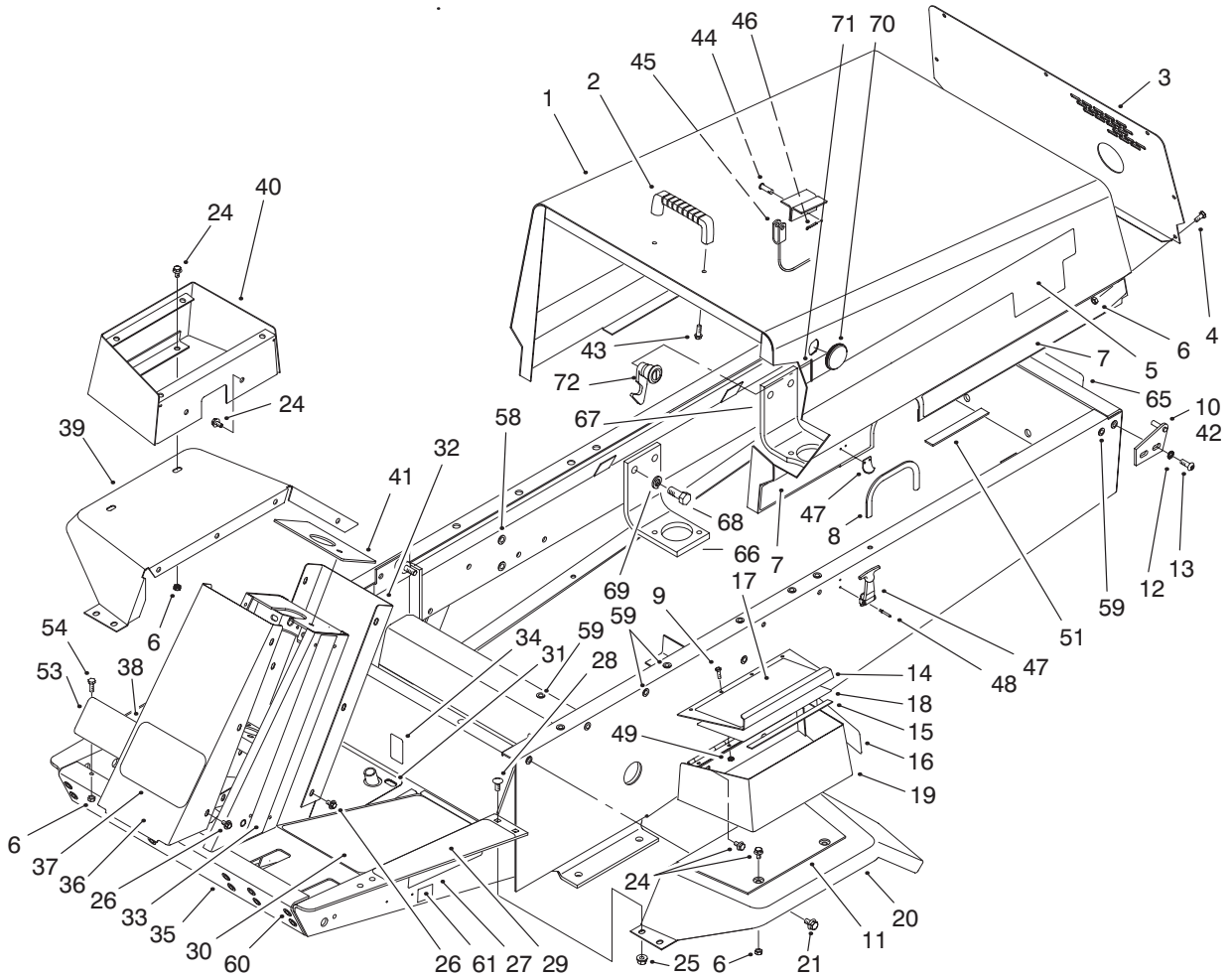




Model No. 30223-20000001 & Up

PARTS CATALOG

GROUNDMASTER® 223-D
TRACTION UNIT



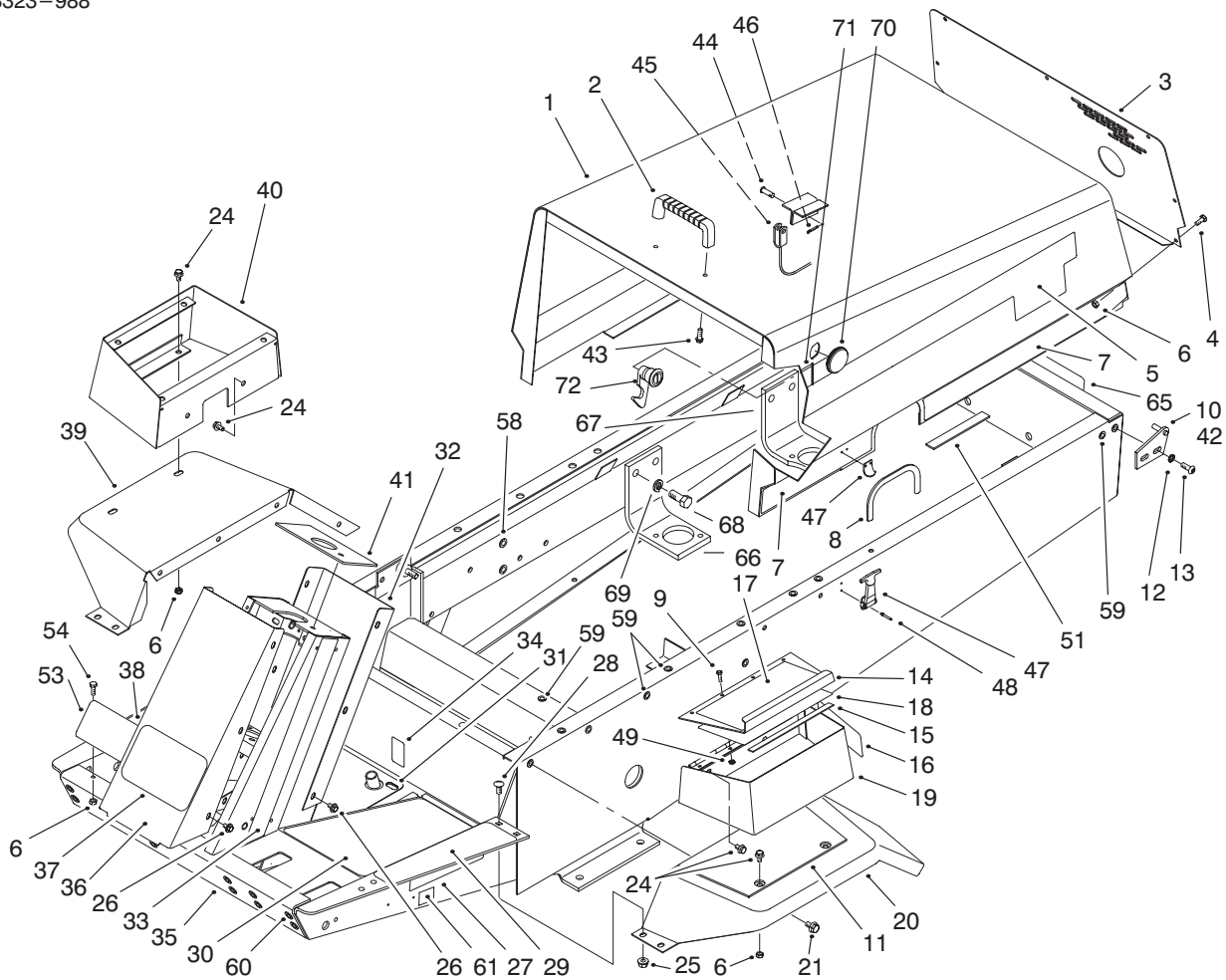
T-3449

Body Assembly

Ref. No.	Part No.	Description	No. Used
1	100-6571	Asm-Hood (Incl. Ref. #70, 71)	1
2	65-5100	Handle-Hood	1
3	63-7030	Screen-Hood	1
4	321-3	Screw-HH	7
5	93-3186	Decal-GM 223-D	2
6	32128-33	Nut-HFH	13
7	93-3193	Decal-Hood LH	1
*	93-3192	Decal-Hood RH	1
8	66-8110	Trim-Hood	1
9	3290-359	Screw-Machine	4
10	63-6900	Plate Hinge LH	1
11	76-4790	Pad-Rubber	1
12	3255-8	Washer-Lock	4
13	3274-32	Screw-HSBH	4
14	66-3040	Cover-Tool Box	1
15	66-3050	Strip-Magnetic	1

Ref. No.	Part No.	Description	No. Used
16	93-7822	Decal-Refueling	1
17	92-8797	Decal-Caution	1
17	93-7805	Decal-Warning (Europe)	1
18	84-1960	Decal-Service	1
19	92-6501	Asm-Tool Box (Incl. Ref. #16)	1
20	63-7310	Fender LH	1
21	3234-14	Screw-HF	8
24	3234-13	Screw-HF	8
25	32128-20	Nut-Flange	4
26	46-6810	Screw-HH	13
27	93-7830	Decal-Torque	2
28	3230-23	Bolt-Carriage	4
29	66-3200	Tread-Foot Rest LH	1
30	66-3210	Tread-Foot LH	1
31	92-5540	Tread-Foot RH	1

* Not Illustrated

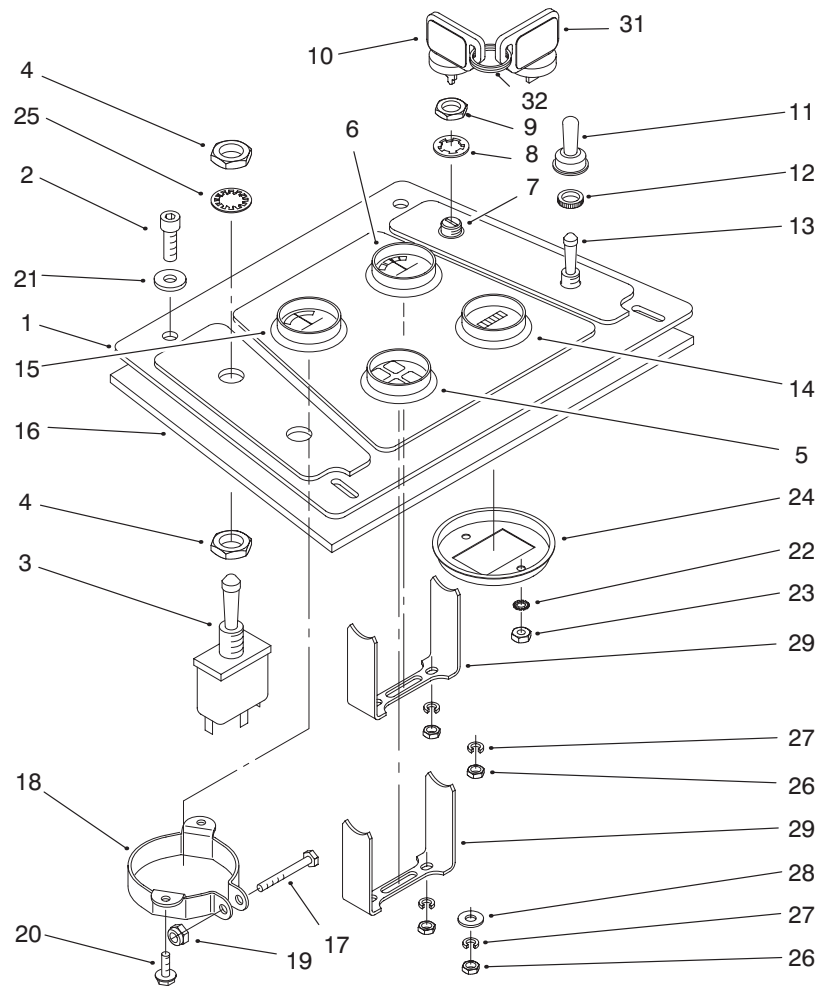


T-3449

Body Assembly (Continued)

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
32	63-7320	Cover-Tower Rear	1	47	59-9740	Asm-Latch, Flex. Draw	1
33	66-8760	Decal-Tower LH	1	48	3290-271	Rivet	4
*	66-8770	Decal-Tower RH	1	49	3296-12	Nut-Hex.	4
34	100-6552	Decal-Oil	1	51	82-8950	Foam	2
35	95-6280	Asm-Frame (Incl. Ref. #27, 29-31, 34, 38, 58-60, 65 & #80 page 8)	1	53	92-5548	Shield-Pedal Stop	1
36	92-5545	Cover-Tower Front	1	54	321-4	Screw-HH	2
37	62-5550	Decal-TORO	1	58	32148-9	Nut-Clinch	3
38	93-7834	Decal-Traction Pedal	1	59	32148-7	Nut-Clinch	22
39	63-7300	Fender-RH	1	60	32148-10	Nut-Clinch	10
40	63-8050	Box-Control	1	61	93-7252	Decal-CE	1
41	100-6581	Plate-Tower	1	65	62-7400	Decal-Toro	1
42	63-6890	Plate-Hinge RH	1	66	95-6270	Bracket-Mount, Engine	3
43	46-8091	Screw-HH	2	67	95-6271	Bracket-Mount, Engine	1
44	283-58	Pin-Clevis	1	68	3213-3	Screw-HH	8
45	66-2870	Cable-Hood Stop	1	69	3253-7	Washer-Lock	8
46	3272-10	Pin-Cotter	1	70	98-9314	Grommet	1
				71	100-6574	Decal-Warning	1
				72	98-5398	Latch	1

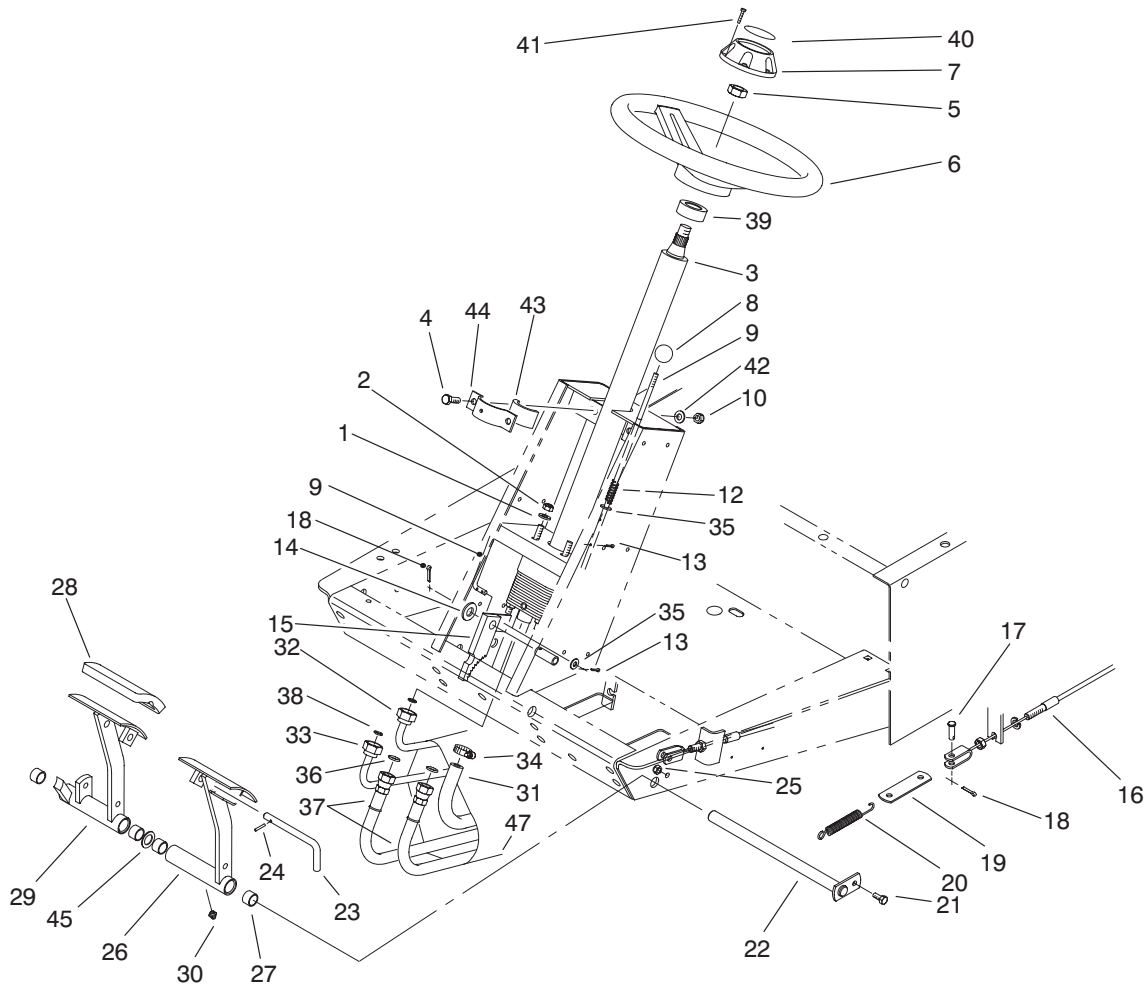
* Not Illustrated



T-3450

Control Panel Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	93-7835	Panel-Control	1	15	63-7430	(Incl. Ref. #22-24) Gage-Temperature (Incl. Ref. #26-28 & 30)	1
2	3274-65	Screw-HSBH	4	16	85-7560	Plate-Control Panel	1
3	85-4980	Switch-PTO (Incl. Ref. #4 & 25)	1	17	32105-1	Screw	1
4	3218-19	Nut-Jam	2	18	69-4780	Clamp-Gauge	1
5	66-2960	Cluster-Warning Light	1	19	3296-2	Nut-Lock	1
6	66-2940	Gage-Fuel (Incl. Ref. #26-29)	1	20	32144-1	Screw-HH	2
7	27-2360	Switch-Ignition (Incl. Ref. #8-10)	1	21	3256-1	Washer-Flat	4
8	218-447	Washer-Lock	1	22	3254-1	Washer-Lock, Ext. Tooth	2
9	218-446	Nut-Hex.	1	23	3217-27	Nut-Hex.	4
10	63-8360	Key-Ignition	1	24		Clamp	1
11	218-473	Boot-Switch	1	25	3254-20	Washer-Lock, Int. Tooth	1
12	218-497	Nut-Face	1	26	3217-16	Nut-Hex.	6
13	6-1659	Switch-Glow Plugs (Incl. Ref. #11 & 12)	1	27	3255-24	Washer-Lock	6
14	66-2950	Meter-Hour		29	100-6147	Clamp	2
				31	99-8970	Key-Latch	1
				32	98-9321	Key Ring	1



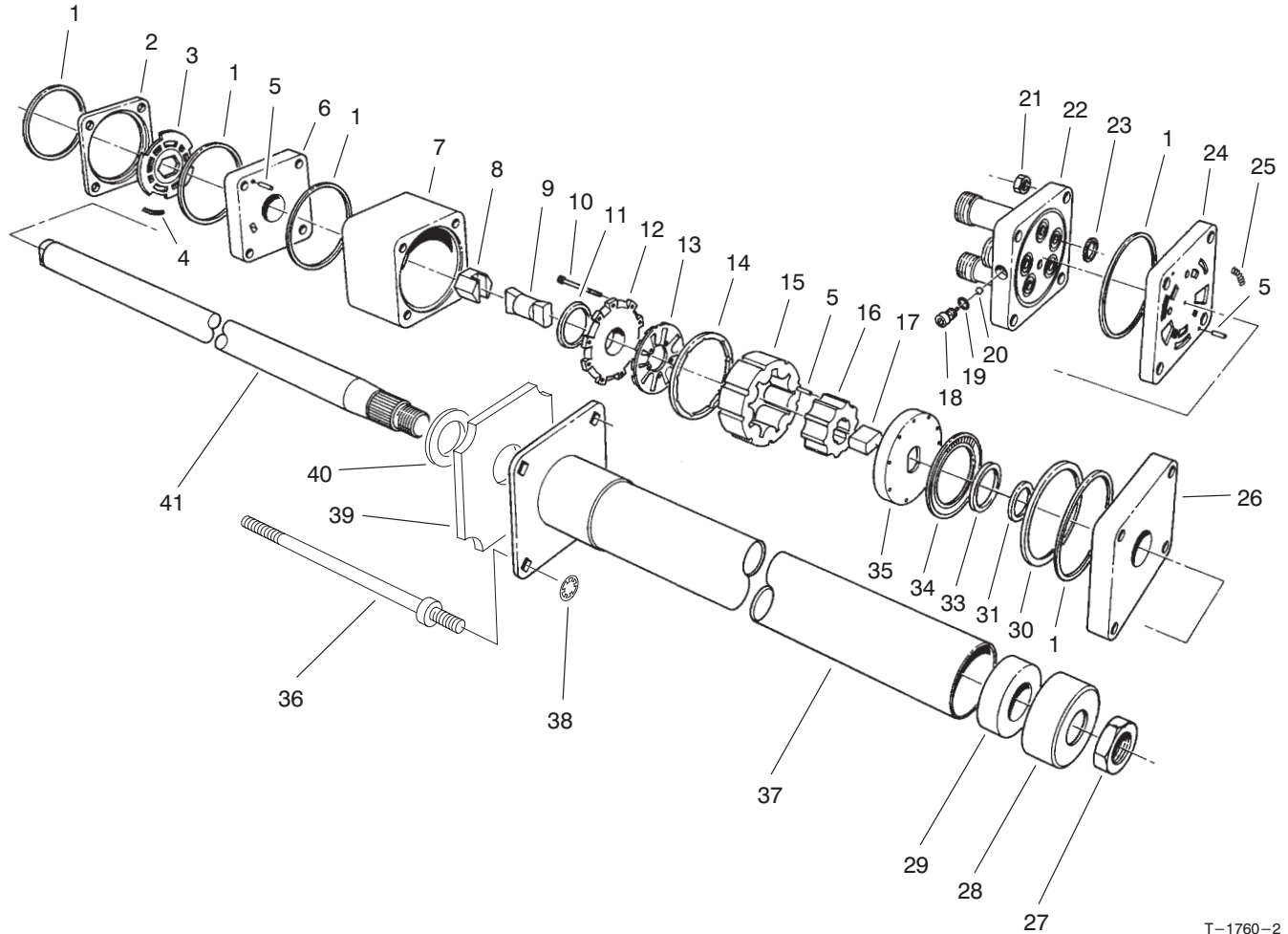
T-1247-3

Power Steering & Brake Pedal Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	3256-23	Washer-Flat	4	24	32121-50	Pin-Roll	1
2	3296-20	Nut-Lock	4	25	3296-42	Nut-Lock	1
3	92-7308	Valve-Power Steering (Incl. Ref. #7)	1	26	63-6180	Pedal-LH Brake (Incl. Ref. #27 & 30)	1
4	322-5	Screw-HH	2	27	256-42	Bushing	4
5	3220-6	Nut-Hex.	1	28	93-8742	Foot Pad-Brake	2
6	75-0560	Wheel-Steering (Incl. Ref. #7 & 41)	1	29	63-6190	Pedal-RH Brake (Incl. Ref. #27 & 30)	1
7	68-5140	Cap-Steering Wheel (Incl. Ref. #41)	1	30	302-5	Fitting-Grease	2
8	233-17	Knob	1	31	66-8140	Hose	1
9	63-7910	Rod-Brake Latch	1	32	66-8630	Tube-Hydraulic (Str.-Lift)	1
10	3296-29	Nut-Lock	2	33	66-8620	Tube Hydraulic (Pump-Str.)	1
12	95-1821	Spring	1	34	2412-36	Clamp	2
13	3272-5	Pin-Cotter	3	35	3256-22	Washer-Flat	3
14	3256-26	Washer-Flat	1	36	237-30	O-Ring	2
15	63-7900	Rack-Brake	1	37	66-8170	Hose-Hydraulic	2
16	63-7730	Asm-Cable, Brake RH	1	38	237-22	O-Ring	2
*	63-7731	Asm-Cable, Brake LH	1	39	21-9260	Cover-Dust	1
17	283-58	Pin-Clevis	4	40	68-5370	Decal-Toro	1
18	3272-10	Pin-Cotter	5	41	32144-21	Screw-PPH	1
19	63-6750	Link-Brake Cable	2	42	3256-23	Washer-Flat	2
20	3-7243	Spring-Return	2	43	84-7670	Foam-Column Support	2
21	321-3	Screw-HH	1	44	84-7660	Clamp-Column	1
22	63-6210	Pin-Brake	1	45	3256-69	Washer-Flat	A/R
23	63-7880	Pin-Brake Latch	1	47	44-8530	Sock-Hose	1

* Not Illustrated

3323-988



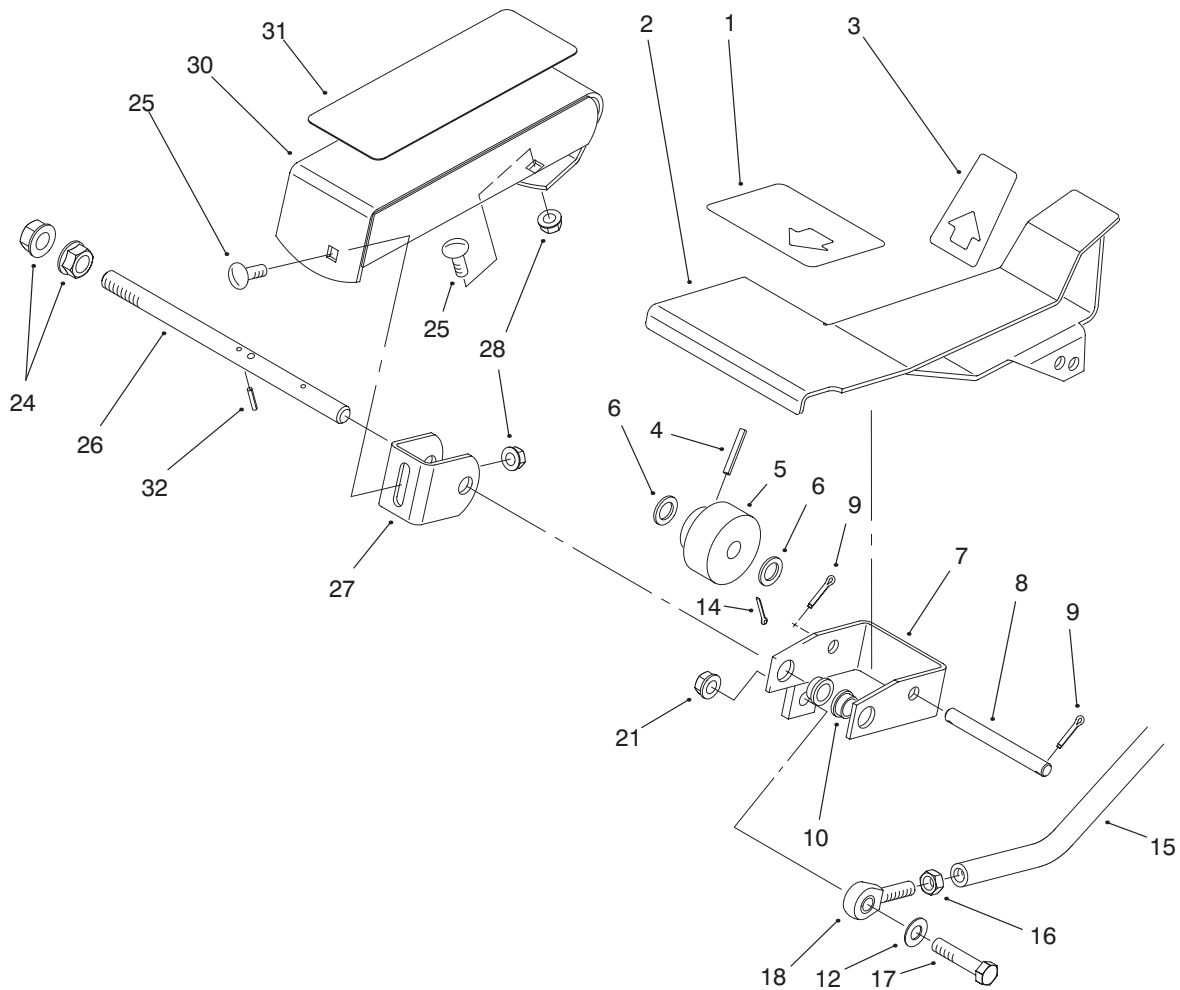
T-1760-2

Steering Valve Assembly No. 92-7308

Ref. No.	Part No.	Description	No. Used
1		Ring-Seal	5
2		Ring-Valve	11
3		Plate-Valve	
4		Spring	3
5		Pin-Alignment	9
6		Manifold-Isolation	1
7		Ring-Metering	1
8		Asm-Hex. Drive	1
9		Link-Drive	1
10		Screw-HSH	11
11		Seal-Commutator	1
12		Cover-Commutator	1
13		Commutator	1
14		Ring-Commutator	1
15		Stator	1
16		Rotor	1
17		Spacer-Drive Link	1
18		Plug	1
19		O-Ring	1
20		Ball	1
21		Nut-Hex.	4
22		Cover-Port	1
23		O-Ring	5
24		Manifold-Port	1
25		Spring	3

Ref. No.	Part No.	Description	No. Used
26		Plate-Upper Cover	1
27	3220-6	Nut	1
28	92-7315	Seal	1
29		Bearing	1
30		Spacer-Bearing, Thrust	1
31		Spacer- Seal	1
33		Seal-Face	1
34		Bearing-Thrust	1
35		Plate-Drive	1
36	92-7310	Bolt-Special	4
37		Upper Cover & Jacket	1
38	92-7316	Nut-Push On	4
39	92-7317	Foam	1
40		Washer-Retaining	1
41		Shaft-Input	1
*	66-9970	Kit-Spring (Incl. Ref. #4 & 25)	1
*	66-9980	Kit-Seal (Incl. Ref. #1, 11, 19, 23, 31 & 33)	1
*	66-9990	Kit-Needle Roller (Incl. Ref. #5)	1
*	92-7314	Asm-Column (Incl. Ref. #27-29 & 37-41)	1

* Not Illustrated



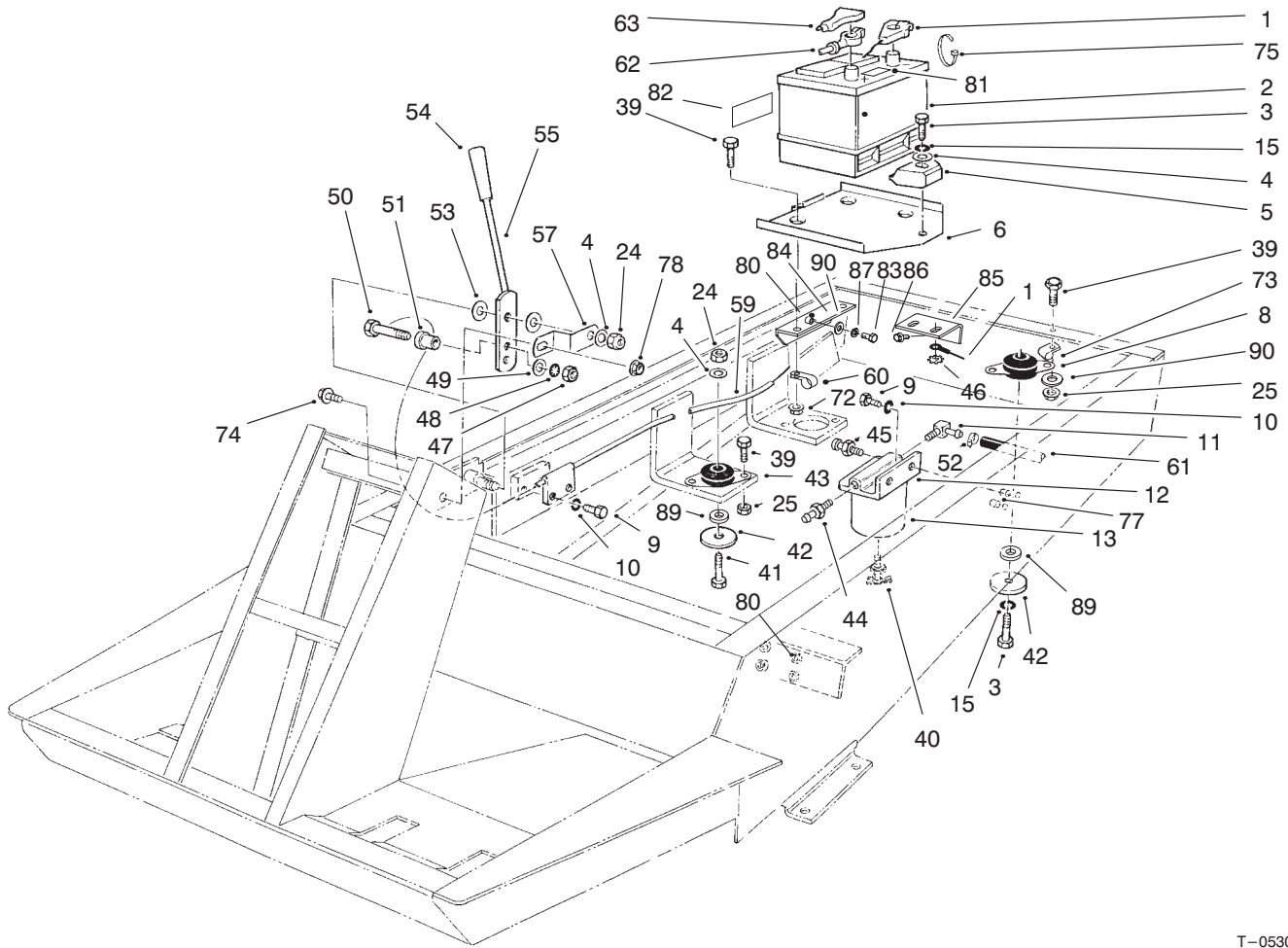
T-1806-2

Traction Pedal Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	94-3307	Pad-Traction Pedal Front	1	17	323-29	Screw-HH	1
2	94-3591	Pedal-Traction	1	18	2411-36	End-Rod	1
3	94-3308	Pad-Traction Pedal Rear	1	21	3296-39	Nut-Lock	1
4	32121-6	Pin-Roll	1	24	32128-56	Nut-Flange	2
5	28-5220	Wheel-Friction	1	25	3230-2	Bolt-Carriage	2
6	5-7570	Washer	2	26	92-5534	Shaft-Traction Pedal	1
7	92-8854	Bracket-Pivot	1	27	92-5077	Bracket-Footerest	1
8	92-5537	Pin-Pedal Pivot	1	28	32128-44	Nut-Flange, Lock	2
9	3272-10	Pin-Cotter	2	30	92-5514	Footrest	1
10	256-156	Bushing-Flange	2	31	92-5750	Pad-Footerest	1
12	3256-24	Washer-Flat	1	32	32121-50	Pin-Roll	1
14	3272-6	Pin-Cotter	1				
15	63-6410	Rod-Pump Control	1				
16	3220-3	Nut-Jam	1				

* Not Illustrated

†† Not Serviceable Separately



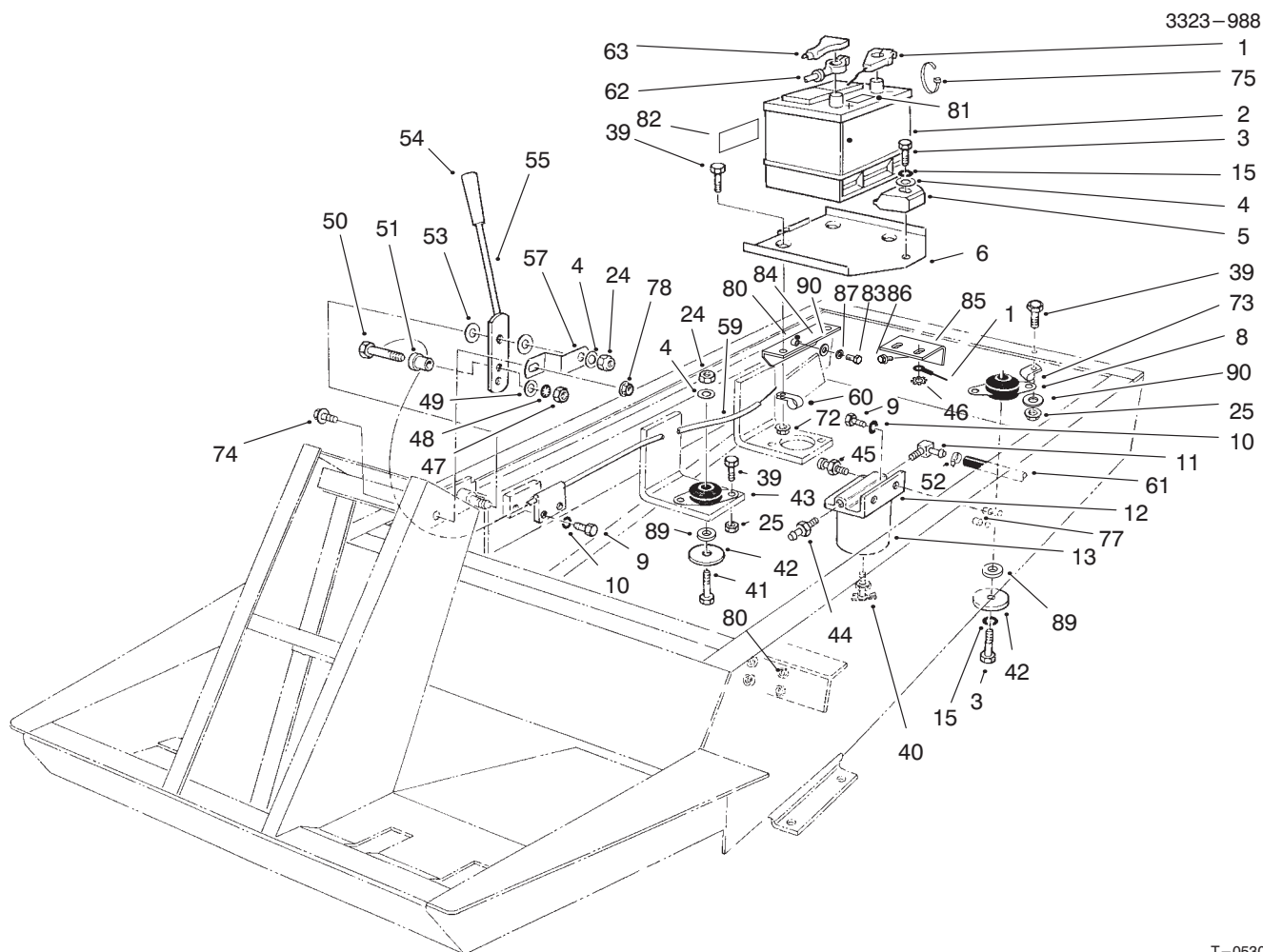
T-0530-6

Battery & Engine Mount Assembly

Ref. No.	Part No.	Description	No. Used
1	63-7340	Wire-Ground	1
†2		Battery Type 26 SMF-5	1
3	323-8	Screw-HH	2
4	3256-24	Washer-Flat	4
5	66-2490	Clamp-Battery Retainer	1
6	94-7343	Base-Battery	1
8	63-7141	Mount-Shock (Red)	1
9	321-4	Screw-HH	4
10	3253-3	Washer-Lock	4
11	353-781	Fitting 90°	1
12	63-8280	Asm-Head	1
13	63-8300	Element-Spin On	1
15	3253-21	Washer-Lock	2
24	3296-39	Nut-Lock	3
25	3296-29	Nut-Lock	11
39	322-5	Screw-HH	14
40	63-8310	Valve-Drain	1
41	323-11	Screw-HH	3
42	63-7400	Washer-Rebound	4
43	63-7142	Mount-Shock (Yellow)	3
44	353-783	Fitting-Straight	1
45	63-8290	Vent-Air	1
46	3255-8	Washer-Lock	1
47		Nut-Hex.	1
48		Washer-Lock, Int. Tooth	1

Ref. No.	Part No.	Description	No. Used
49		Washer-Flat	1
50		Screw-Special	1
51		Sleeve-Connector	1
52	2412-108	Clamp	2
53	66-2920	Washer-Friction	2
54	233-39	Knob	1
55	71-3500	Lever-Throttle	1
57	66-2670	Bracket-Throttle	1
59	76-1000	Cable-Throttle	1
60	92-5753	R-Clamp	1
61	63-7610	Hose	1
62	43-4031	Cable-Battery, Positive	1
63	28-1280	Boot-Cable, Positive	1
72	32128-20	Nut-Flange	3
73	98-3883	R-Clamp	3
74	3234-13	Screw-HFH	1
75	3290-378	Tie-Cable	1
77	32148-11	Nut-Clinch	2
78	32148-33	Nut-Flange Head	1
80	32148-8	Nut-Clinch	6
81	93-7276	Decal-Danger	1
82	93-6668	Decal-Battery Charging	1
83	322-6	Screw-HH	2
84	95-1592	Angle-Base, Battery	1
85	95-1599	Bracket-Base, Battery	1

† Obtain Locally

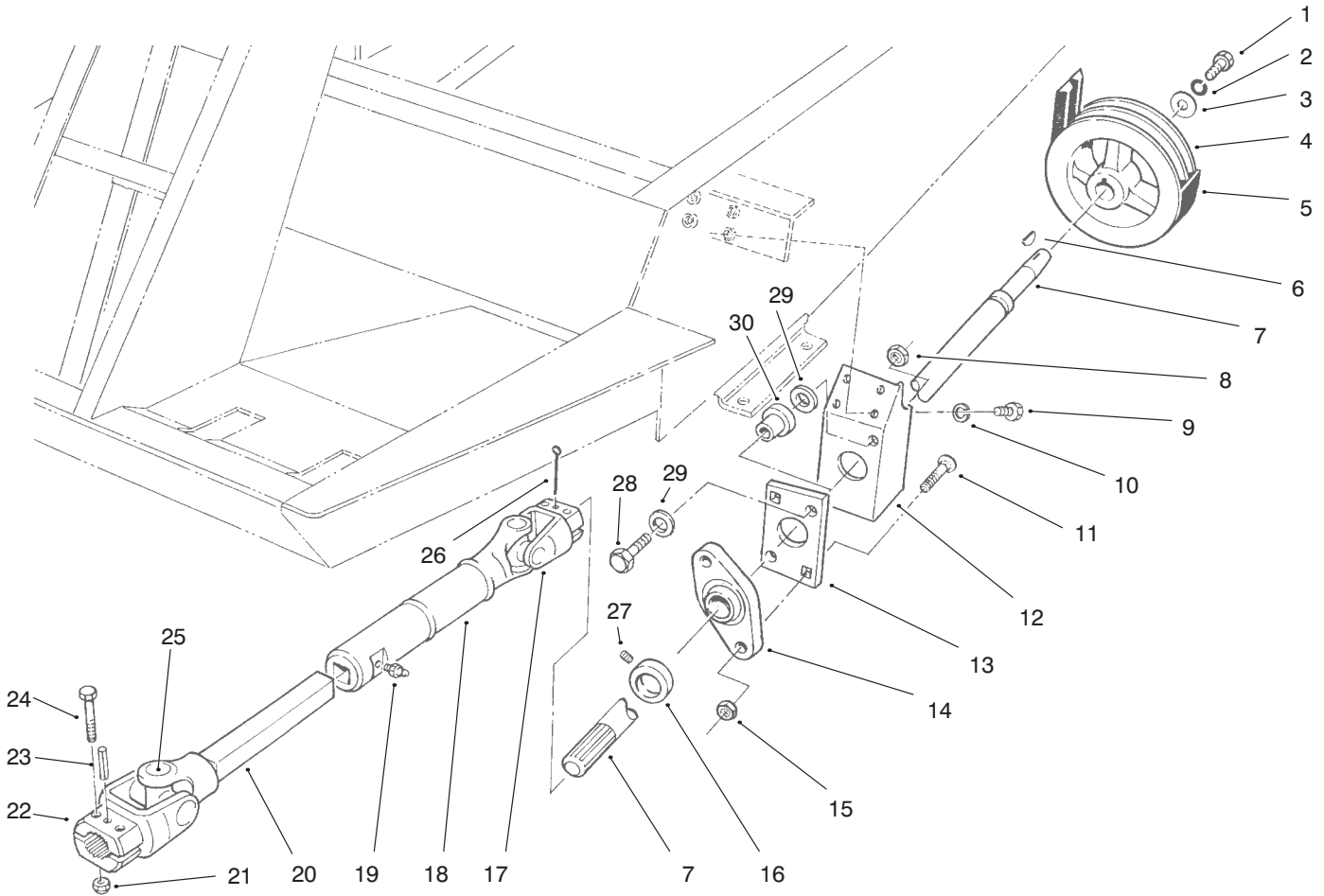


T-0530-6

Battery & Engine Mount Assembly (Continued)

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
86	3234-30	Screw-HH	2	*	63-6760	Swivel-Throttle Cable (Incl. Ref. 47-51)	1
87	3253-4	Washer-Lock	2	*	95-3074	Kit-400 Hour Filter (Incl. Ref. #13)	1
89	80-7730	Spacer	4				
90	3256-23	Washer	5				

* Not Illustrated



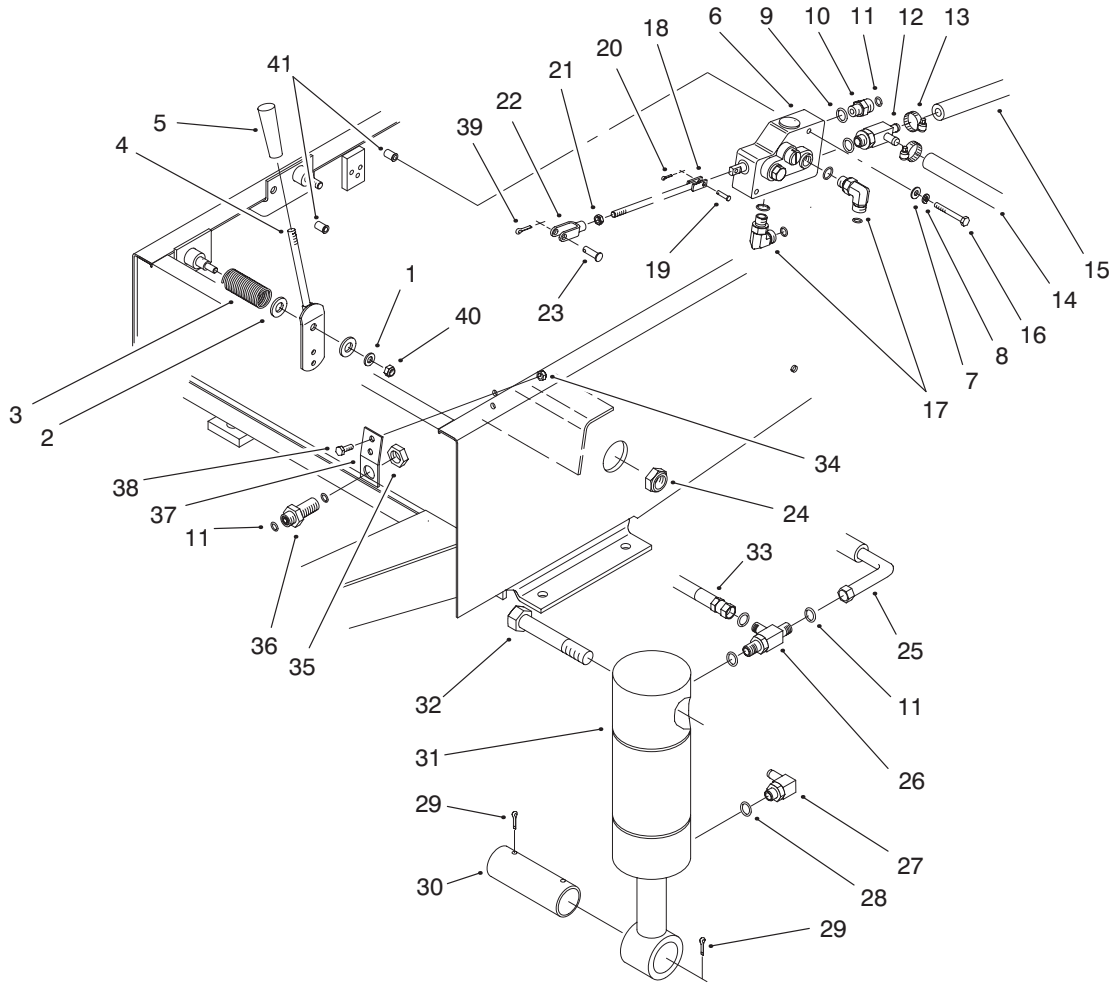
T-2745

Drive Shaft & Power Take-Off Assembly

Ref. No.	Part No.	Description	No. Used
1	323-18	Screw-HH	1
2	3253-21	Washer-Lock	1
3	29-4730	Washer-Power Take Off	1
4	43-5320	Pulley-Power Take Off	1
5	63-6240	Belt-Power Take Off	1
6	3257-5	Key-Woodruff	1
7	92-8855	Shaft-Power Take Off	1
8	3296-39	Nut-Lock	2
9	322-5	Screw-HH	4
10	3253-4	Washer-Lock	4
11	3230-4	Bolt-Carriage	2
12	92-8751	Bracket-Bearing Power Take Off	1
13	84-7580	Plate-Support, Bushing	1
14	92-8799	Bearing-Shaft (Incl. Ref. #16 & 28)	1
15	32149-1	Nut-Lock	2

Ref. No.	Part No.	Description	No. Used
16	251-77	Collar-Locking	1
17	54-9090	Yoke-End	1
18	54-9170	Tube-Slip Yoke	1
19	302-58	Fitting-Grease	1
20	54-9050	Shaft-Slip Yoke	1
21	3296-29	Nut-Lock	4
22	54-9040	Yoke-End	1
23	32121-34	Pin-Roll	1
24	322-9	Screw-HH	4
25	54-9180	Kit-Universal Joint	2
26	3272-15	Pin-Cotter	1
27	3245-35	Screw-Set	1
28	323-10	Screw-HH	2
29	63-8410	Washer-Flat	4
30	63-9750	Mount	2
*	54-7950	Asm-Drive Shaft (Incl. Ref. #17-22 & 25)	1

* Not Illustrated

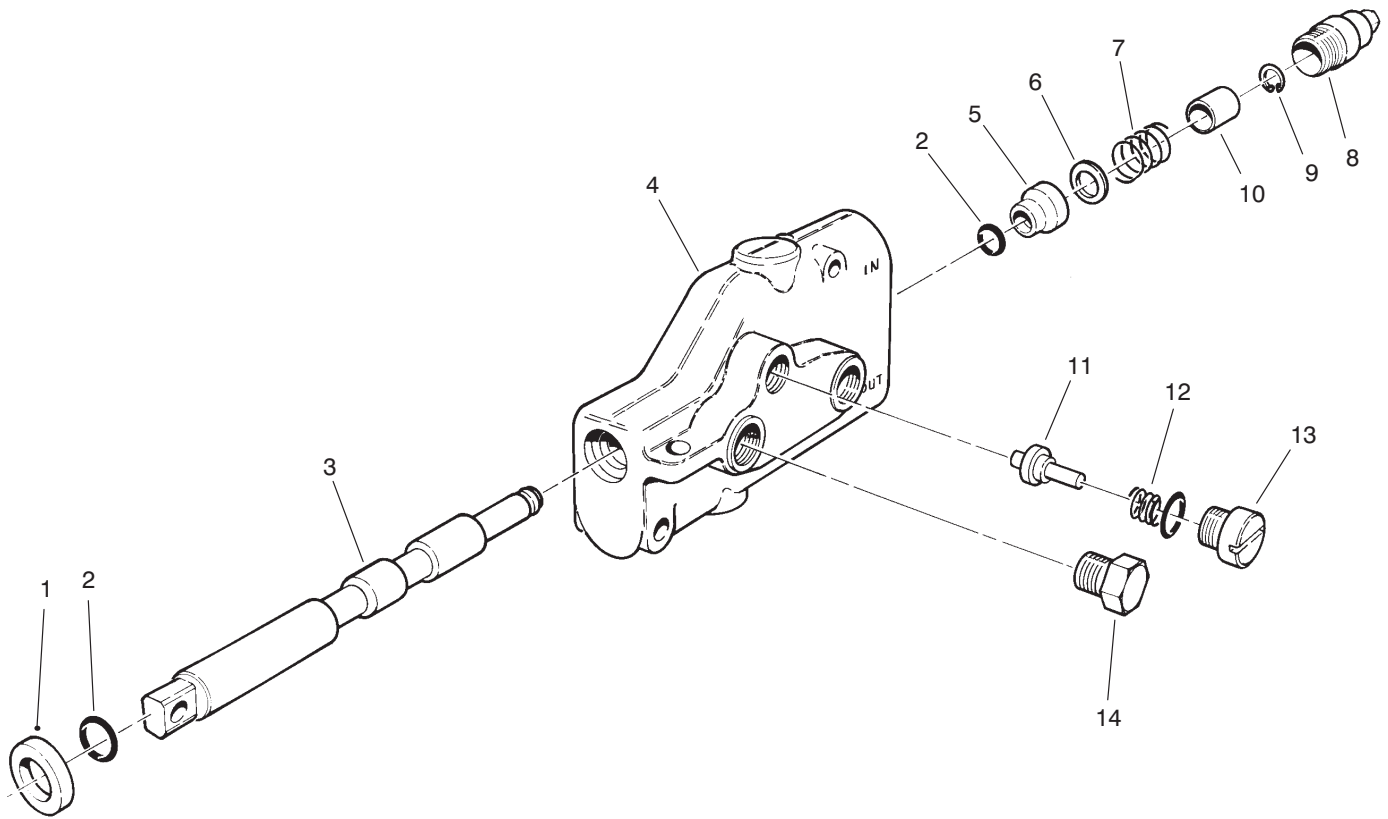


T-0531-5

Hydraulic Lift System Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	3256-23	Washer-Flat	1	24	3296-15	Nut-Lock	2
2	3256-26	Washer-Flat	2	25	66-8190	Asm-Hose, Hydraulic	1
3	70-7530	Spring-Compression	1	26	340-86	Fitting-Tee (Incl. Ref. #9 & 11)(Used On Cap End of Left Cyl.)	1
4	66-2720	Lever-Lift	1	*	340-77	Fitting-90° Elbow (Incl. Ref. #9 & 11)(Used On Cap End of Right Cyl.)	1
5	233-39	Knob	1	27	304-99	Fitting-90° Elbow (Incl. Ref. #28)	2
6	63-7960	Valve-Lift	1	28	237-78	O-Ring	2
7	3256-22	Washer-Flat	2	29	3272-23	Pin-Cotter	4
8	3253-3	Washer-Lock	2	30	27-4240	Pin-Cylinder	2
9	237-42	O-Ring	6	31	63-6630	Cylinder-Lift	2
10	340-2	Fitting-Straight (Incl. Ref. #9 & 11)	1	32	3216-3	Screw-HH	2
11	237-22	O-Ring	9	33	66-8640	Asm-Hose, Hydraulic	1
12	66-3130	Fitting-Tee (Incl. Ref. #9)	1	34	3296-42	Nut-Lock	2
13	2412-36	Clamp-Hose	3	35	340-70	Nut-Fitting	1
14	66-8150	Hose-Hydraulic	1	36	340-71	Fitting-Bulkhead (Incl. Ref. #11 & 35)	1
15	66-8500	Hose	1	37	63-7410	Bracket-Bulkhead	1
16	321-11	Screw-HH	2	38	321-4	Screw-HH	2
17	340-77	Fitting-90° Elbow (Incl. Ref. #9 & 11)	2	39	3272-10	Pin-Cotter	1
18	76-4830	Rod-Tie	1	40	3296-29	Nut-Lock	1
19	283-16	Pin-Clevis	1	41	32148-11	Nut-Clinch	2
20	3272-5	Pin-Cotter	1				
21	3220-2	Nut-Jam, RH Thread	1				
22	282-27	Clevis	1				
23	283-58	Pin-Clevis	1				

* Not Illustrated



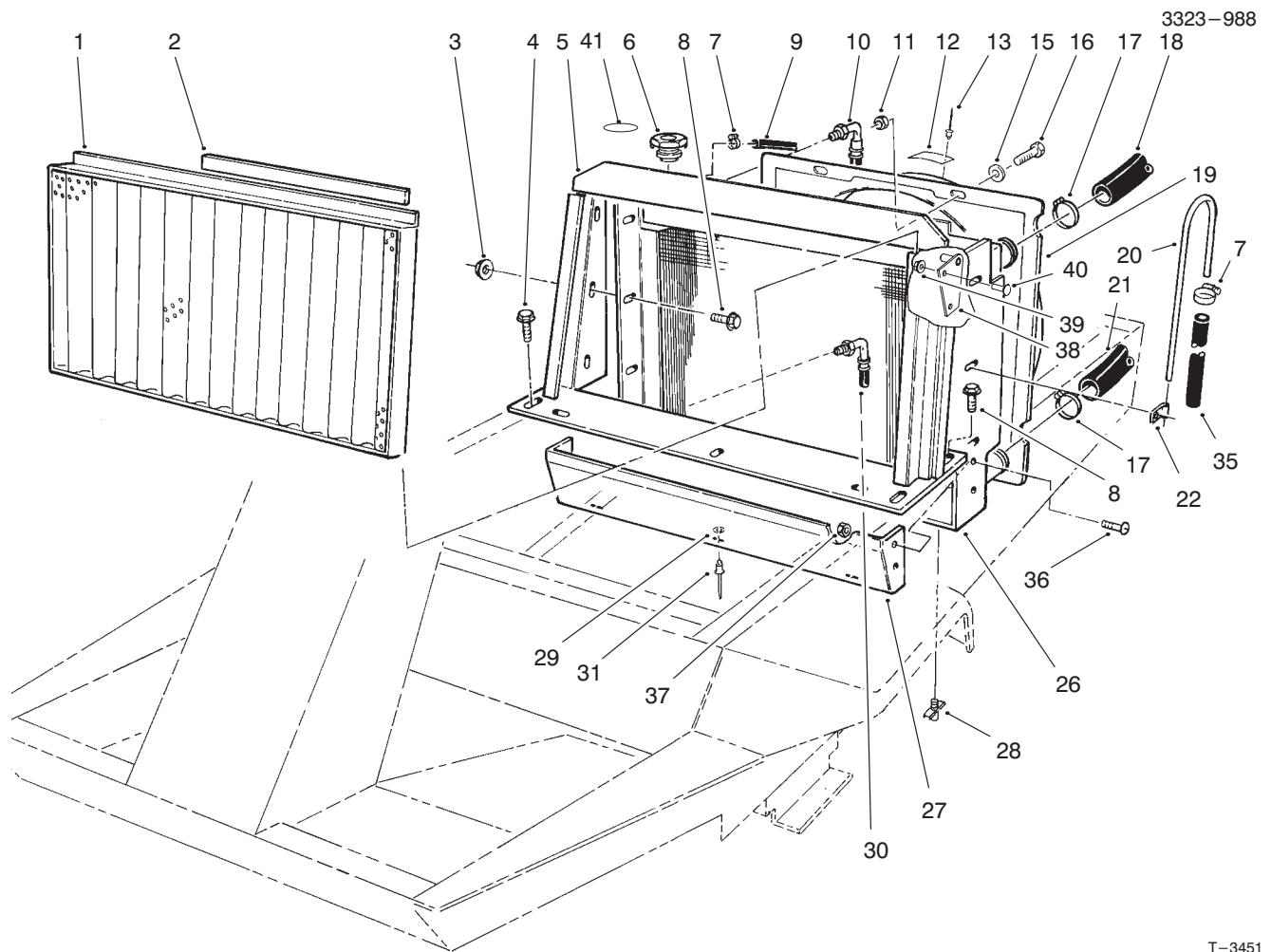
T-0532-1

Lift Valve Assembly No. 63-7960

Ref. No.	Part No.	Description	No. Used
1	58-6320	Wiper-Seal	1
2	58-6450	O-Ring	2
3		Spool	1
4		Body	1
5	58-6400	Bushing	1
6	65-2770	Washer	1
7	65-2950	Spring	1
8	58-6420	Asm-Cap	1

Ref. No.	Part No.	Description	No. Used
9	58-6460	Ring-Retaining	1
10	65-2740	Spacer	1
11	65-2750	Plunger	1
12	65-2760	Spring	1
13	65-2930	Asm-Plug	1
14	353-508	Asm-Plug	1
*	63-7960	Asm-Lift Valve (Incl. Ref. #3 & 4)	1

* Not Illustrated

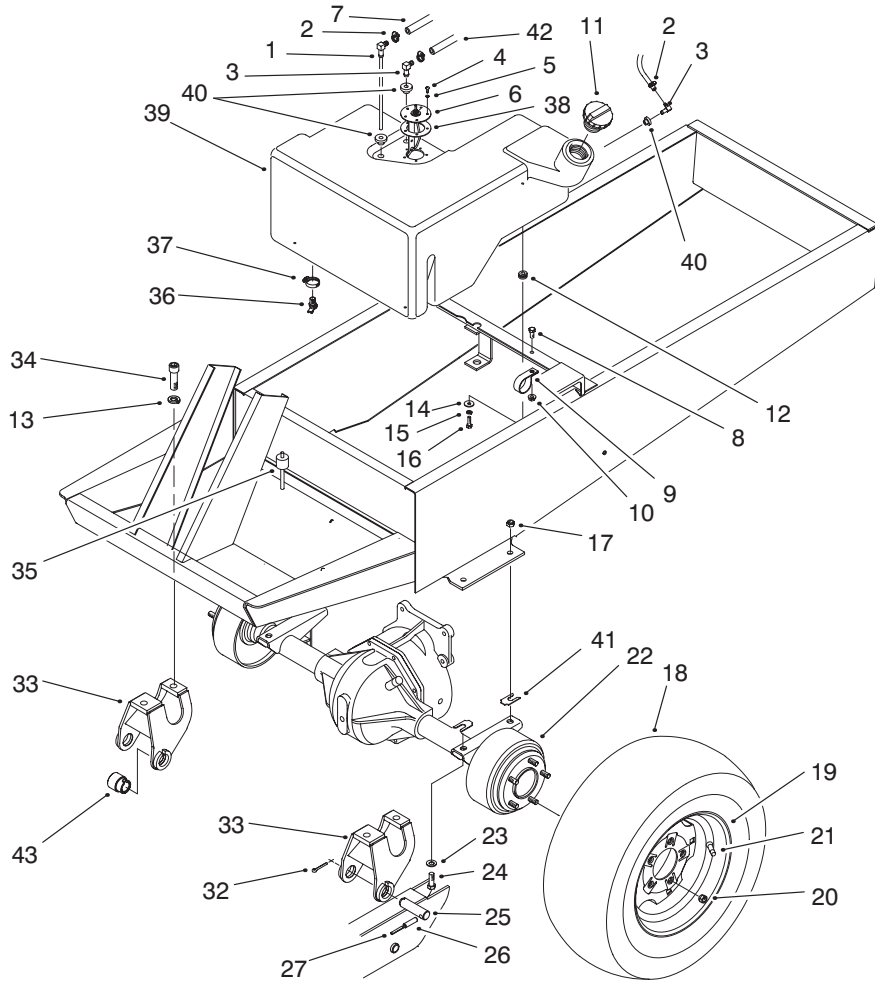


T-3451

Radiator Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	63-7700	Asm-Frame, Screen	1			(Incl. Ref. #12 & 13)	1
2	63-7710	Magnetic Strip	1	20	66-3180	Tube-Vent	1
3	32128-20	Nut-Lock	6	21	63-6020	Hose-Lower	1
4	3234-17	Screw-HFH	2	22	2412-103	R-Clamp	2
5	92-5757	Asm-Radiator Support	1	26	82-2310	Asm-Radiator	1
6	66-3240	Cap-Radiator	1	27	63-6440	Shield-Radiator	1
7	2412-108	Clamp-Hose	6	28	304-46	Drain Cock	1
8	3234-5	Screw-HFH	8	29	3269-10	Washer-Flat	3
9	71-3384	Hose	1	30	66-8500	Asm-Hose	1
10	66-8180	Asm-Hose	1	31	3269-13	Rivet	3
11	3296-42	Nut-Lock	4	35	94-4522	Hose	1
12	98-9335	Plate-Warning	1	36	3249-3	Screw-Rd. Hd.	2
13	3290-271	Rivet	2	37	3217-29	Nut-Hex.	2
15	3256-22	Washer-Flat	4	38	100-6568	Lock Plate Assembly	1
16	321-4	Screw-HH	4	39	32128-33	Nut-HF	2
17	2412-34	Clamp-Hose	4	40	3229-1	Screw-Carr.	2
18	93-9940	Hose-Upper	1	41	93-7840	Decal-Radiator Cap	1
19	92-6503	Asm-Shroud, Fan					

* Not Illustrated



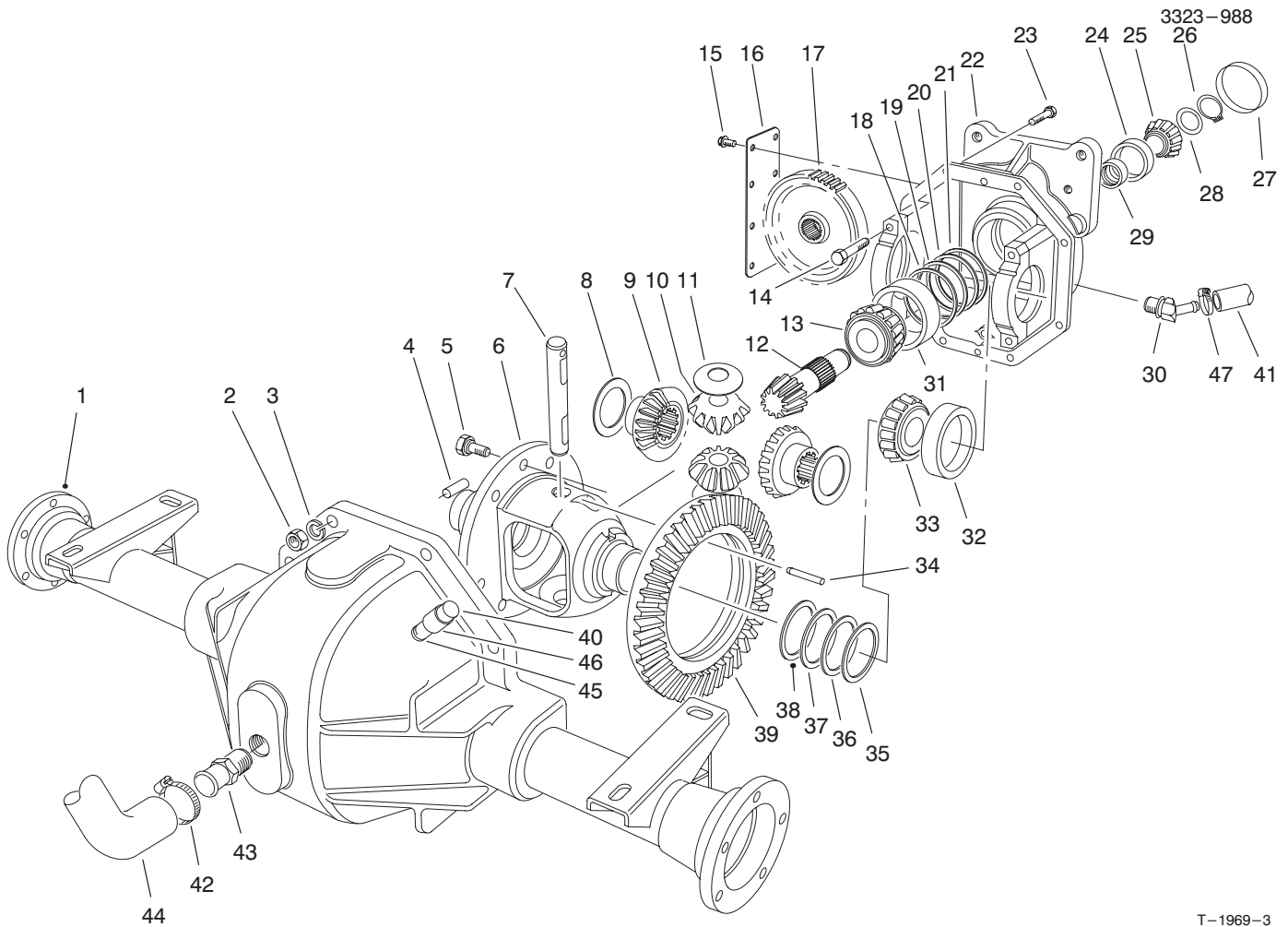
T-3452

Fuel Tank And Axle Assembly

Ref. No.	Part No.	Description	No. Used
1	66-8120	Standpipe	1
2	2412-108	Clamp	4
3	94-6765	Connector 90°	2
4	32122-24	Screw-Machine	5
5	3253-15	Washer-Lock	5
6	63-7640	Sender-Fuel	1
7	63-7630	Hose	1
8	322-3	Screw-HH	1
9	2412-147	R-Clamp	1
10	32128-20	Nut-Lock	1
11	93-3102	Cap-Fuel	1
12	237-136	Grommet	3
13	3253-8	Washer-Lock	4
14	3256-67	Washer-Flat	3
15	3253-3	Washer-Lock	3
16	321-5	Screw-HH	3
17	3296-48	Nut-Lock	4
18	231-101	Tire	2
*	231-95	Tire-23" x 10.5" x 12" 4 Ply (Optional)	2
*	69-9880	Tire-23" x 10.5" x 12" 6 Ply (Optional)	2
19	217-117	Rim	2
*	217-116	Rim-23" x 10.5" x 12" (Optional)	2
20	23-7270	Nut-Lug	10

Ref. No.	Part No.	Description	No. Used
21	232-27	Valve Stem w/Cap	2
22	86-9640	Asm-Axle	1
23	3256-25	Washer-Flat	4
24	324-5	Screw-HH	4
25	98-2348	Asm-Pivot Pin (Incl. Ref. #26 & 27)	2
26	32121-49	Pin-Spring	2
27	32121-71	Pin-Spring	2
32	3272-17	Pin-Cotter	2
33	98-2328	Carrier Bracket	2
34	3273-38	Screw-HSH	4
35	66-3060	Dipstick-Differential	1
36	304-46	Fitting-Drain	1
37	2412-36	Clamp	1
38	62-7650	Gasket	1
39	98-5001	Tank-Fuel	1
40	46-6560	Bushing	3
41	42-6080	Shim-Axle	A/R
*	62-7020	Asm-Wheel & Tire (23" x 10.5" x 12" 4 Ply) (Optional)	2
*	69-9870	Asm-Wheel & Tire (23" x 10.5" x 12" 6 Ply) (Optional)	2
42	93-1627	Hose-Fuel	1
43	98-7926	Spacer-Lift Arm	4

* Not Illustrated

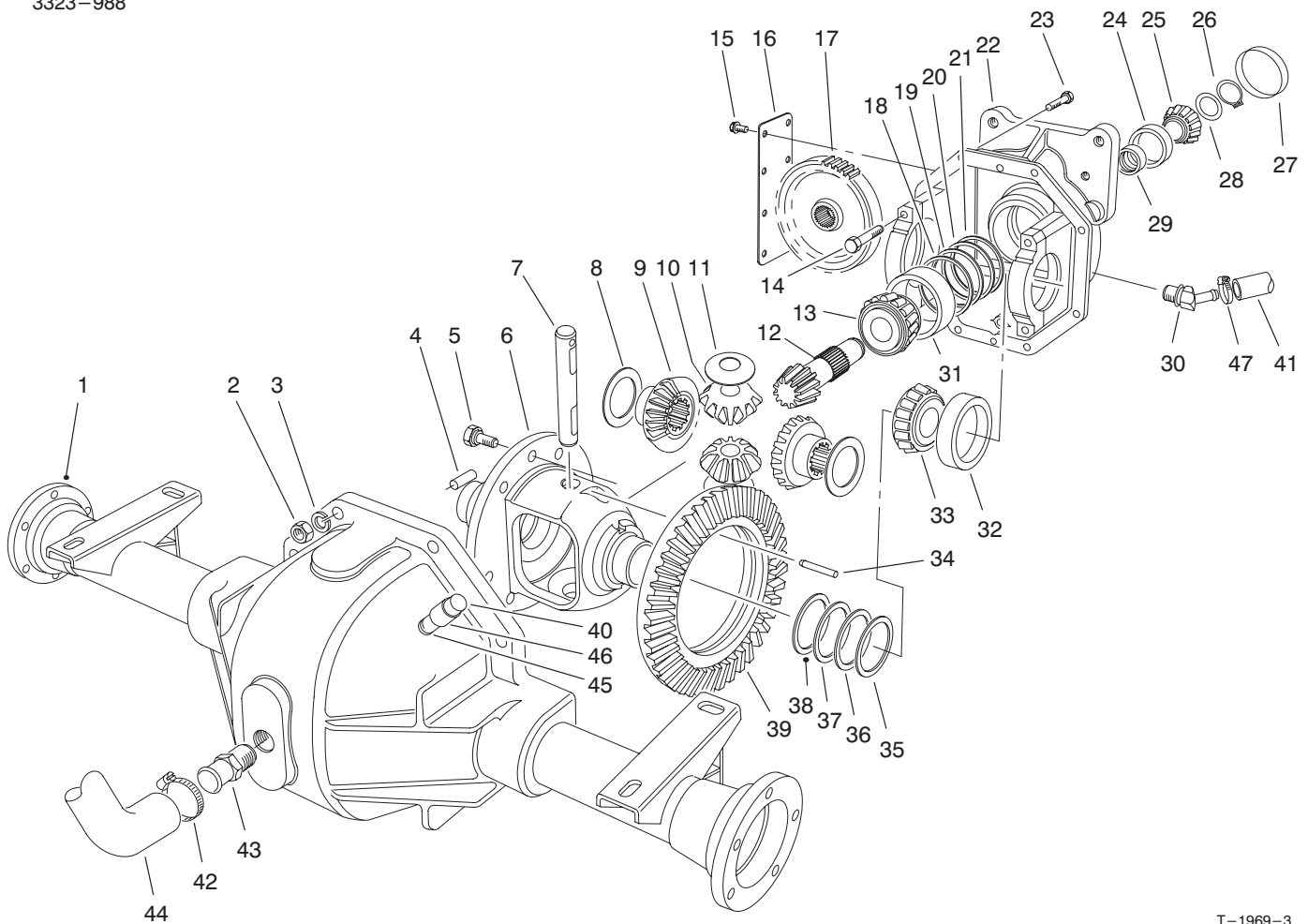


T-1969-3

Differential Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	63-8090	Asm-Lower Housing	1	24	254-90	Cup-Bearing	1
2	3219-2	Nut	8	25	254-91	Cone-Bearing	1
3	3255-8	Washer-Lock	8	26	43-6550	Ring-Retaining	1
4	21-8270	Pin-Dowel	2	27	21-7850	Cap Plug	1
5	21-7770	Screw-Drive Gear	5	28	46-2210	Shim Front Pinion Bearing (.031)	A/R
6	21-7670	Differential Case	1	*	46-2211	Shim Front Pinion Bearing (.033)	A/R
7	21-7700	Shaft-Pinion Mate	1	*	46-2212	Shim Front Pinion Bearing (.035)	A/R
8	21-7720	Washer-Thrust	2	*	46-2213	Shim Front Pinion Bearing (.037)	A/R
9	24-8790	Gear-Bevel, Differential	2	*	46-2214	Shim Front Pinion Bearing (.039)	A/R
10	21-7690	Gear-Pinion	2	*	46-2215	Shim Front Pinion Bearing (.041)	A/R
11	21-7730	Washer-Thrust	2	*	46-2216	Shim Front Pinion Bearing (.043)	A/R
12		Drive Pinion	1	*	46-2220	Shim Front Pinion Bearing (.045)	A/R
13	43-6760	Cone-Bearing, Tapered	1	*	46-2221	Shim Front Pinion Bearing (.047)	A/R
14	92-1773	Screw-HH	4	*	46-2222	Shim Front Pinion Bearing (.049)	A/R
15	12-5450	Screw-Thread Forming	8	*	46-2223	Shim Front Pinion Bearing (.051)	A/R
16	21-7830	Cover-Gear	1	*	46-2224	Shim Front Pinion Bearing (.053)	A/R
17	86-7230	Gear-Spur	1				
18	43-6710	Shim Adjusting Differential Bearing .003	A/R				
19	43-6711	Shim Adjusting Differential Bearing .005	A/R				
20	43-6712	Shim Adjusting Differential Bearing .010	A/R				
21	43-6713	Shim Adjusting Differential Bearing .030	A/R				
22	86-7930	Asm-Upper Housing (Incl. Ref. #14)	1				
23	3210-7	Screw-HH	8				

* Not Illustrated

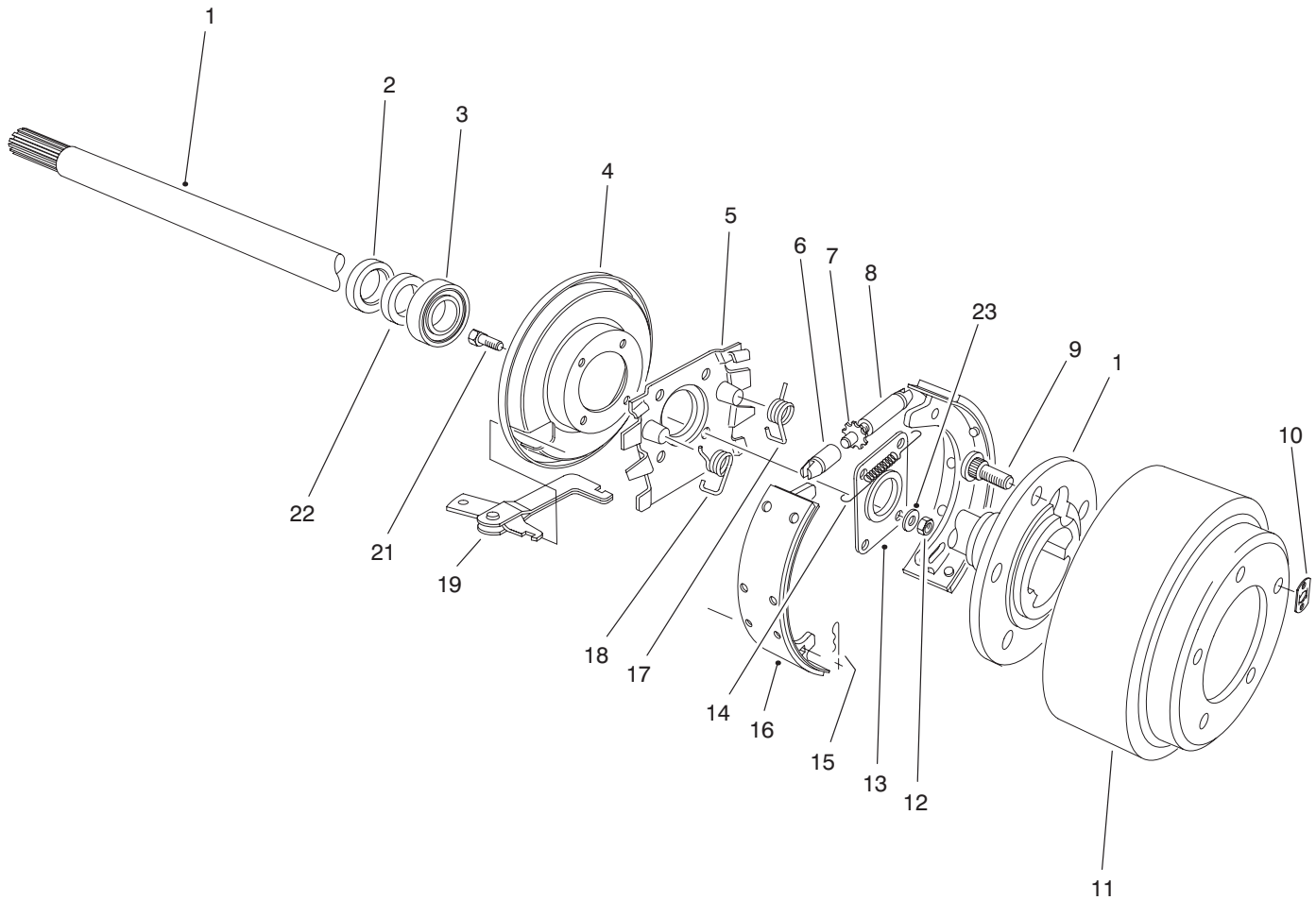


T-1969-3

Differential Assembly (Continued)

Ref. No.	Part No.	Description	No. Used
*28	46-2225	Shim Front Pinion Bearing (.055)	A/R
*	46-2226	Shim Front Pinion Bearing (.057)	A/R
*	46-2410	Shim Front Pinion Bearing (.062)	A/R
	46-2411	Shim Front Pinion Bearing (.064)	A/R
*	46-2412	Shim Front Pinion Bearing (.066)	A/R
*	46-2413	Shim Front Pinion Bearing (.068)	A/R
*	46-2414	Shim Front Pinion Bearing (.070)	A/R
*	46-2415	Shim Front Pinion Bearing (.072)	A/R
*	46-2416	Shim Front Pinion Bearing (.074)	A/R
*	46-2420	Shim Front Pinion Bearing (.076)	A/R
	46-2421	Shim Front Pinion Bearing (.078)	A/R
*	46-2422	Shim Front Pinion Bearing (.080)	A/R
*	46-2423	Shim Front Pinion Bearing (.082)	A/R
*28	46-2424	Shim Front Pinion Bearing (.084)	A/R

Ref. No.	Part No.	Description	No. Used
*	46-2425	Shim Front Pinion Bearing (.086)	A/R
*	46-2426	Shim Front Pinion Bearing (.088)	A/R
29	21-8020	Spacer-Frt. Pinion Bearing	1
30	92-5088	Fitting-45°	1
31	43-6750	Cup-Tapered, Bearing	1
32	254-66	Cup-Tapered, Bearing	2
33	254-65	Cone-Tapered, Bearing	2
34	32121-15	Pin-Roll	1
35	21-8090	Diff. Adjust. Shim. .003	A/R
36	21-8100	Diff. Adjust. Shim. .005	A/R
37	21-8110	Diff. Adjust. Shim. .010	A/R
38	21-8120	Diff. Adjust. Shim. .030	A/R
39		Gear-Ring	1
40	72-9420	Asm-Vent	1
41	92-5083	Hose-Hydraulic	1
42	2412-34	Clamp-Hose	2
43	354-71	Pipe Nipple	1
44	77-0550	Tube-Fill	1
45	289-6	Nipple-Pipe	1
46	2810-1	Coupler	1
*	92-4848	Asm-Gear & Pinion (Incl. Ref. #12 & 39)	1
47	2412-119	Clamp-Hose	1
*	92-4909	Asm-Differential Carrier (Incl. Ref. #5-22, 24-29 & 31-39)	1

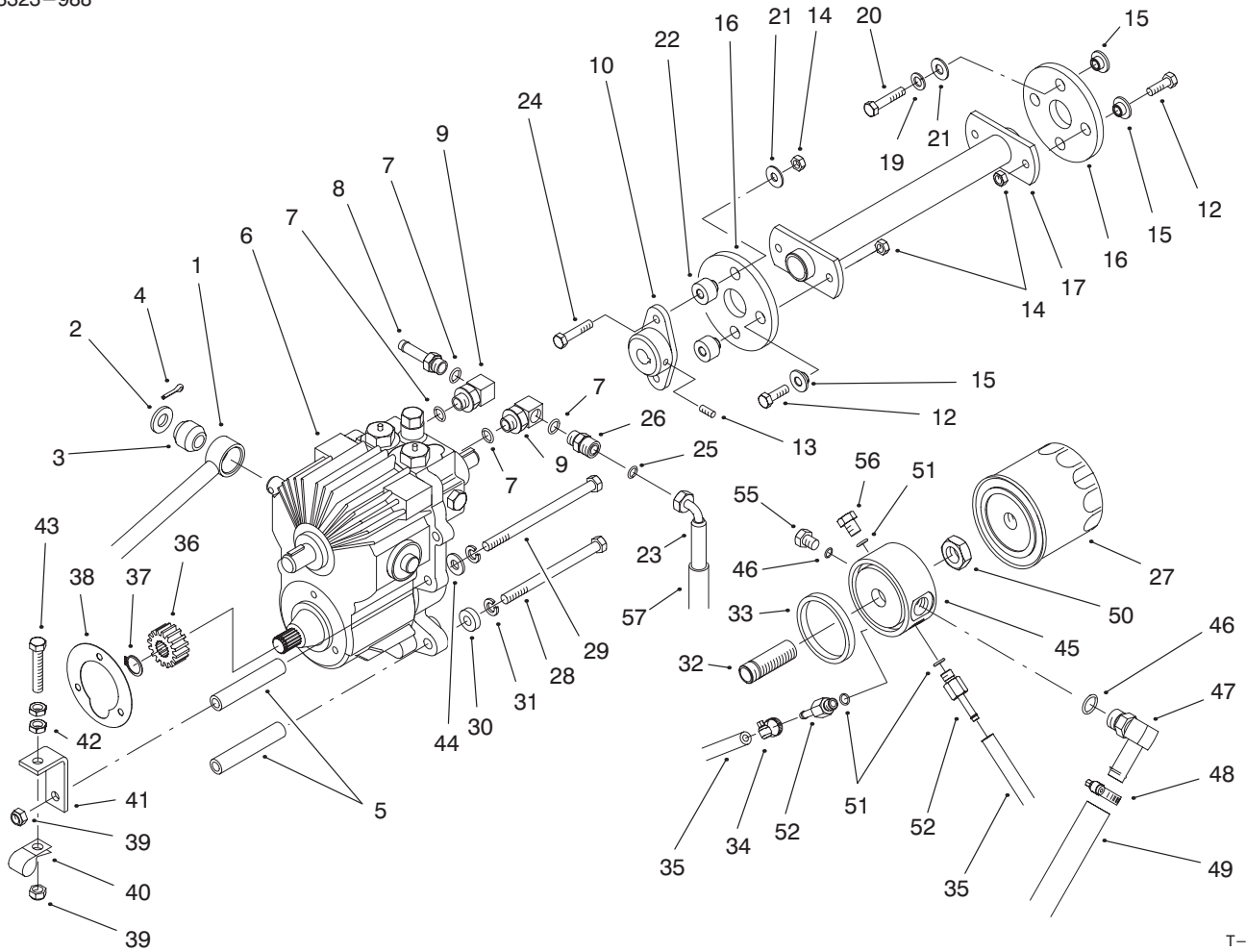


T-2664-2

Brake Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	27-6861	Shaft-Axle, Flanged LH	1	13	28-0670	Oil Seal	2
*	27-6851	Shaft-Axle, Flanged RH	1	14	21-9440	Screw-Spring Adjusting	2
2	92-1774	Oil Seal	2	15	21-9460	Retainer-Parking Brake	4
3	21-8180	Bearing-Tapered Roller	2	16	84-8600	Brake Shoe Set (Incl. 4 Shoes)	1
4	21-9450	Dust Shield	2	17	21-9430	Spring-Shoe Return RH	2
5	43-6810	Torque Spider	2	18	21-9420	Spring-Shoe Return LH	2
6	21-9390	Socket-Adjusting Screw	2	19	24-9180	Strut/Lever-Parking Brake	2
7	21-9370	Adjusting Screw	2	21	94-6934	Screw-HH	8
8	21-9380	Nut-Pivot	2	22	24-8840	Ring-Wheel Bearing	2
9	242-34	Stud-Axle Flange	10	*	92-8775	Kit-Gasket, Liquid	1
10	21-8360	Clip-Retaining	2	23	94-6936	Washer-Flat	8
11	28-0680	Brake Drum	2				
12	94-6935	Nut-Lock, Flange Hd.	8				

* Not Illustrated

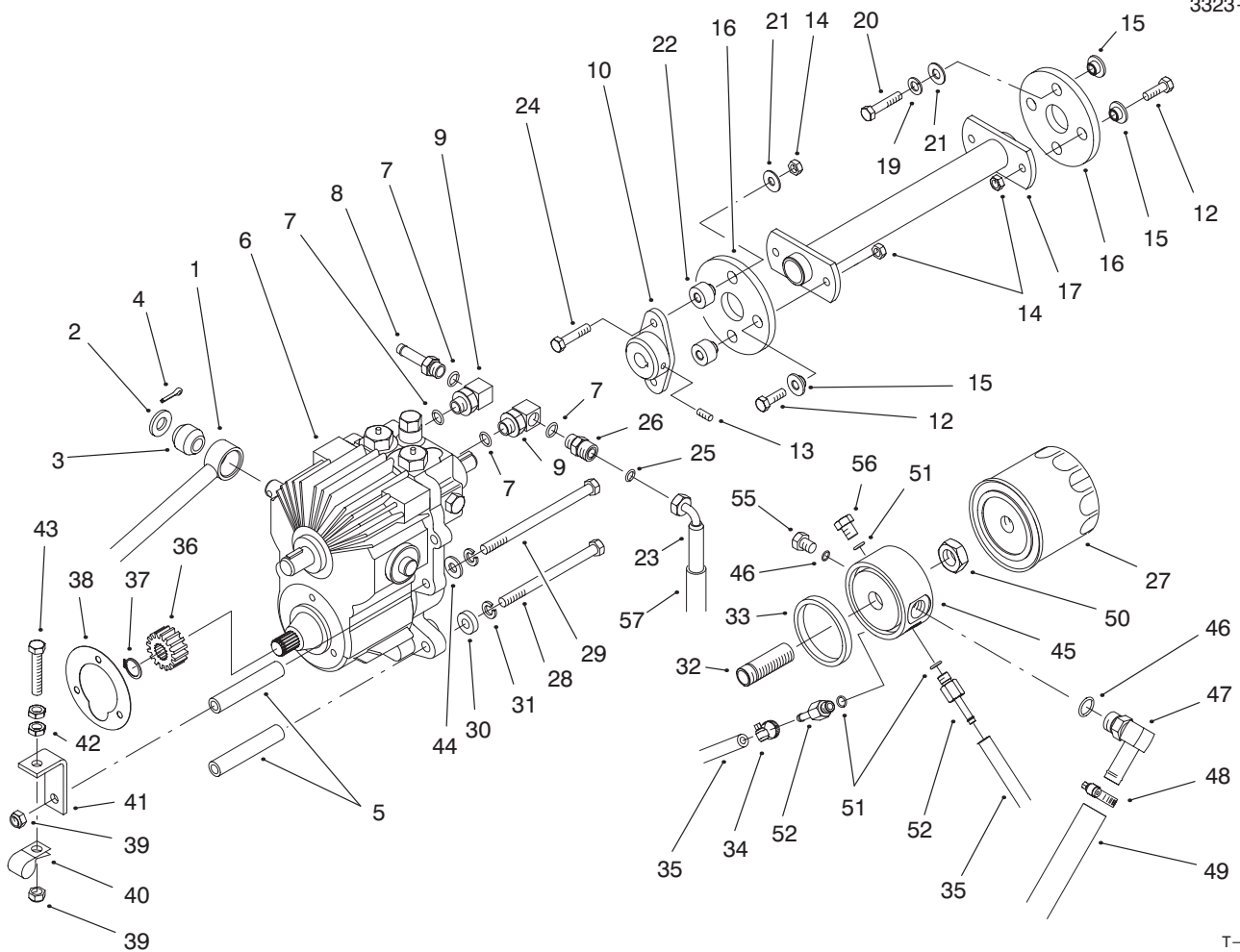


T-2665-2

Transmission & Drive Coupling Assembly

Ref. No.	Part No.	Description	No. Used
1	63-6410	Tube-Traction Control	1
2	3256-26	Washer-Flat	1
3	23-2270	Bushing-Rubber	1
4	3272-10	Pin-Cotter	1
5	27-3680	Spacer-Mounting	4
6	92-5513	Transmission	1
7	237-42	O-Ring	4
8	353-979	Hose Barb (Incl. Ref. #7)	1
9	66-3110	Hyd. Fitting (Incl. Ref. #7)	2
10	27-4370	Hub-Pump	1
12	3210-5	Screw-HH	4
13	3241-6	Screw-Set	2
14	32152-5	Nut-Lock	6
15	27-6600	Spacer-Rubber	6
16	44-2230	Coupling-Rubber	2
17	63-6610	Drive Shaft	1
19	42-9850	Washer-Lock	2
20	48-9460	Screw-HH	2
21	3256-71	Washer-Flat	4
22	27-6590	Spacer	2
23	66-8490	Asm-Hose	1
24	3210-8	Screw-HH	2
25	237-22	O-Ring	1

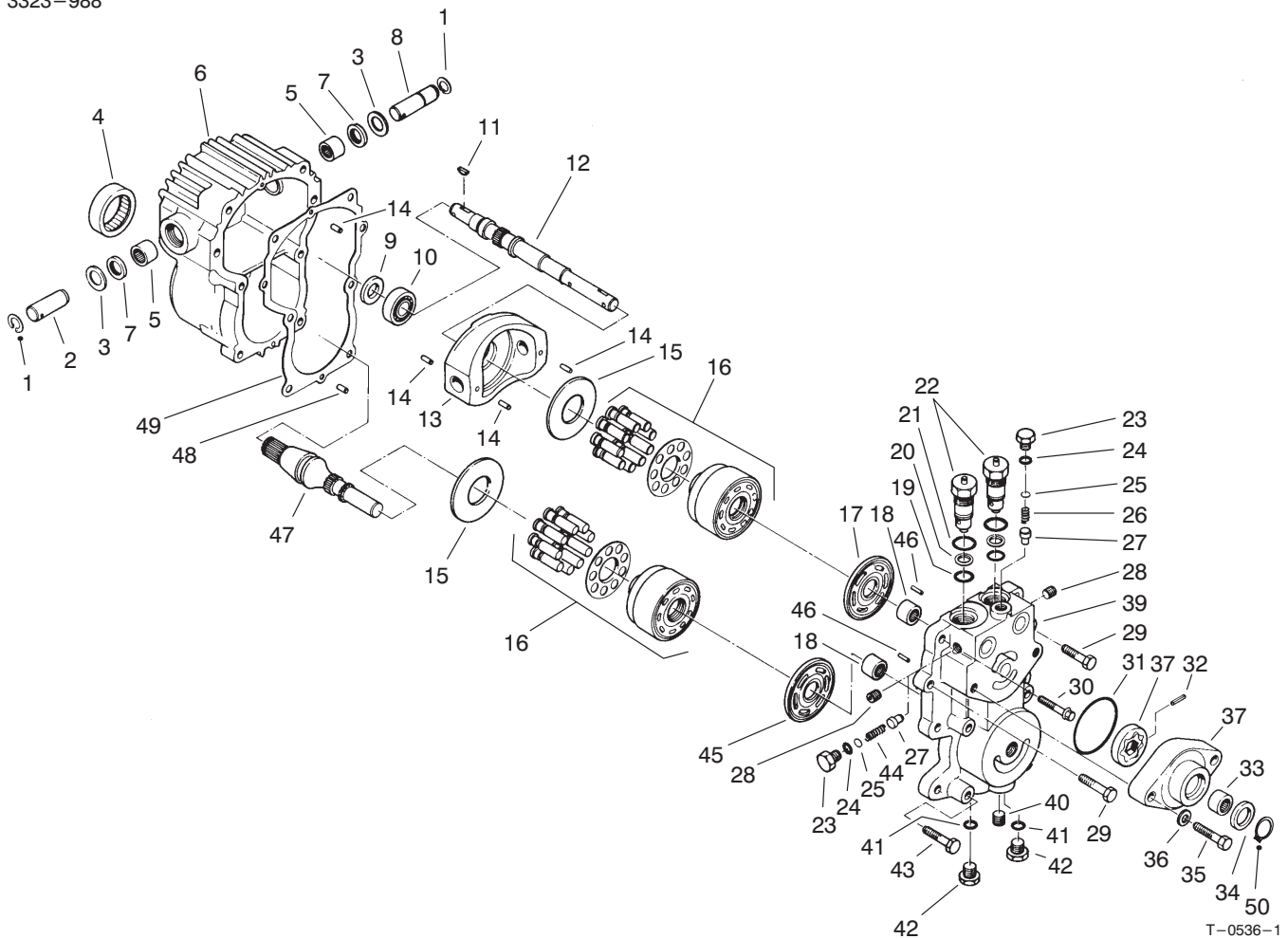
Ref. No.	Part No.	Description	No. Used
26	82-8530	Fitting (Incl. Ref. #7 & 25)	1
27	23-2300	Oil Filter	1
28	323-39	Screw-HH	3
29	27-9620	Screw-HH	1
30	5-0652	Spacer	1
31	3253-21	Washer-Lock	4
32	92-5085	Union Filter	1
33	92-5087	Seal-Adapter, Filter	1
34	2412-108	Hose Clamp	4
35	92-5082	Hose	2
36	86-7220	Gear-Spur	1
37	93-6125	Ring-Retaining	1
38	27-3690	Gasket-Transmission	1
39	3296-39	Nut-Lock	2
40	2412-4	R-Clamp	1
41	63-7170	Anchor-Transmission	1
42	3218-3	Nut-Jam	2
43	67-1900	Screw-HH	1
44	3256-24	Washer-Flat	1
45	92-5076	Adapter-Filter	1
46	237-79	O-Ring	2
47	92-5086	Fitting-Hydraulic 45° (Incl. Ref. #46)	1
48	2412-119	Clamp-Hose	1



T-2665-2

Transmission & Drive Coupling Assembly (Continued)

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
49	92-5083	Hose-Hydraulic	1	56	353-990	Plug-Hydraulic (Incl. Ref. #51)	1
50	3220-7	Nut-Jam	1	57	38-3400	Guard-Rubber	1
51	237-78	O-Ring	3	*	95-3074	Kit-400 Hour Filter (Incl. Ref. #27)	1
52	237-78	O-Ring	3				
52	92-5512	Fitting-Hydraulic, Straight (Incl. Ref. #51)	2				
55	353-988	Plug-Hydraulic (Incl. Ref. #46)	1				



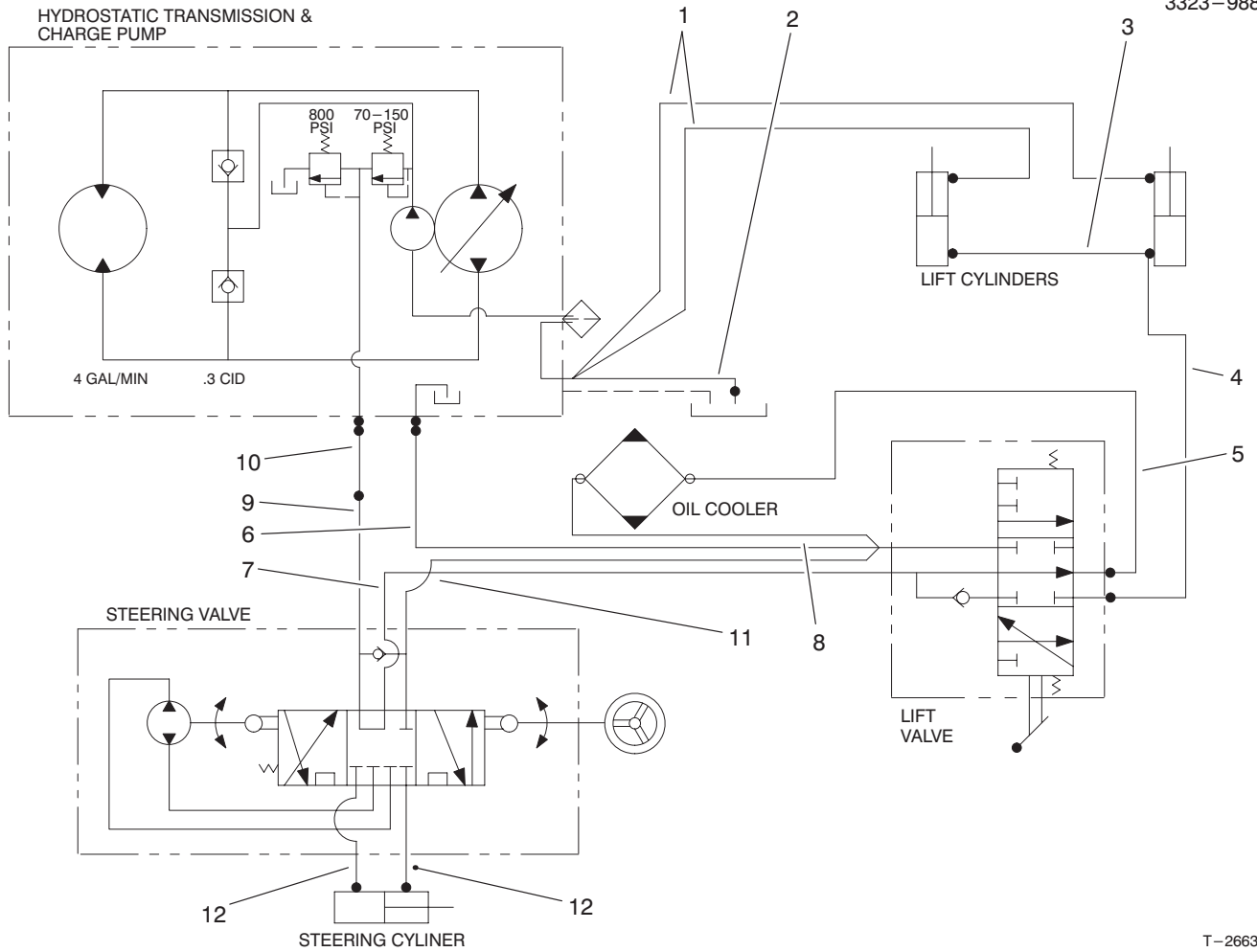
T-0536-1

Transmission Assembly No. 92-5513

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	32151-46	Ring-Retaining	2	27	28-3420	Relief Valve Cone Charge	2
2	25-2500	Shaft-Trunnion	1	28	285-17	Plug-Pipe	4
3	25-2510	Washer	2	29	323-8	Screw-HH	2
4	28-3300	Bearing-Roller	1	30	28-3530	Screw-HH	2
5	28-3310	Bearing-Needle	2	31	28-3520	O-Ring	1
6	92-5709	Housing	1	32	38-2680	Pin	1
7	25-3210	Lip Seal	2	33	28-3480	Bearing-Needle	1
8	28-3670	Shaft-Trunnion	1	†34	28-3470	Lip Seal	1
9	93-4133	Lip Seal	1	‡34	94-2975	Shaft-Seal	1
10	28-3650	Bearing-Ball	1	35	324-23	Screw-HH	2
11	3257-5	Key-Woodruff	2	36	28-3450	Washer-Flat	2
12	28-3640	Shaft-Pump	1	37	38-2670	Kit-Charge Pump (Incl. Ref. #31-34 & 50))	1
13	49-7820	Variable Swashplate	1	39	92-5716	Center Section	1
14	32121-91	Pin	3	40	92-5717	Plug-Pipe	1
15	25-2380	Plate-Thrust	2	41		O-Ring	2
16	48-1800	Kit-Cylinder Block	2	42	28-3440	Plug-Threaded (Incl. Ref. #41)	2
17	46-7320	Plate-Pump Valve	1	43	323-10	Screw-HH	4
18	25-3300	Bearing-Needle	2	44	25-2480	Relief Valve Spring Charge	1
19	28-3590	O-Ring	2	45	28-3380	Plate-Motor Valve	1
20	28-3580	Ring-Backup	2	46	25-2430	Pin	2
21	28-3570	O-Ring	2	47	49-8200	Shaft-Motor	1
22	49-7830	Asm-Check Valve (Incl. Ref. #19-21)	2	48	28-3350	Pin	2
23	25-2460	Plug-Hex Hd.	2	49	28-3340	Gasket	1
24	28-3400	O-Ring	2	‡50	94-2976	Ring-Retaining	1
25	25-2470	Shim Pack	AR				
26	46-7310	Relief Valve Spring Imp.	1				

† Used on transmission serial no. 94-39999 and before.

‡ Used on transmission serial no. 94-40000 and up.

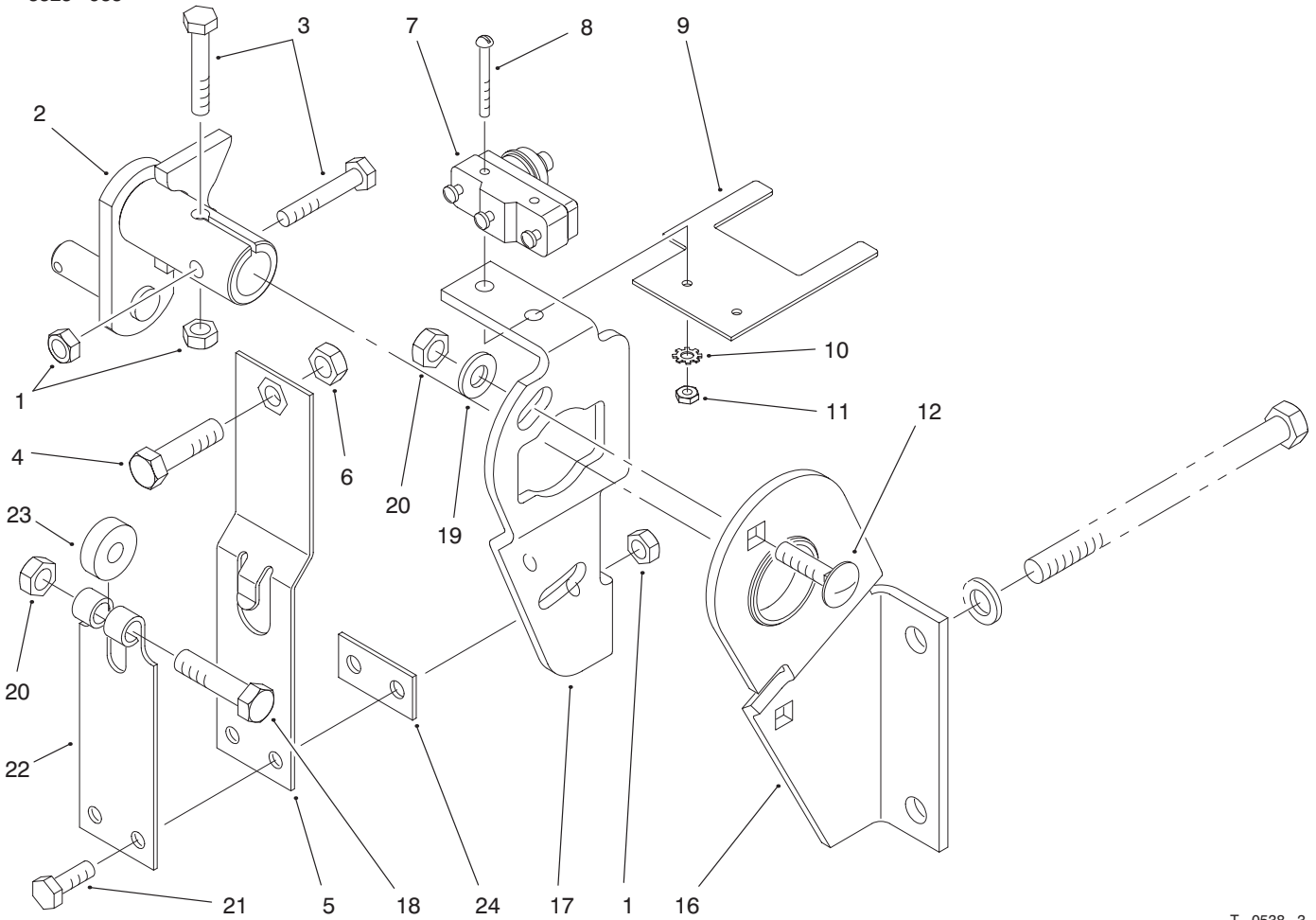


T-2663-1

Hydraulic Schematic

Ref. No.	Part No.	Description	No. Used
1	92-5082	Hose	2
2	92-5083	Hose	1
3	66-8190	Hose	1
4	66-8640	Hose	1
5	66-8180	Hose	1
6	66-8150	Hose	1

Ref. No.	Part No.	Description	No. Used
7	66-8630	Tube	1
8	66-8500	Hose	1
9	66-8620	Tube	1
10	66-8490	Hose	1
11	66-8140	Hose	1
12	66-8170	Hose	2

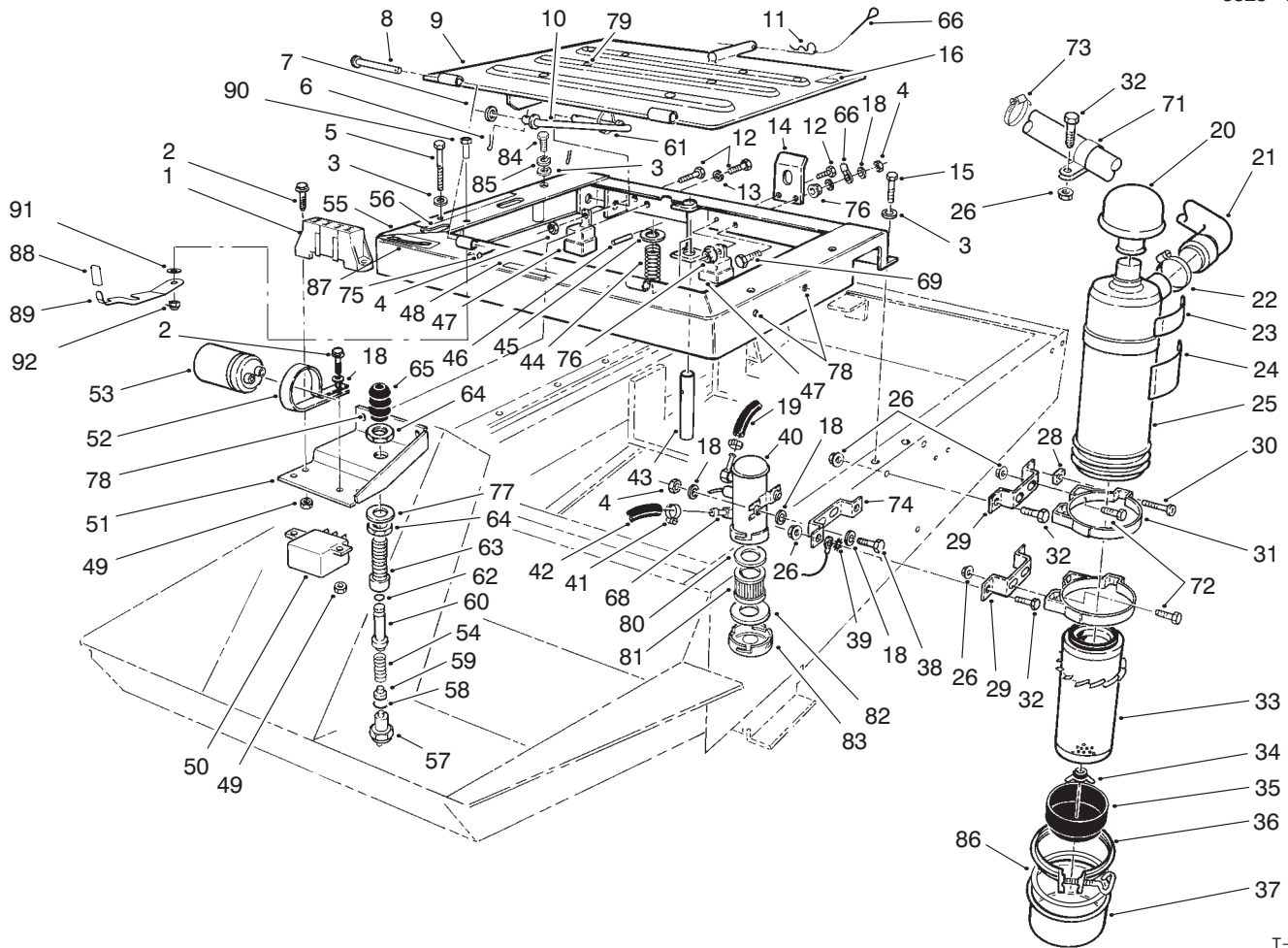


T-0538-3

Transmission Interlock Assembly

Ref. No.	Part No.	Description	No. Used
1	3296-42	Nut-Lock	4
2	29-9790	Pump-Lever	1
3	321-9	Screw-HH	2
4	3210-7	Screw-HH	1
5	29-6170	Spring-Extended Leaf	1
6	3219-2	Nut-Hex.	1
7	29-6162	Micro Switch	1
8	3249-11	Screw-Round Hd.	2
9	46-8810	Stop-Leaf Spring	1
10	3254-9	Washer-Lock, Int. Tooth	2
11	3217-16	Nut-Hex.	2

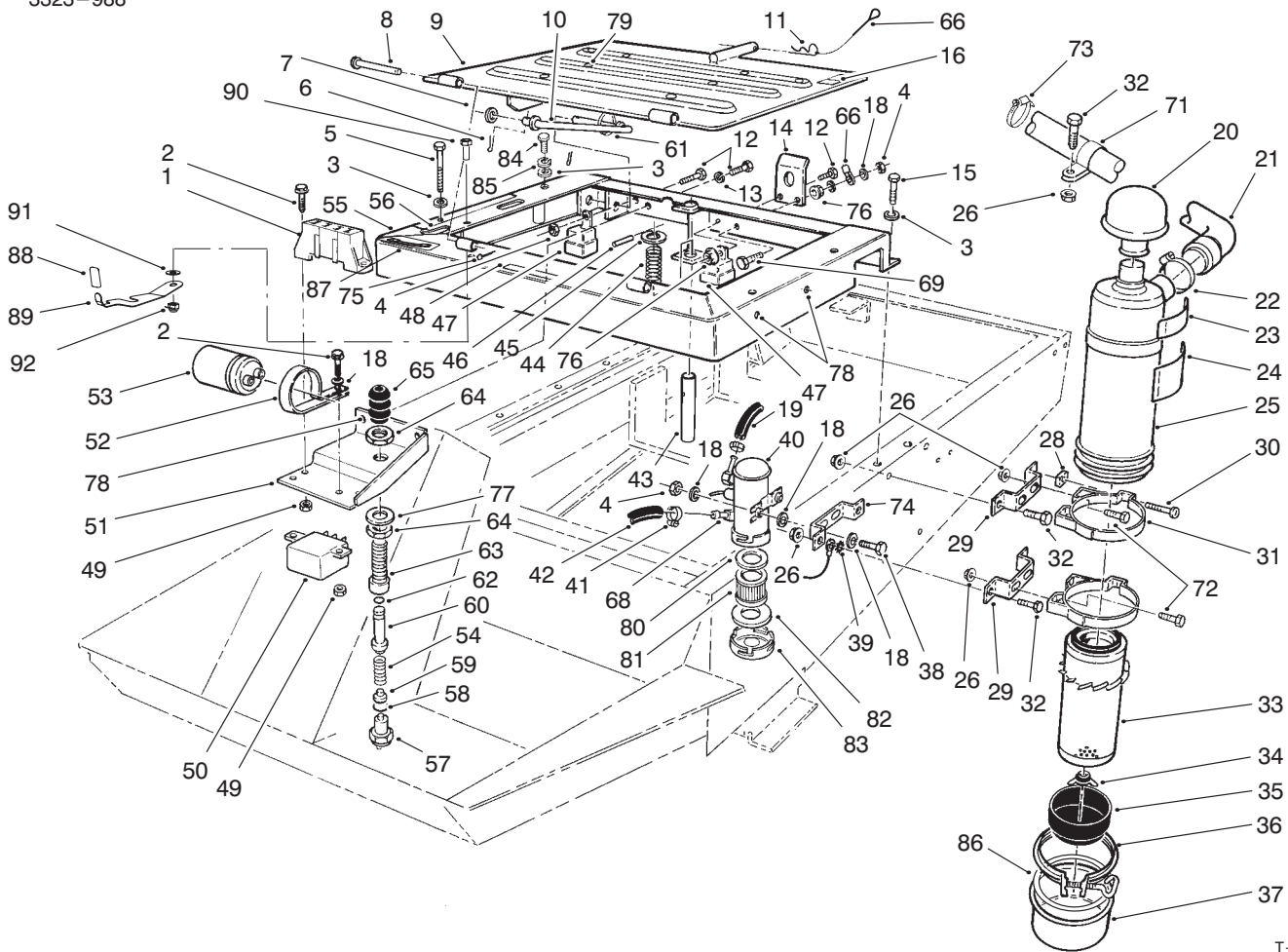
Ref. No.	Part No.	Description	No. Used
12	3230-2	Bolt-Carriage	2
16	52-8890	Bracket-Mounting	2
17	52-9070	Plate-Pump	1
18	322-17	Screw-HH	1
19	3256-23	Washer-Flat	2
20	3296-29	Nut-Lock	3
21	321-4	Screw-HH	2
22	29-6150	Spring-Leaf	1
23	251-259	Bearing-Ball	1
24	51-3150	Shim	1



T-3453

Seat Frame & Air Cleaner Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	67-7160	Fuse Block	1	26	32128-20	Nut-Flange	9
2	32105-13	Screw-HH	4	28	32107-11	Nut-Square	2
3	3256-23	Washer-Flat	6	29	66-2451	Bracket-Air Cleaner	2
4	3296-42	Nut-Lock	3	30	3258-19	Screw-HH	2
5	322-13	Screw-HH	6	31	27-7170	Asm-Mounting Band (Incl. Ref. #28 & 30)	2
6	3272-11	Pin-Cotter	2	32	322-5	Screw-HH	5
7	3256-24	Washer-Flat	1	33	27-7110	Asm-Element	1
8	283-49	Pin-Clevis	2	34	27-7120	Asm-Nut & Gasket	1
9	92-5759	Plate-Seat (Incl. Ref. #79)	1	35	27-7140	Skirt-Baffle	1
10	66-2800	Rod-Seat Support	1	36	27-7130	Asm-Clamp	1
11	3290-255	Pin-Hair, Cotter	1	37	27-7150	Asm-Cup	1
12	321-4	Screw-HH	4	38	321-8	Screw-HH	2
13	3253-3	Washer-Lock	2	39	3255-8	Washer-Lock, Ext. Tooth	1
14	66-2630	Latch-Seat	1	40	53-8150	Pump-Fuel (Incl. Ref. #80-83)	1
15	3234-17	Screw-HFH	2	41	2412-108	Clamp-Hose	4
16	93-6680	Decal-Diesel Fuel	1	42	63-7630	Hose	1
18	3256-22	Washer-Flat	9	43	66-2590	Pin-Seat Spring	1
19	63-7620	Hose	1	44	37-9590	Spring-Compression	1
20	27-7180	Asm-Cap	1	45	3256-27	Washer-Flat	1
21	94-3309	Hose-Air Cleaner Inlet	1	46	32121-6	Pin-Roll	1
22	2412-42	Clamp-Hose	1	47	63-7590	Relay	2
23	93-7275	Decal-Starting Fluid	1	48	67-1710	Decal-Interlock	1
25	27-7100	Asm-Air Cleaner (Incl. Ref. #24 & 32-36)	1	48	93-7841	Decal-Interlock (Europe)	1



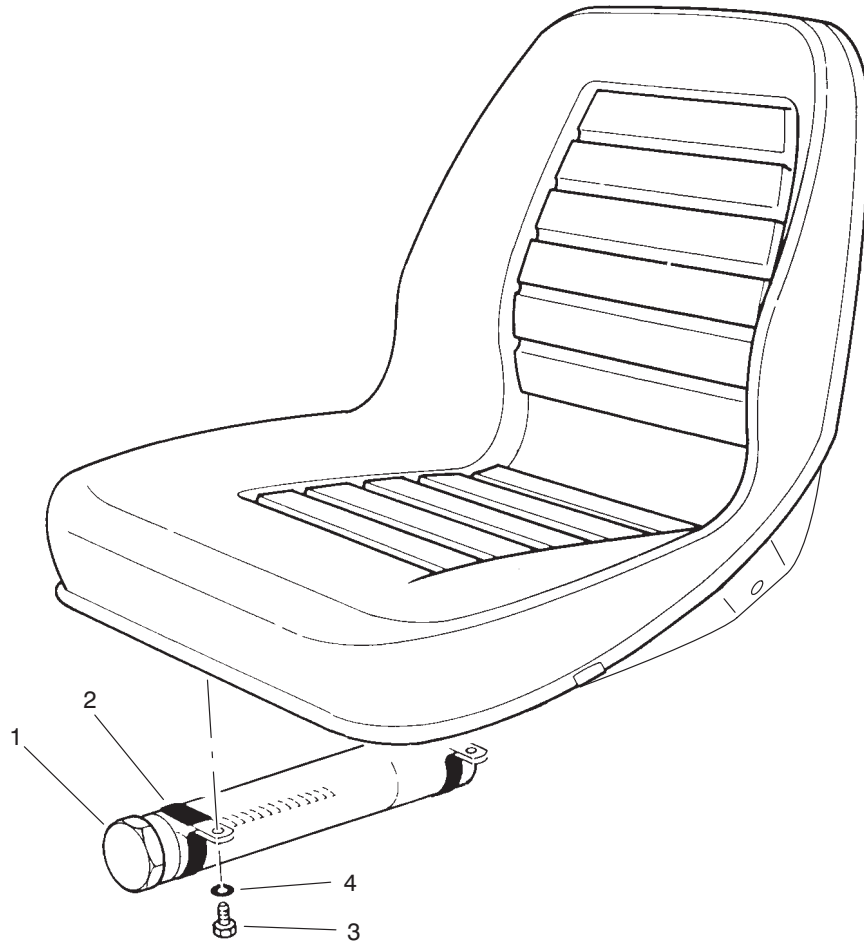
T-3453

Seat Frame & Air Cleaner Assembly (Continued)

Ref. No.	Part No.	Description	No. Used
49	3296-12	Nut-Lock	4
50	66-8800	Relay	1
51	92-7892	Bracket-Seat Switch	1
52	2412-74	R-Clamp	1
53	37-2690	Capacitor	1
54	43-8600	Spring-Compression	1
55	92-8877	Frame-Seat (Incl. Ref. # 48, 56, 78)	1
56	93-7833	Decal-Control Levers	1
57	72-4320	Switch	1
58	237-30	O-Ring	1
59	43-8610	Guide-Spring & Ball Seat	1
60	43-8860	Plunger-Switch	1
61	3290-378	Tie-Cable	1
62	237-7	O-Ring	1
63	43-8620	Guide-Switch Pin	1
64	218-461	Nut-Jam	2
65	43-8870	Boot-Switch	1
66	28-8070	Lanyard	1
68	67-1690	Fitting	2
69	321-6	Screw-HH	1
71	2412-107	R-Clamp	1
72	322-3	Screw-HH	4
73	2412-92	Clamp-Hose	1
74	66-2450	Bracket-Air Cleaner	1
75	3272-4	Pin-Cotter	2

Ref. No.	Part No.	Description	No. Used
76	32128-33	Nut-HFH	2
77	3256-69	Washer-Flat	1
78	32148-6	Nut-Clinch	6
79	32148-9	Nut-Clinch	2
80	43-2570	Gasket	1
81	43-2550	Filter	1
82	43-2560	Gasket	1
83	43-2580	Magnet	1
86	80-3330	Gasket	1
84	322-14	Screw-HH	2
85	3253-4	Washer-Lock	2
86	80-3330	Gasket	1
*	43-9071	Switch-Seat (Incl. Ref. #54, 57-60 & 62-65)	1
*	95-3074	Kit-400 Hour Filter (Incl. Ref. #33 & 81)	1
87	100-6577	Decal-Lift Lock	1
88	100-5676	Grip-Handle	1
89	100-6551	Latch-Spring	1
90	322-4	Screw-HH	1
91	3256-2	Lock-Washer	1
92	3296-29	Nut-Lock, NI	1

* Not Illustrated

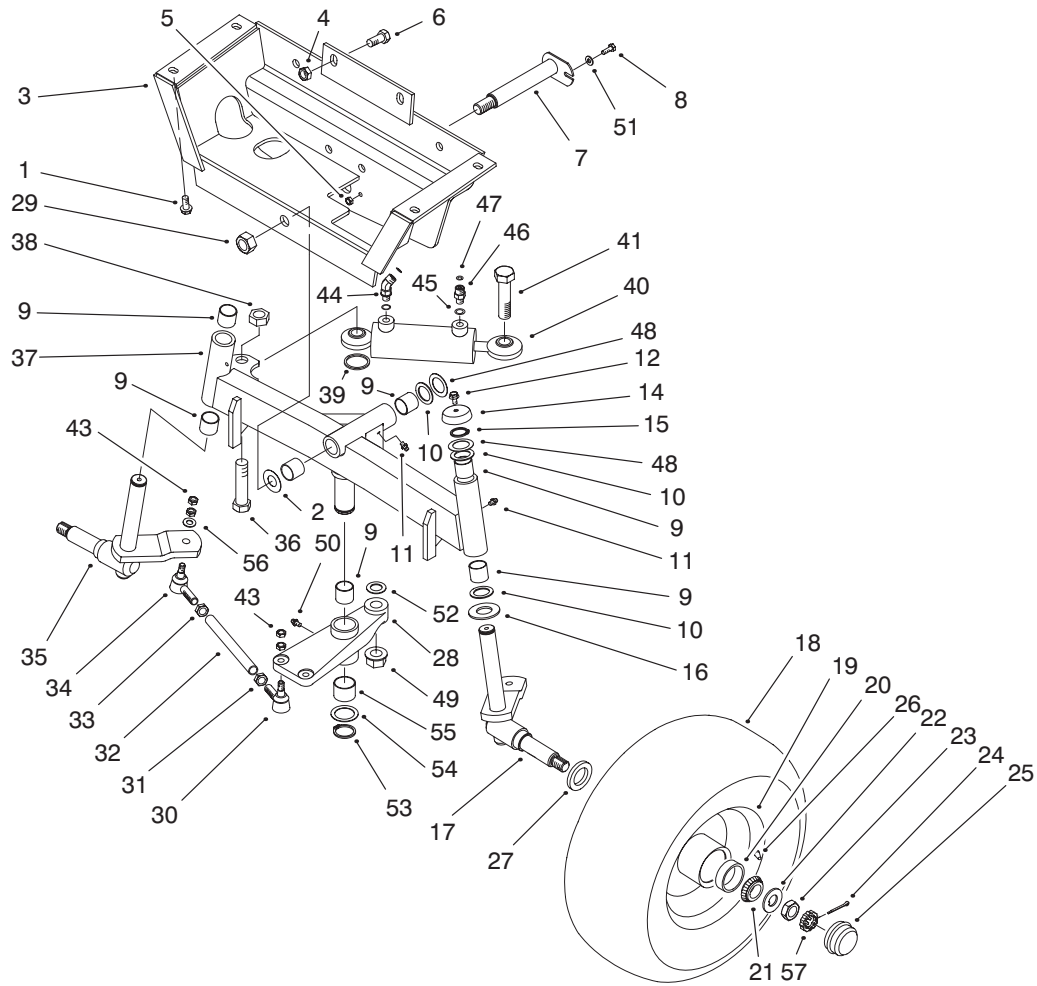


T-1692-1

Manual Storage Assembly

Ref. No.	Part No.	Description	No. Used
1	74-0720	Tube-Manual	1
2	2412-133	R-Clamp	2

Ref. No.	Part No.	Description	No. Used
3	322-5	Screw	2
4	3256-23	Washer-Flat	2

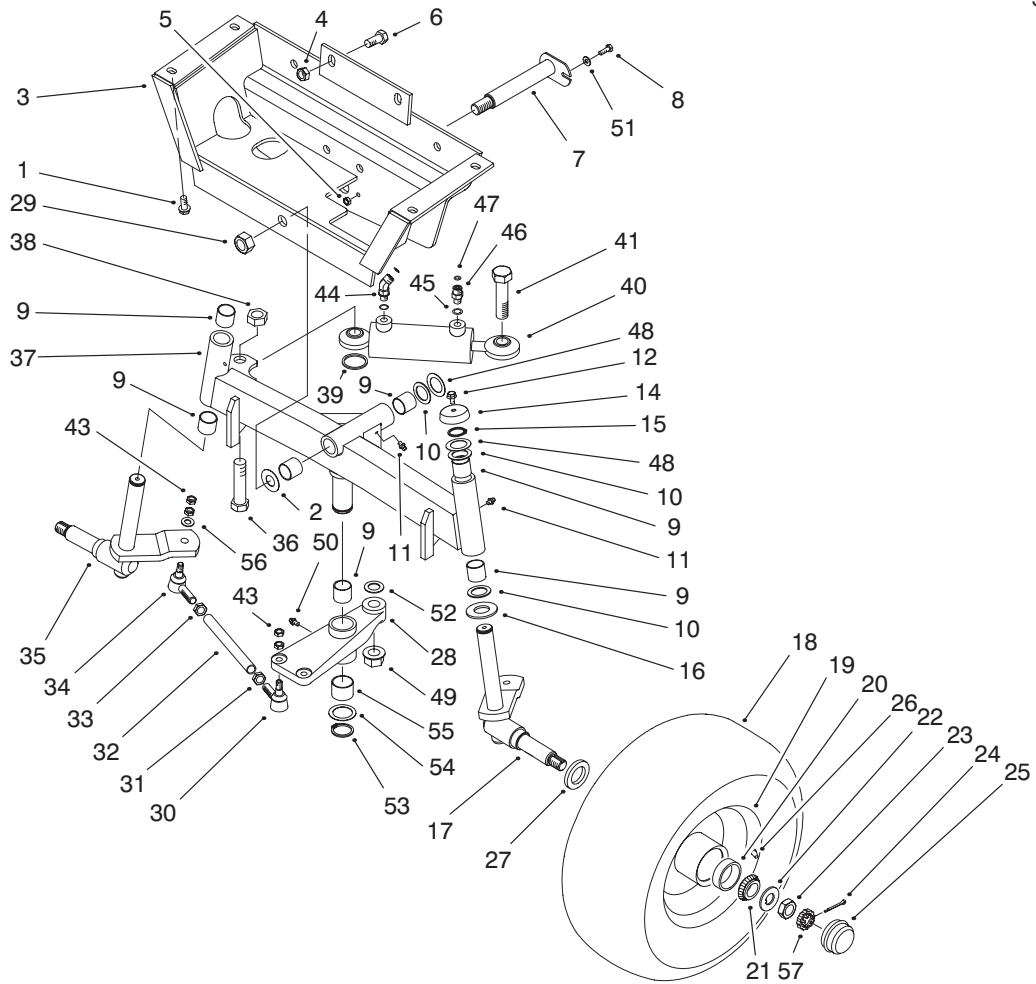


T-0540

Rear Axle Assembly

Ref. No.	Part No.	Description	No. Used
1	3234-25	Screw-HFH	4
2	71-4540	Washer-Thrust	1
3	63-6430	Frame-Rear	1
4	3296-25	Nut-Lock	2
5	3296-42	Nut-Lock	1
6	325-5	Screw-HH	2
7	63-6770	Pin-Rear Axle	1
8	321-4	Screw-HH	1
9	67-1750	Bushing	6
10	10-8110	Washer	5
11	302-5	Fitting-Grease	3
12	3234-13	Screw-HFH	2
14	66-2990	Cap-Spindle	2
15	32151-36	Ring-Retaining	2
16	256-121	Washer-Thrust	2
17	93-3195	Spindle-Wheel LH	1
18	231-105	Tire	2
19	217-118	Rim	2
20	254-72	Cup-Bearing	4
21	254-94	Cone-Bearing	4
22	93-0309	Washer-Tab	2
23	3220-7	Nut-Jam	2
24	3272-13	Pin-Cotter	2
25	241-119	Cap-Hub	2
26	232-35	Stem-Valve	2
27	253-129	Seal-Hub	2

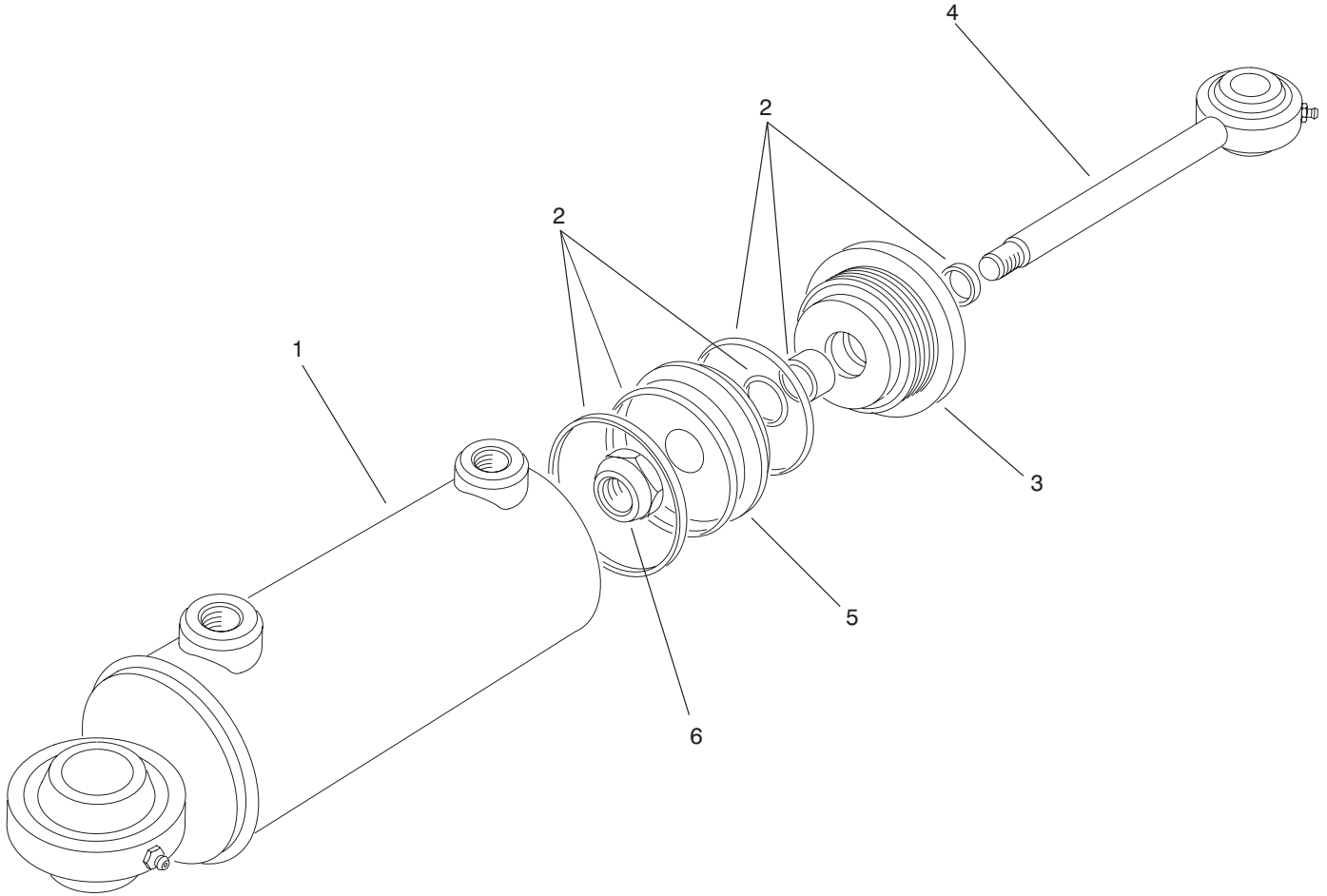
Ref. No.	Part No.	Description	No. Used
28	76-4810	Pivot-Steering (Incl. Ref. #50 & 55)	1
29	3296-51	Nut-Lock	1
30	21-0151	Joint-Ball LH	2
31	3220-12	Nut-Jam LH	2
32	63-6880	Rod-Tie	2
33	3220-5	Nut-Jam RH	2
34	21-0141	Joint-Ball RH	2
35	93-3196	Spindle-Wheel RH	1
36	67-7300	Screw-HH	1
37	76-3000	Axle-Rear (Incl. Ref. #9 & 11)	1
38	32153-6	Nut-Hex Lock	1
39	67-7250	Spacer Cyl.	1
40	76-2070	Cylinder-Steering	1
41	328-25	Screw-HH	1
43	3220-3	Nut-Jam	8
44	340-103	Fitting-45° Elbow (Incl. Ref. #45 & 47)	1
45	237-78	O-Ring	2
46	340-92	Fitting-Straight	1
47	237-21	O-Ring	2
48	56-2460	Washer-Flat	A/R
49	32128-45	Nut-HFH	1
50	302-62	Fitting-Grease	1
51	3256-22	Washer-Flat	1



T-0540

Rear Axle Assembly (Continued)

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
52	67-9410	Washer-Flat	1	55	76-2970	Bushing	2
53	32151-77	Ring-Retaining	1	56	3256-24	Washer-Flat	2
54	76-2980	Washer-Thrust	1	57	93-0307	Nut-Retainer, Lock	2

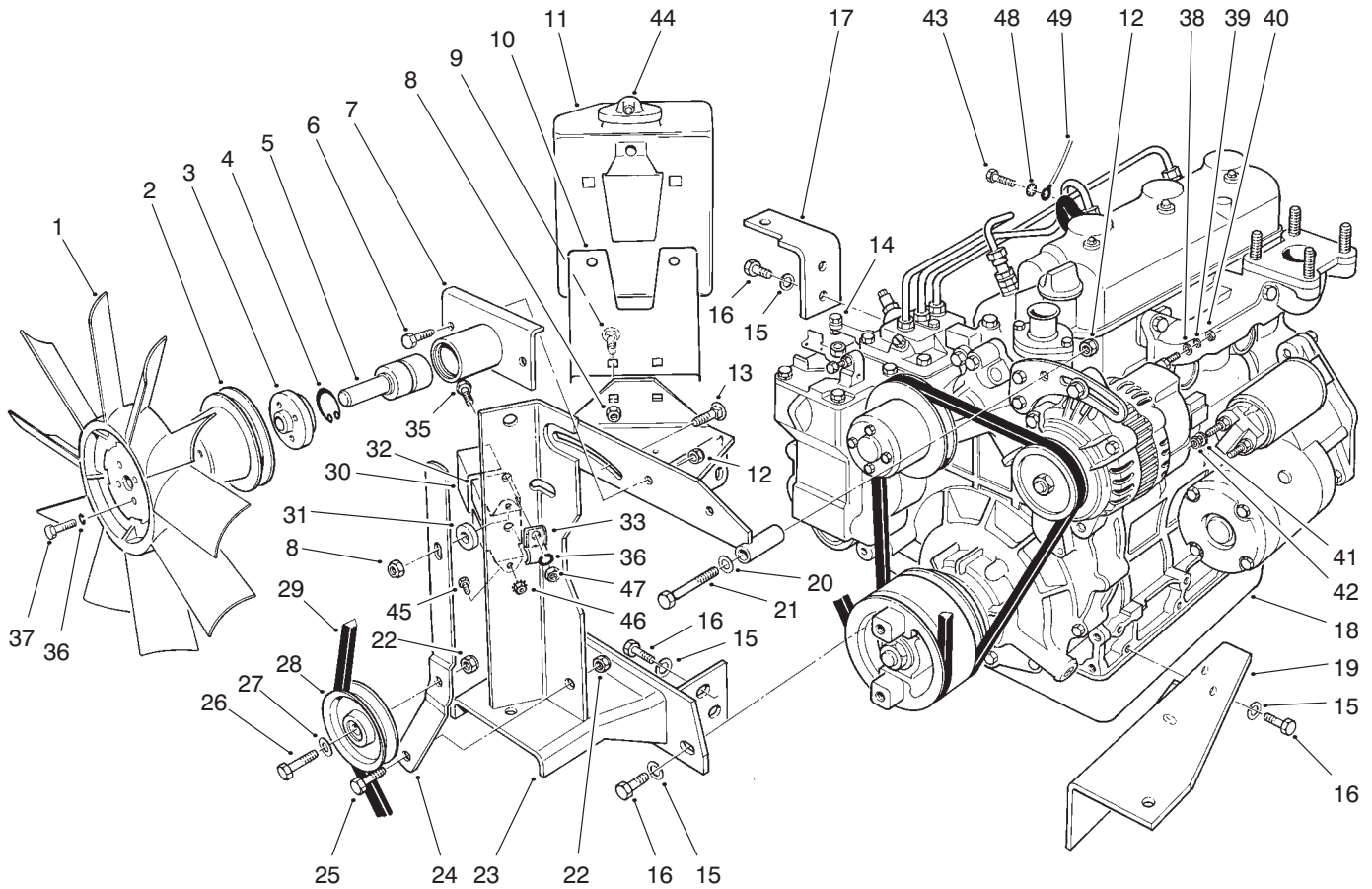


T-0541-3

Hydraulic Cylinder No. 76-2070

Ref. No.	Part No.	Description	No. Used
1	66-2770	Tube-Cylinder	1
2	76-2090	Kit-Seal	1
3	76-2790	Gland	1

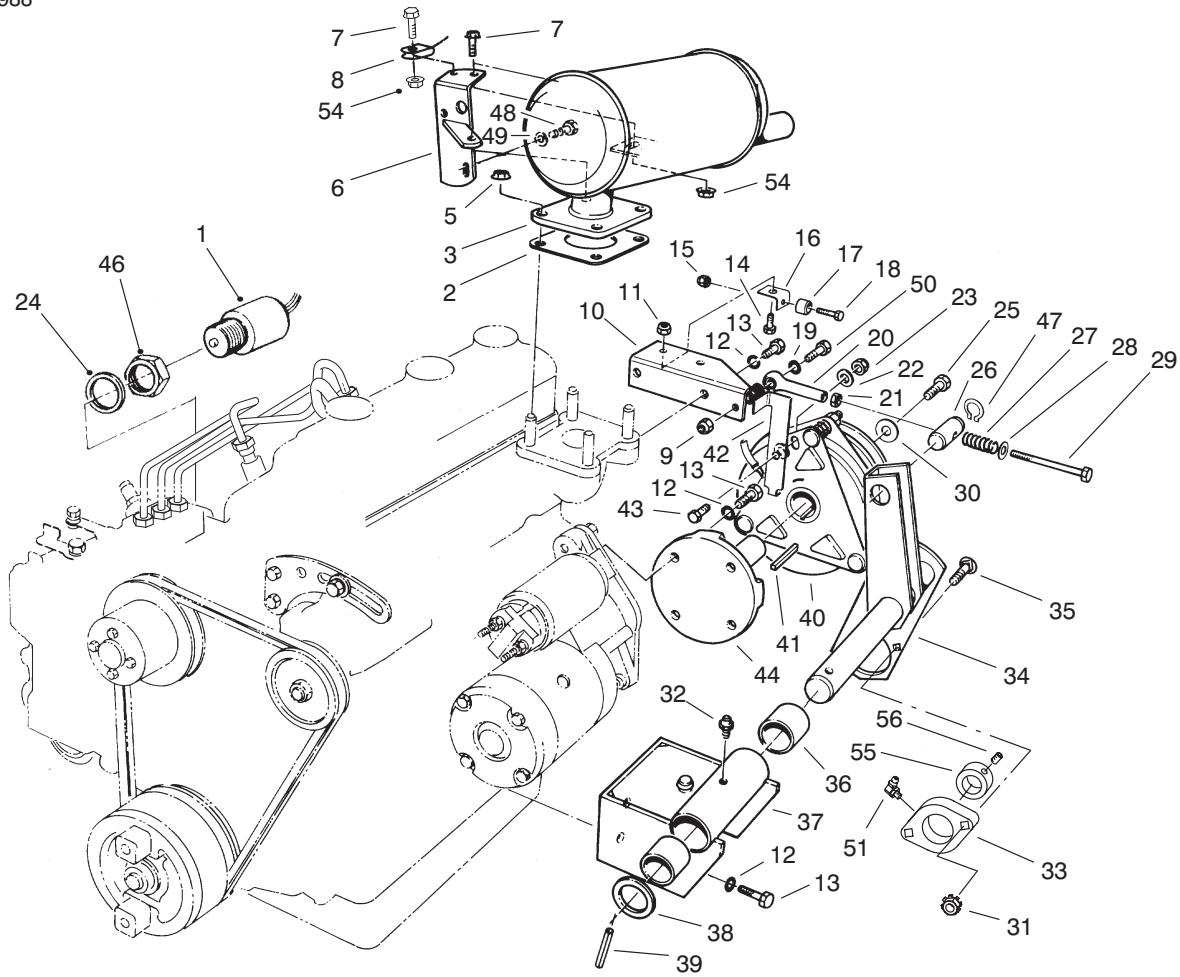
Ref. No.	Part No.	Description	No. Used
4	76-2080	Asm-Piston Rod	1
5	66-1940	Piston	1
6	66-1930	Nut-Lock	1



T-0542-2

Engine Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	84-1880	Fan-Cooling	1	25	323-6	Screw-HH	1
2	84-1890	Pulley-Fan	1	26	323-8	Screw-HH	1
3	84-1930	Hub-Fan	1	27	3256-24	Washer-Flat	1
4	32120-10	Ring-Retaining	1	28	63-8140	Pulley	1
5	36-7290	Shaft & Bearing	1	29	92-8876	Belt-Fan	1
6	322-4	Screw	2	30	70-8560	Retainer-Glow Plug	1
7	84-1940	Hub	1	31	52-2340	Spacer	1
8	32128-20	Nut-Flange	3	32	66-8700	Indicator-Glow (Incl. Ref. #30)	1
9	3230-23	Bolt-Carriage	2	33	3-6657	Clip-Skid	1
10	66-2440	Plate-Reservoir	1	35	321-4	Screw-HH	1
11	63-7380	Tank-Expansion (Incl Ref. #44)	1	36	3253-3	Washer-Lock	5
12	3296-29	Nut-Lock	3	37	321-3	Screw-HH	4
13	3230-2	Bolt-Carriage	1	38	5-3637	Washer-Flat	1
14	63-6760	Swivel-Throttle Cable	1	39	43-5920	Washer-Lock	1
15	48-9590	Washer-Lock	8	40	43-5970	Nut-Hex.	1
16	63-7790	Screw	8	41	42-9850	Washer-Lock	2
17	71-2910	Angle-Engine Mount	1	42	57-6390	Nut-Hex.	2
18	98-7220	Engine	1	43	48-7700	Screw-Hex.	1
19	66-2320	Mount-Engine	1	44	71-1520	Cap-Reservoir	1
20	3256-23	Washer-Flat	1	45	32105-8	Screw	2
21	322-11	Screw-HH	1	46	32149-7	Nut-Keps	2
22	3296-39	Nut-Lock	2	47	3217-5	Nut-Hex.	1
23	98-2334	Bracket	1	48	3254-2	Washer-Lock, Int. Tooth	1
24	63-6720	Lever-Idler	1	49	63-7340	Wire-Ground	1



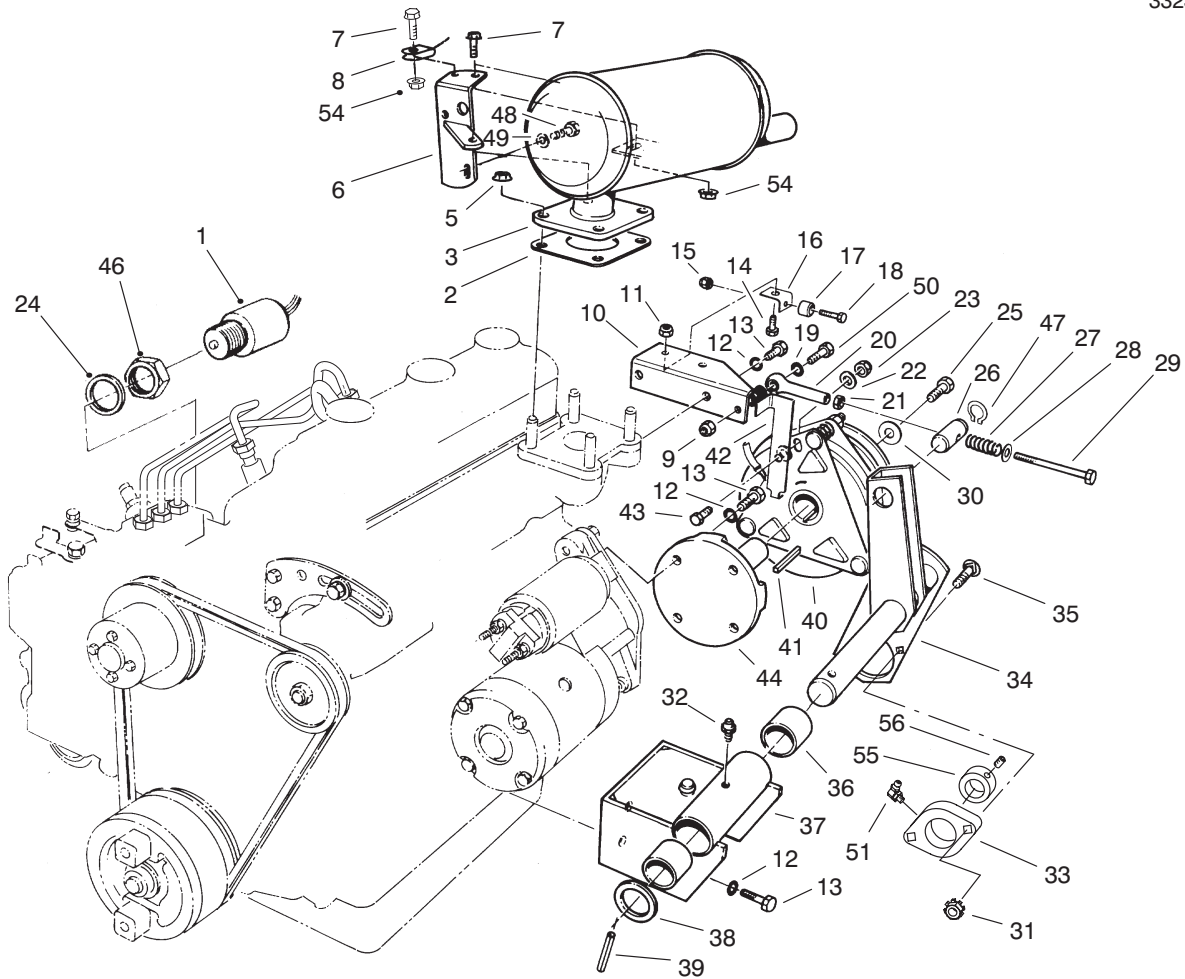
T-0543-3

Power Take-Off Assembly

Ref. No.	Part No.	Description	No. Used
1	63-7440	Solenoid-Stop	1
2	53-8130	Gasket-Exhaust	1
3	84-1910	Muffler	1
*	75-6880	Spark Arrester Screen (Optional)	1
5	68-9400	Nut-Hex.	4
6	66-2360	Support -Muffler	2
7	3234-29	Screw-HFH.	2
8	66-2870	Cable-Hood Stop	1
9	3296-29	Nut-Lock	1
10	93-9991	Bracket	1
11	3296-42	Nut-Lock	2
12	48-9590	Washer-Lock	10
13	63-7790	Screw	10
14	321-3	Screw-HFH	2
15	3296-9	Nut-Lock	2
16	63-8230	Angle-Clutch Anchor	2
17	66-2910	Bumper-Rubber	2
18	3250-39	Screw-Pan Head	2
19	3256-23	Washer-Flat	4
20	66-2900	Tie Rod End	1
21	3220-2	Nut-Jam	1
22	3256-24	Washer-Flat	2
23	3296-59	Nut-Lock	1
24	43-2740	Gasket	1

Ref. No.	Part No.	Description	No. Used
25	3212-5	Screw	1
26	63-6290	Pin-Tension	1
27	3-6624	Spring	1
28	4-2390	Washer	1
29	66-3100	Screw	1
30	67-1631	Spacer	1
31	32149-1	Nut-Keps	2
32	302-5	Fitting-Grease	1
33	92-8799	Bearing	1
34	63-6250	Shaft-PTO Tension	1
35	3230-4	Bolt-Carriage	2
36	256-299	Bushing	2
37	67-1800	Pivot Plate (Incl. Ref. #32 & 36)	1
38	3-4324	Washer	1
39	32121-32	Pin-Roll	1
40	63-6050	Clutch-Electric	1
41	63-8150	Key	1
42	63-6690	Lever-Clutch Anchor	1
43	323-34	Screw-HH	1
44	63-6030	Hub-Clutch	1
46	43-2750	Nut-Jam	1
47	32151-83	Snap Ring	2
48	66-3160	Screw	1
49	48-8030	Washer-Flat	1

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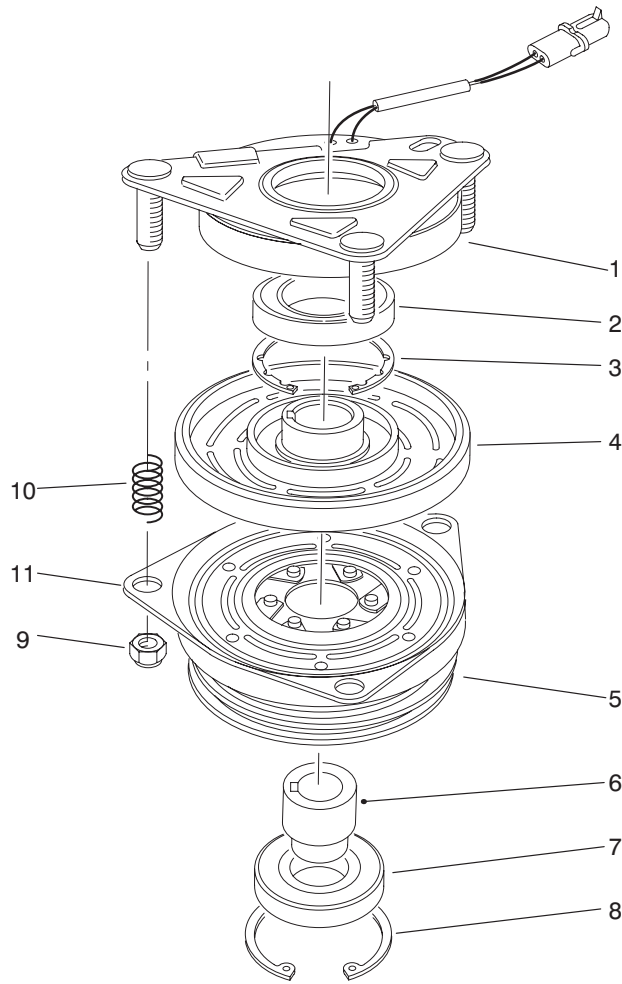


T-0543-3

Power Take-Off Assembly (Continued)

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
50	322-6	Screw-HH	1	55	251-77	Collar-Locking	1
51	302-40	Fitting-Grease	1	56	3245-35	Screw-Set	1
54	32128-25	Nut-Lock	2				

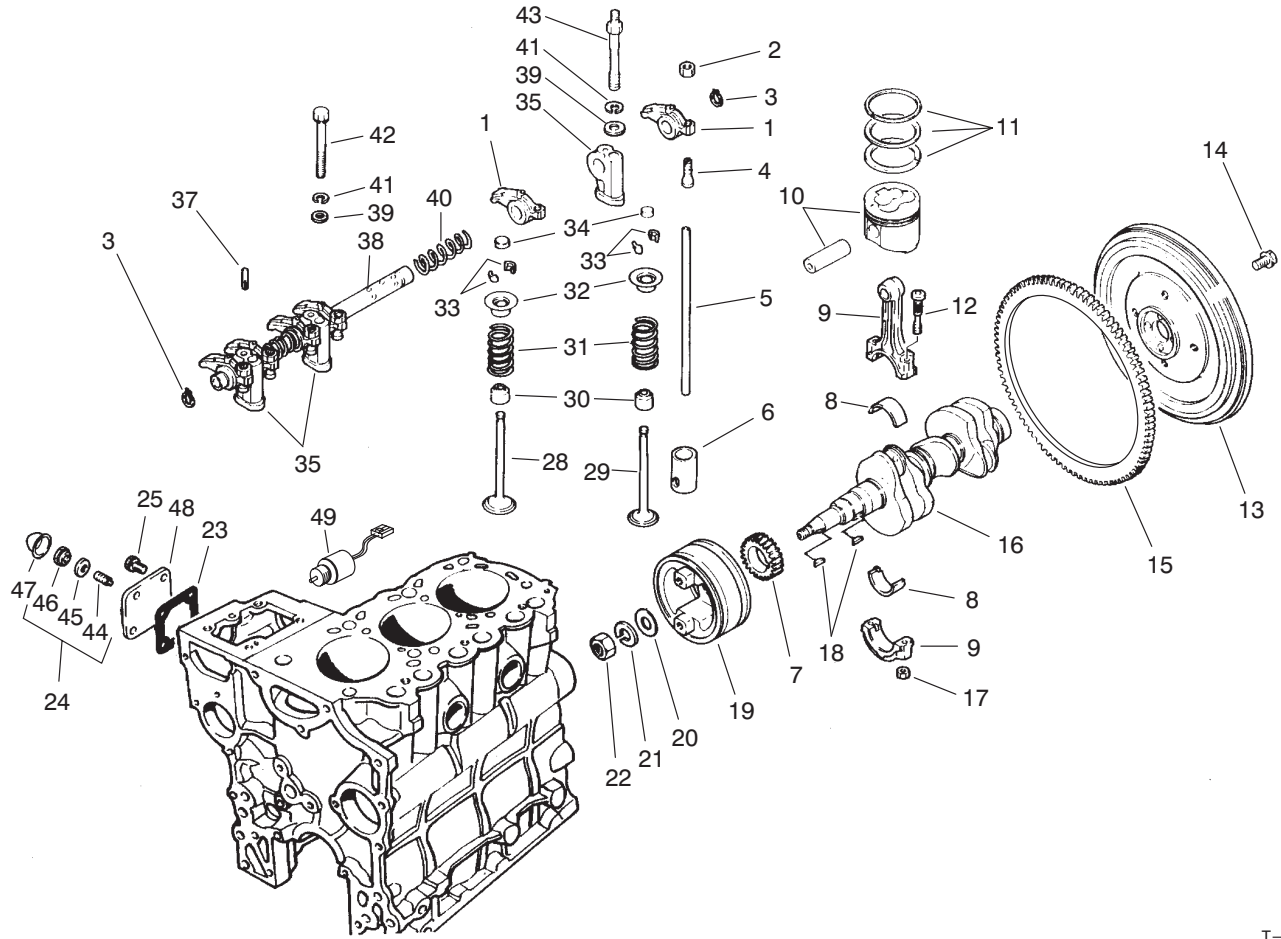
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T-0544-2

Clutch Assembly No. 63-6050

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	67-7050	Asm-Field Rotor (Incl. Ref. #2-4)	1	6	67-7080	Collar-Bearing	1
2		Bearing-Field	1	7	67-7090	Bearing-Pulley	1
3		Ring-Retaining	1	8	67-7060	Ring-Retaining	1
4		Field Coil Assembly	1	9	3296-6	Nut-Lock	3
5	67-7070	Asm-Armature & Pulley (Incl. Ref. #6-8)	1	10	44-8320	Spring	3
				11	67-7100	Plate-Brake	1

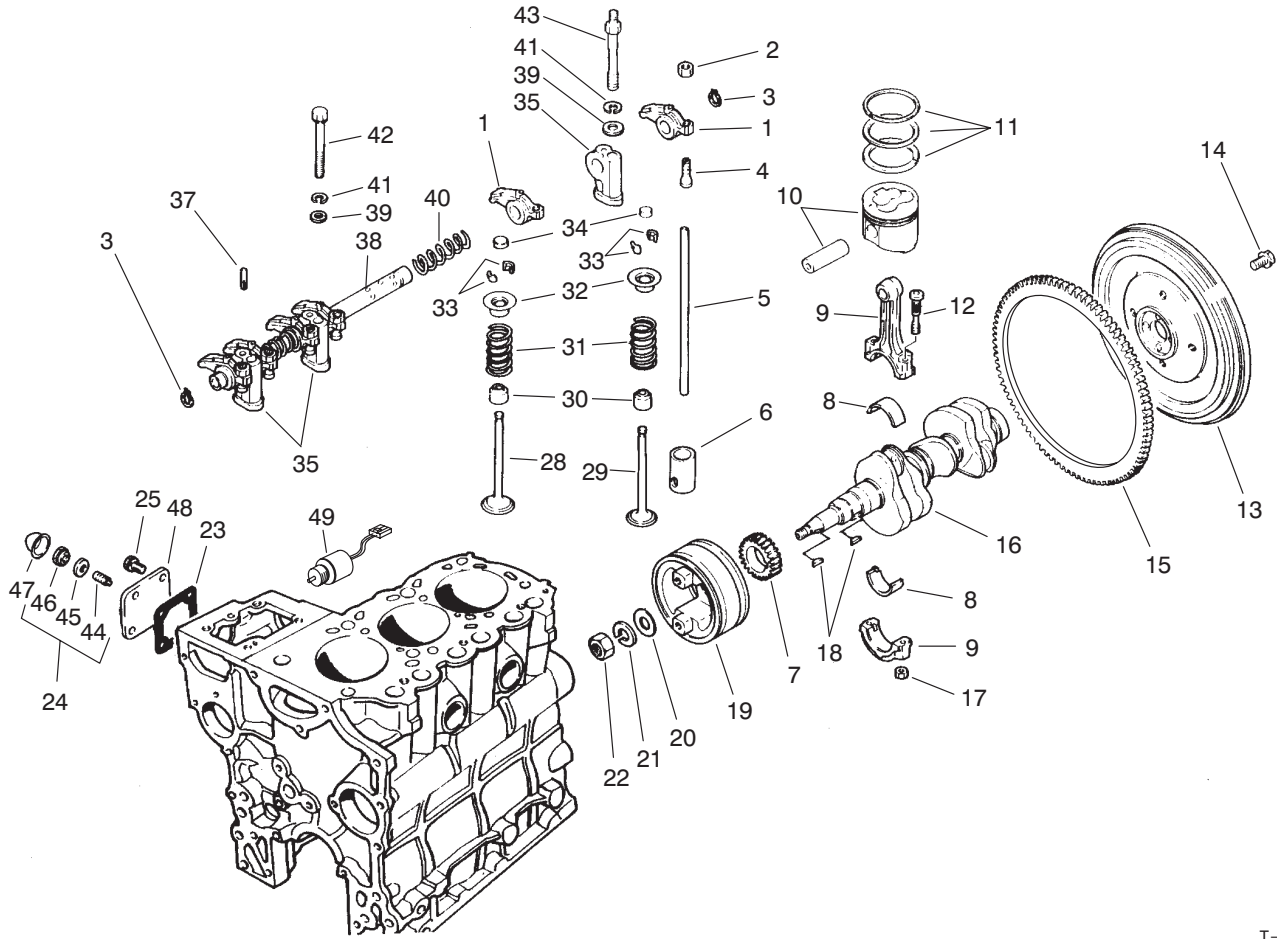


T-0565-1

Valves And Crankshaft Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	67-3160	Arm-Rocker	6	14	67-2990	Bolt	4
2	67-3230	Nut-Jam	6	15	67-2980	Gear-Ring	1
3	67-3240	Snap Ring	2	16	92-0845	Crankshaft	1
4	67-3210	Screw-Adjusting	6	17	42-9590	Nut	6
5	67-3150	Rod-Push	6	18	56-0480	Key-Woodruff	2
6	67-3120	Tappet	6	19	67-2930	Pulley-Crankshaft	1
7	67-2910	Gear	1	20	67-2950	Washer	1
8	75-5010	Bearing Set STD	3	21	67-2960	Washer-Lock	1
*	67-2890	Bearing Set 0.25 mm US	3	22	67-2940	Nut-Jam	1
*	67-2900	Bearing Set 0.50 mm US	3	23	67-4310	Gasket	1
9	67-2850	Asm-Rod, Connecting (Incl. Ref. #12 & 17)	3	24	75-5110	Asm-Cover (Incl. Ref. #44-46)	1
10	75-5080	Piston & Pin Set STD	3	25	42-9440	Bolt W/Washer	4
*	75-5090	Piston & Pin Set 0.25 mm OS	3	28	67-3130	Valve-Intake	3
*	75-5100	Piston & Pin Set 0.50 mm OS	3	29	67-3140	Valve-Exhaust	3
11	75-5050	Ring Set STD	3	30	42-7870	Seal	6
*	75-5060	Ring Set 0.25 mm OS	3	31	67-3110	Spring	6
*	75-5070	Ring Set 0.50 mm OS	3	32	67-3100	Retainer	6
12	67-2860	Bolt	6	33	42-7860	Lock	12
13	67-2970	Asm-Flywheel (Incl. Ref. #14)	1	34	67-3180	Cap	6
				35	67-3200	Stay-Rocker	3
				37	67-3220	Pin	1
				38	67-3190	Asm-Rocker Shaft	1

* Not Illustrated

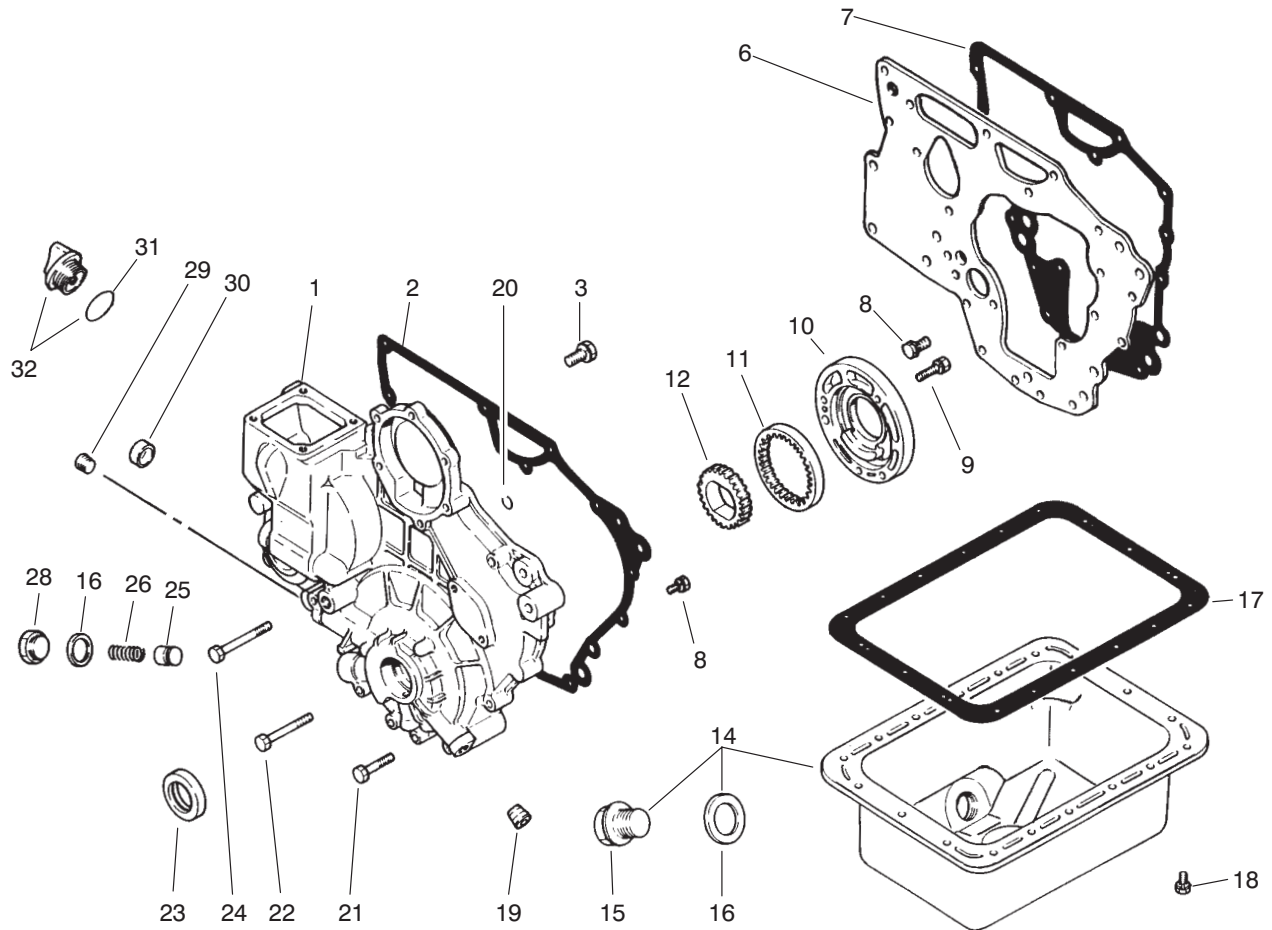


T-0565-1

Valves And Crankshaft Assembly (Continued)

Ref. No.	Part No.	Description	No. Used
39	42-9660	Washer	3
40	67-3170	Spring	2
41	67-3260	Washer	3
42	42-9510	Bolt	1
43	67-3250	Bolt-Rocker Stay	2
44	43-3160	Screw-Adjusting	1

Ref. No.	Part No.	Description	No. Used
45	75-5120	Gasket	1
46	43-5960	Nut-Special	1
47	43-2820	Cap-Sealing	1
48	67-4250	Cover-Tie Rod	1
49	63-7440	Solenoid-ETR Stop	1

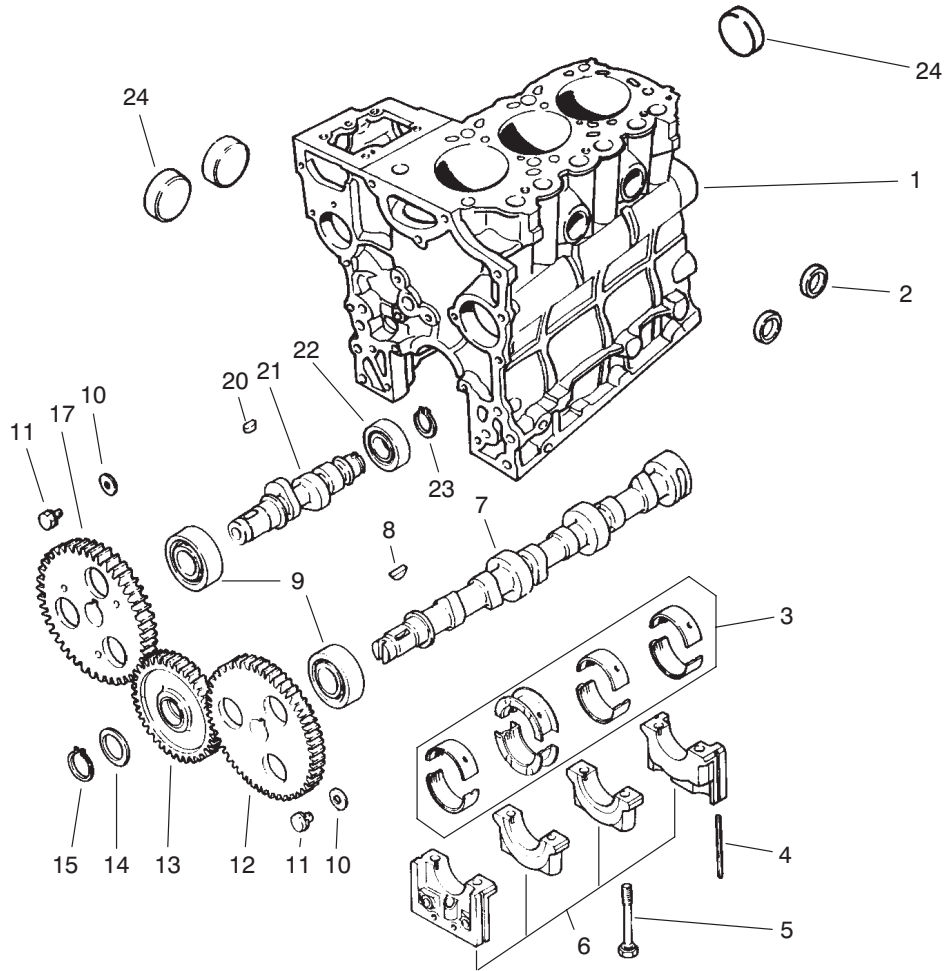


T-0567-1

Crankcase Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	94-1259	Case	1	19	42-7210	Plug-Taper	1
2	67-2580	Gasket-Case	1	20	67-2630	O-Ring	2
3	67-2340	Bolt W/Washer	3	21	67-2600	Bolt	3
6	67-2310	Plate-Front	1	22	67-2610	Bolt	4
7	67-2320	Gasket-Plate	1	23	67-2590	Seal-Oil	1
8	42-9440	Bolt W/Washer	11	24	67-2620	Bolt	1
9	67-2560	Bolt W/Washer	3	25	67-2500	Plunger-Relief	1
10	67-2550	Housing-Oil Pump	1	26	67-2510	Spring-Relief	1
11	67-2540	Gear-Outer	1	28	67-2520	Plug	1
12	67-2530	Gear-Inner	1	29	67-2570	Plug-Taper	1
14	75-4910	Asm-Oil Pan (Incl. Ref. #15-16)	1	30	67-2640	Cap	1
15	42-9260	Plug-Drain	1	31	67-2660	O-Ring	1
16	42-7290	Gasket-Drain	2	32	67-2650	Asm-Oil Fill Cap (Incl. Ref. #31)	1
17	67-2480	Gasket-Oil Pan	1	*	75-5040	Kit-Gasket, Complete Engine	1
18	42-9490	Bolt W/Washer	18				

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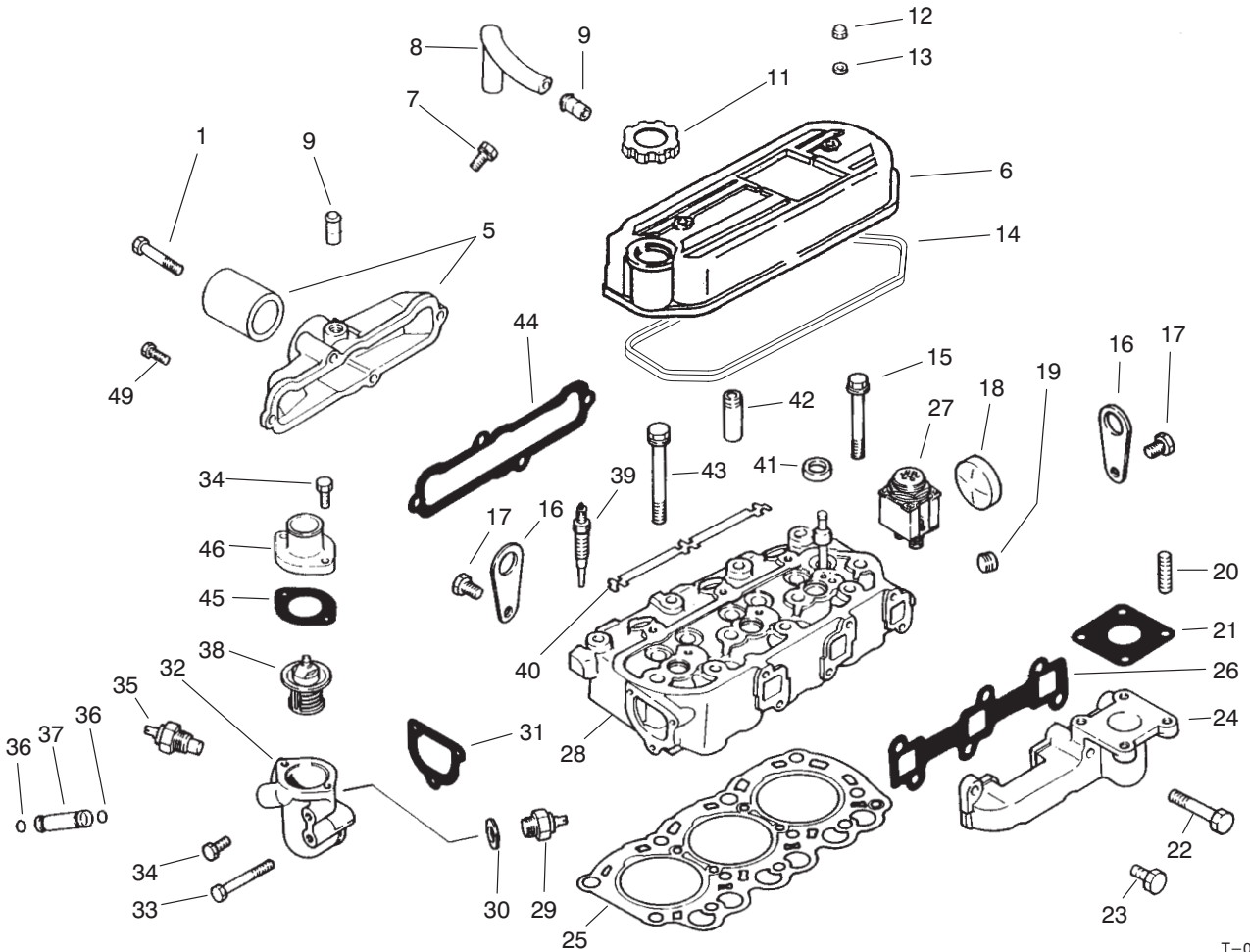
T-0564-1

Camshaft Assembly

Ref. No.	Part No.	Description	No. Used
1	94-1257	Asm-Block (Incl. Ref. #2, 5, 6 & 24)	1
2	42-7080	Cap	2
3	75-4900	Bearing Set STD	1
*	67-2410	Bearing Set 0.25 mm US	1
*	67-2420	Bearing Set 0.50 mm US	1
4	67-2200	Seal	4
5	67-2250	Bolt	8
6		Asm-Cap	1
7	67-3010	Cam Shaft	1
8	56-0480	Key-Woodruff	1
9	67-3030	Bearing	2

Ref. No.	Part No.	Description	No. Used
10	67-3000	Washer	2
11	42-9490	Bolt W/Washer	2
12	67-3020	Gear	1
13	67-3090	Asm-Gear	1
14	67-3040	Plate	1
15	56-1060	Snap Ring	1
17	67-3070	Gear	1
20	42-7840	Key	1
21	67-3060	Shaft	1
22	67-3050	Bearing	1
23	67-3080	Snap Ring	1
24	56-0020	Plug	3

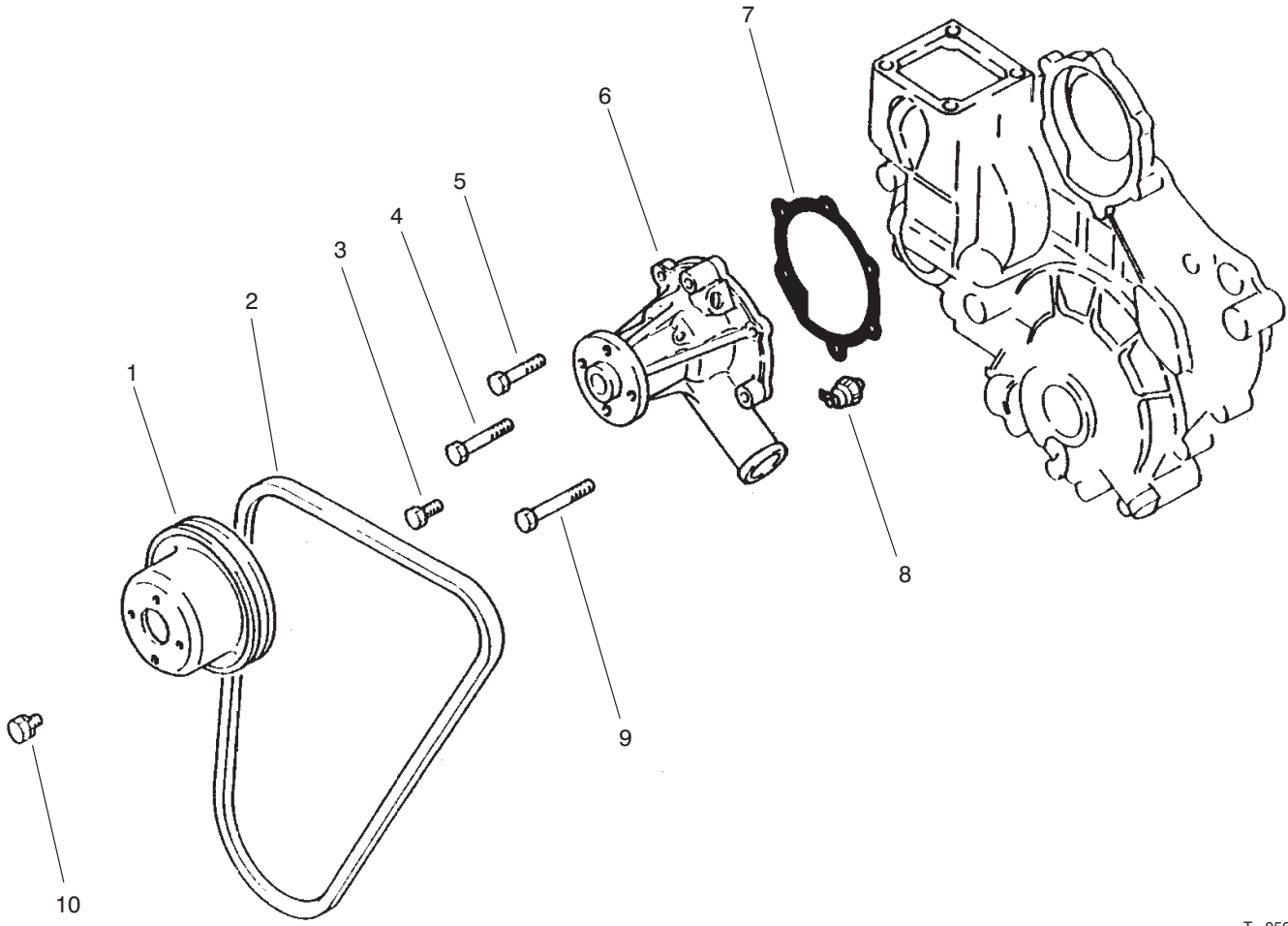
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T-0566-3

Cylinder Head Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	67-4400	Bolt	2	26	67-4570	Gasket-Exhaust Manifold	1
5	94-3533	Asm-Cover, Intake (Incl. Ref. #9)	1	27	67-4700	Lamp-Glow	1
6	92-0846	Asm-Cover (Incl. Ref. #9)	1	28	75-4930	Asm-Cylinder Head (Incl. Ref. #18, 41 & 42)	1
7	42-9430	Bolt W/Washer	1	29	67-4500	Switch-Thermo	1
8	67-2670	Hose-Breather	1	30	67-4490	Gasket	1
9	42-7510	Pipe	2	31	67-4460	Gasket-Switch	1
11	92-0847	Cap-Oil Filler	1	32	67-4450	Fitting-Thermostat	1
12	67-2770	Nut-Cap	2	33	67-4470	Bolt	1
13	67-2780	Washer	2	34	67-2330	Bolt	4
14	67-2760	Gasket	1	35	67-4510	Gauge Nut-Temperature	1
15	67-2740	Bolt-Flange	3	36	43-2710	O-Ring	2
16	67-2680	Hanger-Engine	2	37	67-4480	Pipe-By-Pass	1
17	67-2340	Bolt W/Washer	4	38	67-4440	Thermostat	1
18	56-0020	Plug-Expansion	1	39	67-4680	Plug-Glow	3
19	67-2570	Plug-Taper	1	40	67-4690	Plate-Glow Plug	1
20	42-9570	Stud	4	41	67-2710	Cap-Sealing	3
21	42-9110	Gasket	1	42	67-2700	Guide-Valve	6
22	67-4580	Bolt	2	43	67-2730	Bolt	8
23	67-4590	Bolt	4	44	67-4550	Gasket-Intake Manifold	1
24	67-4560	Manifold-Exhaust	1	45	67-4430	Gasket-Fitting	1
25	94-1258	Gasket-Cylinder Head	1	46	67-4420	Fitting-Water	1
				49	67-2330	Bolt	2

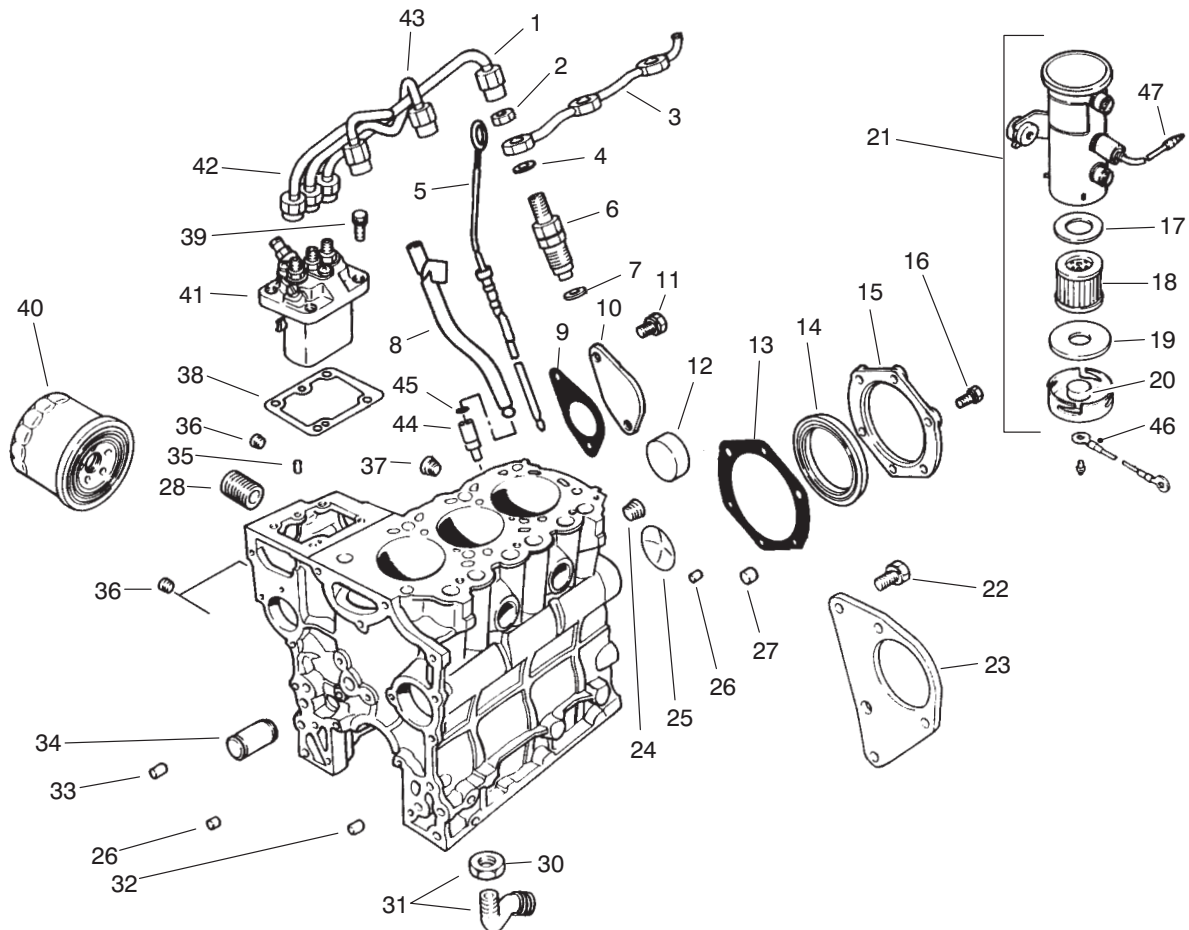


T-0568-1

Water Pump Assembly

Ref. No.	Part No.	Description	No. Used
1	67-4360	Pulley-Water Pump	1
2	98-2947	V-Belt	1
3	67-2330	Bolt	2
4	67-4400	Bolt	1
5	67-2600	Bolt	1

Ref. No.	Part No.	Description	No. Used
6	67-4380	Asm-Water Pump	1
7	67-4390	Gasket-Water Pump	1
8	67-4350	Switch-Oil Pressure	1
9	67-2610	Bolt	2
10	42-9490	Bolt W/Washer	4

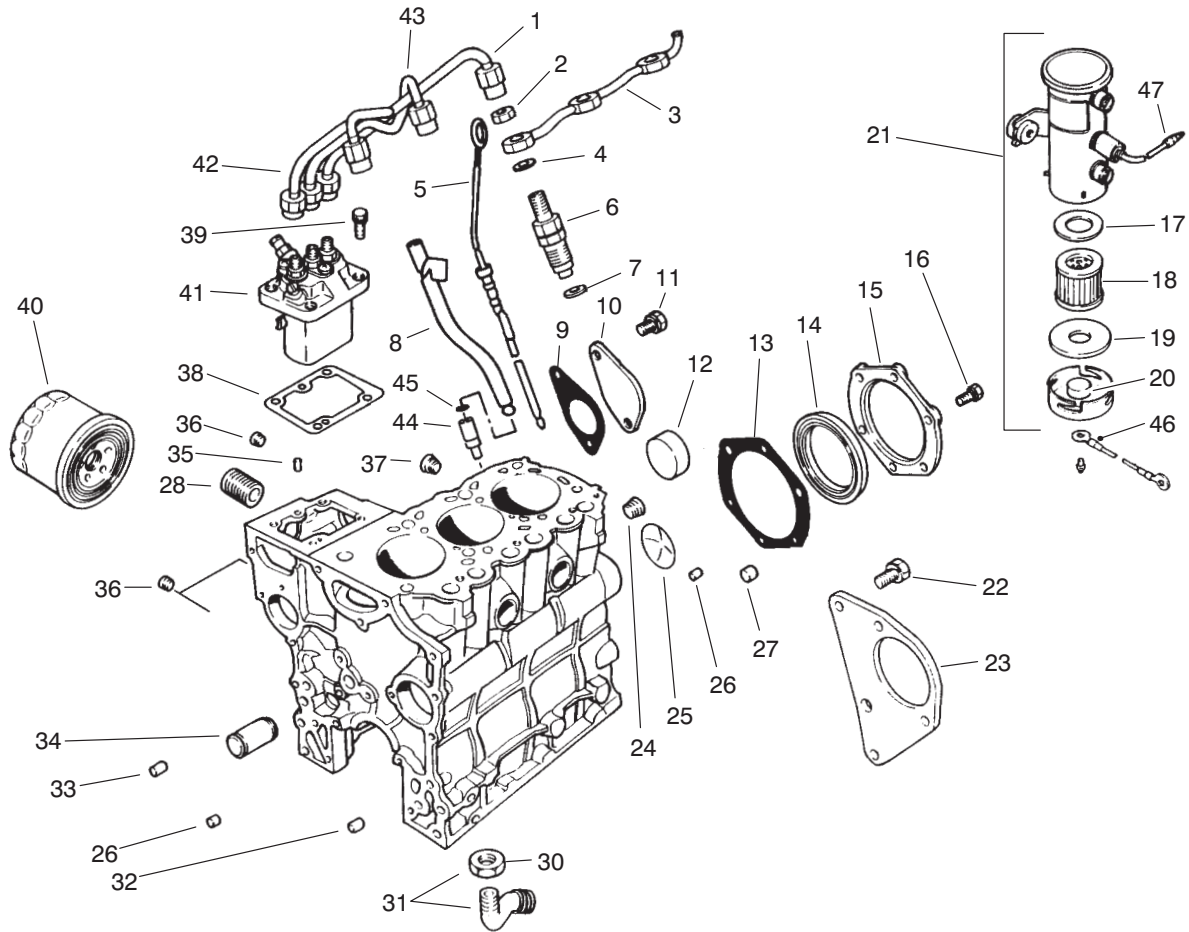


T-0569-3

Fuel Supply & Engine Block Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	67-3420	Asm-Pipe No. 3	1	26	67-2360	Bushing-Knock	2
2	67-3430	Nut	3	27	67-2380	Bushing-Knock	3
3	70-8700	Pipe-Fuel Return	1	28	56-1230	Shaft-Oil Filter	1
4	67-3440	Gasket	3	30	42-9650	Nut-Jam	1
5	70-8880	Dipstick	1	31	67-4340	Asm-Screen (Incl. Ref. #30)	1
6	67-3380	Asm-Nozzle & Holder	1	32	67-2370	Bushing-Knock	1
7	67-3390	Gasket-Nozzle Holder	3	33	42-7190	Bushing-Knock	2
8	70-8870	Guide-Oil Level	1	34	67-2260	Shaft-Idler	1
9	67-2300	Gasket	1	35	56-0220	Pin-Dowel	2
10	67-2290	Cover	1	36	67-2210	Plug-Taper	3
11	67-2340	Bolt W/Washer	2	37	56-0100	Plug-Taper	1
12	56-0020	Plug-Expansion	3	38	67-3280	Shim 0.2 mm	1
13	67-2280	Gasket-Seal, Oil	1	*	67-3290	Shim 0.3 mm	1
14	67-2230	Seal-Oil	1	*	67-3300	Shim 0.5 mm	1
15	67-2270	Case-Oil Seal	1	*	67-3310	Shim 0.4 mm	1
16	67-2330	Bolt	6	*	67-3320	Shim 0.6 mm	1
17	43-2570	Gasket-Coil Side	1	*	67-3330	Shim 0.7 mm	1
18	43-2550	Filter	1	*	67-3340	Shim 0.8 mm	1
19	43-2560	Gasket-Side Cover	1	*	67-3350	Shim 0.9 mm	1
20	43-2580	Magnet	1	*	67-3360	Shim 1.0 mm	1
21	53-8150	Asm-Pump (Incl. Ref. #17-20)	1	39	67-3370	Bolt W/Washer	4
22	67-2440	Bolt W/Washer	3	40	67-4330	Asm-Oil Filter	1
23	67-2430	Bracket-Starter	1	41	75-5020	Asm-Injector Pump	1
24	67-2390	Plug-Taper	1	42	67-3400	Asm-Pipe No. 1	1
25	67-2350	Plug-Expansion	1	43	67-3410	Asm-Pipe No. 2	1

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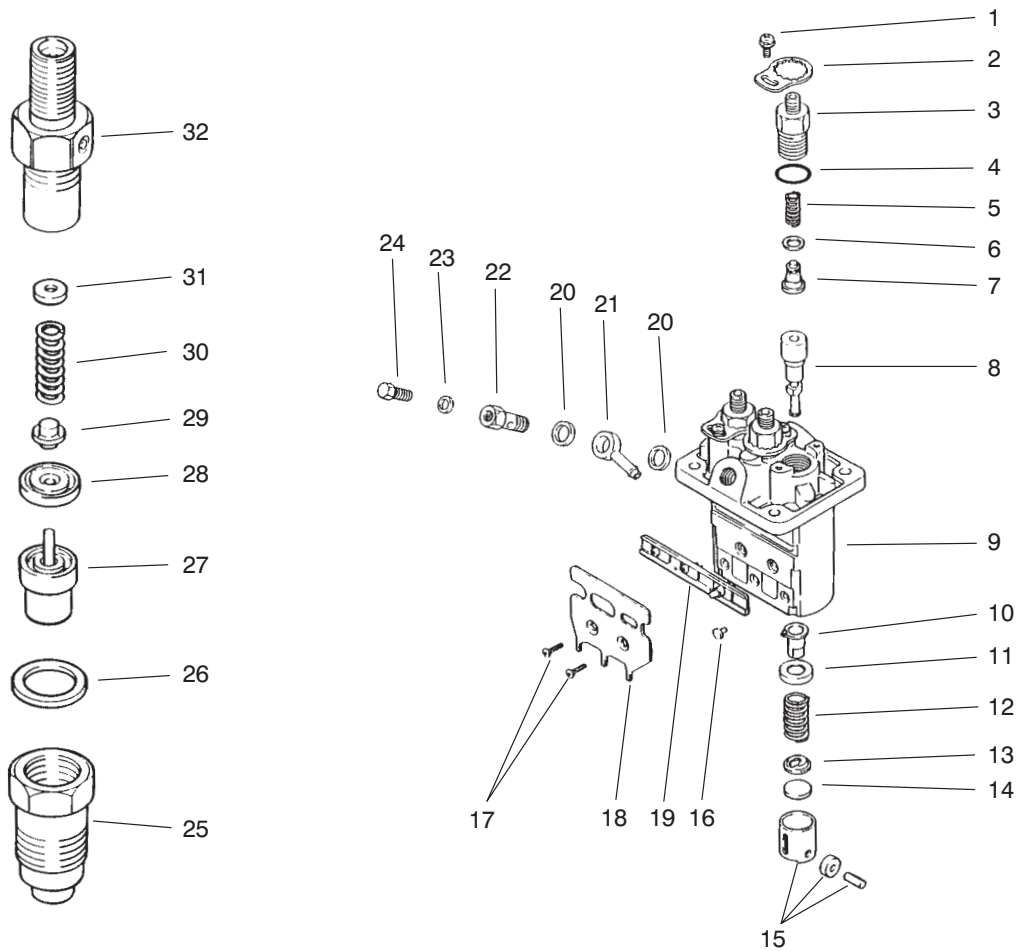


T-0569-3

Fuel Supply & Engine Block Assembly (Cont.)

Ref. No.	Part No.	Description	No. Used
44	72-6950	Retainer-Oil Guide	1
45	43-2710	O-Ring	1
46	70-8530	Wire-Fuel Pump	1

Ref. No.	Part No.	Description	No. Used
47	218-579	Wire-Fuel Pump	1
*	95-3074	Kit-400 Hour Filter (Incl. Ref. #40)	1



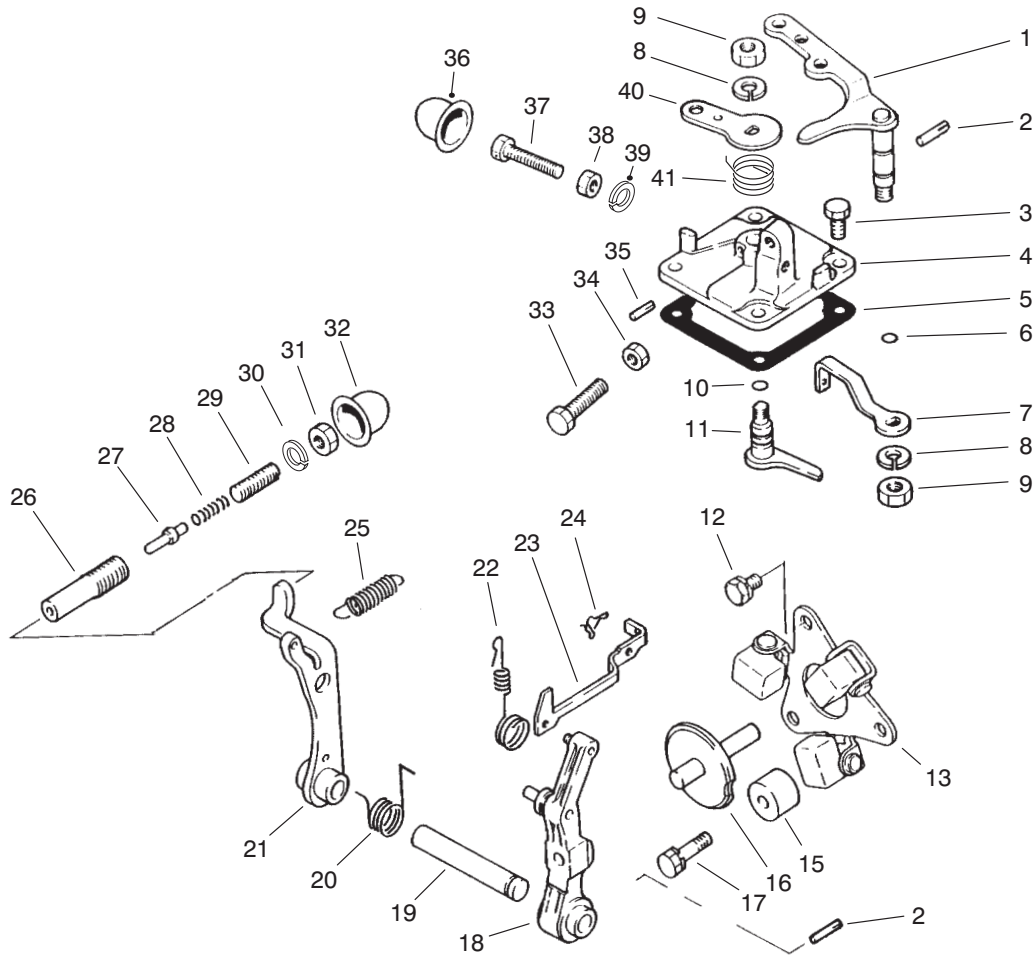
T-0570-4

Fuel Injection Pump Assembly

Ref. No.	Part No.	Description	No. Used
1	67-3770	Screw W/Washer	3
2	67-3760	Plate-Lock	3
3	67-3740	Holder-Delivery Valve	3
4	67-3480	O-Ring	3
5	67-3490	Spring	3
6	42-8240	Gasket	3
7	67-3500	Valve	3
8	75-4970	Element	3
9	67-3460	Housing-Pump	1
10	67-3520	Sleeve	3
11	67-3530	Seat-Spring Upper	3
12	67-3540	Spring	3
13	67-3550	Seat-Spring Lower	3
14	67-3560	Plate-Shim 1.85 mm	1
*	67-3570	Plate-Shim 1.9 mm	1
*	67-3580	Plate-Shim 1.95 mm	1
*	67-3590	Plate-Shim 2.0 mm	1
*	67-3600	Plate-Shim 2.05 mm	1
*	67-3610	Plate-Shim 2.1 mm	1
*	67-3620	Plate-Shim 2.15 mm	1
*	67-3630	Plate-Shim 2.2 mm	1
*	67-3640	Plate-Shim 2.25 mm	1
*	67-3650	Plate-Shim 2.3 mm	1
*	67-3660	Plate-Shim 2.35 mm	1
*	67-3670	Plate-Shim 2.4 mm	1
*	67-3680	Plate-Shim 2.45 mm	1
*	67-3690	Plate-Shim 2.5 mm	1
15	67-3700	Tappet	3
16	67-3810	Pin-Tappet Guide	3

Ref. No.	Part No.	Description	No. Used
17	67-3790	Screw	2
18	67-3800	Bracket-Wire Stop	1
19	67-3780	Rack	1
20	67-3750	Washer	2
21	67-3740	Nipple-Swivel	1
22	67-3730	Screw	1
23	67-3720	Washer	1
24	67-3710	Screw-Air Bleed	1
25	67-3970	Nut-Retaining	3
26	67-3980	Gasket	3
27	67-3960	Nozzle	3
28	67-3950	Piece-Distance	3
29	67-3940	Pin-Pressure	3
30	67-3930	Spring	3
31	67-3830	Washer 1.25 mm	1
*	67-3840	Washer 1.3 mm	1
*	67-3850	Washer 1.35 mm	1
*	67-3860	Washer 1.4 mm	1
*	67-3870	Washer 1.45 mm	1
*	67-3880	Washer 1.5 mm	1
*	67-3890	Washer 1.55 mm	1
*	67-3900	Washer 1.6 mm	1
*	67-3910	Washer 1.65 mm	1
*	67-3920	Washer 1.7 mm	1
32	75-5000	Body	3
*	67-3380	Asm-Nozzle and Holder (Incl. Ref. #25-32)	3
*	75-5020	Asm-Injector Pump (Incl. Ref. #1-24)	1

* Not Illustrated



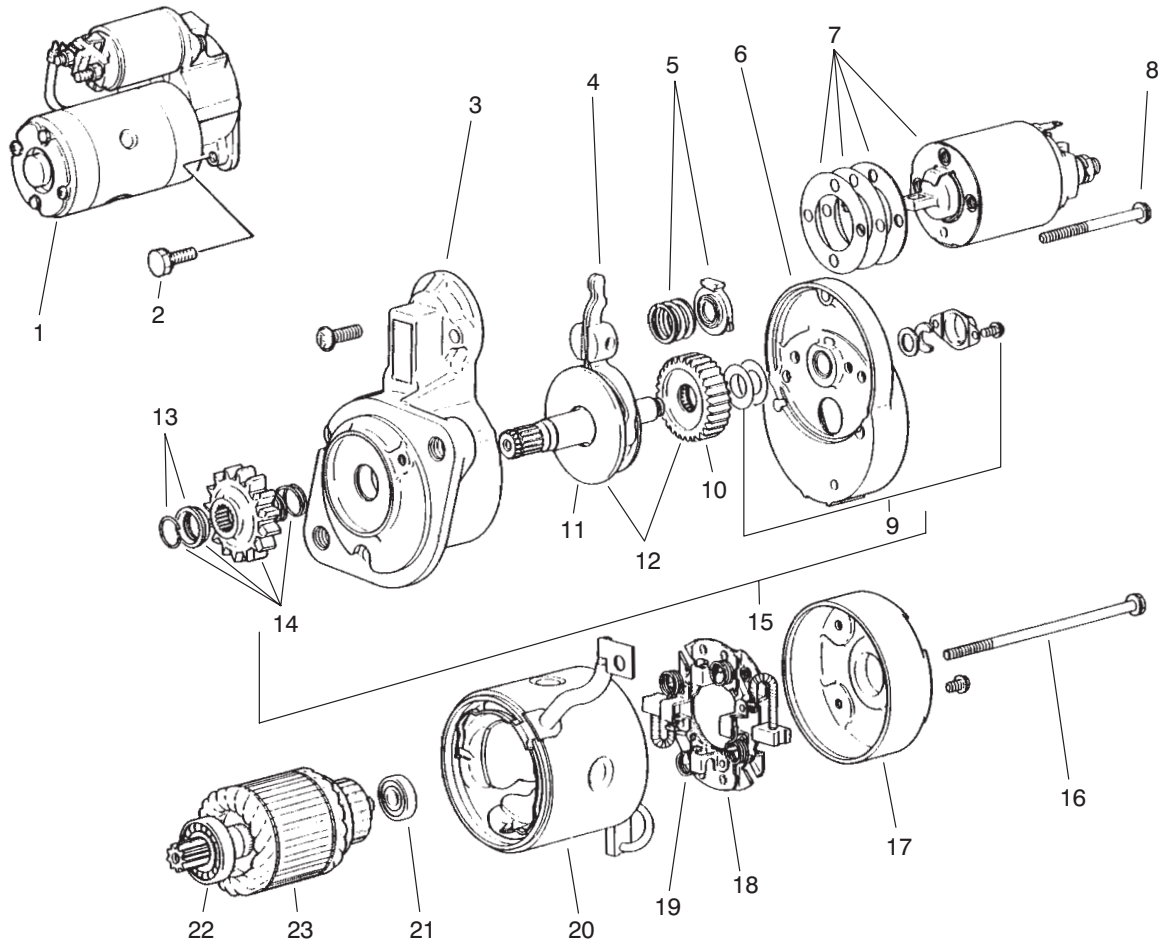
T-0571-2

Governor Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	67-3990	Lever-Speed Control	1	23	67-4030	Rod-Tie	1
2	67-4000	Pin	2	24	67-4080	Clip	1
3	67-4270	Bolt	4	25	75-4990	Spring-Governor	1
†4		Cover-Governor	1	†26		Case-Torque Spring	1
5	67-4160	Gasket	1	†27		Stopper	1
6	42-8830	O-Ring	1	†28		Spring-Torque	1
7	75-4980	Lever-Governor Spring	1	†29		Screw-Adjusting	1
8	67-3260	Washer	2	†30		Nut-Special	1
9	42-9640	Nut-Jam	2	†31		Nut	1
10	42-8830	O-Ring	1	†32		Cap-Sealing Torque Set	1
11	67-4140	Lever-Stop	1	33	95-9605	Bolt-Speed Set	1
12	42-9430	Bolt W/Washer	2	34	67-4290	Nut	1
13	67-4040	Asm-Weight	1	35	67-4120	Pin-Grooved	1
15	67-4010	Stopper	1	†36		Cover-High Speed Set	1
16	67-4070	Shaft-Sliding	1	†37		Bolt-High Speed Set	1
17	67-4280	Bolt W/Washer	1	†38		Nut-High Speed Set	1
18	67-4060	Lever-Governor	1	†39		C-Ring-High Speed Set	1
19	67-4050	Shaft-Governor	1	40	67-4150	Lever-Stop	1
20	67-5040	Spring	1	41	94-3827	Spring-Return	1
21	67-4090	Lever-Tension	1	†*		Spring Set	
22	70-8720	Spring-Tie Rod	1			(Incl. Ref. #26-29 & 31)	1

* Not Illustrated

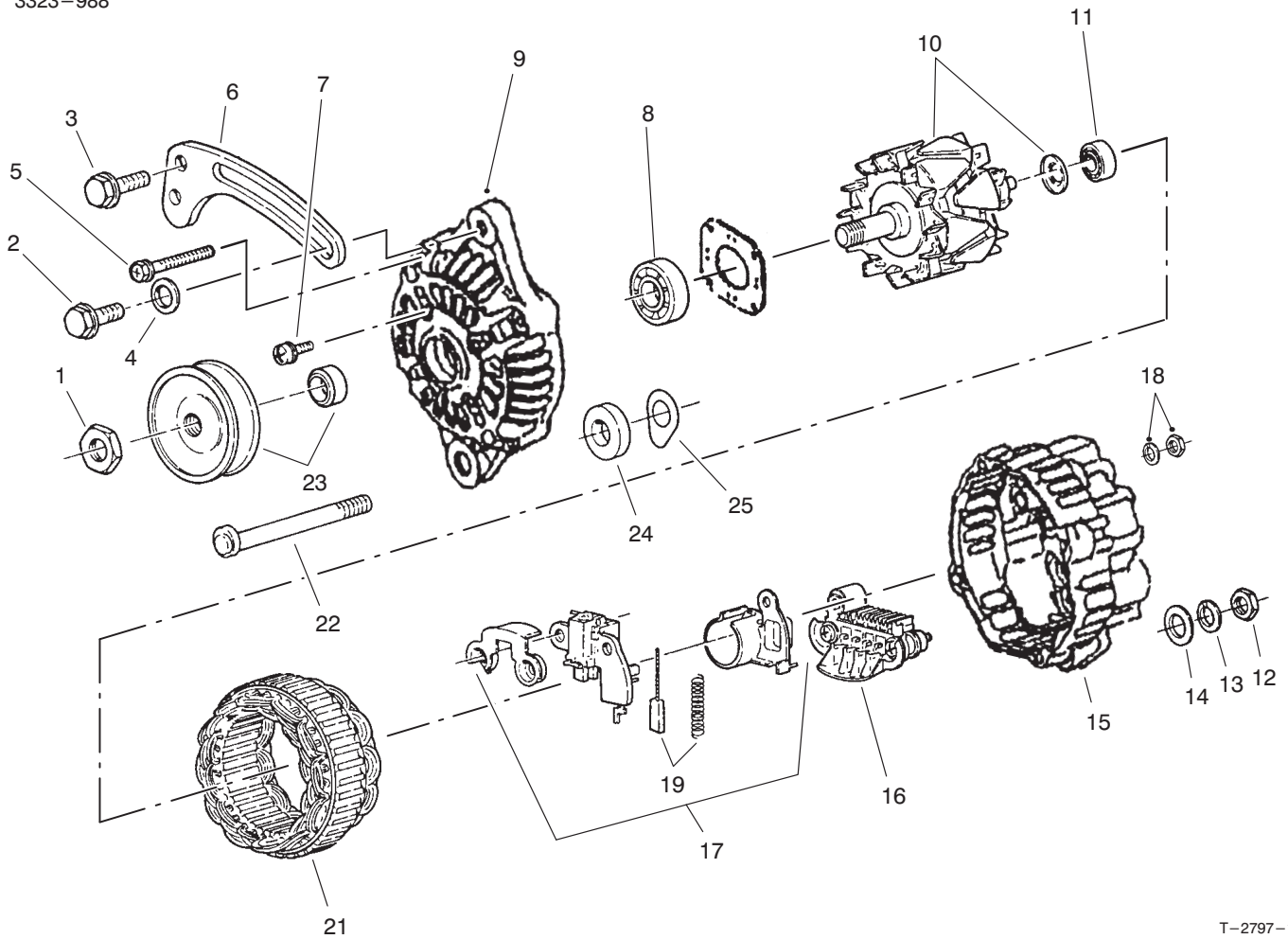
† Item must be serviced by a Mitsubishi Authorized Toro Dealer/Distributor.



T-0572-1

Starter Assembly

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	70-8760	Asm-Starter (Incl. Ref. #3-23)	1	14	67-4770	Pinion Set (Incl. Ref. #13)	1
2	67-4610	Bolt W/Washer	2	15	67-4760	Asm-Shaft (Incl. Ref. #9, 12 & 14)	1
3	70-8770	Bracket-Front	1	16	56-1610	Bolt	1
4	67-4720	Lever	1	17	56-1720	Bracket-Rear	1
5	67-4730	Spring Set	1	18	56-1700	Holder-Brush (Incl. Ref. #19)	1
6	70-8780	Bracket-Center	1	19	56-1710	Spring-Brush	4
7	67-4750	Switch	1	20	67-4800	Yoke	1
8	56-1570	Bolt Set	1	21	56-1600	Bearing-Rear	1
9	56-1680	Cover Set	1	22	56-1590	Bearing-Front	1
10	56-1670	Gear	1	23	56-1580	Armature Set (Incl. Ref. #21 & 22)	1
11	67-4790	Shaft	1				
12	67-4780	Gear Set (Incl. Ref. #10 & 11)	1				
13	56-1640	Stopper Set	1				



T-2797-1

Alternator Assembly

Ref. No.	Part No.	Description	No. Used
1	98-2929	Nut Set	1
2	67-4660	Bolt-Flange	1
3	42-9440	Bolt w/Washer	2
4	54-8660	Washer-Flat	1
5	98-2931	Bolt Set (4 Bolts)	1
6	98-2948	Brace-Generator	1
7	98-2926	Screw Set (3 Screws)	1
8	98-2927	Bearing-Front	1
9	98-2925	Asm-Front Housing (Incl. Ref. #7 & 8)	1
10	98-2928	Rotor Assembly (Incl. Ref. #11)	1
11	98-2932	Bearing-Rear	1
12	67-4670	Nut	1
13	67-3260	Washer	1
14	42-9660	Washer	1

Ref. No.	Part No.	Description	No. Used
15	98-2934	Asm-Housing, Rear (Incl. Ref. #12-19)	1
16	98-2937	Asm-Rectifier	1
17	98-2935	Asm-Regulator (Incl. Ref. #18 & 19)	1
18	98-2938	Nut Set-Terminal	1
19	98-2936	Asm-Brush	2
21	98-2933	Asm-Stator	1
22	67-4640	Bolt	1
23	98-2930	Pulley Set	1
24	67-4620	Spacer	1
25	43-0370	Shim	1
*	98-2949	Asm-Alternator (Incl. Ref. #1, 5, 7-11, 15-21 & 23)	1

PRODUCT CHANGES

In an effort to make improvements available to TORO owners as quickly as possible, minor changes are incorporated into Toro's products from time to time that do not become immediately shown in the Parts Catalog. If such a change has been made in your unit, which is not reflected in your manual, see your TORO Distributor or his Authorized TORO Service Dealer for information and part numbers.

IDENTIFICATION AND ORDERING

MODEL AND SERIAL NUMBERS

The Groundsmaster 223D has two identification numbers; a model number and a serial number. The two numbers are stamped on a plate which is located on the main frame under the footrest. In any correspondence concerning the Groundsmaster 223D, supply model and serial numbers to assure that correct information and replacement parts are obtained.

To order replacement parts from an Authorized TORO Service Dealer, supply the following information:

1. Model and serial number of the Groundsmaster 223D.
2. Part number, description, and the quantity of part(s) desired.

NOTE: Do not order by reference number if a parts catalog is being used; use the PART NUMBER.

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