

# MICHIGAN

## PARTS MANUAL

No. 2998

### MODEL 175B Articulated TRACTOR SHOVEL

Information contained herein pertains to  
Machine Serial Numbers listed below:

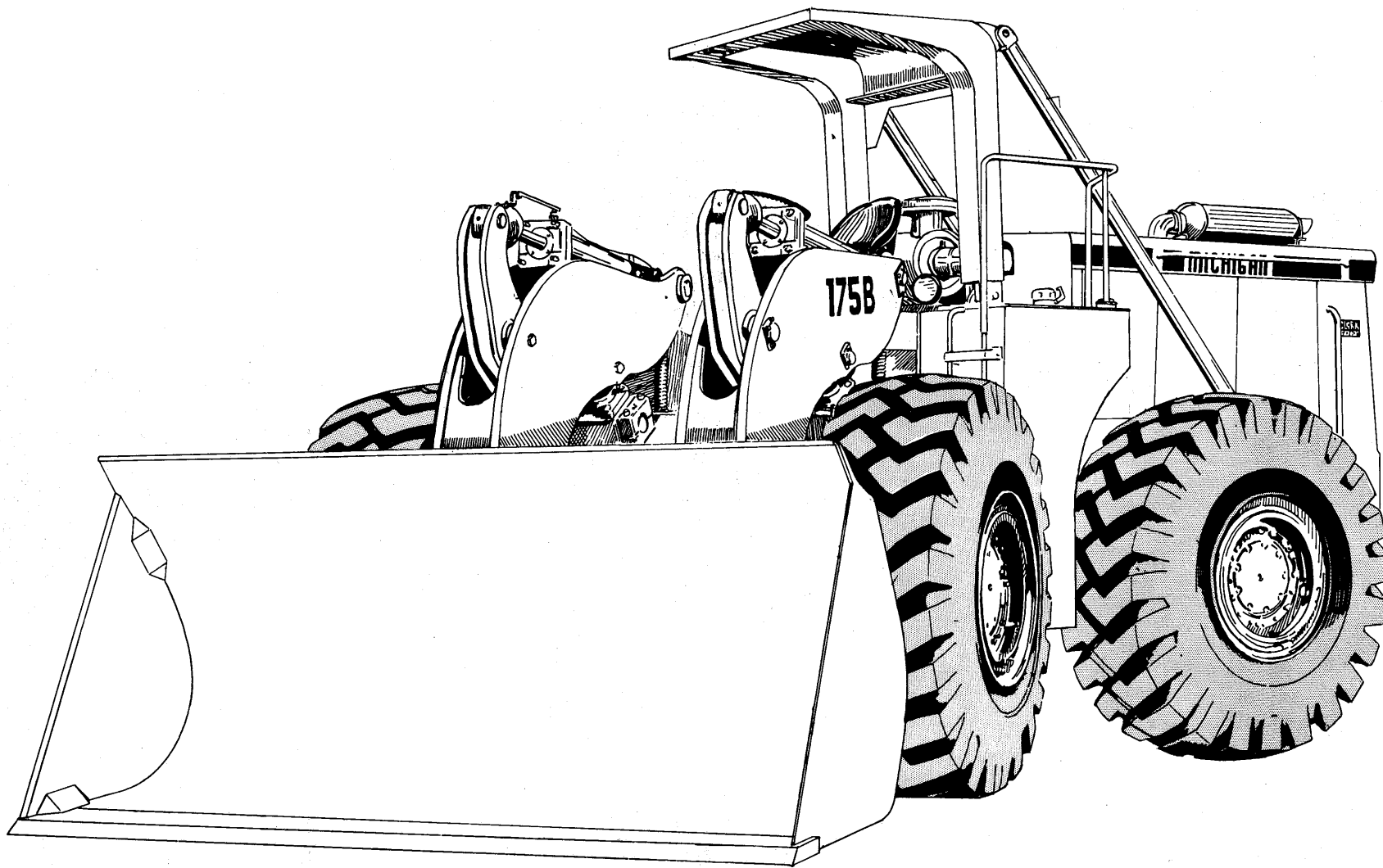
175B CUMMINS – 438C101 & After

175B G.M. – 427C101→600  
427C601 & After

Record Your Machine  
Serial Number Here

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**CLARK EQUIPMENT COMPANY**



**Model 175B Articulated Tractor Shovel**

TS-13974

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

**IMPORTANT:** Always furnish the distributor with the machine serial number when ordering parts. Order through your nearest Clark Distributor for THE MICHIGAN LINE.

Always give serial number of machine.

Furnish: Quantity, Part Number and Description.

**WHEN PARTS ARE RECEIVED** Check immediately for quantity, correctness and condition. Claims for damages, during shipment, should be made to the carrier immediately.

**PARTS MANUAL ARRANGEMENT** The various parts groups involved in this equipment are arranged in this manual in alphabetical order. Each alphabetical parts group is page numbered separately with the page numbers prefixed by the alphabetical letter designated for that group, i.e., A1, A2, B1, B2, etc. Following the alphabetical and page number designation, and separated therefrom by a hyphen (-), is the page version number, i.e., A1-1, A1-2, etc. This designation indicates the revision numbers assigned to incorporate design changes in the equipment covered by that page.

Parts Groups "A" thru "Y" include all items furnished as standard equipment at date of this publication. All optional and accessory items are listed under Group Z in the rear of this manual.

**ABBREVIATIONS**

adjusting .....adj	engine .....eng	pressure .....press
assembly .....assy	emergency .....emgcy	protective structure .....prot strctr
bearing .....brg	hydraulic .....hyd	radiator .....rad
brake .....brk	includes .....inc.	receptacle .....recept
carrier .....crr	inlet .....in	retainer .....ret
cluster .....clsr	instrument .....inst	right hand .....R.H.
connecting .....connctg	left hand .....L.H.	ring .....rg
converter .....conv	mounting .....mtg	section .....sectn
cylinder .....cyl	outlet .....out	steering .....strg
differential .....diff	planetary .....planet	temperature .....temp
	power .....pwr	windshield .....wndsh

**SYMBOLS**

- †NOT ILLUSTRATED
- §NOT SOLD SEPARATELY
- ‡AS REQUIRED
- thru
- & →and after

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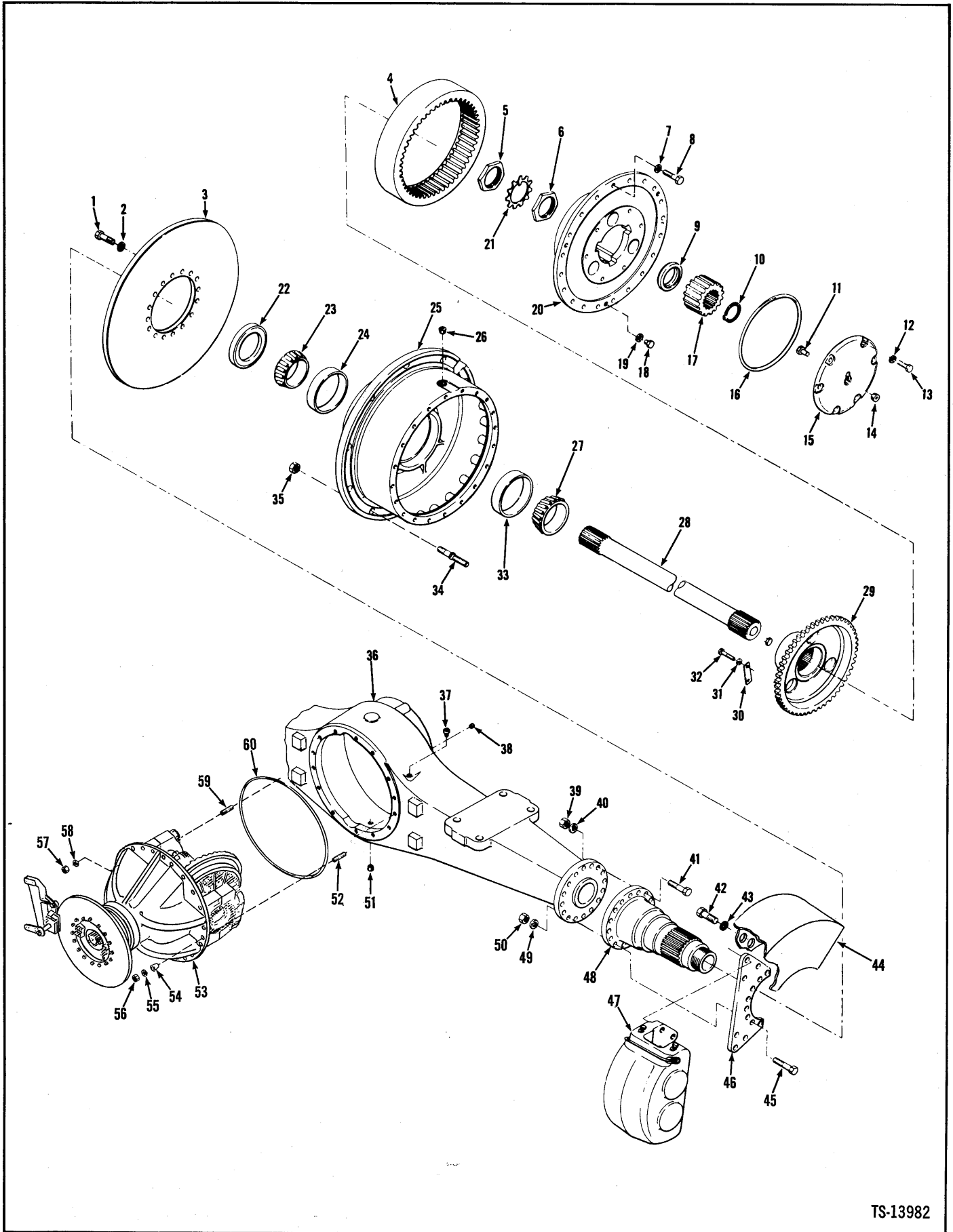
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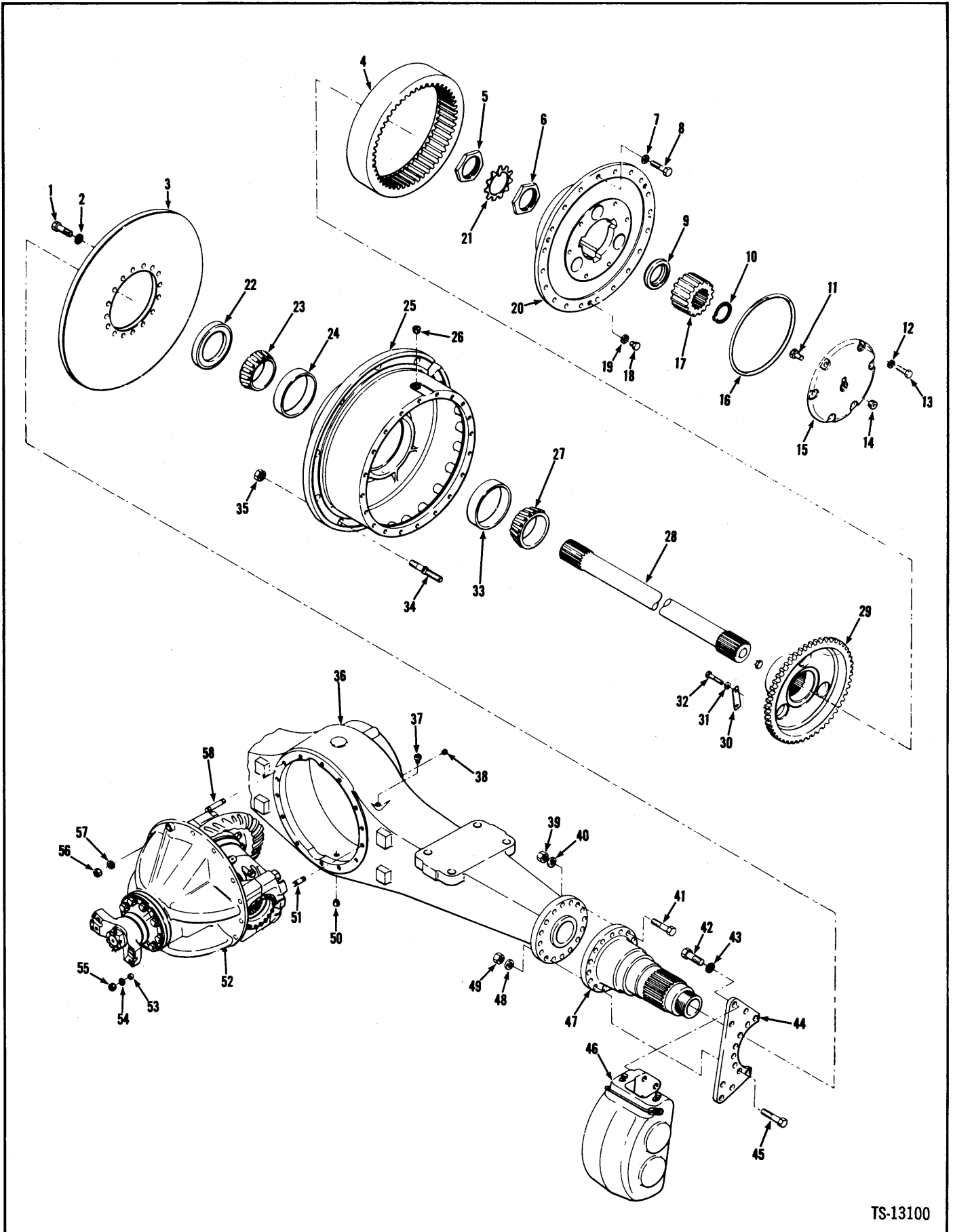
# Axle Assembly, Front Drive



No.	Part No.	Qty.	Description
A	*2192156	1	Axle assy
B	**2.51193182	1	Axle assy
1	117336	32	Stud
1A	†124543	32	Nut
1B	†119141	2	Dowel pin
2	104412	32	Washer
3	125438	2	Disc
4	119218 2.17	2	Hub
5	110559	2	Nut
6	110559	2	Nut
7	106547	40	Washer
8	117225	40	Bolt
9	118787	2	Washer
10	224066	2	Ring
11	118785	2	Button
12	112278	18	Washer
13	1C-720	18	Bolt
14	16F-12	2	Plug
15	‡124472	2	Cap
16	118790	2	O-ring
17	118782	2	Gear
18	—	—	Omit
19	—	—	Omit
20	—	—	Carrier
20A	†118791	2	O-ring
21	118786	2	Lockring
22	125248	2	Seal
23	127819	2	Cone roller brg
24	774024	2	Cup roller brg
25	‡122622	2	Hub
26	119469	2	Plug
27	1304048	2	Cone roller brg
28	118937	2	Shaft
28A	118785	2	Button
29	119217 2.18	2	Gear
30	122701	12	Retainer

No.	Part No.	Qty.	Description
31	—	—	Omit
32	2C-820	24	Bolt
33	1304047	2	Cup roller brg
34	120218	38	Stud
34A	†1545484	38	Nut 1515484 G.CPB-25
34B	†1517375	38	Washer
35	121062	38	Nut
36	124596	1	Housing
37	121214	1	Breather
38	226858	1	Plug
39	64D-10	16	Nut
40	104412	16	Washer
41	118350	16	Bolt
42	125596	24	Bolt
43	224727	24	Washer
43A	†111656	24	Washer
44	125592	2	Guard
45	118350	16	Bolt
46	122624	4	Plate
47	—	—	Brake head
48	122626	2	Spindle
49	104412	16	Washer
50	64D-10	16	Nut
51	119469	1	Plug
52	123793	4	Stud
53	—	—	Carrier
54	119141	4	Dowel pin
55	104412	4	Washer
56	64D-10	4	Nut
57	64D-10	10	Nut
58	104412	10	Washer
59	120771	6	Stud
59A	†117336	4	Stud
60	—	—	Omit

\*Cummins 438C101 & →; G.M. 427C101 → 600  
 \*\*G.M. 427C601 & →  
 †See Index  
 ‡inc. 1 → 59A  
 †inc. 11  
 ‡inc. 24, 33  
 †For complete replacement use Axle Assy 192156



TS-13100

# Axle Assembly, Rear Drive

No.	Part No.	Qty.	Description
A	*2192157	1	Axle assy
B	**2.5 <sup>1</sup> 193183	1	Axle assy
1	117336	32	Stud
1A	†124543	32	Nut
1B	†119141	2	Dowel pin
2	104412	32	Washer
3	125438	2	Disc
4	119218	2	Hub
5	110559	2	Nut
6	110559	2	Nut
7	106547	40	Washer
8	117225	40	Bolt
9	118787	2	Washer
10	224066	2	Ring
11	118785	2	Button
12	112278	18	Washer
13	1C-720	18	Bolt
14	16F-12	2	Plug
15	<sup>3</sup> 124472	2	Cap
16	118790	2	O-ring
17	118782	2	Gear
18	_____	—	Omit
19	_____	—	Omit
20	<sup>1</sup> _____	—	Carrier
20A	†118791	2	O-ring
21	118786	2	Lockring
22	125248	2	Seal
23	127819	2	Cone roller brg
24	774024	2	Cup roller brg
25	<sup>4</sup> 122622	2	Hub
26	119469	2	Plug
27	1304048	2	Cone roller brg
28	118937	2	Axle shaft
28A	118785	2	Button

No.	Part No.	Qty.	Description
29	119217	2	Gear
30	122701	12	Retainer
31	_____	—	Omit
32	2C-820	24	Bolt
33	1304047	2	Cup roller brg
34	120218	38	Stud
34A	†1515484	38	Nut
34B	†1517375	38	Washer
35	121062	38	Nut
36	124596	1	Housing
37	121214	1	Breather
38	226858	1	Plug
39	64D-10	16	Nut
40	104412	16	Washer
41	118350	16	Bolt
42	125596	24	Bolt
43	111656	24	Washer
44	122624	4	Plate
45	118350	16	Bolt
46	_____	—	Brake head
47	125734	2	Spindle
48	104412	16	Washer
49	64D-10	16	Nut
50	119469	1	Plug
51	123793	4	Stud
52	_____	—	Carrier
53	119141	4	Dowel pin
54	104412	4	Washer
55	64D-10	4	Nut
56	64D-10	10	Nut
57	104412	10	Washer
58	120771	6	Stud
58A	†117336	4	Stud

\*Cummins 438C101 & →; G.M. 427C101→600

\*\*G.M. 427C601 & →

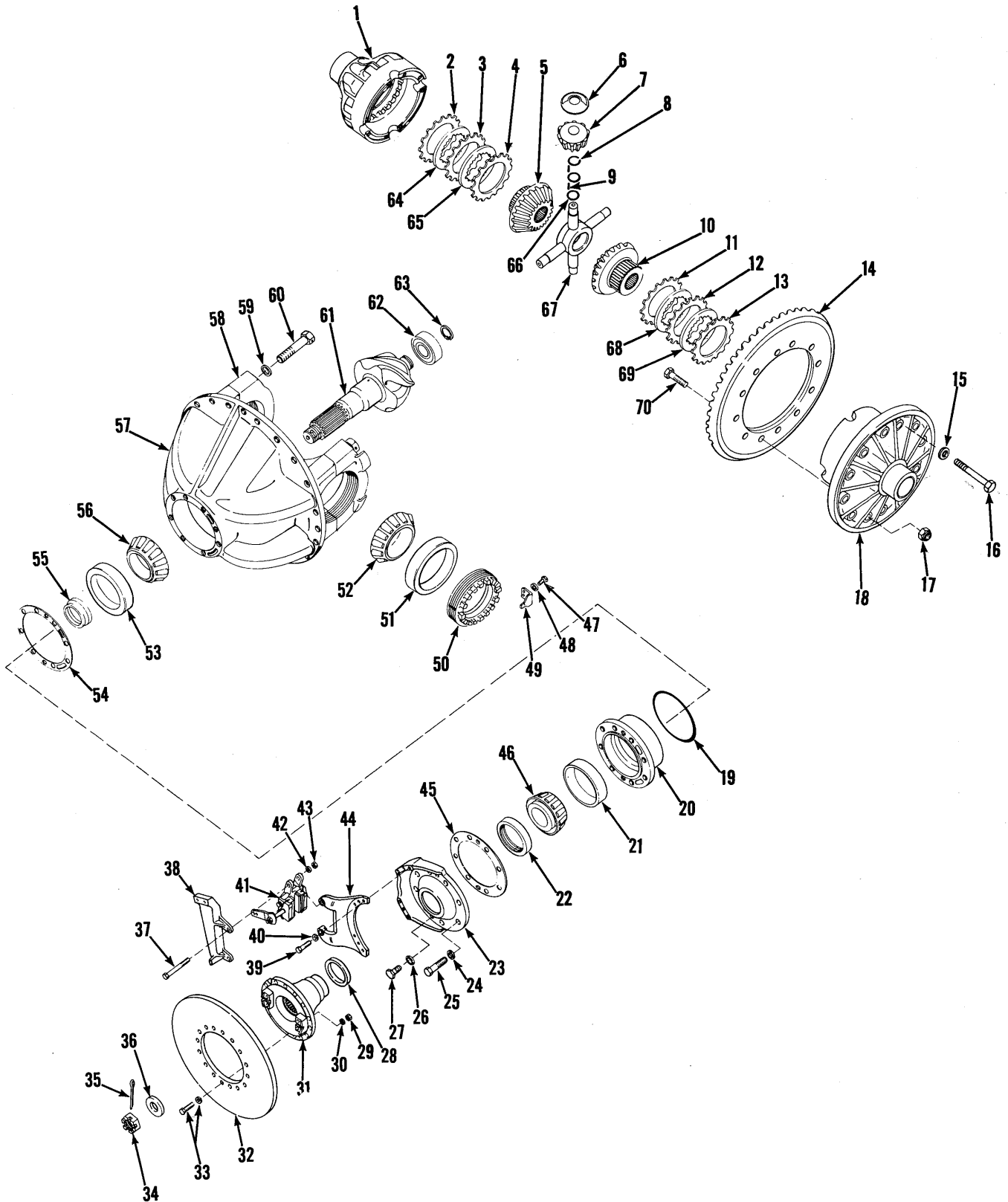
<sup>1</sup>See Index

<sup>2</sup>Inc. 1→58A

<sup>3</sup>Inc. 11

<sup>4</sup>Inc. 24, 33

<sup>5</sup>For complete replacement use Axle Assy 192157



TS-11425

# Axle Differential & Carrier Assembly – Front Drive

**MICHIGAN**

No.	Part No.	Qty.	Description
A	<sup>1</sup> 124520	1	Diff carrier assy
1	§ <sup>2</sup> -----	—	Diff case
2	123871	1	Disc outer
3	123871	1	Disc outer
4	123871	1	Disc outer
5	123870	1	Gear
6	123382	4	Washer
7	124242	4	Pinion
8	124246	8	Spacer
9	124244	232	Roller
10	123870	1	Gear
11	123871	1	Disc outer
12	123871	1	Disc outer
13	123871	1	Disc outer
14	§ <sup>3</sup> -----	—	Ring gear
15	<sup>4</sup> 106547	12	Washer
16	123868	8	Bolt
16A	†123869	4	Bolt
17	110523	12	Nut
18	§ <sup>2</sup> -----	—	Differential
19	25K-40616	1	O-ring
20	<sup>4</sup> 111691	1	Cage assy
21	774198	1	Cup roller brg
22	111750	1	Seal
23	124164	1	Retainer
24	4E-10	8	Lockwasher
25	1C-1036	8	Bolt
26	-----	—	Omit
27	-----	—	Omit
28	-----	—	Omit
29	18D-07	8	Nut
30	112278	8	Washer
31	124165	1	Flange
32	123655	1	Disc
33	18C-728	8	Bolt
33A	112278	8	Washer
34	107977	1	Nut
35	1F-748	1	Cotter pin
36	107978	1	Washer
37	18C-1072	2	Bolt
38	124425	1	Bracket
39	17C-1028	6	Bolt

No.	Part No.	Qty.	Description
40	104412	6	Lockwasher
41	<sup>5</sup> 123656	1	Brake assy
41A	†949443	2	Pad & lining assy
41B	†949444	2	Spring
41C	†949445	1	Cam
42	104412	2	Washer
43	18D-10	2	Nut
44	123824	1	Bracket
45	110541	1	Gasket
46	774197	1	Cone roller brg
47	1C-614	2	Bolt
48	4E-06	2	Lockwasher
49	100941	2	Lock
50	123876	2	Locknut bearing
51	4148124	2	Cup roller brg
52	4148127	2	Cone roller brg
53	710035	2	Cup roller brg
54	‡ <sup>6</sup> 110543	—	Shim
54A	†‡ <sup>7</sup> 125573	—	Shim
54B	†‡ <sup>8</sup> 125574	—	Shim
54C	†‡ <sup>9</sup> 125575	—	Shim
55	110547	1	Spacer
56	710034	1	Cone roller brg
57	<sup>10</sup> 123873	1	Carrier assy
58	§ <sup>11</sup> -----	—	Cap
59	3E-14	4	Lockwasher
60	124090	4	Bolt
61	<sup>3</sup> -----	—	Pinion
62	774199	1	Bearing
63	224083	1	Ring
64	123872	1	Disc inner
65	123872	1	Disc inner
66	125069	4	Spacer
67	124243	1	Spider
68	123872	1	Disc inner
69	123872	1	Disc inner
70	110522	12	Bolt
71	† <sup>12</sup> 123865	1	Diff case kit
72	† <sup>13</sup> 114201	1	Gear set
73	† <sup>14</sup> 124241	1	Body assy
74	† <sup>15</sup> 123864	1	Diff assy

<sup>1</sup>Inc. 1 → 28, 31, 34, 35, 36, 45 → 70

<sup>2</sup>See 71

<sup>3</sup>See 72

<sup>4</sup>Inc. 21, 53

<sup>5</sup>Inc. 41A → 41C

<sup>6</sup>.004"

<sup>7</sup>.007"

<sup>8</sup>.010"

<sup>9</sup>.020"

<sup>10</sup>Inc. 58, 59, 60

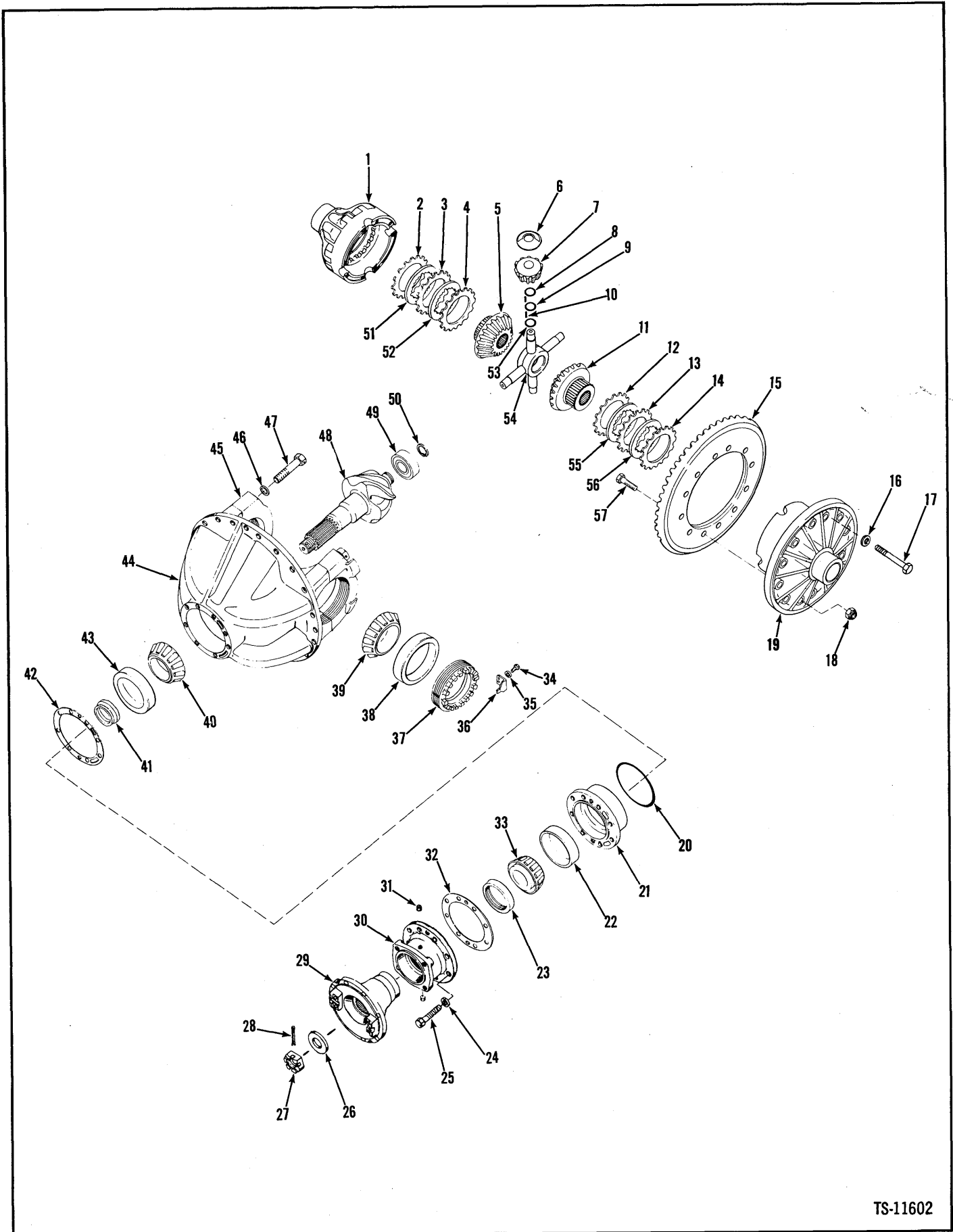
<sup>11</sup>See 57

<sup>12</sup>Inc. 1, 15, 16, 18

<sup>13</sup>Inc. 14, 61

<sup>14</sup>Inc. 1 thru 13, 15, 16, 18, 64 thru 69

<sup>15</sup>Inc. 1 thru 18, 61, 64 thru 70



TS-11602

# Axle Differential & Carrier Assembly – Rear Drive

No.	Part No.	Qty.	Description
A	<sup>2</sup> 124521	1	Diff & carrier assy
1	<sup>3</sup> _____	—	Case
2	123871	1	Disc outer
3	123871	1	Disc outer
4	123871	1	Disc outer
5	123870	1	Gear
6	123382	4	Washer
7	124242	4	Pinion
8	124246	4	Spacer
9	124246	4	Spacer
10	124244	232	Roller
11	123870	1	Gear
12	123871	1	Disc outer
13	123871	1	Disc outer
14	123871	1	Disc outer
14A	123871	1	Disc outer
15	<sup>4</sup> _____	—	Gear
16	106547	12	Washer
17	123868	8	Bolt
17A	<sup>†</sup> 123869	4	Bolt
18	110523	12	Nut
19	<sup>3</sup> _____	—	Case
20	25K-40616	1	O-ring
21	<sup>5</sup> 111691	1	Cage assy
22	774198	1	Cup roller brg
23	111750	1	Seal
24	4E-10	8	Lockwasher
25	1C-1036	8	Bolt
26	107978	1	Washer
27	107977	1	Nut
28	1F-748	1	Pin cotter
29	116629	1	Flange
30	119890	1	Retainer
31	_____	—	Omit

No.	Part No.	Qty.	Description
32	110541	1	Gasket
33	774197	1	Cone roller brg
34	1C-614	2	Bolt
35	4E-06	2	Lockwasher
36	100941	2	Lock
37	123876	2	Locknut bearing
38	4148124	2	Cup roller brg
39	4148127	2	Cone roller brg
40	710034	1	Cone roller brg
41	110547	1	Spacer
42	<sup>†</sup> 110543	—	Shim — .004"
42A	<sup>†</sup> 125573	—	Shim — .007"
42B	<sup>†</sup> 125574	—	Shim — .010"
42C	<sup>†</sup> 125575	—	Shim — .020"
43	710035	1	Cup roller brg
44	123873	1	Carrier assy
45	<sup>10</sup> _____	—	Cap
46	3E-14	4	Lockwasher
47	124090	4	Bolt
48	<sup>4</sup> _____	—	Pinion
49	774199	1	Bearing
50	224083	1	Ring
51	123872	1	Disc inner
52	123872	1	Disc inner
53	125069	4	Spacer
54	124243	1	Spider
55	123872	1	Disc inner
56	123872	1	Disc inner
57	110522	12	Bolt
58	<sup>†</sup> 1123865	1	Case kit
59	<sup>†</sup> 12116901	1	Gear set
60	<sup>†</sup> 13124241	1	Body assy
61	<sup>†</sup> 14124522	1	Diff assy

<sup>2</sup>Incl. 1 thru 57

<sup>3</sup>See 58

<sup>4</sup>See 59

<sup>5</sup>Incl. 22, 43

.004"

.007"

.010"

.020"

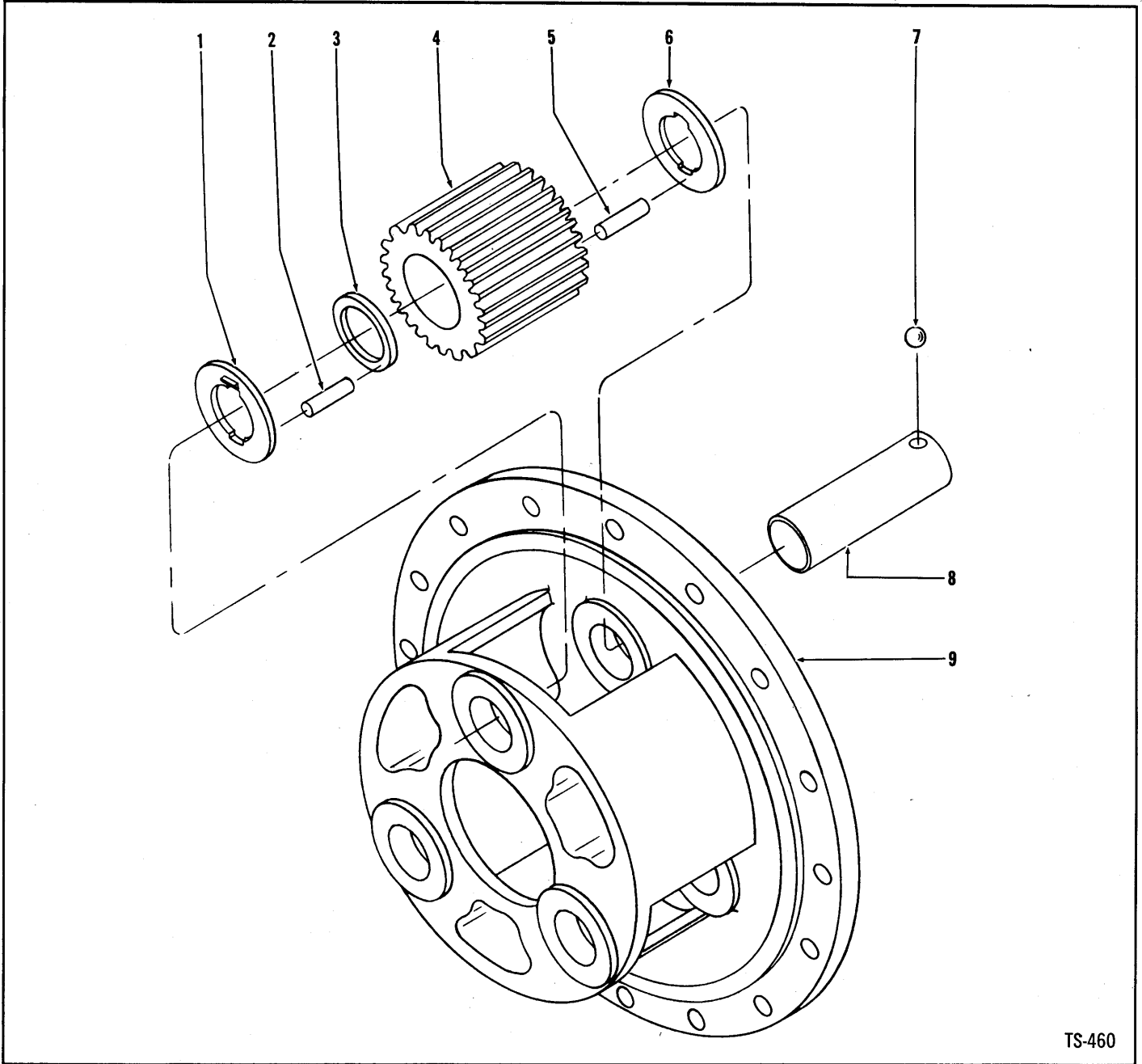
<sup>10</sup>See 44

<sup>11</sup>Incl. 1, 16, 17, 19

<sup>12</sup>Incl. 48, 15

<sup>13</sup>Incl. 1 thru 14, 16, 17, 19, 51 thru 56

<sup>14</sup>Incl. 1 thru 19, 48, 51 thru 57



TS-460

No.	Part No.	Qty.	Description
A	*1118771	4	Carrier
1	118774	3	Washer
2	118803	84	Roller
3	118775	3	Spacer
4	118776	3	Pinion
5	118803	84	Roller
6	118774	3	Washer
7	10J-12	3	Ball
8	118773	3	Shaft
9	118772	1	Carrier

<sup>1</sup>Inc. 1→9

\*Note: Two (4) carriers are used on machine. Quantities listed below are for one (1) carrier.



**Group B**

Boom, Bellcrank, Pushrods, Bucket Leveler & Piping .....B3

Brake Group:

    Brake Air Lines, Front .....B5, B5A

    Brake Air Lines, Rear – Cummins .....B7

    Brake Air Lines, Rear – G.M. ....B11→B13, B11A→B13A

    Brake Compensator Cylinder Assembly .....B13B

    Brake Controls, Parking .....B14

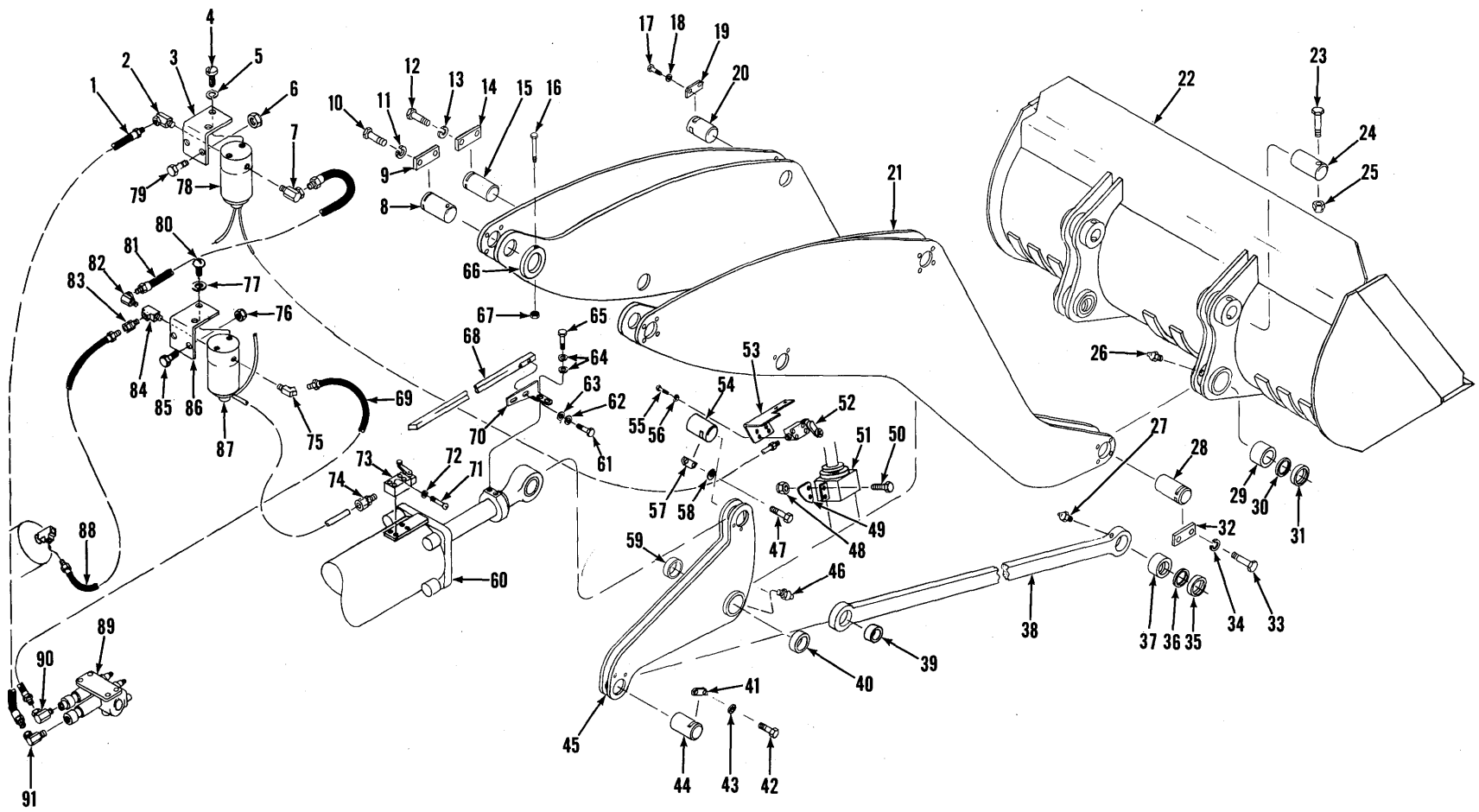
    Brake Lever Assembly, Parking .....B15

    Brake Controls .....B17

    Brake Power Cluster Assembly .....B19

    Brake Head Assembly .....B20, B21

Bucket Assembly Data .....B22



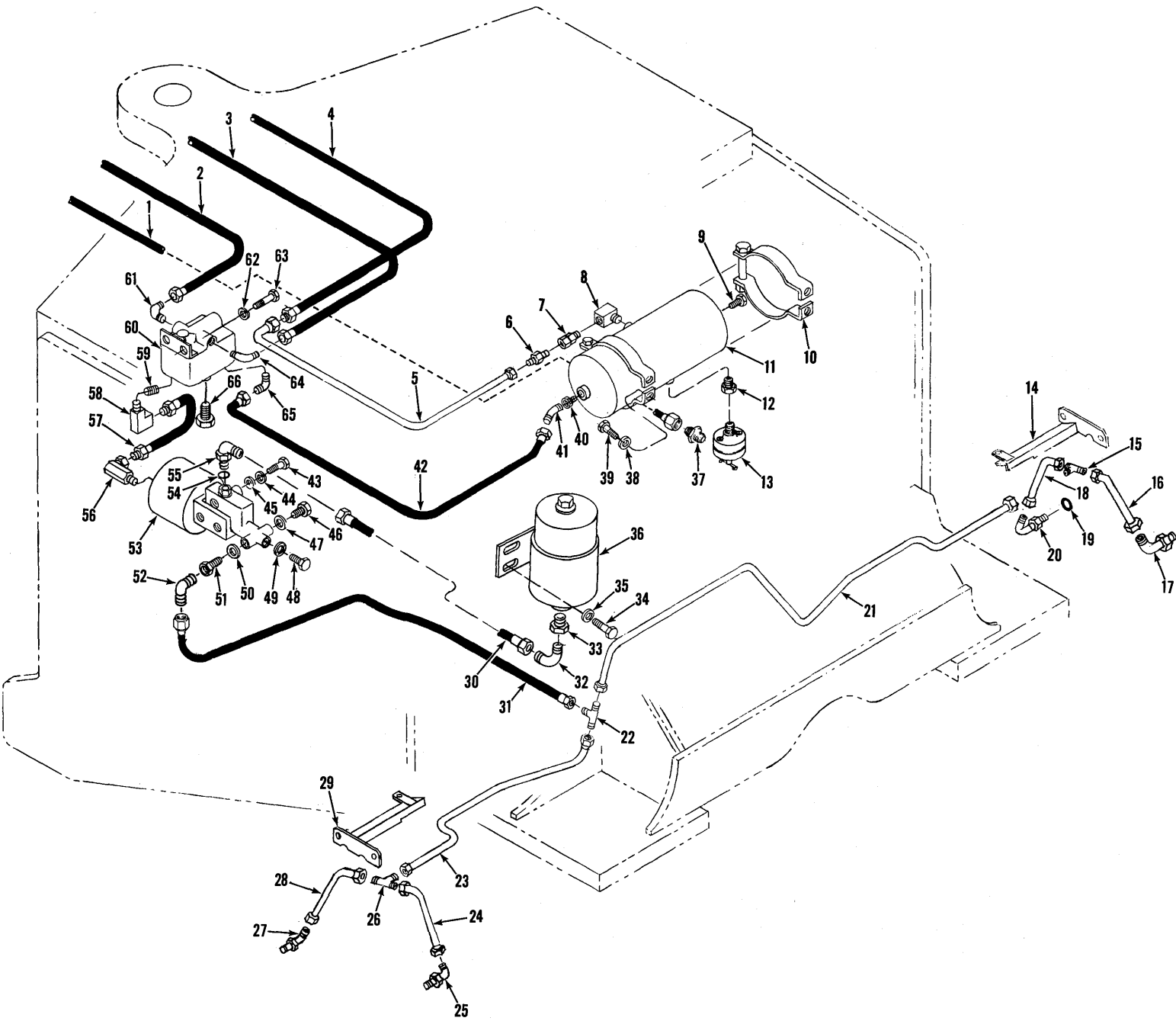
# Boom, Bellcrank, Pushrod & Bucket Leveler



No.	Part No.	Qty.	Description
1	564636	1	Hose
2	31F-2	1	Adapter
3	1548001	1	Bracket
4	86G-1008	2	Screw
5	12E-10	2	Lockwasher
6	18D-04	2	Nut
7	31F-2	1	Adapter
8	1547147	2	Pin
8A	†1516939	—	Shim
9	1544087	4	Lockplate
10	24C-820	8	Bolt
11	4E-08	8	Lockwasher
12	24C-820	4	Bolt
13	4E-08	4	Lockwasher
14	1544087	2	Lockplate
15	1547465	2	Pin
15A	†1540169	—	Shim
16	—	—	Omit
17	24C-820	8	Bolt
18	4E-08	8	Lockwasher
19	1544087	4	Lockplate
20	1547147	2	Pin
20A	†1516940	—	Shim
21	1547170	1	Boom
22	—	—	Bucket
23	24C-896	2	Bolt
24	549907	2	Pin
24A	†1540169	—	Shim
25	18D-08	2	Nut
26	10H-25	2	Fitting grease
27	10H-25	4	Fitting grease
28	1547465	2	Pin
28A	†1516939	—	Shim
29	3901168	2	Bushing
30	1519196	2	Seal
31	2502843	4	Seal & guard assembly
32	1544087	4	Lockplate
33	24C-820	8	Bolt
34	4E-08	8	Lockwasher
35	2502842	4	Seal & guard assy
36	2500237	4	Seal
37	2509317	2	Bushing
38	3901175	2	Pushrod
39	549669	2	Bushing
40	1539553	2	Bushing
41	1544087	2	Lockplate
42	24C-820	4	Bolt
43	4E-08	4	Lockwasher
44	1539586	2	Pin
45	1516982	2	Bellcrank assy <i>OHNE BÜCHSEN</i>
46	10H-25	2	Fitting grease
47	24C-820	4	Bolt

No.	Part No.	Qty.	Description
48	18D-06	2	Nut
49	1515763	1	Cam
50	24C-632	2	Bolt
51	—	—	Cylinder boom
52	308031	1	Switch limit
53	1515761	1	Bracket
54	1539586	2	Pin
55	23C-412	4	Bolt
56	4E-04	4	Washer
57	1544087	2	Lockplate
58	4E-08	4	Lockwasher
59	1539553	2	Bushing
60	—	—	Cylinder
61	24C-620	2	Bolt
62	4E-06	2	Lockwasher
63	619021	2	Washer
64	4E-06	2	Lockwasher
64A	619021	2	Washer
65	24C-620	2	Bolt
66	—	—	Omit
67	—	—	Omit
68	1528637	1	Cam
69	593495	1	Hose
70	1510618	1	Bracket
71	41G-1024	4	Screw
72	17E-10	4	Lockwasher
73	308031	1	Switch limit
74	1549705	2	Connector
75	81F-1	1	Elbow
76	18D-04	2	Nut
77	12E-10	2	Lockwasher
78	2510009	1	Solenoid valve
78A	25E-10	2	Washer
78B	949458	1	Seal kit
79	24C-416	2	Bolt
80	86G-1008	2	Screw
81	1511077	1	Hose
82	31F-2	1	Adapter
83	36F-2	1	Adapter
84	30F-1	1	Tee
85	24C-416	2	Bolt
86	1548001	1	Bracket
87	2510009	1	Solenoid valve
87A	25E-10	2	Washer
87B	949458	1	Seal kit
87C	†1516111	1	Wire
87D	†1510617	1	Wire
88	564644	1	Hose
88A	†33F-3	1	Adapter
89	—	—	Valve pilot
90	1311154	1	Adapter
91	1311154	1	Adapter

<sup>1</sup>See Index  
<sup>2</sup>Inc. 30  
<sup>3</sup>Inc. 36  
<sup>4</sup>Inc. 37, 39  
<sup>5</sup>Inc. 40, 59



# Brake Air Lines – Front\*

**MICHIGAN**

No.	Part No.	Qty.	Description
1	2-----	—	Hose
2	2-----	—	Hose
3	2-----	—	Hose
4	2-----	—	Hose
5	1548506	1	Tube
6	38F-10	1	Connector
7	593370	1	Valve check
8	29F-3	1	Elbow
9	40K-08	1	Plug
10	941214	2	Bracket
11	540707	1	Reservoir
12	19F-6	1	Bushing
13	1519191	1	Valve
14	1512728	1	Guard LH
14A	†24C-616	2	Bolt
14B	†4E-06	2	Lockwasher
14C	†619021	2	Washer
15	10K-4	1	Tee
16	1512732	1	Tube
17	17K-4	1	Elbow
17A	†91F-4	1	O-ring
18	1512732	1	Tube
19	91F-4	1	O-ring
20	17K-4	1	Elbow
21	1512657	1	Tube
22	10K-4	1	Tee
23	1512658	1	Tube
24	1512732	1	Tube
25	17K-4	1	Elbow
25A	†91F-4	1	O-ring
26	10K-4	1	Tee
27	17K-4	1	Elbow
27A	†91F-4	1	O-ring
28	1512732	1	Tube
29	1512731	1	Guard RH
30	2504480	1	Hose
31	1513402	1	Hose
31A	†24C-612	1	Bolt

No.	Part No.	Qty.	Description
31B	†4E-06	1	Lockwasher
31C	†30H-38	1	Clip
32	83F-4	1	Elbow
33	19F-1	1	Bushing
34	24C-612	2	Bolt
35	656672	2	Washer
36	2501154	1	Reservoir
37	38F-4	1	Connector
38	4E-06	4	Lockwasher
39	24C-616	4	Bolt
40	19F-6	1	Bushing
41	42F-8	1	Elbow
42	1512885	1	Hose
43	24C-720	3	Bolt
44	4E-07	3	Lockwasher
45	669829	1	Spacer
46	874007	1	Plug
47	613750	1	Gasket
48	874007	1	Plug
49	613750	1	Gasket
50	613750	1	Gasket
51	1543879	1	Adapter
52	84F-4	1	Elbow
53	-----	—	Pwr clr assy brk
54	91F-4	1	O-ring
55	17K-4	1	Elbow
56	31F-3	1	Adapter
57	1549090	1	Hose
58	27F-1	1	Elbow
59	5K-207	1	Nipple
60	1545789	1	Valve quick release
60A	949959	1	Repair kit
61	42F-6	1	Elbow
62	4E-06	2	Lockwasher
63	24C-616	2	Bolt
64	42F-6	1	Elbow
65	42F-8	1	Elbow
66	16F-4	3	Plug pipe

\*For Serial 438C101→120, 427C101→120

<sup>1</sup>See Index

<sup>2</sup>See Brake Air Lines, Rear

<sup>3</sup>BW #205267 Your local Bendix-Westinghouse Distributor is equipped to service components of these parts.

<sup>4</sup>Inc. 17A

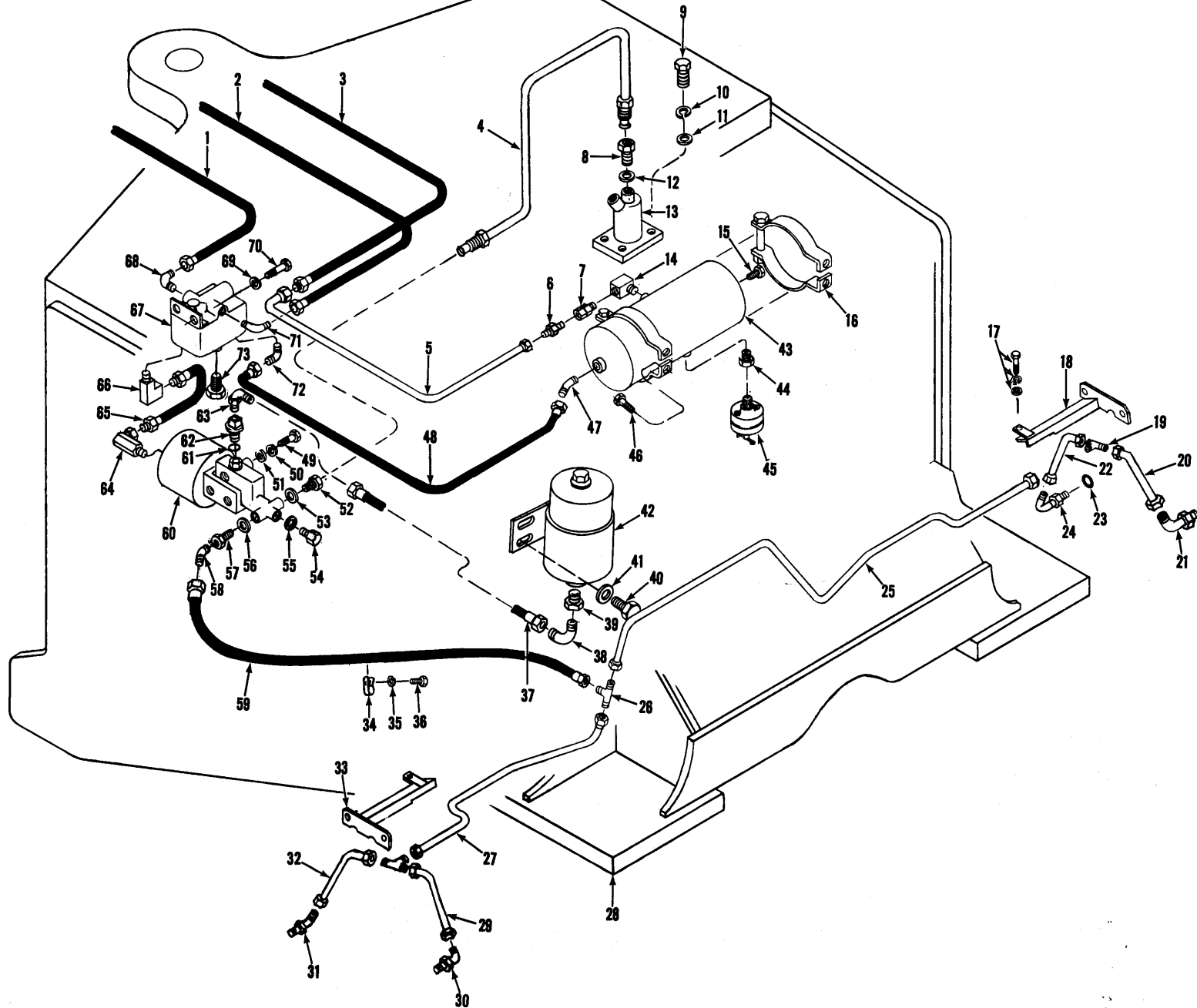
<sup>5</sup>Inc. 19

<sup>6</sup>Inc. 25A

<sup>7</sup>Inc. 27A

<sup>8</sup>Inc. 54

<sup>9</sup>Inc. 60A



Brake Air Lines, Front\*

No.	Part No.	Qty.	Description
1	<sup>2</sup> -----	—	Hose
2	<sup>2</sup> -----	—	Hose
3	<sup>2</sup> -----	—	Hose
4	<sup>2</sup> 2511363	1	Tube
5	<sup>1</sup> 1548506	1	Tube
6	<sup>1</sup> 38F-10	1	Connector
7	<sup>1</sup> 593370	1	Valve check
8	<sup>1</sup> 1675961	1	Adapter
9	<sup>2</sup> 24C-620	2	Bolt
10	<sup>2</sup> 4E-06	2	Lockwasher
11	<sup>2</sup> 25E-17	2	Washer
12	<sup>1</sup> 2506979	1	Gasket
13	<sup>1</sup> -----	—	Brake cylinder assy
14	<sup>1</sup> 29F-3	1	Elbow
15	<sup>1</sup> 40K-08	1	Plug
16	<sup>2</sup> 941214	2	Bracket
17	<sup>2</sup> 24C-616	2	Bolt
17A	<sup>2</sup> 4E-06	2	Lockwasher
17B	<sup>2</sup> 619021	2	Washer
18	<sup>1</sup> 1512728	1	Guard
19	<sup>2</sup> 10K-4	2	Tee
20	<sup>1</sup> 1512732	1	Tube
21	<sup>1</sup> 17K-4	1	Elbow
21A	<sup>1</sup> 91F-4	1	O-ring
22	<sup>1</sup> 1512732	1	Tube
23	<sup>1</sup> 91F-4	1	O-ring
24	<sup>1</sup> 17K-4	1	Elbow
25	<sup>1</sup> 1512657	1	Tube
26	<sup>1</sup> 10K-4	1	Tee
27	<sup>1</sup> 1512658	1	Tube
28	<sup>1</sup> -----	—	Frame front
29	<sup>1</sup> 1512732	1	Tube
30	<sup>1</sup> 17K-4	1	Elbow
30A	<sup>1</sup> 91F-4	1	O-ring
31	<sup>1</sup> 17K-4	1	Elbow
31A	<sup>1</sup> 91F-4	1	O-ring
32	<sup>1</sup> 1512732	1	Tube
33	<sup>1</sup> 1512731	1	Guard
34	<sup>1</sup> 30H-38	1	Clip
35	<sup>1</sup> 4E-06	1	Lockwasher
36	<sup>1</sup> 24C-612	1	Bolt

No.	Part No.	Qty.	Description
37	<sup>1</sup> 2504480	1	Hose
38	<sup>1</sup> 83F-4	1	Elbow
39	<sup>1</sup> 19F-1	1	Bushing
40	<sup>2</sup> 24C-612	2	Bolt
41	<sup>2</sup> 656672	2	Washer
42	<sup>1</sup> 2501154	1	Reservoir
43	<sup>1</sup> 540707	1	Reservoir
44	<sup>1</sup> 19F-6	1	Bushing
45	<sup>1</sup> 1519191	1	Valve
46	<sup>4</sup> 24C-616	4	Bolt
46A	<sup>4</sup> 4E-06	4	Lockwasher
47	<sup>1</sup> 42F-8	1	Elbow
47A	<sup>1</sup> 19F-6	1	Bushing
48	<sup>1</sup> 1512885	1	Hose
49	<sup>3</sup> 24C-720	3	Bolt
50	<sup>3</sup> 4E-07	3	Lockwasher
51	<sup>1</sup> 669829	1	Spacer
52	<sup>1</sup> 699005	1	Adapter
53	<sup>1</sup> 2511196	1	Gasket
54	<sup>1</sup> 874007	1	Plug
55	<sup>1</sup> 2511196	1	Gasket
56	<sup>1</sup> 2511196	1	Gasket
57	<sup>1</sup> 1543879	1	Adapter
58	<sup>1</sup> 84F-4	1	Elbow
59	<sup>1</sup> 1513402	1	Hose
60	<sup>1</sup> -----	—	Pwr clsr assy brk
61	<sup>1</sup> 850287	1	Gasket
62	<sup>1</sup> 960005	1	Cap
63	<sup>1</sup> 17K-4	1	Elbow
64	<sup>1</sup> 31F-3	1	Adapter
65	<sup>1</sup> 1549090	1	Hose
66	<sup>1</sup> 27F-1	1	Elbow
66A	<sup>1</sup> 5K-207	1	Nipple pipe
67	<sup>1</sup> 1545789	1	Valve quick release
67A	<sup>1</sup> 949959	1	Repair kit
68	<sup>1</sup> 42F-6	1	Elbow
69	<sup>2</sup> 4E-06	2	Lockwasher
70	<sup>2</sup> 24C-616	2	Bolt
71	<sup>1</sup> 42F-6	1	Elbow
72	<sup>1</sup> 42F-8	1	Elbow
73	<sup>3</sup> 16F-4	3	Plug pipe

\*Cummins 438C121 & →, G.M. 427C121 & →, G.M. 427C601 & →

<sup>1</sup>See Index

<sup>2</sup>See Brake Air Lines, Rear

<sup>3</sup>BW #205267. Your local Bendix-Westinghouse Distributor is equipped to service components of these parts.

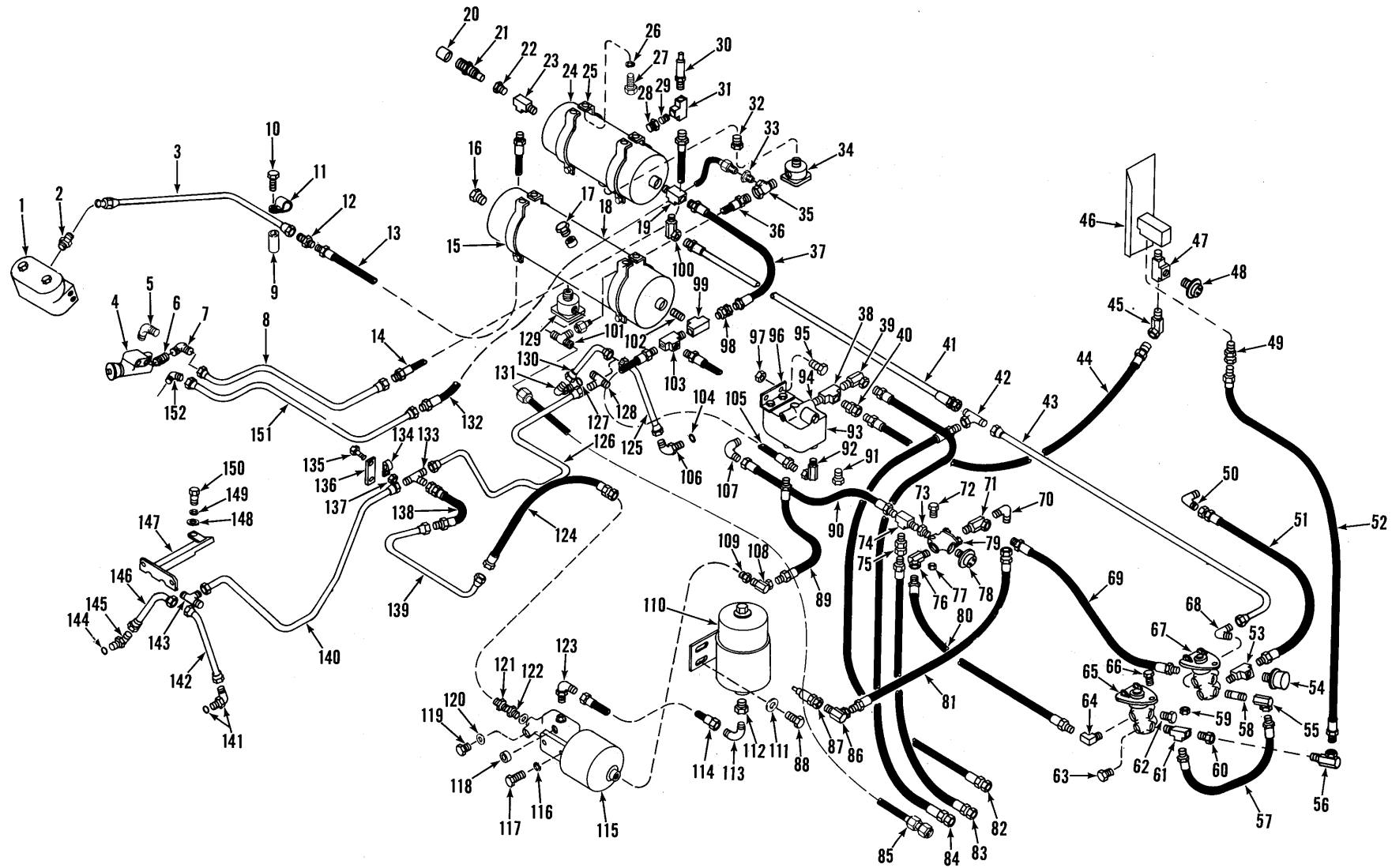
<sup>4</sup>Inc. 21A

<sup>5</sup>Inc. 23

<sup>6</sup>Inc. 30A

<sup>7</sup>Inc. 31A

<sup>8</sup>Inc. 67A





# Brake Air Lines, Rear — Cummins\*

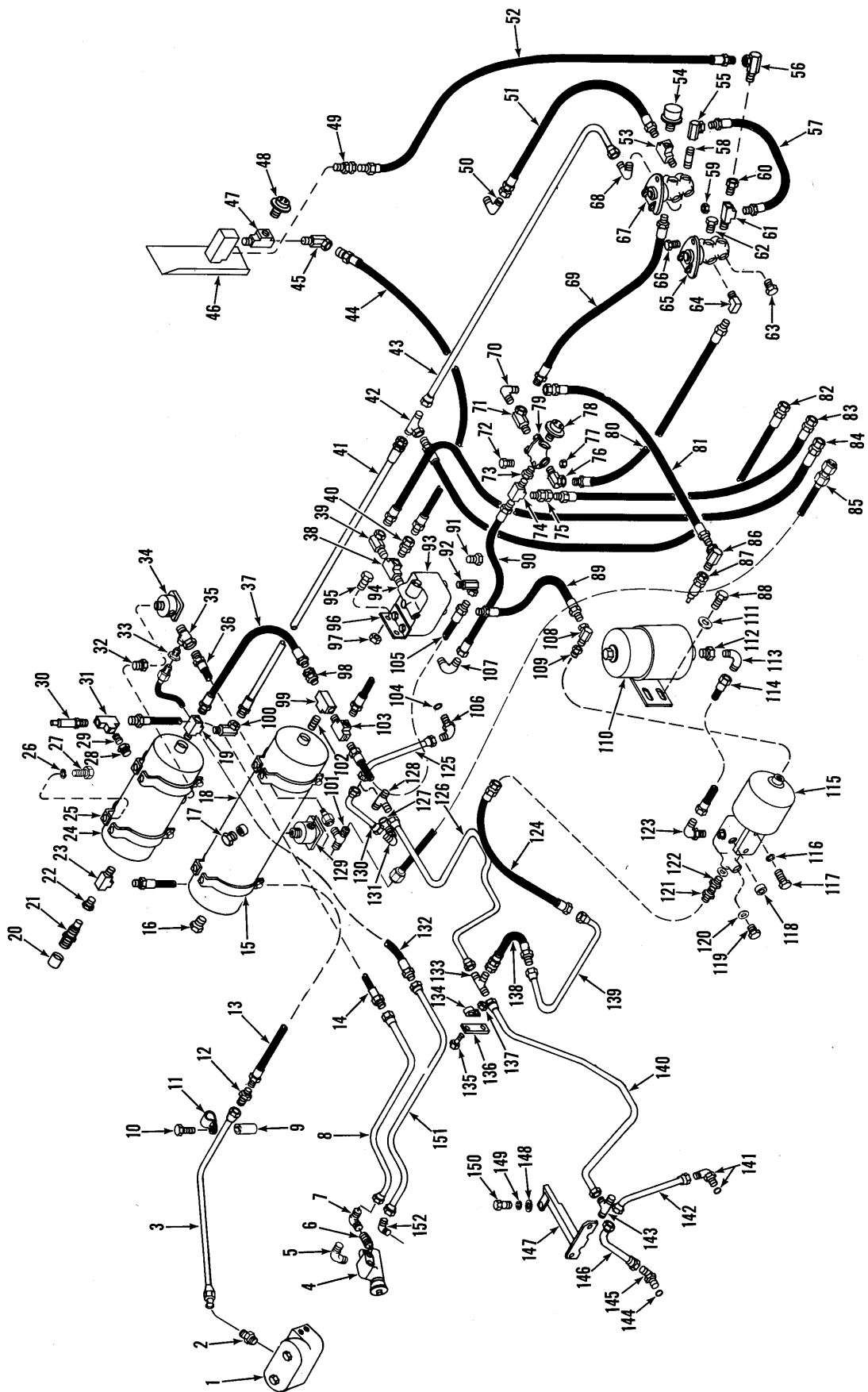
No.	Part No.	Qty.	Description
1	<sup>2</sup> _____	—	Compressor
2	38F-10	1	Connector
3	1510254	1	Tube
4	<sup>2</sup> _____	—	Governor
5	_____	—	Omit
6	5K-108	1	Nipple
7	43F-3	1	Elbow
8	1515718	1	Tube
9	642655	2	Spacer
10	24C-636	1	Bolt
10A	<sup>†</sup> 4E-06	1	Lockwasher
11	30H-38	2	Clip
11A	<sup>†</sup> 30H-16	4	Clip
12	40F-8	1	Bushing
13	2504864	1	Hose
14	1514085	1	Hose
15	<sup>3,11</sup> 527685	2	Bracket
16	40K-06	1	Plug
17	40K-04	1	Plug
18	527684	1	Air reservoir
19	30F-3	1	Tee
20	573750	1	Cap
21	573618	1	Stem
22	19F-4	1	Bushing
23	30F-3	1	Tee
24	540707	1	Air reservoir
25	<sup>4,11</sup> 941214	2	Bracket
26	4E-06	8	Lockwasher
27	24C-616	8	Bolt
28	19F-5	1	Bushing
29	5K-207	1	Nipple
30	<sup>5,11</sup> 507815	1	Valve
31	28F-1	1	Tee
32	19F-6	1	Bushing
33	637153	1	Adapter
34	1519191	1	Valve
35	30F-1	1	Tee
36	2507336	1	Hose
37	1512698	1	Hose
38	30F-1	1	Tee
39	31F-2	1	Adapter
40	36F-2	1	Adapter
41	1549092	1	Hose
42	44F-8	1	Tee
43	1548504	1	Tube

No.	Part No.	Qty.	Description
44	1549087	1	Hose
45	33F-1	1	Adapter
46	1548307	1	Bracket
46A	1545790	1	Valve
47	1549038	1	Tee
48	1537354	1	Switch
49	36F-1	1	Adapter
50	42F-3	1	Elbow
51	1543947	1	Hose
52	1541553	1	Hose
53	30F-1	1	Tee
54	1534135	1	Sender air press
55	32F-4	1	Adapter
56	31F-1	1	Adapter
57	592742	1	Hose
58	5K-420	1	Nipple
59	18D-05	6	Nut
60	19F-4	1	Bushing
61	30F-3	1	Tee
62	40K-08	7	Plug
63	40K-04	3	Plug
64	29F-3	1	Elbow
65	_____	—	Valve brake
66	24C-520	6	Bolt
67	_____	—	Valve brake
68	42F-9	1	Elbow
69	593263	1	Hose
70	83F-3	1	Elbow
71	356609	1	Adapter
72	24C-644	1	Bolt
73	19F-5	1	Bushing
74	30F-1	1	Tee
75	36F-2	1	Adapter
76	33F-4	1	Adapter
77	18D-06	1	Nut
78	636260	1	Switch brake press
79	<sup>6,11</sup> 1532592	1	Valve
80	593658	1	Hose
81	541980	1	Hose
82	1549093	1	Hose
83	1549089	1	Hose
84	1549089	1	Hose
85	2507335	1	Hose
86	31F-1	1	Adapter

\*Cummins 438C101→120

- <sup>1</sup>See Index
- <sup>2</sup>See Engine Parts Manual
- <sup>3</sup>BW #205093
- <sup>4</sup>BW #205267
- <sup>5</sup>BW #205105
- <sup>6</sup>BW #223869

<sup>11</sup>Your local authorized Bendix-Westinghouse Distributor is equipped to service components of these parts.



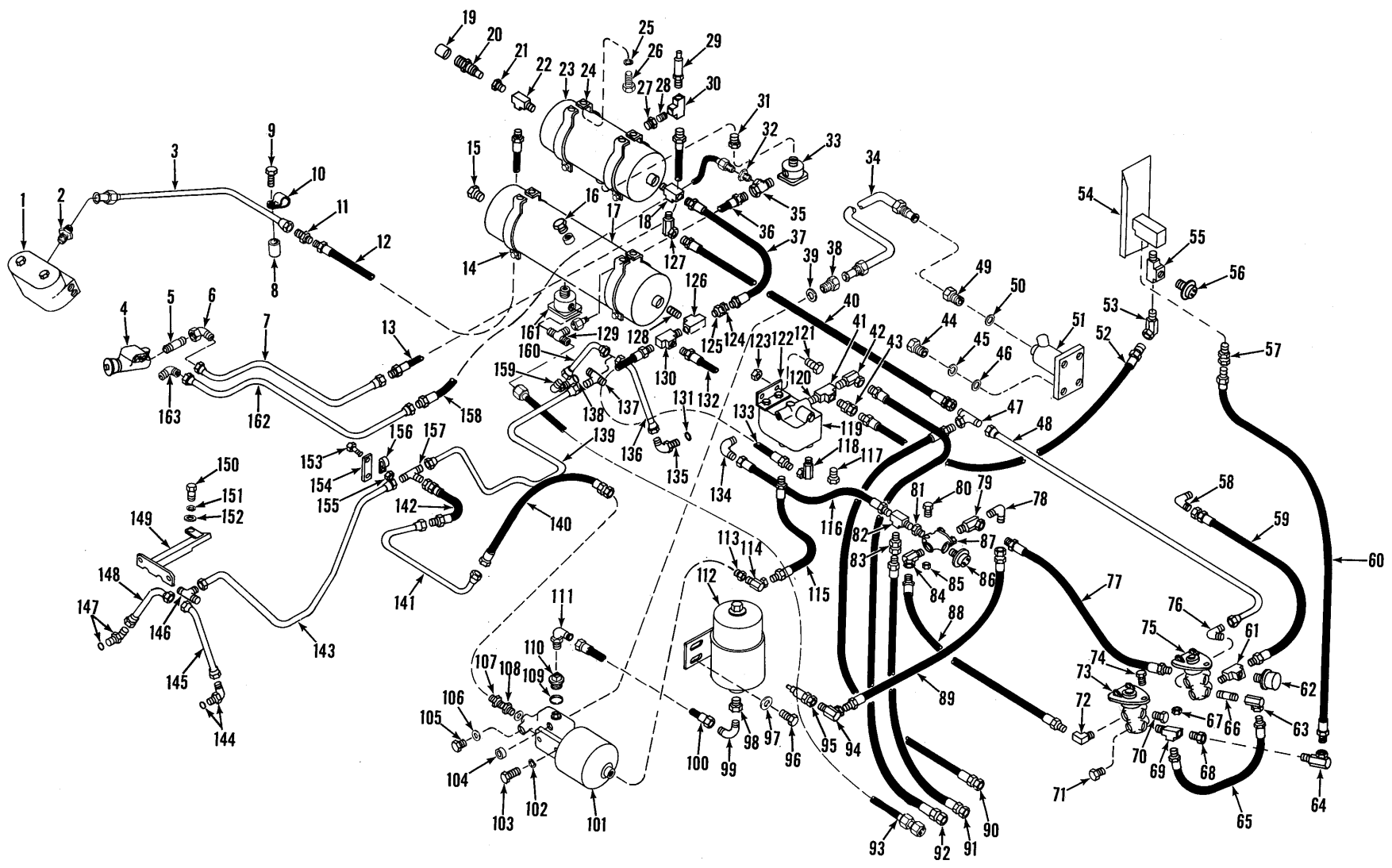
# Brake Air Lines, Rear – Cummins\*



No.	Part No.	Qty.	Description
87	1-----	—	Valve de-clutch
88	24C-612	2	Bolt
89	1549086	1	Hose
90	1549088	1	Hose
91	16F-4	3	Plug
92	31F-3	1	Adapter
93	<sup>7</sup> 1545789	1	Valve quick release
94	1543879	1	Adapter
95	24C-616	2	Bolt
96	S-----	—	Bracket
97	18D-06	2	Nut
*98	36F-3	1	Adapter
98A	<sup>†</sup> 425413	1	Valve check
99	28F-2	1	Tee
100	31F-4	1	Adapter
101	46F-7	1	Tee
102	5K-308	1	Nipple
103	30F-2	1	Tee
104	91F-4	1	O-ring
105	565320	1	Hose
106	<sup>8</sup> 17K-4	1	Elbow
107	42F-6	1	Elbow
108	31F-3	1	Adapter
109	19F-3	1	Bushing
110	2501154	1	Reservoir
111	656672	2	Washer
112	19F-1	1	Bushing
113	83F-4	1	Elbow
114	2501470	1	Hose
115	1-----	—	Pwr clr assy brk
116	4E-07	3	Lockwasher
117	24C-720	3	Bolt
118	669829	1	Spacer
119	874007	2	Plug
120	613750	3	Gasket

No.	Part No.	Qty.	Description
121	89F-4	1	Connector
122	1543379	1	Connector
123	17K-4	1	Elbow
124	1544111	1	Hose
125	1512732	1	Tube
126	1512642	1	Tube
127	91F-4	1	O-ring
128	10K-4	1	Tee
129	1519191	1	Valve
130	1512732	1	Tube
131	<sup>9</sup> 17K-4	1	Elbow
132	1514085	1	Hose
133	10K-4	1	Tee
134	30H-20	1	Clip
135	24C-612	1	Bolt
136	1544017	1	Bracket
137	18D-06	1	Nut
138	1544112	1	Hose
139	1544114	1	Tube
140	1512643	1	Tube
141	<sup>10</sup> 17K-4	1	Elbow
141A	91F-4	1	O-ring
142	1512732	1	Tube
143	10K-4	1	Tee
144	91F-4	1	O-ring
145	17K-4	1	Elbow
146	1512732	1	Tube
147	1512729	1	Guard RH
147A	<sup>†</sup> 1512730	1	Guard LH
148	619021	2	Washer
149	4E-06	2	Lockwasher
150	24C-616	2	Bolt
151	1515718	1	Tube
152	42F-3	1	Elbow

<sup>1</sup>See Index  
<sup>7</sup>Inc. 95  
<sup>8</sup>Inc. 104  
<sup>9</sup>Inc. 127  
<sup>10</sup>Inc. 141A



# Brake Air Lines, Rear – Cummins\*



No.	Part No.	Qty.	Description
1	<sup>2</sup> _____	—	Compressor
2	38F-10	1	Connector
3	1510254	1	Tube
4	<sup>2</sup> _____	—	Governor
5	5K-108	1	Nipple
6	43F-3	1	Elbow
7	1515718	1	Tube
8	642655	1	Spacer
9	24C-636	1	Bolt
9A	†4E-06	1	Lockwasher
10	30H-38	2	Clip
10A	†30H-16	4	Clip
11	40F-8	1	Bushing
12	2504864	1	Hose
13	1514085	1	Hose
14	<sup>3,11</sup> 527685	2	Bracket
15	40K-06	1	Plug
16	40K-04	1	Plug
17	527684	1	Air reservoir
18	30F-3	1	Tee
19	573750	1	Cap
20	573618	1	Stem
21	19F-4	1	Bushing
22	30F-3	1	Tee
23	540707	1	Air reservoir
24	<sup>4,11</sup> 941214	2	Bracket
25	4E-06	8	Lockwasher
26	24C-616	8	Bolt
27	19F-5	1	Bushing
28	5K-207	1	Nipple
29	<sup>5,11</sup> 507815	1	Valve
30	28F-1	1	Tee
31	19F-6	1	Bushing
32	637153	1	Adapter
33	1519191	1	Valve
34	2511377	1	Tube
35	30F-1	1	Tee
36	2507336	1	Hose
37	1512698	1	Hose
38	699005	1	Adapter
39	2511196	1	Gasket
40	1549092	1	Hose
41	30F-1	1	Tee
42	31F-2	1	Adapter
43	36F-2	1	Adapter
44	24C-620	2	Bolt

No.	Part No.	Qty.	Description
45	4E-06	2	Lockwasher
46	25E-17	2	Washer
47	44F-8	1	Tee
48	1548504	1	Tube
49	1675961	1	Adapter
50	2506979	1	Gasket
51	<sup>1</sup> _____	—	Compensator assy
52	1549087	1	Hose
53	33F-1	1	Adapter
54	1548307	1	Bracket
54A	1545790	1	Valve
55	1549038	1	Tee
56	1537354	1	Switch
57	36F-1	1	Adapter
58	42F-3	1	Elbow
59	1543947	1	Hose
60	1541553	1	Hose
61	30F-1	1	Tee
62	1534135	1	Sender air press
62A	†19F-1	1	Bushing
63	32F-4	1	Adapter
64	31F-1	1	Adapter
65	592742	1	Hose
66	5K-420	1	Nipple
67	18D-05	6	Nut
68	19F-4	1	Bushing
69	30F-3	1	Tee
70	40K-08	7	Plug
71	40K-04	3	Plug
72	869712	1	Elbow
73	<sup>1</sup> _____	—	Valve brake
74	24C-520	6	Bolt
75	<sup>1</sup> _____	—	Valve brake
76	42F-9	1	Elbow
77	593263	1	Hose
78	83F-3	1	Elbow
79	356609	1	Adapter
80	24C-644	1	Bolt
81	19F-5	1	Bushing
82	30F-1	1	Tee
83	36F-2	1	Adapter
84	33F-4	1	Adapter
85	18D-06	1	Nut
86	636260	1	Switch brake press
86A	†19F-4	1	Bushing

\*Cummins 438C121 & →

<sup>1</sup>See Index

<sup>2</sup>See Engine Parts Manual

<sup>3</sup>BW #205093

<sup>4</sup>BW #205267

<sup>5</sup>BW #205105

<sup>6</sup>BW #223869

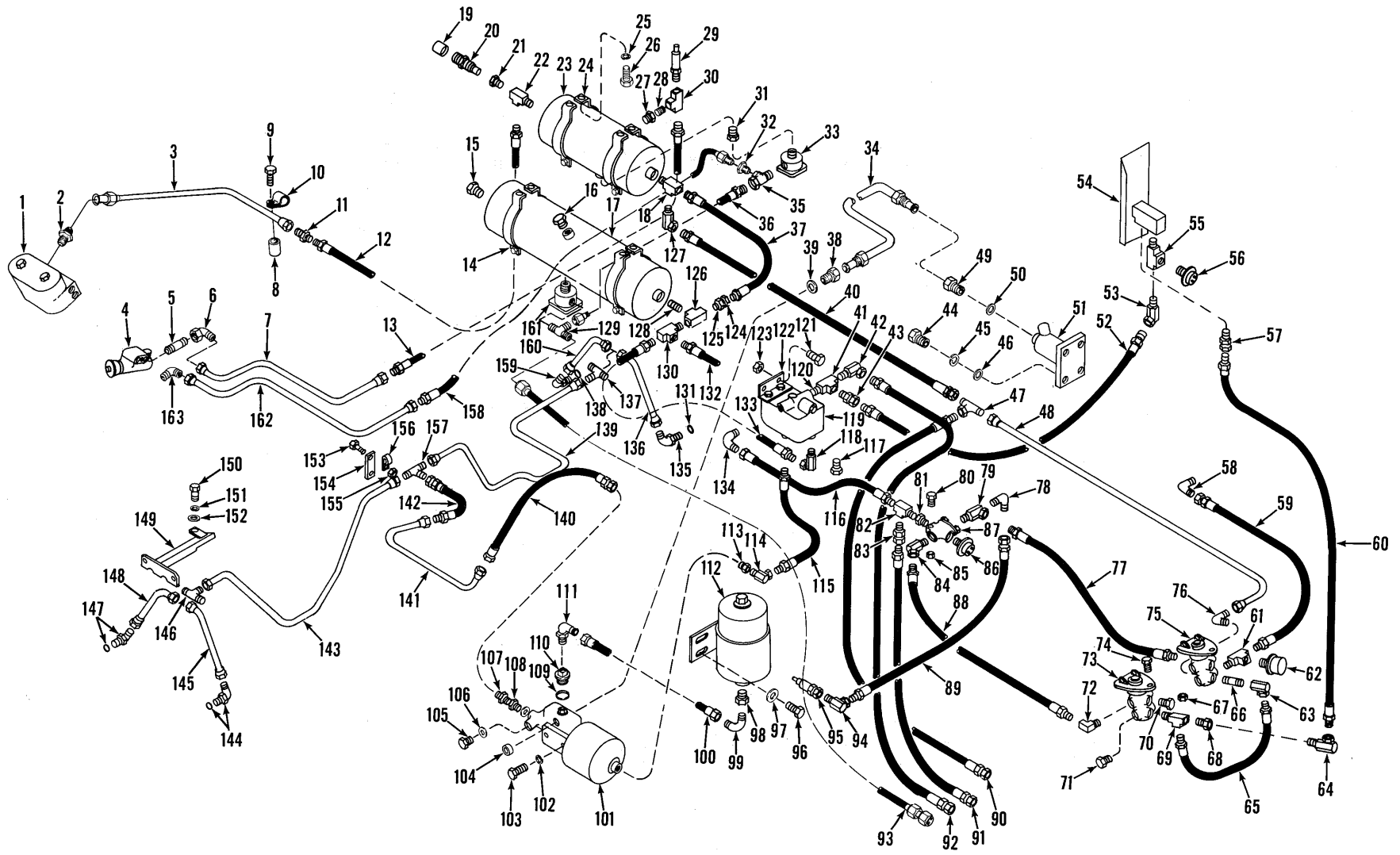
<sup>7</sup>Inc. 121

<sup>8</sup>See Boom & Bellcrank

<sup>9</sup>Inc. 131

<sup>10</sup>Inc. 144A

<sup>11</sup>Your local authorized Bendix-Westinghouse Distributor is equipped to service components of these parts.



# Brake Air Lines, Rear – Cummins\*



No.	Part No.	Qty.	Description
87	<sup>6,11</sup> 1532592	1	Valve
88	593658	1	Hose
89	541980	1	Hose
90	1549093	1	Hose
91	1549089	1	Hose
92	1549089	1	Hose
93	2507335	1	Hose
94	31F-1	1	Adapter
95	_____	—	Valve de-clutch
96	24C-612	2	Bolt
97	656672	2	Washer
98	19F-1	1	Bushing
99	83F-4	1	Elbow
100	25U1470	1	Hose
101	_____	—	Pwr clr assy brk
102	4E-07	3	Lockwasher
103	24C-720	3	Bolt
104	669829	1	Spacer
105	874007	1	Plug
106	2511196	1	Gasket
107	89F-4	1	Connector
108	1543379	1	Connector
109	850287	1	Gasket
110	960005	1	Cap
111	17K-4	1	Elbow
112	2501154	1	Reservoir
113	19F-3	1	Bushing
114	31F-3	1	Adapter
115	1549086	1	Hose
116	1549088	1	Hose
117	16F-4	3	Plug
118	31F-3	1	Adapter
119	<sup>7</sup> 1545789	1	Valve quick release
120	1543879	1	Adapter
121	24C-616	2	Bolt
122	<sup>8</sup> _____	—	Bracket
123	18D-06	2	Nut
124	36F-3	1	Adapter
125	425413	1	Valve check
126	28F-2	1	Tee

No.	Part No.	Qty.	Description
127	31F-4	1	Adapter
128	5K-308	1	Nipple
129	46F-7	1	Tee
130	30F-2	1	Tee
131	91F-4	1	O-ring
132	<sup>8</sup> _____	—	Hose
133	565320	1	Hose
134	42F-6	1	Elbow
135	17K-4	1	Elbow
136	1512732	1	Tube
137	10K-4	1	Tee
138	91F-4	1	O-ring
139	1512642	1	Tube
140	1544111	1	Hose
141	1544114	1	Tube
142	1544112	1	Hose
143	1512643	1	Tube
144	<sup>10</sup> 17K-4	1	Elbow
144A	91F-4	1	O-ring
145	1512732	1	Tube
146	10K-4	1	Tee
147	<sup>12</sup> 17K-4	1	Elbow
147A	91F-4	1	O-ring
148	1512732	1	Tube
149	1512729	1	Guard RH
149A	<sup>†</sup> 1512730	1	Guard LH
150	24C-616	2	Bolt
151	4E-06	2	Lockwasher
152	619021	2	Washer
153	24C-612	1	Bolt
154	1544017	1	Bracket
155	18D-06	1	Nut
156	30H-20	1	Clip
157	10K-4	1	Tee
158	1514085	1	Hose
159	<sup>13</sup> 17K-4	1	Elbow
160	1512732	1	Tube
161	1519191	1	Valve
162	1515718	1	Tube
163	42F-3	1	Elbow

\*Cummins 438C121 & →

<sup>1</sup>See Index

<sup>2</sup>See Engine Parts Manual

<sup>3</sup>BW #205093

<sup>4</sup>BW #205267

<sup>5</sup>BW #205105

<sup>6</sup>BW #223869

<sup>7</sup>Inc. 121

<sup>8</sup>See Boom & Bellcrank

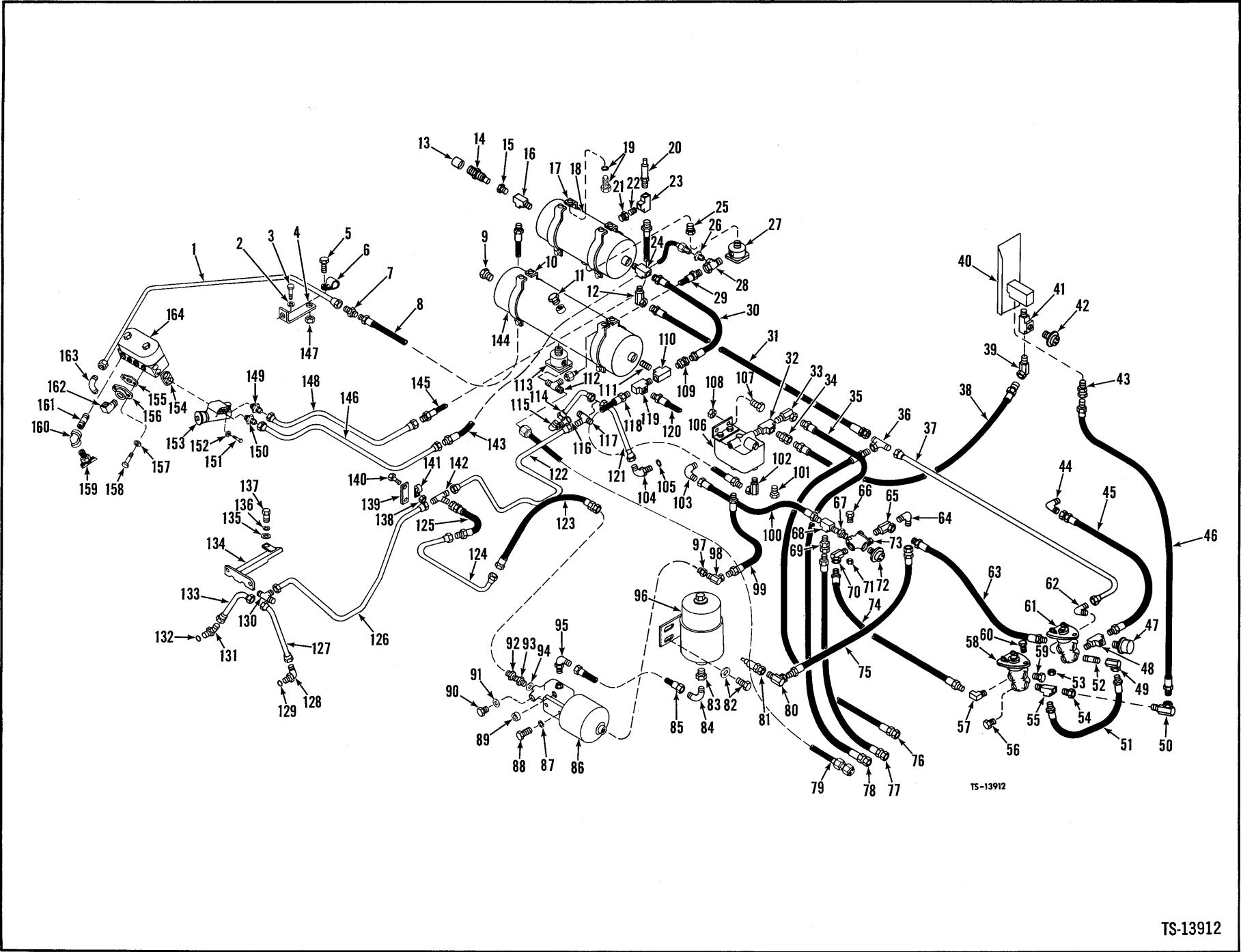
<sup>9</sup>Inc. 131

<sup>10</sup>Inc. 144A

<sup>11</sup>Your local authorized Bendix-Westinghouse Distributor is equipped to service components of these parts.

<sup>12</sup>Inc. 147A

<sup>13</sup>Inc. 138



TS-13912

TS-13912



# Brake Air Lines, Rear — G.M.\*



No.	Part No.	Qty.	Description
1	1515260	1	Tube
2	4E-06	1	Lockwasher
3	23C-616	1	Bolt
4	1513319	1	Bracket
5	24C-616	1	Bolt
6	30H-38	1	Clip
7	40F-8	1	Connector
8	2504865	1	Hose
9	40K-06	1	Plug
10	<sup>2,3</sup> 527685	2	Bracket
11	40K-04	1	Plug
12	31F-4	1	Adapter
13	573750	1	Cap
14	573618	1	Stem
15	19F-4	1	Bushing
16	30F-3	1	Tee
17	<sup>2,4</sup> 941214	2	Bracket
18	540707	1	Air reservoir
19	24C-616	8	Bolt
19A	4E-06	8	Lockwasher
20	507815	1	Valve
21	19F-5	1	Bushing
22	5K-207	1	Nipple pipe
23	28F-1	1	Tee
24	30F-3	1	Tee
25	19F-6	1	Bushing
26	637153	1	Adapter
27	1519191	1	Valve
28	30F-1	1	Tee
29	2507336	1	Hose
30	1512698	1	Hose
31	1549092	1	Hose
32	30F-1	1	Tee
33	31F-2	1	Adapter
34	36F-2	1	Adapter
35	<sup>5</sup> _____	—	Hose
36	44F-8	1	Tee
37	1548504	1	Tube
38	1549087	1	Hose
39	33F-1	1	Adapter
40	1548307	1	Bracket
40A	1545790	1	Valve
41	1549038	1	Tee
42	1_____	—	Switch low air
43	36F-1	1	Adapter

No.	Part No.	Qty.	Description
44	42F-3	1	Elbow
45	1543947	1	Hose
46	1541553	1	Hose
47	1534135	1	Sender air pressure
47A	<sup>†</sup> 19F-1	1	Bushing
48	30F-1	1	Tee
49	32F-4	1	Adapter
50	31F-1	1	Adapter
51	592742	1	Hose
52	5K-420	1	Nipple pipe
53	18D-05	6	Nut
54	19F-4	1	Bushing
55	30F-3	1	Tee
56	40K-04	3	Plug pipe
57	29F-3	1	Elbow
58	1_____	—	Valve brake
59	40K-08	7	Plug pipe
60	24C-520	6	Bolt
61	1_____	—	Valve brake
62	42F-9	1	Elbow
63	593263	1	Hose
64	83F-3	1	Elbow
65	356609	1	Adapter
66	24C-644	1	Bolt
67	19F-5	1	Bushing
68	30F-1	1	Tee
69	36F-2	1	Adapter
70	33F-4	1	Adapter
71	18D-06	1	Nut
72	1_____	—	Switch stop light
73	1532592	1	Valve check
74	593658	1	Hose
75	541980	1	Hose
76	1549093	1	Hose
77	1549089	1	Hose
78	1549089	1	Hose
79	2507335	1	Hose
80	31F-1	1	Adapter
81	1_____	—	Valve de-clutch
82	24C-612	2	Bolt
82A	656672	2	Washer
83	19F-1	1	Bushing
84	83F-4	1	Elbow
85	2501470	1	Hose
86	1_____	—	Pwr clr assy brk

\*G.M. 427C101→120

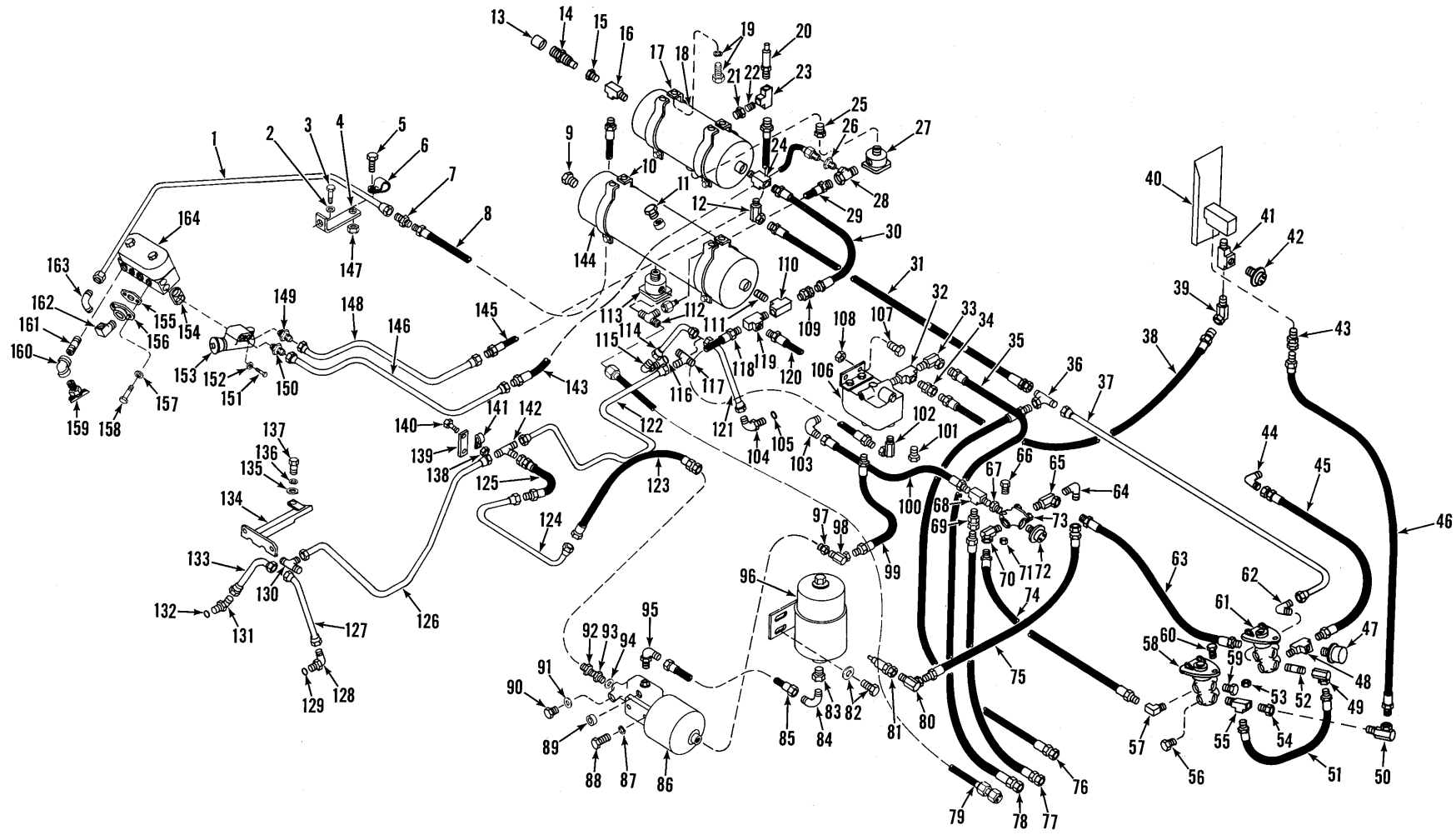
<sup>1</sup>See Index

<sup>2</sup>Your local authorized Bendix-Westinghouse Distributor is equipped to service components of these parts.

<sup>3</sup>BW #205093

<sup>4</sup>BW #SA 1923-10

<sup>5</sup>See 78



# Brake Air Lines, Rear — G.M.\*



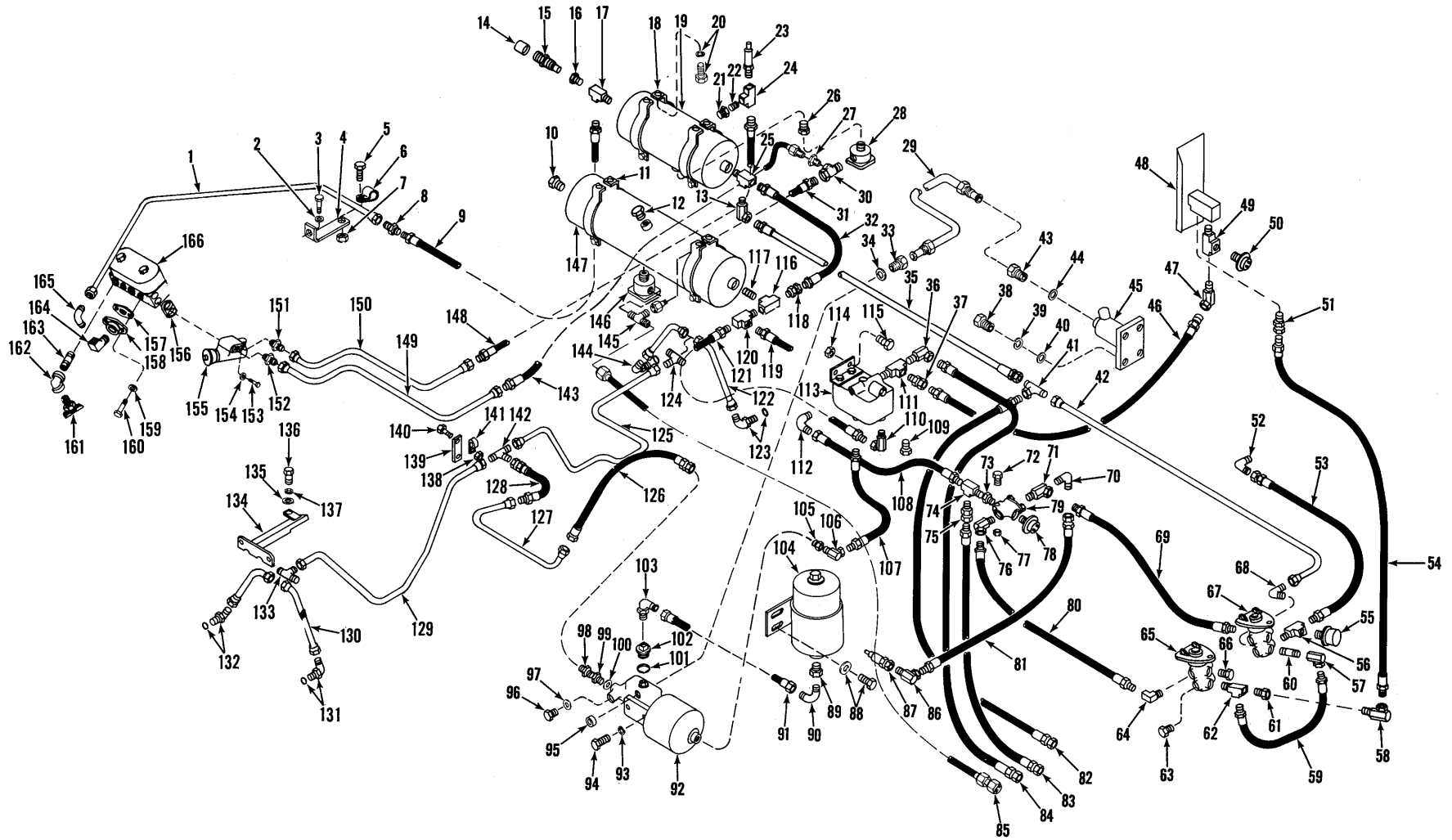
No.	Part No.	Qty.	Description
87	4E-07	3	Lockwasher
88	24C-720	3	Bolt
89	669829	1	Spacer
90	874007	2	Plug
91	613750	2	Gasket
92	89F-4	1	Connector
93	1543879	1	Adapter
94	613750	1	Gasket
95	617K-4	1	Elbow
95A	91F-4	1	O-ring
96	2501154	1	Reservoir
97	19F-3	1	Bushing
98	31F-3	1	Adapter
99	1549086	1	Hose
100	1549088	1	Hose
101	16F-04	3	Plug
102	31F-3	1	Adapter
103	42F-6	1	Elbow
104	17K-4	1	Elbow
105	91F-4	1	O-ring
106	1545789	1	Valve quick release
107	24C-616	2	Bolt
108	18D-06	2	Nut
109	36F-3	1	Connector
109A	†425413	1	Valve check
110	28F-2	1	Tee
111	5K-308	1	Nipple pipe
112	46F-7	1	Tee
113	1519191	1	Valve
114	1512732	1	Tube
115	17K-4	1	Elbow
116	91F-4	1	O-ring
117	10K-4	1	Tee
118	565320	1	Hose
119	30F-2	1	Tee
120	7-----	—	Hose
121	1512732	1	Tube
122	1512642	1	Tube
123	1544111	1	Hose
124	1544114	1	Tube
125	1544112	1	Hose

No.	Part No.	Qty.	Description
126	1512643	1	Tube
127	1512732	1	Tube
128	17K-4	1	Elbow
129	91F-4	1	O-ring
130	10K-4	1	Tee
131	17K-4	1	Elbow
132	91F-4	1	O-ring
133	1512732	1	Tube
134	1512729	1	Guard RH
134A	†1512730	1	Guard LH
135	619021	2	Washer
136	4E-06	2	Lockwasher
137	24C-616	2	Bolt
138	18D-06	1	Nut
139	1544017	1	Bracket
140	24C-612	1	Bolt
141	30H-20	1	Clip
142	10K-4	1	Tee
143	529348	1	Hose
144	527684	1	Air reservoir
145	1514085	1	Hose
146	1515259	1	Tube
147	18D-06	1	Nut
148	1515259	1	Tube
149	38F-3	1	Connector
150	38F-3	1	Connector
151	23C-544	2	Bolt
152	8E-05	2	Lockwasher
153	3215964	1	Governor
154	942646	1	Gasket
155	951948	1	Gasket
156	510452	1	Flange
157	4E-05	2	Lockwasher
158	23C-514	2	Bolt
159	72F-3	1	Draincock
160	24F-3	1	Elbow
161	5K-312	1	Nipple pipe
162	29F-3	1	Elbow
163	42F-9	1	Elbow
164	1-----	—	Compressor

†See Index

‡Inc. 95A

‡See Boom & Bellcrank



# Brake Air Lines, Rear — G.M.\*

**MICHIGAN**

No.	Part No.	Qty.	Description
1	1515260	1	Tube
2	4E-06	1	Lockwasher
3	23C-616	1	Bolt
4	1513319	1	Bracket
5	24C-616	1	Bolt
6	30H-38	1	Clip
7	18D-06	1	Nut
8	40F-8	1	Connector
9	2504865	1	Hose
10	40K-06	1	Plug
11	<sup>2,3</sup> 527685	2	Bracket
12	40K-04	1	Plug
13	31F-4	1	Adapter
14	573750	1	Cap
15	573618	1	Stem
16	19F-4	1	Bushing
17	30F-3	1	Tee
18	<sup>2,4</sup> 941214	2	Bracket
19	540707	1	Air reservoir
20	24C-616	8	Bolt
20A	4E-06	8	Lockwasher
21	19F-5	1	Bushing
22	5K-207	1	Nipple pipe
23	507815	1	Valve
24	28F-1	1	Tee
25	30F-3	1	Tee
26	19F-6	1	Bushing
27	637153	1	Adapter
28	1519191	1	Valve
29	2511377	1	Tube
30	30F-1	1	Tee
31	2507336	1	Hose
32	1512698	1	Hose
33	699005	1	Adapter
34	2511196	1	Gasket
35	1549092	1	Hose
36	31F-2	1	Adapter
37	36F-2	1	Adapter
38	24C-620	2	Bolt
39	4E-06	2	Lockwasher
40	25E-17	2	Washer
41	44F-8	1	Tee
42	1548504	1	Tube
43	1675961	1	Adapter
44	2506979	1	Gasket
45	1-----	—	Brake cylinder assy

No.	Part No.	Qty.	Description
46	1549087	1	Hose
47	33F-1	1	Adapter
48	1548307	1	Bracket
48A	1545790	1	Valve
49	1549038	1	Tee
50	1-----	—	Switch low air
51	36F-1	1	Adapter
52	42F-3	1	Elbow
53	1543947	1	Hose
54	1541553	1	Hose
55	1534135	1	Sender air pressure
56	30F-1	1	Tee
57	32F-4	1	Adapter
58	31F-1	1	Adapter
59	592742	1	Hose
60	5K-420	1	Nipple pipe
61	19F-4	1	Bushing
62	30F-3	1	Tee
63	40K-04	3	Plug pipe
64	29F-3	1	Elbow
65	1-----	—	Valve brake
66	40K-08	7	Plug pipe
67	1-----	—	Valve brake
68	42F-9	1	Elbow
69	593263	1	Hose
70	83F-3	1	Elbow
71	356609	1	Adapter
72	24C-644	1	Bolt
73	19F-5	1	Bushing
74	30F-1	1	Tee
75	36F-2	1	Adapter
76	33F-4	1	Adapter
77	18D-06	1	Nut
78	1-----	—	Switch stop light
79	1532592	1	Valve check
80	593658	1	Hose
81	541980	1	Hose
82	1549093	1	Hose
83	1549089	1	Hose
84	1549089	1	Hose
85	2507335	1	Hose
85A	†38F-4	1	Connector
86	31F-1	1	Adapter
87	1-----	—	Valve de-clutch
88	24C-612	2	Bolt
88A	656672	2	Washer

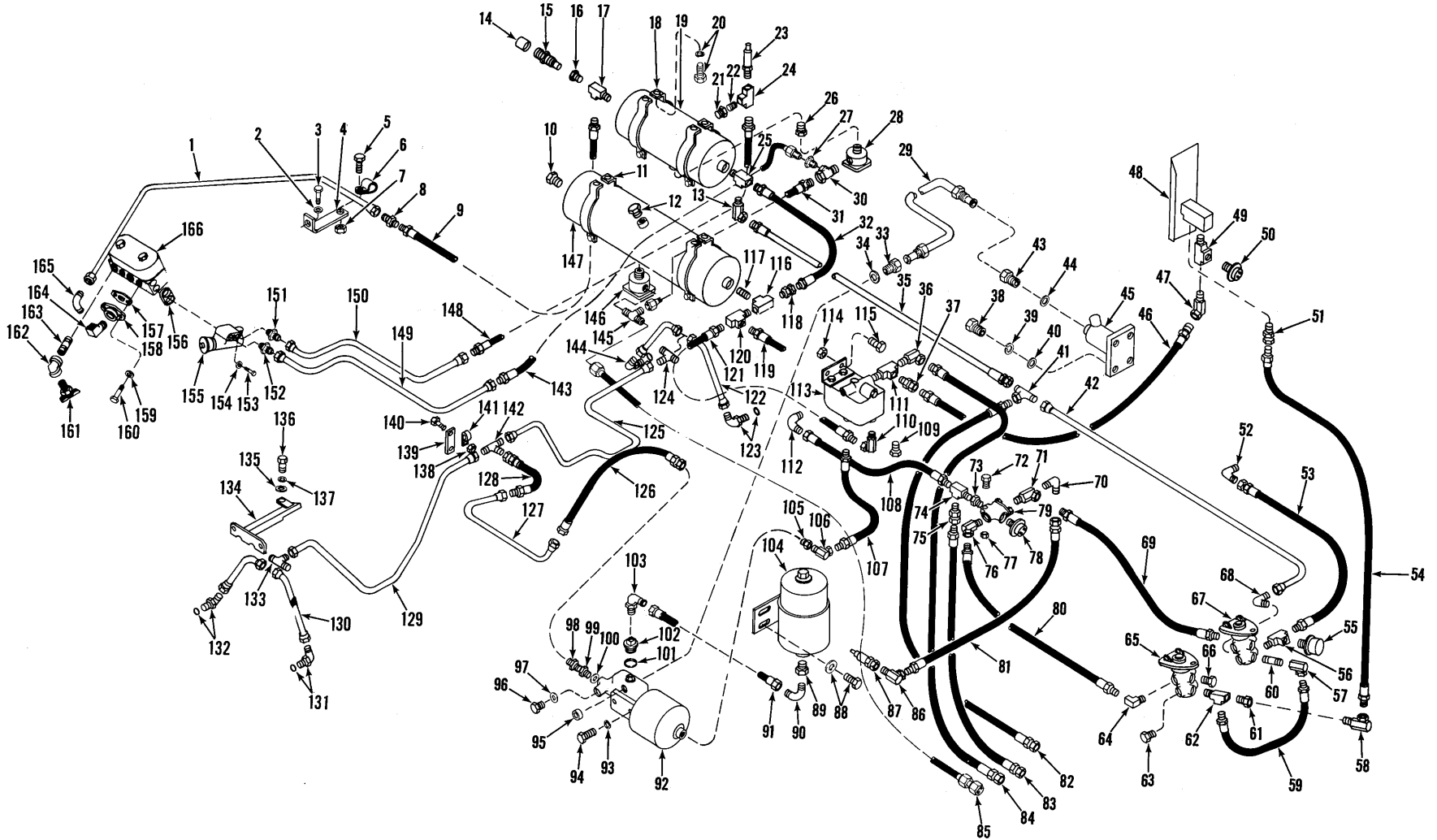
\*G.M. 427C121 & →, G.M. 427C601 & →

<sup>1</sup>See Index

<sup>2</sup>Your local authorized Bendix-Westinghouse Distributor is equipped to service components of these parts.

<sup>3</sup>BW #205093

<sup>4</sup>BW #SA-1923-10



# Brake Air Lines, Rear — G.M.\*



No.	Part No.	Qty.	Description
89	19F-1	1	Bushing
90	83F-4	1	Elbow
91	2501470	1	Hose
92	_____	—	Pwr clsr assy brk
93	4E-07	3	Lockwasher
94	24C-720	3	Bolt
95	669829	1	Spacer
96	874007	1	Plug
97	2511196	1	Gasket
98	89F-4	1	Connector
99	1543379	1	Connector
100	2511196	1	Gasket
101	850287	1	Gasket
102	960005	1	Cap
103	17K-4	1	Elbow
104	2501154	1	Reservoir
105	19F-3	1	Bushing
106	31F-3	1	Adapter
107	1549086	1	Hose
108	1549088	1	Hose
109	16F-4	3	Plug
110	31F-3	1	Adapter
111	30F-1	1	Tee
112	42F-6	1	Elbow
113	1545789	1	Valve quick release
114	18D-06	2	Nut
115	24C-616	2	Bolt
116	28F-2	1	Tee
117	5K-308	1	Nipple pipe
118	36F-3	1	Adapter
118A	†425413	1	Valve check
119	<sup>5</sup> _____	—	Hose
120	30F-2	1	Tee
121	565320	1	Hose
122	1512732	2	Tube
123	<sup>6</sup> 17K-4	1	Elbow
123A	91F-4	1	O-ring
124	10K-4	1	Tee
125	1512642	1	Tube
126	1544111	1	Hose
127	1544114	1	Tube
128	1544112	1	Hose
129	1512643	1	Tube
130	1512732	2	Tube

No.	Part No.	Qty.	Description
131	<sup>7</sup> 17K-4	1	Elbow
131A	91F-4	1	O-ring
132	<sup>8</sup> 17K-4	1	Elbow
132A	91F-4	1	O-ring
133	10K-4	1	Tee
134	1512729	1	Guard RH
134A	†1512730	1	Guard LH
135	619021	2	Washer
136	24C-616	2	Bolt
137	4E-06	2	Lockwasher
138	18D-06	1	Nut
139	1544017	1	Bracket
140	24C-612	1	Bolt
141	30H-20	1	Clip
142	10K-4	1	Tee
143	529348	1	Hose
144	<sup>9</sup> 17K-4	1	Elbow
144A	†91F-4	1	O-ring
145	46F-7	1	Tee
146	1519191	1	Valve
147	527684	1	Air reservoir
148	1514085	1	Hose
149	1515259	1	Tube
150	1515259	1	Tube
150A	†30H-16	2	Clip
150B	†24C-616	2	Bolt
150C	†18D-06	2	Nut
151	38F-3	1	Connector
152	38F-3	1	Connector
153	23C-544	2	Bolt
154	8E-05	2	Lockwasher
155	3215964	1	Governor
155A	†62F-1	1	Elbow
156	942646	1	Gasket
157	951948	1	Gasket
158	510452	1	Flange
159	4E-05	2	Lockwasher
160	23C-514	2	Bolt
161	72F-3	1	Draincock
162	24F-3	1	Elbow
163	5K-312	1	Nipple pipe
164	29F-3	1	Elbow
165	42F-9	1	Elbow
166	_____	—	Compressor

<sup>1</sup>See Index

<sup>5</sup>See Boom & Bellcrank

<sup>6</sup>Inc. 123A

<sup>7</sup>Inc. 131A

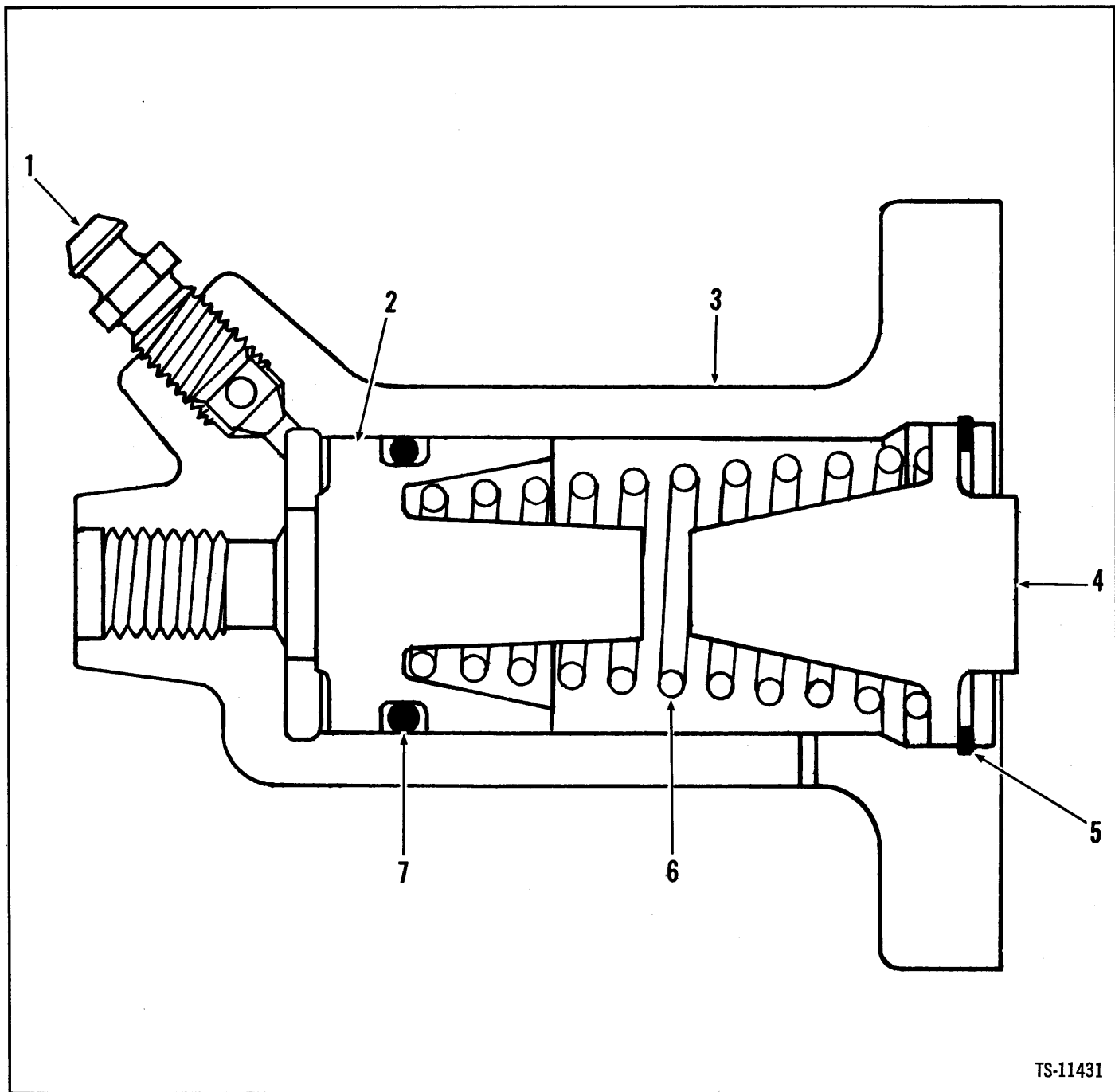
<sup>8</sup>Inc. 132A

<sup>9</sup>Inc. 144A





# Brake Compensator Cylinder Assembly

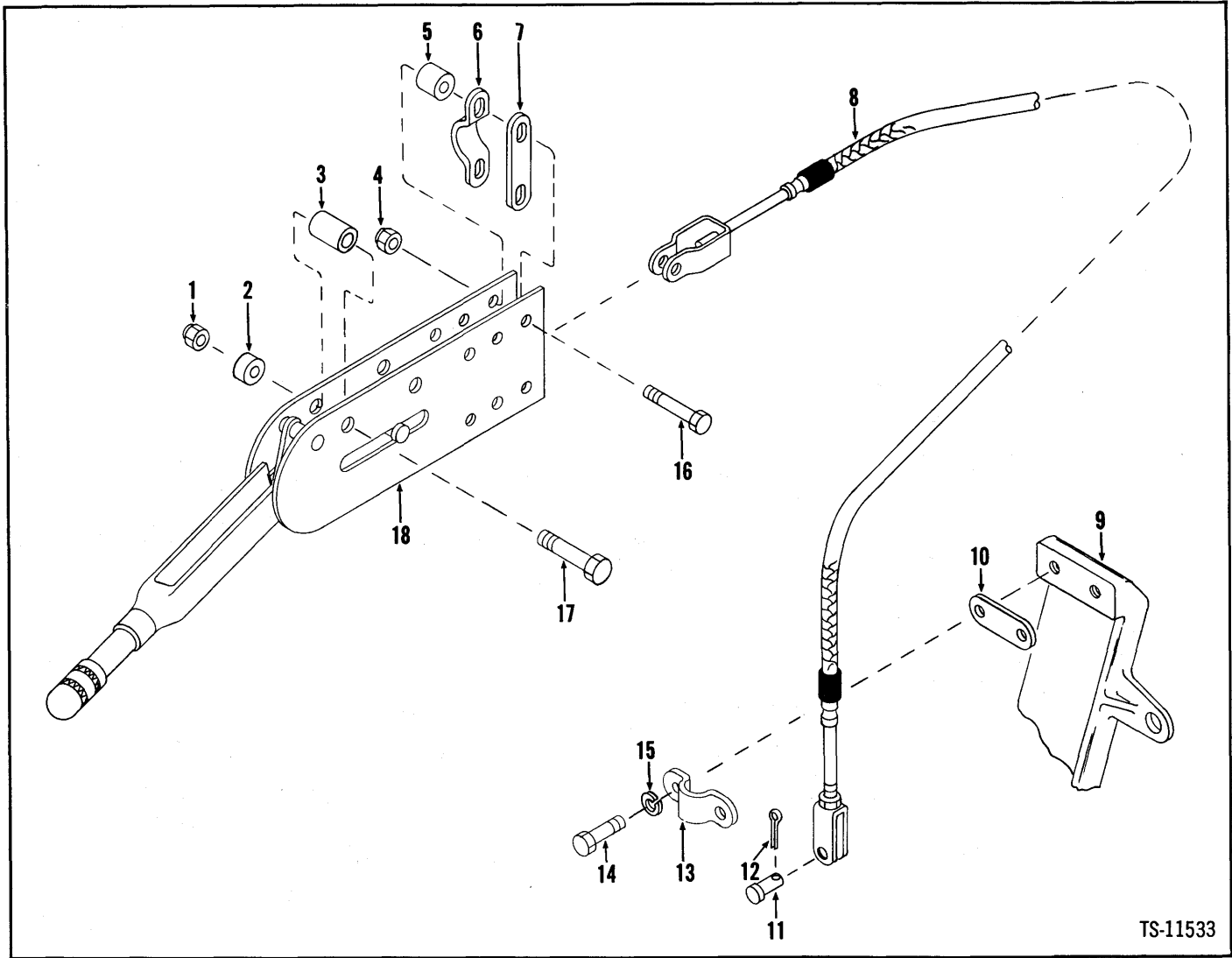


TS-11431

No.	Part No.	Qty.	Description
A	2501983	1	Cylinder assy
1	851806	1	Bleed screw
2	960520	1	Piston
3	S <sup>3</sup> -----	1	Housing
4	960521	1	Plug
5	1310605	1	Ring retainer
6	898702	1	Spring
7	961026	1	O-ring

<sup>2</sup>Incl. 1→7

<sup>3</sup>See A



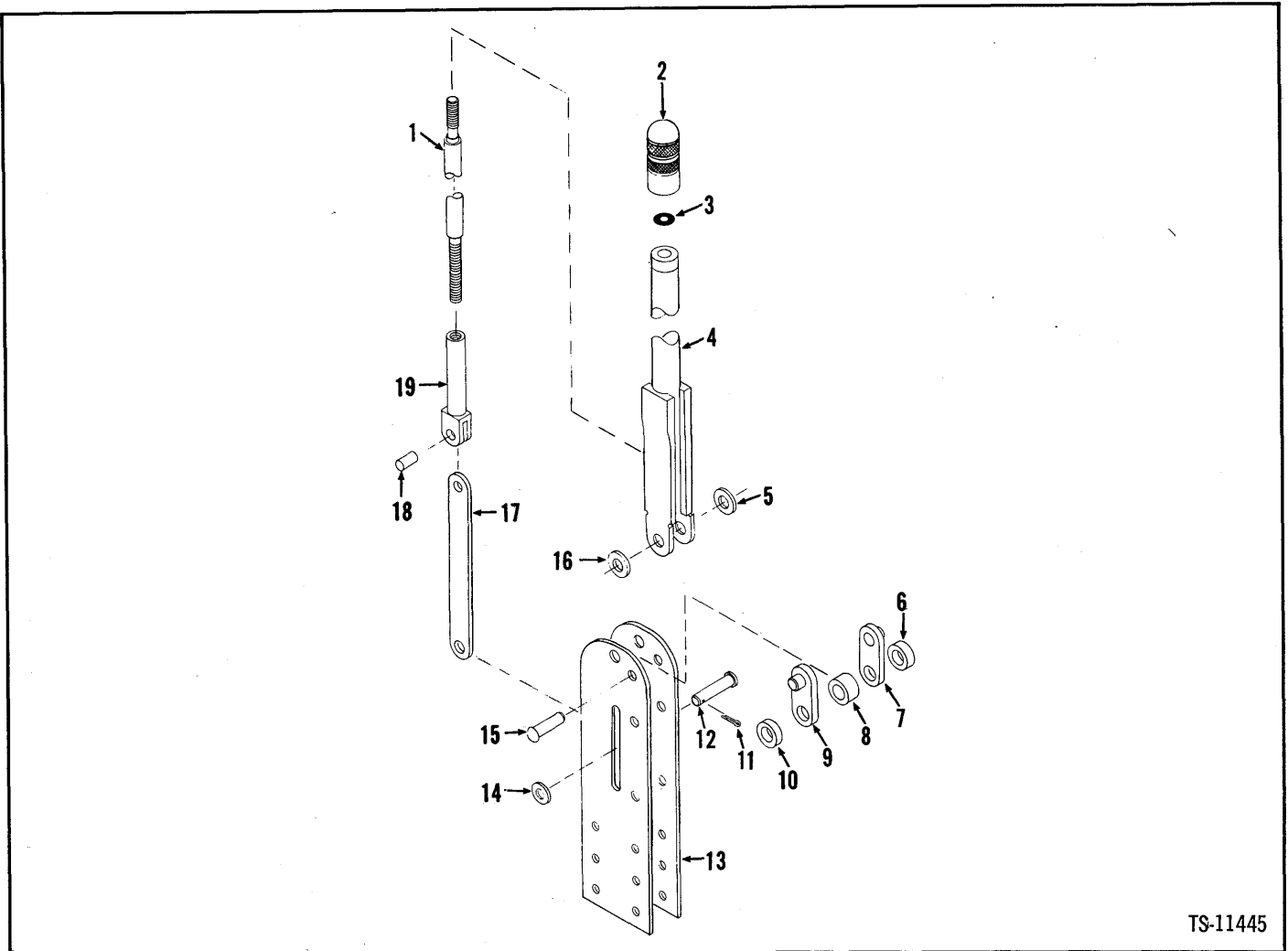
TS-11533

No.	Part No.	Qty.	Description
1	18D-06	2	Nut
2	545006	2	Spacer
3	2504181	2	Spacer
4	18D-05	2	Nut
5	2504182	2	Spacer
6	544512	1	Clamp
7	645092	1	Link
8	1518446	1	Cable
9	124425	1	Bracket
10	645092	1	Link
11	4F-06106	1	Pin
12	1F-312	1	Pin cotter
13	544512	1	Clamp
14	23C-616	2	Bolt
15	4E-06	2	Lockwasher
16	24C-528	2	Bolt
17	24C-640	2	Bolt
18		1	Brake Lever assy

<sup>1</sup>See Index

# Brake Lever Assembly – Parking

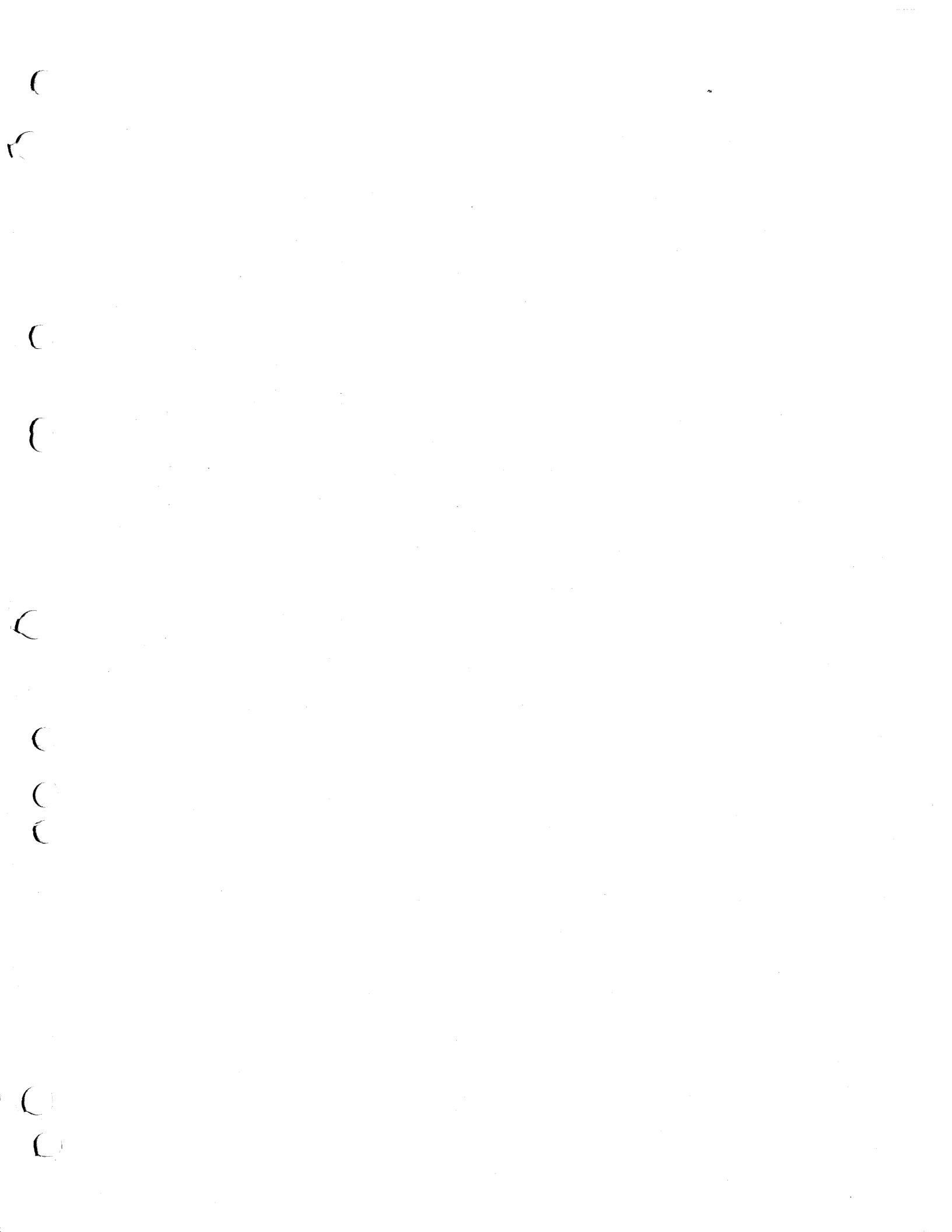
**MICHIGAN**

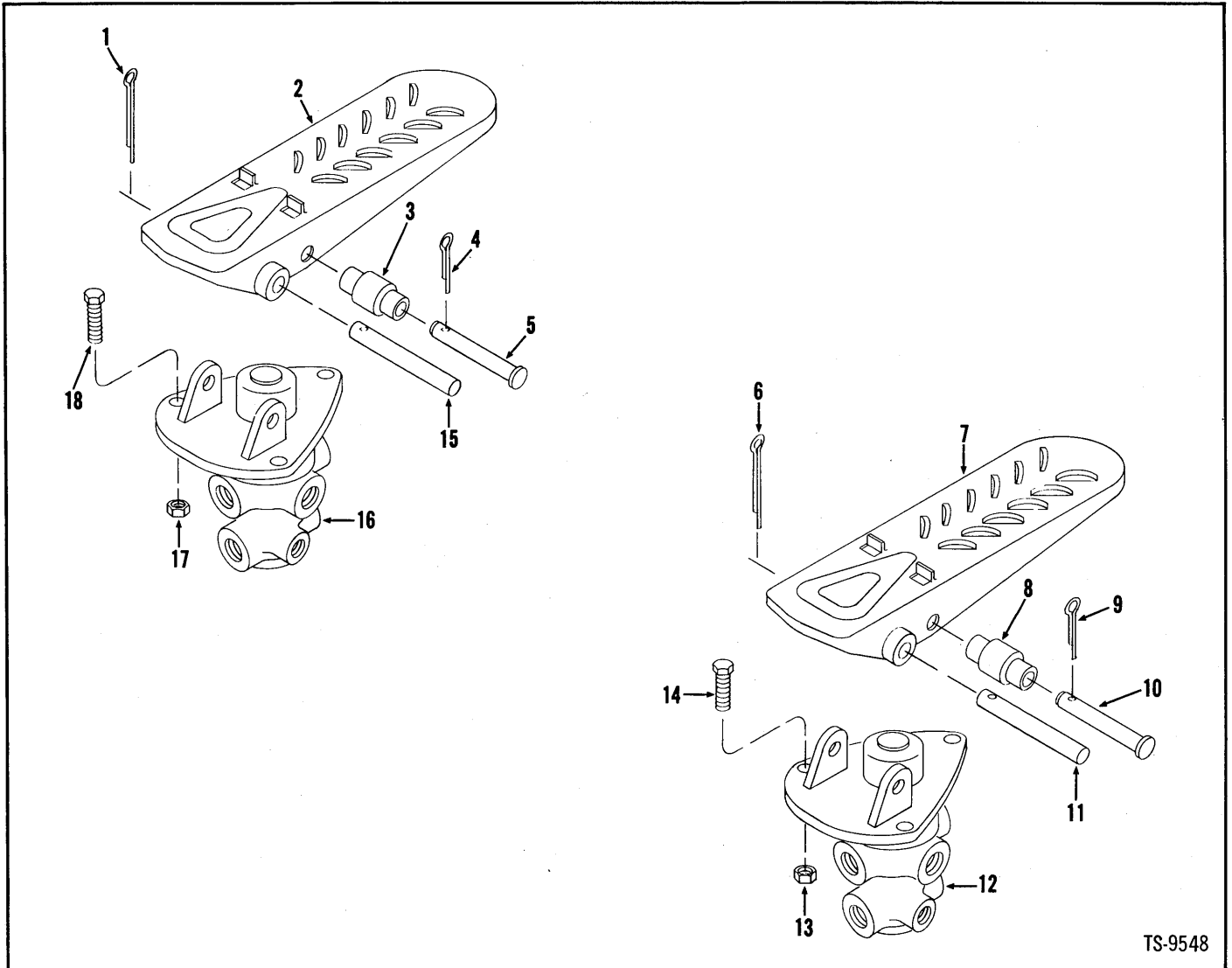


TS-11445

No.	Part No.	Qty.	Description
A	1511473	1	Lever assy
1	949460	1	Screw
2	949999	1	Knob
3	25K-30014	1	O-ring
4	949461	1	Lever body assy
5	949470	1	Washer
6	949466	1	Spacer
7	862653	1	Bracket
8	949467	1	Spacer
9	862653	1	Bracket
10	949466	1	Spacer
11	1F-312	1	Pin cotter
12	949468	1	Pin
13	949469	1	Bracket
14	551480	1	Washer
15	941233	1	Rivet
16	949470	1	Washer
17	949465	1	Link
18	949464	1	Pin
19	949463	1	Tube

Inc. 1→19





TS-9548

No.	Part No.	Qty.	Description
1	1F-320	1	Cotter pin
2	513930	1	Pedal
3	518259	1	Roller
4	1F-312	1	Cotter pin
5	875766	1	Pin
6	1F-320	1	Cotter pin
7	513930	1	Pedal
8	518259	1	Roller
9	1F-312	1	Cotter pin
10	875766	1	Pin
11	875767	1	Pin
12	_____	1	Valve
13	18D-05	3	Nut
14	24C-520	3	Bolt
15	875767	1	Pin
16	_____	1	Valve
17	18D-05	3	Nut
18	24C-520	3	Bolt



# Brake Power Cluster Assembly



No.	Part No.	Qty.	Description
A	<sup>2</sup> 2501273	1	Pwr clsr assy brk
1	945033	1	Shell
2	<sup>3</sup> -----	1	Cup
3	<sup>3</sup> -----	1	Wiper seal
4	945032	1	Piston
5	<sup>3</sup> -----	1	Boot
6	945031	1	Spring
7	<sup>4</sup> 945028	1	Head
8	945029	1	Screen
9	945044	1	Filter element
10	945029	1	Screen
11	992164	1	Ring
12	2C-714	2	Bolt
12A	4E-07	2	Lockwasher
13	960005	1	Cap
14	850287	1	Gasket
15	851806	1	Screw
16	<sup>5</sup> 945800	1	Cylinder
17	10F-02	1	Plug
18	2C-714	2	Bolt
19	4E-07	2	Lockwasher
20	-----	—	Omit
21	-----	—	Omit
22	945042	1	Retainer
23	874001	1	Spring
24	<sup>3</sup> -----	1	Cup
25	<sup>3</sup> -----	1	Piston
26	874003	1	Plate
27	874028	1	Lockring
28	945030	1	Indicator
29	945023	1	Band
30	945024	1	Support
31	1C-616	4	Bolt
31A	4E-06	4	Lockwasher
32	1C-512	8	Bolt
32A	6E-05	8	Lockwasher
33	<sup>†</sup> 949848	1	Repair kit
34	<sup>†</sup> 949863	1	Repair kit

<sup>2</sup>Inc. 1→12, 13→32A

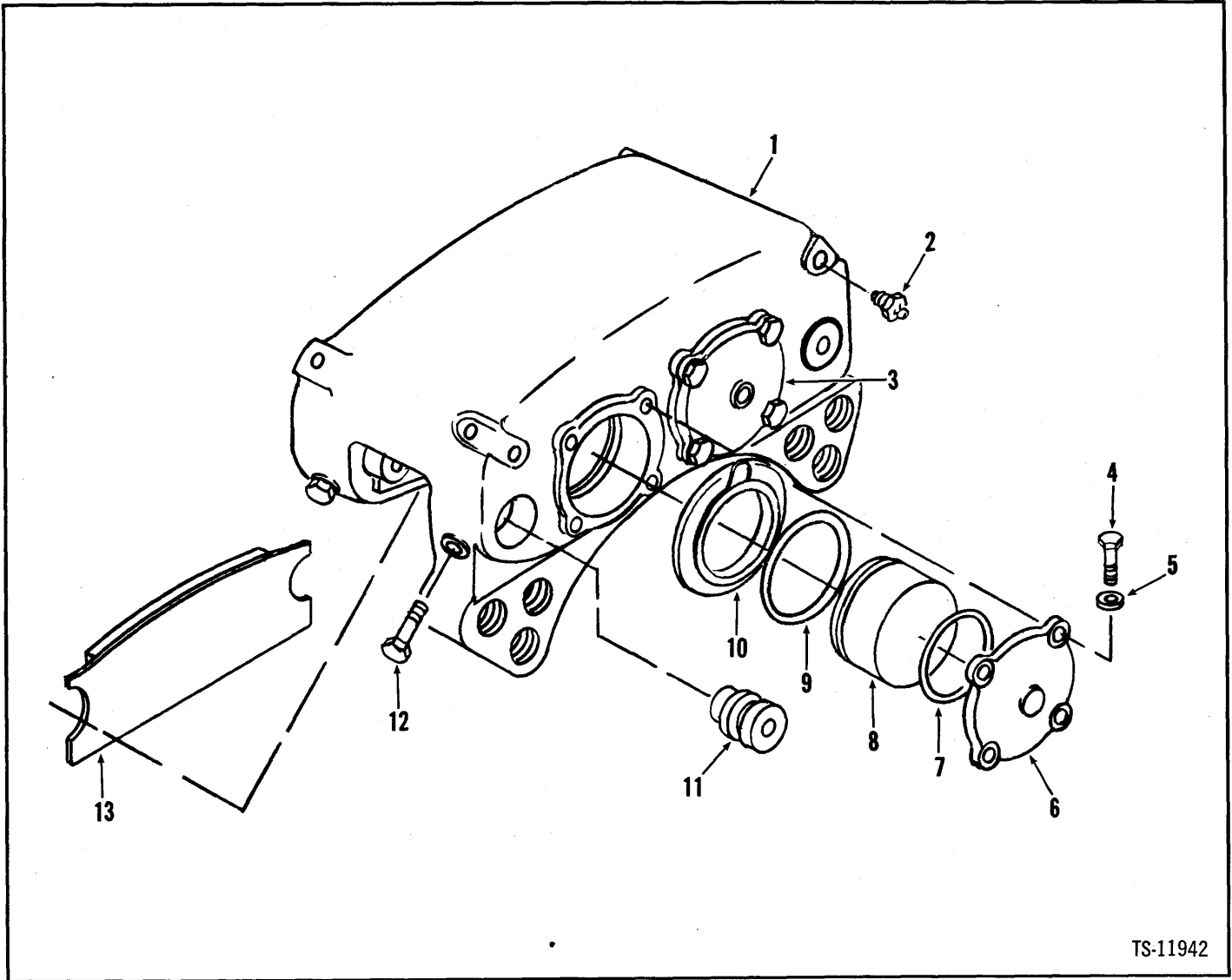
<sup>3</sup>See 34

<sup>4</sup>Inc. 8→11

<sup>5</sup>Inc. 14→27

<sup>6</sup>Inc. 24, 25, 27

<sup>7</sup>Inc. 2, 3, 5, 24, 27



TS-11942

No.	Part No.	Qty.	Description
A	<sup>1,2</sup> 126660	1	Brake head assy
B	<sup>3</sup> 840535	1	Kit
1	840469	1	Plate
2	947927	2	Bleeder valve
3	947933	1	Cap
4	1C-620	8	Bolt
5	25E-17	8	Washer
6	947934	1	Cap
7	<sup>4</sup> -----	1	Packing
8	947935	4	Piston
9	<sup>4</sup> -----	4	Packing
10	<sup>4</sup> -----	4	Boot
11	947931	4	Pin
12	947930	4	Bolt
13	840611	2	Lining brake

<sup>1</sup>Incl. 1 → 13

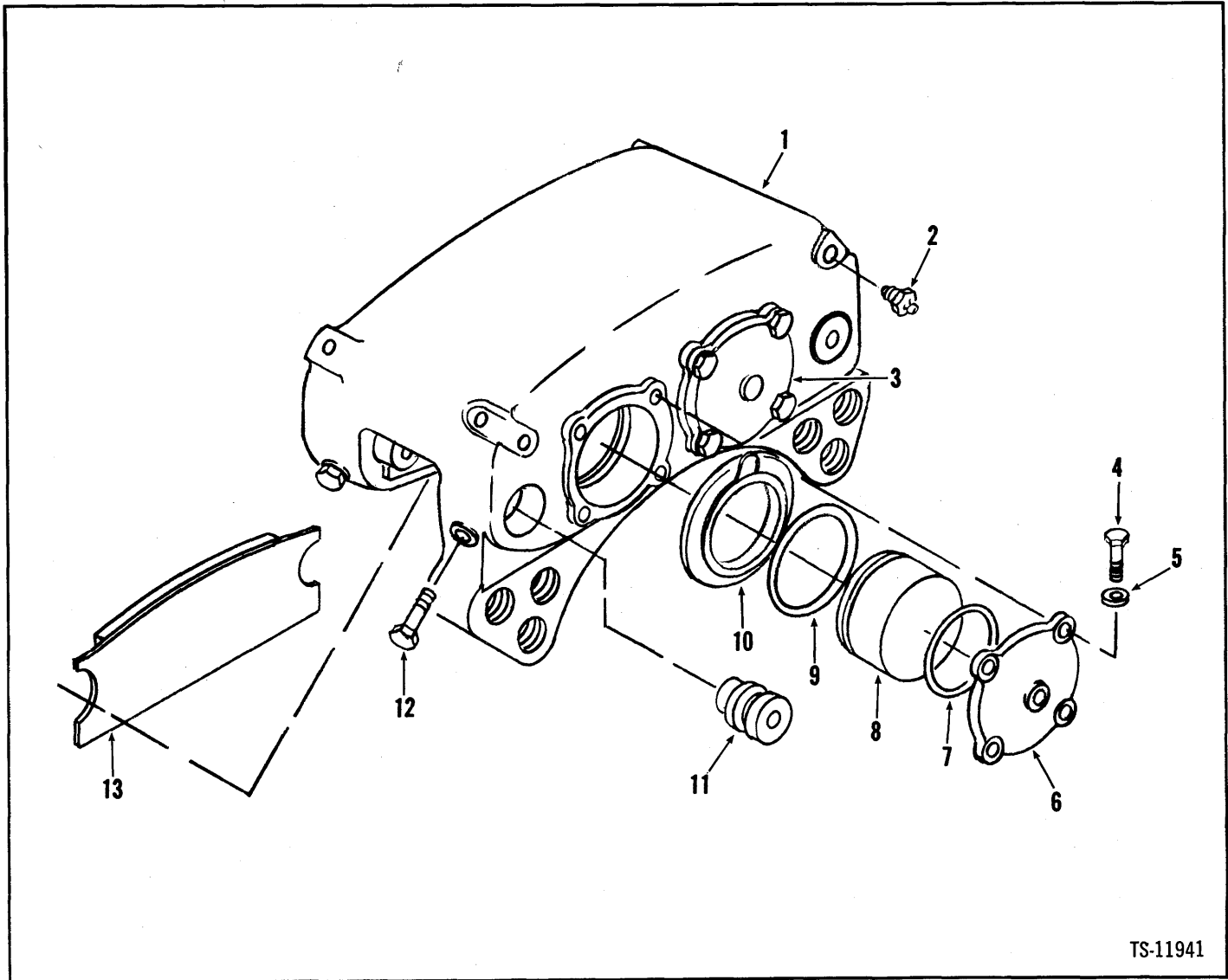
<sup>2</sup>Note: 175B has four brake heads. 126660 fits on R.H. front of front axle, L.H. rear of front axle, L.H. front of rear axle, & R.H. rear of rear axle.

<sup>3</sup>Incl. 7, 9, 10

<sup>4</sup>See B



# Brake Head Assembly



TS-11941

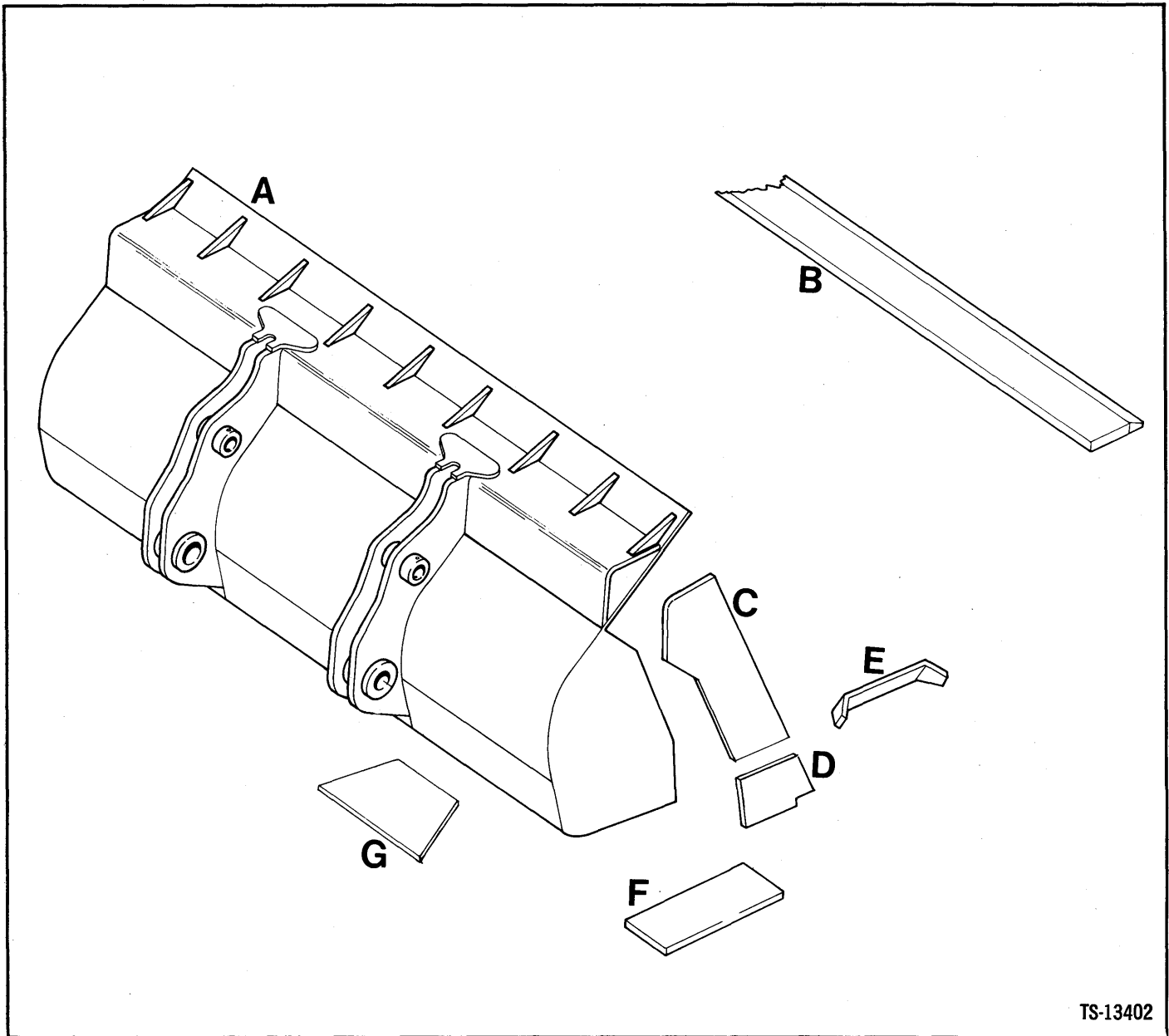
No.	Part No.	Qty.	Description
A	<sup>1</sup> 126661	1	Brake head assy
B	<sup>2</sup> 840535	1	Kit
1	<sup>3</sup> §4-----	2	Packing
2	947927	2	Bleeder valve
3	947934	1	Cap
4	1C-620	8	Bolt
5	25E-17	8	Washer
6	947933	1	Cap
7	<sup>3</sup> §4-----	2	Packing
8	947935	4	Piston
9	<sup>3</sup> §4-----	4	Packing
10	<sup>3</sup> §4-----	4	Boot
11	947931	4	Pin
12	947930	4	Bolt
13	840611	2	Lining brake

<sup>1</sup>Inc. 1 → 13

<sup>2</sup>Inc. 7, 9, 10

<sup>3</sup>Note: 175B has four brake heads. 126661 fits R.H. rear of front axle, L.H. front of front axle, R.H. front of rear axle & L.H. rear of rear axle.

<sup>4</sup>See B



TS-13402

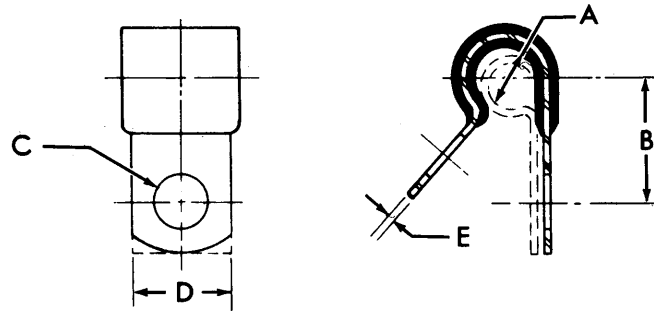
BUCKET			MAIN CUTTING EDGES		SIDE CUTTING EDGES			CORNER PLATE	WEAR PLATE		GUSSET
Item No.	S.A.E. Heaped Capacity Cu. Yd.	A Part No.	B Part No.	Size	C L.H. Part No.	C R.H. Part No.	Size	D Part No.	F Part No.	G Part No.	E Part No.
1	4.5	2506066	1513927	124.00"	2510295	2510295	¾"x9x44.20	2510099	2510486	2505787	1536140
2	4.5	2506079	1514059	124.00"	2506075	2506075	¾"x9x43.36	2510099	2510102	2505787	1536140
3	5.0	2505721	1513927	124.00"	2510149	2510149	¾"x9x45.80	2510099	2510216	2505787	1536140
4	5.5	2506156	1513927	124.00"	2510289	2510289	¾"x9x48.20	2510099	2510480	2505787	1536140
5	6.0	2506053	1513927	124.00"	2510323	2510323	¾"x9x46.84	2510099	2510683	2505787	1536140

**Group C**

Clips, Wiring, Pipe & Hose .....C2  
Cockpit Assembly .....C4  
Cockpit Sound Proofing .....C5  
Converter Assembly .....C7  
Cylinder Group:  
    Cylinder Assembly – Boom .....C10  
    Cylinder Assembly – Bucket .....C11  
    Cylinder Assembly – Steering .....C12

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

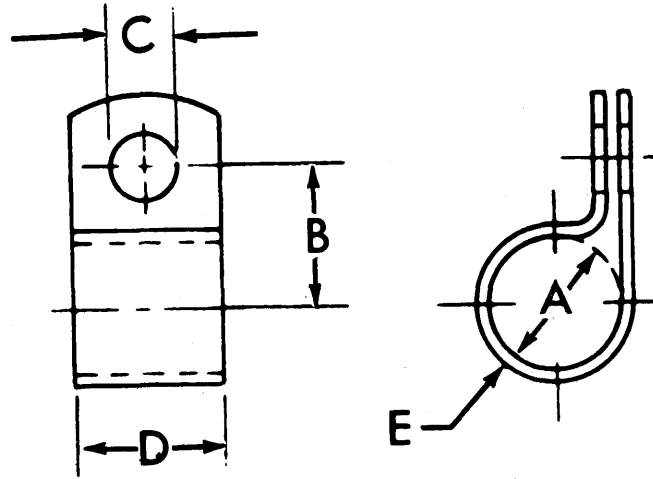
**Insulated Clip**



TS-5008

No.	Part No.	A		B		C		D		E	
1	30H-7	1/8	3,2	15/32	11,9	3/32	7,1	1/2	12,7	.025	,6
2	30H-12	3/16	4,8	5/8	15,9	13/32	10,3	3/4	19,1	.032	,8
3	30H-20	5/16	8,3	11/16	17,4	13/32	10,3	3/4	19,1	.032	,8
4	30H-23	3/8	7,9	23/32	18,2	13/32	10,3	3/4	19,1	.032	,8
5	30H-31	1/2	12,7	25/32	19,8	13/32	10,3	3/4	19,1	.050	1,3
6	30H-34	9/16	14,3	3/4	19,1	11/32	8,7	5/8	15,9	.048	1,2
7	30H-38	5/8	15,9	27/32	21,4	13/32	10,3	3/4	19,1	.050	1,3
8	30H-42	11/16	17,4	7/8	22,2	13/32	10,3	3/4	19,1	.050	1,3
9	30H-46	13/16	20,6	15/16	23,8	13/32	10,3	3/4	19,1	.050	1,3
10	30H-50	5/16	7,9	1	25,4	13/32	10,3	3/4	19	.050	1,3
11	1506484	11/8	28,6	13/32	32,5	13/32	10,3	7/8	22,2	.060	1,5
12	30H-14	1/4	6,3	17/32	13,5	3/32	7,1	1/2	12,7	.032	,8
13	31H-46	15/16	23,4	1	25,4	13/32	10,3	3/4	19,1	.062	1,6
14	30H-35	9/16	14,3	13/16	20,6	13/32	10,3	3/4	19,1	.048	1,2
15	31H-31	9/16	14,3	13/16	20,6	13/32	10,3	3/4	19,1	.050	1,3
16	6H-20	1	25,4	13/16	30,2	13/32	10,3	7/8	22,2	.060	1,5
17	30H-16	1/4	6,3	21/32	16,7	13/32	10,3	3/4	19,1	.032	,8
18	31H-34	5/8	15,9	27/32	21,4	13/32	10,3	3/4	19,1	.050	1,3
19	6H-34	11/4	31,9	111/32	34,1	13/32	10,3	7/8	22,2	.060	1,5
20	30H-40	5/8	15,9	31/32	24,7	17/32	13,5	1	25,4	.048	1,2
21	31H-35	5/8	15,9	29/32	23,1	15/32	11,9	7/8	22,2	.050	1,3
22	30H-21	3/8	7,9	19/32	15,1	3/32	7,1	1/2	12,7	.032	,8
23	30H-32	1/2	12,7	27/32	21,4	15/32	11,9	7/8	22,2	.048	1,2

# Closed Clip

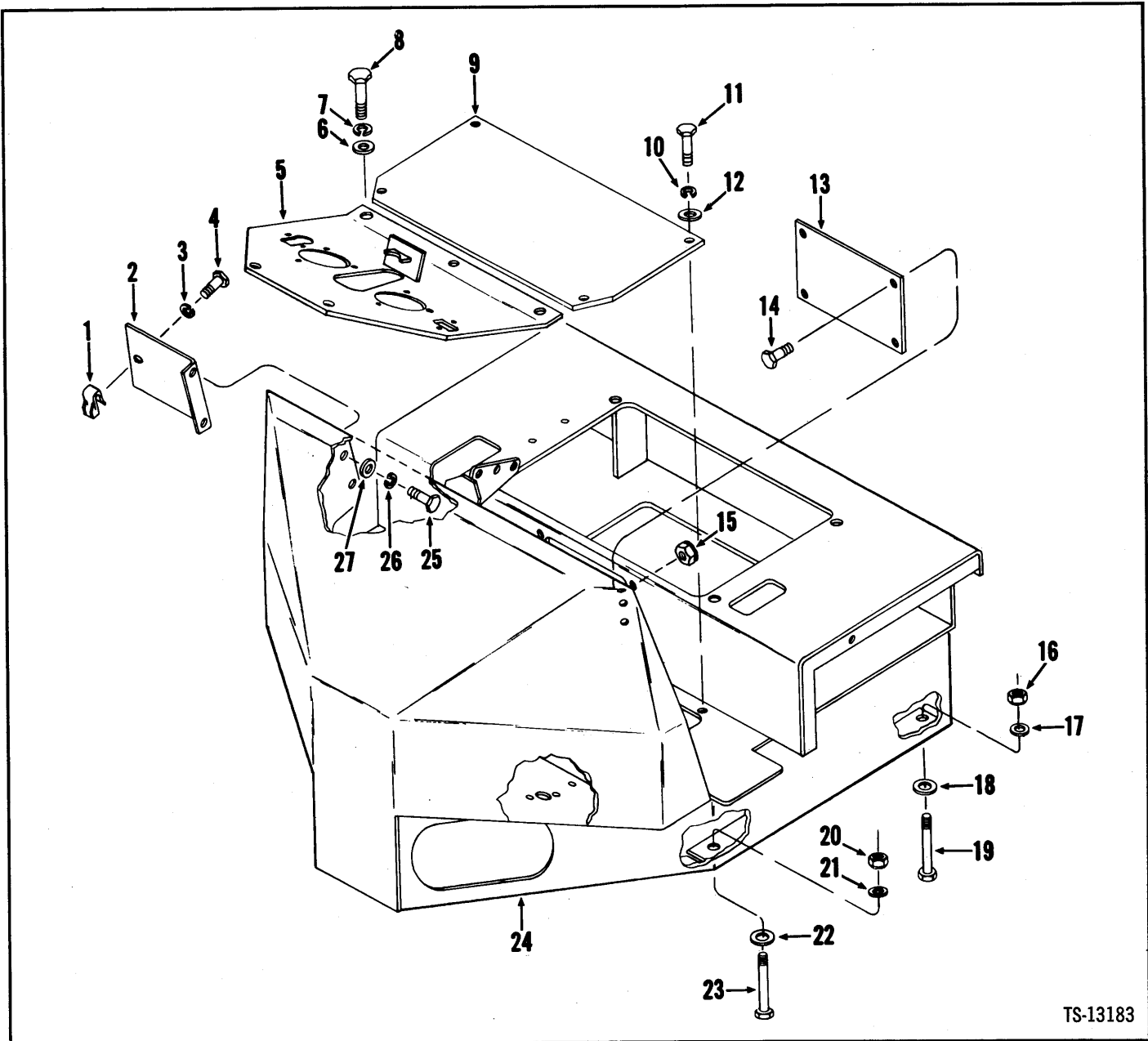


TS-5009

No.	Part No.	A	B	C	D	E
12	6H-20	1	25,4	1 $\frac{3}{16}$	30,2	1 $\frac{3}{32}$ 10,3 7/8 22,2 .060 1,5

## Brackets Supports

No.	Part No.	Qty.	Description
12	1544017	1	†Bracket

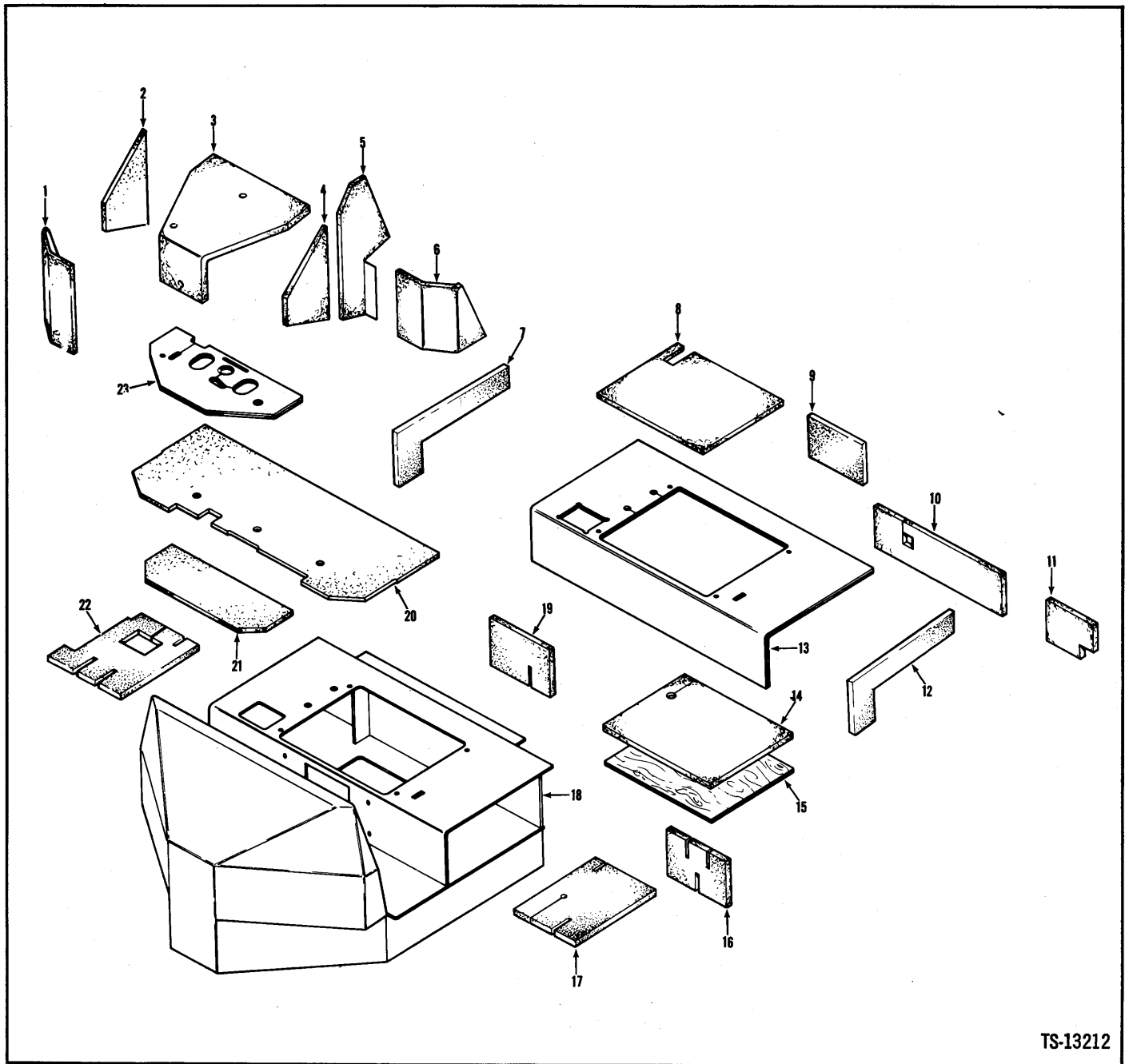


TS-13183

No.	Part No.	Qty.	Description
1	572729	1	Nut
2	574026	1	Panel RH inst
3	4E-06	1	Lockwasher
4	23C-616	1	Bolt
5	1545931	1	Floorboard
6	619029	5	Washer
7	4E-08	5	Lockwasher
8	23C-820	5	Bolt
9	1526152	1	Cover
10	4E-08	4	Lockwasher
11	23C-820	4	Bolt
12	619029	4	Washer
13	1508950	1	Cover
14	23C-612	4	Bolt

No.	Part No.	Qty.	Description
15	17D-3	4	Nut
16	70D-12	2	Nut
17	71D-12	2	Base
18	25E-27	2	Washer
19	24C-1248	2	Bolt
20	70D-12	2	Nut
21	71D-12	2	Base
22	25E-12	2	Washer
23	24C-1248	2	Bolt
24	2501628	1	Cockpit
25	23C-616	2	Bolt
26	4E-06	2	Lockwasher
27	656672	2	Washer

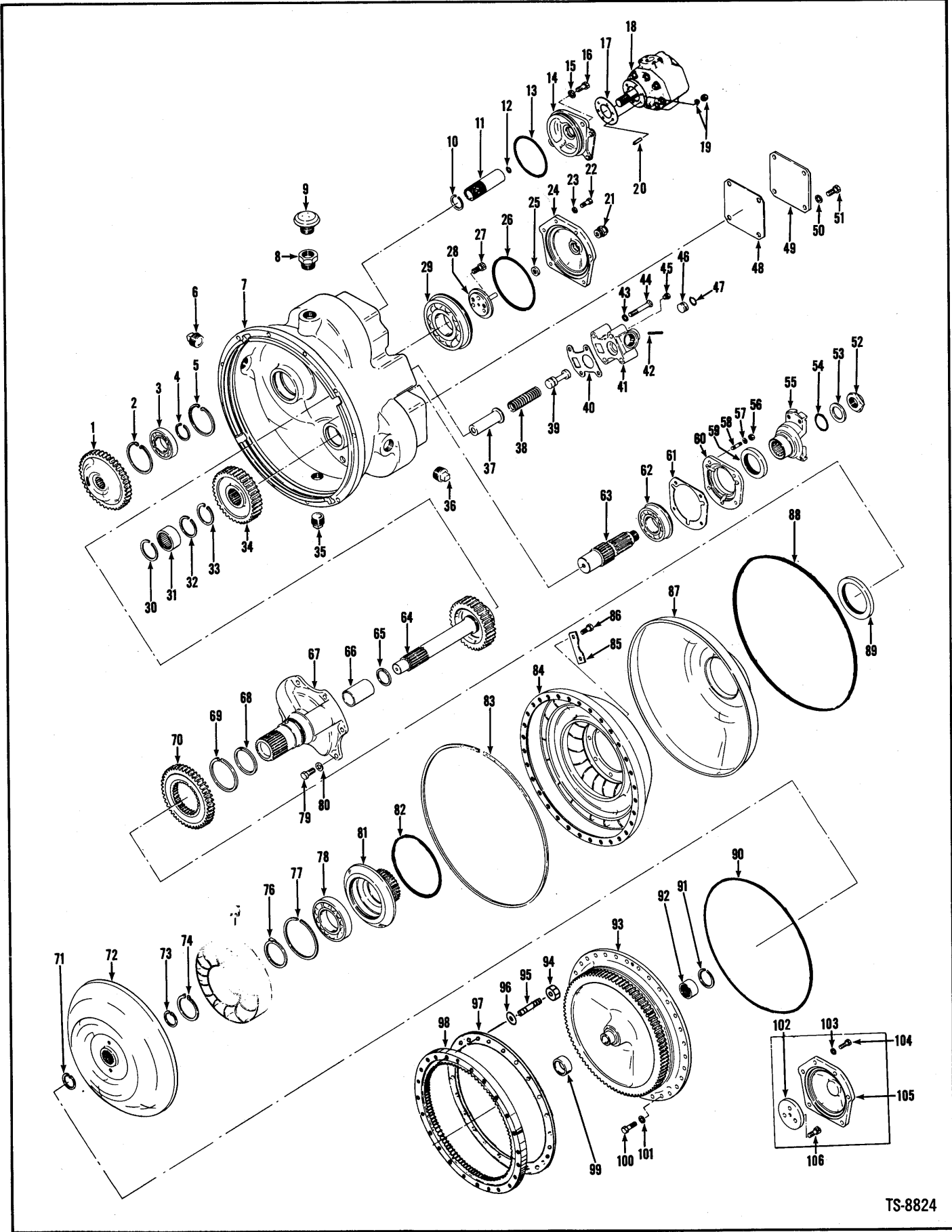
# Cockpit Sound Proofing



TS-13212

No.	Part No.	Qty.	Description
1	1515025	1	Kickplate panel RH
2	1515026	1	Kickplate panel RH
3	1543819	1	Cockpit panel front
4	1543817	1	Kickplate panel LH
5	1543807	1	Kickplate panel LH
6	1515057	1	Kickplate panel LH
7	1515189	1	Seat support panel R
8	1543824	1	Seat panel bottom
9	1517379	1	Seat support rear RH
10	1544491	1	Seat support rear
11	1515188	1	Seat support rear LH
12	1515190	1	Seat support panel L

No.	Part No.	Qty.	Description
13	1515239	1	Matting seat cover
14	1543821	1	Seat panel transm
15	1543820	1	Panel transm cover
16	1544492	1	Seat support panel L
17	1515265	1	Seat support panel L
18	_____	—	Cockpit
19	1515246	1	Seat panel inside
20	1515030	1	Floormat rear
21	1515024	1	Floorplate panel
22	1515322	1	Seat panel lower
23	1515038	1	Floormat front



TS-8824



# Converter Assembly

**MICHIGAN**

No.	Part No.	Qty.	Description
A	<sup>1</sup> 282940	1	Converter assy
B	<sup>2</sup> 229819	1	Valve assy
1	<sup>3</sup> 229784	3	Gear
2	711022	3	Ring snap
3	225825	3	Bearing
4	224026	3	Ring snap
5	711022	3	Ring snap
6	13F-16	1	Plug pipe
7	229792	1	Housing
8	356626	1	Bushing
8A	<sup>†</sup> 227265	1	Check valve
9	211433	1	Breather
10	659041	1	Ring snap
11	<sup>4</sup> 230234	1	Sleeve
12	224104	1	Ring snap
13	25K-40416	1	O-ring
14	227034	1	Adapter
15	4E-08	4	Lockwasher
16	1C-820	4	Bolt
17	551906	1	Gasket
18	<sup>5</sup> 450245	1	Pump conv charging
19	8D-06	3	Nut
19A	4E-06	3	Lockwasher
20	203253	3	Stud
21	-----	—	Omit
22	<sup>6</sup> -----	—	Omit
23	<sup>7</sup> -----	—	Omit
24	<sup>8</sup> -----	—	Omit
25	-----	—	Omit
26	25K-40608	1	O-ring
27	<sup>9</sup> -----	—	Omit
28	<sup>10</sup> -----	—	Omit
29	225781	1	Bearing
30	711406	1	Ring
31	229815	1	Bearing

No.	Part No.	Qty.	Description
32	711406	1	Ring
33	660564	1	Ring
34	<sup>11</sup> 229777	1	Gear
35	13F-16	1	Plug pipe
36	13F-16	1	Plug pipe
37	229801	1	Retainer
38	229801	1	Spring
39	228500	1	Piston
40	229788	1	Gasket
41	229787	1	Body
42	633157	1	Pin
43	4E-07	4	Lockwasher
44	1C-748	4	Bolt
45	40K-04	1	Plug
46	222041	1	Stop
47	58K-210	1	O-ring
48	552161	2	Gasket
49	216355	2	Cover
50	4E-08	8	Lockwasher
51	1C-814	8	Bolt
52	222960	1	Nut
53	222179	1	Washer
54	25K-60116	1	O-ring
55	222029	1	Flange
56	8D-06	4	Nut
57	4E-06	4	Lockwasher
58	207647	4	Stud
59	209587	1	Seal
60	<sup>12</sup> 229794	1	Retainer
61	229793	1	Gasket
62	225842	1	Bearing
63	229776	1	Shaft output
64	<sup>13</sup> 229838	1	Turbine shaft
65	223570	1	Ring
66	229806	1	Sleeve

<sup>1</sup>C-5502-1, Inc. 1→7, 10→93, 97→106A

<sup>2</sup>Inc. 39, 41, 42, 45, 46, 47

<sup>3</sup>41T

<sup>4</sup>Inc. 10, 12

<sup>5</sup>Note: 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 costs exceeding cost of a new pump alone.

<sup>6</sup>Use 104

<sup>7</sup>Use 103

<sup>8</sup>Use 105

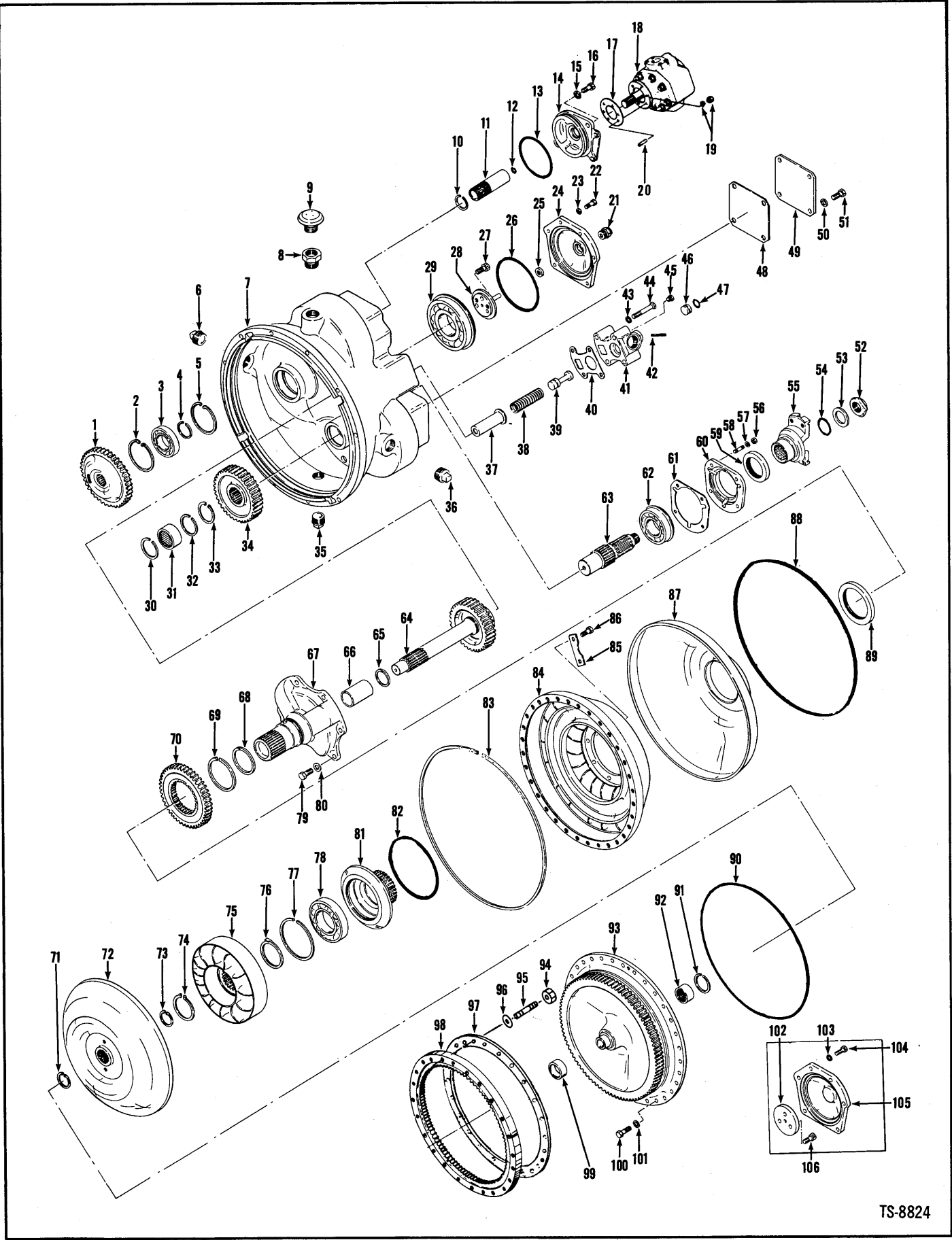
<sup>9</sup>Use 106

<sup>10</sup>Use 102

<sup>11</sup>34T

<sup>12</sup>Inc. 59

<sup>13</sup>38T



TS-8824

# Converter Assembly

**MICHIGAN**

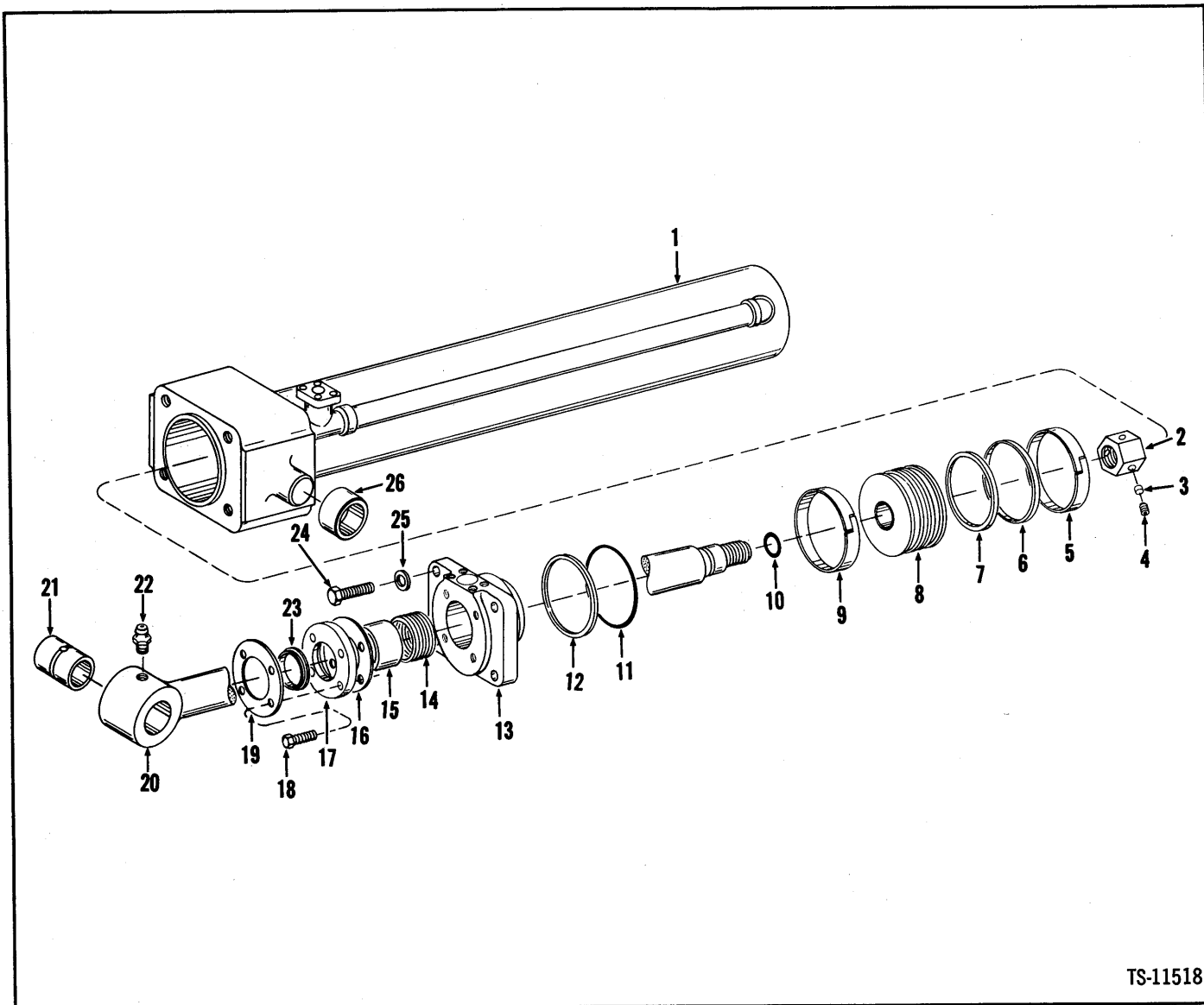
No.	Part No.	Qty.	Description
67	<sup>14</sup> 229810	1	Stator support
68	209673	1	Ring
69	224009	1	Ring
70	<sup>15</sup> 229807	1	Gear
71	233307	1	Ring
72	229519	1	Turbine
73	233307	1	Ring
74	507688	1	Ring
75	229521	1	Reaction member
76	229802	1	Spacer
77	(233988)	1	Ring 223 مرفوع
78	230767	1	Bearing
79	1C-820	6	Bolt
80	4E-08	6	Lockwasher
81	222266	1	Hub impeller
82	60K-40700	1	O-ring
83	229805	1	Ring
84	229520	1	Impeller assembly
85	222019	4	Plate
86	222221	8	Bolt
87	229813	1	Oil baffle
88	229804	1	Ring

No.	Part No.	Qty.	Description
89	214941	1	Seal
90	218776	1	O-ring
91	223887	1	Ring
92	229814	1	Bearing
93	232692	1	Cover impeller
94	229769	24	Nut
95	235050	24	Stud
96	228987	96	Washer
97	230594	1	Ring
98	226595	1	Ring gear
99	222006	1	Sleeve
100	1C-724	32	Bolt
101	4E-07	32	Lockwasher
102	229803	1	Retainer
103	4E-06	6	Lockwasher
104	1C-618	6	Bolt
105	229798	1	Cap
106	4C-820	3	Bolt
106A	‡ <sup>16</sup> -----	—	Lockwire
107	‡23C-728	12	Bolt
108	‡4E-07	12	Lockwasher

<sup>14</sup>Inc. 66

<sup>15</sup>43T

<sup>16</sup>Gauge 18



TS-11518

No.	Part No.	Qty.	Description
A	<sup>1</sup> 21518400	2	Cylinder assy boom
1	<sup>3</sup> 1518398	1	Cylinder assy
2	1514660	1	Nut
3	—	—	Omit
4	1513022	1	Set screw
5	1503014	1	Wear ring
6	1503020	1	Outer ring
7	1503468	1	Inner ring
8	1512255	1	Piston
9	1503014	1	Wear ring
10	25K-60200	1	O-ring
11	1512908	1	O-ring
12	73K-439	1	Ring back-up
13	1511846	1	Cap

No.	Part No.	Qty.	Description
14	1511229	1	Packing assy
15	1511232	1	Sleeve
16	1511230	4	Spacer
17	1511231	1	Flange
18	1514633	4	Bolt
19	1510142	1	Retainer
20	<sup>4</sup> 1512278	1	Piston rod
21	588619	1	Bushing
22	10H-25	1	Fitting grease
23	1542646	1	Wiper
24	24C-1252	4	Bolt
25	655224	4	Washer
26	1539092	2	Bushing

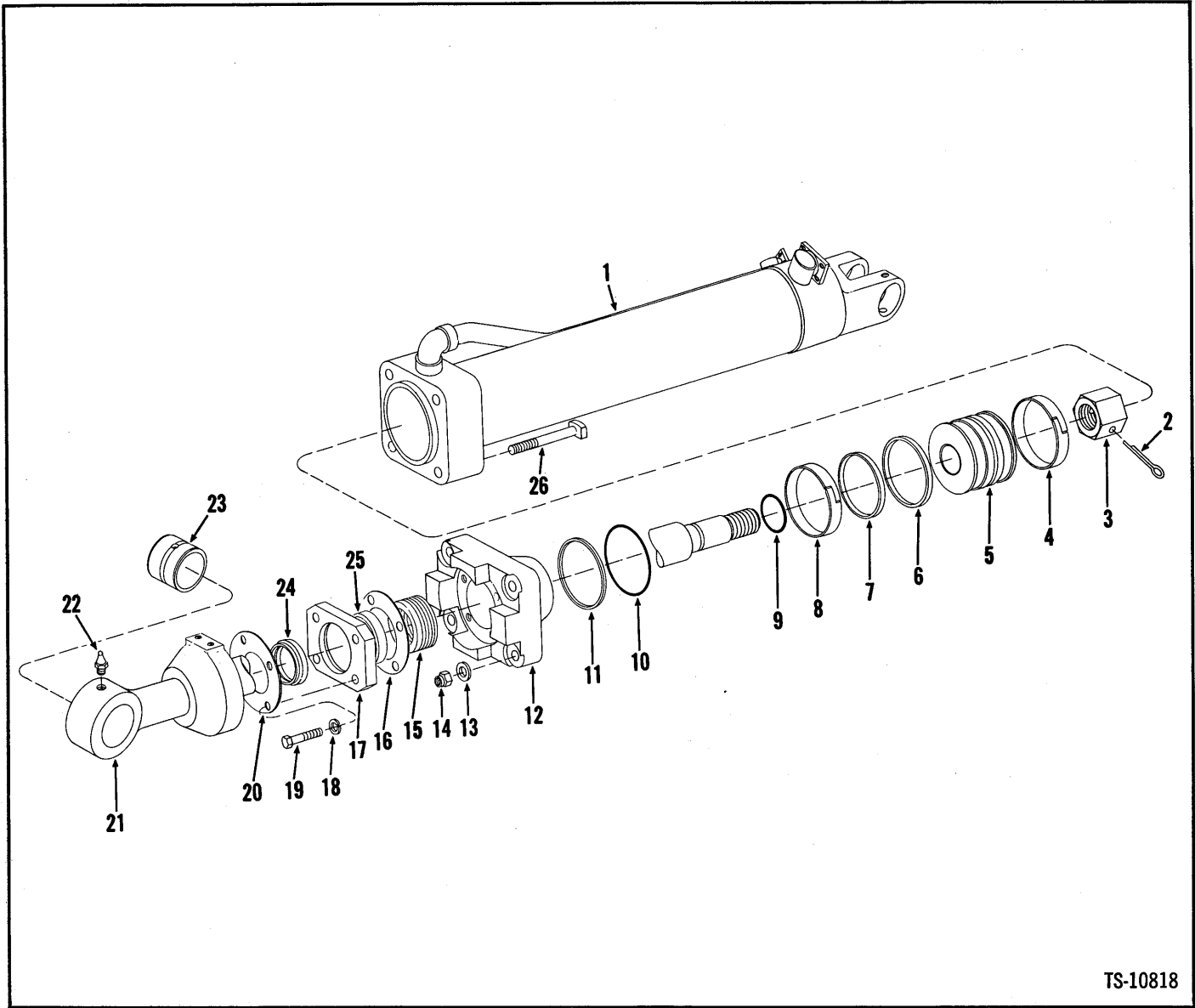
<sup>1</sup>Inc. 1→21, 23→26

<sup>2</sup>Note: Two (2) Cylinders used on machine. Quantities listed are for one (1) Cylinder.

<sup>3</sup>Inc. 26

<sup>4</sup>Inc. 21

# Cylinder Assembly – Bucket – 6" (152,4 mm)



TS-10818

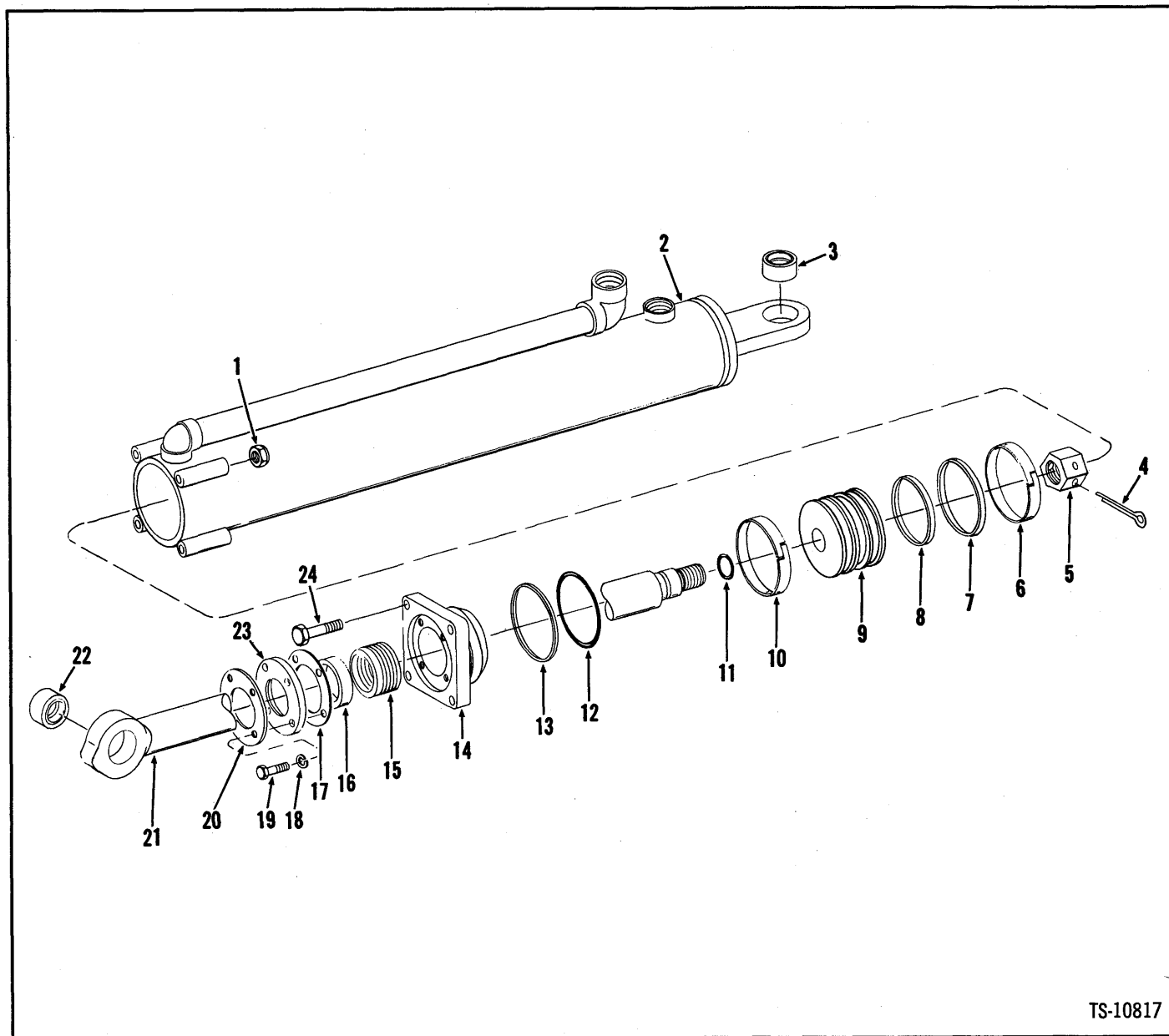
No.	Part No.	Qty.	Description
A	<sup>1,2</sup> 1517851	2	Cylinder assy bucket
1	1517849	1	Cylinder
2	1F-1072	1	Pin cotter
3	1513540	1	Nut
4	1503013	1	Wear ring
5	1517846	1	Piston
6	1502845	1	Outer ring
7	1503467	1	Inner ring
8	1503013	1	Wear ring
9	25K-60204	1	O-ring
10	1512907	1	O-ring
11	73K-433	1	Ring back-up
12	1517848	1	Cap
13	1517840	4	Washer

No.	Part No.	Qty.	Description
14	18D-14	4	Nut
15	1511229	1	Packing
16	1511230	4	Spacer
17	1511231	1	Flange
18	—	—	Omit
19	1514633	4	Bolt
20	1510142	1	Plate
21	<sup>3</sup> 1517274	1	Piston rod
22	12H-15	1	Fitting grease
23	1544140	1	Bushing
24	1542646	1	Wiper
25	1511232	1	Sleeve
26	18C-1496	4	Bolt
26A	<sup>†</sup> 1517840	4	Washer

<sup>1</sup>Incl. 1 → 20, 22 → 26A

<sup>2</sup>Note: Two (2) cylinders used on machine. Quantities listed are for one (1) cylinder.

<sup>3</sup>Incl. 23



TS-10817

No.	Part No.	Qty.	Description
A	1-21511641	2	Cylinder assy
1	68D-08	4	Nut
2	1539443	1	Cylinder
3	713418	1	Bushing
4	1F-860	1	Pin cotter
5	1514622	1	Nut
6	1523263	1	Wear ring
7	1536073	1	Outer ring
8	1503464	1	Inner ring
9	1503026	1	Piston
10	1523263	1	Wear ring
11	25K-40112	1	O-ring
12	1512904	1	O-ring

No.	Part No.	Qty.	Description
13	73K-244	1	Ring back-up
14	1511642	1	Cap
15	1511537	1	Packing
16	1511538	1	Sleeve
17	1511543	4	Spacer
18	—	—	Omit
19	1514632	4	Bolt
20	1511544	1	Plate
21	1539439	1	Piston rod
22	713418	2	Bushing
23	1511547	1	Flange
23A	†1511539	1	Wiper
24	24C-864	4	Bolt

†Inc. 1, 2, 4 → 21, 23, 24

‡Note: Two (2) cylinders used on machine. Quantities listed are for one (1) cylinder.

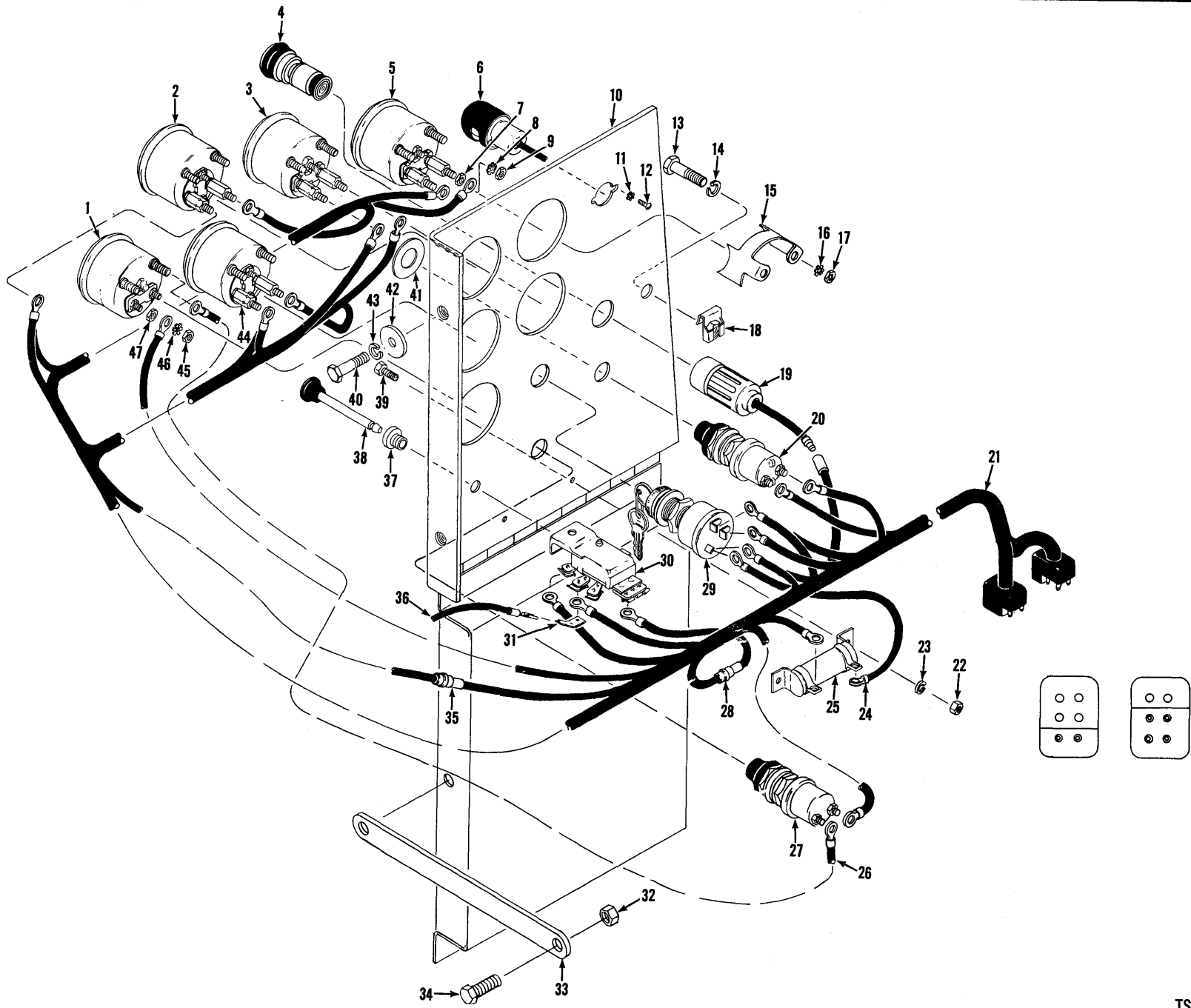
**Group E**

## Electrical Group:

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Electrical System – G.M. ....	E7
Electrical Wiring and Cables – Cummins .....	E9
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Engine Quick Start System .....	E24





# Electrical Gauges & Instrument Panel

# CLARK

No.	Part No.	Qty.	Description
1	947261	1	Voltmeter
2	947254	1	Gauge converter temp
3	947250	1	Gauge air pressure
4	944803	1	Element lighter
5	<sup>2</sup> 948131	1	Gauge eng oil press
5A	<sup>3</sup> 947248	1	Gauge eng oil press
6	574276	1	Light
6A	<sup>†</sup> 945055	1	Bulb
7	12D-6	5	Nut
8	12E-6	5	Lockwasher
9	12D-6	5	Nut
10	1544683	1	Panel
11	12E-6	2	Lockwasher
12	18G-606	2	Screw
13	23C-616	1	Bolt
14	4E-06	1	Lockwasher
15	1534136	5	Clamp
16	12E-10	10	Lockwasher
17	14D-10	10	Nut
18	572729	1	Caged nut
19	<sup>4</sup> 549024	1	Receptacle lighter
19A	944804	1	Fuse 20A
20	<sup>5</sup> 600259	1	Starter button
20A	857420	1	Boot
21	<sup>6</sup> 2503991	1	Harness
22	12D-6	2	Nut
23	17E-6	2	Lockwasher
24	663579	1	Wire
25	556489	1	Resistor
26	630292	1	Wire
27	2504975	1	Switch quick start
28	<sup>7</sup> 611074	1	Fuse 20A
29	573548	1	Switch ignition
30	550741	1	Switch light
31	574275	1	Tab
32	18D-05	1	Nut
33	1544614	1	Bracket
34	24C-516	1	Bolt
35	<sup>8</sup> 571021	1	Fuse 3/4A
36	§-----	—	Wire
37	550743	1	Bushing
38	550742	1	Rod
39	85G-60P	2	Screw
40	23C-616	2	Bolt
41	547237	1	Disc
42	656672	2	Washer
43	4E-06	2	Lockwasher
44	947252	1	Gauge engine temp
45	12D-6	2	Nut
46	12E-6	3	Lockwasher
47	12D-6	1	Nut

Telefax	To	<i>Kick</i>
	From	<i>TONY</i>
	Date	No. of pages <i>2</i>
6667057 89.09 500x50		



**VOLVO BM  
MICHIGAN  
EUCLID**

<sup>2</sup>For Cummins powered machines only

<sup>3</sup>For G.M. powered machines only

<sup>4</sup>Inc. 19A

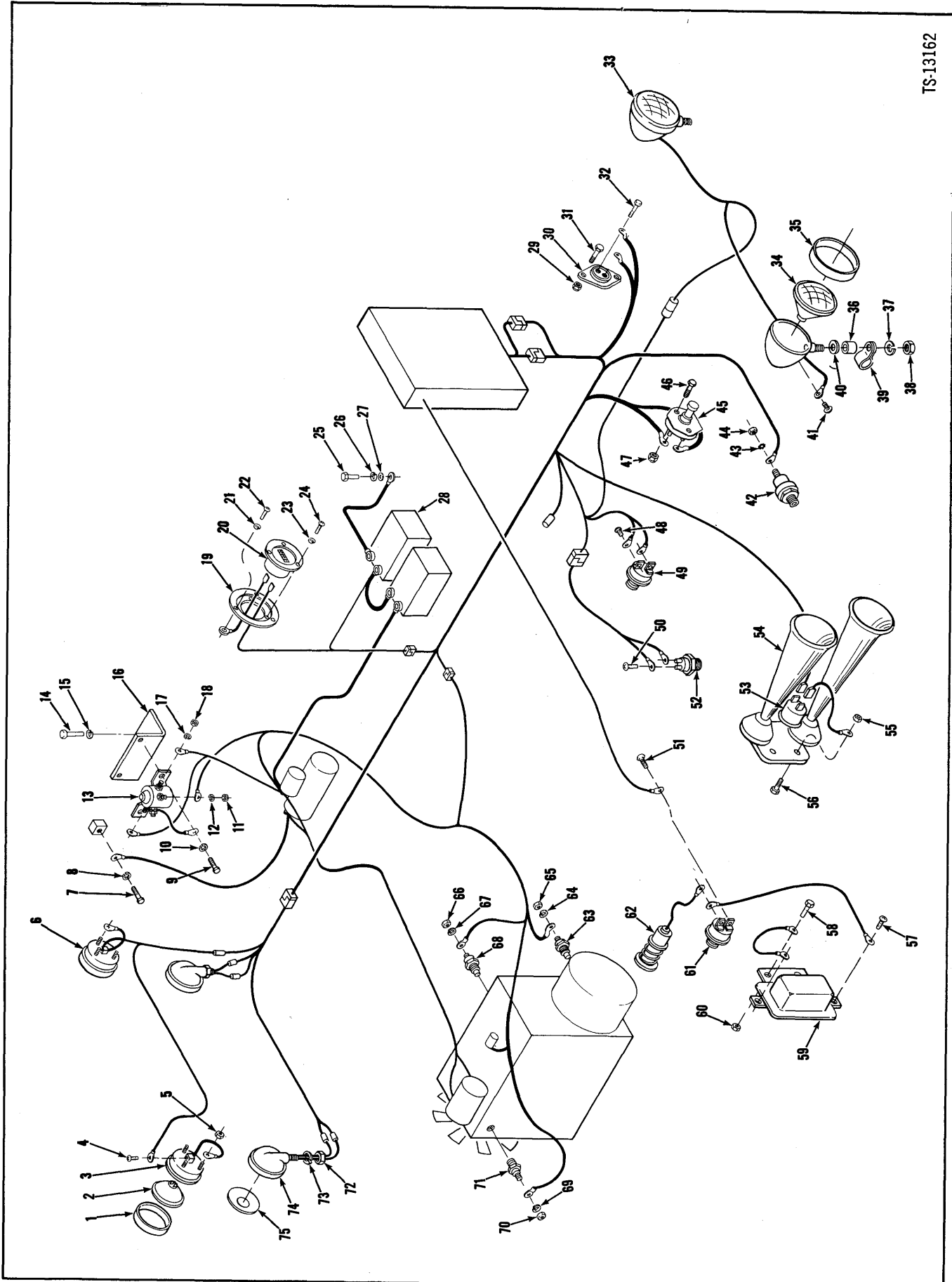
<sup>5</sup>Inc. 20A

<sup>6</sup>Inc. 28, 35

<sup>7</sup>20 Amp

<sup>8</sup>.75 Amp

*438C = cummins*



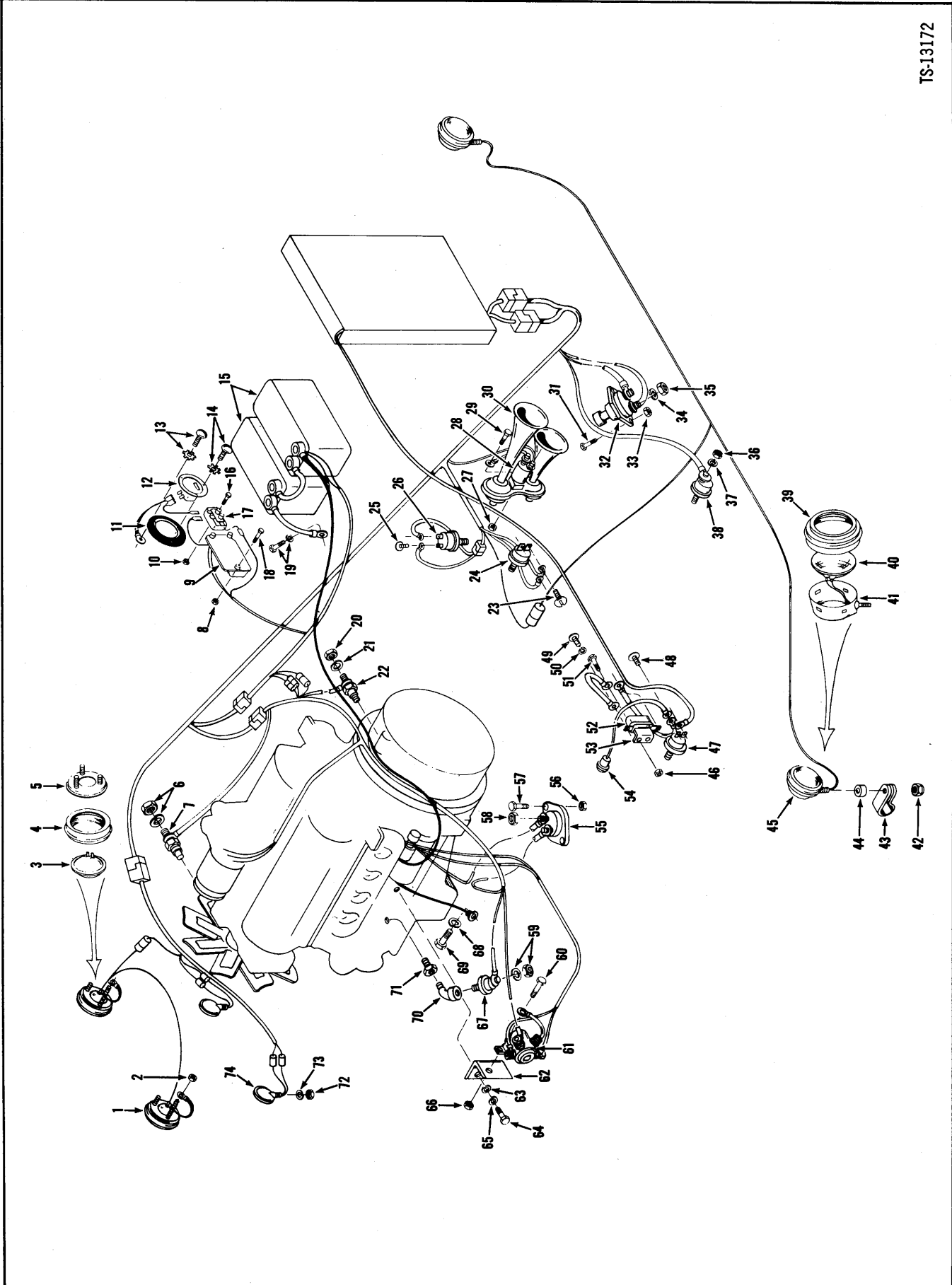
# Electric System – Cummins



No.	Part No.	Qty.	Description
1	944977	2	Retainer
2	551244	2	Sealed unit
3	<sup>2</sup> -----	—	Frame
4	-----	—	Omit
5	50D-10	6	Nut
6	<sup>3</sup> 582057	2	Lamp
7	24C-612	1	Bolt
8	4E-06	1	Lockwasher
9	24C-412	2	Bolt
9A	18D-04	2	Nut
10	-----	—	Omit
11	12D-8	2	Nut
12	17E-8	2	Lockwasher
13	<sup>4</sup> 1529233	1	Solenoid
14	23C-816	1	Bolt
15	4E-08	1	Lockwasher
16	1537934	1	Bracket
17	2E-05	2	Lockwasher
18	62D-05	2	Nut
19	551251	1	Dampener vibration
20	<sup>5</sup> 1743825	1	Hourmeter
21	12E-06	3	Lockwasher
22	85E-608	3	Screw
23	12E-06	3	Lockwasher
24	85G-608	3	Screw
25	24C-816	1	Bolt
26	4E-08	1	Lockwasher
27	635682	1	Washer
28	1310121	2	Battery
29	50D-12	2	Nut
30	<sup>6</sup> 1512688	1	Breaker, circuit
31	85G-1218	2	Bolt
32	24C-408	2	Screw
33	<sup>7</sup> 548088	2	Lamp
34	551244	2	Sealed unit
35	<sup>8</sup> 944872	2	Retainer
35A	<sup>9</sup> 949364	2	Retainer
36	652448	2	Spacer
37	-----	—	Omit
38	18D-08	2	Nut

No.	Part No.	Qty.	Description
39	1522201	2	Clamp
40	-----	—	Omit
41	-----	—	Screw
42	1534135	1	Sender air pressure
43	14E-10	1	Lockwasher
44	14D-10	1	Nut
45	778570	1	Switch horn
46	24C-416	2	Bolt
47	18D-04	2	Nut
48	85G-1004	2	Screw
49	<sup>10</sup> 636260	1	Switch stop light
50	85G-1004	2	Screw
51	85G-804	2	Screw
52	<sup>11</sup> 229729	1	Switch neutral start
53	947160	1	Solenoid
54	<sup>12</sup> 547631	1	Horn
55	18D-04	2	Nut
56	24C-416	2	Bolt
57	85G-805	2	Screw
58	24C-412	2	Bolt
59	<sup>13</sup> 1548952	1	Buzzer
60	18D-04	2	Nut
61	<sup>19</sup> 1537354	1	Switch
62	<del>1548542</del>	1	Light <i>2507098 J.C.P.B-95</i>
62A	†1548520	1	Bulb
63	<sup>18</sup> 551323	1	Sender conv temp
64	12E-10	1	Lockwasher
65	14D-10	1	Nut
66	14D-10	1	Nut
67	12E-10	1	Lockwasher
68	<sup>19</sup> 551323	1	Sender eng temp
69	12E-10	1	Lockwasher
70	14D-10	1	Nut
71	<sup>15</sup> 1534135	1	Sender eng oil press
72	18D-08	2	Nut
73	4E-08	2	Lockwasher
74	<sup>16</sup> 1545132	2	Light
74A	†1620699	2	Bulb
75	§ <sup>17</sup> -----	—	Lenz

<sup>2</sup>See 6  
<sup>3</sup>Inc. 1, 2, 3  
<sup>4</sup>Inc. 11, 12, 17, 18  
<sup>5</sup>Inc. 23, 24  
<sup>6</sup>Inc. 32  
<sup>7</sup>Inc. 34, 35, 41  
<sup>8</sup>John Hobbs  
<sup>9</sup>Guide Lamp  
<sup>10</sup>Inc. 48  
<sup>11</sup>Inc. 50  
<sup>12</sup>Inc. 53  
<sup>13</sup>Inc. 57  
<sup>14</sup>Inc. 51  
<sup>15</sup>Inc. 69, 70  
<sup>16</sup>Inc. 72, 73, 75  
<sup>17</sup>See 74  
<sup>18</sup>Inc. 64, 65  
<sup>19</sup>Inc. 66, 67



# Electrical System – G.M.

# CLARK

No.	Part No.	Qty.	Description
1	1582057	2	Lamp
2	50D-10	6	Nut
3	551244	2	Sealed unit
4	944977	2	Retainer
5	§ <sup>2</sup> -----	—	Frame
6	14D-10	1	Nut
6A	14E-10	1	Lockwasher
7	551323	1	Sender eng temp
8	18D-04	3	Nut
9	556703	1	Regulator voltage
10	18D-04	2	Nut
11	551251	1	Dampener vibration
12	<sup>3</sup> 1534134	1	Hourmeter
13	85G-608	3	Screw
13A	12E-06	3	Lockwasher
14	85G-608	3	Screw
14A	12E-06	3	Lockwasher
15	1310121	2	Battery
16	24C-416	2	Bolt
17	1526006	1	Relay
18	24C-420	3	Bolt
19	24C-612	1	Bolt
19A	4E-06	1	Lockwasher
20	14D-10	1	Nut
21	14E-10	1	Lockwasher
22	551323	1	Sender eng temp
23	85G-1004	2	Screw
24	<sup>4</sup> 636260	1	Switch stoplight
25	85G-1004	1	Screw
26	<sup>5</sup> 229729	1	Switch neutral start
27	18D-04	2	Nut
28	947160	1	Solenoid
29	24C-416	2	Bolt
30	<sup>6</sup> 547631	1	Horn
31	24C-416	2	Bolt
32	<sup>7</sup> 778570	1	Switch horn
33	18D-04	2	Nut
34	8E-06	2	Lockwasher
35	62D-06	2	Nut
36	14D-10	1	Nut
37	14E-10	1	Lockwasher

No.	Part No.	Qty.	Description
38	1534135	1	Switch air pressure
39	<sup>8</sup> 944872	2	Retainer
39A	<sup>9</sup> 949364	2	Retainer
40	551244	2	Sealed unit
41	<sup>10</sup> -----	—	Shell
42	18D-08	2	Nut
43	1522201	2	Clamp
44	652448	2	Spacer
45	<sup>11</sup> 548088	2	Light
46	18D-04	2	Nut
47	<sup>12</sup> 1537354	1	Switch press emercy
48	85G-804	2	Screw
49	24C-516	2	Bolt
50	4E-05	2	Lockwasher
51	24C-412	2	Bolt
52	<sup>13</sup> 1548952	1	Buzzer warning
53	§-----	—	Bracket
54	2507098	1	Light
55	<sup>14</sup> 1512688	1	Breaker circuit
56	50D-12	2	Nut
57	85G-1218	2	Screw
58	4D-04	2	Nut
59	14D-10	1	Nut
59A	14E-10	1	Lockwasher
60	24C-412	2	Bolt
61	1529233	1	Solenoid
62	1537934	1	Bracket
63	656672	1	Washer
64	23C-616	1	Bolt
65	4E-06	1	Lockwasher
66	18D-04	2	Nut
67	<sup>15</sup> 1618574	1	Sender eng oil press
68	4E-06	1	Lockwasher
69	24C-612	1	Bolt
70	542646	1	Nipple pipe
71	18F-1	1	Tee
72	18D-08	2	Nut
73	4E-08	2	Lockwasher
74	<sup>16</sup> 1545132	2	Light
74A	†1620699	2	Bulb

<sup>1</sup>Inc. 3, 4, 5

<sup>2</sup>See 1

<sup>3</sup>Inc. 14, 14A

<sup>4</sup>Inc. 23

<sup>5</sup>Inc. 25

<sup>6</sup>Inc. 28

<sup>7</sup>Inc. 34, 35

<sup>8</sup>For John Hobbs

<sup>9</sup>For Guide Lamp

<sup>10</sup>See 45

<sup>11</sup>Inc. 39, 40, 41

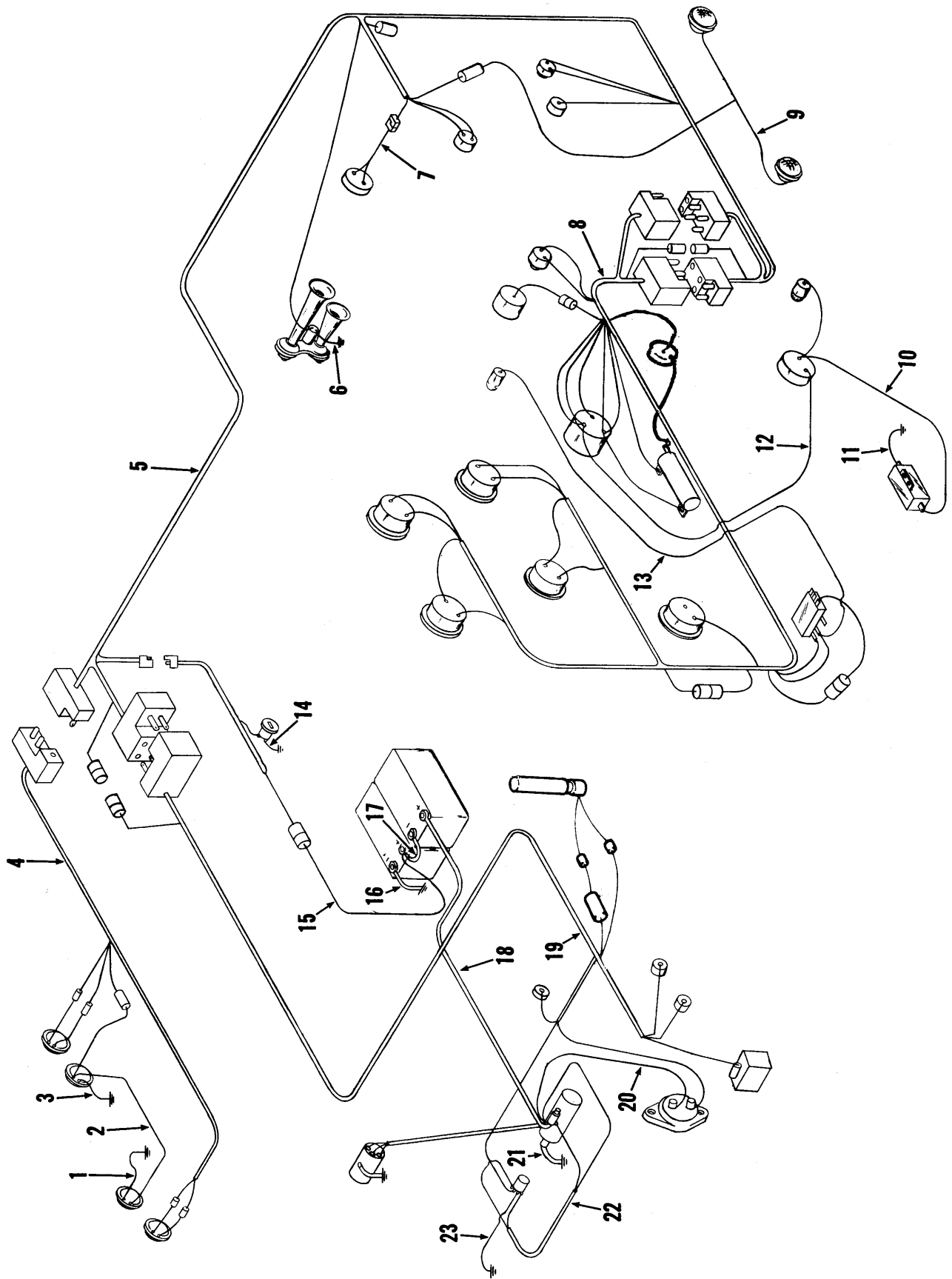
<sup>12</sup>Inc. 48

<sup>13</sup>Inc. 49, 50, 53

<sup>14</sup>Inc. 58

<sup>15</sup>Inc. 59

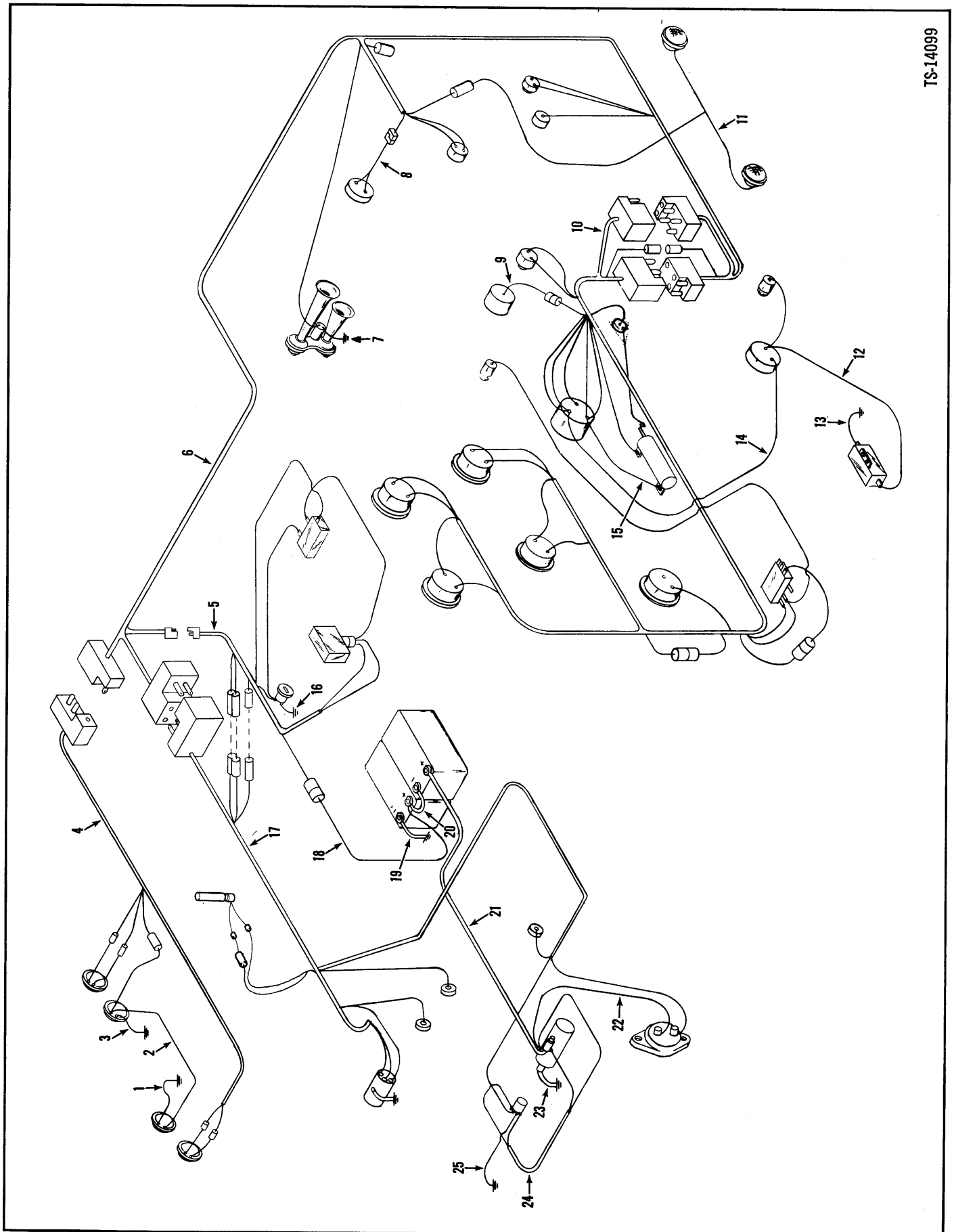
<sup>16</sup>Inc. 72, 73



# Electrical Wiring & Battery Cables – Cummins

**CLARK**

No.	Part No.	Qty.	Description
1	540882	1	Wire
2	1544146	1	Wire
3	540882	1	Wire
4	1510255	1	Harness tail light
5	2507337	1	Wiring harness ✓
6	1523329	1	Wire
7	1544144	1	Wire
8	2507338	1	Harness inst panel
9	1512890	1	Harness head light
10	663579	1	Wire
11	543483	1	Wire
12	-----	—	Omit
13	663579	1	Wire
14	558960	1	Wire
15	2500538	1	Wire
16	1549608	1	Cable
17	529359	1	Cable
18	1546669	1	Cable
19	2500394	1	Wiring harness
20	2500354	1	Wire
21	532549	1	Cable
22	1530361	1	Wire
23	543483	1	Wire



TS-14099

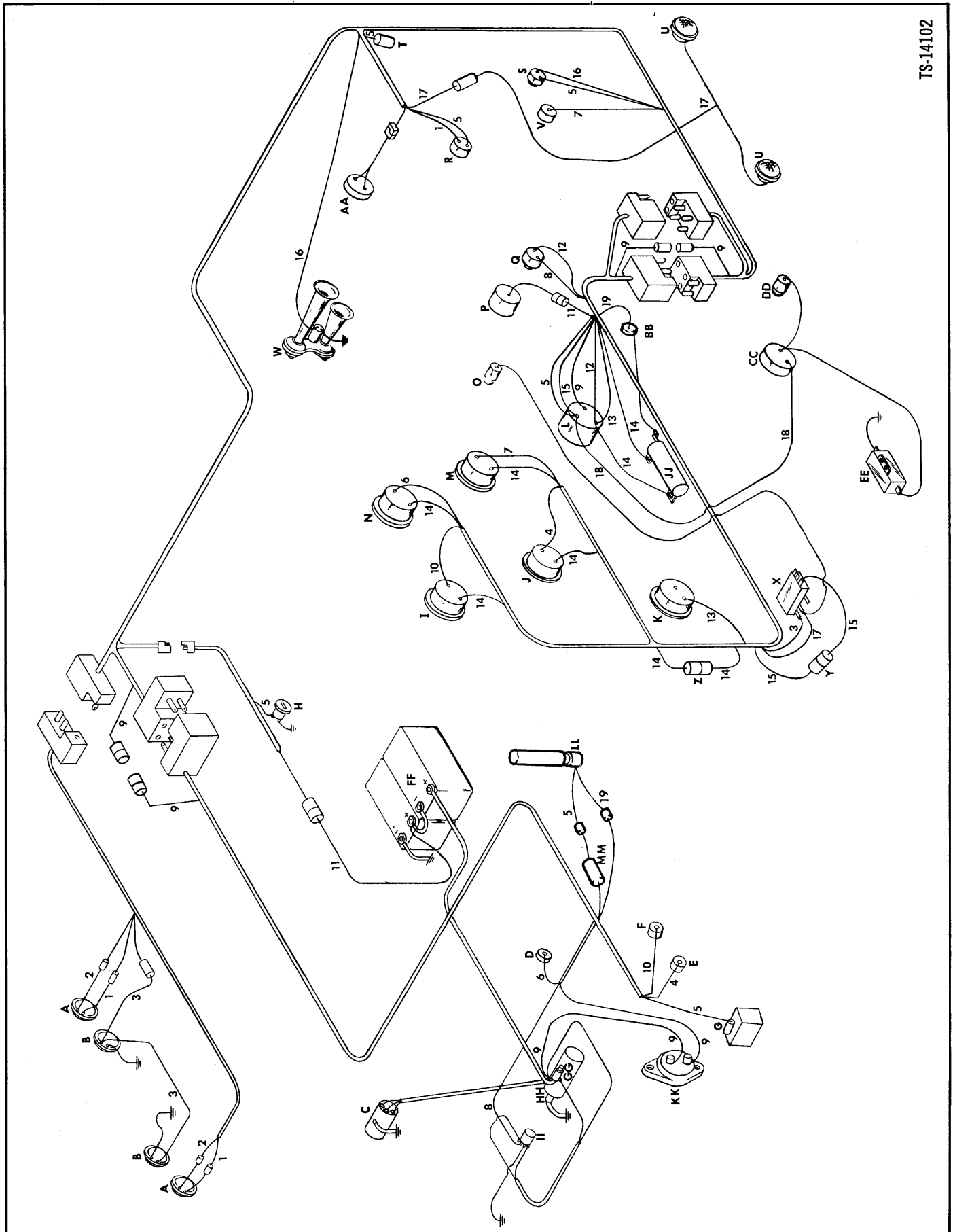


# Electrical Wiring & Battery Cables, G.M.

# CLARK

No.	Part No.	Qty.	Description
1	540882	1	Wire
2	1544146	1	Wire
3	540882	1	Wire
4	1542619	1	Harness tail light
5	1515165	1	Wiring harness
6	2507337	1	Harness main
7	1523329	1	Wire
8	1544144	1	Wire neutral start
9	1-----	1	Lighter recept
10	2507338	1	Harness inst panel
11	1512890	1	Harness headlight
12	663579	1	Wire
13	543483	1	Wire
14	1548924	1	Wire
15	663579	1	Wire
16	558960	1	Wire
17	2500345	1	Harness engine
18	2500520	1	Wire assy
19	1549608	1	Cable
20	529359	1	Cable
21	1546669	1	Cable
22	2500354	1	Wire
23	1525933	1	Cable
24	1530361	1	Wire
25	543483	1	Wire

<sup>1</sup>See Index



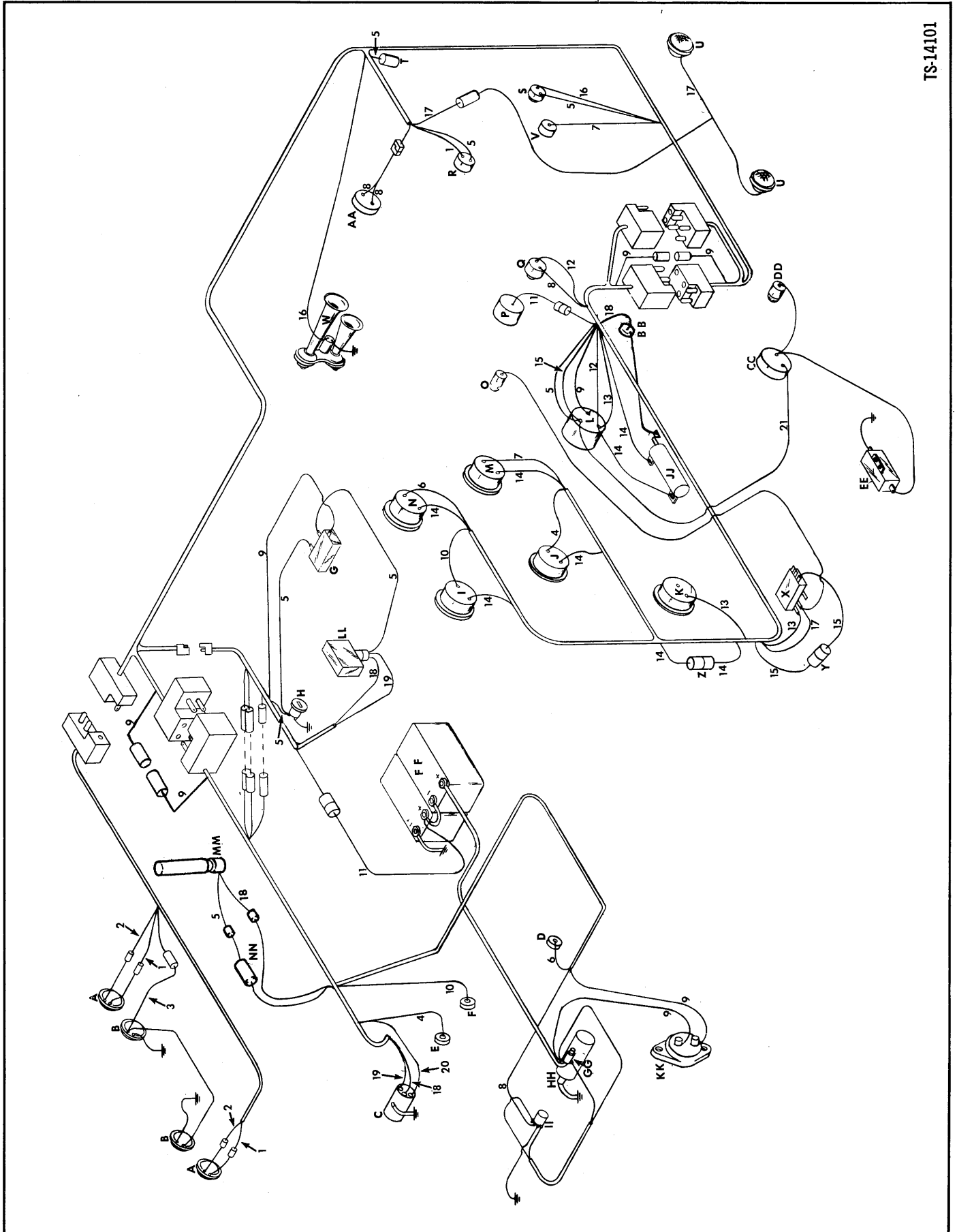
TS-14102

# Electrical Wiring Color Code – Cummins

**CLARK**

Ref. No.	Color	Color Code
1.	Tan	Stoplights to Stoplight Switch
2.	Yellow	Tail Lights to Instrument Panel (Joins Pink)
3.	Dark Blue	Back-Up Lights to Light Switch
4.	Brown	Engine Temp. Sender to Engine Temp. Gauge
5.	Red & White	Ignition Switch to Hourmeter, Ether Injector & Switches
6.	Dark Green	Engine Oil Press. Sender to Engine Oil Press. Gauge
7.	Light Green	Air Press. Sender to Air Press. Gauge
8.	White	Starter Button to Neutral Start Switch to Starter Relay
9.	Red	Ignition Switch to 50 Amp. Circuit Breaker to Starter Solenoid
10.	Grey	Converter Temp. Sender to Converter Temp. Gauge
11.	Orange	Battery to Lighter
12.	Black	Ignition Switch to Starter Button
13.	Purple & White	Ignition Switch to Voltmeter
14.	Purple	Ignition Switch to Resistor to Fuse to Gauges
15.	Violet	Ignition Switch to Fuse to Light Switch
16.	Light Blue	Horn Switch to Horn
17.	Pink	Light Switch to Headlamps
18.	Black	Ignition Switch to Low Pressure Sender
19.	Brown & White	Quick Start Button to Ether Injector

A	Stop & Tail Lamps	N	Engine Oil Pressure Gauge	AA	Neutral Start Switch
B	Back-up Lamps	O	Dash Lamp	BB	Quick Start Button
C	Alternator	P	Lighter	CC	Low Pressure Sender
D	Engine Oil Pressure Sender	Q	Starter Button	DD	Warning Light
E	Engine Temperature Sender	R	Stop Light Switch	EE	Buzzer
F	Converter Temperature Sender	S	Horn Switch	FF	Batteries
G	Fuel Solenoid	T	Heater Connector	GG	Starter Solenoid
H	Hourmeter	U	Headlamps	HH	Starter
I	Converter Temperature Gauge	V	Air Pressure Sender	II	Solenoid
J	Engine Temperature Gauge	W	Horn	JJ	Resistor
K	Voltmeter	X	Light Switch	KK	50 Amp Circuit Breaker
L	Ignition Switch	Y	20 Amp Fuse	LL	Ether Injector
M	Air Pressure Gauge	Z	¾ Amp Fuse	MM	15 Amp Fuse



TS-14101

# Electrical Wiring Color Code — G.M.

**CLARK**

Ref. No., Color	Color Code
1. Tan	Stoplights to Stoplight Switch
2. Yellow	Tail Lights to Instrument Panel Plug (Joins Pink)
3. Dark Blue	Back-up Lights to Light Switch
4. Brown	Engine Temp. Sender to Engine Temp. Gauge
5. Red & White	Ignition Switch to Hourmeter Relay, Hourmeter, Ether Injector & Switches
6. Dark Green	Engine Oil Press. Sender to Engine Oil Press. Gauge
7. Light Green	Air Press. Sender to Air Press. Gauge
8. White	Starter Button to Neutral Start Switch to Starter Relay
9. Red	Ignition Switch to Circuit Breaker to Starter Solenoid
10. Grey	Converter Temp. Sender to Converter Temp. Gauge
11. Orange	Battery to Lighter
12. Black	Ignition Switch to Starter Button
13. Purple & White	Ignition Switch to Voltmeter
14. Purple	Ignition Switch to Resistor to Fuse to Gauges
15. Violet	Ignition Switch to Fuse to Light Switch
16. Light Blue	Horn Switch to Horn
17. Pink	Light Switch
18. Brown & White	F-2 Alternator Terminal to Voltage Regulator, Quick Start Button to Ether Injector
19. Lt. Blue & White	F-1 Alternator Terminal to Voltage Regulator
20. Red & Black	Battery Alternator Terminal Splice to Red
21. Black	Ignition Switch to Brake Low Press. Sender

A Stop & Tail Lamps	O Dash Lamp	BB Quick Start Button
B Back-up Lamps	P Lighter	CC Low Pressure Sender
C Alternator	Q Starter Button	DD Warning Light
D Engine Oil Pressure Sender	R Stop Light Switch	EE Buzzer
E Engine Temperature Sender	S Horn Switch	FF Batteries
F Converter Temperature Sender	T Heater Connector	GG Starter Solenoid
G Hourmeter Relay	U Head Lamps	HH Starter
H Hourmeter	V Air Pressure Sender	II Starter Relay
I Converter Temperature Gauge	W Horn	JJ Resistor
J Engine Temperature Gauge	X Light Switch	KK Circuit Breaker
K Voltmeter	Y 20 Amp Fuse	LL Voltage Regulator
L Ignition Switch	Z ¾ Amp Fuse	MM Ether Injector
M Air Pressure Gauge	AA Neutral Start Switch	NN 15 Amp Fuse
N Engine Oil Pressure Gauge		

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.

No.	Part No.	Qty.	Description
1	*2_____	1	Alternator
2	*3_____	1	Starter
3	*4_____	1	Air compressor
4	*5_____	2	By pass filter
5	*6_____	1	Resistor corrosion
6	*558186	1	Fan
7	*7_____	1	Governor
8	*83679690	2	Belt fan
9	*948812	2	Belt alternator

<sup>2</sup>Cummins 214318 (D.R. 1117238)

<sup>3</sup>Cummins 135162 (D.R. 1113850)

<sup>4</sup>Cummins 200814

<sup>5</sup>Cummins 256838

<sup>6</sup>Cummins 299080

<sup>7</sup>Cummins 189236

<sup>8</sup>Match Set

*2. 960754 water pump set JAC machine*

### Engine & Hydraulic System (Cummins) – Filter Replacement Elements

No.	Part No.	Qty.	Description
10	949363	1	Engine air cleaner inner
11	946857	1	Engine air cleaner outer
12	960775	1	Engine oil by-pass filter
13	949418	1	Engine corrosion resistor
14	949095	1	Engine fuel filter
15	1530600	2	Hyd. oil revr. press.
16	1532445	1	Hyd. oil revr. suction
17	233277	2	Hyd. oil Transm. – conv.

\*The above listed accessory items are furnished by the engine manufacturer. Specifications on these items are subject to change without notice. It is, therefore, recommended that complete model, specifications and serial number of the engine be provided to your Cummins Engine Distributor when ordering these parts.

## Engine & Accessories — G.M.

MICHIGAN

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

No.	Part No.	Qty.	Description
1	*1_____	1	Alternator
2	*2 <b>946052</b>	1	Starter
3	*3_____	1	Air compressor
4	*4_____	1	Oil filter assy
5	*5_____	1	Fan
6	<sup>6</sup> <b>1533170</b>	1	Fan sucker
7	*7 <b>1949282</b>	1	Belt alternator
8	*8 <b>960826</b>	1	Belt compressor
9	*9 <b>948768</b>	3	Belt fan

<sup>1</sup>G.M. 1117786

<sup>2</sup>G.M. 1113824

<sup>3</sup>G.M. 5145617

<sup>4</sup>G.M. 5121120

<sup>5</sup>G.M. 5100507

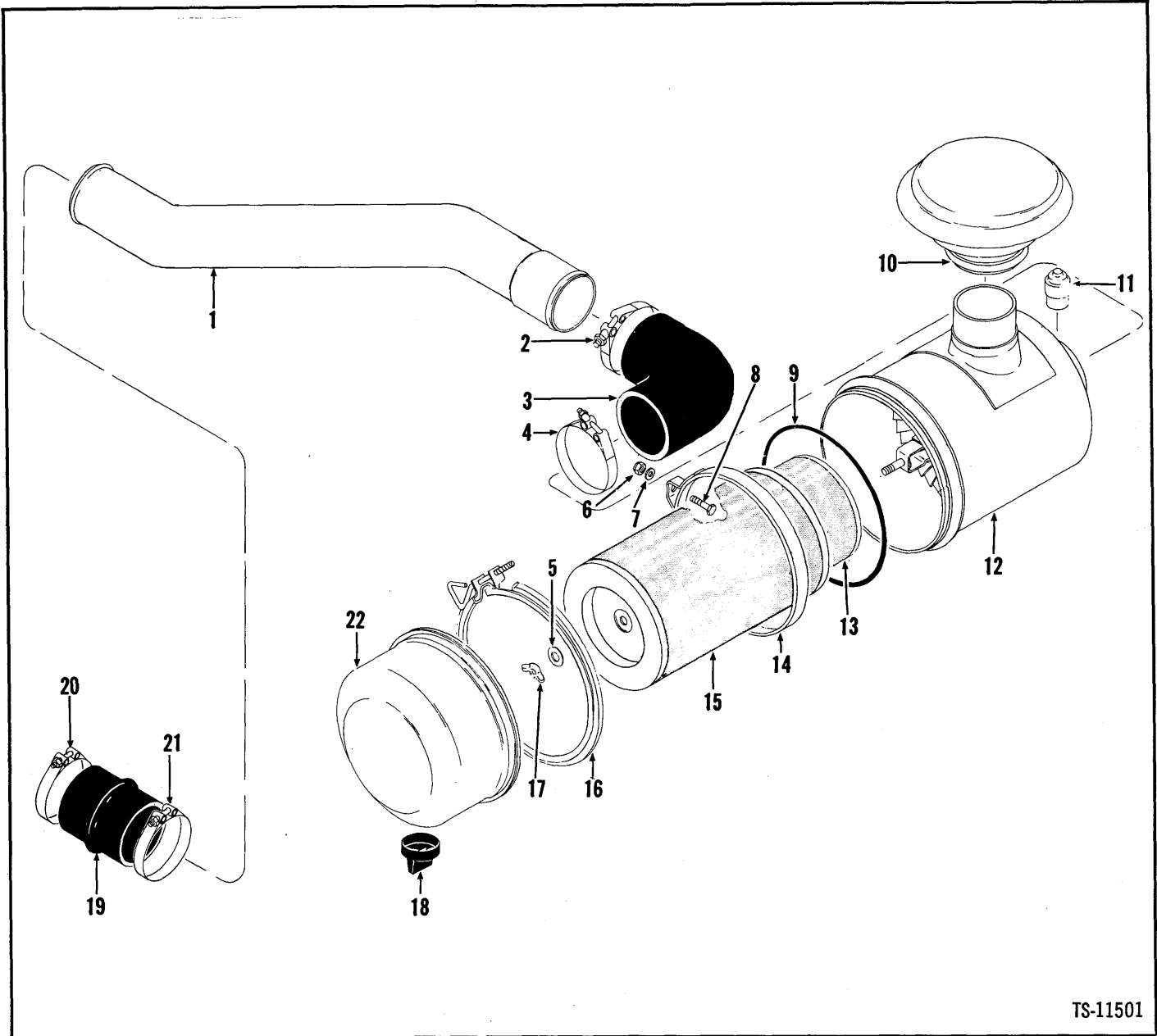
<sup>6</sup>Optional 32" (812,8 mm)

<sup>7</sup>Matched Set

## Engine & Hydraulic System (G.M.) — Filter Replacement Elements

No.	Part No.	Qty.	Description
9	<b>949363</b>	1	Engine air cleaner inner
10	<b>946857</b>	1	Engine air cleaner outer
11	* <b>949838</b>	1	Engine primary fuel
12	* <b>949839</b>	1	Engine secondary fuel
13	* <b>960825</b>	1	Engine oil full flow
14	<b>1530600</b>	2	Hyd. oil rsrv. press.
15	<b>1532445</b>	1	Hyd. oil rsrv. suction
16	<b>233277</b>	2	Hyd. oil transm. conv.

\*The above listed accessory items are furnished by the engine manufacturer. Specifications on these items are subject to change without notice. It is, therefore, recommended that complete model, specifications and serial number of the engine be provided to your G.M. Engine Distributor when ordering these parts.



TS-11501

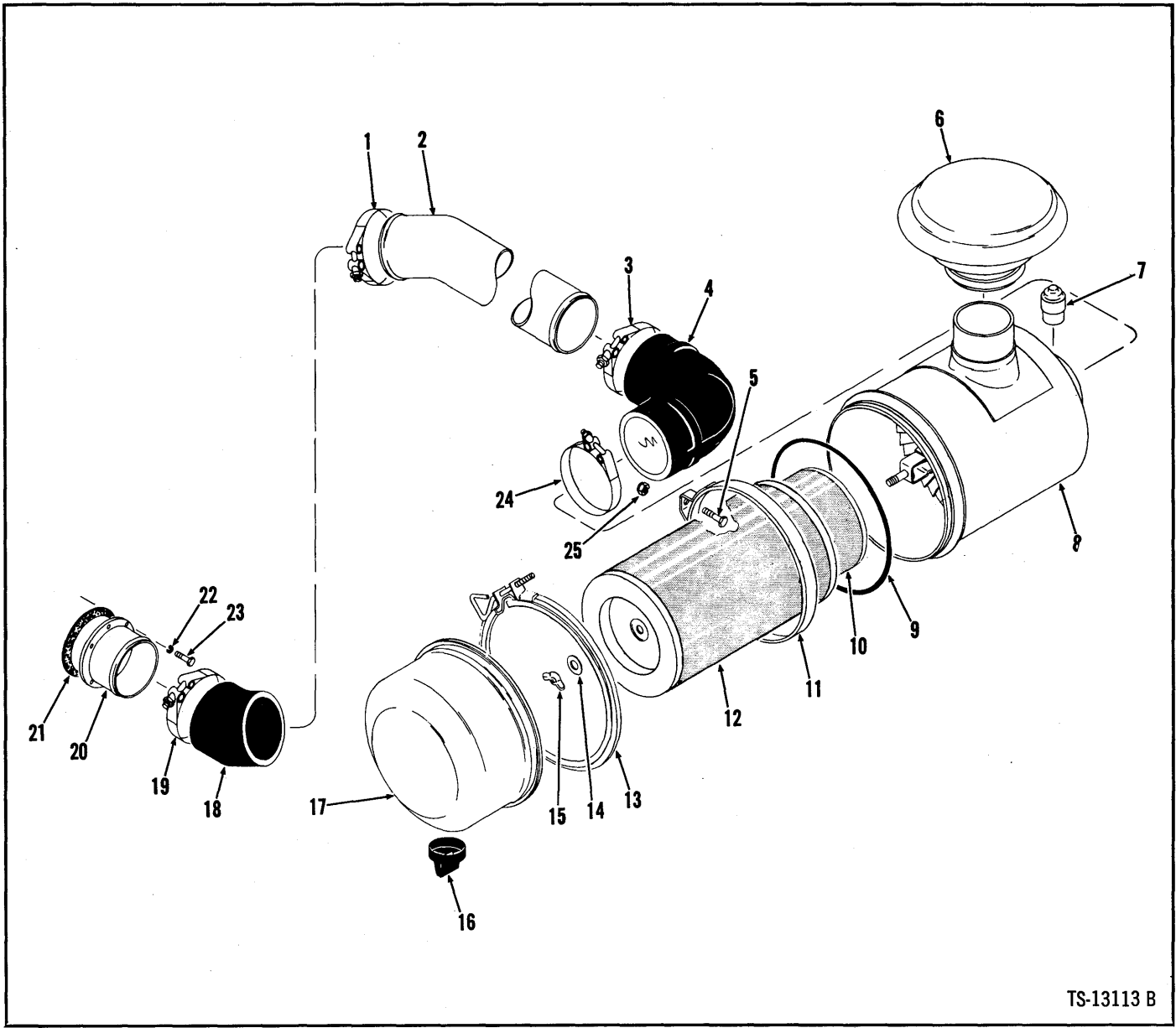
No.	Part No.	Qty.	Description
1	2505668	1	Tube
2	1500793	1	Clamp
3	1529315	1	Hose
4	1500793	1	Clamp
5	3292704	2	Gasket
x 6	18D-06	4	Nut
7	—	—	Omit
8	24C-616	4	Bolt
9	944494	1	O-ring
10	1529623	1	Cap
x 11	1529625	1	Indicator

No.	Part No.	Qty.	Description
12	1513874	1	Air cleaner assy
13	949363	1	Element inner
14	1529624	2	Band
15	946857	1	Element outer
16	945021	1	Clamp
17	886526	2	Wing nut
18	946860	1	Valve vacuator
19	1522454	1	Hose
20	540797	1	Clamp
21	1500793	1	Clamp
22	946859	1	Cup

†Inc. 5, 9, 13, 15 → 18, 22



# Engine Air Cleaner & Connections – G.M.

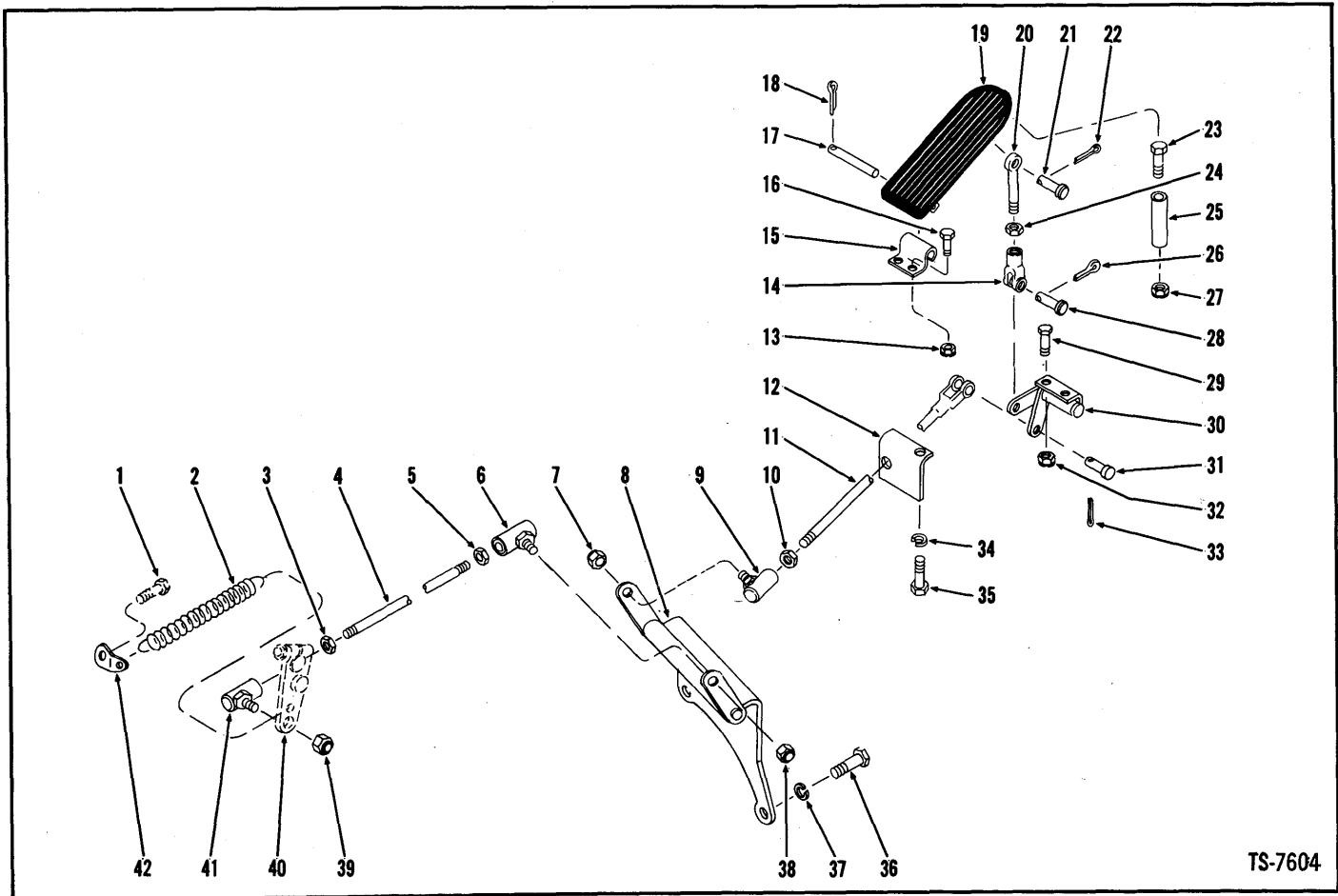


TS-13113 B

No.	Part No.	Qty.	Description
1	1500793	1	Clamp
2	1543437	1	Tube
3	1500793	1	Clamp
4	1529315	1	Hose
5	24C-616	4	Bolt
6	1529623	1	Cap
7	1529625	1	Indicator
8	1513874	1	Air cleaner assy
9	944494	1	O-ring
10	949363	1	Element inner
11	1529624	2	Band
12	946857	1	Element outer
13	945021	1	Clamp

No.	Part No.	Qty.	Description
14	3992704	2	Gasket
15	886526	2	Wing nut
16	946860	1	Valve vacuator
17	946859	1	Cup
18	1529295	1	Hose
19	1500793	1	Clamp
20	1529298	1	Adapter
21	533286	1	Gasket
22	4E-06	6	Lockwasher
23	23C-616	6	Bolt
24	1500793	1	Clamp
25	18D-06	4	Nut

<sup>1</sup>Inc. 9, 10, 12 → 17



TS-7604

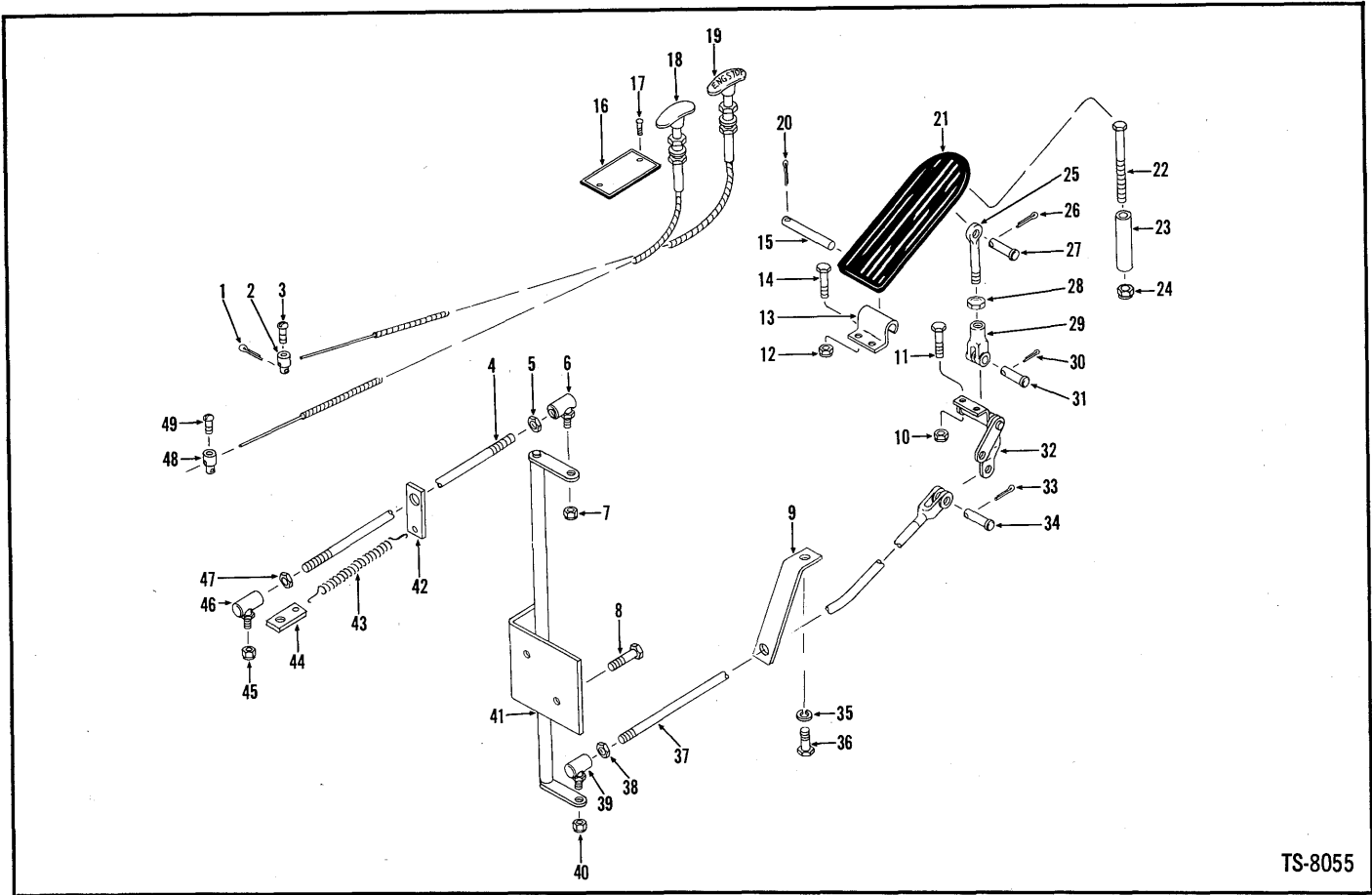
No.	Part No.	Qty.	Description
1	_____	—	Bolt
2	551014	1	Spring
3	8D-05	1	Nut
4	<sup>2</sup> 1510248	1	Rod assy
5	8D-05	1	Nut
6	1301361	1	Ball joint
7	66D-05	1	Nut
8	568995	1	Bellcrank
9	1301361	1	Ball joint
10	8D-05	1	Nut
11	<sup>3</sup> 1529549	1	Rod assy
12	569151	1	Angle
13	18D-04	1	Nut
14	2J-4200	1	Clevis
15	1544695	1	Bracket
16	24C-416	2	Bolt
17	623762	1	Pin
18	1F-316	1	Cotter pin
19	623829	1	Pedal
20	550619	1	Rod
21	4F-04051	1	Pin

No.	Part No.	Qty.	Description
22	1F-208	1	Cotter pin
23	24C-448	1	Bolt
24	8D-04	1	Nut
25	551016	1	Stop
26	1F-208	1	Cotter pin
27	18D-04	1	Nut
28	4F-04051	1	Pin
29	24C-416	2	Bolt
30	1543304	1	Bellcrank
31	4F-04051	1	Pin
32	18D-04	2	Nut
33	1F-208	1	Cotter pin
34	4E-06	1	Lockwasher
35	24C-616	1	Bolt
36	23C-724	2	Bolt
37	4E-07	2	Lockwasher
38	8D-05	1	Nut
39	8D-05	1	Nut
40	_____	—	Arm
41	1301361	1	Ball joint
42	551778	1	Anchor

<sup>1</sup>See Engine Parts Manual

<sup>2</sup>Inc. 3, 5, 6, 41

<sup>3</sup>Inc. 9, 10, 12

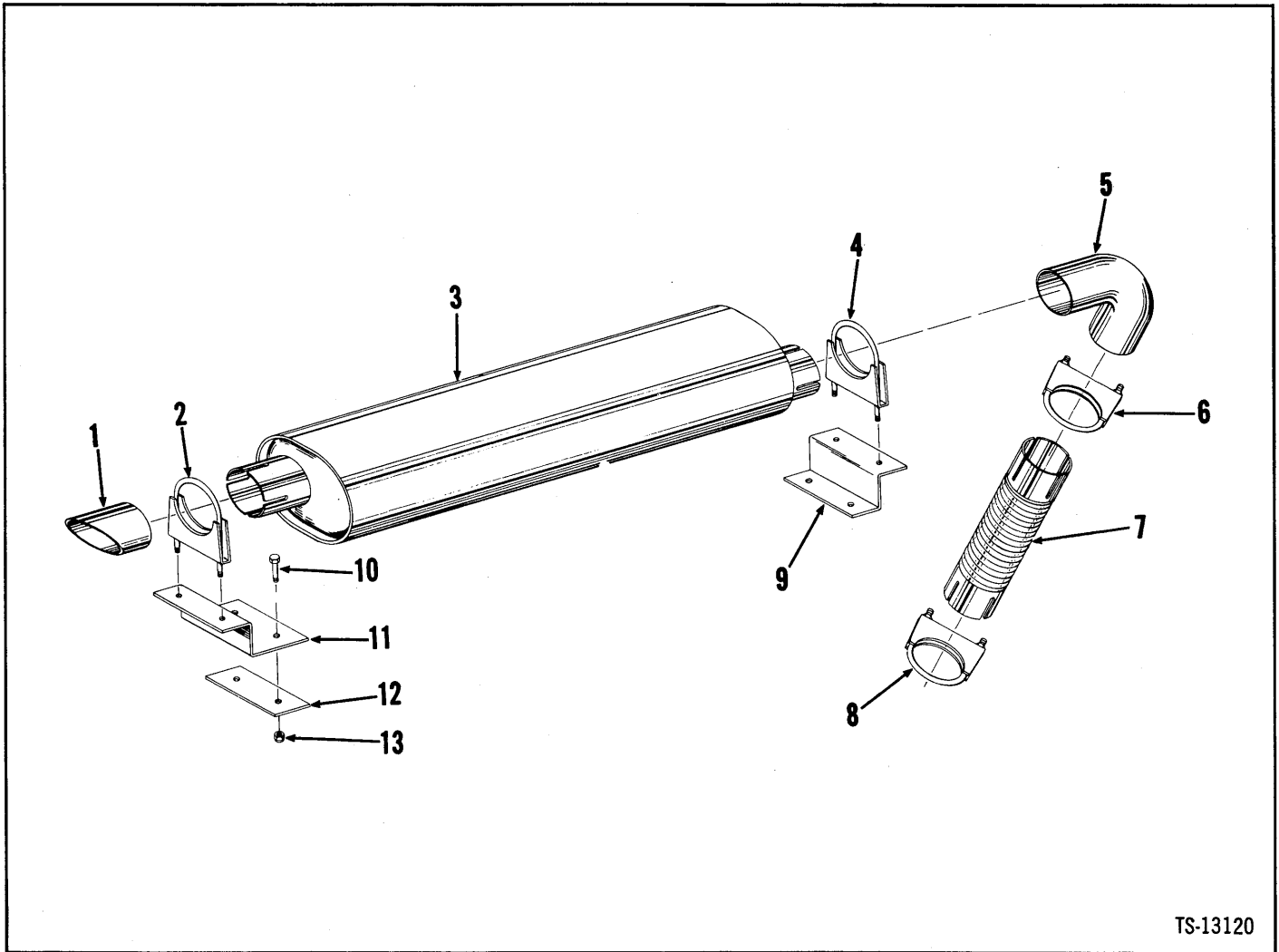


TS-8055

No.	Part No.	Qty.	Description
1	1F-208	1	Cotter pin
2	1523209	1	Connecting cable
3	86G-1008	1	Screw
4	1544404	1	Rod
5	8D-05	1	Nut
6	1301361	1	Ball joint
7	18D-05	1	Nut
8	24C-668	2	Bolt
9	569151	1	Angle
10	18D-04	2	Nut
11	24C-416	2	Bolt
12	18D-04	2	Nut
13	1544695	1	Bracket
14	24C-416	2	Bolt
15	623762	1	Pin
16	1511708	1	Decal stop
17	—	—	Omit
18	1520190	1	Cable
19	1520193	1	Cable
20	1F-316	1	Cotter pin
21	623829	1	Pedal
22	24C-448	1	Bolt
23	551016	1	Stop
24	18D-04	1	Nut
25	550619	1	Rod

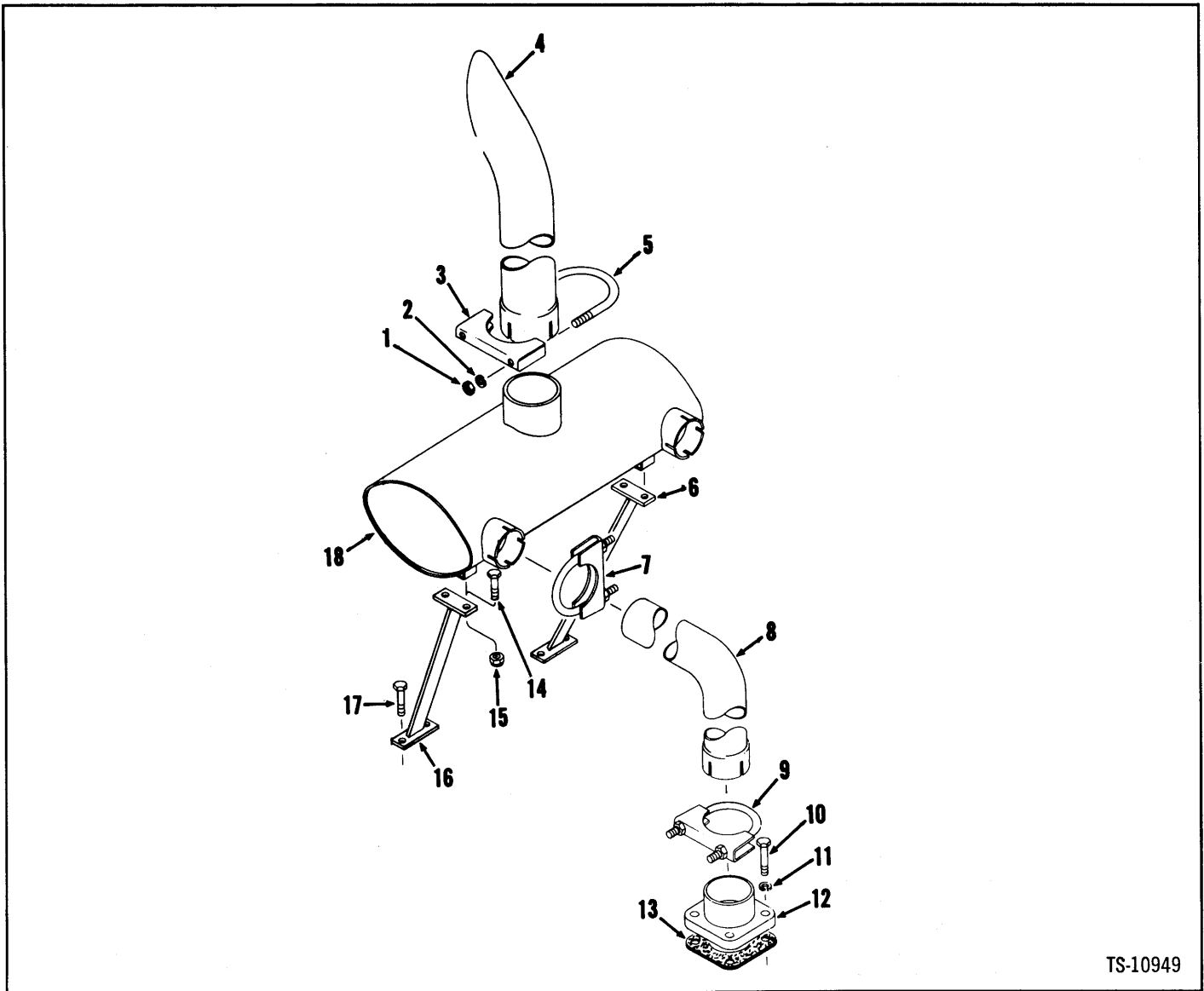
No.	Part No.	Qty.	Description
26	1F-208	1	Cotter pin
27	4F-04051	1	Pin
28	8D-04	1	Nut
29	2J-4200	1	Clevis
30	1F-208	1	Cotter pin
31	4F-04051	1	Pin
32	1543304	1	Bellcrank
33	1F-208	1	Cotter pin
34	4F-04051	1	Pin
35	4E-06	1	Lockwasher
36	24C-616	1	Bolt
37	1529549	1	Rod
38	8D-05	1	Nut
39	1301361	1	Ball joint
40	66D-05	1	Nut
41	574555	1	Bellcrank
42	1535306	1	Anchor
43	551090	1	Spring
44	521434	1	Anchor spring
45	18D-05	1	Nut
46	1301361	1	Ball joint
47	8D-05	1	Nut
48	1523210	1	Connctg cable
49	85G-806	1	Screw

<sup>1</sup>Inc. 5, 6, 42, 46, 47  
<sup>2</sup>Inc. 9, 38, 39



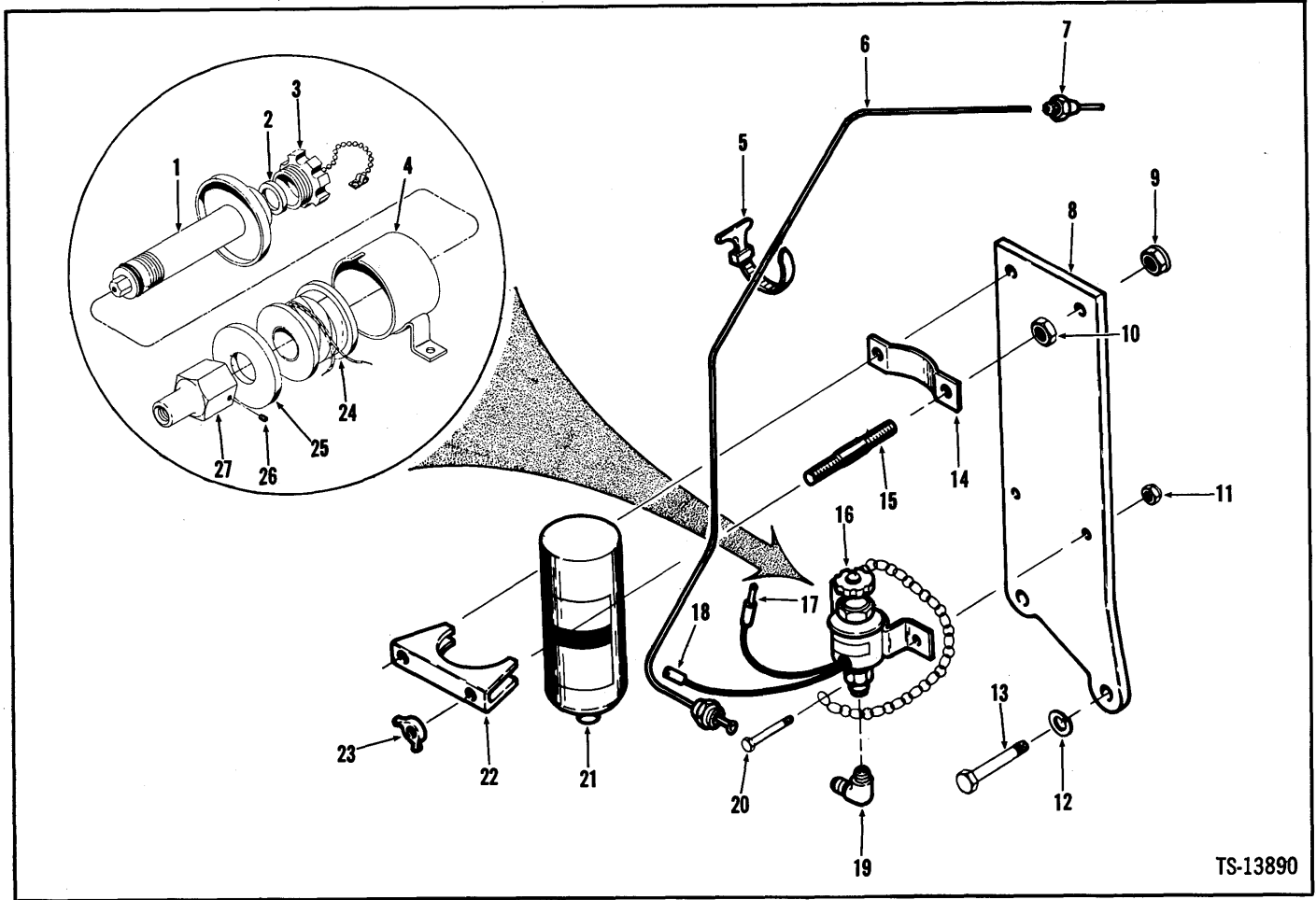
TS-13120

No.	Part No.	Qty.	Description
1	1543638	1	Tail pipe
2	1516076	1	Clamp
3	1543567	1	Muffler
4	1516076	1	Clamp
5	1511798	1	Pipe
6	1516076	1	Clamp
7	1517017	1	Tube
8	1516076	1	Clamp
9	1511800	1	Bracket
10	24C-620	4	Bolt
11	1511800	1	Bracket
12	1511799	2	Plate
13	18D-06	4	Nut



TS-10949

No.	Part No.	Qty.	Description
1	63D-06	2	Nut
2	4E-06	2	Lockwasher
3	563860	1	Clamp
4	547058	1	Pipe
5	563813	1	U-bolt
6	1512898	1	Bracket L.H.
7	580282	2	Clamp
8	564353	2	Tube
9	580282	2	Clamp
10	23C-620	8	Bolt
11	4E-06	8	Lockwasher
12	564354	2	Adapter
13	588384	1	Gasket
14	24C-616	4	Bolt
15	18D-06	4	Nut
16	542909	1	Bracket R.H.
17	24C-616	4	Bolt
18	547057	1	Muffler



TS-13890

No.	Part No.	Qty.	Description
1	960800	1	Valve assy
X 2	960802	1	Gasket
3	§ <sup>2</sup> -----	1	Cap
4	§ <sup>2</sup> -----	1	Bracket assy
5	1539058	3	Cable tie
6	1990278	1	Tube
7	2504977	1	Atomizer
7A	†19F-1	1	Bushing
8	³2504983	1	Bracket
8A	†²2511439	1	Bracket
9	61D-05	2	Nut
9A	†4E-05	2	Lockwasher
10	61D-05	2	Nut
10A	†4E-05	2	Lockwasher
11	18D-04	2	Nut
12	³4E-07	2	Lockwasher
12A	†4E-06	2	Lockwasher
13	³23C-728	2	Bolt

No.	Part No.	Qty.	Description
13A	†²24C-668	2	Bolt
14	§ <sup>5</sup> -----	1	Clamp
15	§ <sup>5</sup> -----	2	Stud
16	⁶2504982	1	Valve & coil assy
17	1513577	1	Terminal
18	1513575	1	Terminal
18A	†742175	1	Sleeve
19	2504973	1	Elbow
20	24C-416	2	Bolt
21	1572143	1	Tank ether
22	⁷1990400	1	Clamp
23	16D-05	2	Nut
24	960801	1	Coil
25	§ <sup>2</sup> -----	1	Cover
26	35G-502	1	Screw
27	960803	1	Nut
28	†961440	1	Ferrule & nut kit

\*Standard on military machines; optional on others.

²See 16

³Cummins powered machines

⁴G.M. powered machines

⁵See 22

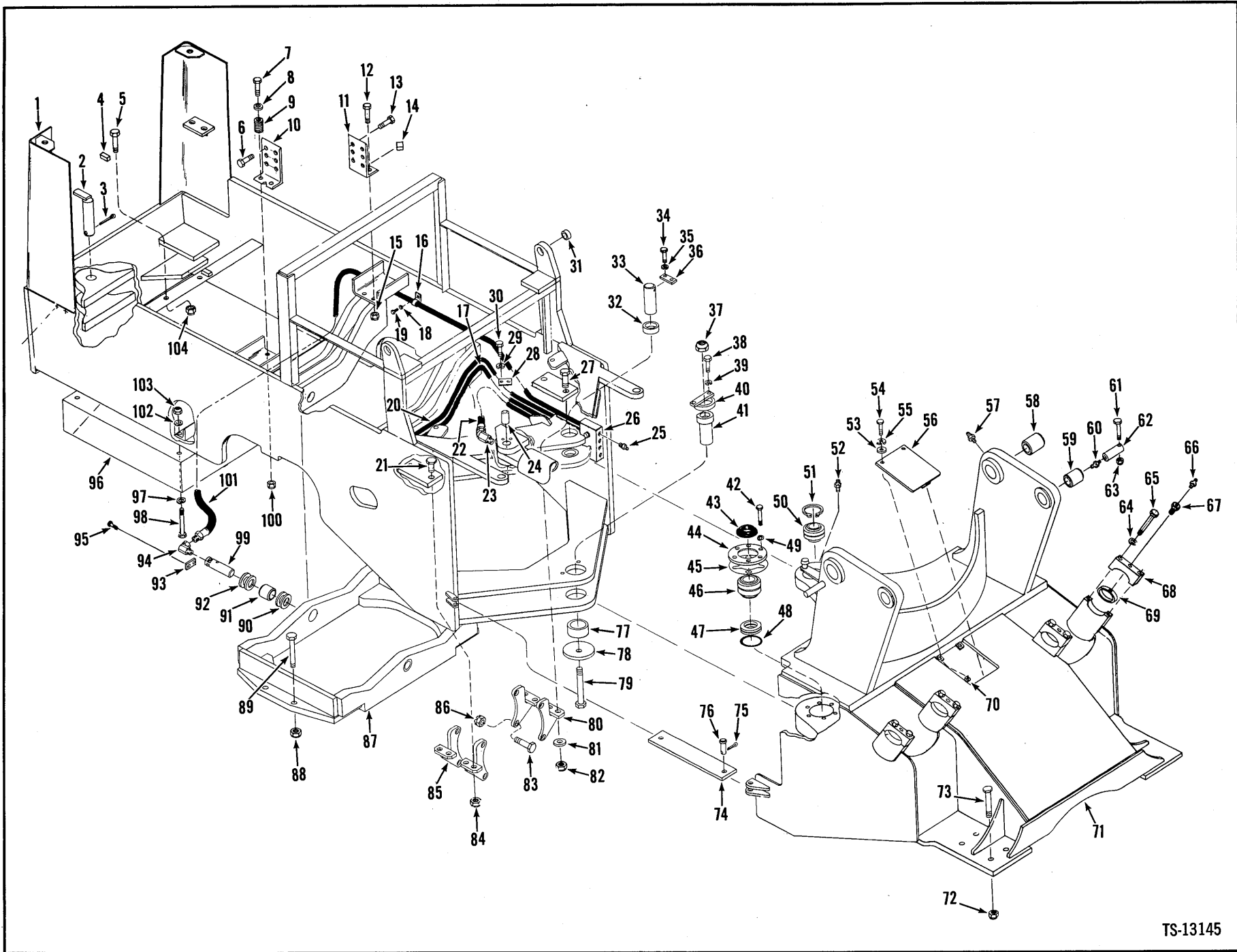
⁶Inc. 1→4, 24→27

⁷Inc. 9, 9A, 10, 10A, 14, 15, 23

⁸See item 28 for ferrules needed to replace tube.

**Group F**

Frame Front and Rear ..... F3, F5  
Fuel Tank and Lines, Cummins ..... F6  
Fuel Tank and Lines, G.M. .... F7



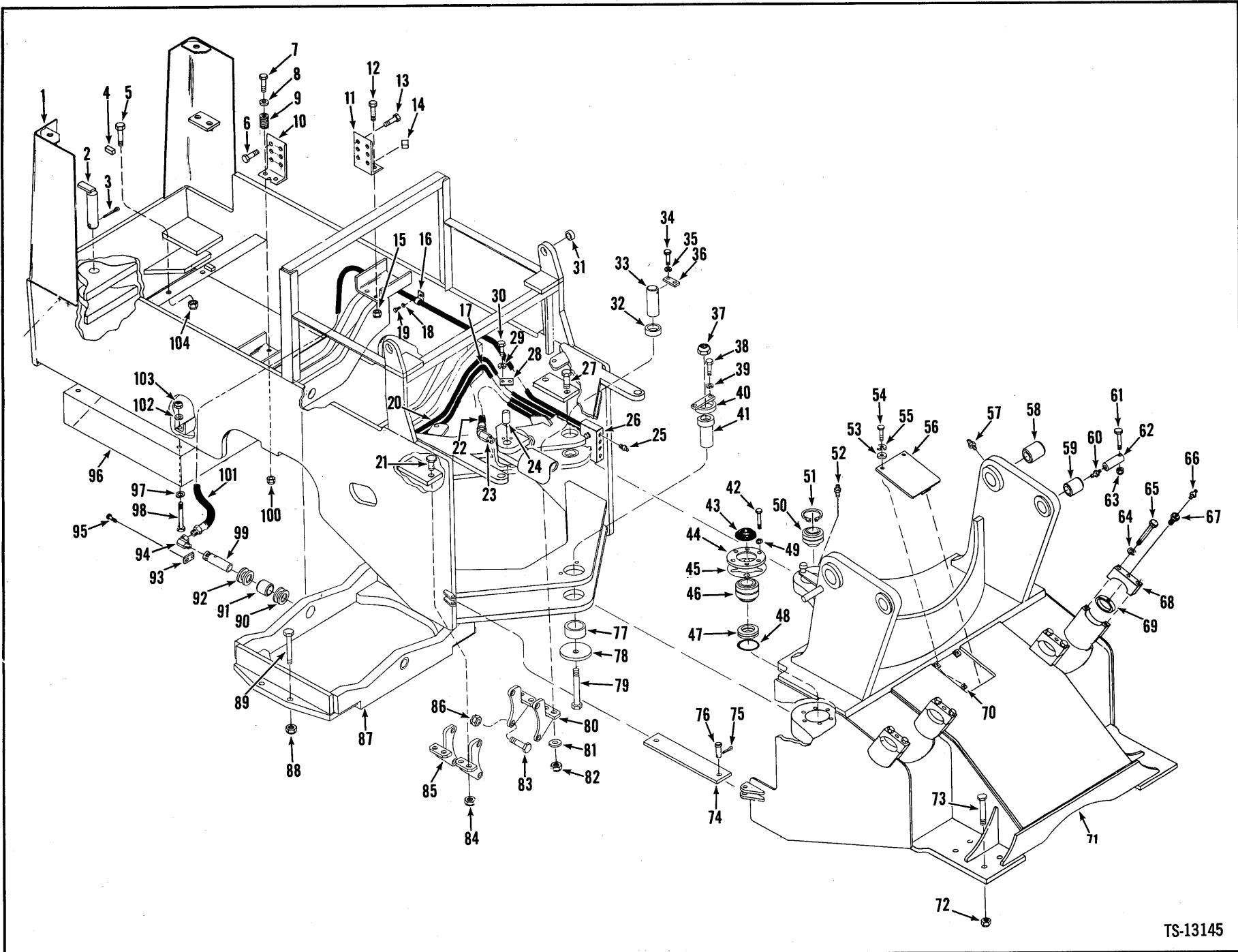


Frame, Front & Rear

No.	Part No.	Qty.	Description
1	<sup>2,4</sup> 1518754	1	Frame
1A	<sup>3,4</sup> 1519373	1	Frame
2	1506818	1	Pin
3	1F-1252	1	Pin cotter
4	608241	2	Flat
5	<sup>2</sup> 24C-1036	2	Bolt
5A	<sup>3</sup> 24C-1232	2	Bolt
6	<sup>2</sup> 8C-1028	6	Bolt
6A	<sup>3</sup> 8C-1028	4	Bolt
7	24C-1280	2	Bolt
7A	24C-1288	2	Bolt
8	616809	2	Washer
9	570419	2	Spring
10	<sup>2</sup> 569879	1	Support RH
10A	<sup>3</sup> 1521080	1	Support RH
11	<sup>2</sup> 569880	1	Support LH
11A	<sup>3</sup> 1521079	1	Support LH
12	<sup>2</sup> 24C-1244	2	Bolt
12A	<sup>3</sup> 24C-1256	2	Bolt
13	<sup>2</sup> 8C-1028	6	Bolt
13A	<sup>3</sup> 8C-1028	4	Bolt
14	608241	2	Flat
14A	18D-12	2	Nut
15	68D-12	2	Nut
16	30H-35	3	Clip
16A	<sup>†</sup> 31H-31	1	Clip
17	549961	1	Hose
18	4E-06	4	Lockwasher
19	24C-612	4	Bolt
20	541547	1	Hose
21	24C-1256	3	Bolt
22	549262	1	Hose
23	33F-1	2	Adapter
24	1545165	4	Pin
25	10H-25	4	Fitting grease
26	1509182	1	Feeder
26A	<sup>2</sup> 23C-620	2	Bolt
26B	<sup>†</sup> 4E-06	2	Lockwasher
27	24C-1256	2	Bolt

No.	Part No.	Qty.	Description
28	1507920	4	Lockplate
29	4E-08	8	Lockwasher
30	24C-820	8	Bolt
31	---	---	Omit
32	572818	2	Bushing
33	1538228	1	Pin
34	24C-1220	2	Bolt
35	4E-12	2	Lockwasher
36	1548429	1	Lockplate
37	18D-20	1	Nut
38	24C-1228	2	Bolt
39	4E-12	2	Lockwasher
40	1547432	1	Retainer
41	1514692	1	Pin
42	24C-1236	6	Bolt
43	1657104	1	Seal
44	1538190	1	Cap
45	<sup>‡</sup> 1545064	---	Shim
46	2507032	1	Bushing
47	1510348	1	Spacer
48	1657105	1	Seal
49	---	---	Omit
50	1526213	1	Bushing
51	660517	1	Ring
52	10H-25	2	Fitting grease
53	656672	2	Washer
54	23C-620	2	Bolt
55	4E-06	2	Lockwasher
56	1545224	1	Cover
57	10H-25	2	Fitting grease
58	1540037	2	Bushing
59	1546211	2	Bushing
59A	<sup>†‡</sup> 1540169	---	Spacer
60	10H-25	2	Fitting grease
61	24C-896	2	Bolt
62	556147	2	Pin
63	18D-08	2	Nut
64	4E-12	8	Lockwasher

<sup>2</sup>G.M. 427C101 → 600, 427C601 & →  
<sup>3</sup>Cummins 438C101 & →  
<sup>4</sup>Inc. 32, 77



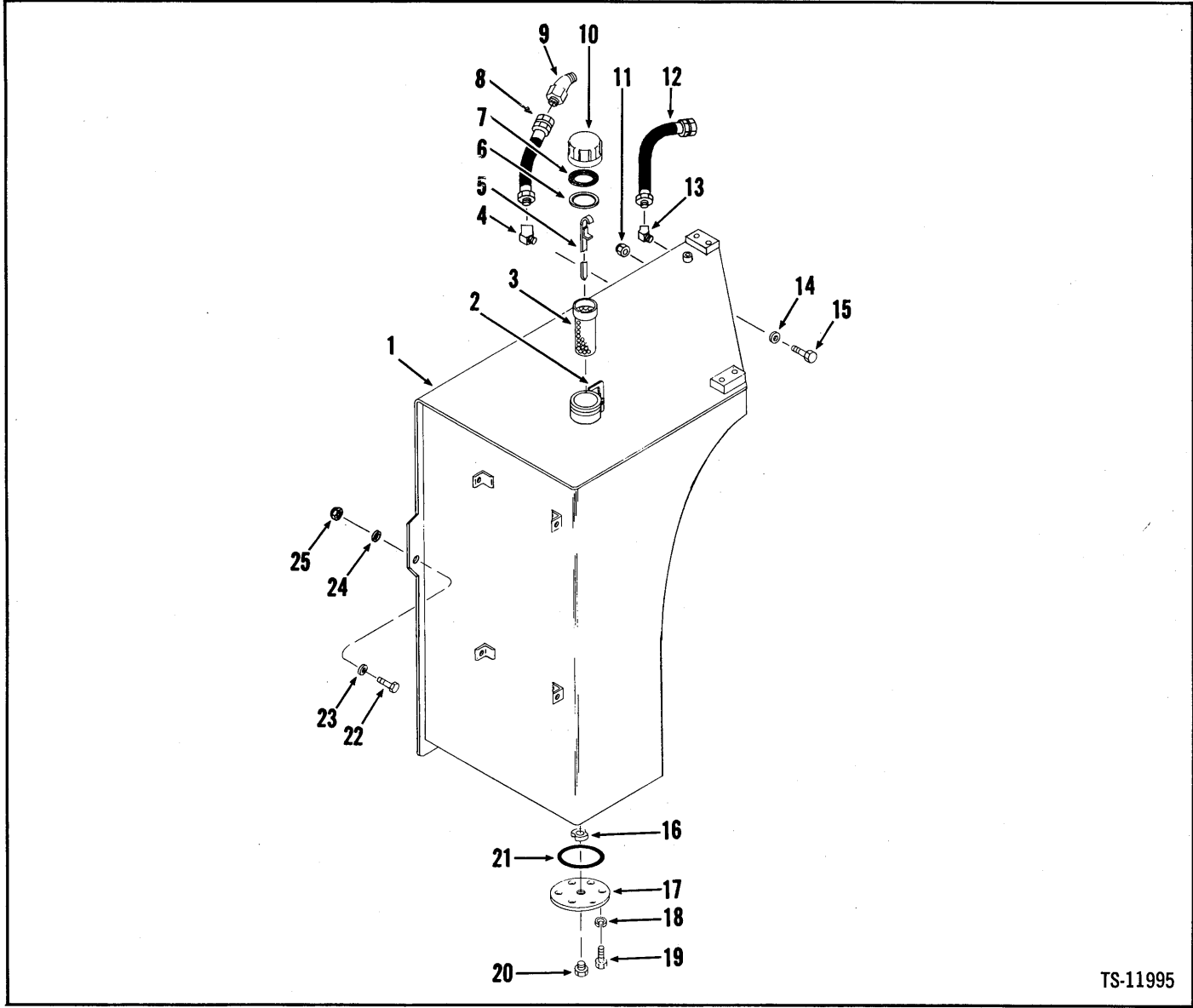
# Frame, Front & Rear



No.	Part No.	Qty.	Description
65	24C-1280	8	Bolt
66	10H-25	4	Fitting grease
67	1518313	4	Bolt
67A	†4E-12	4	Lockwasher
68	1540008	4	Cap
69	1540035	4	Bushing
70	572729	2	Nut
71	‡1519085	1	Frame
72	18D-20	8	Nut
72A	†119298	8	Washer
73	1512673	8	Bolt
74	1538388	1	Bar
75	1F-532	2	Pin cotter
76	1533279	2	Pin clevis
77	1514599	1	Bushing
78	1518981	1	Plate
79	24C-20160	1	Bolt
80	1539309	2	Bracket LH
81	712285	2	Washer
82	68D-12	2	Nut
83	24C-1452	5	Bolt
84	68D-12	3	Nut
85	1539311	1	Bracket RH

No.	Part No.	Qty.	Description
86	18D-14	5	Nut
87	‡1507454	1	Cradle axle
88	18D-20	8	Nut
88A	†119298	8	Washer
89	1512673	8	Bolt
90	‡552146	—	Washer
91	552414	1	Bushing
92	‡552147	—	Washer
93	1506190	2	Lockplate
94	31F-1	2	Adapter
95	1506188	4	Bolt
95A	†4E-08	4	Lockwasher
96	1545015	1	Counterweight
97	573845	4	Washer
98	24C-16184	4	Bolt
99	568258	2	Pin
100	18D-12	2	Nut
101	1519137	1	Hose
102	589335	4	Washer
103	68D-16	4	Nut
104	18D-10	2	Nut
104A	‡18D-12	2	Nut

‡Inc. 58, 59, 64, 65, 68  
 †Inc. 91



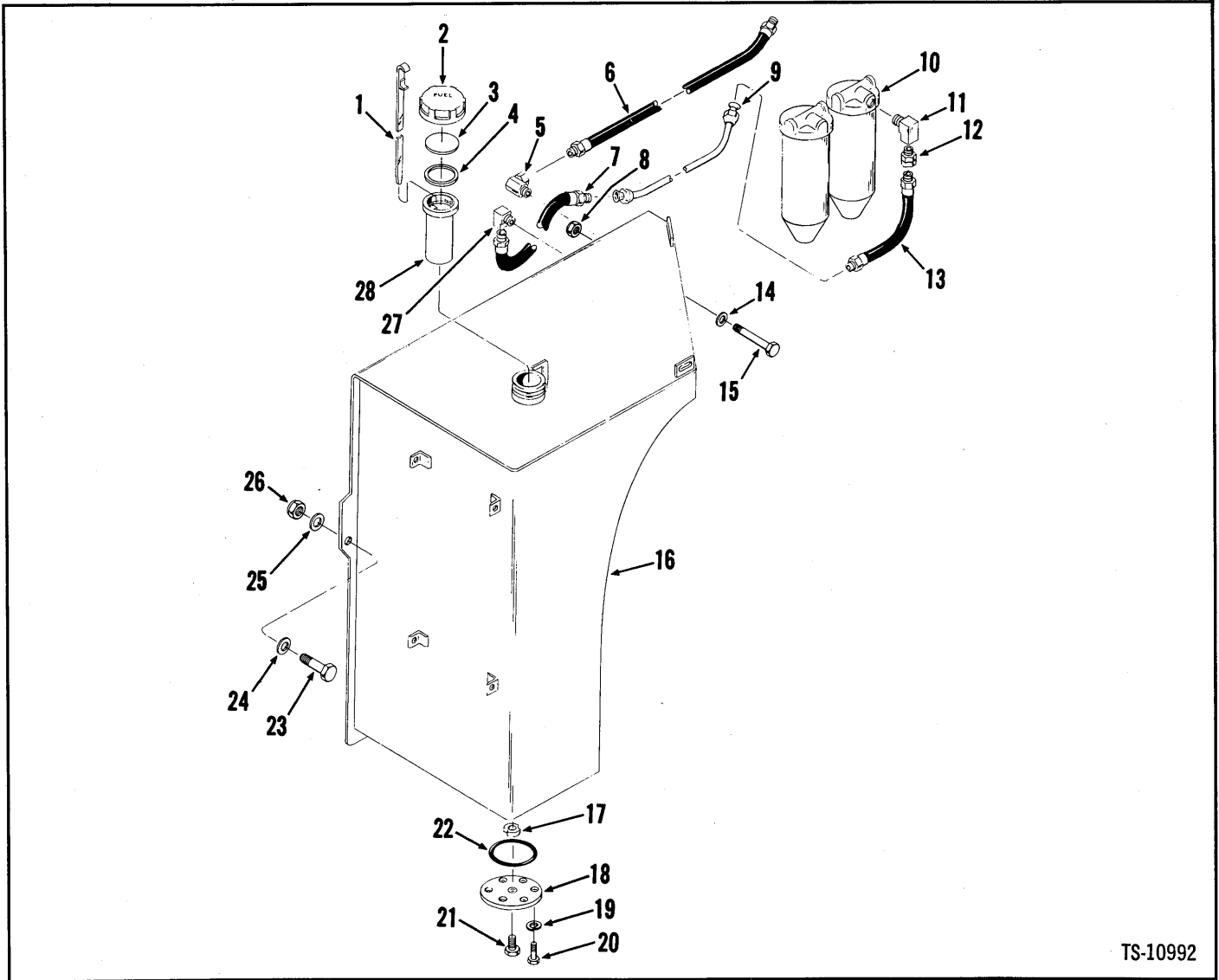
TS-11995

No.	Part No.	Qty.	Description
1	<sup>1</sup> 1540067	1	Fuel tank
2	1509025	1	Latch
2A	<sup>†</sup> 1H-414	1	Rivet
3	943957	1	Screen
4	33F-3	1	Elbow
5	573434	1	Dipstick
6	946954	1	Plate
7	946953	1	Gasket
8	1541764	1	Hose
9	<sup>2</sup> 17K-7	1	Elbow
9A	<sup>†</sup> 91F-7	1	O-ring
10	<sup>3</sup> 1558644	1	Cap
11	18D-12	1	Nut
12	1510247	1	Hose

No.	Part No.	Qty.	Description
13	33F-4	1	Elbow
14	616809	2	Washer
15	24C-1244	1	Bolt
16	525293	1	Magnet
17	587613	1	Plate
18	4E-06	6	Lockwasher
19	24C-612	6	Bolt
20	40K-16	1	Plug
21	25K-40428	1	O-ring
22	24C-1256	2	Bolt
23	616809	2	Washer
24	616809	2	Washer
25	18D-12	2	Nut

<sup>1</sup>Inc. 2, 2A  
<sup>2</sup>Inc. 9A  
<sup>3</sup>Inc. 6, 7

# Fuel Tank & Lines – G.M.



TS-10992

No.	Part No.	Qty.	Description
1	573434	1	Dipstick
2	1558644	1	Cap
3	946954	1	Plate
4	946953	1	Gasket
5	33F-3	1	Adapter
6	1515063	1	Hose
6A	†19F-3	1	Bushing
7	1515064	1	Hose
8	18D-12	1	Nut
9	1515061	1	Tube
10	2	—	Fuel filter
11	29F-2	1	Elbow
12	425413	1	Check valve
13	1515062	1	Hose
14	616809	2	Washer
15	24C-1244	1	Bolt

No.	Part No.	Qty.	Description
16	31540067	1	Fuel tank
16A	†1509025	1	Latch
16B	†1H-414	1	Rivet
17	525293	1	Magnet
18	587613	1	Cover
19	4E-06	6	Lockwasher
20	24C-612	6	Bolt
21	40K-16	1	Plug
22	25K-40428	1	O-ring
23	24C-1256	2	Bolt
24	616809	2	Washer
25	616809	2	Washer
26	18D-12	2	Nut
27	81F-3	1	Elbow
28	943957	1	Screen

<sup>1</sup>Incl. 3, 4  
<sup>2</sup>See Engine  
<sup>3</sup>Incl. 16A, 16B

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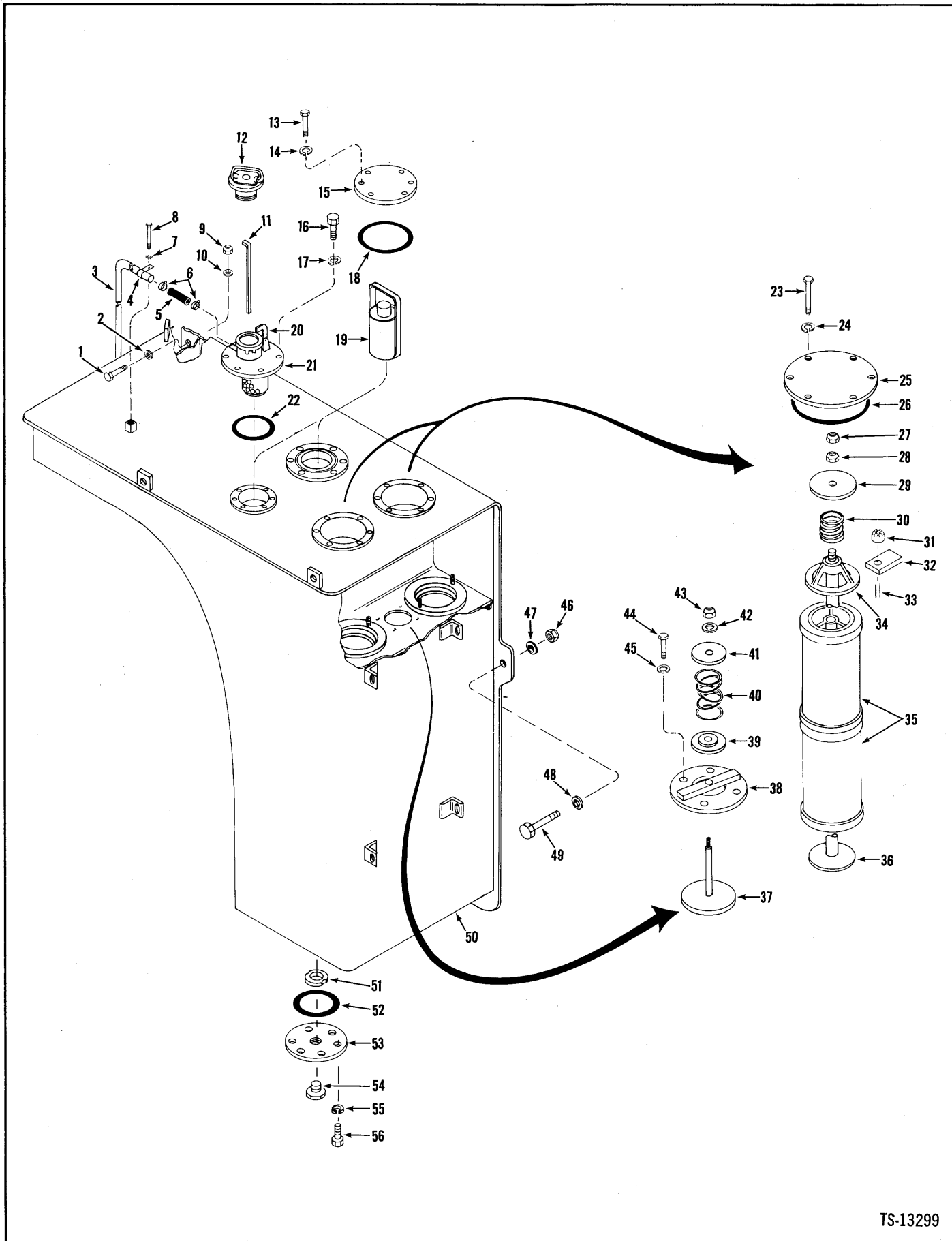
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**Group H**

Hydraulic Oil Reservoir .....H3  
Hydraulic System Main .....H5  
Hydraulic System, Steering .....H7  
Hydraulic System – Transmission and Torque Converter .....H9



TS-13299

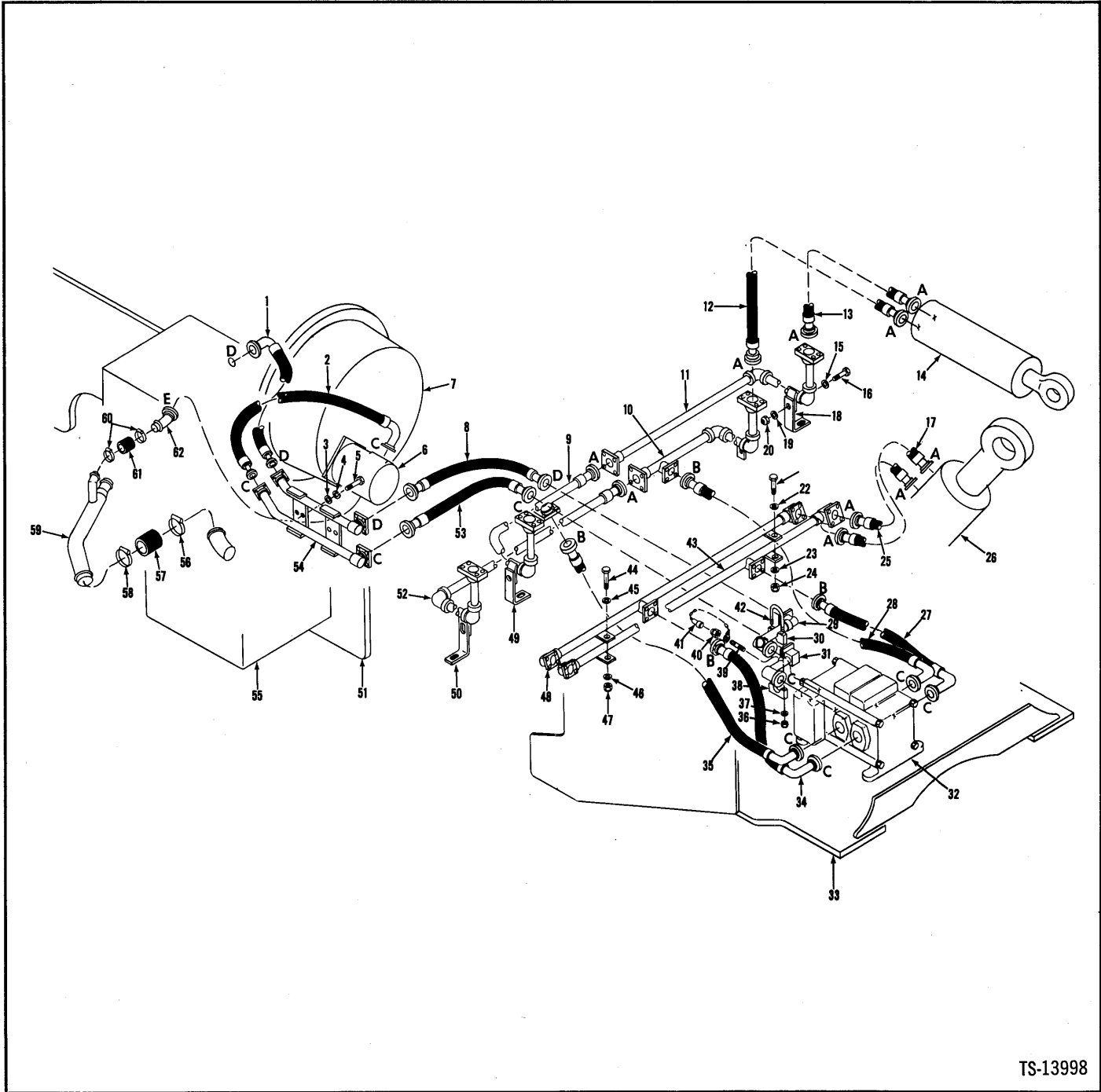


# Hydraulic Oil Reservoir



No.	Part No.	Qty.	Description
1	24C-1244	1	Bolt
2	616809	1	Washer
3	2500500	1	Tube
4	30H-46	1	Clip
5	1755622	1	Hose
6	521874	2	Clamp
7	4E-06	1	Lockwasher
8	24C-612	1	Bolt
9	18D-12	1	Nut
10	616809	1	Washer
11	2500050	1	Dipstick
12	554843	1	Cap
13	24C-612	6	Bolt
14	4E-06	6	Lockwasher
15	1529896	1	Plate
16	24C-612	6	Bolt
17	4E-06	6	Lockwasher
18	25K-40808	1	O-ring
19	1532445	2	Filter
20	1543512	1	Latch
20A	1H-414	1	Rivet
21	1515648	1	Filler neck
22	25K-40624	1	O-ring
23	24C-612	12	Bolt
24	4E-06	12	Lockwasher
25	1529896	2	Plate
26	25K-40808	2	O-ring
27	39D-06	2	Nut
28	39D-06	2	Nut
29	1517493	2	Washer
30	1530598	2	Spring
31	18D-08	4	Nut
32	537660	4	Lug
33	1547619	4	Stud
34	1529679	2	Retainer
35	1530600	4	Filter
36	1529702	2	Rod
37	1515634	1	Rod
38	1515640	1	Plate
39	1515637	1	Retainer
40	1530598	1	Spring
41	1515637	1	Retainer
42	25E-13	1	Washer
43	18D-04	1	Nut
44	24C-628	4	Bolt
45	4E-06	4	Lockwasher
46	18D-12	2	Nut
47	616809	2	Washer
48	616809	2	Washer
49	24C-1256	2	Bolt
50	2500073	1	Reservoir
51	525293	1	Magnet
52	25K-40428	1	O-ring
53	587613	1	Cover
54	40K-16	1	Plug
55	4E-06	6	Lockwasher
56	24C-612	6	Bolt

13.50 in <sup>2</sup>Inc. 20, 20A <sup>3</sup>Inc. 33



TS-13998

Group	Flange Half	O-ring	Bolt	Lkwsr	Size
	2	1	4	4	
A	663093	58K-219	23C-620	4E-06	(1") 25,4 mm
B	1511520	58K-222	23C-724	4E-07	(1¼") 31,8 mm
C	1511521	58K-225	23C-824	4E-08	(1½") 38,1 mm
D	1511522	58K-228	23C-824	4E-08	(2") 50,8 mm
E	663097	58K-232	23C-828	4E-08	(2½") 63,5 mm

# Hydraulic System, Main

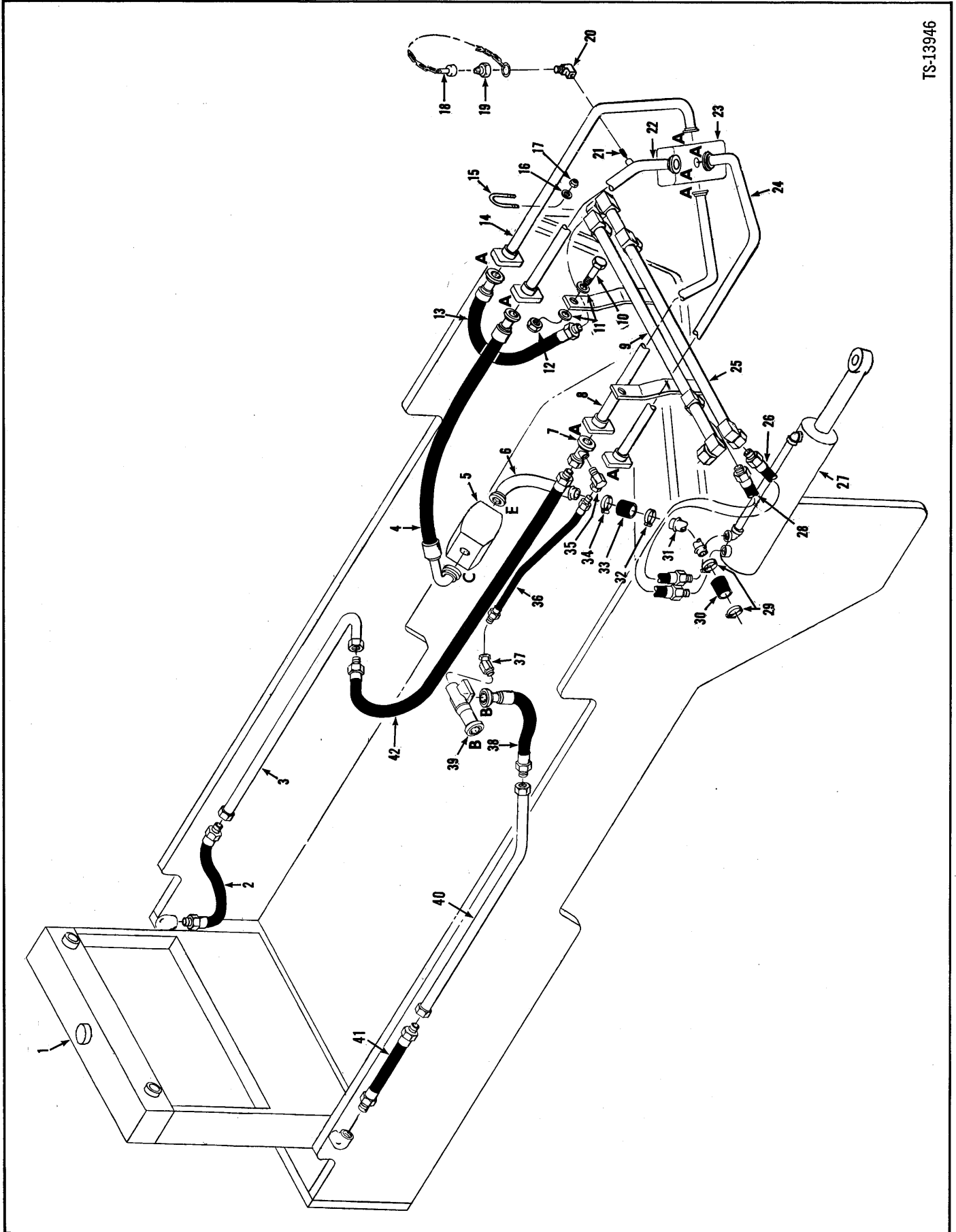
**MICHIGAN**

No.	Part No.	Qty.	Description
1	1547169	1	Hose
2	1506073	1	Hose
3	712285	4	Washer
4	4E-12	4	Lockwasher
5	24C-1232	4	Bolt
6	_____	—	Pump main
7	_____	—	Converter assy
8	1547042	1	Hose
9	1514909	1	Tube
10	1514910	1	Tube
11	1514911	1	Tube
12	1518511	2	Hose
13	1518511	2	Hose
14	_____	—	Cylinder bucket
15	584092	8	Washer
16	24C-828	8	Bolt
17	1544994	2	Hose
18	1514753	2	Bracket
19	584092	8	Washer
20	18D-08	8	Nut
21	24C-836	1	Bolt
22	584092	1	Washer
23	584092	1	Washer
24	18D-08	1	Nut
25	1531418	2	Hose
26	_____	—	Cylinder boom
27	1548671	1	Hose
28	1517384	1	Hose
29	1544673	1	Tube
30	1547310	1	Clamp
31	1544671	1	Tube

No.	Part No.	Qty.	Description
32	_____	—	Valve main
33	_____	—	Frame front
34	1548671	1	Hose
35	1517383	1	Hose
36	18D-08	2	Nut
37	584092	2	Washer
38	1547311	1	Clamp
39	5K-207	1	Nipple
40	1306142	1	Coupling
41	6000689	1	Cap
42	1547309	1	U-bolt
43	1544801	1	Tube
44	24C-836	1	Bolt
45	584092	1	Washer
46	584092	1	Washer
47	18D-08	1	Nut
48	1544845	1	Tube
49	1514753	1	Bracket
50	1514753	1	Bracket
51	_____	—	Frame rear
52	1514912	1	Tube
53	1547041	1	Hose
54	1518913	1	Tube
55	_____	—	Reservoir
56	540102	1	Clamp
57	1542512	1	Hose
58	540102	1	Clamp
59	1513510	1	Tube
60	540106	2	Clamp
61	585887	1	Hose
62	1539796	1	Stem

<sup>1</sup>See Index

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TS-13946

# Hydraulic System, Steering



No.	Part No.	Qty.	Description
1	1-----	—	Radiator
2	<sup>2</sup> 1504095	1	Hose
2A	<sup>3</sup> 1516830	1	Hose
3	<sup>2</sup> 1544067	1	Tube
4	2507187	1	Hose
5	1-----	—	Pump steering
6	1546186	1	Suction tube
7	1510326	1	Tube
8	1542369	1	Tube
9	<sup>4</sup> 1543689	1	Tube
10	24C-828	2	Bolt
11	<sup>2</sup> 25E-22	4	Washer
11A	<sup>3</sup> 703891	4	Washer
12	18D-08	2	Nut
13	1546569	2	Hose
14	1542373	1	Tube
15	1508514	4	U-bolt
16	656672	8	Washer
17	18D-06	8	Nut
18	6000689	1	Cap
19	1306142	1	Coupler
20	81F-1	1	Fitting
21	5K-208	1	Nipple
22	1542371	1	Tube

No.	Part No.	Qty.	Description
23	-----	—	Steering gear
24	1542375	1	Tube
25	<sup>5</sup> -----	—	Tube
26	657184	1	Hose
27	-----	—	Cylinder steering
28	691800	3	Hose
29	540106	2	Clamp
30	585887	1	Hose
31	2507186	1	Suction tube
32	540106	1	Clamp
33	585887	1	Hose
34	540106	1	Clamp
35	31F-4	1	Adapter
36	1510416	1	Hose
37	33F-4	1	Adapter
38	<sup>2</sup> 1544800	1	Hose
38A	<sup>3</sup> 1510394	1	Hose
39	1510327	1	Tube
40	<sup>2</sup> 1543524	1	Tube
40A	<sup>3</sup> 1510250	1	Tube
41	<sup>2</sup> 1504099	1	Hose
41A	<sup>3</sup> 1516831	1	Hose
42	1510417	1	Hose

<sup>1</sup>See Index

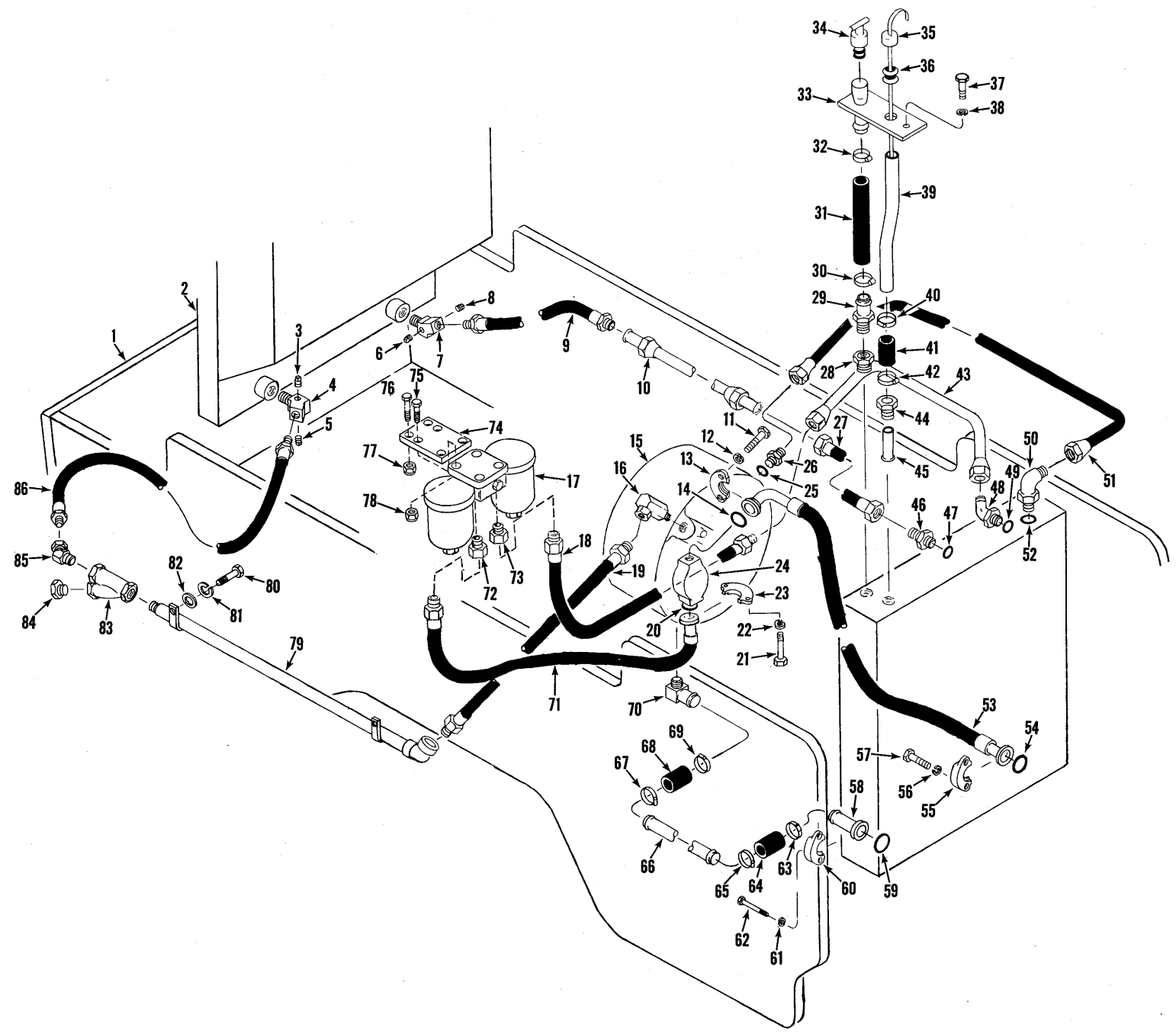
<sup>2</sup>G.M. 427C101 → 600, 427C601 & →

<sup>3</sup>Cummins 438C101 & →

<sup>4</sup>Inc. 25

<sup>5</sup>See 10

GROUP	FLANGE HALF	O-RING	BOLT	LOCKWASHER	SIZE
	2	1	4	4	
A	663093	58K-219	23C-620	4E-06	(1") 25,4 mm
B	1511520	58K-222	23C-724	4E-07	(1¼") 31,8 mm
C	1511521	58K-225	23C-824	4E-08	(1½") 38,1 mm
E	663097	58K-232	23C-828	4E-08	(2½") 63,5 mm



# Hydraulic System, Transmission & Converter



No.	Part No.	Qty.	Description
1	1-----	—	Frame rear
2	1-----	—	Radiator assy
3	40K-02	1	Plug pipe
4	1529949	1	Elbow
5	40K-02	1	Plug pipe
6	40K-02	1	Plug pipe
7	1529949	1	Elbow
8	40K-02	1	Plug pipe
9	547007	1	Hose
10	<sup>2</sup> 1510257	1	Tube
10A	<sup>3</sup> 1543525	1	Tube
11	23C-724	4	Bolt
12	4E-07	4	Lockwasher
13	1511520	2	Flange half
14	58K-222	1	O-ring
15	1-----	—	Converter assy
16	<sup>4</sup> 1520566	1	Adapter
16A	<sup>†</sup> 91F-10	1	O-ring
17	<sup>5</sup> 234777	1	Filter assy
17A	233277	2	Element
18	582693	1	Hose
19	546803	1	Hose
20	58K-219	1	O-ring
21	23C-620	4	Bolt
22	4E-06	4	Lockwasher
23	663093	2	Flange half
24	1-----	—	Pump conv charging
25	91F-10	1	O-ring
26	<sup>6</sup> 18K-10	1	Elbow
27	584263	1	Hose
28	356621	1	Bushing
29	667288	1	Stem
30	540103	1	Clamp
31	568810	1	Hose
32	540103	1	Clamp
33	568807	1	Plate
34	568824	1	Plug cap transm
35	568823	1	Dipstick transm
36	560640	1	Grommet
37	23C-616	2	Bolt
38	4E-06	2	Lockwasher
39	1502877	1	Tube
40	521874	1	Clamp
41	<sup>7</sup> 743563	1	Hose
42	521874	1	Clamp
43	1543730	1	Tube

No.	Part No.	Qty.	Description
44	92F-7	1	Nut
45	1502876	1	Tube
46	<sup>8</sup> 15K-10	1	Connector
47	91F-10	1	O-ring
48	<sup>9</sup> 18K-10	1	Elbow
49	91F-10	1	O-ring
50	<sup>10</sup> 17K-10	1	Elbow
51	1501251	1	Tube
52	91F-10	1	O-ring
53	558793	1	Hose
54	58K-225	1	O-ring
55	1511521	2	Flange half
56	4E-08	4	Lockwasher
57	23C-824	4	Bolt
58	799020	1	Stem
59	58K-225	1	O-ring
60	1511521	2	Flange half
61	4E-08	4	Lockwasher
62	23C-824	4	Bolt
63	1545004	1	Clamp
64	536710	1	Hose
65	1545004	1	Clamp
66	1533267	1	Tube
67	1545004	1	Clamp
68	536710	1	Hose
69	1545004	1	Clamp
70	1311282	1	Elbow
71	1543449	1	Hose
72	587075	1	Adapter
73	587075	1	Adapter
74	2511431	1	Bracket
75	24G-828	2	Bolt
76	24C-724	4	Bolt
77	18D-07	4	Nut
78	18D-08	2	Nut
79	<sup>2</sup> 1510253	1	Tube
79A	<sup>3</sup> 1543745	1	Tube
80	24C-616	2	Bolt
81	4E-06	2	Lockwasher
82	656672	2	Washer
83	<sup>11</sup> 1532819	1	Strainer
83A	<sup>†</sup> 946943	1	Screen
84	40K-06	1	Plug
85	36F-5	1	Adapter
86	547007	1	Hose

<sup>1</sup>See Index

<sup>2</sup>For Cummins powered only

<sup>3</sup>For G.M. powered only

<sup>4</sup>Inc. 16A

<sup>5</sup>Inc. 17A

<sup>6</sup>Inc. 25

<sup>7</sup>3.50" long

<sup>8</sup>Inc. 47

<sup>9</sup>Inc. 49

<sup>10</sup>Inc. 52

<sup>11</sup>Inc. 83A

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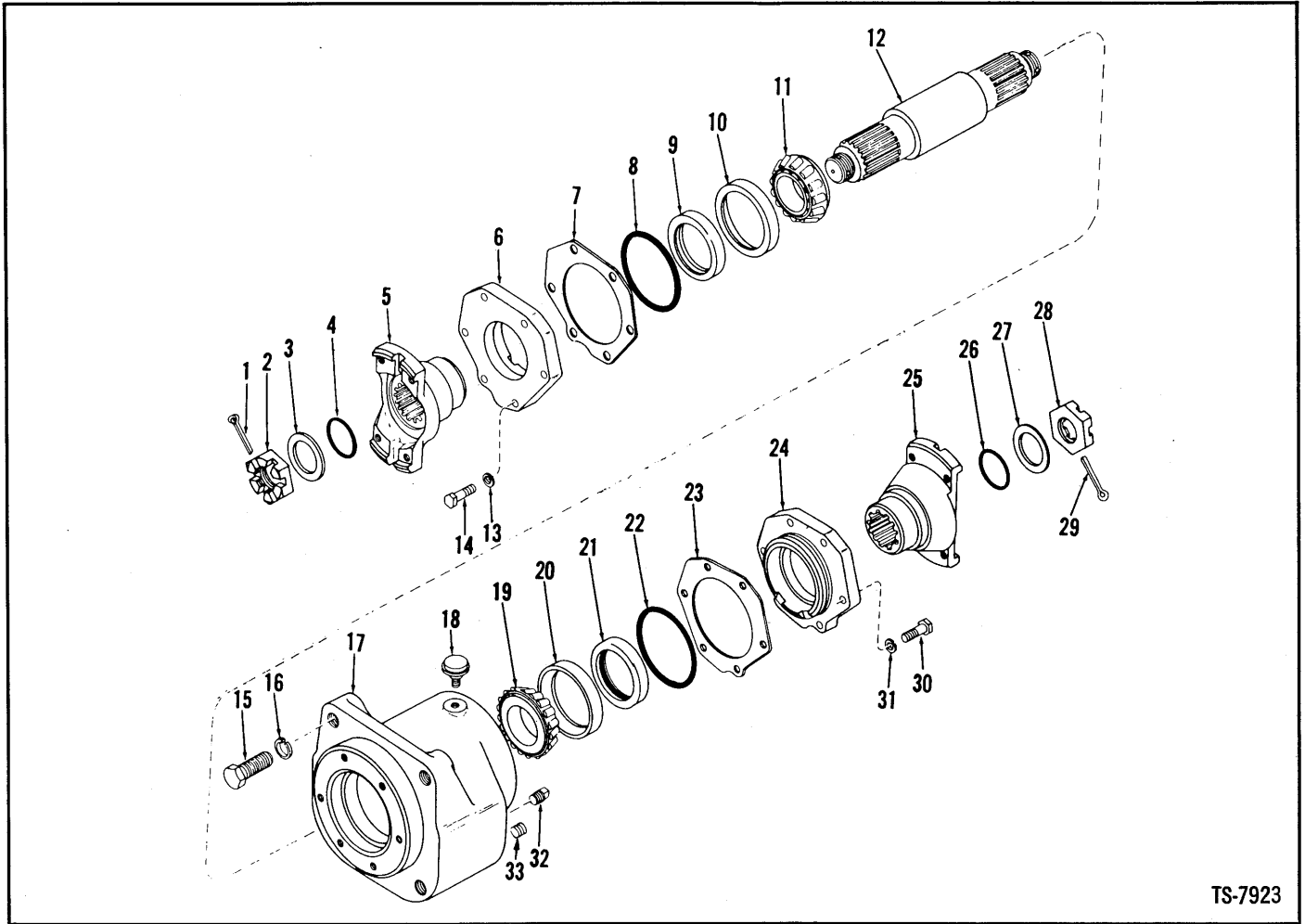
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**Group M**

Mid-Mount Bearing Assembly .....M2



TS-7923

No.	Part No.	Qty.	Description
A	1230553	1	Bearing
1	1F-436	1	Pin cotter
2	205928	1	Nut
3	222179	1	Washer
4	25K-60116	1	O-ring
5	222233	1	Flange
6	230690	1	Cap
7	‡217566	—	Shim
7A	‡217567	—	Shim
7B	‡217568	—	Shim
8	25K-40308	1	O-ring
9	225823	1	Seal
10	856250	1	Cup
11	654141	1	Cone
12	233007	1	Shaft
13	4E-07	4	Lockwasher
14	1C-722	4	Bolt
15	23C-1044	4	Bolt
16	4E-10	4	Lockwasher
16A	†942139	4	Washer

No.	Part No.	Qty.	Description
17	230529	1	Housing
18	211433	1	Breather
19	654141	1	Cone
20	856250	1	Cup
21	225823	1	Seal
22	25K-40308	1	O-ring
23	‡217566	—	Shim
23A	‡217567	—	Shim
23B	‡217568	—	Shim
24	230690	1	Cap
25	222233	1	Flange
26	25K-60116	1	O-ring
27	222179	1	Washer
28	222960	1	Nut
29	—	—	Omit
30	1C-722	4	Bolt
31	4E-07	4	Lockwasher
32	13F-12	1	Plug
33	215757	1	Plug

†Inc. 1→14, 17→33

‡.004" (0,10 mm)

‡.007" (0,18 mm)

‡.010" (0,25 mm)

**Group N**

Nameplate & Decals .....N2

No.	Part No.	Qty.	Description
1	<sup>2</sup> 1517393	1	Plate precaution
1A	<sup>3</sup> 3585995	1	Plate precaution
1B	<sup>4</sup> 3585996	1	Plate precaution
2	65G-406	4	Screw
3	1527430	1	Plate service
3A	3238022	1	Plate service
3B	3238051	1	Plate service
4	<sup>7</sup> 1507422	1	Plate serial number
5	6C-605	4	Screw
6	1512006	1	Decal patent
7	<sup>2</sup> 1510525	1	Decal lubrication
7A	<sup>3</sup> 3585981	1	Decal lubrication
7B	<sup>4</sup> 3585982	1	Decal lubrication
7C	<sup>7</sup> 2511567	1	Decal lubrication
8	1523338	1	Decal caution oil
9	<sup>2</sup> 538256	1	Decal trans drain
9A	<sup>3</sup> 3237998	1	Decal trans drain
9B	<sup>4</sup> 3238026	1	Decal trans drain
10	<sup>2</sup> 1534502	1	Decal trans filter
10A	<sup>3</sup> 3586004	1	Decal trans filter
10B	<sup>4</sup> 3586005	1	Decal trans filter
11	547852	1	Decal Michigan
11A	<sup>7</sup> 2510783	1	Decal Michigan
12	547851	1	Decal Clark Equip
12A	<sup>7</sup> 1520340	1	Decal Clark Equip
13	<sup>2</sup> 1511711	2	Decal warning
13A	<sup>3</sup> 3585983	2	Decal warning
13B	<sup>4</sup> 3585984	2	Decal warning
13C	<sup>7</sup> 2510267	1	Decal warning
14	1513887	1	Tag steering warning
15	1517621	4	Decal racing stripe
16	<sup>2</sup> 1549006	4	Decal emgcy stop
16A	<sup>3</sup> 3585200	4	Decal emgcy stop
16B	<sup>4</sup> 3585204	4	Decal emgcy stop
16C	<sup>7</sup> 1511708	1	Decal emgcy stop
17	<sup>2</sup> 1548364	1	Decal brake warning
17A	<sup>3</sup> 3585202	1	Decal brake warning
17B	<sup>4</sup> 3585206	1	Decal brake warning
18	<sup>2</sup> 1515482	1	Decal valve levers instruction

No.	Part No.	Qty.	Description
18A	<sup>3</sup> 3585993	1	Decal valve levers instruction
18B	<sup>4</sup> 3585994	1	Decal valve levers instruction
19	<sup>2</sup> 1549005	1	Decal not for park
19A	<sup>3</sup> 3585199	1	Decal not for park
19B	<sup>4</sup> 3585203	1	Decal not for park
19C	<sup>5</sup> 3240255	1	Decal not for park
19D	<sup>6</sup> 3301478	1	Decal not for park
20	<sup>2</sup> 1505581	1	Decal safety wiring
20A	<sup>3</sup> 3238021	1	Decal safety wiring
20B	<sup>4</sup> 3238050	1	Decal safety wiring
20C	<sup>5</sup> 3240253	1	Decal safety wiring
20D	<sup>6</sup> 3300368	1	Decal safety wiring
21	<sup>2</sup> 1511805	1	Decal shift quadrant
21A	<sup>3</sup> 3585987	1	Decal shift quadrant
21B	<sup>4</sup> 3585988	1	Decal shift quadrant
21C	<sup>5</sup> 3240256	1	Decal shift quadrant
22	1513931	2	Decal model
22A	<sup>7</sup> 2510784	2	Decal model
23	535649	1	Nameplate Michigan
24	7G-418	4	Screw
25	20E-04	4	Lockwasher
26	<sup>8</sup> 565138	1	Strip abrasive
27	<sup>9,13</sup> 565139	2	Strip abrasive
28	<sup>10</sup> 1531606	8	Strip abrasive
29	<sup>12</sup> 1503984	2	Strip abrasive
30	1547653	1	Decal, lifting data
30A	<sup>7</sup> 2510268	1	Decal lifting data
30B	<sup>3</sup> 3586852	1	Decal lifting data
30C	<sup>4</sup> 3586851	1	Decal lifting data
30D	<sup>5</sup> 3586853	1	Decal lifting data
30E	<sup>6</sup> 3586854	1	Decal lifting data
31	<sup>11</sup> 1511709	3	Decal lifting pointer
32	<sup>7</sup> 2507157	1	Decal quick start
33	<sup>7</sup> 2513296	1	Sign kit
34	<sup>7</sup> 1522201	1	Clamp
35	<sup>7</sup> 24C-520	1	Bolt
36	<sup>7</sup> 25E-16	1	Washer
37	<sup>7</sup> 18D-05	1	Locknut

<sup>2</sup>English

<sup>3</sup>French

<sup>4</sup>German

<sup>5</sup>Spanish

<sup>6</sup>Portugese

<sup>7</sup>G.M. 427C601 & →

<sup>8</sup>6"x32" (152,4 mm x 812,8 mm)

<sup>9</sup>6"x25" (152,4 mm x 636 mm)

<sup>10</sup>6"x12½" (152,4 mm x 317,5 mm)

<sup>11</sup>Optional equipment not furnished with machine

<sup>12</sup>G.M. only

<sup>13</sup>Cummins only

**Group P**

Propeller Shafts .....P3  
Pump Group:  
    Pump Assembly – Main .....P5  
    Pump Assembly – Steering .....P7  
    Pump Attaching Parts .....P8

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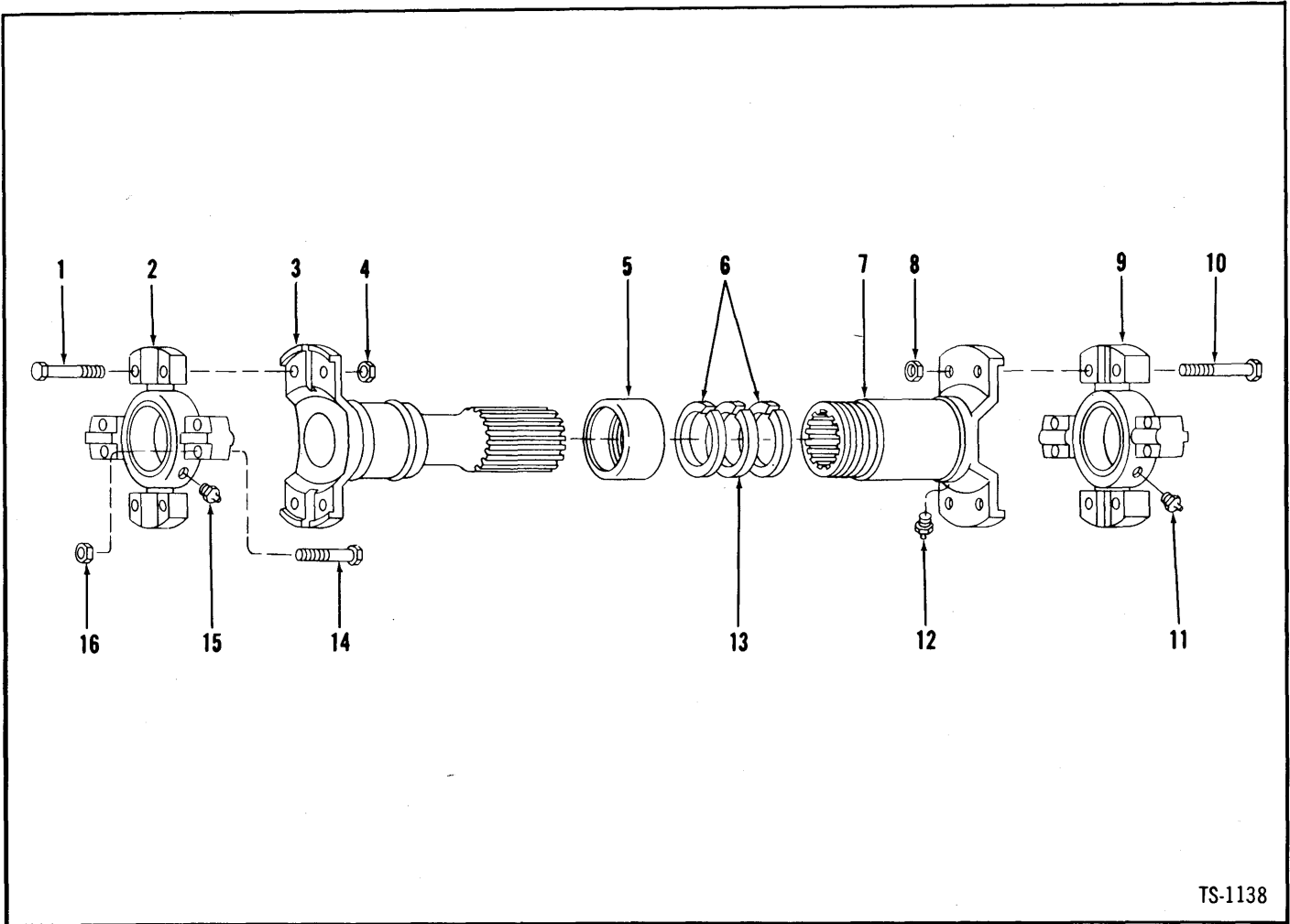
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# Propeller Shaft Assemblies

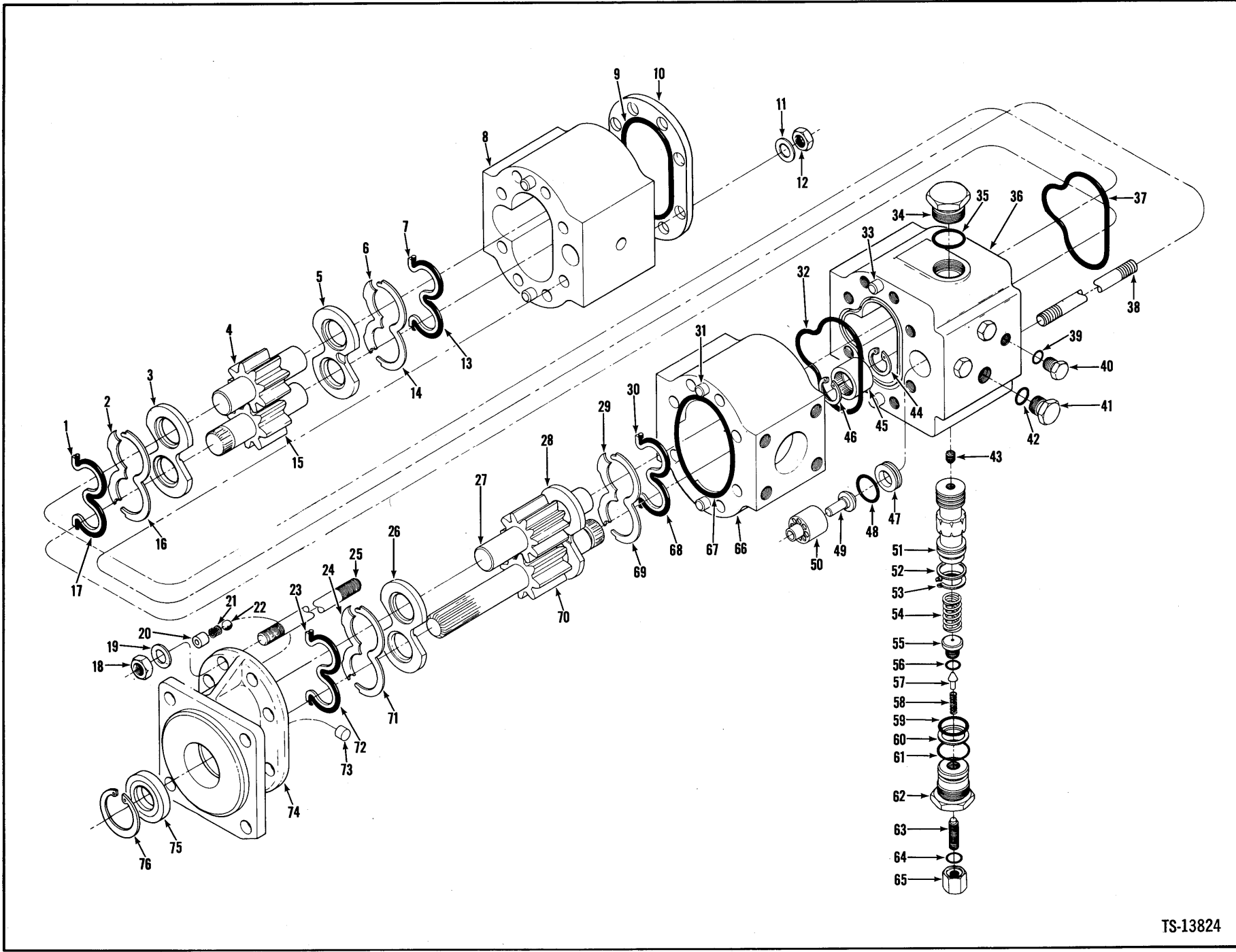


TS-1138

Item No.	Description	Transmission to Rear Axle	Converter to Transmission	Mid Mount Bearing to Front Axle	Transmission to Mid Mount Bearing (Rear)	No. Required
A	<sup>1</sup> Propeller shaft	556432	1526594	1536787	513928	1
B	<sup>2</sup> Kit	980615				1
1	Bolt	940229	940089	940229	940229	4
2	Spider, u-joint	946641	944862	942735	942735	1
3	Tube	946642	947245	947821	946101	1
4	Nut	8D-08	8D-06	8D-08	8D-08	4
5	Retainer	see B	940090	940250	940250	1
6	Washer	see B	940091	940251	940251	2
7	Slip yoke	946643	940093	942734	942734	1
8	Nut	8D-08	8D-06	8D-08	8D-08	4
9	Spider, u-joint	946641	944862	942735	942735	1
10	Bolt	940229	940089	940229	940229	4
11	Fitting, grease	10H-35	10H-35	944688	10H-35	1
12	Fitting, grease	10H-25	10H-25	10H-25	10H-25	1
13	Washer	see B	940092	942749	942749	1
14	Bolt	940229	940089	940229	940229	8
15	Fitting, grease	10H-35	10H-35	944688	10H-35	1
16	Nut	8D-08	8D-06	8D-08	8D-08	8

<sup>1</sup>Inc. 1 → 16

<sup>2</sup>Inc. 5, 6, 13





# Pump Assembly Main



No.	Part No.	Qty.	Description
A	12507297	1	Pump assy
B	2960779	1	Body kit front
C	3960783	1	Body kit rear
D	4960760	1	Valve o-ring kit
E	5960720	1	Service kit
F	6960107	1	Seal kit
1	7-----	1	Back-up ring
2	7-----	1	Isolation plate
3	8-----	1	Pressure plate
4	8-----	1	Gear
5	8-----	1	Pressure plate
6	7-----	1	Isolation plate
7	7-----	1	Back-up ring
8	8-----	1	Body rear
9	7-----	1	O-ring
10	947208	1	Cover
11	946271	8	Washer
12	954277	8	Nut
13	7-----	1	O-ring
14	7-----	1	Retainer
15	8-----	1	Gear
16	7-----	1	Retainer
17	7-----	1	O-ring
18	954277	8	Nut
19	946271	8	Washer
20	960771	1	Retainer
21	960770	1	Spring
22	351162	1	Ball
23	7-----	1	Back-up ring
24	7-----	1	Isolation plate
25	960723	8	Stud
26	9-----	1	Pressure plate
27	9-----	1	Gear
28	9-----	1	Pressure plate
29	7-----	1	Isolation plate
30	7-----	1	Back-up ring
31	946100	2	Dowel
32	7-----	1	O-ring
33	946100	4	Dowel
34	24K-1	1	Plug
35	6190221	1	O-ring

No.	Part No.	Qty.	Description
36	8-----	1	Body valve
37	7-----	1	O-ring
38	960323	8	Stud
39	91F-5	3	O-ring
40	24K-5	3	Plug
41	24K-7	1	Plug
42	91F-7	1	O-ring
43	10-----	1	Set screw
44	664140	1	Snap ring
45	6190217	1	Coupling
46	664140	1	Snap ring
47	960725	1	Seat
48	25K-20108	1	O-ring
49	948571	1	Piston
50	948570	1	Retainer
51	960765	1	Valve spool
52	960772	1	Back-up ring
53	873246	1	Snap ring
54	960767	1	Spring
55	948439	1	Plug
56	91F-5	1	O-ring
57	948438	1	Poppet
58	960769	1	Spring
59	58K-217	1	O-ring
60	73K-217	1	Back-up ring
61	6190221	1	O-ring
62	960766	1	Plug
63	960768	1	Set screw
64	25K-20014	1	O-ring
65	948441	1	Acorn nut
66	9-----	1	Body front
67	7-----	1	O-ring
68	7-----	1	O-ring
69	7-----	1	Retainer
70	9-----	1	Gear
71	7-----	1	Retainer
72	7-----	1	O-ring
73	6190211	1	Plug
74	960101	1	Flange
75	946099	1	Seal
76	6661416	1	Snap ring

<sup>1</sup>Inc. 1→76

<sup>2</sup>Inc. 18→31, 44→46, 66→76

<sup>3</sup>Inc. 1→17, 32→65

<sup>4</sup>Inc. 35, 39, 52, 53, 56, 59→61, 64

<sup>5</sup>Inc. 1, 2, 6, 7, 9, 13, 14, 16, 17, 23, 24, 29, 30, 32, 37, 67→69, 71, 72, 75

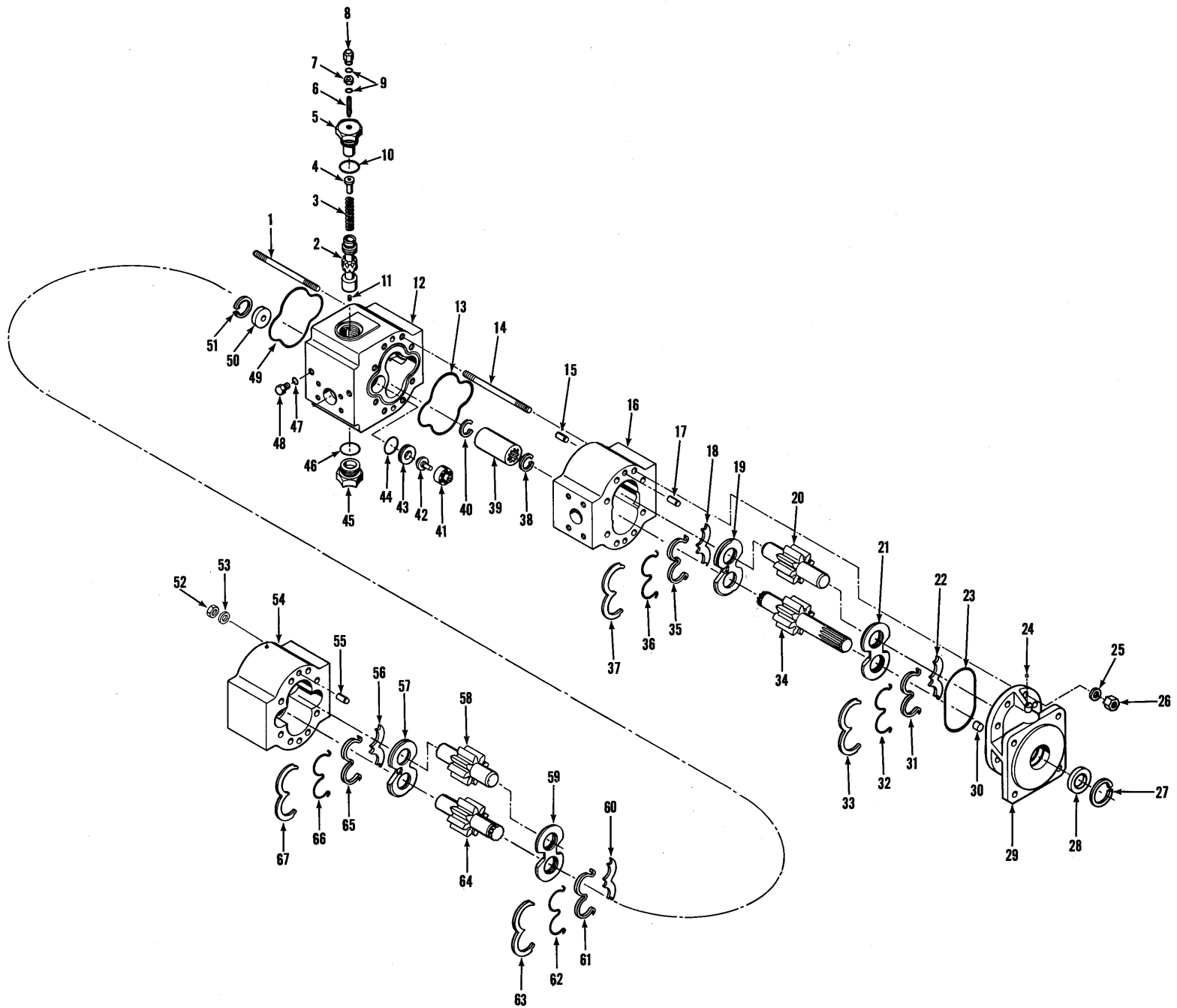
<sup>6</sup>Inc. 67, 75

<sup>7</sup>See "E"

<sup>8</sup>See "C"

<sup>9</sup>See "B"

<sup>10</sup>See 51



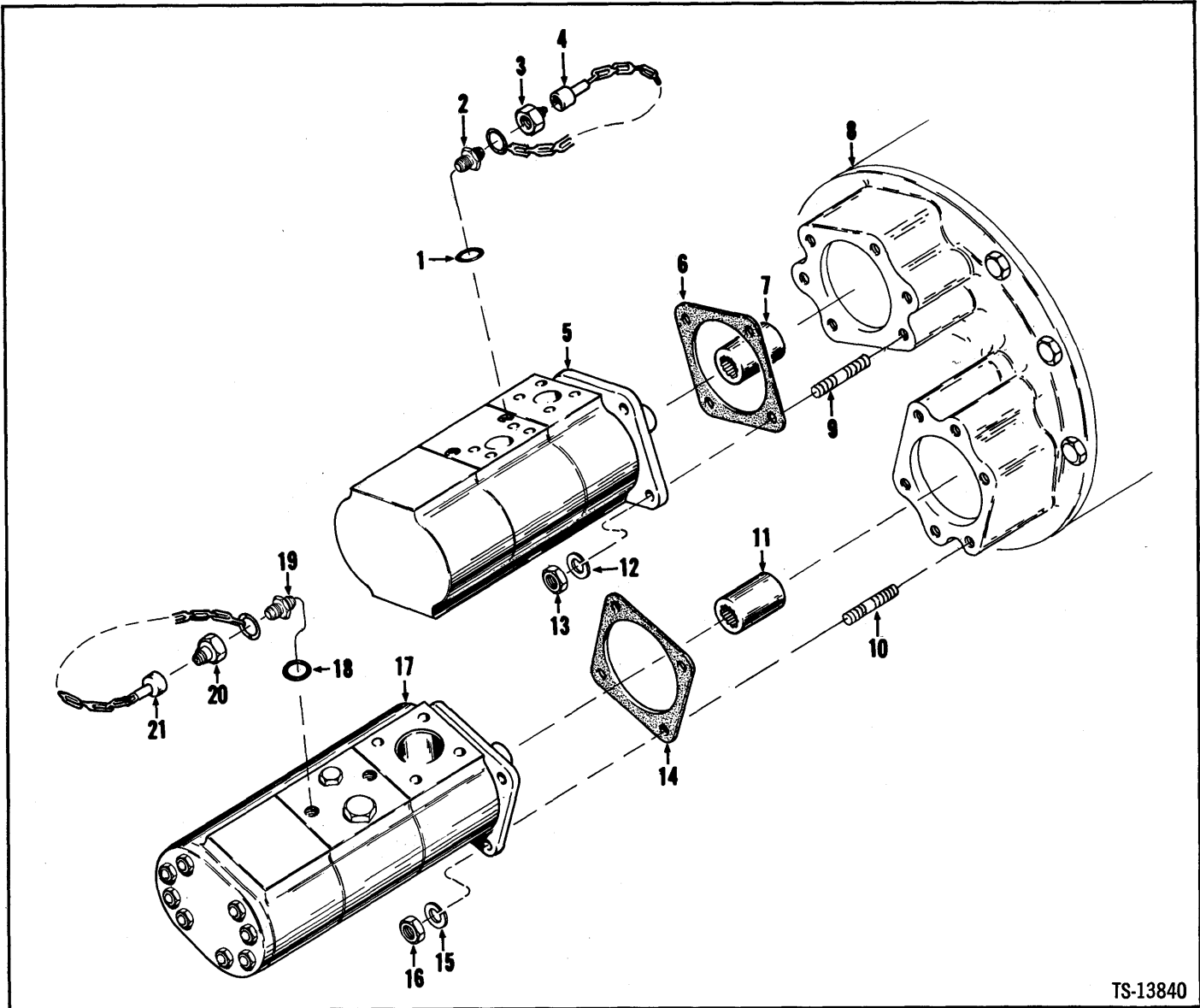
TS-13812

# Pump Assembly, Steering

No.	Part No.	Qty.	Description
A	<sup>2</sup> 2507293	1	Pump assy
B	<sup>3</sup> 960751	1	Body kit front
C	<sup>4</sup> 960752	1	Body kit rear
D	<sup>5</sup> 960750	1	Valve o-ring kit
E	<sup>6</sup> 960749	1	Service kit
F	<sup>7</sup> 960107	1	Seal kit
1	960723	8	Stud
2	960722	1	Valve spool
3	949019	1	Spring
4	948590	1	Retainer
5	960724	1	Plug
6	960726	1	Set screw
7	948440	1	Locknut
8	948441	1	Nut
9	<sup>25K-20014</sup>	2	O-ring
10	6190221	1	O-ring
11	960727	1	Set screw
12	§ <sup>8</sup> _____	1	Body valve
13	§ <sup>9</sup> _____	1	O-ring
14	960723	8	Stud
15	946100	2	Dowel
16	§ <sup>10</sup> _____	1	Body front
17	946100	2	Dowel
18	§ <sup>9</sup> _____	1	Isolation plate
19	§ <sup>10</sup> _____	1	Pressure plate
20	§ <sup>10</sup> _____	1	Gear
21	§ <sup>10</sup> _____	1	Pressure plate
22	§ <sup>9</sup> _____	1	Isolation plate
23	§ <sup>9</sup> _____	1	O-ring
24	10J-08	1	Ball
25	946271	8	Washer
26	954277	8	Nut
27	<sup>9</sup> 6661416	1	Snap ring
28	<sup>9</sup> 946099	1	Seal
29	§ <sup>10</sup> _____	1	Flange
30	§ <sup>10</sup> _____	1	Plug
31	§ <sup>10</sup> _____	1	Back-up ring

No.	Part No.	Qty.	Description
32	§ <sup>10</sup> _____	1	O-ring
33	§ <sup>10</sup> _____	1	Ring retainer
34	§ <sup>10</sup> _____	1	Gear
35	§ <sup>9</sup> _____	1	Back-up ring
36	§ <sup>9</sup> _____	1	O-ring
37	§ <sup>9</sup> _____	1	Ring retainer
38	664140	1	Snap ring
39	6190217	1	Spline coupling
40	664140	1	Snap ring
41	948570	1	Retainer
42	948571	1	Piston
43	960725	1	Seat
44	25K-20108	1	O-ring
45	24K-1	1	Plug
46	6190221	1	O-ring
47	91F-5	2	O-ring
48	24K-5	2	Plug
49	§ <sup>9</sup> _____	1	O-ring
50	960728	1	Orifice
51	666542	1	Snap ring
52	954277	8	Nut
53	946271	8	Washer
54	§ <sup>8</sup> _____	1	Body rear
55	946100	2	Dowel
56	§ <sup>8</sup> _____	1	Isolation plate
57	§ <sup>8</sup> _____	1	Pressure plate
58	§ <sup>8</sup> _____	1	Gear
59	§ <sup>8</sup> _____	1	Pressure plate
60	§ <sup>9</sup> _____	1	Isolation plate
61	§ <sup>9</sup> _____	1	Back-up ring
62	§ <sup>9</sup> _____	1	O-ring
63	§ <sup>9</sup> _____	1	Ring retainer
64	§ <sup>8</sup> _____	1	Gear
65	§ <sup>9</sup> _____	1	Back-up ring
66	§ <sup>9</sup> _____	1	O-ring
67	§ <sup>9</sup> _____	1	Ring retainer

<sup>1</sup>See Index  
<sup>2</sup>Inc. 1→67  
<sup>3</sup>Inc. 16→37  
<sup>4</sup>Inc. 1→13, 38→67  
<sup>5</sup>Inc. 9, 10, 46, 47  
<sup>6</sup>Inc. 13, 18, 22, 23, 27, 28, 31→33, 35→37, 49, 56, 60→63, 65→67  
<sup>7</sup>Inc. 23, 28  
<sup>8</sup>See "C"  
<sup>9</sup>See "E"  
<sup>10</sup>See "B"



TS-13840

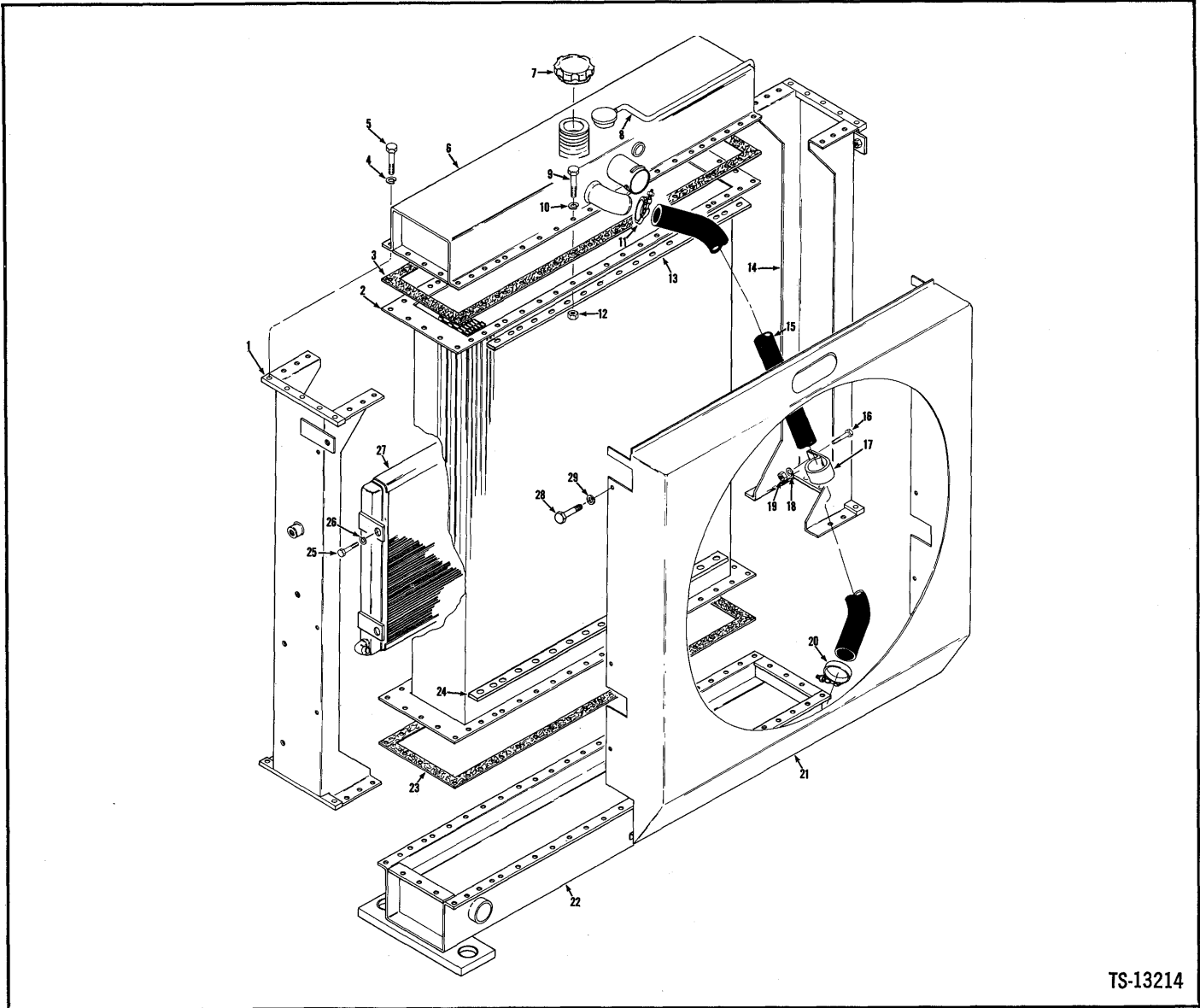
No.	Part No.	Qty.	Description
1	91F-5	1	O-ring
2	<sup>2</sup> 1314178	1	Connector
3	1306142	1	Coupler
4	6000689	1	Cap
5	1	—	Pump steering
6	552161	1	Gasket
7	<sup>3</sup> 230151	1	Sleeve drive shaft
7A	†224104	1	Ring snap
8	1	—	Converter assy
9	1513241	4	Stud
10	1513241	4	Stud
11	<sup>4</sup> 230151	1	Sleeve drive shaft

No.	Part No.	Qty.	Description
11A	†224104	1	Ring snap
12	4E-08	4	Lockwasher
13	62D-08	4	Nut
14	552161	1	Gasket
15	4E-08	4	Lockwasher
16	62D-08	4	Nut
17	1	—	Pump main
18	91F-5	1	O-ring
19	<sup>5</sup> 1314178	1	Connector
20	1306142	1	Coupler
21	6000689	1	Cap

<sup>1</sup>See Index  
<sup>2</sup>Inc. 1  
<sup>3</sup>Inc. 7A  
<sup>4</sup>Inc. 11A  
<sup>5</sup>Inc. 18

**Group R**

Radiator Assembly, Cummins .....R2  
Radiator Assembly, G.M. ....R3  
Radiator Connections – Cummins .....R5  
Radiator Connections – G.M. ....R6  
Rollover Protection Structure .....R7



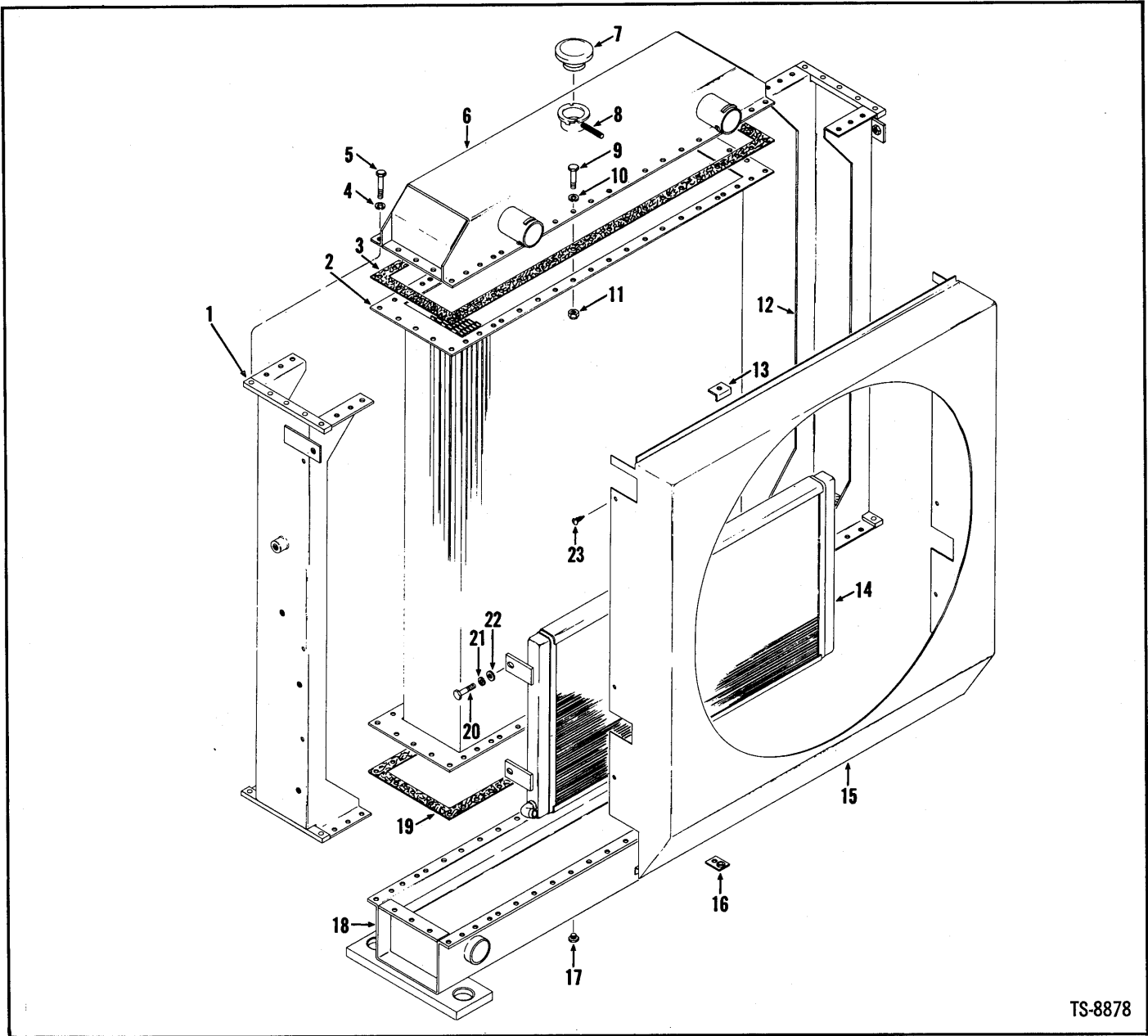
TS-13214

No.	Part No.	Qty.	Description
A	1549349	1	Radiator assy
1	960009	1	Side member RH
2	960012	1	Core
3	948934	1	Gasket
4	4E-05	20	Lockwasher
5	1C-512	20	Bolt
6	960006	1	Top tank
7	539195	1	Cap
7A	539318	1	Gasket
8	945460	1	Hose
9	1C-516	76	Bolt
10	4E-05	76	Lockwasher
11	949074	1	Clamp
12	61D-05	76	Nut
13	948923	2	Header bar
14	960008	1	Side member LH

No.	Part No.	Qty.	Description
15	960013	1	Hose
16	1C-410	2	Bolt
17	949075	2	Clips
18	4E-04	2	Lockwasher
19	17D-1	2	Nut
20	949074	1	Clamp
21	960011	1	Shroud
22	960007	1	Bottom tank
23	948935	1	Gasket
24	948923	1	Header bar
25	1C-614	4	Bolt
26	4E-06	4	Lockwasher
27	960010	1	Oil cooler
28	1C-510	10	Bolt
29	4E-05	10	Lockwasher

†Inc. 1 → 29

# Radiator Assembly – G.M.

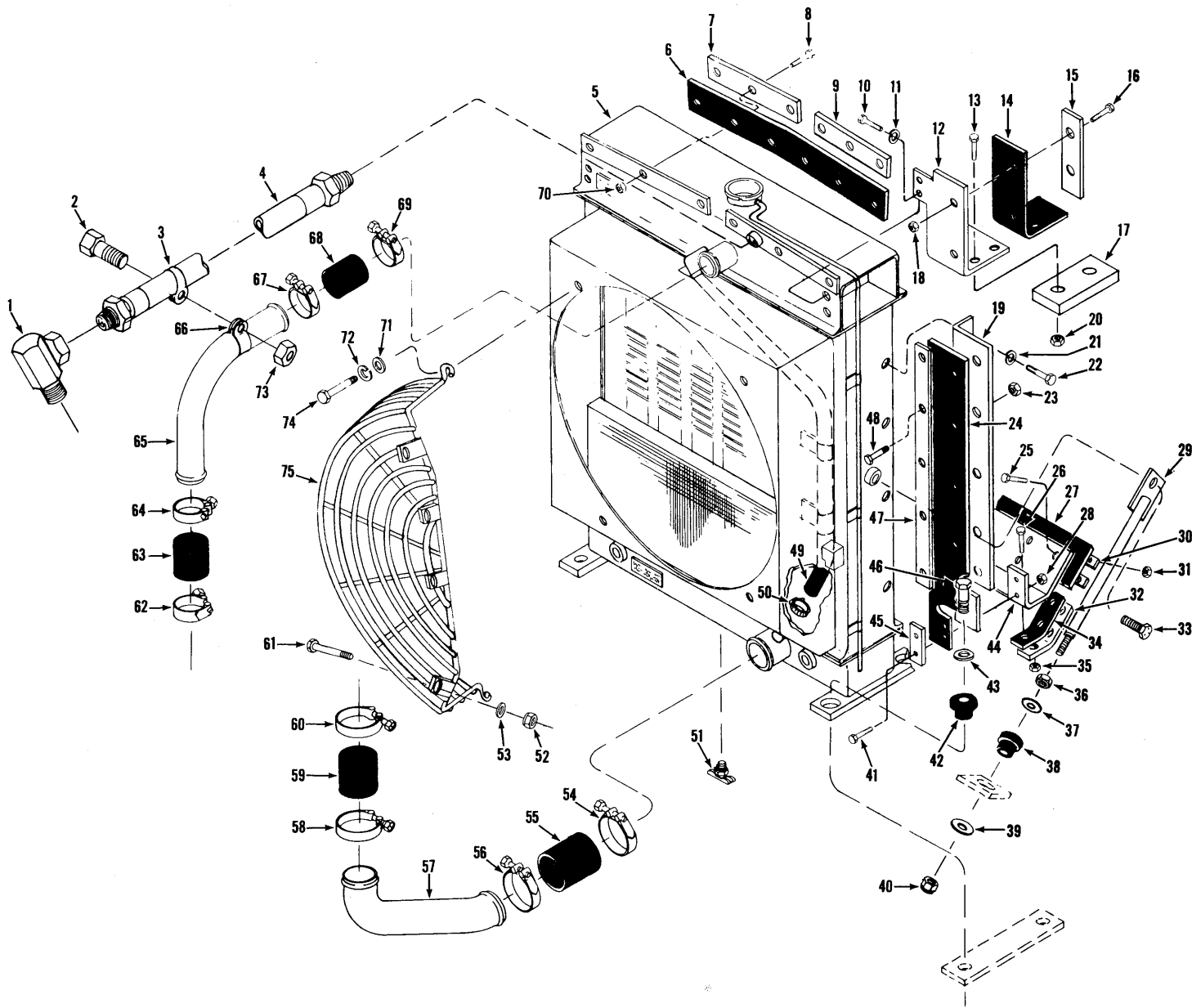


TS-8878

No.	Part No.	Qty.	Description
A	1504256	1	Radiator assy
1	947805	1	Side member
2	947807	1	Core
3	944632	3	Gasket
4	4E-05	20	Lockwasher
5	1C-512	20	Bolt
6	947803	1	Top tank
7	863364	1	Cap
8	947814	1	Hose
9	1C-514	76	Bolt
10	4E-05	76	Lockwasher
11	61D-05	76	Nut
12	947804	1	Side member

No.	Part No.	Qty.	Description
13	947812	2	Clip
14	947808	1	Oil cooler
15	947806	1	Shroud
16	947813	2	Clip
17	34F-04	1	Plug
18	1507695	1	Bottom tank
19	944632	3	Gasket
20	1C-612	4	Bolt
20A	†61D-06	4	Nut
21	-----	—	Omit
22	947810	4	Washer
23	89G-408	8	Screw

†Inc. 1 → 23





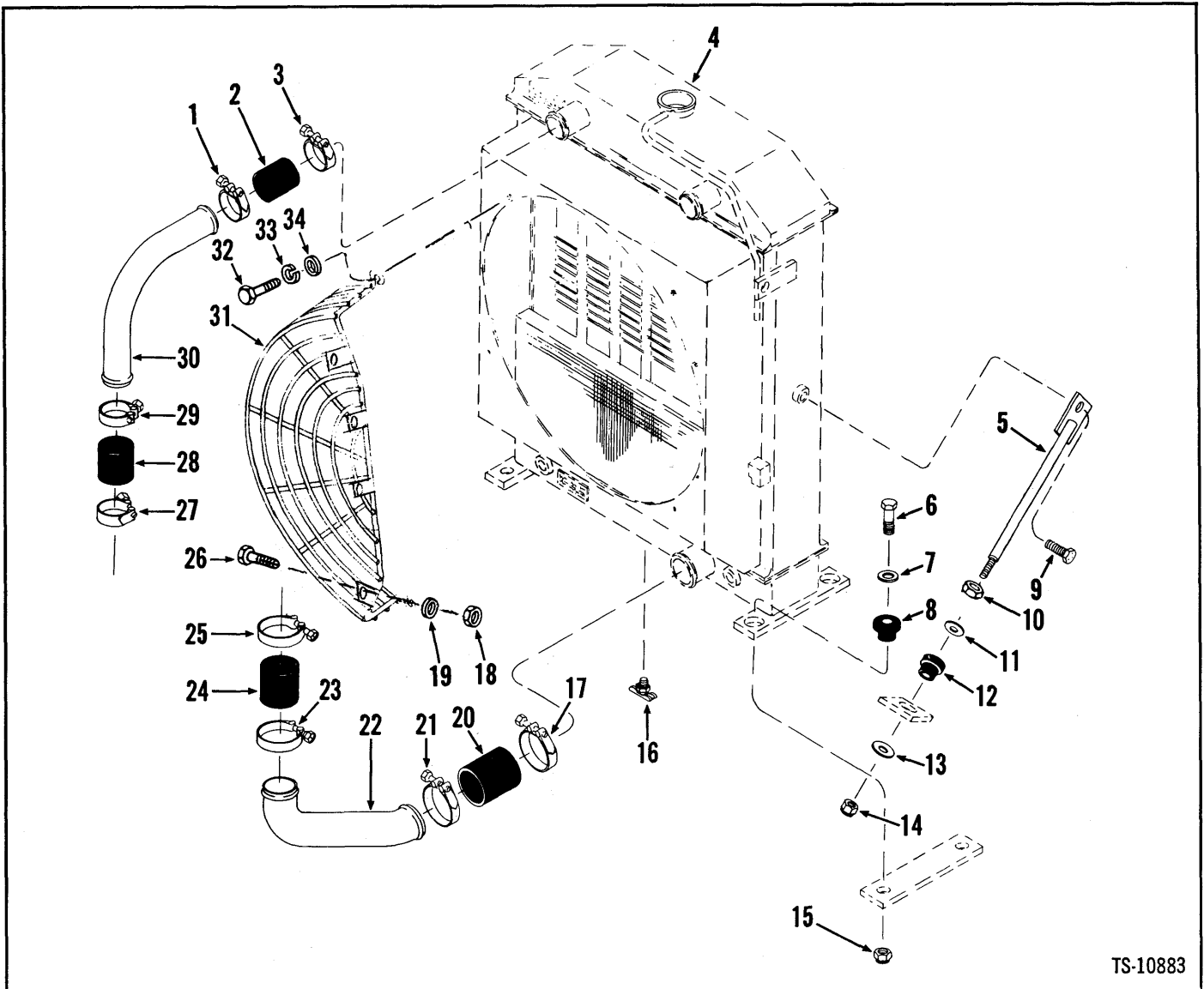
# Radiator Connections — Cummins

**MICHIGAN**

No.	Part No.	Qty.	Description
1	31F-1	1	Adapter
2	24C-816	1	Bolt
3	30H-40	1	Clip
4	1512886	1	Hose
5	_____	—	Radiator
6	1516517	1	Moulding
7	1516520	1	Support
8	24C-412	6	Bolt
9	1516520	1	Support
10	24C-412	4	Bolt
11	4E-04	4	Lockwasher
12	1516524	1	Baffle LH
12A	†1516523	1	Baffle RH
13	24C-412	4	Bolt
14	1516516	2	Moulding
15	1516832	2	Support
16	24C-412	4	Bolt
17	1516834	2	Support
18	18D-04	4	Nut
19	1516529	1	Baffle LH
19A	†1516538	1	Baffle RH
20	18D-04	4	Nut
21	4E-04	10	Lockwasher
22	24C-412	10	Bolt
23	18D-04	10	Nut
24	1516616	1	Moulding LH
24A	†1516522	1	Moulding RH
25	24C-412	10	Bolt
26	24C-412	6	Bolt
27	1516514	2	Moulding
28	18D-04	4	Nut
29	1510261	2	Support radiator
30	1516519	2	Support
31	18D-04	10	Nut
32	1516518	2	Support
33	24C-820	2	Bolt
33A	†4E-08	2	Lockwasher
34	1516515	2	Moulding
35	18D-04	6	Nut
36	8D-08	2	Nut

No.	Part No.	Qty.	Description
37	616796	2	Washer
38	569739	2	Dampener vibration
39	616796	2	Washer
40	18D-08	2	Nut
41	24C-412	4	Bolt
42	1527276	4	Mount
43	569070	4	Washer
44	1516525	1	Baffle bottom
45	1516835	2	Support
46	24C-1060	4	Bolt
46A	†4E-10	4	Lockwasher
47	1516521	2	Support
48	24C-412	10	Bolt
49	_____	—	Hose
50	_____	—	Clamp
51	72F-2	1	Drain cock
52	18D-06	4	Nut
53	25E-17	8	Washer
54	540106	1	Clamp
55	1M-20040	1	Hose
56	540106	1	Clamp
57	2505887	1	Tube
58	540106	1	Clamp
59	1M-20040	1	Hose
60	540106	1	Clamp
61	24C-620	4	Bolt
62	540104	1	Clamp
63	1M-18040	1	Hose
64	540104	1	Clamp
65	1510258	1	Tube
66	1501211	1	Clip
67	540104	1	Clamp
68	1M-18040	1	Hose
69	540104	1	Clamp
70	18D-04	6	Nut
71	25E-17	8	Washer
72	4E-06	8	Lockwasher
73	18D-06	1	Nut
74	23C-616	8	Bolt
75	1510110	2	Guard

†See Radiator Assy



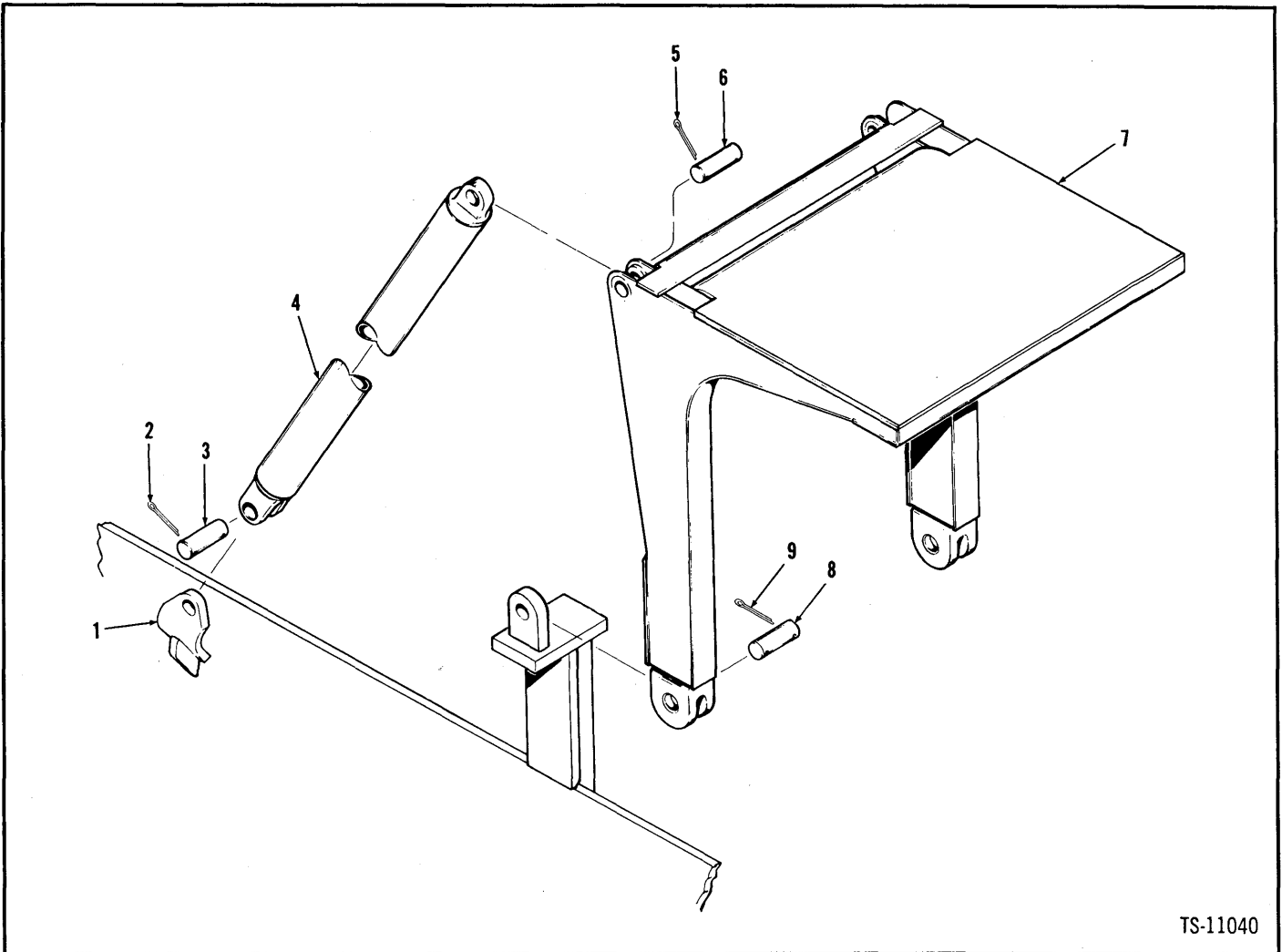
TS-10883

No.	Part No.	Qty.	Description
1	540104	2	Clamp
2	1M-18040	2	Hose
3	540104	2	Clamp
4	—	—	Radiator
5	1542211	2	Rod
6	24C-1060	4	Bolt
7	569070	4	Washer
8	1527276	4	Mount
9	24C-816	2	Bolt
10	8D-08	2	Nut
11	616796	2	Washer
12	569739	2	Dampener, vibration
13	616796	2	Washer
14	18D-08	2	Nut
15	18D-10	4	Nut
16	72F-2	1	Draincock
17	540105	1	Clamp

No.	Part No.	Qty.	Description
18	18D-06	4	Nut
19	25E-17	8	Washer
20	1M-22044	1	Hose
21	540105	1	Clamp
22	1504309	1	Tube
23	540105	1	Clamp
24	1M-22044	1	Hose
25	540105	1	Clamp
26	24C-620	4	Bolt
27	540104	2	Clamp
28	1M-18040	2	Hose
29	540104	2	Clamp
30	1504310	2	Tube
31	1548172	2	Guard
32	23C-616	8	Bolt
33	4E-06	8	Lockwasher
34	103293	8	Washer

<sup>1</sup>See Index

# Rollover Protection Structure



TS-11040

No.	Part No.	Qty.	Description
A	<sup>2</sup> 1515851	1	Rollover protection structure
1	<sup>3</sup> -----	—	Brace
2	1F-1236	2	Pin cotter
3	1516040	2	Pin
3A	†1519894	1	Bushing
4	1547680	1	Brace
5	1F-1236	2	Pin cotter
6	1516040	2	Pin
7	1547690	1	Canopy
8	1537424	4	Pin
9	1F-1236	2	Pin cotter

<sup>2</sup>Incl. 1→8  
<sup>3</sup>See Frame

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**Group S**

Seat & Support Parts .....S3  
Sheet Metal Group .....S5  
Steering Group:  
    Steering Drag Link .....S6  
    Steering Gear Mounting .....S7  
    Steering Gear Assembly .....S9

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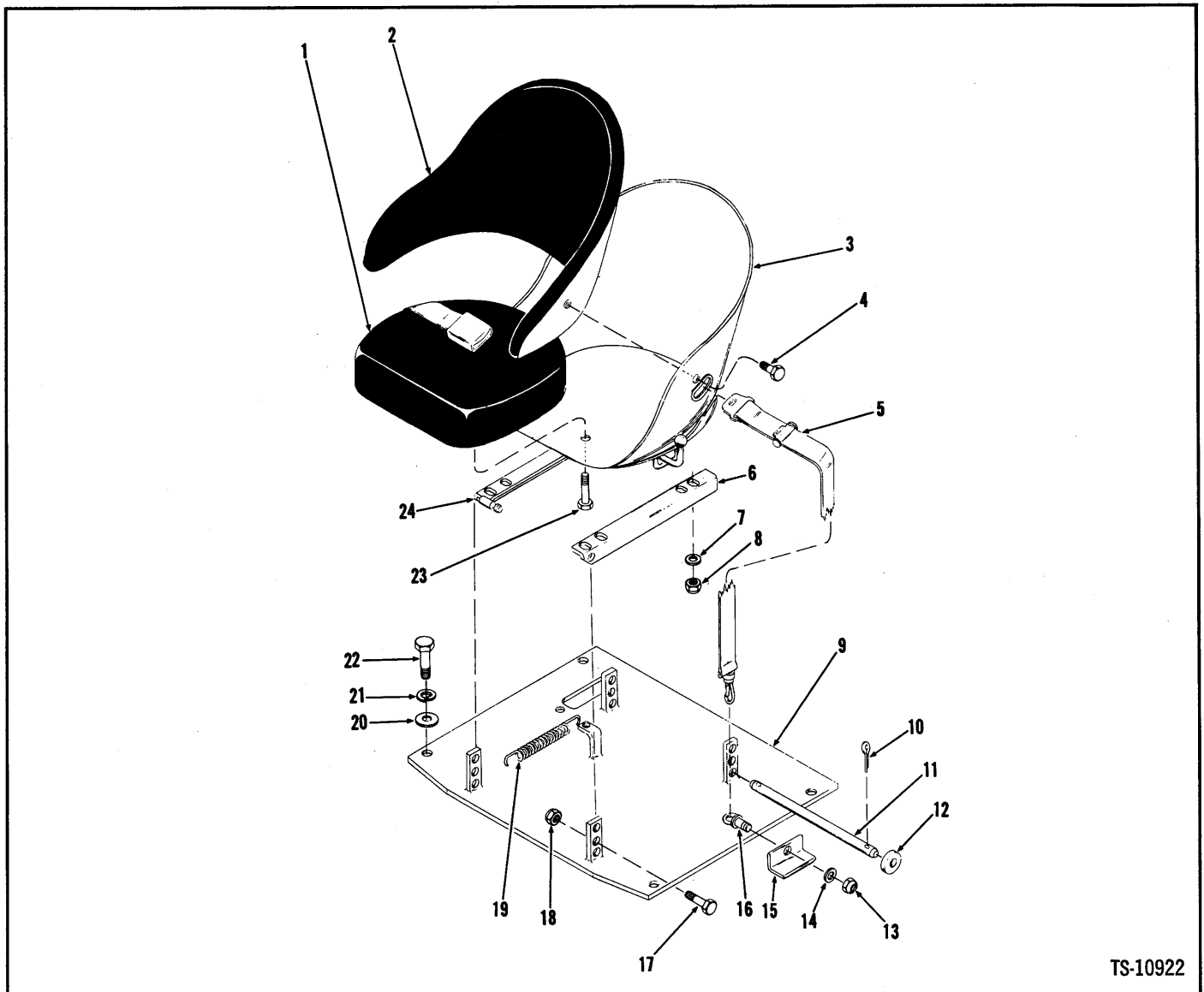
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# Seat & Support Parts

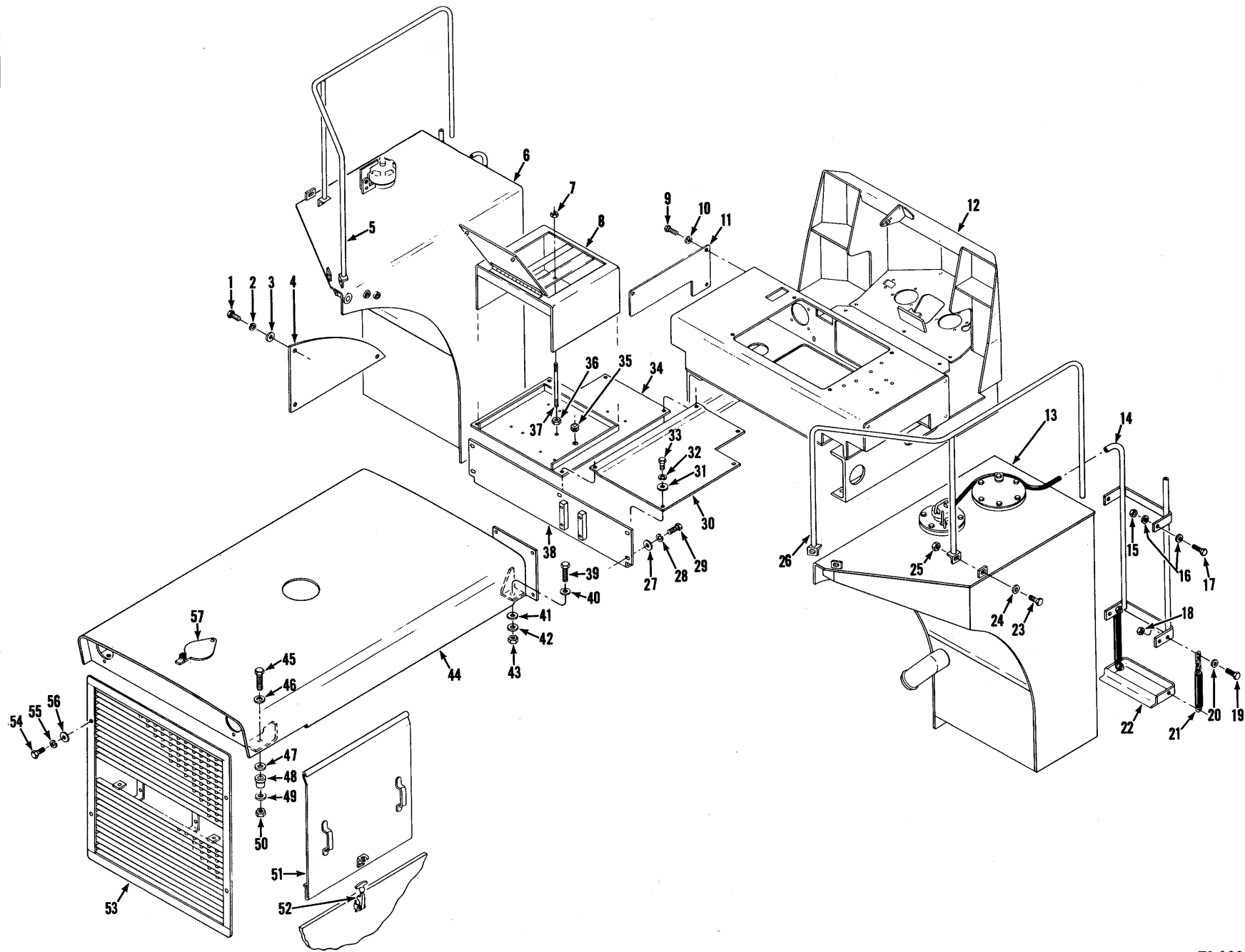


TS-10922

No.	Part No.	Qty.	Description
A	<sup>1</sup> 1507663	1	Seat assy
B	<sup>2</sup> 1527816	1	Seat belt kit
1	948144	1	Seat cushion white
2	948143	1	Back cushion white
3	944982	1	Bucket seat
4	1C-610	5	Bolt
5	<sup>3</sup> 1527745	1	Seat belt assy
6	558779	1	Angle iron
7	25E-15	4	Washer
8	18D-05	4	Nut
9	568781	1	Seat support
10	1F-420	2	Pin cotter
11	557458	1	Bar
12	25E-22	2	Washer

No.	Part No.	Qty.	Description
13	S <sup>4</sup> -----	2	Nut
14	S <sup>4</sup> -----	2	Washer
15	1547302	2	Angle iron
16	S <sup>4</sup> -----	2	Eyebolt
17	24C-824	2	Bolt
17A	†584092	2	Washer
18	18D-08	2	Nut
19	550301	1	Spring
20	619029	4	Washer
21	4E-08	4	Lockwasher
22	23C-820	4	Bolt
23	1C-610	2	Bolt
24	558777	1	Angle iron
25	*†1538823	1	Flat

<sup>1</sup>Inc. 1→4, 23  
<sup>2</sup>Inc. 5, 13→16  
<sup>3</sup>Inc. 13, 14, 16  
<sup>4</sup>See B





# Sheet Metal Group

**MICHIGAN**

No.	Part No.	Qty.	Description
1	23C-616	6	Bolt
2	4E-06	6	Lockwasher
3	656672	6	Washer
4	1540195	2	Plate
5	1514567	1	Hand rail LH
6	<sup>1</sup> _____	—	Fuel tank
7	61D-06	2	Nut
8	<sup>2,4</sup> 1543393	1	Cover
8A	<sup>†</sup> 1545306	2	Latch
9	24C-616	6	Bolt
10	4E-06	6	Lockwasher
11	568975	2	Plate
12	<sup>1</sup> _____	—	Cockpit
13	<sup>1</sup> _____	—	Reservoir
14	1540666	1	Step RH
14A	<sup>†</sup> 1540667	1	Step LH
15	18D-08	8	Nut
16	619029	16	Washer
17	24C-828	8	Bolt
18	18D-06	8	Nut
19	24C-624	8	Bolt
20	656672	8	Washer
21	1535589	4	Chain
21A	1M-08110	4	Hose
22	1547423	2	Step
23	24C-828	6	Bolt
24	619029	7	Washer
25	18D-08	6	Nut
26	2500059	1	Hand rail RH
27	656672	5	Washer
28	4E-06	5	Lockwasher
29	23C-616	5	Bolt
30	1540062	1	Plate RH

No.	Part No.	Qty.	Description
31	656672	8	Washer
32	4E-06	8	Lockwasher
33	23C-616	8	Bolt
34	1540064	1	Plate LH
35	1513922	1	Grommet
36	17D-3	2	Nut
37	1544171	2	Stud
38	1518928	1	Plate
39	24C-624	2	Bolt
40	619021	2	Washer
41	619021	2	Washer
42	_____	—	Omit
43	18D-06	2	Nut
44	<sup>2</sup> 1540216	1	Hood
44A	<sup>3</sup> 1510279	1	Hood
45	24C-632	2	Bolt
46	619021	2	Washer
47	619021	2	Washer
48	568276	2	Dampener vibration
49	619021	2	Washer
50	18D-06	2	Nut
51	<sup>2,5,6</sup> 1545600	4	Panel
51A	<sup>3,5,6</sup> 1510231	4	Panel
51B	<sup>†</sup> 1545623	4	Keeper
51C	<sup>†</sup> 1H-304	8	Rivet
52	1545622	4	Latch
53	1516671	1	Grille
54	24C-816	4	Bolt
55	4E-08	4	Lockwasher
56	635682	4	Washer
57	<sup>2</sup> 1544448	1	Plate
57A	<sup>3</sup> 3239944	1	Cover
58	<sup>†</sup> 1H-508	1	Rivet

<sup>1</sup>See Index

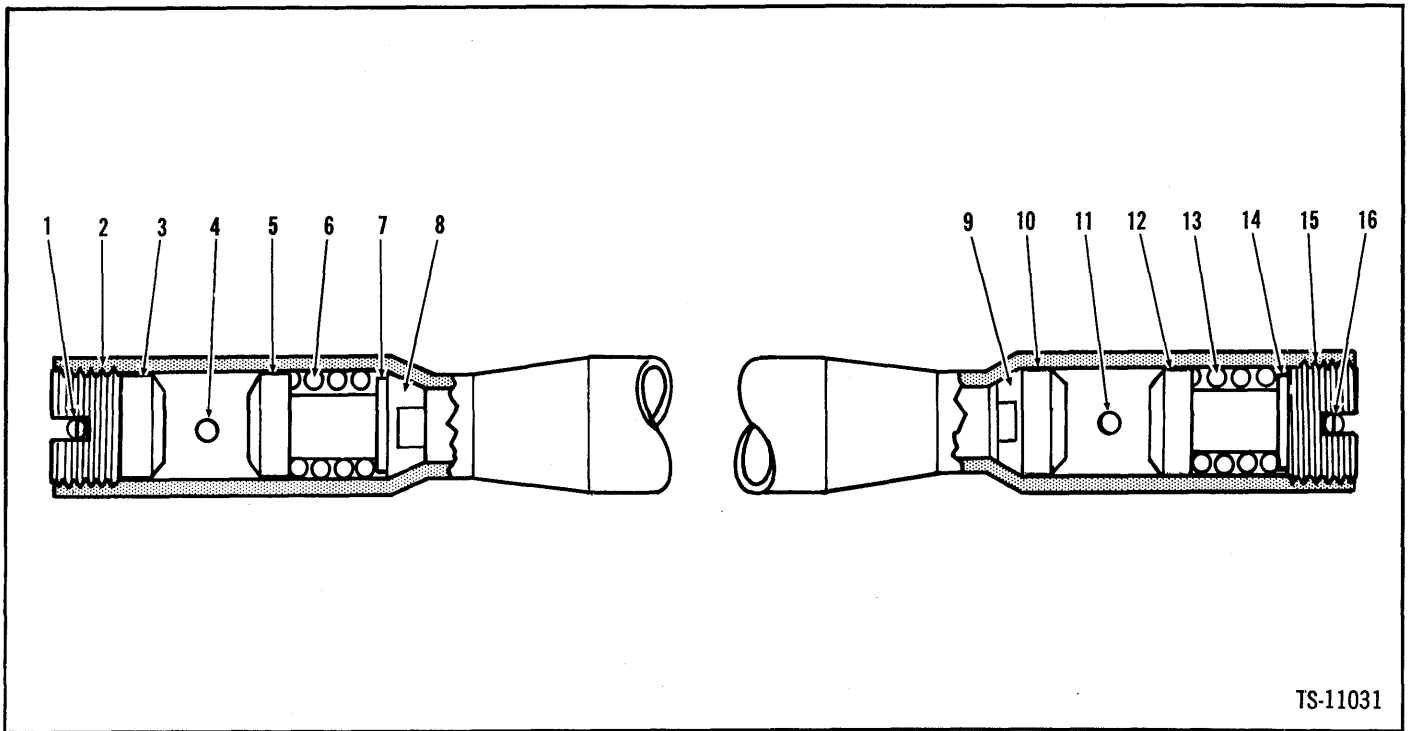
<sup>2</sup>G.M. 427C101 → 600, 427C601 & →

<sup>3</sup>Cummins 438C101 & →

<sup>4</sup>Inc. 8A

<sup>5</sup>Inc. 51B, 51C

<sup>6</sup>Optional equipment not furnished with machine

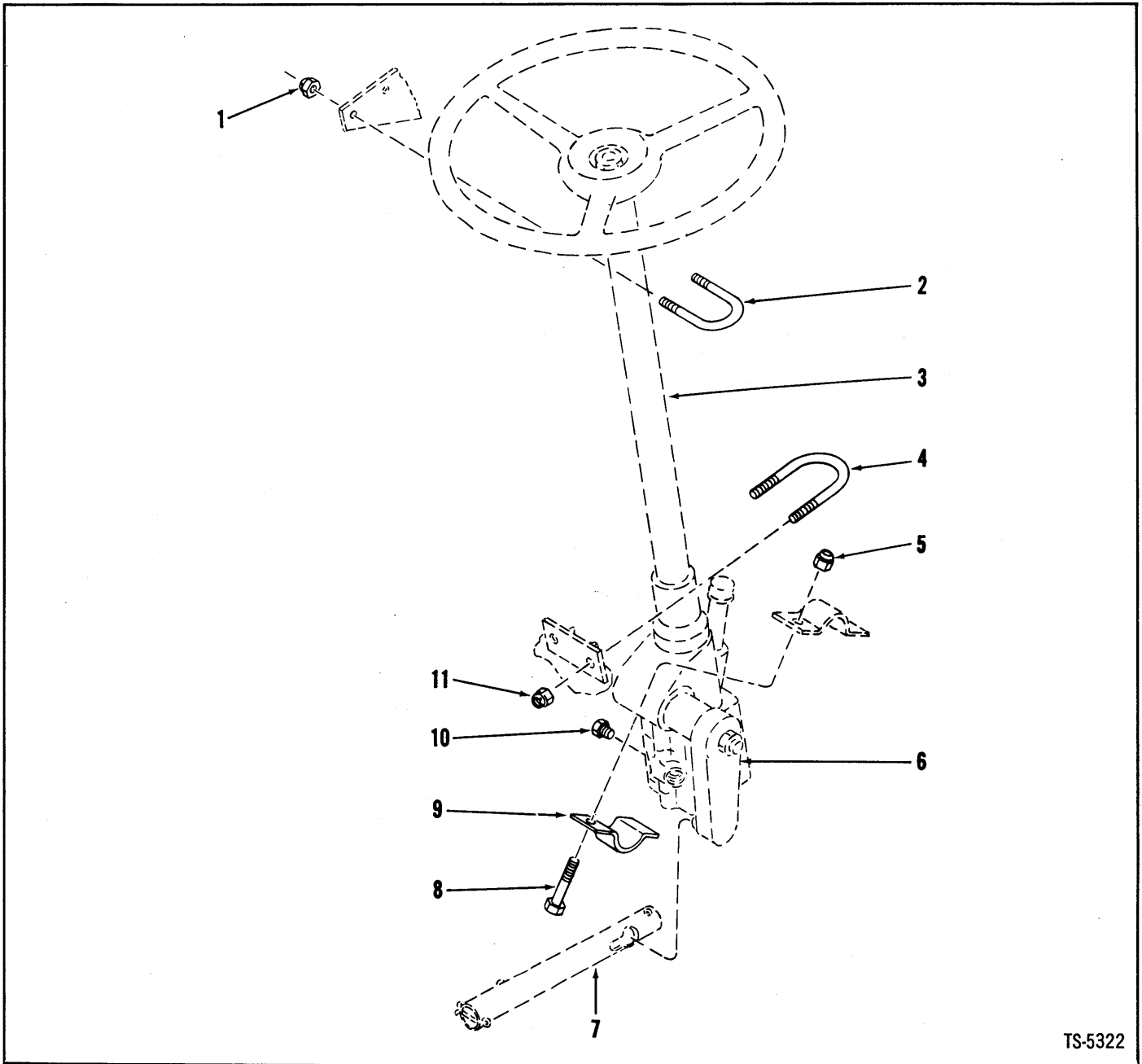


TS-11031

No.	Part No.	Qty.	Description
A	'568070	1	Drag link assy
1	1F-432	1	Pin cotter
2	876575	1	Nut
3	865965	1	Seat
4	12H-15	1	Fitting grease
5	865965	1	Seat
6	865961	1	Spring
7	662691	1	Seat
8	865963	1	Seat
9	865963	1	Seat
10	865965	1	Seat
11	10H-25	1	Fitting grease
12	865965	1	Seat
13	865961	1	Spring
14	662691	1	Seat
15	876575	1	Nut
16	1F-432	1	Pin cotter

<sup>1</sup>Inc. 2, 3, 5 → 10, 12 → 15

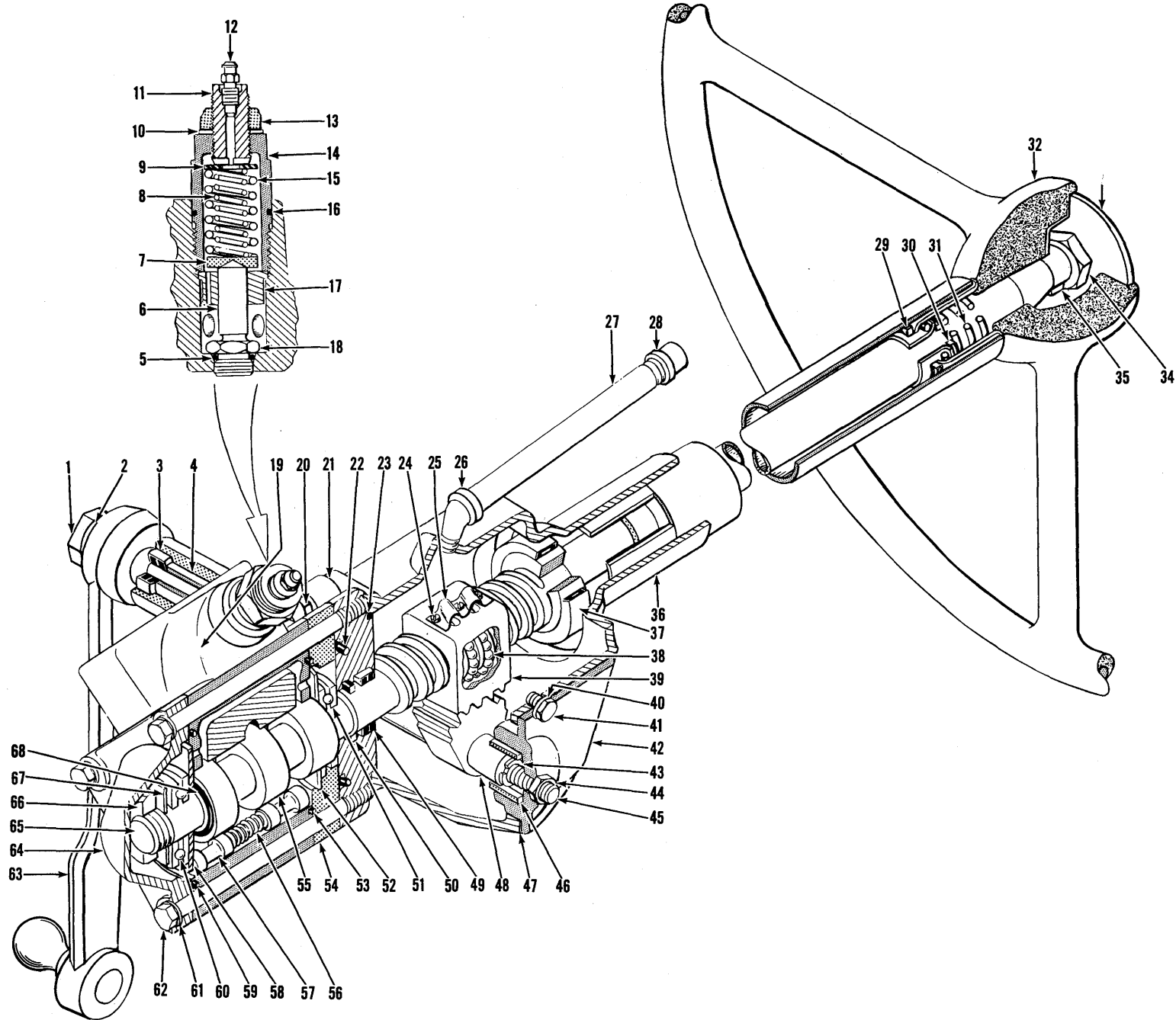
# Steering Gear Mounting Group



TS-5322

No.	Part No.	Qty.	Description
1	18D-06	2	Nut
2	571441	1	U-bolt
3	_____	—	Steering gear assy
4	545941	1	U-bolt
5	18D-08	2	Nut
6	_____	—	Pitman arm
7	_____	—	Drag link
8	24C-836	2	Bolt
9	550044	1	Clamp
10	40K-02	1	Plug
11	18D-08	2	Nut

<sup>1</sup>See Index



# Steering Gear Assembly

MICHIGAN

No.	Part No.	Qty.	Description
A	1529890	1	Strg gear assy
1	850756	1	Nut
2	4E-18	1	Lockwasher
3	853391	1	Seal
4	853357	1	Bushing
5	91F-6	1	O-ring
6	946601	1	Plunger
7	946609	1	Washer
8	946606	1	Spring
9	946605	1	Seat
10	946608	1	Washer
11	946603	1	Screw
12	946602	1	Screw
13	66D-12	1	Nut
14	946599	1	Housing
15	946607	1	Spring
16	949972	1	O-ring
17	946598	1	Guide
18	946604	1	Seat valve
19	*2946834	1	Relief valve
20	73G-728	4	Bolt
20A	†4E-07	4	Lockwasher
21	³944186	1	Adapter
22	886851	1	O-ring
23	853380	1	Gasket
24	851762	3	Bolt
25	853527	1	Clamp
26	25F-4	1	Elbow
27	5K-432	1	Pipe
28	22F-4	1	Cap
29	857729	1	Bearing
30	861768	1	Washer
31	853395	1	Spring
32	1508704	1	Wheel
33	1517393	1	Plate
33A	†65G-406	4	Screw

No.	Part No.	Qty.	Description
34	648304	1	Nut
35	853384	1	Key strg shaft
36	⁹46138	1	Housing
37	730143	1	Bearing
38	10J-09	106	Ball
38A	†853526	4	Guide
39	853525	1	Nut
40	4E-06	3	Lockwasher
41	1C-612	3	Bolt
42	⁵853182	1	Cover
43	853187	1	Shim
44	8D-07	1	Nut
45	851770	1	Adjuster
46	§⁶-----	1	Bushing
47	851756	1	Gasket
48	940111	1	Gear
49	861741	1	Bearing
50	949972	1	O-ring
51	860997	1	Bearing
52	943438	1	Washer
53	1306626	1	O-ring
54	944197	1	Spacer
55	§⁷-----	1	Spool
56	944195	2	Spring
57	944192	4	Plunger
58	943438	1	Washer
59	1306626	1	O-ring
60	860997	1	Bearing
61	3E-09	4	Lockwasher
62	944198	4	Bolt
63	1525483	1	Pitman arm
64	944667	1	Cover
65	⁹946437	1	Shaft
66	873250	1	Nut
67	943429	1	Washer
68	25K-30118	1	O-ring

¹Inc. 1→31, 34→62, 64→68

²Inc. 5→18, 55, 56, 57

³Inc. 49, 50

⁴Inc. 4, 37

\*Shown out of position

⁵Inc. 46

⁶See 42

⁷See 19

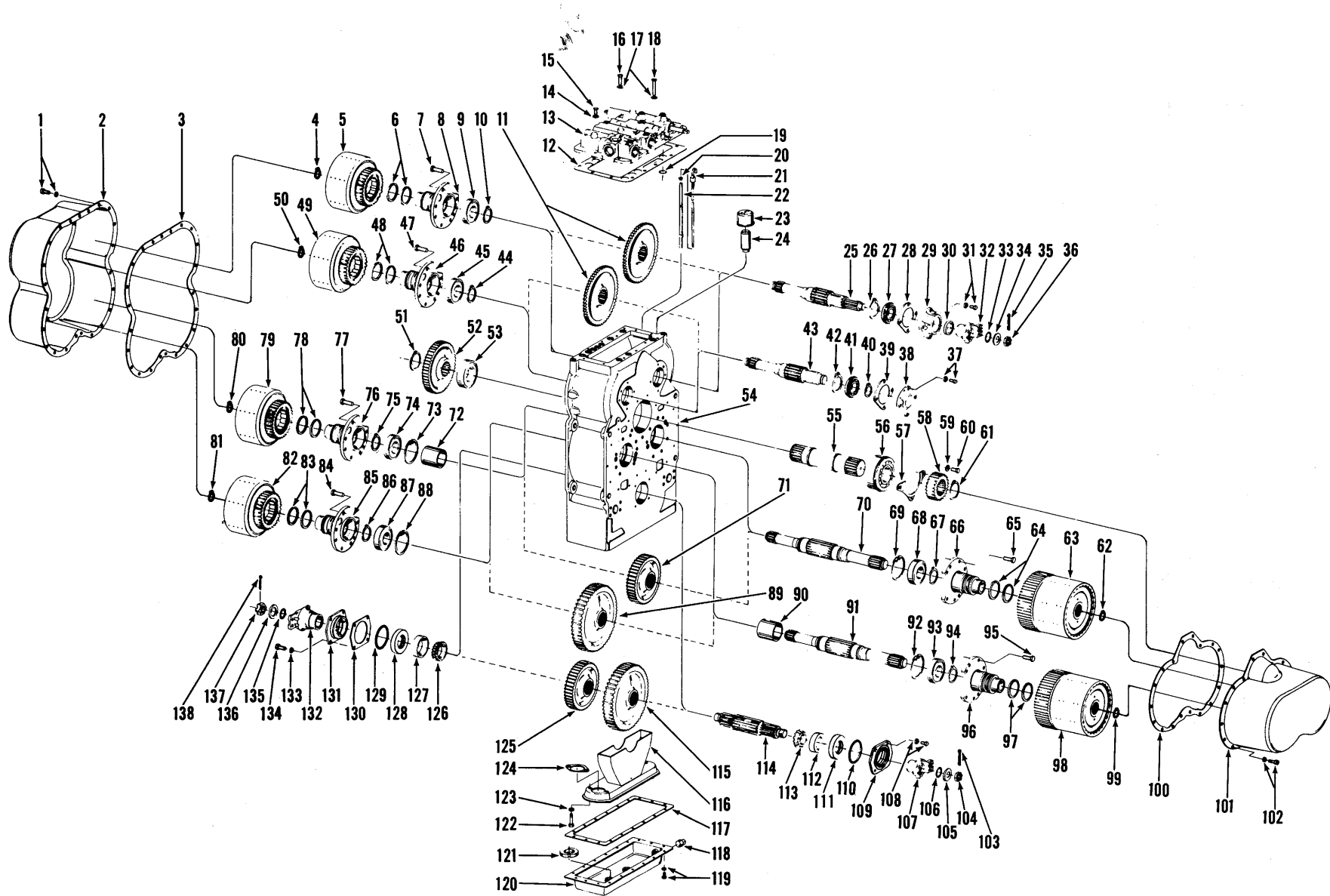
⁸Inc. 24, 25, 38, 38A, 39



**Group T**

**Transmission Group:**

Transmission Assembly .....T3  
Transmission Case and Internal Tubing .....T6  
Transmission Control Cover Assembly .....T9  
Transmission Clutch Group First and Second .....T10  
Transmission Clutch Group Input, Reverse, Third & Fourth .....T11  
Transmission Controls .....T13





# Transmission Assembly



No.	Part No.	Qty.	Description
A	1283926	1	Transmission assy
1	5C-612	23	Bolt
2	217554	1	Cover
3	217555	1	Gasket
4	711418	1	Ring
5	-----	—	Clutch
6	217600	2	Ring
7	8C-820	7	Bolt
8	217146	1	Support
9	225840	1	Bearing
10	711161	1	Ring
11	232873	2	Gear
12	217653	1	Gasket
13	-----	—	Control cover
14	4E-06	6	Lockwasher
15	1C-616	4	Bolt
16	1C-624	2	Bolt
17	4E-06	6	Lockwasher
18	1C-640	6	Bolt
19	25K-40026	6	O-ring
20	-----	—	Omit
21	-----	—	Omit
22	230605	1	Tube
23	-----	—	Omit
24	-----	—	Omit
25	217552	1	Shaft 237010, M77-3
26	711161	1	Ring
27	225824	1	Bearing
28	217558	1	Gasket
29	3217607	1	Cap
30	206864	1	Seal
31	5C-616	4	Bolt
32	214985	1	Flange
33	25K-40112	1	O-ring
34	102745	1	Washer
35	1F-432	1	Cotter pin
36	201951	1	Nut

No.	Part No.	Qty.	Description
37	5C-616	4	Bolt
38	217557	1	Cap
39	217558	1	Gasket
40	224083	1	Ring
41	225824	1	Bearing
42	711161	1	Ring
43	217547	1	Shaft 237009, M77-3
44	711161	1	Ring
45	225840	1	Bearing
46	217146	1	Support
47	8C-820	7	Bolt
48	217600	2	Ring
49	-----	—	Clutch
50	711418	1	Ring
51	711161	1	Ring
52	217461	1	Gear
53	225835	1	Bearing
54	-----	—	Case
55	232890	1	Shaft
56	232891	1	Bearing
56A	10J-08	1	Ball
57	217560	1	Retainer
58	233171	1	Gear
59	4E-07	3	Lockwasher
60	1C-716	3	Bolt
61	711161	1	Ring
62	660516	1	Ring
63	-----	—	Clutch
64	221653	2	Ring
65	8C-820	7	Bolt
66	232879	1	Support
67	-----	—	Omit
68	225795	1	Bearing
69	223882	1	Ring
70	232874	1	Shaft 237011, M77-3
71	233169	1	Gear
72	232876	1	Spacer

14421-3 Inc. 1 → 140

257T

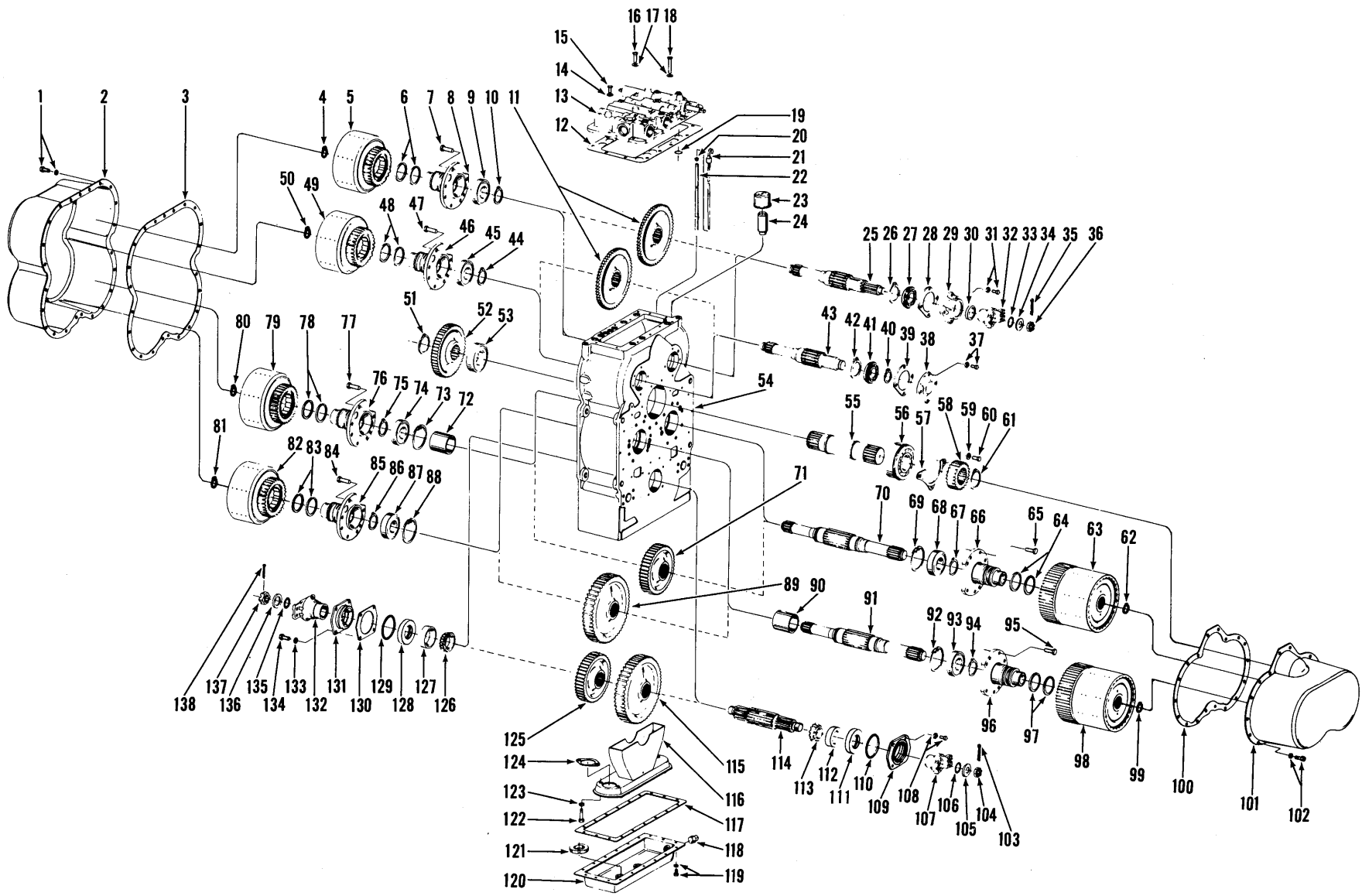
3Inc. 30

46-C

50T

623T

739T



# Transmission Assembly



No.	Part No.	Qty.	Description
73	223882	1	Ring
74	225840	1	Bearing
75	743669	1	Ring
76	217146	1	Support
77	8C-820	7	Bolt
78	217600	2	Ring
79	-----	—	Clutch
80	711418	1	Ring
81	711418	1	Ring
82	-----	—	Clutch
83	217600	2	Ring
84	8C-820	7	Bolt
85	217146	1	Support
86	743669	1	Ring
87	232895	1	Bearing
88	223882	1	Ring
89	<sup>8</sup> 217465	1	Gear
89A	†233111	1	Spacer
90	233112	1	Spacer
91	232874	1	Shaft
92	223882	1	Ring
93	232877	1	Bearing
94	-----	—	Omit
95	8C-820	7	Bolt
96	232879	1	Support
97	221653	2	Ring
98	-----	—	Clutch
99	660516	1	Ring
100	217618	1	Gasket
101	232872	1	Cover
102	5C-612	18	Bolt
103	-----	—	Omit
104	215634	1	Nut
105	231916	1	Washer
106	25K-60128	1	O-ring
107	<sup>9</sup> 231915	1	Flange

No.	Part No.	Qty.	Description
108	1C-922	4	Bolt
108A	4E-09	4	Lockwasher
109	231818	1	Cap
110	25K-40400	1	O-ring
111	231884	1	Seal
112	1303281	1	Cup
113	742242	1	Cone
114	233063	1	Shaft
115	<sup>10</sup> 233170	1	Gear
116	218357	1	Screen
117	217563	1	Gasket
118	13F-12	1	Plug
119	5C-612	18	Bolt
120	217562	1	Sump assy
121	525293	2	Magnet
122	1C-636	3	Bolt
123	4E-06	3	Lockwasher
124	218376	1	Gasket
125	<sup>11</sup> 233030	1	Gear
126	742242	1	Cone
127	1303281	1	Cup
128	231884	1	Seal
129	25K-40400	1	O-ring
130	<sup>12</sup> 231849	—	Shim
130A	<sup>13</sup> 231850	—	Shim
130B	<sup>14</sup> 231851	—	Shim
131	231818	1	Cap
132	231915	1	Flange
133	4E-09	4	Lockwasher
134	1C-922	4	Bolt
135	25K-60128	1	O-ring
136	231916	1	Washer
137	215634	1	Nut
138	-----	—	Omit
139	†211433	1	Breather
140	†26F-3	1	Elbow

<sup>8</sup>63T

<sup>9</sup>7-C

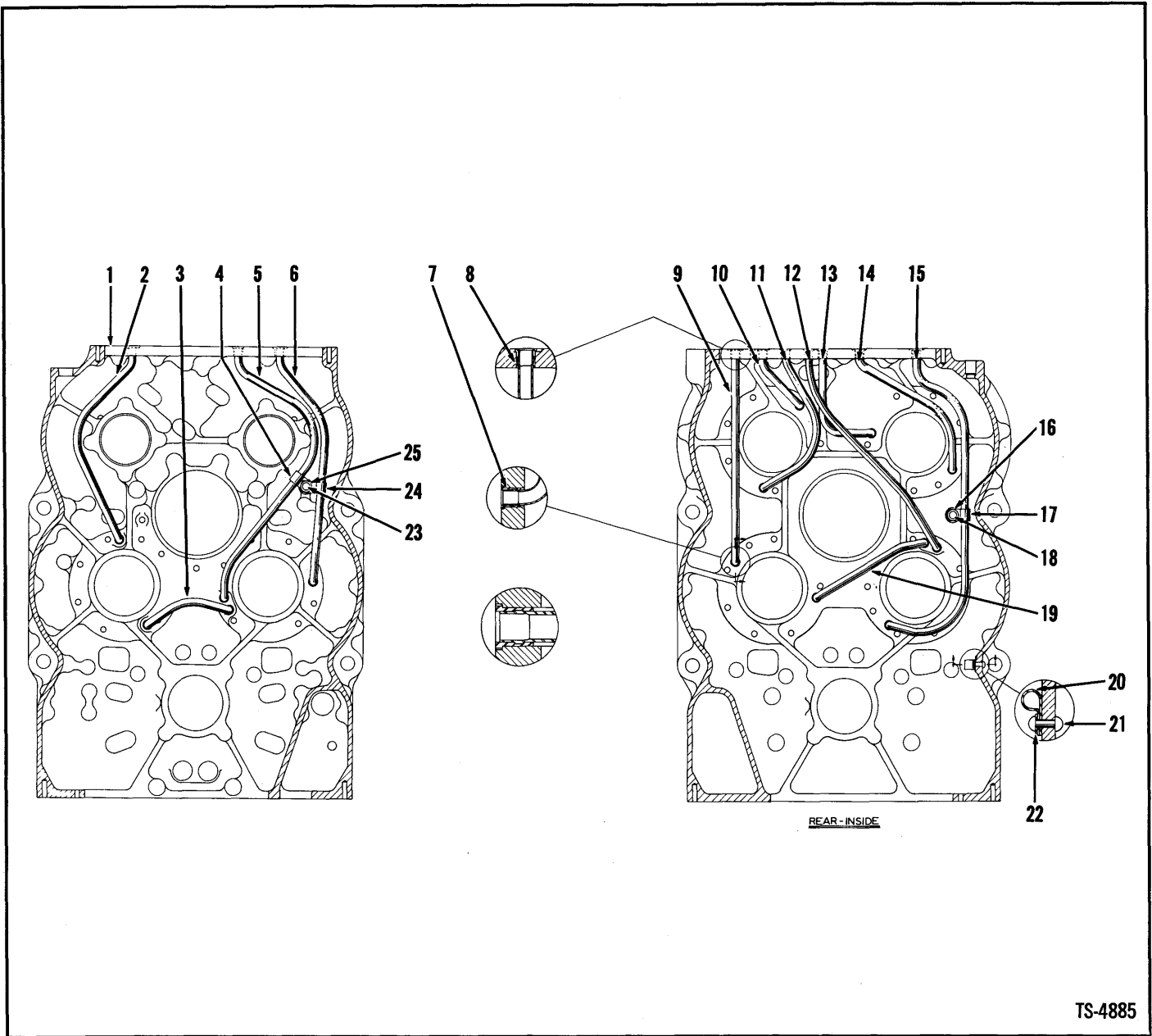
<sup>10</sup>51T

<sup>11</sup>45T

<sup>12</sup>.007 (0,18 mm)

<sup>13</sup>.010 (0,25 mm)

<sup>14</sup>.020 (0,51 mm)



TS-4885

No.	Part No.	Qty.	Description
1	232871	1	Case assy
2	217669	1	Tube
3	217578	1	Tube
4	6H-29	1	Clip
5	217577	1	Tube
6	217674	1	Tube
7	222067	10	Sleeve
8	222067	14	Sleeve
9	217579	1	Tube
10	217580	1	Tube
11	217581	1	Tube
12	217582	1	Tube
13	217583	1	Tube

No.	Part No.	Qty.	Description
14	217584	1	Tube
15	217585	1	Tube
16	1H-534	1	Rivet
17	6H-29	1	Clip
18	25E-15	1	Washer
19	217586	1	Tube
20	6H-32	1	Clip
21	1H-416	1	Rivet
22	25E-13	1	Washer
23	1H-430	1	Rivet
24	222167	1	Clip
25	619018	1	Washer

<sup>1</sup>Inc. 2→25

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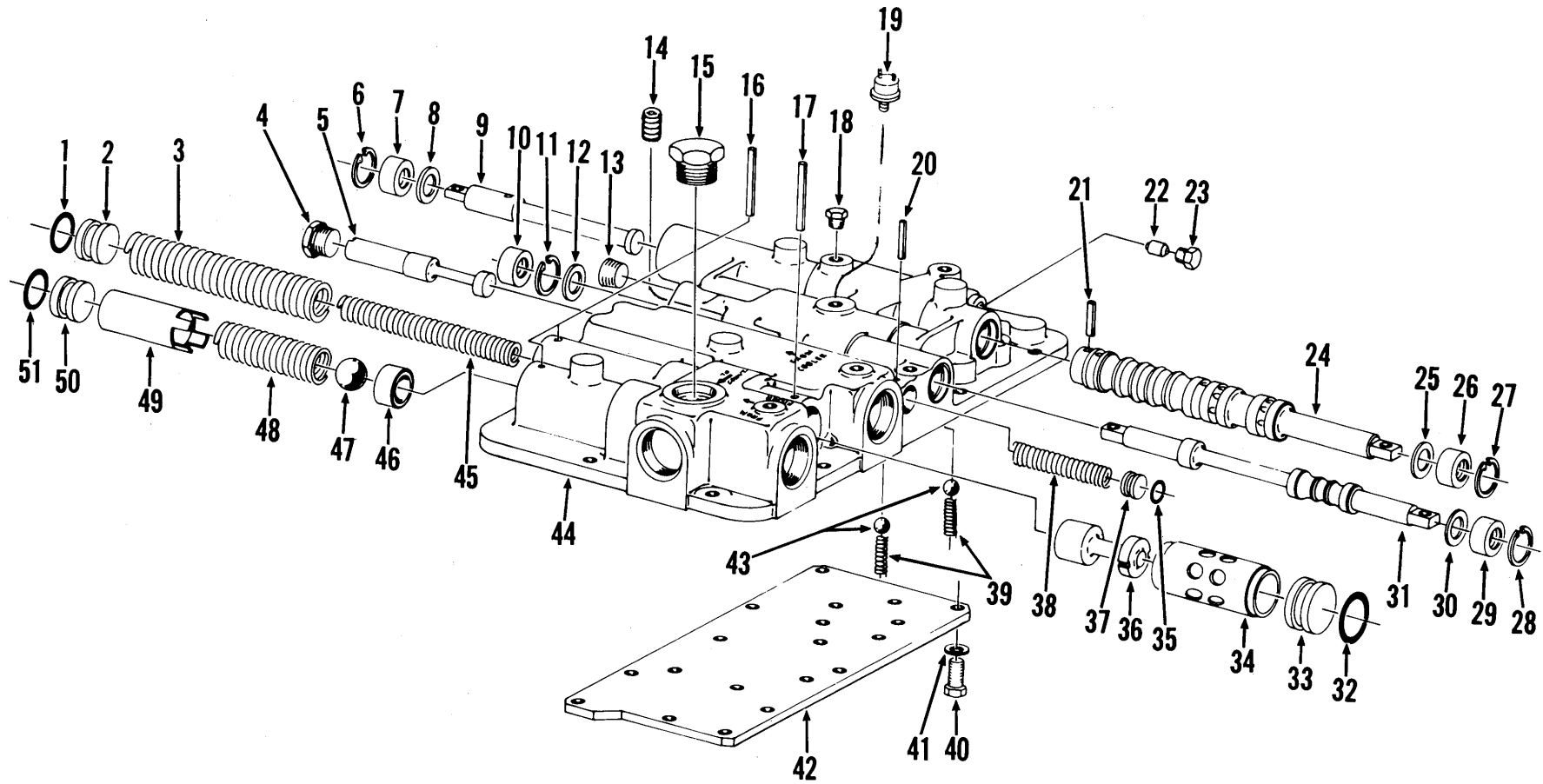
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# Transmission Control Cover Assembly

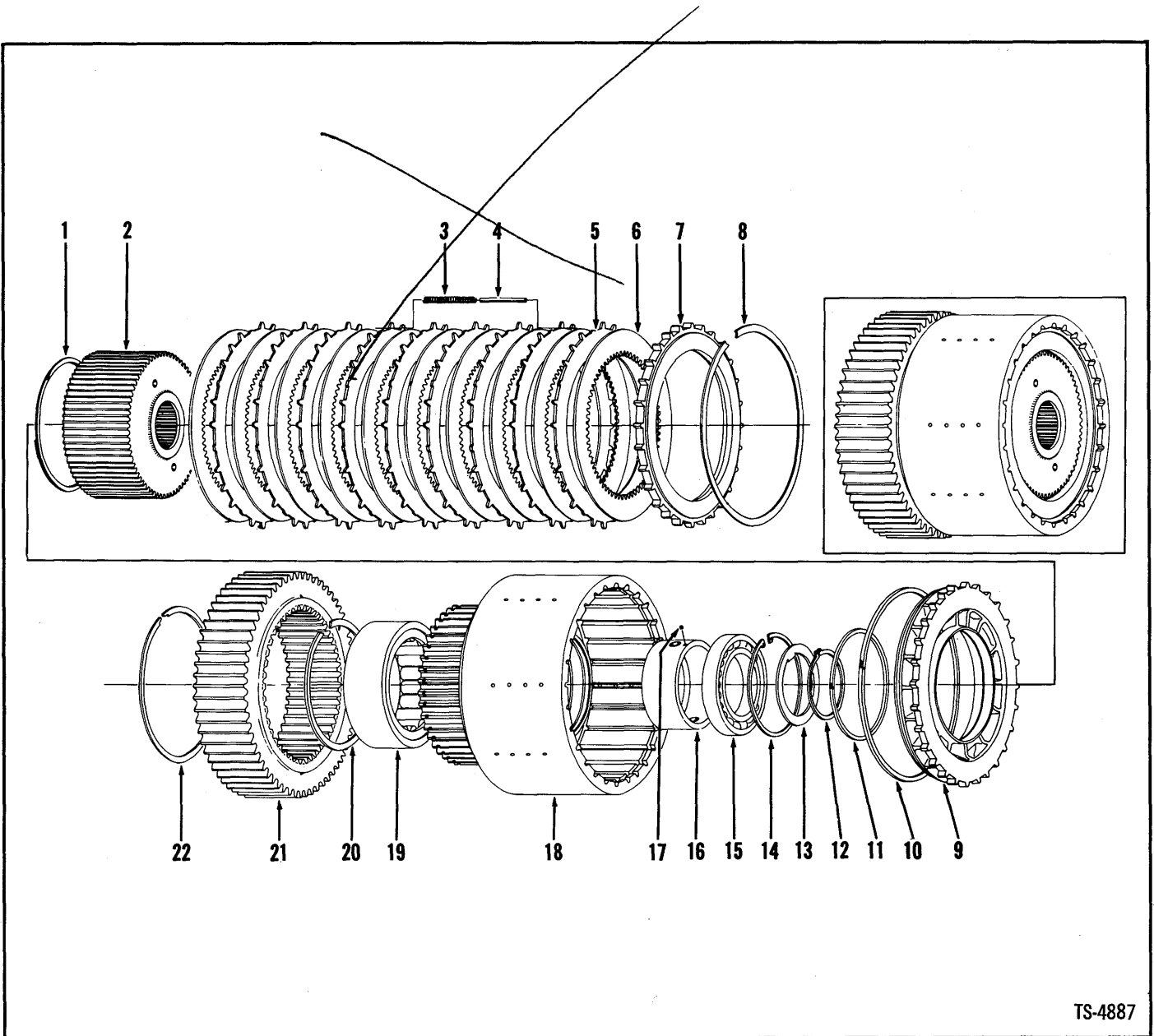


No.	Part No.	Qty.	Description
A	233137	1	Cover assy
1	58K-210	1	O-ring
2	222041	1	Stop
3	233139	1	Spring
4	24K-7	1	Plug
5	217644	1	Spool
6	664140	1	Ring
7	233222	1	Seal
8	217657	1	Washer
9	217635	1	Valve
10	233222	1	Seal
11	664140	1	Ring
12	217657	1	Washer
13	16F-08	1	Plug
14	16F-04	1	Plug
15	24K-10	1	Plug
16	300058	2	Pin
17	300058	1	Pin
18	40K-04	2	Plug
19	229729	1	Switch neutral start
19A	†10J-12	1	Ball
20	654724	1	Pin
21	667209	1	Pin
22	-----	—	Omit
23	-----	—	Omit
24	‡217633	1	Valve
24A	†226869	1	Spacer

No.	Part No.	Qty.	Description
25	217657	1	Washer
26	233222	1	Seal
27	664140	1	Ring
28	664140	1	Ring
29	233222	1	Seal
30	217657	1	Washer
31	217637	1	Valve
32	25K-40024	1	O-ring
33	222041	1	Stop
34	-----	—	Omit
35	25K-30018	1	O-ring
36	233138	1	Spool
37	220983	1	Stop
38	217645	1	Spring
39	232611	2	Spring
40	1C-512	17	Bolt
41	5E-05	17	Lockwasher
42	217632	1	Plate
43	10J-12	2	Ball poppet
44	229982	1	Cover
45	233140	1	Spring
46	217650	1	Valve seat
47	10J-24	1	Ball
48	217651	1	Spring
49	217652	1	Spacer
50	222041	1	Stop
51	58K-210	1	O-ring

†Inc. 1→50  
‡Inc. 9, 20

**\*Transmission Clutch Group, First & Second**



No.	Part No.	Qty.	Description
A	<sup>2</sup> 233075	1	Clutch assy
1	217509	1	Ring
2	232888	1	Hub assy
3	217334	6	Spring
4	217599	6	Pin
5	232394	9	Disc
6	232778	10	Disc
7	234814	1	Plate
8	217099	1	Ring
9	234813	1	Piston
10	217361	1	Ring
11	217411	1	Ring

No.	Part No.	Qty.	Description
12	230067	1	Ring
13	232886	1	Washer
14	223965	1	Ring
15	223359	1	Bearing
16	232887	1	Race
17	10J-08	1	Ball
18	<sup>3</sup> 232881	1	Drum assy
19	225796	1	Bearing
20	223997	1	Ring
21	<sup>4</sup> 233172	1	Gear
22	217605	1	Ring

\*Two (2) clutches used in transmission. Quantities listed below are for one (1) clutch.

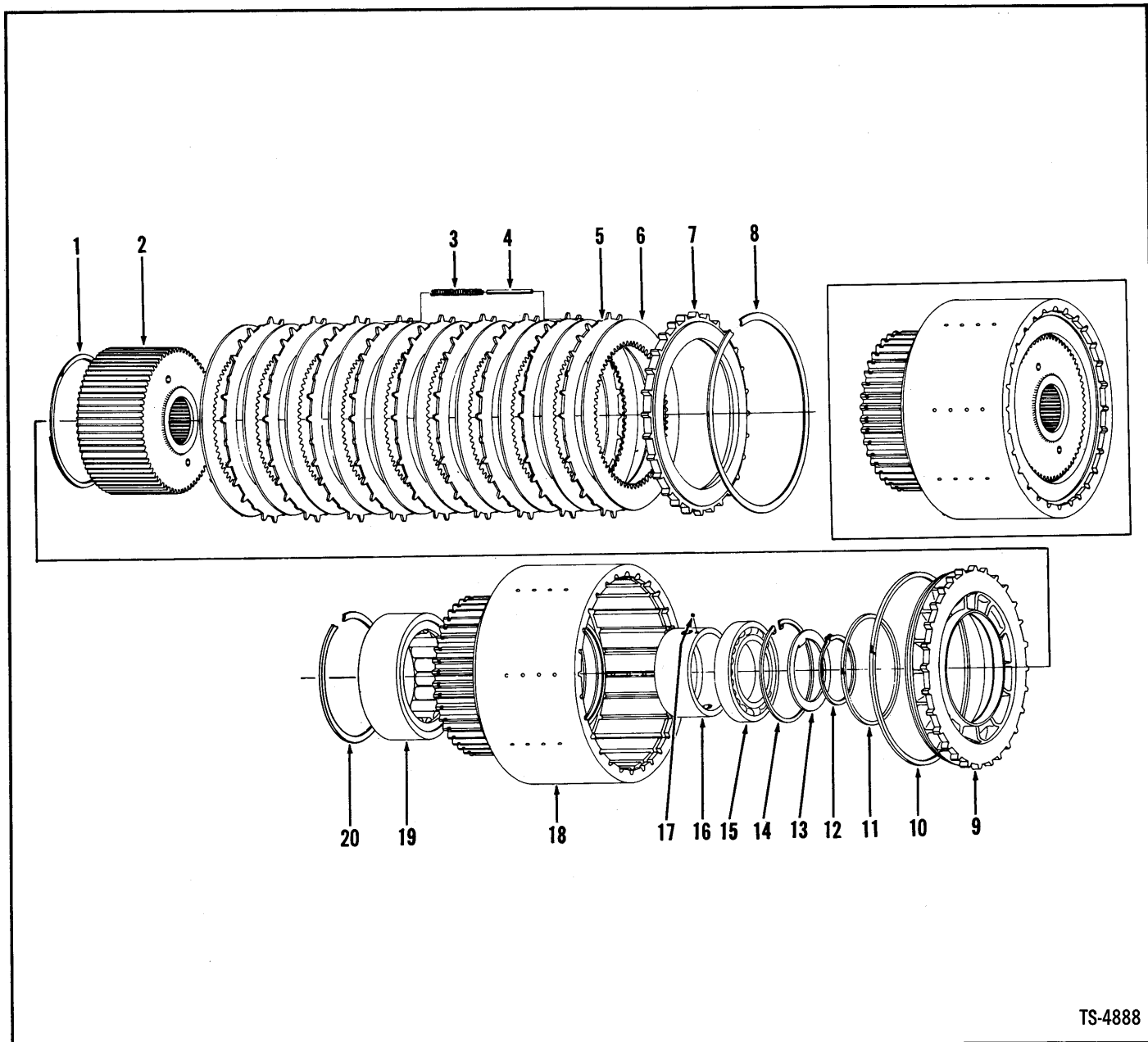
<sup>2</sup>Incl. 1-22

<sup>3</sup>Incl. 16, 17

<sup>4</sup>53T



# \*Transmission Clutch Group Input, Reverse, Third & Fourth



TS-4888

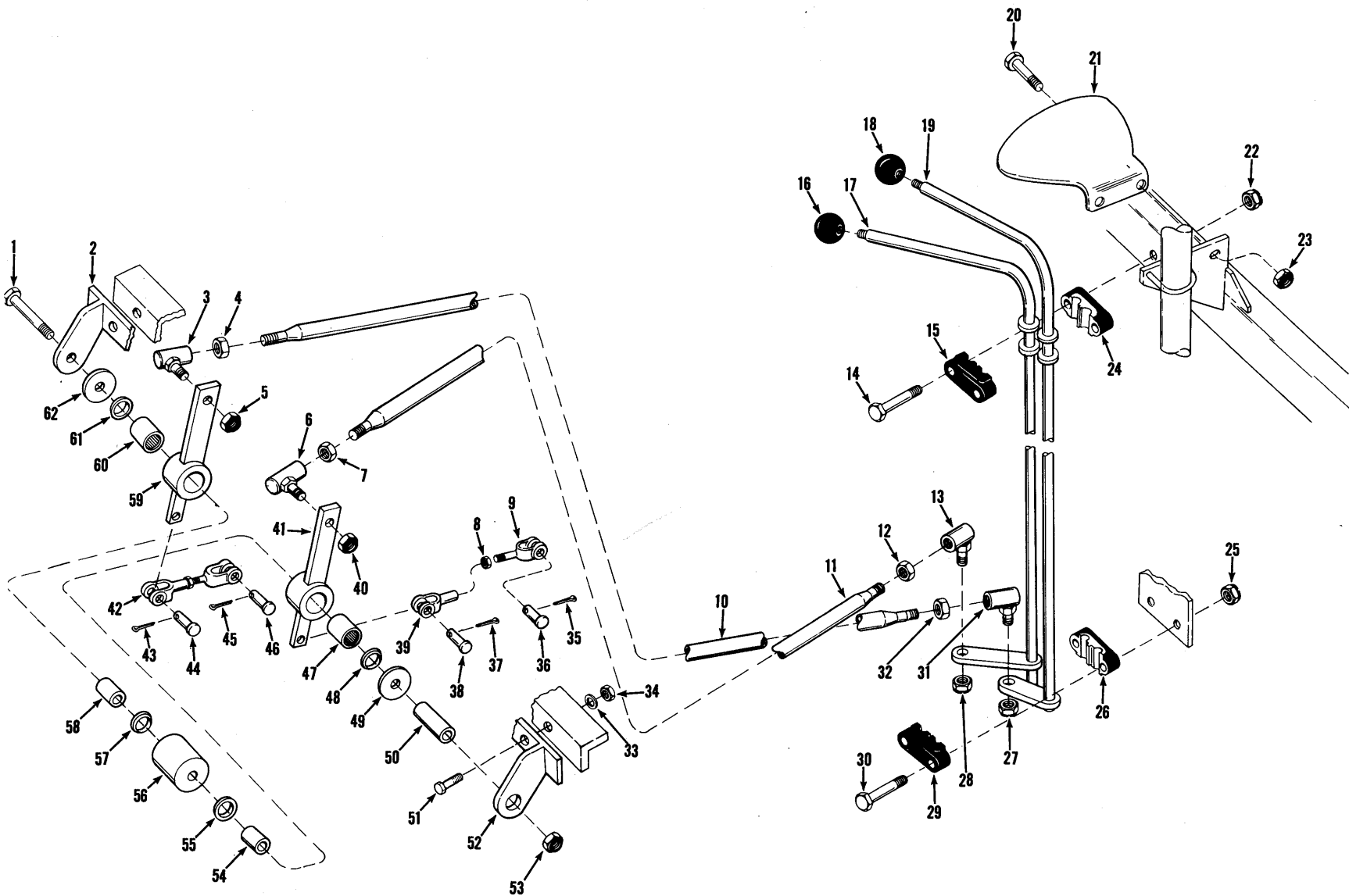
No.	Part No.	Qty.	Description
A	233161	1	Clutch assy
1	217509	1	Ring
2	217148	1	Hub assy
3	217347	6	Spring
4	217601	6	Pin
5	232394	5	Disc
6	232778	6	Disc
7	234814	1	Plate
8	217099	1	Ring
9	234813	1	Piston
10	217361	1	Ring

No.	Part No.	Qty.	Description
11	217411	1	Ring
12	743669	1	Ring
13	217151	1	Washer
14	223901	1	Ring
15	223358	1	Bearing
16	218214	1	Race
17	101-08	1	Ball
18	217142	1	Drum assy
19	225795	1	Bearing
20	223855	1	Ring

\*Four (4) clutches used in transmission. Quantities listed below are for one (1) clutch.

<sup>1</sup>Inc. 1-20

<sup>2</sup>Inc. 16, 17



# Transmission Controls



No.	Part No.	Qty.	Description
1	24C-8120	1	Bolt
2	1514645	1	Bracket
3	1305485	1	Ball joint
4	8D-08	1	Nut
5	18D-08	1	Nut
6	1305485	1	Ball joint
7	8D-08	1	Nut
8	8D-05	2	Nut
9	1515267	2	Clevis
10	<sup>7</sup> 1543935	1	Rod
11	<sup>8</sup> 1543935	1	Rod
12	8D-08	1	Nut
13	1305485	1	Ball joint
14	24C-536	2	Bolt
15	<sup>1</sup> 1508846	1	Support
16	509772	1	Knob
17	1543938	1	Lever
18	509772	1	Knob
19	1514471	1	Lever
20	24C-620	1	Bolt
21	568477	1	Quadrant
22	18D-05	2	Nut
23	18D-06	1	Nut
24	<sup>2</sup> _____	—	Support
25	18D-05	2	Nut
26	<sup>3</sup> _____	—	Support
27	18D-08	1	Nut
28	18D-08	1	Nut
29	<sup>4</sup> 1508846	1	Support
30	24C-536	2	Bolt
31	1305485	1	Ball joint

No.	Part No.	Qty.	Description
32	8D-08	1	Nut
33	1508222	2	Washer
34	18D-08	2	Nut
35	1F-312	1	Pin cotter
36	4F-05062	1	Pin clevis
37	1F-312	1	Pin cotter
38	4F-05062	1	Pin clevis
39	2I-5204	2	Clevis
40	18D-08	1	Nut
41	1515216	1	Bellcrank
42	<sup>5</sup> _____	1	Clevis
43	1F-312	1	Pin cotter
44	4F-05062	1	Pin clevis
45	1F-312	1	Pin cotter
46	4F-05062	1	Pin clevis
47	675227	1	Bearing
48	1522535	1	Ring
49	584502	1	Washer
50	1514734	1	Spacer
51	24C-828	2	Bolt
52	<sup>6</sup> _____	—	Bracket
53	18D-08	1	Nut
54	1503251	1	Sleeve
55	1522535	1	Ring
56	1514481	1	Spacer
57	1522535	1	Ring
58	1503251	1	Sleeve
59	1515215	1	Bellcrank
60	675227	1	Bearing
61	1522535	1	Ring
62	584502	1	Washer

<sup>1</sup>Inc. 24  
<sup>2</sup>See 15  
<sup>3</sup>See 29  
<sup>4</sup>Inc. 26  
<sup>5</sup>See 8, 9, 39  
<sup>6</sup>See 2  
<sup>7</sup>Inc. 3, 4, 31, 32  
<sup>8</sup>Inc. 6, 7, 12, 13

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**Group V**

Valve Assembly, Air Brake .....V3  
Valve Controls and Piping .....V5  
Valve Assembly Main .....V7  
    Section 4 – Boom .....V8  
    Section 5 – Bucket .....V9  
    Section 6 – Control .....V10  
    Valve Relief .....V11  
Valve Assembly, Pilot .....V13  
Valve Assembly Transmission Declutch .....V16

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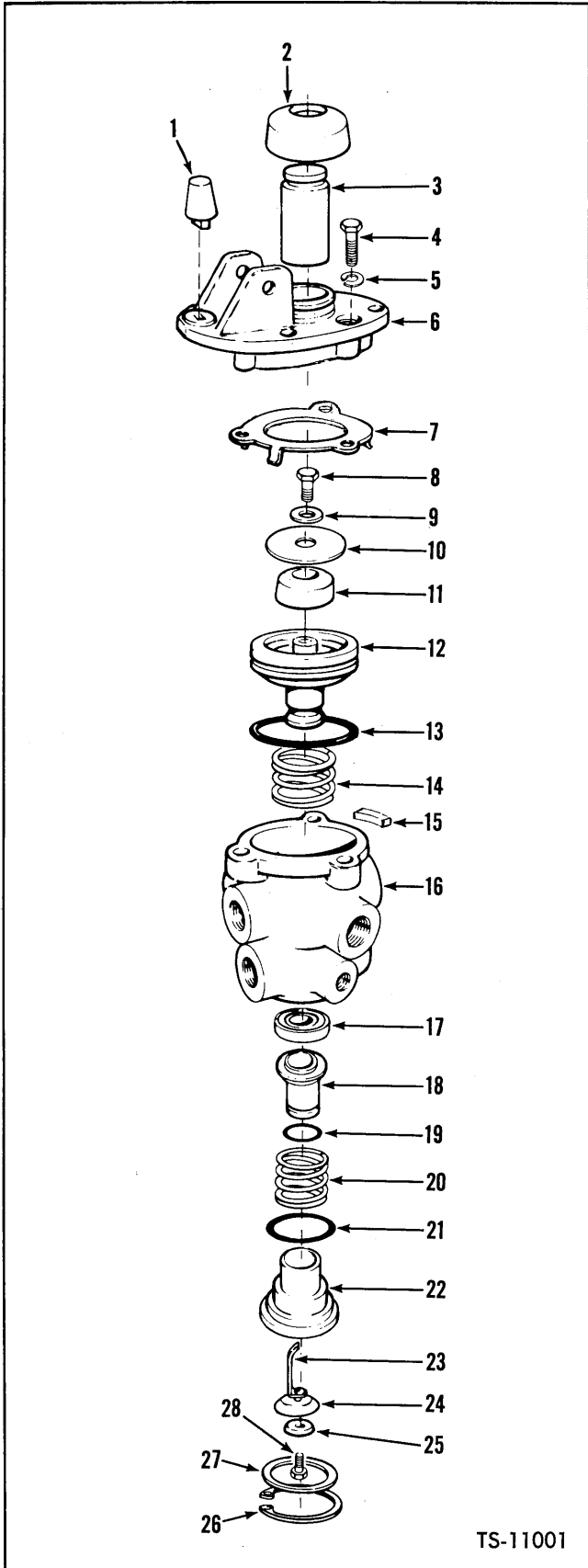
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# Valve Air Brake



TS-11001

No.	Part No.	Qty.	Description
A	1945996	1	Valve kit
B	3290125	1	Repair kit
C	3290124	1	Repair kit
D	3290099	1	Repair kit
E	3290106	1	Repair kit
1	513932	1	Stop, rubber
2	875762	1	Boot
3	3290122	1	Plunger
4	1C-520	3	Bolt
5	4E-05	3	Lockwasher
6	949260	1	Plate
7	894543	1	Retainer
8	21C-410	1	Bolt
9	894542	1	Washer
10	894541	1	Seat
11	894540	1	Spring
12	894539	1	Piston
13	25K-40204	1	O-ring
14	875754	1	Spring
15	949261	1	Filter
16	3290105	1	Body
17	894537	1	Retainer
18	894538	1	Valve
19	25K-20020	1	O-ring
20	894536	1	Spring
21	25K-30112	1	O-ring
22	894535	1	Seat, valve
23	894534	1	Spring
24	894533	1	Diaphragm
25	894532	1	Washer
26	661415	1	Ring
27	949264	1	Washer
28	87G-806	1	Screw

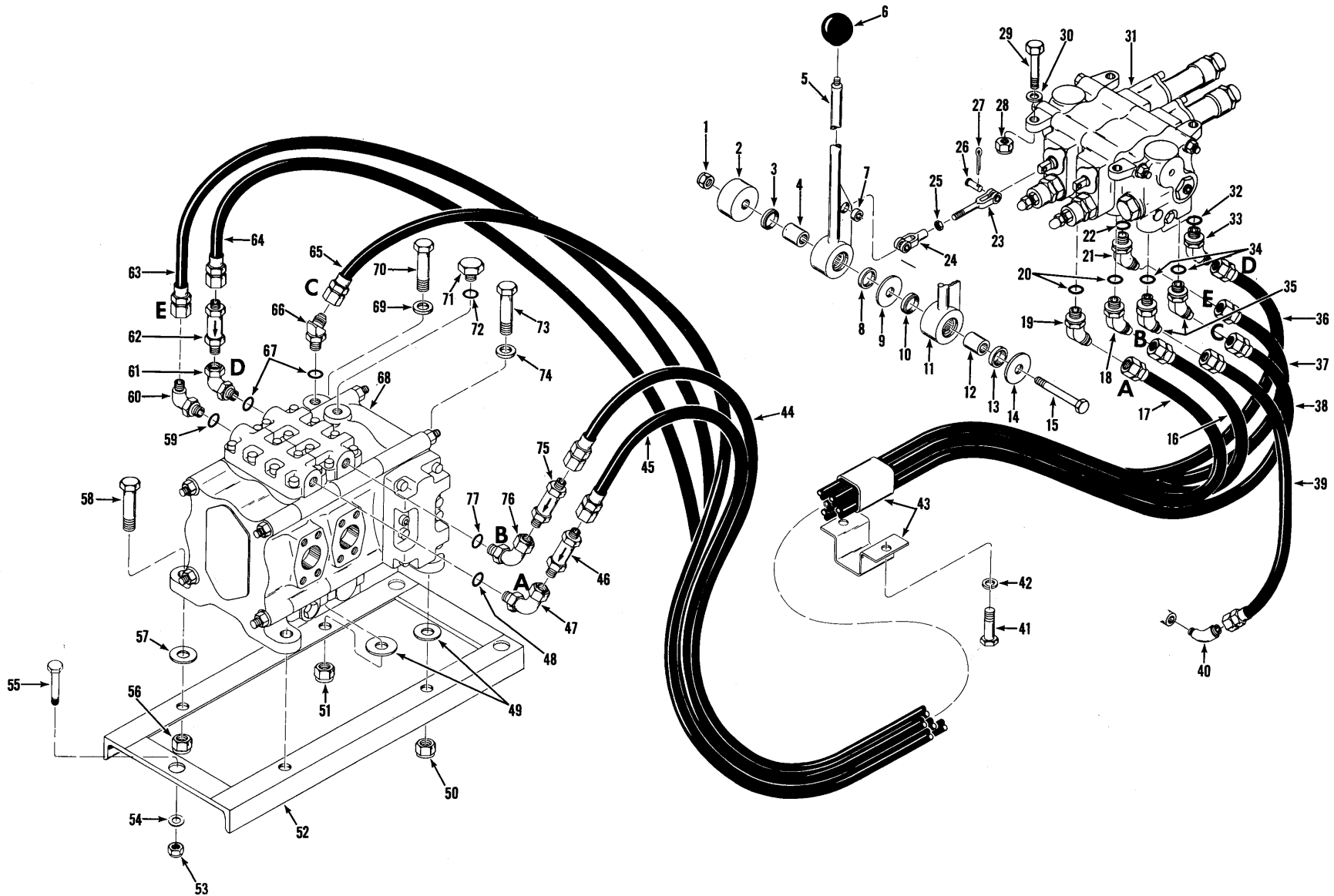
<sup>1</sup>Inc. 1→28

<sup>2</sup>Inc. 1, 2, 11, 13, 14, 15, 18, 19, 20, 21, 23, 24

<sup>3</sup>Inc. 1, 2, 18, 19, 21, 24

<sup>4</sup>Inc. 8→12

<sup>5</sup>Inc. 17→25, 28





# Valve Controls & Piping

**MICHIGAN**

No.	Part No.	Qty.	Description
1	18D-08	1	Nut
2	730482	1	Spacer
3	1522535	1	Wiper
4	1503251	1	Sleeve
5	<sup>1</sup> 1542767	1	Lever boom
5A	<sup>†</sup> 675227	1	Bearing
6	509772	2	Knob
7	1542764	2	Bushing
8	1522535	1	Wiper
9	584502	1	Washer
10	1522535	1	Wiper
11	<sup>2</sup> 1542769	1	Lever bucket
11A	<sup>†</sup> 675227	1	Bearing
12	1503251	1	Sleeve
13	1522535	1	Wiper
14	584502	1	Washer
15	24C-896	1	Bolt
16	1547168	1	Hose
17	1547168	1	Hose
18	<sup>3</sup> 18K-6	1	Connector
19	<sup>3</sup> 18K-6	1	Connector
20	91F-6	2	O-ring
21	<sup>4</sup> 18K-6	1	Connector
22	91F-6	1	O-ring
23	<sup>5</sup> 1537881	2	Rod
24	2J-4200	2	Clevis
25	8D-04	2	Nut
26	4F-04051	4	Pin
27	1F-207	4	Pin cotter
28	18D-06	3	Nut
29	25E-18	6	Washer
30	24C-636	3	Bolt
31	<sup>6</sup> _____	—	Valve pilot
32	91F-6	1	O-ring
33	<sup>7</sup> 18K-6	1	Connector
34	91F-7	2	O-ring
35	<sup>8</sup> 18K-7	2	Connector
36	1547168	1	Hose
37	1547168	1	Hose
38	1300304	1	Hose

No.	Part No.	Qty.	Description
39	572349	1	Hose
40	84F-7	1	Elbow
41	24C-820	4	Bolt
42	4E-08	4	Lockwasher
43	1537986	2	Clamp
43A	1M-22040	3	Hose
44	<sup>9</sup> _____	—	Hose
45	<sup>10</sup> _____	—	Hose
46	1515868	1	Valve
47	<sup>11</sup> 1304056	1	Elbow
48	91F-6	1	O-ring
49	1512415	2	Washer
50	18D-14	1	Nut
51	18D-14	1	Nut
52	1514880	1	Bracket
53	18D-14	3	Nut
54	25E-29	2	Washer
55	24C-1436	3	Bolt
56	18D-14	1	Nut
57	1512415	1	Washer
58	24C-1444	1	Bolt
59	91F-6	1	O-ring
60	<sup>12</sup> 17K-6	1	Elbow
61	<sup>13</sup> 1304056	1	Elbow
62	1510741	1	Valve
63	<sup>14</sup> _____	—	Hose
64	<sup>15</sup> _____	—	Hose
65	<sup>16</sup> _____	—	Hose
66	<sup>13</sup> 1547152	1	Elbow
67	91F-6	1	O-ring
68	<sup>6</sup> _____	—	Valve main
69	25E-29	1	Washer
70	24C-1444	1	Bolt
71	<sup>17</sup> 24K-7	1	Plug
72	91F-7	1	O-ring
73	24C-1444	1	Bolt
74	25E-29	1	Washer
75	1510741	1	Valve
76	<sup>18</sup> 1304056	1	Elbow
77	91F-6	1	O-ring

- <sup>1</sup>Inc. 5A
- <sup>2</sup>Inc. 11A
- <sup>3</sup>Inc. 20
- <sup>4</sup>Inc. 22
- <sup>5</sup>Inc. 24, 25
- <sup>6</sup>See Index
- <sup>7</sup>Inc. 32
- <sup>8</sup>Inc. 34
- <sup>9</sup>See 16
- <sup>10</sup>See 17
- <sup>11</sup>Inc. 48
- <sup>12</sup>Inc. 59
- <sup>13</sup>Inc. 67
- <sup>14</sup>See 37
- <sup>15</sup>See 36
- <sup>16</sup>See 38
- <sup>17</sup>Inc. 72
- <sup>18</sup>Inc. 77

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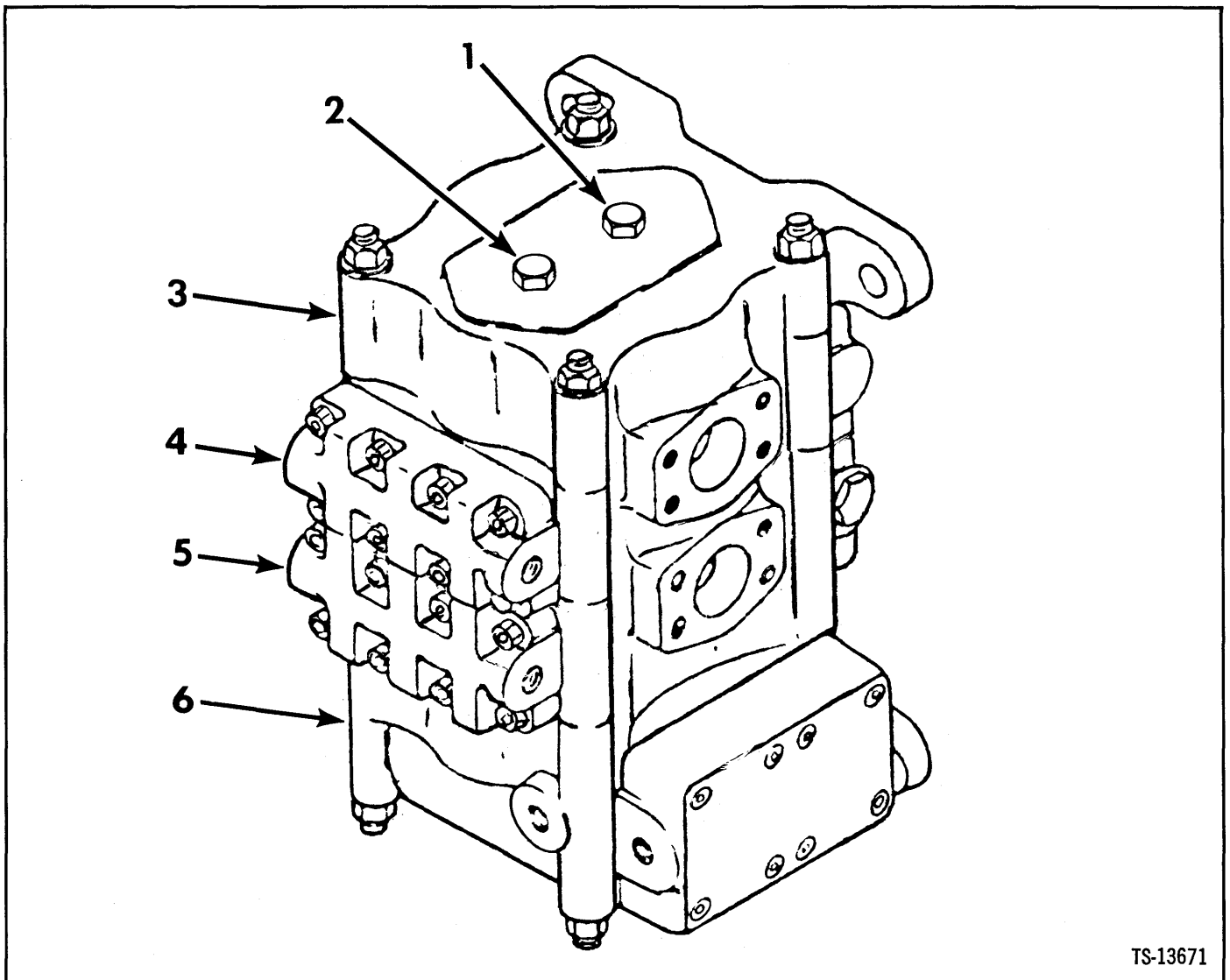
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# Valve Assembly, Main

**CLARK**



TS-13671

No.	Part No.	Qty.	Description
A	2504922	1	Control valve assy
B	†961198	1	Repair kit minor
C	†961199	1	Repair kit major
1	948847	1	Plug
1A	†91F-3	1	O-ring
2	948847	1	Plug
2A	†91F-3	1	O-ring
3	§ <sup>3</sup> _____	1	Cover section
4	4961206	1	Boom section
5	5961203	1	Bucket section
6	6961202	1	Control section
7	†7948854	1	Relief valve assy

<sup>2</sup>Inc. 1→7 When replacing any section of Valve Minor Repair Kit 961198 must also be used.

For purpose of identification, illustration above indicates by numerical designation the individual section group location in control valve. Code to numerical designation also appears in heading of each section covered in parts listing herein.

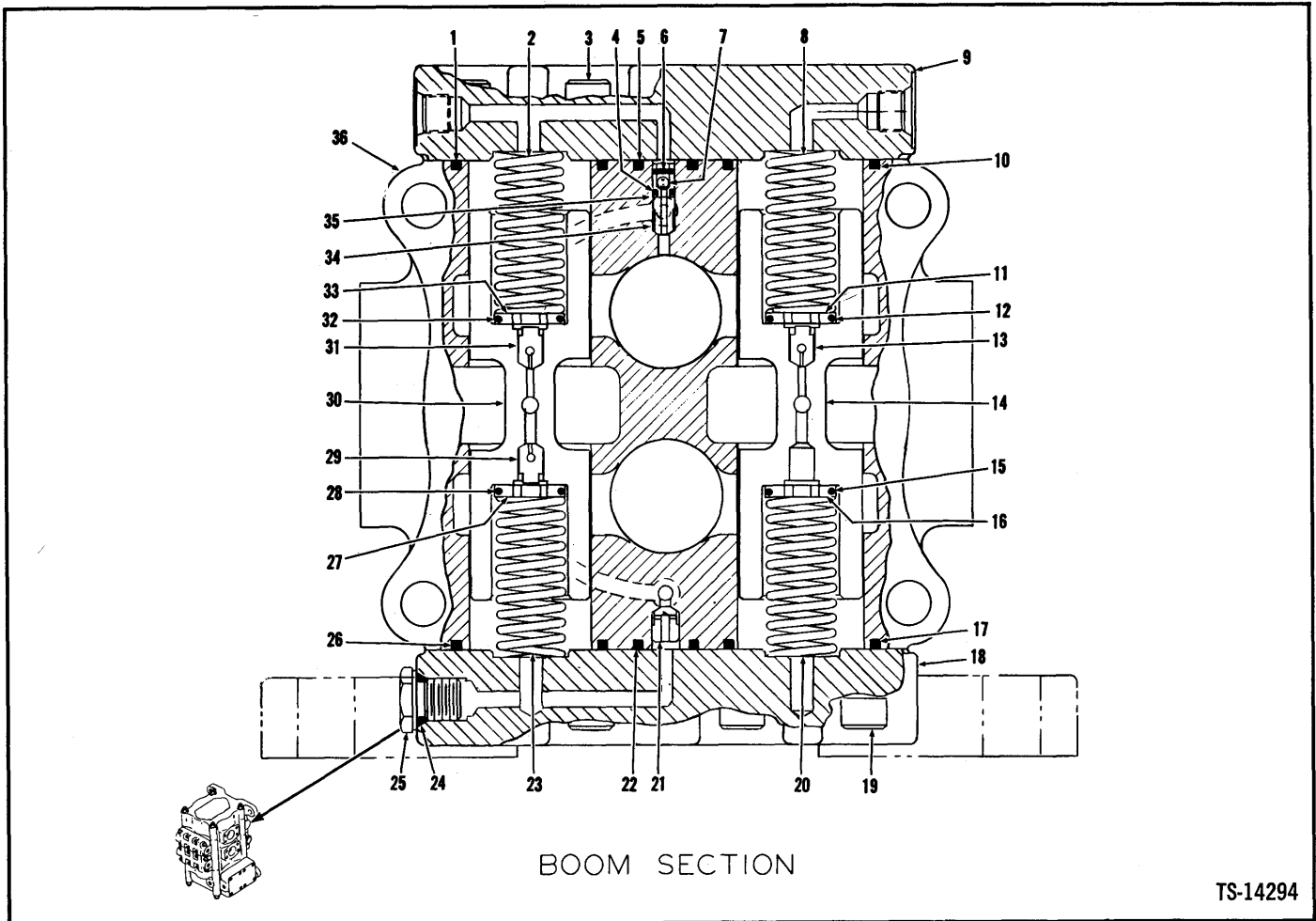
<sup>3</sup>See A

<sup>4</sup>See page V8

<sup>5</sup>See page V9

<sup>6</sup>See page V10

<sup>7</sup>See page V11



No.	Part No.	Qty.	Description
A	961206	1	Boom section
1	25K-40200	1	O-ring
2	948818	1	Spring
3	11G-828	8	Screw
4	948057	1	O-ring
5	25K-30022	1	O-ring
6	§ <sup>3</sup> -----	—	Pin
7	§ <sup>3</sup> -----	—	Ball
8	948818	1	Spring
9	948817	1	Cover
10	25K-40200	1	O-ring
11	960382	1	Washer
12	960383	1	O-ring
13	948789	1	Check
14	§ <sup>5</sup> -----	—	Plunger
15	960383	1	O-ring
16	960382	1	Washer
17	25K-40200	1	O-ring
18	948816	1	Cover

No.	Part No.	Qty.	Description
19	11G-828	8	Screw
20	948818	1	Spring
21	949255	1	Check
22	25K-30022	1	O-ring
23	948818	1	Spring
24	91F-6	1	O-ring
25	948058	1	Plug
26	25K-40200	1	O-ring
27	960382	1	Washer
28	960383	1	O-ring
29	948789	1	Check
30	§ <sup>5</sup> -----	—	Plunger
31	949283	1	Check
32	960383	1	O-ring
33	960382	1	Washer
34	949259	1	Poppet assy
35	948794	1	Ring
36	§ <sup>5</sup> -----	—	Housing

<sup>2</sup>Incl. 1 → 36 When replacing section, Minor Repair Kit 961198 must also be used.

<sup>3</sup>See 34

<sup>4</sup>Red .110 Orifice Size #35 Drill

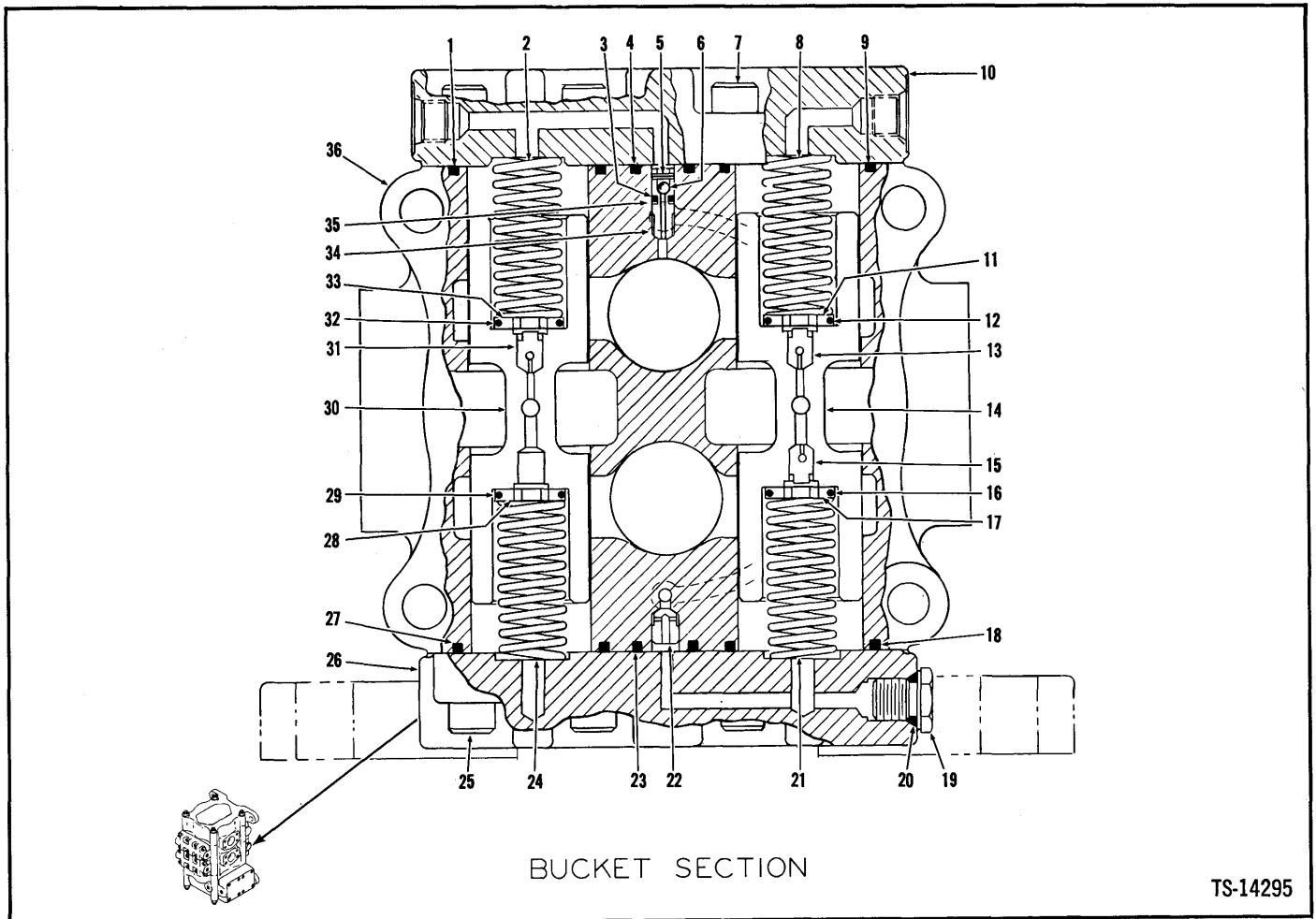
<sup>5</sup>See A

<sup>6</sup>Blue .046 Orifice Size #56 Drill

<sup>7</sup>Incl. 4, 6, 7, 35

# Valve Assembly – Main – Section 5, Bucket

**CLARK**



No.	Part No.	Qty.	Description
A	2961203	1	Bucket section
1	25K-40200	1	O-ring
2	948818	1	Spring
3	948057	1	O-ring
4	25K-30022	1	O-ring
5	§ <sup>3</sup> -----	—	Pin
6	§ <sup>3</sup> -----	—	Ball
7	11G-828	8	Screw
8	948818	1	Spring
9	25K-40200	1	O-ring
10	948817	1	Cover
11	960382	1	Washer
12	960383	1	O-ring
13	4948060	1	Check
14	§ <sup>5</sup> -----	—	Plunger
15	4948054	1	Check
16	960383	1	O-ring
17	960382	1	Washer
18	25K-40200	1	O-ring

No.	Part No.	Qty.	Description
19	948058	1	Plug
20	91F-6	1	O-ring
21	948818	1	Spring
22	949255	1	Check
23	25K-30022	1	O-ring
24	948818	1	Spring
25	11G-828	8	Screw
26	948816	1	Cover
27	25K-40200	1	O-ring
28	960382	1	Washer
29	960383	1	O-ring
30	§ <sup>5</sup> -----	—	Plunger
31	4948060	1	Check
32	960383	1	O-ring
33	960382	1	Washer
34	7949259	1	Poppet assy
35	948794	1	Ring
36	§ <sup>5</sup> -----	—	Housing

<sup>2</sup>Incl. 1 → 36 When replacing section, Minor Repair Kit 961198 must also be used.

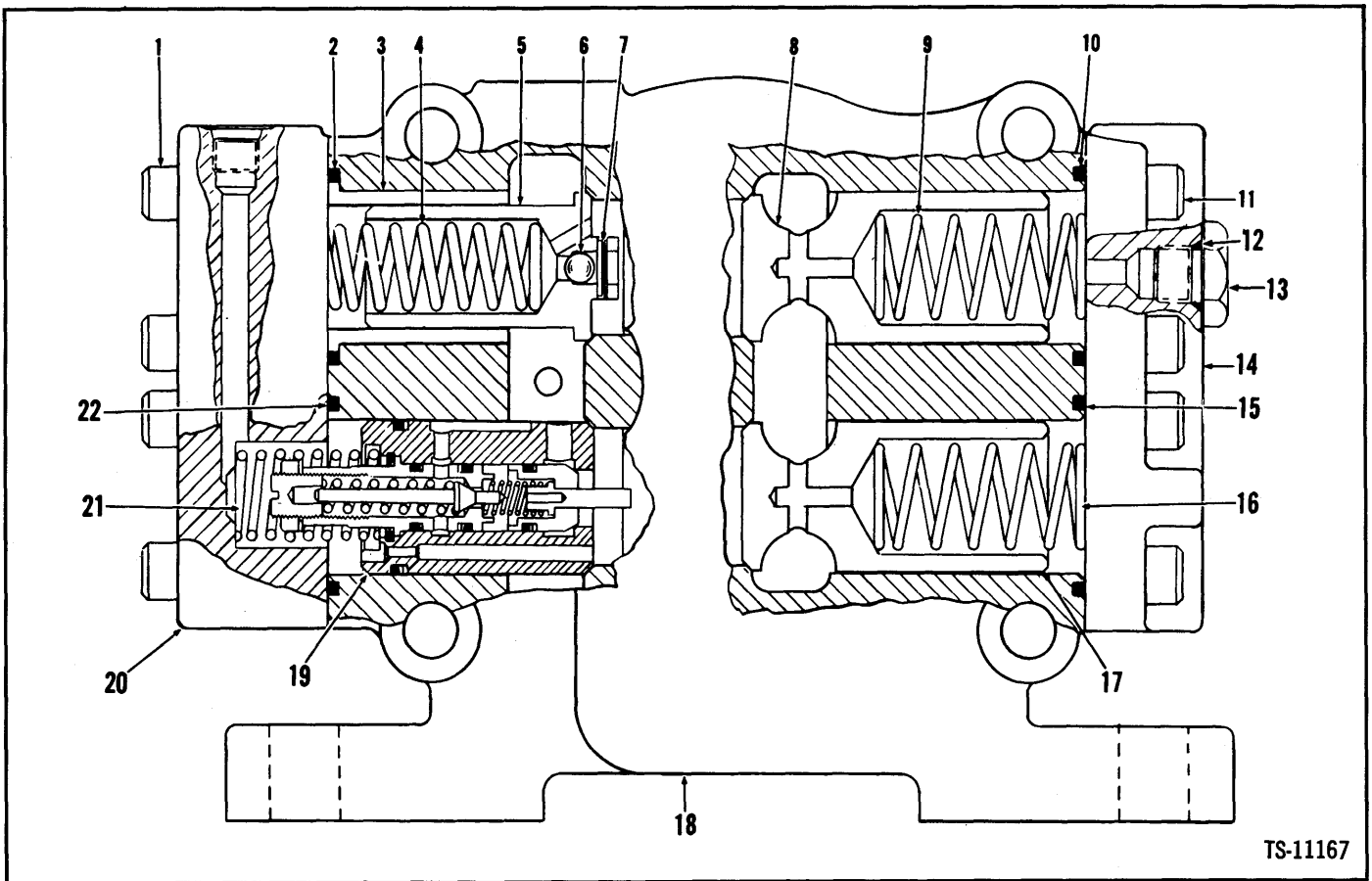
<sup>3</sup>See 34

<sup>4</sup>White .63 Orifice Size #52 Drill

<sup>5</sup>See A

<sup>6</sup>Green .93 Orifice Size #42 Drill

<sup>7</sup>Incl. 3, 5, 6, 35



No.	Part No.	Qty.	Description
A	961202	1	Control section
1	11G-828	8	Bolt
2	25K-40200	1	O-ring
3	<sup>3</sup> _____	—	Sleeve
4	948814	1	Spring
5	<sup>4</sup> 948859	1	Poppet assy
6	<sup>5</sup> _____	—	Ball
7	<sup>5</sup> _____	—	Pin
8	948821	1	Poppet
9	948823	1	Spring
10	25K-40200	1	O-ring
11	11G-828	8	Bolt
12	91F-8	1	O-ring
13	949309	1	Plug
14	949298	1	Cover
15	25K-40200	1	O-ring
16	948823	1	Spring
17	948821	1	Poppet
18	<sup>5</sup> _____	—	Housing
19	<sup>6</sup> _____	—	Relief valve
20	948820	1	Cover
21	948815	1	Spring
22	25K-40200	1	O-ring

<sup>2</sup>Incl. 1→22 When replacing section, Minor Repair Kit 961198 must also be used.

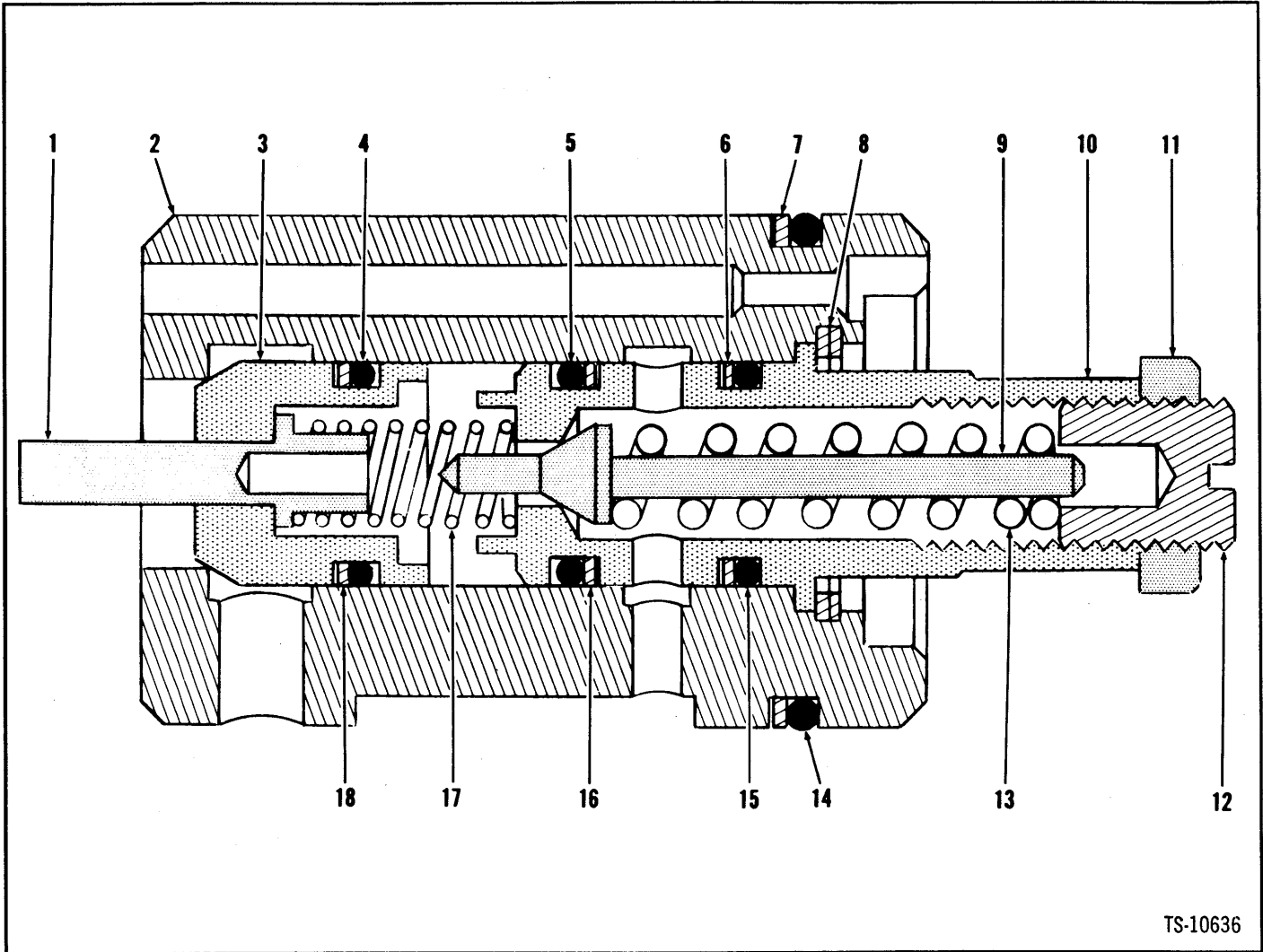
<sup>3</sup>See 5

<sup>4</sup>Incl. 3, 6, 7

<sup>5</sup>See A

<sup>6</sup>See page V11

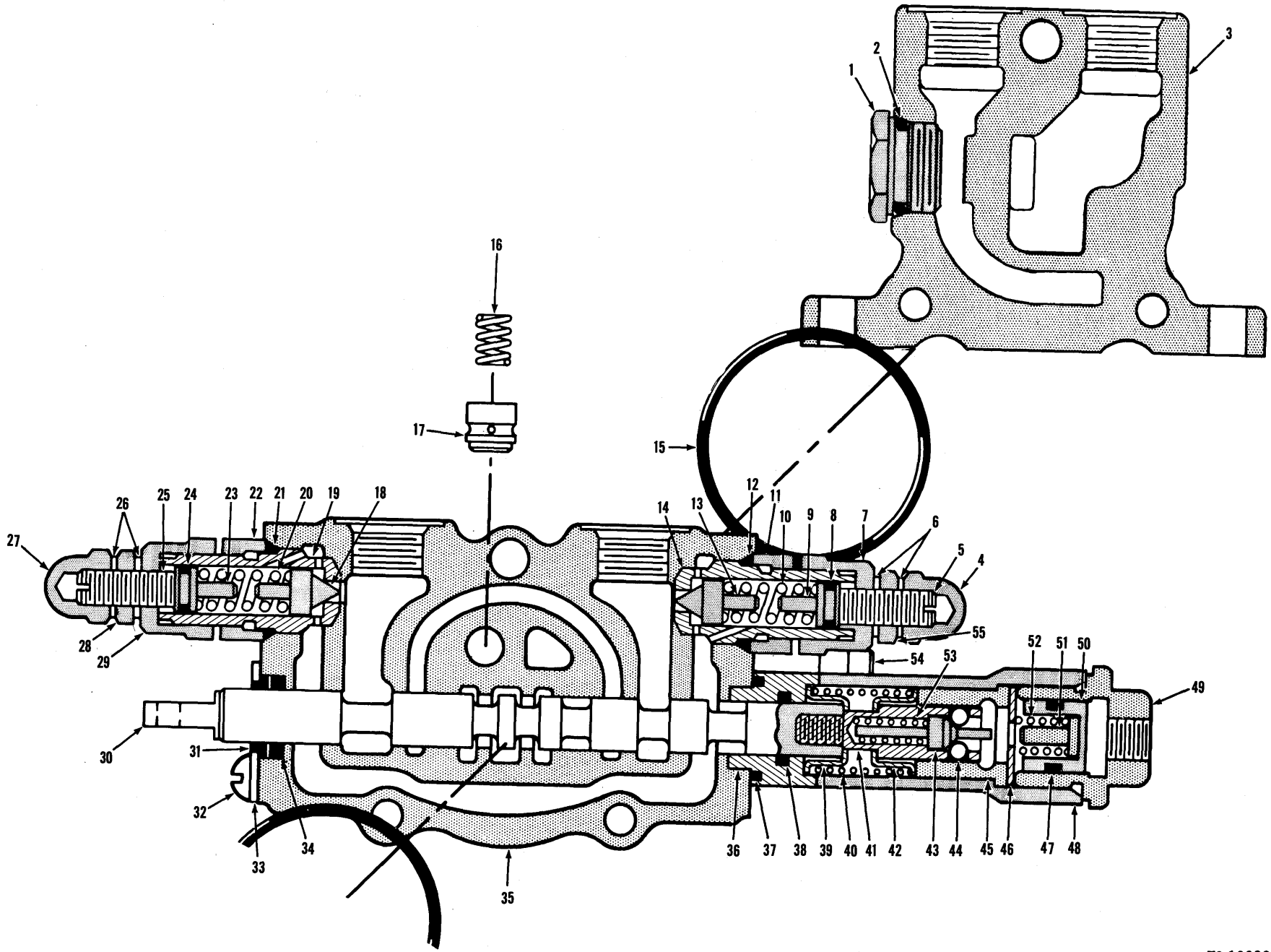
# Valve Assembly, Main Relief



TS-10636

No.	Part No.	Qty.	Description
A	948854	1	Relief valve assy
1	948824	1	Piston
2	§²-----	1	Poppet
3	§²-----	1	Poppet
4	948063	1	O-ring
5	948063	1	O-ring
6	948849	1	Ring
7	948852	1	Ring
8	948850	2	Ring
9	§²-----	1	Poppet
10	§²-----	1	Plug
11	8D-06	1	Nut
12	948848	1	Screw
13	948825	1	Spring
14	948851	1	O-ring
15	948063	1	O-ring
16	948849	1	Ring
17	948129	1	Spring
18	948849	1	Ring

<sup>1</sup>Incl. 1→18  
<sup>2</sup>See A





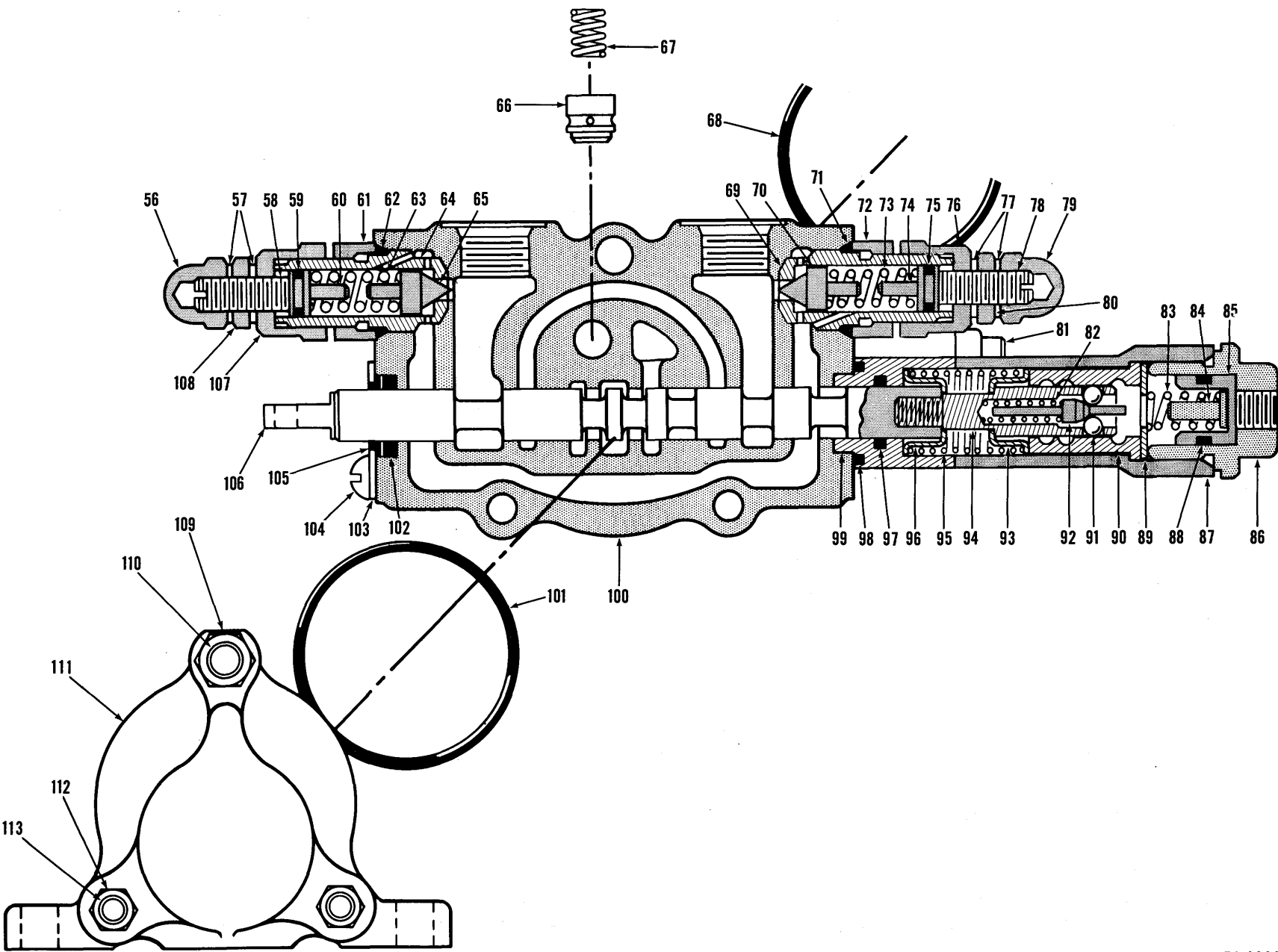
# Valve Assembly – Pilot



No.	Part No.	Qty.	Description
A	11513270	1	Valve assy
B	2949306	1	Plunger assy
C	31545915	1	Relief valve
D	41545916	1	Relief valve
1	948810	1	Plug
2	91F-7	1	O-ring
3	5948805	1	Inlet section
4	§ <sup>6</sup> -----	—	Nut
5	§ <sup>6</sup> -----	—	Screw
6	§ <sup>6</sup> -----	—	Washer
7	§ <sup>6</sup> -----	—	Cap
8	§ <sup>6</sup> -----	—	O-ring
9	§ <sup>6</sup> -----	—	Guide
10	§ <sup>6</sup> -----	—	Spring
11	§ <sup>6</sup> -----	—	Nut
12	91F-7	1	O-ring
13	§ <sup>6</sup> -----	—	Poppet
14	§ <sup>6</sup> -----	—	Seat
15	25K-40108	1	O-ring
16	948022	1	Spring
17	948015	1	Poppet
18	§ <sup>7</sup> -----	—	Poppet
19	§ <sup>7</sup> -----	—	Seat
20	§ <sup>7</sup> -----	—	Spring
21	91F-7	1	O-ring
22	§ <sup>7</sup> -----	—	Cap
23	§ <sup>7</sup> -----	—	Guide
24	§ <sup>7</sup> -----	—	O-ring
25	§ <sup>7</sup> -----	—	Screw
26	§ <sup>7</sup> -----	—	Washer

No.	Part No.	Qty.	Description
27	§ <sup>7</sup> -----	—	Nut
28	§ <sup>7</sup> -----	—	Nut
29	§ <sup>7</sup> -----	—	Cap
30	§ <sup>8</sup> -----	—	Plunger
31	948021	1	Wiper seal
32	71G-406	2	Screw
33	948016	1	Plate
34	25K-30018	1	O-ring
35	§ <sup>8</sup> -----	—	Housing
36	948982	1	Spacer
37	25K-30024	1	O-ring
38	25K-30018	1	O-ring
39	948017	1	Seat
40	948018	1	Spring
41	948019	1	Seat
42	948017	1	Seat
43	948029	1	Cam
44	877420	4	Ball
45	948023	1	Sleeve
46	948030	1	Spacer
47	25K-30018	1	O-ring
48	948980	1	Cap
49	948028	1	Plug
50	948024	1	Piston
51	948025	1	Pin
52	948026	1	Spring
53	948020	1	Spring
54	948032	2	Screw
55	§ <sup>6</sup> -----	—	Nut

<sup>1</sup>Inc. 1 → 113  
<sup>2</sup>Inc. 16, 17, 30 → 54, 68  
<sup>3</sup>Inc. 18 → 29  
<sup>4</sup>Inc. 4 → 14, 55  
<sup>5</sup>Inc. 1, 2 & 15  
<sup>6</sup>See D  
<sup>7</sup>See C  
<sup>8</sup>See A or B



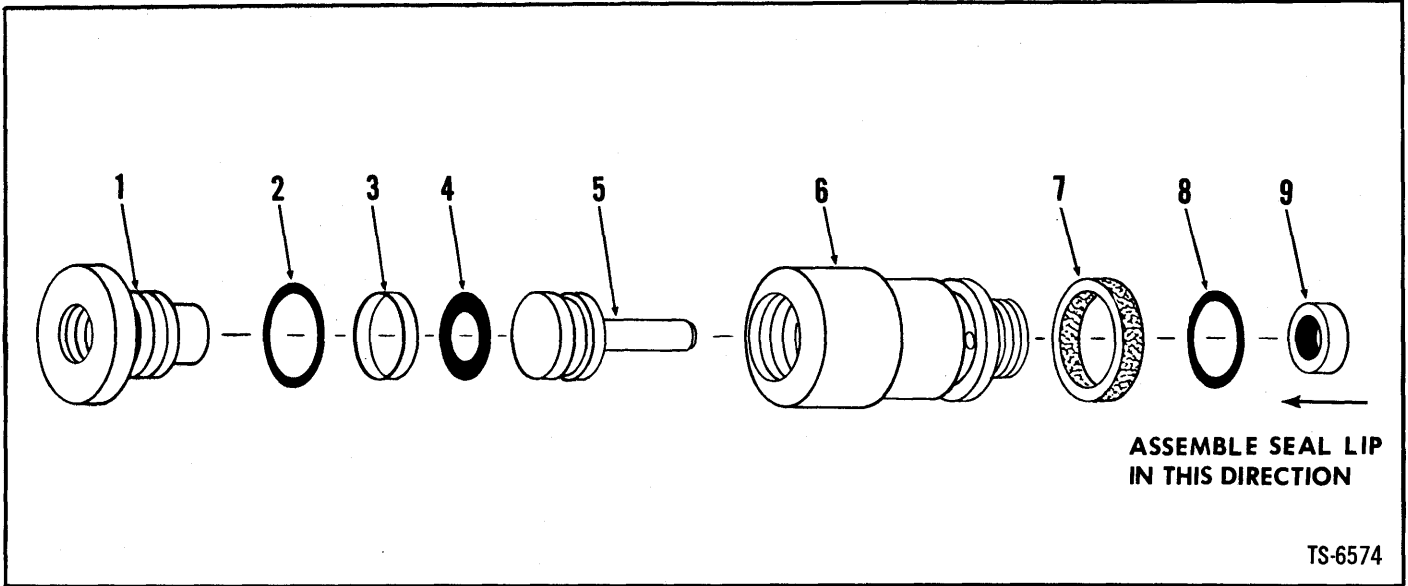
# Valve Assembly – Pilot



No.	Part No.	Qty.	Description
A	949307	1	Plunger assy
B	101545915	1	Relief valve
C	111545916	1	Relief valve
56	§ <sup>12</sup> _____	—	Nut
57	§ <sup>12</sup> _____	—	Washer
58	§ <sup>12</sup> _____	—	Screw
59	§ <sup>12</sup> _____	—	O-ring
60	§ <sup>12</sup> _____	—	Guide
61	§ <sup>12</sup> _____	—	Nut
62	91F-7	1	O-ring
63	§ <sup>12</sup> _____	—	Spring
64	§ <sup>12</sup> _____	—	Seat
65	§ <sup>12</sup> _____	—	Poppet
66	X 948015	1	Poppet
67	X 948022	1	Spring
68	X 25K-40108	1	O-ring
69	§ <sup>13</sup> _____	—	Seat
70	§ <sup>13</sup> _____	—	Poppet
71	X 91F-7	1	O-ring
72	§ <sup>13</sup> _____	—	Cap
73	§ <sup>13</sup> _____	—	Spring
74	§ <sup>13</sup> _____	—	Guide
75	§ <sup>13</sup> _____	—	O-ring
76	§ <sup>13</sup> _____	—	Cap
77	§ <sup>13</sup> _____	—	Washer
78	§ <sup>13</sup> _____	—	Screw
79	§ <sup>13</sup> _____	—	Nut
80	§ <sup>13</sup> _____	—	Nut
81	11G-428	2	Screw
82	948020	1	Spring
83	948026	1	Spring

No.	Part No.	Qty.	Description
84	948025	1	Pin
85	948024	1	Piston
86	948028	1	Plug
87	948980	1	Cap
88	25K-30018	1	O-ring
89	948030	1	Spacer
90	948034	1	Sleeve
91	877420	4	Ball
92	948029	1	Cam
93	948017	1	Seat
94	948033	1	Pin
95	948018	1	Spring
96	948017	1	Seat
97	25K-30018	1	O-ring
98	25K-30024	1	O-ring
99	948981	1	Spacer
100	§ <sup>14</sup> _____	—	Housing
101	25K-40108	1	O-ring
102	25K-30018	1	O-ring
103	948016	1	Plate
104	71G-406	1	Screw
105	948021	1	Wiper
106	§ <sup>14</sup> _____	—	Plunger
107	§ <sup>12</sup> _____	—	Cap
108	§ <sup>12</sup> _____	—	Nut
109	62D-06	2	Nut
110	948014	1	Tie rod
111	948010	1	Cover
112	1D-06	4	Nut
113	948013	2	Tie rod

<sup>9</sup>Inc. 66, 67, 81 → 106  
<sup>10</sup>56 → 65, 107, 108  
<sup>11</sup>69 → 80  
<sup>12</sup>See B  
<sup>13</sup>See C  
<sup>14</sup>See A



TS-6574

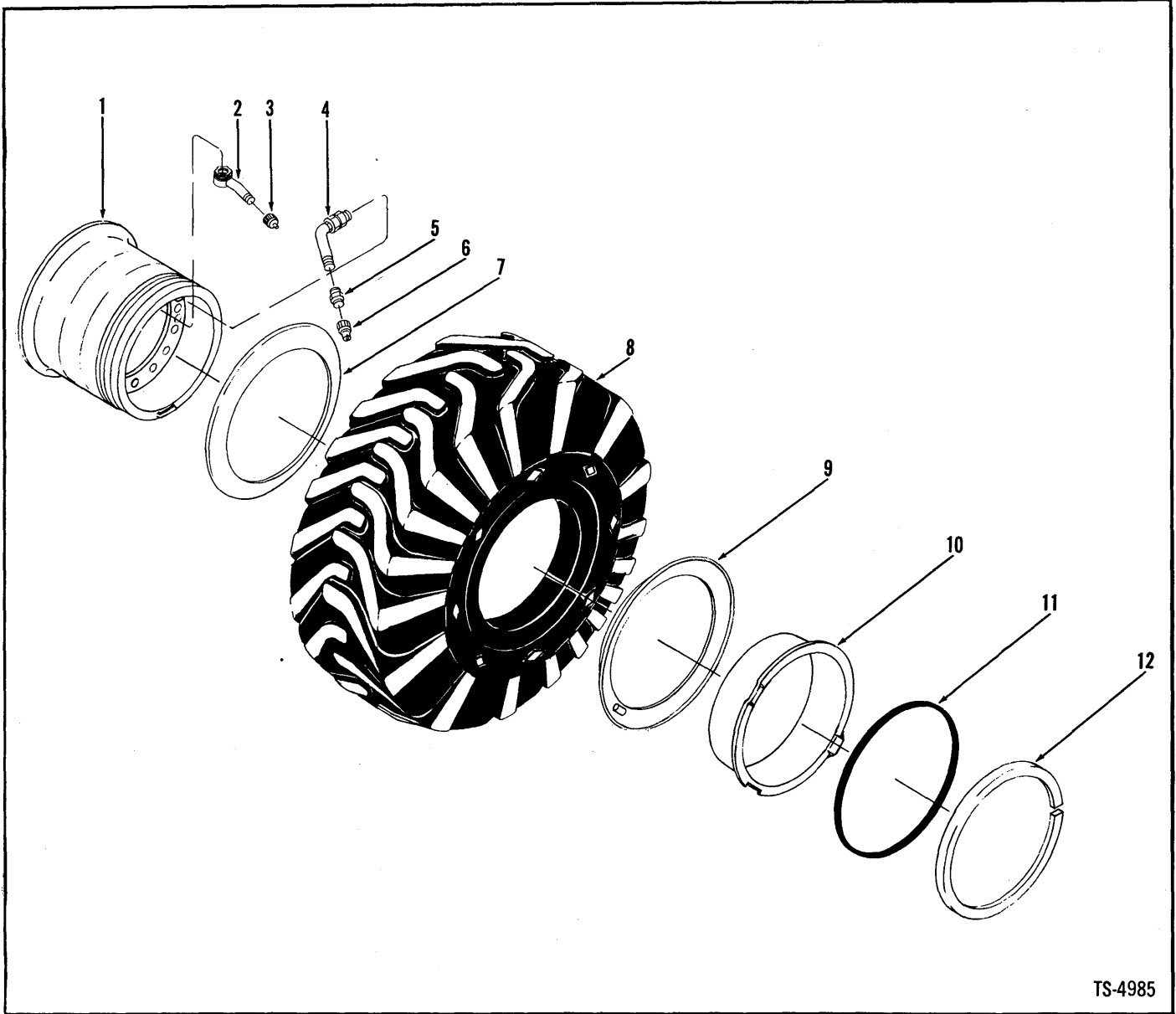
No.	Part No.	Qty.	Description
A	217927	1	Valve assy
1	217928	1	Plug
2	91F-8	1	O-ring
3	227672	1	Ring
4	25K-30020	1	O-ring
5	227673	1	Piston
6	217929	1	Housing
7	228931	1	Seal
8	25K-30022	1	O-ring
9	229131	1	Seal

Inc. 1 → 9



**Group W**

Wheel & Tire Data .....W2-1



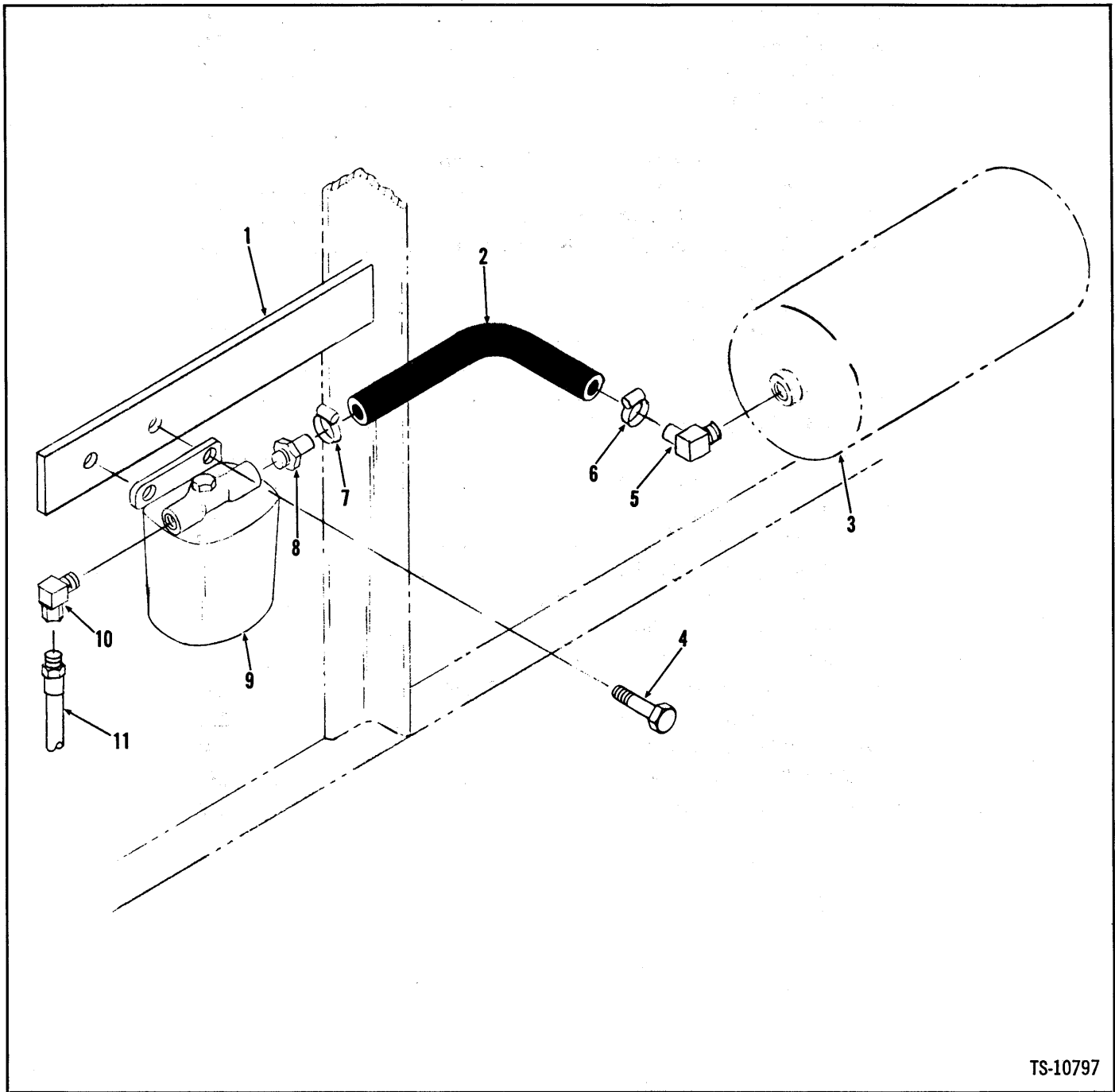
TS-4985

	29.5 x 25	26.5 x 25	26.5 x 25		
1	1514149	1517854	1540529	Wheel	1
2	531112	531112	531112	Stem (Inc. 2A, 2B, 3)	1
2A	529605	529605	529605	†Nut	1
2B	529606	529606	529606	†Grommet	1
3	531111	531111	531111	Cap	1
4	509445	509445	509445	Stem (Inc. 5, 6)	1
5	551684	551684	551684	Adapter	1
6	551685	551685	551685	Cap	1
7	522329	522329	516784	Flange	1
8	-----	-----	-----	§Tire	1
9	522329	522329	516784	Flange	1
10	562303	562303	553956	Band	1
11	580278	580278	580278	O-ring	1
12	543563	543563	580274	Lockring	1
13	15G-1216	15G-1216	15G-1212	†Screw	12
14	886799	886799		†Driver	

\*Four (4) wheels used per machine. Quantities listed below are for one (1) wheel only.

**Group Z**

Alcohol Injector .....	Z2
Auxiliary Steering Kit .....	Z47
Boom Detent Release .....	Z3
Bucket Teeth Adapters .....	Z5
Bucket Tooth Points .....	Z6
Cab Assembly & Cab Lights (For S/N 427C101 thru 427C599, 438C101 and After) .....	Z9
Cab Assembly (For S/N 427C601 and After) .....	Z41
Cab Lights & Wiring (For S/N 427C601 and After) .....	Z44
Counterweight Kit .....	Z12
Defroster Fan Assembly .....	Z13
Heater Installation .....	Z14
Heater Assembly .....	Z15
Lifting Lugs & Decals .....	Z16
Pump Assembly Auxiliary Steering .....	Z45
Toolbox & Canvas Bag Kit .....	Z38
Valve Assembly, Main Three Spool .....	Z17
Valve Assembly, Main Section 4 Optional .....	Z18
Valve Assembly, Main Section 5 Boom .....	Z19
Valve Assembly, Main Section 6 Bucket .....	Z20
Valve Assembly, Main Section 7 Control .....	Z21
Valve Assembly, Main Relief .....	Z23
Valve Assembly, Pilot (Three Spool) .....	Z24, Z29
Valve Controls – Levers – Linkage (Three Spool) .....	Z31
Valve (Three Spool) Installation – Parts .....	Z33
Valve Piping (Three Spool) .....	Z34
Windshield Wiper Kit, Front .....	Z36
Windshield Wiper Kit, Rear .....	Z37



TS-10797

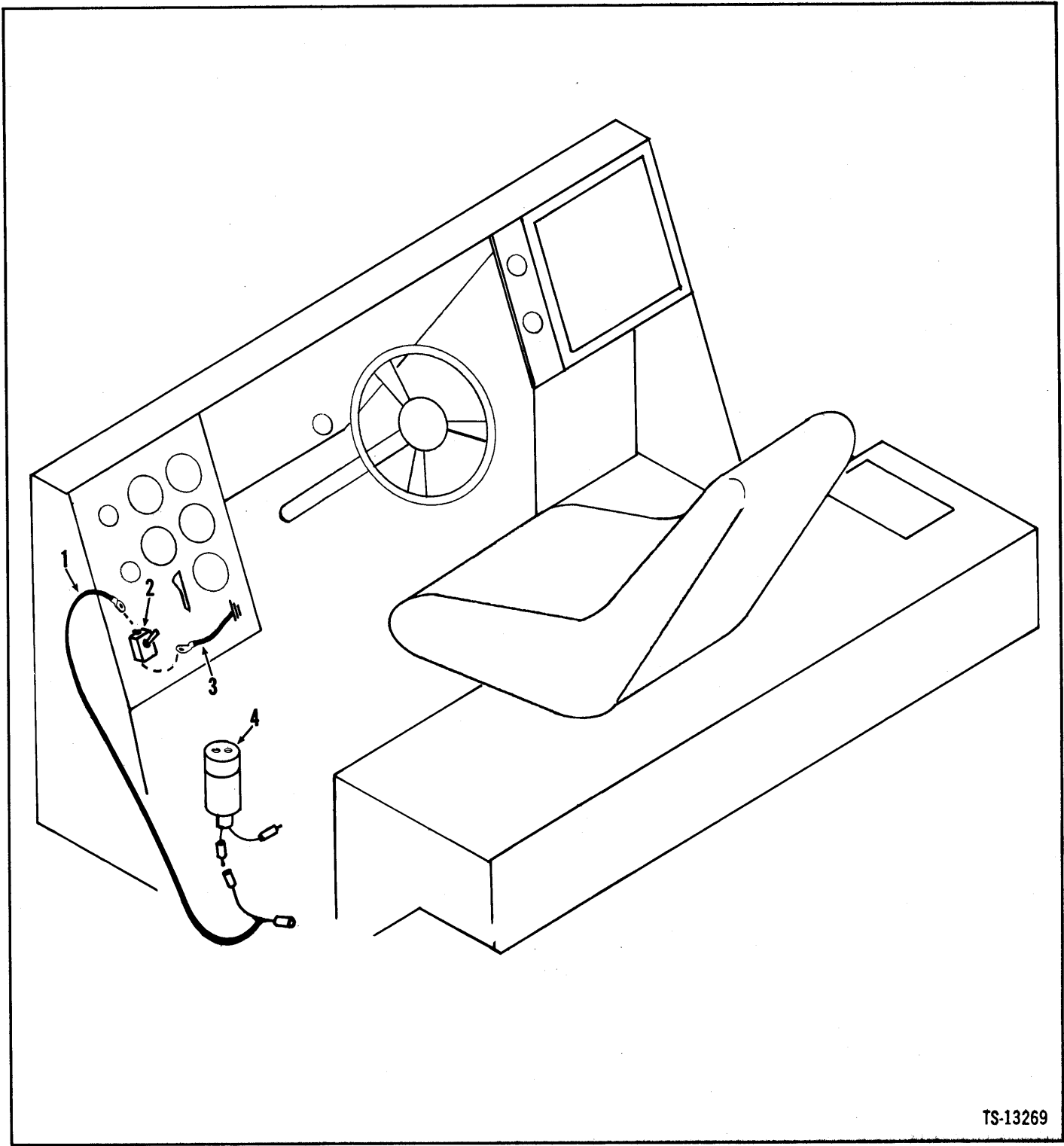
No.	Part No.	Qty.	Description
1	1538073	1	Plate
2	1545333	1	Hose
3	_____	—	Air tank
4	24C-612	2	Bolt
5	666842	1	Nipple
6	1545186	1	Clamp
7	1545186	1	Clamp

No.	Part No.	Qty.	Description
8	666867	1	Nipple
9	<sup>3</sup> 1545296	1	Injector
9A	<sup>†</sup> 993213	1	Seal body
9B	<sup>†</sup> 993139	1	Seal plug
10	31F-4	1	Adapter
11	_____	—	Hose

<sup>1</sup>See Index  
<sup>2</sup>See Air Piping  
<sup>3</sup>Inc. 9A, 9B



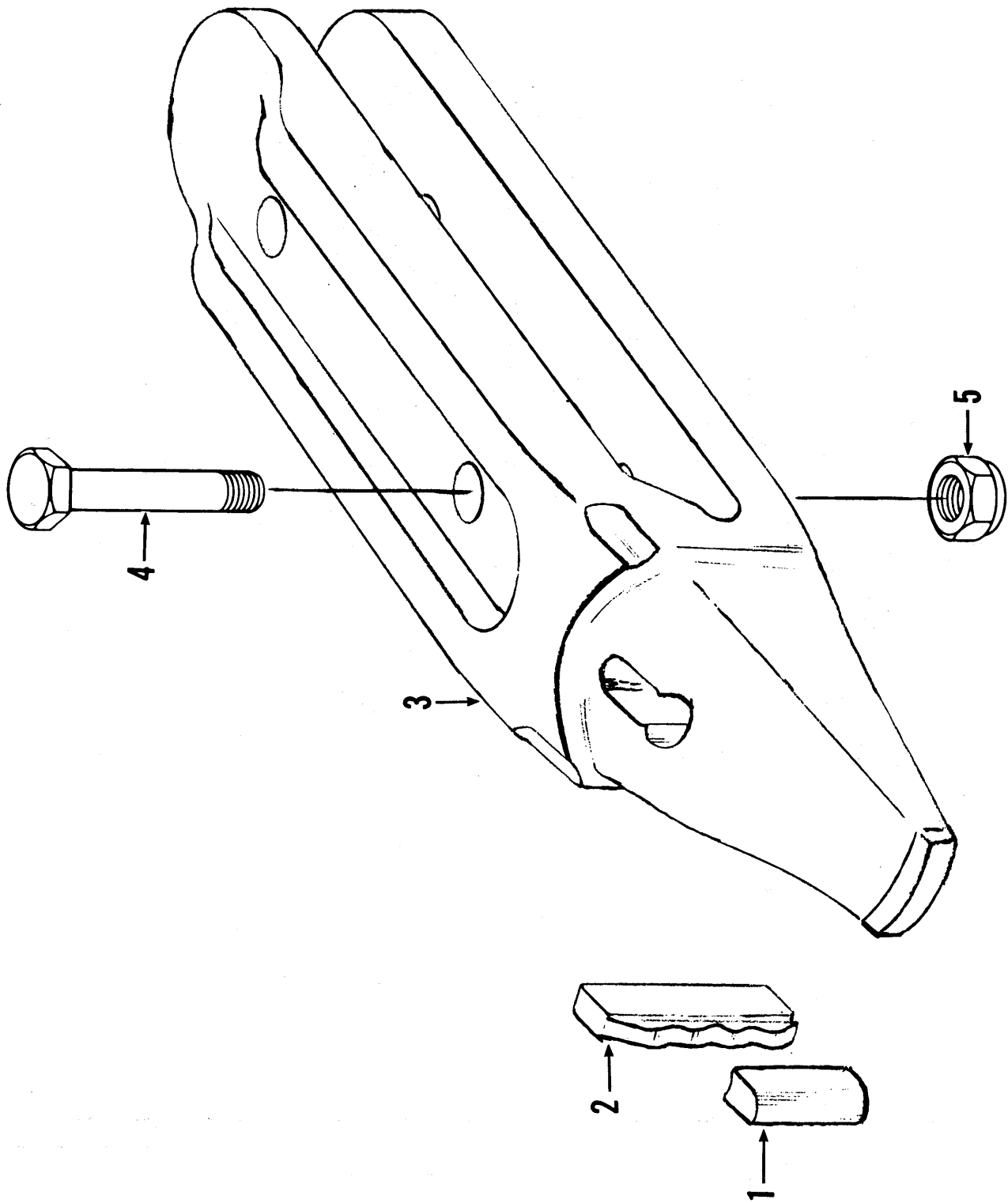
# Boom Detent Release



TS-13269

No.	Part No.	Qty.	Description
1	2502937	1	Wire assy
2	1501478	1	Switch
3	2502936	1	Wire assy
4	1-----	1	Solenoid boom

<sup>1</sup>See Index



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**CLARK**

*Service  
Publication Release*

10 December 1975

MICHIGAN SPR-672

SUBJECT: Parts Manual No. 2998  
Model 175B

Enclosed is one (1) set of latest pages to be inserted into Parts Manual No. 2998. Remove old pages and insert new pages as follows:

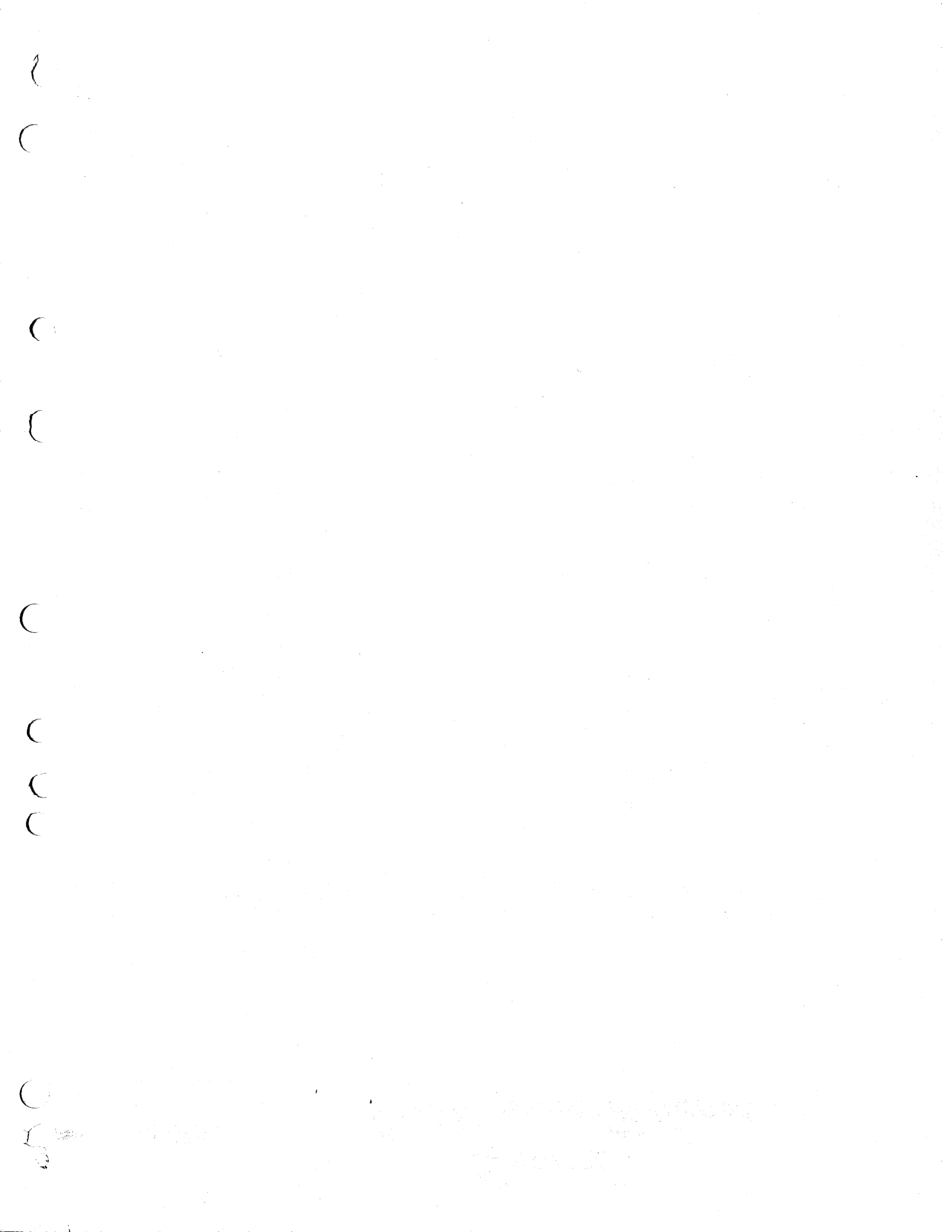
REMOVE

E2-1, E3-1  
E8-1, E9-1  
E10-1, E11-1  
E13-1, E14-1  
E15-1/ E24-1  
N2-1  
V7-1, V8-1  
V9-1, V10-1  
Z1-2, Z17-1  
Z18-1, Z19-1  
Z20-1, Z21-1  
Z23-1

ADD

E2-2, E3-2  
E8-2, E9-2  
E10-2, E11-2  
E13-2, E14-2  
E15-2/E24-2  
N2-2  
V7-2, V8-2  
V9-2, V10-2  
Z1-3, Z17-2  
Z18-2, Z19-2  
Z20-2, Z21-2  
Z23-2

The above consists of latest published pages to this date.



# CLARK

*Service  
Publication Release*

17 March 1976

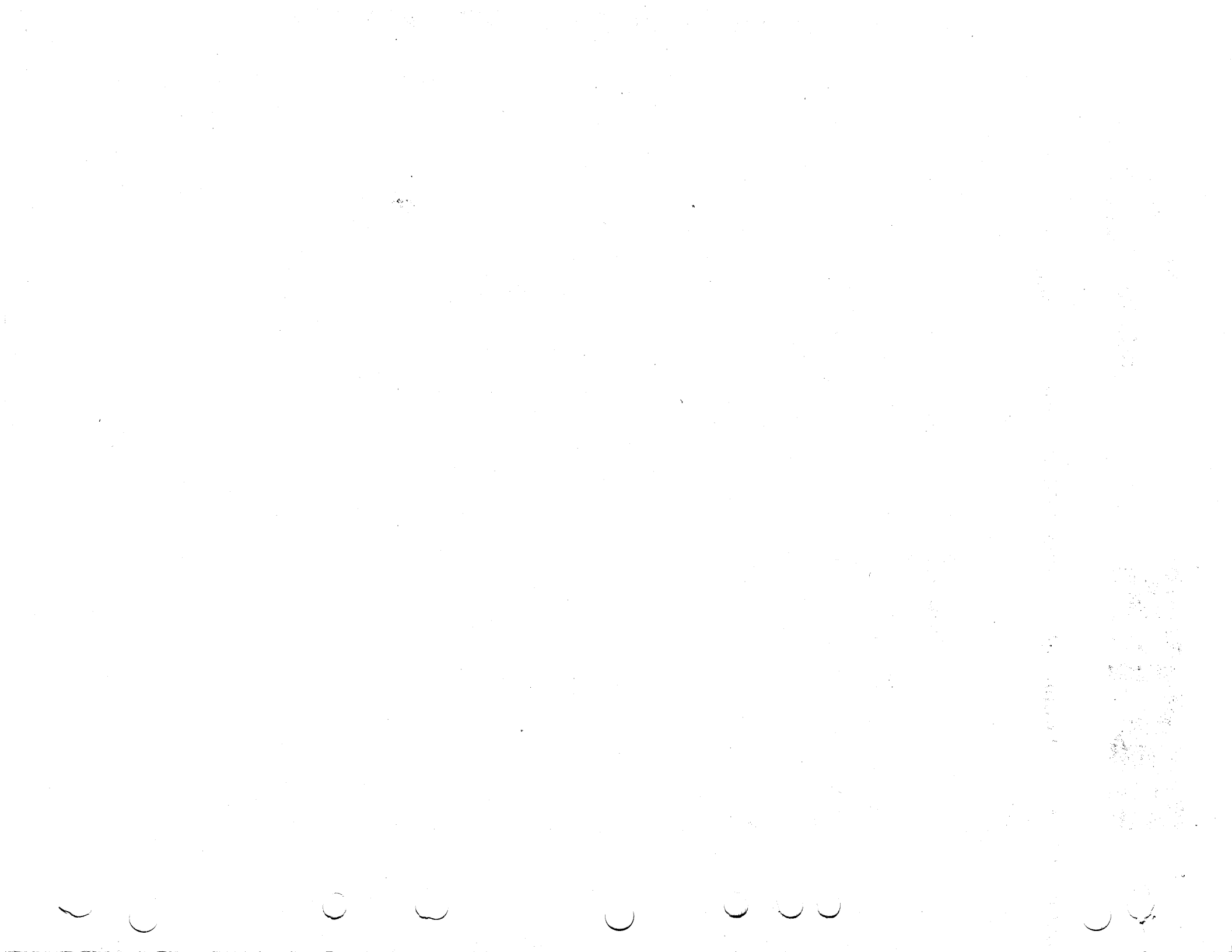
MICHIGAN SPR-683

SUBJECT: Parts Manual No. 2998  
Model 175B Articulated Tractor Shovel

Enclosed is one (1) set of Pages to be inserted into Parts Manual No. 2998, Model 175B.

Remove Pages Z1-3 & Z2-1, and insert Pages Z1-4, Z2-2, Z45-1, Z46-1 & Z47-1.

RB

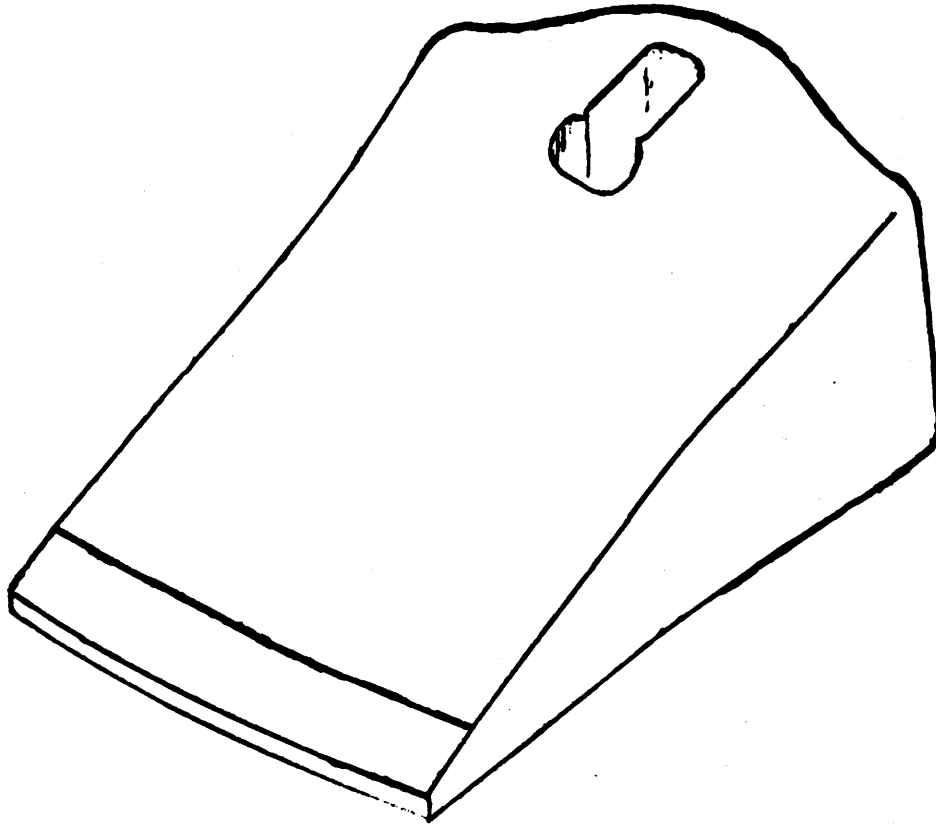




# Bucket Teeth Adapters



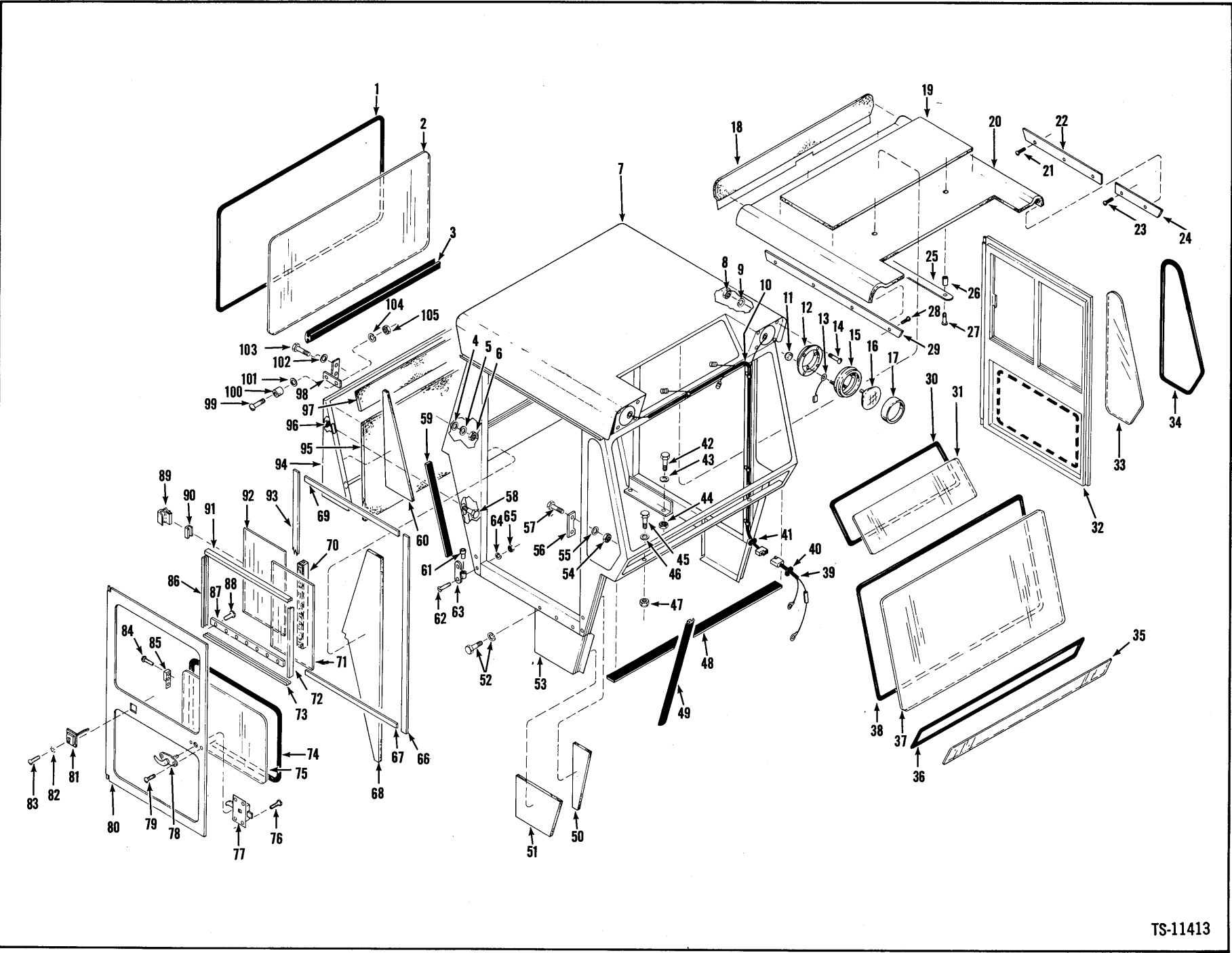
Item No.	3 Adapter Part No.	Qty.	Adapter Type	Usage	1 Use Pin Number	2 Pin Lock Number	4 Bolt	5 Nut	No. Required
1	1504273	8	Bolt-on	Standard	1504272	1504271	23C-1260	63D-12	16
2	1504273	8	Bolt-on	Hot-Slag	1542393	1542394	23C-1260	63D-12	16
3	1518534	8	Two-legged	Standard	1504272	1504271	Weld-On	-----	-----
4	1518534	8	Two-legged	Hot-Slag	1542393	1542394	Weld-On	-----	-----
5	1549300	8	Flush-Mount	Standard	1504272	1504271	Weld-On	-----	-----
6	1549300	8	Flush-Mount	Hot-Slag	1542393	1542394	Weld-On	-----	-----
7	1548094	3	Flush-Mount RH	Standard	1504272	1504271	Weld-On	-----	-----
8	1548095	3	Flush-Mount LH	Standard	1504272	1504271	Weld-On	-----	-----
9	1549300	2	Flush-Mount	Standard	1504272	1504271	Weld-On	-----	-----
X 10	1548094	3	Flush-Mount RH	Hot-Slag	X 1542393	1542394	Weld-On	-----	-----
11	1548095	3	Flush-Mount LH	Hot-Slag	1542393	1542394	Weld-On	-----	-----
12	1549300	2	Flush-Mount	Hot-Slag	1542393	1542394	Weld-On	-----	-----
13	1506897	3	Two-Legged RH	Standard	1504272	1504271	Weld-On	-----	-----
14	1506895	3	Two-Legged LH	Standard	1504272	1504271	Weld-On	-----	-----
15	1518534	2	Two-Legged	Standard	1504272	1504271	Weld-On	-----	-----
16	1506897	3	Two-Legged RH	Hot-Slag	1542393	1542394	Weld-On	-----	-----
17	1506895	3	Two-Legged LH	Hot-Slag	1542393	1542394	Weld-On	-----	-----
18	1518534	2	Two-Legged	Hot-Slag	1542393	1542394	Weld-On	-----	-----



TS-11922

Item No.	Tooth Point Number	Qty.	Tooth Point Type
1	1504270	8	Standard
2	1542261	8	Sharp
3	1542260	8	Chisel
4	1542259	8	Rock





# Cab Assembly & Cab Lights

No.	Part No.	Qty.	Description
A	<sup>1</sup> 1536572	1	Cab assy
B	<sup>2</sup> 1514800	1	Cab assy
1	<sup>3</sup> 569694	—	Moulding
2	<sup>5</sup> _____	1	Glass pattern
3	<sup>4</sup> 943623	—	Weatherstrip
4	<sup>6</sup> 19018	4	Washer
5	<sup>4</sup> E-04	4	Lockwasher
6	<sup>4</sup> 1D-04	4	Nut
7	<sup>5</sup> _____	1	Cab
8	<sup>8</sup> 12D-10	8	Nut
9	<sup>8</sup> 17E-10	8	Lockwasher
10	<sup>1</sup> 1544320	1	Harness headlight
10A	<sup>3</sup> 30H-14	3	Clip
10B	<sup>3</sup> 24C-410	3	Bolt
10C	<sup>3</sup> 18D-04	3	Nut
11	<sup>6</sup> 50D-10	6	Nut
12	<sup>2</sup> 568675	2	Adapter
13	<sup>2</sup> 540882	2	Wire
14	<sup>8</sup> 3G-1012	8	Screw
15	<sup>2</sup> 547006	2	Headlight assy
16	<sup>2</sup> 551242	2	Sealed unit
17	<sup>2</sup> 944977	2	Retainer headlight
18	<sup>1</sup> 1543830	1	Panel rear top
19	<sup>1</sup> 1543825	1	Headliner backing
20	<sup>1</sup> 1543826	1	Headliner
21	<sup>3</sup> 14G-608	3	Screw
22	<sup>1</sup> 1514767	1	Hdliner trimstrip L
23	<sup>2</sup> 14G-608	2	Screw
24	<sup>1</sup> 1514765	1	Headliner trim L
25	<sup>2</sup> 1514764	2	Headliner strap
26	<sup>4</sup> 1514763	4	Spacer
27	<sup>4</sup> 14G-824	4	Screw
28	<sup>4</sup> 85G-1012	4	Screw
29	<sup>1</sup> 1514766	1	Headliner trim R
30	<sup>—</sup> 7569694	—	Moulding
31	<sup>1</sup> 5 <sup>8</sup> _____	1	Glass pattern
32	_____	—	Door
33	<sup>—</sup> 5 <sup>8</sup> _____	—	Glass pattern
34	<sup>—</sup> 9569694	—	Moulding
35	<sup>1</sup> 5 <sup>8</sup> _____	1	Glass pattern
36	<sup>—</sup> 9569694	—	Moulding
37	<sup>1</sup> 5 <sup>8</sup> _____	1	Glass pattern
38	<sup>—</sup> 10569694	—	Moulding
39	<sup>1</sup> 1544319	1	Harness cockpit

No.	Part No.	Qty.	Description
40	<sup>1</sup> 515069	1	Grommet
41	<sup>1</sup> 515069	1	Grommet
42	<sup>4</sup> 24C-624	4	Bolt
43	<sup>4</sup> 616783	4	Washer
44	<sup>4</sup> 18D-06	4	Locknut
45	<sup>2</sup> 24C-628	2	Bolt
46	<sup>2</sup> 616783	2	Washer
47	<sup>2</sup> 18D-06	2	Locknut
48	<sup>—</sup> 11521844	—	Weatherstrip
49	<sup>—</sup> 4569692	—	Weatherstrip
50	<sup>1</sup> 1543800	1	Panel door post R
50A	<sup>1</sup> 1543799	1	Panel door post L
51	<sup>1</sup> 1543828	1	Kickplate panel RH
51A	<sup>1</sup> 1543827	1	Kickplate panel LH
52	<sup>8</sup> 24C-512	8	Bolt
52A	<sup>8</sup> 18D-05	8	Nut
53	<sup>1</sup> 568686	1	Panel lower RH
53A	<sup>1</sup> 568687	1	Panel lower LH
54	<sup>4</sup> 1D-04	4	Nut
55	<sup>4</sup> 4E-04	4	Lockwasher
56	<sup>2</sup> 945576	2	Strike
57	<sup>4</sup> 47G-412	4	Screw
58	<sup>5</sup> 24C-616	5	Bolt
59	<sup>—</sup> 12943623	—	Weatherstrip
60	<sup>1</sup> 1543803	1	Panel rear RH
60A	<sup>1</sup> 1543801	1	Panel rear LH
61	<sup>4</sup> 568700	4	Bushing
62	<sup>8</sup> 76G-512	8	Screw
63	<sup>2</sup> 945555	2	Hinge
63A	<sup>2</sup> 945554	2	Hinge
64	<sup>8</sup> 4E-05	8	Lockwasher
65	<sup>8</sup> 1D-05	8	Nut
66	<sup>—</sup> 13943623	—	Weatherstrip
67	<sup>—</sup> 4943623	—	Weatherstrip
68	<sup>1</sup> 1543809	1	Panel rear RH
68A	<sup>1</sup> 1543808	1	Panel rear LH
69	<sup>—</sup> 4943623	—	Weatherstrip
70	<sup>—</sup> 11139149	—	Channel glass
71	<sup>2</sup> 5 <sup>8</sup> _____	2	Glass pattern
72	<sup>—</sup> 11569696	—	Channel glass
73	<sup>—</sup> 11569696	—	Channel glass
74	<sup>—</sup> 9569694	—	Moulding
75	<sup>2</sup> 5 <sup>8</sup> _____	2	Glass pattern

<sup>1</sup>Inc. 1→9, 12, 14, 30→38, 48, 49, 52→57, 59, 61→67, 69→93, 98→105

<sup>2</sup>Inc. 1→9, 12, 14, 18→38, 42→105

<sup>3</sup>11 ft. (3,36 M)

<sup>4</sup>5 ft. (1,53 M)

<sup>5</sup>See A or B

<sup>6</sup>Inc. 16, 17

<sup>7</sup>6 ft. (1,83 M)

<sup>8</sup>See 106

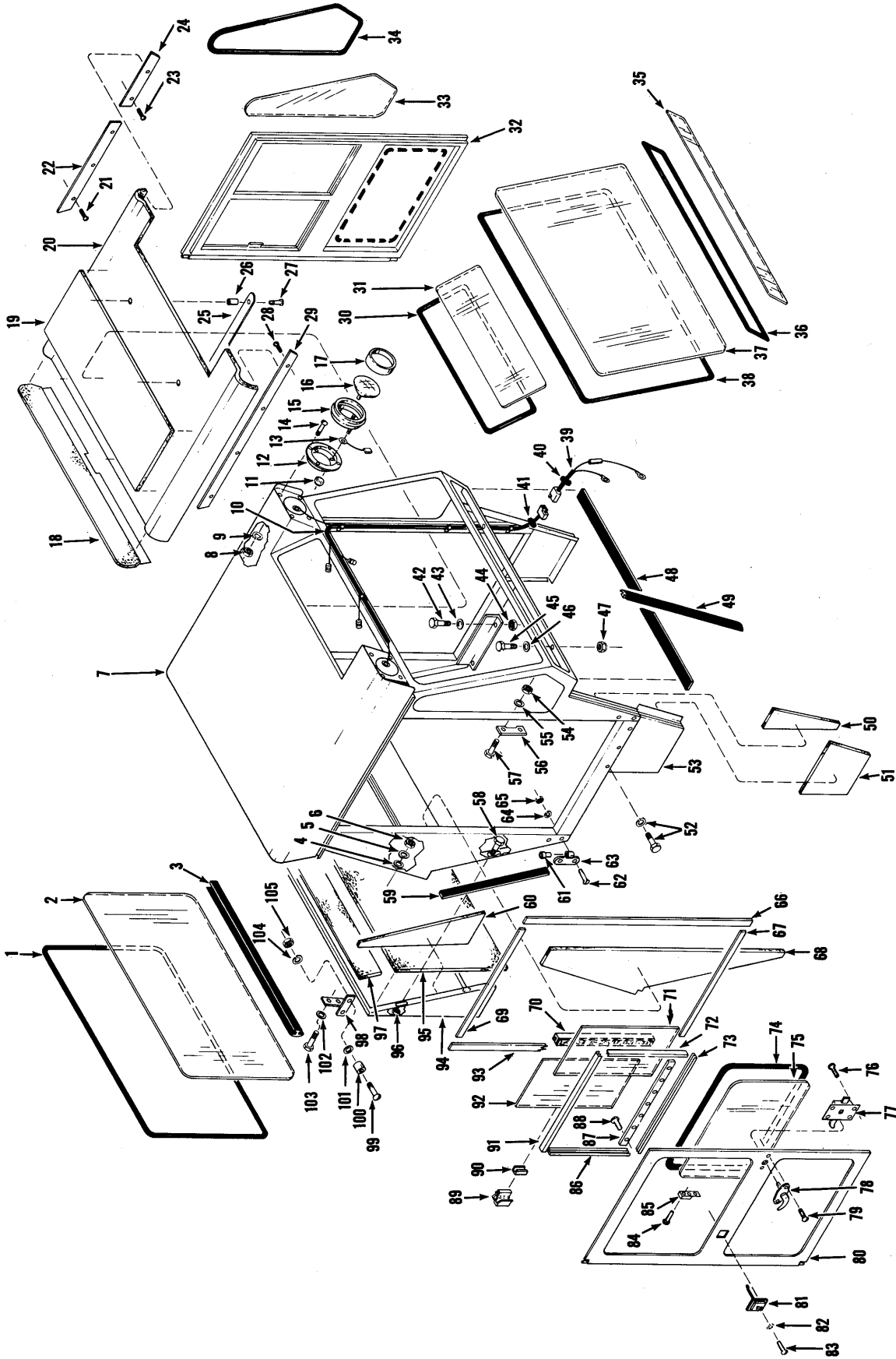
<sup>9</sup>10 ft. (3,05 M)

<sup>10</sup>12 ft. (3,66 M)

<sup>11</sup>4 ft. (1,22 M)

<sup>12</sup>3 ft. (0,92 M)

<sup>13</sup>7 ft. (2,14 M)



# Cab Assembly & Cab Lights

**MICHIGAN**

No.	Part No.	Qty.	Description
76	66G-1008	8	Screw
77	138249	1	Lock door R.H.
77A	†942874	1	Lock door L.H.
78	1525710	2	Handle
79	32G-1008	4	Screw
80	1536571	1	Door R.H.
80A	†1536570	1	Door L.H.
81	560650	2	Catch
82	17E-10	8	Lockwasher
83	87G-1010	8	Screw
84	5G-606	8	Screw assy
85	557465	4	Strike
86	<sup>11</sup> 569696	—	Channel glass
87	945577	2	Retainer channel
88	65G-1008	14	Screw
89	589571	4	Lock
90	<sup>14</sup> 946115	—	Rubber lock
91	<sup>11</sup> 569696	—	Channel glass
92	<sup>S</sup> 4-----	2	Glass pattern
93	<sup>13</sup> 943623	—	Weatherstrip
94	571854	1	Panel cab rear
95	1543804	1	Panel
96	18D-06	5	Nut
97	1543829	1	Panel
98	574992	1	Strike
98A	†1501803	1	Strike
99	85G-1016	2	Bolt
100	560651	2	Bumper
101	874767	2	Spacer
102	619018	4	Washer
103	23C-416	4	Bolt
104	17E-10	2	Lockwasher
105	12D-10	2	Nut
106	† <sup>15</sup> 945999	1	Glass pattern kit

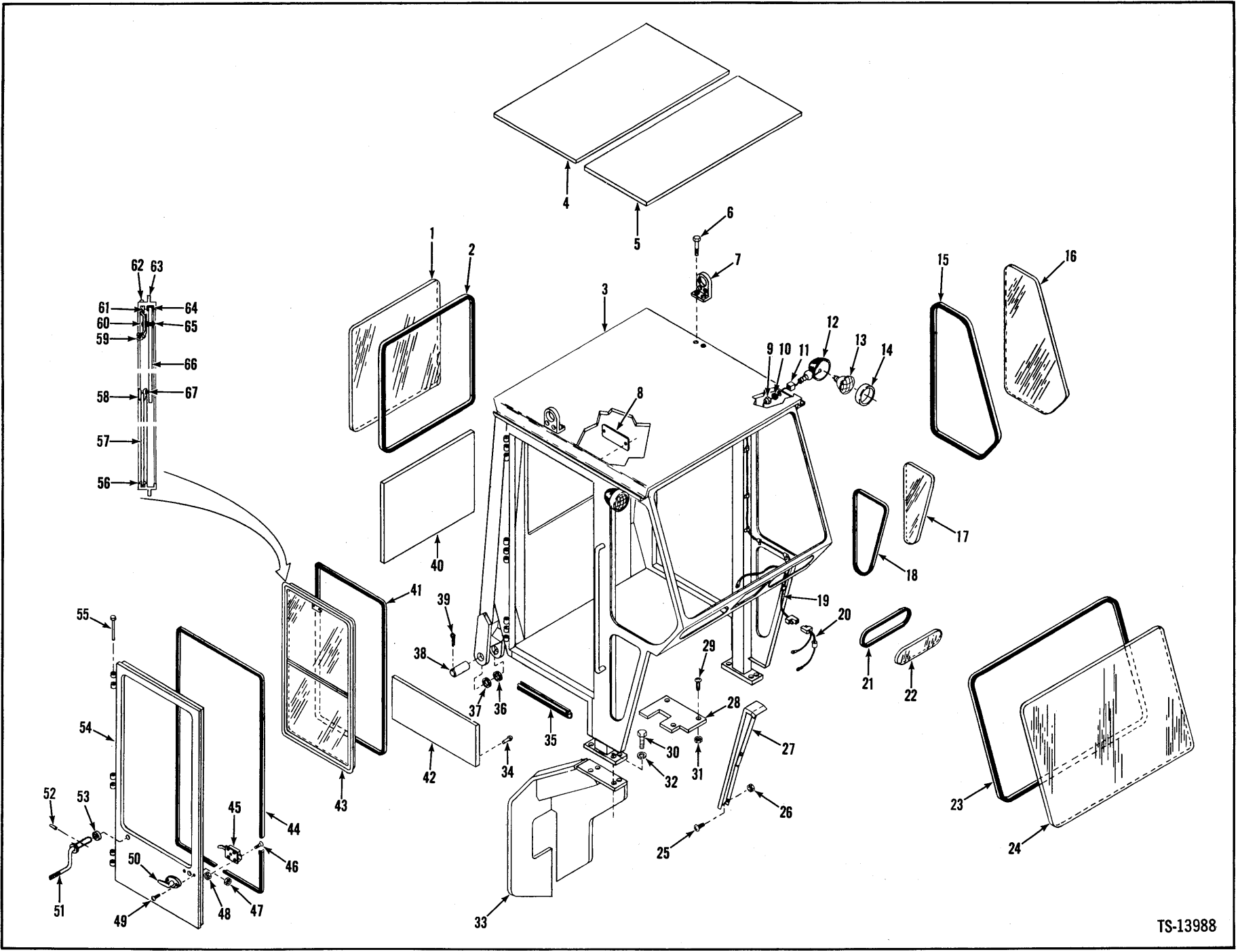
<sup>4</sup>See 106

<sup>114</sup> ft. (1,22 M)

<sup>137</sup> ft. (2,14 M)

<sup>141</sup> ft. (0,31 M)

<sup>151</sup> inc. 2, 31, 33, 35, 37, 71, 75, 92





# ROPS Cab Assembly

**MICHIGAN**

No.	Part No.	Qty.	Description
A	2509293	1	Cab assy
B	2510174	1	Cab assy
1	2510163	1	Glass
2	2510156	1	Weatherstrip
3	§ <sup>5</sup> -----	—	Cab
4	2510195	1	Sound proofing
5	2510196	1	Sound proofing
6	23C-816	4	Bolt
7	2510166	2	Lifting lug
8	2510159	1	Plate identification
9	18D-08	2	Nut
10	898539	2	Washer
11	898538	2	Bushing
12	81513545	2	Headlight assy
13	551244	2	Sealed unit
14	944872	2	Retainer
15	2510157	2	Weatherstrip
16	2510162	2	Glass
17	2510161	2	Glass
18	102510157	2	Weatherstrip
19	2509399	1	Wiring harness
19A	2509872	10	Clip
20	1544319	1	Wiring harness
20A	611074	1	Fuse 20A
21	102510157	2	Weatherstrip
22	2510164	2	Glass
23	112510156	1	Weatherstrip
24	2510165	1	Glass pattern
25	45G-1016	6	Screw
26	12D-10	6	Nut
27	2510167	2	Seal
28	2510173	1	Seal RH
28A	2510172	1	Seal LH
29	45G-1016	6	Screw
30	23C-1032	8	Bolt
31	12D-10	6	Nut
32	4E-10	8	Lockwasher
33	2510169	1	Mount assy RH

No.	Part No.	Qty.	Description
33A	2510168	1	Mount assy LH
34	2510198	19	Cap
35	122510197	1	Weatherstrip
36	2507221	2	Spacer
37	2507221	2	Spacer
38	1537103	2	Pin
39	1F-1236	4	Pin cotter
40	132510195	1	Sound proofing
41	142510156	2	Weatherstrip
42	152510366	2	Sound proofing
43	162510160	2	Window assy
44	172510158	2	Weatherstrip
45	2510273	1	Latch assy RH
45A	2510274	1	Latch assy LH
46	45G-1008	8	Bolt
47	12D-10	8	Nut
48	12D-10	4	Nut
49	45G-1024	4	Screw
50	2510199	2	Handle
51	2510155	2	Lock assy
52	300058	2	Pin roll
53	25E-26	2	Washer
54	2510171	1	Door assy RH
54A	2510170	1	Door assy LH
55	2510177	6	Pin
56	18960979	1	Weatherstrip
57	960980	1	Glass
58	19960981	1	Seal
59	960984	1	Lock assy
60	85G-1008	2	Lock screw
61	960987	1	Catch
62	85G-606	4	Screw
63	§ <sup>20</sup> -----	1	Frame
64	960986	1	Weatherstrip
65	960985	2	Nut
66	960983	1	Glass
67	19960982	1	Weatherstrip

<sup>2</sup>Inc. 1 → 67

<sup>3</sup>Inc. 1 → 24, 34, 35, 40 → 67

<sup>4</sup>11 ft. (3,35 m)

<sup>5</sup>See A

<sup>6</sup>39 x 23 (990,6 mm x 584,2 mm)

<sup>7</sup>39 x 11 (990,6 mm x 279,4 mm)

<sup>8</sup>Inc. 9, 10, 11, 13, 14

<sup>9</sup>8 ft. (2,44 m)

<sup>10</sup>4 ft. (1,22 m)

<sup>11</sup>14 ft. (4,27 m)

<sup>12</sup>21 ft. (6,40 m)

<sup>13</sup>39 x 21 (990,6 mm x 533,4 mm)

<sup>14</sup>9 ft. (2,74 m)

<sup>15</sup>22.5 x 11.75 (571,5 mm x 298,5 mm)

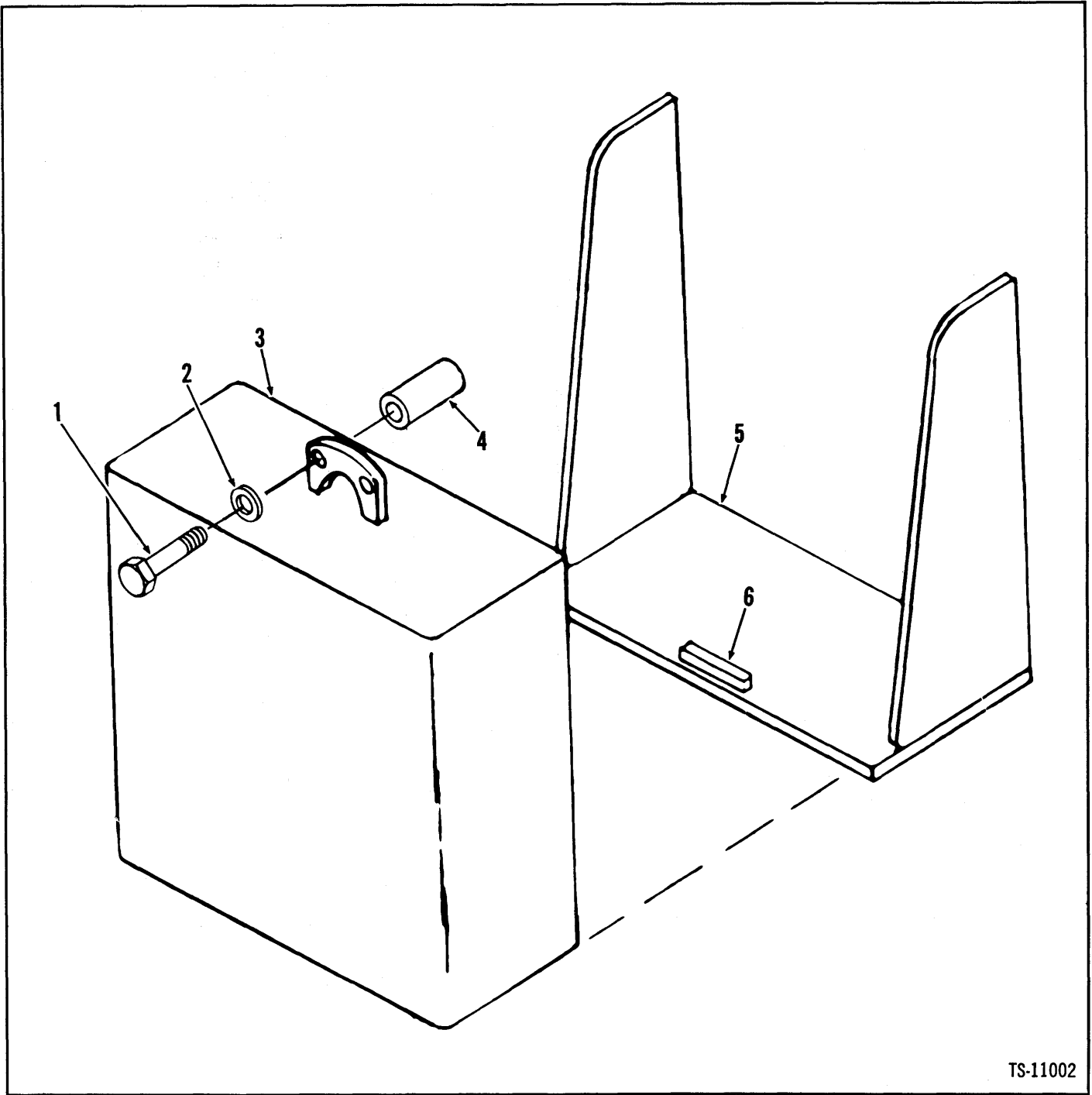
<sup>16</sup>Inc. 56 → 67

<sup>17</sup>13 ft. (3,96 m)

<sup>18</sup>5 ft. (1,52 m)

<sup>19</sup>2 ft. (0,61 m)

<sup>20</sup>See 43

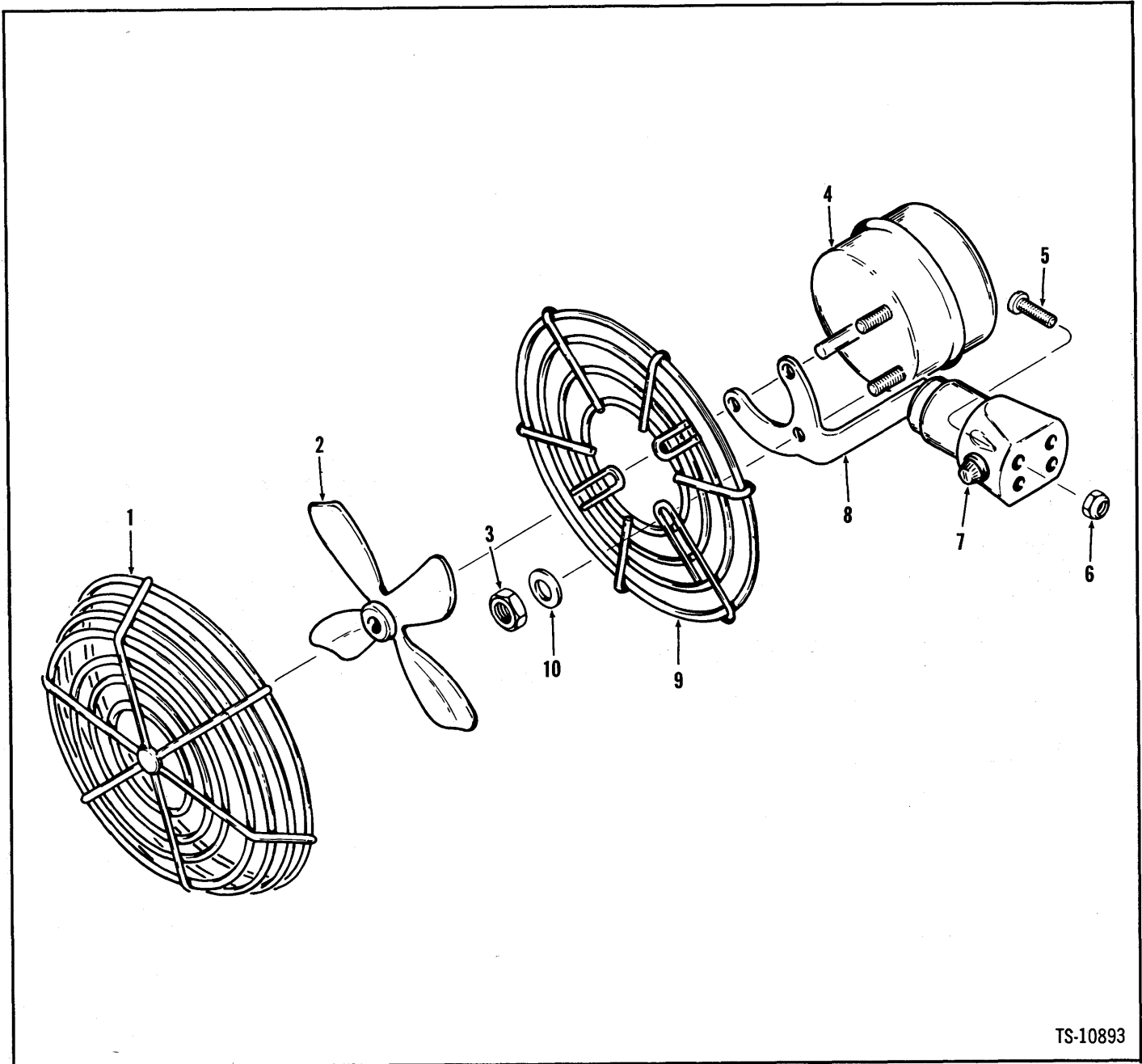


TS-11002

No.	Part No.	Qty.	Description
A	1548861	1	Kit
1	24C-1248	4	Bolt
2	4E-12	4	Lockwasher
3	1548843	2	Counterweight assy
4	1548838	4	Block
5	1548842	2	Bracket
6	555474	2	Bracket

Inc. 1 → 6

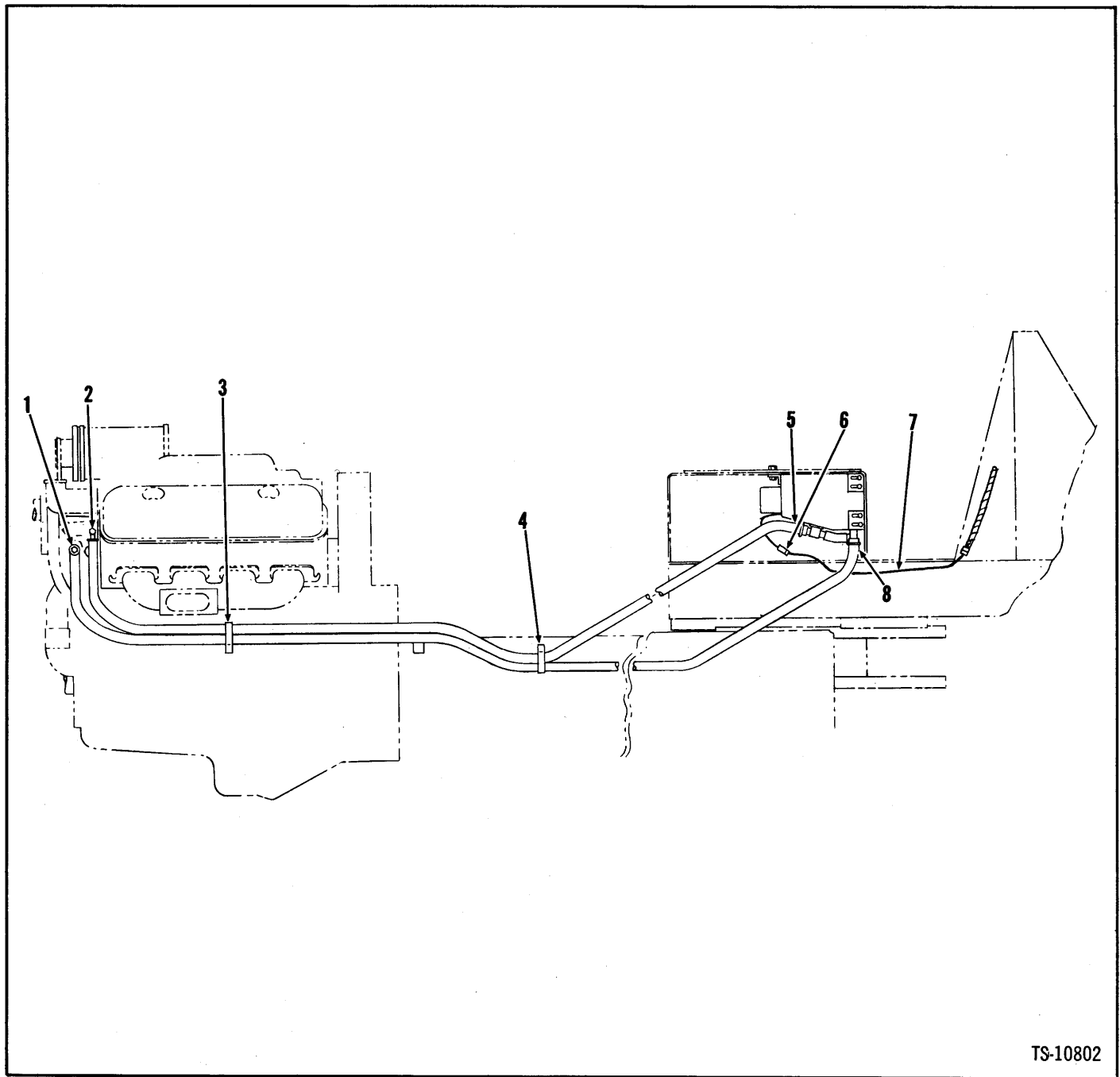
# Defroster Fan Assembly



TS-10893

No.	Part No.	Qty.	Description
A	517847	1	Fan assy
1	949036	1	Guard
2	949037	1	Fan
3	949054	2	Nut
4	949033	1	Motor
5	85G-1012	4	Screw
6	50D-10	4	Nut
7	949080	1	Switch
8	949034	1	Base
9	949039	1	Guard
10	664419	2	Washer

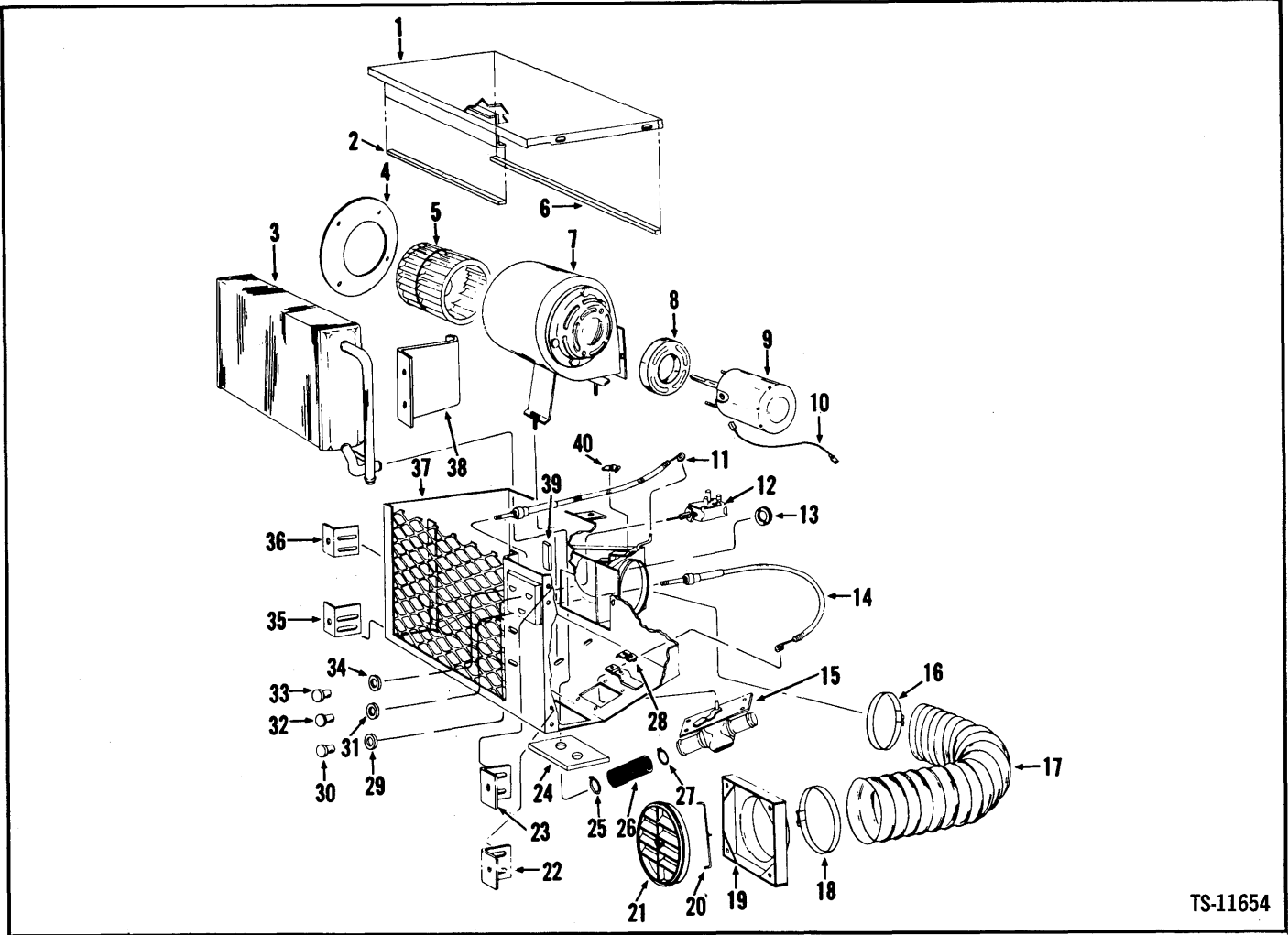
Inc. 1 → 10



TS-10802

No.	Part No.	Qty.	Description
1	19F-6	1	Bushing
1A	552433	1	Valve
2	666867	1	Nipple
3	'31H-46	1	Clip
4	'31H-46	1	Clip
5	‡1529688	1	Hose
5A	†521874	2	Clamp
6	635583	1	Fuse
7	1511475	1	Wire
8	‡1529688	1	Hose
8A	†521874	2	Clamp

# Heater Assembly



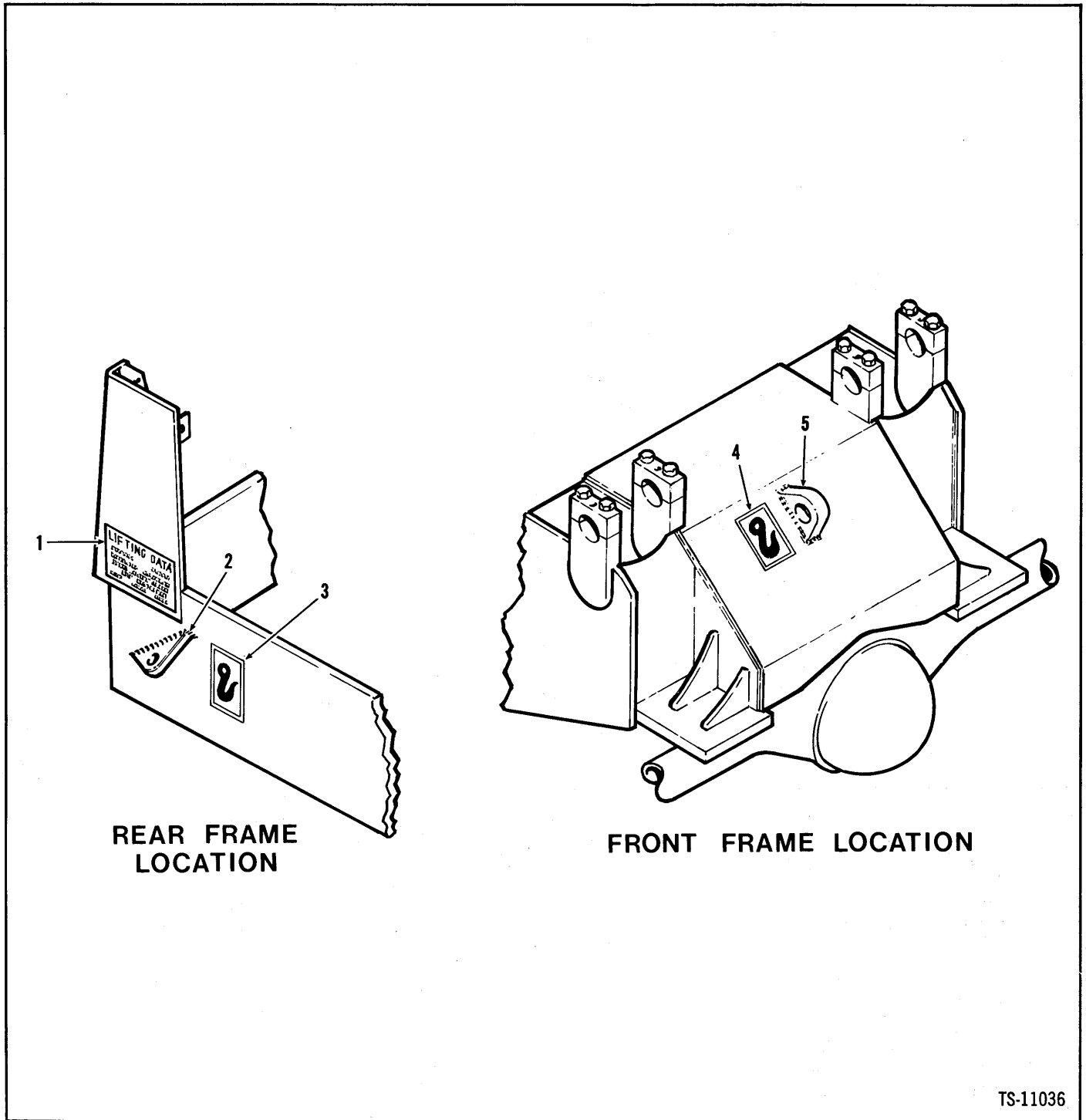
TS-11654

No.	Part No.	Qty.	Description
A	11510661	1	Heater assy
B	2948958	1	Blower assy
1	947977	1	Cover
2	949047	1	Seal
3	947948	1	Core
4	949521	1	Plate
5	948992	1	Wheel
6	947997	1	Seal
7	949522	1	Housing
8	947978	1	Baffle
9	948978	1	Motor
10	947999	1	Wire
11	947981	1	Cable
12	947949	1	Switch
13	947982	1	Grommet
14	947983	1	Cable
15	947950	1	Valve
16	528651	1	Clamp
17	947995	1	Hose
18	528651	1	Clamp
19	947994	1	Collar

No.	Part No.	Qty.	Description
20	947993	1	Spring
21	947992	1	Louver
22	947990	1	Bracket
23	947990	1	Bracket
24	947991	1	Gasket
25	949048	1	Clamp
26	889269	1	Hose
27	949048	1	Clamp
28	947984	1	Clip
29	947989	1	Nut
30	947988	1	Knob
31	947989	1	Nut
32	947987	1	Knob
33	947986	1	Knob
34	947989	1	Nut
35	947990	1	Bracket
36	947990	1	Bracket
37	947985	1	Case
38	947976	1	Retainer
39	949047	1	Seal
40	947984	1	Clip

1Inc. 1→40

2Inc. 4, 5, 7→9

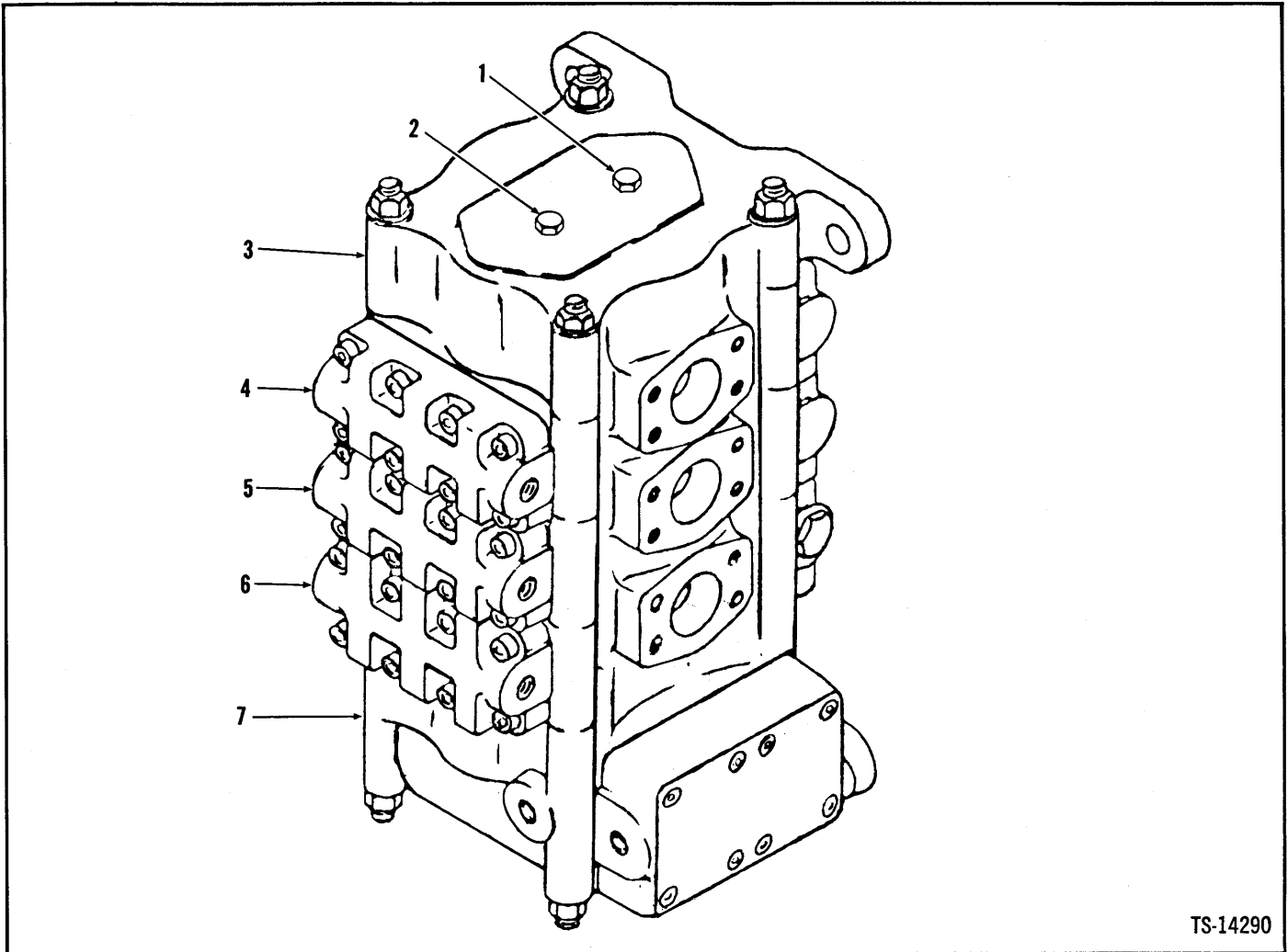


No.	Part No.	Qty.	Description
A	1547664	1	Lifting lug & decal kit
1	1547653	1	Decal, lifting data
2	570614	2	Lug, lifting — rear
3	1511709	2	Decal, lift symbol
4	1511709	1	Decal, lift symbol
5	570614	1	Lug, lifting — front

Incl. 1 → 5

# Valve Assembly – Main (Three Spool)

**CLARK**



TS-14290

No.	Part No.	Qty.	Description
A	2504921	1	Control valve assy
B	†961200	1	Repair kit minor
C	†961201	1	Repair kit major
1	948847	1	Plug
1A	†91F-3	1	O-ring
2	948847	1	Plug
2A	†91F-3	1	O-ring
3	§ <u>        </u>	1	Cover section
4	961205	1	Optional section
5	961206	1	Boom section
6	961203	1	Bucket section
7	7.961202	1	Control section
8	†948854	1	Relief valve assy

‡Inc. 1→8 When replacing any section of Valve, Minor Repair Kit 961200 must also be used.

For purpose of identification, illustration above indicates by numerical designation the individual section group location in control valve. Code to numerical designation also appears in heading of each section covered in parts listing herein.

§See A

¶See page Z18

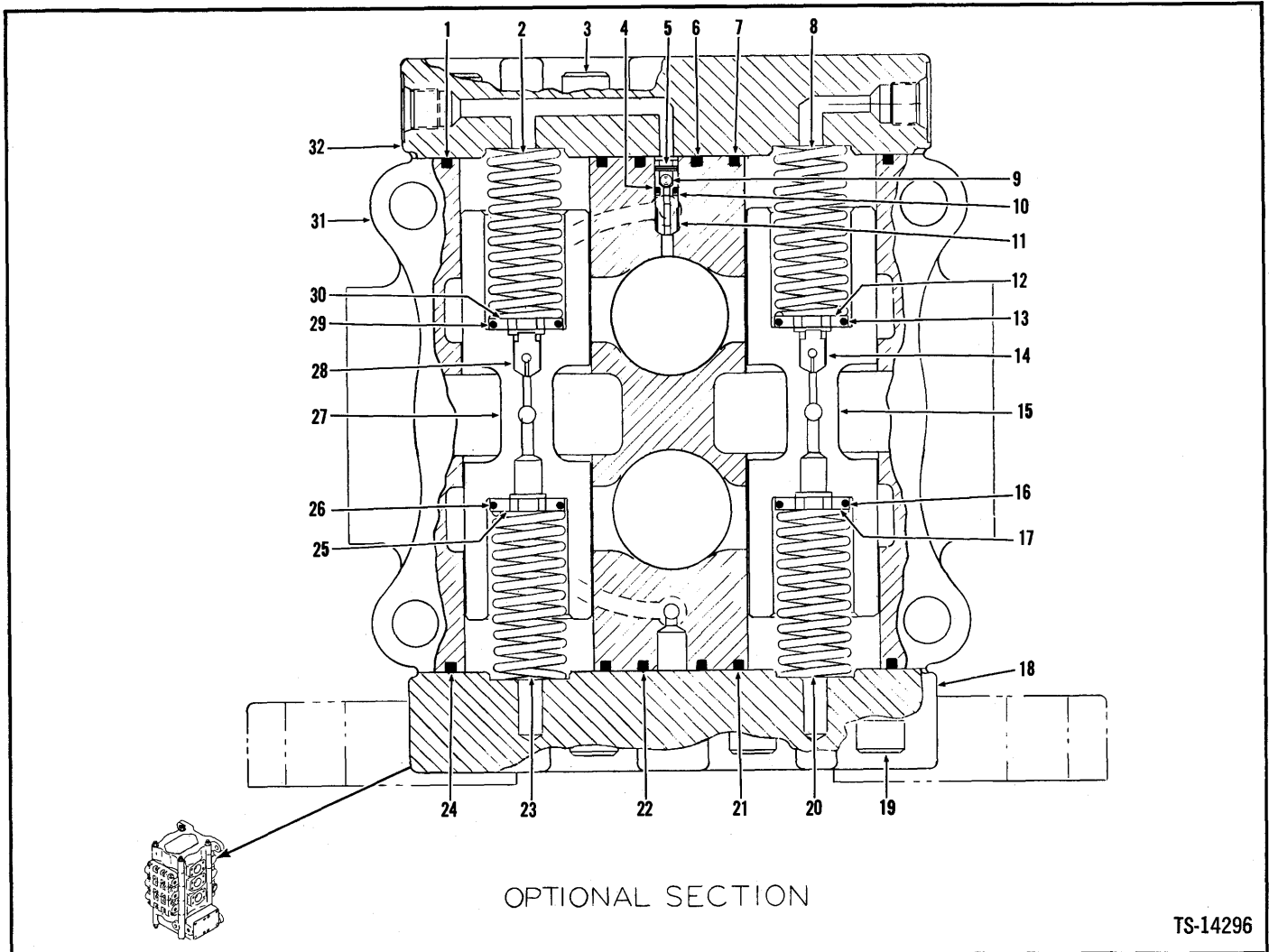
¶See page Z19

¶See page Z20

¶See page Z21

¶Inc. 8

¶See page Z23



No.	Part No.	Qty.	Description
A	961205	1	Optional section
1	25K-40200	1	O-ring
2	948818	1	Spring
3	11G-828	8	Bolt
4	948057	1	O-ring
5	§ <sup>3</sup> _____	—	Pin
6	25K-30022	1	O-ring
7	25K-40200	1	O-ring
8	948818	1	Spring
9	§ <sup>2</sup> _____	—	Ball
10	948794	1	Ring
11	949259	1	Poppet assy
12	960382	1	Washer
13	960383	1	O-ring
14	948060	1	Check
15	§ <sup>6</sup> _____	—	Plunger
16	960383	1	O-ring

No.	Part No.	Qty.	Description
17	960382	1	Washer
18	948861	1	Cover
19	11G-828	8	Bolt
20	948818	1	Spring
21	25K-40200	1	O-ring
22	25K-30022	1	O-ring
23	948818	1	Spring
24	25K-40200	1	O-ring
25	960382	1	Washer
26	960383	1	O-ring
27	§ <sup>6</sup> _____	—	Plunger
28	948060	1	Check
29	960383	1	O-ring
30	960382	1	Washer
31	§ <sup>6</sup> _____	—	Housing
32	948817	1	Cover

<sup>2</sup>Incl. 1→32 When replacing section, Minor Repair Kit 961200 must also be used.

<sup>3</sup>See 11

<sup>4</sup>Incl. 4, 5, 9, 10

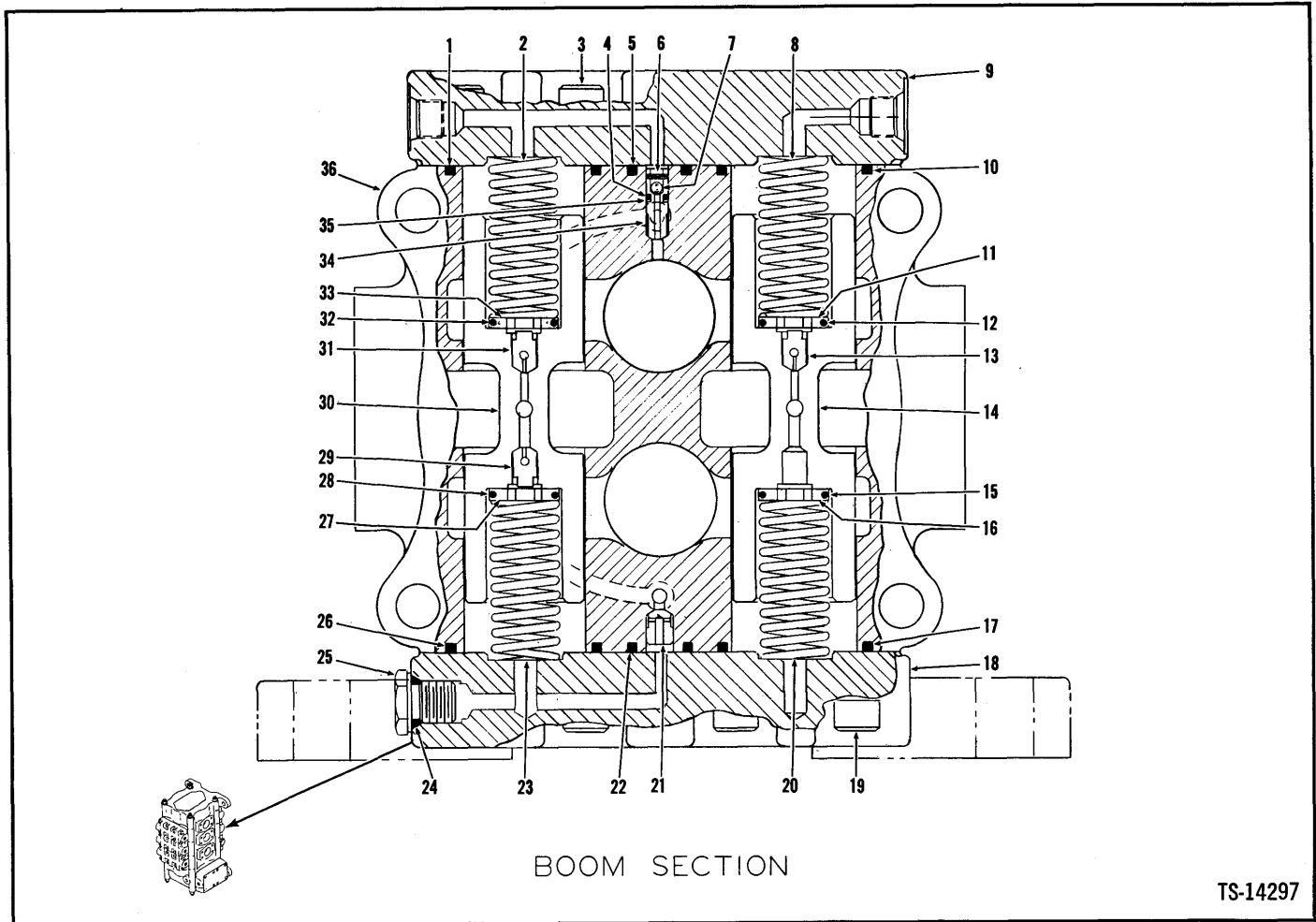
<sup>5</sup>White .63 Orifice Size #52 Drill

<sup>6</sup>See A



# Valve Assembly – Main – Section 5, Boom

**CLARK**



No.	Part No.	Qty.	Description
A	961206	1	Boom section
1	25K-40200	1	O-ring
2	948818	1	Spring
3	11G-828	8	Screw
4	948057	1	O-ring
5	25K-30022	1	O-ring
6	§ <sup>3</sup> -----	—	Pin
7	§ <sup>3</sup> -----	—	Ball
8	948818	1	Spring
9	948817	1	Cover
10	25K-40200	1	O-ring
11	960382	1	Washer
12	960383	1	O-ring
13	948789	1	Check
14	§ <sup>5</sup> -----	—	Plunger
15	960383	1	O-ring
16	960382	1	Washer
17	25K-40200	1	O-ring
18	948816	1	Cover

No.	Part No.	Qty.	Description
19	11G-828	8	Screw
20	948818	1	Spring
21	949255	1	Check
22	25K-30022	1	O-ring
23	948818	1	Spring
24	91F-6	1	O-ring
25	948058	1	Plug
26	25K-40200	1	O-ring
27	960382	1	Washer
28	960383	1	O-ring
29	948789	1	Check
30	§ <sup>5</sup> -----	—	Plunger
31	949283	1	Check
32	960383	1	O-ring
33	960382	1	Washer
34	949259	1	Poppet assy
35	948794	1	Ring
36	§ <sup>5</sup> -----	—	Housing

<sup>2</sup>Incl. 1→36 When replacing section, Minor Repair Kit 961200 must also be used.

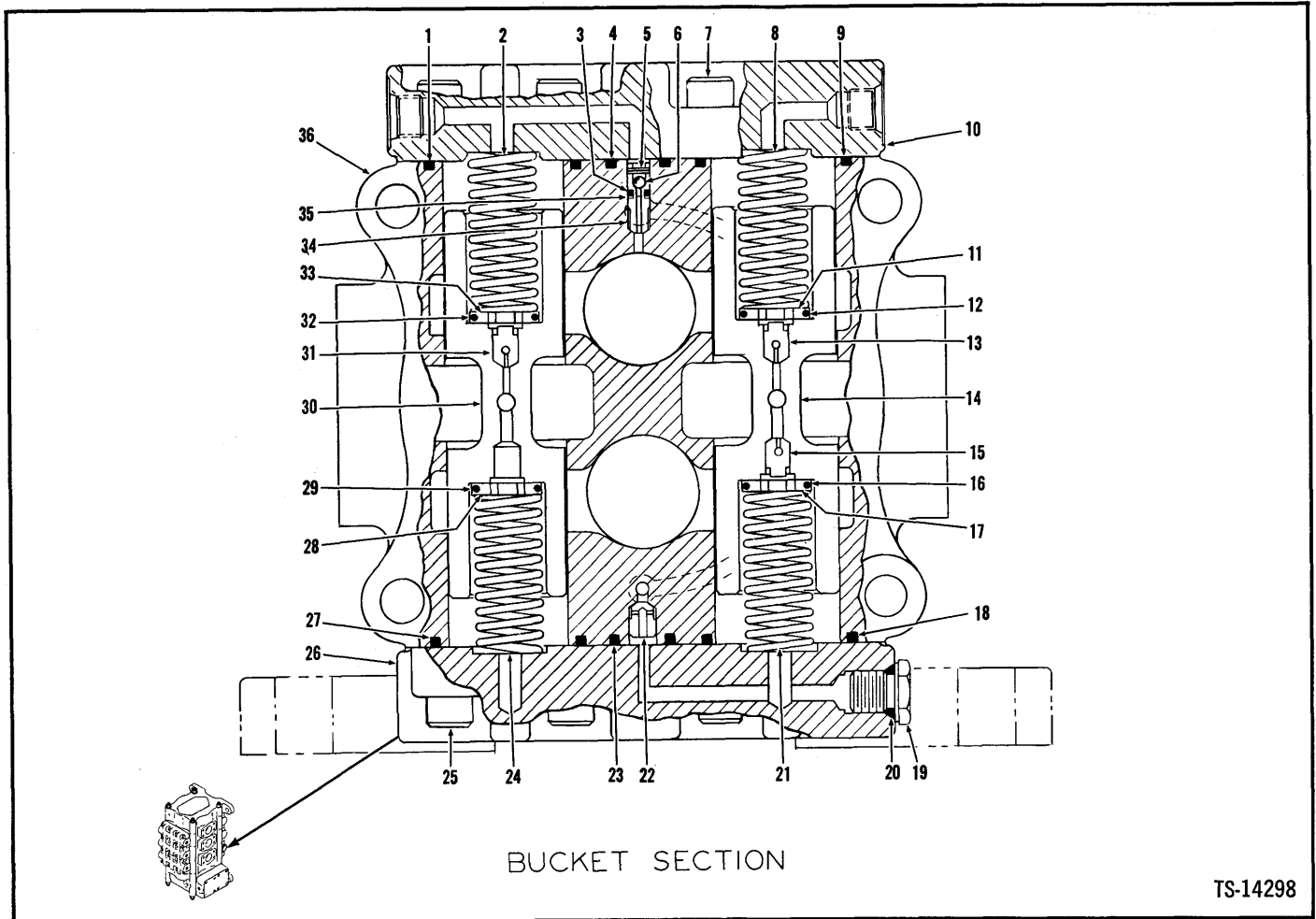
<sup>3</sup>See 34

<sup>4</sup>Red .110 Orifice Size #35 Drill

<sup>5</sup>See A

<sup>6</sup>Blue .046 Orifice Size #56 Drill

<sup>7</sup>Incl. 4, 6, 7, 35



BUCKET SECTION

TS-14298

No.	Part No.	Qty.	Description
A	<sup>2</sup> 961203	1	Bucket section
1	25K-40200	1	O-ring
2	948818	1	Spring
3	948057	1	O-ring
4	25K-30022	1	O-ring
5	<sup>3</sup> §-----	—	Pin
6	<sup>3</sup> §-----	—	Ball
7	11G-828	8	Screw
8	948818	1	Spring
9	25K-40200	1	O-ring
10	948817	1	Cover
11	960382	1	Washer
12	960383	1	O-ring
13	<sup>4</sup> 948060	1	Check
14	<sup>5</sup> §-----	—	Plunger
15	<sup>6</sup> 948054	1	Check
16	960383	1	O-ring
17	960382	1	Washer
18	25K-40200	1	O-ring

No.	Part No.	Qty.	Description
19	948058	1	Plug
20	91F-6	1	O-ring
21	948818	1	Spring
22	949255	1	Check
23	25K-30022	1	O-ring
24	948818	1	Spring
25	11G-828	8	Screw
26	948816	1	Cover
27	25K-40200	1	O-ring
28	960382	1	Washer
29	960383	1	O-ring
30	<sup>5</sup> §-----	—	Plunger
31	<sup>4</sup> 948060	1	Check
32	960383	1	O-ring
33	960382	1	Washer
34	<sup>7</sup> 949259	1	Poppet assy
35	948794	1	Ring
36	<sup>5</sup> §-----	—	Housing

<sup>2</sup>Inc. 1→36 When replacing section, Minor Repair Kit 961200 must also be used.

<sup>3</sup>See 34

<sup>4</sup>White .63 Orifice Size #52 Drill

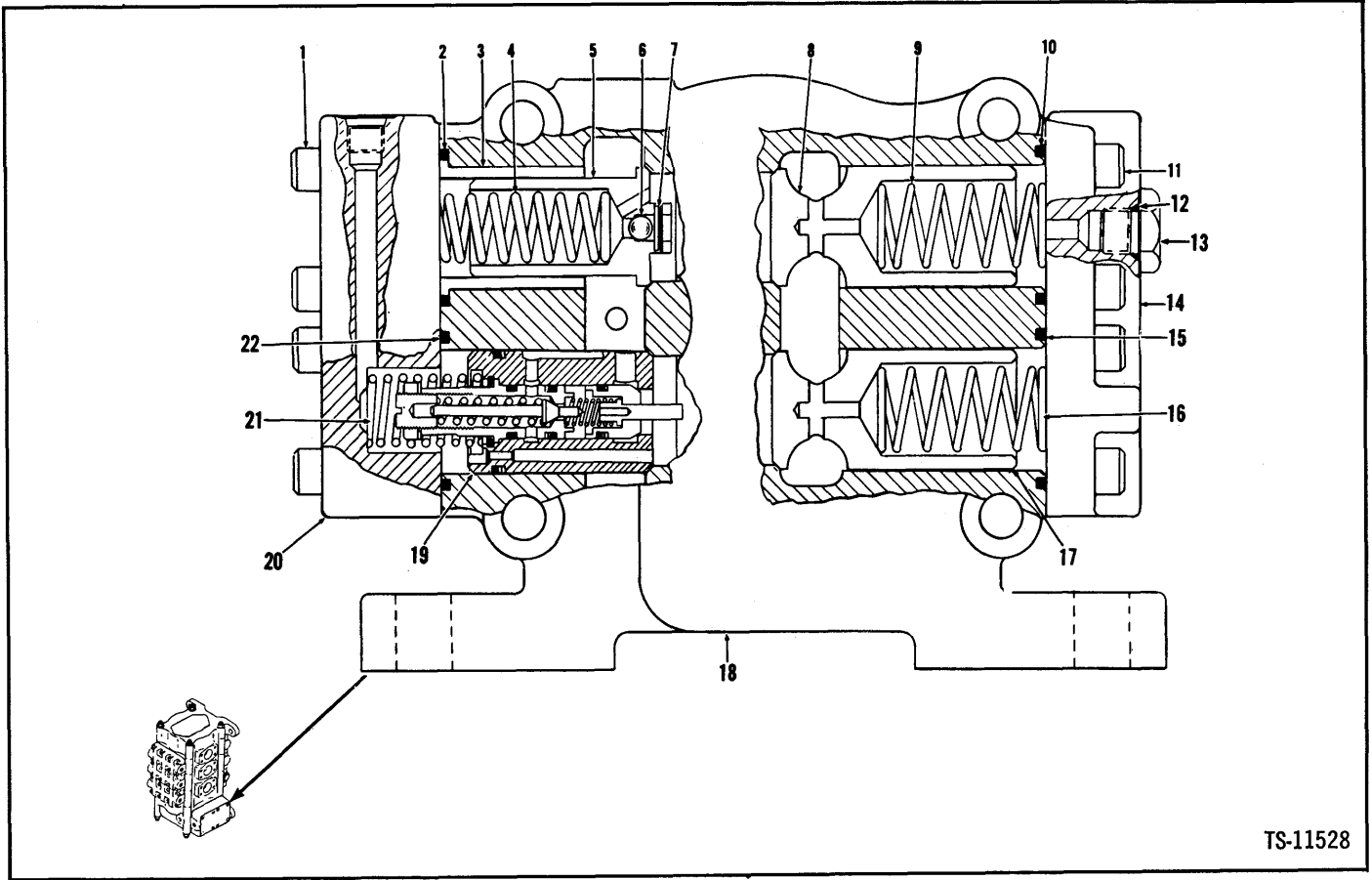
<sup>5</sup>See A

<sup>6</sup>Green .93 Orifice Size #42 Drill

<sup>7</sup>Inc. 3, 5, 6, 35

# Valve Assembly – Main – Section 7, Control

**CLARK**



TS-11528

No.	Part No.	Qty.	Description
A	2961202	1	Control section
1	11G-828	8	Bolt
2	25K-40200	1	O-ring
3	<sup>3</sup> _____	—	Sleeve
4	948814	1	Spring
5	4948859	1	Poppet assy
6	<sup>3</sup> _____	—	Ball
7	<sup>3</sup> _____	—	Pin
8	948821	1	Poppet
9	948823	1	Spring
10	25K-40200	1	O-ring
11	11G-828	8	Bolt
12	91F-8	1	O-ring
13	949309	1	Plug
14	949298	1	Cover
15	25K-40200	1	O-ring
16	948823	1	Spring
17	948821	1	Poppet
18	<sup>5</sup> _____	—	Housing
19	<sup>6</sup> _____	—	Relief valve
20	948820	1	Cover
21	948815	1	Spring
22	25K-40200	1	O-ring

<sup>2</sup>Inc. 1 → 22 When replacing section, Minor Repair Kit 961200 must also be used.

<sup>3</sup>See 5

<sup>4</sup>Inc. 3, 6, 7

<sup>5</sup>See A

<sup>6</sup>See page Z23

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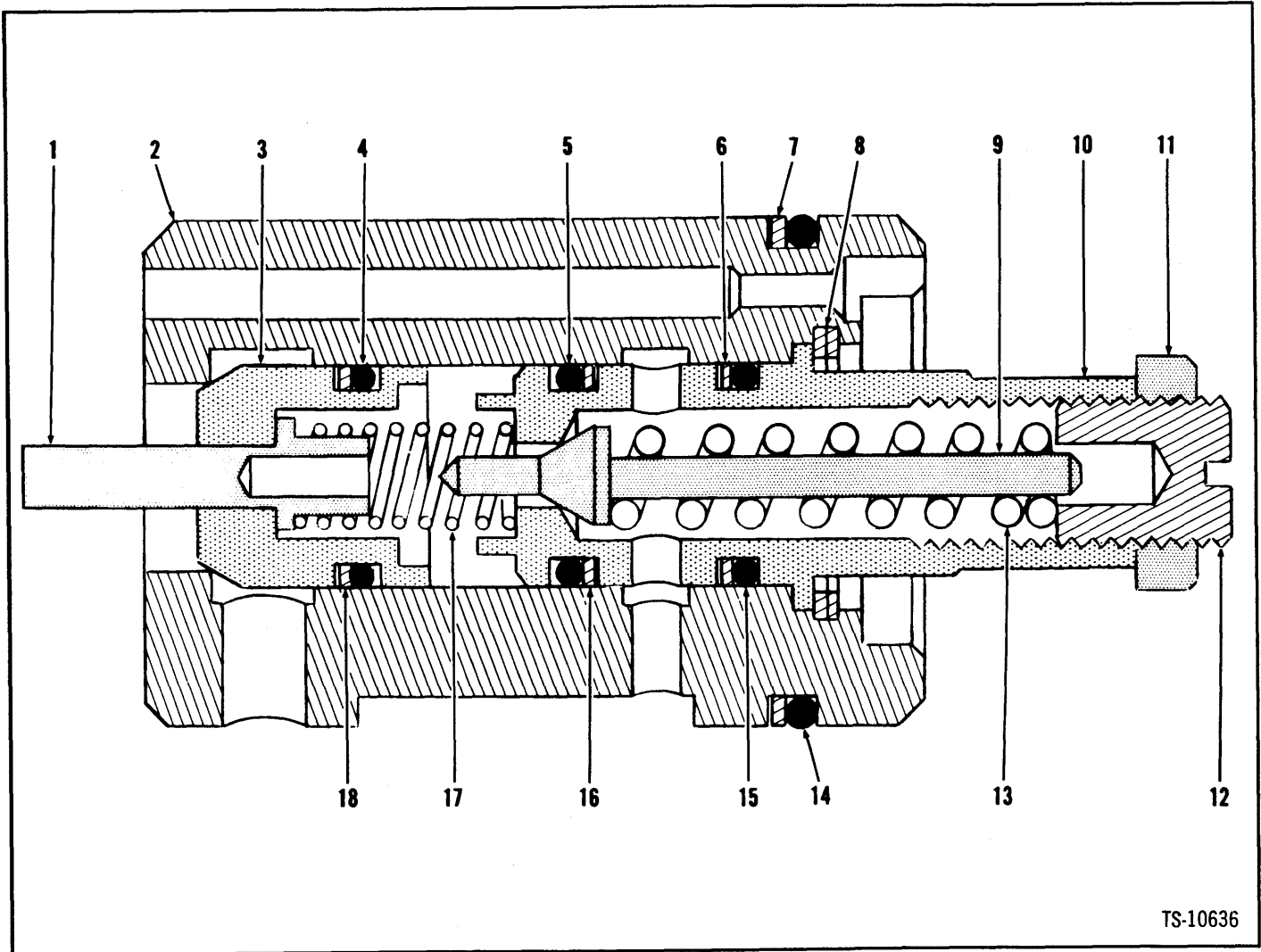
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# Valve Assembly, Main Relief

**CLARK**



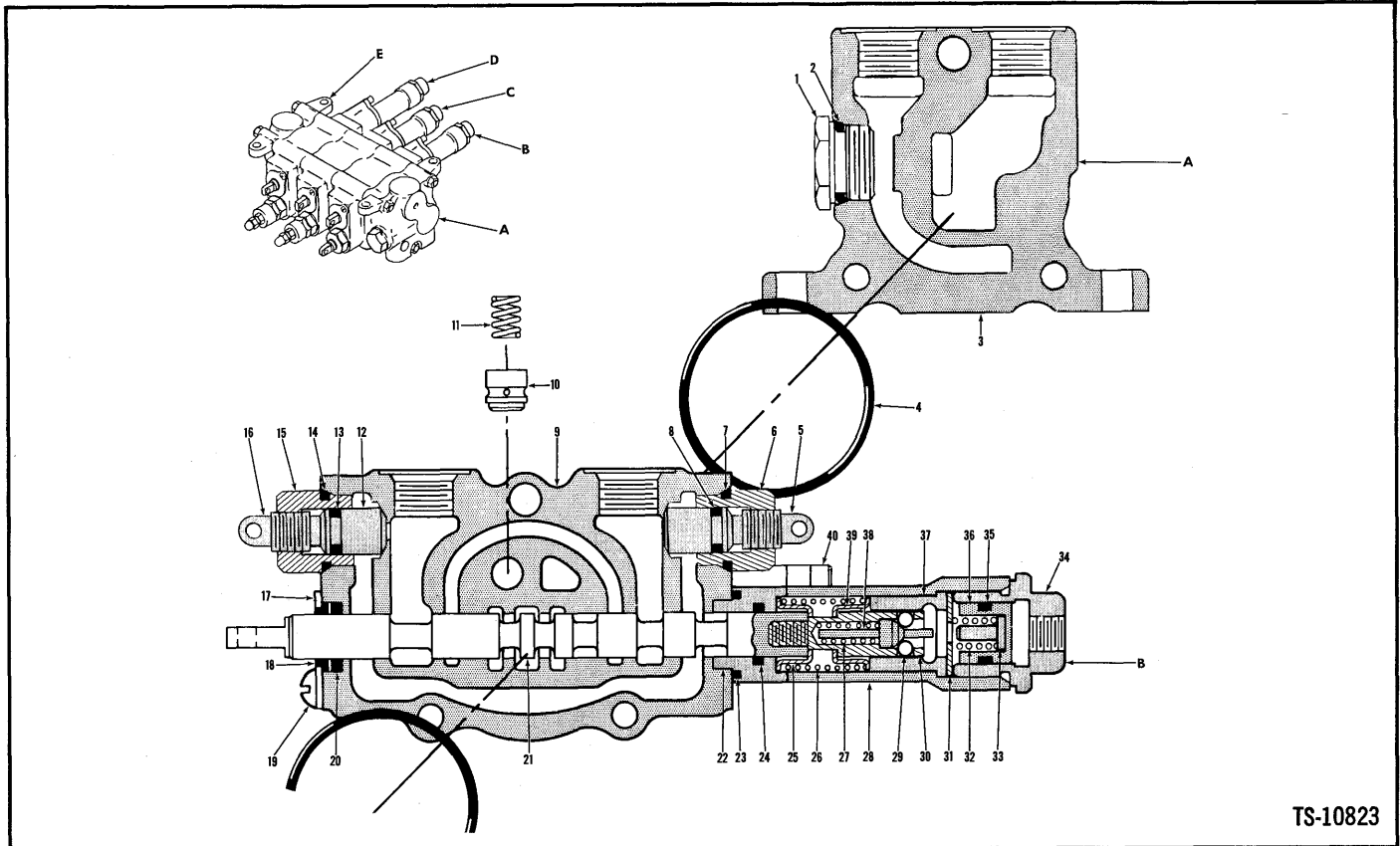
TS-10636

No.	Part No.	Qty.	Description
A	948854	1	Relief valve assy
1	948824	1	Piston
2	S <sup>2</sup> ----	1	Poppet
3	S <sup>2</sup> ----	1	Poppet
4	948063	1	O-ring
5	948063	1	O-ring
6	948849	1	Ring
7	948852	1	Ring
8	948850	2	Ring
9	S <sup>2</sup> ----	1	Poppet
10	S <sup>2</sup> ----	1	Plug
11	8D-06	1	Nut
12	948848	1	Screw
13	948825	1	Spring
14	948851	1	O-ring
15	948063	1	O-ring
16	948849	1	Ring
17	948129	1	Spring
18	948849	1	Ring

<sup>1</sup>Incl. 1 → 18

<sup>2</sup>See A

# CLARK Valve Assembly, Pilot (Three Spool) Sec. A — Inlet/ Outlet, Sec. B — Optional



TS-10823

No.	Part No.	Qty.	Description
A	1 <sup>1</sup> 519300	1	Control valve assy
B	2 <sup>2</sup> 948979	1	Plunger assy
1	948810	1	Plug
2	91F-7	1	O-ring
3	3 <sup>3</sup> 948805	1	In & out sectn assy
4	25K-40108	1	O-ring
5	§ <sup>4</sup> _____	1	Poppet
6	5 <sup>5</sup> 945193	1	Valve
7	91F-7	1	O-ring
8	§ <sup>4</sup> _____	1	O-ring
9	§ <sup>6</sup> _____	1	Housing
10	948015	1	Poppet
11	948022	1	Spring
12	§ <sup>7</sup> _____	1	Poppet
13	§_____	1	O-ring
14	91F-7	1	O-ring
15	8 <sup>8</sup> 945193	1	Valve
16	§ <sup>7</sup> _____	1	Poppet
17	948016	1	Plate
18	948021	1	Wiper seal
19	71G-406	2	Screw

No.	Part No.	Qty.	Description
20	25K-30018	1	O-ring
21	§ <sup>2</sup> _____	1	Plunger
22	948982	1	Spacer
23	25K-30024	1	O-ring
24	25K-30018	1	O-ring
25	948017	1	Seat
26	948018	1	Spring
27	948020	1	Spring
28	948980	1	Cap
29	877420	4	Ball
30	948019	1	Seat valve
31	948030	1	Spacer
32	948026	1	Spring
33	948025	1	Pin
34	948028	1	Plug
35	25K-30018	1	O-ring
36	948024	1	Piston
37	948023	1	Sleeve
38	948029	1	Cam
39	948017	1	Seat
40	948032	2	Bolt

<sup>1</sup>Incl. 1 → 150

<sup>2</sup>Incl. 9, 17 → 41, 53

<sup>3</sup>Incl. 1, 2, 4

<sup>4</sup>See 6

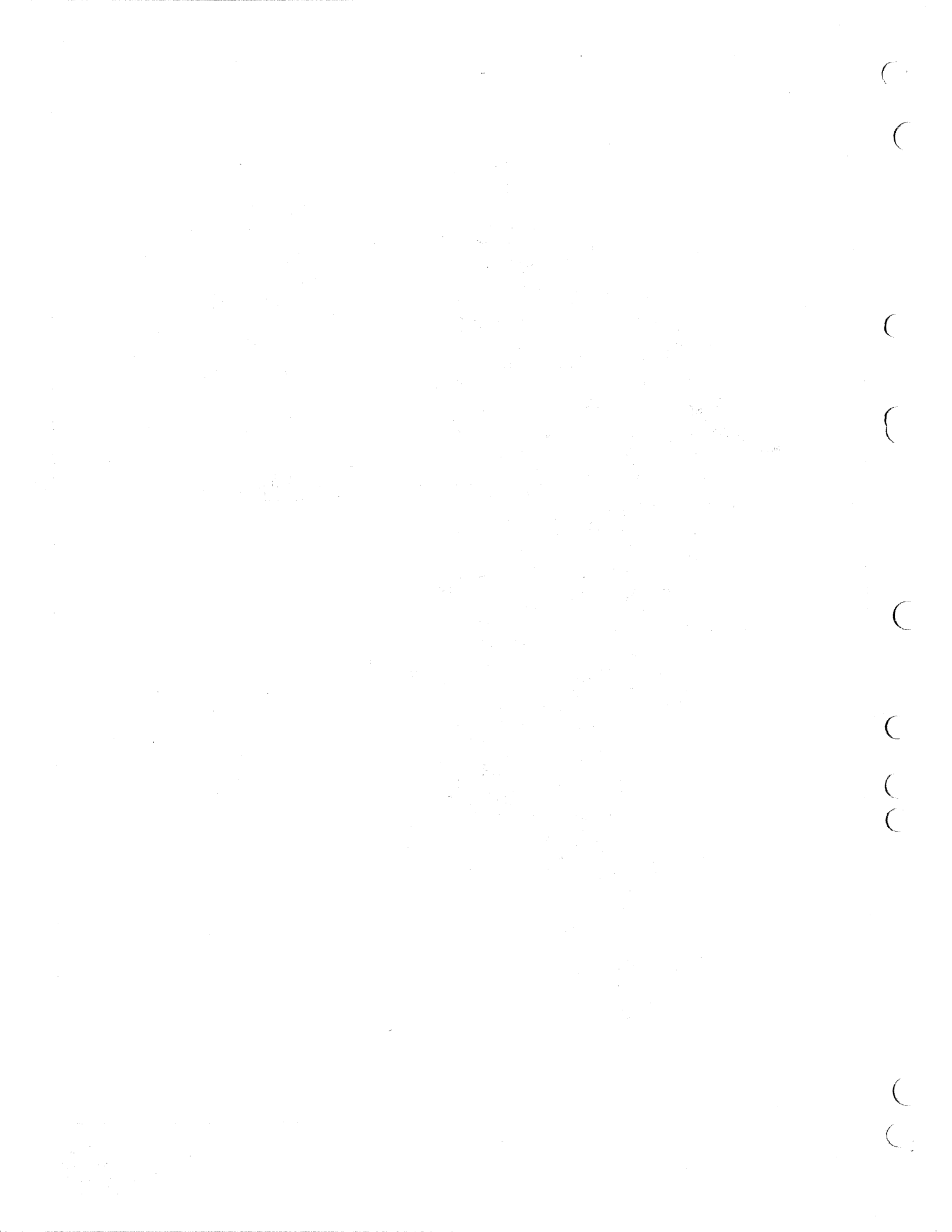
<sup>5</sup>Incl. 5, 7, 8

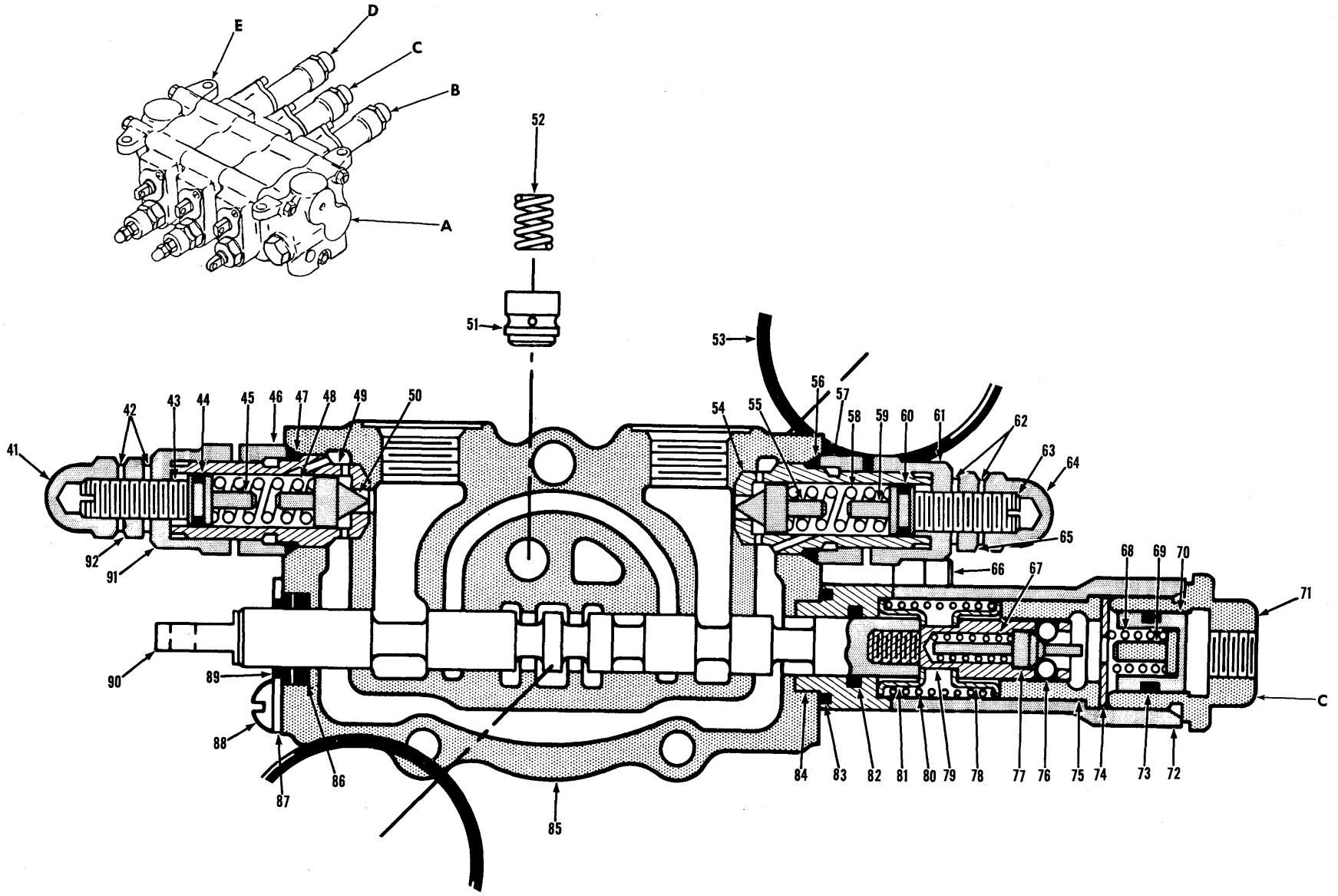
<sup>6</sup>See A & B

<sup>7</sup>See 15

<sup>8</sup>Incl. 12, 13, 14, 16

<sup>9</sup>See B







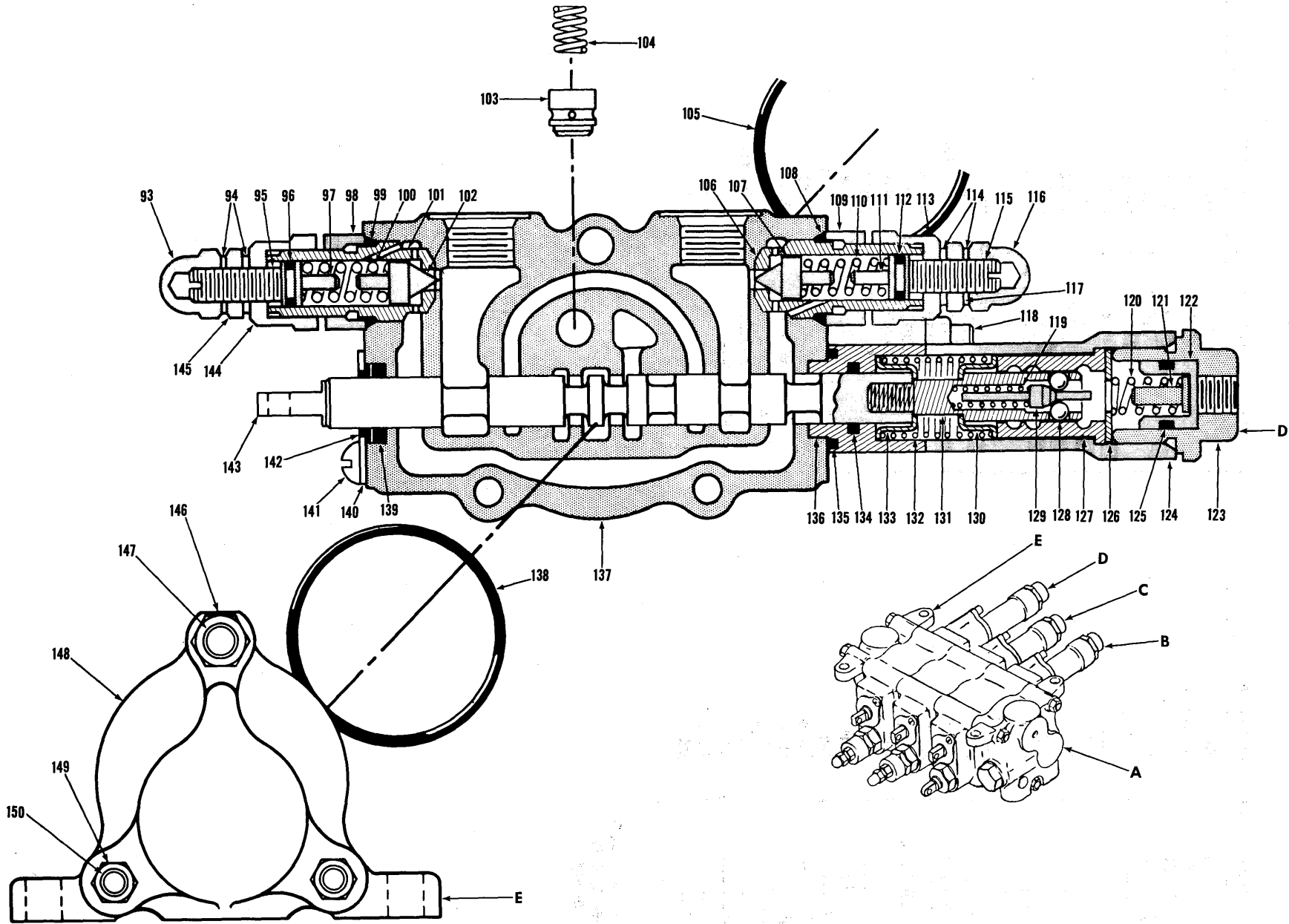
# Valve Assembly, Pilot, Three Spool (Continued — Section C, Bucket)



No.	Part No.	Qty.	Description
A	<sup>10</sup> 948979	1	Plunger
B	<sup>11</sup> 1545915	1	Relief valve
C	<sup>12</sup> 1545916	1	Relief valve
41	§ <sup>9</sup> _____	1	Nut
42	§ <sup>9</sup> _____	1	Washer
43	§ <sup>9</sup> _____	1	Screw
44	§ <sup>9</sup> _____	1	O-ring
45	§ <sup>9</sup> _____	1	Guide
46	§ <sup>9</sup> _____	1	Cap
47	91F-7	1	O-ring
48	§ <sup>9</sup> _____	1	Spring
49	§ <sup>9</sup> _____	1	Seat
50	§ <sup>9</sup> _____	1	Poppet
51	948015	1	Poppet
52	948022	1	Spring
53	25K-40108	1	O-ring
54	§ <sup>13</sup> _____	1	Seat
55	§ <sup>13</sup> _____	1	Poppet
56	91F-7	1	O-ring
57	§ <sup>13</sup> _____	1	Cap
58	§ <sup>13</sup> _____	1	Spring
59	§ <sup>13</sup> _____	1	Guide
60	§ <sup>13</sup> _____	1	O-ring
61	§ <sup>13</sup> _____	1	Cap
62	§ <sup>13</sup> _____	1	Washer
63	§ <sup>13</sup> _____	1	Screw
64	§ <sup>13</sup> _____	1	Nut
65	§ <sup>13</sup> _____	1	Nut

No.	Part No.	Qty.	Description
66	948032	2	Bolt
67	948020	1	Spring
68	948026	1	Spring
69	948025	1	Pin
70	948024	1	Piston
71	948028	1	Plug
72	948980	1	Cap
73	25K-30018	1	O-ring
74	948030	1	Spacer
75	948023	1	Sleeve
76	877420	4	Ball
77	948029	1	Cam
78	948017	1	Seat
79	948019	1	Seat valve
80	948018	1	Spring
81	948017	1	Seat
82	25K-30018	1	O-ring
83	25K-30024	1	O-ring
84	948982	1	Spacer
84	§ <sup>14</sup> _____	1	Housing
86	25K-30018	1	O-ring
87	948016	1	Plate
88	71G-406	2	Screw
89	948021	1	Wiper seal
90	§ <sup>14</sup> _____	1	Plunger
91	§ <sup>9</sup> _____	1	Cap
92	§ <sup>9</sup> _____	1	Nut

<sup>9</sup>See B  
<sup>10</sup>Inc. 51, 52, 66 → 90, 105  
<sup>11</sup>Inc. 41 → 50, 91, 92  
<sup>12</sup>Inc. 54, 55 → 65  
<sup>13</sup>See C  
<sup>14</sup>See A



# Valve Assembly, Pilot (Three Spool) Sec. D – Boom, Sec. E – Cover End



No.	Part No.	Qty.	Description
A	<sup>15</sup> 948903	1	Plunger
B	<sup>16</sup> 1545915	1	Relief valve
C	<sup>17</sup> 1545916	1	Relief valve
93	§ <sup>2</sup> _____	1	Nut
94	§ <sup>2</sup> _____	1	Washer
95	§ <sup>2</sup> _____	1	Screw
96	§ <sup>2</sup> _____	1	O-ring
97	§ <sup>2</sup> _____	1	Guide
98	§ <sup>2</sup> _____	1	Cap
X 99	91F-7	1	O-ring
100	§ <sup>2</sup> _____	1	Spring
101	§ <sup>2</sup> _____	1	Seat
102	§ <sup>2</sup> _____	1	Poppet
103	948015	1	Poppet
104	948022	1	Spring
105	25K-40108	1	O-ring
106	§ <sup>13</sup> _____	1	Seat valve
107	§ <sup>13</sup> _____	1	Poppet
108	91F-7	1	O-ring
109	§ <sup>13</sup> _____	1	Cap
110	§ <sup>13</sup> _____	1	Spring
111	§ <sup>13</sup> _____	1	Guide
112	§ <sup>13</sup> _____	1	O-ring
113	§ <sup>13</sup> _____	1	Cap
114	§ <sup>13</sup> _____	1	Washer
115	§ <sup>13</sup> _____	1	Screw
116	§ <sup>13</sup> _____	1	Nut
117	§ <sup>13</sup> _____	1	Nut
118	11G-428	2	Bolt
119	948020	1	Spring
120	948026	1	Spring

No.	Part No.	Qty.	Description
121	948025	1	Pin
122	948024	1	Piston
123	948028	1	Plug
124	948980	1	Cap
125	25K-30018	1	O-ring
126	948030	1	Spacer
127	948034	1	Sleeve
128	877420	4	Ball
129	948029	1	Cam
130	948017	1	Seat
131	948033	1	Pin detent
132	948018	1	Spring
133	948017	1	Seat
134	25K-30018	1	O-ring
135	25K-30024	1	O-ring
136	948981	1	Spacer
137	§ <sup>14</sup> _____	1	Housing
138	25K-40108	1	O-ring
139	25K-30018	1	O-ring
140	948016	1	Plate
141	71G-406	2	Screw
142	948021	1	Wiper seal
143	§ <sup>14</sup> _____	1	Plunger
144	§ <sup>2</sup> _____	1	Cap
145	§ <sup>2</sup> _____	1	Nut
146	62D-06	2	Nut
147	948188	1	Tie rod
148	948010	1	Cover
149	61D-06	4	Nut
150	948187	2	Tie rod

<sup>9</sup>See B

<sup>12</sup>See C

<sup>15</sup>Inc. 103, 104, 118 → 143

<sup>16</sup>Inc. 93 → 102, 144, 145

<sup>17</sup>Inc. 106, 107, 108 → 117

<sup>14</sup>See A

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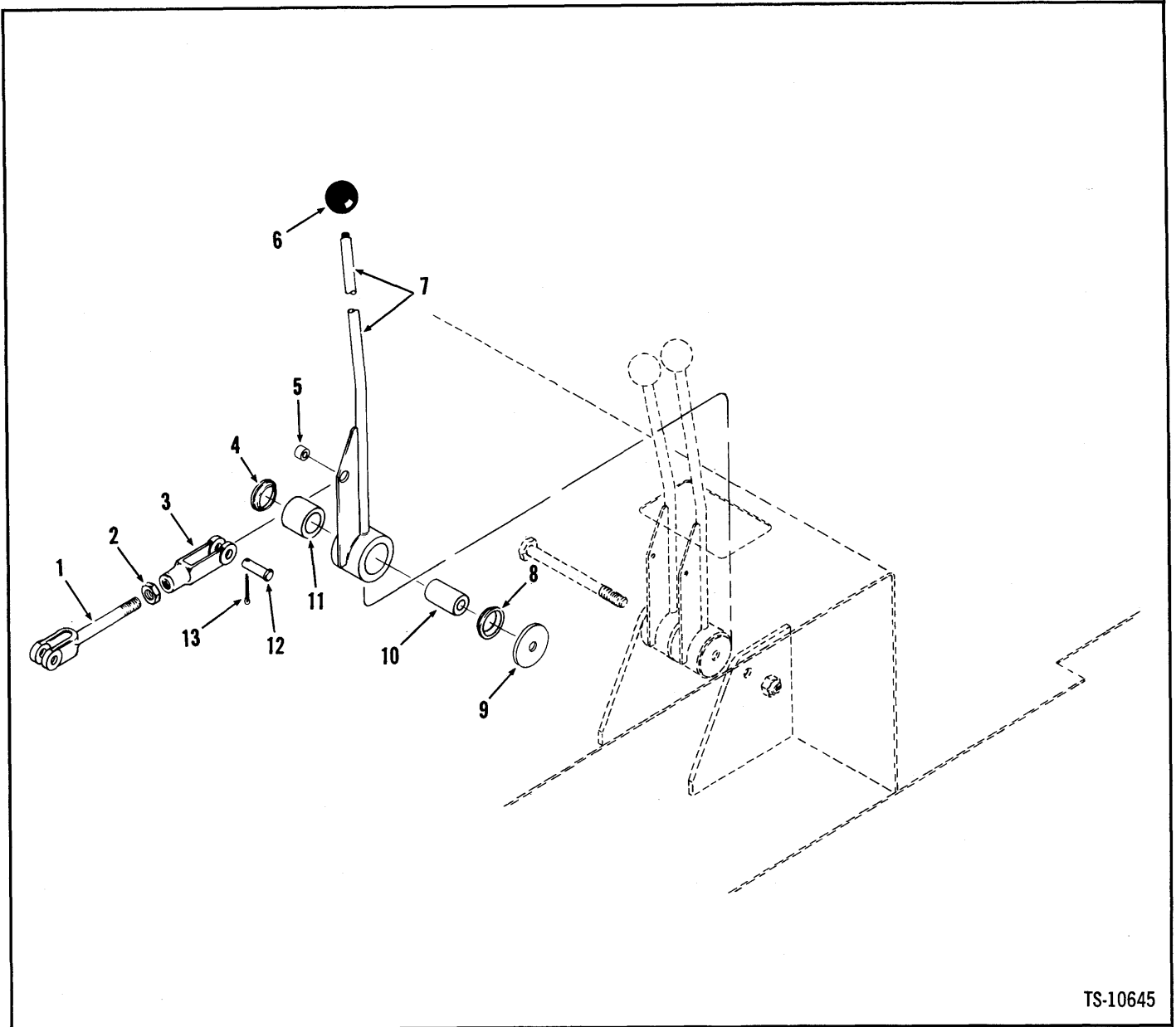
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# Valve Controls (Three Spool) Levers & Linkage

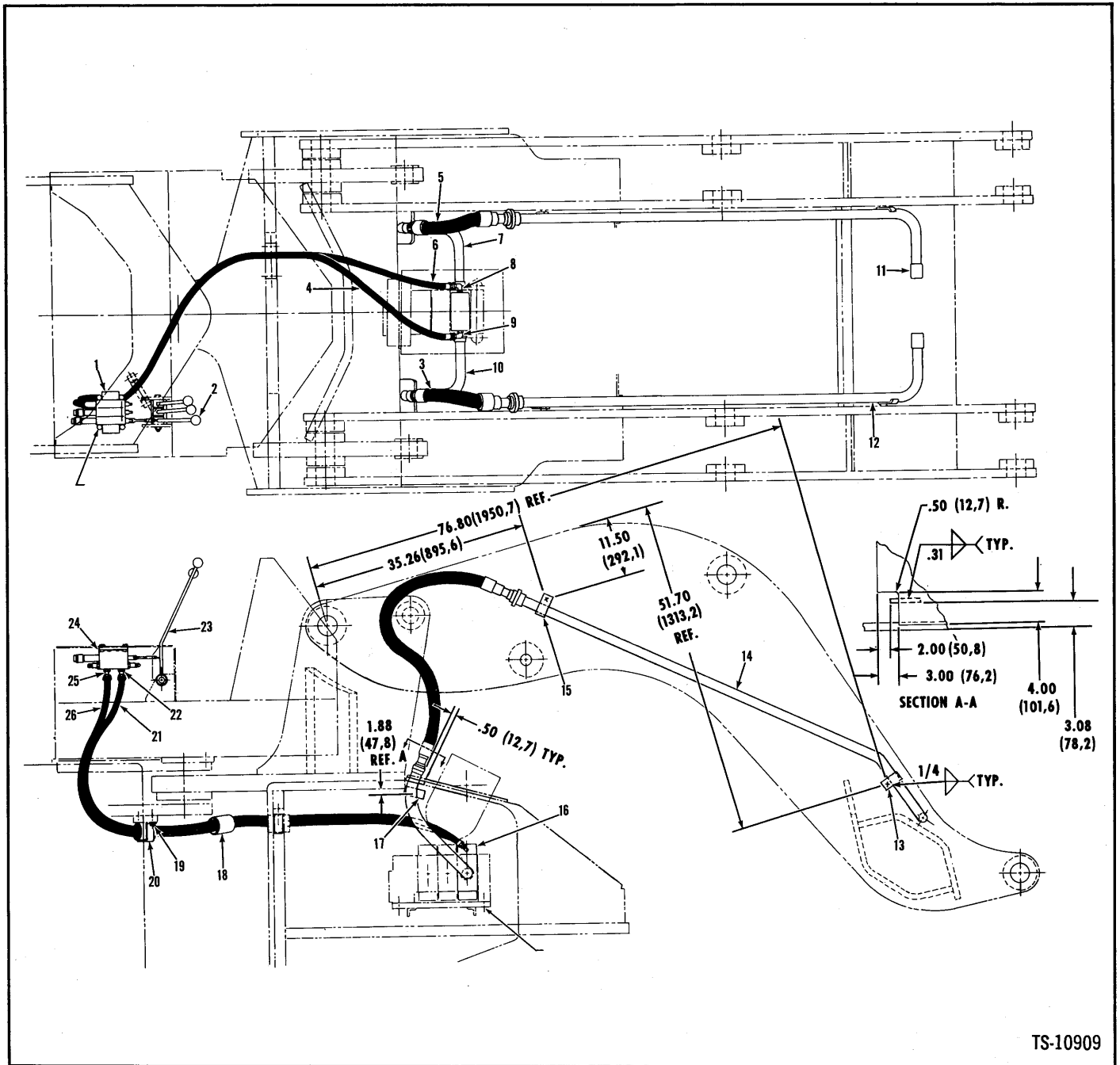


TS-10645

No.	Part No.	Qty.	Description
1	<sup>1</sup> 1537881	1	Rod
2	8D-04	1	Nut
3	2J-4200	1	Clevis
4	1522535	1	Wiper seal
5	1542764	1	Bushing
6	509772	1	Knob
7	<sup>2</sup> 1542911	1	Lever
8	1522535	1	Wiper seal
9	584502	1	Washer
10	1503251	1	Sleeve
11	675227	1	Bearing
12	4F-04051	2	Pin
13	1F-207	2	Cotter pin

<sup>1</sup>Inc. 2, 3

<sup>2</sup>Inc. 11



TS-10909

- A Position and tack weld all tapped blocks that are located by dimension shown on illustration.
- B Clip tube assemblies to position blocks.
- C Position tubes approximately as shown, check clearance and tack weld all remaining tapped blocks as shown.
- D Remove tube assemblies and complete welding.
- E Cut out as shown both sides.
- F Install using existing bolts and nuts.

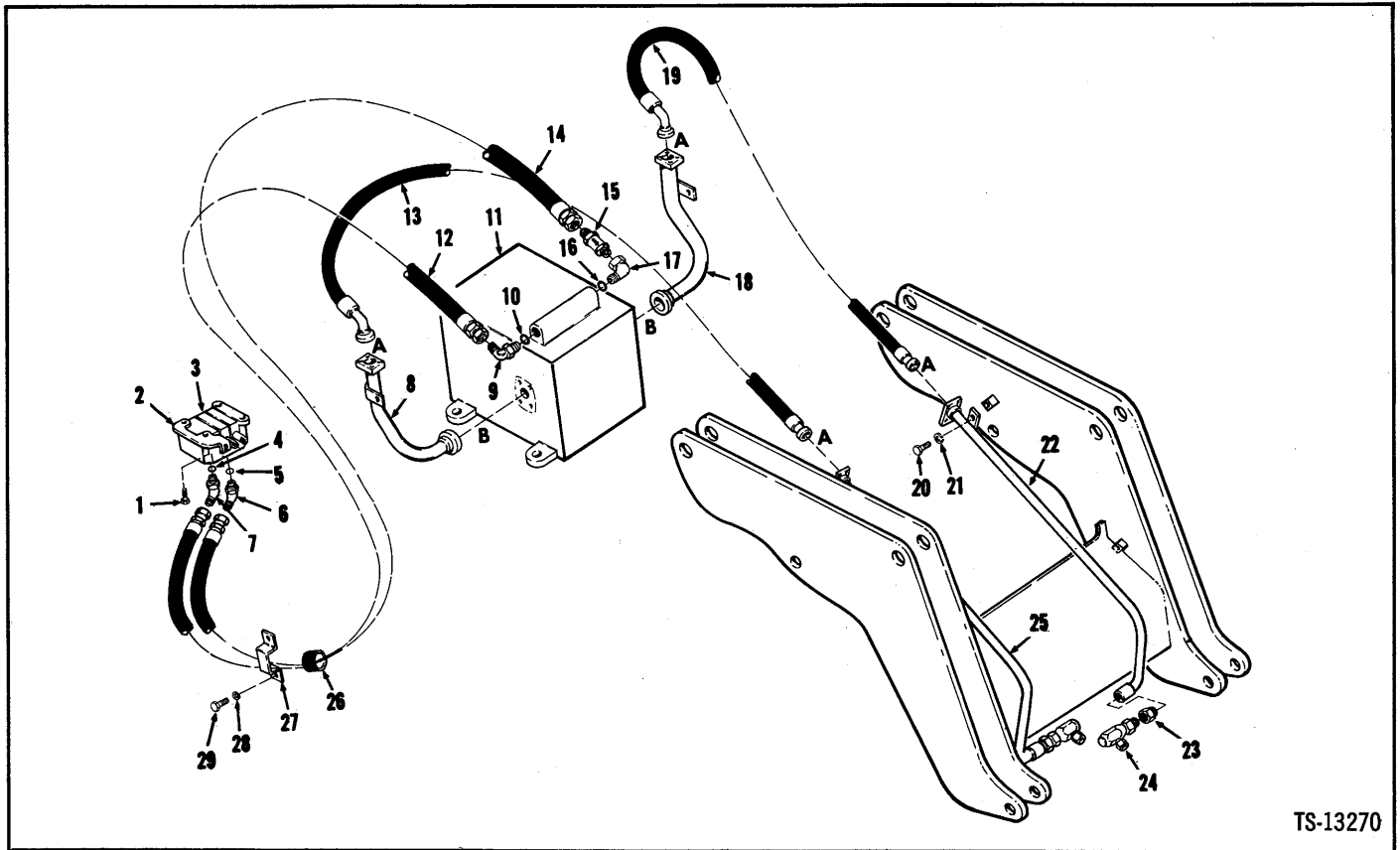
GROUP No. Req'd. Per Connection	FLANGE HALF	O-RING	BOLT	LOCKWASHER	SIZE
	2	1	4	4	
A	1511520	58K-222	23C-724	4E-07	1¼"
B	1511521	58K-225	23C-824	4E-08	1½"

# Valve (Three Spool) Installation & Parts

**MICHIGAN**

No.	Part No.	Qty.	Description
1	<sup>1</sup> -----	—	Control valve pilot
2	<sup>1</sup> -----	—	Valve controls
3	<b>1521839</b>	1	Hose
3A	<sup>†2</sup> -----	—	Flange half
4	<b>1547168</b>	1	Hose
5	<b>1521839</b>	1	Hose
5A	<sup>†2</sup> -----	—	Flange half
6	<b>1547168</b>	1	Hose
7	<b>1544939</b>	1	Tube L.H.
7A	<sup>†3</sup> -----	—	Flange half
8	<sup>4</sup> <b>17K-6</b>	1	Elbow
8A	<b>91F-6</b>	1	O-ring
9	<sup>5</sup> <b>17K-6</b>	1	Elbow
9A	<sup>†</sup> <b>91F-6</b>	1	O-ring
10	<b>1544940</b>	1	Tube R.H.
10A	<sup>†3</sup> -----	—	Flange half
11	<b>2501323</b>	1	Tube L.H.
12	<b>2501322</b>	1	Tube R.H.
13	<b>590384</b>	2	Tapped block
13A	<sup>†</sup> <b>24C-820</b>	2	Bolt
13B	<sup>†</sup> <b>4E-08</b>	2	Lockwasher
13C	<sup>†</sup> <b>619029</b>	2	Washer
14	<sup>6</sup> -----	—	Tube R.H.
15	<b>590384</b>	2	Tapped block
15A	<sup>†</sup> <b>24C-820</b>	2	Bolt
15B	<sup>†</sup> <b>4E-08</b>	2	Lockwasher
15C	<sup>†</sup> <b>619029</b>	2	Washer
16	-----	—	Valve main
17	<b>1549338</b>	2	Bracket
17A	<sup>†</sup> <b>24C-828</b>	2	Bolt
17B	<sup>†</sup> <b>619029</b>	2	Washer
17C	<sup>†</sup> <b>18D-08</b>	2	Nut
18	<b>1M-24040</b>	3	Hose
19	<b>24C-820</b>	4	Bolt
19A	<b>4E-08</b>	4	Lockwasher
20	<b>1537987</b>	2	Clamp
21	<sup>7</sup> -----	—	Hose
22	<sup>8</sup> <b>18K-6</b>	1	Connector
22A	<sup>†</sup> <b>91F-6</b>	1	O-ring
23	<sup>1</sup> -----	—	Valve controls
24	<sup>1</sup> -----	—	Valve pilot
25	<sup>9</sup> <b>18K-6</b>	1	Connector
25A	<b>91F-6</b>	1	O-ring
26	<sup>10</sup> -----	—	Hose

<sup>1</sup>See Index  
<sup>2</sup>See Group A  
<sup>3</sup>See Group B  
<sup>4</sup>Inc. 8A  
<sup>5</sup>Inc. 9A  
<sup>6</sup>See 12  
<sup>7</sup>See 4  
<sup>8</sup>Inc. 22A  
<sup>9</sup>Inc. 25A  
<sup>10</sup>See 6



No.	Part No.	Qty.	Description
1	24C-632	2	Bolt
2	1511775	1	Bracket
3	1	—	Control valve
4	91F-6	1	O-ring
5	91F-6	1	O-ring
6	<sup>2</sup> 18K-6	1	Connector
7	<sup>3</sup> 18K-6	1	Connector
8	1544940	1	Tube
9	<sup>4</sup> 17K-6	1	Elbow
10	91F-6	1	O-ring
11	<sup>5</sup> —	—	Valve assy
12	1547168	1	Hose
13	1521839	1	Hose
14	1547168	1	Hose
15	1518621	2	Valve

No.	Part No.	Qty.	Description
16	91F-6	1	O-ring
17	<sup>6</sup> 1304056	1	Elbow
18	1544939	1	Tube
19	1521839	1	Hose
20	24C-820	4	Bolt
21	4E-08	4	Lockwasher
22	1544996	1	Tube
23	356627	2	Reducer fitting
24	1509752	2	Swivel joint
25	1544998	1	Tube
26	1M-2040	3	Hose
27	1537987	2	Clamp
28	4E-08	4	Lockwasher
29	24C-820	4	Bolt

<sup>1</sup>See Index

<sup>2</sup>Inc. 5

<sup>3</sup>Inc. 4

<sup>4</sup>Inc. 10

<sup>5</sup>See Index

<sup>6</sup>Inc. 16

GROUP No. Req'd. Per Connection	FLANGE HALF	O-RING	BOLT	LOCKWASHER	SIZE
	2	1	4	4	
A	1511520	58K-222	23C-724	4E-07	1¼"
B	1511521	58K-225	23C-824	4E-08	1½"



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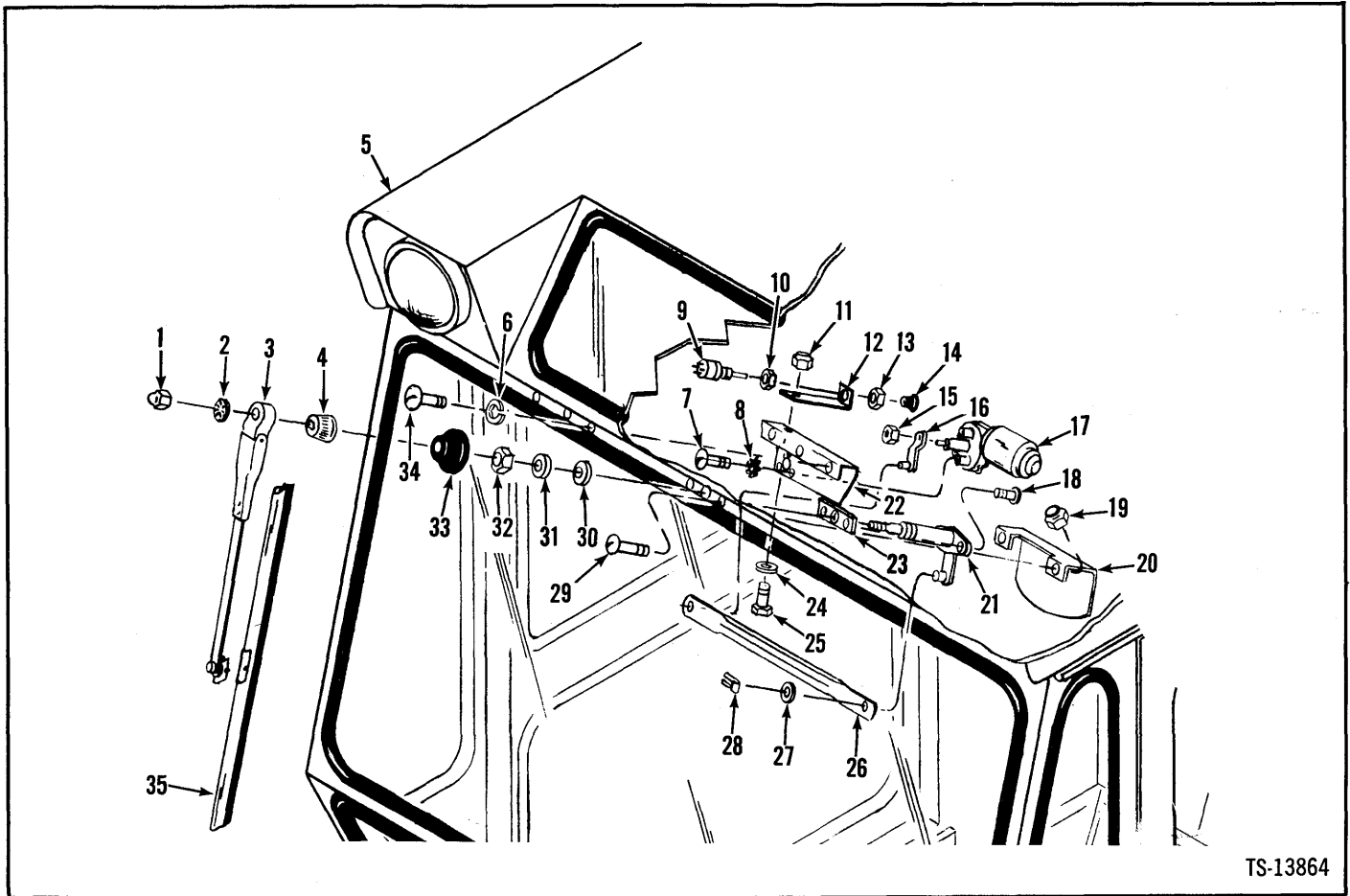
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TS-13864

No.	Part No.	Qty.	Description
A	2503886	1	Wndshld wiper kit F
1	522028	1	Nut
2	9E-05	1	Lockwasher
3	560517	1	Wndshld wiper arm
4	949184	1	Driver wndsh wiper
5	2-----	1	Cab
6	8E-04	3	Lockwasher
7	3992896	3	Screw
8	§4-----	3	Lockwasher
9	52318002	1	Switch
10	§6-----	1	Nut
11	18D-04	1	Nut
12	546535	1	Bracket
13	§6-----	1	Nut
14	§6-----	1	Knob
15	949144	1	Nut
16	949308	1	Lever
17	71580724	1	Wiper motor F
18	949143	2	Screw
19	18D-04	2	Nut
20	1534346	1	Shield

No.	Part No.	Qty.	Description
21	949185	1	Shaft
22	992892	1	Bracket
23	1534345	1	Spacer
24	25E-14	1	Washer
25	24C-412	1	Bolt
26	574729	1	Link
27	890375	2	Washer
28	890374	2	Clip
29	90G-428	2	Screw
30	713674	1	Spacer
31	949181	1	Washer
31A	†949180	1	Washer
32	949182	1	Nut
33	949183	1	Cap
34	90G-424	3	Bolt
35	568968	1	Wiper blade
36	†2503293	1	Wire
37	†30H-14	3	Clip
38	†61G-408	3	Screw
39	†8E-04	3	Lockwasher

<sup>1</sup>Inc. 1→4, 6→39

<sup>5</sup>Inc. 10, 13, 14

<sup>2</sup>See Index

<sup>6</sup>See 9

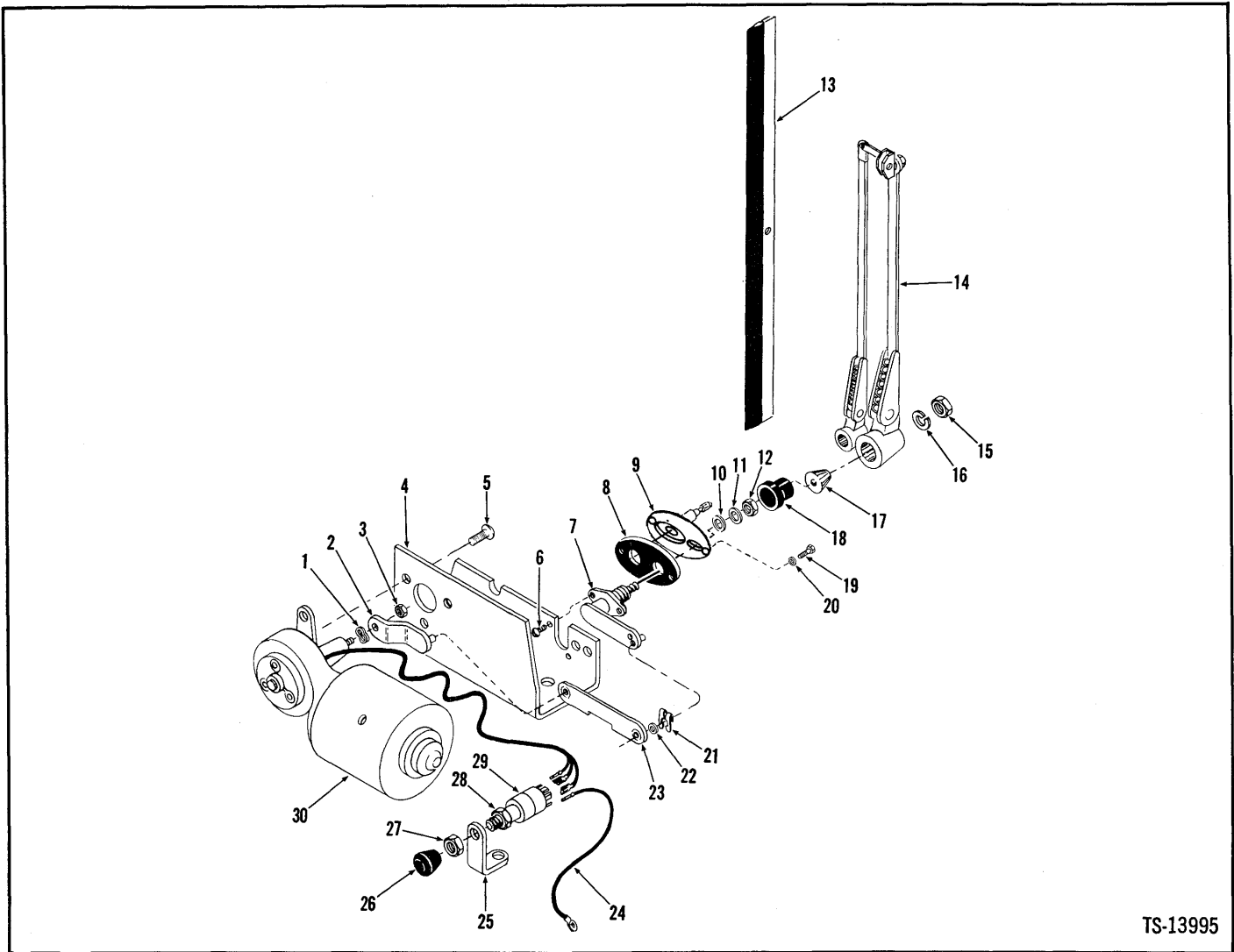
<sup>3</sup>Inc. 8

<sup>7</sup>Inc. 15

<sup>4</sup>See 7

<sup>8</sup>Inc. 1, 2, 4, 31→33





TS-13995

No.	Part No.	Qty.	Description
1	993183	1	Washer
2	949308	1	Drive arm
3	949144	1	Nut
4	992892	1	Bracket
5	992896	3	Screw
6	949143	2	Screw
7	<sup>2</sup> 960248	1	Shaft
8	<sup>3</sup> -----	—	Gasket
9	<sup>4</sup> 949785	1	Adapter
10	949180	1	Washer
11	949181	1	Washer
12	949182	1	Nut
13	992898	1	Wndshld wiper blade
14	2510200	1	Wndshld wiper arm
15	522028	1	Nut

No.	Part No.	Qty.	Description
16	9E-05	1	Lockwasher
17	949184	1	Driver wndshld wiper
18	949183	1	Cap
19	90G-412	3	Bolt
20	8E-04	3	Lockwasher
21	890374	2	Clip
22	890375	2	Washer
23	890373	1	Link
24	1544319	1	Harness wiring
25	<sup>5</sup> -----	—	Bracket
26	<sup>6</sup> -----	—	Knob
27	<sup>6</sup> -----	—	Nut
28	<sup>6</sup> -----	—	Nut
29	<sup>7</sup> 2318002	1	Switch
30	1580724	1	Wiper motor F

<sup>2</sup>Inc. 10→12, 13→18

<sup>3</sup>See 9

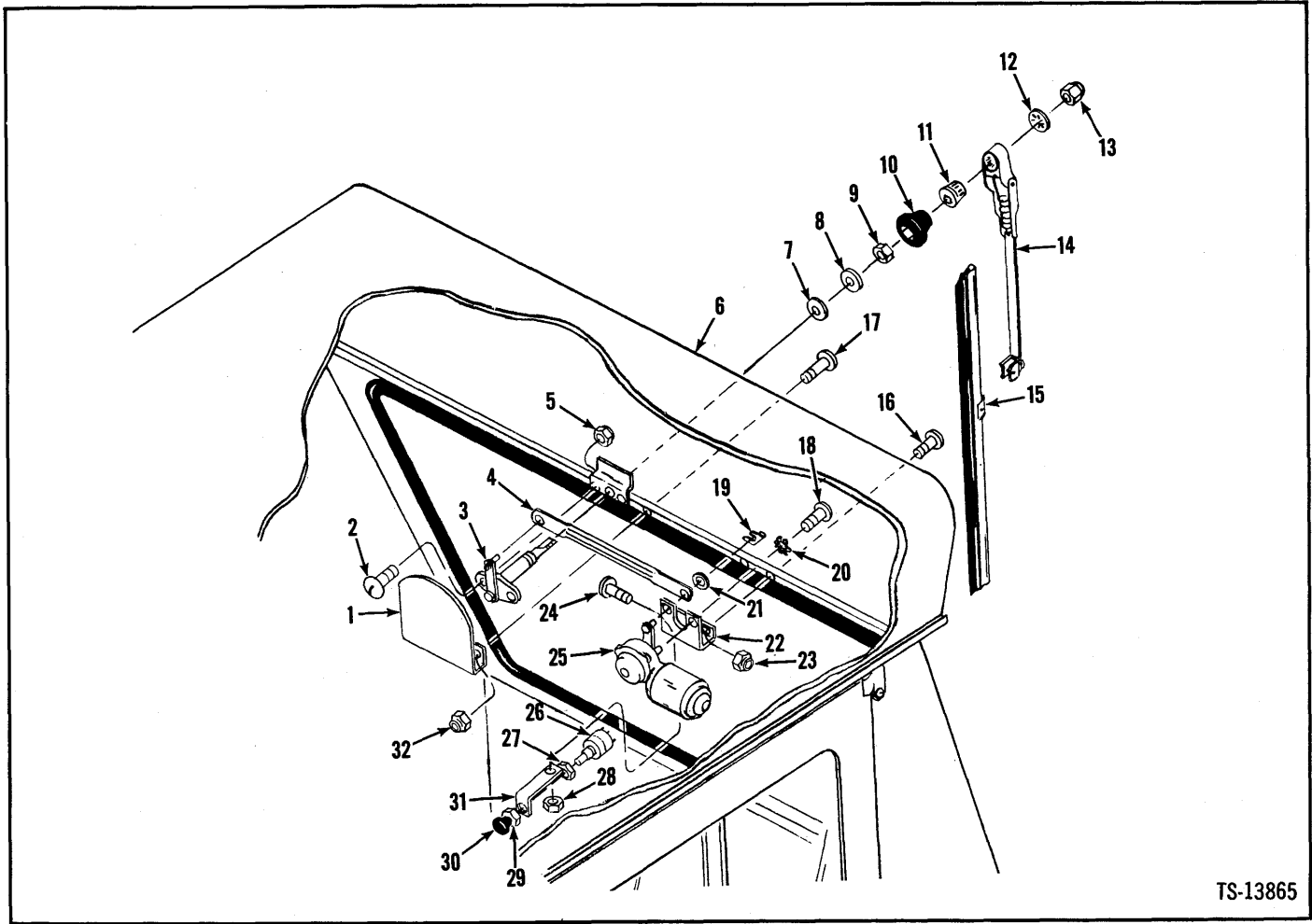
<sup>4</sup>Inc. 8

<sup>5</sup>Included in Cab Assy

<sup>6</sup>See 29

<sup>7</sup>Inc. 26, 27, 28

# Windshield Wiper Kit, Rear\*



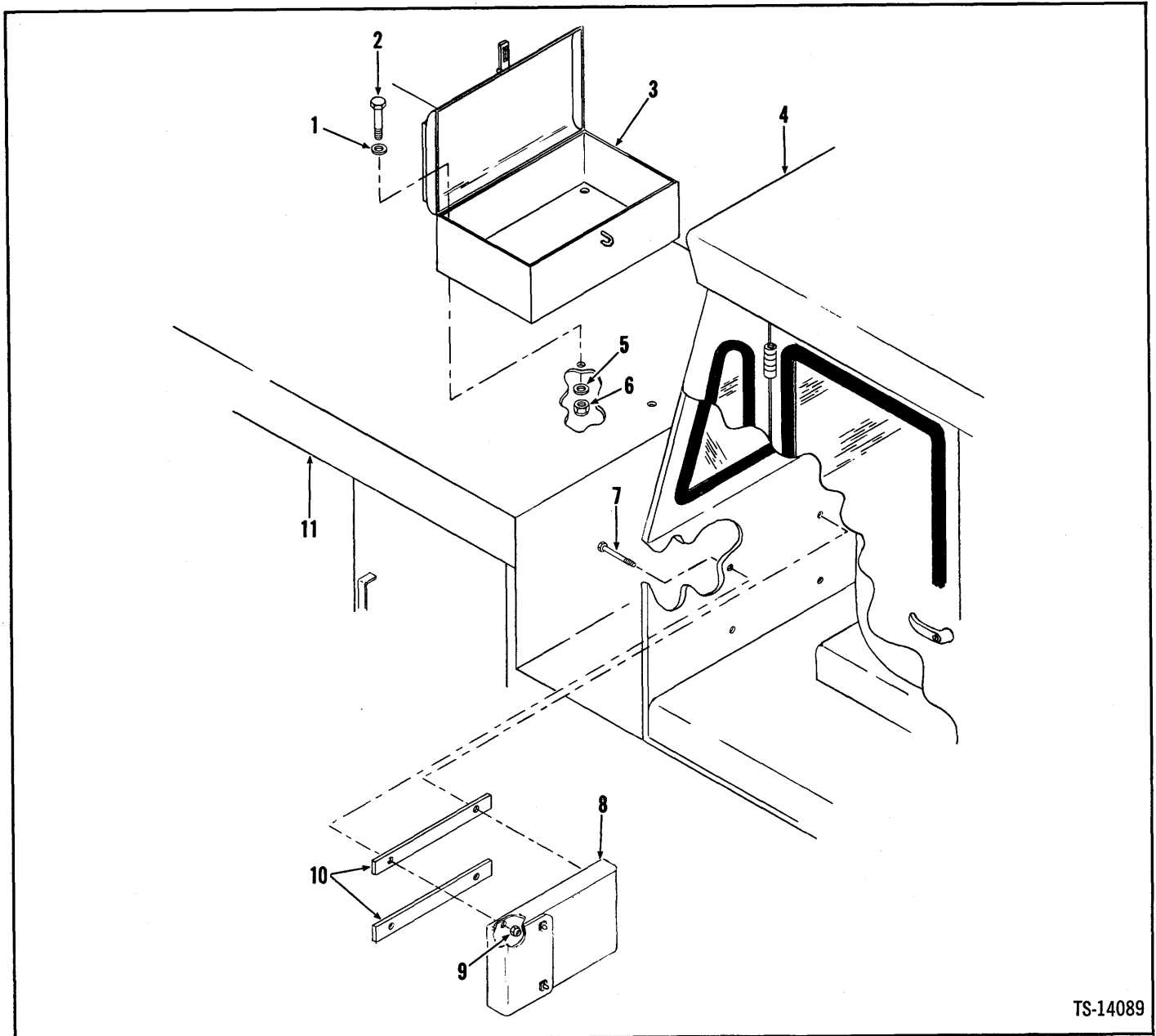
TS-13865

No.	Part No.	Qty.	Description
A	'2503883	1	Wndshld wiper kit R
1	1534346	1	Shield
2	86G-1010	2	Screw
3	'949185	1	Shaft
4	574729	1	Link
5	51D-10	2	Nut
6	<sup>3</sup> _____	1	Cab.
7	949180	1	Washer
8	949181	1	Washer
9	949182	1	Nut
10	949183	1	Cap
11	949184	1	Driver wndsh wiper
12	9E-05	1	Lockwasher
13	522028	1	Nut
14	560517	1	Wndshld wiper arm
15	568968	1	Wndshld wiper blade
16	90G-412	2	Bolt
17	24C-412	2	Bolt
18	'992896	3	Screw

No.	Part No.	Qty.	Description
19	890374	2	Clip
20	§ <sup>5</sup> _____	—	Lockwasher
21	890375	2	Washer
22	574730	1	Bracket
23	18D-04	2	Nut
24	24C-412	1	Bolt
25	'1580724	1	Wiper motor R
25A	†949308	1	Lever
25B	†949144	1	Nut
26	'2318002	1	Switch
27	§ <sup>a</sup> _____	1	Nut
28	18D-04	1	Nut
28A	†25E-14	1	Washer
29	§ <sup>a</sup> _____	1	Nut
30	§ <sup>a</sup> _____	1	Knob
31	546535	1	Bracket
32	18D-04	2	Nut
33	†2503294	1	Wire

<sup>1</sup>Incl. 1→5, 7→33  
<sup>2</sup>Incl. 7→13  
<sup>3</sup>See Index  
<sup>4</sup>Incl. 20

<sup>5</sup>See 18  
<sup>6</sup>Incl. 25B  
<sup>7</sup>Incl. 27, 29, 30  
<sup>8</sup>See 26



TS-14089

No.	Part No.	Qty.	Description
1	567806	4	Washer
2	24C-516	4	Bolt
3	1548292	1	Toolbox
4	1-----	—	Cab
5	567806	4	Washer
6	18D-05	4	Nut
7	24C-424	4	Bolt
8	2-----	—	Canvas bag
9	18D-04	4	Nut
10	2511571	2	Rectangular flat
11	1-----	—	Hood

\*427C601 & →

<sup>1</sup>See Index

<sup>2</sup>Furnished by Government

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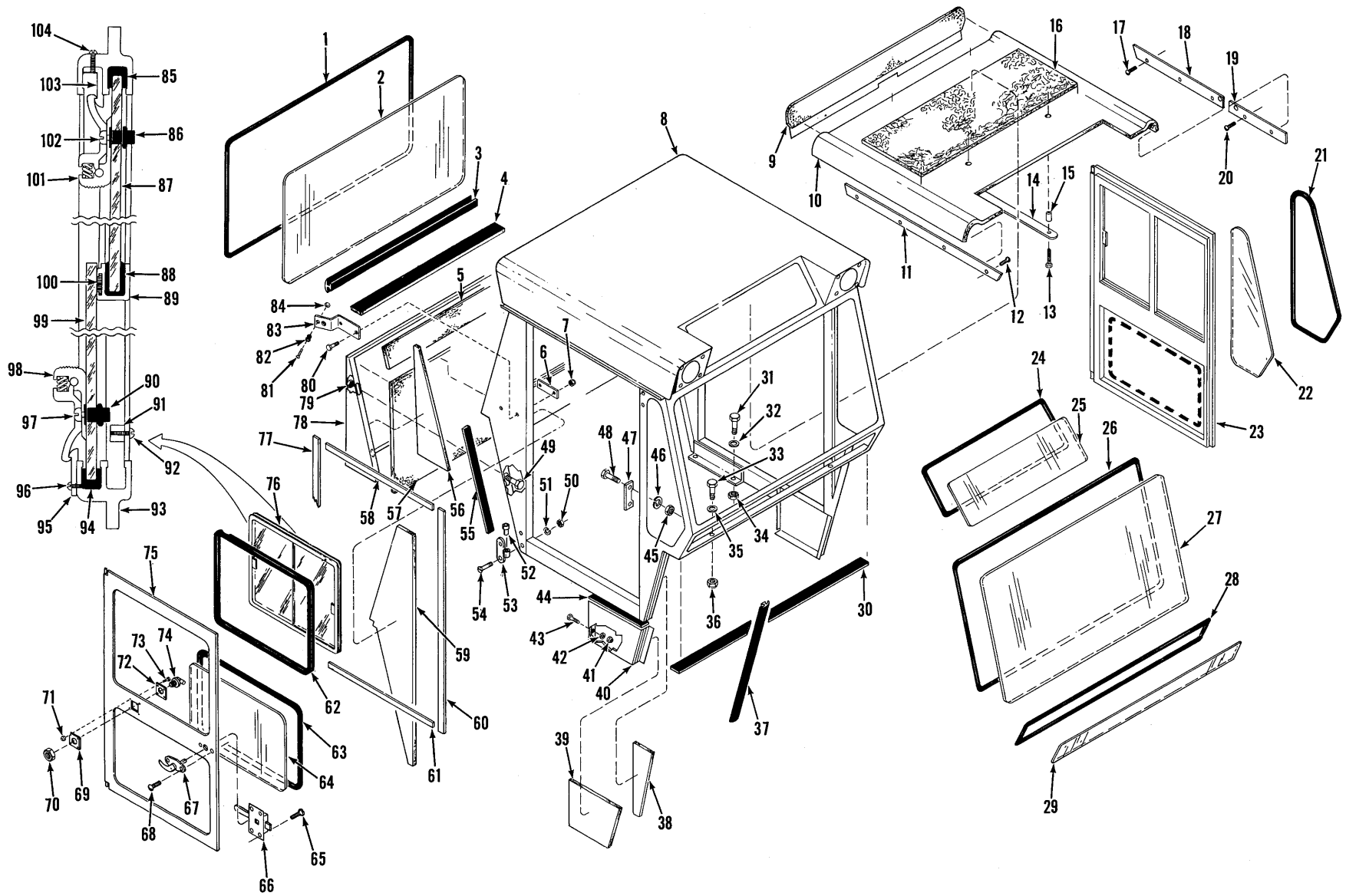
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# Cab Assembly\*

No.	Part No.	Qty.	Description
A	<sup>2</sup> 2512418	1	Cab assy
B	<sup>3</sup> 2511786	1	Cab assy
1	<sup>4</sup> 569694	1	Moulding
2	568678	1	Glass rear
3	<sup>5</sup> 1521846	1	Weatherstrip
4	<sup>5</sup> 1521844	1	Weatherstrip
5	1543829	1	Panel
6	2512192	2	Plate
7	17D-3	4	Nut
8	§ <sup>6</sup> -----	1	Cab
9	1543830	1	Panel
10	1543826	1	Headliner
11	1514766	1	Trimstrip RH
12	14G-608	4	Screw
13	14G-824	4	Screw
14	1514764	2	Strap
15	1514763	4	Spacer
16	1543825	1	Backing
17	14G-608	3	Screw
18	1514767	1	Trimstrip LH
19	1514765	1	Trimstrip LH
20	14G-608	2	Screw
21	<sup>5</sup> 569694	2	Moulding
22	568681	2	Glass quarter
23	§ <sup>7</sup> -----	2	Door assy
24	<sup>8</sup> 569694	1	Moulding
25	568682	1	Glass
26	<sup>9</sup> 569694	1	Moulding
27	§ <sup>10</sup> -----	1	Glass pattern

No.	Part No.	Qty.	Description
28	<sup>11</sup> 569694	1	Moulding
29	§ <sup>10</sup> -----	1	Glass pattern
30	<sup>12</sup> 1521844	1	Weatherstrip
31	24C-624	4	Bolt
32	616783	4	Washer
33	24C-628	2	Bolt
34	18D-06	4	Nut
35	616783	2	Washer
36	18D-06	2	Nut
37	<sup>13</sup> 569692	2	Weatherstrip
38	1543800	1	Panel door post R
38A	†1543799	1	Panel door post L
39	1543828	1	Kickplate panel RH
39A	†1543827	1	Kickplate panel LH
40	568686	1	Panel lower RH
40A	†568687	1	Panel lower LH
41	18D-05	8	Nut
42	25E-16	8	Washer
43	24C-512	8	Bolt
44	<sup>14</sup> 943623	2	Weatherstrip
45	61D-04	4	Nut
46	4E-04	4	Lockwasher
47	945576	2	Strike
48	47G-412	4	Screw
49	24C-616	5	Bolt
50	61D-05	8	Nut
51	4E-05	8	Lockwasher
52	568700	4	Bushing
53	<sup>15</sup> 945555	2	Hinge

\*For 427C601 & → only

<sup>2</sup>Inc. 1→104

<sup>3</sup>Inc. 1→30, 37→48, 50→55, 58→77, 80→104

411 ft. (3,35 m)

<sup>5</sup>5 ft. (1,52 m)

<sup>6</sup>See A or B

<sup>7</sup>See 75 or 75A

<sup>8</sup>6 ft. (1,83 m)

<sup>9</sup>12 ft. (3,66 m)

<sup>10</sup>See 105

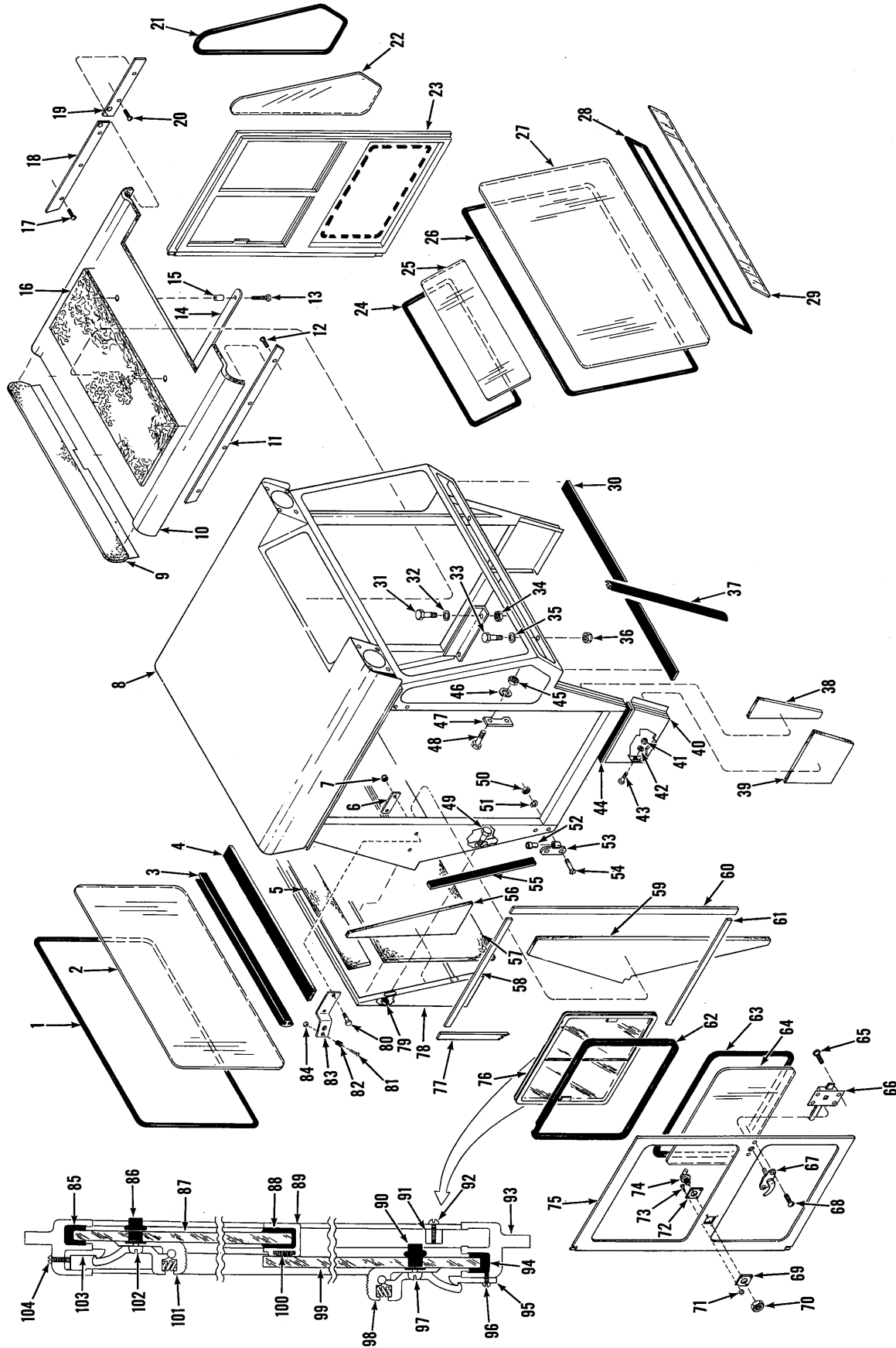
<sup>11</sup>10 ft. (3,05 m)

<sup>12</sup>4 ft. (1,22 m)

<sup>13</sup>3 ft. (0,92 m)

<sup>14</sup>2 ft. (0,61 m)

<sup>15</sup>Lower RH, Upper LH



# Cab Assembly\*

**MICHIGAN**

No.	Part No.	Qty.	Description
53A	† <sup>16</sup> 945554	2	Hinge
54	76-512	8	Screw
55	<sup>14</sup> 943623	2	Weatherstrip
56	1543803	1	Panel rear RH
56A	†1543801	1	Panel rear LH
57	1543804	1	Panel
58	<sup>13</sup> 943623	2	Weatherstrip
59	1543809	1	Panel rear RH
59A	†1543808	1	Panel rear LH
60	<sup>12</sup> 943623	2	Weatherstrip
61	<sup>13</sup> 943623	2	Weatherstrip
62	<sup>17</sup> 569694	2	Moulding
63	<sup>5</sup> 569694	2	Moulding
64	1536569	2	Glass door lower
65	65G-1008	8	Screw
66	942874	1	Lock door RH
66A	†138249	1	Lock door LH
67	1525710	2	Handle
68	18G-1008	4	Screw
69	2512195	2	Plate
70	2512218	2	Nut
71	17D-1	8	Nut
72	2512195	2	Plate
73	47G-432	8	Screw
74	2512199	2	Handle assy
75	2512200	1	Door RH
75A	†2512201	1	Door LH
76	<sup>18</sup> 961268	1	Window assy
76A	† <sup>18</sup> 961267	1	Window assy

No.	Part No.	Qty.	Description
77	<sup>12</sup> 943623	2	Weatherstrip
78	571854	1	Panel cab rear
79	18D-06	5	Nut
80	23C-616	4	Bolt
81	85G-1032	2	Screw
82	949596	2	Bumper
83	2513450	2	Strike assy
84	12D-10	2	Nut
85	<sup>8</sup> 960986	2	Weatherstrip
86	960985	4	Well nut
87	961270	2	Glass
88	<sup>14</sup> 894044	2	Glazing rubber
89	<sup>14</sup> 960225	2	Center post
90	960985	4	Well nut
91	961182	4	Slide stop
92	961185	4	Screw
93	<sup>5</sup> 19-----	2	Frame
94	<sup>8</sup> 960986	2	Weatherstrip
95	961269	2	Catch
96	960219	4	Screw
97	85G-1008	4	Screw
98	960984	2	Lock assy
99	961270	2	Glass
100	<sup>14</sup> 960217	2	Weatherstrip
101	960984	2	Lock assy
102	85G-1008	4	Screw
103	960987	2	Catch
104	85G-606	8	Screw
105	<sup>20</sup> 960611	1	Glass pattern kit

<sup>5</sup>5 ft. (1,52 m)

<sup>6</sup>6 ft. (1,83 m)

<sup>14</sup>4 ft. (1,22 m)

<sup>13</sup>3 ft. (0,92 m)

<sup>14</sup>2 ft. (0,61 m)

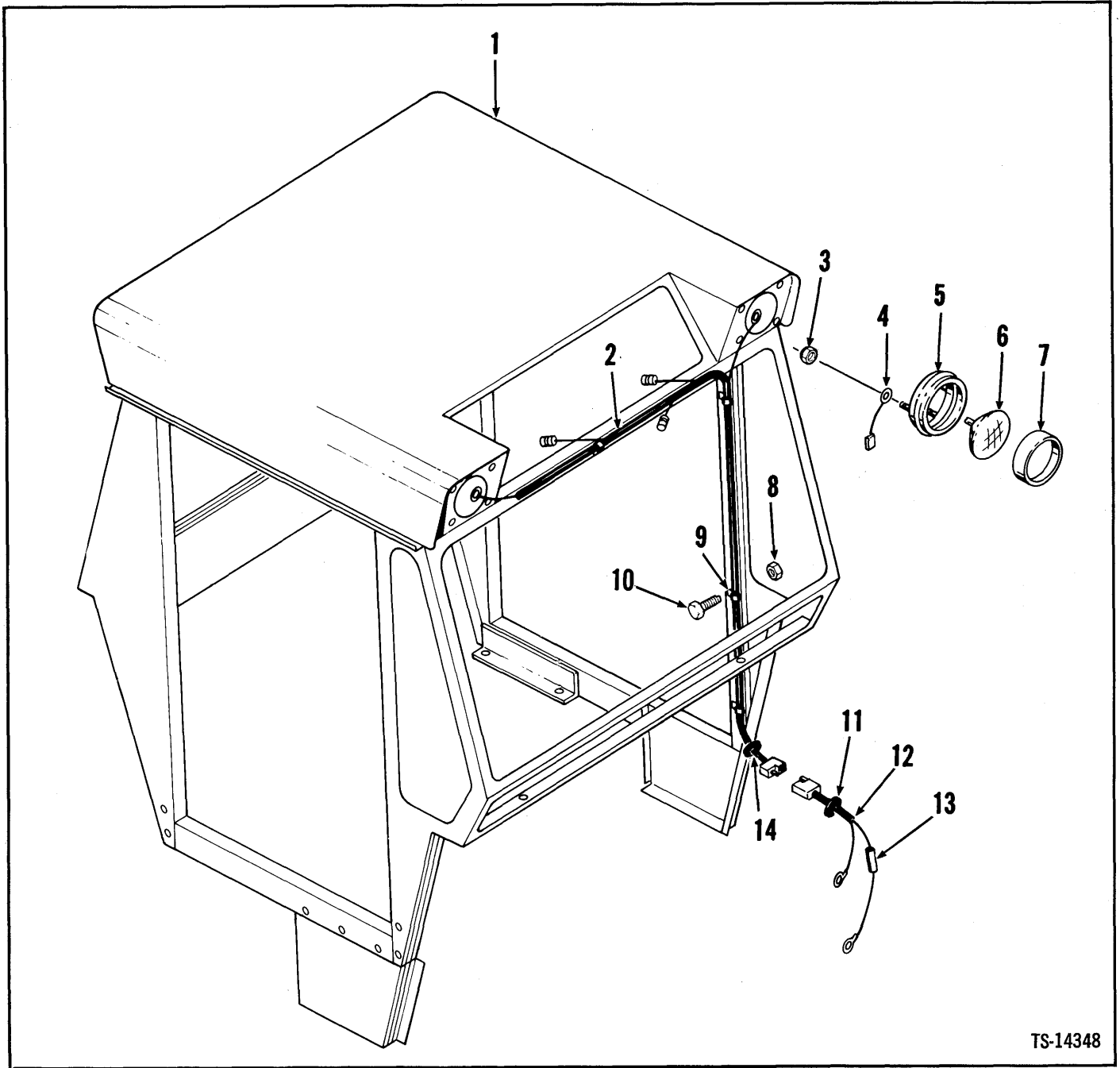
<sup>16</sup>Lower LH, Upper RH

<sup>17</sup>7 ft. (2,14 m)

<sup>18</sup>Inc. 85 → 104

<sup>19</sup>See 76 or 76A

<sup>20</sup>Inc. 27, 29



TS-14348

No.	Part No.	Qty.	Description
1	1-----	1	Cab assy
2	1544320	1	Harness
3	50D-10	6	Nut
4	540882	2	Wire
5	<sup>2</sup> 582057	2	Headlight assy
6	551244	2	Sealed unit
7	944977	2	Retainer headlight

No.	Part No.	Qty.	Description
8	18D-04	3	Nut
9	30H-14	3	Clip
10	24C-410	3	Bolt
11	515069	1	Grommet
12	<sup>3</sup> 1544319	1	Harness
13	<sup>4</sup> 611074	1	Fuse
14	515069	1	Grommet

\*For 427C601 & → only

<sup>1</sup>See Index

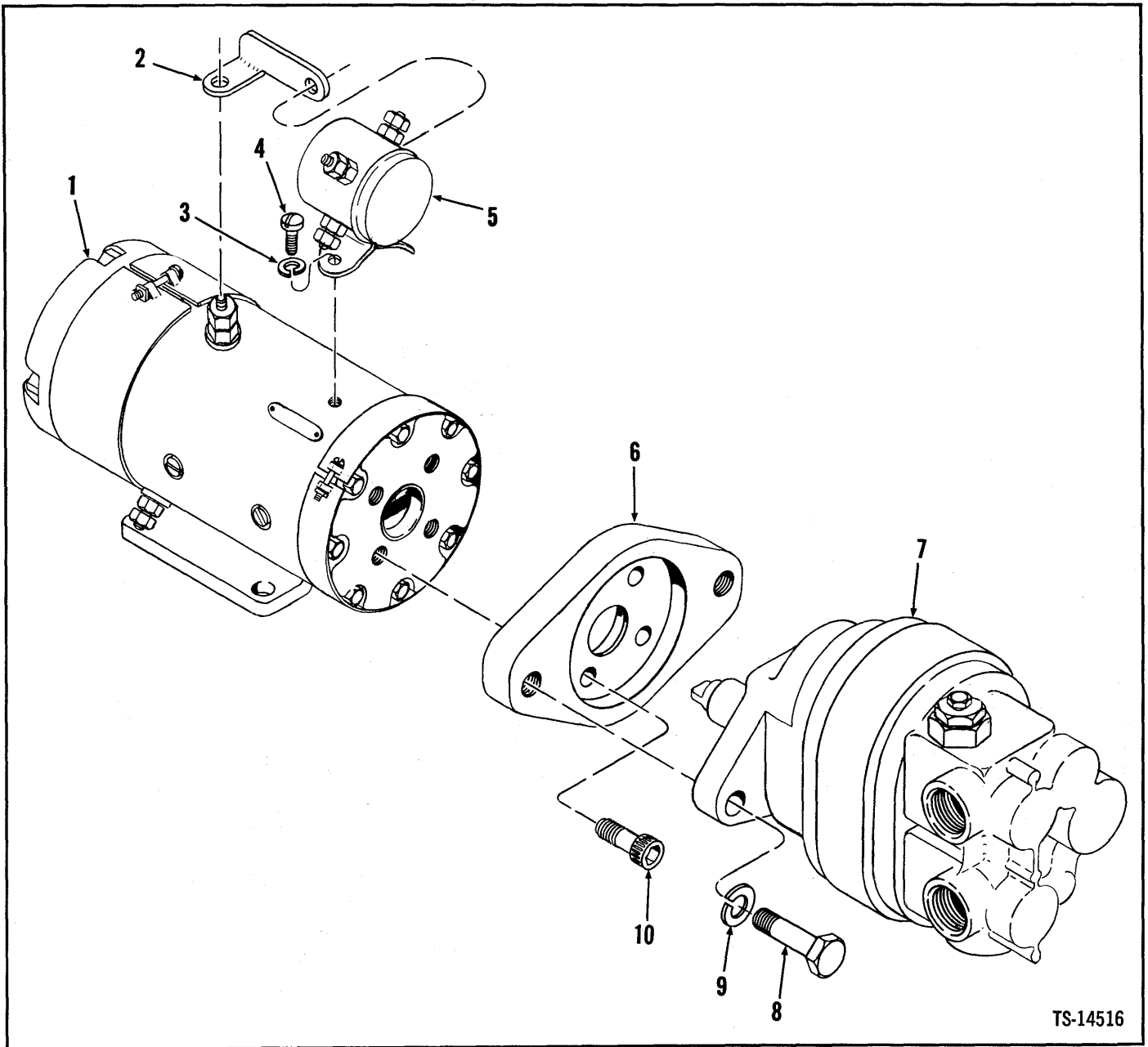
<sup>2</sup>Inc. 6, 7

<sup>3</sup>Inc. 13

<sup>4</sup>20 amp

# Pump Assembly, Auxiliary Steering

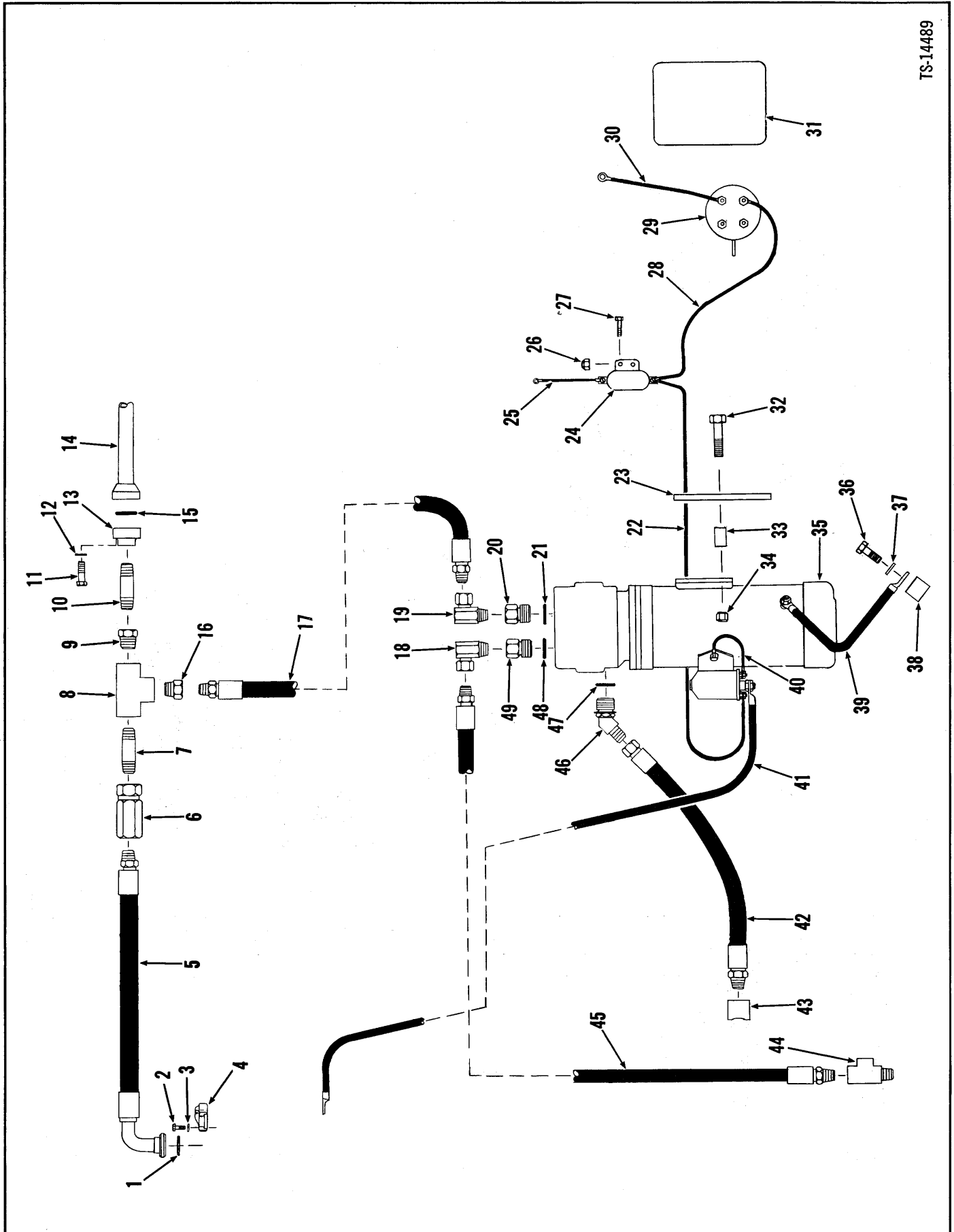
**CLARK**



TS-14516

No.	Part No.	Qty.	Description
A	2502793	1	Pump assembly
1	961541	1	Motor
2	961540	1	Connector
3	17E-10	2	Lockwasher
4	86G-1006	2	Screw
5	1620555	1	Solenoid
6	960856	1	Adapter
7	961050	1	Pump
8	1C-828	2	Bolt
9	4E-08	2	Lockwasher
10	73G-512	4	Screw

<sup>2</sup>Inc. 1→10



## Auxiliary Steering Kit

No.	Part No.	Qty.	Description
A	<sup>2</sup> 2504558	1	Auxiliary steer kit
1	58K-225	1	O-ring
2	23C-824	4	Bolt
3	4E-08	4	Lockwasher
4	1511521	2	Flange half
5	2512968	1	Hose
6	573608	1	Valve check
7	5K-1016	1	Nipple
8	28F-6	1	Tee
9	356626	1	Bushing
10	5K-816	1	Nipple
11	23C-624	4	Bolt
12	4E-06	4	Lockwasher
13	571802	1	Adapter
14	<sup>3</sup> -----	1	Tube
15	58K-219	1	O-ring
16	356627	1	Bushing
17	2502711	1	Hose
18	31F-4	1	Adapter union
19	31F-5	1	Adapter union
20	<sup>4</sup> 945417	1	Adapter
21	91F-8	1	O-ring
22	574506	1	Wire
23	2512969	1	Bracket
24	1548952	1	Buzzer
25	543483	1	Wire
26	18D-04	2	Nut
27	24C-412	2	Bolt
28	1534039	1	Wire
29	331196	1	Switch
30	2502713	1	Wire
31	2502861	1	Decal
32	24C-648	4	Bolt
33	545186	4	Spacer
34	18D-06	4	Nut
35	<sup>7</sup> -----	1	Pump assembly
36	24C-616	1	Bolt
37	4E-06	1	Lockwasher
38	522906	1	Tapped block
39	2503155	1	Cable
40	639507	1	Wire
41	2503156	1	Cable
42	2504352	1	Hose
43	2502714	1	Half coupling
44	30F-3	1	Tee
45	712766	1	Hose
46	<sup>5</sup> 18K-11	1	Elbow
47	91F-11	1	O-ring
48	91F-8	1	O-ring
49	<sup>6</sup> 1321750	1	Connector

<sup>2</sup>Inc. 1→11, 13, 15→49

<sup>3</sup>See Hydraulic System Steering

<sup>4</sup>Inc. 21

<sup>5</sup>Inc. 47

<sup>6</sup>Inc. 48

<sup>7</sup>See Page Z45

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