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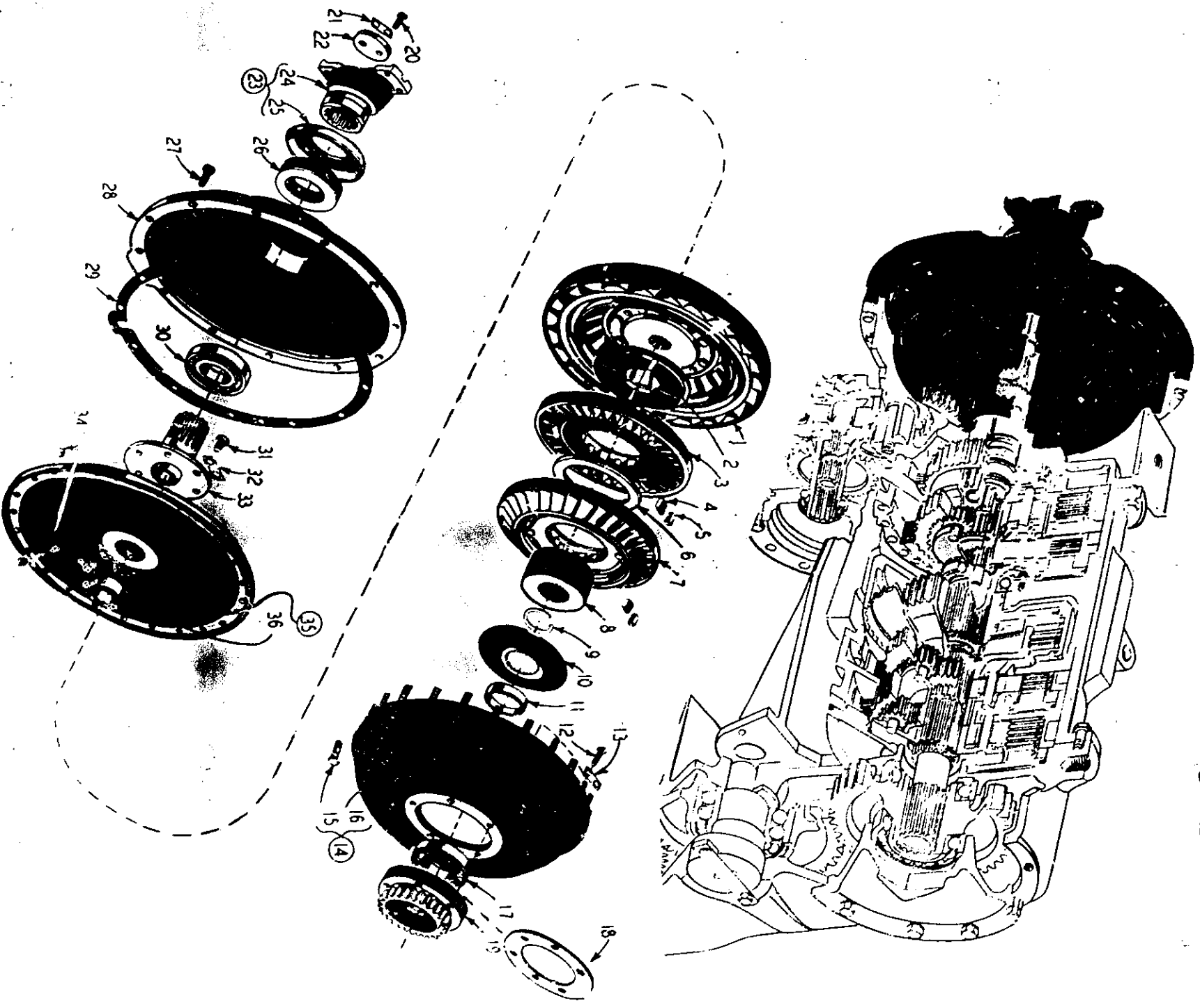


FIG. 11
TOROMATIC DRIVE - TORQUE CONVERTER GROUP

TORQMATIC DRIVE-TORQUE CONVERTER GROUP

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	139065	Transmission Complete	1	{22E-1488	1527
	142775H3	Transmission Complete	1	{23E-1401	1477-80-81
				{22E-1528	& Up
				{23E-1402	1476 &
		Torqmatic Drive Assembly, Incl. Fig. 11 thru 18			1478, 79
1	138366	Turbine	1		& 1482 &
2		Washer, Stator Thrust (Part of Item 3) NSS	1		up
3	135257	Stator, First	1		
4	161898	Spring, Freewheel Roller, replaces 131596	16		
5	131741	Roller, Freewheel	16		
6	131595	Washer, Spacing	1		
7	131603	Stator, Second	1		
8	131607	Race, Freewheel	1		
9	131609	Ring, External Snap	1		
10	158020	Spacer, Stator, replaces 131605	1		
11	131608	Spacer	1		
12	S-2810	Bolt, 1/2" 20 x 1 1/4"	6		
13	131678	Strip, Locking	3		
14	131670	Pump Assembly, Converter	1		
15	131610	Bolt, 5/16" 24 x 1.30" Long	24		
16		Pump, Converter (Serviced in Assembly Only)	1		
17	150040H2	Bearing Assembly, Double Row Ball	1		
18	140072	Gasket	1		
19	140073	Gear, Input Accessory Drive	1		
20	131542	Bolt	2		
21	131685	Strip, Locking	1		
22	131648	Washer, Flange Retainer	1		
23	135521	Flange Assembly (Mach 6C) (See Drive Shaft Group) ..	1		
24		Flange	1		
25		Shield, Dust	1		
26	191507	Seal, replaces 131589	1		
27	S-1616	Bolt, 3/8" 24 x 2" Long	12		
28	131696	Cover, Transmission Front	1		
29	132583	Gasket, Torqmatic Drive	1		
30	131557	Bearing Assembly, Single Row Ball	1		
31	S-289	Bolt, 1/2" 13 x 1 1/8"	6		
32	131678	Strip, Locking	3		
33	131697	Shaft, Converter Drive	1		
34	131548	Nut, 5/16" 24 Hexagon Lock	24		
35	138367H2	Cover, Converter Pump	1		
36	138365	Bearing	1		

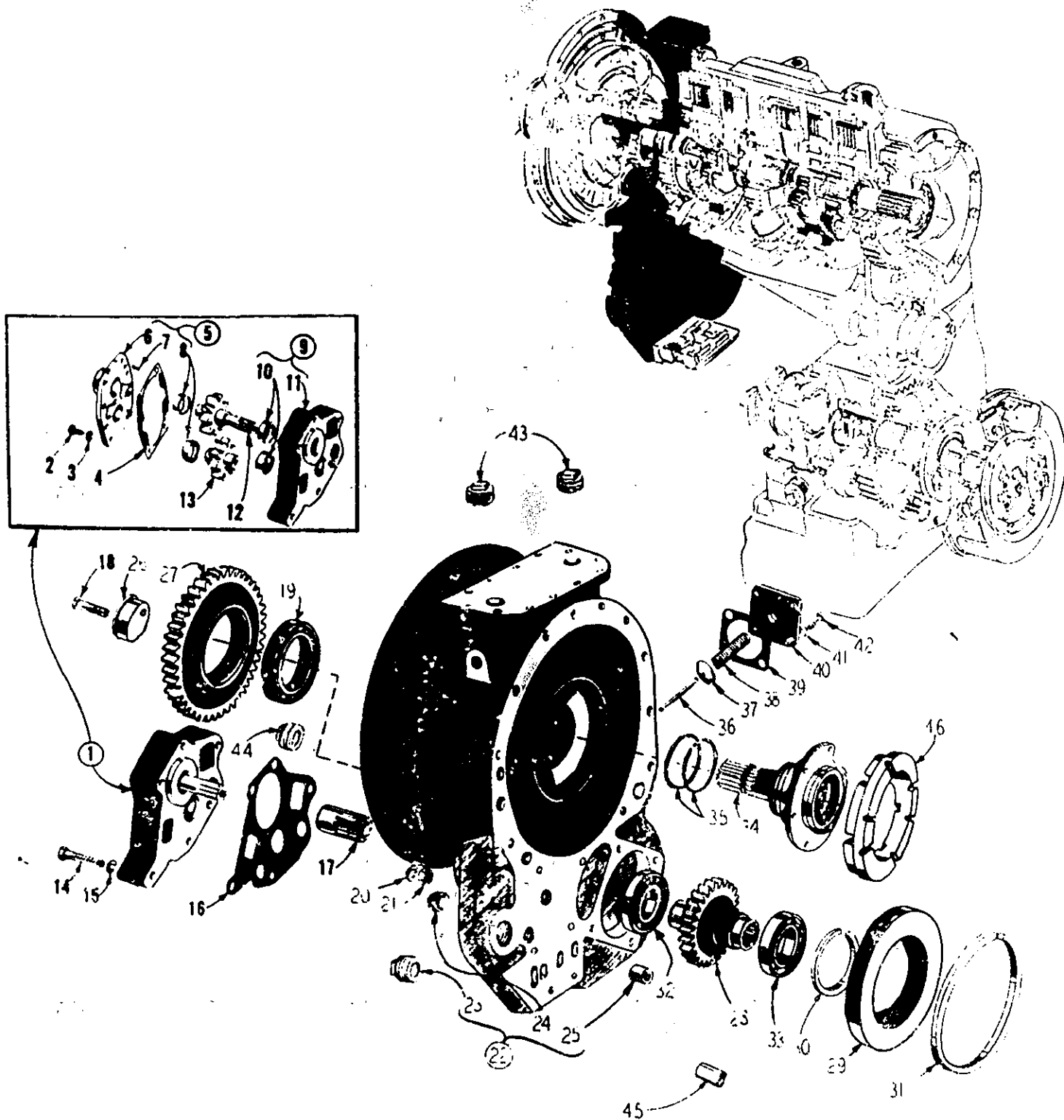
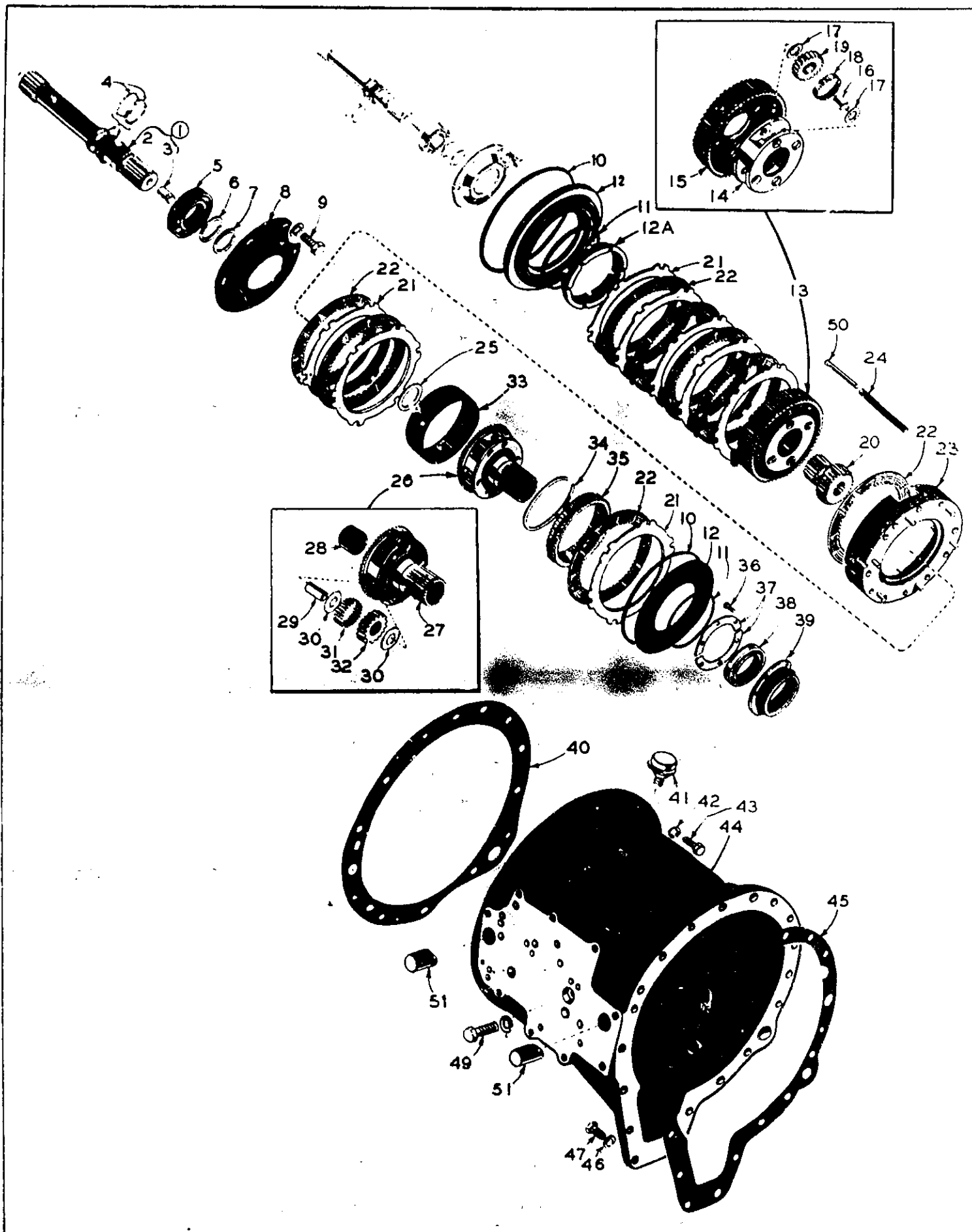


Fig. 12
TORQMATIC DRIVE - TORQUE CONVERTER HOUSING GROUP

TORQMATIC DRIVE-TORQUE CONVERTER HOUSING GROUP

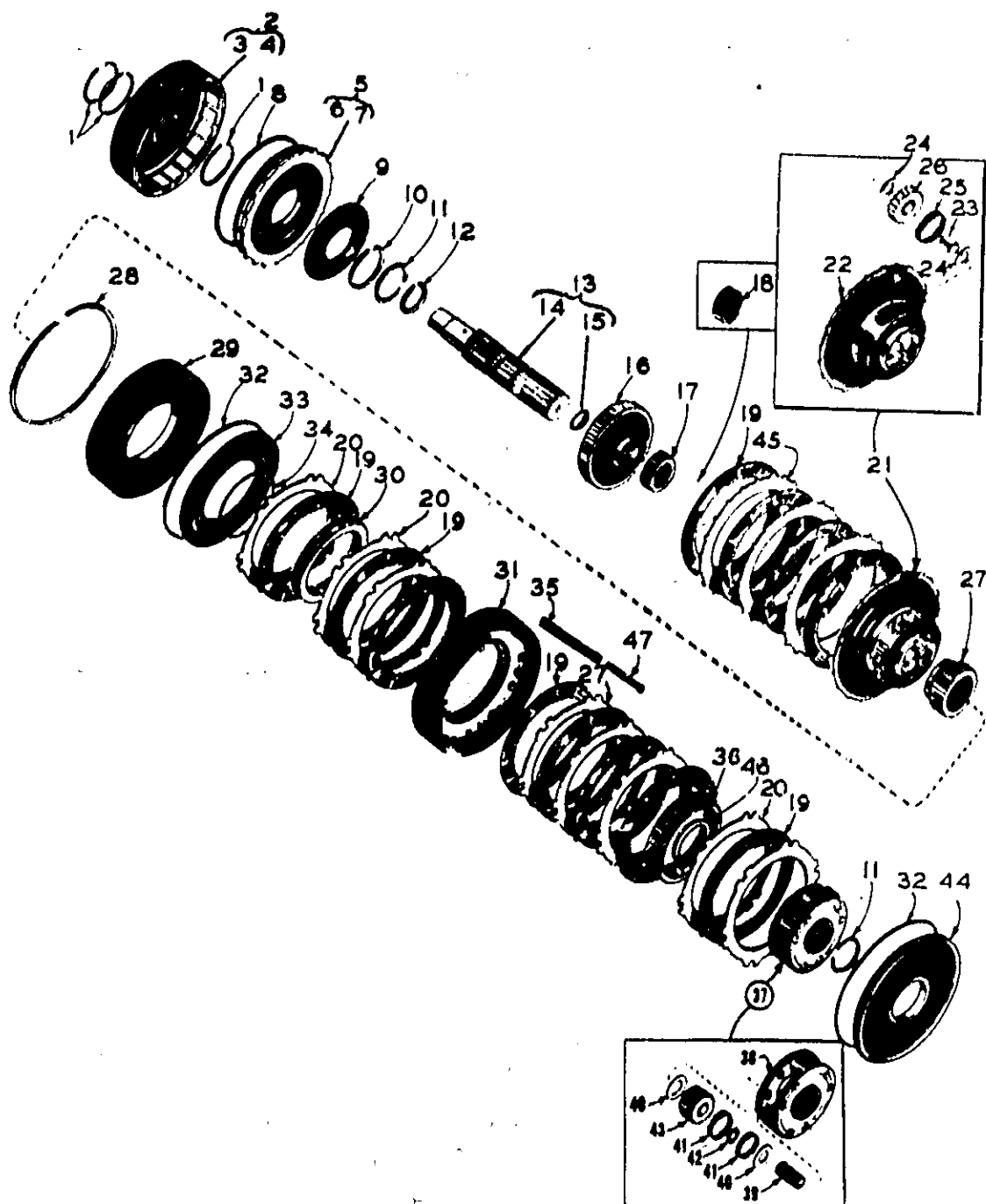
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	131634	Pump Assembly, Input Oil	1		
2	131531	Bolt, 3/8" 16 x 1"	4		
3	131512	Washer, Lock 3/8"	4		
4	131719	Gasket	1		
5	131626	Cover Assembly, Oil Pump	1		
6		Cover, Oil Pump	1		
7		Pin, Dowel	2		
8	131528	Bearing Assembly, Needle	2		
9	131712	Body Assembly	1		
10	131528	Bearing Assembly, Needle	2		
11		Body, Input Oil Pump (Order Item 9)	1		
12	131633	Gear, Oil Pump Drive	1		
13	131632	Gear, Oil Pump Idler	1		
14		Bolt, 3/8" 16 x 2 3/4"	4		
		Bolt, 3/8" 16 x 2 1/4"	2		
15		Washer, Lock 3/8"	6		
16	131611	Gasket, Oil Pump	1		
17	131613	Coupling, Oil Pump Drive	1		
18	131745	Bolt, 7/16" 14 x 1 3/4"	1		
19	131556	Bearing Assembly, Single Row Ball	1		
20	WL-16	Washer, Lock 3/8"	12		
21	H - 16	Nut, 3/8" 24	12		
22	140068	Housing Assembly, Converter (Incl. Items 23, 24, 25)	1	Prior to	8590
22	151455	Housing Assembly, Converter (Incl. Items 23, 24, 25)	1	8590	& Up
23		Plug, Pipe, 3/4" 14	4		
24	140026	Plug, 1"	1		
25	104634	Plug, Pipe, 1/2" 14 sq. Socket Head	2		
26	140039	Spindle, Aux. Drive Idler	1		
27	187204	Gear Assembly, Accessory Drive Idler (Incl. Item 19)	1		
28	149967	Gear, Oil Pump Drive, replaced 131637	1	5746	& Up
29	149759	Retainer, Bearing, replaced 148511	1	7596	& Up
30	140028	Snapring	1		
31	140064	Snapring	1		
32	104706	Bearing Assembly, Single Row Ball ..	1		
33	104706	Bearing Assembly, replaced 134729 ..	1		
34	150041	Sleeve, Converter Ground	1		
35	131740	Ring, Hook Type Seal	2		
36	131601	Pin	1		
*37	190379	Valve, Lube Pressure Regulator	1		
	190527	Washer, Lube Valve Seal	1		
38	131591H2	Spring, replaced 131591	1		
39	131599	Gasket, Lube Valve Cover	1		
40	134726	Cover	1		
41	131512	Washer, Lock 3/8"	4		
42	134724	Bolt, for 134726 Cover only 3/8" 16 x 3/4"	4		
43		Plug, 3/4" Pipe	2		
44	140034	Plug	1		
45	151435	Tube, replaced 141178	1	8590	& Up
46	140079	Spacer, reverse clutch hub	1		
	149966	Seal, Used with Item 29	1		
Use 147554 "O" Ring (Outer) and 149966 Seal with new 149759 Retainer. Use 147553 "O" Ring (Inner) and 147554 "O" Ring (Outer) with 148511 Retainer. * Furnish 131587 for Transmission prior to Trans. S/N 27719 * Furnish 190379 for Transmission from Trans. S/N 27719 & Up					



TORQMATIC DRIVE-FORWARD & REVERSE PLANETARIES
AND TRANSMISSION HOUSING GROUP

TORQMATIC DRIVE-FORWARD & REVERSE PLANETARIES
AND TRANSMISSION HOUSING GROUP

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	150121	Shaft Assembly, Converter, replaced 131705	1		
2		Shaft, Converter Service in Assembly Only	1		
3		Plug, Lube Orifice	1		
4	131738	Ring, Hook Type Seal	2		
5	117610	Bearing Assembly, Single Row Ball	1		
6	131578	Ring, External Snap	1		
7	132550	Ring, External Snap	1		
8	131631	Retainer, Bearing	1		
9	131742	Bolt, 3/8" 16 x 7/8"	6		
10	* 132576H2	Ring, Seal	2		
11	* 132577	Ring, Seal	2		
12	140076	Piston, Forward & Reverse	1		
12A	140079	Spacer	1		
13	140081	Carrier Assembly, Reverse Planet	1		
14	132566	Carrier, Reverse Planet	1		
15	140080	Hub, Reverse Clutch	1		
16	132557	Pin, Planet Spindle	4		
17	132552	Washer, Pinion Thrust	8		
18	132544	Roller, Planet Pinion	88		
19	152211	Pinion, Reverse Planet, replaced 132553	4		
20	132556	Gear, Forward and Reverse Sun	1		
21	140051	Plate, External Splined Clutch	8		
22	140078	Plate, External Splined Clutch	8		
23	147806	Anchor Assembly, Incl. (6) 140829 Pins, replaced 140056 Anchor	1		
24	140030H2	Spring, Forward Clutch	12		
25	132572	Washer, Thrust	1		
26	132570	Carrier Assembly, Forward Planet	1		
27	132569	Carrier, Forward Planet	1		
28	132571	Bushing	1		
29	132547	Pin, Planet Spindle	6		
30	132548	Washer, Pinion Thrust	12		
31	132549	Needle, Planet Pinion	120		
32	152210	Pinion, Forward Planet, replaced 132546	6		
33	132562	Gear, Reverse Ring	1		
34	132551	Ring, Snap	1		
35	140075	Gear, Forward Ring	1		
36	131742	Bolt, 3/8" 16 x 7/8"	6		
37	132559	Retainer, Bearing	2		
38	132542	Bearing Assembly, Single Row Ball	1		
39	132555	Hub, Oil Transfer	1		
40	131646	Gasket, Converter Housing	1		
41	153604	Breather, replaced 131586	1		
42	131513	Washer	13		
43	131539	Bolt, 7/16" 14 x 1 1/4"	13		
44	140054	Housing, Transmission	1		
45	131669	Gasket	1		
46		Washer, Lock, 7/16"	18		
47		Bolt, 7/16" 14 x 1 5/8"	18		
48		Bolt, 1/2" 20 x 2"	4		
49		Bolt, 3/8" 16 x 1 1/2"	1		
		Washer, Lock, 3/8"	1		
50	140025	Pin, Spring Guide	12		
51	147807	Pin, Anchor, Use only with 140056 Anchor	1	Prior to S/N 5719	
51	147805	Pin, Anchor, Use only with 147806 Anchor	1	S/N 5719 and up	
	140829	Pin, Anchor (Part of Item 23)	6		
		* Service: On orders for Item 10, #132576H2, supply 1, 199700 Seal Ring plus 1, 199701 expander. On orders for Item 11, #132577, supply 1, 199702 Seal Ring and 1 199703 expander.			



TORQMAT DRIVE-INTERMEDIATE HIGH & LOW RANGE
PLANETARIES AND CLUTCH GROUP

**TORQMATIC DRIVE-INTERMEDIATE HIGH & LOW RANGE
PLANETARIES AND CLUTCH GROUP**

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	131677	Ring, Hook Type Seal	3		
2	162307	Drum Assembly, Inter. Clutch, replaces 131651	1		
3		Pin, 1/4" x 1/4"	4		
4		Drum, Inter. Clutch	1		
5	140074	Piston Assembly, Intermediate Clutch	1		
6	131550	Ball	2		
7		Piston, Intermediate Clutch ...	1		
8	* 132578	Ring, Seal	1		
9	140046	Spring, Intermediate Piston Return	1		
10	131582	Ring, Snap, Spring Retainer	1		
11	131580	Ring, Snap, Drum Retainer	2		
12	131592	Ring, Snap	2		
13	155098H2	Shaft Assembly, Transmission, replaces 131707	1		
14		Shaft, Transmission (Serviced in Assembly only)	1		
15	131616	Plug, Cup, used in 131707 shaft only	1		
16	162309	Hub, Intermediate Clutch, replaces 140042	1		
17	131593	Gear, High Sun	1		
18	140041	Spacer	1		
19	140078	Plate, Internal Splined Clutch	12		
20	140051	Plate, External Splined Clutch	8		
21	140058	Carrier Assembly, High Planet (Incl. 22-26)	1		
22		Carrier, High Planet	1		
23	132547	Pin, Planet Spindle	6		
24	132548	Washer, Pinion Thrust	12		
25	132549	Roller, Planet Pinion	120		
26	152210	Pinion, Planet Carrier, replaces 132546	6		
27	140035	Gear, Low Sun	1		
28	131679	Ring, Snap	1		
29	140038	Housing	1		
30	140075	Gear, High Ring	1		
31	147806	Anchor Assembly, Incl. (6) 140829 Pins, replaces 140056 Anchor	1		
32	132576H2	Ring, Seal	2		
33	140036	Piston, High Clutch	1		
34	132577	Ring, Seal	1		
35	140030H2	Spring, High Piston Return	12		
36	140055	Gear, Low Ring	1		
37	140052	Carrier Assembly, Low Planet (Incl. 38-43)	1		
38		Carrier, Low Planet	1		
39	131628	Pin, Planet Spindle	6		
40	132548	Washer, Pinion Thrust	12		
41	131675	Roller, Planet Pinion	240		
42	131708	Spacer	6		
43	152212	Pinion, Low Planet, replaces 131663	6		
44	140043	Piston, Low Clutch	1		
45	140053	Plate, External Splined	3		
46	140048	Washer, Assemble with Grooves Adjacent to Low Sun Gear	1		
47	140025	Pin Spring Guide	12		

* Service: On orders for Item 8 #132578 supply 1 199704 Seal Ring plus 1 199705 expander.

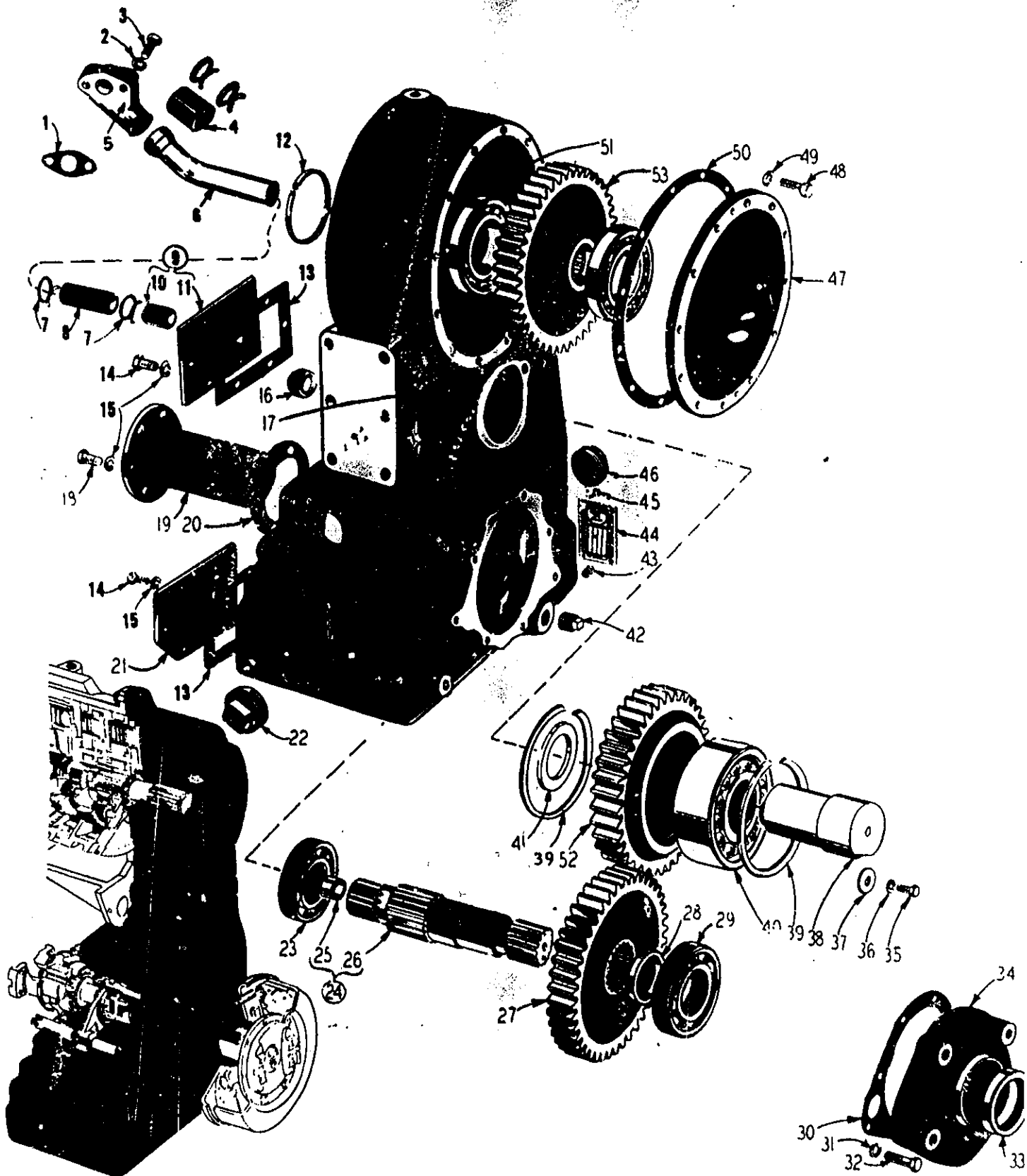


Fig. 15
TORQMATIC DRIVE - TRANSFER GEAR HOUSING GROUP

TORQMATIC DRIVE-TRANSFER GEAR HOUSING GROUP

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	131722	Gasket, Flange	1		
2	131512	Washer, Lock, 3/8"	2		
3	131535	Bolt, 3/8" 16 x 1 1/2"	2		
4	139063	Hose	1		
	139064	Clamp, Hose	2		
5	139058	Flange, Converter Housing Drain	1		
6	139057	Tube, Converter Housing Drain	1		
7	140024	Clamp, Hose, Type E	2		
8	131728	Hose, Converter Housing Drain	1		
9	136420	Cover Assembly, Inspection & Converter Drain	1		
10		Nipple	1		
11		Cover	1		
12	131677	Ring, Hook Type Seal	1		
13	131724	Gasket, Inspection Cover	2		
14	131531	Bolt, 3/8" 16 x 1"	12		
15	131512	Washer, Lock, 3/8"	18		
16	140026	Plug, Pipe, 1"	2		
17	187222	Housing, Transfer Gear	1		
18	S-267	Bolt, 3/8" 16 x 7/8"	6		
19	131732	Strainer	1		
20	131581	Gasket, Oil Strainer	1		
21	131725	Cover, Inspection	1		
22	131545	Plug, Pipe, 1 1/2" and P-124	1		
23	118046	Bearing Assembly	1		
24	140063	Shaft Assembly, Outlet (Includes Items 25 & 26)	1		
25	131621	Bushing	1		
26		Shaft, Outlet NSS	1		
27	135408	Gear, Output Driven	1		
28	140071	Spacer, Output Driven Gear	1		
29	131560	Bearing Assembly, Single Row Ball	1		
30	187206	Gasket, replaces 131681	1		
31	WL-18	Washer, Lock 3/8"	6		
32	S-2811	Bolt, 3/8" 16 x 1 1/2"	6		
33	178720	Seal, replaces 131589	1		
34	187207	Retainer, replaces 140040	1		
35	S-278	Bolt, Spindle Retaining	1		
36	131513	Washer, Lock	1		
37	140057	Washer, Spindle Return	1		
38	140062	Spindle, Output Idler Gear	1		
39	132545	Ring, Snap	2		
40	132588	Bearing Assembly	1		
41	140061	Spacer Assembly	1		
42	131711	Plug, Square Head Pipe, 3/4"	1		
43	131549	Plug, Square Head Pipe, 1/4"	2		
44		Plate, Transmission Name	1		
45	132541	Screw, Drive	4		
46	131524	Plug	1		
47	131666	Cover, Output Drive Cover	1		
48	131534	Bolt, 3/8" 16 x 1 1/4"	12		
49	131512	Washer, Lock 3/8"	12		
50	131668	Gasket, Output Drive Gear Cover	1		
51	131558	Bearing Assembly, Single Row Ball	2		
52	132558	Gear, Output Idler	1		
53	135409	Gear, Output Drive	1		

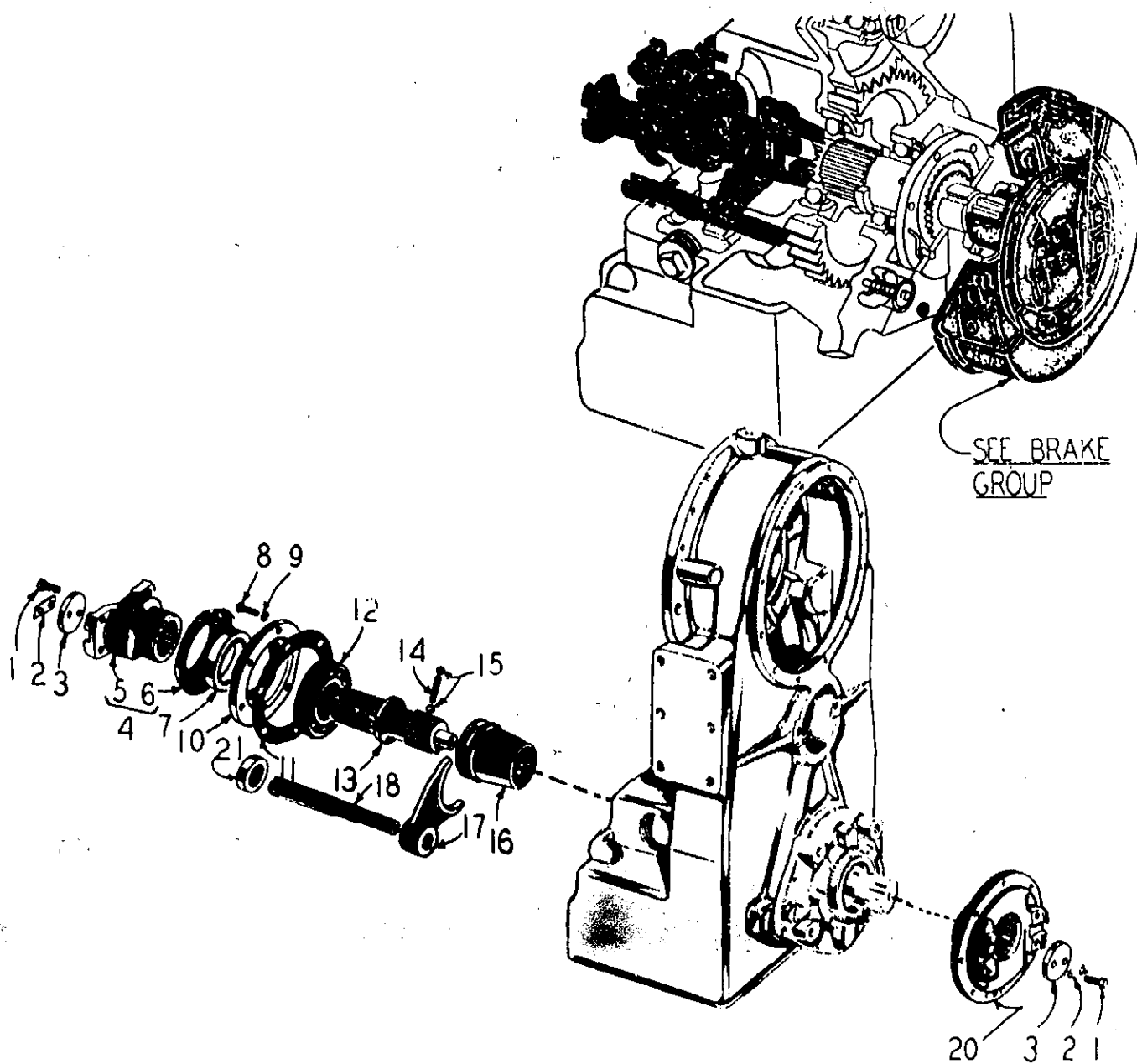


Figure 16
TORQMATIC DRIVE-OUTPUT SHAFT, DISCONNECT CLUTCH, FLANGES

**TORQMATIC DRIVE-OUTPUT SHAFT, DISCONNECT
CLUTCH, FLANGES**

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	131542	Bolt, 3/8" 24 x 1 1/8"	2		
2	131685	Strip, Locking	1		
3	131648	Washer, Flange Retainer	2		
4	135518	Flange Assembly, Output	1		
5		Flange, Output	1		
6		Shield, Dust	1		
7	178720	Seal, replaces 131589	1		
8	S-268	Bolt, 3/8" 16 x 1 1/4"	6		
9	WL-16	Washer, Lock 3/8"	6		
10	132585	Retainer, Bearing	1		
11	131673	Gasket, Bearing Retainer	1		
12	118046	Bearing Assembly, Single Row Ball	1		
13	131686	Shaft, Output	1		
14	131692	Spring, Disconnect Clutch Detent	1		
15	131526	Ball, Disconnect Clutch Detent, 3/8"	2		
16	131687	Coupling, Disconnect Clutch	1		
17	131575	Seal, Shifting Fork Shaft	1		
18	187211	Shaft, Shifter Shaft, replaces 131676	1		
19	187210	Fork, Shifter, replaces 131688	1		
20	P-124	Flange, Brake Mounting, See Drive Shaft Group	1		
		Plug, 1 1/2" Pipe	1		

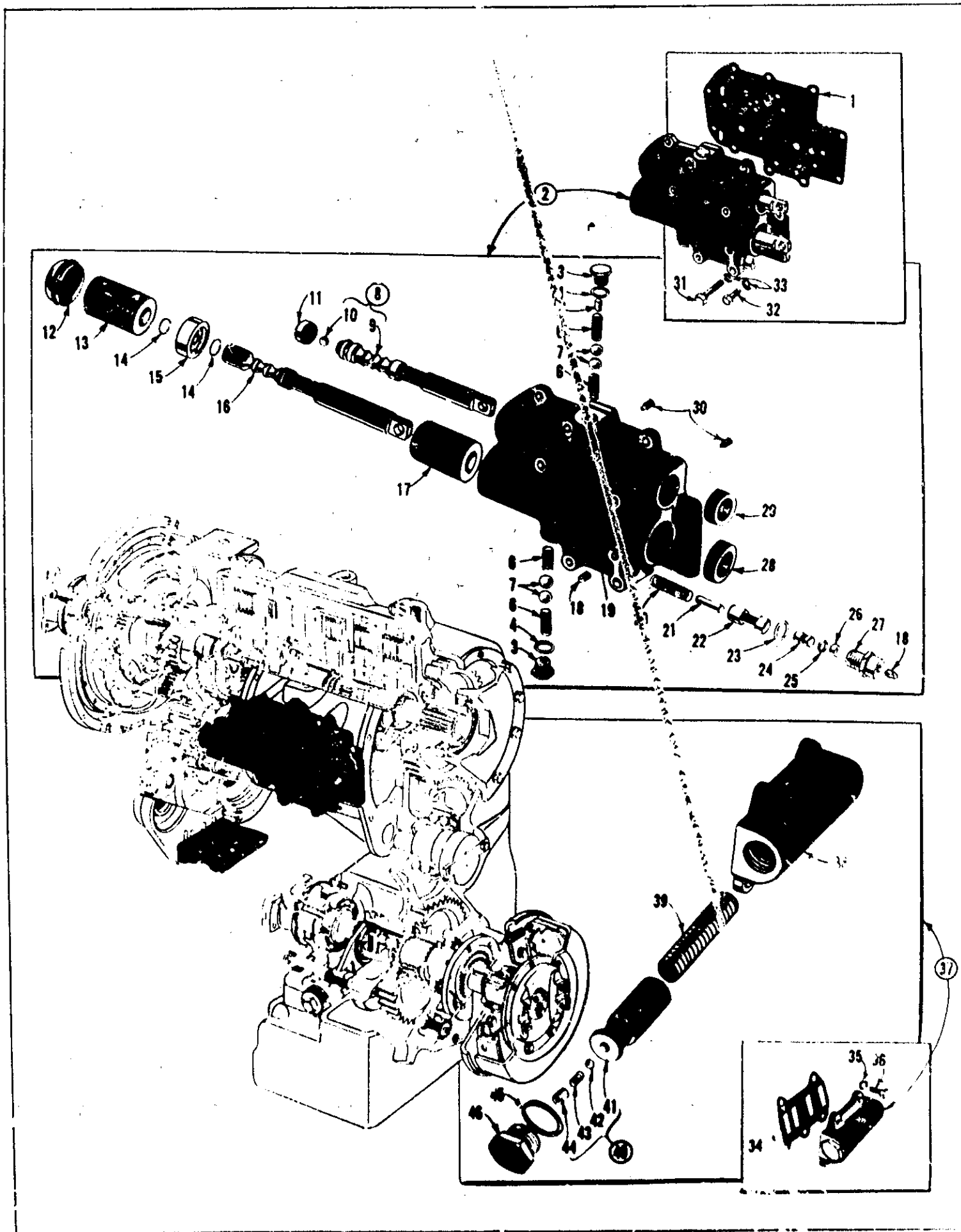
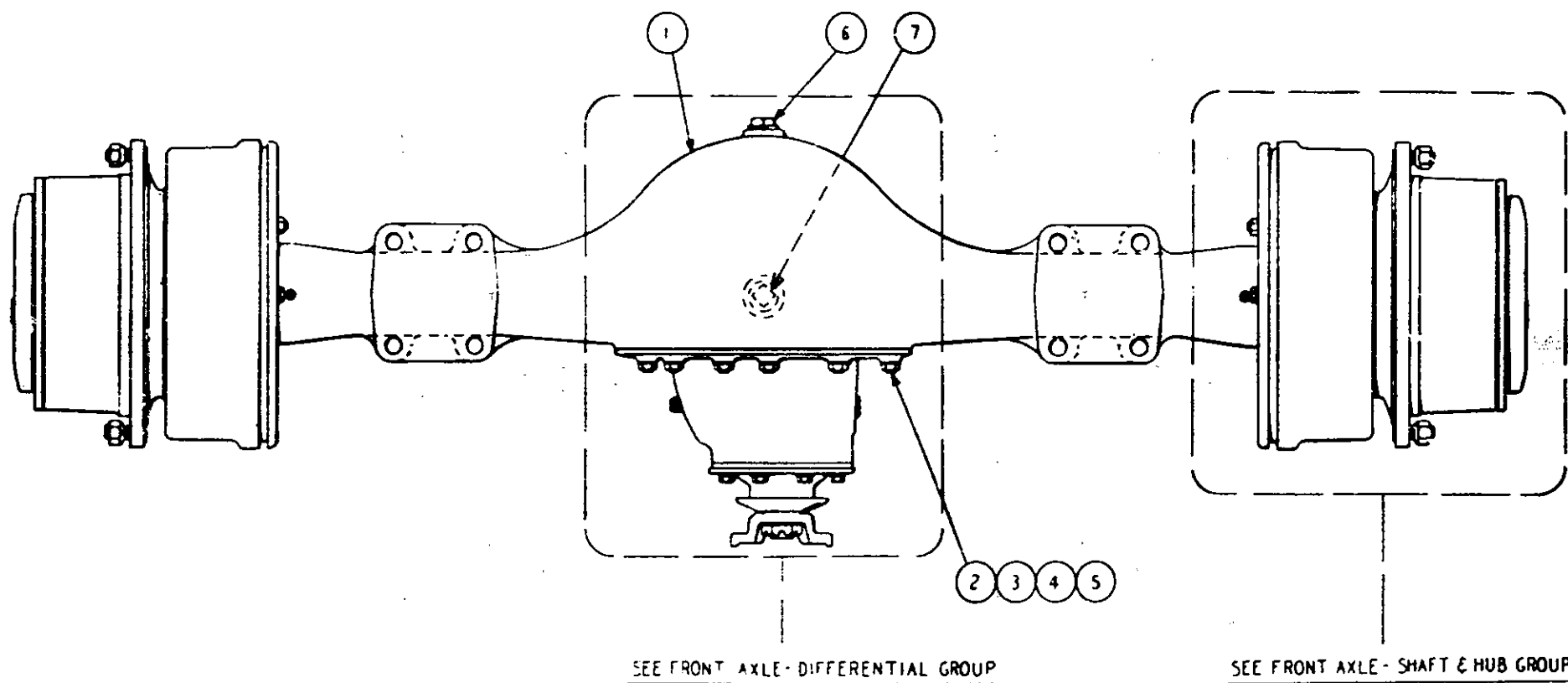


Fig. 17
TORQMATIC DRIVE - VALVE BODY GROUP

TORQMATIC DRIVE - VALVE BODY GROUP
Used on machines with S/N 22E-1488 thru 1527 and 23E-1401
thru 1477-80-81

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	140050	Gasket, Selector Valve Body	1		
2	140066	Body Assembly, Selector Valve	1		
3	131569	Plug	2		
4	145857	Gasket, Annular, replaces 131521	2		
5	131585	Pin	1		
6	131576	Spring	4		
7	131527	Ball	4		
8	131703	Valve Assembly, Range Selector	1		
9		Valve, Range Selector (Serviced in Assembly Only) ..	1		
10	131526	Ball	1		
11	131616	Plug	1		
12	131552	Plug	1		
13	131699	Sleeve, Reverse Shift	1		
14	131584	Ring, Snap	2		
15	131701	Piston, Forward & Reverse Valve	1		
16	131700	Valve, Forward & Reverse	1		
17	131702	Sleeve, Forward Shift	1		
18	P - 12	Plug, Pipe, 1/8"	2		
19	140049	Body	1		
20	131693	Spring	1		
21	131517	Pin, 3/8" x 1 3/8"	1		
22	131715	Valve, Clutch Cutoff	1		
23	131520	Gasket, Annular, 7/8"	1		
24	131716	Plug, Clutch Cutoff Valve	1		
25	131583	Ring, Seal	1		
26	131717	Cup, Clutch Cutoff Valve Piston	1		
27	131718	Plug, Cutoff Valve Retainer	1		
	151427	Spring	1		
28	131704	Seal	1		
29	131575	Seal	1		
30	131519	Screw, Hexagon Socket Head, 3/8" 16 x 3/4"	2		
31	131538	Bolt, 3/8" 16 x 3"	5		
32	131534	Bolt, 3/8" 16 x 1 1/4"	6		
33	131512	Washer, Lock 3/8"	11		
34	131655	Gasket, Pressure Regulator Body	1		
35	131512	Washer, Lock 3/8"	5		
36	131534	Bolt, 3/8" 16 x 1 1/4"	5		
37	140065	Body Assembly, Pressure Regulator Valve	1		
38	140037	Body, Pressure Regulator Valve	1		
39	131720112	Spring, replaces 131720	1		
40	131736113	Valve Assembly, Main Pressure Regulator	1		
41		Valve, Main Pressure Regulator	1		
42		Ball	1		
43		Spring	1		
44		Retainer, Dash Pot Spring	1		
45	131523	Gasket	1		
46	131618	Plug	1		



FRONT DRIVE AXLE - HOUSING

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	140536	Front Drive Axle	1		
	148434	Front Drive Axle	1	23E-1831	& Up
1	136018	Housing, Includes Items 2, 3, 6	1		
2	132783	Stud, Carrier to Housing, Short	10		
3	135993	Stud, Carrier to Housing, Long	4		
4	WL-110	Lockwasher	14		
5	H-110	Nut	14		
6	P-120	Plug, Oil Filler Hole	1		
7	P-220	Plug, Oil Drain	1		
	116584	Oil Breather, Axle	3		

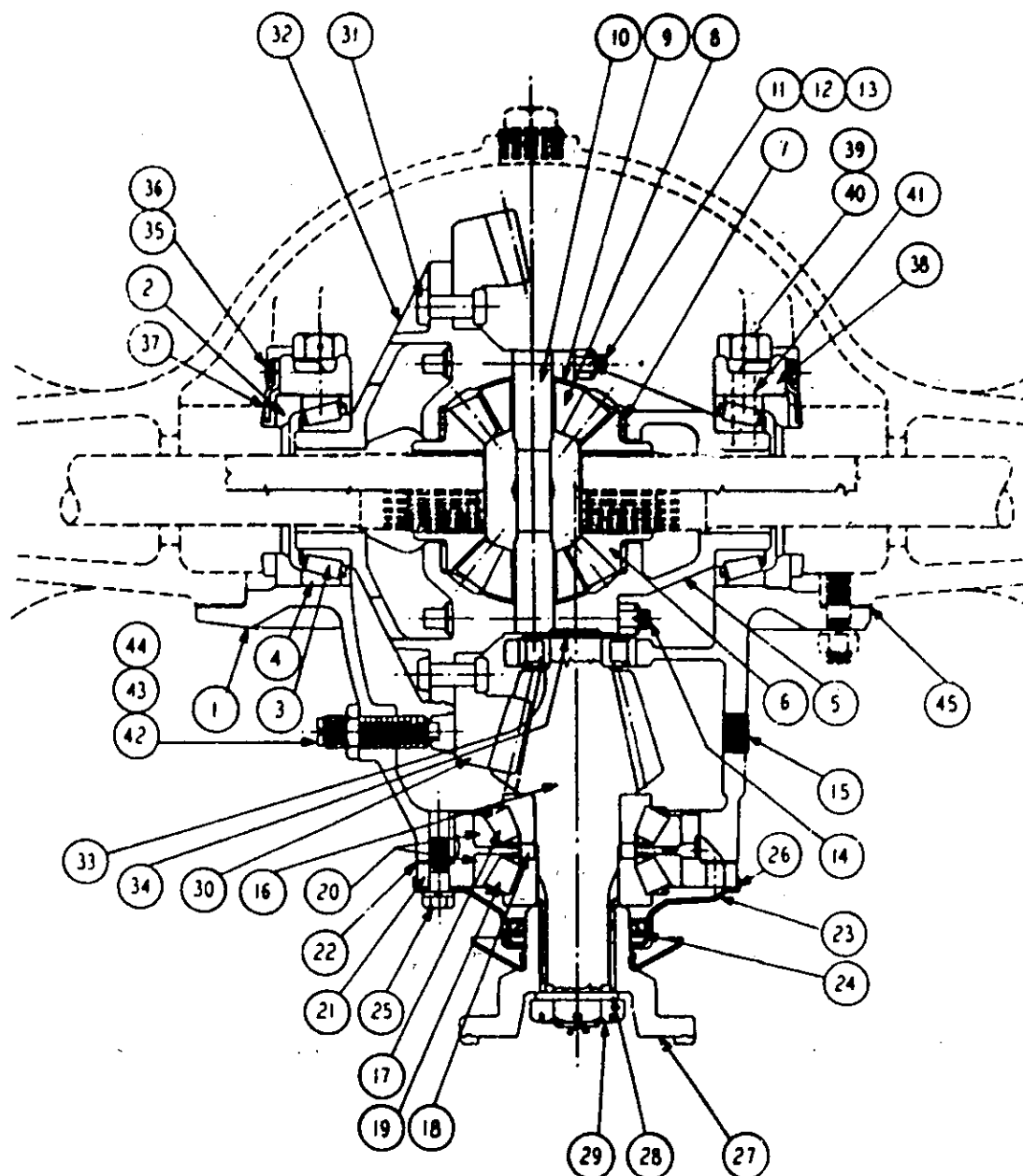


Figure 25
FRONT AXLE-DIFFERENTIAL

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	136290	Differential Carrier Assembly	1		
	136296	Differential Case Assembly, Includes Items 5, 11, 12, 13, 14 and 32	1		
	136294	Differential and Cone Assembly, Includes 136296 and Items 3 and 6 thru 10	1		
	137000	Gear, Pinion and Bearing Assembly, Includes 16, 30 and 33	1		

FRONT AXLE-DIFFERENTIAL (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	132913	Differential Carrier and Cap Assembly, Includes Items 38, 40 and 41	1		
2	132912	Ring, Differential Bearing Adjusting	2		
3	132863	Cone, Differential Bearing	2		
4	132862	Cup, Differential Bearing	2		
5		Case, Differential (Plain Half) Order 136296	1		
6	132911	Gear, Differential Side	2		
7	132892	Washer, Thrust Differential Side Gear	2		
8	132910	Pinion, Differential	4		
9	132893	Washer, Thrust Differential Pinion	4		
10	132929	Spider, Differential	1		
11	136276	Bolt, Case Differential, Short	4		
12	H - 78	Nut, Case Bolt	12		
13	LW-1612	Lockwire	2		
14	136275	Bolt, Case Differential, Long	8		
15	P-212	Plug, Filler and Oil Level Hole	1		
16		Drive Pinion, Order Gear & Pinion Assembly 137000 ..	1		
	136292	Pinion, Forward Bearing Cage, Bearing & Spacer Assembly - Includes Items 17, 18, 19 and 21	1		
17	136299	Cone, Inner	1		
18	136278	Spacer .220			
	136279	Spacer .221			
	136280	Spacer .222			
	136281	Spacer .223			
	136282	Spacer .224			
	136283	Spacer .225			
	136284	Spacer .231			
	136285	Spacer .237			
	136286	Spacer .243			
	136287	Spacer .249			
	136288	Spacer .255			
19	132864	Cone, Outer	1		
20	132866	Cup	2		
21	136291	Pinion Fwd. Brg. Cage & Cup Assy. - Incl. Item 20 ..	1		
22	132902	Shim .005	1		
	132903	Shim .010	1		
	132901	Shim .003	1		
23	136297	Cover & Oil Seal Assembly, Includes Item 24	1		
24	136277	Oil Seal Assembly	1		
25	S-2812-8	Capscrew, Forward Bearing Cage	8		
	104607	Lockwasher	8		
26	137058	Gasket, Pinion Bearing Cage and Cover	1		
27		Yoke, Companion, See Drive Shaft Group	1		
28	132894	Washer	1		
29	132885	Nut	1		
	CP-418	Cotter	1		
30		Drive Gear, Order Gear & Pinion Assembly 137000 ..	1		
31	132871	Rivet, Drive Gear to Case Diff. Flange Half	12		
32		Case Differential Flange Half-Order 136296	1		
33	137001	Bearing, Drive Pinion Rear	1		
34	136999	Lock Ring, Bearing Drive Pinion Rear	1		
35	132780	Capscrew, Ring Lock	4		
36	LW-166	Lockwire, Bearing Adj. Ring Capscrew	2		
37	132900	Lock, Bearing Adj. Ring	2		
38		Cap, Bearing, Order Item 1	2		
39	LW-1615	Lockwire, Bearing Cap Capscrew	2		
40	132876	Capscrew, Bearing Cap	4		
	161368	Washer	4		
41	132793	Dowel, Bearing Cap	4		
42	132804	Block, Thrust	1		
43	132787	Nut, Thrust Block Adj. Screw	1		
44	132786	Screw, Thrust Block, Adj.	1		
45	132908	Gasket, Carrier to Housing	1		

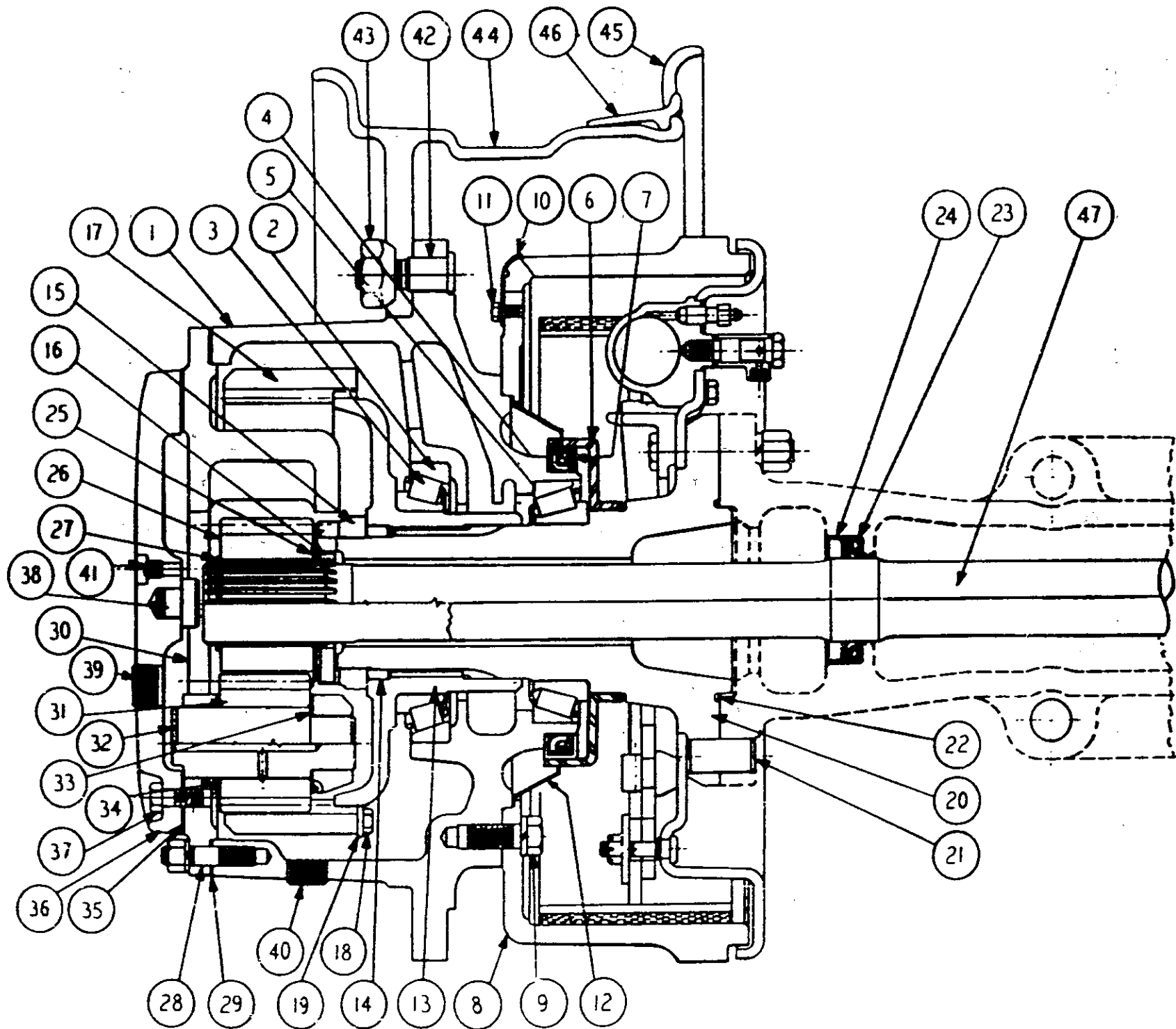


FIG. 26
FRONT AXLE - SHAFT AND HUB GROUP

FRONT AXLE - SHAFT AND HUB GROUP

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	139807	Hub and Cup Assembly - Incl. Items 2 and 4	2	22E-1488	1830
1	146994	Hub and Cup Assembly - Incl. Items 2 and 4	2	23E-1401	1830
2	136032	Cup, Hub Bearing, Outer	2	22E-1831	& Up
3	136031	Cone, Hub Bearing, Outer	2	23E-1831	& Up
4	136030	Cup, Hub Bearing, Inner	2		
5	109309	Cone, Hub Bearing, Inner	2		
6	143203H2	Retainer, Hub Oil Seal	2		
7	136233H2	Oil Seal, Hub Bearing	2		
8	149448	Brake Drum	2		
9	S-21012-D8	Capscrew, Drum to Hub	20		
	138552	Lockwasher	20		
10	109380	Cover, Brake Insp.	2		
11	108011	Capscrew, Inspec. Cover ..	2		
	104663	Lockwasher	2		
12	136251	Oil Slinger	2		
13	136026	Hub, Planetary Ring Gear, Incl. Item 14	2		
14	136011	Sleeve, Planetary Ring Gear Hub	2		
15	136004	Nut, Hub Planetary Ring Gear	2		
16	136013	Lock, Hub Nut	4		
17	136023	Gear, Planetary Ring	2		
18	S-266-D8	Capscrew, Planetary Ring Gear	16		
19	136003	Lock, Planetary Ring Gear	8		
	LW-166	Lockwire, Planetary Ring Gear Capscrew	8		
20	149447	Spindle, Wheel Bearing, replaces 136027	2	23E-1831	& Up
21	136008	Dowel	4	Prior to	1831
22	OR3-26	Seal	2		
	S-11028-8	Bolt	28		
	158183	Nut	28		
	141842	Washer	28		
	135989	Nut	16		
	109342	Lockwasher	16		
23	136002	Oil Seal, Housing Axle Shaft	2		
24	160695	Retainer, Oil Seal	2		
25	136005	Washer, Sun Gear	2		
26	136024	Sun Gear, Planetary	2		
27	136010	Snap Ring	2		
28	137776	Capscrew	32		
	WL-18	Lockwasher	32		
29	183214	Gasket, Spider to Hub	2		
30	144029	Spider Planetary Gear, replaces 136028	2	23E-1831	& Up
31	136025	Pinion, Planetary	6		
32	136022	Shaft, Pinion Gear	6		
33	136006	Washer, Planetary Pinion Thrust, Outer	6		
34	198031	Washer, Planetary Pinion Thrust, Inner	6		
35	136016	Gasket, Planetary Gear Spider Cover	2		
36	144024	Cover, Planetary Gear Spider, Includes Item 38	2		
37	135995	Capscrew, Cover	16		
38	136012	Thrust, Button	2		
39	P-24	Plug, Planetary Drive Oil Filter	2		
40	136009	Plug, Planetary Drive Oil Drain	2		
41	136014	Relief Fitting	2		
42	135996	Wheel Stud	24		
43	102430	Wheel Nut	24		
44	138542	Wheel	2		
45	138546	Side Ring	2		
46	138547	Lock Ring	2		
47	136019	Shaft, Axle Drive	2		
		Tire, 16.00 x 24 - 12 Ply Ground Grip Road Builder			
		Tube-16.00 x 24 with TR-220 Valve Flap 16.00 x 24			
		Note: Tires & tubes are not furnished on replacement orders by The Frank G. Hough Co. Buy locally.			

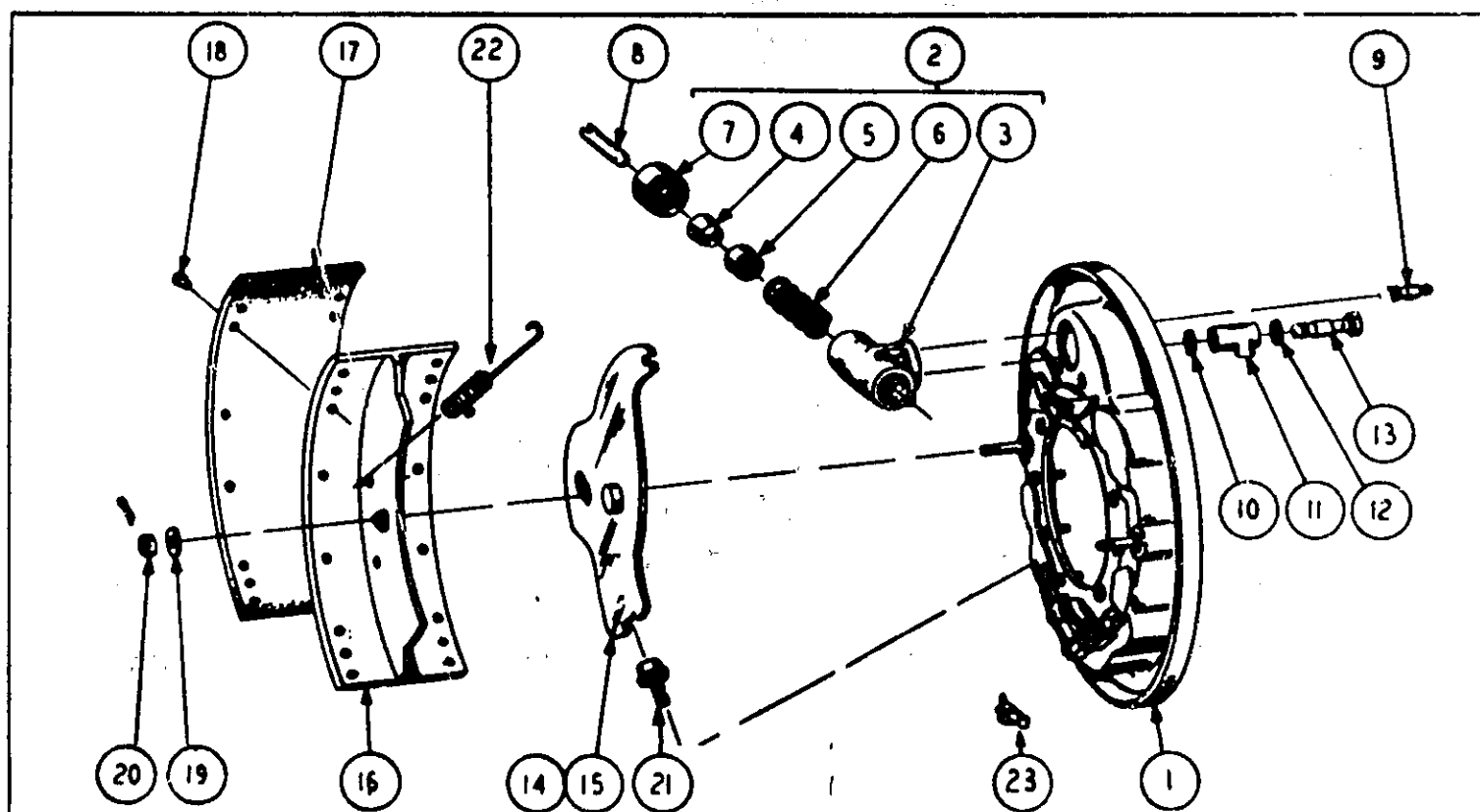


Fig. 27
FRONT AXLE - BRAKE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		SEE BRAKE KIT - OPPOSITE PAGE			
1	140238	Brake Assembly - Includes the Following	2		
	140193	Back Plate Assembly, Includes Item 21 and Guide Pin & Mounting Bolts	2		
	139673	Guide Pin	4		
	138860	Mounting Bolt	12		
	138861	Mounting Bolt	4		
2	105750	Wheel Cylinder Assembly, Includes Items 3 thru 7 ...	2		
	107587	Repair Kit, Wheel Cylinder, Includes Items 5 & 7 ...			
3		Casting, Cylinder (Order Item 2)	2		
4	109538	Piston	4		
5	109539	Cup	4		
6	109540	Spring	2		
7	109541	Boot	4		
8	135998	Push Rod	4		
9	132669	Bleeder Screw	2		
10	HA-884	Gasket	2		
11	132887	Inlet Connection	2		
12	HA-883	Gasket	2		
13	107589	Bolt	2		
14	132789	Lever Assembly, L.H. Forward, R.H. Rear	2		
15	132790	Lever Assembly, L.H. Rear, R.H. Forward	2		
16	145870	Shoe & Lining Assembly, Includes Items 17 & 18 replaced #140632	4		
17	146359	Lining	4		
18	109322	Rivets	64		
19	141497	Washer	4		
20	H - 58	Nut	4		
	CP-49	Cotter	4		
21	132796	Adjusting Screw	4		
22	132806	Spring	4		
23	132898	Dust Cover, Brake Adjusting Slot	4		
	108115	Capscrew, Cylinder Mounting	4		
	104626	Lockwasher	4		
	139673	Bolt, Brake Guide Pin	4		

FIG. 27A
FRONT AXLE - BRAKE KIT

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
*	151826	Brake Kit, Includes the Following	1	22E-1488	22E-1830
1	151962	Spider Assembly, Includes Items 2 thru 8	2	23E-1401	23E-1830
2	157457	Pin, Anchor Brake	4		
	157451	Snap Ring	4		
3	150177	Pin, Brake Shoe Guide	4		
4	150093	Pin, Brake Shoe Adjusting Cam	4		
5	121725	Washer, Brake Shoe Adjusting Cam	4		
6	150179	Spring, Brake Shoe Adjusting Cam	4		
7	116278	Cam, Brake Shoe Adjusting	4		
8	150180	Seal, Brake Drum	2		
9	150099	Washer	16		
10	150100	Spring	8		
11	150101	"C" Washer	8		
12	150098	Link	2		
13	124242	"C" Washer	4		
14	150102	Spring, Brake Shoe Return	2		
15	149448	Drum, Brake	2		
	S-269-8	Capscrew	4		
	WL-16	Lockwasher	4		
16	152871	Brake Shoe Assembly, Includes Items 17 thru 20	4		
17	153322	Lining	4		
18	121083	Rivet	64		
19	149994	Bushing	4		
20	149995	Pin, Stop	4		
21	151963	Wheel Cylinder Assembly	2		
	107587	Repair Kit, Wheel Cylinder	1		
	S-11028-8	Bolt	16		
	158183	Nut	16		
	141842	Washer	16		
		* This kit will convert "DH" type brakes (self-aligning floating shoe) to "H" type brake (Anchor pins on lower end of brake shoes.) To make available a better service brake to over come possible brake failures on HO machines in the field, and replaces brake groups, 136829 (DH16-27), 140238 (DH16-54) and 146358 (DH16-67), plus the brake drum and seal used in production of the PR-200 Series Axles 132841, 138851, and 140536.			

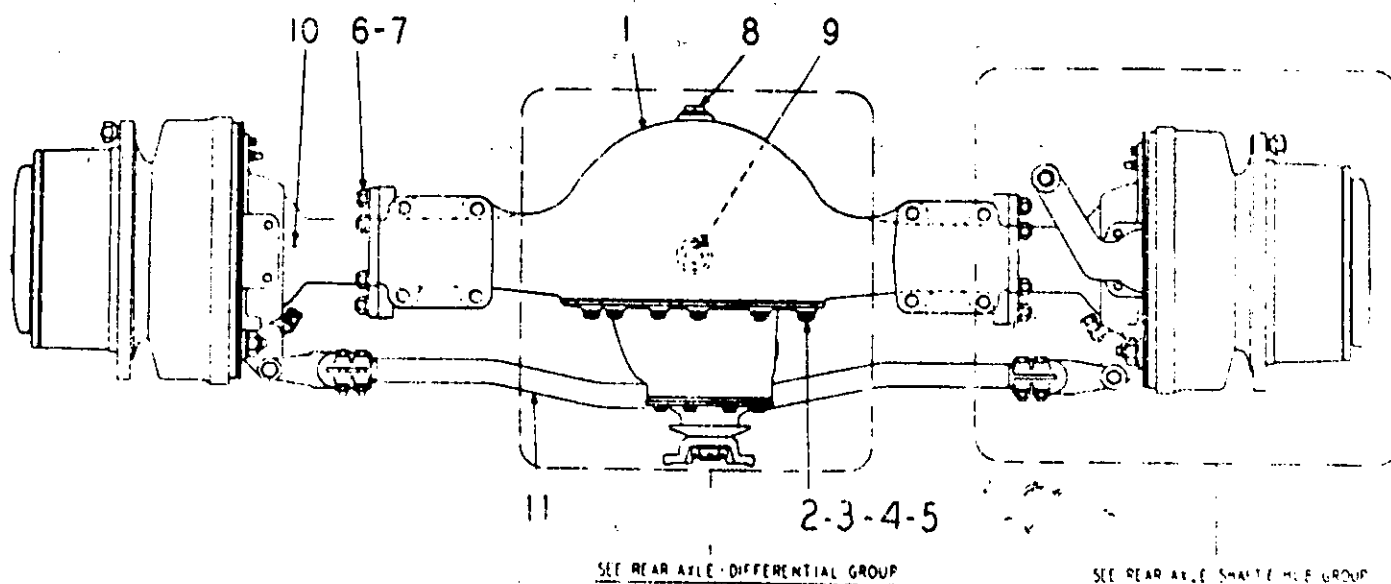


Fig. 31A
REAR STEERING-AXLE-HOUSING

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	140562	Rear Steering Axle, Planetary replaces 138852 Axle	1	22E-1840 23E-1840	& Up & Up
1	136244	Housing, Includes Items 2, 3, 6, 9 and 10	1		
2	132783	Stud, Carrier to Housing, Short	10		
3	135993	Stud, Carrier to Housing, Long	4		
4	WL-110	Lockwasher	14		
5	H-110	Nut	14		
6	141405	Stud, Trunion Socket to Housing, replaces 136230	16		
7	141407	Nut, replaces 136228	16		
8	P-120	Plug, Oil Filler Hole	1		
9	P-220	Plug, Oil Drain	1		
10	109427	Plug, Trunion Socket Grease	2		
11	116363	Tie Rod	1		
	116584	Oil Breather, Axle Housing, replaces 109313	1		
	WL-18	Lockwasher, Tie Rod	8		

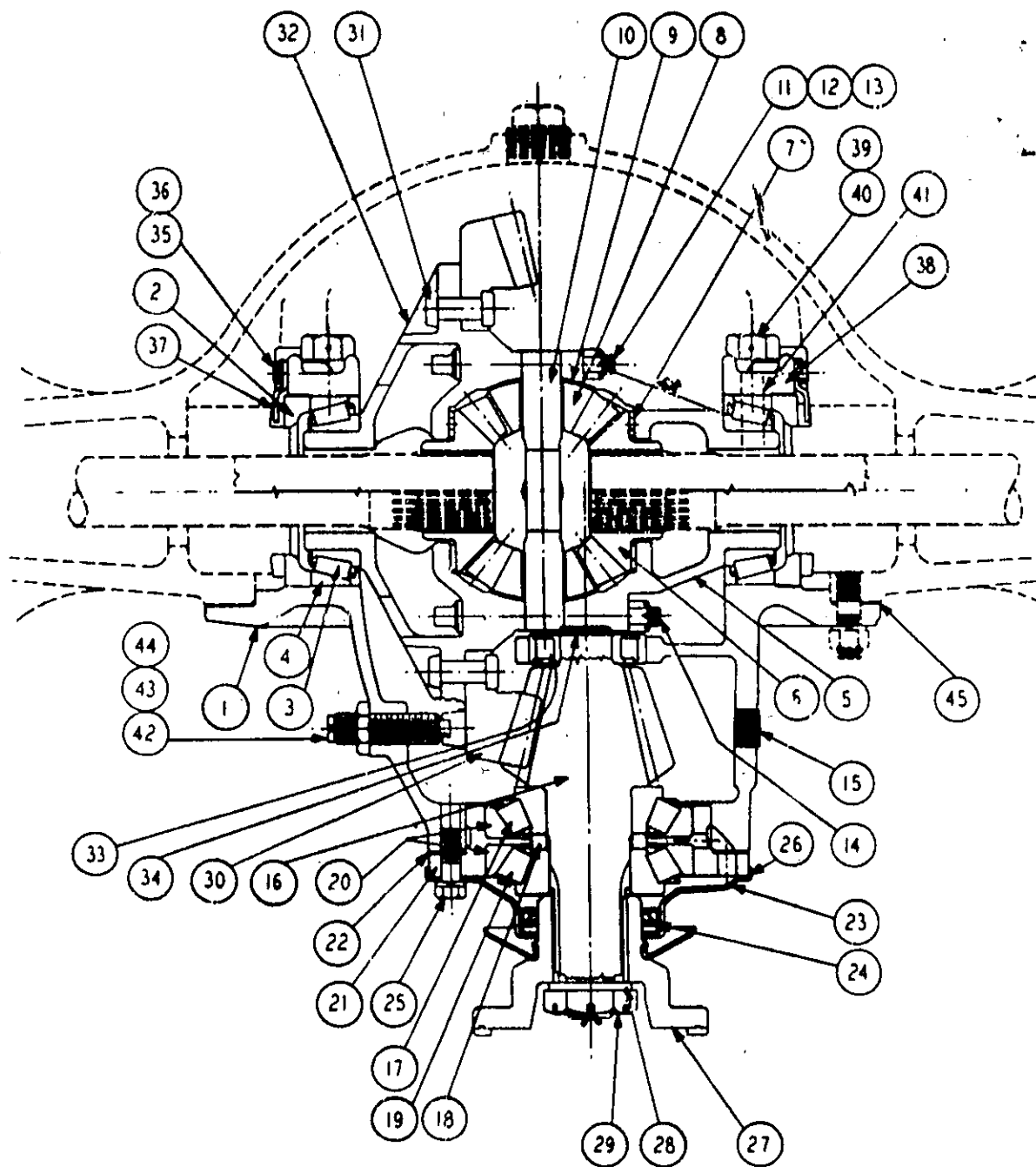


Fig. 29
REAR AXLE - DIFFERENTIAL

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	136290	Differential Carrier Assembly	1		
	136296	Differential Case Assembly - Includes Items 5, 11, 12, 13, 14 and 32	1		
	136294	Differential and Cone Assembly - Includes 136296 and Items 3 and 6 thru 10.	1		
	137000	Gear, Pinion and Bearing Assembly - Includes Items 16, 30 and 33.	1		

Always give the "Payloador" Serial Number with the Part Number and Name of Items needed when ordering Repair Parts.

REAR AXLE - DIFFERENTIAL (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	132913	Differential Carrier & Cap Assembly, Includes			
		Items 38, 40 and 41	1		
2	132912	Ring, Differential Bearing Adjusting	2		
3	132863	Cone, Differential Bearing	2		
4	132862	Cup, Differential Bearing	2		
5		Case, Differential (Plain Half) Order 136296	1		
6	132911	Gear, Differential Side	2		
7	132892	Washer, Thrust Differential Side Gear	2		
8	132910	Pinion, Differential	4		
9	132893	Washer, Thrust Differential Pinion	4		
10	132929	Spider, Differential	1		
11	136276	Bolt, Case Differential, Short	4		
12	H - 78	Nut, Case Bolt	12		
13	LW-1612	Lockwire	4		
14	136275	Bolt, Case Differential, Long	8		
15	P-212	Plug, Filler and Oil Level	1		
16		Drive Pinion, Order Gear & Pinion Assembly 137000.	1		
	136292	Pinion Forward Bearing Cage, Bearing and Spacer Assembly, Incl. Items 17, 18, 19 and 21	1		
17	136299	Cone, Inner	1		
18	136278	Spacer .220			
	136279	Spacer .221			
	136280	Spacer .222			
	136281	Spacer .223			
	136282	Spacer .224			
	136283	Spacer .225			
	136284	Spacer .231			
	136285	Spacer .237			
	136286	Spacer .243			
	136287	Spacer .249			
	136288	Spacer .255			
19	132864	Cone, Outer	1		
20	132866	Cup	2		
21	136291	Pinion, Fwd. Brg. Cage & Cup Ass'y, Incl. Item 20.	1		
22	132902	Shim .005	1		
	132903	Shim .010	1		
	132904	Shim .020	1		
	132901	Shim .003	1		
23	136297	Cover & Oil Seal Assembly, Incl. Item 24	1		
24	136277	Oil Seal Assembly	1		
25	S-2812-8	Capscrew, Forward Bearing Cage	8		
26	137058	Gasket, Pinion Bearing Cage & Cover	1		
27		Yoke, Companion, See Drive Shaft Group	1		
28	132894	Washer	1		
29	132885	Nut	1		
	CP-418	Cotter	1		
30		Drive Gear, Order Gear & Pinion Ass'y 137000	1		
31	132871	Rivet, Drive Gear to Case Differential Flange Half	12		
32		Case Differential Flange Half, Order 136296	1		
33	137001	Bearing, Drive Pinion Rear	1		
34	136999	Lock Ring, Bearing Drive Pinion Rear	1		
35	132780	Capscrew, Ring Lock	4		
36	LW-166	Lockwire, Bearing Adjusting Ring Capscrew	2		
37	132900	Lock, Bearing Adjusting Ring	2		
38		Cap, Bearing, Order Item 1	2		
39	LW-1615	Lockwire, Bearing Cap Capscrew	2		
40	132876	Capscrew, Bearing Cap	4		
41	132793	Dowel, Bearing Cap	4		
42	132804	Block, Thrust	1		
43	132787	Nut, Thrust Block Adjusting Screw	1		
44	132786	Screw, Thrust Block Adjusting	1		
45	132908	Gasket Carrier to Housing	1		
	161368	Washer, Special	4		

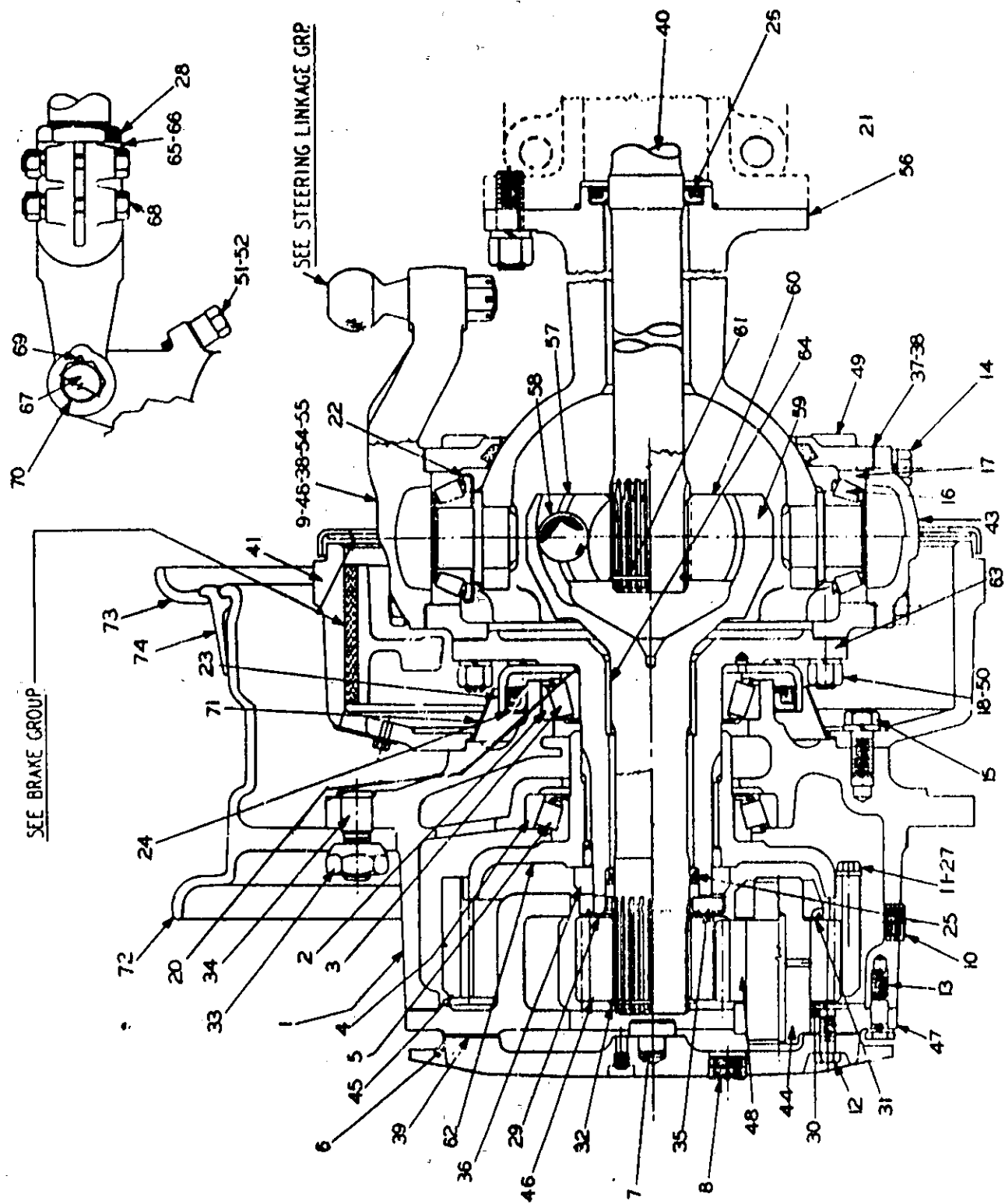


Fig. 30
 REAR AXLE - SHAFT & HUB GROUP

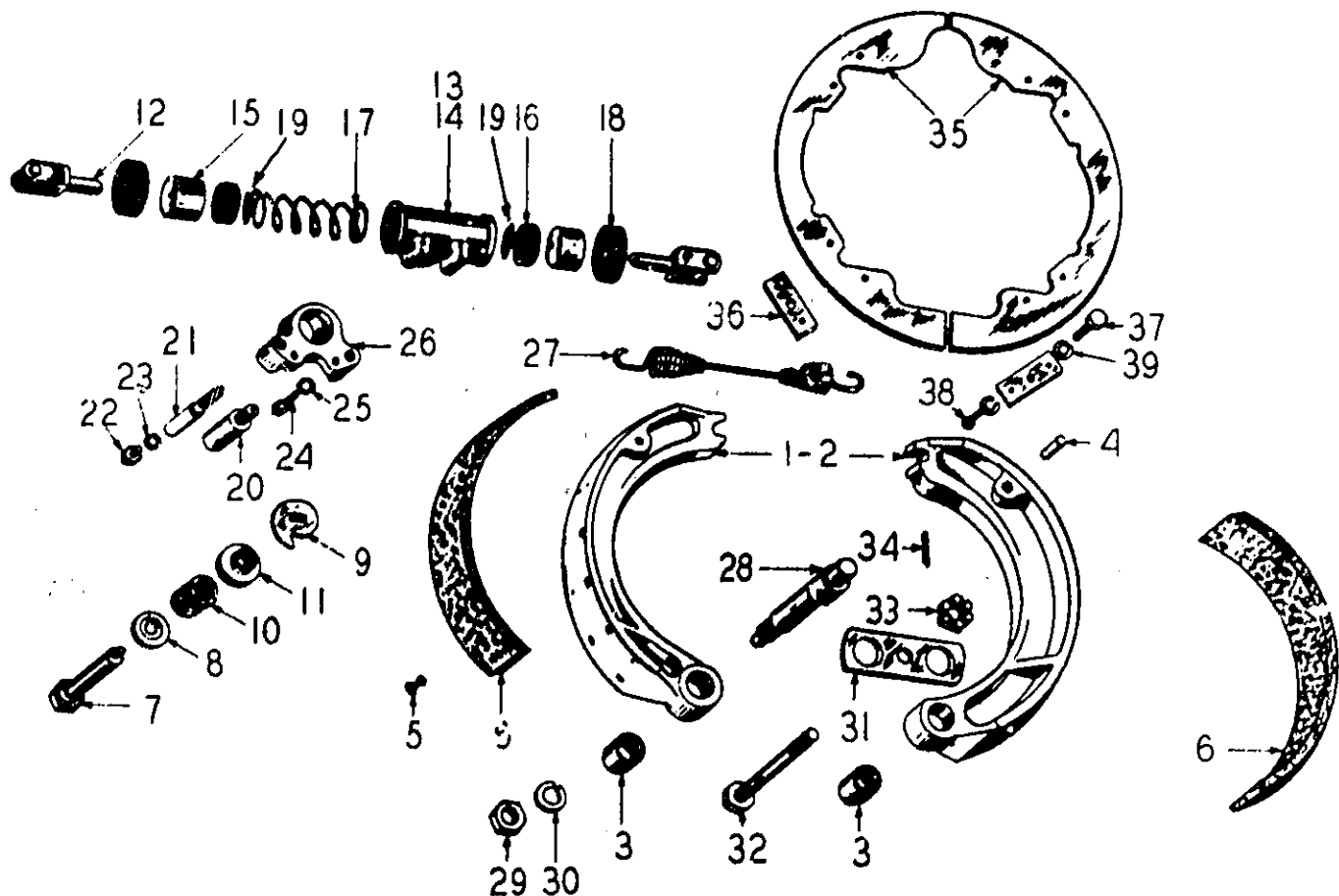
REAR AXLE SHAFT AND HUB GROUP

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	146994	Hub and Cup Assembly, Includes Items 2 & 4	2		
2	136030	Cup, Hub Bearing, Inner	2		
3	148525	Cone, Hub Bearing, Inner	2		
4	136032	Cup, Hub Bearing, Outer	2		
5	136031	Cone, Hub Bearing, Outer	2		
6	144024	Cover & Thrust Button Assembly, Incl. Item 7	2		
7	136012	Button, Drive Joint Thrust	2		
	P - 32	Plug, Planetary Cover	2		
8	P - 24	Plug, Planetary Drive Oil Filler	2		
9	138817	Steering Arm	2		
	LW-166	Lockwire, Ring Gear Capscrew	8		
	H-110	Nut, Steering Arm Stud	2		
10	136009	Plug Planetary Drive Oil Drain	2		
11	S-266-D8	Capscrew, Planetary Ring Gear	16		
12	S-279-8	Capscrew, Planetary Spider Cover	16		
	WL-17	Lockwasher	16		
13	S-2813-8	Capscrew, Planetary Spider to Hub	32		
14	S-21012-8	Capscrew, Steering Bearing Cap	12		
15	152163	Capscrew, Brake Drum to Hub	20		
	LW-1650	Lockwire, Brake Drum Capscrew	2		
	WL-18	Lockwasher, Flange, Clamp, Spider	48		
	WL-116	Lockwasher, Strg. Arm Stud & Brg. Cap Capscrew ..	16		
16	104559	Cone, Steering Bearing	4		
17	109310	Cup, Steering Bearing	4		
18	141933	Nut, Steering Knuckle Stud	24		
19	109376	Dowel, Steering Arm Stud	2		
20	OR3-47	Seal, Hub Oil Seal Retainer	2		
21	OR3-18	Seal, Trunnion Socket and Housing	2		
	109356	Nut, Top Strg. Brg. Cap Outer Stud	2		
22	109379	Retainer, Upper Strg. Bearing Grease	2		
23	148522	Retainer, Hub, Oil Seal Assembly, Incl. Item 24	2		
24	136233H2	Oil Seal, Hub Bearing	2		
25	136234	Oil Seal, Drive Joint	2		
26	HS-282	Oil Seal, Axle Shaft	2		
27	136003	Lock, Planetary Ring Gear	8		
28	109385	Nut, Tie Rod Lock	1		
29	136005	Washer, Planetary Sun Gear	2		
30	136006	Washer, Planetary Pinion Thrust, Outer	6		
31	198031	Washer, Planetary Pinion Thrust, Inner	6		
	149445	Washer, Socket Oil Seal Retainer	2		
32	136239	Snap Ring, Drive Joint Retainer	2		
	149446	Snap Ring, Socket Oil Seal Retainer	2		
33	102430	Wheel Nut	24		
	148528	Washer, Steering Knuckle Stud	24		
34	135996	Stud, Wheel Nut	24		
35	136013	Lock, Hub Bearing Nut	4		
36	136004	Nut, Hub Bearing	2		
37	109469	Shim, Steering Bearing Cap, Thin	20		
38	109470	Shim, Steering Bearing Cap, Thick	4		
	183214	"O" Ring, Planetary Gear Spider to Hub	2		
39	136016	Gasket, Planetary Spider Cover	2		
40	136245	Shaft, Axle Drive	2		
	147749	Washer, Axle Shaft Guide	2		
41	141538H2	Brake Drum	2		
42	109485	Cap, Steering R.H. Upper	1		
43	109486	Cap, Steering Bearing, Lower	2		
44	136022	Shaft, Planetary Pinion	6		
45	136023	Gear, Planetary Ring	2		
46	136024	Gear, Planetary Sun	2		
47	144029	Spider, Planetary Gear	2		
48	136025	Pinion, Planetary	6		
49	150175	Steering Knuckle Flange & Stud Assy. L.H. and R.H. Incl. items marked * & Items 7-11 in brake grp. ..	1		
*	S-2810-8	Capscrew, Steering Knuckle Flange	14		
*	116374	Bolt, Steering Knuckle Flange	4		

(Continued on following page)

REAR AXLE SHAFT AND HUE GROUP (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	* 109323	Nut, Steering Flange Bolt	4		
50	152138	Stud, Steering Knuckle to Flange	24		
51	109355	Screw, Steering Stop	2		
52	115917	Spacer, Steering Stop Screw	2		
53	109471	Shim, Steering Stop Screw	12		
54	136229	Stud, Steering Arm, Long	2		
55	109350	Stud, Steering Arm, Short	2		
56	141539	Socket, Trunion Assembly	2		
	149444	Oil Seal, Trunion Socket	2		
	136250H2	Universal Joint Cage Assembly, Includes Items 57 thru 61	2		
57	136242	Cage	2		
58	136241	Ball	12		
59	143541H2	Race, Outer	2		
60	136240	Race, Inner	2		
61	136010	Snap Ring, Axle Shaft Retainer	2		
62	136026	Hub, Planetary Ring Gear Assembly	2		
63	148521	Steering Knuckle & Bushing Assembly, Inc. Item 64	2		
64	136237	Bushing			
65	109495	Yoke, Tie Rod (12 Thd.)	1		
66	109494	Yoke, Tie Rod (16 Thd.)	1		
67	109354	Bolt, Tie Rod Yoke	2		
	109384	Nut, Tie Rod Yoke Bolt	2		
	CP-412	Cotter, Tie Rod Yoke Bolt	2		
68	S-1822-8	Bolt, Tie Rod Yoke Clamp	4		
	H - 18	Nut, Tie Rod Yoke Clamp Bolt	4		
69	109377	Pin, Tie Rod Yoke Lock	2		
70	* 109386	Bushing, Yoke Bolt	2		
71	136251	Oil Slinger	1		
		Tire, 16:00 x 24 - 12 Ply Grader (Goodyear Tubeless)	2		
	138550	Valve	2		
72	138548	"O" Ring	2		
72	138542	Wheel	2		
73	138546	Flange	2		
74	138547	Ring, Lock	2		
Order tires from local dealer.					



BRAKE GROUP - REAR AXLE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	150916H2	Shoe & Lining Assembly, L.H. Fwd. R.H., Rev. Incl. Items 3 thru 5, replaces 138812 Shoe & Lining Assembly	2	23E-1840 22E-1840	& Up & Up
2	150917H2	Shoe & Lining Assembly, R.H. Fwd. L.H., Rev. Incl. Items 3 thru 5, replaces 138814 Shoe & Lining Assembly	2	23E-1840 22E-1840	& Up & Up
3	120679	Bushing	2		
4	112277H2	Pin	4		
5	121083	Rivet	64		
6	161087	Brake Shoe Lining Kit, replaces 138810 Lining	1		

BRAKE GROUP - REAR AXLE (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
7	116287	Bolt, Brake Adjusting Cam	4		
8	121725	Washer, Adjusting Cam	4		
9	121725	Cam, Brake Shoe Adjusting	4		
10	116290	Spring, Adjusting Cam	4		
11	116289	Retainer, Adjusting Cam Spring	4		
12	140826	Link, Connecting	4		
13	138816	Wheel Cylinder Assembly, Includes Items 14 thru 18 .	2		
	166145	Repair Kit, Wheel Cylinder, Order Items 16 & 18 ...	AR		
14		Castings, Cylinder, Order Item 13	2		
15	104595	Piston	4		
16	104696	Cup	4		
17	138818	Spring	2		
18	109541	Boot	4		
19	151445	Filler	4		
20	121730	Extension, Inlet Fitting	2		
21	121731	Bleeder Screw	2		
22	S-144	Capscrew, Bleeder Screw	2		
23	WL-14	Lockwasher	2		
24	S-2816-8	Capscrew, Wheel Cylinder Steering Flange	4		
25	WL-16	Lockwasher	4		
26	174956	Adapter, Wheel Cylinder	4		
	174957	Capscrew, Wheel Cylinder to Adapter	4		
27	120689	Spring, Brake Shoe Return	2		
28	120683	Pin, Brake Shoe	4		
29	120675	Nut, Brake Shoe Pin	4		
30	WL-116	Lockwasher	4		
31	120680	Link, Brake Shoe	2		
32	151135	Bolt, Brake Shoe Link	2		
33	H - 78	Nut, Link Bolt	2		
34	CP-38	Cotter, Link Bolt	2		
35	138785	Shield, Brake Dust	2		
35	138786	Shield, Brake Dust	2		
36	120684	Plate, Dust Shield Mounting	4		
37	S-267	Capscrew, Shield Plate to Flange	4		
38	S-264	Capscrew, Dust Shield	12		
39	WL-16	Lockwasher, Capscrew	16		
	HL-3553	Inlet Fitting, Wheel Cylinder	2		
	HA-884	Gasket	4		