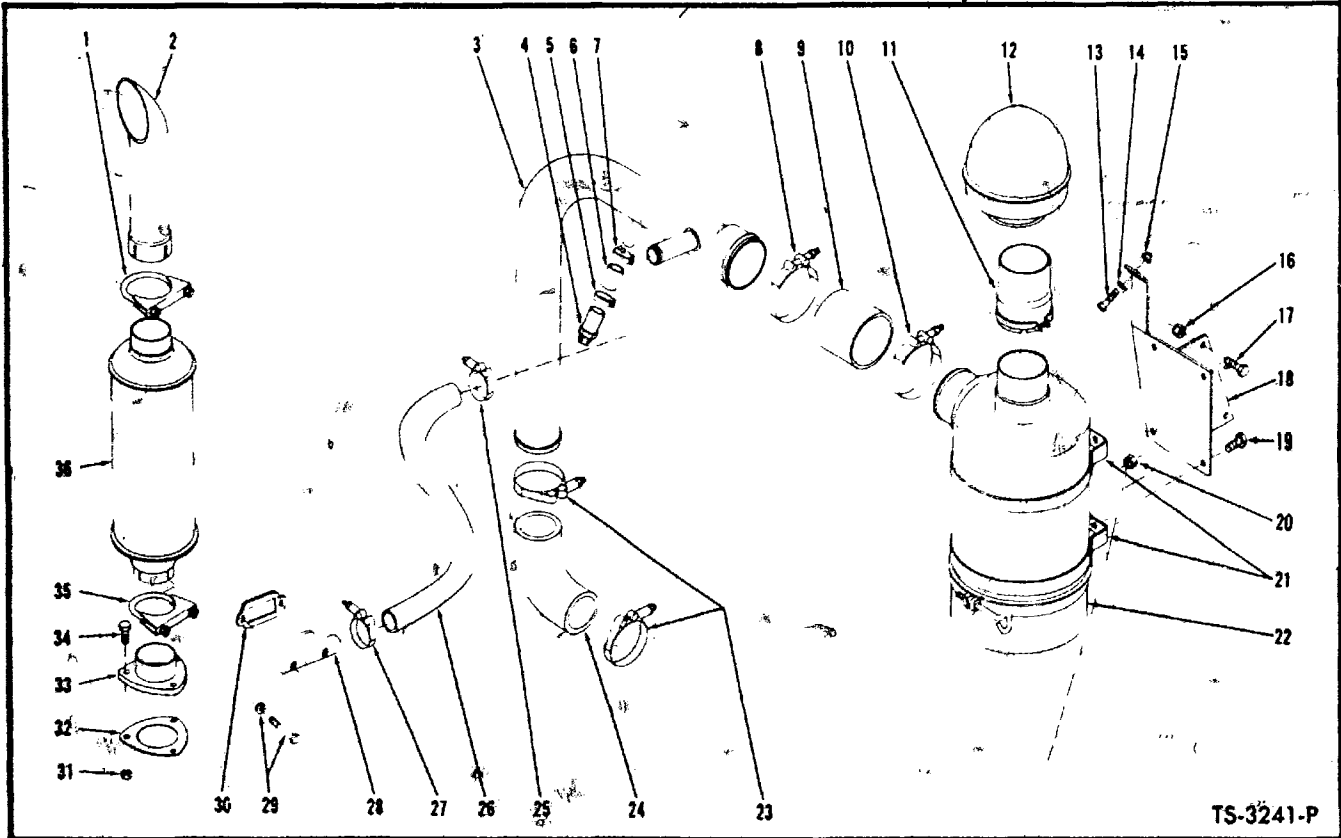
**AIR CLEANER ASSEMBLY — G.M. AND CUMMINS**

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

§ Not Sold Separately

\* NOTE: For replacement use 894653 plus 1-894652 Cup.

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



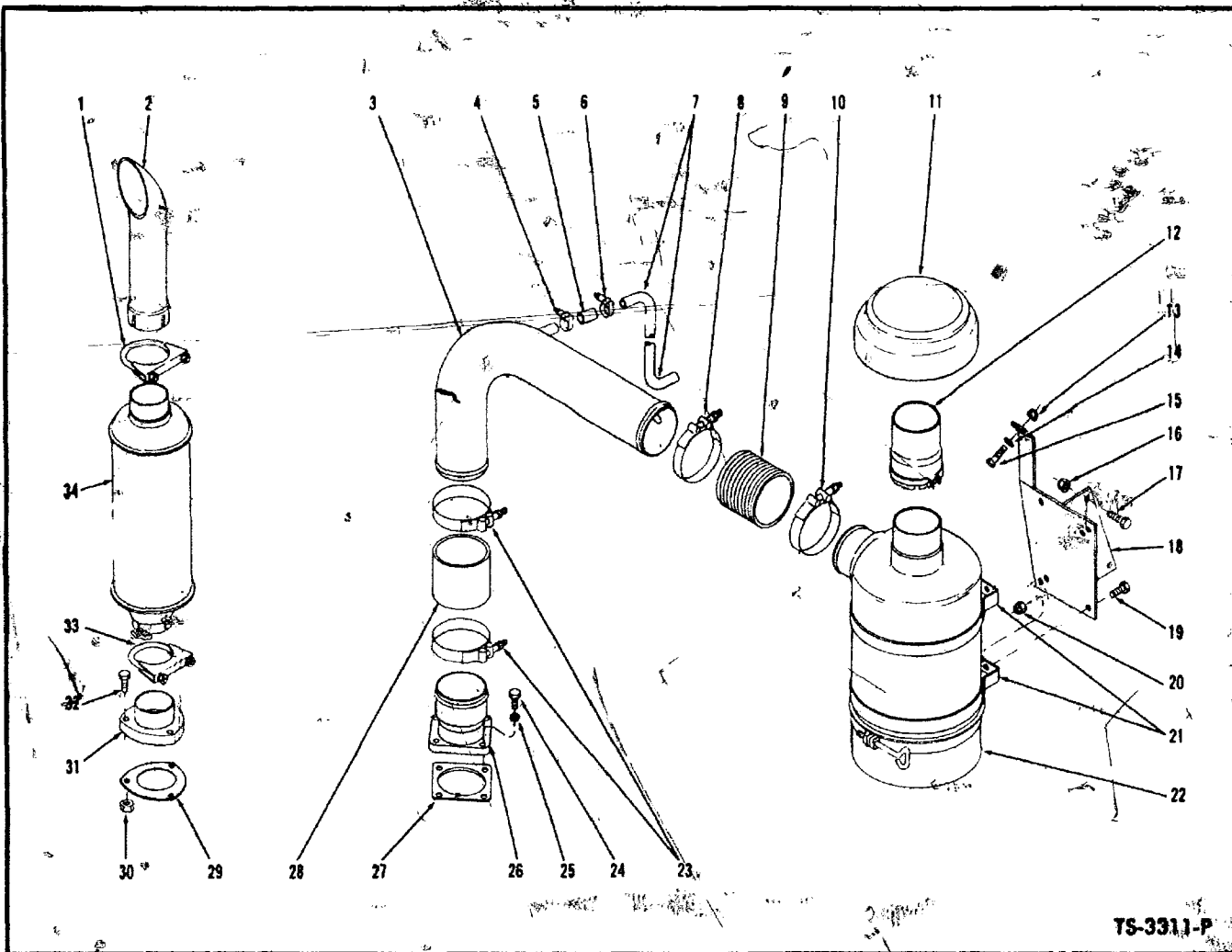
TS-3241-P

**AIR CLEANER AND MUFFLER - GAS\***

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	544288	CLAMP Tailpipe to Muffler	1	20	18D-06	NUT, Air Cleaner to Bracket	4
2	547585	TAILPIPE, Muffler Exhaust	1	21	544222	STRAP Air Cleaner Mounting	2
3	544248	TUBE, Air Cleaner	1	22	536191	AIR CLEANER	1
4	711393	NIPPLE, Hose	1	23	540104	CLAMP Hose	2
5	4H-15	CLAMP Hose	1	24	544221	HOSE, Tube to Carburetor	1
6	518707	HOSE	1	25	1545186	CLAMP Hose	1
7	4H-15	CLAMP Hose	1	26	713523	HOSE	1
8	540107	CLAMP Hose	1	27	1545186	CLAMP Hose	1
9	1M-24044	HOSE, Tube to Air Cleaner	1	28	540888	ELBOW, Compressor Air Inlet	1
10	540107	CLAMP Hose	1	29	17C-532	BOLT, Elbow to Compressor	2
11	544250	<sup>2</sup> STACK, Air Cleaner Extension	1	29A	4E-05	LKWSHR, Elbow to Compressor	2
12	551618	CAP Air Cleaner	1	30	875012	GASKET Elbow to Compressor	1
13	18C-620	BOLT Bracket to Frame	1	31	15D-08	NUT, Adapter to Exhaust Manifold	3
14	619021	WASHER, Bracket to Frame	1	32	551638	GASKET, Adapter to Exhaust Manifold	1
15	18D-06	NUT, Bracket to Frame	1	33	551634	ADAPTER, Muffler to Exhaust Manifold	1
16	18D-06	NUT, Bracket to Frame	2	34	17C-832	BOLT Adapter to Exhaust Manifold	3
17	18C-620	BOLT Bracket to Frame	2	35	507069	CLAMP Muffler to Adapter	1
18	541420	BRACKET Air Cleaner to Frame Mounting	1	36	547584	MUFFLER	1
19	18C-616	BOLT Air Cleaner to Bracket	4				

\*Ref. SG-711

<sup>2</sup>For replacement use 1 - 2504659 Extension plus 1 - 565973 Clamp.



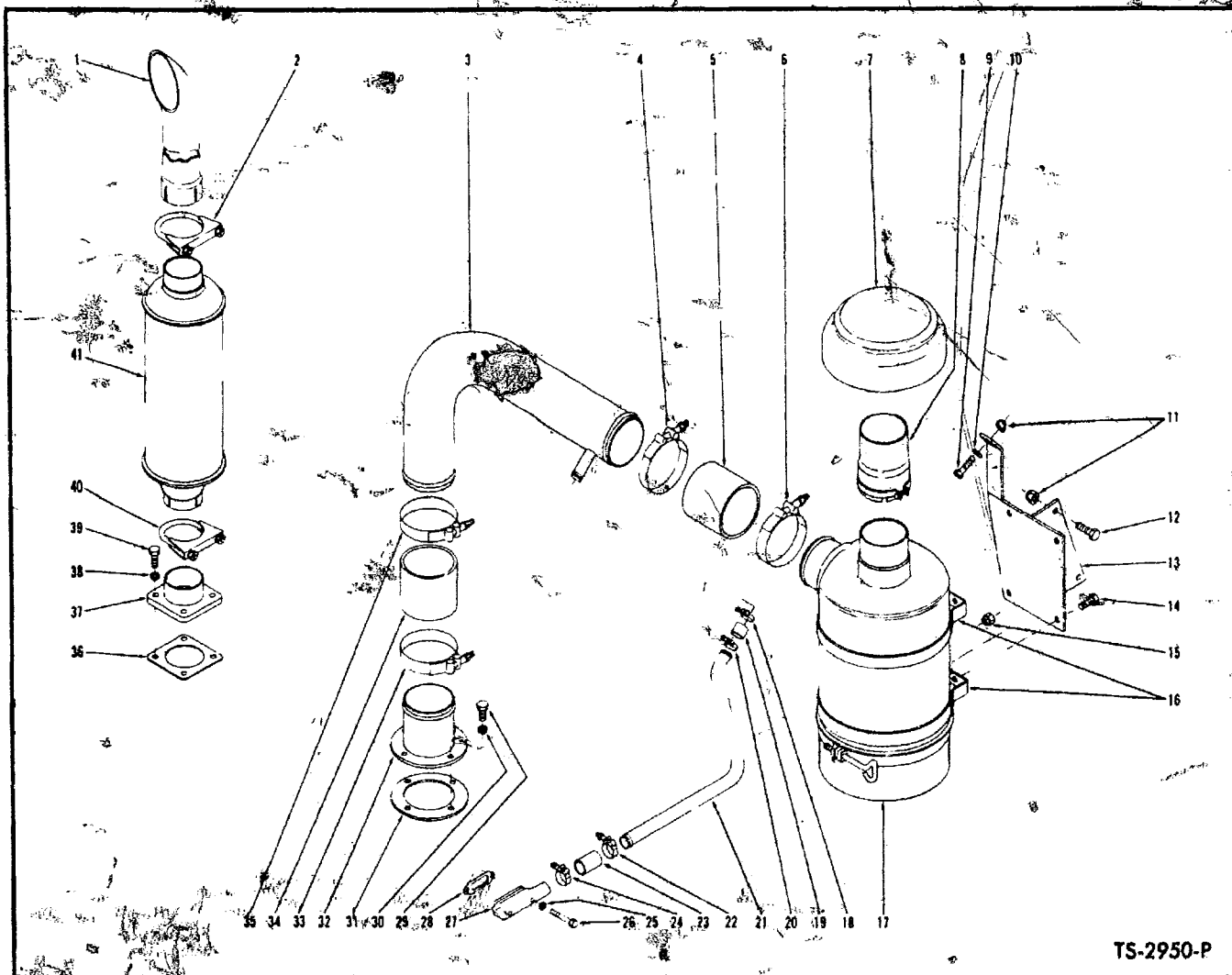
TS-3311-P

**AIR CLEANER CONNECTIONS AND MUFFLER – CUMMINS\***

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	507068	CLAMP Tail Pipe to Muffler	1	18	547130	BRACKET, Air Cleaner Mounting	1
2	543576	PIPE, Tail	1	19	18C-616	BOLT, Air Cleaner Mounting	4
3	547126	TUBE ASSY Air Intake	1	20	18D-06	NUT, Air Cleaner Mounting	4
4	1545186	CLAMP Hose	1	21	420945	BAND, Air Cleaner Mounting	2
5	529979	HOSE, Compressor Intake Tube to Air Intake Tube	1	22	—	AIR CLEANER—See Index	1
6	1545186	CLAMP Hose	1	23	539042	CLAMP Hose	2
7	547129	TUBE, Compressor Intake	1	24	1C-620	BOLT, Adapter Mounting	4
8	539042	CLAMP Hose	1	25	4E-06	LKWSHR, Adapter Mounting	4
9	515424	HOSE, Flexible—Air Cleaner to Tube	1	26	547139	ADAPTER, Air Intake Tube	1
10	539042	CLAMP Hose	1	27	—	<sup>2</sup> GASKET, Air Intake Adapter – Cummins #102131	1
11	511504	CAP Air Cleaner	1	28	515424	HOSE, Adapter to Tube	1
12	539839	EXTENSION, Air Cleaner	1	29	—	<sup>2</sup> GASKET Adapter – Cummins #9579	1
13	18D-06	NUT, Bracket Mounting	1	30	15D-08	NUT, Adapter Mounting	3
14	619021	WASHER, Bracket Mounting	1	31	551634	ADAPTER, Muffler	1
15	18C-620	BOLT, Bracket Mounting	1	32	17C-832	BOLT, Adapter Mounting	3
16	18D-06	NUT, Bracket Mounting	2	33	507069	CLAMP Muffler to Adapter	1
17	18C-620	BOLT, Bracket Mounting	2	34	543575	MUFFLER	1

\*Ref. SG-711

<sup>2</sup>Your local authorized Cummins Distributor is equipped to service and supply these parts.

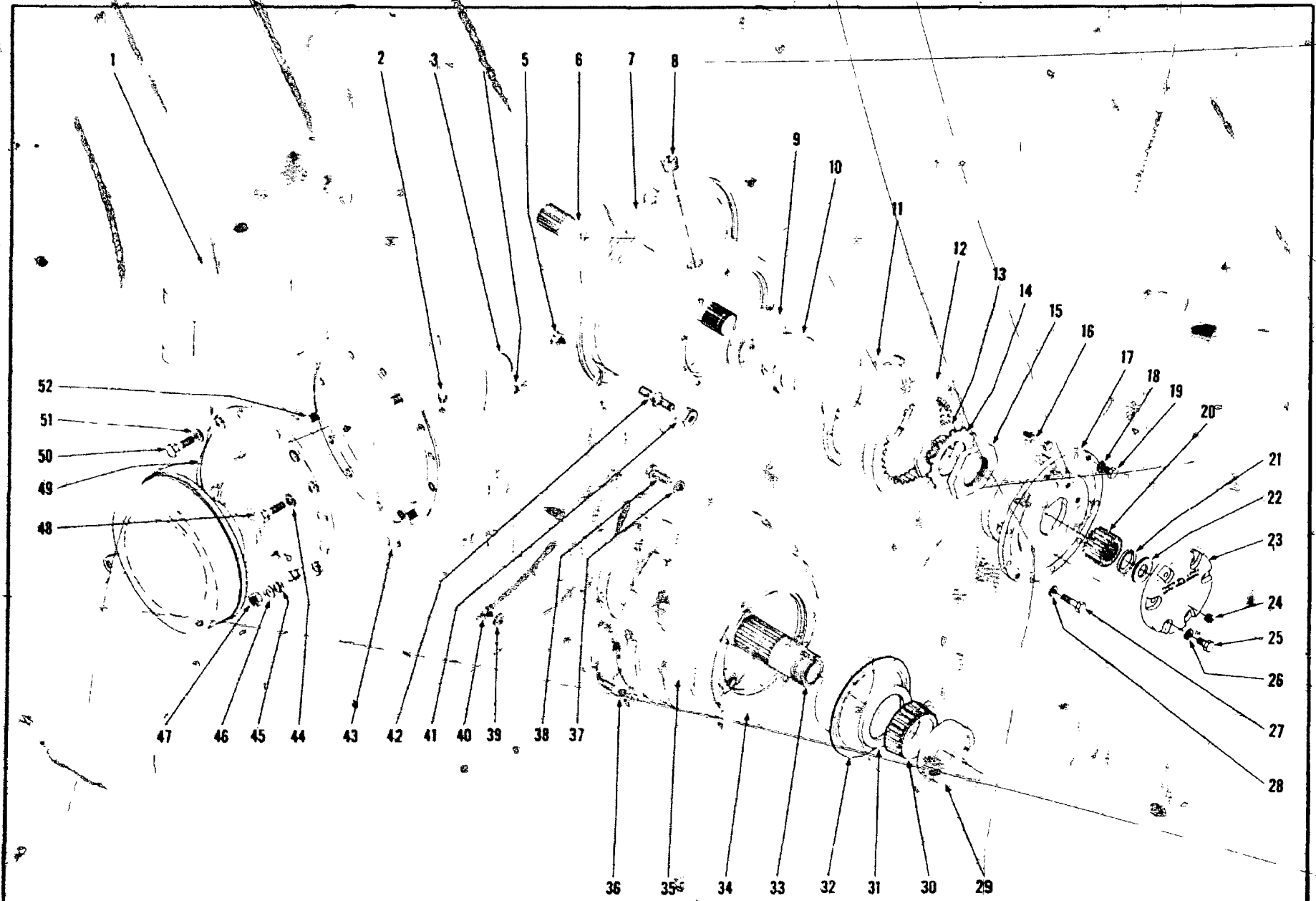


TS-2950-P

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

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	543576	TAIL PIPE	1	21	540407	TUBE, Compressor Air Intake	1
2	507068	CLAMP Muffler to Tailpipe	1	22	1545186	CLAMP Hose	1
3	540249	TUBE, Air Intake	1	23	509711	HOSE, Tube to Elbow	1
4	539042	CLAMP Hose	1	24	1545186	CLAMP Hose	1
5	515424	HOSE, Tube to Air Cleaner	1	25	4E-05	LKWSHR, Elbow to Compressor	2
6	539042	CLAMP Hose	1	26	17C-532	BOLT; Elbow to Compressor	2
7	511504	CAP Air Cleaner	1	27	540888	ELBOW Compressor Air Inlet	1
8	539839	EXTENSION	1	28	875012	GASKET, Elbow to Compressor	1
9	18C-620	BOLT, Bracket to Frame	1	29	17C-516	BOLT, Adapter Mounting	4
10	619021	WASHER, Bracket to Frame	1	30	4E-05	LKWSHR, Adapter Mounting	4
11	18D-06	NUT, Bracket to Frame	3	31	527096	GASKET, Adapter	1
12	18C-620	BOLT, Bracket to Frame	2	32	527095	ADAPTER, Blower Inlet	1
13	541420	BRACKET, Air Cleaner	1	33	539042	CLAMP Hose	1
14	18C-616	BOLT, Air Cleaner to Bracket	4	34	515424	HOSE, Tube to Adapter	1
15	18D-06	NUT, Air Cleaner to Bracket	4	35	539042	CLAMP Hose	1
16	420945	BAND, Air Cleaner Mounting	2	36	509303	GASKET, Muffler Adapter	1
17		AIR CLEANER - See Index	1	37	509300	ADAPTER, Muffler	1
18	1545186	CLAMP Hose	1	38	4E-07	LKWSHR, Adapter Mounting	4
19	509711	HOSE, Compressor Tube to Intake Tube	1	39	17C-716	BOLT, Adapter Mounting	4
20	1545186	CLAMP Hose	1	40	507069	CLAMP, Muffler to Adapter	1
				41	543575	MUFFLER	1

\*Ref. SG-711



AXLE ASSEMBLY — FRONT DRIVE

TS-3076-P

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(1A13)

PM 1969

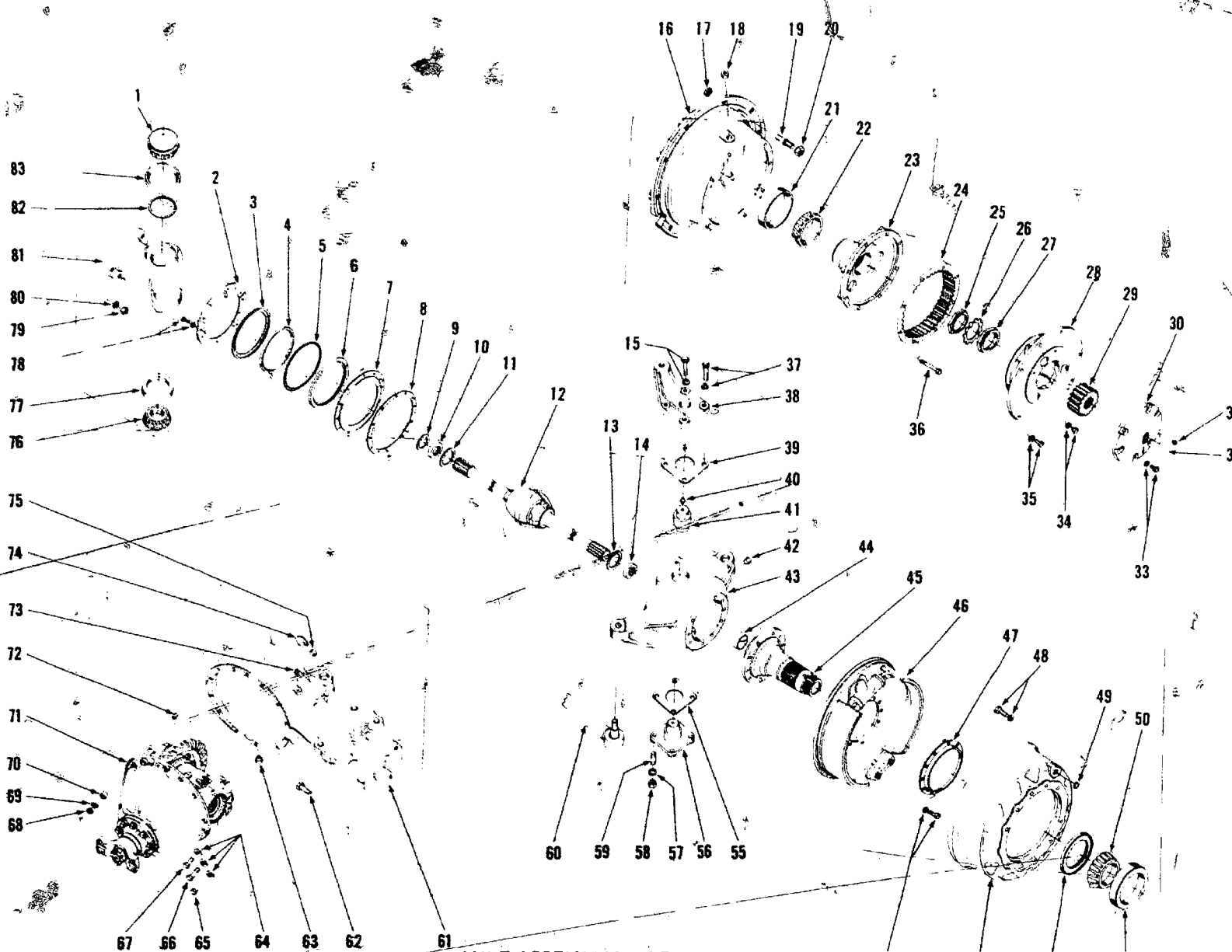
**FRONT DRIVE AXLE ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	131078	AXLE ASSY (Inc. 1 thru 52)	1	27	100970	BOLT, Planet Spider to Hub	20
1	112086	HOUSING, Axle	1	28	106762	WASHER, Planet Spider to Hub	20
2	106656	BREATHER, Axle Housing	1	29	658985	CUP Inner Hub Bearing	2
3	12F-204	PLUG, Housing Expansion	1	30	799408	CONE, Inner Hub Bearing	2
4	11F-12	PLUG, Housing Filler	1	31	112055	SEAL, Hub Oil	2
5	86D12	NUT, Wheel Stud	20	32	109055	CATCHER, Hub Oil	2
6	112077	SHAFT, Axle	2	33	112078	SPINDLE	2
7	112073	HUB ASSY (Inc. 9 29)	2	34	112085	DRUM, Brake	2
8	11F-12	PLUG, Hub Filler	2	35	-----	BRAKE ASSY—See Index	—
9	67218T	CUP Outer Hub Bearing	2	36	106736	BOLT Spindle & Brake Attaching	18
10	672182	CONE, Outer Hub Bearing	2	37	104412	WASHER, Drum to Hub	24
11	106060	HUB, Internal Gear	2	38	17C1024	BOLT Drum to Hub	24
12	106059	GEAR, Internal	2	39	104412	WASHER, Spindle & Brake Attaching	18
13	114433	NUT, Inner Spindle	2	40	106998	NUT Spindle & Brake Attaching	18
14	101274	LOCK, Spindle Nut	2	41	103522	NUT, Wheel Attaching	20
15	114433	NUT Outer Spindle	2	42	103445	STUD, Wheel Attaching	20
16	106880	BOLT, Internal Gear to Hub	16	43	11F-12	PLUG, Hub Drain	1
17	-----	PLANET SPIDER ASSY—See Index	—	44	106762	WASHER, Carrier to Housing	8
18	3E-08	LKWSHR, Planet Puller Hole	4	45	112287	DOWEL, Carrier Stud	3
19	1C-808	BOLT, Planet Puller Hole	4	46	106762	WASHER, Carrier Stud	3
20	109050	GEAR, Sun	2	47	64D-08	NUT, Carrier Stud	3
21	106247	RING, Sun Gear Retaining	2	48	17C-824	BOLT, Carrier Housing	8
22	106455	WASHER, Sun Gear Thrust	2	49	-----	DIFF & CARRIER ASSY—See Index	—
23	945129	*KIT Thrust Cap (Inc. 22)	2	50	17C-828	BOLT Carrier to Housing	3
24	11F-04	PLUG, Oil Level	2	51	106762	WASHER, Carrier to Housing	3
25	1C-720	BOLT, Thrust Cap to Spider	12	52	126416	STUD, Carrier to Housing	3
26	4E-07	LKWSHR, Thrust Cap to Spider	12	53	24C 16160	†BOLT, Axle to Frame	8
				54	85B-165	†NUT Axle to Frame	8

\*NOTE: 945129 consists of 114119 Thrust Cap, 1—114089 Seal Ring & 6—112278 Washers.

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





52.1

(1A17)

PM 1669

**AXLE ASSEMBLY - REAR DRIVE STEER**

For Serial: Cummins-2DC101 thru 3DC999 G M -2DG101 thru 4DG999  
Wauk.-2DA101 and after, C3DA8-14 thru C3DA9-24.

TS-3622 P



CONSTRUCTION MACHINERY DIVISION

AXLE ASSEMBLY - REAR DRIVE STEER
For Serials: Cummins - 2DC101 thru 3DC999
G.M. - 2DG101 thru 4DG999
Wauk. - 2DA101 and after
C3DA9-14 thru C3DA9-24



Table with 4 columns: Item No., Part No., Description, No. Req'd. It lists various components for an axle assembly, such as AXLE ASSY, CONE, RING, SEAL, SPRING, WASHER, NUT, BOLT, and STUD, with their respective quantities.

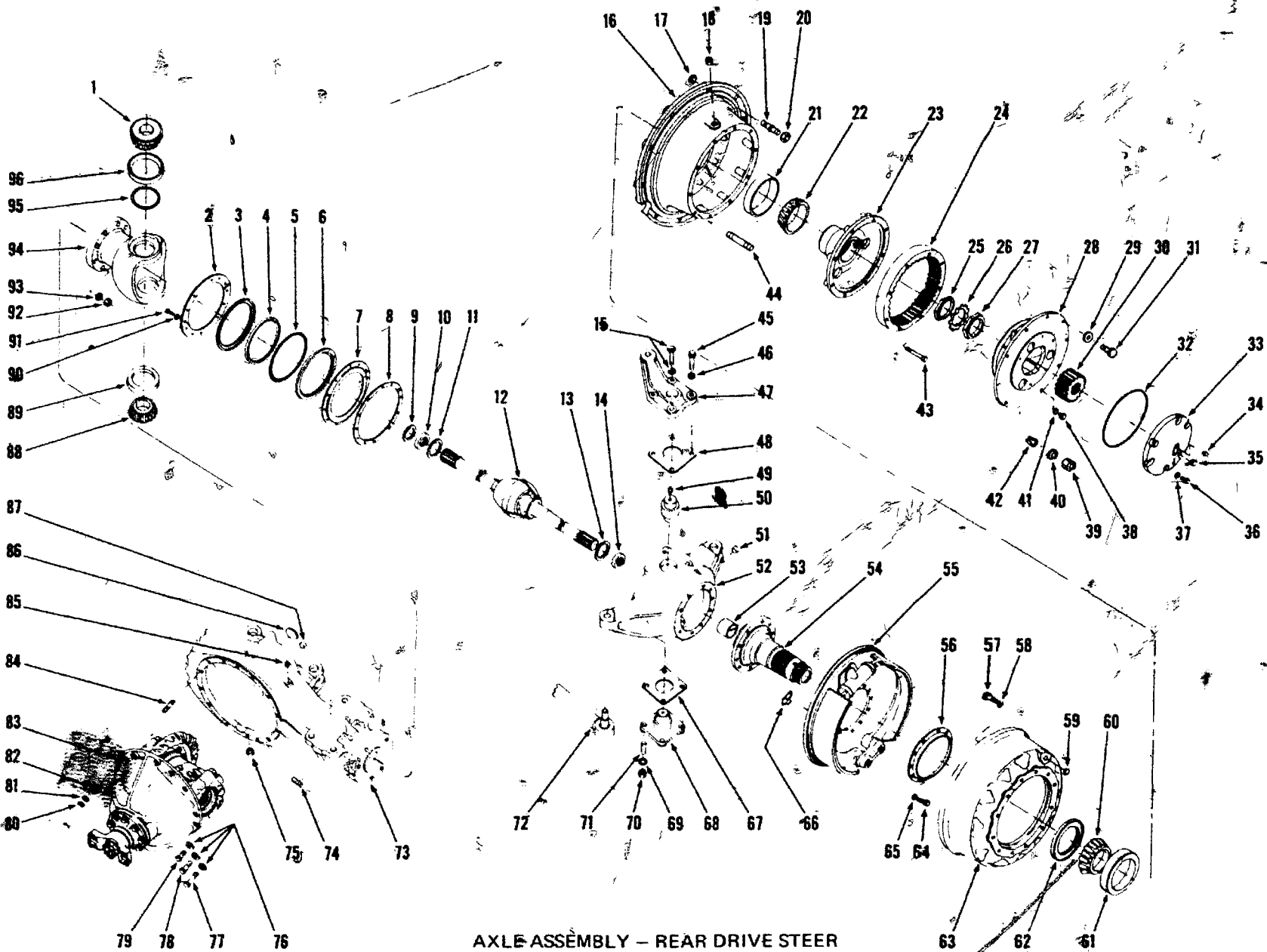
†Not Illustrated

‡As required

NOTE: Spindle Supports include 10-114415 Bolts. When installing bolts only it will be necessary to rework Spindles. Refer to Service Gram S.G.-229 for instructions.

\*\*NOTE: For replacement service with components.

NOTE A For replacement use 815883 Kit, which consists of 1-120830 Steering Arm, 2-1C-932 Capscrew & 2-17C-1240 Capscrew.



AXLE ASSEMBLY - REAR DRIVE STEER

For Serial: Cummins-4DC101 and after G M -5DG101 and after Wauk -C3DA9 25 and after

TS-5094 P

52A.1

(1A19)

PM 1669



CONSTRUCTION MACHINERY DIVISION

AXLE ASSEMBLY - REAR DRIVE STEER

For Serial: Cummins - 4DC101 and after
G.M. - 5DG101 and after
Wauk. - C3DA9-25 and after



Table with 4 columns: Item No., Part No., Description, and No. Req'd. It lists various components for an axle assembly, such as bearings, seals, washers, and bolts, with their respective quantities.

NOTE: For replacement use 815956 Kit, which consists of 1-128117 Oil Seal, 4-656672 Washer 4-858110 Spacer plus

1-122552 Spindle Support.

\*\*NOTE: For replacement use 815882 Kit which consists of 1-120834 Steering Arm plus 4-17C-1240 Capscrew.

NOTE: For replacement use 816016 Kit, which consists of 1-121010 Oil Seal, 4-656672 Washer 4-858110 Spacer & 1-122551

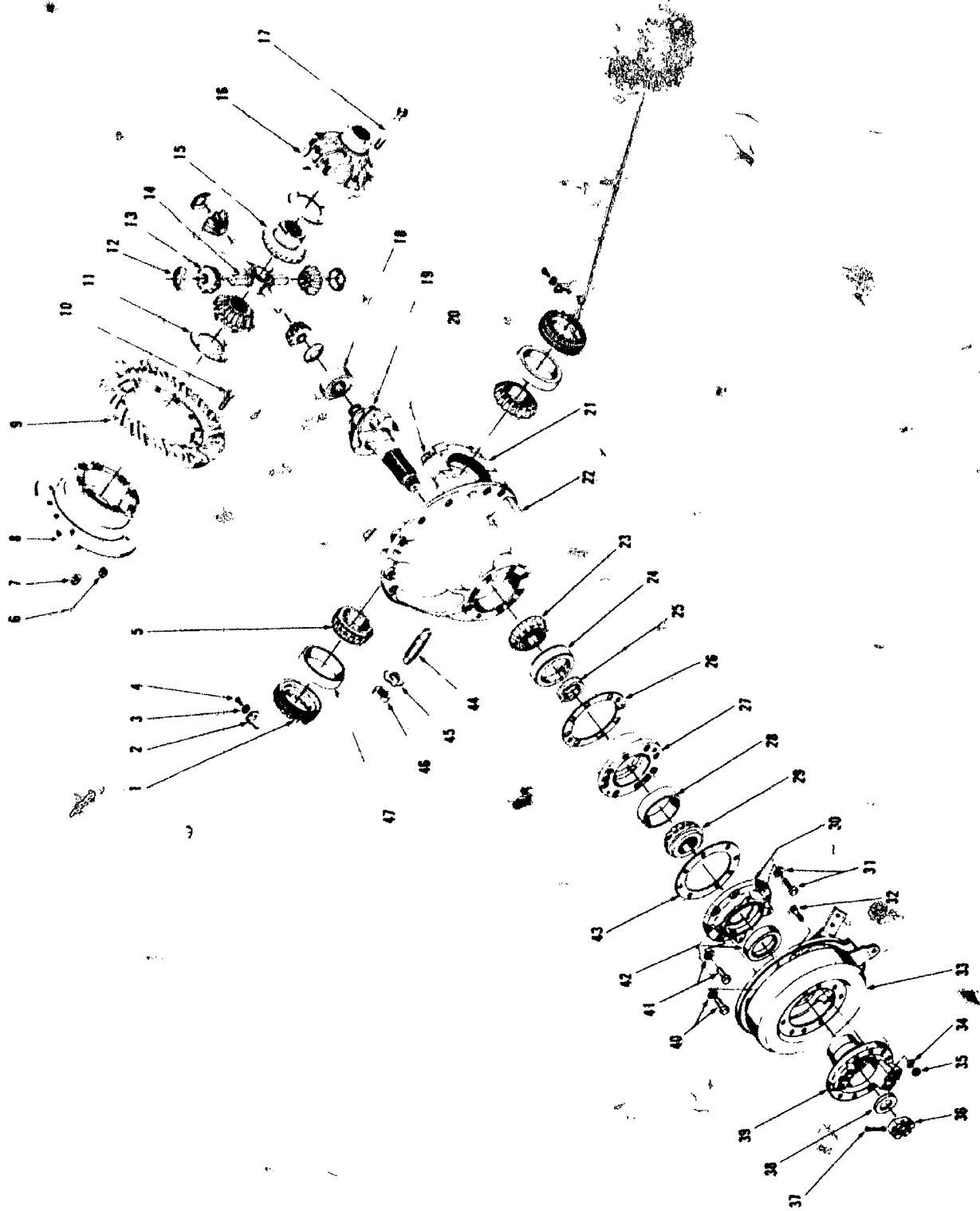
Spindle Support, PM 1669

2 Ref. SG-628

53A.5

(1A20)

TS-3585-P



DIFFERENTIAL AND CARRIER ASSEMBLY - FRONT DRIVE

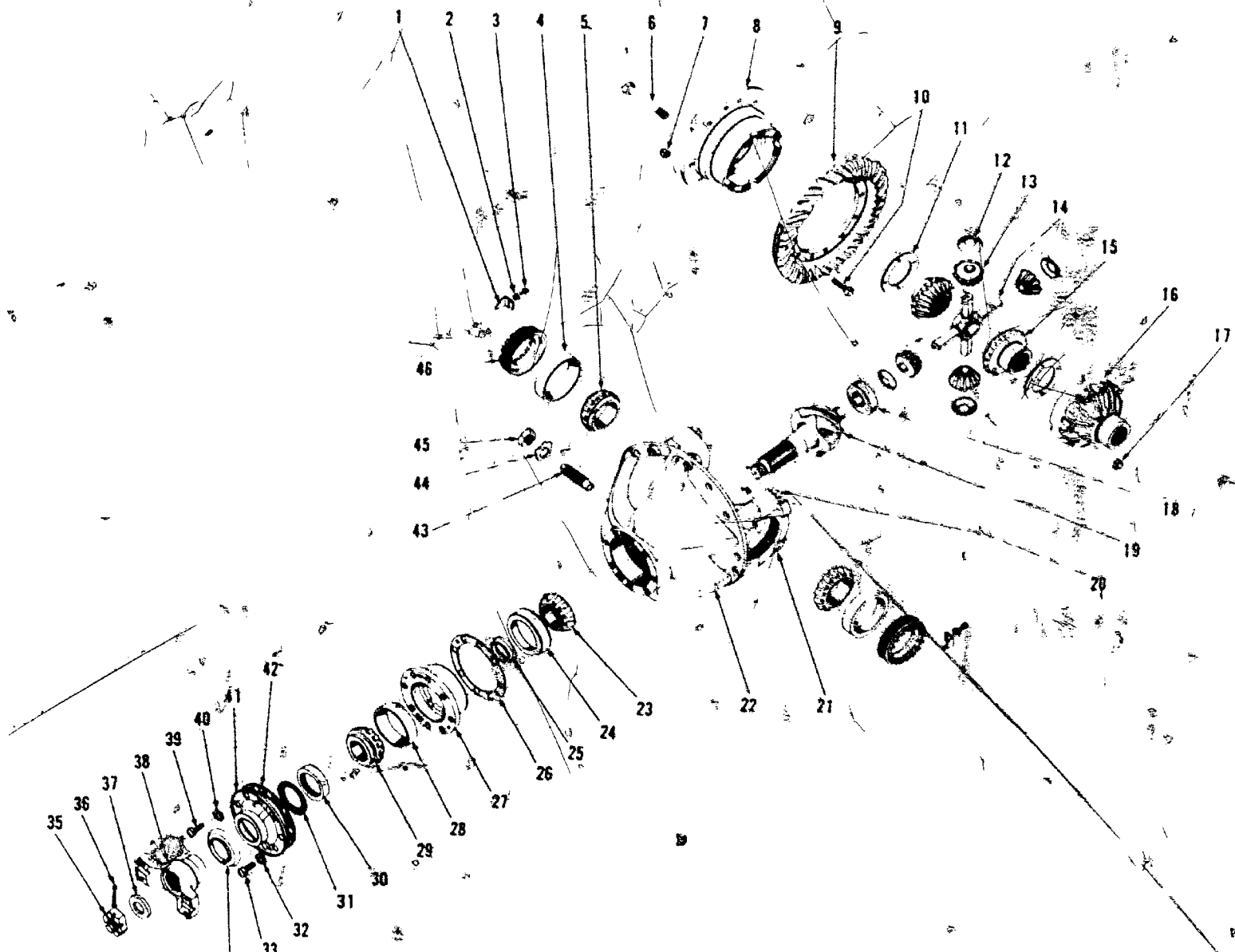
**DIFFERENTIAL AND CARRIER ASSEMBLY — FRONT DRIVE**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	112056	DIFF & CARRIER ASSY (Inc. 1 thru 26)	1	26A	125567	‡SHIM, Pinion Bearing Cage — .007	—
1	123747	NUT, Differential Adjusting	2	26B	125568	‡SHIM, Pinion Bearing Cage — .010	—
2	100941	LOCK, Differential Adjusting Nut	2	27	110843	CAGE ASSY Pinion Bearing (Inc. 24, 29)	1
3	4E-06	LKWSHR, Adjusting Nut Lock	2	28	667278	CUP Outer Pinion Bearing	1
4	3C-614	BOLT, Adjusting Nut Lock	2	29	667277	CONE, Outer Pinion Bearing	1
5	654144	CONE, Differential Bearing	2	30	110847	RETAINER, Pinion Oil Seal	1
6	86D-09	NUT, Ring Gear Bolt	12	31	1C-836	BOLT Oil Seal Retainer Locating	1
7	86D-09	NUT, Differential Case Bolt	8	31A	4E-08	LKWSHR, Retainer Locating Bolt	1
8	—	§DIFF CASE, Flange Half—See 51	1	32	101144	BOLT, Brake Drum to Flange	8
9	—	§RING GEAR—See 50	1	33	107261	DRUM, Parking Brake	1
10	101196	BOLT, Ring Gear	12	33A	—	PARKING BRAKE ASSY—See Index	—
11	118474	WASHER, Side Gear Thrust	2	34	2E-06	LKWSHR, Brake Drum to Flange	8
12	101244	WASHER, Differential Pinion Thrust	4	35	2D-06	NUT, Brake Drum to Flange	8
13	101241	PINION, Differential	4	36	101262	NUT, Pinion Shaft	1
14	117022	SPIDER, Differential	1	37	1F-732	COTTER, Pinion Shaft Nut	1
15	104167	GEAR, Differential Side	2	38	101263	WASHER, Pinion Shaft Nut	1
16	—	§DIFF CASE—Plain Half—See 51	1	39	112084	FLANGE, Companion	1
17	111348	BOLT, Differential Case	8	40	1C-920	BOLT, Brake Attaching	4
18	667466	BEARING, Inner Pinion	1	40A	4E-09	LKWSHR, Brake Attaching Bolt	4
19	—	§PINION—See 50	1	41	1C-936	BOLT, Oil Seal Retainer Attaching	7
20	101210	BOLT, Differential Carrier Cap	4	41A	4E-09	LKWSHR, Retainer Attaching Bolt	7
20A	111658	†WASHER, Carrier Cap Bolt	4	42	110897	SEAL, Pinion Oil	1
21	—	§CAP Differential Carrier—See 22	2	43	101254	*GASKET, Oil Seal Retainer	1
22	112289	CARRIER ASSY, Differential (Inc. 20, 20A, 21)	1	44	101226	SCREW Differential Thrust	1
23	667276	CONE, Center Pinion Bearing	1	45	101227	LOCK, Differential Thrust Screw	1
24	658988	CUP Center Pinion Bearing	1	46	8D-18	NUT, Differential Thrust Screw	1
25	875172	SPACER KIT, Pinion Bearing	1	47	667275	CUP Differential Bearing	1
26	101257	‡SHIM, Pinion Bearing Cage — .004	—	48	118734	DIFFERENTIAL ASSY (Inc. 6 thru 17, 19)	1
				49	118499	DIFF BODY SUB-ASSY (Inc. 7, 8, 11 thru 17)	1
				50	112080	GEAR & PINION SET (Inc. 9, 19)	1
				51	815395	DIFFERENTIAL CASE KIT (Inc. 7, 8, 12, 16, 17)	1

§Not Sold Separately  
†Not Illustrated  
‡As Required

\*NOTE: 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: Cummins-2DC101 thru 3DC999 G M -2DG101 thru 4DG999  
Wauk -2DA101 & after C3DA9 14 thru C3DA9 24

56.1

(1A23)

PM 1689



**CONSTRUCTION MACHINERY DIVISION**  
**DIFFERENTIAL AND CARRIER ASSEMBLY - REAR DRIVE STEER**  
 For Serial: Cummins - 2DC101 thru 3DC999  
 G.M. - 2DG101 thru 4DG999  
 Wauk. - 2DA101 and after C3DA9-1 thru C3DA9-24



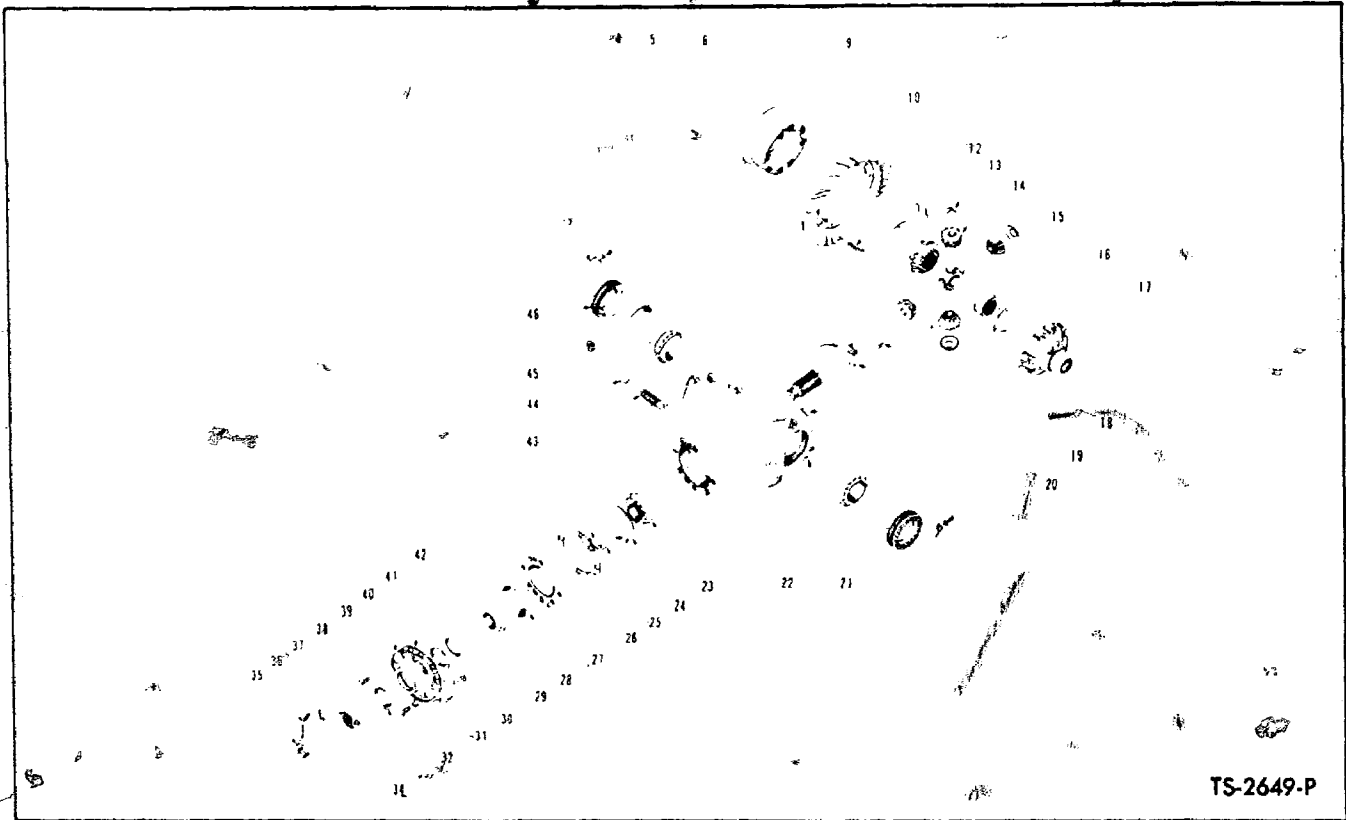
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	112281	*DIFF & CARRIER ASSY (Inc. 1 thru 46)	1	26	112354	SHIM, Bearing Cage - .004"	-
1	100943	LOCK, Adjusting Nut	2	26A	125576	SHIM, Bearing Cage - .007"	-
2	4E-06	LKWSHR, Adjusting Nut Lock Bolt	2	26B	125577	SHIM, Bearing Cage - .010"	-
3	3C-314	BOLT, Adjusting Nut Lock	2	27	124041	CAGE, Pinion Bearing	1
4	675249	CUP, Differential Bearing	2	28	675257	CUP, Outer Pinion Bearing	1
5	675248	CONE, Differential Bearing	2	29	710288	CONE, Outer Pinion Bearing	1
6	100174	BOLT, Differential Case	8	30	111720	SEAL, Pinion Oil	1
7	86DB	NUT, Ring Gear Bolt	12	31	100945	GASKET, Pinion Oil Seal	1
8	---	SDIFF CASE - Flanged Half - See 50	1	32	4E-09	LKWSHR, Oil Seal Retainer	5
9	---	SRING GEAR - See 49	1	33	1C-928	BOLT, Oil Seal Retainer	5
10	100176	BOLT, Ring Gear	12	34	---	OMIT - Not applicable this model	-
11	100173	WASHER, Side Gear Thrust	2	35	100950	NUT, Pinion Shaft	1
12	100172	WASHER, Pinion Thrust	4	36	1F-428	COTTER, Pinion Shaft Nut	1
13	815744	*KIT Differential	1	37	119298	WASHER, Pinion Shaft Nut	1
14	100171	SPIDER, Differential	1	38	106081	FLANGE, Companion	1
15	100170	GEAR, Side	2	39	1C-828	BOLT, Oil Seal Retainer Locating	1
16	---	SDIFF CASE - Plain Half - See 50	1	40	4E-08	LKWSHR, Oil Seal Retainer Locating	1
17	86DB	NUT, Differential Case Bolt	8	41	112352	RETAINER, Pinion Oil Seal	1
18	675536	BEARING, Inner Pinion	1	42	112353	GASKET, Oil Seal Retainer	1
19	---	SPINION - See 49	1	43	123800	SCREW, Differential Thrust	1
20	100937	BOLT, Carrier Cap	4	44	100954	LOCK, Differential Thrust Screw	1
20A	111656	WASHER, Carrier Cap Bolt	4	45	8D-14	NUT, Differential Thrust Screw	1
21	---	SCAP Carrier - See 22	2	46	100940	NUT, Differential Adjusting	2
22	112279	CARRIER ASSY (Inc. 20, 20A, 21)	1	47	124995	DIFF ASSY (Inc. 6 thru 17, 19)	1
23	667277	CONE, Center Pinion Bearing	1	48	124444	DIFF BODY SUB. ASSY (Inc. 6, 8, 11 thru 17)	1
24	667278	CUP, Center Pinion Bearing	1	49	815204	GEAR & PINION SET (Inc. 9, 19)	1
25	815040	SPACER KIT, Pinion Bearing	1	50	815033	DIFF CASE KIT (Inc. 6, 8, 16, 17)	1

Not Sold Separately  
 Not Illustrated  
 As Required

\*NOTE: 815744 includes 4-100169 Diff. Pinions. \*\*NOTE: For complete replacement use 124936 Differential & Carrier Assembly

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





## DIFFERENTIAL AND CARRIER ASSEMBLY — REAR DRIVE STEER

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	124936	DIFF & CARRIER ASSY (Inc. 1 thru 46)	1	26	112354	±SHIM, Bearing Cage —.004"	—
1	100941	LOCK, Adjusting Nut	2	26A	125576	±SHIM, Bearing Cage —.007"	—
2	4E-06	LKWSHR, Adjusting Nut Lock Bolt	2	26B	125577	±SHIM, Bearing Cage —.010"	—
3	3C-614	BOLT Adjusting Nut Lock	2	27	124041	CAGE ASSY Pinion Bearing (Inc. 28)	1
4	675249	CUP Differential Bearing	2	28	675257	CUP Outer Pinion Bearing	1
5	675248	CONE, Differential Bearing	2	29	710288	CONE, Outer Pinion Bearing	1
6	100174	BOLT, Differential Case	8	30	111720	SEAL, Pinion Oil	1
7	86D8	NUT, Ring Gear Bolt	12	31	100945	GASKET Pinion Oil Seal	1
8	—	§DIFF CASE — Flanged Half — See 50	1	32	4E-09	LKWSHP Oil Seal Retainer	5
9	—	§RING GEAR — See 49	1	33	1C-928	BOLT, Oil Seal Retainer	5
10	100176	BOLT Ring Gear	12	34	—	OMIT — Not applicable this model	—
11	100173	WASHER, Side Gear Thrust	2	35	100950	NUT, Pinion Shaft	1
12	100172	WASHER, Pinion Thrust	4	36	1F-428	COTTER, Pinion Shaft Nut	1
13	815744	*KIT Diff Pinion	1	37	119298	WASHER, Pinion Shaft Nut	1
14	100171	SPIDER, Differential	1	38	106081	FLANGE, Companion	1
15	100170	GEAR, Side	2	39	1C-828	BOLT, Oil Seal Retainer Locating	1
16	—	§DIFF CASE — Plain Half — See 50	1	40	4E-08	LKWSHR, Oil Seal Retainer Locating	1
17	86D8	NUT Differential Case Bolt	8	41	112352	RETAINER, Pinion Oil Seal	1
18	675536	BEARING, Inner Pinion	1	42	112353	GASKET, Oil Seal Retainer	1
19	—	§PINION — See 49	1	43	123800	SCREW Differential Thrust	1
20	100937	BOLT Carrier Cap	4	44	100954	LOCK, Differential Thrust Screw	1
20A	111656	*WASHER, Carrier Cap Bolt	4	45	8D-14	NUT Differential Thrust Screw	1
21	—	§CAP Carrier — See 22	2	46	100940	NUT Differential Adjusting	2
22	112279	CARRIER ASSY (Inc. 20, 20A, 21)	1	47	124995	DIFF ASSY (Inc. 6 thru 17 19)	1
23	667277	CONE, Center Pinion Bearing	1	48	124444	DIFF BODY SUB. ASSY (Inc. 6, 8, 11 thru 17)	1
24	667278	CUP Center Pinion Bearing	1	49	815204	GEAR & PINION SET (Inc. 9 19)	1
25	815040	SPACER KIT Pinion Bearing	1	50	815033	DIFF CASE KIT (Inc. 6, 8, 16, 17)	1

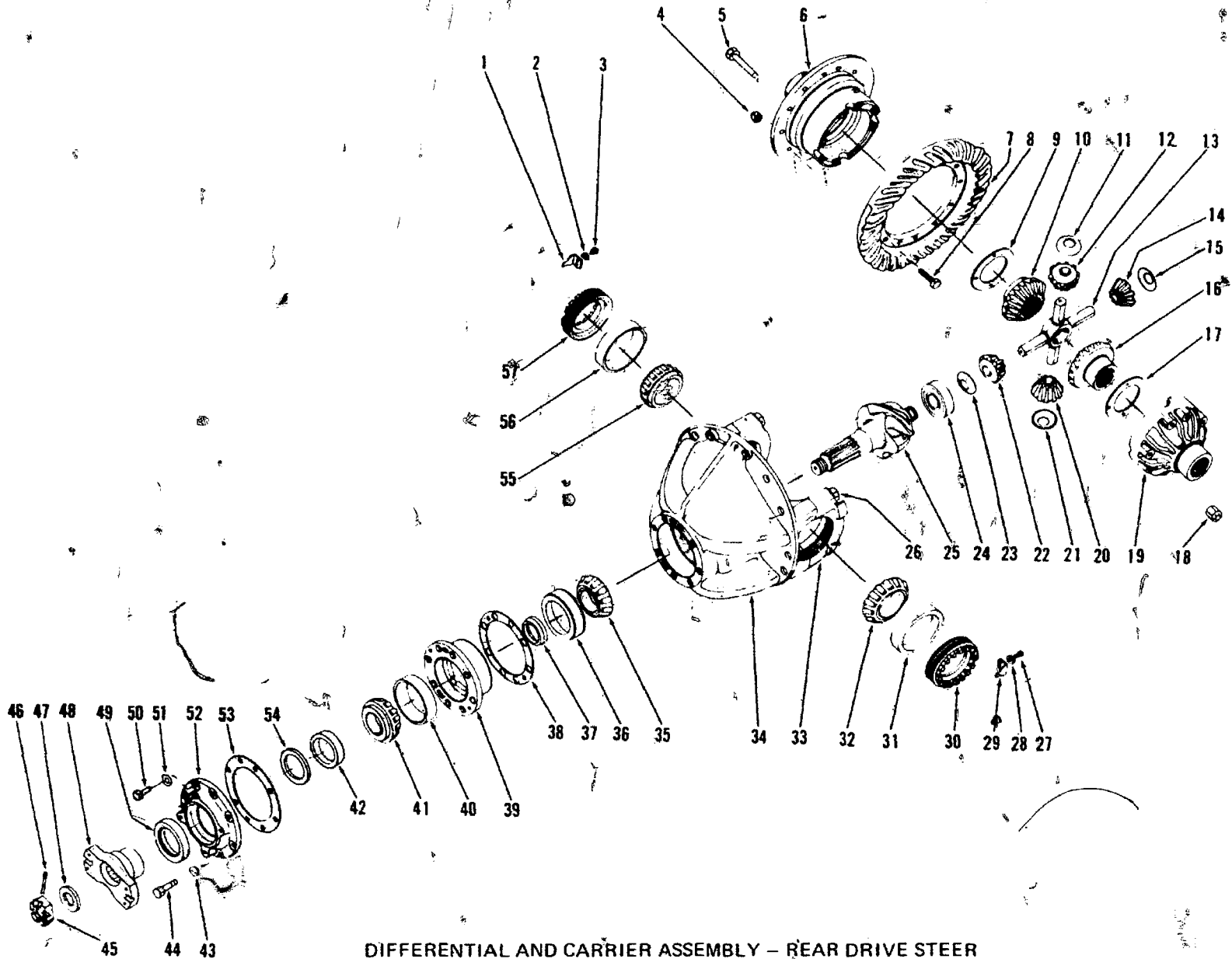
§Not Sold Separately

†Not Illustrated

‡As Required

\*NOTE: 815744 Kit includes 4—100169 Pinions

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



**DIFFERENTIAL AND CARRIER ASSEMBLY - REAR DRIVE STEER**  
For Serial Cummins-4DC101 and after G.M.-5DG101 and after Wauk -C3DA9 25 and after

TS-5007 P

55A.1

(1B3)

RM 1669



**CONSTRUCTION MACHINERY DIVISION  
DIFFERENTIAL AND CARRIER ASSEMBLY — REAR DRIVE STEER**



For Serial: Cummins — 4DC101 and after  
G.M. — 5DG101 and after

Wauk. — C3DA9-25 and after

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	117536	DIFF & CARRIER ASSY (Inc. 1 thru 57)	1	33	—	§CAP Differential Carrier — See 34	2
1	100941	LOCK, Differential Adjusting Nut	1	34	116646	CARRIER ASSY Diff. (Inc. 26, 26A, 33)	1
2	4E-06	LKWSHR, Adjusting Nut Lock	1	35	667276	CONE, Center Pinion Bearing	1
3	3C-614	BOLT, Adjusting Nut Lock	1	36	658988	CUP Center Pinion Bearing	1
4	86D-09	NUT, Ring Gear Bolt	12	37	815172	SPACER, Pinion Bearing	1
5	111348	BOLT, Differential Case	8	38	101257	‡SHIM, Bearing Cage — .004"	—
6	—	§DIFF. CASE — Flange Half — See 61	1	38A	125567	‡SHIM, Bearing Cage — .007"	—
7	—	§RING GEAR — See 60	1	38B	125568	‡SHIM, Bearing Cage — .010"	—
8	101196	BOLT, Ring Gear	12	39	101250	CAGE ASSY Pinion Bearing (Inc. 36, 40)	1
9	116998	WASHER, Side Gear Thrust	1	40	667278	CUP Outer Pinion Bearing	1
10	104167	GEAR, Differential Side	1	41	667277	CONE, Outer Pinion Bearing	1
11	116997	WASHER, Differential Pinion Thrust	1	42	110897	SEAL, Pinion Oil	1
12	815745	*PINION, Differential	1	43	4E-09	LKWSHR, Oil Seal Retainer	7
13	117022	SPIDER, Differential	1	44	1C-928	BOLT, Oil Seal Retainer	7
14	—	PINION, Differential — See 12	1	45	101262	NUT, Pinion Shaft	1
15	116997	WASHER, Differential Pinion Thrust	1	46	1F-732	COTTER, Pinion Shaft Nut	1
16	104167	GEAR, Differential Side	1	47	101263	WASHER, Pinion Shaft Nut	1
17	116998	WASHER, Side Gear Thrust	1	48	117218	FLANGE, Companion	1
18	86D-09	NUT, Differential Case	8	49	101261	SHIELD, 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	116997	WASHER, Differential Pinion Thrust	1	52	101253	RETAINER, Pinion Oil Seal	1
22	—	PINION, Differential — See 12	1	53	101254	**GASKET Oil Seal Retainer	1
23	116997	WASHER, Differential Pinion Thrust	1	54	101217	GASKET, Pinion Oil Seal	1
24	667466	BEARING, Inner Pinion	1	55	654144	CONE, Differential Bearing	1
25	—	§PINION, Differential — See 60	1	56	667275	CUP, Differential Bearing	1
26	101210	BOLT, Differential Carrier Cap	4	57	123747	NUT Differential Adjusting	1
26A	111658	WASHER, Carrier Cap Bolt	4	58	117537	‡DIFF ASSY (Inc. 4 thru 23, 25)	1
27	3C-614	BOLT, Adjusting Nut Lock	1	59	116993	‡DIFF BODY SUB ASSY (Inc. 5, 6, 9 thru 23)	1
28	4E-06	LKWSHR, Adjusting Nut Lock	1	60	117538	‡GEAR & PINION SET (Inc. 7 25)	1
29	100941	LOCK, Differential Adjusting Nut	1	61	815671	‡DIFF. CASE KIT (Inc. 5, 6, 11, 15, 18, 19 21, 23)	1
30	123747	NUT, Differential Adjusting	1				
31	667275	CUP Differential Bearing	1				
32	654144	CONE, Differential Bearing	1				

§Not Sold Separately

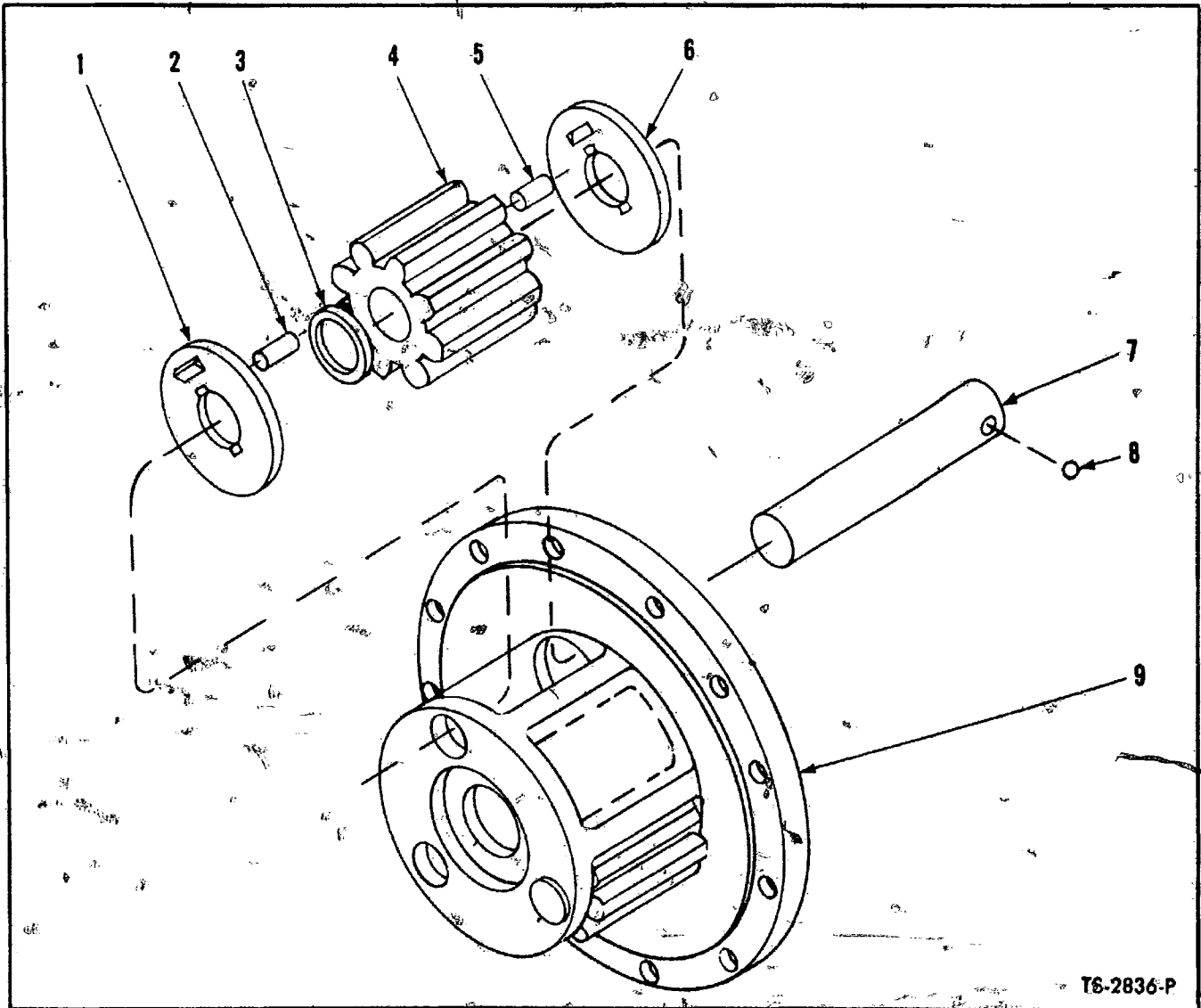
‡As Required

†Not Illustrated

\*NOTE: 815745 Kit consists of 4—116996 Pinions.

\*\*NOTE: For replacement use Loctite #277

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



T6-2836-P

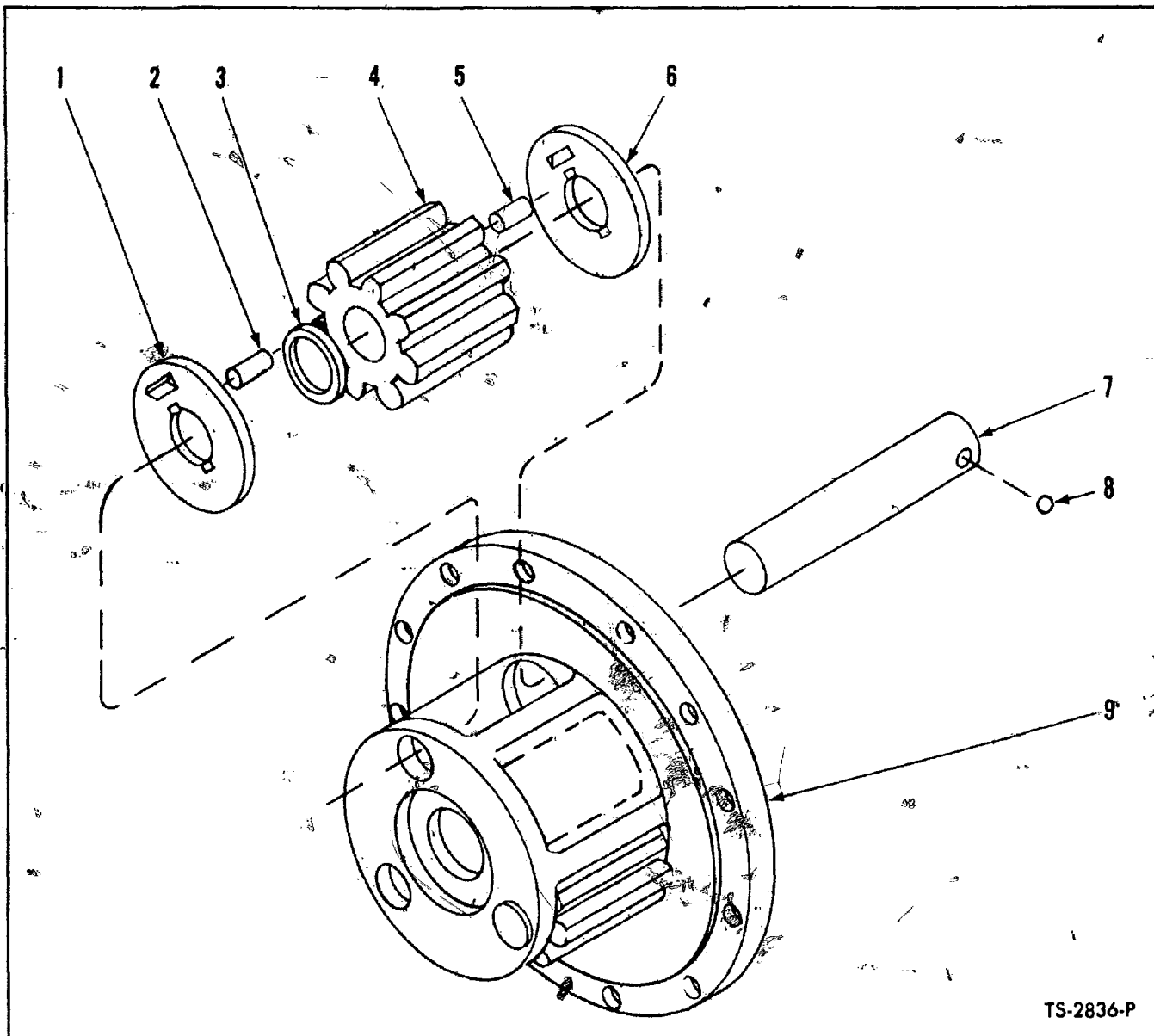
**PLANET SPIDER ASSEMBLY**

For Serial: Cummins — 2DC101 thru 3DC999  
 G.M. — 2DG101 thru 4DG999  
 Wauk. — 2DA101 and after, C3DA9-1 thru C3DA9-24

Item No.	Part No.	Description	No. Req'd.
A	945608	*SPIDER ASSY Planet (inc. 1 thru 8)	4
<b>NOTE: Four (4) Planet Spider Assemblies used on machine. Quantities listed below are for 1 Planet Spider.</b>			
1	106350	WASHER, Pinion Thrust	3
2	106351	ROLLER, Pinion	87
3	106352	SPACER, Pinion Roller	3
4	109088	PINION, Planet	3
5	106351	ROLLER, Pinion	87
6	106350	WASHER, Pinion Thrust	3
7	106349	SHAFT Pinion	3
8	TOJ-12	BALL, Pinion Shaft	3
9	945609	SPIDER, Planet	1

\*NOTE 945608 also includes 5-112287 Dowels, 5-118419 Studs & 5-640-08 Nuts to replace the 5-existing Spider to Hub Bolts.

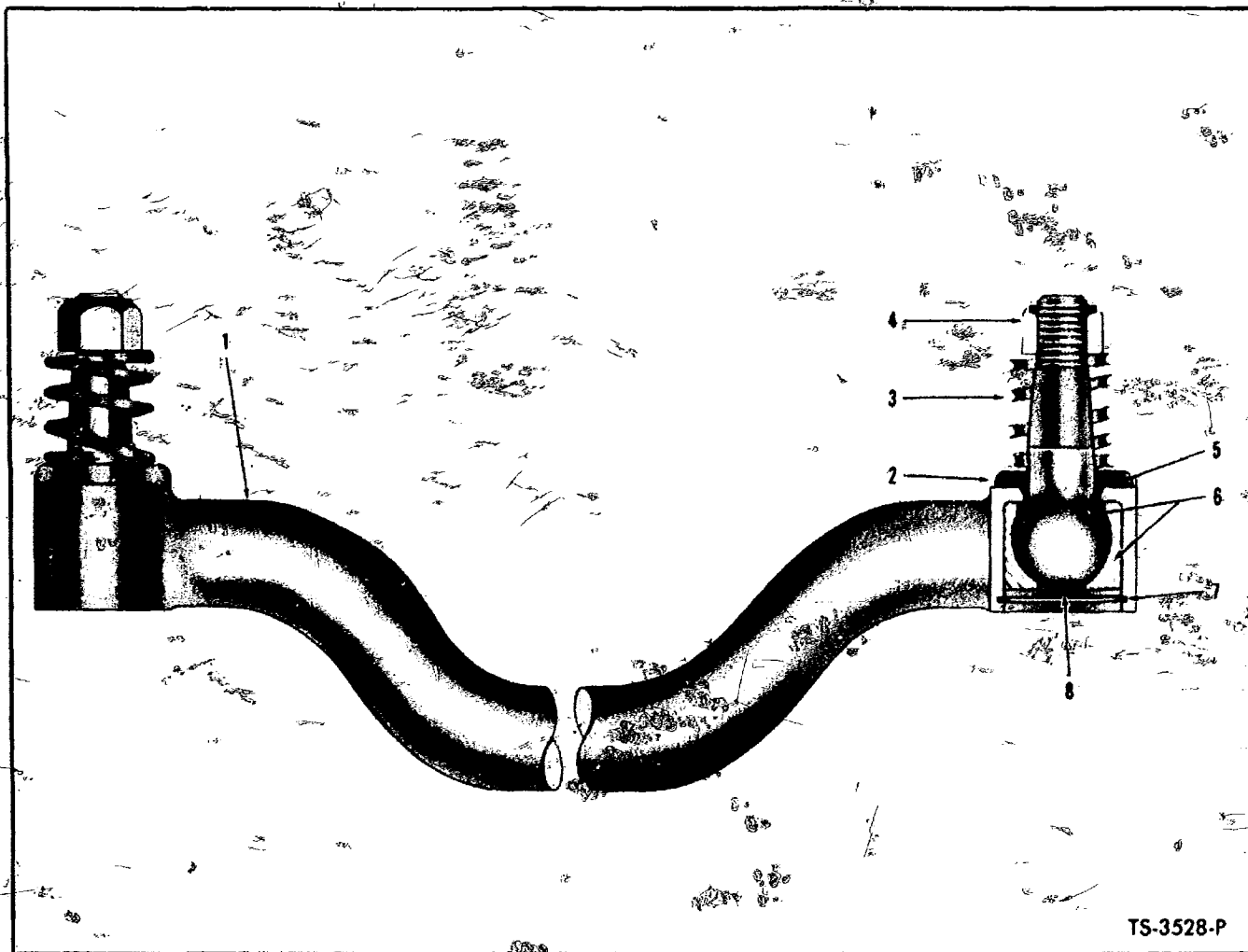
**WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE**



**PLANET SPIDER ASSEMBLY**  
 For Serial: Cummins — 4DC101 and after  
 G.M. — 5DG101 and after  
 Wauk. — C3DA9-25 and after

Item No.	Part No.	Description	No. Req'd.
A	114449	SPIDER ASSY Planet (Inc. 1 thru 9)	2
<b>NOTE: Two (2) Planet Spider Assemblies used per Axle. Quantities listed below are for 1 Planet Spider.</b>			
1	106350	WASHER, Pinion Thrust	3
2	106351	ROLLER, Pinion	87
3	106352	SPACER, Pinion Roller	3
4	109088	PINION, Planet	3
5	106351	ROLLER, Pinion	87
6	106350	WASHER, Pinion Thrust	3
7	106349	SHAFT, Pinion	3
8	10J-12	BALL, Pinion Shaft	3
9	114450	SPIDER, Planet	1

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



TS-3528-P

**TIE ROD ASSEMBLY**

For Serial: Cummins — 2DC101 thru 3DC999

G.M. — 2DG101 thru 4DG999

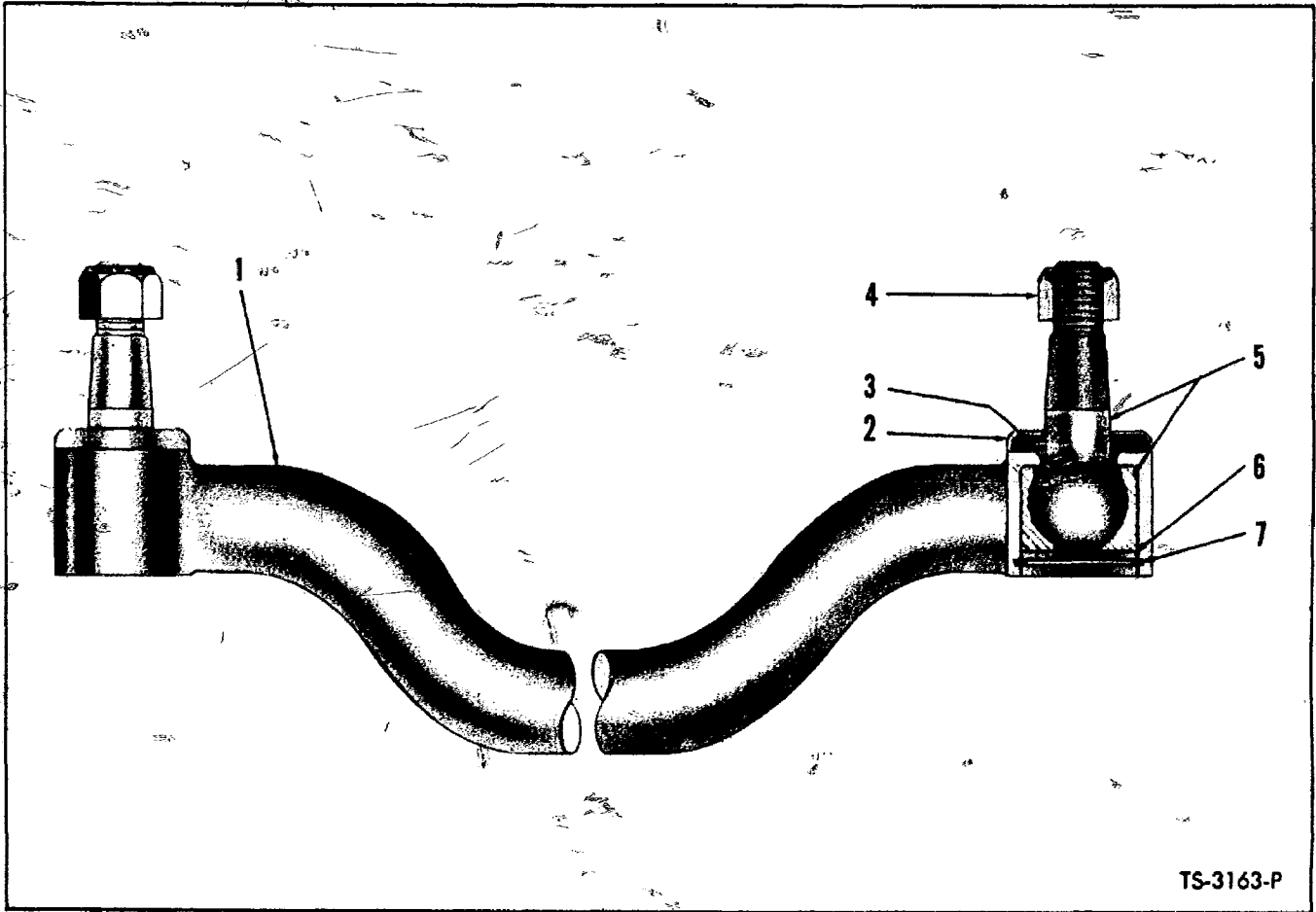
Wauk. — 2DA101 and after, C3DA9-1 thru C3DA9-24

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

\* Not Sold Separately

\*NOTE For replacement use 815841 Retainer Plate Assy which consists of 1-542066 Retainer Plate plus 1-10H-26 Grease Fitting.

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



TS-3163-P

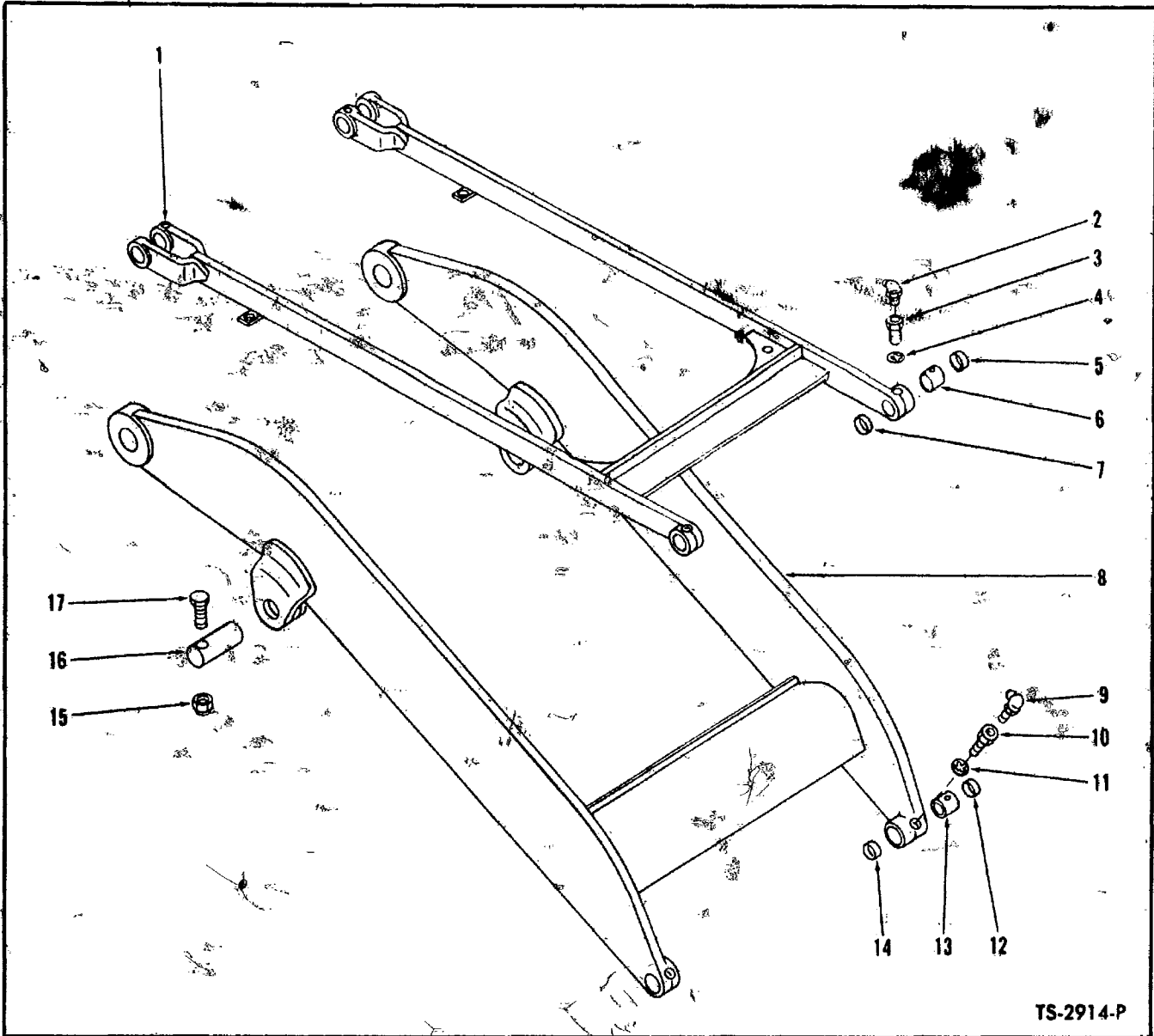
**TIE ROD ASSEMBLY**

**For Serial: Cummins — 4DC101 and after  
G.M. — 5DG101 and after  
Wauk. — C3DA9-25 and after**

Item No.	Part No.	Description	No. Req'd.
A	523467	TIE ROD ASSY (Inc. 1 thru 7)	1
1	---	SHOUSING, Tie Rod — See A	—
2	106267	RETAINER, Felt	2
3	106266	FELT	2
4	112175	NUT, Ball Stud	2
5	523461	BALL STUD	2
6	541880	PLATE, Ball Stud Retainer	2
7	661416	SNAP RING, Retainer Plate	2

§Not Sold Separately

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



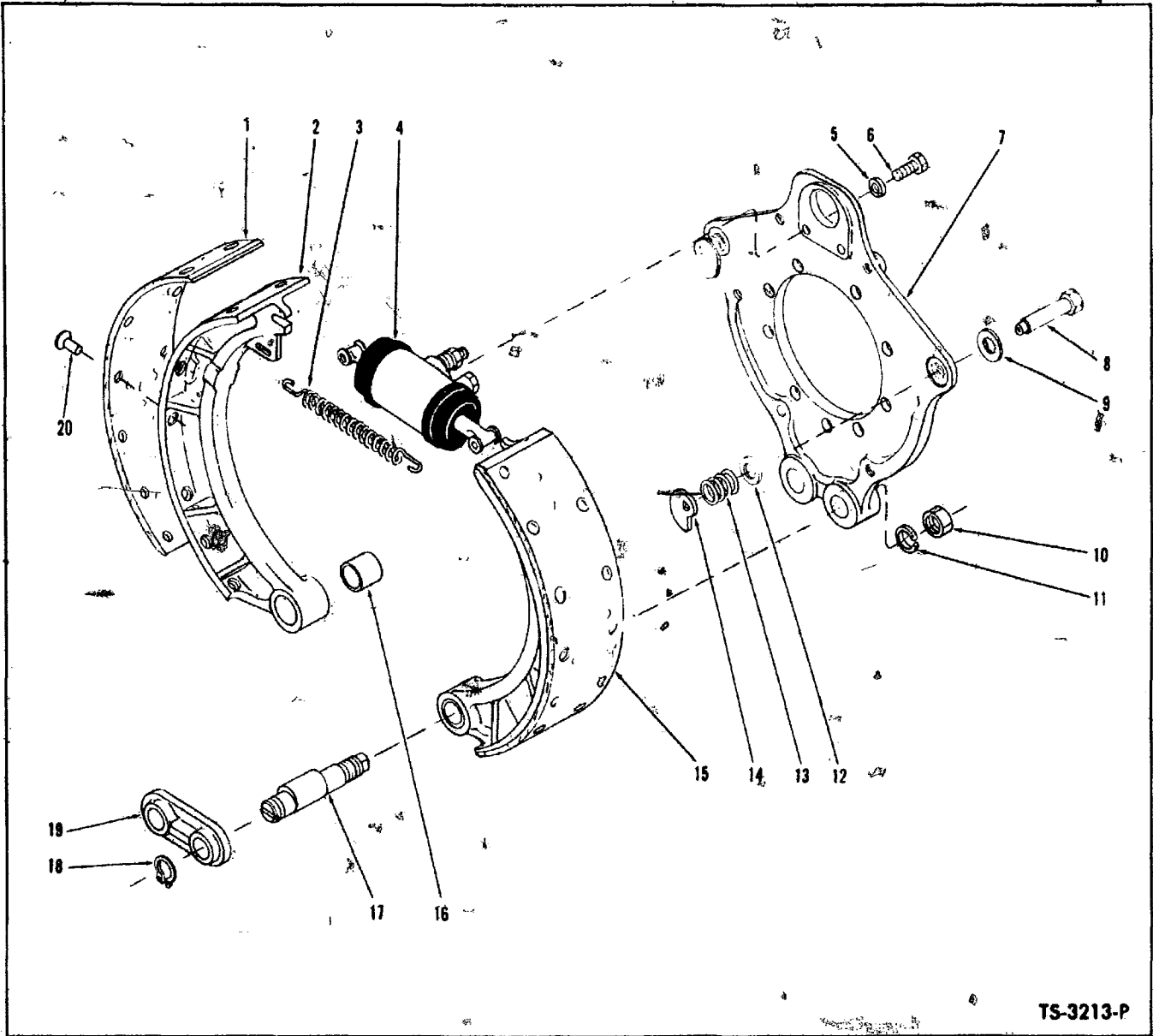
TS-2914-P

**BOOM AND GUIDE BAR**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	534403	GUIDE BAR ASSY (Inc. 3, 4, 6)	1	10	532118	BOLT, Boom to Carrier Pin Retaining	2
2	12H-25	FITTING, Guide Bar Grease	2	11	7E-08	LKWSHR, Boom to Carrier Pin Retaining	2
3	532118	BOLT, Guide Bar Pin Retaining	2	12	532125	DUST SEAL, Boom	2
4	7E-08	LKWSHR, Guide Bar Pin Retaining	2	13	532162	BUSHING, Boom	2
5	532125	DUST SEAL, Guide Bar	2	14	532125	DUST SEAL, Boom	2
6	532162	BUSHING, Guide Bar	2	15	18D-08	NUT, Pin Retaining	2
7	532125	DUST SEAL, Guide Bar	2	16	516861	PIN, Boom Cylinder to Boom	2
8	537772	BOOM ASSY (Inc. 10, 11, 13)	1	17	18C-864	BOLT, Pin Retaining	2
9	12H-25	FITTING, Boom Grease	2				

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



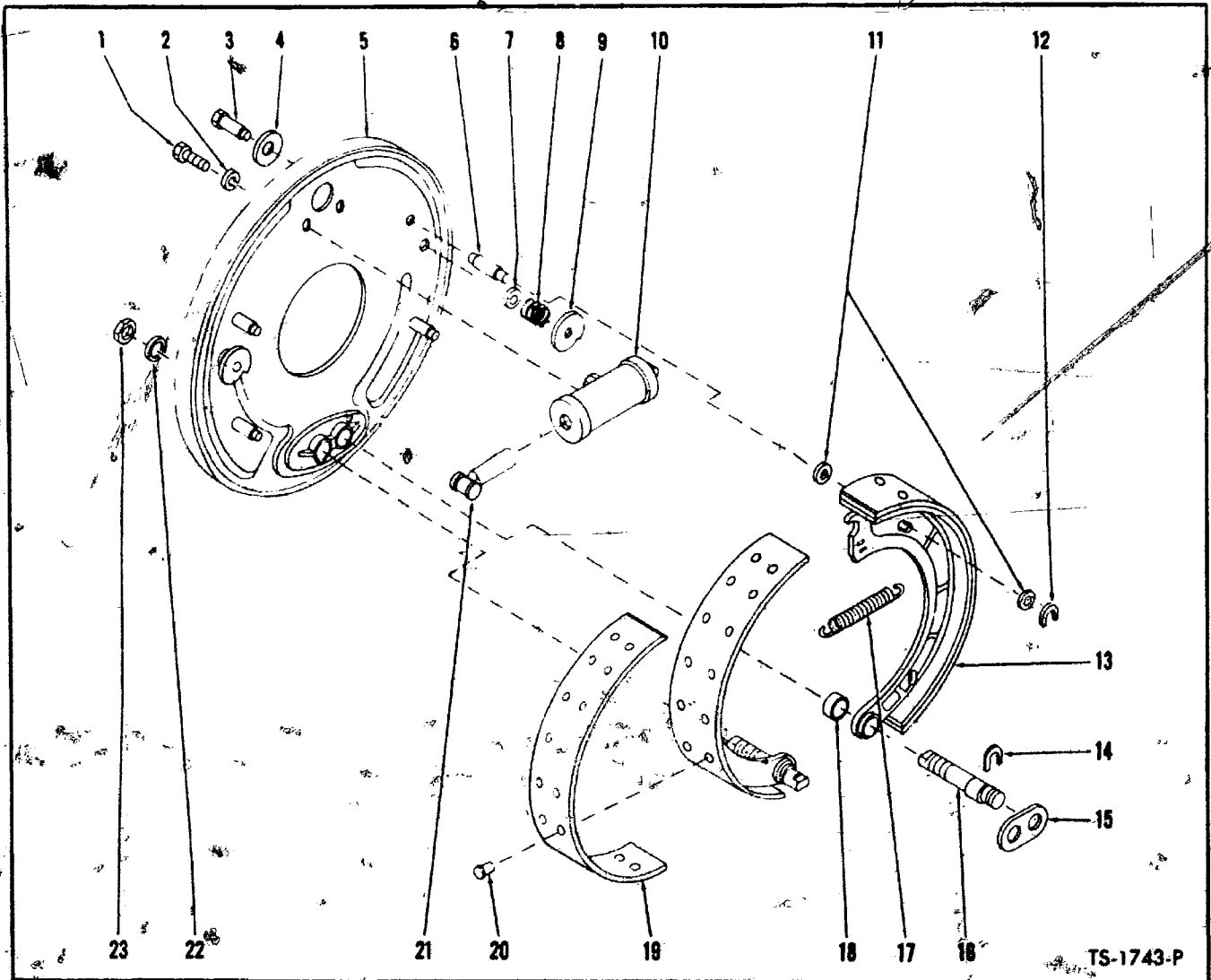


TS-3213-P

**FRONT BRAKE ASSEMBLY\***

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	117150	BRAKE ASSY (Inc. 1 thru 20)	2	8	114173	PIN ASSY, Brake Shoe Adjusting (Inc. 9)	2
<b>NOTE: 2 Brake Assemblies used on axle - Quantities listed below are for 1 Brake Assembly.</b>				9	100867	WASHER, Brake Shoe Adj. Pin	2
B	LINING KIT Brake (Inc. 1 20)			10	2D-14	NUT, Anchor Pin	2
C	945614	Standard	1	11	2E-14	LKWSHR, Anchor Pin Nut	2
D	945621	<sup>2</sup> 1/16" Oversize	1	12	851771	WASHER, Cam Spring	2
1	-----	§LINING, Brake Shoe - See C & D	2	13	943859	SPRING, Adj. Cam (Inc. 12)	2
2	-----	§SHOE, Brake - See 15	2	14	112062	CAM, Shoe Adjusting	2
3	116949	SPRING, Brake Shoe Return	1	15	118267	SHOE ASSY Brake (Inc. 1 2, 16, 20)	2
4	-----	WHEEL CYLINDER - See Index	1	16	112068	BUSHING, Brake Shoe	2
5	4E-06	LKWSHR, Wheel Cyl. Mounting	2	17	112069	PIN, Brake Shoe Anchor	2
6	1C-614	BOLT, Wheel Cyl. Mounting	2	18	710776	RING, Anchor Pin Retaining	2
7	112060	SPIDER ASSY Brake (Inc. 8; 9, 12, 13, 14)	1	19	112070	STRUT, Anchor Pin	1
*Ref. SG-681				20	23H-1008	RIVET Lining to Shoe	40

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



TS-1743-P

**BRAKE ASSEMBLY - REAR\***

For Serial: Cummins - 2DC101 thru 3DC999  
 G.M. - 2DG101 thru 4DG999  
 Wauk. - 2DA101 and after  
 C3DA9-14 thru C3DA9-24

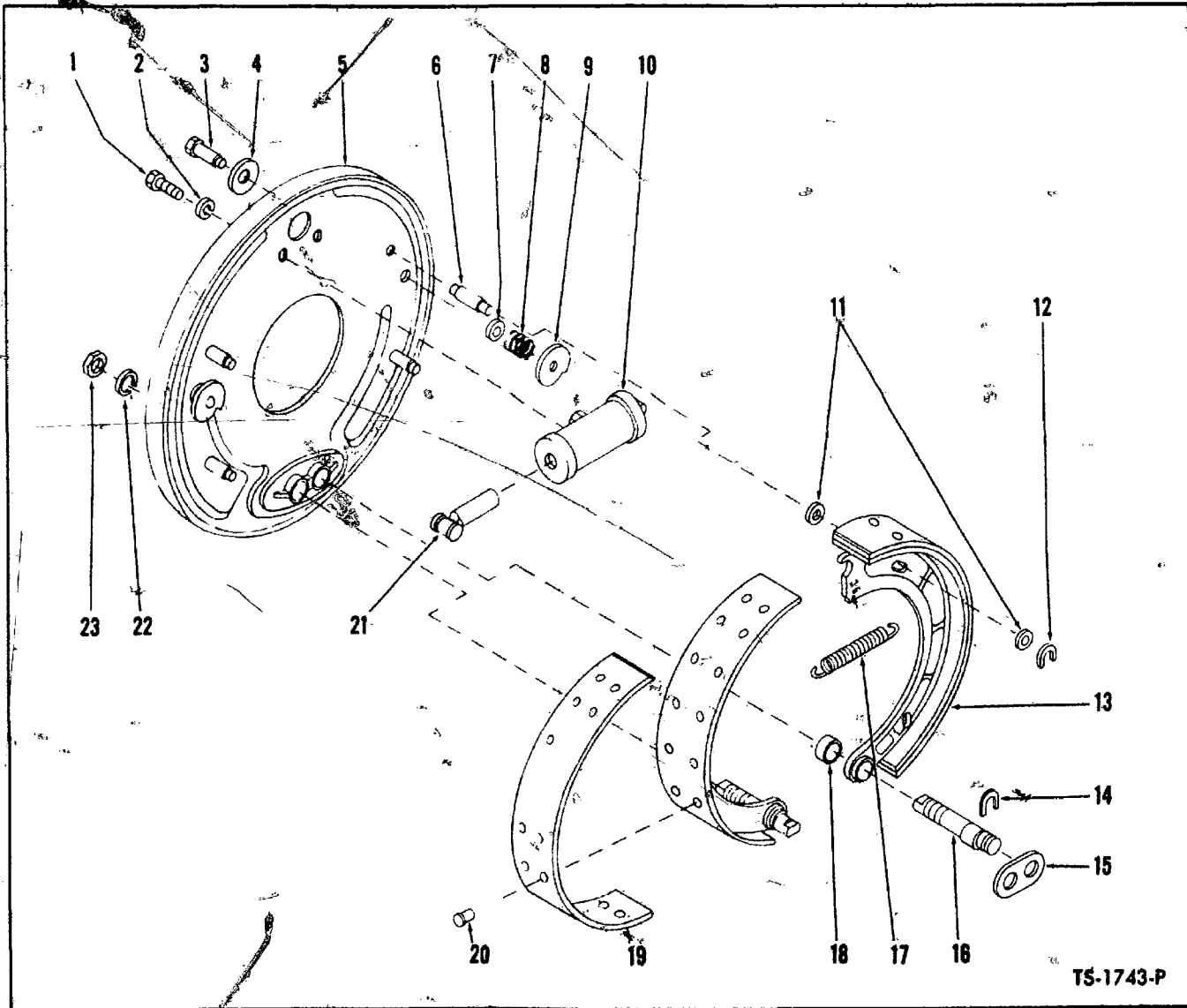
2 Brakes Used on Axle - Quantity Indicated is for 1 Brake

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	117914	BRAKE ASSY (Inc. 1 thru 23)	1	13	118254	SHOE ASSY Brake (Inc. 18, 19A, 20)	2
1	1C/610	BOLT, Cylinder to Brake Disc	2	14	101332	"C" WASHER, Anchor Pin	2
2	4E-06	LKWSHR, Gylinder to Brake Disc	2	15	106970	STRUT, Anchor Pin	1
3	114169	PIN, Cam (Inc. 4)	2	16	106969	PIN, Anchor	2
4	100867	WASHER, Cam Pin	2	17	106216	SPRING, Brake Shoe Return	1
5	117915	DISC ASSY Brake (Inc. 3, 4, 6 thru 9)	1	18	201966	BUSHING, Brake Shoe	2
6	106373	PIN, Guide	4	19		LINING KIT Brake (Inc. 20)	
7	851771	WASHER, Cam Spring	2	19A	944217	Standard	1
8	943859	KIT Cam Spring (Inc. 7)	2	19B	945100	<sup>2</sup> 1/16" Oversize	1
9	100864	CAM, Brake Shoe Adjusting	2	20	3H-1216	RIVET Lining to Shoe	36
10		CYLINDER, Wheel-See Index	1	21	958553	LINK, Wheel Cylinder Connector	2
11	102322	WASHER, Guide Pin	8	22	4E-12	LKWSHR, Anchor Pin	2
12	100878	"C" WASHER, Guide Pin	4	23	2D-12	NUT Anchor Pin	2

\*Ref. SG-681

<sup>1</sup>Not Illustrated

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



TS-1743-P

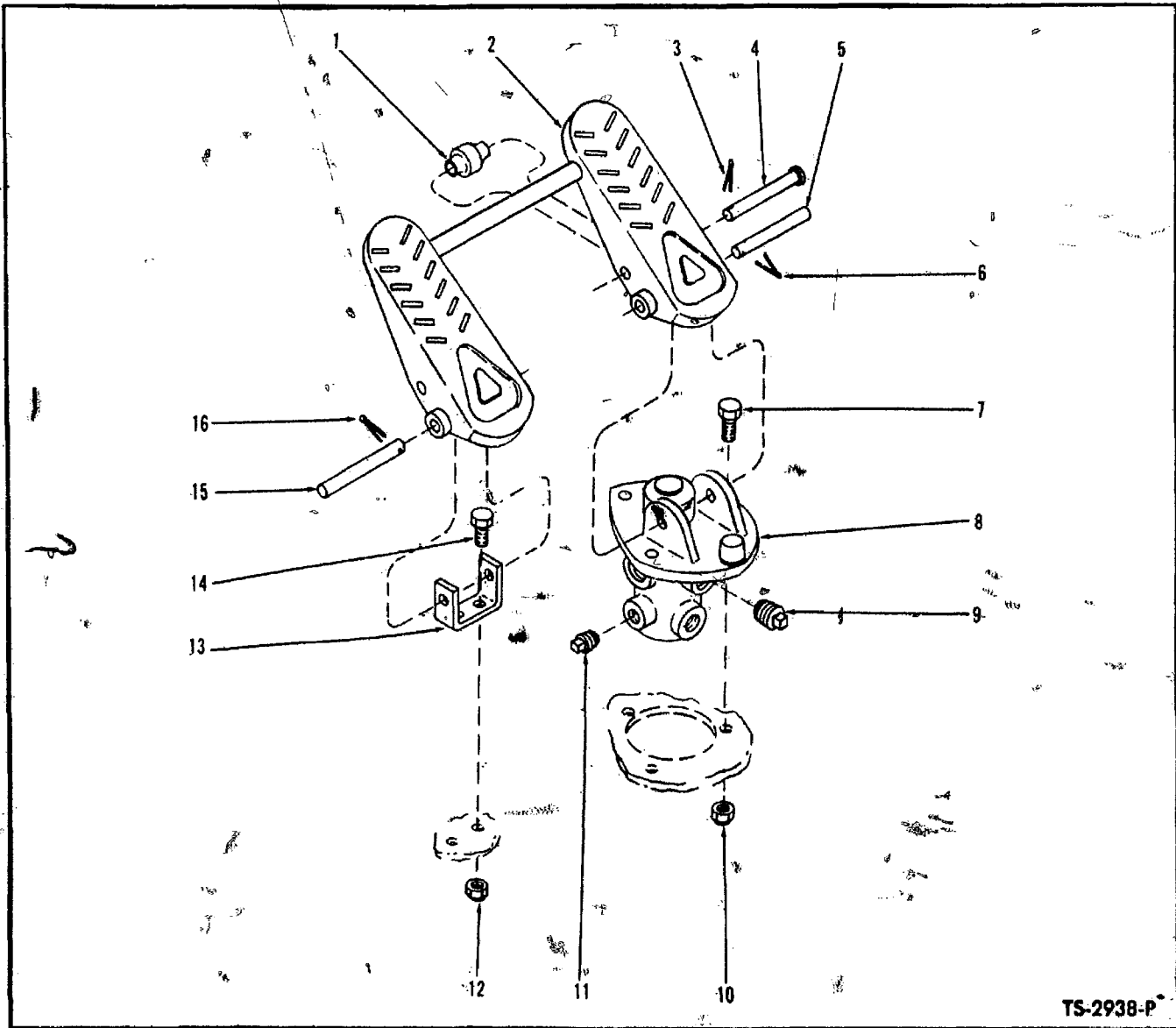
**BRAKE ASSEMBLY - REAR\***  
**For Serial: Cummins - 4DC101 and after**  
**G.M. - 5DG101 and after**  
**Wauk. - C3DA9-25 and after**

**2 Brakes used on Axle - Quantity indicated is for 1 Brake**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	117558	BRAKE ASSY (Inc. 1 thru 23)	1	14	101332	"C" WASHER, Anchor Pin	2
1	1C-610	BOLT Cylinder to Brake Disc	2	15	106970	STRUT, Anchor Pin	1
2	4E-06	LKWSHR, Cylinder to Brake Disc	2	16	106969	PIN, Anchor	2
3	114169	PIN, Cam (Inc. 4)	2	17	106216	SPRING, Brake Shoe Return	1
4	100867	WASHER, Cam Pin	2	18	201966	BUSHING, Brake Shoe	2
5	106549	DISC ASSY Brake (Inc. 3, 4, 6 thru 9)	1	19		LINING KIT Brake (Inc. 20)	
6	106373	PIN, Guide	4	19A	944217	STANDARD	1
7	851771	WASHER, Cam Spring	2	19B	945100	<sup>2</sup> 1/16" Oversize	1
8	943859	KIT, Cam Spring (Inc. 7)	2	20	3H-1216	RIVET, Lining to Shoe	36
9	100864	CAM, Brake Shoe Adjusting	2	21	958553	LINK, Wheel Cylinder Connector	2
10		CYLINDER, Brake Wheel - See Index	-	22	4E-12	LKWSHR, Anchor Pin	2
11	102322	WASHER, Guide Pin	8	23	2D-12	NUF, Anchor Pin	2
12	100878	"C" WASHER, Guide Pin	4				
13	118254	SHOE ASSY Brake (Inc. 18, 19A, 20)	2				

\*Ref. SG-681

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



TS-2938-P

**BRAKE CONTROLS**

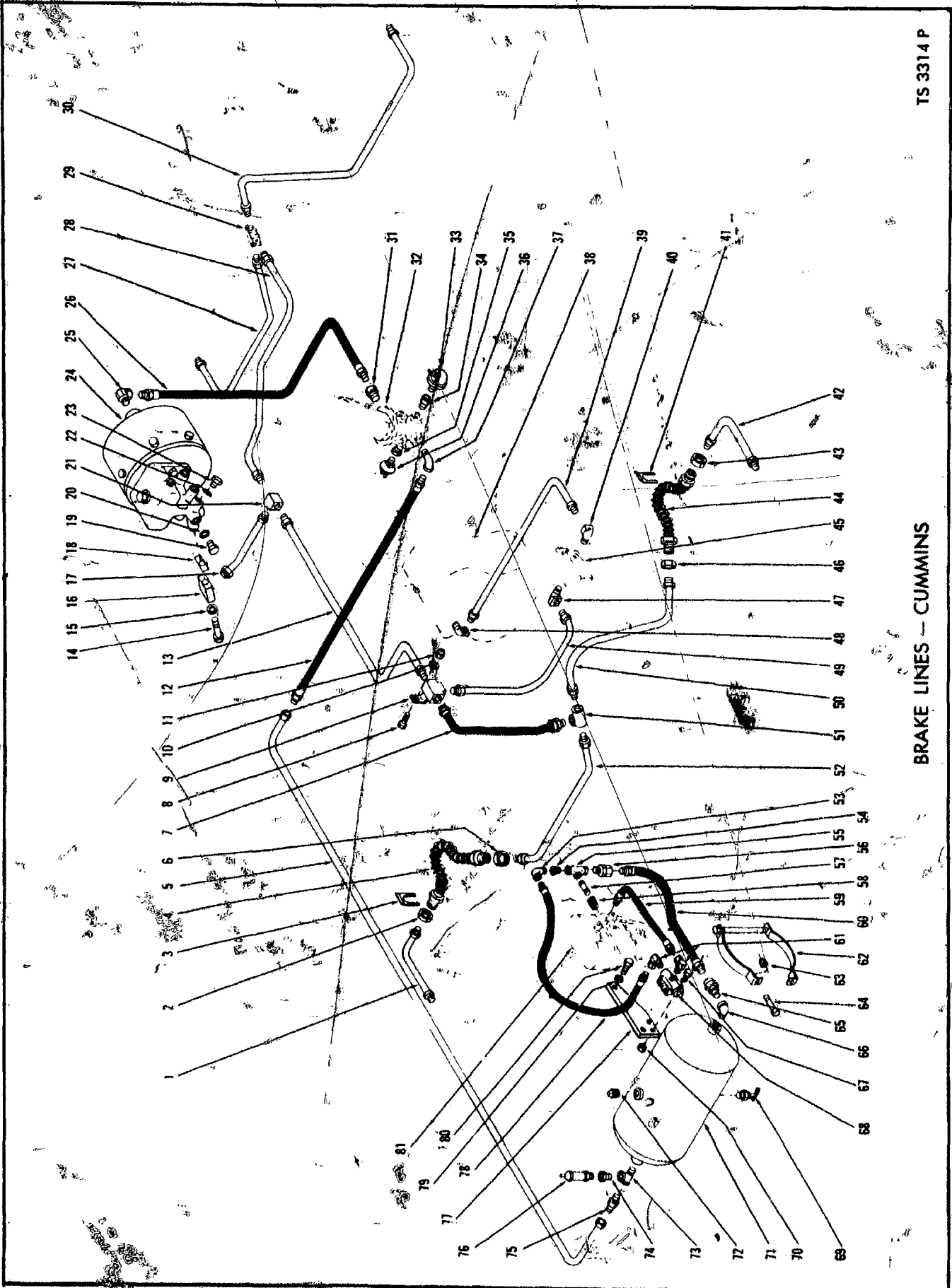
Item No.	Part No.	Description	No. Req'd.
1	518259	ROLLER, Pedal	1
2	542255	PEDAL, Air Brake	1
3	1F-312	COTTER, Clevis Pin	1
4	875766	PIN, Roller to Pedal	1
5	875767	PIN, Pedal to Valve	1
6	1F-320	COTTER, Clevis Pin	1
7	18C-516	BOLT, Valve to Floorboard	3
8	945996	VALVE, Air Brake—B.W. 227472	1
9	13F-08	PLUG, Air Brake Valve	3
10	18D-05	NUT, Valve to Floorboard	3
11	13F-04	PLUG, Air Brake Valve	1
12	18D-05	NUT Base to Floorboard	2
13	513873	BASE, Pedal	1
14	18C-516	BOLT, Base to Floorboard	2
15	875767	PIN, Pedal to Base	1
16	1F-320	COTTER, Clevis Pin	1

\*NOTE Your local Bendix-Westinghouse distributor is equipped to supply components of this part.

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

TS 3314 P

BRAKE LINES — CUMMINS



**BRAKE LINES - CUMMINS\***

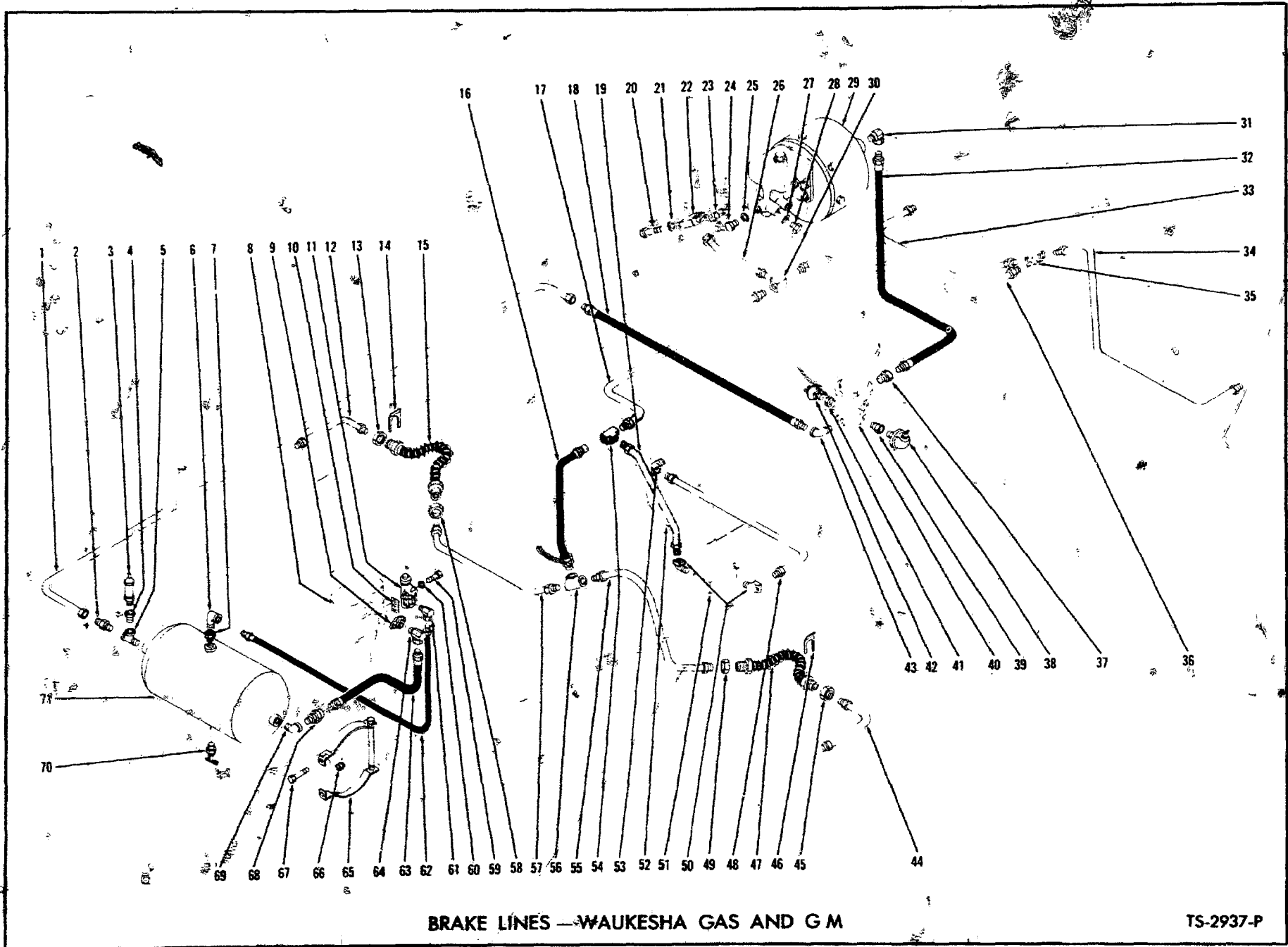
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	552387	** LINE, Rear Brake-L.H.	1	42A	534214	*** LINE, Rear Brake-R.H.	1
1A	534214	*** LINE, Rear Brake-L.H.	1	43	8D-10	NUT, Hose to Rear Axle Line	1
2	8D-10	NUT, Hose to Rear Axle Line	1	44	552374	HOSE, Line to Line	1
3	550325	CLIP, Hose to Frame	1	45	---	SELECTOR VALVE-See Index	1
4	552374	HOSE, Line to Line	1	46	8D-10	NUT, Hose to Line	1
5	540919	LINE, Air Reservoir to Brake Valve	1	47	507729	ELBOW, Line to Selector Valve	1
6	8D-10	NUT, Hose to Line	1	48	62F-3	ELBOW, Line to Transmission	1
7	546853	HOSE, Tee to Tee	1	49	542506	LINE, Tee to Selector Valve	1
8	18C-514	BOLT, Tee to Lug	1	50	534259	LINE, Tee to Hose	1
9	100582	TEE	1	51	550320	TEE-Furnished with Axle	1
10	710538	WASHER, Tee to Lug	1	52	534260	LINE, Tee to Hose	1
11	18D-05	NUT, Tee to Lug	1	53	26F-1	ELBOW, Hose to Tee	1
12	524497	HOSE, Line to Brake Valve	1	54	356616	BUSHING, Reducing	1
13	540925	LINE, Tee to Tee	1	55	18F-4	TEE, Compressor	1
14	692722	BOLT, Connector Mounting	1	56	36F-4	ADAPTER UNION	1
15	613750	GASKET, Connector Bolt	1	57	5K-410	NIPPLE, Tee to Compressor	1
16	620235	CONNECTOR, Master Cylinder	1	58	356617	BUSHING, Reducing	1
17	540923	LINE, Connector to Tee	1	59	546835	HOSE, Governor to Compressor	1
18	620238	GASKET, Connector to Master Cyl.	1	60	548400	HOSE, Air Reservoir to Compressor Tee	1
19	874007	PLUG, Master Cylinder Outlet	1	61	31F-1	ADAPTER UNION	2
20	618750	GASKET, Master Cylinder Plug	1	62	941214	BRACKET, Reservoir Mounting	2
21	552897	TEE, Front Axle	1	63	18D-06	NUT, Bracket Mounting	4
22	613750	GASKET, Plug	1	64	18C-616	BOLT, Bracket Mounting	4
23	874007	PLUG, Master Cylinder Outlet	1	65	693370	CHECK VALVE	1
24	---	POWER CLUSTER-See Index	1	66	26F-4	ELBOW, Air Reservoir	1
25	31F-3	ADAPTER UNION	1	67	18C-548	BOLT, Governor Mounting	2
26	541983	HOSE, Power Cluster to Brake Valve	1	68	3215964	GOVERNOR	1
27	543741	LINE, Front Brake-L.H.	1	69	72F-4	DRAIN COCK, Reservoir	1
28	540924	LINE, Tee to Tee	1	70	18D-05	NUT, Governor to Bracket	2
29	550318	TEE, Furnished with Axle	1	71	540707	AIR RESERVOIR	1
30	543740	LINE, Front Brake-R.H.	1	72	14F-08	PLUG, Air Reservoir	1
31	356614	BUSHING, Reducing	1	73	77F-4	TEE, Air Reservoir	1
32	---	BRAKE CONTROLS-See Index	1	74	356615	BUSHING, Reducing	1
33	940643	SENDER UNIT, Air Pressure, See "A"	1	75	38F-10	FITTING, Hose to Tee	1
34	356616	BUSHING, Reducing	1	76	569586	SAFETY VALVE	1
35	356616	BUSHING, Reducing	1	77	548338	BRACKET, Governor Mounting	1
36	636260	SWITCH, Stop Light	1	78	548401	HOSE, Governor to Elbow	1
37	26F-4	ELBOW, Hose to Brake Valve	1	79	4E-06	LKWSHR, Governor to Bracket	2
38	---	TRANSMISSION-See Index	1	80	1C-612	BOLT, Governor to Bracket	2
39	542507	LINE, Selector Valve to Transmission	1	81	---	COMPRESSOR-See Engine Parts Manual	1
40	507729	ELBOW, Line to Selector Valve	1				
41	550325	CLIP, Hose to Frame	1				
42	552387	** LINE, Rear Brake-R.H.	1				

\*Ref. SG-681

\*\*NOTE: For Serial Cummins 2DC101 thru 3DC999. G.M. 2DG101 thru 4DG999. WAU 2DA101 and after, C3DA9-14 thru C3DA9-24.

\*\*\*NOTE: For Serial Cummins 4CD101 and after. G.M. 5DG101 and after. WAU C3DA9-25 and after.

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



**BRAKE LINES — WAUKESHA GAS AND GM**

TS-2937-P

**BRAKE LINES — WAUKESHA GAS AND G.M.\***

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	540919	LINE, Reservoir to Foot Valve	1	41	356616	BUSHING, Foot Valve Reducing	1
2	38F-10	CONNECTOR, Line to Tee	1	42	636260	SWITCH, Stop Light	1
3	569586	VALVE, Safety	1	43	26F-4	ELBOW, Hose to Foot Valve	1
4	356615	BUSHING, Tee Reducing	1	44	552387	LINE, Right Rear Wheel	1
5	17F-4	TEE, Line to Reservoir	1	44A	534214	LINE, Right Rear Wheel	1
6	25F-1	ELBOW, Line to Reservoir	1	45	8D-10	NUT, Hose to Line	1
7	356616	BUSHING, Reducing	1	46	550325	CLIP, Hose to Frame	1
8	----	AIR COMPRESSOR—See Engine Parts Manual	1	47	552374	HOSE, Rear Wheel—R.H.	1
9	510452	FLANGE, Discharge	1	48	542507	LINE, Selector Valve to Trans.	1
10	942646	GASKET, Governor to Compressor	1	49	8D-10	NUT, Hose to Line	1
11	3215964	GOVERNOR	1	50	507729	ELBOW, Line to Valve	2
12	552387	**LINE, Left Rear Wheel	1	51	----	SELECTOR VALVE—See Index	—
12A	534214	***LINE, Left Rear Wheel	1	52	----	TRANSMISSION—See Index	—
13	8D-10	NUT, Hose to Line	1	53	62F-3	ELBOW, Line to Transmission	1
14	550325	CLIP, Hose to Frame	1	54	100582	TEE, Hose to Line	1
15	552374	HOSE, Rear Wheel—L.H.	1	54A	710538	WASHER, Tee to Frame	1
16	546853	HOSE, Line to Rear Axle Tee	1	54B	18C-514	BOLT, Tee to Frame	1
17	540925	LINE, Tee to Rear Axle	1	54C	18D-05	NUT, Tee to Frame	1
18	524497	HOSE, Line to Foot Valve	1	55	534259	LINE, Right Hand—Rear	1
19	542506	LINE, Master Cylinder to Selector Valve	1	56	550320	TEE, Rear Axle Brake Line	1
20	692722	BOLT, Connector	1	57	534260	LINE, Left Hand—Rear	1
21	613750	GASKET, Connector Bolt	1	58	8D-10	NUT, Hose to Line	1
22	620235	CONNECTOR, Master Cylinder	1	59	17C-544	BOLT, Governor to Compressor	2
23	620238	GASKET, Connector	1	60	4E-05	LKWSHR, Governor to Compressor	2
24	874007	PLUG, Master Cylinder	1	61	31F-1	ADAPTER UNION	1
25	613750	GASKET, Master Cylinder Plug	1	62	----	HOSE, Governor to Reservoir	—
26	540923	LINE, Master Cylinder to Tee	1	62A	536936	For G.M. Powered Machines	1
27	613750	GASKET, Master Cylinder Plug	1	62B	544273	For Gas Powered Machines	1
28	874007	PLUG, Master Cylinder	1	63	----	HOSE, Compressor to Reservoir	—
29	----	POWER CLUSTER ASSY—See Index	1	63A	593484	For G.M. Powered Machines	1
30	552897	TEE, Brake Line	1	63B	544272	For Gas Powered Machines	1
31	31F-3	ADAPTER UNION	1	64	31F-4	ADAPTER UNION	1
32	541983	HOSE, Foot Valve to Power Cluster	1	65	941214	BRACKET, Reservoir	2
33	543741	LINE, Left Hand Brake—Front	1	66	18D-08	NUT, Bracket to Frame	4
34	543740	LINE, Right Hand Brake—Front	1	67	18C-616	BOLT, Bracket to Frame	4
35	550318	TEE, Front Axle Brake Line	1	68	593370	VALVE, Check	1
36	540924	LINE, Tee to Front Axle	1	69	26F-4	ELBOW, Check Valve to Reservoir	1
37	356614	BUSHING, Foot Valve Reducing	1	70	72F-4	DRAIN COCK	1
38	940643	SENDER, Air Pressure	1	71	540707	AIR RESERVOIR	1
39	356616	BUSHING, Foot Valve Reducing	1				
40	----	BRAKE CONTROLS—See Index	—				

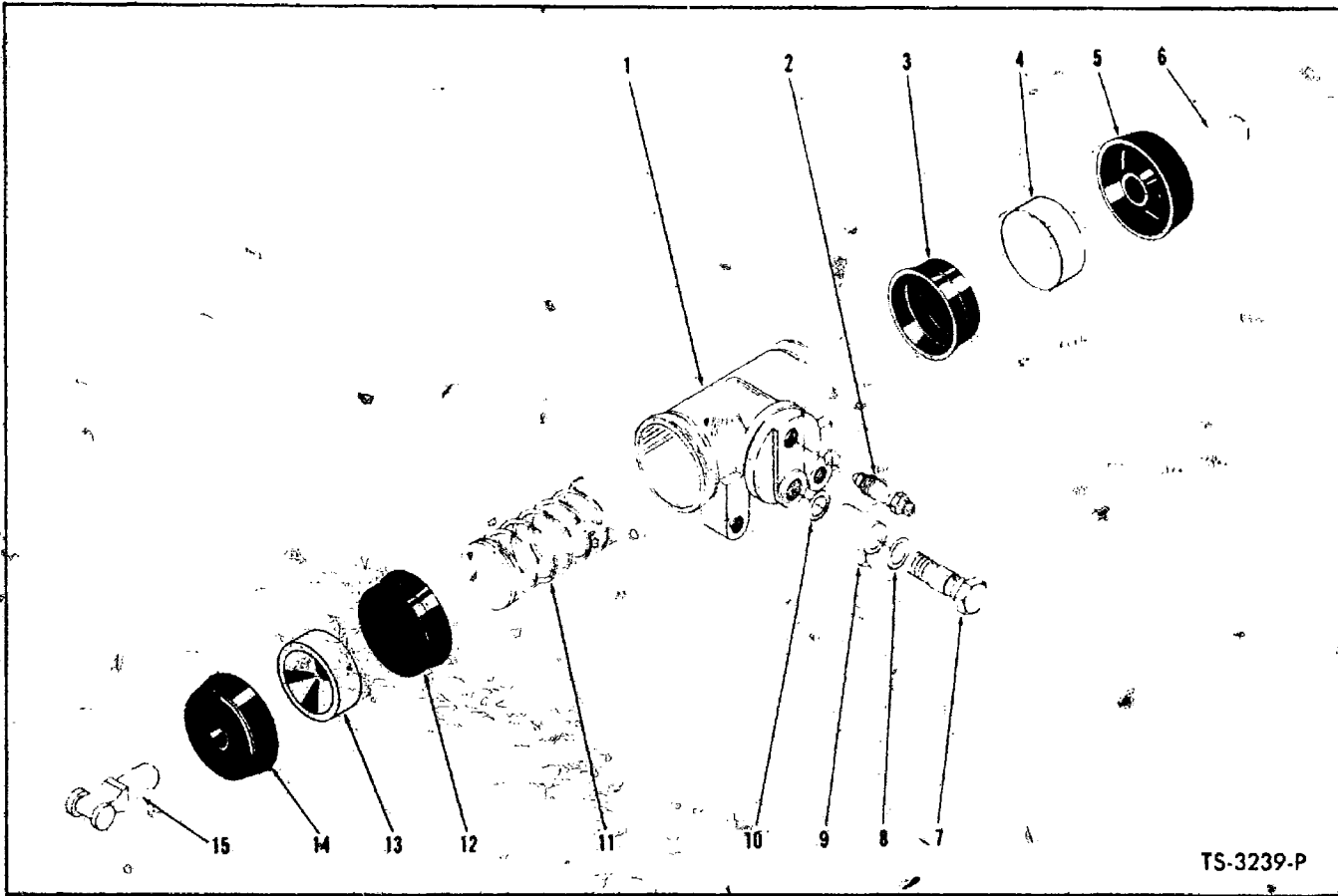
†Not Illustrated

\*Ref. SG-681

\*\*NOTE: For Serial Cummins 2DC101 thru 3DC999. G.M. 2DG101 thru 4DG999. WAUK 2DA101 and after, C3DA9-14 thru C3DA9-24.

\*\*\*NOTE: For Serial Cummins 4DC101 and after. G.M. 5DG101 and after. WAUK C3DA9-25 and after.





TS-3239-P

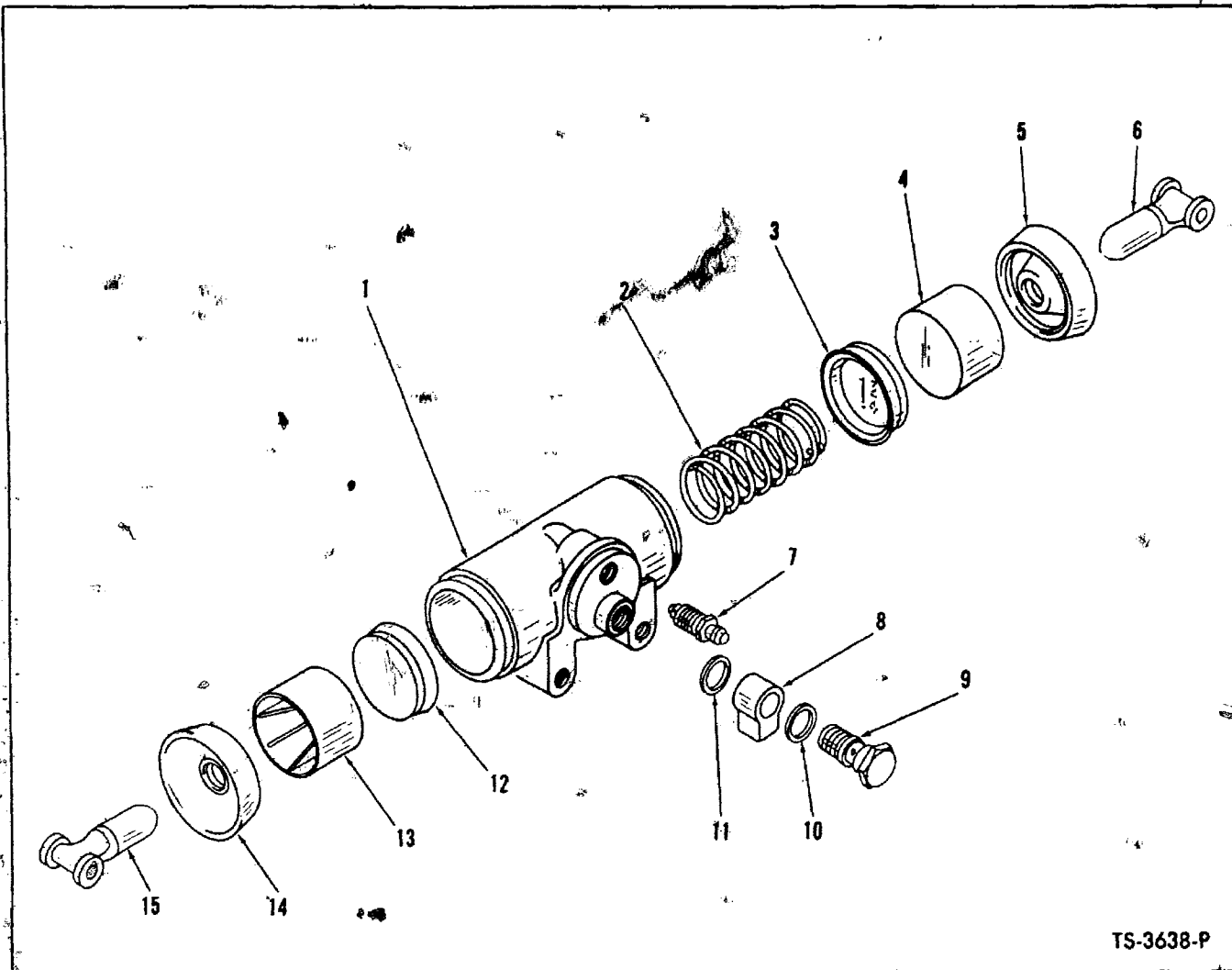
**BRAKE WHEEL CYLINDER**

Item No.	Part No.	Description	No. Req'd	Item No.	Part No.	Description	No. Req'd
A		CYLINDER ASSY (Inc. 1 thru 5, 11 thru 15)	1	7		BOLT, Fitting to Cylinder	1
B	112072	For Front Brake	2	7A	944966	For Front Cylinder	1
C	107014	For Rear Brake	2	7B	692722	For Rear Cylinder	1
<p><b>NOTE: 2 wheel cylinders used per axle. Quantities listed below are for 1 wheel cylinder.</b></p>				8	620238	GASKET, Outer Cylinder	1
D		REPAIR KIT Cylinder (Inc. 3, 5, 12, 14)	1	9		FITTING, Cylinder	1
E	957995	For Front Cylinder	1	9A	944967	For Front Cylinder	1
F	940130	For Rear Cylinder	1	9B	620235	For Rear Cylinder	1
1		SCYLINDER, Wheel - See "A"	1	10	613750	GASKET, Inner Fitting	1
2		SCREW, Bleeder	1	11		SPRING, Cylinder	1
2A	861356	For Front Cylinder	1	11A	956664	For Front Cylinder	1
2B	208805	For Rear Cylinder	1	11B	956622	For Rear Cylinder	1
3		SCUP, Piston - See "D"	1	12		SCUP, Piston - See "D"	1
4		SPISTON - See "A"	1	13		SPISTON - See "A"	1
5		SBOOT - See "D"	1	14		SBOOT - See "D"	1
6	958553	ROD, Push	1	15	958553	ROD, Push	1

Not Sold Separately

NOTE: For Serial Campaigns 2DC101 thru 3DC999, G.M., 2DG101 thru 4DG999, WAUK 2DA101 and after, C3DA9-14 thru C3DA9-24.

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



TS-3638-P

**BRAKE WHEEL CYLINDER, - REAR**  
For Serial: Cummins - 4BC101 and after  
G.M. - 5DG101 and after  
Wauk. - C3DA9-25 and after

Item No.	Part No.	Description	No. Req'd.
A	107014	CYLINDER ASSY (Inc. 1 thru 15)	2
NOTE: 2 Wheel Cylinders used on each Axle. Quantities listed below are for 1 Wheel Cylinder.			
B	940130	REPAIR KIT, Cylinder (Inc. 3, 5, 12, 14)	1
1		§BODY, Cylinder - See A	1
2	956622	SPRING	1
3		§CUP, Cylinder - See B	1
4		§PISTON, Cylinder - See A	1
5		§BOOT, Cylinder - See B	1
6	958553	LINK, Push	1
7	208805	BLEEDER	1
8	620235	FITTING, Cylinder	1
9	692722	BOLT, Fitting	1
10	620238	GASKET, Fitting	1
11	613750	GASKET, Fitting	1
12		§CUP, Cylinder - See B	1
13		§PISTON, Cylinder - See A	1
14		§BOOT, Cylinder - See B	1
15	958553	LINK, Push	1

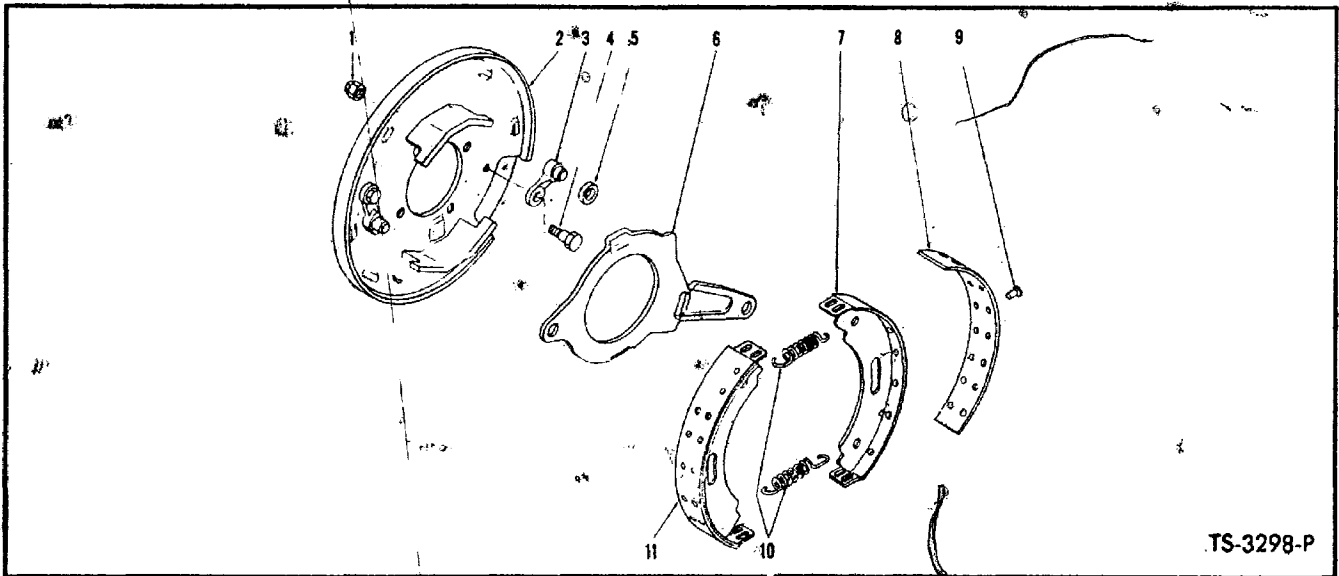
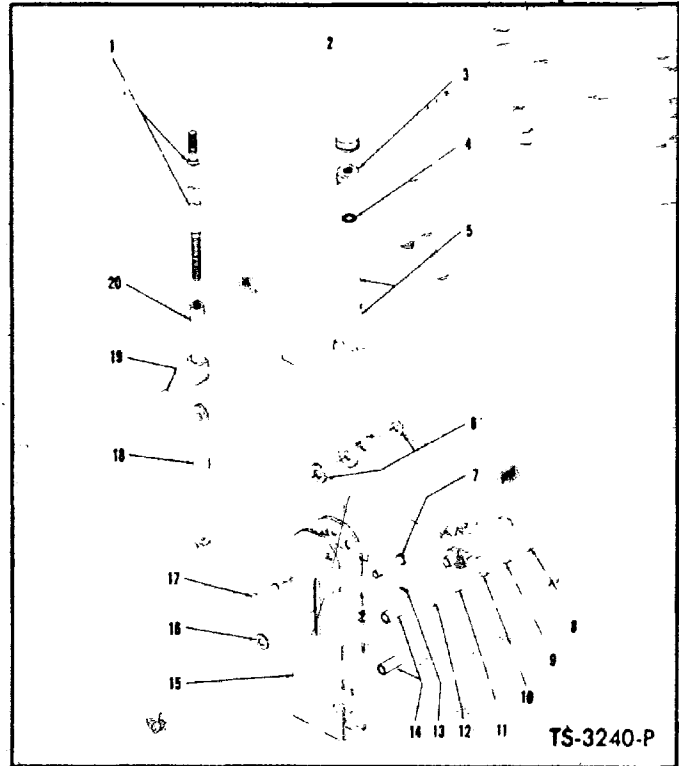
§Not Sold Separately

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

**PARKING BRAKE LEVER, ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.
A	3951954	LEVER ASSY (Inc. 1 thru 20)	1
1	866349	SCREW Adjusting	1
2	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



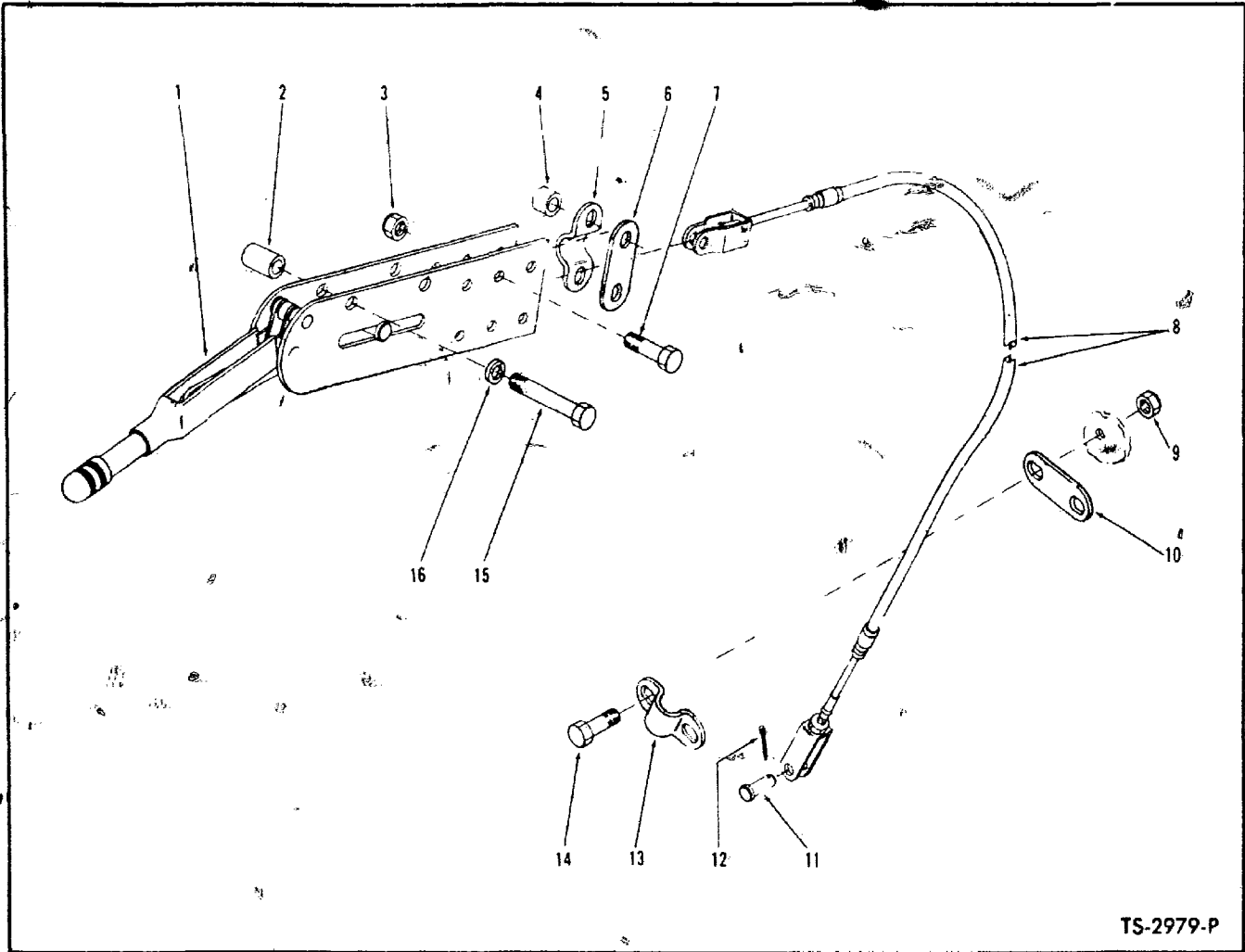
**PARKING BRAKE ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.
A	112439	BRAKE ASSY (Inc. 1 thru 11)	1
1	-----	§NUT, Pawl to Plate - See 3	2
2	945084	PLATE, Brake Backing	1
3	886719	PAWL KIT, Brake (Inc. 1 4, 5)	2
4	-----	§BOLT, Pawl to Plate - See 3	2
5	220968	ROLLER, Brake Actuating	1

Item No.	Part No.	Description	No. Req'd.
6	220965	LEVER, Operating Cam	1
7	-----	§SHOE, Brake - See 11	2
8	942406	LINING KIT Brake (Inc. 9)	1
9	945051	RIVET, Lining to Shoe	28
10	220969	SPRING, Shoe Return	2
11	872712	SHOE ASSY Brake (Inc. 7 8, 9)	2

§Not Sold Separately

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

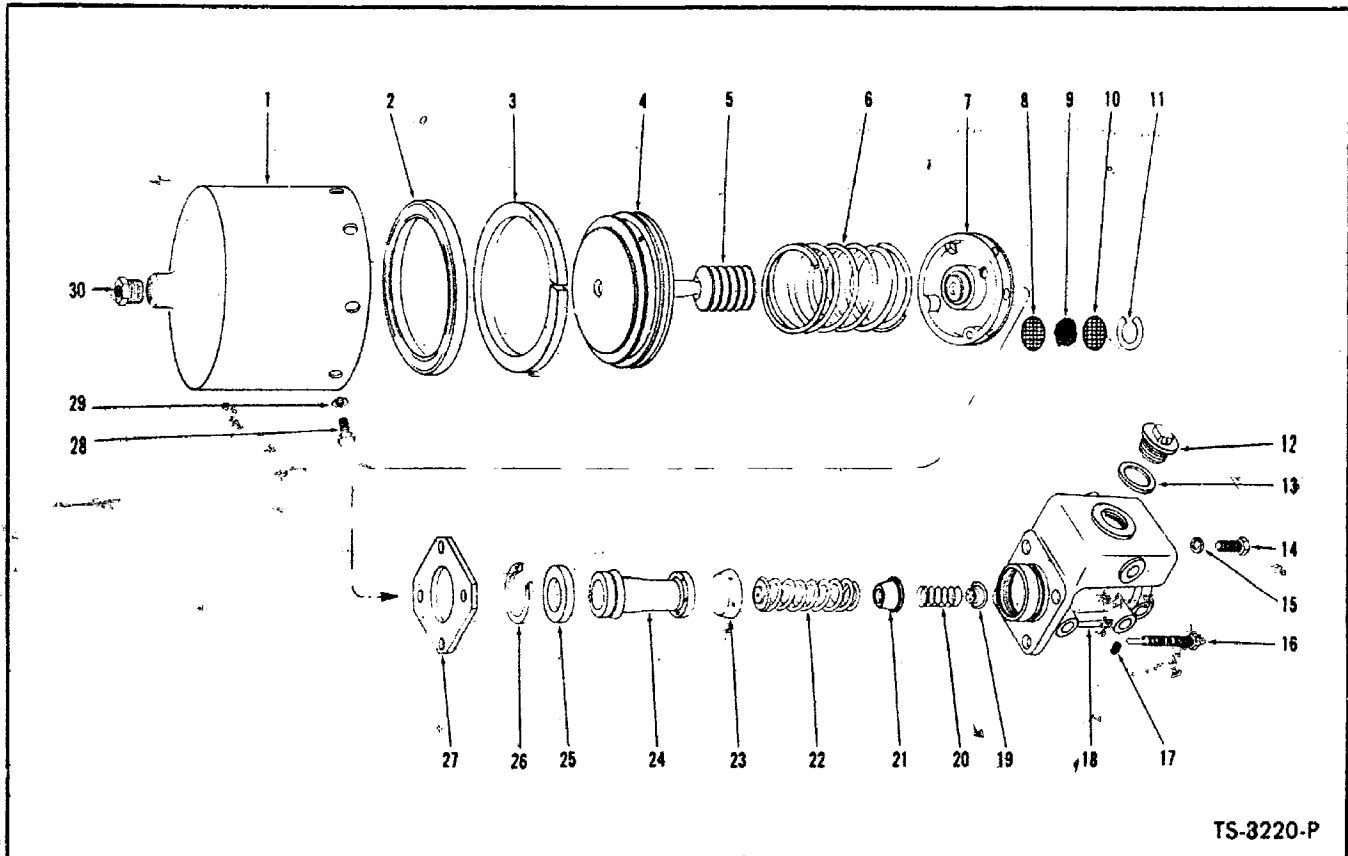


TS-2979-P

**PARKING BRAKE CONTROLS**

Item No.	Part No.	Description	No. Req'd.
1	---	LEVER ASSY Brake Hand — See Index	1
2	545005	SPACER	2
3	18D-05	NUT, Cable Clamp	2
4	545006	SPACER	2
5	544512	CLAMP Cable	1
6	645092	LINK, Cable Clamp	1
7	18C 528	BOLT, Cable Clamp	2
8	544625	CABLE parking Brake	1
9	18D-05	NUT, Cable Clamp	2
10	645092	LINK, Cable Clamp	1
11	4F-06106	PIN, Cable Clevis	1
12	1F-312	COTTER, Clevis Pin	1
13	544512	CLAMP Cable	1
14	18C 516	BOLT Cable Clamp	2
15	18C-628	BOLT Lever Mounting	2
16	4E-06	LKWSHR, Lever Mounting	2

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

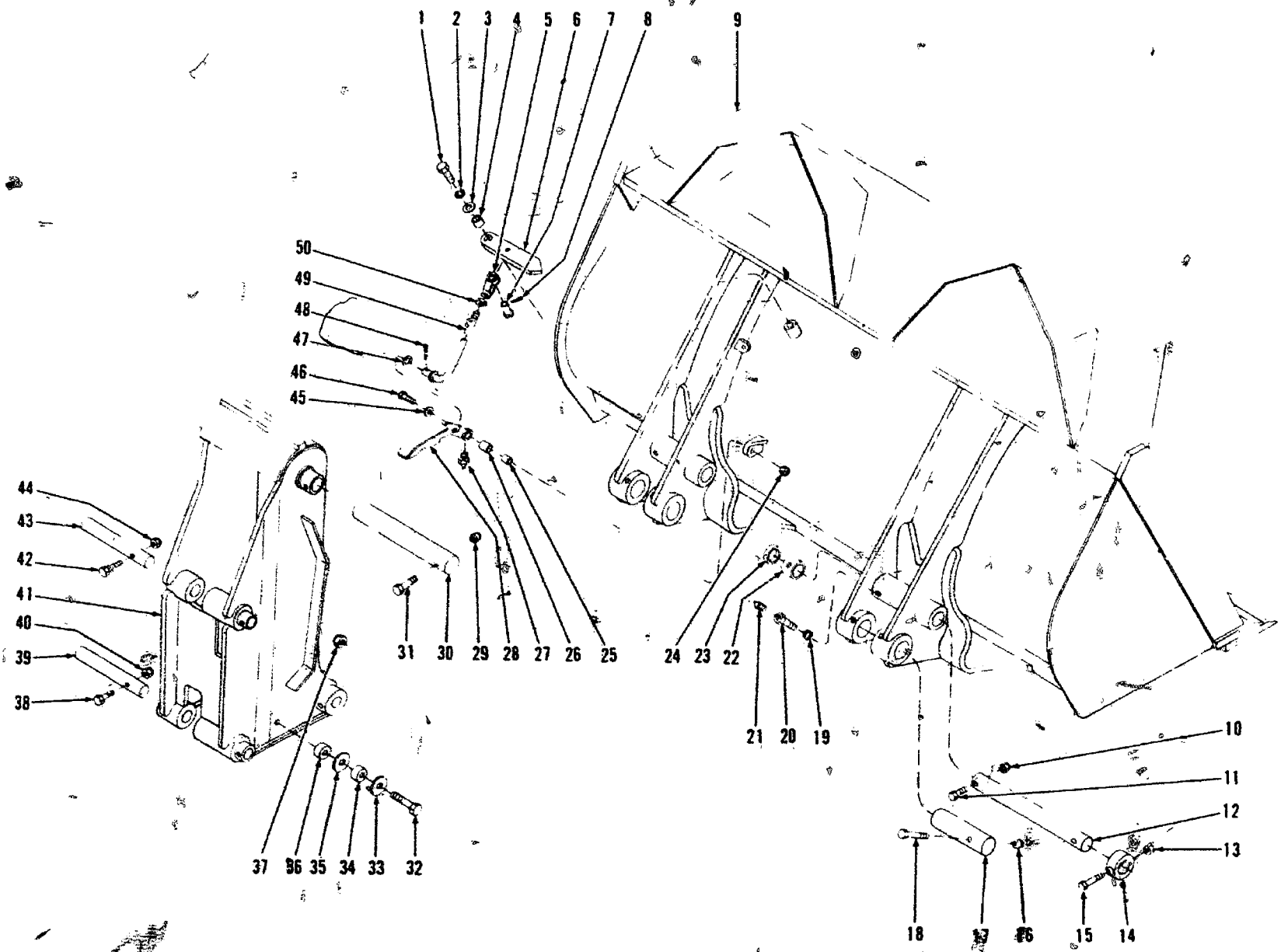


**POWER CLUSTER ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	526879	POWER CLUSTER ASSY (Inc. 1 thru 30)	1	17	10F-02	PLUG, Master Cylinder	1
1	945034	SHELL, Air Cylinder	1	18	947740	CASTING, Master Cylinder	1
2	-----	§CUP Piston—See 31	1	19	-----	§VALVE, Check—See 31	1
3	-----	§WIPER, Piston—See 31	1	20	945026	SPRING, Check Valve	1
4	945035	PISTON, Air Cylinder	1	21	945042	RETAINER, Check Valve Spring	1
5	-----	§BOOT Piston Rod—See 31	1	22	955321	SPRING, Piston Return	1
6	945036	SPRING, Piston Return	1	23	-----	§CUP Primary—See 31	1
7	945037	HEAD ASSY Air Cylinder (Inc. 8 thru 11)	1	24	-----	§PISTON ASSY Master Cyl.—See 31	1
8	945029	SCREEN, Filtering	1	25	955326	PLATE, Piston Stop	1
9	992163	HAIR, Filtering	1	26	955323	RING, Stop Plate Retaining	1
10	945029	SCREEN, Filtering	1	27	945040	PLATE, Master Cyl. Mounting	1
11	992164	RING, Filter Retaining	1	28	1C 510	BOLT Shell to Head	8
12	892287	CAP Master Cylinder Filler	1	29	6E-05	LKWSHR, Shell to Head	8
13	857933	GASKET Filler Cap	1	30	356612	BUSHING, Shell Reducing	1
14	1C-624	BOLT, Master Cyl. to Air Cylinder	3	31	945041	REPAIR KIT (Inc. 2, 3, 5, 19, 23, 24)	1
15	4E-06	LKWSHR, Master Cyl. to Air Cylinder	4	32	18C-716	†BOLT, Power Cluster Attaching	3
16	945038	INDICATOR, Stroke	1	33	4E-07	†LKWSHR, Power Cluster Attaching	3

§Not Sold Separately  
†Not Illustrated

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



CARRIER BUCKET AND INDICATOR

TS 4518

8.1

(1CS)

PM 1669

**CARRIER, BUCKET AND INDICATOR**

Item No.	Part No.	Description	No. Req'd.
1	18C-820	BOLT, Pointer to Bucket	1
2	4E-08	LKWSHR, Pointer to Bucket	1
3	619029	WASHER, Pointer to Bucket	1
4	541730	**SLEEVE, Pointer to Bucket	1
5	2J-8300	CLEVIS, Rod to Pointer	1
6	557156	**POINTER, Indicator	1
7	4F-08127	PIN, Clevis to Pointer	1
8	1F-418	COTTER, Clevis Pin	1
9	-----	BUCKET (Inc. 19 20, 22) See Chart Below	1
10	-----	NUT Pin Retaining Bolt	1
10A	18D-10	For Serial: Waukesha - 2DA101 thru 2DA999 3DA101 thru 3DA999 Cummins - 2DC101 thru 2DC999 3DC101 thru 3DC999; G.M. - 2DG101 thru 2DG999 3DG101 thru 3DG999	2
10B	18D-12	For Serial: Waukesha-4DA101 & thereafter; Cummins - 4DC101 & thereafter; G.M. - 4DG101 & thereafter	2
11	18C-1080	BOLT, Pin Retaining	2
12	532416	PIN, Carrier to Bucket	2
13	18D-10	NUT, Locking Collar Retaining	2
14	-----	COLLAR, Pin Locking	1
14A	532302	For Serial: Waukesha - 2DA101 thru 2DA999 3DA101 thru 3DA999 Cummins - 2DC101 thru 2DC999 3DC101 thru 3DC999; G.M. - 2DG101 thru 2DG999 3DG101 thru 3DG999	2
14B	587715	For Serial: Waukesha-4DA101 & thereafter; Cummins - 4DC101 & thereafter; G.M. - 4DG101 & thereafter	2
15	18C-1080	BOLT, Locking Collar Retaining	2
16	18D-08	NUT, Pin Retaining Bolt	2
17	538010	PIN, Cylinder to Bucket	2
18	18C-872	BOLT, Pin Retaining	2
19	7E-08	LKWSHR, Grease Fitting Bolt	4
20	532118	BOLT, Grease Fitting	4
21	10H-35	FITTING, Bucket Grease	4
22	540406	BUSHING, Bucket	4
23	532378	SEAL, Dust	4
24	18D-08	NUT, Cam to Bucket	1
25	-----	**SLEEVE, Cam Retaining Bolt	1
25A	543406	For Serial: Waukesha - 2DA101 thru 2DA999 3DA101 thru 3DA110; Cummins - 2DC101 thru 2DC999 3DC101 thru 3DC105; G.M. - 2DG101 thru 2DG999 3DG101 thru 3DG134	1
25B	550646	**For Serial: Waukesha-3DA111 & thereafter; Cummins - 3DC106 & thereafter; G.M. - 3DG135 & thereafter	1
26	526767	**BUSHING, Cam For Serial: Waukesha-3DA111 & thereafter; Cummins - 3DC106 & thereafter; G.M. - 3DG135 & thereafter	1

Item No.	Part No.	Description	No. Req'd.
27	12H-15	FITTING, Indicator Cam Grease	1
28	557076	*CAM, Indicator	1
29	18D-08	NUT, Pin Retaining	2
30	-----	PIN, Carrier to Cylinder	1
30A	538011	For Serial: Waukesha - 2DA101 thru 2DA999 3DA101 thru 3DA999 Cummins - 2DC101 thru 2DC999 3DC101 thru 3DC999; G.M. - 2DG101 thru 2DG999 3DG101 thru 3DG999	2
30B	589097	For Serial: Waukesha-4DA101 & thereafter; Cummins - 4DC101 & thereafter; G.M. - 4DG101 & thereafter	2
31	18C-872	BOLT, Pin Retaining	2
32	-----	**BOLT Tube to Carrier Assy	1
32A	18C 1072	For Serial: Waukesha - 2DA101 thru 2DA999 3DA101 thru 3DA110; Cummins - 2DC101 thru 2DC999 3DC101 thru 3DC105; G.M. - 2DG101 thru 2DG999 3DG101 thru 3DG134	1
32B	18C-1068	**For Serial: Waukesha-3DA111 & thereafter; Cummins - 3DC106 & thereafter; G.M. - 3DG135 & thereafter	1
33	557084	**SPACER, Tube to Carrier For Serial: Waukesha-3DA111 & thereafter; Cummins - 3DC106 & thereafter; G.M. - 3DG135 & thereafter	1
34	-----	**TUBE, Cam Follower	1
34A	551523	**For Serial: Waukesha - 2DA101 thru 2DA999 3DA101 thru 3DA110; Cummins - 2DC101 thru 2DC999 3DC101 thru 3DC105; G.M. - 2DG101 thru 2DG999 3DG101 thru 3DG134	1
34B	557085	**For Serial: Waukesha-3DA111 & thereafter; Cummins - 3DC106 & thereafter; G.M. - 3DG135 & thereafter	1
35	557084	**SPACER, Tube to Carrier For Serial: Waukesha-3DA111 & thereafter; Cummins - 3DC106 & thereafter; G.M. - 3DG135 & thereafter	1
36	557085	**TUBE, Cam Follower For Serial: Waukesha-3DA111 & thereafter; Cummins - 3DC106 & thereafter; G.M. - 3DG135 & thereafter	1
37	18D-10	NUT Tube to Carrier Assy Retaining	1
38	-----	BOLT Pin Retaining	1
38A	18C-848	For Serial: Waukesha - 2DA101 thru 2DA999 3DA101 thru 3DA999 Cummins - 2DC101 thru 2DC999 3DC101 thru 3DC999; G.M. - 2DG101 thru 2DG999 3DG101 thru 3DG999	2
38B	18C-864	For Serial: Waukesha-4DA101 & thereafter; Cummins - 4DC101 & thereafter; G.M. - 4DG101 & thereafter	2

\*NOTE. When replacement is necessary for Items 28 or 49 on Machine Serial: Waukesha-2DA101 thru 2DA999, 3DA101 thru 3DA110; Cummins-2DC101 thru 2DC999, 3DC101 thru 3DC105; G.M.-2DG101 thru 2DG999, 3DG101 thru 3DG134, both items have to be replaced at the same time, plus all items marked with a double asterisk (\*\*). Item 49, select rod that is applicable to your bucket.

**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.
39		PIN, Carrier to Guide Bar & Boom				2DA999 - 3DA101 thru 3DA999	
39A	537702	For Serial: Waukesha - 2DA101 thru 2DA999 3DA101 thru 3DA999 Cummins - 2DC101 thru 2DC999 3DC101 thru 3DC999 G.M. - 2DG101 thru 2DG999 3DG101 thru 3DG999	2			Cummins - 2DC101 thru 2DC999 3DC101 thru 3DC999 G.M. - 2DG101 thru 2DG999 3DG101 thru 3DG999	2
39B	589098	For Serial: Waukesha - 4DA101 & thereafter; Cummins - 4DC101 & thereafter; G.M. - 4DG101 & thereafter	2	43B	589098	For Serial: Waukesha - 4DA101 & thereafter; Cummins - 4DC101 & thereafter; G.M. - 4DG101 & thereafter	2
40	18D-08	NUT, Pin Retaining	2	44	18D-08	NUT, Pin Retaining Bolt	2
41	589095	***CARRIER, Bucket - L.H.	1	45	616796	WASHER, Cam to Bucket	1
41A	589093	***CARRIER, Bucket - R.H.	1	46	18C-844	**BOLT, Cam to Bucket	1
42		BOLT, Pin Retaining		47	550665	**WASHER, Rod	
42A	18C-848	For Serial: Waukesha - 2DA101 thru 2DA999 3DA101 thru 3DA999 Cummins - 2DC101 thru 2DC999 3DC101 thru 3DC999 G.M. - 2DG101 thru 2DG999 3DG101 thru 3DG999	2			For Serial: Waukesha - 3DA111 & thereafter; Cummins - 3DC106 & thereafter; G.M. - 3DG135 & thereafter	1
42B	18C-864	For Serial: Waukesha - 4DA101 & thereafter; Cummins - 4DC101 & thereafter; G.M. - 4DG101 & thereafter	2	48	1F-418	**COTTER, Rod to Cam Clevis Pin	
43		PIN, Carrier to Guide Bar & Boom				For Serial: Waukesha - 3DA111 & thereafter; Cummins - 3DC106 & thereafter; G.M. - 3DG135 & thereafter	1
43A	537702	For Serial: Waukesha - 2DA101 thru		49		ROD, Pointer to Indicator Cam	
				49A	557184	For 545731 Bucket	1
				49B	557161	For 537586, 545617 545599 Bucket	1
				50	8D-08	NUT, Clevis Jam	1

**BUCKET ASSEMBLY DATA**

BUCKET			MAIN CUTTING EDGE			SIDE CUTTING EDGE			
Width	Capacity	Part No.	Part No.	Size	Approx. Wt.	R.H. Part No.	L.H. Part No.	Size	Weight
81½"	1¼ cu. yd.	545731	545734	1 x 9 x 82¼	183	*545738	*545739	¾ x 6 x 36¾	40
91½"	1¾ cu. yd.	537586	531969	1 x 9 x 92¼	206	*537591	*537592	¾ x 6 x 43¼	44
99½"	2 cu. yd.	545617	545620	1 x 9 x 100¼	224	*545624	*545625	¾ x 6 x 42¾	44
111½"	2¾ cu. yd.	545599	545602	1 x 9 x 112¼	250	*545606	*545607	¾ x 6 x 49¼	51

\*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

**BUCKET TEETH DATA**

Bucket Width	One Piece Tooth No.	Replaceable Tip Tooth No.	No. Teeth	Replaceable Tip No.	Replaceable Tip Pin No.
81½"	552154	529968	8	529970	529971
91½"	552154	529968	9	529970	529971
99½"	552154	529968	9	529970	529971
111½"	552154	529968	10	529970	529971

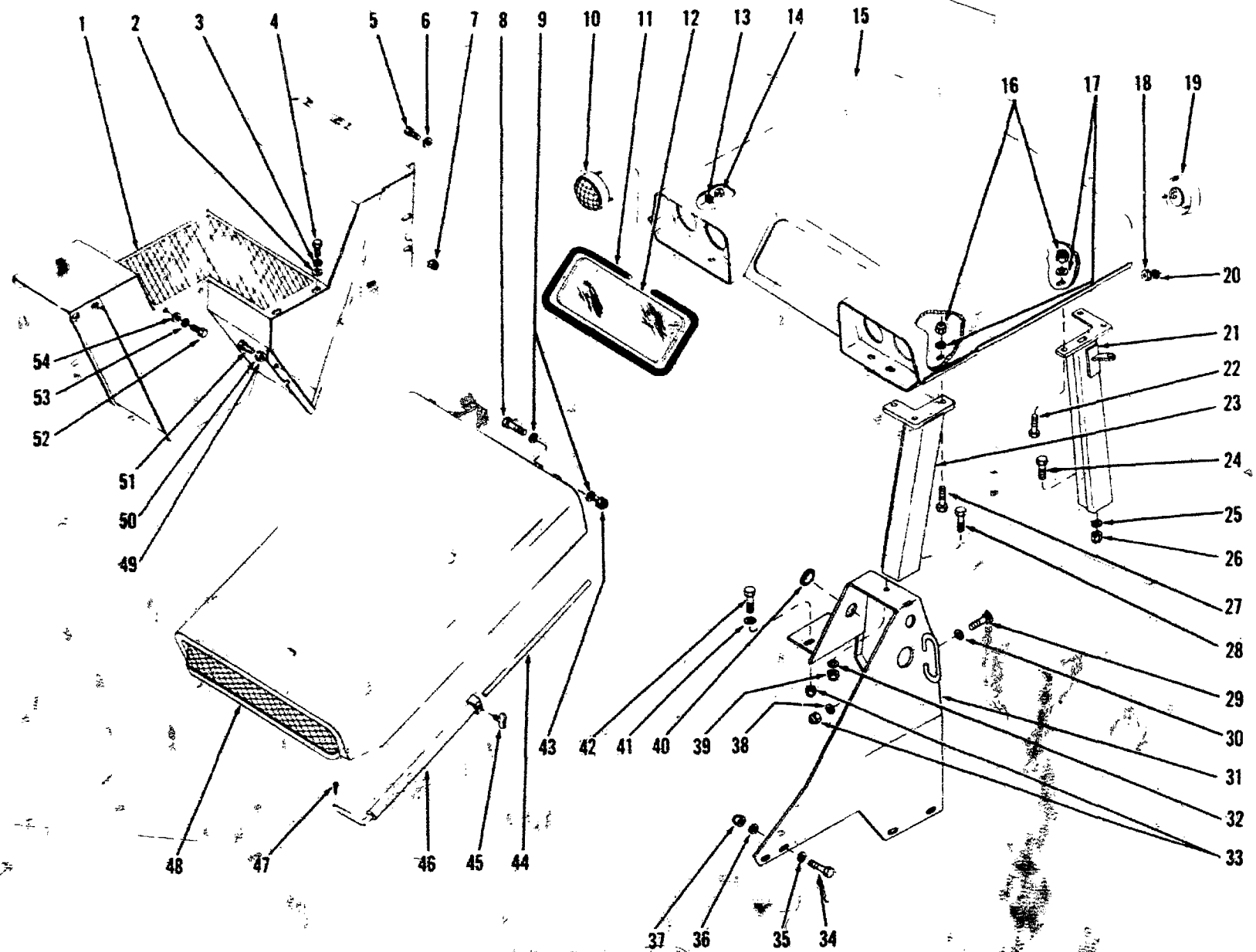
\*\*\*NOTE. When 589095 or 589093 Carrier is installed on machine serial number: Waukesha - 2DA101 thru 2DA999 3DA101 thru 3DA999 Cummins - 2DC101 thru 2DC999, 3DC101 thru 3DC999 G.M. - 2DG101 thru 2DG999 3DG101 thru 3DG999 the following items must also be used:

- 1 - 587715 LOCKING COLLAR
- 2 - 589098 PIN
- 2 - 18C-864 BOLT
- 3 - 18C-1072 BOLT
- 1 - 18D-10 NUT
- 1 - 589097 PIN

†Not Illustrated

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





**CAB AND FRONT HOOD GROUP**

For Serial: Cummins-2DC101 thru 3DC999 G M -2DG101 thru 4DG999 Wauk 2DA101 and after.

TS-2961 P

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(109)

MA 1669

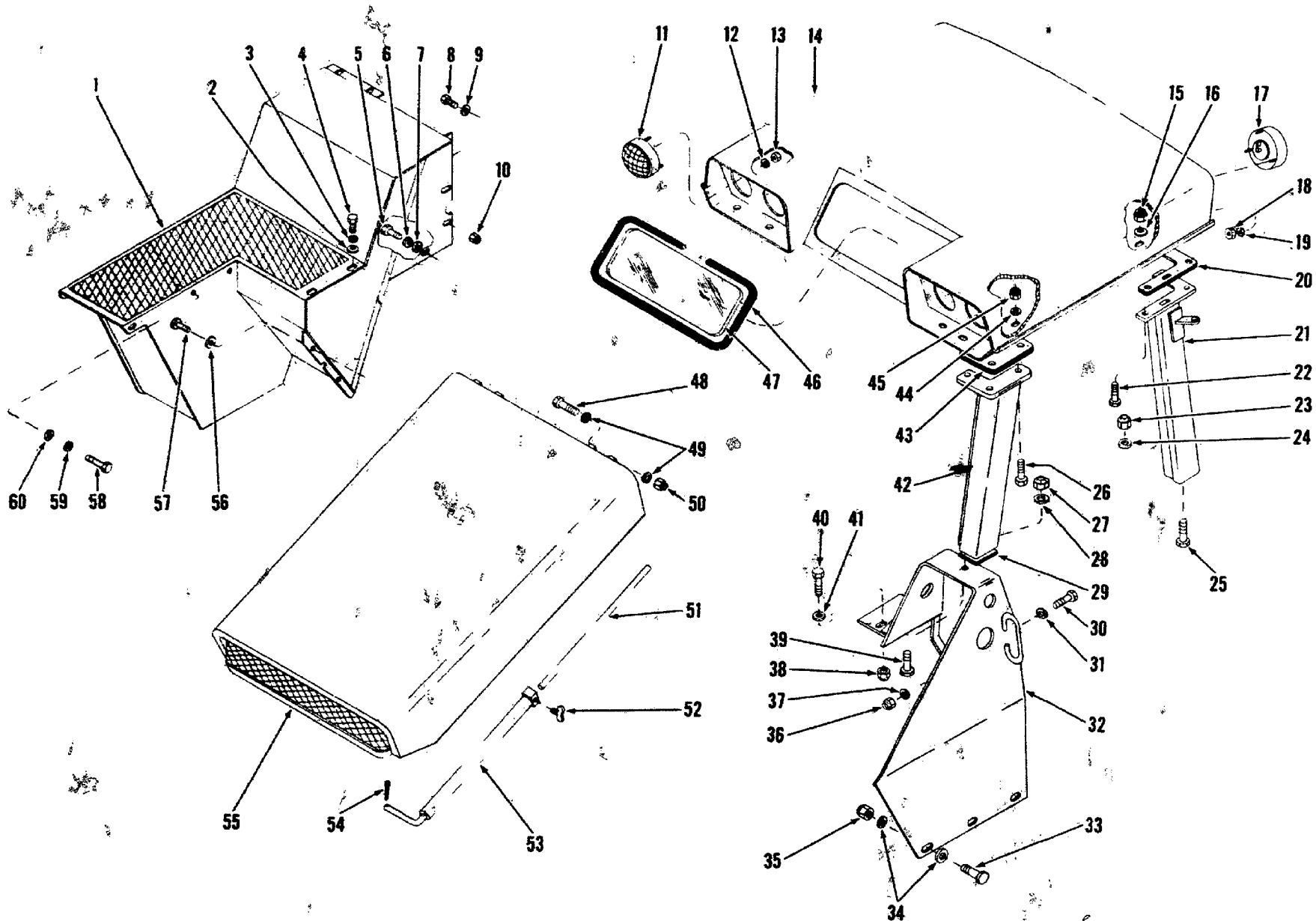
**CAB AND FRONT HOOD GROUP**

For Serial: Cummins — 2DC101 thru 3DC999  
G.M. — 2DG101 thru 4DG999  
Wauk. — 2DA101 and after

Item No.	Part No.	Description	No. Req'd.
1	536950	FENDER, R. H. Front	1
2	619021	WASHER, Fender to Seat Support	2
3	4E-06	LKWSHR, Fender to Seat Support	2
4	17C-616	BOLT, Fender to Seat Support	2
5	18C-620	BOLT, Fender to Seat Support	2
6	619021	WASHER, Fender to Seat Support	2
7	18D-06	NUT, Fender to Seat Support	2
8	18C-588	BOLT, Hood Hinge	2
9	25E-15	WASHER, Hood Hinge Bolt	4
10	546920	HEAD LAMP ASSY (Inc. 10B, 10D)	2
10A	546921	† FLOOD LAMP ASSY Front (Inc. 10C, 10D)	2
10B	877752	† SEALED UNIT, Head Lamp	2
10C	944907	† SEALED UNIT, Flood Lamp	2
10D	946389	† RETAINER ASSY Sealed Unit	4
11	544985	RUBBER, Front Glass Mounting	1
12	544984	GLASS PATTERN	1
13	12E-10	LKWSHR, Front Lamp Mounting	12
14	12D-10	NUT, Front Lamp Mounting	12
15	544962	ROOF Cab	1
16	18D-06	NUT, Post to Roof	12
17	619023	WASHER, Post to Roof	12
18	12D-10	NUT, Rear Lamp Mounting	6
19	546921	FLOOD LAMP ASSY Rear (Inc. 19A, 19B)	2
19A	944907	† SEALED UNIT, Flood Lamp	2
19B	946389	† RETAINER ASSY, Sealed Unit	2
20	12E-10	LKWSHR, Rear Lamp Mounting	6
21	544971	POST, L. H. Rear	1
21A	544970	POST, R. H. Rear	1
22	18C-620	BOLT, Rear Post to Roof	6
23	544964	POST, L. H. Front	1
23A	544963	POST, R. H. Front	1
24	18C-820	BOLT, Rear Post to Rear Hood	2
25	25E-21	WASHER, Rear Post to Rear Hood	2
26	18D-08	NUT, Rear Post to Rear Hood	2
27	18C-620	BOLT, Front Post to Roof	6
28	18C-820	BOLT, Front Post to Pivot Cap	2
29	18C-620	BOLT, Pivot Cap to Frame	4
30	619021	WASHER, Pivot Cap to Frame	4
31	536954	CAP Upper Pivot — L.H.	1
31A	536953	CAP Upper Pivot — R.H.	1
32	25E-21	WASHER, Front Post to Pivot Cap	2
33	18D-06	NUT Pivot Cap Attaching	8
34	18C-620	BOLT, Pivot Cap to Tank & Fender	4
35	619021	WASHER, Pivot Cap to Tank & Fender	4
36	619021	WASHER, Pivot Cap to Tank & Fender	4
37	18D-06	NUT Pivot Cap to Tank & Fender	4
38	619021	WASHER, Pivot Cap to Frame	4
39	18D-08	NUT, Front Post to Cap	2
40	648825	PLUG BUTTON, Pivot Cap	2
41	619021	WASHER, Pivot Cap, to Frame	4
42	18C-620	BOLT, Pivot Cap to Frame	4
43	18D-05	NUT, Hood Hinge Bolt	2
44	544383	ROD, Hood Support	1
45	544610	THUMBSCREW	1
46	544379	TUBE, Hood Support	1
47	1F-414	COTTER, Tube to Reservoir	1
48	536959	HOOD, Front	1
49	619029	WASHER, Fender to Frame	2
50	4E-08	LKWSHR, Fender to Frame	2
51	18C-816	BOLT, Fender to Frame	2
52	17C-616	BOLT, Fender to Pivot Cap	2
53	4E-06	LKWSHR, Fender to Pivot Cap	2
54	619021	WASHER, Fender to Pivot Cap	2

† Not Illustrated

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



CAB AND FRONT HOOD GROUP

For Serial Cummins-4DC101 and after G M -5DG101 and after

TS 5202 P

12A.1

(1C11)

PM 1669



CONSTRUCTION MACHINERY DIVISION

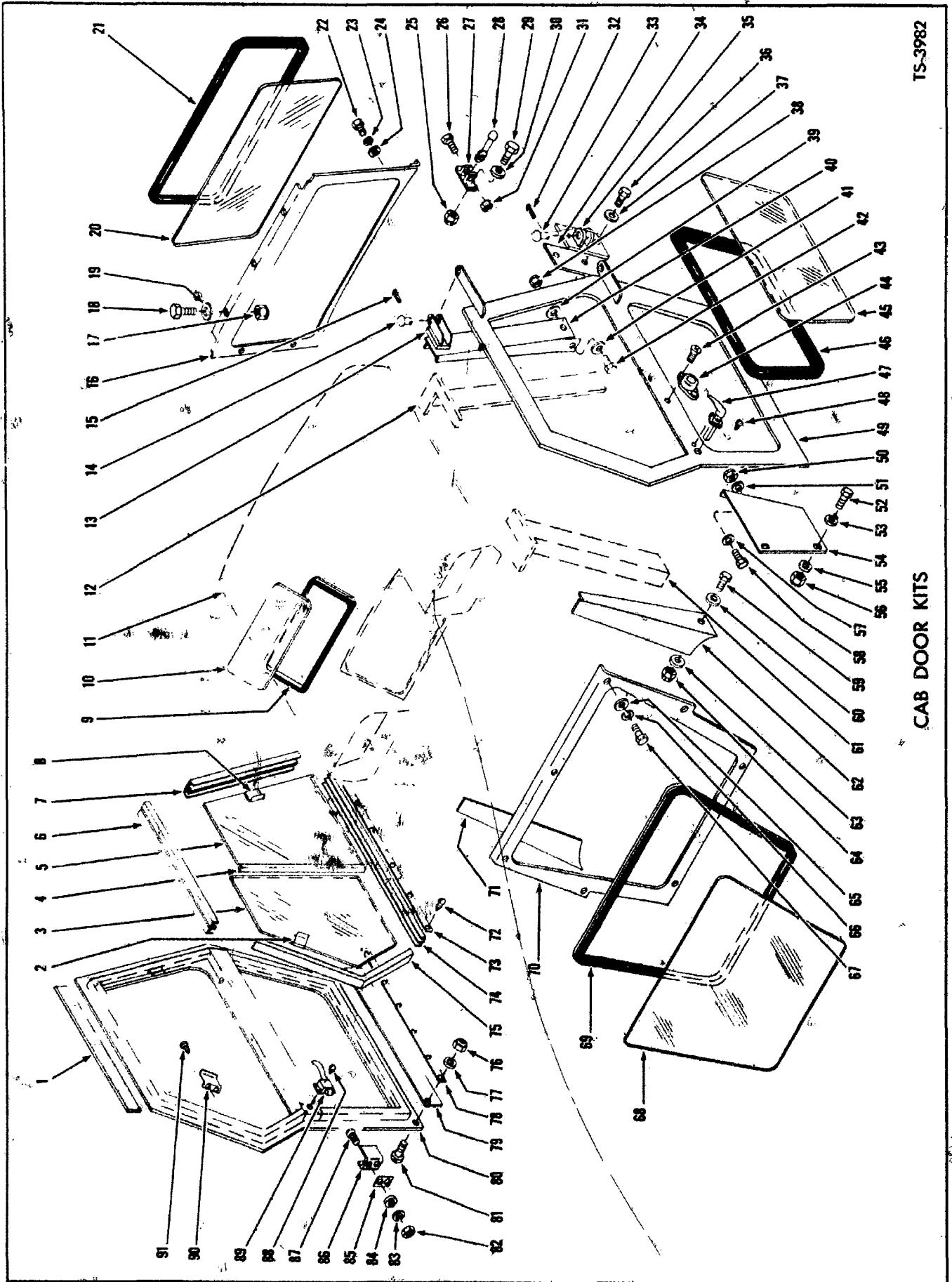


CAB AND FRONT HOOD GROUP
For Serial: Cummins - 4DC101 and after
G.M. - 5DG101 and after

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

†Not Illustrated

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



TS-3982

CAB DOOR KITS

**CAB DOOR KITS**

Item No.	Part No.	Description	No. Req'd
1	589569	SEAL, Cab Door	2
2	589571	LOCK, Sliding Glass Handle	2
2A	589572	†RUBBER GLAZING – Sliding Glass Lock	2
3	(See 92)	GLASS PATTERN – Front, Upper Door	2
4	589558	DIVIDER, Glass Channel	2
5	(See 92)	GLASS PATTERN – Rear Upper Door	2
6	589546	CHANNEL, Upper Glass Double Run	2
7	589548	CHANNEL, Rear Glass Double Run	2
8	589571	LOCK, Sliding Glass Handle	2
8A	589572	†RUBBER GLAZING, Sliding Glass Lock	2
9	544985	RUBBER, Roof Glass Mounting	1
10	(See 92)	GLASS PATTERN – Roof Glass	1
11	-----	ROOF Cab – See Index	—
12	-----	POST L.H. Rear – See Index	—
13	556949	HINGE, Upper	2
14	4F-08127	PIN, Upper Hinge	2
15	1F-514	COTTER, Upper Hinge Pin	2
16	547648	PANEL, Rear Windshield	1
17	18D-05	NUT Upper Rear Windshield Mounting	3
18	18C-512	BOLT, Upper Rear Windshield Mounting	3
19	626787	WASHER, Upper Rear Windshield Mounting	3
20	(See 92)	GLASS PATTERN, Rear Windshield	1
21	547652	RUBBER, Rear Windshield Mounting	1
22	17C-616	BOLT Side Rear Windshield Mounting	4
23	4E-06	LKWSHR, Side Rear Windshield Mounting	4
24	656672	WASHER, Side Rear Windshield Mounting	4
25	18D-05	NUT Bracket Mounting	4
26	18C-520	BOLT Door Check Plug Mounting	2
27	588333	BRACKET Hood Plunger Check	2
28	549032	PLUG, Door Check Male	2
29	18C-520	BOLT Bracket Mounting	4
30	25E-16	WASHER, Bracket Mounting	4
31	18D-05	NUT Door Check Plug Mounting	2
32	1F-514	COTTER, Lower Hinge Pin	2
33	4F-08127	PIN, Lower Hinge	2
34	556958	SHIM, Lower Hinge	10
34A	589024	†SHIM, Lower Hinge	2
35	588368	HINGE, Lower – R.H.	1
35A	588369	†HINGE, Lower – L.H.	1
36	18C-616	BOLT, Hinge Mounting	4
36A	18D-06	†NUT Hinge Mounting	4
37	619021	WASHER, Hinge Mounting	4
38	18D-06	NUT Hinge Panel Mounting	4
39	619021	WASHER, Hinge Panel Mounting	2
40	589071	PANEL, Rear Post Hinge – L.H.	1
40A	589070	†PANEL, Rear Post Hinge – R.H.	1
41	619021	WASHER, Hinge Panel Mounting	1
42	18C-616	BOLT Hinge Panel Mounting	4
43	76G-412	SCREW, Door Check Socket	4
43A	20E-04	†LKWSHR, Socket Screw	4
44	547015	SOCKET Door Check	2
45	(See 92)	GLASS PATTERN, Lower Door	2
46	589562	WEATHER-SEAL, Lower Door Glass	2
47	1525710	HANDLE, Door	2

†Not Illustrated

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

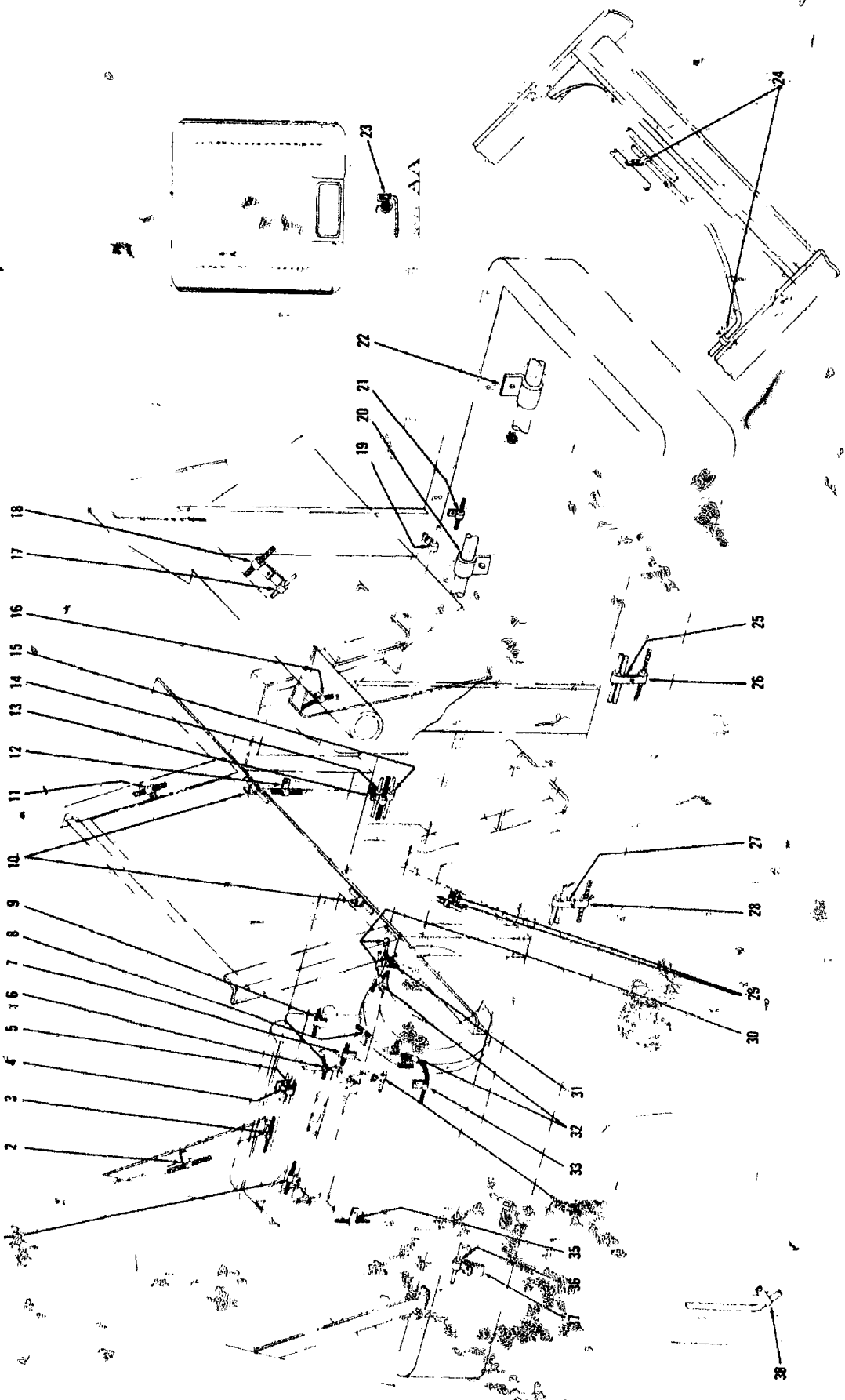
**CAB DOOR KITS (Continued)**

Item No.	Part No.	Description	No. Req'd.
48	65G-1008	SCREW, Door Handle Mounting	4
49	945426	DOOR, L.H. Panel	1
50	18D-06	NUT Panel Mounting	4
51	619021	WASHER, Panel Mounting	4
52	18C-616	BOLT Panel Mounting	4
53	619021	WASHER, Panel Mounting	4
54	547683	PANEL, Lower Side - L.H.	1
54A	547682	†PANEL, Lower Side - R.H.	1
55	619021	WASHER, Panel Mounting	4
56	18D-06	NUT Panel Mounting	4
57	619021	WASHER, Panel Mounting	4
57A	---	†LKWSHR, Panel Mounting	2
58	18C-616	BOLT Panel Mounting	4
58A	---	†BOLT Panel Mounting	2
59	18C-616	BOLT Panel Mounting	2
60	619021	WASHER, Panel Mounting	2
61	---	POST L.H. Front - See Index	—
62	589073	PANEL, Front Post Hinge - L.H.	1
63	619021	WASHER, Panel Mounting	2
64	18D-06	NUT Panel Mounting	2
65	656672	WASHER, Windshield Side Mounting	4
65A	626787	†WASHER, Windshield Mounting	4
66	4E-06	LKWSHR, Windshield Side Mounting	4
67	17C-616	BOLT Windshield Side Mounting	4
67A	18C-516	†BOLT Windshield Mounting	4
67B	18D-05	†NUT Windshield Mounting	4
68	(See 92)	GLASS PATTERN, Front Windshield	1
69	547652	RUBBER, Front Windshield Mounting	1
70	547704	PANEL, Front Windshield	1
71	589072	PANEL, Front Post Hinge - R.H.	1
72	65G-1008	SCREW, Lower Glass Retainer	12
73	595082	RETAINER, Lower Glass Channel	2
74	589549	CHANNEL, Lower Glass Double Run	2
75	589547	CHANNEL, Front Glass Double Run	2
76	12D-8	NUT Drag Strip Retainer Mounting	12
77	17E-8	LKWSHR, Drag Strip Retainer Mounting	12
78	595083	RETAINER, Door Seal Drag Strip	2
79	589565	SEAL, Bottom Drag Strip Door	2
80	945425	DOOR, R.H. Panel	1
81	3G-808	SCREW, Drag Strip Retainer Mounting	12
82	62D-04	NUT Lockstrike Mounting	4
83	4E-04	LKWSHR, Lockstrike Mounting	4
84	25E-13	WASHER, Lockstrike Mounting	4
85	588332	SHIM, Lockstrike	6
86	588331	LOCKSTRIKE	2
87	82G-410	SCREW, Lockstrike Mounting	4
88	65G-1008	SCREW, Door Lock Mounting	8
89	942874	LOCK, Door	1
89A	138249	†LOCK, L.H. Door	1
90	557465	LOCKSTRIKE, Window	4
91	63G-606	SCREW, Window Lockstrike Mounting	8
92	945139	GLASS PATTERN KIT Cab Glass (Inc. 3, 5, 10, 20, 45, 68)	1

†Not Illustrated

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

TS-3323 P



CLIP CHART - CUMMINS



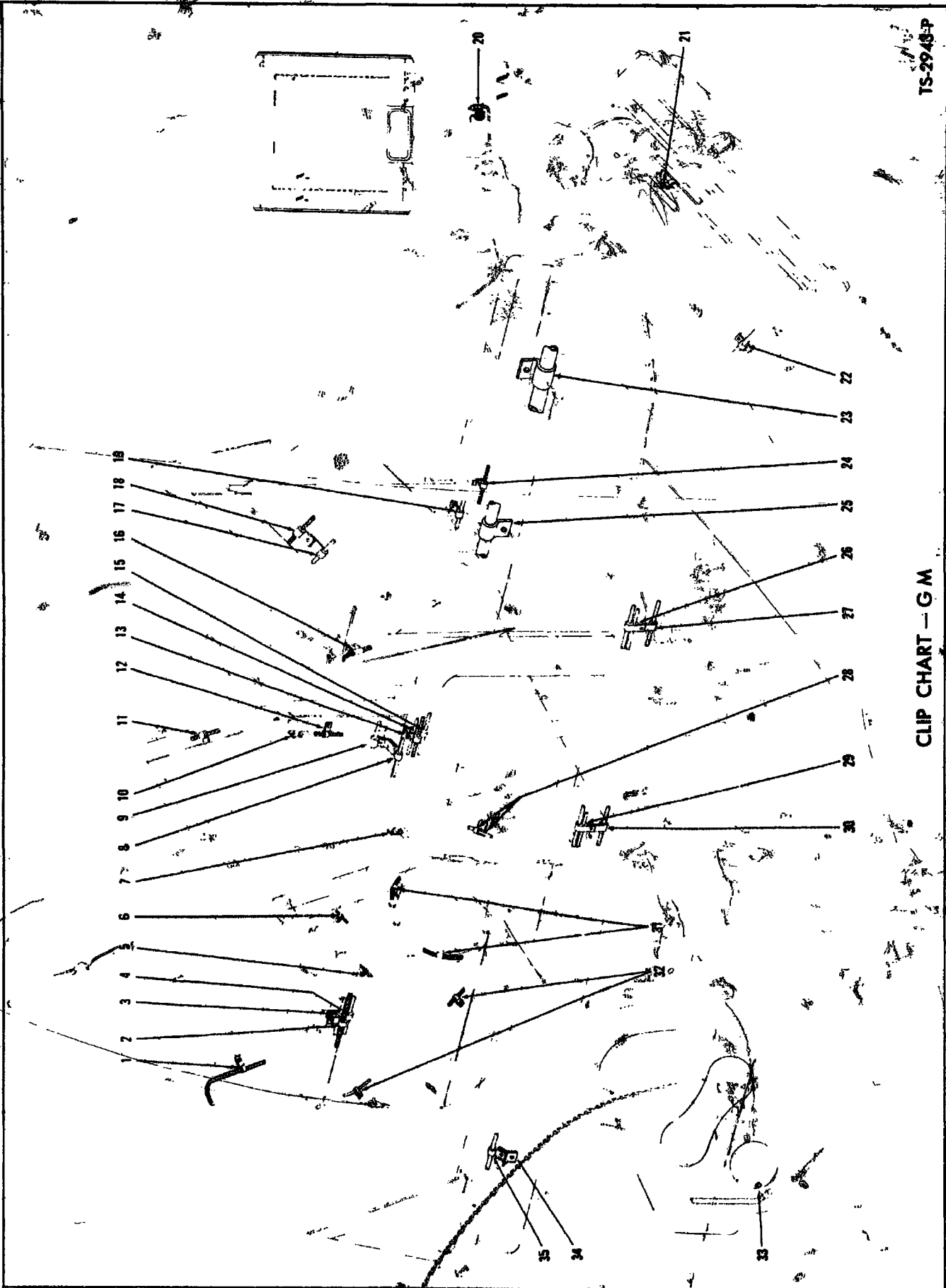
**CLIP DIAGRAM - CUMMINS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	30H-27	CLIP Generator Harness	1	20	533482	CLIP, Suction Tube—Main Hydraulic Line	1
1A	17C-612	†BOLT, Clip to Engine	1	20A	533483	†PAD, Rubber Strap—Suction Tube	1
1B	4E-06	†LKWSHR, Clip to Engine	1	21	30H-38	CLIP Wiring Harness	1
2	30H-16	CLIP Wiring Harness	1	21A	18C-628	†BOLT, Clip to Frame	1
2A	18C-618	†BOLT, Clip to Frame	1	21B	18D-06	†NUT, Clip to Frame	1
2B	18D-06	†NUT, Clip to Frame	1	22	533482	CLIP Suction Tube—Main Hydraulic Line	1
3	6H-6	CLIP Wiring Harness	1	22A	533483	†PAD, Rubber Strap—Suction Tube	1
4	30H-46	CLIP Cooler Line	1	22B	18C-828	†BOLT, Clip & Pad to Frame	1
4A	18D-06	†NUT, Clip to Frame	1	22C	18D-08	†NUT, Clip & Pad to Frame	1
5	531088	CLIP, Air Brake Line	1	23	541988	CLIP Cab Harness	6
5A	18C-628	†BOLT, Clips to Frame	1	24	30H-35	CLIP Bucket Leveler Pipe	2
6	548454	CLIP Generator Harness	1	24A	18C-616	†BOLT, Clip to Bracket	2
6A	18C-408	†BOLT, Generator Harness Clip	1	24B	18D-06	†NUT, Clip to Bracket	2
6B	18D-04	†NUT, Generator Harness Clip	1	25	31H-34	CLIP Steering Pipes	1
7	30H-14	CLIP Wiring Harness	1	25A	18C-628	†BOLT, Clips to Frame	1
8	30H-46	CLIP Battery Cable	1	25B	18D-06	†NUT, Clips to Frame	1
8A	17C-614	†BOLT, Battery Cable Clip	1	26	30H-46	CLIP Battery Cable	1
8B	4E-06	†LKWSHR, Battery Cable Clip	1	27	31H-34	CLIP Steering Pipes	1
9	30H-46	CLIP Battery Cable	1	27A	18C-628	†BOLT Clips to Frame	1
9A	17C-614	†BOLT, Clip to Converter	1	27B	18D-06	†NUT, Clips to Frame	1
9B	4E-06	†LKWSHR, Clip to Converter	1	28	30H-46	CLIP Battery Cable	1
10	30H-16	CLIP Brake Line	2	29	30H-38	CLIP Steering Pipe	2
10A	18C-616	†BOLT Clip to Seat Support	2	29A	18C-624	†BOLT, Clips to Frame	1
10B	18D-06	†NUT, Clip to Seat Support	2	29B	18D-06	†NUT, Clips to Frame	1
11	30H-27	CLIP Wiring Harness	1	30	30H-50	CLIP Fuel Hose	2
11A	18C-616	†BOLT, Clip to Seat Support	1	30A	18C-614	†BOLT, Clips to Bracket	1
11B	18D-06	†NUT, Clip to Seat Support	1	30B	18D-06	†NUT Clips to Bracket	1
12	30H-27	CLIP Wiring Harness	1	31	548455	BRACKET, Clip Mounting	1
13	30H-38	CLIP Wiring Harness	1	32	30H-35	CLIP Wiring Harness	2
13A	18D-06	†NUT, Clip Mounting	1	33	30H-35	CLIP, Wiring Harness	1
14	30H-16	CLIP Brake Line	1	33A	17C-614	†BOLT, Clip to Engine	1
14A	18D-06	†NUT, Clips to Frame	1	33B	4E-06	†LKWSHR, Clip to Engine	1
15	531088	CLIP Brake Line	1	34	30H-50	CLIP Fuel Hose	1
16	30H-38	CLIP Bucket Leveler Hose	1	35	30H-12	CLIP Water Temperature Sender	1
16A	18C-616	†BOLT Clip to Pivot Tube	1	35A	17C-612	†BOLT, Clip to Engine	1
16B	4E-06	†LKWSHR, Clip to Pivot Tube	1	35B	4E-06	†LKWSHR, Clip to Engine	1
17	30H-38	CLIP Clutch Pressure Hose	1	36	30H-46	CLIP Cooler Line	1
18	30H-38	CLIP, Wiring Harness	1	36A	18C-612	†BOLT, Clip to Bracket	1
18A	18C-616	†BOLT, Wiring Harness Clip	1	36B	18D-06	†NUT, Clip to Bracket	1
18B	18D-06	†NUT Wiring Harness Clip	1	37	537869	BRACKET, Clip Mounting	1
19	6H-18	CLIP Steering Pipe	1	37A	18C-624	†BOLT, Bracket to Frame	1
19A	616783	†SPACER, Clip to Frame	1	37B	18D-06	†NUT, Bracket to Frame	1
19B	18C-624	†BOLT, Clip & Spacer to Frame	1	38	30H-47	CLIP Transmission Dipstick Tube	1
19C	18D-06	†NUT Clip & Spacer to Frame	1				

†Not Illustrated

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

TS-2948-P



CLIP CHART — G M

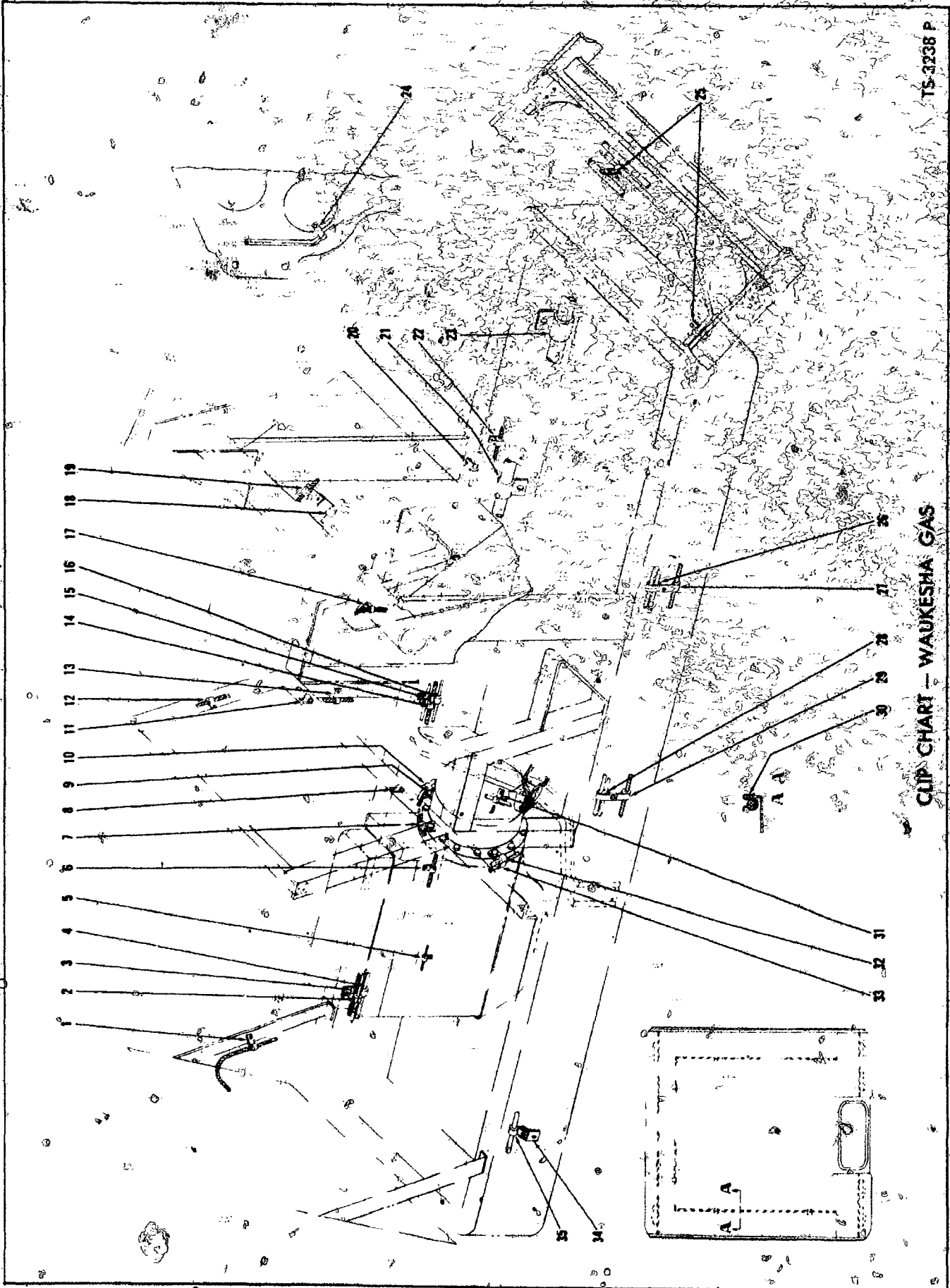
**CLIP DIAGRAM — G.M.**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	30H-16	CLIP Wiring Harness	1	19A	616783	†SPACER, Clip to Frame	1
1A	18C-618	†BOLT, Clip to Frame	1	19B	18C-624	†BOLT, Clip to Frame	1
1B	18D-06	†NUT, Clip to Frame	1	19C	18D-06	†NUT, Clip to Frame	1
2	30H-16	CLIP Wiring Harness	1	20	541988	CLIP Cab Wiring Harness	6
2A	18D-06	†NUT, Clip to Frame	1	21	30H-35	CLIP Bucket Leveler Pipe	1
3	30H-46	CLIP Cooler Line	1	21A	18C-616	†BOLT, Clip to Frame	1
3A	18D-06	†NUT, Clip to Frame	1	21B	18D-06	†NUT, Clip to Frame	1
4	531088	CLIP Air Brake Line	1	22	30H-35	CLIP Bucket Leveler Pipe	1
4A	18C-636	†BOLT, Clip to Frame	1	22A	18C-616	†BOLT, Clip to Frame	1
5	30H-10	CLIP Engine Stop Cable	1	22B	18D-06	†NUT, Clip to Frame	1
6	30H-12	CLIP Engine Stop Cable	1	23	533482	CLIP Suction Tube	1
6A	17C-612	†BOLT, Clip to Frame	1	23A	533483	†PAD, Rubber Strap	1
6B	4E-06	†LKWSHR, Clip to Frame	1	23B	18C-828	†BOLT, Clip to Frame	1
7	30H-16	CLIP Brake Line	1	23C	18D-08	†NUT, Clip to Frame	1
7A	18C-616	†BOLT, Clip to Frame	1	24	30H-38	CLIP Wiring Harness	1
7B	18D-06	†NUT, Clip to Frame	1	24A	18C-628	†BOLT, Clip to Frame	1
8	30H-20	CLIP Fuel Line	1	24B	18D-06	†NUT, Clip to Frame	1
8A	18C-620	†BOLT, Clip to Frame	1	25	533482	CLIP Suction Tube	1
8B	18D-06	†NUT, Clip to Frame	1	25A	533483	†PAD, Rubber Strap	1
9	541865	CLIP Fuel Line	1	26	31H-34	CLIP Steering Pipes	1
9A	18C-410	†BOLT, Clip to Frame	1	26A	18C-628	†BOLT, Clip to Frame	1
9B	18D-04	†NUT, Clip to Frame	1	26B	18D-06	†NUT, Clip to Frame	1
10	30H-16	CLIP Brake Line	1	27	30H-35	CLIP Battery Cable	1
10A	18C-616	†BOLT, Clip to Frame	1	28	30H-38	CLIP Steering Pipes	2
10B	18D-06	†NUT, Clip to Frame	1	28A	18C-624	†BOLT, Clips to Frame	2
11	30H-27	CLIP Wiring Harness	1	28B	18D-06	†NUT, Clips to Frame	2
11A	18C-616	†BOLT, Clip to Frame	1	29	31H-34	CLIP Steering Pipes	1
11B	18D-06	†NUT, Clip to Frame	1	29A	18C-628	†BOLT, Clip to Frame	1
12	30H-27	CLIP Wiring Harness	1	29B	18D-06	†NUT, Clip to Frame	1
13	30H-38	CLIP Wiring Harness	1	30	30H-35	CLIP Battery Cable	1
13A	18D-06	†NUT, Clip to Frame	1	31	30H-27	CLIP Wiring Harness	2
14	531088	CLIP Brake Line	1	32	30H-16	CLIP Wiring Harness	2
15	30H-16	CLIP Brake Line	1	32A	17C-612	†BOLT, Clip to Frame	2
15A	18D-06	†NUT, Clips to Frame	1	32B	4E-06	†LKWSHR, Clip to Frame	2
16	30H-38	CLIP Bucket Leveler Hose	1	33	30H-47	CLIP Trans. Dipstick Tube	1
16A	18C-616	†BOLT, Clip to Frame	1	34	537869	BRACKET	1
16B	4E-06	†LKWSHR, Clip to Frame	1	34A	18C-624	†BOLT, Bracket to Frame	1
17	30H-38	CLIP Clutch Pressure Hose	1	34B	18D-06	†NUT, Bracket to Frame	1
18	30H-38	CLIP Wiring Harness	1	35	30H-46	CLIP Cooler Line	1
18A	18C-616	†BOLT, Clips to Frame	1	35A	18C-612	†BOLT, Clip to Bracket	1
18B	18D-06	†NUT, Clips to Frame	1	35B	18D-06	†NUT, Clip to Bracket	1
19	6H-18	CLIP Steering Pipe	1				

†Not Illustrated

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

TS-3238 P



CLIP CHART — WAUKESHA GAS



CLIP DIAGRAM - GAS

Item No.	Part No.	Description	No. Req'd	Item No.	Part No.	Description	No. Req'd
1	30H-16	CLIP, Wiring Harness	1	20A	18C-624	†BOLT, Clip to Frame	1
1A	18C-616	†BOLT, Wiring Harness	1	20B	616783	†SPACER, Clip to Frame	1
1B	18D-06	†NUT, Wiring Harness	1	20C	18D-06	†NUT, Clip to Frame	1
2	30H-46	CLIP, Cooler Line	1	21	533482	CLIP, Suction Tube	1
2A	18D-06	†NUT, Cooler Line	1	21A	533483	†PAD, Suction Tube Clip	1
3	30H-16	CLIP, Wiring Harness	1	22	30H-38	CLIP, Wiring Harness	1
3A	18D-06	†NUT, Wiring Harness	1	22A	18C-628	†BOLT, Clip to Frame	1
4	531088	CLIP, Air Brake Line	1	22B	18D-06	†NUT, Clip to Frame	1
4A	18C-636	†BOLT, Air Brake Line	1	23	533482	CLIP, Suction Tube	1
5	30H-8	CLIP, Wiring Harness	1	23A	533483	†PAD, Suction Tube Clip	1
6	30H-27	CLIP, Wiring Harness	1	23B	18C-828	†BOLT, Clip to Frame	1
7	30H-35	CLIP, Battery Cable	1	23C	18D-08	†NUT, Clip to Frame	1
8	30H-16	CLIP, Brake Line	1	24	30H-47	CLIP, Trans. Oil Dipstick Tube	1
8A	18C-616	†BOLT, Brake Line	1	25	30H-35	CLIP, Bucket Leveler Pipe	2
8B	18D-06	†NUT, Brake Line	1	25A	18C-616	†BOLT, Bucket Leveler Pipe Clip	2
9	30H-35	CLIP, Wiring Harness	1	25B	18D-06	†NUT, Bucket Leveler Pipe Clip	2
10	30H-27	CLIP, Fuel Hose	1	26	31H-34	CLIP, Steering Pipe	1
11	30H-16	CLIP, Brake Line	1	26A	18C-628	†BOLT, Clip to Frame	1
11A	18C-616	†BOLT, Brake Line	1	26B	18D-06	†NUT, Clip to Frame	1
11B	18D-06	†NUT, Brake Line	1	27	30H-35	CLIP, Battery Cable	1
12	30H-27	CLIP, Wiring Harness	1	28	31H-34	CLIP, Steering Pipe	1
12A	18C-616	†BOLT, Wiring Harness	1	28A	18C-628	†BOLT, Clip to Frame	1
12B	18D-06	†NUT, Wiring Harness	1	28B	18D-06	†NUT, Clip to Frame	1
13	30H-27	CLIP, Wiring Harness	1	29	30H-35	CLIP, Battery Cable	1
14	30H-38	CLIP, Wiring Harness	1	30	541988	CLIP, Cab Wiring Harness to Cab	6
14A	18D-06	†NUT, Wiring Harness	1	31	30H-38	CLIP, Steering Pipes	2
15	30H-16	CLIP, Brake Line	1	31A	18C-624	†BOLT, Steering Pipe Clip	1
15A	18D-06	†NUT, Brake Line	1	31B	18D-06	†NUT, Steering Pipe Clip	1
16	531088	CLIP, Brake Line	1	32	30H-27	CLIP, Fuel Hose	1
17	30H-38	CLIP, Bucket Leveler Hose	1	33	30H-35	CLIP, Battery Cable	1
17A	18C-616	†BOLT, Bucket Leveler Hose	1	34	537869	BRACKET, Clip to Frame	1
17B	4E-06	†LKWSHR, Bucket Leveler Hose	1	34A	18C-624	†BOLT, Bracket to Frame	1
18	30H-38	CLIP, Clutch Pressure Hose	1	34B	18D-06	†NUT, Bracket to Frame	1
19	30H-38	CLIP, Wiring Harness	1	35	30H-46	CLIP, Cooler Line	1
19A	18C-616	†BOLT, Clip to Clip	1	35A	18C-612	†BOLT, Clip to Bracket	1
19B	18D-06	†NUT, Clip to Clip	1	35B	18D-06	†NUT, Clip to Bracket	1
20	6H-18	CLIP, Steering Pipe	1				

†Not Illustrated

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

**CONSTRUCTION MACHINERY DIVISION  
TORQUE CONVERTER ASSEMBLY**

For Serial: Cummins — 2DC147 and after

G.M. — 3DG115 and after

Wauk. — 3DA111 and after C3DA9-14 and after

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	282018	CONVERTER ASSY (C-2737-28) (Inc. 3, 5 thru 96)	1	27	214930	SPACER, Pump Shaft	3
1	---	FLYWHEEL—See Engine Parts Manual	—	28	214946	SEAT, Safety Valve	1
2	233092	BOLT, Drive Gear to Flywheel	8	29	222318	PLUNGER, Safety Valve	1
3	233089	GEAR, Converter Drive	1	30	222312	SPRING, Safety Valve	1
4	215909	WASHER, Drive Gear to Flywheel	8	31	25K-40104	"O" RING, Valve to Converter	1
5	1C-616	BOLT, Impeller to Drive Disc	24	32	---	REGULATOR VALVE (See Page 5)	—
6	4E-06	LKWSHR, Impeller to Drive Disc	24	33	1C-616	BOLT, Regulator Valve to Converter	4
7	60K41200	"O" RING, Impeller to Drive Disc	1	34	4E-06	LKWSHR, Regulator Valve to Conv	4
8	743035	RING, Reaction Member Retaining	1	35	214949	GASKET, Regulator Valve to Conv.	1
9	214957	MEMBER, Reaction	1	36	---	SHAFT, Output—See 67	—
10	214959	IMPELLER	1	37	---	REGULATOR VALVE (See Page 5)	—
11	17C-620	BOLT, Converter Hsg. to Engine	12	38	---	STEERING PUMP GROUP—See Items 22 thru 25, 27 42, 43, 44, 49 50	—
12	4E-06	LKWSHR, Converter Hsg. to Engine	12	39	---	MAIN PUMP GROUP—See Items 22 thru 25, 27 42, 43, 44, 49 50	—
13	658244	PIN, Spacer to Reaction Member	1	40	13F-16	PLUG, Converter Housing	4
14	220725	PLATE, Name	1	41	---	PUMP Conv. Charging (See Note A)	—
15	214934	SPACER, Reaction Member	1	42	214954	RING, Bearing Retaining	3
16	207873	SCREW Name Plate	2	43	214956	BEARING, Pump Drive Shaft	3
17	214953	RING, Hub Bearing Retaining	1	44	224039	RING, Bearing Retaining	3
18	214596	BEARING, Impeller Hub	1	45	214961	SLEEVE, Converter Pump Drive	1
19	25E-19	WASHER, Hub to Impeller Bolt	8	46	8D-06	NUT, Converter Pump to Converter	6
20	4C-714	BOLT, Hub to Impeller	8	47	207647	STUD, Converter Pump to Converter	6
21	214941	SEAL, Oil Baffle	1	48	450072	PUMP Conv. Charging (See Note A)	1
22	711298	RING, Gear Retaining	3	49	214929	WASHER, Pump Shaft Bearing	3
23	214931	GEAR, Pump Drive (39T)	3	50	713186	RING, Washer Retaining	3
24	237548	SHAFT, Pump Drive	3	51	4E-06	LKWSHR, Converter Pump to Conv.	6
25	214936	BEARING, Pump Drive Shaft	3	52	235961	GASKET, Converter Pump to Conv.	1
26	40K-06	PLUG, Valve Housing	2				

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



CONSTRUCTION MACHINERY DIVISION

TORQUE CONVERTER ASSEMBLY (Continued)

For Serial: Cummins - 2DC147 and after

G.M. - 3DG116 and after

Wauk. - 3DA111 and after C3DA9-14 and after



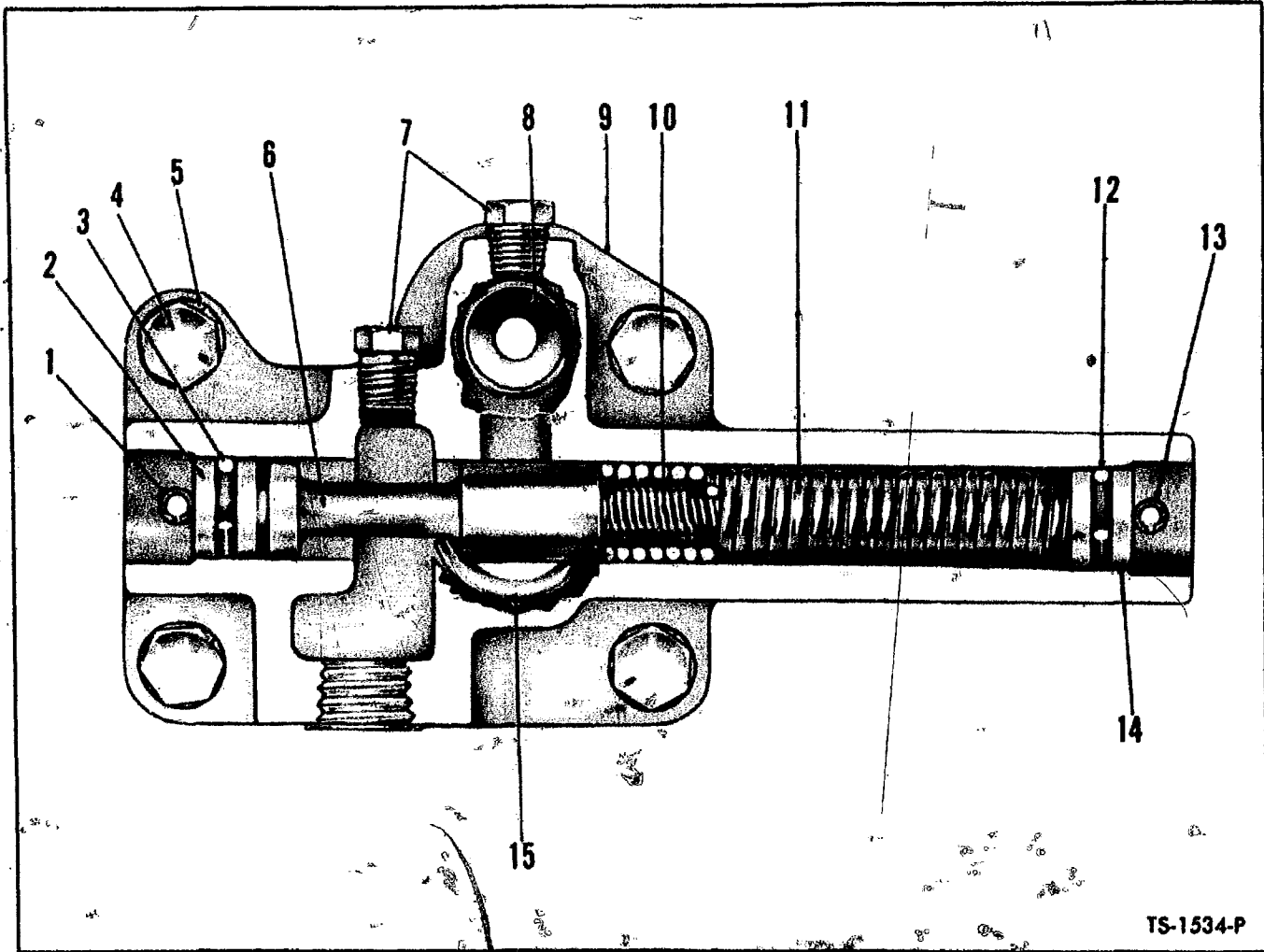
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
53	214953	RING, Shaft Bearing Retaining	1	77	224009	RING, Impeller Hub Gear Retaining	1
54	231554	BEARING, Turbine Shaft	1	78	214951	GEAR, Impeller Hub (41T)	1
55	224026	RING, Gear Retaining	1	79	221653	RING, Stator Support Sealing	1
56	-----	§SLEEVE, Stator Support (See 58)	-	80	214925	BAFFLE, Oil	1
57	222079	RING, Turbine Shaft Sealing	1	81	1C-628	BOLT, Oil Baffle	3
58	214982	SUPPORT ASSY Converter (Inc. 56)	1	82	4E-06	LKWSHR, Oil Baffle	3
59	216937	GEAR, Turbine Shaft (26T)	1	83	60K41200	"O" RING, Oil Baffle	1
60	25K-40512	"O" RING, Bearing Retainer	1	84	25K-40616	"O" RING, Impeller Hub	1
61	235091	RETAINER, Bearing	1	85	214958	HUB, Impeller	1
62	214940	FLANGE, Output	1	86	214950	HOUSING, Converter	1
63	206864	SEAL, Oil	1	86A	14F-08	†PLUG, Converter Housing	1
64	102745	WASHER, Output Flange	1	86B	40K-02	†PLUG, Converter Housing	1
65	25K-40112	"O" RING, Output Flange	1	86C	13F-20	†PLUG, Converter Housing	1
66	1F-424	COTTER, Output Flange Nut	1	87	223833	TURBINE	1
67	214937	SHAFT, Output	1	88	234503	*DISC, Converter Drive	1
68	201951	NUT, Output Flange	1	89	619023	WASHER, Turbine Hub Bolt	8
69	743439	BEARING, Output Shaft-Rear	1	90	209313	BOLT, Turbine to Hub	8
70	223901	RING, Bearing Retaining	1	91	214924	HUB, Turbine	1
71	1C-720	BOLT, Bearing Retainer	3	92	666542	RING, Bearing Retaining	1
71A	214730	†STUD, Bearing Retainer	2	93	222006	SLEEVE, Converter Drive Disc	1
71B	8D-07	†NUT Bearing Retainer Stud	2	94	214933	SHAFT Turbine	1
72	4E-07	LKWSHR, Bearing Retainer	5	95	214988	BEARING, Converter Drive Disc	1
73	216938	GEAR, Output Shaft (29T)	1	96	659065	RING, Turbine Hub Retaining	2
74	235057	BEARING, Output Shaft-Front	1	97	216388	†ADAPTER, Bucket & Boom Pump	1
75	214955	RING, Bearing Retaining	1	98	235961	†GASKET, Adapter to Housing	1
76	1C-820	BOLT Stator Support	6	99	3C-616	†BOLT, Adapter to Housing	6
76A	7E-08	LKWSHR, Stator Support	6	100	216555	†STUD, Bucket & Boom Pump	4
				101	207647	†STUD, Steering Pump	6

§Not Sold Separately

†Not Illustrated

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

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



TS-1534-P

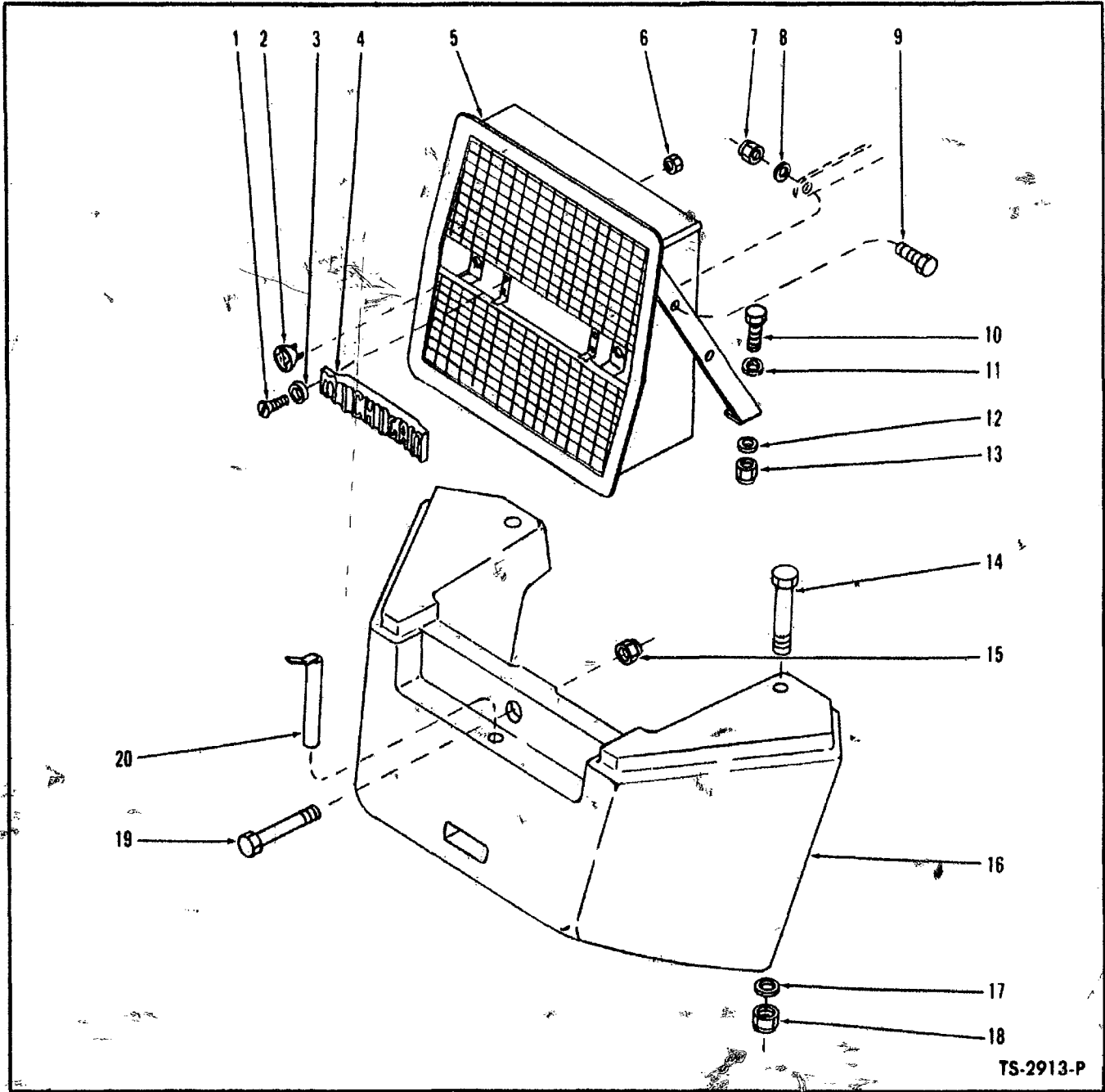
**PRESSURE REGULATOR VALVE ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	214969	VALVE ASSY (Inc. 1, 2, 3, 6, 8 thru 16)	1	9	---	§BODY, Valve (See 16)	1
1	660178	PIN, Piston Stop	1	10	220982	SPRING, Valve -- Inner	1
2	220983	STOP Piston	1	11	220981	SPRING, Valve -- Outer	1
3	25K-30018	"O" RING, Piston Stop	1	12	25K-30018	"O" RING, Piston Stop	1
4	1C-616	BOLT Valve to Converter	4	13	660178	PIN, Piston Stop	1
5	4E-06	LKWSHR, Valve to Converter	4	14	220983	STOP Piston	1
6	---	§PISTON, Valve (See 16)	1	15	25K-40104	"O" RING, Valve to Converter	1
7	40K-02	PLUG, Valve Housing	1	16	801101	HOUSING & PISTON ASSY (Inc. 6, 9)	1
8	214946	SEAT, Safety Valve	1	17	214949	†GASKET, Valve to Housing	1

§Not Sold Separately  
†Not Illustrated

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



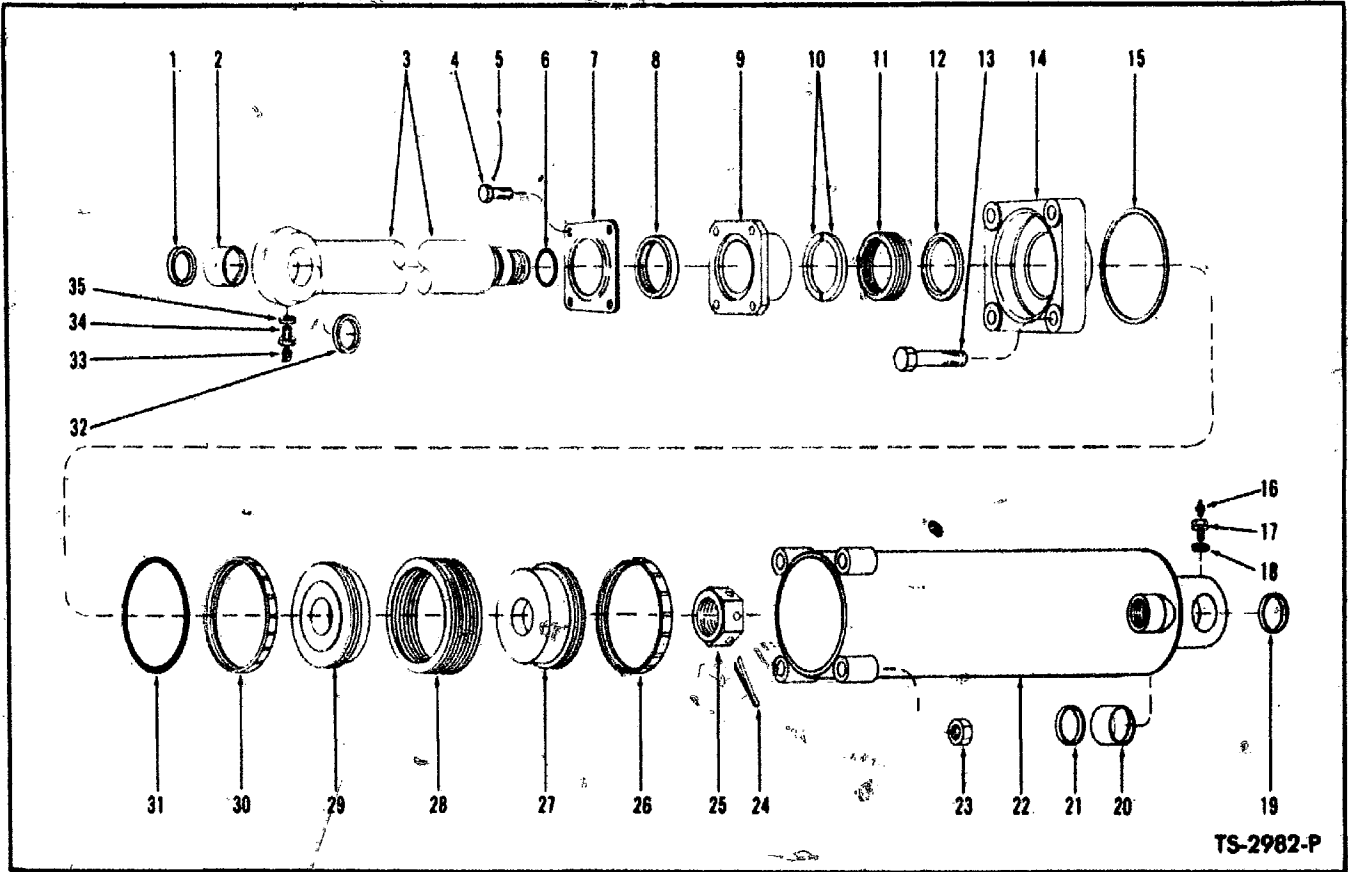


TS-2913-P

**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	12	71D-08	BASE, Grille to Frame Nut	4
2	5203855	TAIL LIGHT	2	13	70D-08	NUT, Grille to Frame	4
3	20E-04	LKWSHR, Name Plate to Grille	4	14	24C-1288	BOLT, Counterweight to Frame - Side	2
4	535649	NAME PLATE, Grille	1	15	68D-16	NUT, Counterweight to Frame - Rear	1
5	538965	GRILLE, Radiator	1	16	587518	COUNTERWEIGHT	1
6	17D-1	NUT, Tail Light to Grille	4	17	588187	WASHER, Counterweight to Frame - Side	2
7	18D-06	NUT, Radiator Clip to Grille	2	18	68D-12	NUT, Counterweight to Frame - Side	2
8	619023	WASHER, Radiator Clip to Grille	2	19	24C-1688	BOLT, Counterweight to Frame - Rear	1
9	18C-618	BOLT, Radiator Clip to Grille	2	20	538201	PIN, Drawbar	1
10	18C-828	BOLT, Grille to Frame	4				
11	619029	WASHER, Grille to Frame	4				

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



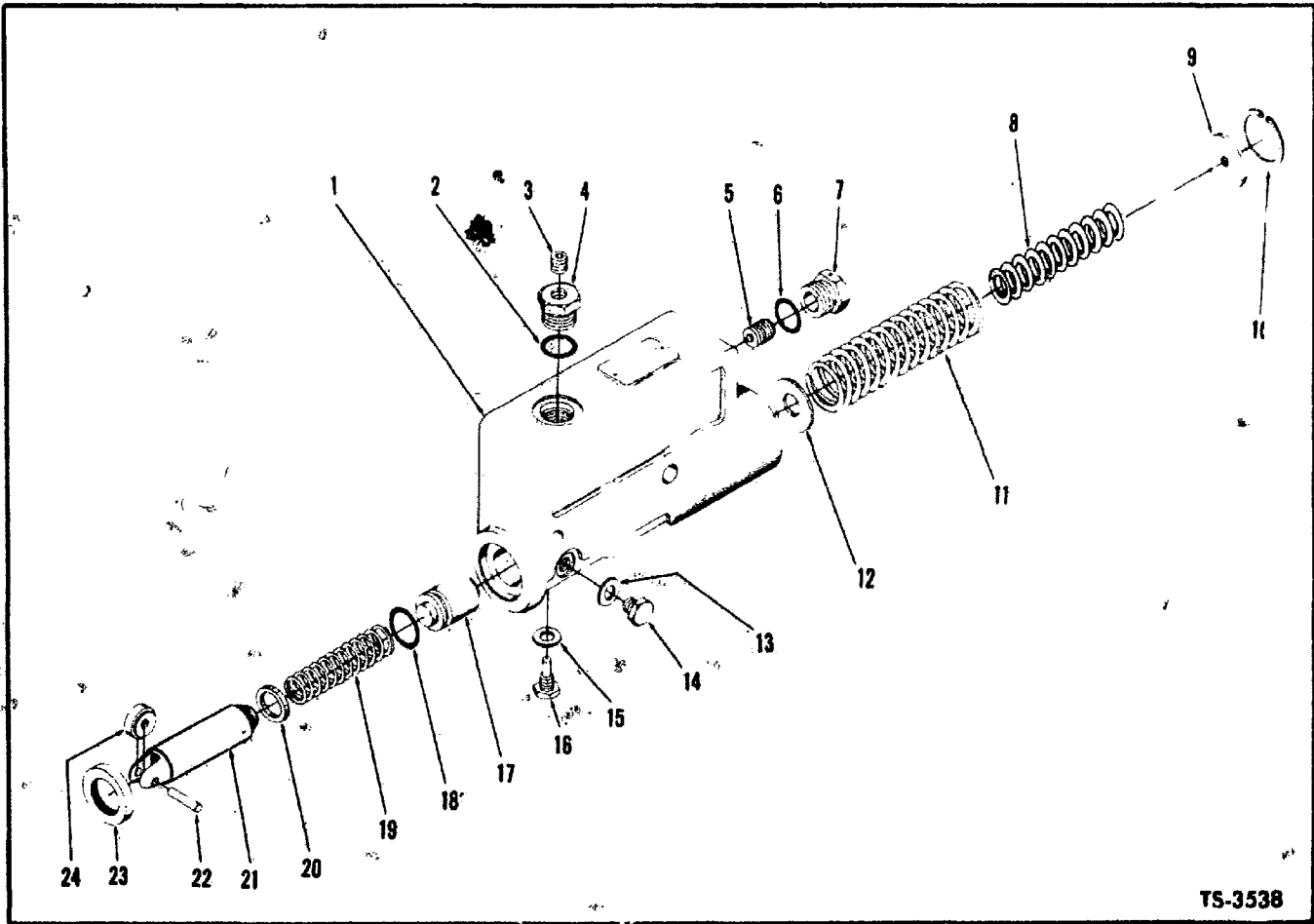
TS-2982-P

**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	588194	CYLINDER ASSY (Inc. 1 thru 35)	1	16	10H-35	FITTING, Cylinder Grease	1
B	2523431	**KIT (Inc. 6, 8, 10 thru 12, 15, 24, 26, 28, 30, 31)	1	17	532118	BOLT Bushing Retaining	1
1	532378	SEAL, Piston Rod Dust	1	18	7E-08	LKWSHR, Bushing Retaining Bolt	1
2	532391	BUSHING, Piston Rod	1	19	532378	SEAL, Cylinder Dust	1
3	537460	ROD ASSY Piston (Inc. 2, 34, 35)	1	20	532391	BUSHING, Cylinder	1
4	3C-818	BOLT Seal Retainer	4	21	532378	SEAL, Cylinder Dust	1
5	28H-16310	LOCKWIRE	2	22	537457	CYLINDER (Inc. 17, 18, 20)	1
6	-----	§"O" RING, Piston Rod – See B	1	23	18D-10	NUT Cylinder Cap	4
7	522617	RETAINER, Seal	1	24	1F-856	COTTER, Piston Rpd Nut	1
8	2516950	SEAL, Piston Rod	1	25	551606	NUT, Piston Rod	1
9	527812	GLAND, Packing	1	26	-----	§RING, Piston Wear – See B	1
10	-----	§ADAPTER, Female – See 11	2	27	541748	PISTON, Bottom Half	1
11	2501108	PACKING SET Cylinder Cap (Inc. 10, 12)	1	28	-----	§PACKING SET Piston – See B	1
12	-----	§ADAPTER, Male – See 11	2	29	541749	PISTON, Top Half	1
13	18C 1072	BOLT Cylinder Cap—See Note "A"	4	30	-----	§RING, Piston Wear – See B	1
13A	18C 1088	BOLT Cylinder Cap—See Note "B"	4	31	-----	§"O" RING, Piston – See B	1
14	945115	CAP Cylinder	1	32	532378	SEAL, Piston Rod Dust	1
15	-----	§RING, Back-Up – See B	1	33	10H-35	FITTING, Piston Rod Grease	1
				34	532118	BOLT Bushing Retaining	1
				35	7E-08	LKWSHR, Bushing, Retaining Bolt	1

\*NOTE: When replacing item 22 on machine S/N Cummins 2DC101 thru 2DC111, G.M. 2DG101 thru 2DG111, WAUK 2DA101 thru 2DA125, 4-18C 1088 Bolts (Item 13A) must also be used.  
 NOTE "A": For Serial Cummins 2DC101 thru 2DC111, G.M. 2DG101 thru 2DG111, WAUK 2DA101 thru 2DA125.  
 NOTE "B": For Serial 2DC112 and after, G.M. 2DG112 and after, WAUK 2DA126 and after.  
 \*\*NOTE For reference see Service GRM S.G.-597



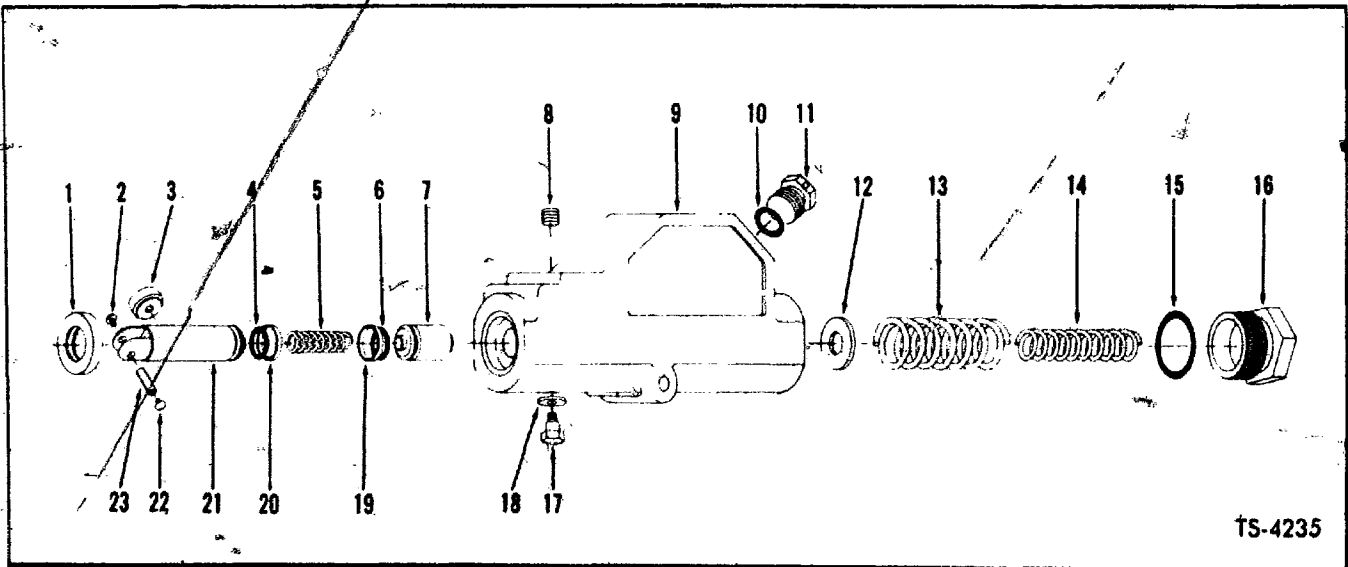
TS-3538

**MASTER CYLINDER — BUCKET LEVELING**  
**For Serial: Cummins — 2DC101 thru 2DC146**  
**G.M. — 2DG101 thru 3DG114**  
**Wauk. — 2DA101 and after**  
**C3DA9-1 thru C3DA9-13**

Item No.	Part No.	Description	No. Req'd.
A	545268	* 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	945238	SPRING, Inner	1
9	945003	PLUG, Spring Retaining	1
10	868744	RING, Plug Retaining	1
11	945004	SPRING, Outer	1
12	25E-23	WASHER, Spring	1
13	865149	WASHER	1
14	945005	BOLT	1
15	865149	WASHER	1
16	945006	LOCK SCREW	1
17	945012	PLUG	1
18	25K-30022	"O" RING	1
19	945007	SPRING	1
20	945008	"V" SEAL	1
21	945010	PLUNGER	1
22	876878	ROLL PIN	1
23	945011	SEAL	1
24	945009	ROLLER	1

§ Not Sold Separately \*NOTE: For replacement service with components.

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



TS-4235

**BUCKET LEVELER MASTER CYLINDER ASSEMBLY**

For Serial: Cummins - 2DC147 thru 3DC999

G.M. - 3DG115 thru 4DG999

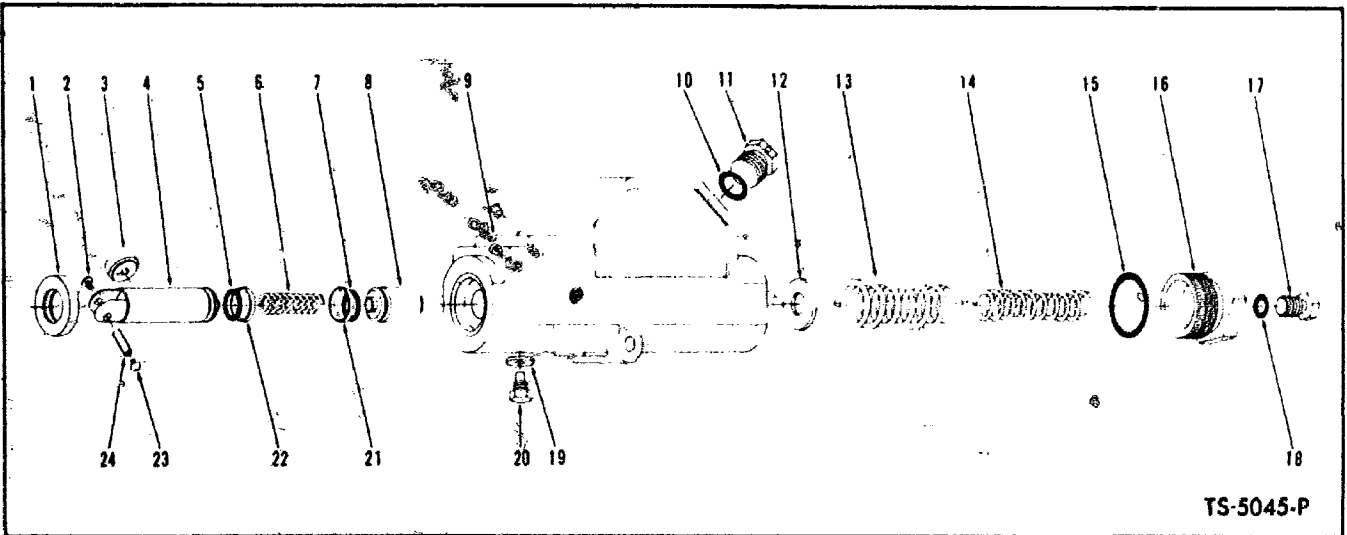
Wauk. - C3DA9-14 and after

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	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	945006	SCREW, Lock	1
18	865149	WASHER	1
19	945431	RING, Teflon	1
20	945431	RING, Teflon	1
21	-----	§ PLUNGER, Operating (Order Item A)	1
22	6C-403	SCREW Drive	1
23	876878	PIN, Roll	1

Not Sold Separately

\*NOTE For replacement service with components.

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



**BUCKET LEVELER MASTER CYLINDER ASSEMBLY**  
**For Serial: Cummins - 4DC101 and after**  
**G.M. - 5DG101 and after**

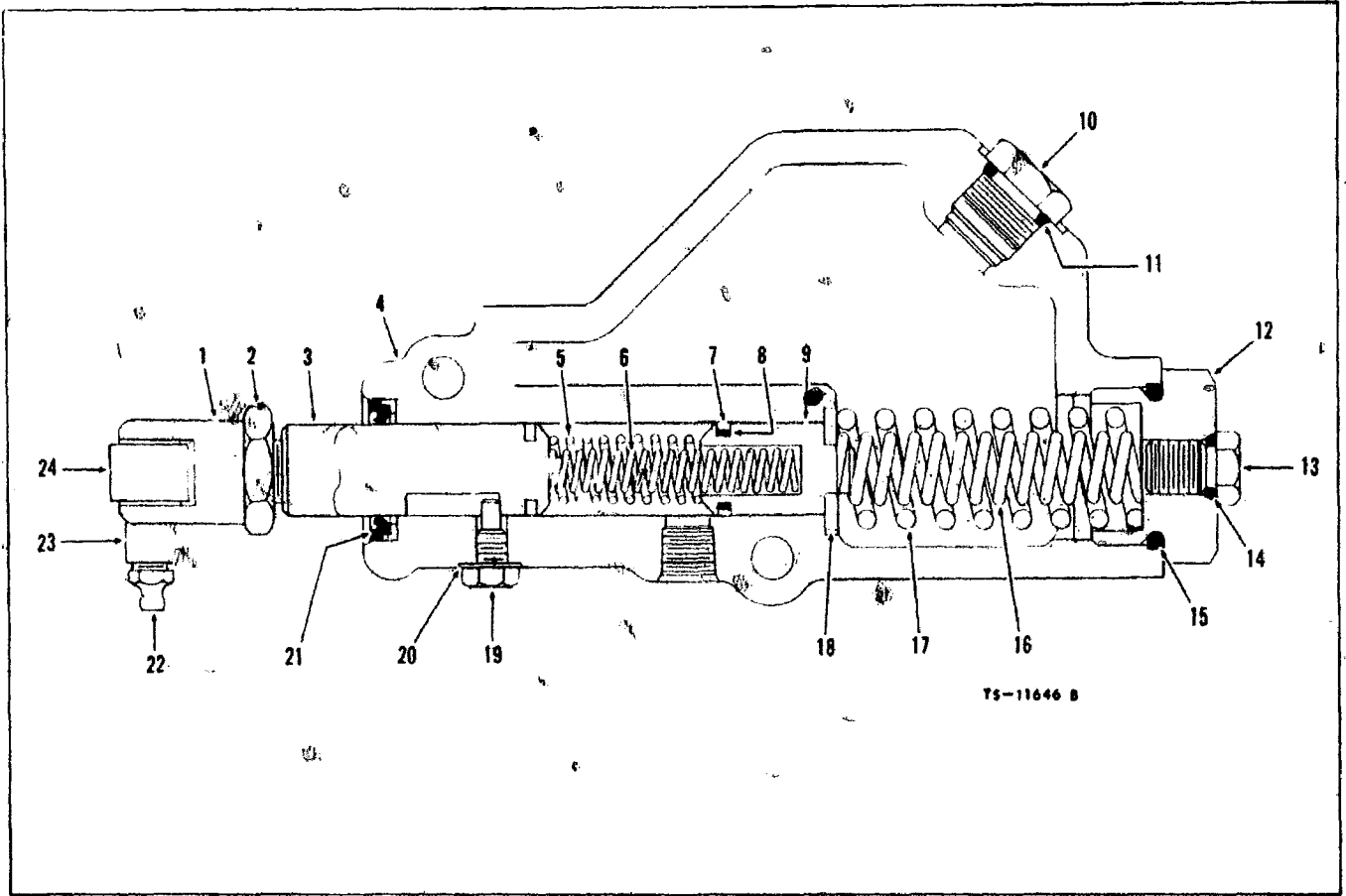
TS-5045-P

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	---	SPRUNGER, 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	---	SHOUSING, Master Cylinder - See Item A	1
10	91F-6	"O" RING	1
11	945872	CAP	1
12	945435	WASHER	1
13	945436	SPRING	1
14	945437	SPRING	1
15	25K-40108	"O" RING	1
16	945873	CAP	1
17	945874	PLUG	1
18	91F-4	"O" RING	1
19	865149	WASHER	1
20	945006	SCREW Lock	1
21	945431	RING, Teflon Back-up	1
22	945431	RING, Teflon Back-up	1
23	6C-403	SCREW Drive	1
24	876878	PIN, Roll	1

§ Not Sold Separately

\*NOTE: For replacement service with components.

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

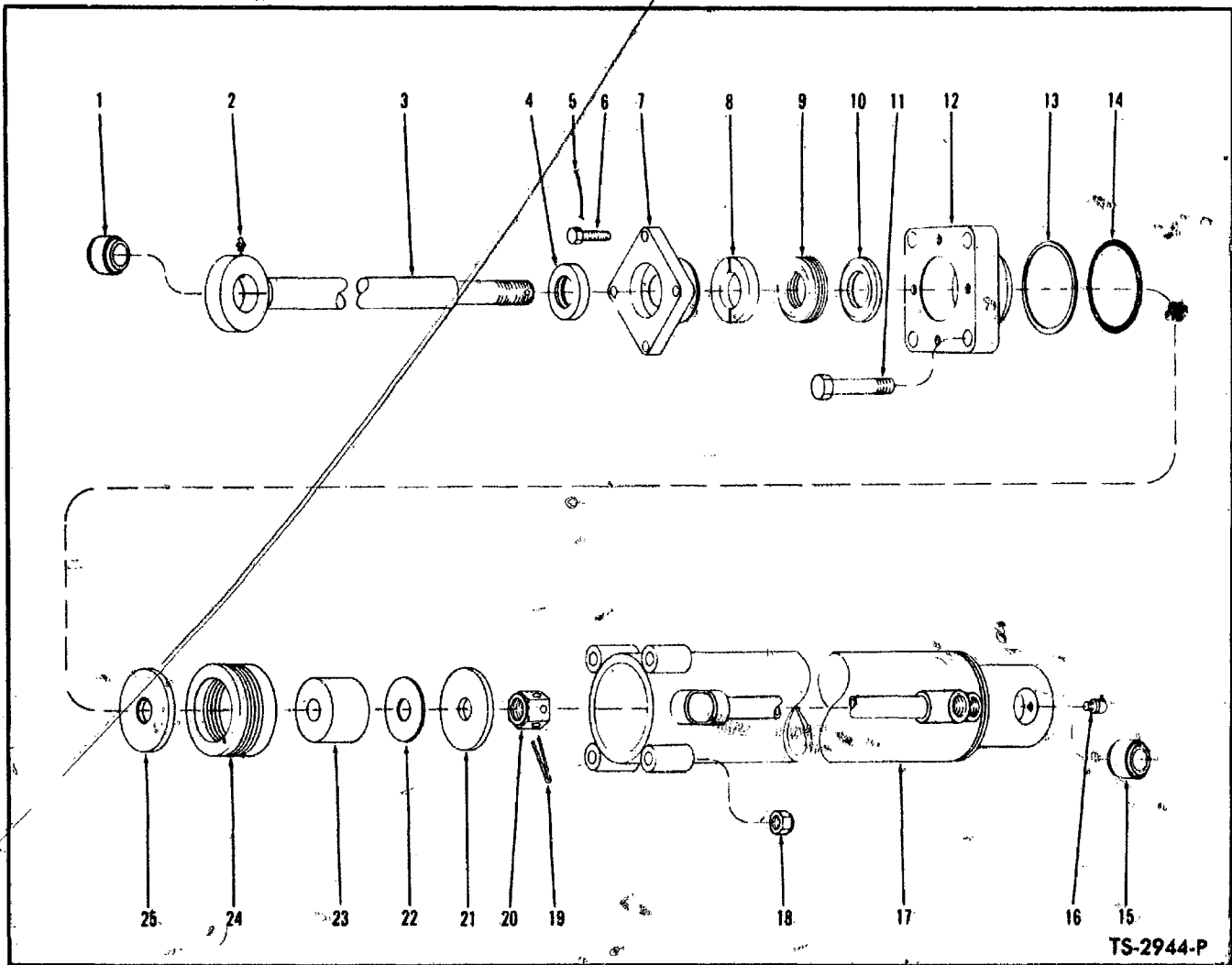


\* BUCKET LEVELER MASTER CYLINDER ASSEMBLY

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
A	1520300	MASTER CYLINDER ASSY (Inc. 1 thru 26)	1	12	945873	CAP	1
1	949540	YOKE	1	13	945874	PLUG	1
2	949541	NUT	1	14	91F-4	O-RING	1
3	949542	PLUNGER	1	15	25K-40108	O-RING	1
4	----	§ HOUSING, Master Cylinder—See "A"	1	16	945437	SPRING, Inner	1
5	946468	SPRING, Outer	1	17	945436	SPRING, Outer	1
6	949467	SPRING, Inner	1	18	945435	WASHER	1
7	945431	RING, Teflon Back-up	1	19	945006	SCREW Lock	1
8	25K 20020	O-RING ...	1	20	865149	WASHER	1
9	945433	ACCUMULATOR PLUG	1	21	945011	SEAL	1
10	945872	CAP	1	22	10H-2	FITTING, Grease	1
11	91F-6	O-RING	1	23	946911	PIN	1
				24	667213	BEARING	1

\*NOTE: For replacement service with components.

§Not Sold Separately



TS-2944-P

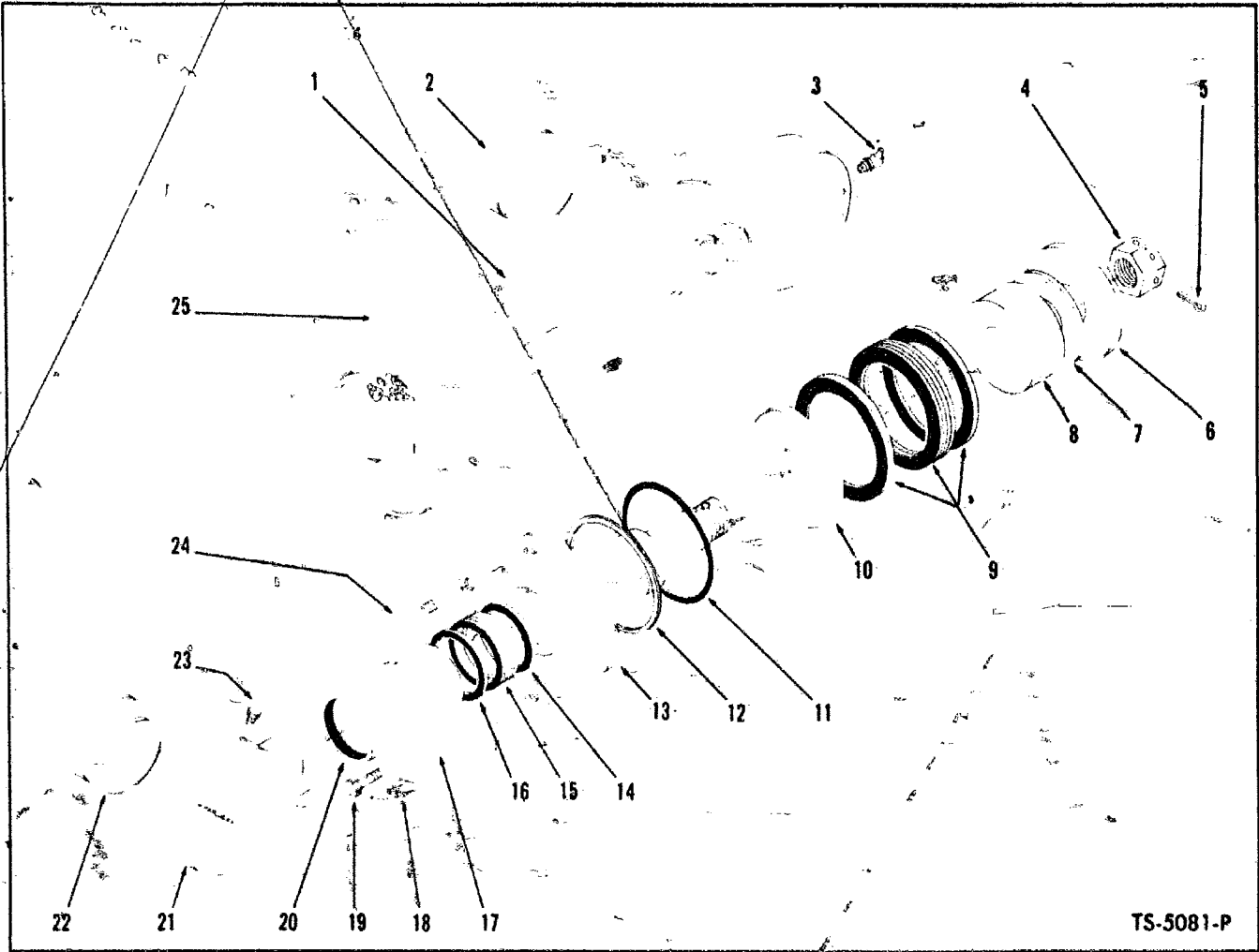
**STEERING CYLINDER ASSEMBLY**  
**For Serial: Cummins - 2DC101 thru 3DC999**  
**G.M. - 2DG101 thru 4DG999**  
**Wauk. - 2DA101 and after**  
**C3DA9-14 thru C3BA9-24**

**2 Cylinders Used on Machine - Quantity Indicated is for 1 Cylinder**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	533489	*CYLINDER ASSY (Inc. 1 thru 25)	1	12	532947	CAP, Cylinder	1
B	2523424	**KIT (Inc. 8 thru 10, 13, 14, 19, 22, 24)	1	13	-----	§ RING, Backup - See B	1
1	763451	BUSHING, Piston Rod	1	14	-----	§ "O" RING - See B	1
2	10H-35	FITTING, Piston Rod Grease	1	15	763451	BUSHING, Cylinder	1
3	545155	ROD, Piston	1	16	12H-25	FITTING, Cylinder Grease	1
4	526415	SEAL	1	17	533490	CYLINDER	1
5	28H-16130	LOCKWIRE	2	18	68D-06	NUT Cap to Cylinder	4
6	4C-414	BOLT Gland to Cap	4	19	1F-424	COTTER, Piston Rod Nut	1
7	526414	GLAND, Packing	1	20	523325	NUT Piston Rod	1
8	-----	§ ADAPTER, Female - See 9	2	21	526423	PLATE, Backing	1
9	2501105	PACKING SET (Inc. 8, 10)	1	22	-----	§ SHIM - See B	1
10	-----	§ ADAPTER, Male - See 9	2	23	526422	SLEEVE	1
11	18C-648	BOLT Cap to Cylinder	4	24	-----	§ PACKING SET - See B	1
				25	526423	PLATE, Backing	1

‡ As Required  
 \*NOTE: For replacement use 1603828 Cylinder Assy.

\*\*NOTE: For reference see Service Gram S.G.-697



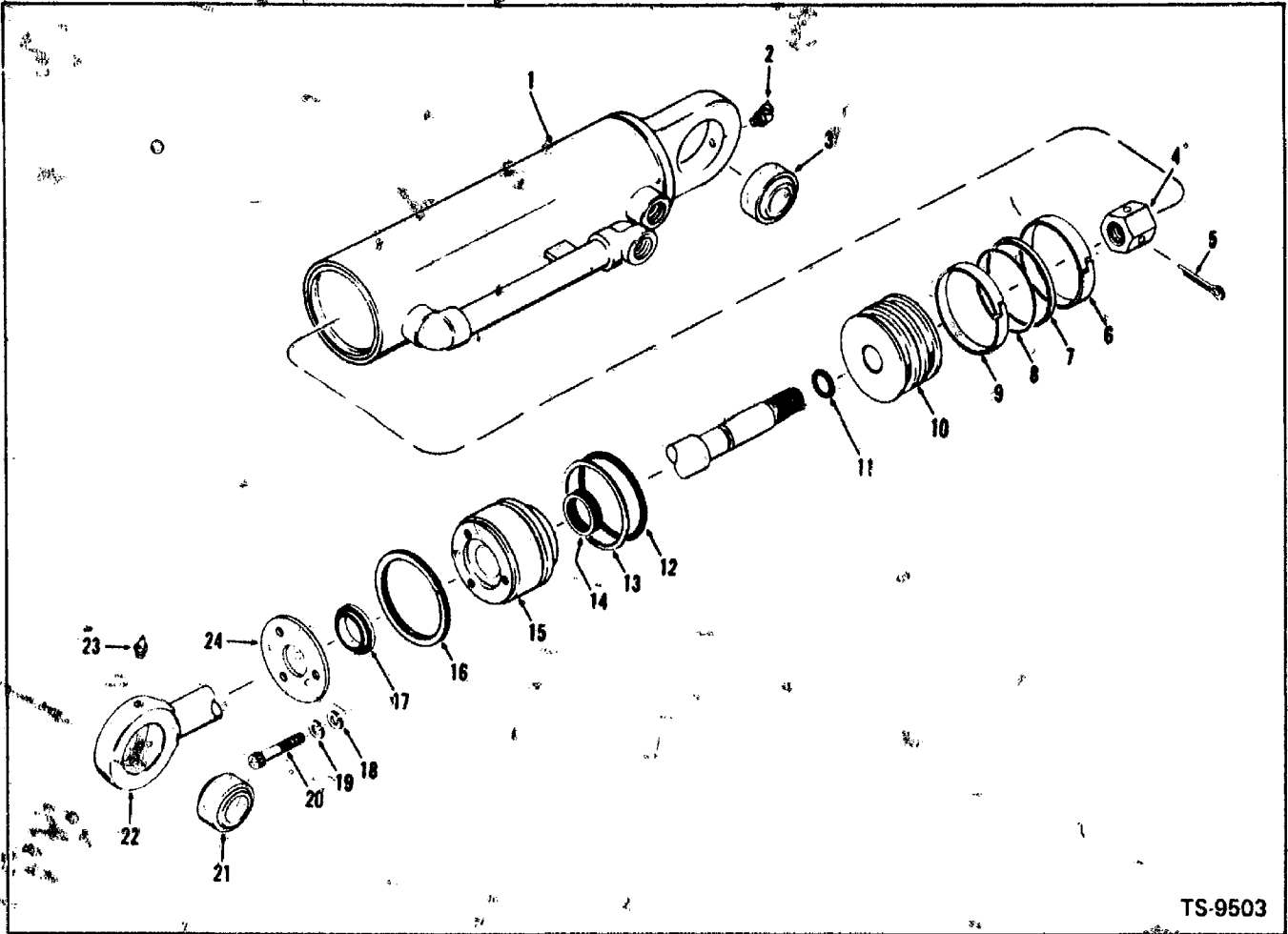
**STEERING CYLINDER ASSEMBLY**  
 For Serial: Cummins - 4DC101 and after  
 G.M. - 5DG101 and after  
 Wauk. - C3DA9-25 and after

2. Cylinders used on Machine - Quantity indicated is for 1 Cylinder

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	562564	<sup>2</sup> CYLINDER ASSY (Inc. 1 3 thru 21 23, 24, 25)	1	12	-----	§RING, "O" Ring Back-Up - See B	1
B	2523424	KIT (Inc. 5, 7, 9, 11, 12 14 thru 16)	1	13	945118	CAP ASSY (Inc. 11 12)	1
1	562565	CYLINDER	1	14	-----	§ADAPTER, Male - See 15	2
2	713418	BUSHING, Cylinder	1	15	2501105	PACKING ASSY Piston Rod (Inc. 14, 16)	1
3	11H-15	FITTING, Cylinder Grease	1	16	-----	§ADAPTER, Female - See 15	2
4	523325	NUT Piston Rod	1	17	526414	GLAND, Packing	1
5	1F-424	COTTER, Piston Rod Nut	1	18	-----	LOCKWIRE (16 ga. - 13" long)	2
6	526423	PLATE, Packing Assy Backing	1	19	4C-414	BOLT Packing Gland to Cylinder Cap	4
7	-----	§ISHIM - See B	1	20	526415	SEAL, Piston Rod	1
8	526422	SLEEVE, Piston	1	21	562572	ROD Piston	1
9	-----	§PACKING ASSY (Inc. Adapters) See B	1	22	713418	BUSHING, Piston Rod	1
10	526423	PLATE, Packing Assy Backing	1	23	10H-25	FITTING, Piston Rod Grease	1
11	-----	§"O" RING, Cylinder Cap - See B	1	24	18C-648	BOLT Cylinder Cap	4
				25	18D-06	NUT Cylinder Cap	1

As Required  
 \*NOTE For reference see Service Gram S.G. 597  
<sup>2</sup>For complete replacement use 1503875 Cylinder Assy.



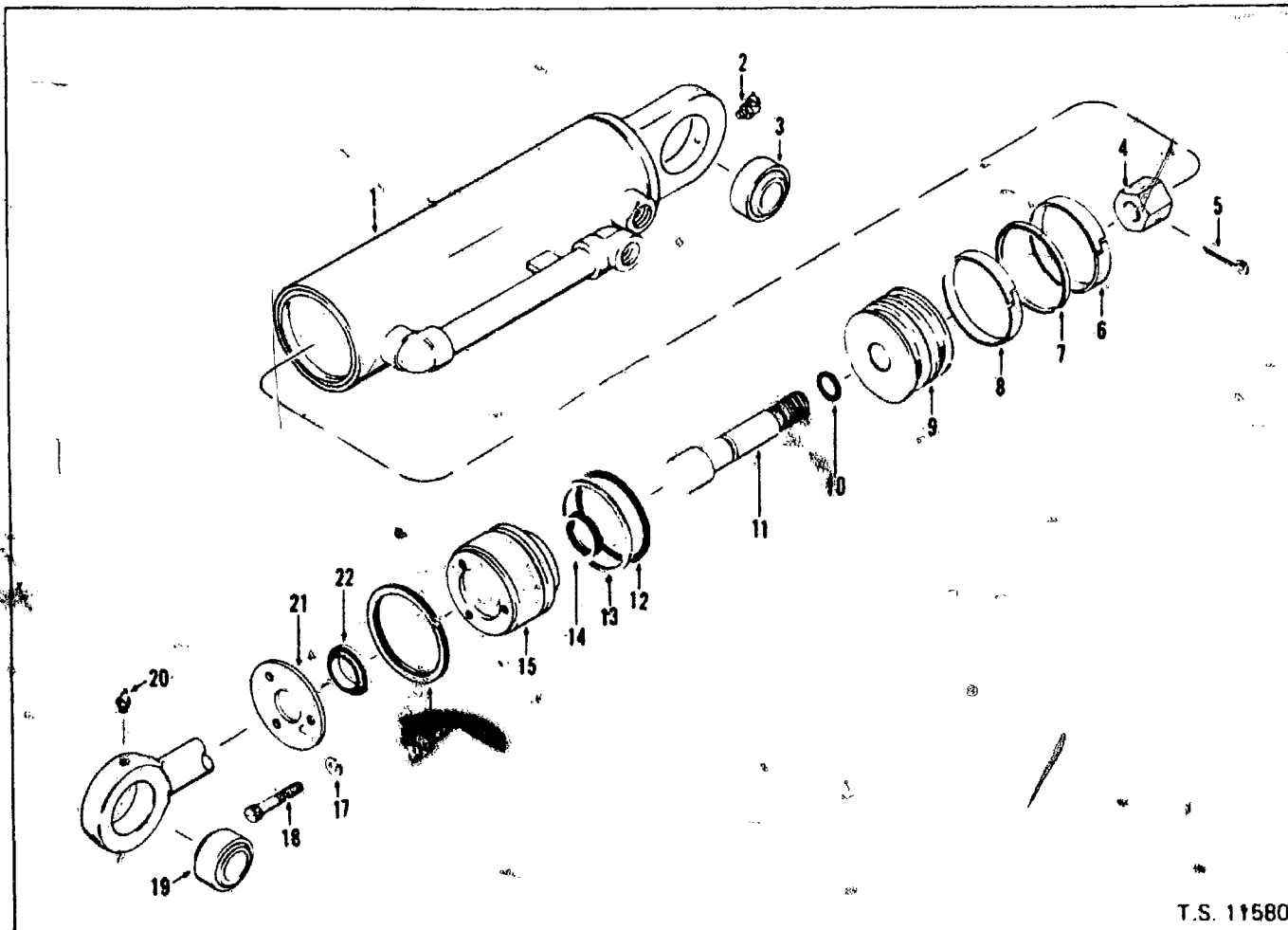


TS-9503

**STEERING CYLINDER ASSEMBLY  
(SERVICE ONLY)**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1503828	CYLINDER ASSEMBLY (Incl 1 thru 24)	2	10	1503568	PISTON	1
B	2516055	KIT (Inc. 5 thru 9, 11 thru 14, 16, 17)	1	11	-----	§O-RING, Piston Rod - See B	1
NOTE: 2 Cylinders used per Machine - Quantities Listed Below are for 1 Cylinder				12	-----	§O-RING, Cylinder Cap - See B	1
1	1503827	CYLINDER	1	13	-----	§RING, Back-Up - See B	1
2	12H-26	FITTING, Cylinder Grease	1	14	-----	§"T" RING - See B	1
3	763451	BUSHING, Cylinder	1	15	1503570	CAP Cylinder	1
4	523325	NUT Piston Rod	1	16	2506408	RING, Cap Retaining	1
5	1F-424	COTTER, Piston Rod Nut	1	17	1522535	WIPER, Piston Rod	1
6	-----	§RING, Piston Wear - See B	1	18	-----	OMIT Not Used This Application	—
7	-----	§RING, Piston Sealing - See B	1	19	4E-05	LKWSHR, Retaining Plate	3
8	-----	OMIT Not Used This Application	—	20	71G-514	SCREW, Retaining Plate	3
9	-----	§RING, Piston Wear - See B	1	21	763451	BUSHING, Piston Rod	1
				22	545155	ROD Piston	1
				23	10H-35	FITTING, Piston Rod Grease	1
				24	1503567	PLATE, Wiper Retaining	1

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



T.S. 11580

**CYLINDER ASSEMBLY - STEERING**

2 Cylinders Used on Machine - Quantity Indicated is for 1 Cylinder

Item	Part No.	Description	Qty
A	1503875	CYLINDER ASSY (Incl. 1 3 thru 19, 21 & 22)	1
B	2516055	*KIT (Incl. 5 → 8, 10, 12 → 14, 16, 22)	1
1	1503872	CYLINDER (Incl. 3)	1
2	11H-15	FITTING, Pin Grease	1
3	213418	BUSHING, Cylinder	1
4	523325	NUT, Piston Rod	1
5	1F-424	COTTER, Piston Rod Nut	1
6	----	§ RING, Wear - See B	1
7	----	§ RING ASSY Seal - See B	1
8	----	§ RING, Wear - See B	1
9	1503568	PISTON	1
10	----	§ O-RING, Piston Rod - See B	1
11	562572	ROD, Piston (Incl. 19)	1
12	----	§ O-RING, Cylinder Cap - See B	1
13	----	§ BACK-UP RING, Cylinder Cap - See B	1
14	----	§ SEAL, Piston Rod - See B	1
15	1503570	CAP, Cylinder	1
16	2506408	RING, Cap Retaining	1
17	22E-05	LKWSHR, Plate to Cap	3
18	93G-514	BOLT, Plate to Cap	3
19	713418	BUSHING, Piston Rod	1
20	10H-25	FITTING, Pin Grease	1
21	1503567	PLATE, Retaining Ring	1
22	1522535	RING, Wiper	1

§ Not Sold Separately  
\*NOTE: Ref. SG-507.

**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 nameplate attached to the side of the engine.

Item No.	Part No.	Description	No. Req'd.
1	-----	*STARTING MOTOR	—
2	-----	*GENERATOR	—
3	-----	*VOLTAGE REGULATOR	—
4	18C-528	BOLT, Regulator Attaching	4
5	18D-05	NUT, Regulator to Bracket	4
6	550832	**SENDER UNIT, Oil Pressure	1
7	551323	SENDER UNIT, Engine Temperature	1
8	636260	SWITCH, Hourmeter Pressure	1
9	5K 106	NIPPLE	1
10	18F-1	TEE	1

**ENGINE AND ACCESSORIES — G.M.**

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

Item No.	Part No.	Description	No. Req'd.
11	-----	*STARTING MOTOR	—
12	-----	*GENERATOR	—
13	-----	*VOLTAGE REGULATOR	—
14	541251	BRACKET, Regulator Mounting	1
15	17C-612	BOLT, Bracket Attaching	2
16	4E-06	LKWSHR, Bracket Attaching	2
17	18C-520	BOLT, Regulator to Bracket	4
18	18D-05	NUT, Regulator to Bracket	4
19	550832	**SENDER UNIT, Oil Pressure	1
20	551323	SENDER UNIT, Engine Temperature	1
21	636260	SWITCH, Hourmeter Pressure	1
22	5K 106	NIPPLE	1
23	18F-1	TEE	1

**ENGINE AND ACCESSORIES — WAUKESHA GAS**

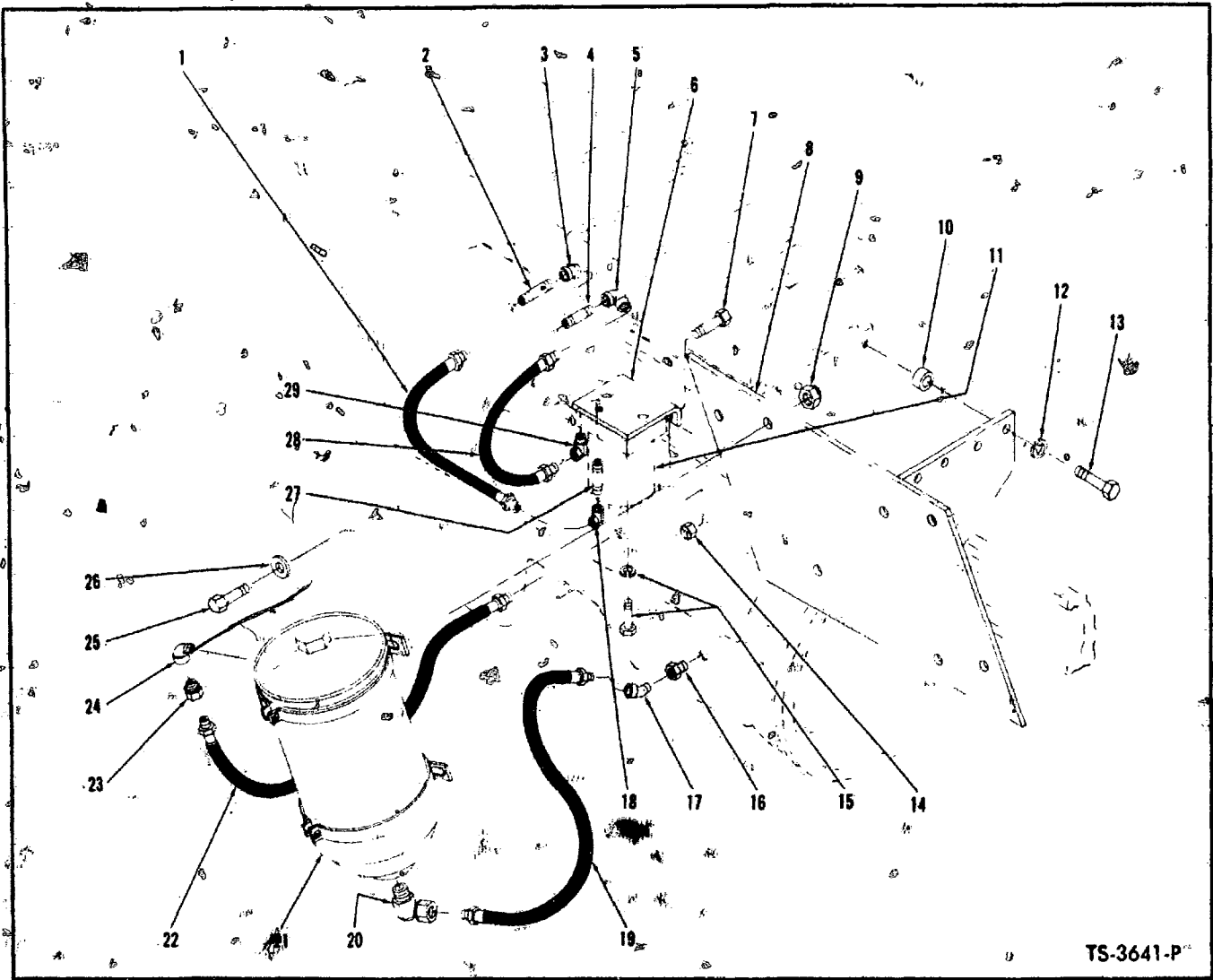
All orders for engine assembly or components thereof should be placed with the nearest Waukesha Motor Co. Distributor. Always give model, specifications and serial number of your engine. This data will be found on nameplate attached to the side of the engine.

Item No.	Part No.	Description	No. Req'd.
24	-----	*STARTING MOTOR	—
25	-----	*GENERATOR	—
26	-----	*VOLTAGE REGULATOR	—
27	550832	**SENDER UNIT Oil Pressure	1
28	551323	SENDER UNIT, Engine Temperature	1
29	636260	SWITCH, Hourmeter Pressure	1
30	5K 106	NIPPLE	1
31	18F 1	TEE	1

\*These parts furnished with engine. See your nearest engine distributor for repair and replacement of same.

\*\*NOTE: For replacement refer to Service Gram 56-326B.

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



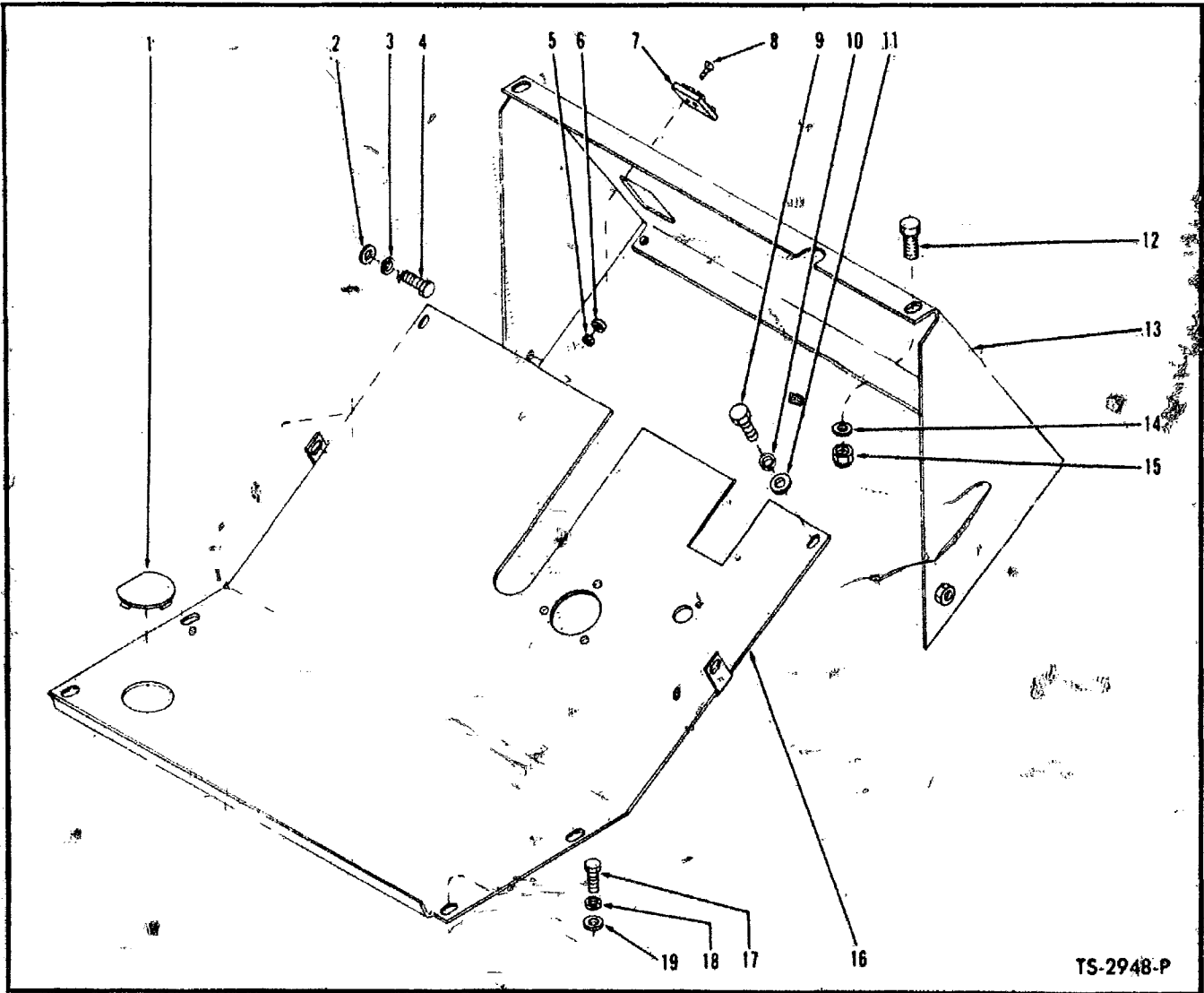
TS-3641-P

**ENGINE OIL FILTER – CUMMINS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	548424	HOSE, Filter to Engine	1	15A	4E-07	LKWSHR, Filter to Bracket	3
2	5K-612	NIPPLE	1	16	356615	BUSHING, Reducing	1
3	23F 5	ELBOW	1	17	25F-2	ELBOW	1
4	5K-612	NIPPLE	1	18	32F-5	ADAPTER UNION	1
5	24F 5	ELBOW	1	19	624457	HOSE, Filter Return	1
6	547463	BRACKET, Lube Filter	1	20	33F-2	ADAPTER UNION	1
7	18C-632	BOLT Bracket to Frame	2	21	524526	FILTER ASSY By-Pass Oil (Inc. 21A)	1
8	547518	BRACKET By-Pass Filter	1	21A	943954	CARTRIDGE KIT	1
9	18D-06	NUT Filter to Bracket	4	22	539981	HOSE, Filter Inlet	1
10	546642	SPACER, Bracket to Engine	2	23	672758	ADAPTER UNION	1
11	-----	FILTER, Lube Oil – Furnished with Engine	1	24	26F-2	ELBOW Hose to Filter	1
12	4E-08	LKWSHR, Bracket to Engine	2	25	18C 516	BOLT, Filter to Bracket	4
13	17C-824	BOLT Bracket to Engine	2	26	25E-15	WASHER, Filter to Bracket	4
14	18D-06	NUT Bracket to Frame	2	27	5K-628	NIPPLE, Filter	1
15	17C-716	BOLT, Filter to Bracket	3	28	536513	HOSE	1
				29	31F-5	ADAPTER UNION	1

†Not Illustrated

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

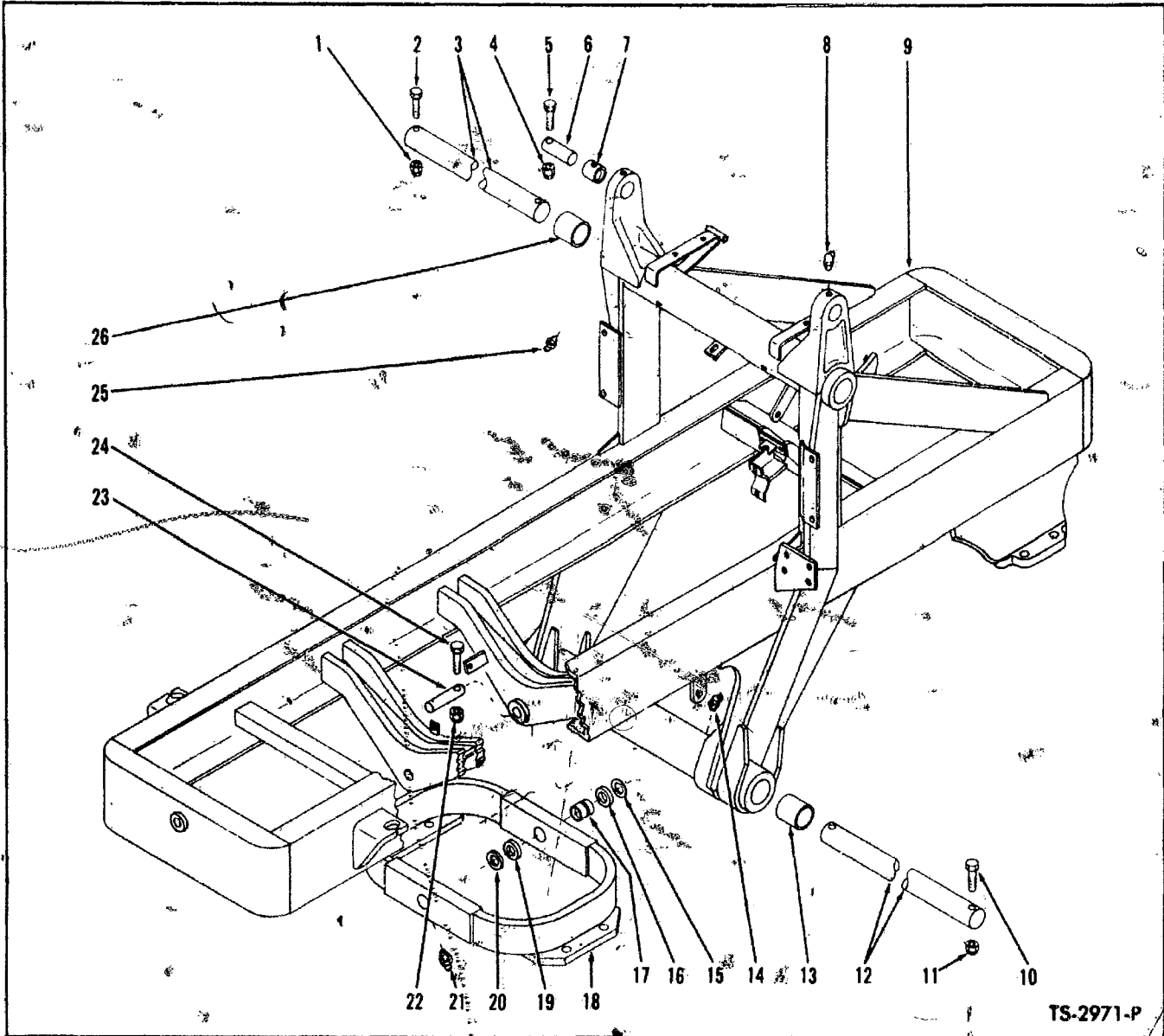


TS-2948-P

**FLOORBOARD AND SUPPORT**

Item No.	Part No.	Description	No. Req'd.
1	542983	PLATE, Cover	1
2	25E 16	WASHER, Floorboard to Support	2
3	4E-06	LKWSHR, Floorboard to Support	2
4	17C-612	BOLT, Floorboard to Support	2
5	14D-6	NUT, Fuse Block to Support	2
6	17E-6	LKWSHR, Fuse Block to Support	2
7	542272	FUSE BLOCK	1
8	20G-608	SCREW, Fuse Block to Support	2
9	17C-612	BOLT, Floorboard to Support Bracket	2
10	4E-06	LKWSHR, Floorboard to Support Bracket	2
11	25E 16	WASHER, Floorboard to Support Bracket	2
12	18C-618	BOLT, Support to Upper Pivot	2
13	540457	SUPPORT, Floorboard	1
14	25E-16	WASHER, Support to Upper Pivot	2
15	18D-06	NUT, Support to Upper Pivot	2
16	540459	FLOORBOARD	1
17	17C-616	BOLT, Floorboard to Support	4
18	4E-06	LKWSHR, Floorboard to Support	4
19	25E 16	WASHER, Floorboard to Support	4

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



TS-2971-P

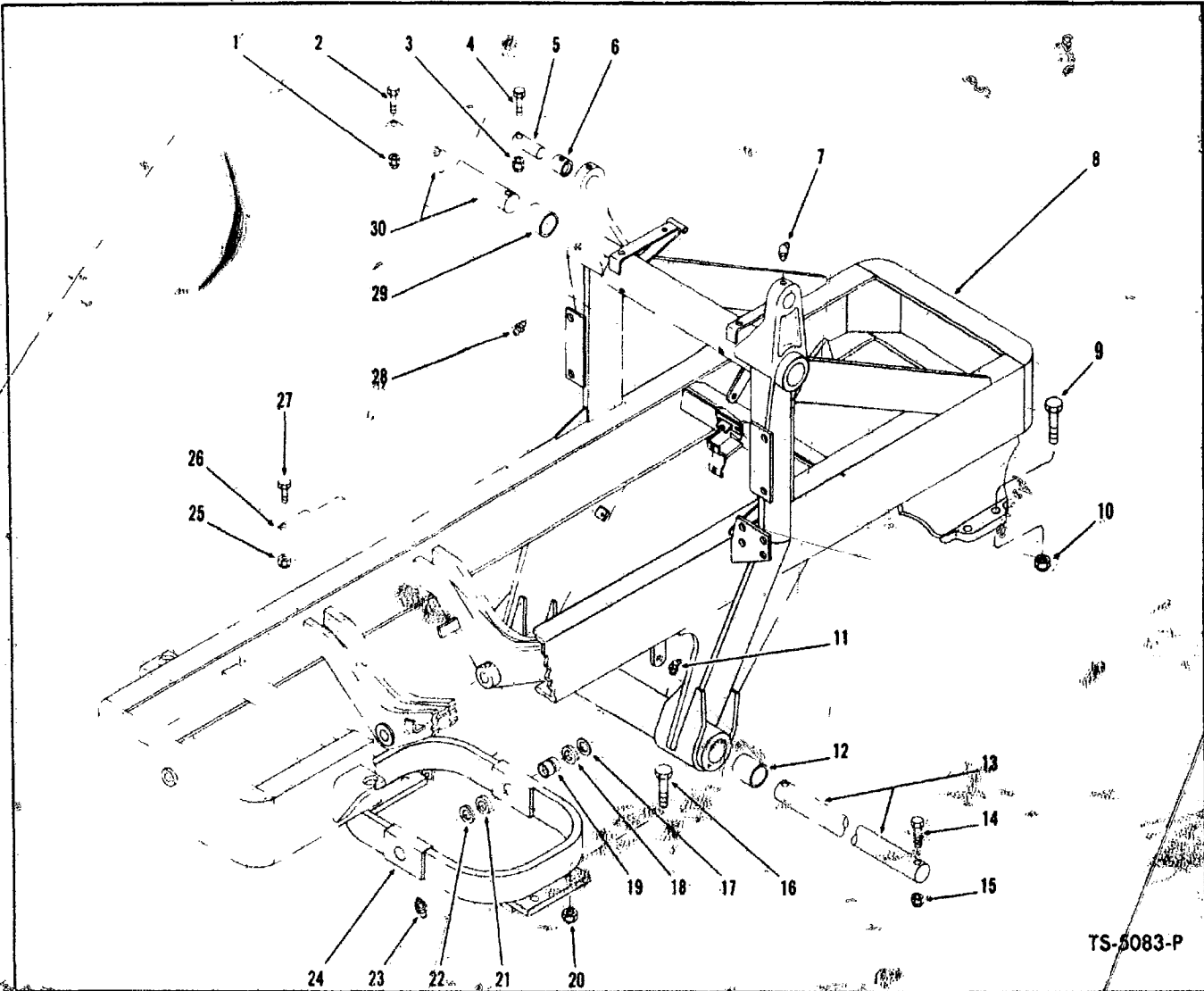
**FRAME AND CRADLE ASSEMBLY**

**For Serial: Cummins — 2DC101 thru 3DC999**  
**G.M. — 2DG101 thru 4DG999**  
**Wauk. — 2DA101 and after, C3DA9-1 thru C3DA9-24**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-08	NUT, Shaft Retaining Bolt	2	12	537823	SHAFT, Cylinder Pivot	1
2	18C-880	BOLT, Shaft Retaining	2	13	538599	BUSHING, Pivot Tube	2
3	571022	SHAFT, Boom Pivot	1	14	10H-25	FITTING, Pivot Shaft Grease	2
4	18D-08	NUT, Pin Retaining Bolt	2	15	551348	†WASHER, Cradle to Frame— $\frac{1}{8}$ "	—
5	18C-872	BOLT, Pin Retaining	2	16	551347	†WASHER, Cradle to Frame— $\frac{1}{8}$ "	—
6	550188	PIN, Guide Bar to Frame	2	17	538585	BUSHING, Cradle	2
7	537802	BUSHING, Guide Bar	2	18	536104	CRADLE ASSY Rear Axle (Inc. 17)	1
8	12H-25	FITTING, Guide Bar Grease	2	19	551347	†WASHER, Cradle to Frame— $\frac{1}{8}$ "	—
9		FRAME ASSY (Inc. 7, 13, 26)		20	551348	†WASHER, Cradle to Frame— $\frac{1}{8}$ "	—
9A	537790	For Waukesha Gas & Cummins Powered Machines	1	21	10H-25	FITTING, Cradle Grease	2
9B	540236	For G.M. Powered Machines	1	22	18D-08	NUT, Pin Retaining Bolt	2
10	18C 1080	BOLT, Shaft Retaining	2	23	536100	PIN, Cradle to Frame	2
11	18D-10	NUT, Shaft Retaining Bolt	2	24	18C-856	BOLT, Pin Retaining	2
				25	10H-25	FITTING, Boom Pivot Shaft Grease	2
				26	538599	BUSHING, Boom Pivot	2

†As Required

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



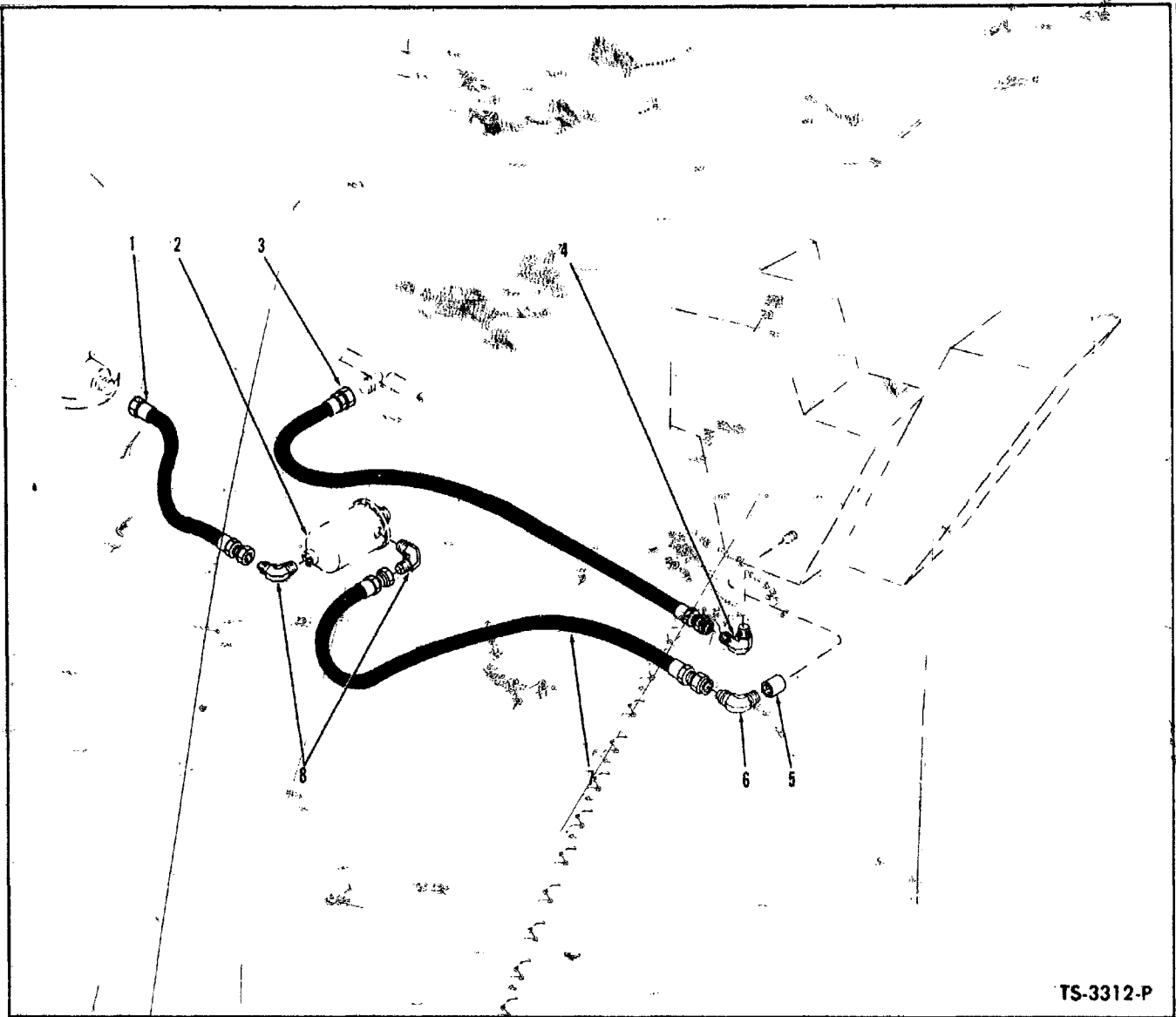
TS-5083-P

**FRAME AND CRADLE ASSEMBLY**  
**For Serial: Cummins — 4DC101 and after**  
**G.M. — 5DG101 and after**  
**Wauk. — C3DA9-25 and after**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18D-08	NUT, Shaft Retaining Bolt	2	14	18C 1080	BOLT, Shaft Retaining	2
2	18C-880	BOLT, Shaft Retaining	2	15	18D-10	NUT, Shaft Retaining Bolt	2
3	18D-08	NUT, Pin Retaining Bolt	2	16	24C 16152	BOLT, Axle to Cradle	8
4	18C-872	BOLT, Pin Retaining	2	17	551348	WASHER, Cradle to Frame — 1/8"	—
5	550188	PIN, Guide Bar to Frame	2	18	551347	WASHER, Cradle to Frame — 1/8"	—
6	537802	BUSHING, Guide Bar	2	19	538585	BUSHING, Cradle	2
7	12H-25	FITTING, Guide Bar Grease	2	20	68D-16	NUT, Axle to Cradle	8
8		FRAME ASSY (Inc. 6, 12, 29)		21	551347	WASHER, Cradle to Frame — 1/8"	—
8A	537790	For Cummins Powered Machines & Waukesha Gds	1	22	551348	WASHER, Cradle to Frame — 1/8"	—
8B	588525	For G.M. Powered Machines	1	23	10H-25	FITTING, Cradle Grease	2
9	24C 16160	BOLT, Front Axle to Frame	8	24	566746	CRADLE ASSY Rear Axle (Inc. 19)	1
10	68D-16	NUT, Front Axle to Frame	8	25	18D-08	NUT, Pin Retaining Bolt	2
11	12H-15	FITTING, Lower Pivot Shaft Grease	2	26	536100	PIN, Cradle to Frame	2
12	538599	BUSHING, Lower Pivot Tube	2	27	18C-856	BOLT, Pin Retaining	2
13	537823	SHAFT, Lower Pivot Cylinder	1	28	10H-25	FITTING, Upper Pivot (Shaft Grease)	2
				29	538599	BUSHING, Upper Pivot Tube	2
				30	571022	SHAFT, Upper Boom Pivot	1

†As Required

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



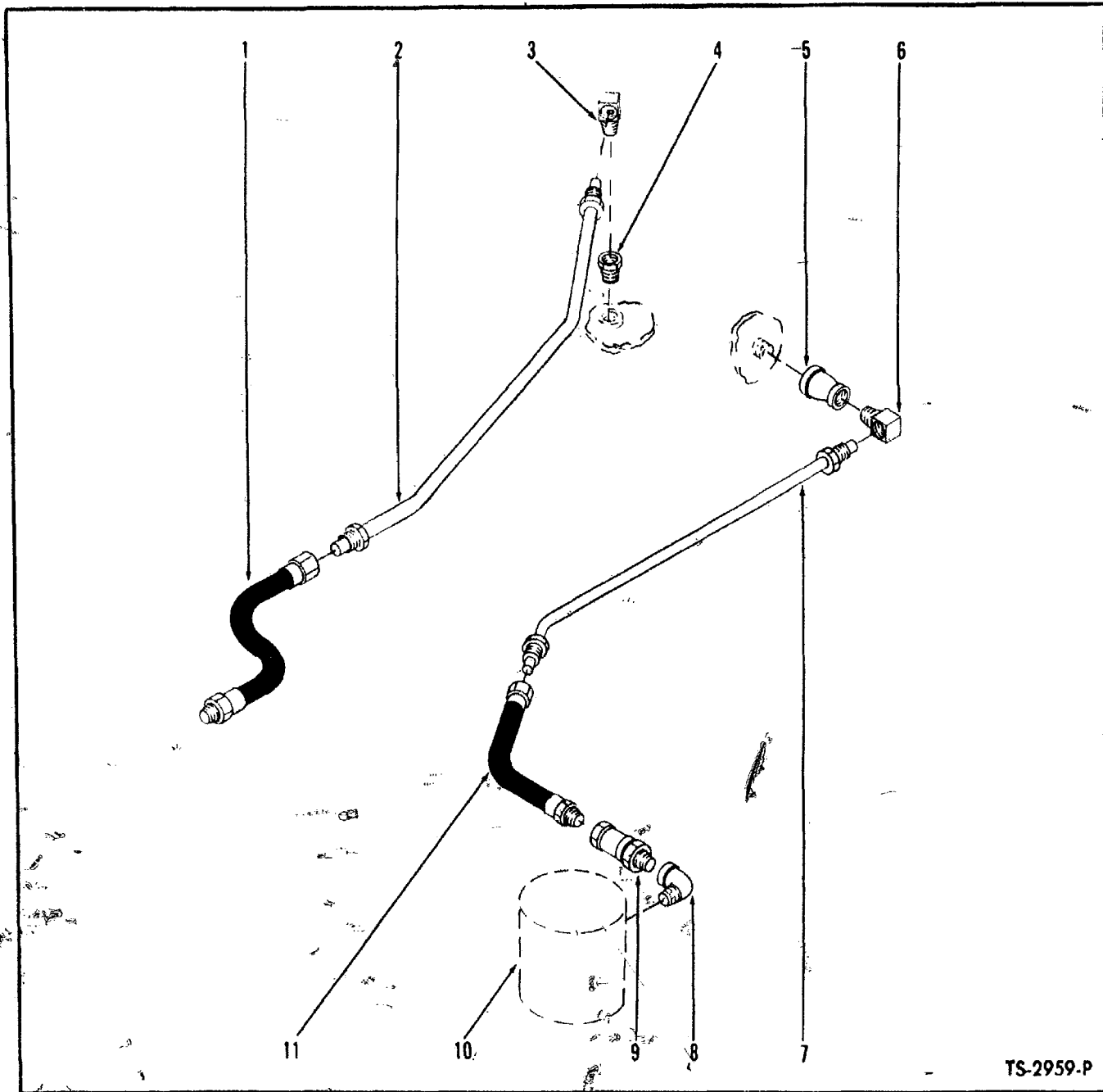
TS-3312-P

**FUEL LINES — CUMMINS**

Item No.	Part No.	Description	No. Req'd.
1	547546	HOSE, Fuel Pump to Fuel Filter	1
2	---	FUEL FILTER — See Engine Parts Manual	1
3	547545	HOSE, Drain — Manifold to Fuel Tank	1
4	42F-8	ELBOW, Hose to Tank	1
5	75F-4	COUPLING, Elbow to Tank	1
6	42F-9	FITTING, Hose to Coupling	1
7	547544	HOSE, Tank to Filter	1
8	42F-9	FITTING, Hose to Filter	2

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



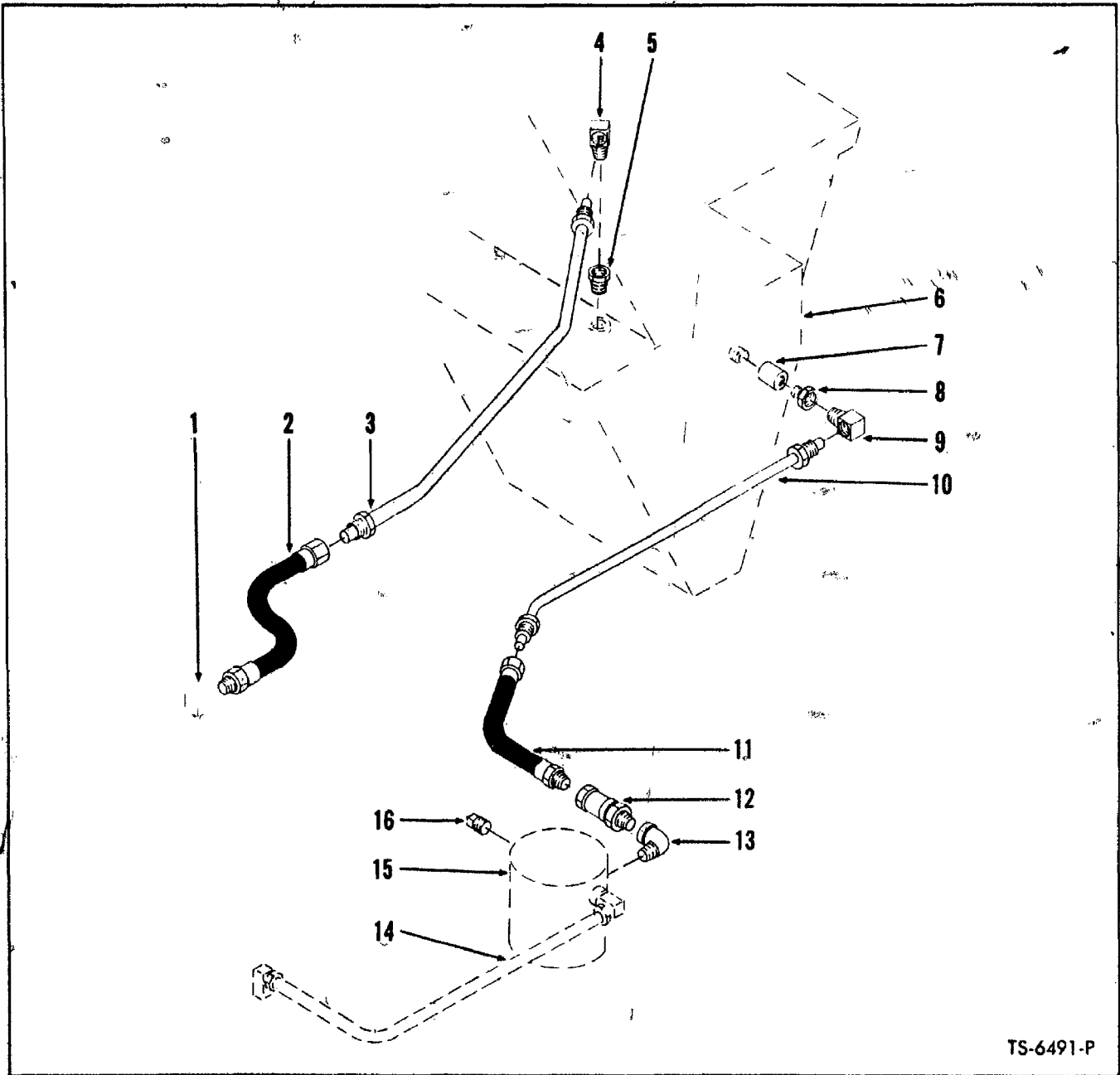


TS-2959-P

**FUEL LINES — G.M.**  
**For Serial: 2DG101 thru 2DG999**

Item No.	Part No.	Description	No. Req'd.
1	541155	HOSE, Engine to Return Line	1
2	541156	LINE, Fuel Return	1
3	62F 5	ELBOW Return Line to Tank	1
4	356612	BUSHING, Tank Reducing	1
5	75F-4	COUPLING, Reducing	1
6	62F-6	ELBOW Line to Tank	1
7	541152	LINE, Tank to Filter	1
8	30K 304	ELBOW Hose to Filter	1
9	531792	VALVE, Check	1
10	---	FUEL FILTER — See Engine Parts Manual	1
11	512133	HOSE, Line to Filter	1

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

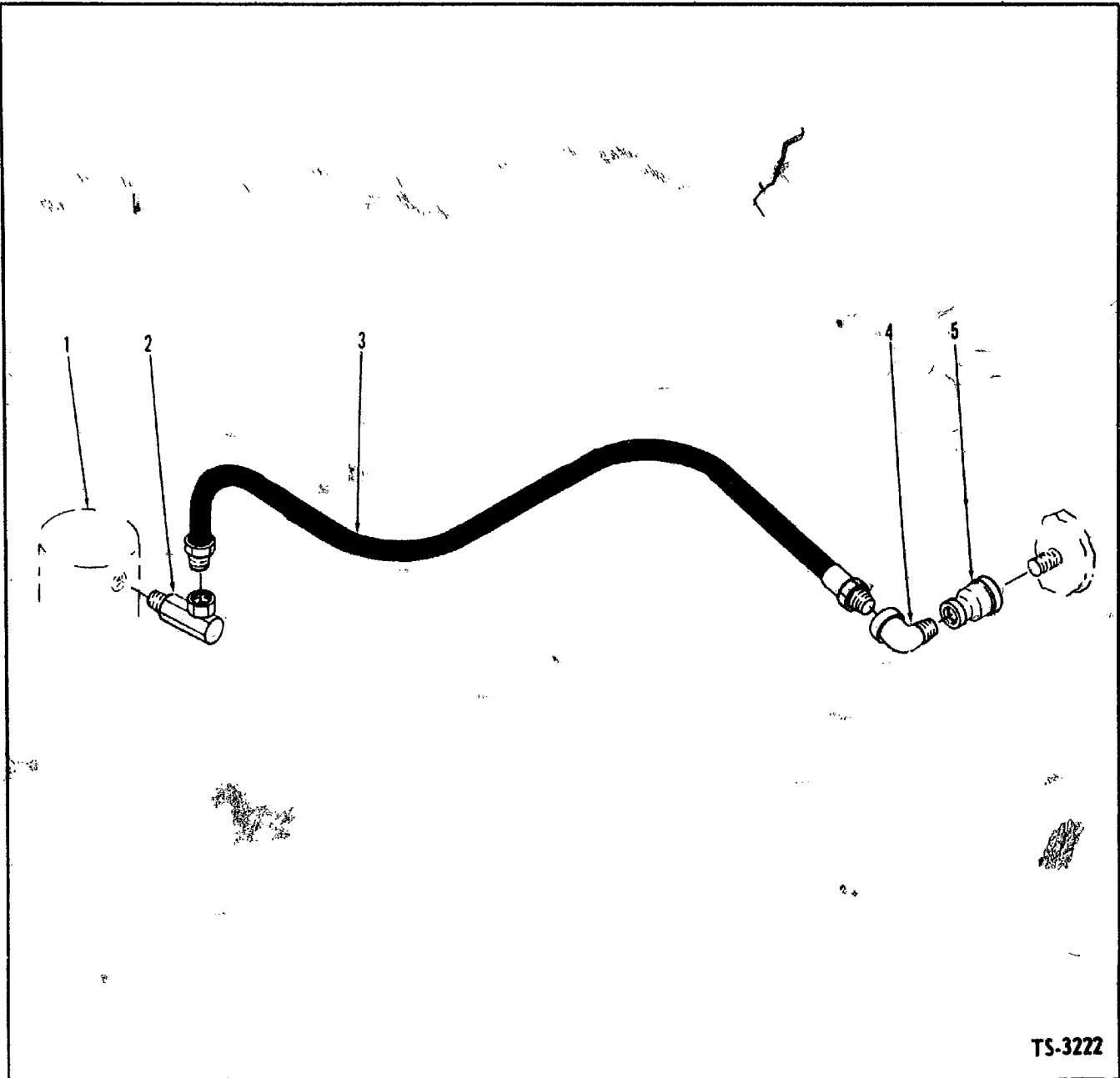


TS-6491-P

**FUEL LINES — G.M.  
For Serial: 3DG101 and after**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	-----	LINE, Injector Return — See Engine Parts Manual	—	9	62F-6	ELBOW, Line to Coupling	1
2	541155	HOSE, Line to Line	1	10	541152	LINE, Tank to Filter	1
3	541156	LINE, Fuel Return	1	11	512133	HOSE, Line to Filter	1
4	62F-5	ELBOW, Return Line to Tank	1	12	531792	VALVE, Check	1
5	356612	BUSHING, Tank Reducing	1	13	30K-304	ELBOW, Valve to Filter	1
6	-----	FUEL TANK — See Index	—	14	-----	LINE, Fuel Suction — See Engine Parts Manual	—
7	75F-4	COUPLING, Tank Reducing	1	15	-----	FUEL FILTER — See Engine Parts Manual	—
8	356615	BUSHING, Coupling Reducing	1	16	13F-04	PLUG, Filter	1

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

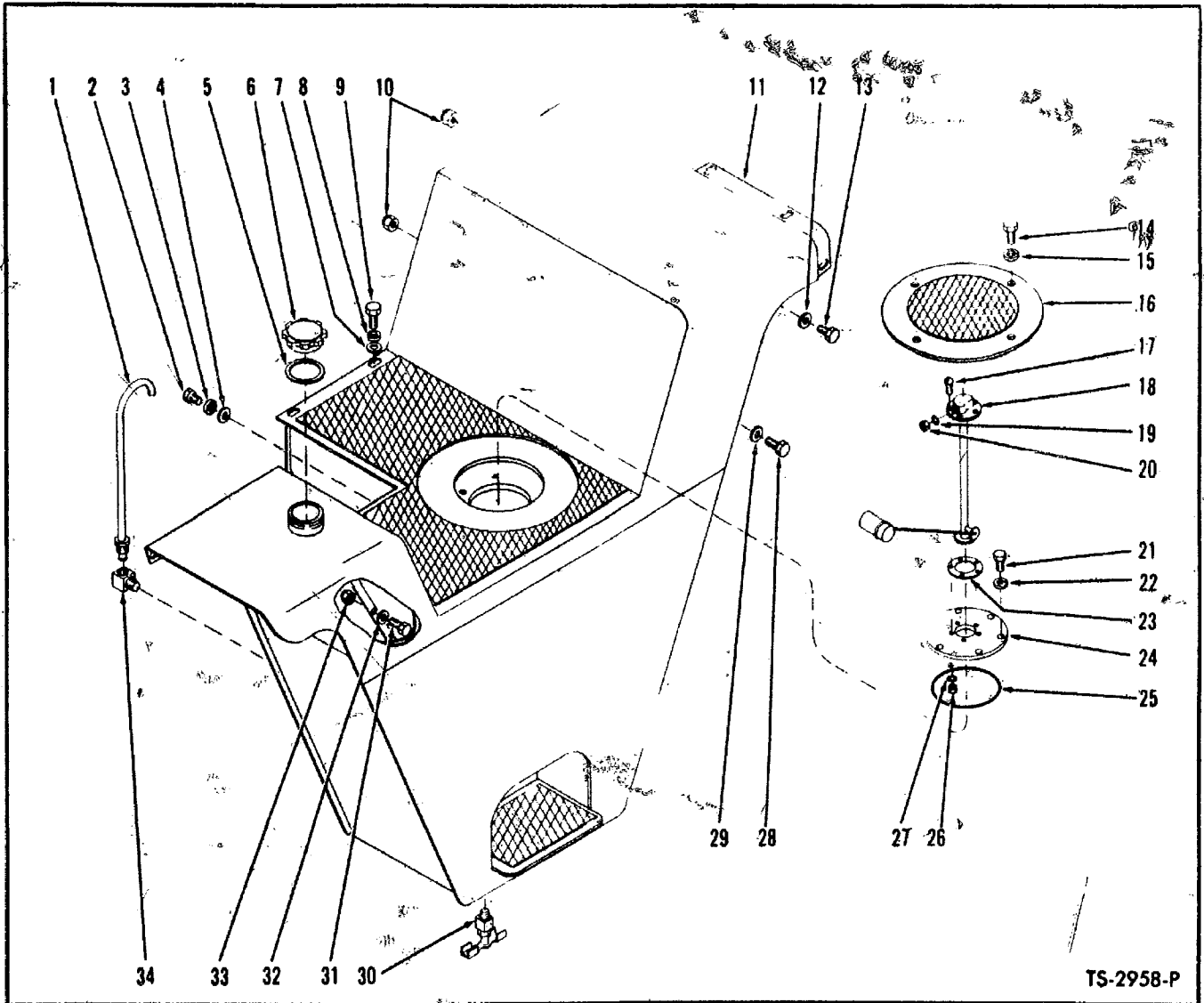


TS-3222

**FUEL LINE — WAUKESHA GAS**

Item No.	Part No.	Description	No. Req'd.
1	---	FUEL PUMP — See Engine Parts Manual	—
2	31F-2	ADAPTER UNION	1
3	587456	HOSE, Fuel Tank to Pump	1
4	30K 304	ELBOW Hose to Coupling	1
5	76F-3	COUPLING, Reducing — Elbow to Tank	1

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

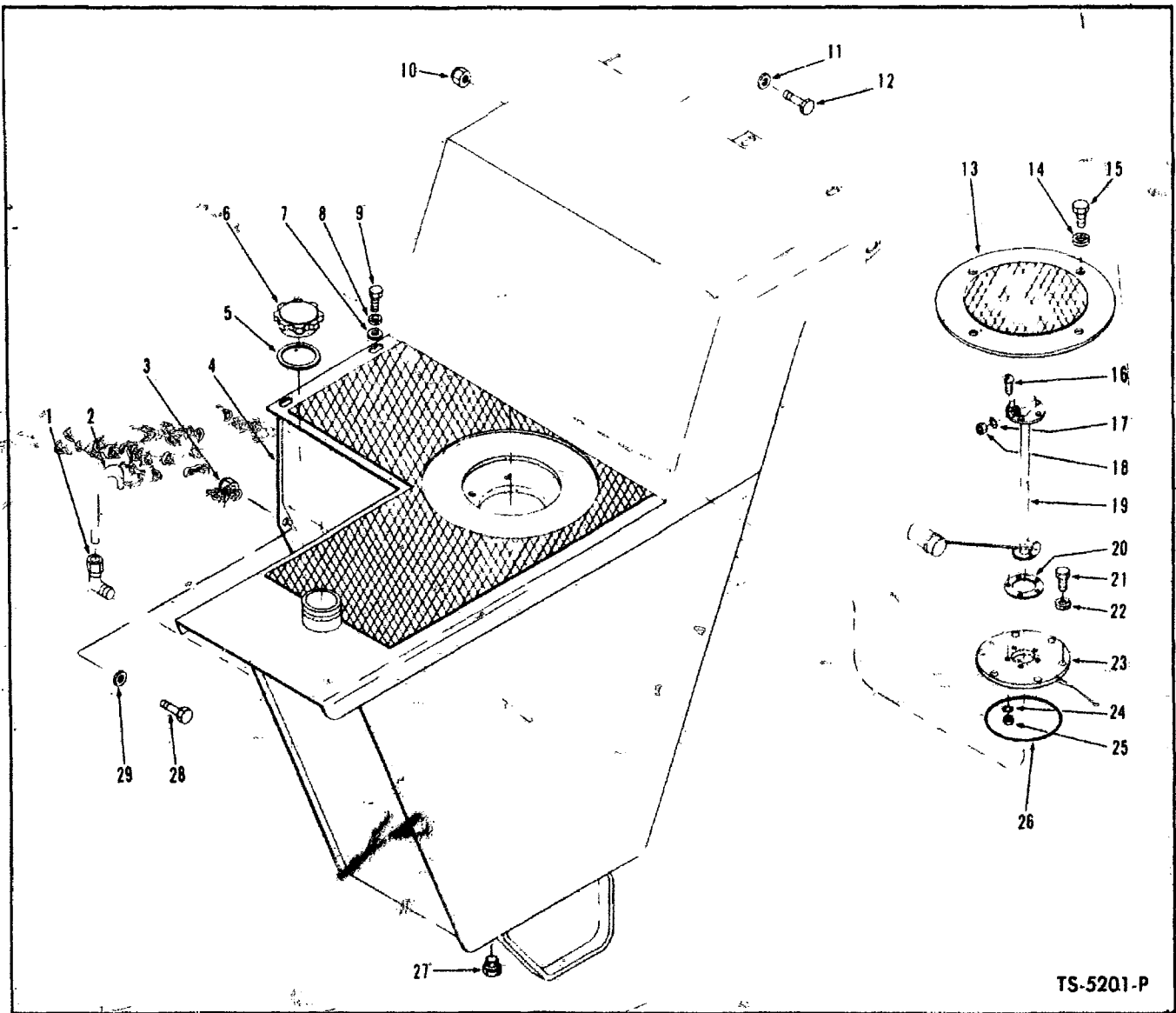


TS-2958-P

**FUEL TANK**  
**For Serial: Cummins — 2DC101 thru 3DC999**  
**G.M. — 2DG101 thru 4DG999**  
**Wauk. — 2DA101 and after**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	543084	TUBE, Vent	1	18	536204	SENDER UNIT, Fuel Tank	1
2	17C-616	BOLT, Tank to Pivot Cap	2	19	12E-10	LKWSHR, Sender Unit Terminal	1
3	4E-06	LKWSHR, Tank to Pivot Cap	2	20	14D-10	NUT, Sender Unit Terminal	1
4	619021	WASHER, Tank to Pivot Cap	2	21	18C-612	BOLT, Support Ring to Tank	6
5	639318	GASKET, Filler Cap	1	22	4E-06	LKWSHR, Support Ring to Tank	6
6	539195	CAP, Filler	1	23	627982	GASKET, Sender Unit	1
7	619021	WASHER, Tank to Seat Support	2	24	536274	SUPPORT RING	1
8	4E-06	LKWSHR, Tank to Seat Support	2	25	25K-40428	"O" RING, Support Ring	1
9	17C-612	BOLT, Tank to Seat Support	2	26	12D-10	NUT, Sender Unit to Support Ring	5
10	18D-06	NUT, Tank to Frame	3	27	12E-10	LKWSHR, Sender Unit to Support Ring	5
11	536387	TANK, Fuel	1	28	18C-636	BOLT, Tank to Frame	1
12	619021	WASHER, Tank to Seat Support	2	29	619021	WASHER, Tank to Frame	1
13	18C-620	BOLT, Tank to Seat Support	2	30	72F-2	DRAIN COCK	1
14	17C-608	BOLT, Cover to Tank	4	31	18C-832	BOLT, Tank to Frame	2
15	4E-06	LKWSHR, Cover to Tank	4	32	619029	WASHER, Tank to Frame	2
16	540056	COVER	1	33	18D-08	NUT, Tank to Frame	2
17	3G-1008	SCREW, Sender Unit to Support Ring	5	34	62E-3	ELBOW, Tube to Tank	1

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

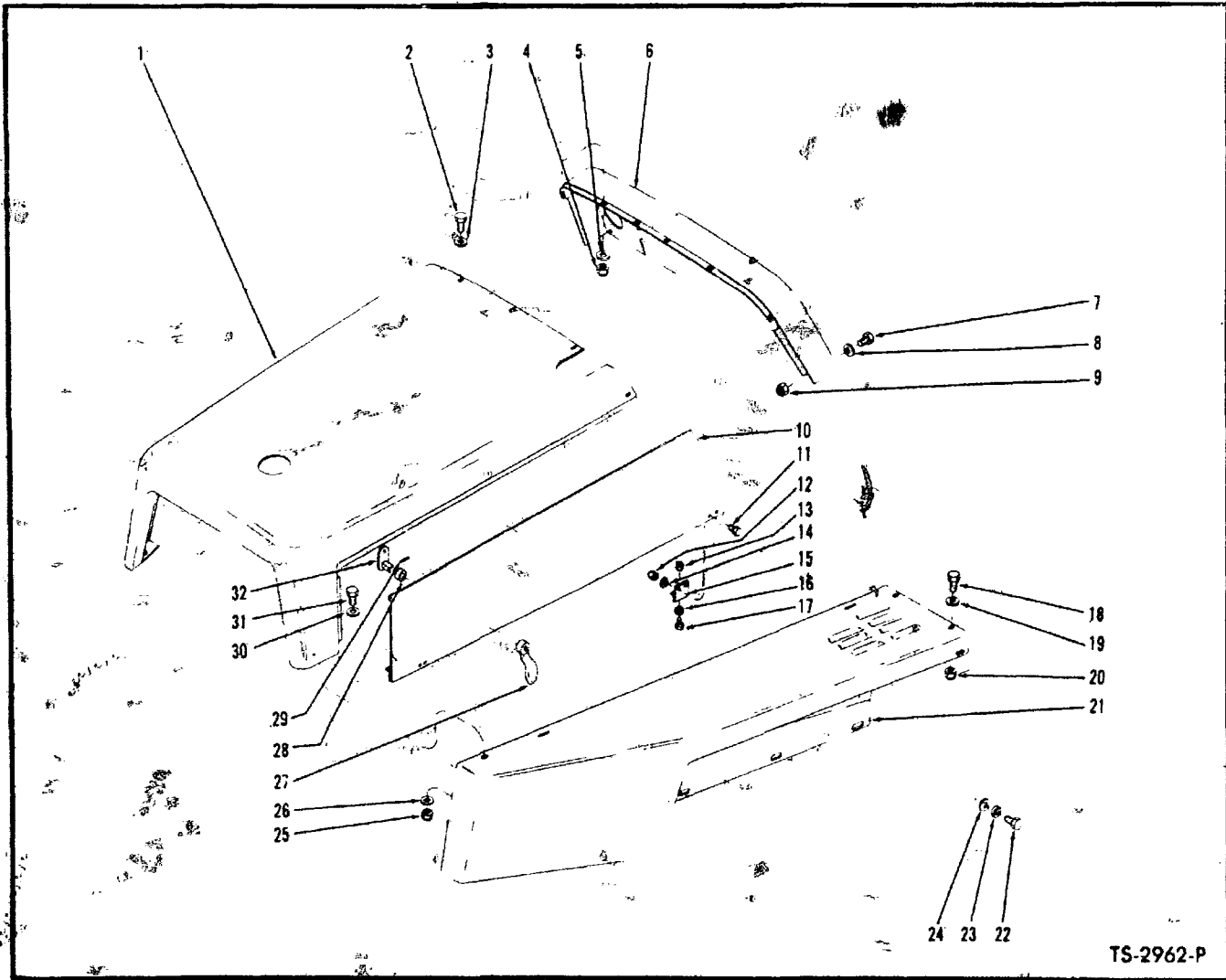


**FUEL TANK**

For Serials Cummins - 4DC101 and after  
G.M. - 5DG101 and after

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	51F-3	ELBOW, Tube to Tank	1	16	3G-1008	SCREW, Sender Unit to Support Ring	5
2	567847	TUBE, Vent	1	17	12E-10	LKWSHR, Sender Unit	1
3	18D-08	NUT, Tank to Frame	2	18	14D-10	NUT, Sender Unit	1
4	566062	TANK, Fuel (Inc. 6)	1	19	536204	SENDER UNIT, Fuel Tank	1
5	539318	GASKET, Filler Cap	1	20	627982	GASKET, Sender Unit	1
6	539195	CAP, Filler (Inc. 5)	1	21	18C-612	BOLT, Support Ring to Tank	6
7	619021	WASHER, Tank to Seat Support	2	22	4E-06	LKWSHR, Support Ring to Tank	6
8	4E-06	LKWSHR, Tank to Seat Support	2	23	536274	SUPPORT RING	1
9	17C-612	BOLT, Tank to Seat Support	2	24	12E-10	LKWSHR, Sender Unit to Support Ring	5
10	18D-06	NUT, Tank to Seat Support	2	25	12D-10	NUT, Sender Unit to Support Ring	5
11	619021	WASHER, Tank to Seat Support	2	26	25K-40428	"O" RING	1
12	18C-620	BOLT, Tank to Seat Support	2	27	13F-04	PLUG, Fuel Tank Drain	1
13	540056	COVER, Fuel Tank	1	28	18C-832	BOLT, Tank to Frame	2
14	4E-06	LKWSHR, Cover to Tank	4	29	619029	WASHER, Tank to Frame	2
15	17C-608	BOLT, Cover to Tank	4				

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

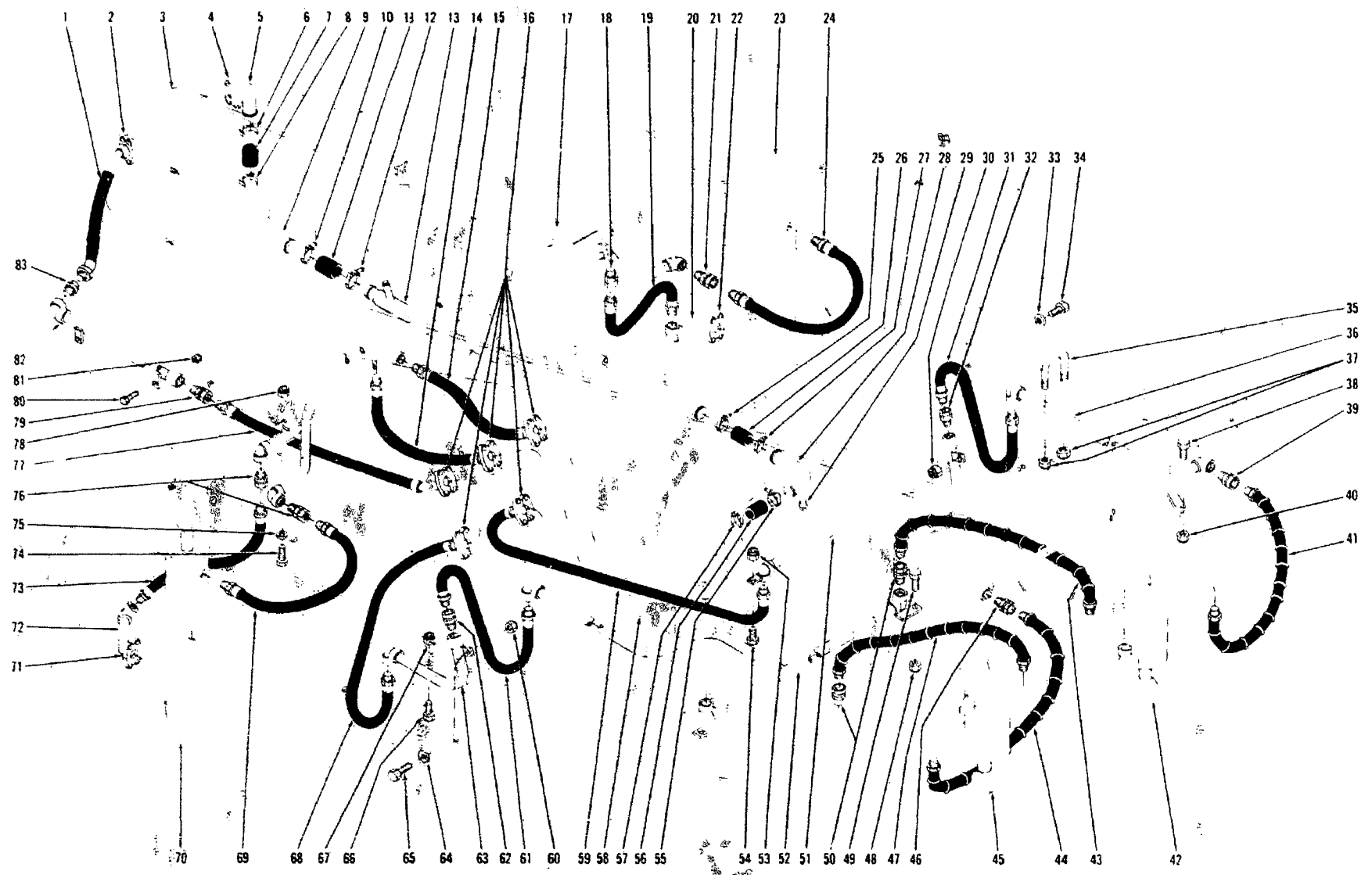


**REAR HOOD ASSEMBLY**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1		HOOD, Rear		15	541035	BRACKET Panel Support	4
1A	536956	For G.M. Powered Machines	1	16	551433	BUMPER, Side Panel—Rubber	4
1B	544988	For Gas Powered Machines	1	17	3G-1008	SCREW Bumper to Bracket	4
1C	547152	For Cummins Powered Machines		18	18C-620	BOLT Fender to Frame	6
2	18C-620	BOLT Hood to Cowl	5	19	619021	WASHER, Fender to Frame	8
3	619021	WASHER, Hood to Cowl	5	20	18D-06	NUT Fender to Frame	6
4	18D-06	NUT Hood to Cowl	5	21	536951	FENDER, Rear—R.H.	1
5	619021	WASHER, Hood to Cowl	5	21A	536952	FENDER, Rear—L.H.	1
6	536955	COWL, Hood	1	22	18C-620	BOLT Fender to Frame	6
7	18C-620	BOLT Cowl to Seat Support	6	23	4E-06	LKWSHR, Fender to Frame	6
8	619021	WASHER, Cowl to Seat Support	6	24	619021	WASHER, Fender to Frame	6
9	18D-06	NUT Cowl to Seat Support	6	25	18D-06	NUT Hood to Fender	2
10	544952	PANEL, Hood Side—R.H.	1	26	619021	WASHER, Hood to Fender	2
10A	544953	PANEL, Hood Side—L.H.	1	27	142396	KIT Handle (Inc. 28, 29, 32)	4
11	18C-412	BOLT Bracket to Panel	8	28		§SPACER, Handle	4
12	18D-04	NUT Bracket to Panel	8	29	730432	PIN, Shaft	4
13	12D-10	NUT Bumper to Bracket	4	30	619021	WASHER, Hood to Fender	2
14	25E-13	WASHER, Bracket to Panel	8	31	18C-620	BOLT Hood to Fender	2
				32		§SHAFT—See 27	4

§Not Sold Separately

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



86.1

(1F3)

PM 1669

**HYDRAULIC SYSTEM – BUCKET AND BOOM**  
For Serial Cummins–2DC101 thru 2DC999 G M –2DG101 thru 2DG999 Wauk –2DA101 and after

TS-2939 P

**HYDRAULIC SYSTEM — BUCKET AND BOOM**

For Serial: Cummins — 2DC101 thru 2DC999

G.M. — 2DG101 thru 2DG999

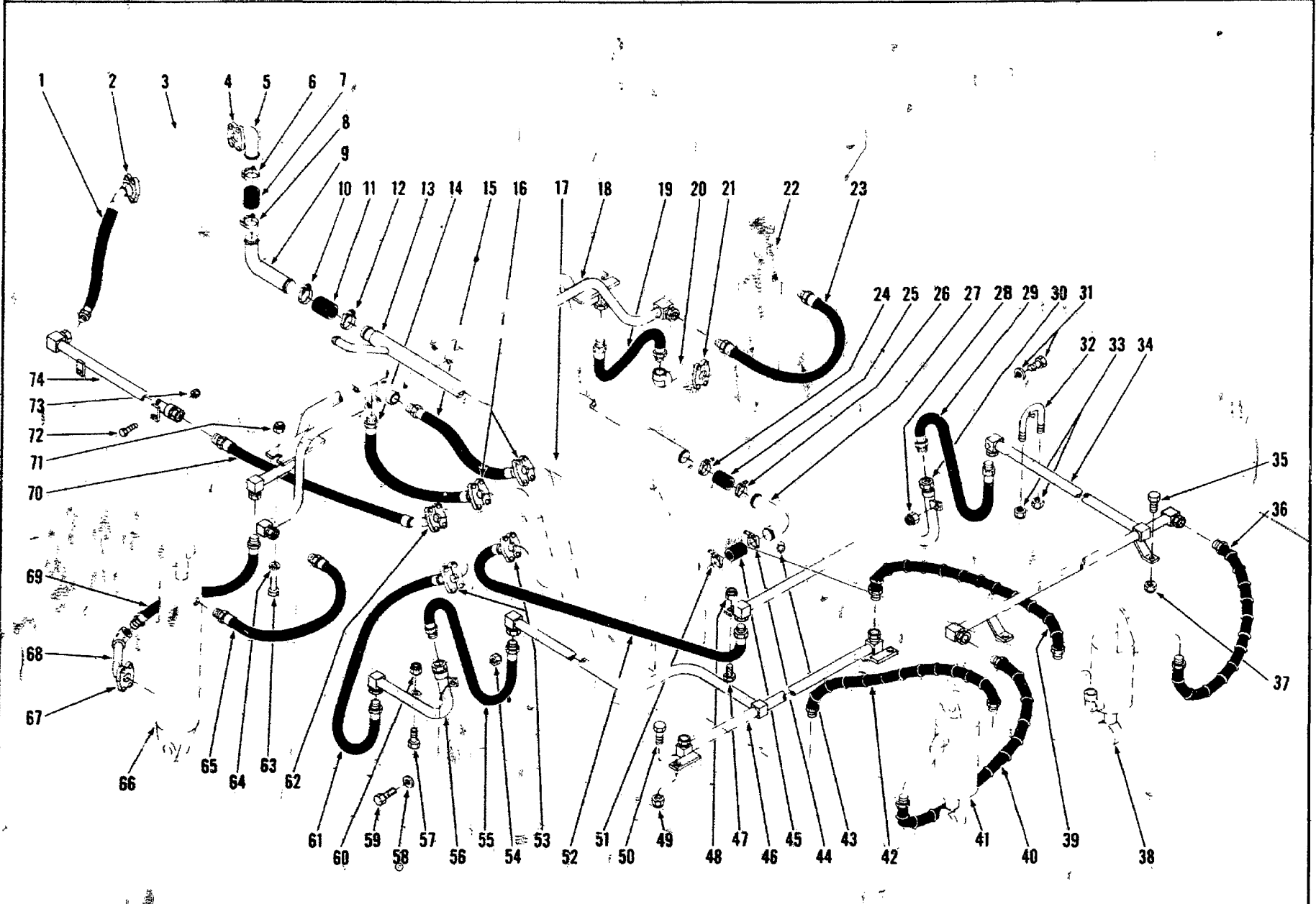
Wauk. — 2DA101 and after

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	543923	HOSE, Pump to Valve	1	43	540761	HOSE, Crosspipe to Bucket Cylinder	1
2	-----	FLANGE HALF—See Group "B"	—	44	540760	HOSE, Crosspipe to Bucket Cylinder	1
3	-----	PUMP—Bucket & Boom—See Index	—	45	-----	BUCKET CYLINDER—See Index	—
4	-----	FLANGE HALF—See Group "C"	—	46	36F-5	ADAPTER UNION	1
5	543918	STEM	1	47	540761	HOSE, Crosspipe to Bucket Cylinder	1
6	540108	CLAMP Hose	1	48	18D-06	NUT R. H. Crosspipe to Frame	2
7	541181	HOSE, Suction	1	49	18C-624	BOLT, R. H. Crosspipe to Frame	2
8	540108	CLAMP Hose	1	50	36F-5	ADAPTER UNION	2
		TUBE, Suction		51	542138	PIPE, L. H.	1
9A	543926	For Waukesha Gas & Cummins Diesel	1	52	542119	CROSSPIPE, R. H.	1
9B	543927	For G.M. Diesel	1	53	18D-06	NUT, L. H. Pipe to Frame	1
10	540104	CLAMP Hose	1	54	18C-620	BOLT, L. H. Pipe to Frame	1
11	556415	HOSE, Suction	1	55	540106	CLAMP Hose	1
12	540104	CLAMP, Hose	1	56	533478	HOSE, Suction	1
13	540611	TUBE, Suction	1	57	540106	CLAMP Hose	1
14	543300	HOSE, Crosspipe to Reservoir	1	58	-----	RESERVOIR—See Index	—
15	543298	HOSE, Crosspipe to Reservoir	1	59	533417	HOSE, Reservoir to L. H. Pipe	1
16	-----	FLANGE HALF—See Group "A"	—	60	18D-06	NUT R. H. Pipe to Frame	1
17	536350	CROSSPIPE, Boom Cylinder	1	61	523543	HOSE, R. H. Pipe to Crosspipe	1
18	36F 5	ADAPTER UNION	1	62	36F-5	ADAPTER UNION	1
19	669953	HOSE, Crosspipe to Boom Cylinder	1	63	542143	PIPE, R. H.	1
20	549877	TUBE, Hose to Boom Cylinder	1	64	619023	WASHER	1
21	36F-5	ADAPTER UNION	1	65	18C-628	BOLT, R. H. Pipe to Frame	1
22	-----	FLANGE HALF—See Group "A"	—	66	18C-620	BOLT, R. H. Pipe to Frame	1
23	-----	BOOM CYLINDER—See Index	—	67	18D-06	NUT, R. H. Pipe to Frame	1
24	672904	HOSE, Crosspipe to Boom Cylinder	1	68	543299	HOSE, Reservoir to R. H. Pipe	1
25	540106	CLAMP Hose	1	69	672904	HOSE, Crosspipe to Boom Cylinder	1
26	533478	HOSE, Suction	1	70	-----	BOOM CYLINDER—See Index	—
27	540106	CLAMP Hose	1	71	-----	FLANGE HALF—See Group "A"	—
28	540614	TUBE, Suction	1	72	549876	TUBE	1
29	13F-08	PLUG, Pipe	1	73	669953	HOSE, Crosspipe to Cylinder	1
30	18D-06	NUT, L. H. Pipe to Frame	1	74	18C-622	BOLT, Crosspipe to Frame	2
31	523543	HOSE, L. H. Pipe to Crosspipe	1	75	619023	WASHER, Crosspipe to Frame	2
32	36F-5	ADAPTER UNION	1	76	36F-5	ADAPTER UNION	2
33	619023	WASHER, L. H. Pipe to Frame	1	77	543301	HOSE, Reservoir to Pump	1
34	18C-628	BOLT L. H. Pipe to Frame	1	78	18D-06	NUT, Crosspipe to Frame	2
35	537477	U-BOLT, Crosspipe to Frame	2	79	36F-6	ADAPTER UNION	1
36	542120	CROSSPIPE, L. H.	1	80	18C-632	BOLT, Reservoir to Pump Line to Frame	2
37	18D-06	NUT, U-Bolt	4	81	18D-06	NUT, Reservoir to Pump Line to Frame	2
38	18C-624	BOLT, L. H. Crosspipe to Frame	2	82	-----	LINE, Reservoir to Pump	—
39	36F-5	ADAPTER UNION	1	82A	543930	For Waukesha Gas & Cummins Diesel	1
40	18D-06	NUT, L. H. Crosspipe to Frame	2	82B	543928	For G.M. Diesel	1
41	540760	HOSE, Crosspipe to Bucket Cylinder	1				
42	-----	BUCKET CYLINDER—See Index.	—	83	36F-6	ADAPTER UNION	1

GROUP	FLANGE HALF	"O" RING	BOLT	LKWSHR	SIZE
No. Req'd Per Connection	2	1	4	4	
A	19J16	58K-210	17C-620	4E-06	1"
B	19J24	58K-225	17C-824	4E-08	1½"
C	19J32	58K-228	17C-824	4E-08	2"

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





HYDRAULIC SYSTEM - BUCKET AND BOOM  
For Serial: Cummins-3DC101 and after G M -3DG101 and after

TS-5124 P

86A.1

(1F5)

P.M. 1669

**HYDRAULIC SYSTEM — BUCKET AND BOOM**

For Serial: Cummins — 3DC101 and after  
G.M. — 3DG101 and after

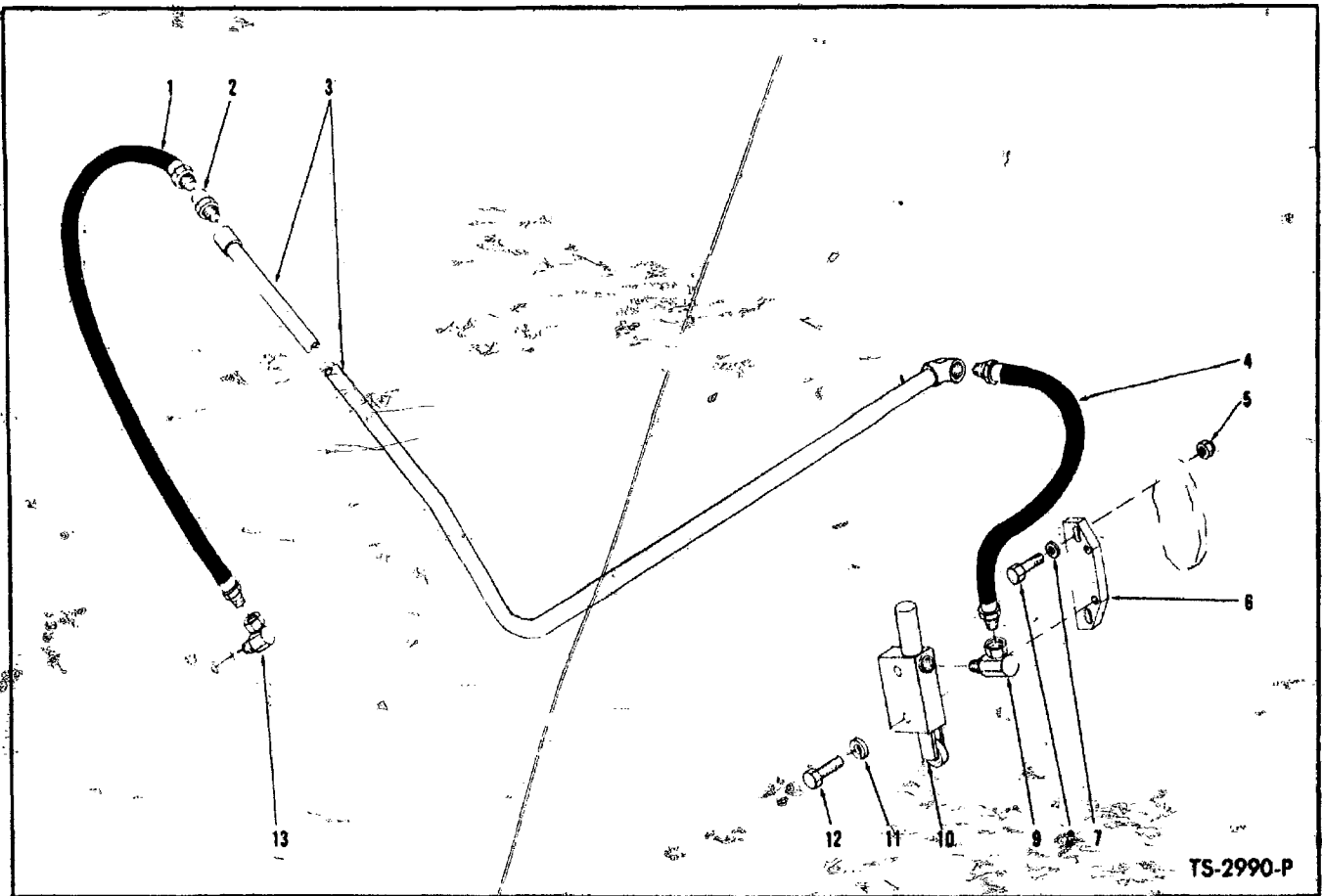
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	541179	HOSE, Pump to Pressure Line	1	36	589923	HOSE, Crosstube to Bucket Cylinder	1
2	-----	FLANGE HALF — See Group "B" Below	-----	37	18D-06	NUT, L.H. Crosstube to Bucket Cyl.	2
3	-----	PUMP, Bucket & Boom — See Index	-----	38	-----	BUCKET CYLINDER — See Index	-----
4	-----	FLANGE HALF — See Group "C" Below	-----	39	589922	HOSE, Crosstube to Bucket Cylinder	1
5	543918	STEM, Suction Line	1	40	589923	HOSE, Crosstube to Bucket Cylinder	1
6	540108	CLAMP, Hose	1	41	-----	BUCKET CYLINDER — See Index	-----
7	541181	HOSE, Stem to Tube	1	42	589922	HOSE, Crosstube to Bucket Cylinder	1
8	540108	CLAMP, Hose	1	43	13F-08	PLUG, Pipe	1
9	-----	TUBE, Suction	-----	44	540106	CLAMP, Hose	1
9A	543926	For Cummins Powered Machines	1	45	533478	HOSE, Tube to Reservoir	1
9B	543927	For G.M. Powered Machines	1	46	589926	*CROSSTUBE, R.H.	1
10	540104	CLAMP, Hose	1	47	18C-620	BOLT, L.H. Tube to Frame	1
11	556415	HOSE, Tube to Tube	1	48	18D-06	NUT, L.H. Tube to Frame	1
12	540104	CLAMP, Hose	1	49	18D-06	NUT, Crosstube to Frame	2
13	540611	TUBE, Main Suction	1	50	18C-624	BOLT, Crosstube to Frame	2
14	543300	HOSE, Crosstube to Valve	1	51	540106	CLAMP, Hose	1
15	543298	HOSE, Crosstube to Valve	1	52	533417	HOSE, Valve to L.H. Tube	1
16	-----	FLANGE HALF — See Group "A" Below	-----	53	-----	FLANGE HALF — See Group "A" Below	-----
17	-----	RESERVOIR, Hydraulic Oil — See Index	-----	54	18D-06	NUT, R.H. Tube to Frame	1
18	589930	CROSSTUBE, Boom Cylinder — See Note "C"	1	55	589786	HOSE, R.H. Tube to Crosstube	1
19	612390	HOSE, Crosstube to Boom Cylinder	1	56	589934	TUBE, R.H.	1
20	549877	TUBE, Hose to Boom Cylinder	1	57	18C-620	BOLT, R.H. Tube to Frame	1
21	-----	FLANGE HALF — See Group "A" Below	-----	58	25E-18	WASHER, R.H. Tube to Frame	1
22	-----	BOOM CYLINDER — See Index	-----	59	18C-628	BOLT, R.H. Tube to Frame	1
23	589924	HOSE, Boom Cylinder to Crosstube	1	60	18D-06	NUT, R.H. Tube to Frame	1
24	540106	CLAMP, Hose	1	61	543299	HOSE, Valve to R.H. Tube	1
25	533478	HOSE, Tube to Tube	1	62	-----	FLANGE HALF — See Group "A" Below	-----
26	540106	CLAMP, Hose	1	63	18C-622	BOLT, Crosstube to Frame	2
27	540614	TUBE, Suction (Inc. 43)	1	64	619021	WASHER, Crosstube to Frame	2
28	18D-06	NUT, L.H. Tube to Frame	1	65	589924	HOSE, Crosstube to Boom Cylinder	1
29	589786	HOSE, L.H. Tube to Crosstube	1	66	-----	BOOM CYLINDER — See Index	-----
30	589937	TUBE, L.H. — See Note "D"	1	67	-----	FLANGE HALF — See Group "A" Below	-----
31	18C-628	BOLT, L.H. Tube to Frame	1	68	549876	TUBE, Hose to Boom Cylinder	1
31A	25E-18	WASHER, L.H. Tube to Frame	1	69	612390	HOSE, Crosstube to Cylinder	1
32	537477	U-BOLT, Crosstube to Frame	2	70	589925	HOSE, Valve to Pump	1
33	18D-06	NUT, Crosstube to Frame	4	71	18D-06	NUT, Crosstube to Frame	2
34	589941	***CROSSTUBE, L.H.	1	72	18C-632	BOLT, Tube to Frame	2
35	18C-624	BOLT, L.H. Crosstube to Frame	2	73	18D-06	NUT, Tube to Frame	2
				74	-----	TUBE, Pump to Valve Pressure	-----
				74A	589951	For Cummins Powered Machines — See Note "A"	1
				74B	589949	For G.M. Powered Machines — See Note "B"	1

\*NOTE: For replacement use 542143 plus 1-36F-5 Adapter Union.  
 \*\*NOTE: For replacement use 542119 plus 2-36F-5 Adapter Unions.  
 \*\*\*NOTE: For replacement use 542120 plus 2-36F-5 Adapter Unions.  
 NOTE "A": For replacement use 543930 Tube plus 2-36F-6 Adapters.  
 NOTE "B": For replacement use 543928 Tube plus 2-36F-6 Adapters.  
 NOTE "C": For replacement use 536350 Crosspipe plus 4-36F-5 Adapters.

NOTE "D" For replacement use 542138 Pipe plus  
1-36F-5 Adapter Union.

GROUP	FLANGE HALF	"O" RING	BOLT	LKWSHR	SIZE
No. Req'd. Per Connection	2	1	4	4	
A	19J16	58K-210	17C-620	4E-06	1"
B	19J24	58K-225	17C-824	4E-08	1½"
C	19J32	58K-228	18C-624	4E-08	2"

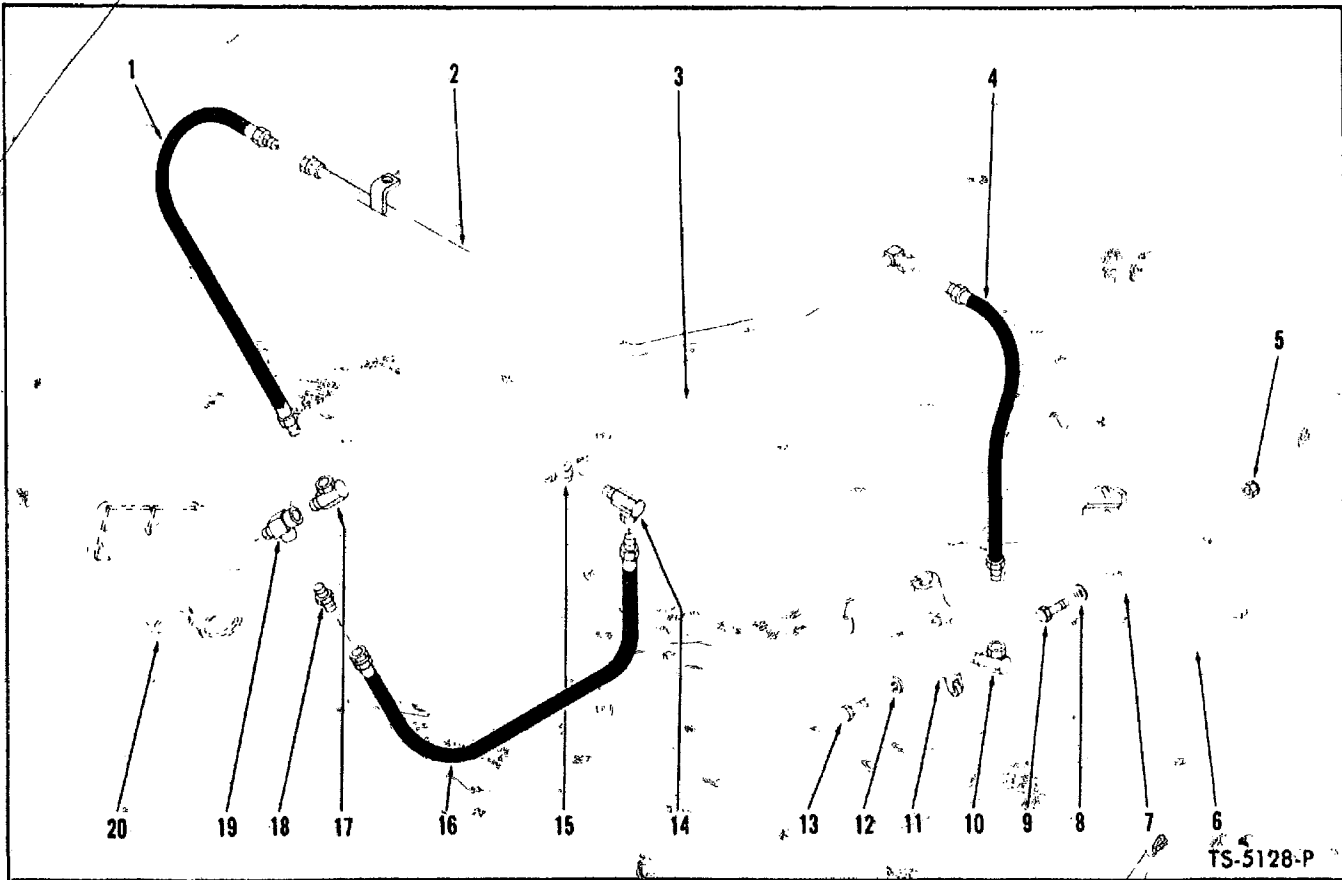
**WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE**



**HYDRAULIC SYSTEM — BUCKET LEVELING**  
 For Serial: Cummins — 2DC101 thru 3DC135  
 G.M. — 2DG101 thru 3DG999  
 Wauk. — 2DA101 and after

Item No.	Part No.	Description	No. Req'd.
1	541794	HOSE, Valve to Pipe	1
2	36F-2	ADAPTER UNION	1
3	545252	PIPE, Guide Bar	1
4	545211	HOSE, Pipe to Master Cylinder	1
5	18D-06	NUT, Plate to Carrier	2
6	542639	PLATE, Master Cylinder to Carrier	1
7	619023	WASHER, Plate to Carrier	2
8	18C-628	BOLT, Plate to Carrier	2
9	31F-2	ADAPTER UNION	1
10	—	MASTER CYLINDER, Bucket Leveling — See Index	—
11	4E-06	LKWSHR, Cylinder to Plate	2
12	18C-640	BOLT, Cylinder to Plate	2
13	31F-2	ADAPTER UNION	1

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

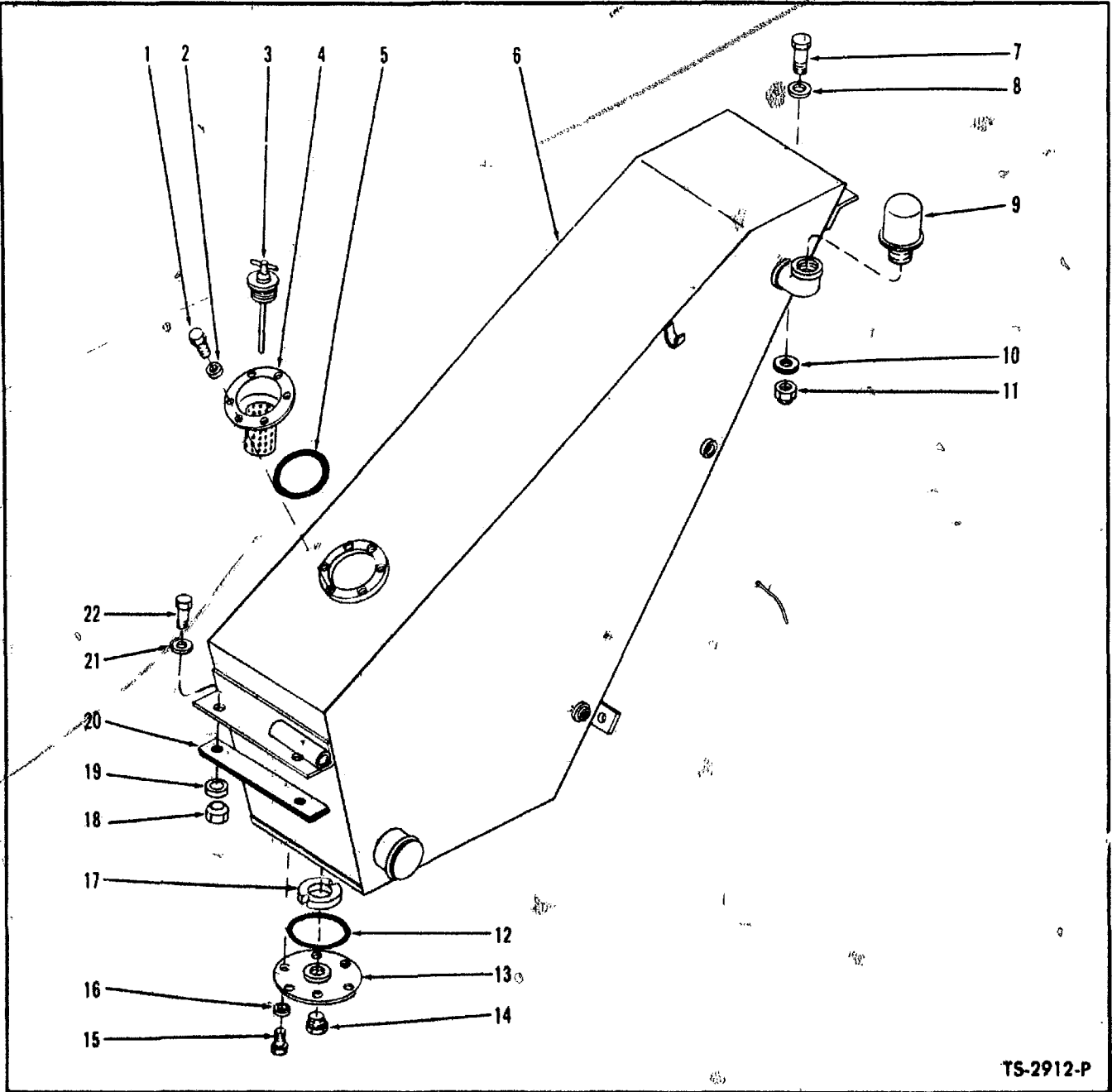


TS-5128-P

**HYDRAULIC SYSTEM — BUCKET LEVELING**  
 For Serial: Cummins — 3DC136 and after  
 G.M. — 4DG101 and after  
 Wauk. — C3DA9-14 and after

Item No.	Part No.	Description	No. Req'd.
1	541794	HOSE, Control Valve to Line	1
2	589947	LINE, Control Valve to Leveler Valve	1
3	---	GUIDE BAR — See Index	---
4	545211	HOSE, Leveler Valve to Line	1
5	18D-06	NUT Plate Mounting	2
6	---	BUCKET CARRIER — See Index	---
7	588224	PLATE, Master Cylinder Mounting	1
8	619023	WASHER, Plate Mounting	2
9	18C-628	BOLT Plate Mounting	2
10	31F-2	ADAPTER UNION, Master Cylinder	1
11	---	MASTER CYLINDER — See Index	---
12	4E-06	LKWSHR, Master Cylinder Mounting	2
13	18C-644	BOLT, Master Cylinder Mounting	2
14	31F-1	ADAPTER UNION, Hose to Steering Tee	1
15	---	TEE, See Steering Hydraulic System, Index	---
16	562751	HOSE, Adapter Union to Check Valve	1
17	31F-2	ADAPTER UNION	1
18	568524	CHECK VALVE	1
19	30F-1	TEE, Hose to Control Valve	1
20	---	CONTROL VALVE — See Index	---

\*NOTE: For replacement use 545252 plus 1-36F-2 Adapter Union.  
**WHEN ORDERING PARTS, ALWAYS STATE MODEL AND SERIAL NO. OF MACHINE**



TS-2912-P

**HYDRAULIC OIL RESERVOIR**

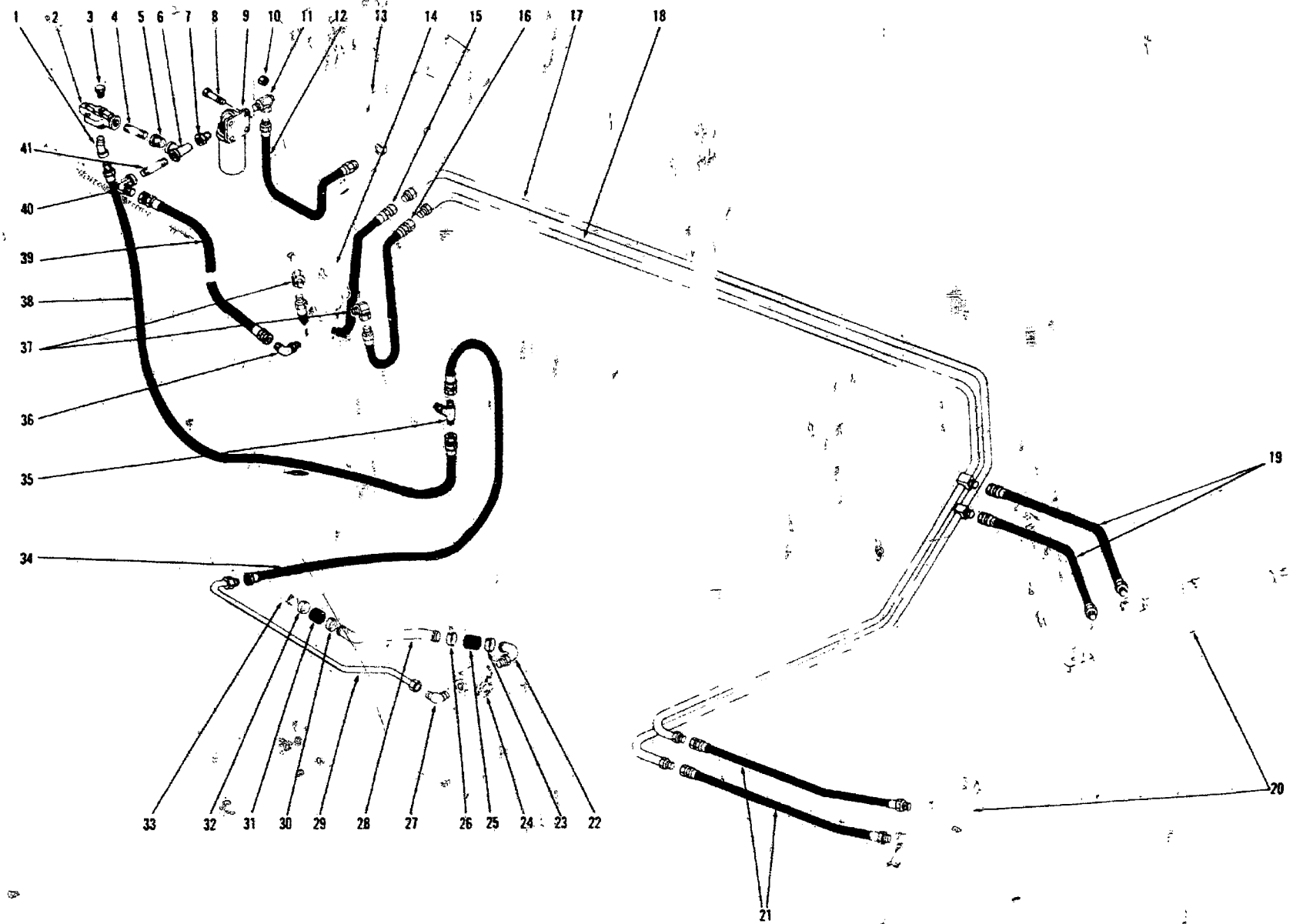
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-612	BOLT, Filler Cap to Reservoir	6	13	587613	COVER, Reservoir Inspection	1
2	4E-06	LKWSHR, Filler Cap to Reservoir	6	14	40K 16	PLUG, Inspection Cover	1
3	538286	PLUG, Filler	1	15	18C-612	BOLT, Inspection Cover	6
4	539987	CAP Filler	1	16	4E-06	LKWSHR, Inspection Cover	6
5	25K-40428	"O" RING, Filler Cap	1	17	525293	MAGNET, Reservoir	1
6	535898	RESERVOIR, Hydraulic Oil	1	18	70D-08	NUT, Reservoir Mounting - Bottom	2
7	18C-828	BOLT Reservoir Mounting - Top	1	19	71D-08	BASE, Reservoir Mounting Nut	2
8	25E 21	WASHER, Reservoir Mounting - Top	1	20	549280	PAD Reservoir Mounting - Bottom	1
9	538240	CAP Reservoir Breather	1	21	25E 21	WASHER, Reservoir Mounting - Bottom	2
10	518233	PAD, Reservoir Mounting - Top	1	22	18C-836	BOLT, Reservoir Mounting - Bottom	2
11	18D-08	NUT Reservoir Mounting - Top	1				
12	25K-40428	"O" RING, Inspection Cover	1				

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

78.1

(1F13)

PM 1669



HYDRAULIC SYSTEM - STEERING - CUMMINS  
For Serial: 2DC101 thru 3DC135

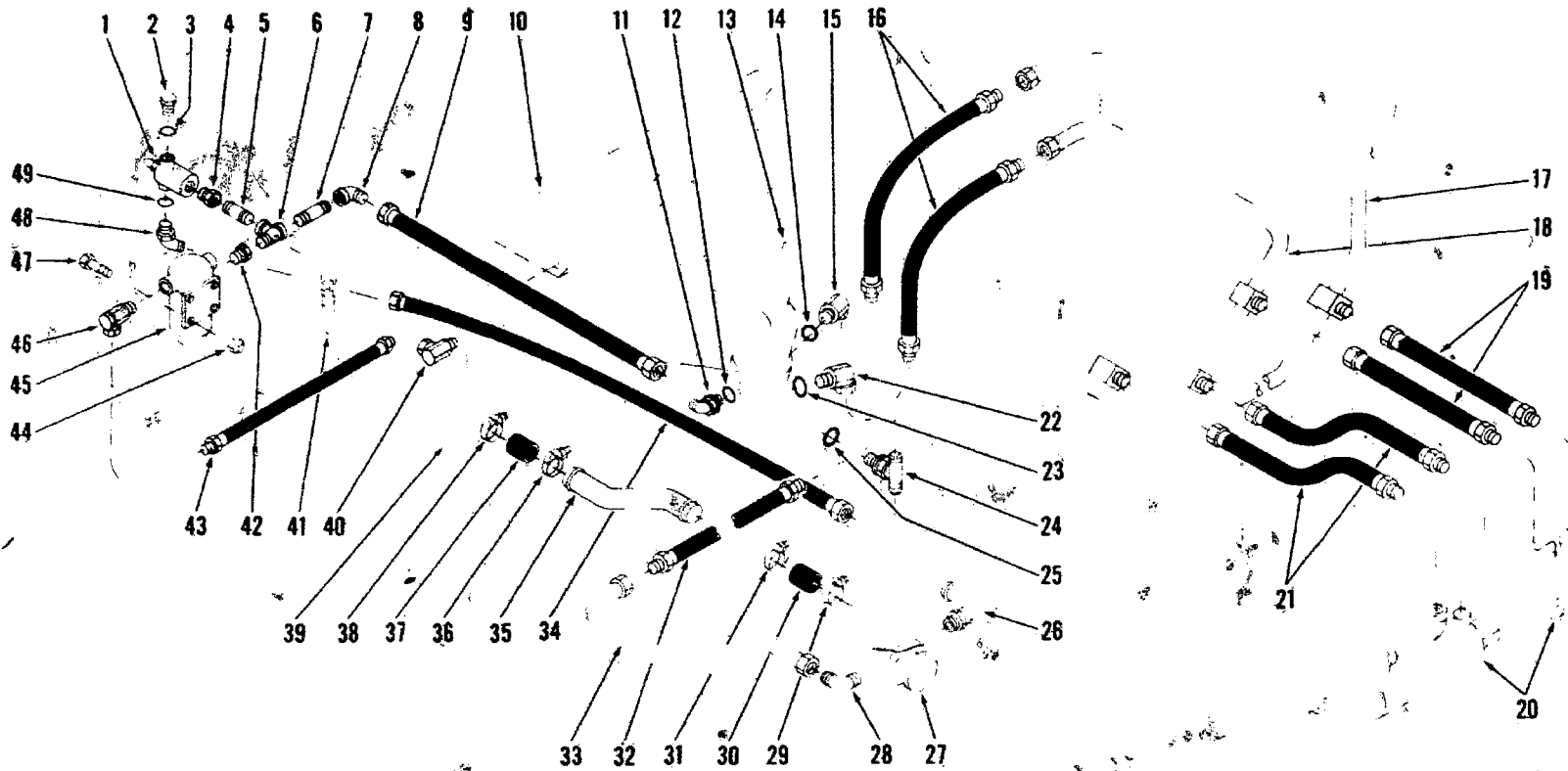
TS 3315 P

**CONSTRUCTION MACHINERY DIVISION  
STEERING HYDRAULIC SYSTEM — CUMMINS  
For Serial: 2DC101 thru 3DC135**

Item No.	Part No.	Description	No. Req'd
1	18K 7	ELBOW Relief Valve .....	1
2	---	VALVE, Relief — See Index .....	1
3	24K 7	PLUG, Relief Valve .....	1
4	5K-414	NIPPLE, Relief Valve .....	1
5	356617	BUSHING, Reducing — Nipple to Tee .....	1
6	17F-4	TEE .....	1
7	620562	BUSHING, Reducing — Tee to Filter .....	1
8	18C-628	BOLT Filter Mounting .....	4
9	1533615	FILTER, Steering System Oil (Inc. 9A) .....	1
9A	215502	†CARTRIDGE KIT Filter .....	1
10	18D-06	NUT Filter Mounting .....	4
11	6K 12	VALVE, Check .....	1
12	536332	HOSE, Check Valve to Reservoir .....	1
12A	31F-5	†ADAPTER, Hose to Reservoir .....	1
13	---	RESERVOIR, Hydraulic Oil — See Index .....	—
14	---	STEERING GEAR — See Index .....	—
15	540884	HOSE, Steering Gear to Line .....	1
16	540883	HOSE, Steering Gear to Line .....	1
17	533915	LINE, Steering Gear to Cylinders .....	1
18	533916	LINE, Steering Gear to Cylinders .....	1
19	533927	HOSE, Line to Steering Cylinder .....	2
20	---	STEERING CYLINDER — See Index .....	—
21	533927	HOSE, Line to Steering Cylinder .....	2
22	535325	STEM, Steering Pump .....	1
23	540127	CLAMP Hose .....	1
24	---	STEERING PUMP — See Index .....	—
25	536749	HOSE, Tube to Stem .....	1
26	540127	CLAMP, Hose .....	1
27	83F-8	ELBOW, Line to Pump .....	1
28	540649	TUBE, Suction Tube to Pump .....	1
29	547419	LINE, Pump to Hose .....	1
30	540127	CLAMP, Hose .....	1
31	536749	HOSE, Tube to Suction Tube .....	1
32	540127	CLAMP Hose .....	1
33	---	TUBE, Suction — See Bucket and Boom Hydraulic System .....	—
34	547420	HOSE, Line to Steering Gear Tee .....	1
35	19K 7	TEE, Steering Gear .....	1
36	17K 7	ELBOW, Steering Gear .....	1
37	617089	ADAPTER UNION .....	2
38	547421	HOSE, Relief Valve to Tee .....	1
39	547420	HOSE, Steering Gear to Tee .....	1
40	85F 7	ELBOW, Hose to Nipple .....	1
41	5K-416	NIPPLE, Elbow to Tee .....	1

†Not Illustrated

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



HYDRAULIC SYSTEM - STEERING  
For Cummins Powered Machines - 3DC136 thru 3DC999

TS 5133 P

78A.1

(1F16)

PM 1669



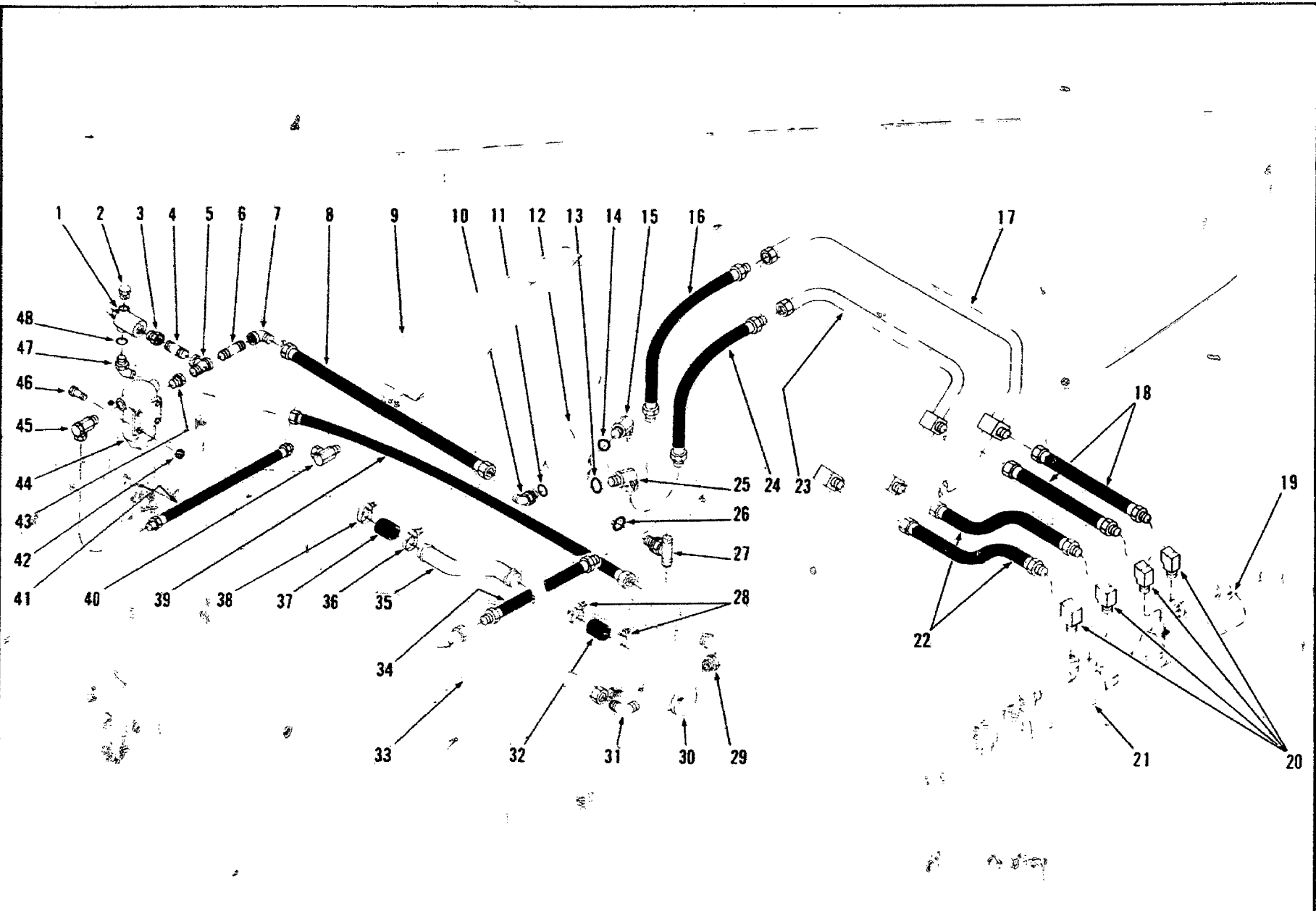
**HYDRAULIC SYSTEM — STEERING**

**For Cummins Powered Machines — 3DC136 thru 3DC999**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	-----	RELIEF VALVE, Steering Pressure — See Index .....	—	24	19K-7-	TEE, Steering Gear (Inc. 25) .....	1
2	24K-7	PLUG, Relief Valve (Inc. 3) .....	1	25	91F-7	"O" RING, Tee .....	1
3	91F-7	"O" RING .....	1	26	535325	STEM, Steering Pump Suction .....	1
4	356617	BUSHING, Valve Reducing .....	1	27	-----	STEERING PUMP — See Index .....	—
5	5K-414	NIPPLE, Tee to Bushing .....	1	28	83F-8	ELBOW Line to Pump — Pressure .....	1
6	566478	TEE .....	1	29	540129	CLAMP Hose .....	1
7	-----	NIPPLE, Elbow to Tee .....	—	30	536749	HOSE, Suction Tube to Stem .....	1
7A	5K-416	For Serial—3DC136 thru 3DC155 .....	1	31	540129	CLAMP Hose .....	1
7B	564119	For Serial—3DC156 thru 3DC999 .....	1	32	547420	HOSE, Line to Steering Gear — Pressure .....	1
8	85F-7	ELBOW Hose to Nipple .....	1	33	547419	LINE, Pump to Hose — Pressure .....	1
9	547420	HOSE, Steering Gear to Valve Tee — Return .....	1	34	547421	HOSE, Steering Gear to Valve — Pressure .....	1
10	-----	RESERVOIR, Hydraulic Oil — See Index .....	—	35	540649	TUBE, Suction .....	1
11	17K-7	ADAPTER UNION (Inc. 12) .....	1	36	540129	CLAMP Hose .....	1
12	91F 7	"O" RING, Adapter Union .....	1	37	536749	HOSE, Suction Tube to Tube .....	1
13	-----	STEERING GEAR — See Index .....	—	38	540129	CLAMP Hose .....	1
14	91F-6	"O" RING, Adapter Union .....	1	39	-----	SUCTION LINE — See Bucket & Boom Hydraulic .....	—
15	517089	ADAPTER UNION (Inc. 14) .....	1	40	31F-5	ADAPTER UNION .....	1
16	540883	HOSE, Steering Gear to Steer Lines .....	2	41	-----	HOSE — See Bucket Leveling Hyd. System — Index .....	1
17	533916	LINE, Steering Gear to Cylinders — L.H., Turn .....	1	42	620562	BUSHING, Tee to Filter Reducing .....	1
18	533915	LINE, Steering Gear to Cylinders — R.H., Turn .....	1	43	536332	HOSE, Filter to Reservoir Return .....	1
19	533927	HOSE, Steering Lines to Cylinders .....	2	44	18D-06	NUT, Filter Mounting .....	4
20	-----	STEER CYLINDERS — See Index .....	—	45	1533615	FILTER, Steering System Oil (Inc. 45A) .....	1
21	533927	HOSE, Steering Lines to Cylinders .....	2	45A	215502	†CARTRIDGE KIT, Oil Filter .....	1
22	517089	ADAPTER UNION (Inc. 23) .....	1	46	6K-12	CHECK VALVE .....	1
23	91F-6	"O" RING, Adapter Union .....	1	47	18C-628	BOLT Filter Mounting .....	4
				48	18K-7	ADAPTER UNION (Inc. 49) .....	1
				49	91F-7	"O" RING, Adapter Union .....	1

†Not Illustrated

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



STEERING HYDRAULIC SYSTEM - CUMMINS  
For Serial: 4DC101 and after

TS 5082 P

78B.1

(1F17)

P/M 1669

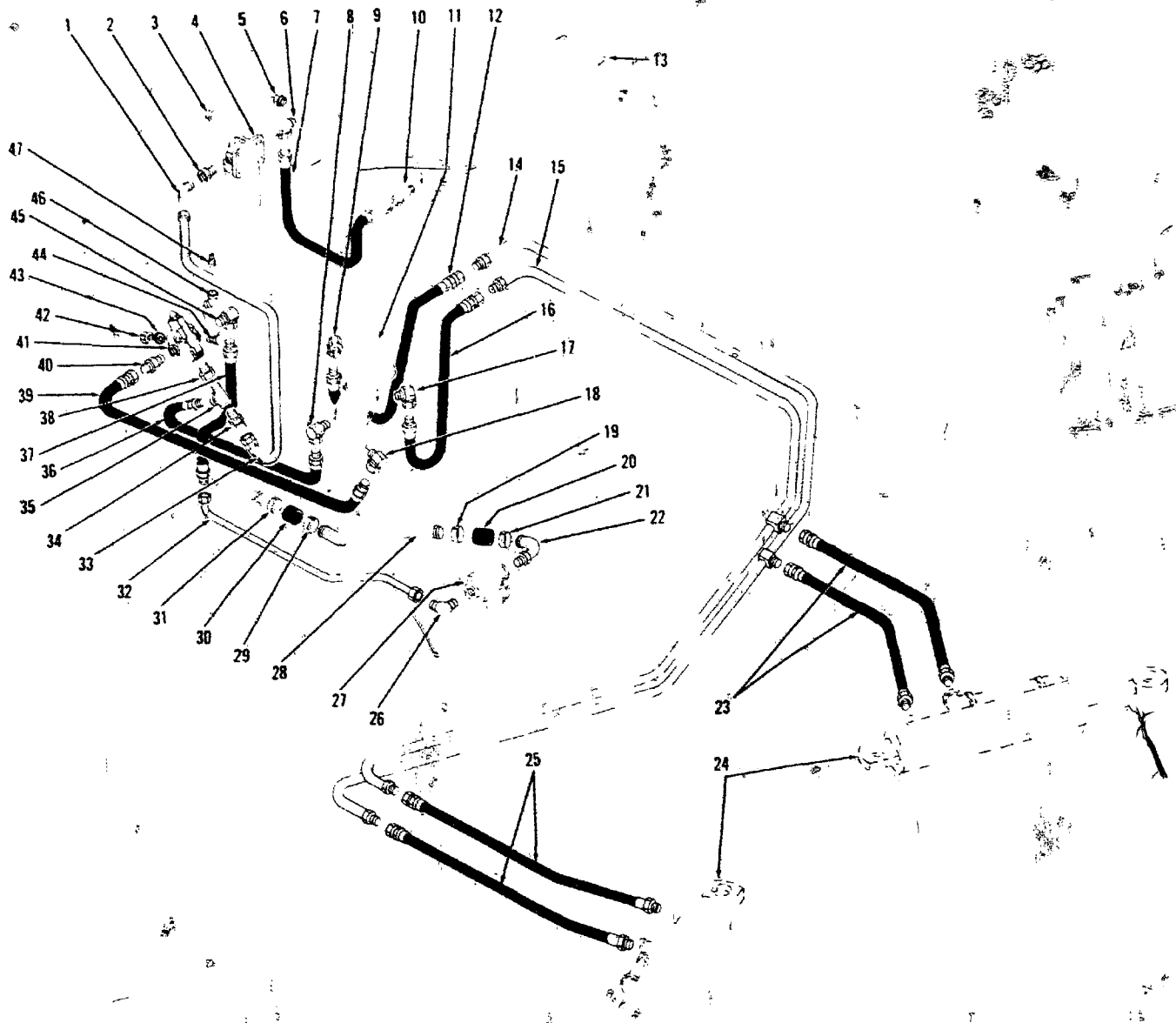
**STEERING HYDRAULIC SYSTEM - CUMMINS**

For Serial: 4DC101 and after

Item No.	Part No.	Description	No. Req'd.
1		VALVE, Relief - See Index	-
2	24K-7	PLUG, Relief Valve (Inc. 2A)	1
2A	91F-7	†"O" RING, Relief Valve Plug	1
3	356617	BUSHING, Reducing - Nipple to Valve	1
4	5K-414	NIPPLE, Bushing to Tee	1
5	566478	TEE, Filter to Nipple	1
6	564119	NIPPLE, Elbow to Tee	1
7	85F-7	ELBOW, Hose to Nipple	1
8	547420	HOSE, Filter to Steering Gear - Return	1
9		RESERVOIR, Hydraulic Oil - See Index	-
10	17K-7	ELBOW, Steering Gear to Hose (Inc. 11)	1
11	91F-7	"O" RING, Elbow	1
12		STEERING GEAR - See Index	-
13	91F-6	"O" RING, Adapter Union	1
14	91F-6	"O" RING, Adapter Union	1
15	517089	ADAPTER UNION (Inc. 14)	1
16	540883	HOSE, Steering Gear to Line	1
17	533916	PIPE, Steering Gear to Cylinder	1
18	533927	HOSE, Pipe to Cylinder	2
19		STEERING CYLINDER - See Index	-
20	81F-3	ELBOW, Hose to Cylinder	4
21		STEERING CYLINDER - See Index	-
22	533927	HOSE, Pipe to Cylinder	2
23	533915	PIPE, Steering Gear to Cylinder	1
24	540883	HOSE, Steering Gear to Line	1
25	517089	ADAPTER UNION (Inc. 13)	1
26	91F-7	"O" RING, Tee	1
27	19K-7	TEE, Steering Gear to Hose (Inc. 26)	1
28	540129	CLAMP, Hose	2
29	535325	STEM, Steering Pump	1
30		STEERING PUMP - See Index	-
31	83F-8	ELBOW, Tube to Pump	1
32	536749	HOSE, Tube to Stem	1
33	547419	TUBE, Pump to Steering Gear	1
34	547420	HOSE, Tube to Steering Gear	1
35	540649	TUBE, Suction Tube to Steering Pump	1
36	540129	CLAMP, Hose	1
37	536749	HOSE, Tube to Suction Tube	1
38	540129	CLAMP, Hose	1
39	547421	HOSE, Pressure Steering Gear to Relief Valve	1
40	31F-5	ADAPTER UNION, Hose to Reservoir	1
41	536832	HOSE, Filter to Reservoir	1
42	18D-06	NUT, Filter Mounting	4
43	620562	BUSHING, Reducing - Tee to Filter	1
44	1633615	FILTER, Steering System Oil (Inc. 44A)	1
44A	215502	†CARTRIDGE KIT, Filter	1
45	6K-12	VALVE, Filter to Reservoir Check	1
46	18C-628	BOLT, Filter Mounting	4
47	18K-7	ELBOW, Relief Valve to Hose (Inc. 48)	1
48	91F-7	"O" RING, Relief Valve Elbow	1

†Not Illustrated

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



HYDRAULIC SYSTEM - STEERING - WAUKESHA GAS AND G M  
For Serial: G M -2DG101 thru 2DG999 Wauk -2DA101 and after

TS 2946 P

80.1

(1F19)

PM 1665

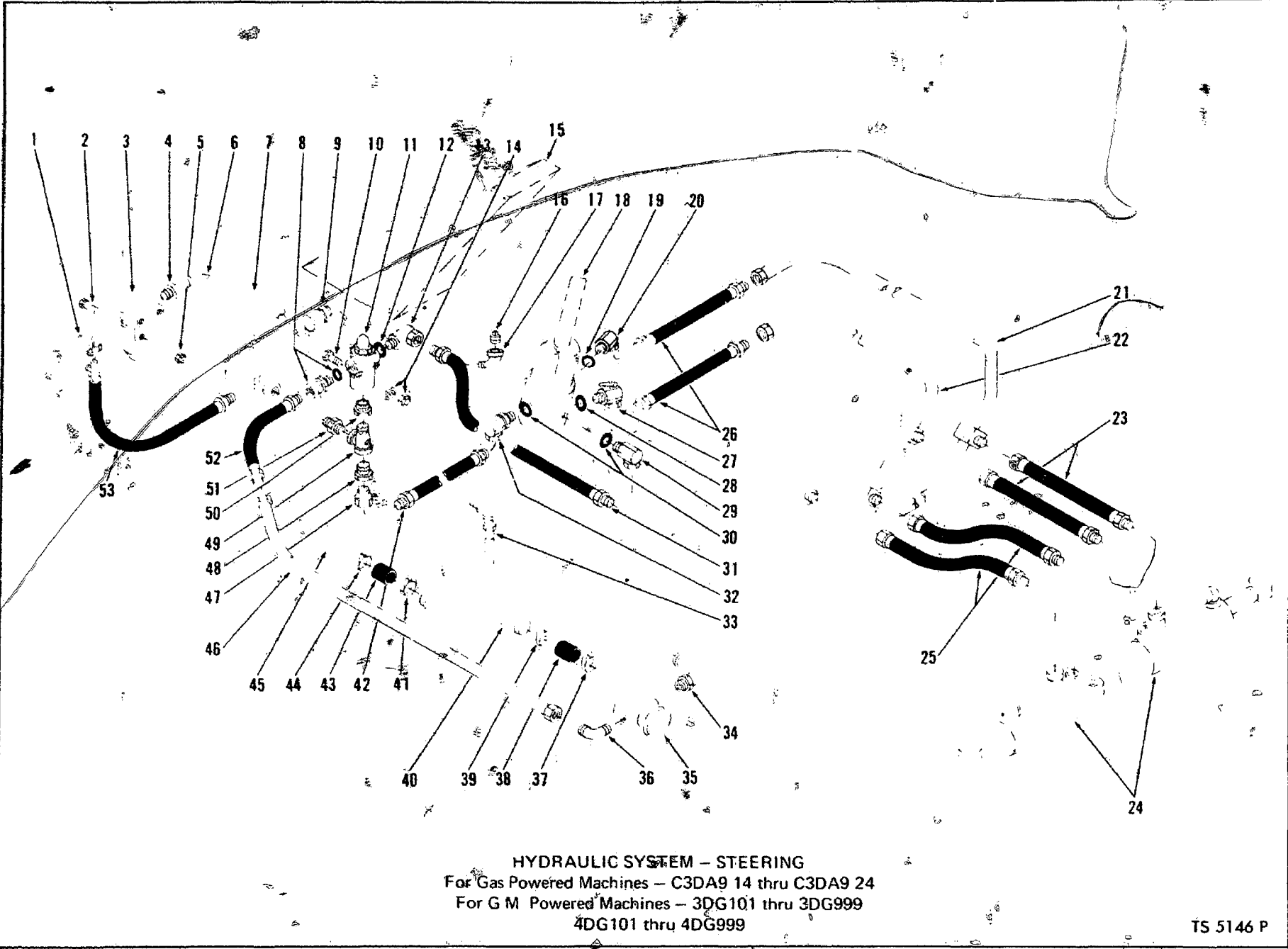
**CONSTRUCTION MACHINERY DIVISION  
STEERING HYDRAULIC SYSTEM — WAUKESHA GAS AND G.M.  
For Serial: G.M. — 2DG101 thru 2DG999  
Wauk. — 2DA101 and after**

Item No.	Part No.	Description	No. Req'd.
1	84F 7	ELBOW, Line to Filter .....	1
2	620562	BUSHING, Filter Reducing .....	1
3	18C-628	BOLT, Filter Attaching .....	4
4	1533615	FILTER, Steering System Oil (Inc. 4A) .....	1
4A	215502	CARTRIDGE KIT, Oil Filter .....	1
5	18D-06	NUT, Filter Attaching .....	4
6	6K 12	CHECK VALVE .....	1
7	536332	HOSE, Filter to Reservoir .....	1
8	519275	ADAPTER UNION (Inc. 8A) .....	1
8A	91F-7	O-RING, Adapter Union .....	1
9	517089	ADAPTER UNION .....	1
10	31F-5	ADAPTER UNION .....	1
11	---	STEERING GEAR—See Index .....	—
12	540884	HOSE, Steering Gear to Pipe .....	1
13	---	RESERVOIR, Hydraulic Oil—See Index .....	—
14	533915	PIPE, Steering .....	1
15	533916	PIPE, Steering .....	1
16	540883	HOSE, Steering Gear to Pipe .....	1
17	517089	ADAPTER UNION .....	1
18	519275	ADAPTER UNION (Inc. 18A) .....	1
18A	91F-7	O-RING, Adapter Union .....	1
19	540127	CLAMP, Hose .....	1
20	536749	HOSE, Suction .....	1
21	540127	CLAMP, Hose .....	1
22	535325	STEM, Suction .....	1
23	533927	HOSE, Pipe to Cylinder .....	2
24	---	STEERING CYLINDER—See Index .....	—
25	533927	HOSE, Pipe to Cylinder .....	2
26	83F-8	ELBOW, Line to Pump .....	1

Item No.	Part No.	Description	No. Req'd.
27	---	STEERING PUMP—See Index .....	—
28	---	TUBE, Suction .....	—
28A	540572	For G.M. Powered Machines .....	1
28B	540649	For Gas Powered Machines .....	1
29	540127	CLAMP, Hose .....	1
30	536749	HOSE, Suction .....	1
31	540127	CLAMP, Hose .....	1
32	---	LINE, Hose to Pump .....	—
32A	540669	For G.M. Powered Machines .....	1
32B	544005	For Gas Powered Machines .....	1
33	536459	LINE, Relief Valve, Filter .....	1
34	89F-7	CONNECTOR, Line to Tee .....	1
35	17F-4	TEE, Relief Valve .....	1
36	524530	HOSE, Tee to Steering Gear .....	1
37	536445	HOSE, Line to Relief Valve .....	1
38	356617	BUSHING, Relief Valve Reducing .....	1
39	661561	HOSE, Relief Valve to Steering Gear .....	1
40	528691	ADAPTER UNION .....	1
41	---	RELIEF VALVE, Steering Pressure— See Index .....	—
42	18D-05	NUT, Relief Valve Mounting .....	2
43	25E-15	WASHER, Relief Valve Mounting .....	2
44	18C-540	BOLT, Relief Valve Mounting .....	2
45	531684	ADAPTER UNION .....	1
46	25F-1	ELBOW .....	1
47	13F-02	PLUG .....	1

†Not Illustrated

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



**HYDRAULIC SYSTEM - STEERING**  
For Gas Powered Machines - C3DA9 14 thru C3DA9 24  
For G M Powered Machines - 3DG101 thru 3DG999  
4DG101 thru 4DG999

TS 5146 P

80A.1

(1F21)

PM 1669

**HYDRAULIC SYSTEM - STEERING**

**For Gas Powered Machines - C3DA9-14 thru C3DA9-24  
For G.M. Powered Machines - 3DG101 thru 3DG999  
4DG101 thru 4DG999**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	6K-12	CHECK VALVE	1	30	91F-7	"O" RING, Adapter Union	2
2	18C-628	BOLT, Oil Filter Mounting	4	31		HOSE, Relief Valve to Steering Gear - Pressure	
3	1533615	FILTER, Steering System Oil (Inc. 3A)	1	31A	661561	For Gas Powered Machines	1
3A	215502	CARTRIDGE KIT, Oil Filter	1	31B	546042	For G.M. Powered Machines	1
4	620562	BUSHING, Filter Reducing	1	32	519275	ADAPTER UNION (Inc. 30)	1
5	18D-06	NUT, Oil Filter Mounting	4	33		HOSE, See Bucket Leveler Hydraulic System - Index	
6	84F-7	ELBOW Line to Filter	1	34	635325	STEM, Pump Suction	1
7	536459	LINE, Relief Valve to Filter	1	35		STEERING PUMP - See Index	
8		ADAPTER UNION		36	83F-8	ELBOW Pump to Line - Pressure	1
8A	528691	For Gas Powered Machines (Inc. 8C)	1	37	540129	CLAMP Hose	1
8B	763322	For G.M. Powered Machines	1	38	536749	HOSE, Tube to Tube	1
8C	91F-7	"O" RING, Adapter Union	1	39	540129	CLAMP Hose	1
9	31F-5	ADAPTER UNION, Hose to Reservoir	1	40		TUBE, Suction Tube to Steering Pump	
10	18C-548	BOLT, Relief Valve Mounting	2	40A	540649	For Gas Powered Machines	1
11		RELIEF VALVE, Steering Pressure - See Index		40B	540572	For G.M. Powered Machines	1
12	91F-7	"O" RING, Adapter Union	1	41	540129	CLAMP Hose	1
13		ADAPTER UNION (Inc. 12)		42	524530	*HOSE, Steering Gear to Relief Valve	1
13A	531684	For Gas Powered Machines	1	43	536749	HOSE, Tube to Tube	1
13B	519275	For G.M. Powered Machines	1	44	540129	CLAMP Hose	1
14	18D-05	NUT, Relief Valve Mounting	2	45		SUCTION TUBE - See Bucket & Boom Hyd.	
14A	25E-15	WASHER, Relief Valve Mounting	2	46		LINE, Pump to Relief Valve Pressure	
15		RESERVOIR, Hydraulic Oil - See Index		46A	544005	For Gas Powered Machines	1
16	13F-02	PLUG, Elbow	1	46B	540669	For G.M. Powered Machines	1
17	25F-1	ELBOW Relief Valve	1	47	564159	RESTRICTOR, Adapter - For Serial: Gas - C3DA9-20 thru C3DA9-999. G.M. 4DG166 thru 4DG999	1
18		STEERING GEAR, See Index		48	19F-5	BUSHING, Restrictor Reducing - For Serial: Gas - C3DA9-20 thru C3DA9-999. G.M. 4DG166 thru 4DG999	1
19	91F-6	"O" RING, Adapter Union	1	49		TEE, Relief Valve	
20	517089	ADAPTER UNION (Inc. 19)	1	49A	17F-4	For Serial: G.M. - 3DG101 thru 3DG999	1
21	533916	LINE, Lower Steering - L.H. Turn	1	49B	566478	For Serial: Gas - C3DA9-14 thru 3CA9-24; G.M. - 4DG101 thru 4DG999	1
22	533915	LINE, Upper Steering - R.H. Turn	1	50	356617	BUSHING, Tee Reducing	1
23	533927	HOSE, Steering Lines to Cylinders	2	51	89F-7	ADAPTER, Line to Tee	1
24		STEERING CYLINDERS - See Index		52		HOSE, Relief Valve to Pressure Line	
25	533927	HOSE, Steering Lines to Cylinders	2	52A	536445	For Gas Powered Machines	1
26	540883	HOSE, Steering Gear to Lines	2	52B	588696	For G.M. Powered Machines	1
27	517089	ADAPTER UNION (Inc. 28)	1	53	536332	HOSE, Filter to Reservoir Return	1
28	91F-6	"O" RING, Adapter Union	1				
29	519275	ADAPTER UNION (Inc. 30)	1				

†Not Illustrated

NOTE: When replacement is necessary for Hose (Item 42) for machine serial prior to Gas - C3DA9-20; G.M. - 4DG166, 1-Restrictor (Item 46) and 1-Bushing (Item 47) must also be used.

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







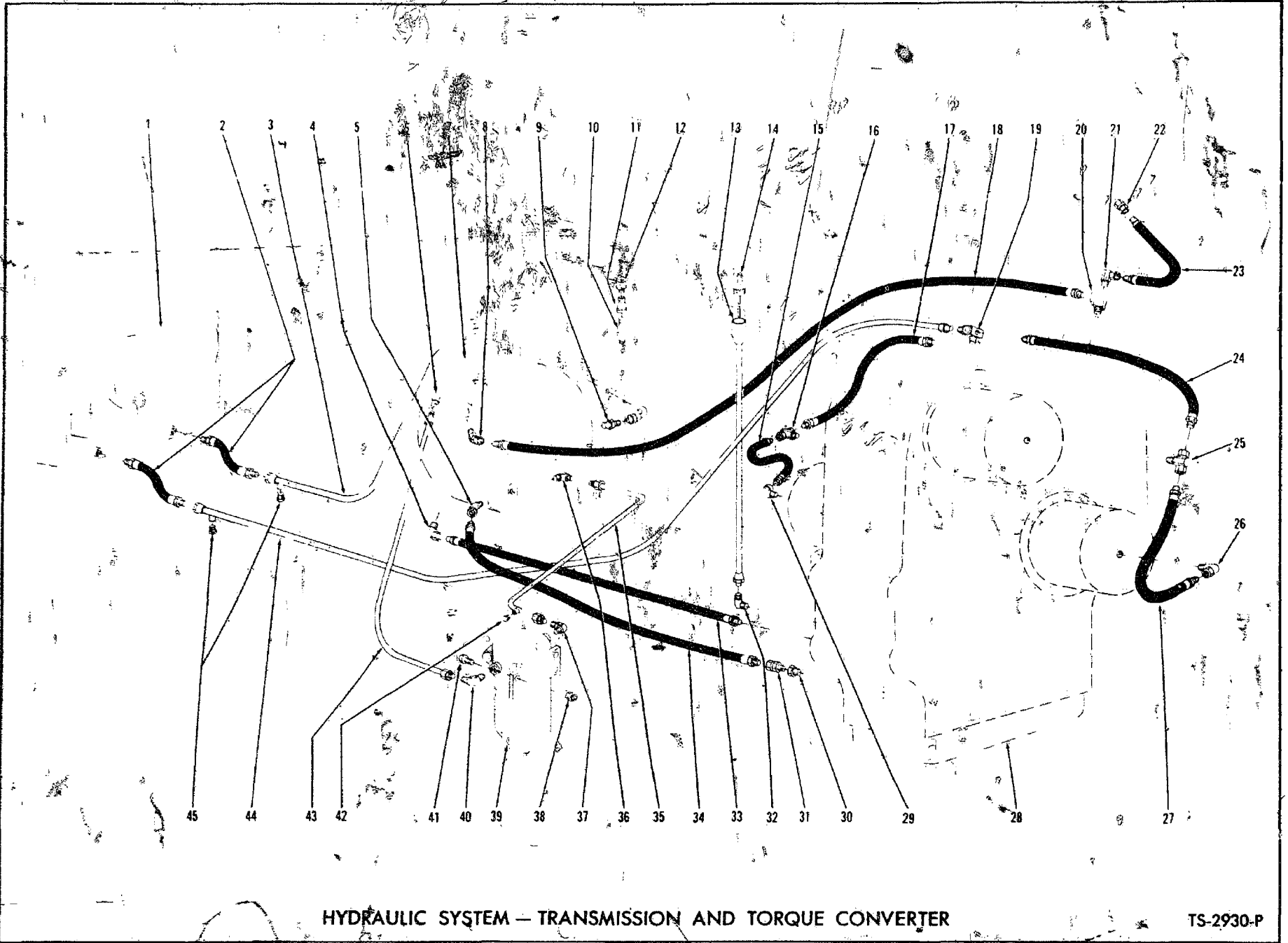
**CONSTRUCTION MACHINERY DIVISION**  
**STEERING HYDRAULIC SYSTEM — G.M. AND WAUKESHA GAS**  
 For Serial: G.M. — 5DG101 and after  
 Wauk. — C3DA9-25 and after



Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	1533615	FILTER, Steering System Oil (Inc. 1A)	1	30		HOSE, Relief Valve to Steering Gear	
1A	215502	†CARTRIDGE KIT, Filter	1	30A	546042	For G.M. Powered Machines	1
2	620562	BUSHING, Reducing, Filter to Elbow	1	30B	661561	For Gas Powered Machines	1
3	84F-7	ELBOW Filter to Tube	1	31	91F 7	"O" RING, Adapter Union	1
4	536459	TUBE, Filter to Relief Valve	1	32	519275	ADAPTER UNION (Inc. 31)	1
5		ADAPTER, Hose to Relief Valve		33	524530	HOSE, Relief Valve to Steering Gear	1
5A	763322	For G.M. Powered Machines	1	34	18D-05	NUT Relief Valve Mounting	2
5B	531684	For Gas Powered Machines	1	35	25E 15	WASHER, Relief Valve Mounting	2
6	31F-5	ADAPTER UNION, Hose to Reservoir	1	36	540129	CLAMP Hose	2
7		RESERVOIR, Hydraulic Oil — See Index		37	540129	CLAMP Hose	2
8	18C-540	BOLT Relief Valve Mounting	2	38	535325	STEM, Steering Pump	1
9	91F-7	"O" RING, Adapter	1	39		STEERING PUMP — See Index	
10		VALVE, Relief — See Index		40	83F-8	ELBOW Tube to Pump	1
11	91F 7	"O" RING, Adapter Union	1	41	536749	HOSE, Tube to Stem	1
12	519275	ADAPTER UNION (Inc. 11)	1	42		TUBE, Pump to Relief Valve	
13	13F-02	PLUG, Pipe	1	42A	540669	For G.M. Powered Machines	1
14	25F 1	ELBOW Relief Valve	1	42B	544005	For Gas Powered Machines	1
15		STEERING GEAR — See Index		43		TUBE, Suction Tube to Steering Pump	
16	91F-6	"O" RING, Adapter Union	1	43A	540572	For G.M. Powered Machines	1
17	517089	ADAPTER UNION (Inc. 16)	1	43B	540649	For Gas Powered Machines	1
18	540883	HOSE, Steering Gear to Pipe	2	44	536749	HOSE, Suction Tube to Tube	1
19	533916	PIPE, Steering Gear to Cylinder	1	45	564159	ADAPTER, Restricting	1
20	533927	HOSE, Pipe to Cylinder	2	46	19F 5	BUSHING, Reducing	1
21		STEERING CYLINDER — See Index		47	566478	TEE, Relief Valve to Steering Gear	1
22	81F-3	ELBOW Hose to Cylinder	4	48	356617	BUSHING, Reducing	1
23		STEERING CYLINDER — See Index		49	89F-7	CONNECTOR, Tube to Street Tee	1
24	533927	HOSE, Pipe to Cylinder	2	50		HOSE, Tube to Relief Valve	
25	533915	PIPE, Steering Gear to Cylinder	1	50A	588696	For G.M. Powered Machines	1
26	517089	ADAPTER UNION (Inc. 29)	1	50B	536445	For Gas Powered Machines	1
27	519275	ADAPTER UNION (Inc. 28)	1	51	536332	HOSE, Filter to Reservoir	1
28	91F-7	"O" RING, Adapter Union	1	52	18D-06	NUT Filter Mounting	4
29	91F-6	"O" RING, Adapter Union	1	53	6K-12	VALVE, Filter to Reservoir Check	1
				54	18C-628	BOLT Filter Mounting	4

†Not Illustrated

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



HYDRAULIC SYSTEM - TRANSMISSION AND TORQUE CONVERTER

TS-2930-P

48

(1G1)

PM 1669

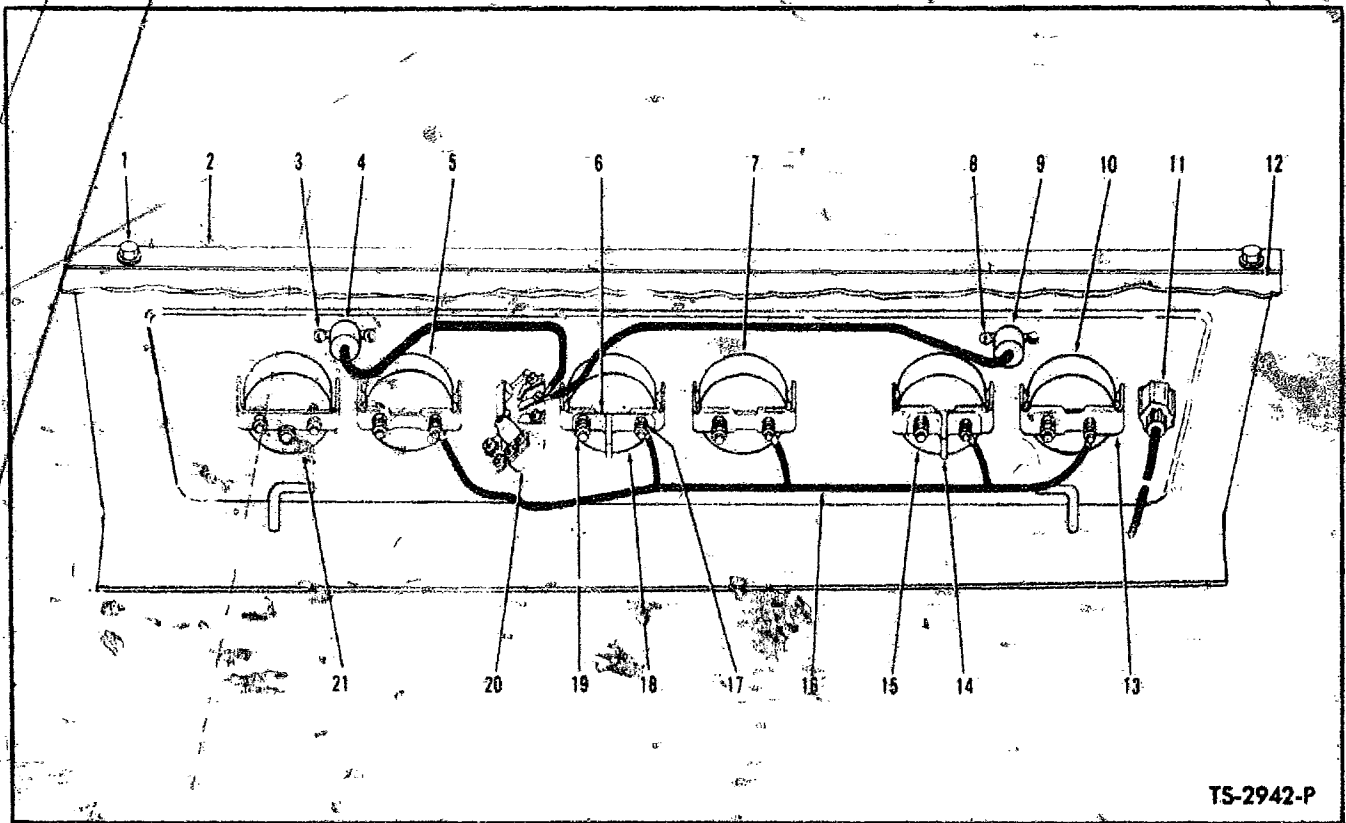
**TRANSMISSION AND TORQUE CONVERTER HYDRAULIC SYSTEM**

Item No.	Part No.	Description	No. Req'd.
1		RADIATOR—See Index	—
2	540022	HOSE, Cooler Line to Radiator	2
3		LINE, Converter to Radiator (Inc. 44)	
3A	540643	For G.M. Powered Machines	1
3B	544164	For Waukesha Gas & Cummins Powered Machines	1
4	31F-6	ADAPTER UNION	1
5	25F-6	ELBOW Suction Hose to Pump	1
6	83F-8	ELBOW Line to Valve	1
7		TORQUE CONVERTER—See Index	—
8	33F-3	ADAPTER UNION	1
9	89F-8	CONNECTOR, Cooler Line to Conv.	1
10		OMIT Not Used this Application	—
11	227265	VALVE, Check	1
12	211433	BREATHER, Converter	1
13	542194	TUBE, Dipstick	1
14	542195	DIPSTICK, Transmission Oil	1
15	536777	HOSE, 1st & 3rd to Reverse Clutch	1
16	791879	TEE, 1st & 3rd Clutch	1
17	536766	HOSE, Block to 1st & 3rd Clutch	1
18		HOSE, Valve to Transmission	
18A	540606	For G.M. Powered Machines	1
18B	533587	For Waukesha Gas & Cummins Powered Machines	1
19	524543	JUNCTION BLOCK	1
20	30F-1	TEE	1
21	31F-2	ADAPTER UNION	1
22	37F-1	ADAPTER UNION	1
23	537082	HOSE, Trans. to Pressure Gauge	1
24	536767	HOSE, Block to Forward Clutch	1
25	791879	TEE, Forward Clutch	1
26	26F-2	ELBOW Hose to Transmission	1
27	536794	HOSE, Forward to 2nd & 4th Clutch	1

Item No.	Part No.	Description	No. Req'd.
28		TRANSMISSION—See Index	—
29	26F-2	ELBOW Hose to Transmission	1
30	356626	BUSHING, Reducing	1
31	36F-6	ADAPTER UNION	1
32	42F-10	ELBOW Dipstick Tube to Trans.	1
33		HOSE, Converter to Transmission — Return	
33A	536640	For G.M. Powered Machines	1
33B	582299	For Waukesha Gas & Cummins Powered Machines	1
34		HOSE, Transmission to Converter — Suction	
34A	667009	For G.M. Powered Machines	1
34B	544197	For Waukesha Gas & Cummins Powered Machines	1
35		LINE, Pump to Filter	
35A	540604	For G.M. Powered Machines	1
35B	537994	For Waukesha Gas & Cummins Powered Machines	1
36	549283	ELBOW Line to Pump & Filter	1
37	83F-8	ELBOW Line to Filter	1
38	18D-06	NUT Filter Mounting	4
39	1533615	FILTER, Trans. & Conv. Oil (Inc. 38A)	1
39A	215502	†CARTRIDGE KIT Oil Filter	1
40	83F-8	ELBOW Line to Filter	1
41	18C-628	BOLT, Filter Mounting	4
42	40K-04	PLUG, Pump to Filter Line	1
43		LINE, Filter to Valve	
43A	540647	For G.M. Powered Machines	1
43B	537995	For Waukesha Gas & Cummins Powered Machines	1
44	537927	LINE, Radiator to Trans. (Inc. 44)	1
45	40K-04	PLUG, Cooler Lines	2
46	551323	†SENDER UNIT, Conv. Temperature	1

†Not Illustrated

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



TS-2942-P

**FRONT INSTRUMENT PANEL**

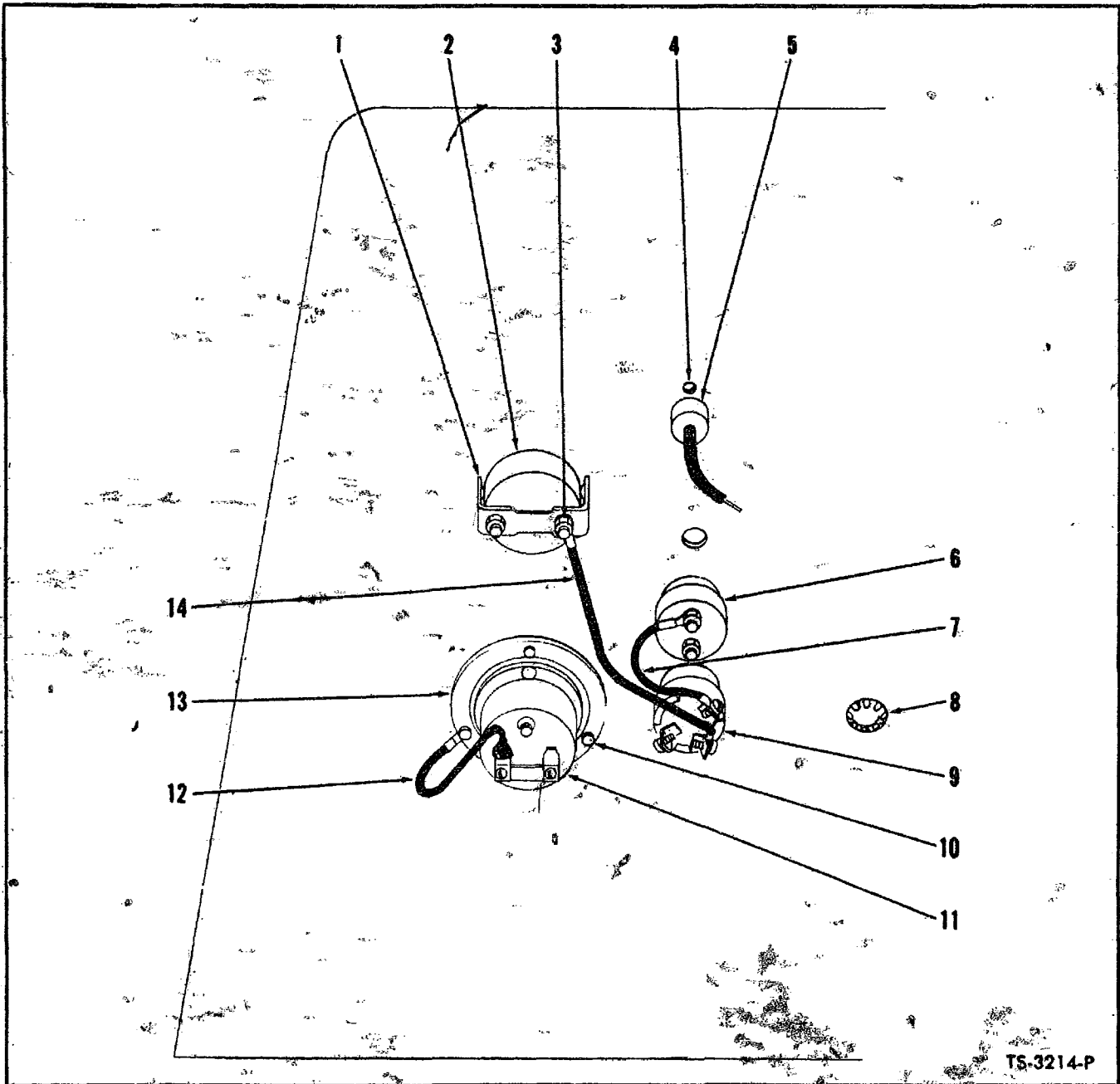
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	17C-612	BOLT, Panel Mounting	2	12A	18C-612	†BOLT, Plate Attaching	4
1A	4E-06	†LKWSHR, Panel Mounting	2	12B	619023	†WASHER, Plate Attaching	4
1B	619023	†WASHER, Panel Mounting	2	12C	18D-06	†NUT, Plate Attaching	4
2	534953	PANEL, Instrument	1	13	626530	CLAMP Instruments	5
3	18G-606	SCREW Dash Lamp to Panel	2	14	602350	SEPARATOR, Oil Pressure Gauge Terminals	1
3A	12E-6	†LKWSHR, Dash Lamp to Panel	2	15	551319	GAUGE, Engine Oil Pressure	1
4	539045	LAMP Dash	1	16	539985	WIRE, Instruments	1
5	551321	GAUGE, Torque Conv. Temperature	1	17	12D-8	NUT, Ignition Terminal	10
6	602350	SEPARATOR, Fuel Gauge Terminals	1	17A	12E-8	†LKWSHR, Ignition Terminal	7
7	517228	**GAUGE, Air Pressure	1	18	551320	GAUGE, Fuel	1
8	18G-606	SCREW Dash Lamp to Panel	2	19	14D-10	NUT, Sender Terminal	10
8A	12E-6	†LKWSHR, Dash Lamp to Panel	2	19A	12E-10	†LKWSHR, Sender Terminal	5
9	538161	*LAMP Dash	1	20	2514253	SWITCH, Light - See Note "A"	1
10	551322	*†GAUGE, Engine Temperature	1	20A	550742	†ROD, Light Switch	1
11	538677	LIGHTER, Cigarette (Inc. 11A, 11B,)	1	20B	550743	†BUSHING, Light Switch	1
11A	944803	†ELEMENT, Lighter	1	21	---	OMIT, Not Used this Application	---
11B	549024	†RECEPTACLE, Lighter	1				
12	534950	PLATE	1				

†Not Illustrated

\*\*NOTE: For replacement use 574276 plus 1-427237 Bulb & 1-574276 Tab.

\*NOTE: For replacement refer to Service Gram SG-328B.

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



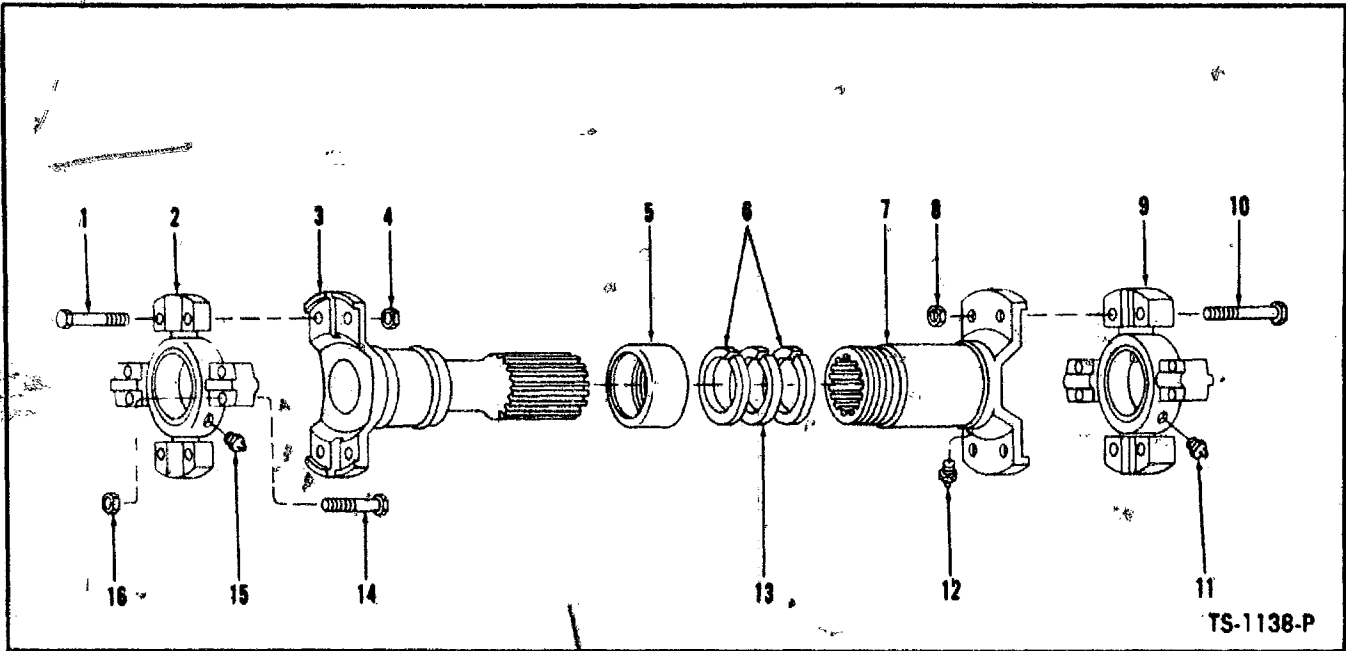
TS-3214-P

**SIDE INSTRUMENT PANEL**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	601212	CLAMP Ammeter	1	8	661862	PLUG, Button—Waukesha Gas & Cummins Only	1
2	550735	AMMETER	1	9	573548	SWITCH, Ignition (Keyed)	1
3	14D-10	NUT Ammeter Terminal	4	10	3G-604	SCREW, Hourmeter to Panel	3
3A	12E-10	†LKWSHR, Ammeter Terminal	2	10A	12E-6	†LKWSHR, Hourmeter to Panel	3
4	18G-606	SCREW Dash Lamp to Panel	2	11	1743825	HOURMETER	1
4A	12E-6	†LKWSHR, Dash Lamp to Panel	2	12	536999	WIRE, Hourmeter Ground	1
5	534960	LAMP Dash	1	13	685514	DAMPENER, Hourmeter Vibration	1
6	600259	BUTTON, Starter Push	1	14	553405	WIRE, Ignition Switch to Ammeter	1
6A	857420	†RUBBER BOOT, Starter Push Button	1				
7	690048	WIRE, Ignition Switch to Starter Button	1				

†Not illustrated  
NOTE: For replacement use 946282 plus 1-940316 Bulb.

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



**PROPELLER SHAFT ASSEMBLIES**

For Serial Cummins — 2DC101 thru 3DC999

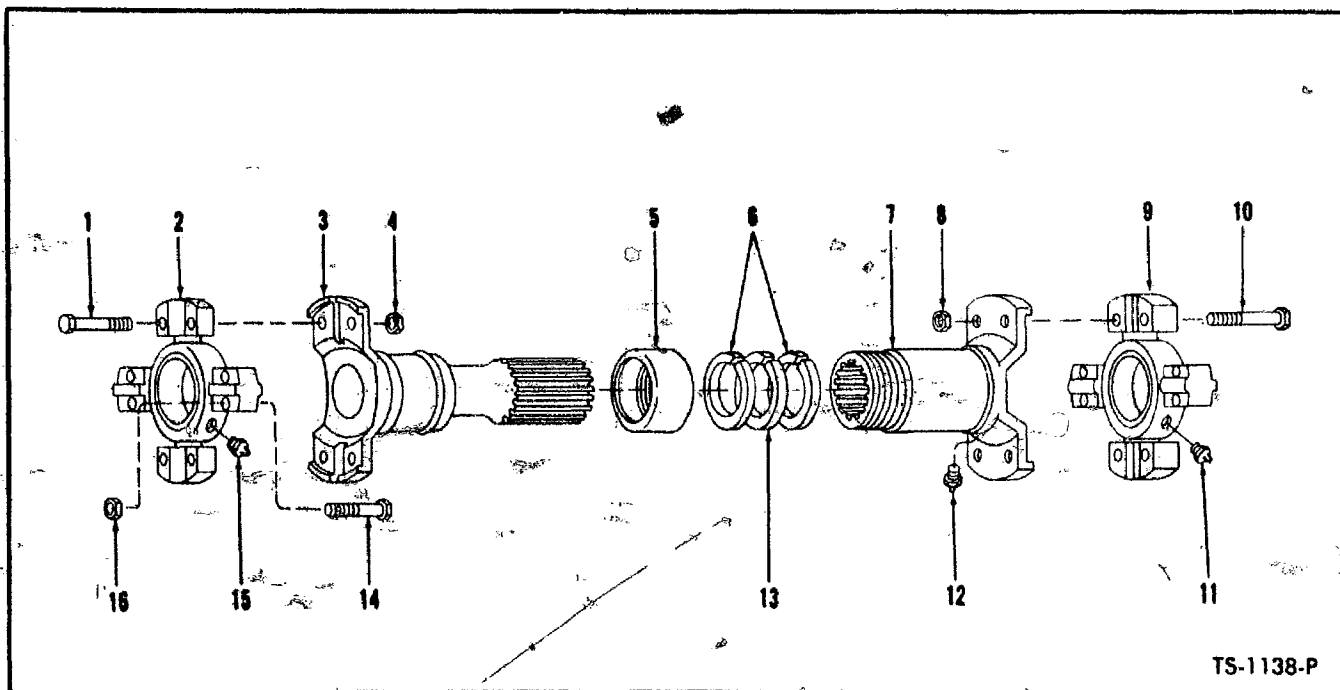
G.M. — 2DG101 thru 4DG999

Wauk. — 2DA101 and after, C3DA9-14 thru C3DA9-24

Item No.	Description	Converter to Transmission Waukesha Gas and Cummins	Converter to Transmission G.M.	Transmission to Front Axle	Transmission to Rear Axle	No. Req'd
A	PROPELLER SHAFT ASSY (Inc. 1 thru 16)	532197	540190	528998	550580	1
1	BOLT Spider & Bearing to Tube	695808	695808	18C632	18C632	4
2	SPIDER & BEARING ASSY	887737	887737	944862	944862	1
3	TUBE	945098	945099	944690	940084	3
4	NUT Spider & Bearing to Tube	8D-05	8D-05	8D-06	8D-06	4
5	RETAINER, Felt	940654	940654	940090	940090	1
6	WASHER Felt Retainer	940653	940653	940091	940091	2
7	SLIP YOKE	942658	942658	940224	940224	1
8	NUT, Spider & Bearing to Slip Yoke	8D-05	8D-05	8D-06	8D-06	4
9	SPIDER & BEARING ASSY	887737	887737	944862	944862	1
10	BOLT Spider & Bearing to Slip Yoke	695808	695808	18C632	18C632	4
11	FITTING, Spider & Bearing Grease	10H-35	10H-35	10H-35	10H-35	1
12	FITTING, Slip Yoke Grease	10H-25	10H-25	10H-25	10H-25	1
13	FELT WASHER	940081	940081	940092	940092	1
14	BOLT Spider & Bearing Attaching	945256	945256	18C632	18C632	8
15	FITTING, Spider & Bearing Grease	10H-35	10H-35	10H-35	10H-35	1
16	NUT Spider & Bearing Attaching	*8D-05	*8D-05	8D-06	8D-06	8

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

\*NOTE: Quantity required in these locations (16)



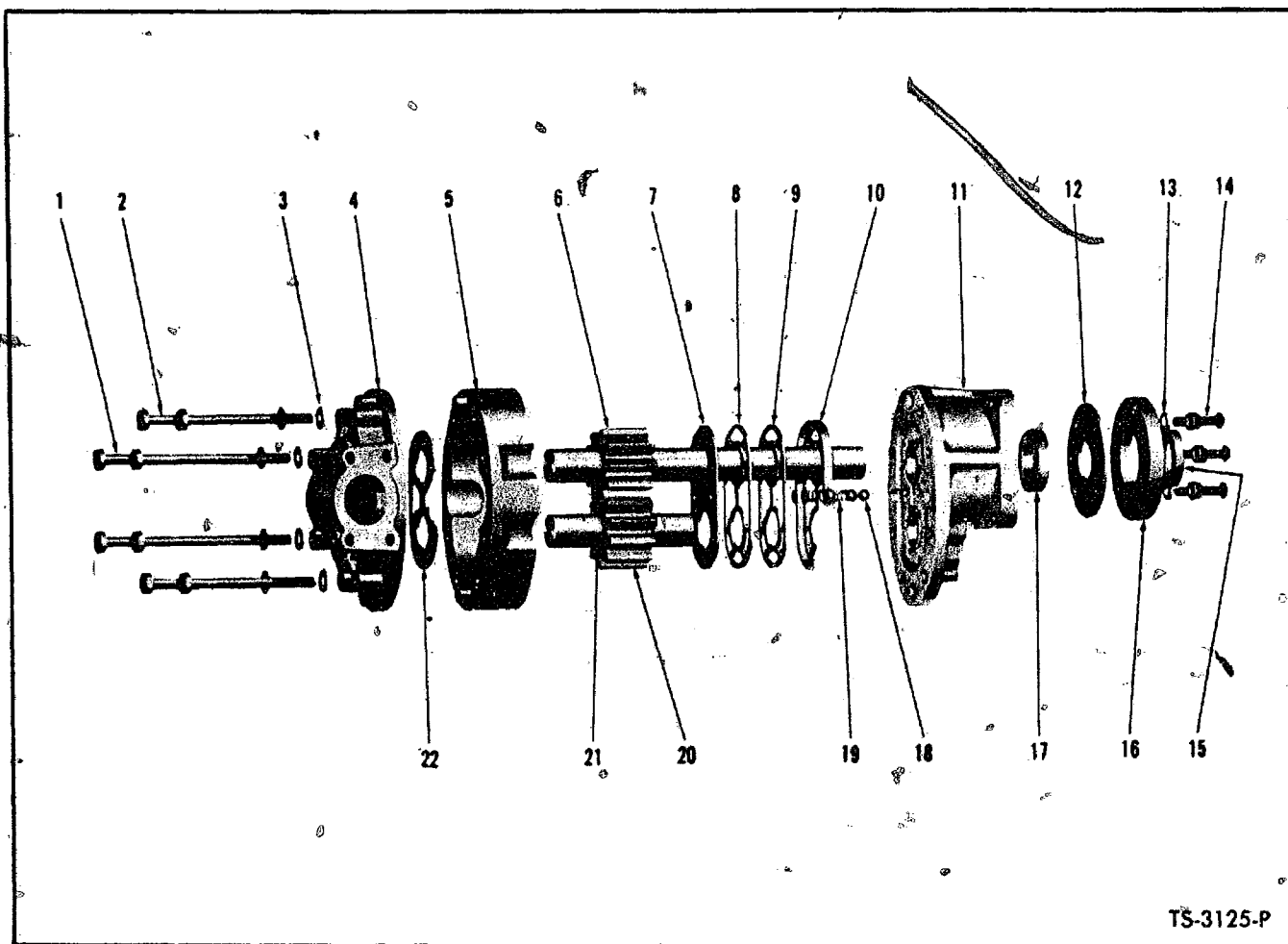
TS-1138-P

**PROPELLER SHAFT ASSEMBLIES**  
**For Serial: Cummins — 4DC101 and after**  
**G.M. — 5DG101 and after**  
**Wauk. — C3DA9-25 and after**

Item No.	Description	Converter to Transmission Waukesha Gas and Cummins	Converter to Transmission G.M.	Transmission to Front Axle	Transmission to Rear Axle	No. Req'd
A	PROPELLER SHAFT ASSY (Inc. 1 thru 16)	532197	540190	528998	521000	1
1	BOLT Spider & Bearing to Tube	695808	695808	18C832	18C632	4
2	SPIDER & BEARING ASSY	887737	887737	944862	944862	4
3	TUBE	945098	945099	944690	888281	1
4	NUT Spider & Bearing to Tube	8D-05	8D-05	8D-06	8D-06	4
5	RETAINER, Felt	940654	940654	940090	940090	1
6	WASHER, Felt Retainer	940653	940653	940091	940091	2
7	SLIP YOKE	942658	942658	940224	940224	1
8	NUT Spider & Bearing to Slip Yoke	8D-05	8D-05	8D-06	8D-06	4
9	SPIDER & BEARING ASSY	887737	887737	944862	944862	1
10	BOLT Spider & Bearing to Slip Yoke	695808	695808	18C632	18C632	4
11	FITTING, Spider & Bearing Grease	10H-35	10H-35	10H-35	10H-35	1
12	FITTING, Slip Yoke Grease	10H-25	10H-25	10H-25	10H-25	1
13	FELT WASHER	940081	940081	940092	940092	1
14	BOLT Spider & Bearing Attaching	945256	945256	18C632	18C632	8
15	FITTING, Spider, & Bearing Grease	10H-35	10H-35	10H-35	10H-35	1
16	NUT Spider & Bearing Attaching	*8D-05	*8D-05	8D-06	8D-06	8

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

\*NOTE: Quantity required in these locations (16).



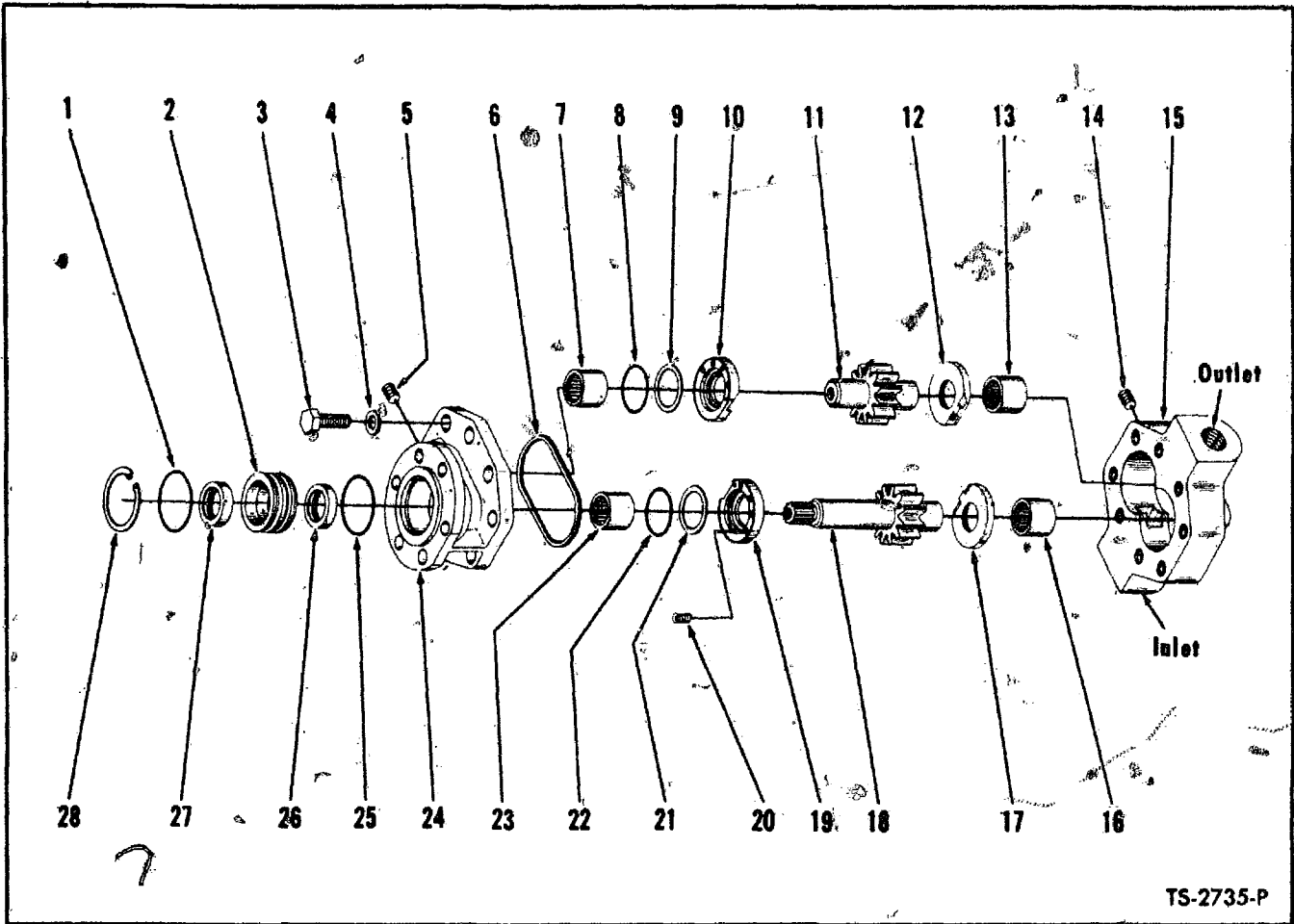
**HYDRAULIC PUMP — BUCKET AND BOOM**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	543914	PUMP ASSY (Inc. 1 thru 22)	1	11	944951	FRONT PLATE	1
B	961815	REPAIR KIT, Major Seal (Inc. 3, 7 8, 9 10, 12 thru 19 22)	1	12	---	§GASKET, Seal Retainer	1
C	944949	REPAIR KIT Shaft Seal (Inc. 12 thru 17)	1	13	---	§LKWSHR, Seal Retainer	6
1	1C-888	BOLT, Back Plate & Body to Front Plate	4	14	---	§SCREW Seal Retainer	6
2	1C-872	BOLT, Back Plate & Body to Front Plate	4	15	---	§SEAL, Outer Oil	1
3	---	§WASHER	8	16	---	§RETAINER, Oil Seal	1
4	944946	BACK PLATE	1	17	---	§SEAL, Inner Oil	1
5	944947	BODY	1	18	---	§BALL	2
6	944945	GEAR, Drive (Inc. 21)	1	19	---	§SPRING	2
7	---	§DIAPHRAGM	1	20	944944	GEAR, Driven (Inc. 21)	1
8	---	§GASKET Back-up	1	21	---	§RING, Gear Retaining	4
9	---	§GASKET Protector	1	22	---	§THRUST PLATE	1
10	---	§SEAL, Diaphragm	1	23	552161	†GASKET Pump to Converter	1
				24	214963	†SLEEVE, Pump Drive	1
				25	223890	†RING, Drive Sleeve Retaining	1
				26	8D-08	†NUT Pump to Converter	4
				26A	4E-08	†LKWSHR, Pump to Converter	4

§Not Sold Separately  
†Not Illustrated

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



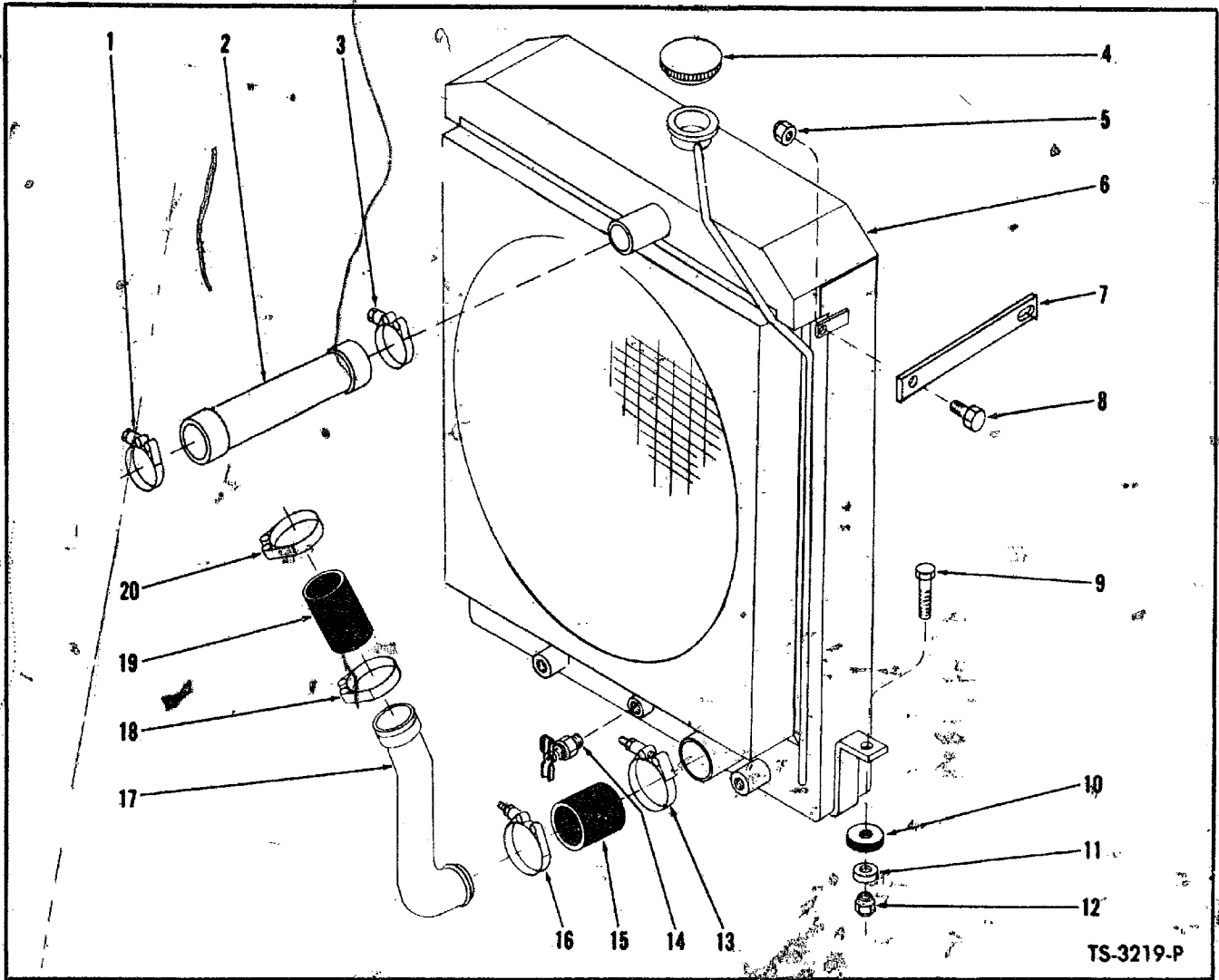


TS-2735-P

**HYDRAULIC PUMP – CONVERTER CHARGING AND STEERING**

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

<sup>2</sup>For replacement of Converter Charging Pump use 450229. For replacement of Steering Pump use 2522608 plus 1 – 2522413 Gasket.

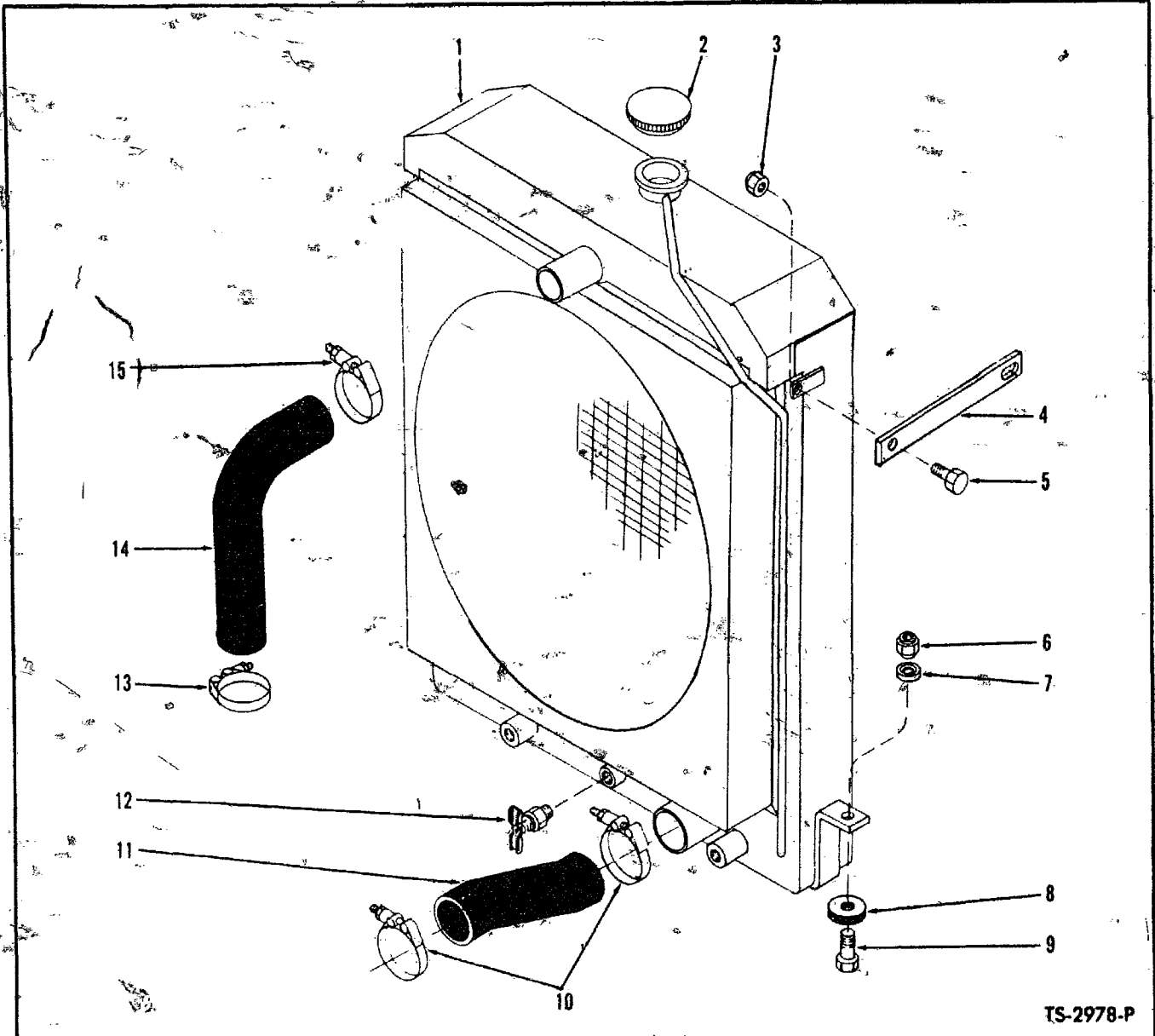


TS-3219-P

**RADIATOR AND CONNECTIONS - CUMMINS**

Item No.	Part No.	Description	No. Req'd.
1	540108	CLAMP Hose	1
2	420564	HOSE, Engine to Radiator - Upper	1
3	540108	CLAMP Hose	1
4	351495	CAP Radiator	1
5	18D-06	NUT, Clip to Radiator	2
6	2515241	RADIATOR	1
7	543878	CLIP Radiator to Grille	2
8	18C-612	BOLT, Clip to Radiator	2
9	18C-828	BOLT Radiator to Frame	2
10	518233	PAD, Radiator to Frame	2
11	71D-08	BASE, Radiator to Frame Nut	2
12	70D-08	NUT, Radiator to Frame	2
13	540104	CLAMP Hose	1
14	72F-2	DRAIN COCK	1
15	1M-18030	HOSE, Tube to Radiator	1
16	540104	CLAMP Hose	1
17	547160	TUBE, Lower Suction	1
18	540104	CLAMP Hose	1
19	1M-18030	HOSE, Water Pump to Tube	1
20	540104	CLAMP Hose	1

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



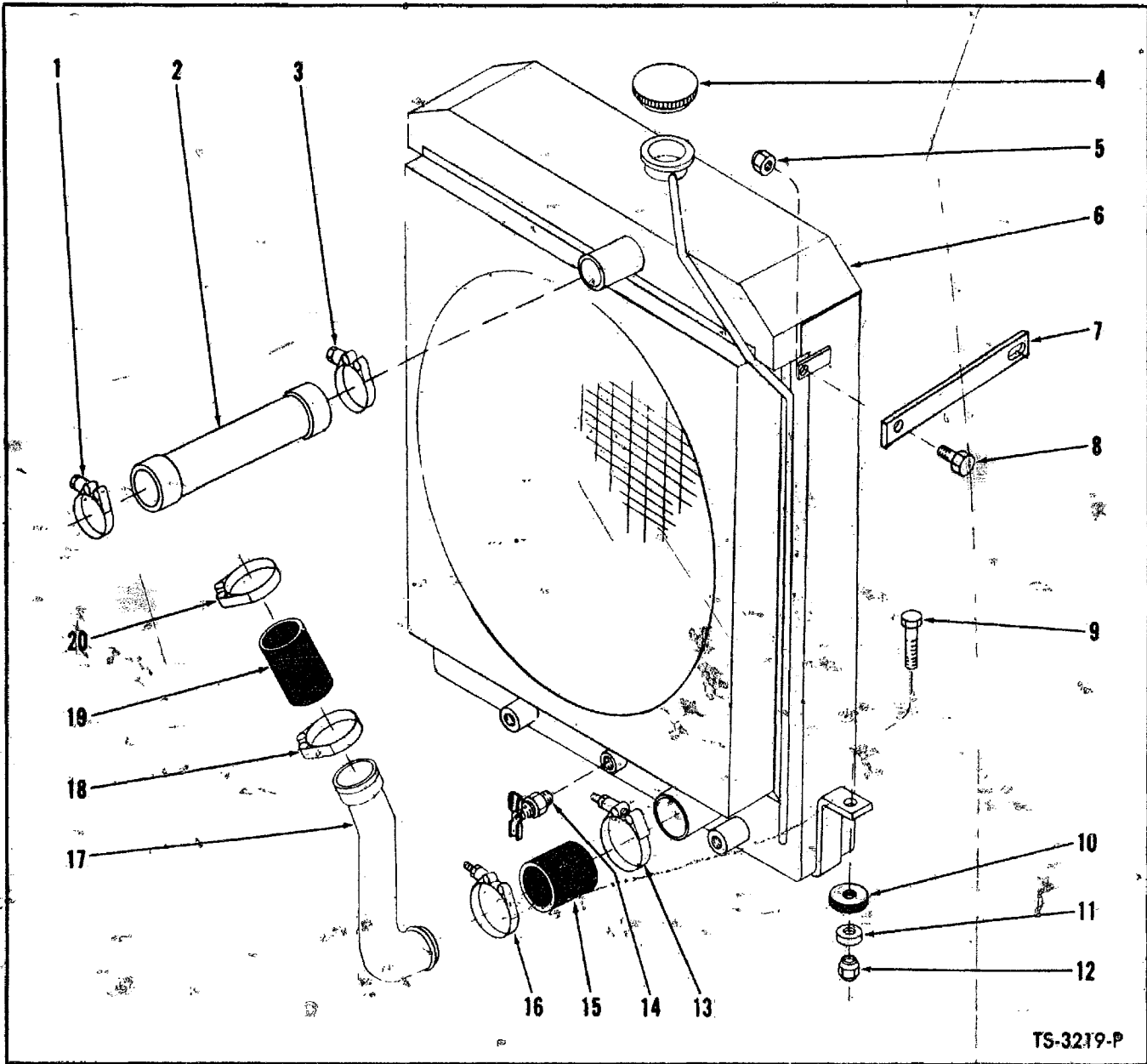
TS-2978-P

**RADIATOR AND CONNECTIONS — G.M.**

Item No.	Part No.	Description	No. Req'd.
1	545074	*RADIATOR (Inc. 2)	1
2	351495	CAP Radiator	1
3	18D-06	NUT Clip to Radiator	2
4	539044	CLIP Radiator to Grille	2
5	18C-612	BOLT, Clip to Radiator	2
6	70D-08	NUT, Radiator to Frame	2
7	71D-08	BASE, Radiator to-Frame Nut	2
8	518233	PAD, Radiator to Frame	2
9	18C-828	BOLT Radiator to Frame	2
10	540108	CLAMP Hose	2
11	540244	HOSE, Lower Radiator	1
12	73F-2	DRAIN COCK, Radiator	1
13	540266	CLAMP Hose	1
14	544015	HOSE, Upper	1
15	540266	CLAMP Hose	1

\*NOTE: For complete replacement use 2515244 Radiator

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

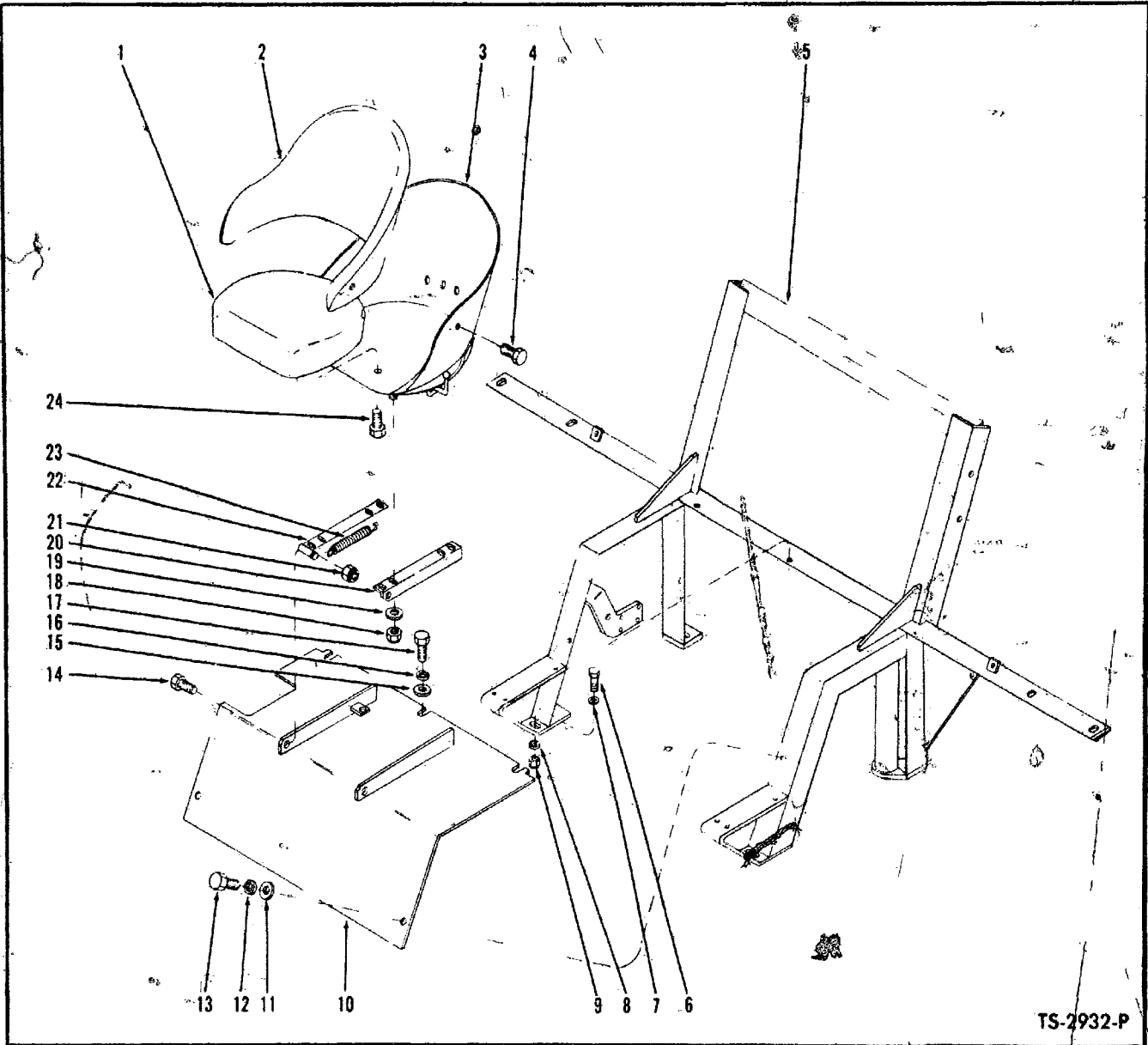


TS-3219-P

**RADIATOR AND CONNECTIONS – GAS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	540108	CLAMP Hose	1	11	71D-08	BASE, Radiator to Frame Nut	2
2	94T439	HOSE, Radiator, Upper	1	12	70D-08	NUT Radiator to Frame	2
3	540108	CLAMP Hose	1	13	540104	CLAMP Hose	1
4	351495	CAP, Radiator	1	14	73F-2	DRAIN COCK	1
5	18D-06	NUT Clip to Radiator	2	15	1M-18030	HOSE, Tube to Radiator	1
6	547380	RADIATOR	1	16	540104	CLAMP Hose	1
7	543878	CLIP Radiator to Grille	2	17	543877	TUBE, Lower Suction	1
8	18C-612	BOLT, Clip to Radiator	2	18	540106	CLAMP Hose	1
9	18C-828	BOLT, Radiator to Frame	2	19	1M-20034	HOSE, Water Pump to Tube	1
10	518233	PAD, Radiator to Frame	2	20	540106	CLAMP Hose	1

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

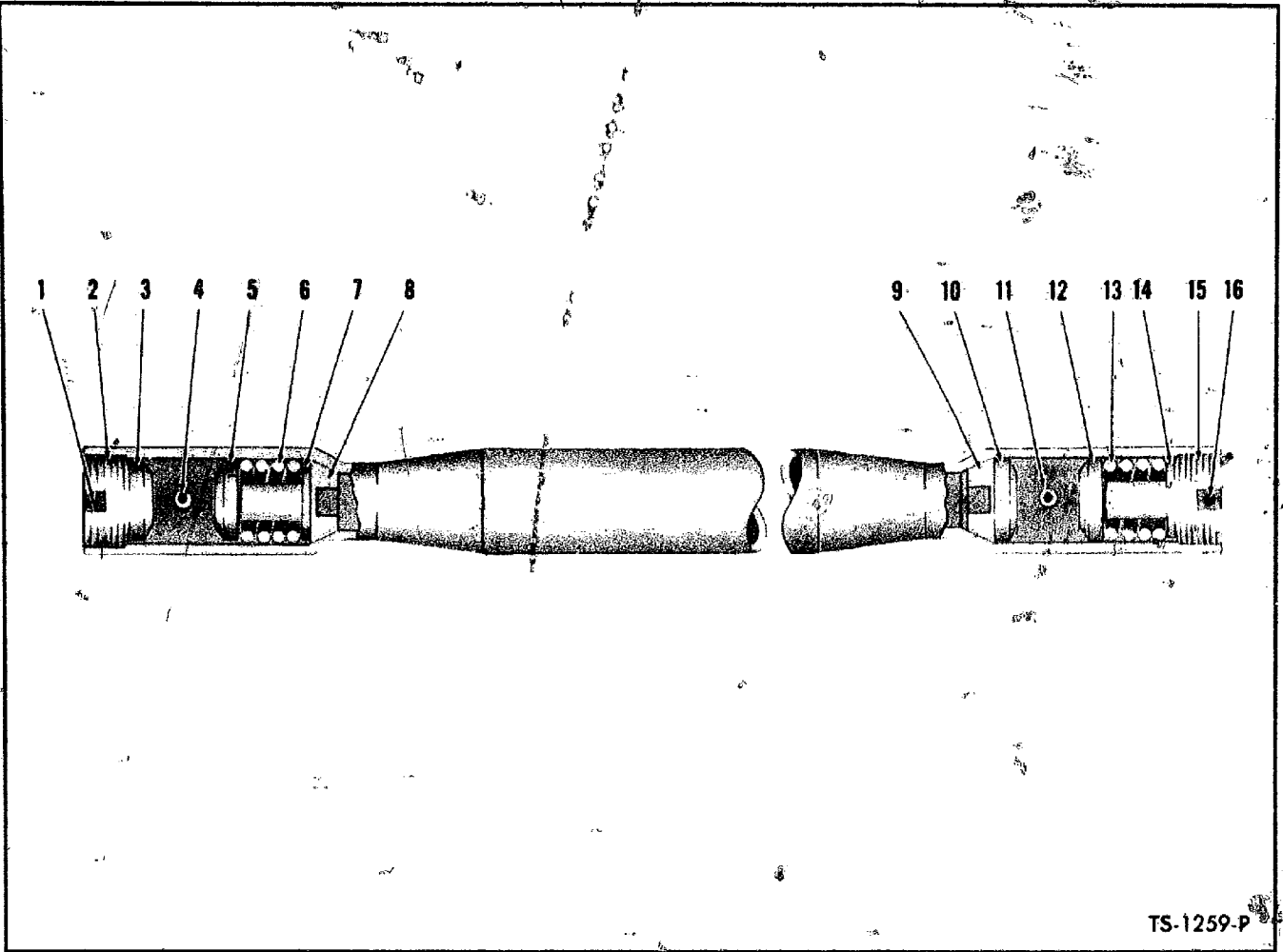


TS-2932-P

**SEAT AND SUPPORT GROUP**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	1507663	SEAT ASSY Bucket (Inc. 1, 2, 3, 4, 24)	1	13	17C-616	BOLT Plate to Support	2
1	948144	CUSHION, Seat	1	14	18C-824	BOLT Seat Pivot	2
2	948143	CUSHION, Back-Rest	1	15	619023	WASHER, Plate to Support	3
3	944982	BUCKET	1	16	4E-06	LKWSHR, Plate to Support	3
4	1C-610	BOLT Cushion Mounting	3	17	17C-616	BOLT Plate to Support	3
5	534578	SUPPORT, Seat	1	18	18D-05	NUT, Seat Mounting	4
6	18C-828	BOLT Seat Support to Frame	4	19	25E 15	WASHER, Seat Mounting	4
7	619029	WASHER, Seat Support to Frame	4	20	538707	ANGLE, Left Hand	1
8	71D-08	NUT, Seat Support to Frame	4	21	18D-08	NUT, Seat Pivot	2
9	70D-08	NUT, Seat Support to Frame	4	22	538708	ANGLE, Right Hand	1
10	534738	PLATE, Seat Support	1	23	550301	SPRING	1
11	619023	WASHER, Plate to Support	2	24	1C-610	BOLT Cushion Mounting	2
12	4E-06	LKWSHR, Plate to Support	2				

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

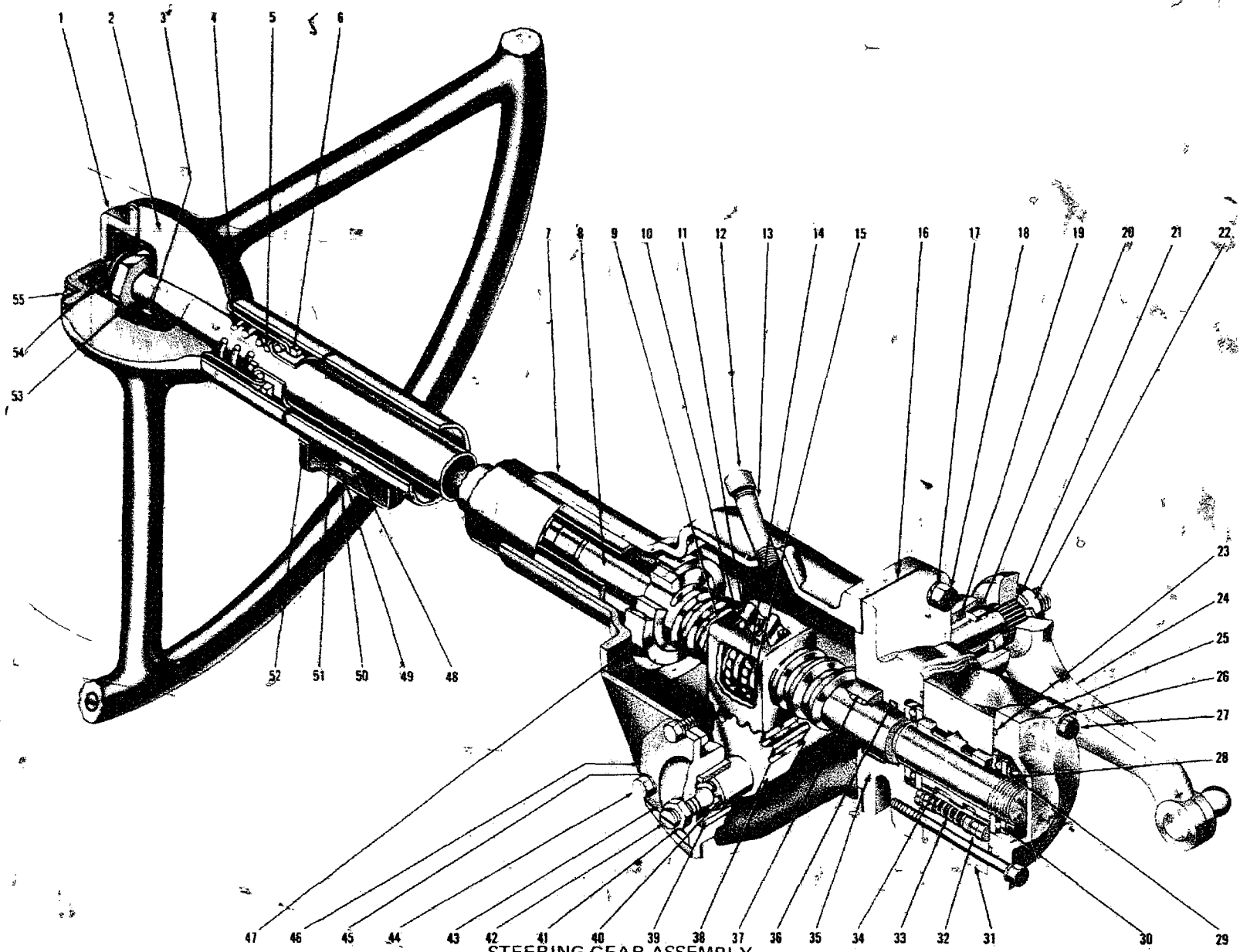


TS-1259-P

**STEERING DRAG LINK**

Item No.	Part No.	Description	No. Req'd.
A.	548643	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	10H-25	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	10H-25	FITTING, Drag Link Grease	1
12	865965	SEAT Ball Stud	1
13	865961	SPRING	1
14	662691	SEAT Spring	1
15	876575	NUT, Adjusting	1
16	1F-432	COTTER, Adjusting Nut	1

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



STEERING GEAR ASSEMBLY

For Serial: Cummins-2DC101 thru 3DC155 G.M.-2DG101 thru 4DG165  
Wauk.-2DA101 and after, C3DA9 14 thru C3DA9 19.

TS-2955-P

74.1

(1319)

PM 1669



CONSTRUCTION MACHINERY DIVISION

STEERING GEAR ASSEMBLY

For Serial: Cummins - 2DC101 thru 3DC155
G.M. - 2DG101 thru 4PG165
Wauk. - 2DA101 and after,
C3DA9-14 thru C3DA9-19



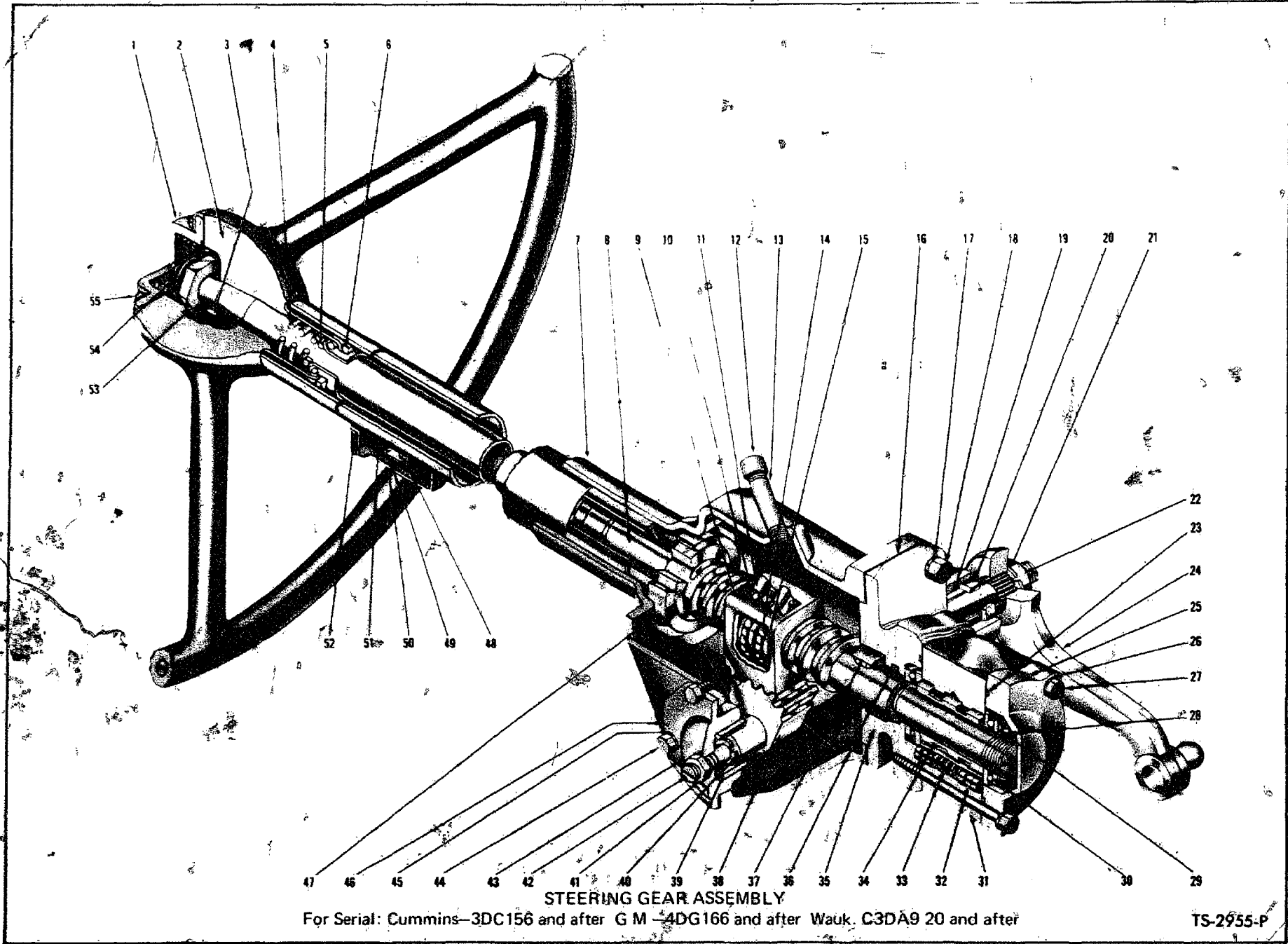
Table with 4 columns: Item No., Part No., Description, No. Req'd. It lists various steering gear assembly components such as 'STEERING GEAR ASSY', 'HORN BUTTON ASSY', 'WHEEL, Steering', 'KEY Steering Wheel', 'SPRING, Steering Shaft Upper', 'WASHER, Steering Shaft Upper', 'BEARING ASSY Upper', 'HOUSING ASSY', 'SHAFT ASSY', 'NUT, Ball', 'BOLT & WASHER, Clamp', 'CLAMP Ball Return', 'CAP Filler', 'NIPPLE, Filler', 'BALL', 'GUIDE, Ball Return', 'GASKET, Adapter', 'LKWSHR, Adapter', 'BOLT, Adapter', 'BUSHING, Pitman Shaft', 'SEAL, Pitman Shaft Grease', 'LKWSHR, Pitman Shaft', 'NUT, Pitman Arm', 'O RING, Valve', 'ARM, Pitman', 'COVER, Valve End', 'LKWSHR, End Cover', 'BOLT, End Cover', 'NUT Worm Bearing', 'SPRING, Worm Bearing', 'BEARING, Worm Thrust', 'VALVE ASSY, Hydraulic', 'PLUNGER, Valve-Centering', 'SPRING, Valve Centering', 'SPOOL, Valve', 'ADAPTER ASSY', 'O RING, Adapter', 'BEARING, Adapter', 'GEAR, Pitman Shaft', 'BUSHING, Housing Side Cover', 'SHIM KIT, Lash Adjuster', 'NUT, Lash Adjuster', 'ADJUSTER, Lash', 'COVER ASSY, Housing Side', 'BOLT, Side Cover', 'LKWSHR, Side Cover', 'GASKET, Side Cover', 'BEARING, Housing', 'CONNECTOR ASSY, Horn Cable', 'GASKET, Horn Connector', 'SCREW Horn Connector', 'COVER, Horn Cable Connector', 'CONTACT ASSY Horn Cable', 'SCREW Connector Cover', 'LKWSHR, Connector Cover', 'NUT, Steering Wheel', 'TERMINAL ASSY Horn', 'SCREW Horn Button'.

Not Sold Separately

NOTE: For replacement use 562502. On G.M. & Waukesha powered machines 1-19F-5 Bushing & 1-564159 Adapter must also be used. On Cummins powered machines 1-564119 Nipple must also be used.

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





**STEERING GEAR ASSEMBLY**  
For Serial: Cummins-3DC156 and after G M -4DG166 and after Wauk. C3DA9 20 and after

TS-2955-P

74A1

(IG21)

PM 1669

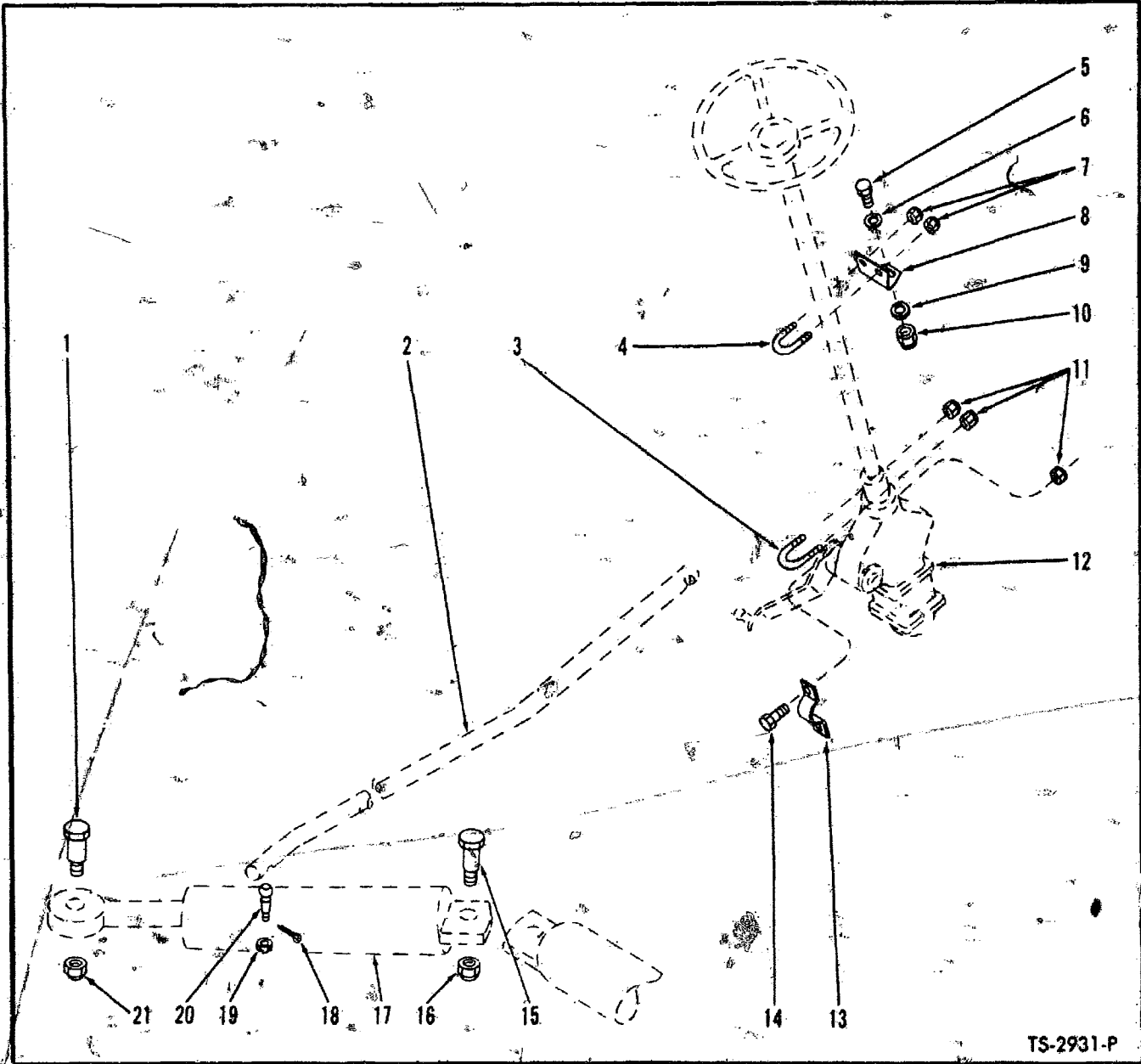


**CONSTRUCTION MACHINERY DIVISION**  
**STEERING GEAR ASSEMBLY**  
 For Serial: Cummins - 3DC156 and after  
 G.M. - 4DG166 and after  
 Wauk. - C3DA9-20 and after



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

§Not Sold Separately  
 †Not Illustrated

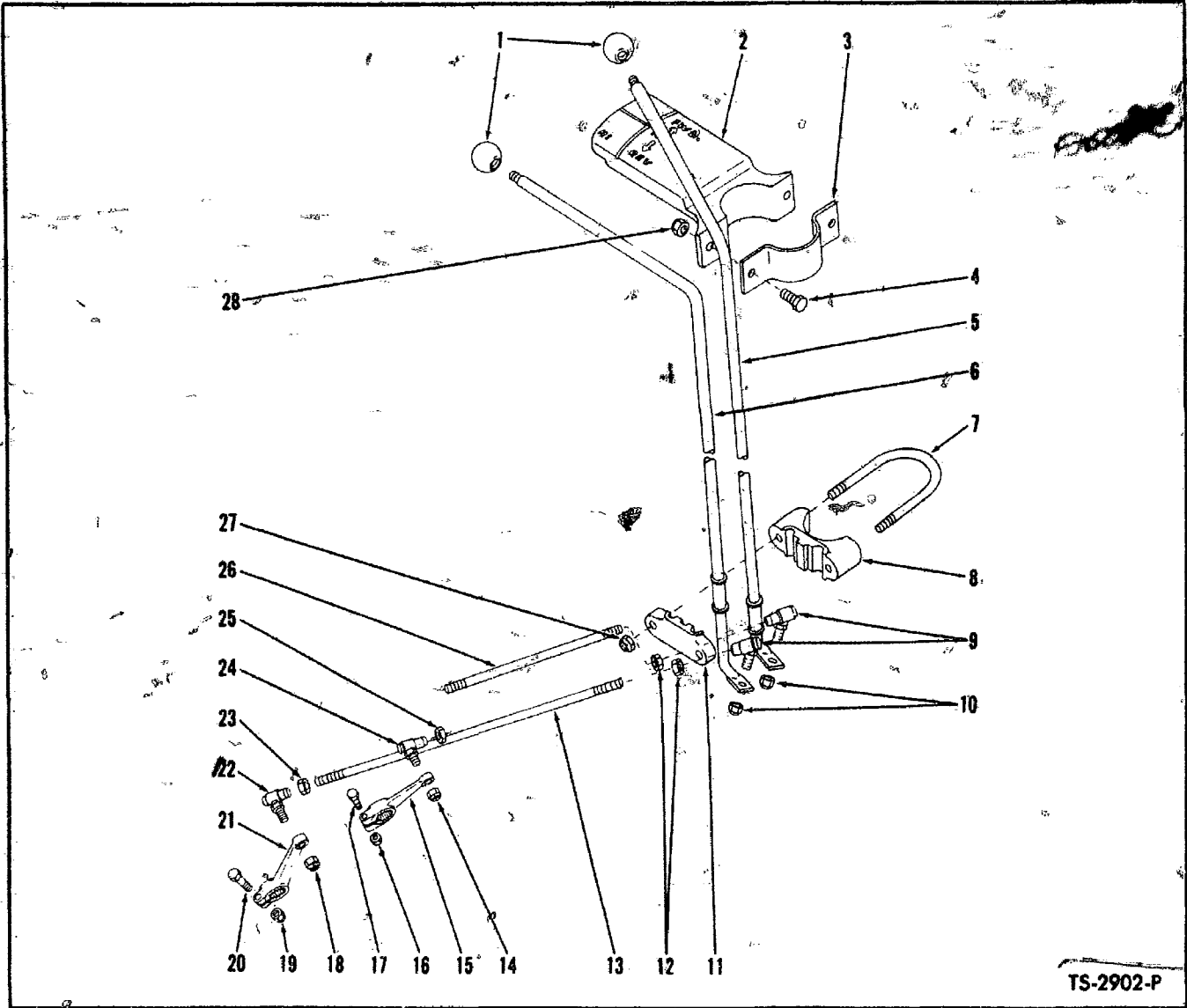


TS-2931-P

**STEERING LINKAGE GROUP**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	24C-1244	BOLT, Steering Cylinder Anchor	2	12	—	STEERING GEAR—See Index	—
2	—	DRAG LINK—See Index	—	13	550044	CLAMP Steering Gear	1
3	545941	U-BOLT Steering Gear to Frame	1	14	18C-836	BOLT, Steering Gear Clamp	2
4	537998	U-BOLT Steering Gear to Frame	1	15	24C-1244	BOLT, Steering Cylinder Anchor	2
5	18C-620	BOLT Bracket to Frame	1	16	18D-12	NUT, Steering Cylinder Anchor Bolt	2
6	25E-18	WASHER, Bracket to Frame	1	17	—	STEERING CYLINDER—See Index	—
7	18D-04	NUT U-Bolt	2	18	1F-332	COTTER, Ball Stud	1
8	537997	BRACKET Steering Gear to Frame	1	19	18D-10	NUT, Ball Stud	1
9	25E-18	WASHER, Bracket to Frame	1	20	513122	BALL STUD, Drag Link to Axle	1
10	18D-06	NUT, Bracket to Frame	1	21	18D-12	NUT, Steering Cylinder Anchor Bolt	2
11	18D-08	NUT U-Bolt & Steering Gear Clamp, Bolt	4				

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



TS-2902-P

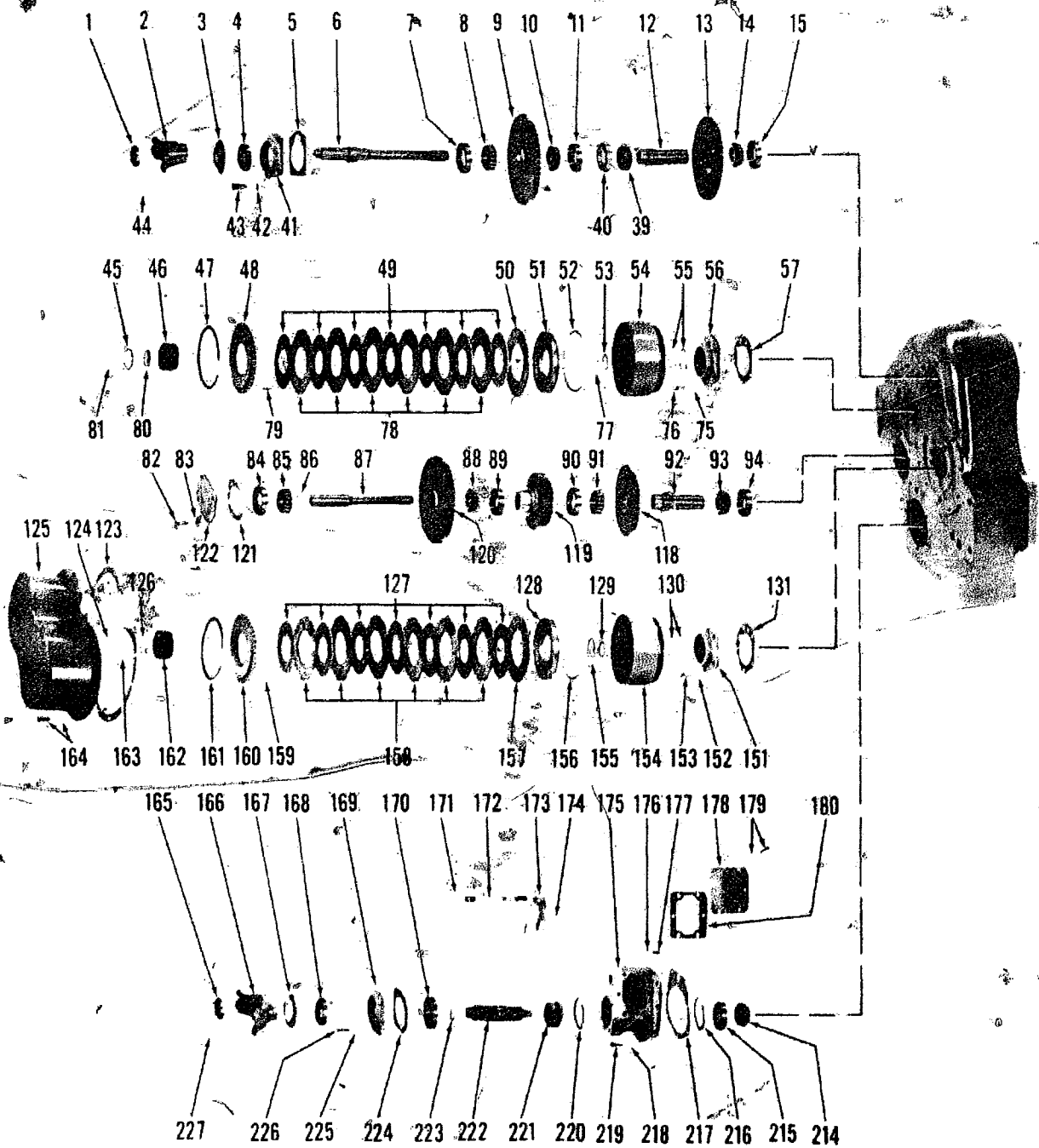
**GEAR SHIFT LEVERS AND LINKAGE**  
**High and Low Forward and Reverse**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	509772	KNOB, Shift Levers .....	2	15	550803	LEVER, Transmission .....	1
2	538891	*QUADRANT Shift Indicator .....	1	16	18D-04	NUT, Lever Clamp .....	2
3	534606	CLAMP Shift Indicator Quaarant ....	1	17	18C-424	BOLT, Lever Clamp .....	1
4	18C-412	BOLT, Shift Indicator Quadrant .....	2	18	66D-06	NUT, Ball Socket to Lever .....	1
5	536286	LEVER, Forward & Reverse Shift .....	1	19	18D-04	NUT, Lever Clamp .....	1
6	536287	LEVER, High & Low Shift .....	1	20	18C-424	BOLT, Lever Clamp .....	1
7	550672	U-BOLT, Shift Levers .....	2	21	521769	LEVER, Transmission .....	1
8	1508845	SUPPORT Shift Levers (Inc. 11).....	2	22	2520677	BALL JOINT Rod to Lever .....	1
9	2520677	BALL JOINT Rod to Lever .....	2	23	8D-06	NUT Ball Socket Jam .....	1
10	66D-06	NUT, Ball Socket to Lever .....	2	24	2520677	BALL JOINT Rod to Lever .....	1
11	-----	§SUPPORT Shift Levers - See 8 .....	2	25	8D-06	NUT, Ball Socket Jam .....	1
12	8D-06	NUT, Ball Socket Jam .....	2	26	533553	ROD, Forward & Reverse Shift .....	1
13	535094	ROD, High & Low Shift .....	1	27	18D-05	NUT, U-Bolt .....	4
14	66D-06	NUT, Ball Socket to Lever .....	1	28	18D-04	NUT, Shift Quadrant Clamp .....	2

Not Sold Separately

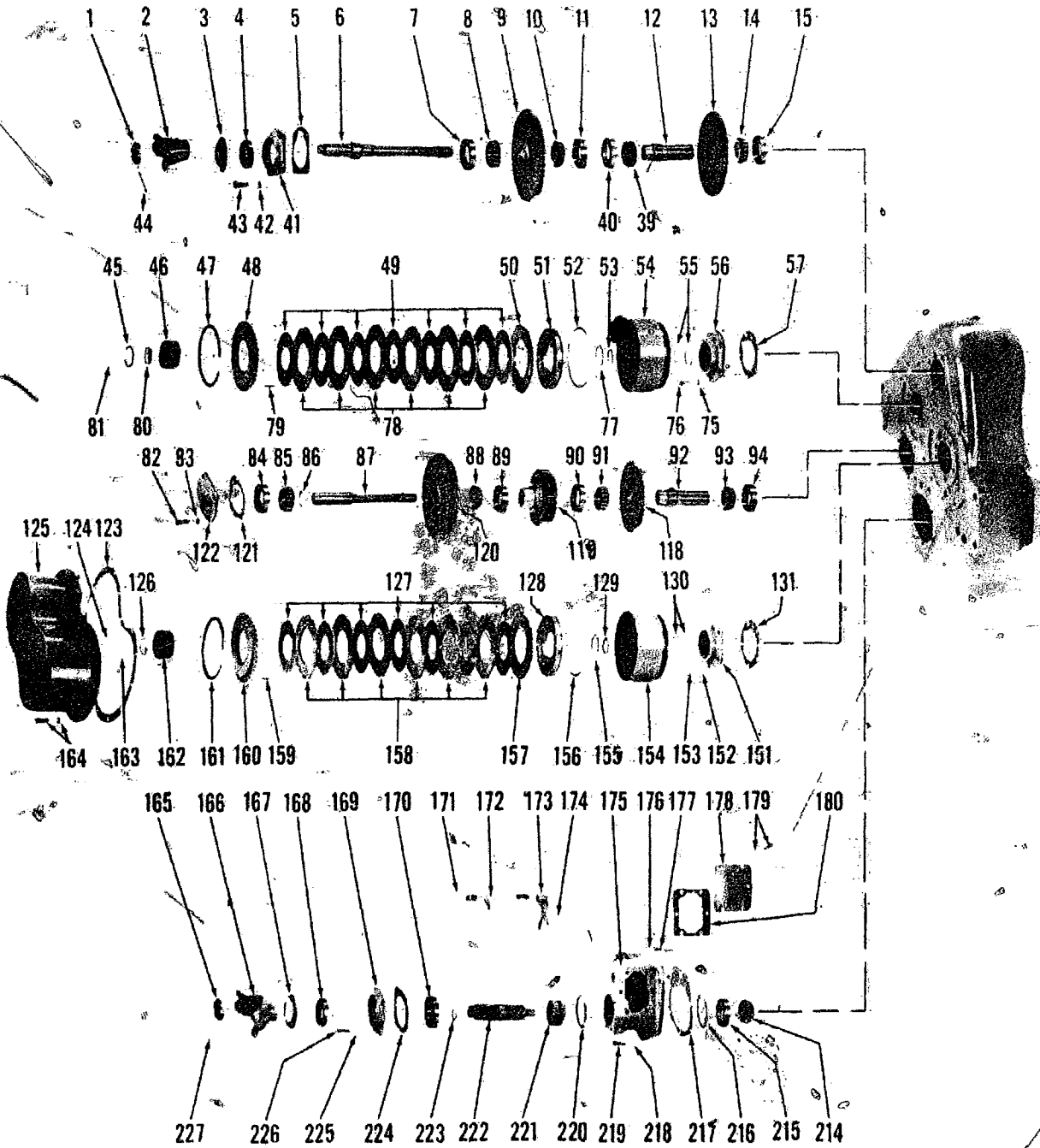
\*NOTE: For replacement use 947409 kit. 947409 kit consists of 1-567946 Quadrant, 1-567947 F & R Plate, 1-567977 H & L plate, 6-8C-605 Screws, 1-567945 Clamp, 2-24C-412 Bolts, 2-18D-04 Nuts and 1-002553 Installation Drawing.

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



TRANSMISSION ASSEMBLY

TS-1617



TRANSMISSION ASSEMBLY

TS-1617

**TRANSMISSION ASSEMBLY**

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

†As Required  
‡Not Illustrated

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

**TRANSMISSION ASSEMBLY (Continued)**

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

‡As Required  
†Not Illustrated

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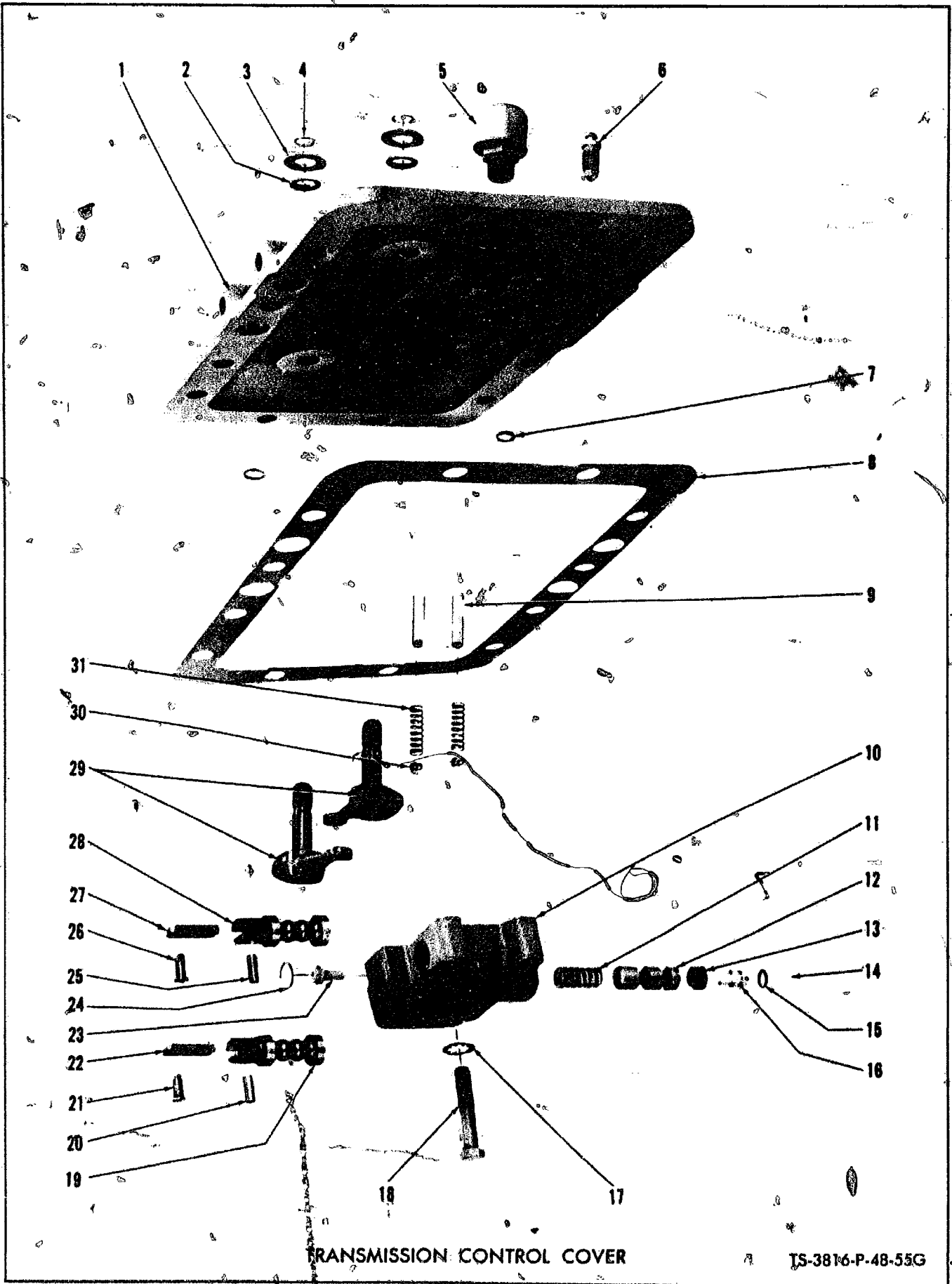


**TRANSMISSION ASSEMBLY (Continued)**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
155	234038	RING, Piston Inner Sealing	1	194	209405	SUPPORT High & Low Shift Shaft	1
156	208776	RING, Piston Outer Sealing	1	195	5C-616	BOLT & LKWSHR, Shift Shaft Support	4
157	221998	DISC, Clutch Outer	1	196	209404	SHAFT, High & Low Shift	1
158	208773	DISC, Clutch Outer	6	197	208871	SEAL, Shift Shaft Support Oil	1
159	220186	SPRING, Clutch Disc Release	10	198	10J-12	BALL, Mesh Lock	1
160	208760	PLATE, Clutch Disc End	1	199	13F-04	PLUG, Mesh Lock	1
161	223942	RING, End Plate Retaining	1	200	201844	SPRING, Mesh Lock	1
162	220398	HUB, Clutch Disc	1	201	205928	NUT, Output Shaft Flange	1
163	223867	RING, Hub Washer Locating	1	202	1E-432	COTTER, Flange Nut	1
164	5C-614	BOLT & LKWSHR, Clutch Cover	16	203	209414	FLANGE ASSY Output (Inc. 204)	1
165	205928	NUT Output Flange	1	204	100949	DEFLECTOR, Output Flange	1
166	209414	FLANGE ASSY Output (Inc. 167)	1	205	1C-718	BOLT, Front Bearing Cap	4
167	100949	DEFLECTOR, Output Flange	1	206	4E-07	LKWSHR, Front Bearing Cap	4
168	206864	SEAL, Bearing Cap Oil	1	207	675544	CUP Output Shaft Bearing	1
169	209428	CAP Rear Output Shaft Bearing	1	208	675548	CONE, Output Shaft Bearing	1
170	713997	BEARING, Rear Output Shaft	1	209	525293	MAGNET, Oil Screen	1
171	234650	SEAL, Shift Shaft Oil	1	210	202780	SPRING, Magnet Retaining	1
172	209434	SHAFT, Rear Output Shaft Shift	1	211	201120	PLUG, Drain (Magnetic)	1
173	209433	FORK, Rear Output Shaft Shift	1	212	215644	PAN, Oil	1
174	201566	SCREW Shift Fork Lock	1	213	5C-616	BOLT & LKWSHR, Oil Pan	14
175	209430	HOUSING, Rear Output Shaft	1	214	675548	CONE, Output Shaft Bearing	1
176	10J-12	BALL, Mesh Lock	1	215	675544	CUP Output Shaft Bearing	1
177	201844	SPRING, Mesh Lock	1	216	223881	RING, Bearing Retaining	1
178	209431	PLATE, Rear Housing Cover	1	217	209411	SHIM, Output Shaft Housing	1
179	5C-612	BOLT & LKWSHR, Cover Plate	6	218	4E-07	LKWSHR, Housing to Case	7
180	209432	GASKET, Cover Plate	1	219	1C-720	BOLT, Housing to Case	7
181	209407	WASHER, Output Shaft Gear Thrust	1	220	224069	RING, Bearing Retaining	1
182	209396	GEAR ASSY Output Shaft High (Inc. Bushing)	1	221	209427	HUB, Rear Output Shaft Shift	1
183	209409	HUB, High & Low Shift	1	222	209426	SHAFT, Rear Output	1
184	209423	SHAFT ASSY Output (Inc. 184A)	1	223	223925	RING, Bearing Locating	1
184A	225408	BUSHING, Output Shaft	1	224	209429	GASKET Rear Bearing Cap	1
185	800656	GEAR ASSY Output Shaft Low (Inc. Bushing) (Inc. 186)	1	225	4E-07	LKWSHR, Rear Bearing Cap	4
186	209673	RING, Low Gear Oil	1	226	1C-718	BOLT Rear Bearing Cap	4
187	209407	WASHER, Output Shaft Gear Thrust	1	227	1E-432	COTTER, Flange Nut	1
188	209701	SHIM, Front Bearing Cap - .004"	—	<b>TRANSMISSION MOUNTING PARTS</b>			
188A	209702	SHIM, Front Bearing Cap - .007"	—	228	532184	MOUNT, Transmission - R.H.	1
188B	209703	SHIM, Front Bearing Cap - .010"	—	229	537625	MOUNT, Transmission - L.H.	1
189	209692	CAP Output Shaft Front Bearing	1	230	18C-828	BOLT, Bracket to Frame	4
190	206864	SEAL, Bearing Cap Oil	1	231	70D-08	NUT, Bracket to Frame	4
191	201566	SCREW Shift Fork Lock	1	232	71D-08	BASE, Bracket to Frame Nut	4
192	209403	FORK, High & Low Shift	1	233	18C-1044	BOLT, Bracket to Transmission	8
193	209406	GASKET Shift Shaft Support	1	234	18D-10	NUT, Bracket to Transmission	8

†Not Illustrated  
As Required

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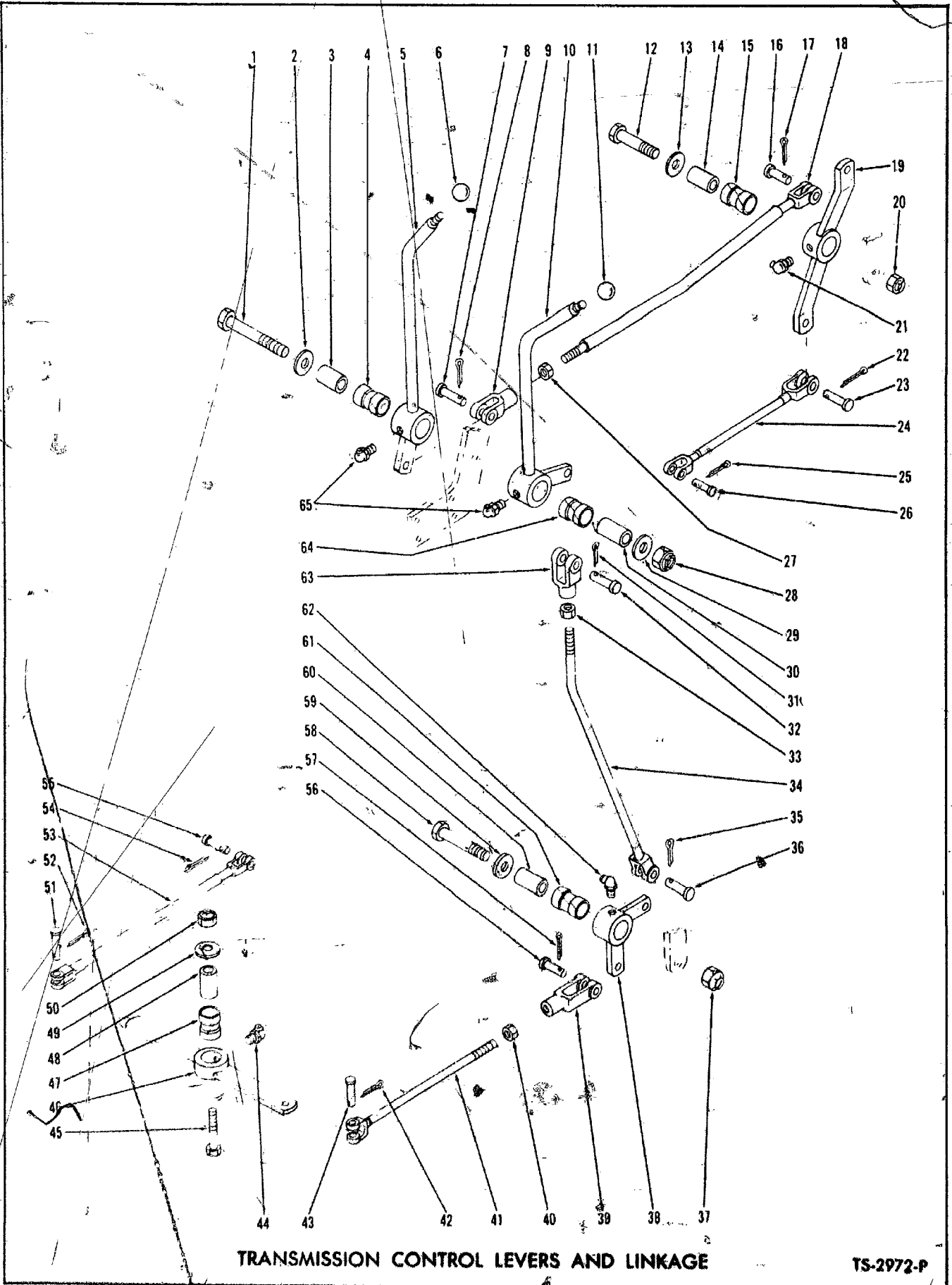
TRANSMISSION CONTROL COVER

JS-3816-P-48-55G

**TRANSMISSION CONTROL COVER**

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

§Not Sold Separately  
†Not Illustrated



**TRANSMISSION CONTROL LEVERS AND LINKAGE**

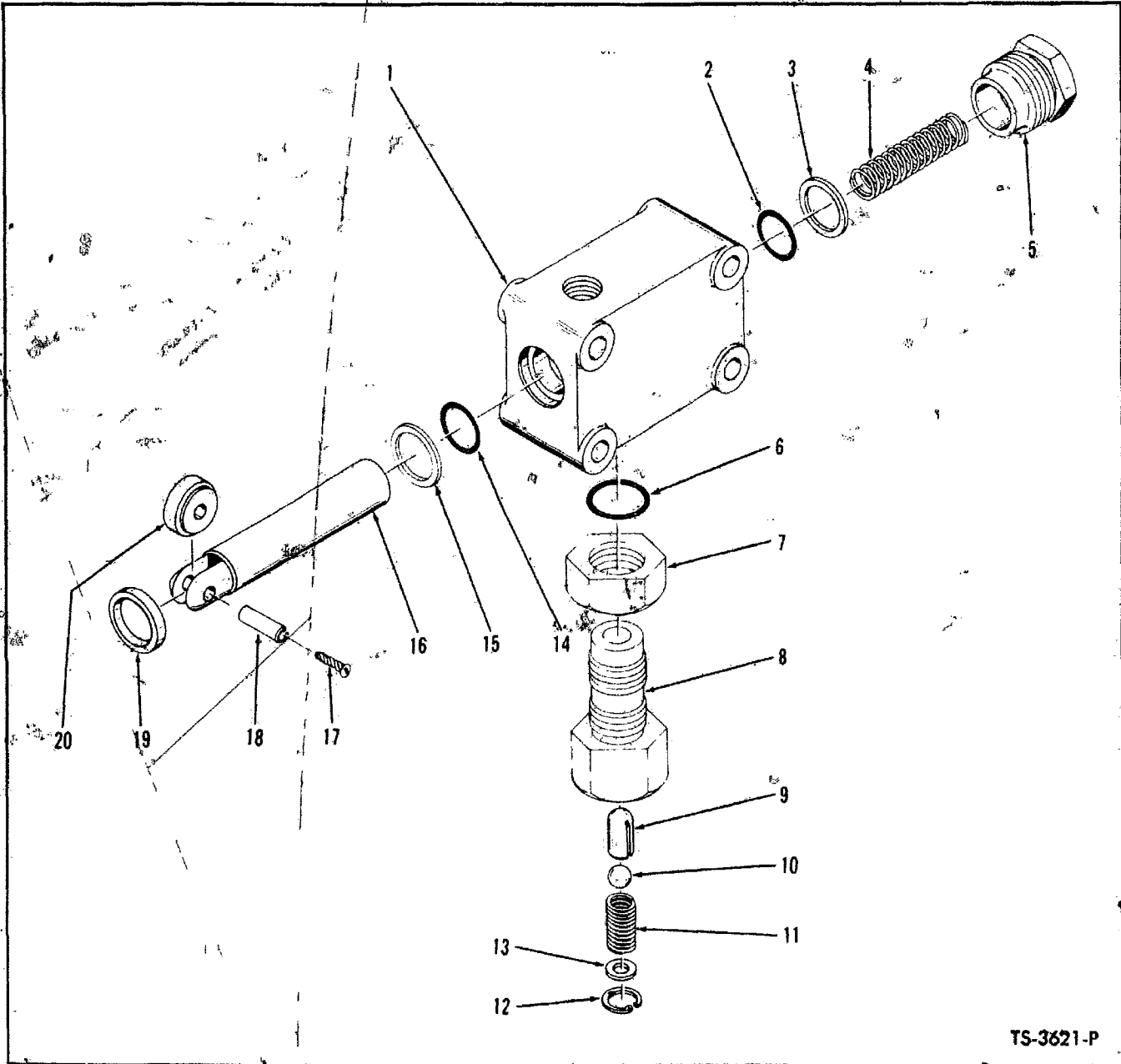
**TS-2972-P**

**TRANSMISSION CONTROL LINKAGE**

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

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-868	BOLT, Lever Mounting	1	34	537968	ROD, Lever to Bell Crank	1
2	616796	WASHER, Lever Mounting	1	35	1F-412	COTTER, Clevis Pin	1
3	550646	SLEEVE, Lever Mounting	1	36	4F-08127	PIN, Rod to Bell Crank Clevis	1
4	526767	BUSHING, Range Lever	1	37	18D-08	NUT Bell Crank Mounting	1
5	534929	LEVER, Range	1	38	537966	BELL CRANK	1
6	509772	KNOB, Range Lever	1	39	2J-8300	CLEVIS, Rod to Bell Crank	1
7	4F-08127	PIN, Rod to Lever Clevis	1	40	8D-08	NUT, Clevis Jam	1
8	1F-412	COTTER, Clevis Pin	1	41	536294	ROD, 4 WD Shift	1
9	2J-8300	CLEVIS, Rod to Lever	1	42	1F-312	COTTER, Clevis Pin	1
10	534927	LEVER, 4 WD Shift	1	43	4F-06106	PIN, Rod to Bell Crank Clevis	1
11	509772	KNOB, 4 WD Shift Lever	1	44	12H-15	FITTING, Bell Crank Grease	1
12	18C-844	BOLT, Bell Crank Mounting	1	45	18C-844	BOLT, Bell Crank Mounting	1
13	616796	WASHER, Bell Crank Mounting	1	46	537963	BELL CRANK	1
14	550646	SLEEVE, Bell Crank Mounting	1	47	526767	BUSHING, Bell Crank	1
15	526767	BUSHING, Bell Crank	1	48	550646	SLEEVE, Bell Crank Mounting	1
16	4F-08127	PIN, Rod to Bell Crank Clevis	1	49	616796	WASHER, Bell Crank Mounting	1
17	1F-412	COTTER, Clevis Pin	1	50	18D-08	NUT, Bell Crank Mounting	1
18	538136	ROD, Range Lever to Bell Crank	1	51	4F-06106	PIN, 4 WD Shift Rod to Bell Crank Clevis	1
19	535710	BELL CRANK	1	52	1F-312	COTTER, Clevis Pin	1
20	18D-08	NUT Bell Crank Mounting	1	53	536291	ROD, 4 WD Shift	1
21	12H-15	FITTING, Bell Crank Grease	1	54	1F-312	COTTER, Clevis Pin	1
22	1F-412	COTTER, Clevis Pin	1	55	4F-06106	PIN, Rod to Transmission Clevis	1
23	4F-08127	PIN, Bell Crank to Rod Clevis	1	56	4F-08127	PIN, Rod to Bell Crank Clevis	1
24	537965	ROD, Bell Crank to Transmission	1	57	1F-412	COTTER, Clevis Pin	1
25	1F-312	COTTER, Clevis Pin	1	58	18C-844	BOLT, Bell Crank Mounting	1
26	4F-06106	PIN, Rod to Transmission Clevis	1	59	616796	WASHER, Bell Crank Mounting	1
27	8D-08	NUT, Clevis Jam	1	60	550646	SLEEVE, Bell Crank Mounting	1
28	18D-08	NUT, Lever Mounting	1	61	526767	BUSHING, Bell Crank	1
29	616796	WASHER, Lever Mounting	1	62	12H-15	FITTING, Bell Crank Grease	1
30	550646	SLEEVE, Lever Mounting	1	63	2J-8300	CLEVIS, Rod to Lever	1
31	1F-412	COTTER, Clevis Pin	1	64	526767	BUSHING, 4 WD Lever	1
32	4F-08127	PIN, Rod to Lever Clevis	1	65	12H-15	FITTING, Control Lever Grease	2
33	8D-08	NUT, Clevis Jam	1				

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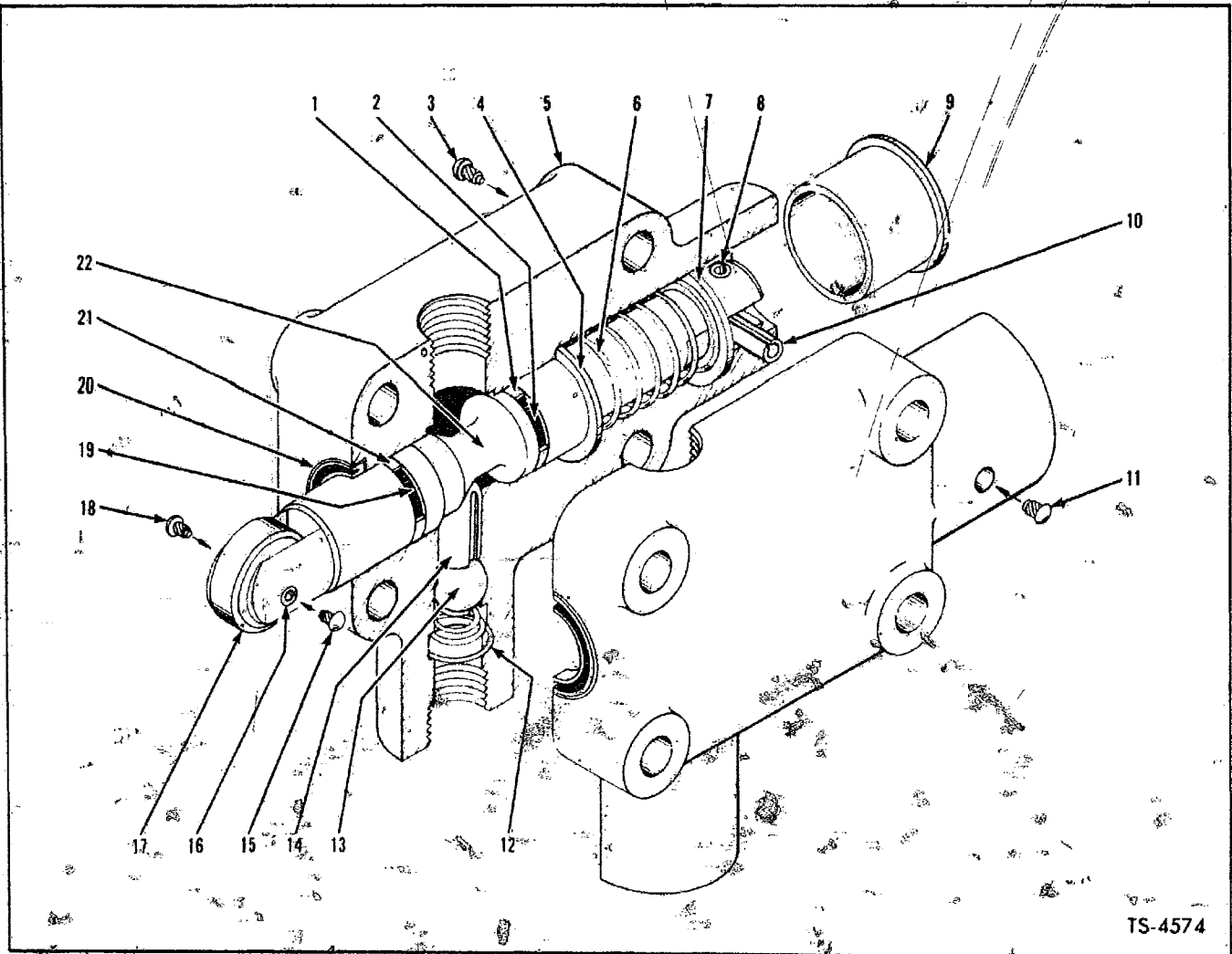


**VALVE ASSEMBLY - BRAKE DE CLUTCH**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	546830	*VALVE ASSY (Inc. 1 thru 20)	1	12	209964	RING, Retaining	1
1		§HOUSING, Valve - See "A"	1	13	25E-6	WASHER	1
2	25K-30020	"O" RING, Plunger	1	14	25K-30020	"O" RING, Plunger	1
3	945244	RING, "O" Ring Back-up	1	15	945244	RING, "O" Ring Back-up	1
4	945245	SPRING	1	16		§PLUNGER - See "A"	1
5	945246	CAP	1	17	6C-403	SCREW Drive	2
6	91F-6	"O" RING	1	18	1302554	ROLL PIN	1
7	8D-12	NUT	1	19	945250	SEAL, Plunger	1
8	945247	HOUSING, Check Valve	1	20	945009	BEARING	1
9	945248	PIN, Check	1	21	18C-436	†BOLT, Valve Attaching	4
10	10J-12	BALL	1	22	18D-04	†NUT, Valve Attaching	4
11	949960	SPRING	1				

†Not Illustrated  
§Not Sold Separately  
\*NOTE: For replacement use 566398.

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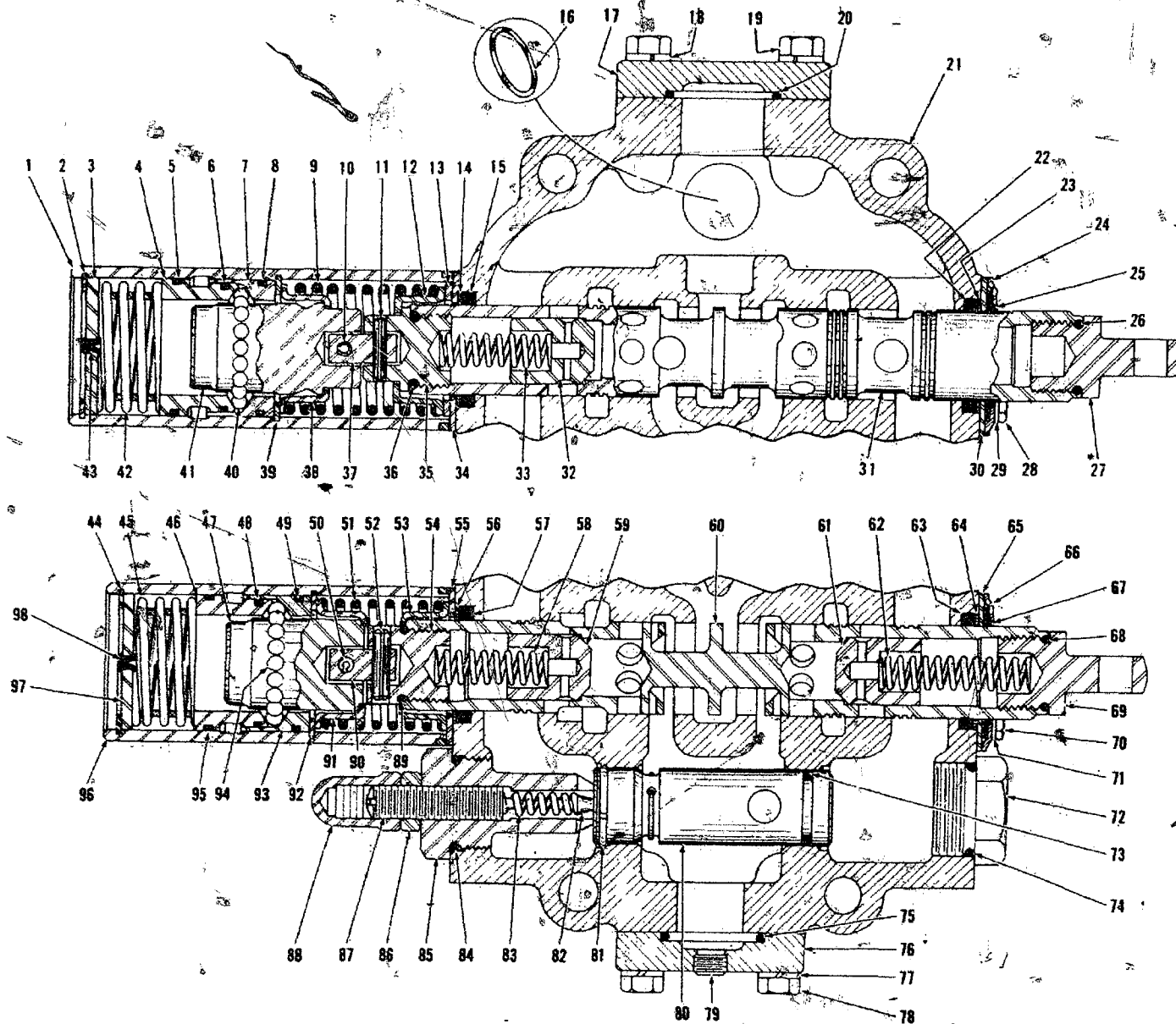


**VALVE ASSEMBLY - BRAKE DE-CLUTCH  
(SERVICE ONLY)**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	556398	VALVE ASSY (Inc. 1 thru 22)	1	13	10J-12	BALL	1
1	945764	RING, "O" Ring Back-Up	1	14	945248	PIN, Check	1
2	38K-20010	"O" RING, Plunger	1	15	6C-403	SCREW Drive	1
3	6C-403	SCREW Drive	1	16	1302554	ROLL PIN	1
4	945767	SPACER, Spring	1	17	945009	BEARING (Roller)	1
5	-----	§HOUSING, Valve (See Item A)	1	18	6C-403	SCREW Drive	1
6	946411	SPRING	1	19	38K-20010	"O" RING, Plunger	1
7	945767	SPACER, Spring	1	20	945250	SEAL, Plunger	1
8	742306	ROLL PIN	1	21	945764	RING, "O" Ring Back-Up	1
9	-----	§PLUG	1	22	-----	§PLUNGER (See Item A)	1
10	659648	ROLL PIN	1	23	18C-440	†BOLT Valve Attaching	4
11	6C-403	SCREW Drive	1	24	18D-04	†NUT, Valve Attaching	4
12	945769	SPRING	1				

§Not Sold Separately  
†Not Illustrated

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



CONTROL VALVE ASSEMBLY

For Serial: Cummins-2DC101 thru 4DC110 G M -2DG101 thru 5DG133 Wauk 2DA101 and after

TS-3525 P

92.1

(11 1)

PM 1669



**CONTROL VALVE ASSEMBLY**  
 For Serial: Cummins — 2DC101 thru 4DC110  
 G.M. — 2DG101 thru 5DG133  
 Wauk. — 2DA101 and after

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	543315	** VALVE ASSY (Inc. 1 thru 98)	1	51	945856	SPRING	1
1	945203	COVER, Detent	1	52	302602	ROLL PIN	1
2	661389	RING, Plug Retaining	1	53	888302	GUIDE, Spring	1
3	945074	PLUG, Spring Retaining	1	54	945067	CAP	1
4	945071	RETAINER, Ball	1	55	888299	PLATE, Seal Retainer	1
5	25K-30128	"O" RING, Ball Retainer	1	56	888296	RING, Back-Up	1
6	25K-30124	"O" RING, Ball Retainer	1	57	946584	SEAL, Quad Ring	1
7	945070	RETAINER, Ball	1	58	888304	SPRING, Check	1
8	25K-30128	"O" RING, Ball Retainer	1	59	941463	CHECK	1
9	888303	SPRING	1	60	—	§ PLUNGER, Operating—See "A"	1
10	654618	ROLL PIN	1	61	941463	CHECK	1
11	1302114	ROLL PIN	1	62	888304	SPRING, Check	1
12	945066	GUIDE, Spring	1	63	946584	SEAL, Quad Ring	1
13	945065	SPACER	1	64	888296	RING, Back-Up	1
14	888296	RING, Back-Up	1	65	888305	* PLATE, Seal Retainer	1
15	946584	SEAL, Quad Ring	1	66	888306	* RETAINER, Wiper	1
16	58K-222	"O" RING	1	67	888297	* WIPER, Plunger	1
17	947864	COVER	1	68	25K-40028	"O" RING, Plunger Eye	1
18	4E-07	LKWSHR, Cover Attaching	4	69	940279	EYE, Plunger	1
19	1C-720	BOLT, Cover Attaching	4	70	1C-410	BOLT, Retainer & Cover Attaching	6
20	58K-222	"O" RING, Cover	1	71	4E-04	LKWSHR, Retainer & Cover Attaching	6
21	—	§ HOUSING, Valve—See "A"	1	72	888294	CAP	1
22	946584	SEAL, Quad Ring	1	73	58K-022	"O" RING	1
23	888296	RING, Back-Up	1	74	25K-40104	"O" RING, Cap	1
24	888306	* RETAINER, Wiper	1	75	58K-214	"O" RING, Cover	1
25	888297	* WIPER, Plunger	1	76	945201	COVER	1
26	25K-40028	"O" RING, Plunger Eye	1	77	4E-06	LKWSHR, Cover	4
27	940279	EYE, Plunger	1	78	1C-620	BOLT, Cover	4
28	1C-410	BOLT, Retainer & Cover Attaching	6	79	16F-04	PLUG, Cover	1
29	4E-04	LKWSHR, Retainer & Cover Attaching	6	80	945868	VALVE ASSY Relief (Inc. 73, 81)	1
30	888305	* RETAINER, Wiper	1	81	945081	RING, Plunger Retaining	1
31	—	§ PLUNGER, Operating—See "A"	1	82	886739	POPPET, Relief	1
32	941463	CHECK, Plunger	1	83	886753	SPRING, Relief	1
33	888304	SPRING, Plunger Check	1	84	25K-40104	"O" RING, Adjusting Cap	1
34	888299	PLATE, Seal Retainer	1	85	945870	CAP Adjusting	1
35	945200	CAP	1	86	8D-08	NUT Jam	1
36	25K-40028	"O" RING, Cap	1	87	944855	SCREW Adjusting	1
37	945069	PIN	1	88	944853	NUT Acorn	1
38	888302	GUIDE, Spring	1	89	25K-40028	"O" RING, Cap	1
39	1302111	RING, Guide Retaining	1	90	944148	PIN	1
40	10J-08	BALL	17	91	888302	GUIDE, Spring	1
41	945072	CAP, Detent	1	92	1302111	RING, Guide Retaining	1
42	945073	SPRING	1	93	945070	RETAINER, Ball	1
43	886763	PLUG, Bleeder	1	94	10J-08	BALL	17
44	661389	RING, Plug Retaining	1	95	25K-30128	"O" RING, Ball Retainer	1
45	945073	SPRING	1	96	946457	COVER, Detent	1
46	945071	RETAINER, Ball	1	97	945074	PLUG, Spring Retaining	1
47	945077	CAP Detent	1	98	886763	PLUG, Bleeder	1
48	25K-30124	"O" RING, Ball Retainer	1	99	18C-864	† BOLT, Valve to Reservoir	3
49	25K-30128	"O" RING, Ball Retainer	1	100	4E-08	† LKWSHR, Valve to Reservoir	3
50	660178	ROLL PIN	1				

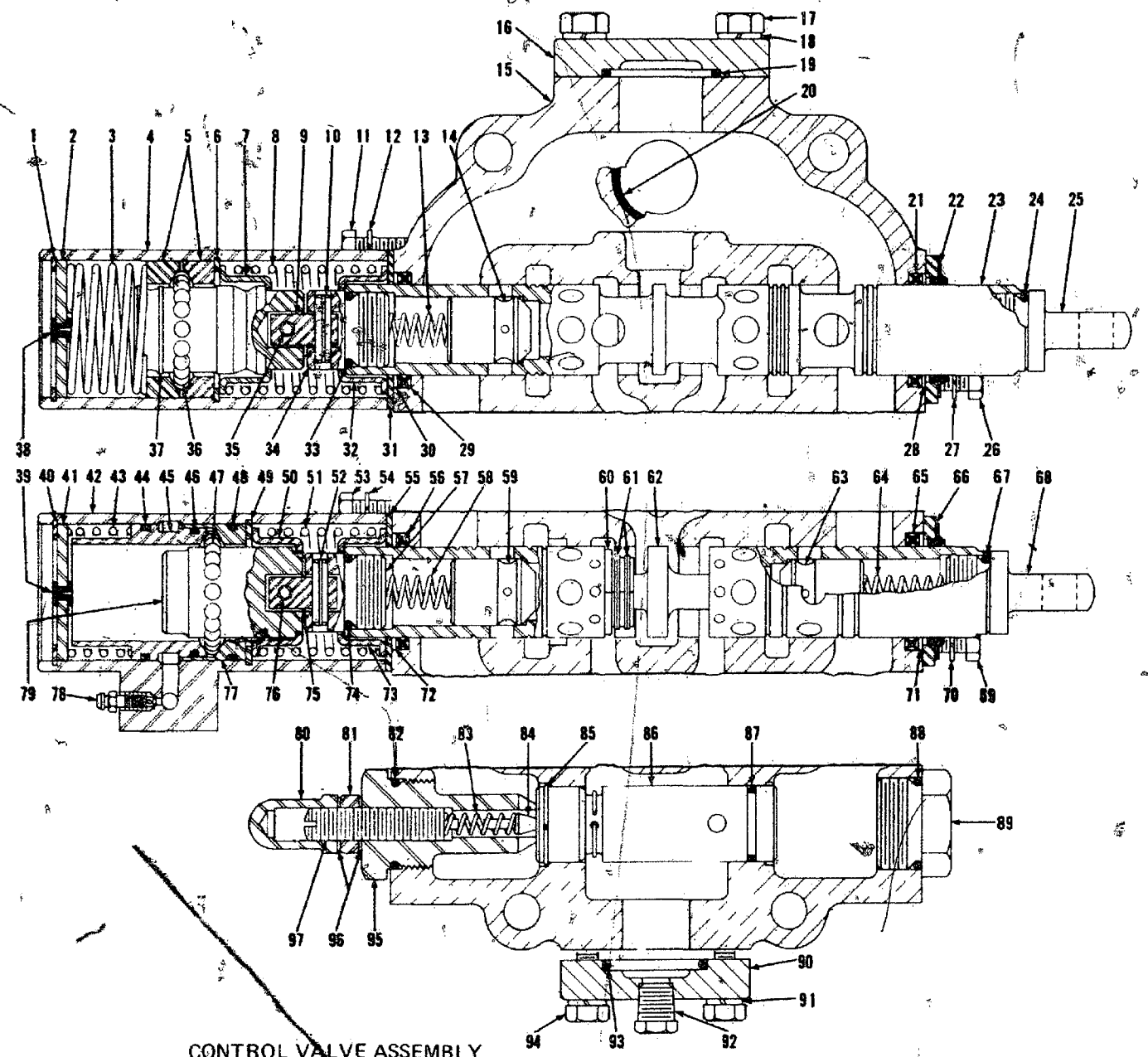
§ Not Sold Separately

† Not Illustrated

\* NOTE: For replacement use 945864 Wiper (one piece).

\*\* NOTE: For replacement use 947460 Kit, 947460 Kit Inc. 1—1510472 Valve Assy 3—18C-840 Bolt, 9—25E-21 Washer 1—Form 002854 Installation Instructions.

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



CONTROL VALVE ASSEMBLY

For Serial Cummins-2DC101 thru 4DC110 G.M. -2DG101 thru 5DG133 Wauk -2DA101 and after

TS 4936-P

92A.1

(113)

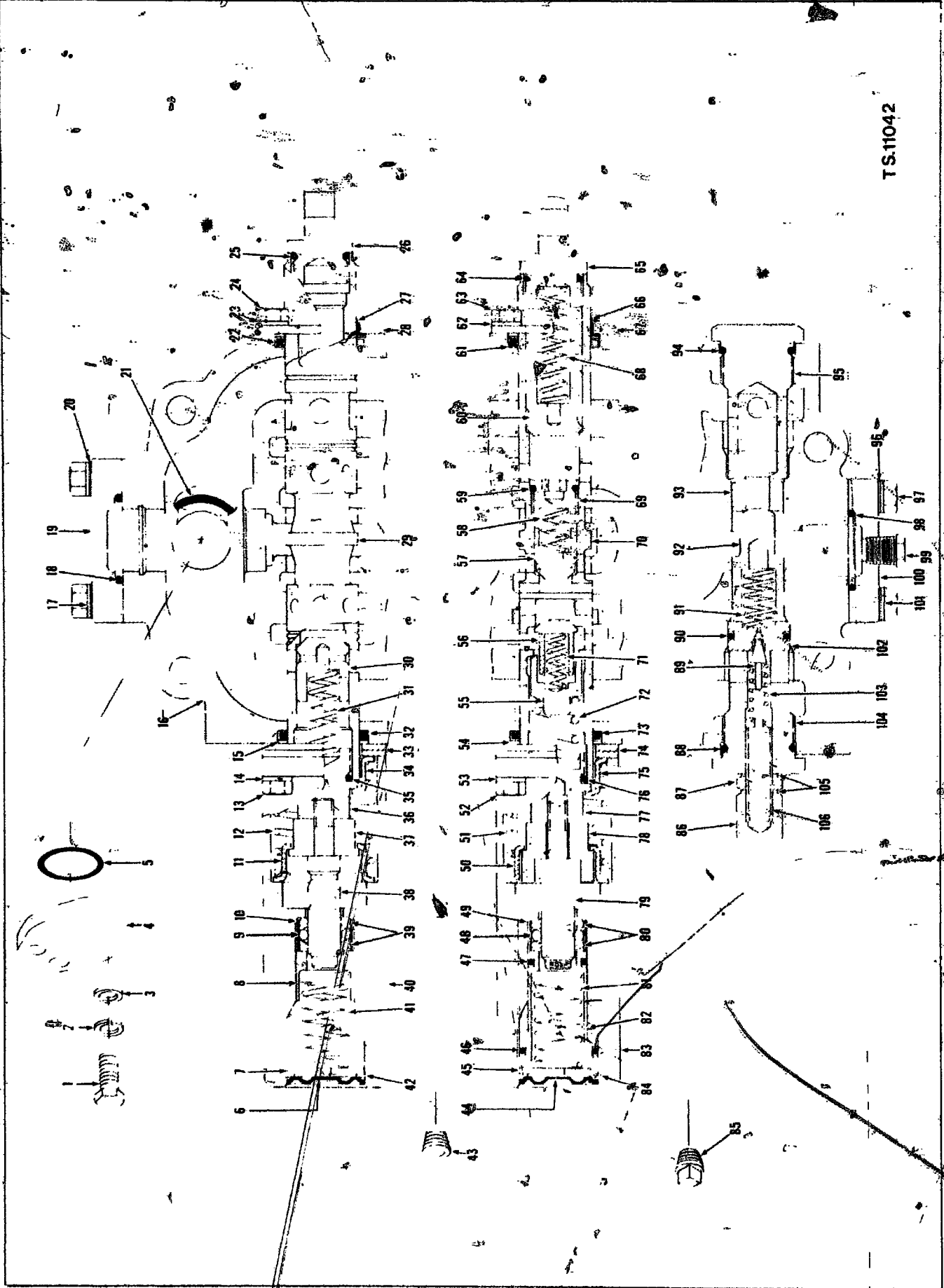
PM 1669

**CONTROL VALVE ASSEMBLY**  
For Serial: Cummins - 4DC111 and after  
G.M. - 5DG134 and after

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	562257	* VALVE ASSY, Control (Inc. 1 thru 97)	1	49	1302111	RING, Retaining	1
1	661389	RING, Retaining	1	50	888302	GUIDE, Spring	1
2	945074	PLUG, Detent	1	51	945856	SPRING	1
3	945863	SPRING, Detent	1	52	302602	ROLL PIN	1
4	945257	COVER, Detent	1	53	1C-416	BOLT, Cover to Housing	4
5	945258	RETAINER, Ball	2	54	4E-04	LKWSHR, Cover to Housing	4
6	1302111	RING, Retaining	1	55	888299	PLATE, Retaining	1
7	888302	GUIDE, Spring	1	56	888947	SEAL, Plunger Oil	1
8	888303	SPRING	1	57	945067	CAP Plunger	1
9	944148	PIN	1	58	945866	SPRING, Check	1
10	302602	ROLL PIN	1	59	941463	CHECK	1
11	1C-416	BOLT, Cover to Housing	4	60	945867	CHECK	2
12	4E-04	LKWSHR, Cover to Housing	4	61	1307317	RING, Retaining	4
13	940166	SPRING, Check	1	62	---	§ PLUNGER, Operating - See "A"	1
14	941463	CHECK	1	63	941463	CHECK	1
15	---	§ HOUSING, Valve - See "A"	1	64	888304	SPRING, Check	1
16	947864	COVER	1	65	888947	SEAL, Plunger Oil	1
17	1C-412	BOLT, Cover to Housing	4	66	945864	WIPER, Plunger	1
18	4E-07	LKWSHR, Cover to Housing	4	67	25K-40028	O-RING, Plunger Eye	1
19	58K-222	O-RING, Cover	1	68	940279	EYE, Plunger	1
20	58K-222	O-RING	1	69	1C-410	BOLT, Wiper to Housing	2
21	888947	SEAL, Plunger Oil	1	70	4E-07	LKWSHR, Wiper to Housing	2
22	945864	WIPER, Plunger	1	71	888296	RING, Back-Up	1
23	---	§ PLUNGER, Operating - See "A"	1	72	888296	RING, Back-Up	1
24	25K-40028	O-RING, Plunger Eye	1	73	888302	GUIDE, Spring	1
25	940279	EYE, Plunger	1	74	25K-40028	O-RING, Cap	1
26	1C-410	BOLT, Wiper to Housing	2	75	944148	PIN	1
27	4E-04	LKWSHR, Wiper to Housing	2	76	302602	ROLL PIN	1
28	888296	RING, Back-Up	1	77	945070	RETAINER, Ball	1
29	888947	SEAL, Plunger	1	78	641297	SCREW, Bleeder	1
30	888296	RING, Back-Up	1	79	945077	CAP Detent	1
31	888299	PLATE, Retaining	1	80	944853	NUT, Acorn	1
32	888302	GUIDE, Spring	1	81	8D-08	NUT, Jam	1
33	25K-40028	O-RING, Cap	1	82	25K-40104	O-RING, Adjusting Cap	1
34	945067	CAP Plunger	1	83	886753	SPRING, Poppet	1
35	302602	ROLL PIN	1	84	886739	POPPET	1
36	10J-08	BALL	17	85	945081	RING, Retaining	1
37	945865	CAP Detent	1	86	945868	VALVE ASSY Relief (Inc. 85, 87)	1
38	886763	PLUG, Bleeder	1	87	58K-022	O-RING, Relief Valve	1
39	886763	PLUG, Bleeder	1	88	25K-40104	O-RING, Cap	1
40	661389	RING, Retaining	1	89	888294	CAP	1
41	945074	PLUG, Detent	1	90	945201	COVER	1
42	946457	COVER, Detent	1	91	947865	LKWSHR, Cover to Housing	4
43	945073	SPRING, Detent	1	92	40K-04	PLUG	1
44	58K-134	O-RING, Ball Retainer	1	93	58K-219	O-RING, Cover	1
45	945071	RETAINER, Ball	1	94	1C-620	BOLT, Cover to Housing	4
46	58K-132	O-RING, Ball Retainer	1	95	945870	CAP Adjusting	1
47	10J-08	BALL	17	96	613750	WASHER	2
48	58K-134	O-RING, Ball Retainer	1	97	944855	SCREW, Adjusting	1

§ Not Sold Separately

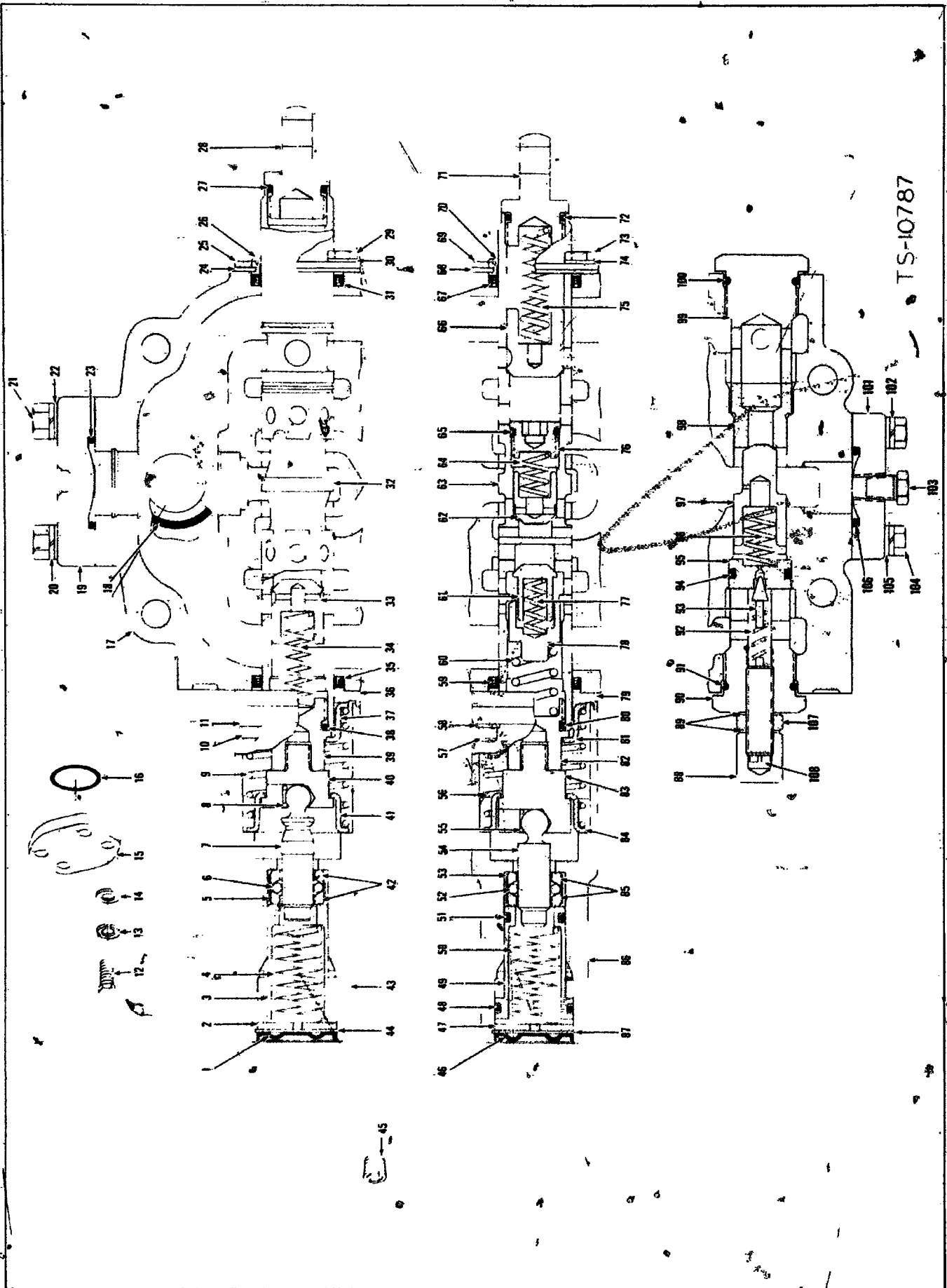
\*NOTE: For replacement use 947460 Kit Inc. 1-1510472 Valve Assy 3-18C-840 Bolt, 9-25E-21 Washer 1-Form 002854 Installation Instructions.



CONTROL VALVE ASSEMBLY  
(Service)

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
A	1508801	CONTROL VALVE ASSY (Inc. 1 thru 105)	1	53	4E-04	LKWSHR, Cover to Housing	4
1	1C-724	BOLT Cover to Housing	4	54	888296	RING, Back-Up	1
2	4E-07	LKWSHR, Cover to Housing	4	55	946432	CHECK	1
3	867747	WASHER, Cover to Housing	4	56	946431	CHECK	1
4	947864	COVER, Housing	1	57	944885	CHECK	1
5	58K-222	O-RING, Cover	1	58	946455	SPRING, Check	4
6	948202	DIAPHRAGM	1	59	25K 30022	O-RING, Cap	1
7	948202	DIAPHRAGM	1	60	946450	CHECK	1
8	947842	RETAINER, Spring	1	61	946584	SEAL, Plunger Oil	1
9	10J-06	BALL	11	62	4E-04	LKWSHR, Plate to Housing	2
10	875364	SLEEVE, Ball Retainer	1	63	1C-410	BOLT Plate to Housing	2
11	888302	RETAINER, Spring	1	64	25K-40028	O-RING, Plunger Eye	1
12	947857	SPRING, Plunger Return	1	65	940279	EYE, Plunger	1
13	1C-420	BOLT Cover to Housing	4	66	946638	WIPER, Plunger Oil	1
14	4E-04	LKWSHR, Cover to Housing	4	67	946637	PLATE, Wiper & Seal Retainer	1
15	888296	RING, Back-Up	1	68	888304	SPRING, Check	1
16	-----	§ HOUSING, Valve - See A	---	69	946454	CAP Plunger	1
17	4E-07	LKWSHR, Cover to Housing	4	70	-----	§ PLUNGER, Operating - See A	---
18	58K-222	O-RING, Cover	1	71	946813	SPRING, Check	1
19	947864	COVER, Housing	1	72	946433	SPRING, Check	1
20	867747	WASHER, Cover to Housing	4	73	946584	SEAL, Plunger Oil	1
21	58K-222	O-RING, Valve Mounting	1	74	946427	PLATE, Seal Retainer	2
22	949150	SEAL, Plunger Oil	1	75	888302	RETAINER, Spring	1
23	4E-04	LKWSHR, Plate to Housing	2	76	25K-40028	O-RING, Cap	1
24	1C-410	BOLT Plate to Housing	2	77	947855	CAP Plunger	1
25	25K-40028	O-RING, Plunger Eye	1	78	947856	SPACER, Plunger	1
26	940279	EYE, Plunger	1	79	947854	CAP, Detent	1
27	946638	WIPER, Plunger Oil	1	80	947843	RETAINER, Ball	2
28	946637	PLATE, Wiper & Seal Retainer	1	81	947842	SPRING, Detent	1
29	-----	§ PLUNGER, Operating - See A	---	82	947867	PISTON	1
30	941463	CHECK	1	83	961252	COVER, Detent	1
31	940166	SPRING, Check	1	84	666542	RING, Plug Retainer	1
32	946584	SEAL, Plunger Oil	1	85	16F-04	PLUG, Cover	1
33	946427	PLATE, Seal Retaining	2	86	49D-08	NUT Acorn	1
34	945066	RETAINER, Spring	1	87	8D-08	NUT Jam	1
35	25K-40028	O-RING, Cap	1	88	25K-40104	O-RING, Cap	1
36	947858	CAP, Plunger	1	89	886745	POPPET	1
37	947862	SPACER, Detent	1	90	25K-40030	O-RING, Seat	1
38	947859	CAP, Detent	1	91	946805	SPRING, Poppet	1
39	947843	RETAINER, Ball	2	92	947844	POPPET	1
40	961252	COVER, Detent	1	93	947840	SEAT Poppet	1
41	947842	SPRING, Detent Return	1	94	25K-40104	O-RING, Cap	1
42	666542	RING, Plug Retaining	1	95	947845	CAP	1
43	16F-04	PLUG, Detent Housing	1	96	4E-06	WASHER, Cover to Housing	4
44	948202	DIAPHRAGM	1	97	1C-618	BOLT Cover to Housing	4
45	947848	PLUG, Cover	1	98	58K-218	O-RING, Cover	1
46	25K-40106	O-RING, Piston	1	99	40K-04	PLUG, Cover	1
47	25K-40028	O-RING, Piston	1	100	947865	COVER, Housing	1
48	10J-06	BALL	11	101	1C-618	LKWSHR, Cover to Housing	4
49	875364	SLEEVE, Ball Retainer	1	102	947841	SEAT, Poppet	1
50	888302	RETAINER, Spring	1	103	886753	SPRING, Poppet	1
51	947868	SPRING, Plunger Return	1	104	947845	CAP Adjusting	1
52	1C-420	BOLT Cover to Housing	4	105	613750	WASHER, Jam Nut	2
				106	944890	SCREW, Adjusting	1

\*NOTE: For replacement use 947460 Kit, 947460 Kit-Inc. 1-1510472 Valve Assy 3-18C-840 Bolt, 9-25E 21 Washer 1-Form 002854 Installation Instructions.  
§ Not Sold Separately



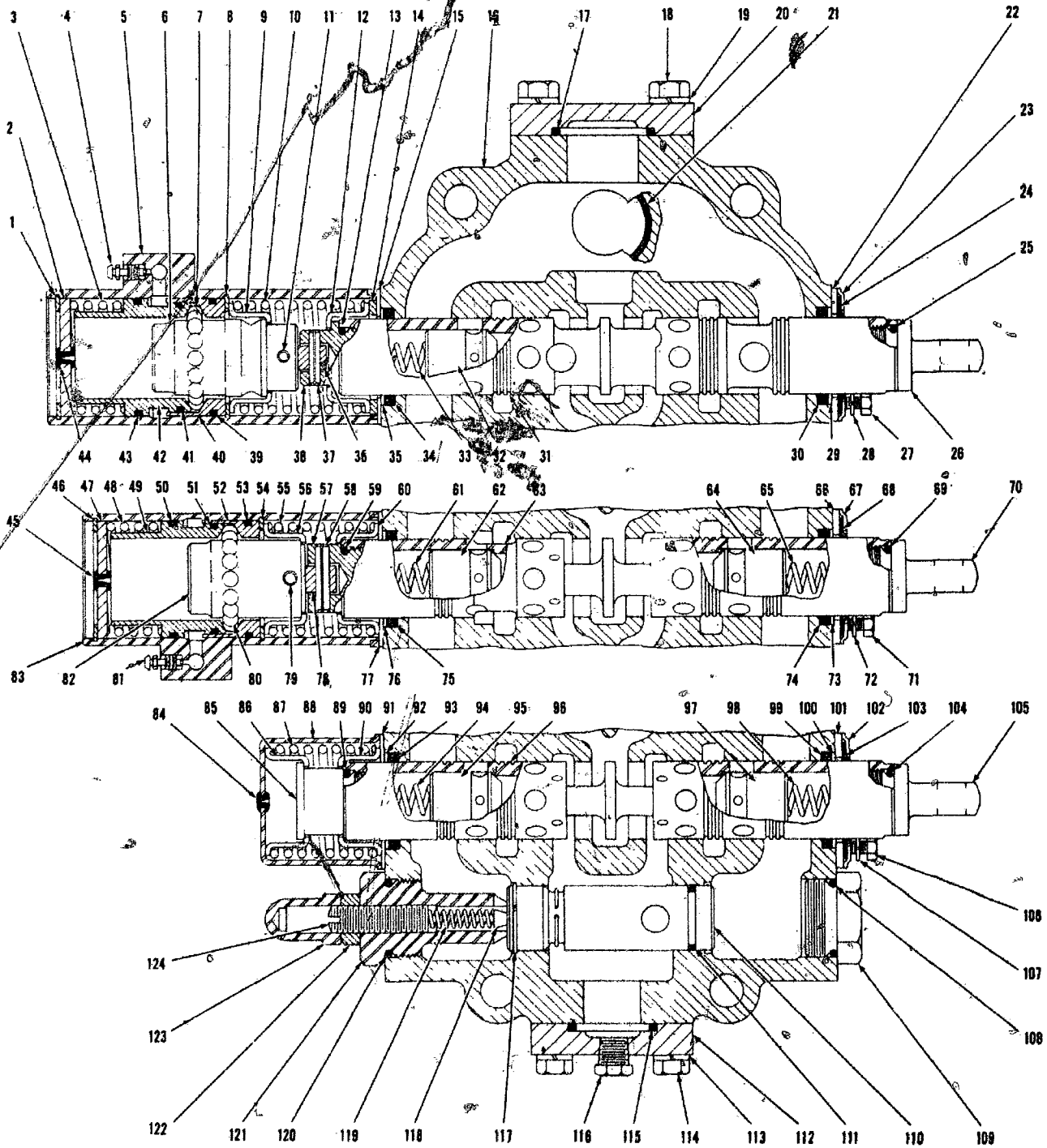


### CONTROL VALVE ASSEMBLY

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
A	1510472	<sup>2</sup> CONTROL VALVE ASSY (Inc. 1 thru 108)	1	54	948722	PLUNGER, Detent	1
1	948202	DIAPHRAGM, Detent	1	55	948726	RING, Plunger Retaining	1
2	947848	PLUG, Detent	1	56	947868	SPRING, Plunger Return	1
3	948954	RETAINER, Detent Spring	1	57	11G-420	BOLT Cover to Housing	4
4	947852	SPRING, Detent	1	58	4E-04	LKWSHR, Cover to Housing	4
5	948727	SLEEVE, Ball Retainer	1	59	948950	SEAL, Plunger	1
6	948730	BALL, Detent	11	60	946433	SPRING, Check	1
7	948737	PLUNGER, Detent	1	61	946431	CHECK	1
8	948726	RING, Detent Plunger	1	62	944885	CHECK	1
9	947857	SPRING, Plunger Return	1	63	-----	§ PLUNGER, operating, See Item A	1
10	11G-420	BOLT Detent Cover to Housing	4	64	946455	SPRING, Check	1
11	4E-04	LKWSHR, Detent Cover to Housing	4	65	25K-30022	O-RING, Cap	1
12	1C-724	BOLT Cover to Housing	4	66	946450	CHECK	1
13	4E-07	LKWSHR, Cover to Housing	4	67	948950	SEAL, Plunger	1
14	867747	WASHER, Cover to Housing	4	68	888299	PLATE, Seal Retainer	1
15	947864	COVER, Housing	1	69	948953	PLATE, Wiper Retainer	1
16	58K-222	O-RING, Cover	1	70	948951	WIPER, Plunger	1
17	-----	§ HOUSING, See A	—	71	940279	EYE, Plunger	1
18	58K-222	O-RING, Valve Mounting	1	72	25K-40028	O-RING, Plunger Eye	1
19	947864	COVER, Housing	1	73	1C-412	BOLT Retainer to Housing	4
20	4E-07	LKWSHR, Cover to Housing	4	74	4E-04	LKWSHR, Retainer to Housing	4
21	1C-724	BOLT Cover to Housing	4	75	888304	SPRING, Check	1
22	867747	WASHER, Cover to Housing	4	76	946454	CAP	1
23	58K-222	O-RING, Cover	1	77	946813	SPRING, Check	1
24	888299	PLATE, Seal Retaining	1	78	946432	CHECK	1
25	948953	PLATE, Wiper Retaining	1	79	948952	PLATE, Seal Retaining	1
26	948951	WIPER, Plunger	1	80	25K-40028	O-RING, Plunger Cap	1
27	25K-40028	O-RING, Plunger Eye	1	81	945066	RETAINER, Detent Spring	1
28	940279	EYE, Plunger	1	82	948738	CAP Plunger	1
29	1C-412	BOLT Retainer to Housing	4	83	948733	SOCKET Detent	1
30	4E-04	LKWSHR, Retainer to Housing	4	84	888302	RETAINER, Detent Spring	1
31	948950	SEAL, Plunger Oil	1	85	947843	RETAINER, Detent Ball	1
32	-----	§ PLUNGER, See A	—	86	961812	COVER, Detent	1
33	941463	CHECK	1	87	666542	RING, End Plug Retainer	1
34	940166	SPRING, Check	1	88	49D-08	NUT Acorn	1
35	948950	SEAL, Plunger Oil	1	89	613750	WASHER, Jam Nut	2
36	948952	PLATE, Seal Retaining	1	90	947846	CAP Adjusting	1
37	945066	RETAINER, Detent Spring	1	91	25K-40104	O-RING, Adjusting Cap	1
38	25K-40028	O-RING, Plunger Cap	1	92	886753	SPRING, Relief Valve	1
39	948739	CAP Plunger	1	93	886739	POPPET Relief Valve	1
40	948734	SOCKET Detent	1	94	25K-40030	O-RING, Poppet Seat	1
41	888302	RETAINER, Detent Spring	1	95	947841	SEAT Poppet	1
42	947843	RETAINER, Detent Ball	2	96	945805	SPRING, Check	1
43	948753	COVER, Detent	1	97	947844	CHECK	1
44	666542	RING, End Plug Retainer	1	98	947840	SEAT Check	1
45	16F-04	PLUG, Pipe	1	99	947845	CAP Relief Valve	1
46	948202	DIAPHRAGM, Detent	1	100	25K-40104	O-RING, Relief Valve Cap	1
47	947848	PLUG, Detent End	1	101	947865	COVER, Housing	1
48	25K-40106	O-RING, Piston	1	102	4E-06	LKWSHR, Cover to Housing	4
49	947867	PISTON, Detent	1	103	40K-04	PLUG, Pipe	1
50	947852	SPRING, Detent	1	104	1C-618	BOLT Cover to Housing	4
51	25K-40028	O-RING, Piston	1	105	946378	WASHER, Cover to Housing	4
52	948730	BALL, Detent	11	106	58K-218	O-RING, Cover	1
53	948727	SLEEVE, Ball Retainer	1	107	8D-08	NUT Jam	1
				108	944890	SCREW, Adjusting	1

<sup>2</sup>For complete replacement use 947460 Kit, which consists of 1510472 Valve, 3 - 18C840 Bolt, 9 - 25E21 Washer, & 1 - 002854 Installation Instructions.

§ Not Sold Separately



3 SPOOL VALVE

TS-4234



**3 SPOOL VALVE**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
A	548100	**VALVE ASSY (Inc. 1 thru 124)	1	43	58K 134	"O" RING	1
1	661389	RING, Retaining	1	44	886763	PLUG, Bleeder	1
2	945074	PLUG	1	45	886763	PLUG, Bleeder	1
3	945073	SPRING	1	46	661389	RING, Retainer	1
4	641297	SCREW, Bleeder	1	47	945074	PLUG	1
5	945203	COVER, Detent	1	48	945073	SPRING	1
6	945072	CAP Detent	1	49	945071	RETAINER, Ball	1
7	10J-08	BALL, Steel	17	50	58K-134	"O" RING	1
8	1302111	RING, Retaining	1	51	58K 132	"O" RING	1
9	888302	GUIDE, Spring	1	52	945070	RETAINER, Ball	1
10	888303	SPRING	1	53	58K-134	"O" RING	1
11	654618	PIN, Roll	1	54	1302111	RING, Retaining	1
12	945066	GUIDE, Spring	1	55	945856	SPRING	1
13	25K-40028	"O" RING	1	56	888302	GUIDE, Spring	1
14	945065	SPACER, Spring	1	57	945067	CAP Plunger	1
15	888299	PLATE, Retaining	1	58	302602	PIN, Roll	1
16	—	§HOUSING, Valve (See Item A)	1	59	25K-40028	"O" RING	1
17	58K-222	"O" RING	1	60	888302	GUIDE, Spring	1
18	1C-720	BOLT	4	61	888304	SPRING, Check	1
19	4E-07	LKWSHR	4	62	941463	CHECK, Plunger	1
20	947864	COVER	1	63	—	§PLUNGER, Operating (See Item A)	1
21	58K 222	"O" RING	1	64	941463	CHECK, Plunger	1
22	888305	*PLATE, Retaining	1	65	888304	SPRING, Check	1
23	888306	*PLATE, Retaining	1	66	888305	PLATE, Retaining	1
24	888297	*WIPER, Plunger	1	67	888306	*PLATE, Retaining	1
25	25K-40028	"O" RING	1	68	888297	*WIPER, Plunger	1
26	940279	EYE, Plunger	1	69	25K-40028	"O" RING	1
27	1C-410	BOLT	6	70	940279	EYE, Plunger	1
28	4E-04	LKWSHR	6	71	1C-410	BOLT	6
29	888296	RING, Back-up	1	72	4E-04	LKWSHR	6
30	946584	RING, Quad	1	73	888296	RING, Back-up	1
31	—	§PLUNGER, Operating (See Item A)	1	74	946584	RING, Quad	1
32	941463	CHECK, Plunger	1	75	946584	RING, Quad	1
33	940166	SPRING, Check	1	76	888296	RING, Back-up	1
34	946584	RING, Quad	1	77	888299	PLATE, Retaining	1
35	888296	RING, Back-up	1	78	944148	PIN	1
36	945069	PIN	1	79	660178	PIN, Roll	1
37	1302114	PIN, Roll	1	80	10J-08	BALL, Steel	17
38	945200	CAP Plunger	1	81	641297	SCREW, Bleeder	1
39	58K 134	"O" RING	1	82	945077	CAP Detent	1
40	945070	RETAINER, Ball	1	83	946467	COVER, Detent	1
41	58K 132	"O" RING	1	84	886745	PLUG, Bleeder	1
42	945071	RETAINER, Ball	1	85	945096	CAP Plunger	1

§ Not Sold Separately

\*NOTE: For replacement use 945864 Wiper (one piece)

\*\*NOTE: For complete replacement use 947450 Valve Kit, which consists of 1 - 2519959 Valve Assy, 3 - 18C840 Bolt, 9 - 25E21 Washer, 1 - 002712 Installation Instructions.

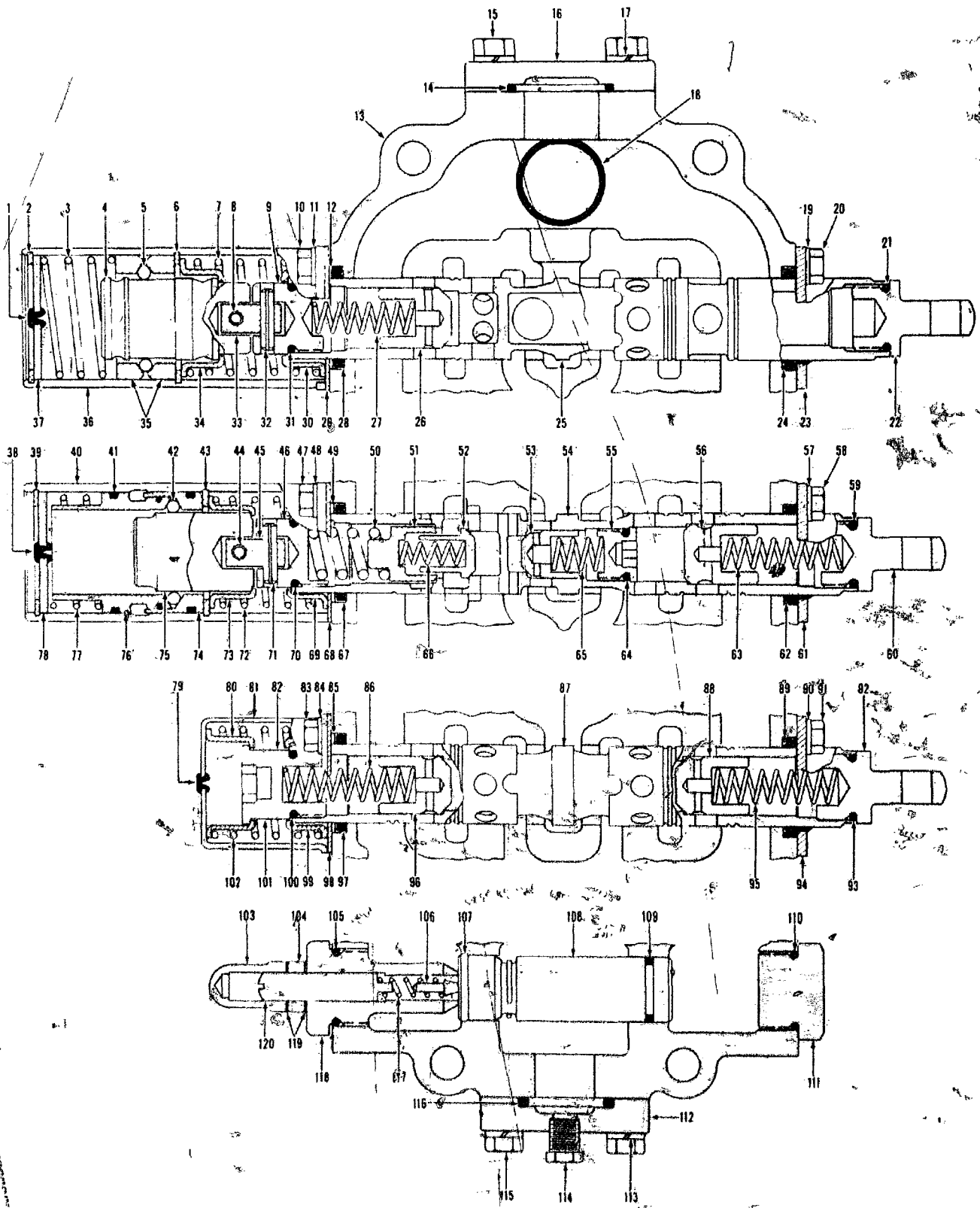
**3 SPOOL VALVE (Continued)**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
86	888302	GUIDE, Spring	1	106	1C-410	BOLT	6
87	945856	SPRING	1	107	4E-04	LKWSHR	6
88	888298	COVER, Spring	1	108	25K-40104	"O" RING	1
89	25K-40028	"O" RING	1	109	888294	CAP	1
90	888302	GUIDE, Spring	1	110	945868	VALVE ASSY Relief (Inc. 111 & 117)	1
91	888299	PLATE, Retaining	1	111	58K-022	"O" RING	1
92	888296	RING, Back-up	1	112	947865	COVER	1
93	946584	RING, Quad	1	113	4E-06	LKWSHR	4
94	888304	SPRING, Check	1	114	1C-620	BOLT	4
95	941463	CHECK, Plunger	1	115	58K-219	"O" RING	1
96		§PLUNGER, Operating (See Item A)	1	116	40K-04	PLUG	1
97	941463	CHECK, Plunger	1	117	945081	RING, Retaining	1
98	888304	SPRING, Check	1	118	886739	POPPET, Relief	1
99	946584	*RING, Quad	1	119	886753	SPRING, Relief	1
100	888296	RING, Back-up	1	120	25K-40104	"O" RING	1
101	888305	*PLATE, Retaining	1	121	946870	CAP, Adjusting	1
102	888306	*PLATE, Retaining	1	122	8D-08	NUT, Jam	1
103	888297	*WIPER, Plunger	1	123	944853	NUT Acorn	1
104	25K-40028	"O" RING	1	124	944855	SCREW Adjusting	1
105	940279	EYE, Plunger	1				

§Not Sold Separately

\*NOTE: For replacement use 945864 Wiper (one piece)

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



**CONTROL VALVE ASSEMBLY - THREE SPOOL**

**TS-10512**

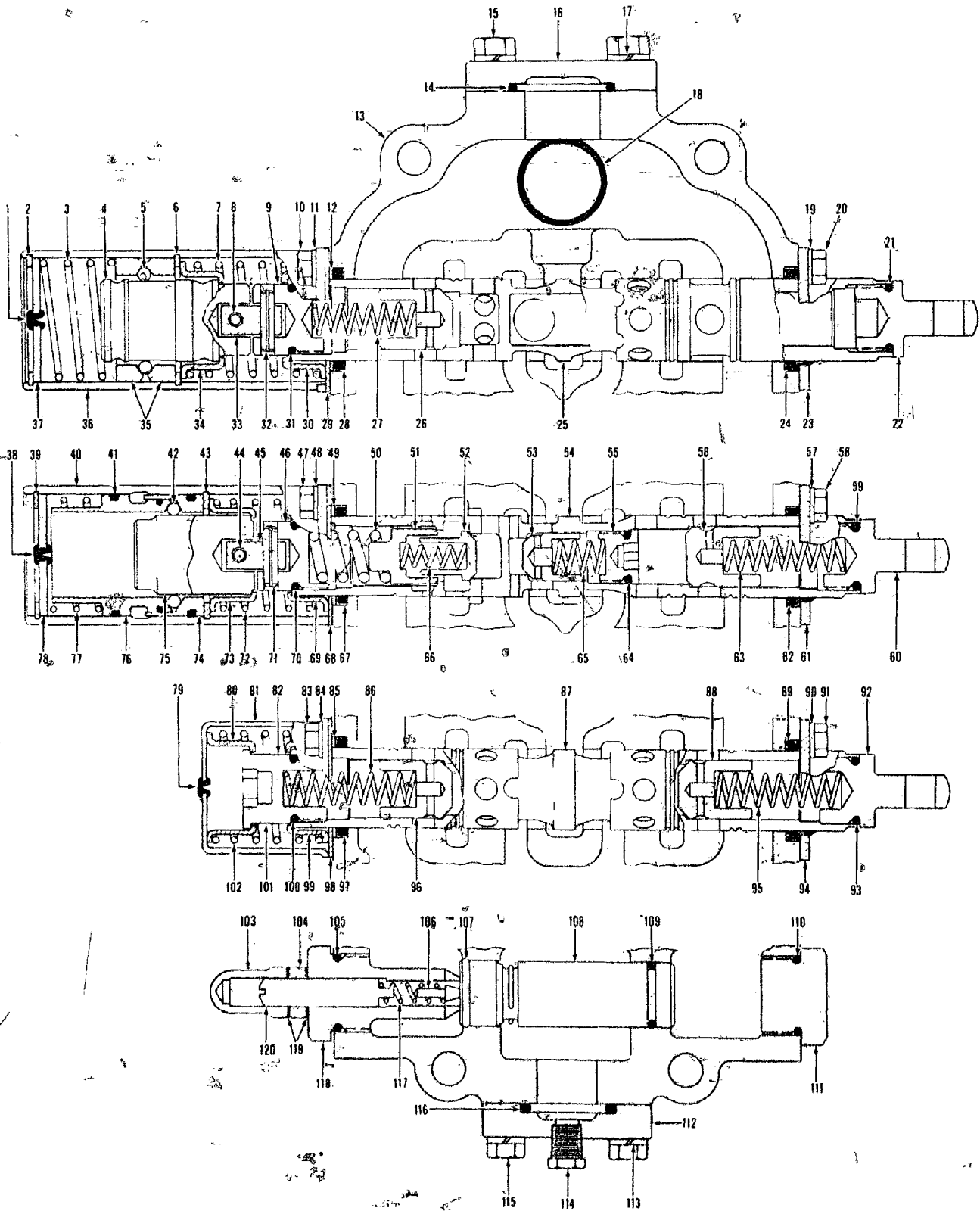
**CONTROL VALVE ASSEMBLY - THREE SPOOL**

Item No.	Part No.	Description	No. Req'd.
A	533938	<sup>2</sup> CONTROL VALVE ASSY. (Inc. 1 thru 120)	1
1	886763	PLUG, Bleeder	1
2	661389	RING, Plug Retainer	1
3	945863	SPRING, Detent	1
4	945863	CAP, Detent	1
5	10J-08	BALL, Detent	17
6	1302111	RING, Retainer	1
7	947853	SPRING, Plunger Return	1
8	302602	PIN, Roll	1
9	946067	CAP, Plunger	1
10	1C-416	BOLT, Cover to Housing	4
11	4E-04	LKWSHR, Cover to Housing	4
12	888296	RING, Back-Up	1
13		HOUSING, Valve - See "A"	
14	58K-222	O-RING, Cover	1
15	1C-720	BOLT, Cover to Housing	4
16	947854	COVER, Housing	1
17	4E-04	LKWSHR, Cover to Housing	4
18	58K-222	O-RING, Valve to Housing	1
19	4E-04	LKWSHR, Plate to Valve	2
20	1C-410	BOLT, Plate to Valve	2
21	25K-40028	O-RING, Plunger Eye	1
22	940279	EYE, Plunger	1
23	946637	PLATE, Wiper & Seal Retainer	1
24	946584	SEAL, Plunger Oil	1
24A	946638	†WIPER, Plunger	1
25		‡PLUNGER, Operating - See "A"	
26	941463	CHECK	1
27	940166	SPRING, Check	1
28	946584	SEAL, Plunger Oil	1
29	946427	PLATE, Seal Retainer	1
30	888302	RETAINER, Spring	1
31	25K-40028	O-RING, Cap	1
32	302602	PIN, Roll	1
33	944148	PIN, Plunger Connecting	1
34	888302	RETAINER, Spring	1
35	945258	RETAINER, Ball	2
36	945257	COVER, Detent	1
37	945072	PLUG, Detent Cover	1
38	886763	PLUG, Bleeder	1
39	661389	RING, Plug Retainer	1
40	946457	COVER, Detent	1
40A	641297	†SCREW, Bleeder	1
40B	16F-02	†PLUG, Pipe	1
41	58K-134	O-RING, Retainer Ball	1
42	10J-08	BALL, Detent	17
43	1302111	RETAINER, Ball	1
44	660178	PIN, Roll	1
45	944148	PIN, Plunger Connecting	1
46	946452	CAP, Plunger	1
47	1C-416	BOLT, Cover to Housing	4
48	4E-04	LKWSHR, Cover to Housing	4
49	888296	RING, Seal Back-Up	1
50	946433	SPRING, Check	1
51	946432	CHECK	1
52	946431	CHECK	1
53	944885	CHECK	1
54		‡PLUNGER, Operating - See "A"	
55	946454	CAP, Plunger	1
56	946450	CHECK	1
57	4E-04	LKWSHR, Plate to Housing	2
58	1C-410	BOLT, Plate to Housing	2

‡Not Sold Separately

†Not Illustrated

<sup>2</sup>For complete replacement use 947450 Valve Kit, which consists of 1-2519959 Valve Assy., 3-18C840 Bolt, 9-26E21 Washer, & 1-002712 Installation Instructions.



CONTROL VALVE ASSEMBLY — THREE SPOOL

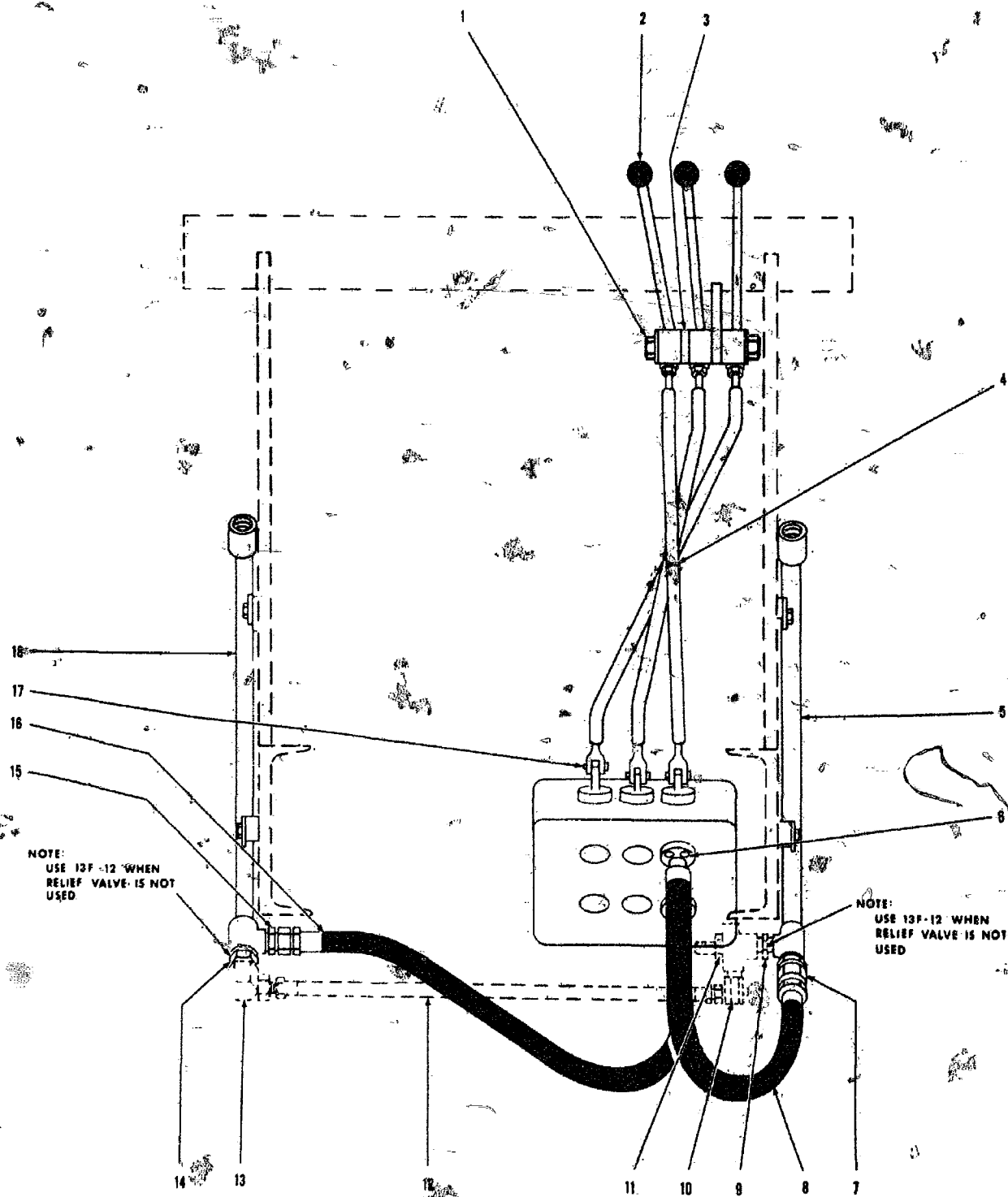
TS-10512

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

Item No.	Part No.	Description	No. Req'd.
59	25K-40028	O-RING, Plunger Eye	1
60	940279	EYE, Plunger	1
61	946637	PLATE, Seal Retainer	1
62	946584	SEAL, Plunger Oil	1
63	888304	SPRING, Check	1
64	25K-30022	O-RING, Cap	1
65	946455	SPRING, Check	1
66	946813	SPRING, Check	1
67	946584	SEAL, Plunger Oil	1
68	946427	PLATE, Seal Retainer	1
69	888302	RETAINER, Spring	1
70	25K-40028	O-RING, Cap	1
71	302602	PIN, Roll	1
72	945856	SPRING, Plunger Return	1
73	888302	RETAINER, Spring	1
74	945070	RETAINER, Ball	1
75	945077	CAR, Detent	1
76	945071	RETAINER, Ball	1
77	945073	SPRING, Detent	1
78	945074	PLUG, Detent Cover	1
79	886745	PLUG, Bleeder	1
80	888302	RETAINER, Spring	1
81	888298	COVER	1
82	888300	CAP, Plunger	1
83	1C-410	BOLT, Cover to Housing	4
84	4E-04	LKWSHR, Cover to Housing	4
85	888296	RING, Seal Back-Up	1
86	888304	SPRING, Check	1
87		PLUNGER, Operating - See "A"	1
88	941463	CHECK	1
89	946584	SEAL, Plunger Oil	1
89A	946638	WIPER, Plunger Oil	1
90	4E-04	LKWSHR, Plate to Housing	2
91	1C-420	BOLT, Plate to Housing	2
92	940279	EYE, Plunger	1
93	25K-40028	O-RING, Plunger Eye	1
94	946637	PLATE, Seal Retainer	1
95	888304	SPRING, Check	1
96	941463	CHECK	1
97	946584	SEAL, Plunger Oil	1
98	946427	PLATE, Seal Retainer	1
99	888302	RETAINER, Spring	1
100	25K-40028	O-RING, Cap	1
101		CAP, Plunger - See 82	1
102	947853	SPRING, Plunger Return	1
103	944890	NUT, Acorn	1
104	8D-08	NUT, Jam	1
105	25K-40104	O-RING, Cap	1
106	886739	POPPET	1
107	945081	RING, Relief Valve Retainer	1
108	945868	RELIEF VALVE ASSY (Inc. 107 & 109)	1
109	58K-022	O-RING, Relief Valve	1
110	25K-40104	O-RING, Cap	1
111	888294	CAP	1
112	947865	COVER	1
113	4E-06	LKWSHR, Cover to Housing	4
114	40K-04	PLUG, Pipe	1
115	1C-618	BOLT, Cover to Housing	4
116	58K-219	O-RING, Cover to Housing	1
117	867753	SPRING, Poppet	1
118	945870	CAP, Adjusting	1
119	613750	WASHER, Jam Nut	1
120	944853	SCREW Adjusting	1

†Not Illustrated

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



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

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

USE ITEMS 9 THRU 14 ONLY WHEN RELIEF VALVE IS CALLED FOR.  
RELIEF VALVE IS USE ON SIDE DUMP. BUT IS NOT USE ON  
ULRICH BUCKET.

**3-SPOOL VALVE INSTALLATION AND PARTS**

**TS-4365**

**3 SPOOL VALVE INSTALLATION AND PARTS**

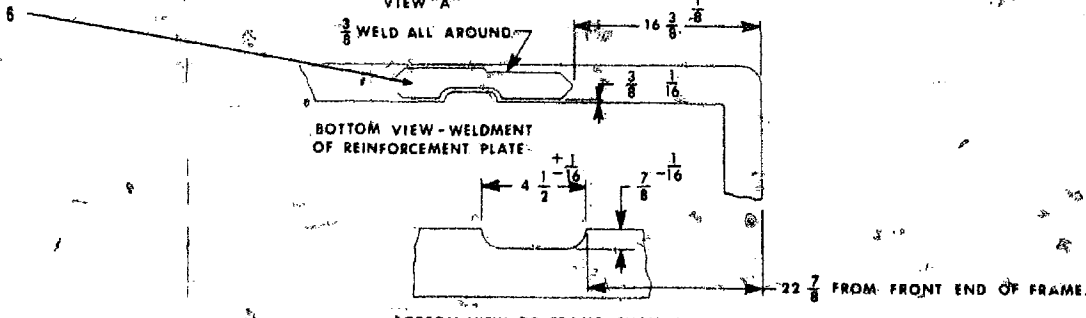
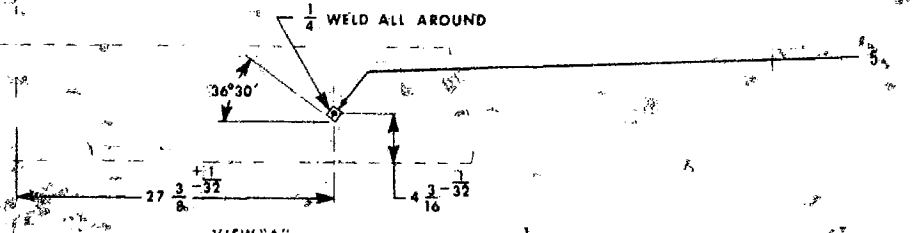
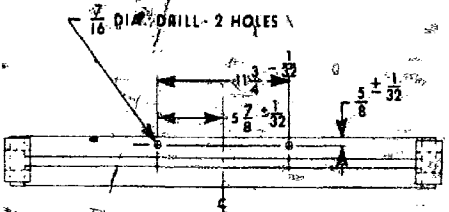
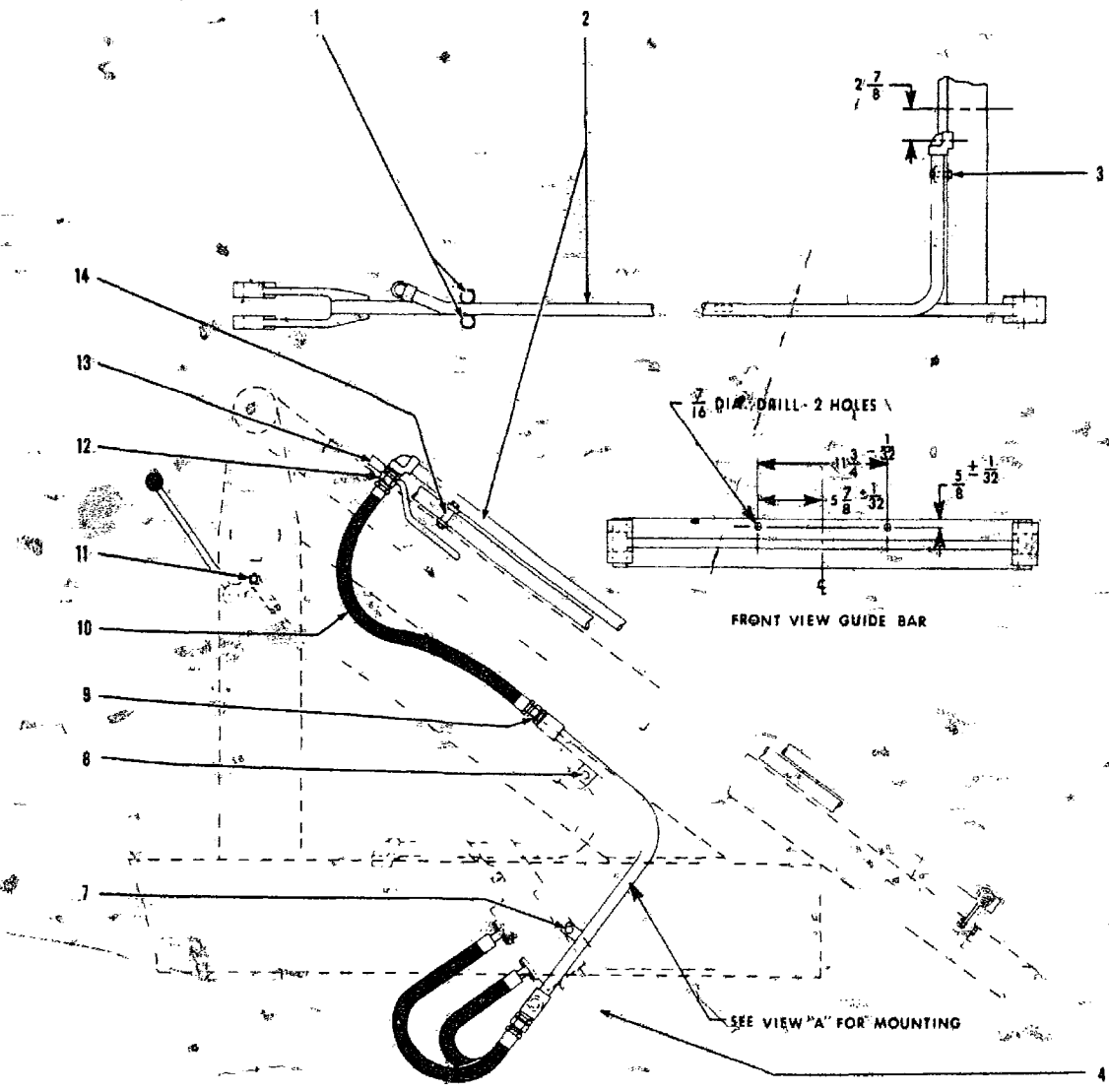
Item No.	Part No.	Description	No. Req'd.
1	24C-8100	BOLT, Valve Lever Mounting	1
1A	550646	SLEEVE, Valve Lever Mounting	1
1B	526767	BUSHING, Nylon - Lever Mounting	1
1C	10H-25	FITTING, Grease	1
2	515772	KNOB, Valve Lever	2
2A	548804	LEVER, Valve Control	1
3	548808	SPACER, Valve Lever	1
4	548806	ROD ASSY Valve Push	1
5	549977	PIPE ASSY - R.H.	1
6	17C-620	BOLT, Hose to Valve	8
6A	4E-06	LKWSHR, Hose to Valve	8
6B	19J16	FLANGE, Split	4
7	36F-5	ADAPTER	1
8	515751	HOSE, Valve to R.H. Pipe	1
9	550358	*NIPPLE, Pipe Reducing	1
10	31F-4	*ADAPTER	1
11	540681	*VALVE ASSY Relief	1
12	604616	*HOSE, Relief Valve to L.H. Pipe Assy	1
13	31F-4	*ADAPTER	1
14	356617	*BUSHING	1
15	36F-5	ADAPTER	1
16	593160	HOSE, Valve to L.H. Pipe	1
17	4F-08127	PIN, Clevis	1
17A	1F-414	COTTER, Clevis Pin	1
18	549978	PIPE ASSY L.H.	1

\*Use items 9 thru 14 only when Relief Valve is called for. Relief Valve is used on Side Dump, but is not used on Ulrich Bucket.

**NOTES**

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

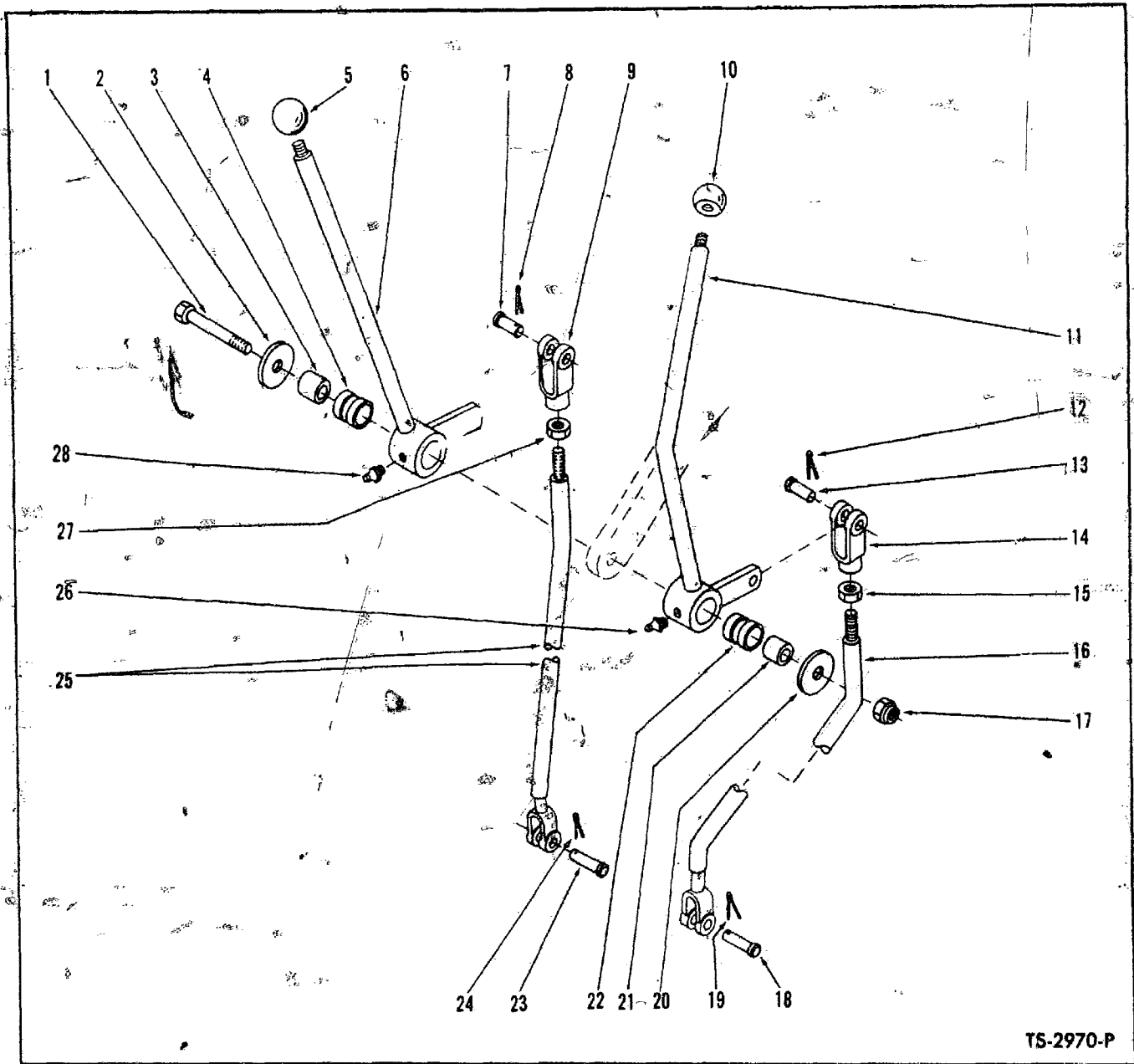




**3 SPOOL VALVE INSTALLATION AND PARTS**

TS-4364



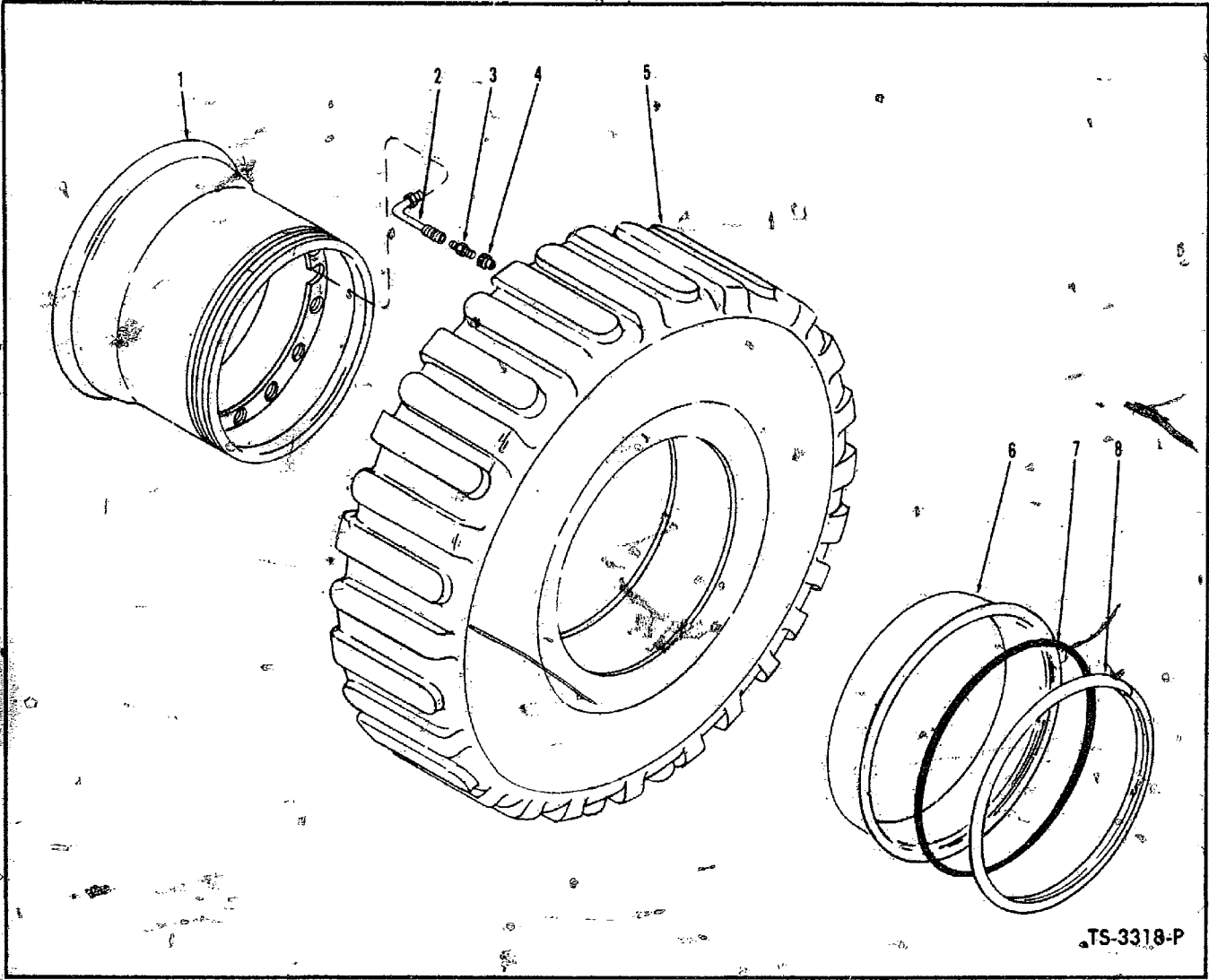


TS-2970-P

**VALVE CONTROL LEVERS AND LINKAGE**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	18C-868	BOLT, Lever Mounting	1	15	8D-08	NUT, Clevis Jam	1
2	616796	WASHER, Lever Mounting	1	16	532261	ROD, Boom Control	1
3	550646	SLEEVE, Lever Mounting	1	17	18D-08	NUT, Lever Mounting	1
4	526767	BUSHING, Bucket Lever	1	18	4F-08127	PIN, Rod to Valve Clevis	1
5	509772	KNOB, Bucket Lever	1	19	1F-414	COTTER, Clevis Pin	1
6	532243	LEVER, Bucket Control	1	20	616796	WASHER, Lever Mounting	1
7	4F-08127	PIN, Rod to Lever Clevis	1	21	550646	SLEEVE, Lever Mounting	1
8	1F-414	COTTER, Clevis Pin	1	22	526767	BUSHING, Boom Lever	1
9	2J-8300	CLEVIS, Rod to Lever	1	23	4F-08127	PIN, Rod to Valve Clevis	1
10	509772	KNOB, Boom Lever	1	24	1F-414	COTTER, Clevis Pin	1
11	532255	LEVER, Boom Control	1	25	532258	ROD, Bucket Control	1
12	1F-414	COTTER, Clevis Pin	1	26	10H-25	FITTING, Bucket Lever Grease	1
13	4F-08127	PIN, Rod to Lever Clevis	1	27	8D-08	NUT, Clevis Jam	1
14	2J-8300	CLEVIS, Rod to Lever	1	28	10H-25	FITTING, Boom Lever Grease	1

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

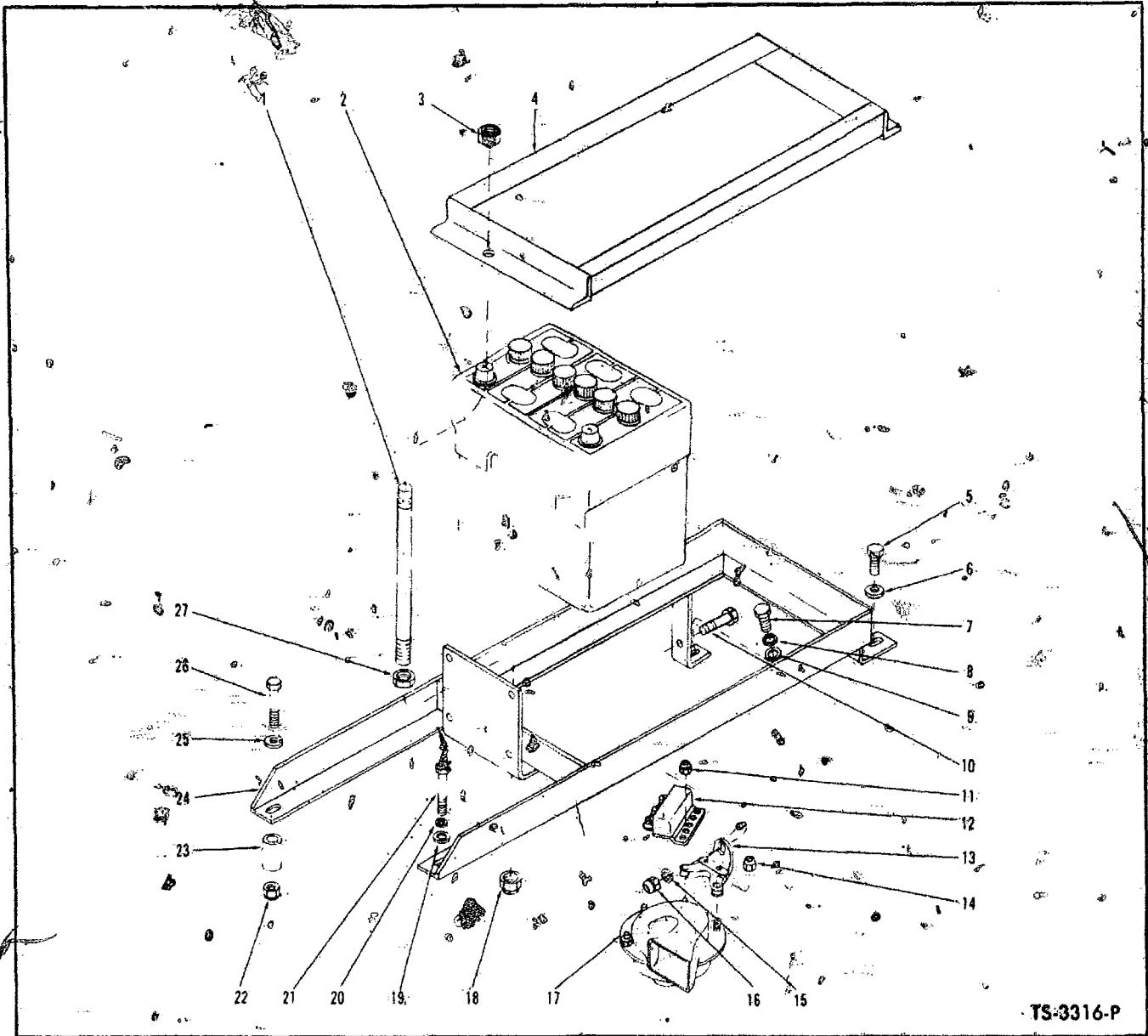


**WHEEL AND TIRE**

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

§Not Sold Separately

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



TS-3316-P

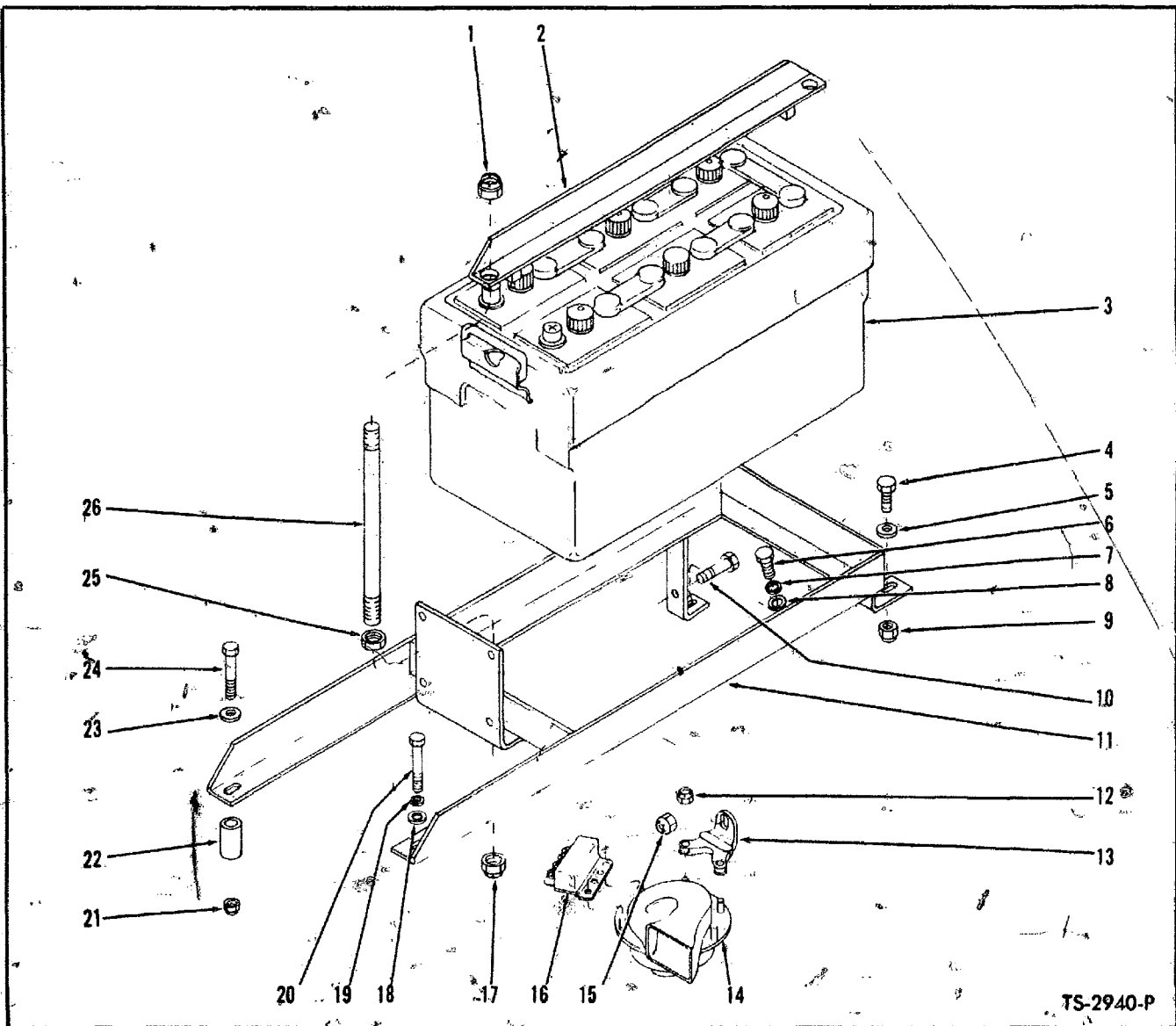
**BATTERY, BATTERY BOX AND HORN - CUMMINS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	535680	STUD, Battery Hold Down	2	15	619023	WASHER, Horn Bracket to Battery Box	1
2		BATTERY-Exide 5SH	3	16	18D-06	NUT, Horn Bracket to Battery Box	1
3	18D-06	NUT, Battery Hold Down	2	17	647300	HORN	1
4	547451	HOLD DOWN, Battery	1	18	18D-06	NUT, Hold Down Stud to Battery Box	2
5	18C-620	BOLT, Battery Box to Frame	1	19	25E-17	WASHER, Battery Box to Frame	1
6	25E-17	WASHER, Battery Box to Frame	1	20	4E-06	WASHER, Battery Box to Frame	1
7	18C-620	BOLT, Battery Box to Frame	1	21	18C-618	BOLT, Battery Box to Frame	1
8	4E-06	WASHER, Battery Box to Frame	1	22	18D-06	NUT, Battery Box to Frame	1
9	25E-17	WASHER, Battery Box to Frame	1	23	537825	SPACER, Battery Box to Frame	1
10	18C-616	BOLT, Horn Bracket to Battery Box	1	24	547445	BOX, Battery	1
11	18D-04	NUT, Relay & Horn to Bracket	1	25	25E-17	WASHER, Battery Box to Frame	1
12	647310	RELAY, Horn	1	26	18C-652	BOLT, Battery Box to Frame	1
13	621279	BRACKET, Horn Mounting	1	27	8D-06	NUT, Hold-Down Stud to Battery Box	2
14	18D-04	NUT, Horn to Horn Bracket	1				

§ Not Sold Separately

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

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



**BATTERY BATTERY BOX AND HORN - WAUKESHA GAS AND G.M.**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	17D-2	NUT, Hold Down Stud	2	11	536522	BOX, Battery	1
2	566626	ANGLE, Battery Hold Down	1	12	18D-04	NUT, Horn to Bracket	2
3		BATTERY		13	621279	BRACKET Horn	1
3A		EXIDE # B-D for G.M. Powered Machines	1	14	647300	*HORN	1
3B		EXIDE # 4-D-1133H for Gas Powered Machines	1	15	18D-06	NUT, Horn Bracket to Battery Box	1
4	18C-620	BOLT, Battery Box to Frame	1	16	647310	RELAY Horn	1
5	25E-17	WASHER, Battery Box to Frame	1	17	17D-2	NUT, Hold Down Stud	2
6	18C-618	BOLT, Battery Box to Frame	1	18	25E-17	WASHER, Battery Box to Frame	1
7	4E-06	LKWSHR, Battery Box to Frame	1	19	4E-06	LKWSHR, Battery Box to Frame	1
8	25E-17	WASHER, Battery Box to Frame	1	20	18C-620	BOLT, Battery Box to Frame	1
9	18D-06	NUT, Battery Box to Frame	1	21	18D-06	NUT, Battery Box to Frame	1
10	18C-616	BOLT, Horn Bracket to Battery Box	1	22	537825	SPACER, Battery Box	1
				23	25E-17	WASHER, Battery Box to Frame	1
				24	18C-652	BOLT, Battery Box to Frame	1
				25	7D-05	NUT, Hold Down Stud Jam	2
				26	540969	STUD, Hold Down	2

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

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

**WIRING AND BATTERY CABLES - CUMMINS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	548426	HARNESS, Main Wiring	1	7	551879	WIRE, Voltage Regulator Ground	1
2	541657	HARNESS, Tail Light Wiring	1	8	548322	HARNESS, Generator to Regulator Wiring	1
3	541659	HARNESS, Cab Wiring	1	9	548417	CABLE, Solenoid to Battery	1
4	550745	WIRE, Cab Light Ground	6	10	587972	CABLE, Battery Ground	1
5	653976	WIRE, Horn Relay to Horn	1	11	581063	CABLE, Generator Ground	1
6	763235	WIRE, Horn Relay to Horn Switch	1				

**WIRING AND BATTERY CABLES - G.M.**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
12	541656	HARNESS, Main Wiring	1	17	653976	WIRE, Horn Relay to Horn	1
13	541657	HARNESS, Tail Light Wiring	1	18	551879	WIRE, Voltage Regulator Ground	1
14	541659	HARNESS, Cab Wiring	1	19	763235	WIRE, Horn Relay to Horn Switch	1
15	541509	HARNESS, Generator to Regulator Wiring	1	20	541658	CABLE, Solenoid to Battery	1
16	550745	WIRE, Cab Light Ground	6	21	648577	CABLE, Battery Ground	1

**WIRING AND BATTERY CABLES - WAUKESHA GAS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
22	545090	HARNESS, Main Wiring	1	27	763235	WIRE, Horn Relay to Horn Switch	1
23	541657	HARNESS, Tail Light Wiring	1	28	545193	CABLE, Solenoid to Battery	1
24	541659	HARNESS, Cab Wiring	1	29	545194	CABLE, Solenoid to Starter	1
25	550745	WIRE, Cab Light Ground	1	30	648577	CABLE, Battery Ground	1
26	653976	WIRE, Horn Relay to Horn	1	30A	637279	WIRE, Solenoid Ground	1

**FUSES**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
31	611074	FUSE - 20 Amp.	2	32	542321	FUSE - 5 Amp.	1

**TOOLS**

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
33	711264	WRENCH, Wheel	1	37		RING, Packing Compressor	
34	552164	HANDLE, Wheel Wrench	1	37A	953068	For Boom & Bucket Cylinders	1
35	552172	WRENCH, Hub Bearing - 3 3/4" Hex	1	37B	526643	For Steering Cylinder	1
36	552170	WRENCH, Hub Bearing - 3 1/4" Hex	1	38		SLEEVE, Piston Rod Wiper Taper	
				38A	953066	For Boom & Bucket Cylinders	1
				38B	530822	For Steering Cylinder	1

**DECALS**

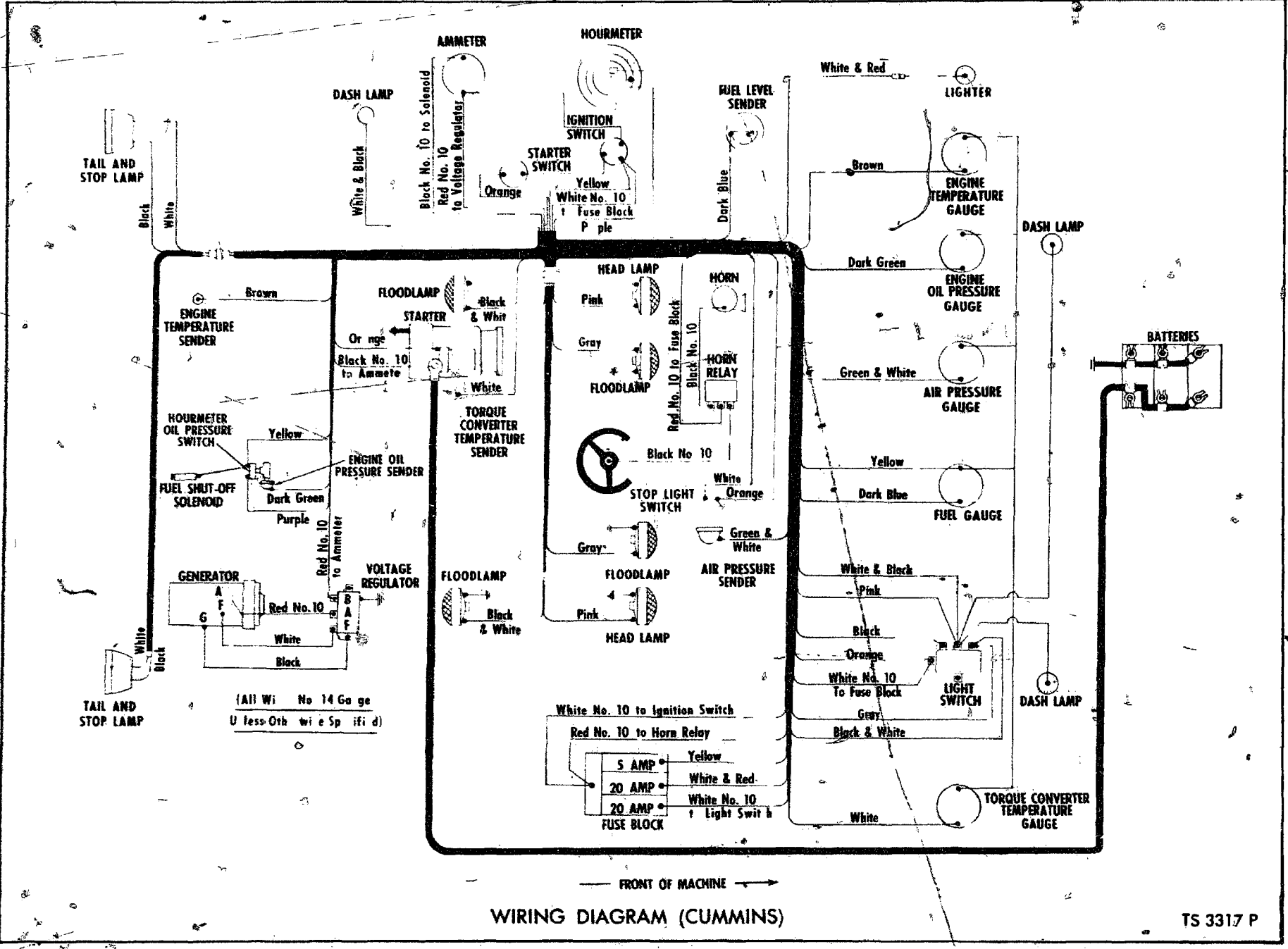
Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
39	542074	PLATE, Patent	1	44	3301782	DECAL, Model	2
40	538250	PLATE, Range Shift	1	45	538258	DECAL, Starter	1
41	6C-606	SCREW, Plate Attaching	8	46	538256	DECAL, Drain	1
42	2513361	DECAL, Clark	2	47	1505537	DECAL, Safety Warning	1
43		OMIT					

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

100

(177)

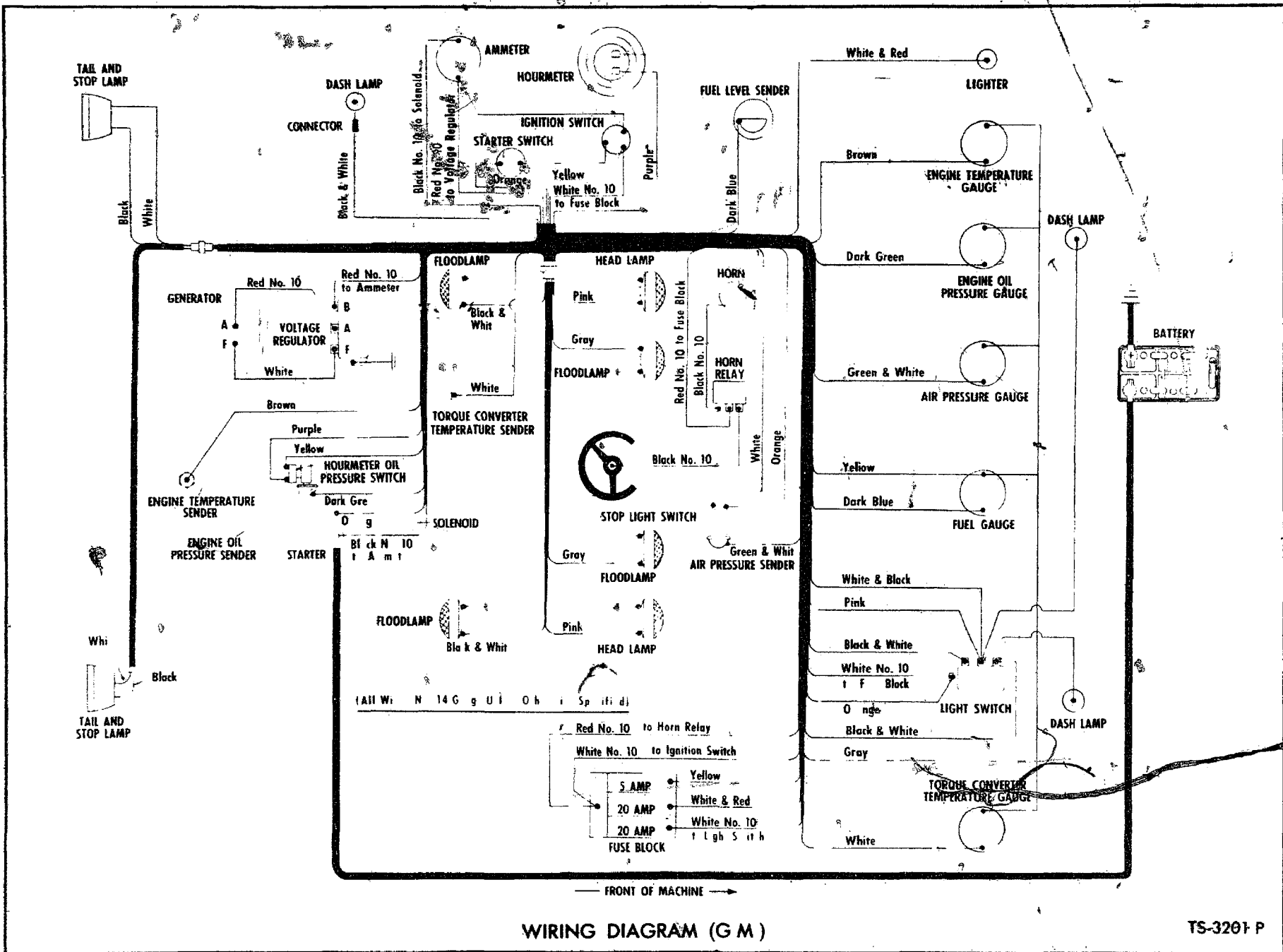
PM 7689



WIRING DIAGRAM (CUMMINS)

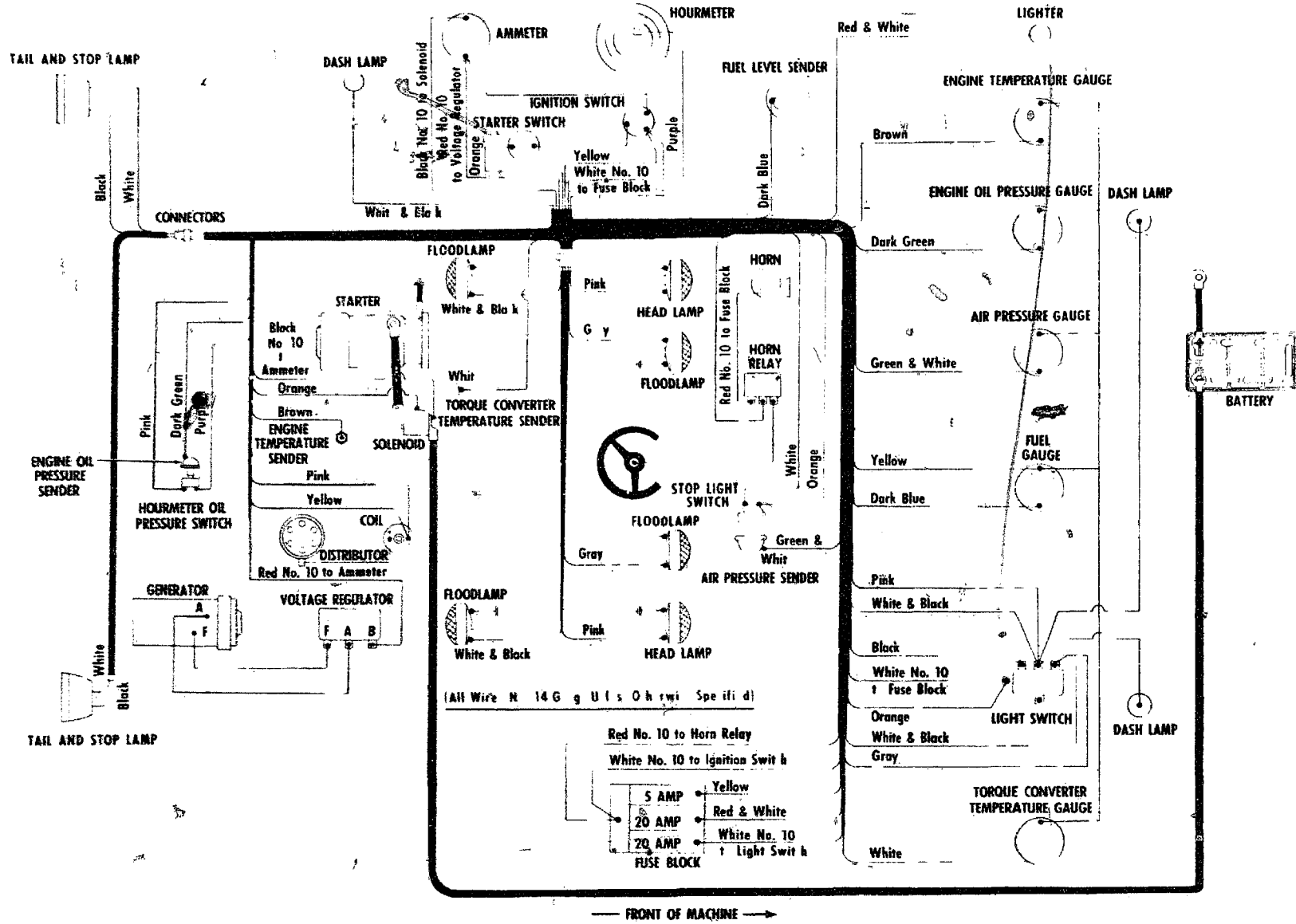
TS 3317 P





WIRING DIAGRAM (G M)

TS-3201-P



WIRING DIAGRAM (WAUKESHA GAS)

TS-3268-P

102

(138)

PM 1669