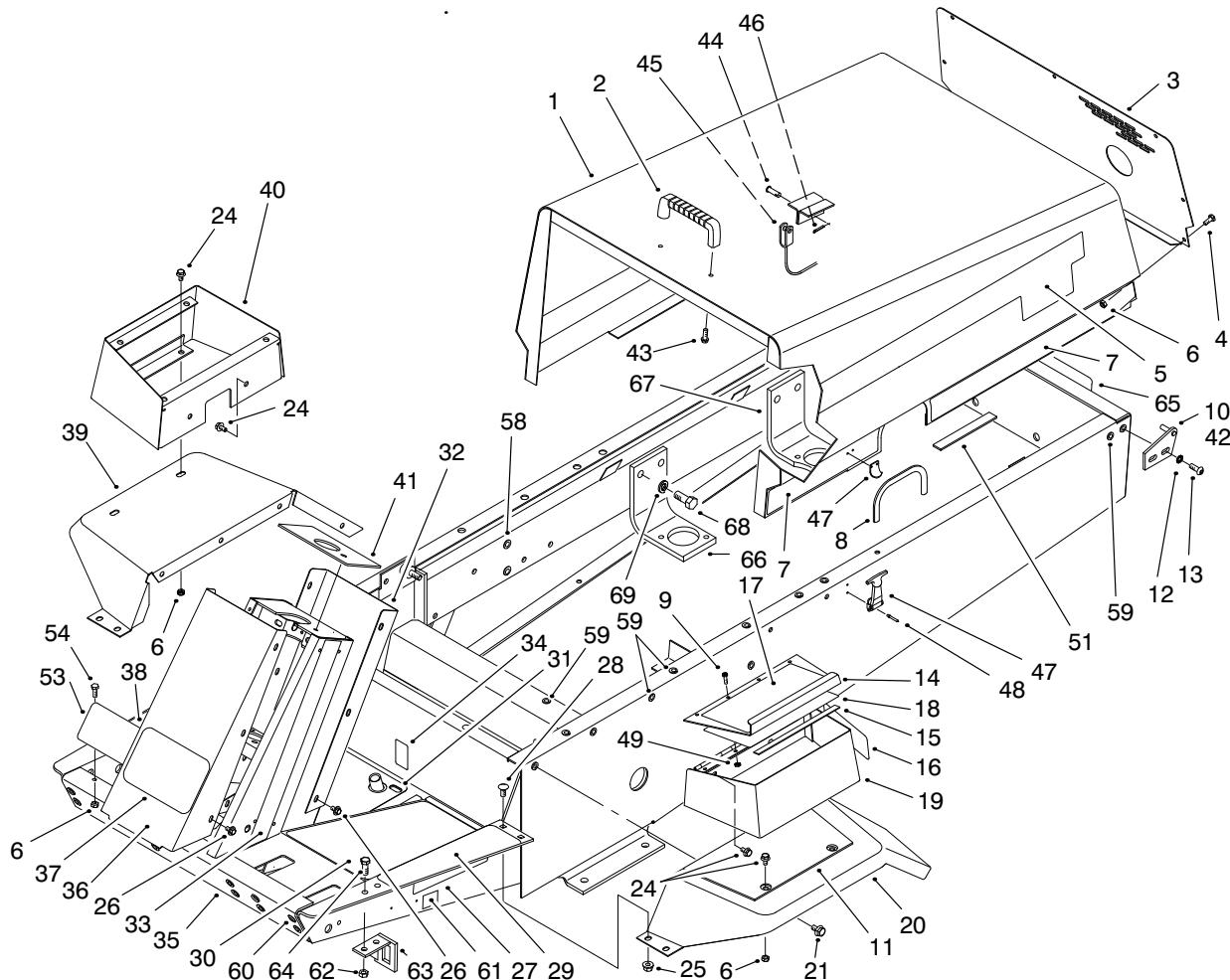
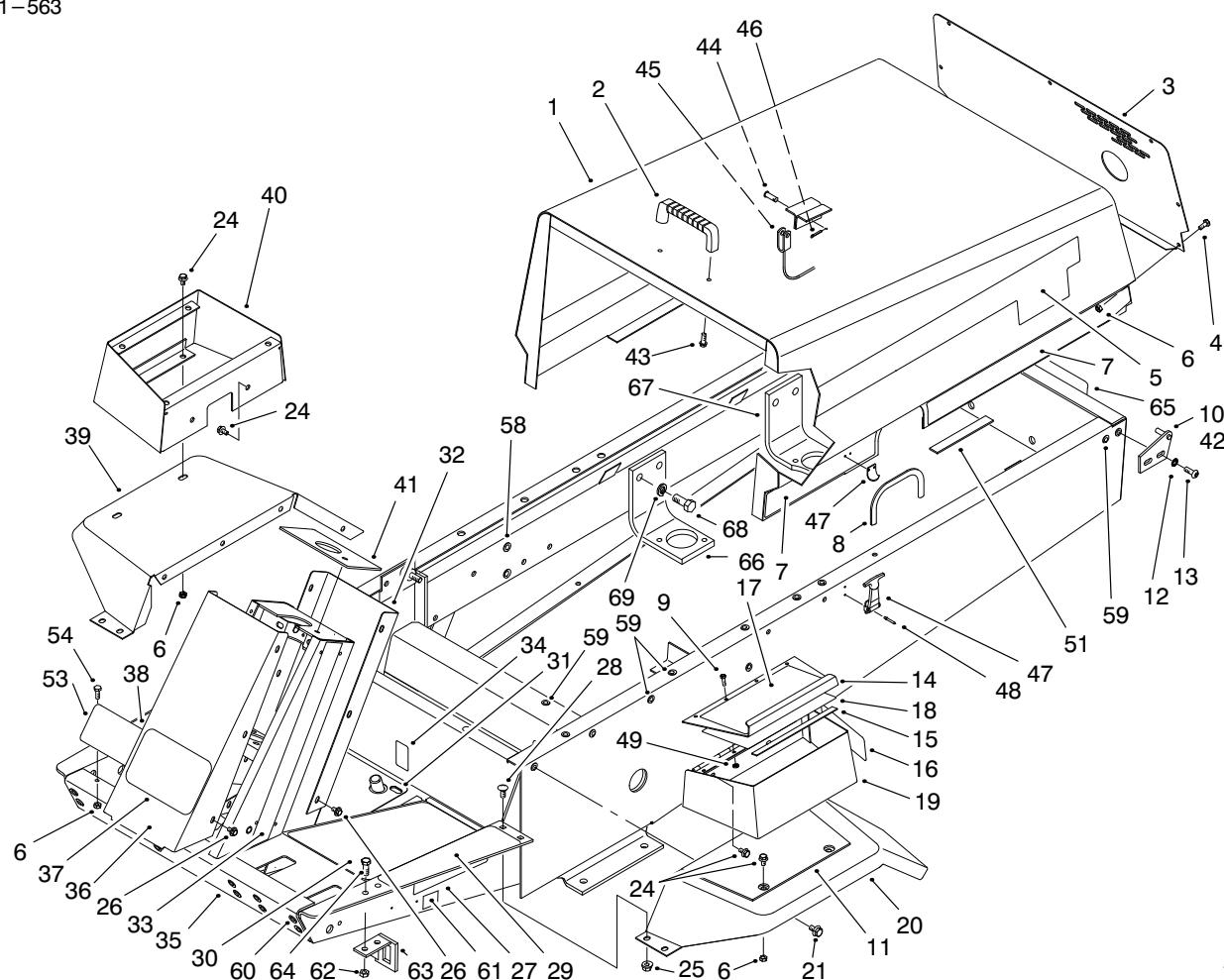


MODEL NO. 30223-80001 & UP
MODEL NO. 30223TE-80001 & UPPARTS
CATALOGGROUNDSMASTER® 223-D
TRACTION UNIT

T-0524-7

BODY ASM

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	14-7149	Asm-Hood	1	16	93-7822	Decal-Refueling (Europe)	1
2	65-5100	Handle-Hood	1	17	92-8797	Decal-Caution	1
3	63-7030	Screen-Hood	1	17	93-7805	Decal-Warning (Europe)	1
4	321-3	Screw-HH	7	18	84-1960	Decal-Service	1
5	93-3186	Decal-GM 223-D	2	19	92-6501	Asm-Tool Box (Incl. Ref. #16)	1
6	32128-33	Nut-HFH	13	20	63-7310	Fender LH	1
7	93-3193	Decal-Hood LH	1	21	3234-14	Screw-HF	8
*	93-3192	Decal-Hood RH	1	24	3234-13	Screw-HF	8
8	66-8110	Trim-Hood	1	25	32128-20	Nut-Flange	4
9	3290-359	Screw-Machine	4	26	46-6810	Screw-HH	13
10	63-6900	Plate Hinge LH	1	27	67-1720	Decal-Caution	2
11	76-4790	Pad-Rubber	1	27	93-7830	Decal-Torque (Europe)	2
12	3255-8	Washer-Lock	4	28	3230-23	Bolt-Carriage	4
13	3274-32	Screw-HSBH	4	29	66-3200	Tread-Foot Rest LH	1
14	66-3040	Cover-Tool Box	1	30	66-3210	Tread-Foot LH	1
15	66-3050	Strip-Magnetic	1	31	92-5540	Tread-Foot RH	1
16	27-7310	Decal-Refueling	1				



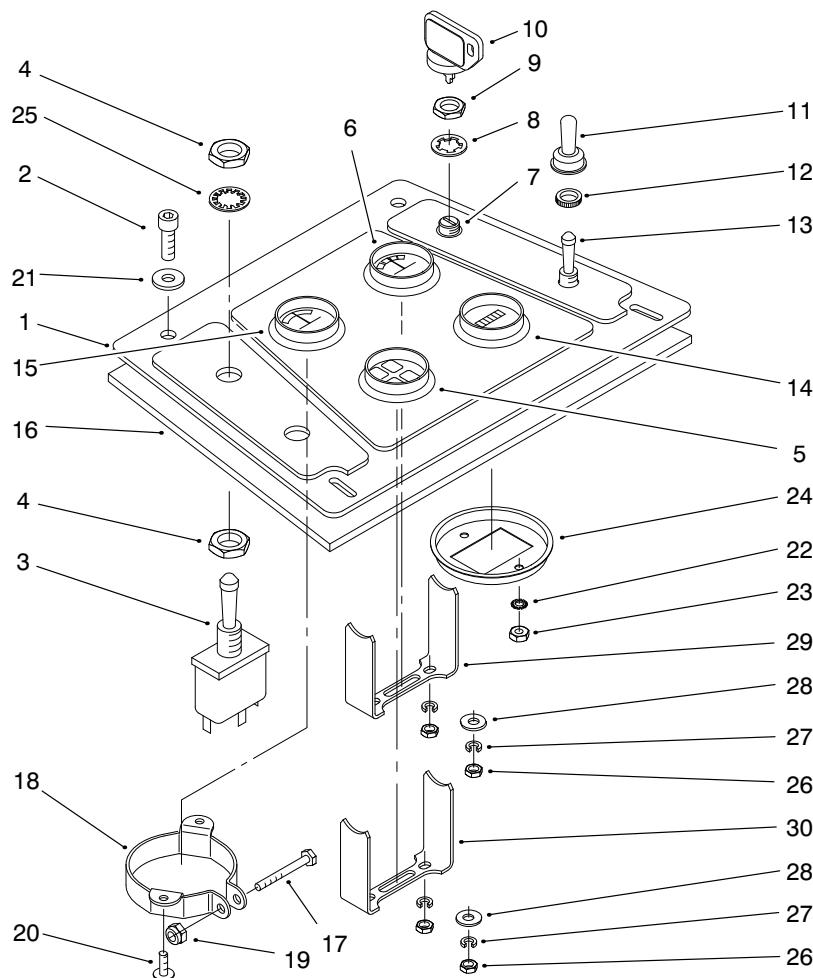
T-0524-7

BODY ASM (Continued)

Ref. No.	Part No.	Description	No. Used
32	63-7320	Cover-Tower Rear	1
33	66-8760	Decal-Tower LH	1
*	66-8770	Decal-Tower RH	1
34	53-4430	Decal-Oil	1
34	93-7823	Decal-Oil (Europe)	1
35	95-6280	Asm-Frame (Incl. Ref. #27, 29-31, 34, 38, 58-60, 65 & #80 page 8)	1
36	92-5545	Cover-Tower Front	1
37	62-5550	Decal-TORO	1
38	92-5772	Decal Traction Pedal	1
38	93-7834	Decal-Traction Pedal (Europe)	1
39	63-7300	Fender-RH	1
40	63-8050	Box-Control	1
41	66-2470	Plate-Tower	1
42	63-6890	Plate-Hinge RH	1
43	46-8091	Screw-HH	2
44	283-58	Pin-Clevis	1
45	66-2870	Cable-Hood Stop	1
46	3272-10	Pin-Cotter	1

Ref. No.	Part No.	Description	No. Used
47	59-9740	Asm-Latch, Flex. Draw	1
48	3290-271	Rivet	4
49	3296-12	Nut-Hex.	4
51	82-8950	Foam	2
53	92-5548	Shield-Pedal Stop	1
54	321-4	Screw-HH	2
58	32148-9	Nut-Clinch	3
59	32148-7	Nut-Clinch	22
60	32148-10	Nut-Clinch	10
61	93-7252	Decal-CE (Europe)	1
62	32153-2	Nut-Lock (Europe)	4
63	93-8474	Bracket-Latch, LH (Europe)	1
*	93-8473	Bracket-Latch, RH (Europe)	1
64	323-6	Screw-HH (Europe)	4
65	62-7400	Decal-Toro	1
66	95-6270	Bracket-Mount, Engine	3
67	95-6271	Bracket-Mount, Engine	1
68	3213-3	Screw-HH	8
69	3253-7	Washer-Lock	8

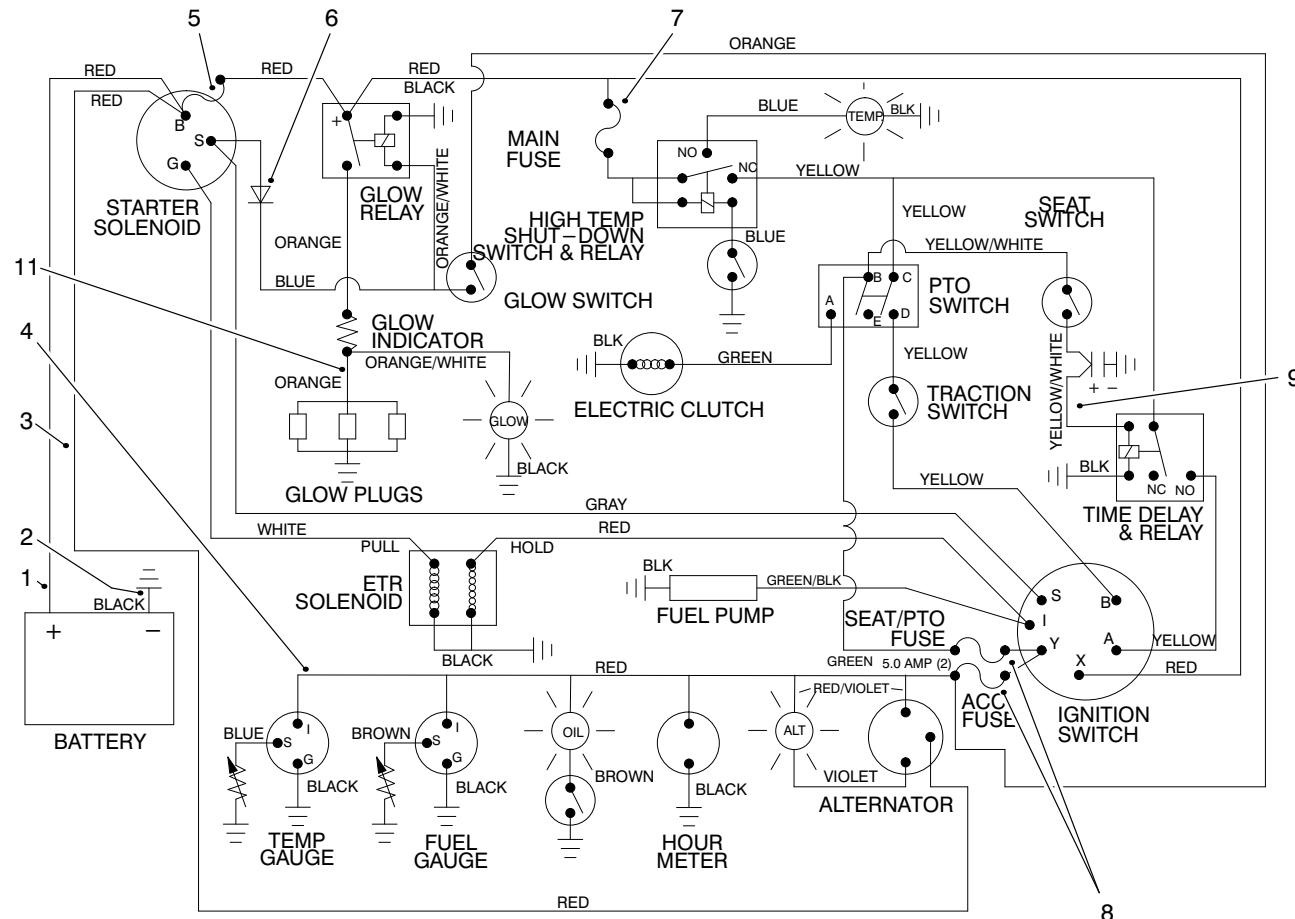
* Not Illustrated



T-0525-3

CONTROL PANEL ASM

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	66-2460	Panel-Control	1	15	63-7430	Gage-Temperature (Incl. Ref. #26-28 & 30)	1
1	93-7835	Panel-Control (Europe)	1	16	85-7560	Plate-Control Panel	1
2	3274-65	Screw-HSBH	4	17	32105-1	Screw	1
3	85-4980	Switch-PTO (Incl. Ref. #4 & 25)	1	18	69-4780	Clamp-Gauge	1
4	3218-19	Nut-Jam	2	19	3296-2	Nut-Lock	1
5	66-2960	Cluster-Warning Light	1	20	32144-1	Screw-HH	2
6	66-2940	Gage-Fuel (Incl. Ref. #26-29)	1	21	3256-1	Washer-Flat	4
7	27-2360	Switch-Ignition (Incl. Ref. #8-10)	1	22	3255-20	Washer-Lock, Ext. Tooth	2
8	218-447	Washer-Lock	1	23	3217-25	Nut-Hex.	2
9	218-446	Nut-Hex.	1	24		Clamp	1
10	63-8360	Key-Ignition	1	25	3254-20	Washer-Lock, Int. Tooth	1
11	218-473	Boot-Switch	1	26	3219-14	Nut-Hex.	9
12	218-497	Nut-Face	1	27	3253-2	Washer-Lock	10
13	6-1659	Switch-Glow Plugs (Incl. Ref. #11 & 12)	1	28	3256-14	Washer-Flat	4
14	66-2950	Meter-Hour (Incl. Ref. #22-24)	1	29		Clamp	1
				30		Clamp	1



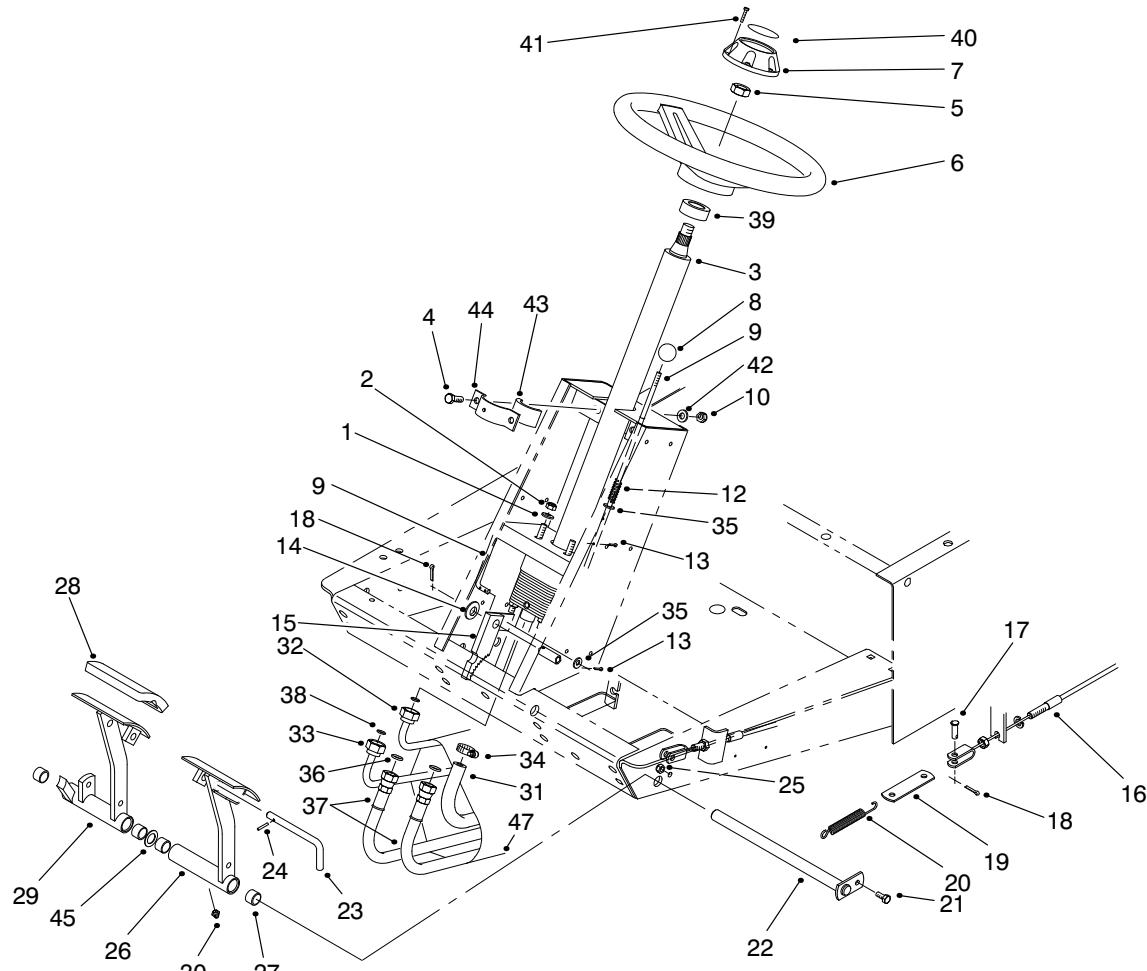
T-2662

ELECTRICAL SCHEMATIC

Ref. No.	Part No.	Description	No. Used
1	43-4031	Wire—Positive	1
2	63-7340	Wire—Ground	1
3	85-7540	Wire Harness (Incl. Ref. #5 & 6)	1
4	66-8690	Lamp Harness (Incl. Ref. #10)	1
5	67-7120	Fusible Link	1

Ref. No.	Part No.	Description	No. Used
6	86-7470	Diode	1
7	218-574	Fuse 7.5A	1
8	218-573	Fuse 5.0A	2
9	67-7180	Wire—Seat	1
11	68-7370	Wire—Glow	1
* 219-17	219-17	Bulb—Light	4
* 68-7380	68-7380	Asm—Connector	1

* Not Illustrated

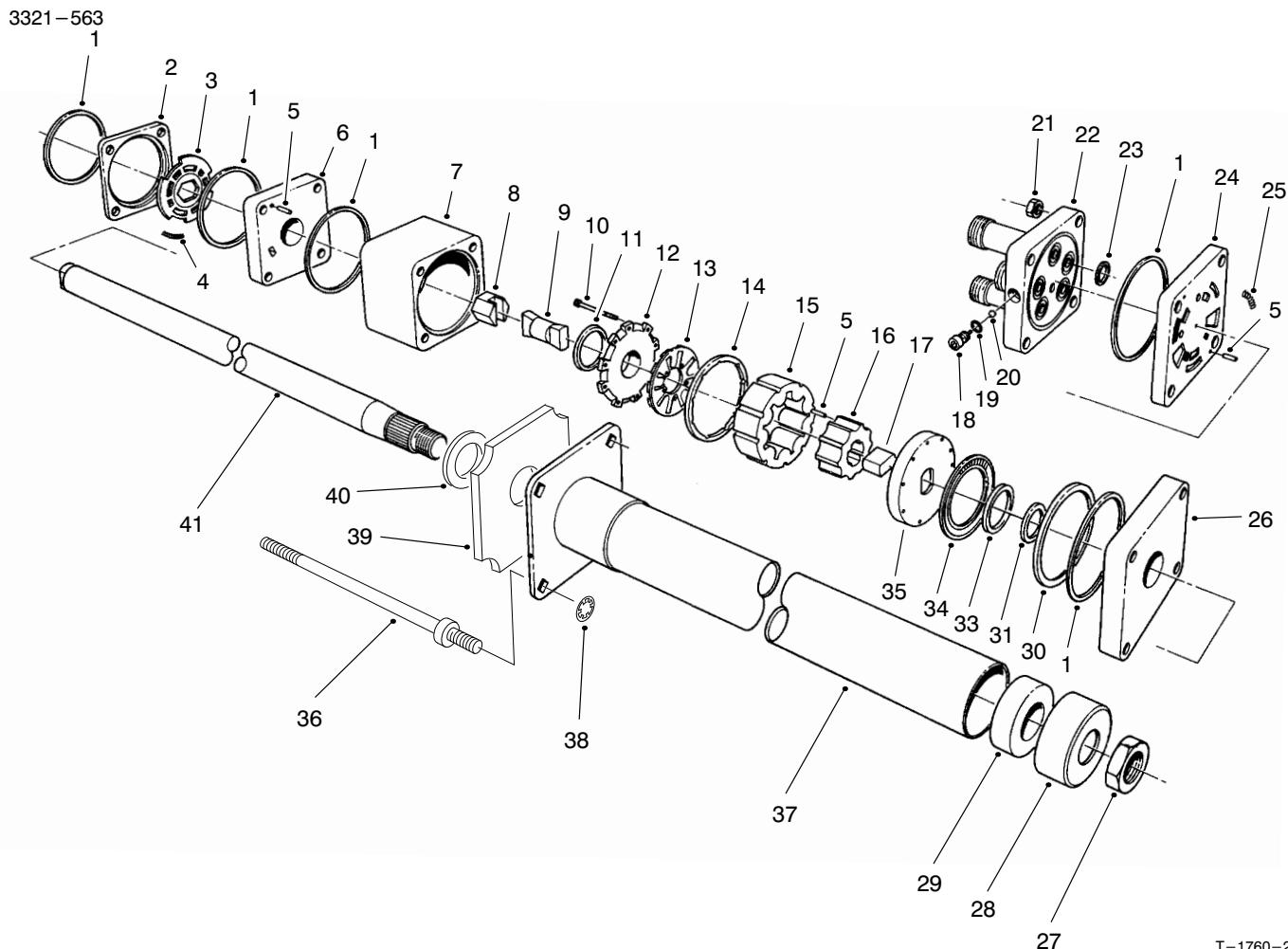


T-1247-3

POWER STEERING & BRAKE PEDAL ASM

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	7-3900	Foot Pad-Brake	2
6	75-0560	Wheel-Steering (Incl. Ref. #7 & 41)	1	28	93-8742	Foot Pad-Brake (Europe)	2
7	68-5140	Cap-Steering Wheel (Incl. Ref. #41)	1	29	63-6190	Pedal-RH Brake (Incl. Ref. #27 & 30)	1
8	233-17	Knob	1	30	302-5	Fitting-Grease	2
9	63-7910	Rod-Brake Latch	1	31	66-8140	Hose	1
10	3296-29	Nut-Lock	2	32	66-8630	Tube-Hydraulic (Str.-Lift)	1
12	95-1821	Spring	1	33	66-8620	Tube Hydraulic (Pump-Str.)	1
13	3272-5	Pin-Cotter	3	34	2412-36	Clamp	2
14	3256-26	Washer-Flat	1	35	3256-22	Washer-Flat	3
15	63-7900	Rack-Brake	1	36	237-30	O-Ring	2
16	63-7730	Asm-Cable, Brake RH	1	37	66-8170	Hose-Hydraulic	2
*	63-7731	Asm-Cable, Brake LH	1	38	237-22	O-Ring	2
17	283-58	Pin-Clevis	4	39	21-9260	Cover-Dust	1
18	3272-10	Pin-Cotter	5	40	68-5370	Decal-Toro	1
19	63-6750	Link-Brake Cable	2	41	32144-21	Screw-PPH	1
20	3-7243	Spring-Return	2	42	3256-23	Washer-Flat	2
21	321-3	Screw-HH	1	43	84-7670	Foam-Column Support	2
22	63-6210	Pin-Brake	1	44	84-7660	Clamp-Column	1
23	63-7880	Pin-Brake Latch	1	45	3256-69	Washer-Flat	A/R
				47	44-8530	Sock-Hose	1

* Not Illustrated



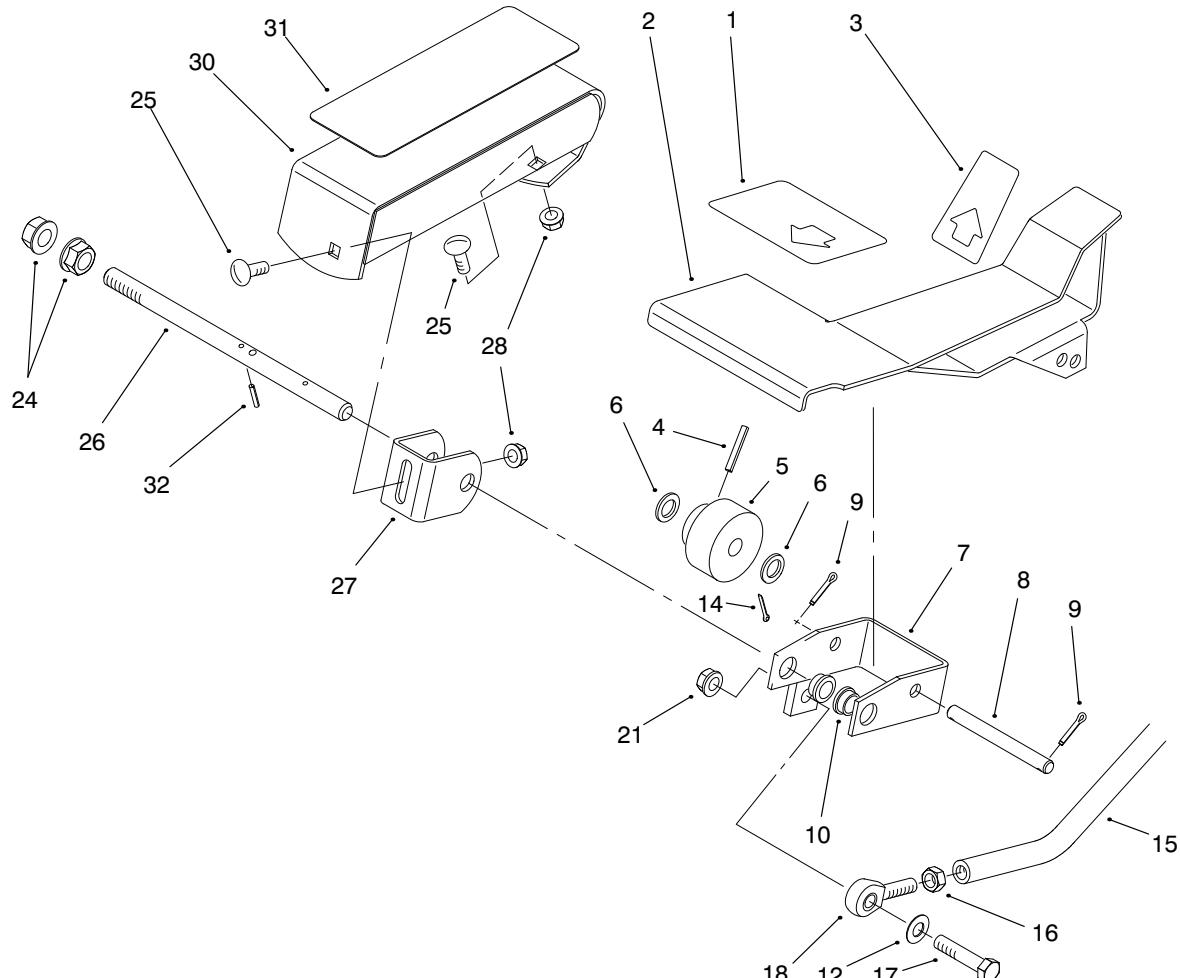
T-1760-2

STEERING VALVE ASM 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	* 66-9970	Shaft—Input	1
	* 66-9980	Kit—Spring (Incl. Ref. #4 & 25)	1
	* 66-9990	Kit—Seal (Incl. Ref. #1, 11, 19, 23 & 33)	1
	* 92-7314	Kit—Needle Roller (Incl. Ref. #5) Asm—Column (Incl. Ref. #27—29 & 37—41)	1

* Not Illustrated



T-1806-2

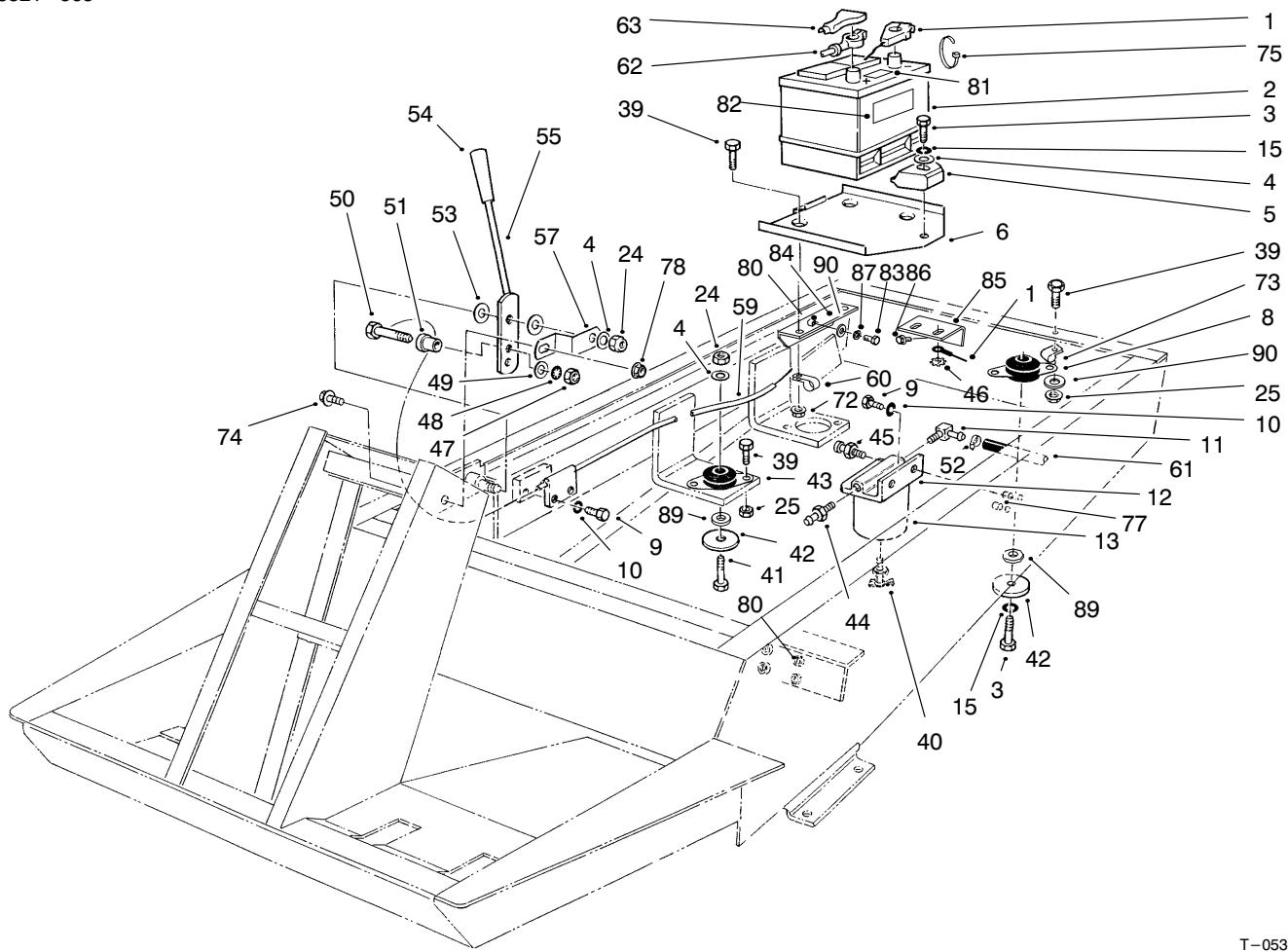
TRACTION PEDAL ASM

Ref. No.	Part No.	Description	No. Used
1	94-3307	Pad-Traction Pedal Front	1
2	94-3591	Pedal-Traction	1
3	94-3308	Pad-Traction Pedal Rear	1
4	32121-6	Pin-Roll	1
5	28-5220	Wheel-Friction	1
6	5-7570	Washer	2
7	92-8854	Bracket-Pivot	1
8	92-5537	Pin-Pedal Pivot	1
9	3272-10	Pin-Cotter	2
10	256-156	Bushing-Flange	2
12	3256-24	Washer-Flat	1
14	3272-6	Pin-Cotter	1
15	63-6410	Rod-Pump Control	1
16	3220-3	Nut-Jam	1

Ref. No.	Part No.	Description	No. Used
17	323-29	Screw-HH	1
18	2411-36	End-Rod	1
21	3296-39	Nut-Lock	1
24	32128-56	Nut-Flange	2
25	3230-2	Bolt-Carriage	2
26	92-5534	Shaft-Traction Pedal	1
27	92-5077	Bracket-Footrest	1
28	32128-44	Nut-Flange, Lock	2
30	92-5514	Footrest	1
31	92-5750	Pad-Footrest	1
32	32121-50	Pin-Roll	1

* Not Illustrated

†† Not Serviceable Separately



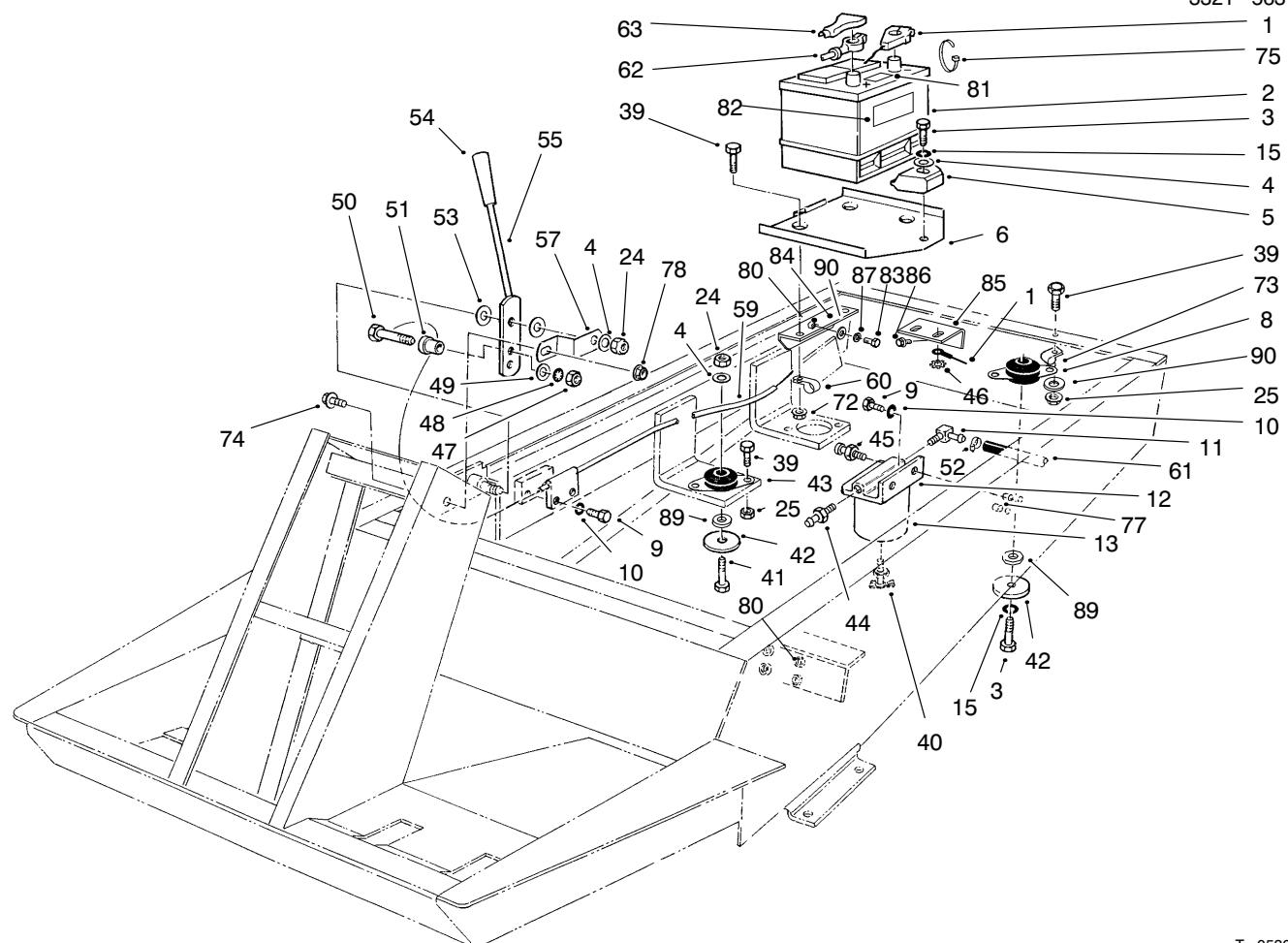
T-0530-6

BATTERY & ENGINE MOUNT ASM

Ref. No.	Part No.	Description	No. Used
1	63-7340	Wire-Ground	1
t2		Battery	
3	323-8	Type 26 SMF-5	1
4	3256-24	Screw-HH	2
5	66-2490	Washer-Flat	4
6	94-7343	Clamp-Battery Retainer	1
8	63-7141	Base-Battery	1
9	321-4	Mount-Shock (Red)	1
10	3253-3	Screw-HH	4
11	353-781	Washer-Lock	4
12	353-781	Fitting 90°	1
13	63-8280	Asm-Head	1
15	63-8300	Element-Spin On	1
16	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 (Europe)	1
82	93-6668	Decal-Battery Charging (Europe)	1
83	322-6	Screw-HH	2
84	95-1592	Angle-Base, Battery	1
85	95-1599	Bracket-Base, Battery	1

† Obtain Locally

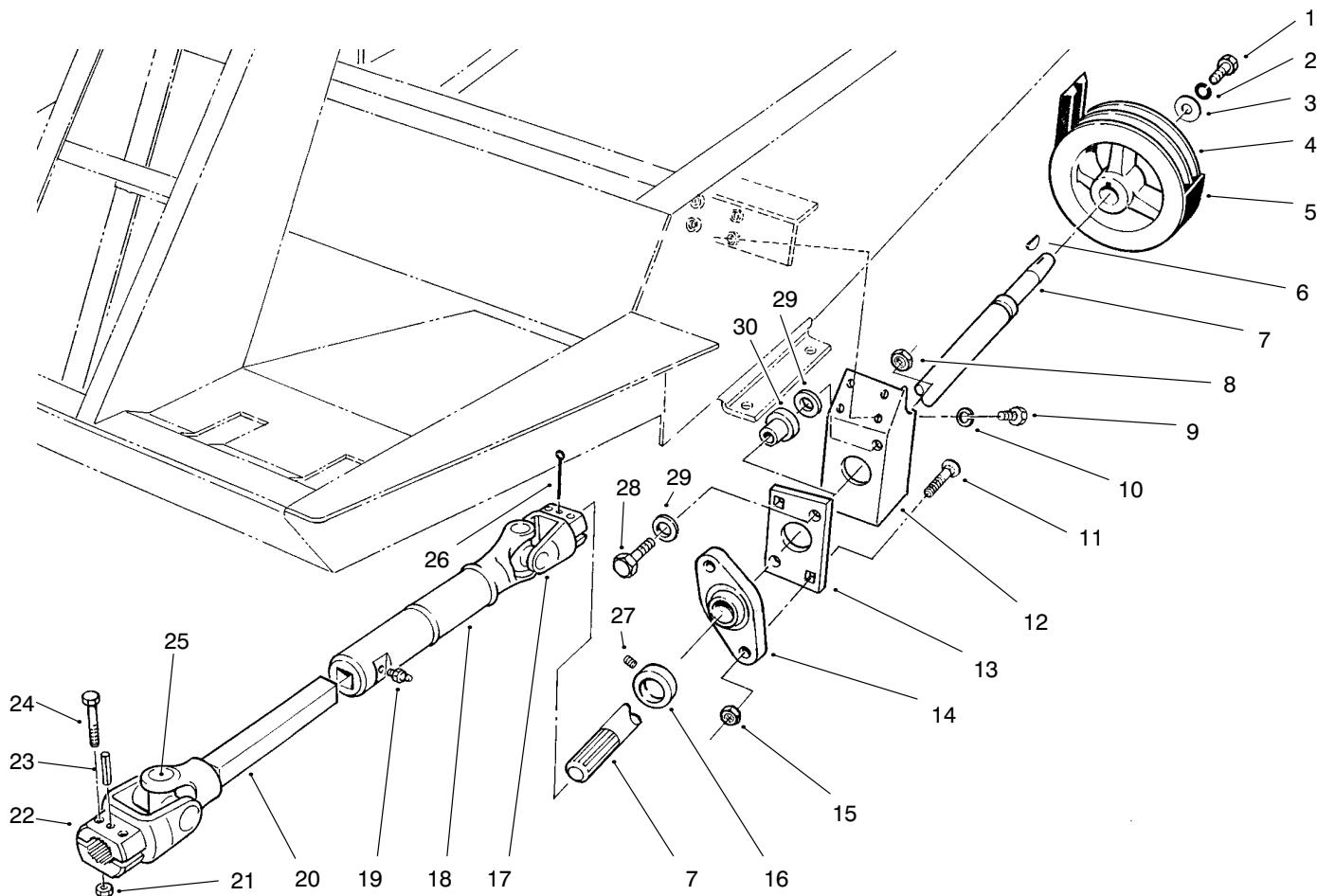


T-0530-6

BATTERY & ENGINE MOUNT ASM (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



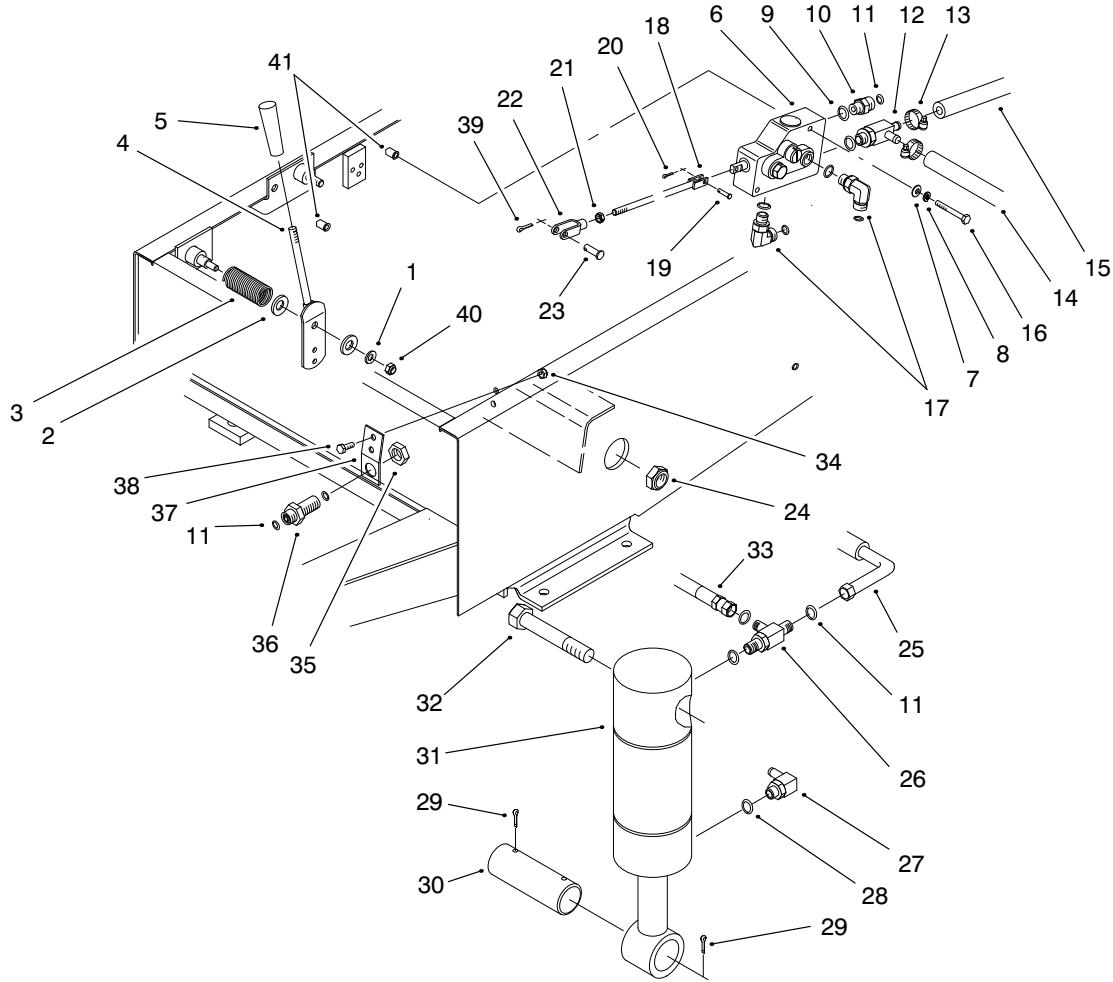
T-2745

DRIVE SHAFT & POWER-TAKE-OFF ASM

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

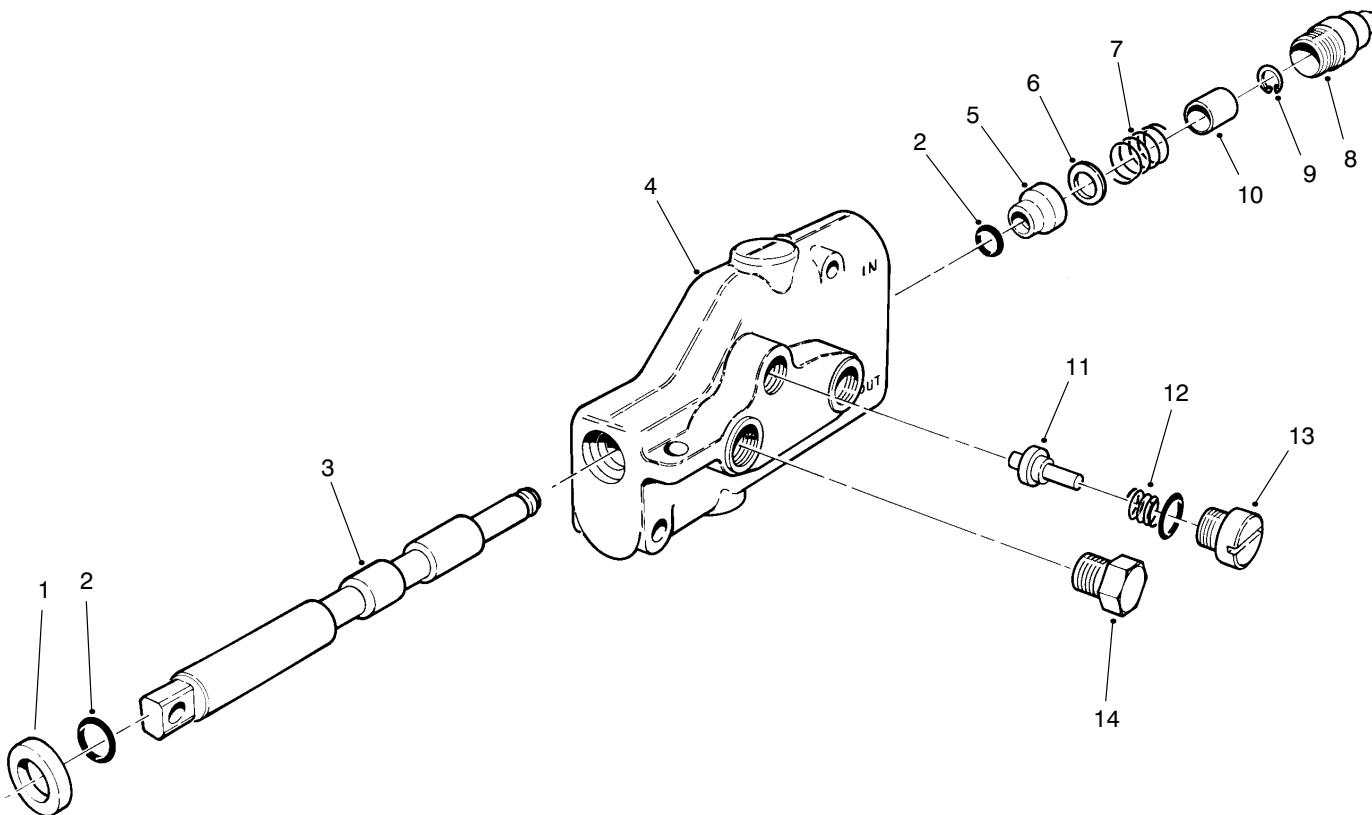


T-0531-5

HYDRAULIC LIFT SYSTEM ASM

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)	1
6	63-7960	Valve-Lift	1	28	237-78	O-Ring	2
7	3256-22	Washer-Flat	2	29	3272-23	Pin-Cotter	2
8	3253-3	Washer-Lock	2	30	27-4240	Pin-Cylinder	4
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



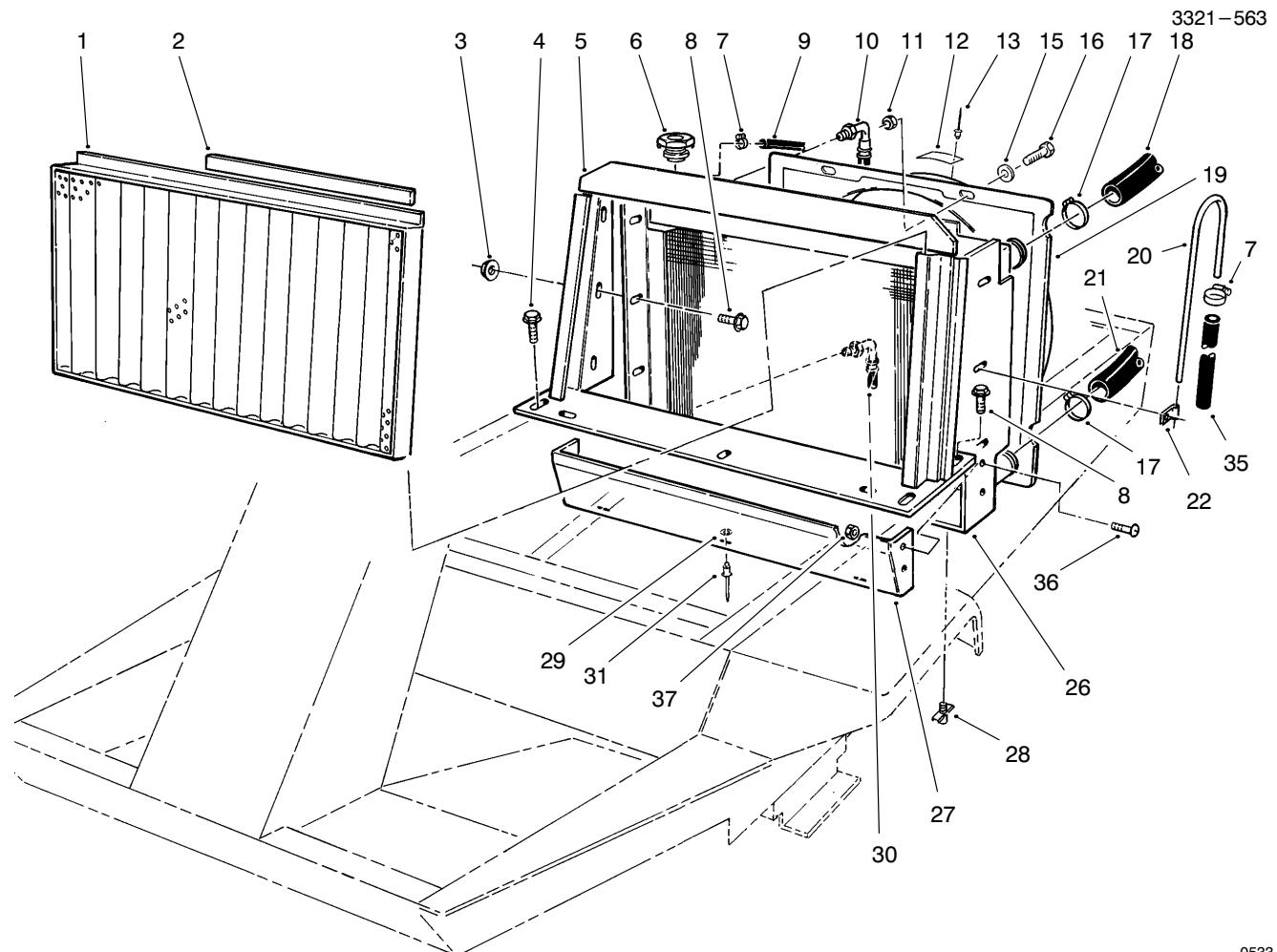
T-0532-1

LIFT VALVE ASM 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

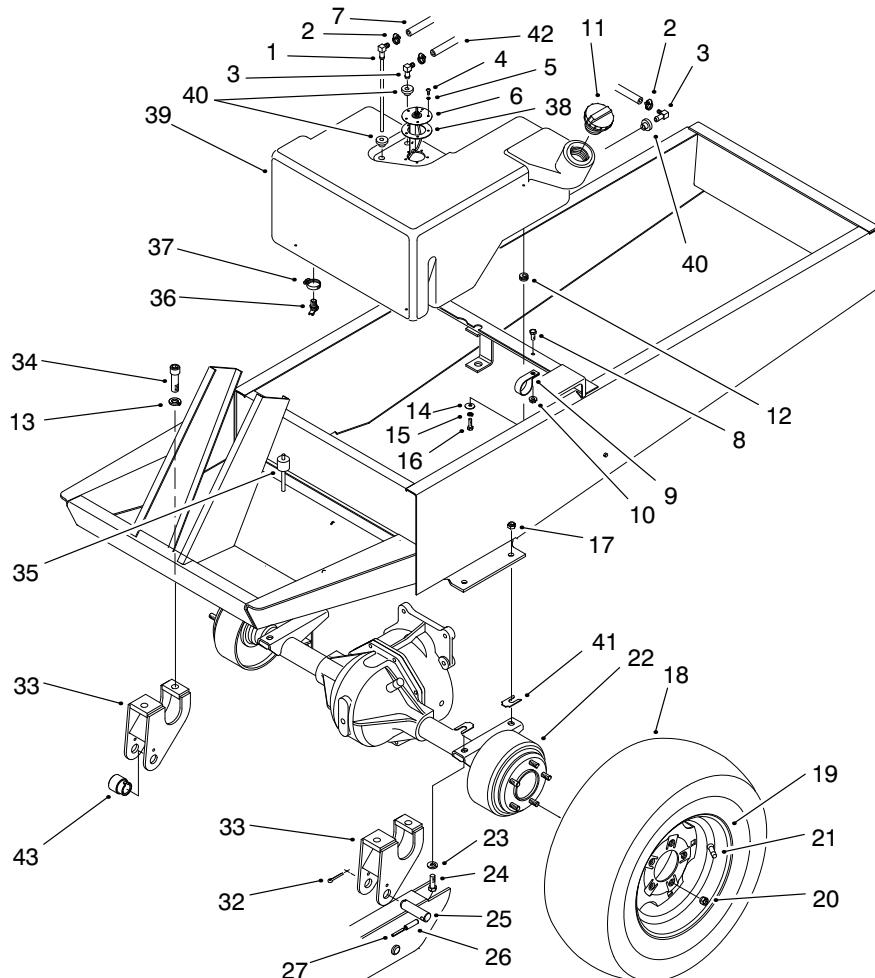


-0533-3

RADIATOR ASM

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	63-7700	Asm-Frame, Screen	1	18	93-9940	Hose—Upper	1
2	63-7710	Magnetic Strip	1	19	92-6503	Asm—Shroud, Fan (Incl. Ref. #12 & 13)	1
3	32128-20	Nut—Lock	6	20	66-3180	Tube—Vent	1
4	3234-17	Screw—HFH	2	21	63-6020	Hose—Lower	1
5	92-5757	Asm—Radiator Support	1	22	2412-103	R—Clamp	2
6	66-3240	Cap—Radiator	1	26	82-2310	Asm—Radiator	1
7	2412-108	Clamp—Hose	6	27	63-6440	Shield—Radiator	1
8	3234-5	Screw—HFH	8	28	304-46	Drain Cock	1
9	71-3384	Hose	1	29	3269-10	Washer—Flat	3
10	66-8180	Asm—Hose	1	30	66-8500	Asm—Hose	1
11	3296-42	Nut—Lock	4	31	3269-13	Rivet	3
12	76-8750	Plate—Warning	1	35	94-4522	Hose	1
12	93-6681	Decal—Warning (Europe)	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	*	93-7840	Decal—Radiator Cap (Europe)	1
16	321-4	Screw—HH	4				
17	2412-34	Clamp—Hose	4				

* Not Illustrated



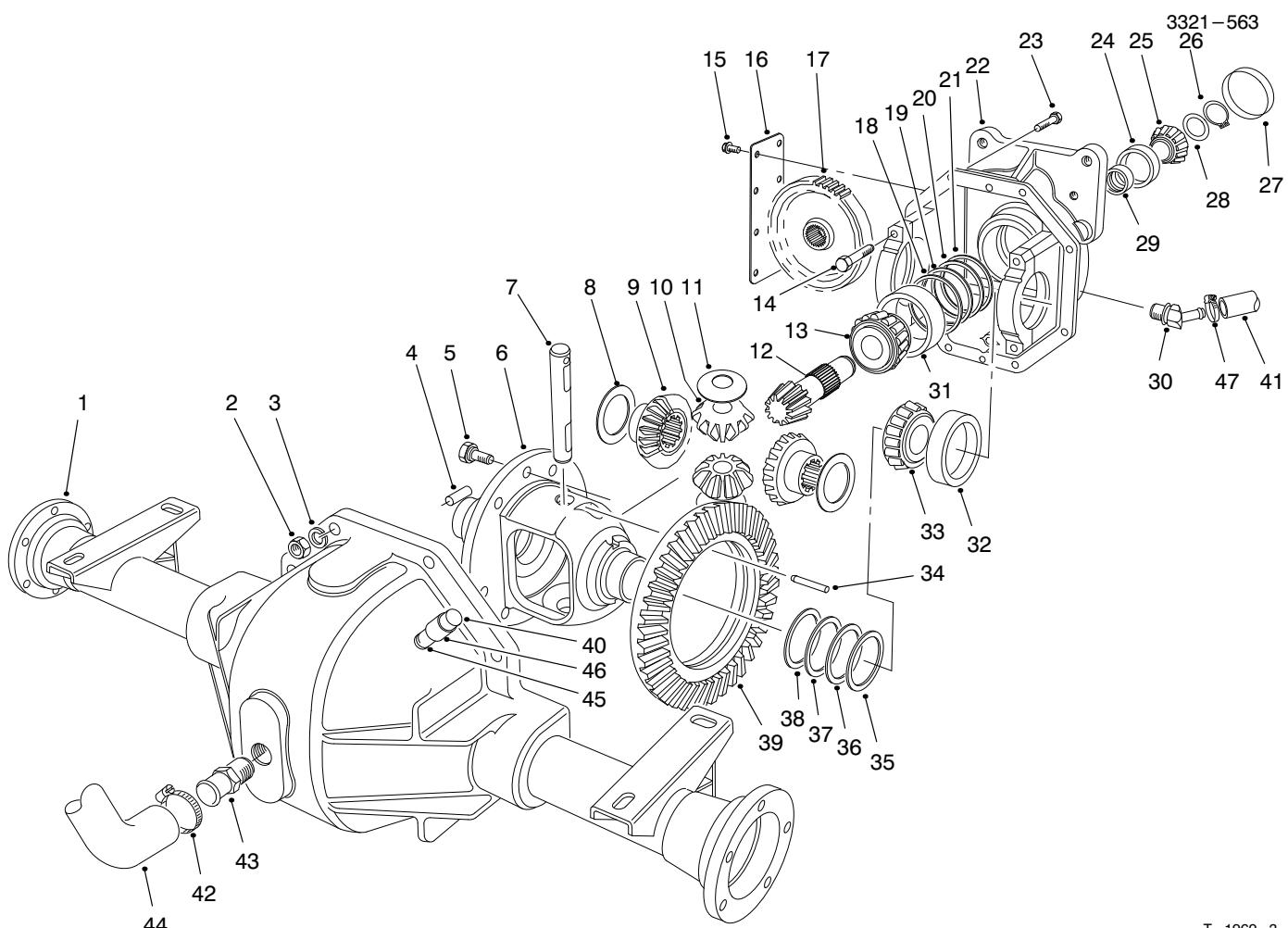
T-0534-6

FUEL TANK AND AXLE ASM

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 & Tie (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



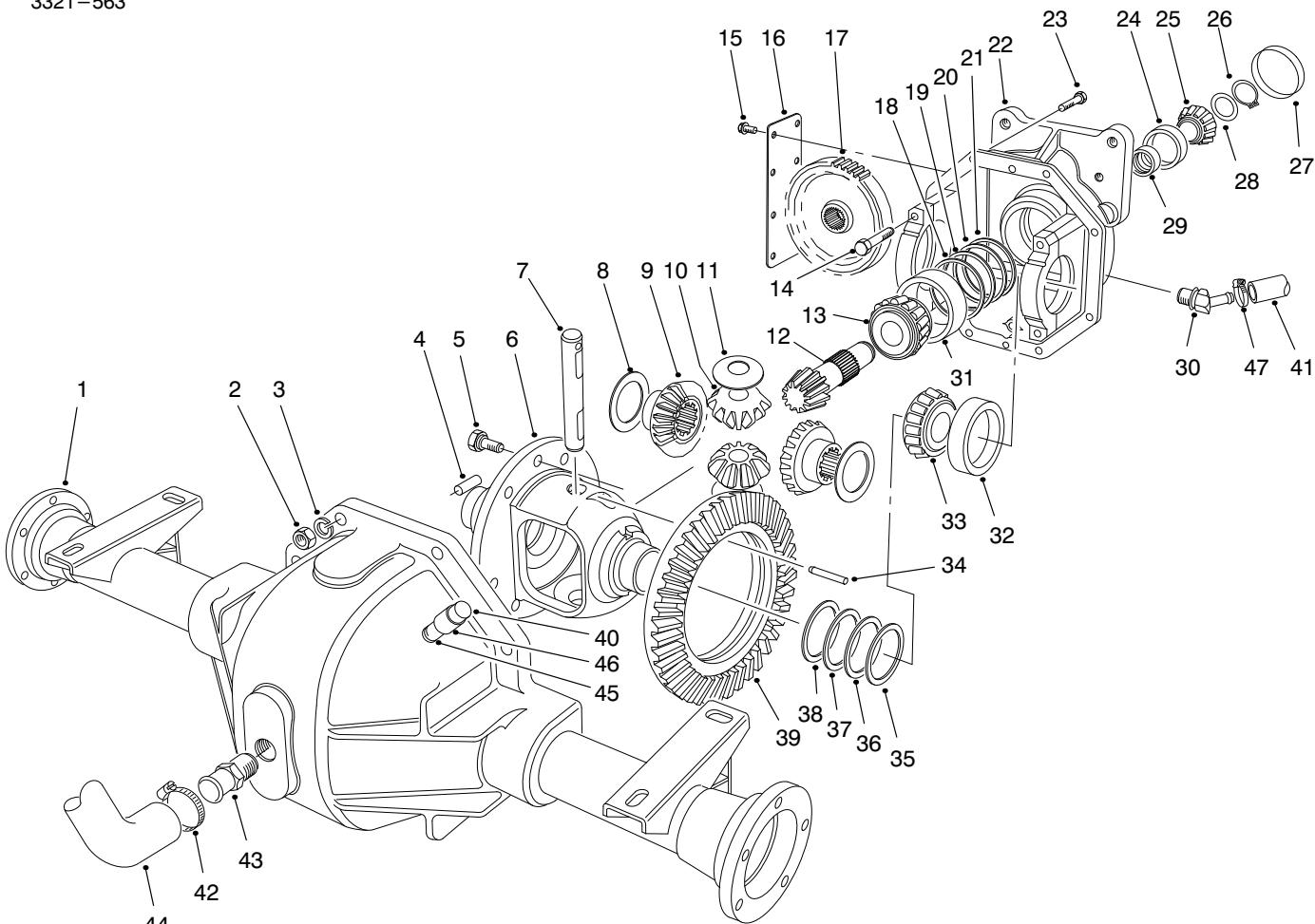
T-1969-3

DIFFERENTIAL ASM

Ref. No.	Part No.	Description	No. Used
1	63-8090	Asm-Lower Housing	1
2	3219-2	Nut	8
3	3255-8	Washer-Lock	8
4	21-8270	Pin-Dowel	2
5	21-7770	Screw-Drive Gear	5
6	21-7670	Differential Case	1
7	21-7700	Shaft-Pinion Mate	1
8	21-7720	Washer-Thrust	2
9	24-8790	Gear-Bevel, Differential	2
10	21-7690	Gear-Pinion	2
11	21-7730	Washer-Thrust	2
12		Drive Pinion	1
13	43-6760	Cone-Bearing, Tapered	1
14	92-1773	Screw-HH	4
15	12-5450	Screw-Thread Forming	8
16	21-7830	Cover-Gear	1
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

Ref. No.	Part No.	Description	No. Used
24	254-90	Cup-Bearing	1
25	254-91	Cone-Bearing	1
26	43-6550	Ring-Retaining	1
27	21-7850	Cap Plug	1
28	46-2210	Shim Front Pinion Bearing (.031)	A/R
*	46-2211	Shim Front Pinion Bearing (.033)	A/R
*	46-2212	Shim Front Pinion Bearing (.035)	A/R
*	46-2213	Shim Front Pinion Bearing (.037)	A/R
*	46-2214	Shim Front Pinion Bearing (.039)	A/R
*	46-2215	Shim Front Pinion Bearing (.041)	A/R
*	46-2216	Shim Front Pinion Bearing (.043)	A/R
*	46-2220	Shim Front Pinion Bearing (.045)	A/R
*	46-2221	Shim Front Pinion Bearing (.047)	A/R
*	46-2222	Shim Front Pinion Bearing (.049)	A/R
*	46-2223	Shim Front Pinion Bearing (.051)	A/R
*	46-2224	Shim Front Pinion Bearing (.053)	A/R

* Not Illustrated

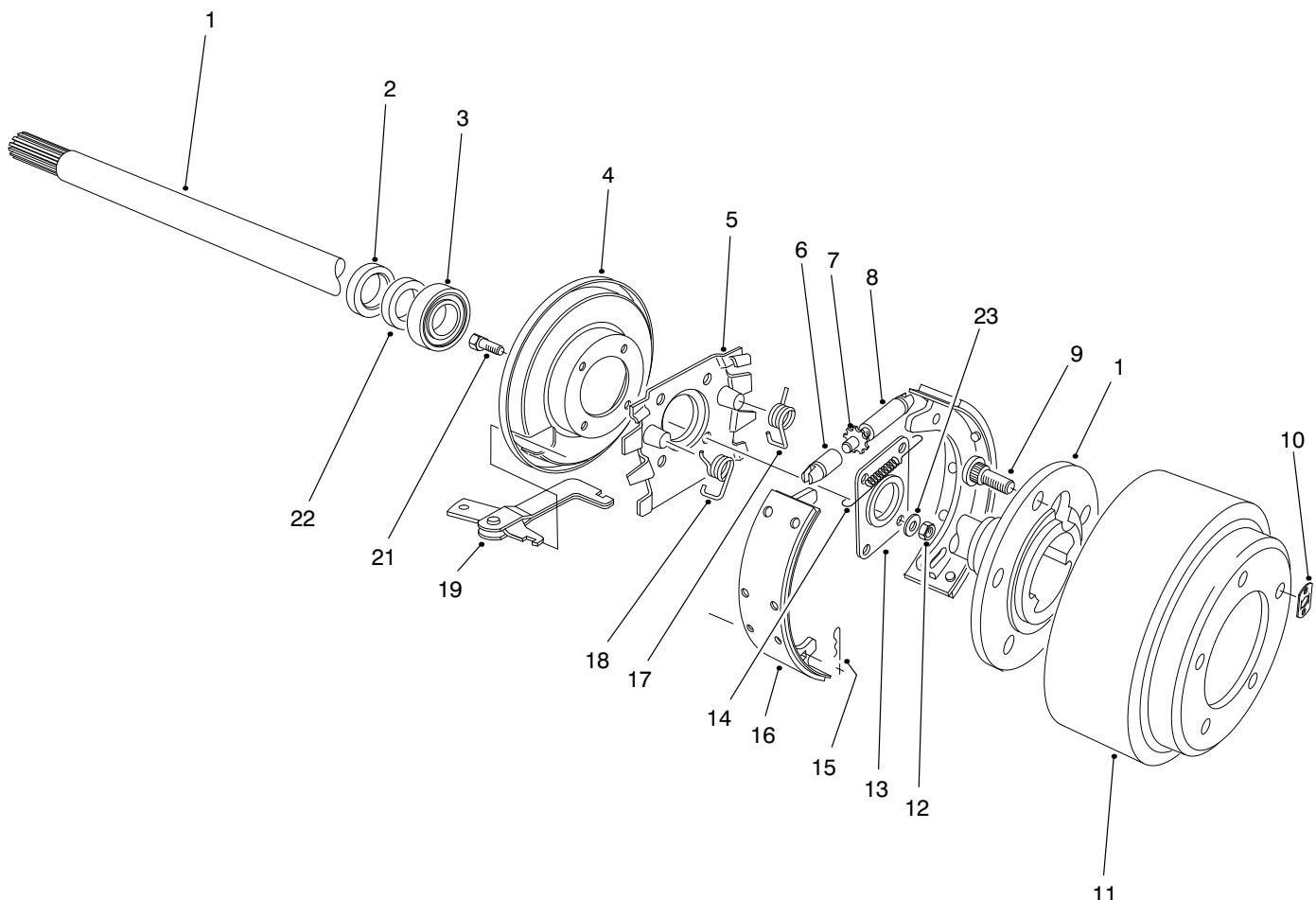


T-1969-3

DIFFERENTIAL ASM (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



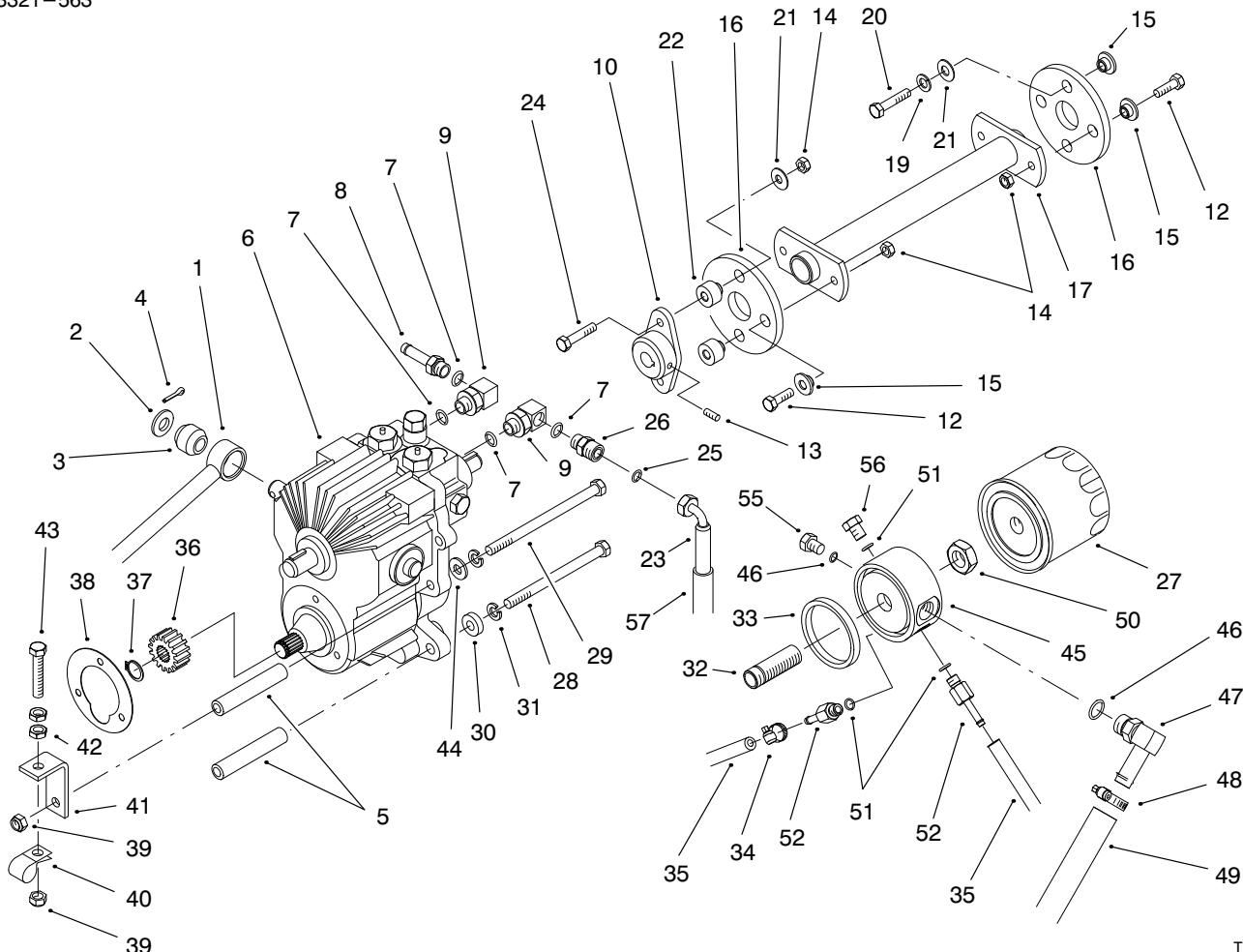
T-2664-2

BRAKE ASM

Ref. No.	Part No.	Description	No. Used
1	27-6861	Shaft-Axle, Flanged LH	1
*	27-6851	Shaft-Axle, Flanged RH	1
2	92-1774	Oil Seal	2
3	21-8180	Bearing-Tapered Roller	2
4	21-9450	Dust Shield	2
5	43-6810	Torque Spider	2
6	21-9390	Socket-Adjusting Screw	2
7	21-9370	Adjusting Screw	2
8	21-9380	Nut-Pivot	2
9	242-34	Stud-Axle Flange	10
10	21-8360	Clip-Retaining	2
11	28-0680	Brake Drum	2
12	94-6935	Nut-Lock, Flange Hd.	8

Ref. No.	Part No.	Description	No. Used
13	28-0670	Oil Seal	2
14	21-9440	Screw-Spring Adjusting	2
15	21-9460	Retainer-Parking Brake	4
16	84-8600	Brake Shoe Set (Incl. 4 Shoes)	1
17	21-9430	Spring-Shoe Return RH	2
18	21-9420	Spring-Shoe Return LH	2
19	24-9180	Strut/Lever-Parking Brake	2
21	94-6934	Screw-HH	8
22	24-8840	Ring-Wheel Bearing	2
*	92-8775	Kit-Gasket, Liquid	1
23	94-6936	Washer-Flat	8

* Not Illustrated

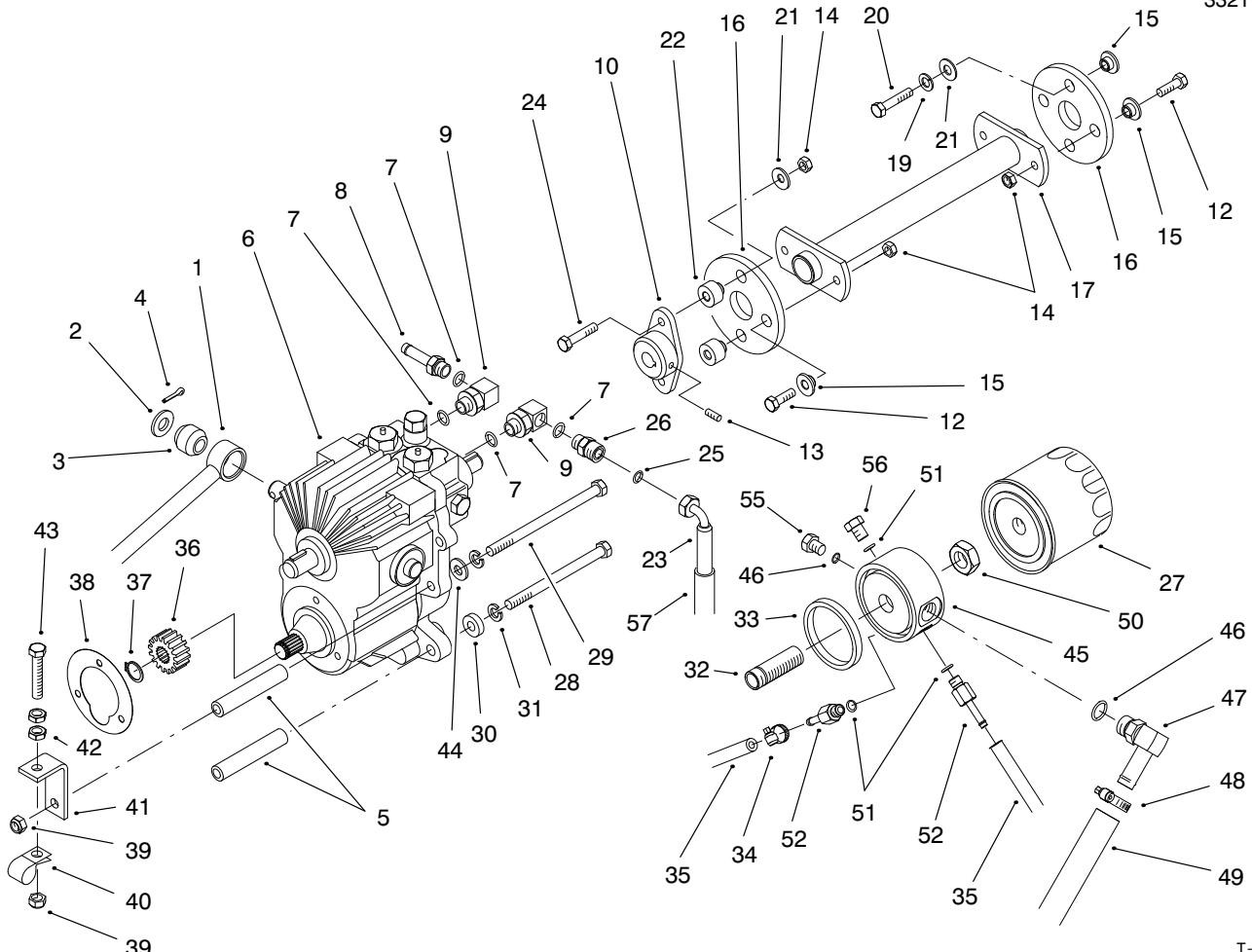


T-2665-2

TRANSMISSION & DRIVE COUPLING ASM

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

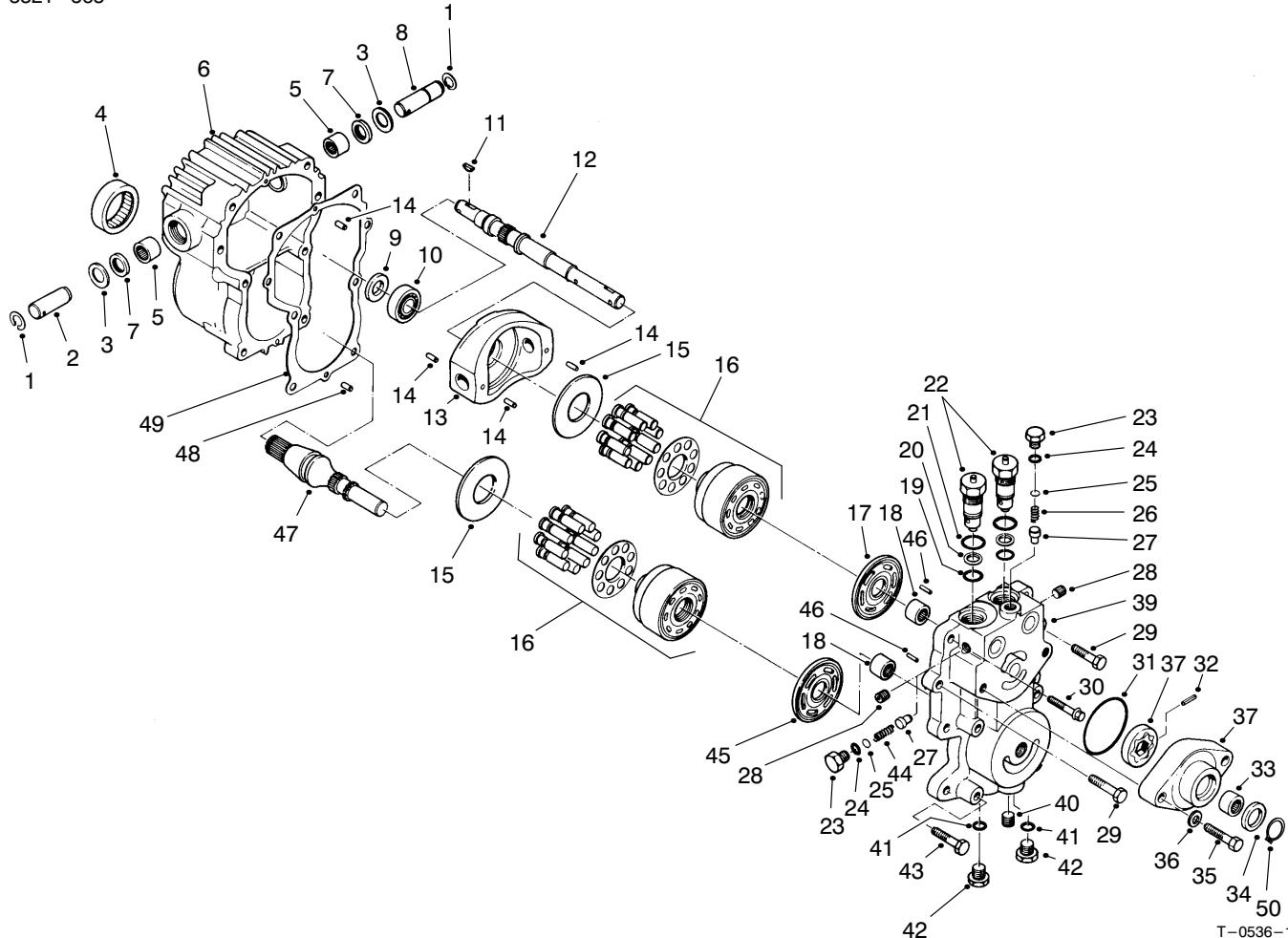
Ref. No.	Part No.	Description	No. Used
26	82-8530	Fitting (Incl. Ref. #7 & 25)	1
27	23-2300	Oil Filter	1
28	323-39	Screw-HH	3
29	27-9620	Screw-HH	1
30	5-0652	Spacer	1
31	3253-21	Washer-Lock	4
32	92-5085	Union Filter	1
33	92-5087	Seal-Adapter, Filter	1
34	2412-108	Hose Clamp	4
35	92-5082	Hose	2
36	86-7220	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 ASM (Cont.)

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				



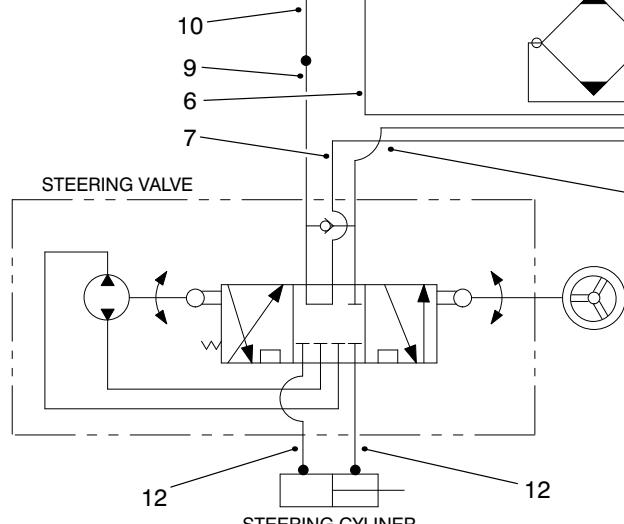
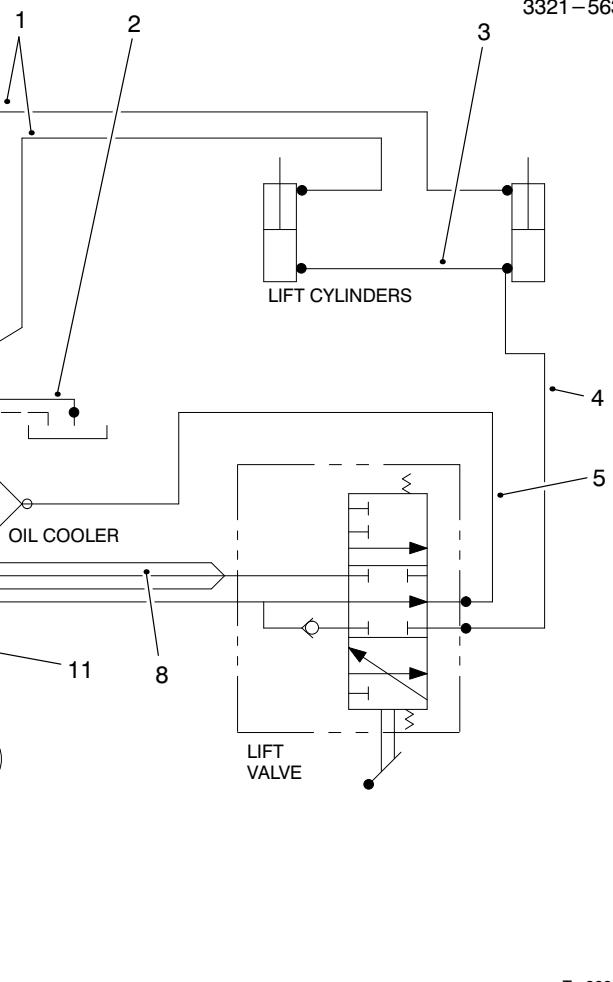
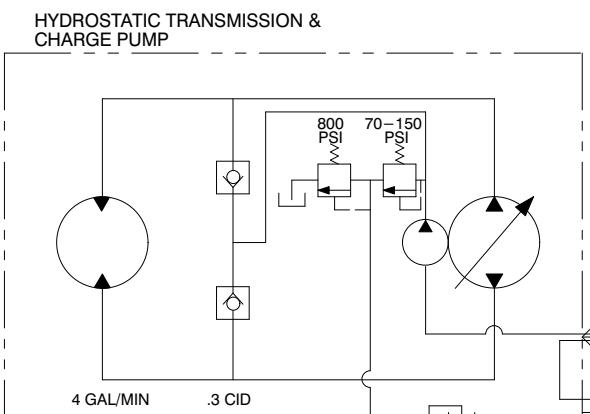
TRANSMISSION ASM NO. 92-5513

Ref. No.	Part No.	Description	No. Used
1	32151-46	Ring—Retaining	2
2	25-2500	Shaft—Trunnion	1
3	25-2510	Washer	2
4	28-3300	Bearing—Roller	1
5	28-3310	Bearing—Needle	2
6	92-5709	Housing	1
7	25-3210	Lip Seal	2
8	28-3670	Shaft—Trunnion	1
9	93-4133	Lip Seal	1
10	28-3650	Bearing—Ball	1
11	3257-5	Key—Woodruff	2
12	28-3640	Shaft—Pump	1
13	49-7820	Variable Swashplate	1
14	32121-91	Pin	3
15	25-2380	Plate—Thrust	2
16	48-1800	Kit—Cylinder Block	2
17	46-7320	Plate—Pump Valve	1
18	25-3300	Bearing—Needle	2
19	28-3590	O-Ring	2
20	28-3580	Ring—Backup	2
21	28-3570	O-Ring	2
22	49-7830	Asm—Check Valve (Incl. Ref. #19-21)	2
23	25-2460	Plug—Hex Hd.	2
24	28-3400	O-Ring	2
25	25-2470	Shim Pack	AR
26	46-7310	Relief Valve Spring Imp.	1

Ref. No.	Part No.	Description	No. Used
27	28-3420	Relief Valve Cone Charge	2
28	285-17	Plug—Pipe	4
29	323-8	Screw—HH	2
30	28-3530	Screw—HH	2
31	28-3520	O-Ring	1
32	38-2680	Pin	1
33	28-3480	Bearing—Needle	1
†34	28-3470	Lip Seal	1
‡34	94-2975	Shaft—Seal	1
35	324-23	Screw—HH	2
36	28-3450	Washer—Flat	2
37	38-2670	Kit—Charge Pump (Incl. Ref. #31-34 & 50))	1
39	92-5716	Center Section	1
40	92-5717	Plug—Pipe	1
41		O-Ring	2
42	28-3440	Plug—Threaded (Incl. Ref. #41)	2
43	323-10	Screw—HH	4
44	25-2480	Relief Valve Spring Charge	1
45	28-3380	Plate—Motor Valve	1
46	25-2430	Pin	2
47	49-8200	Shaft—Motor	1
48	28-3350	Pin	2
49	28-3340	Gasket	1
‡50	94-2976	Ring—Retaining	1

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

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

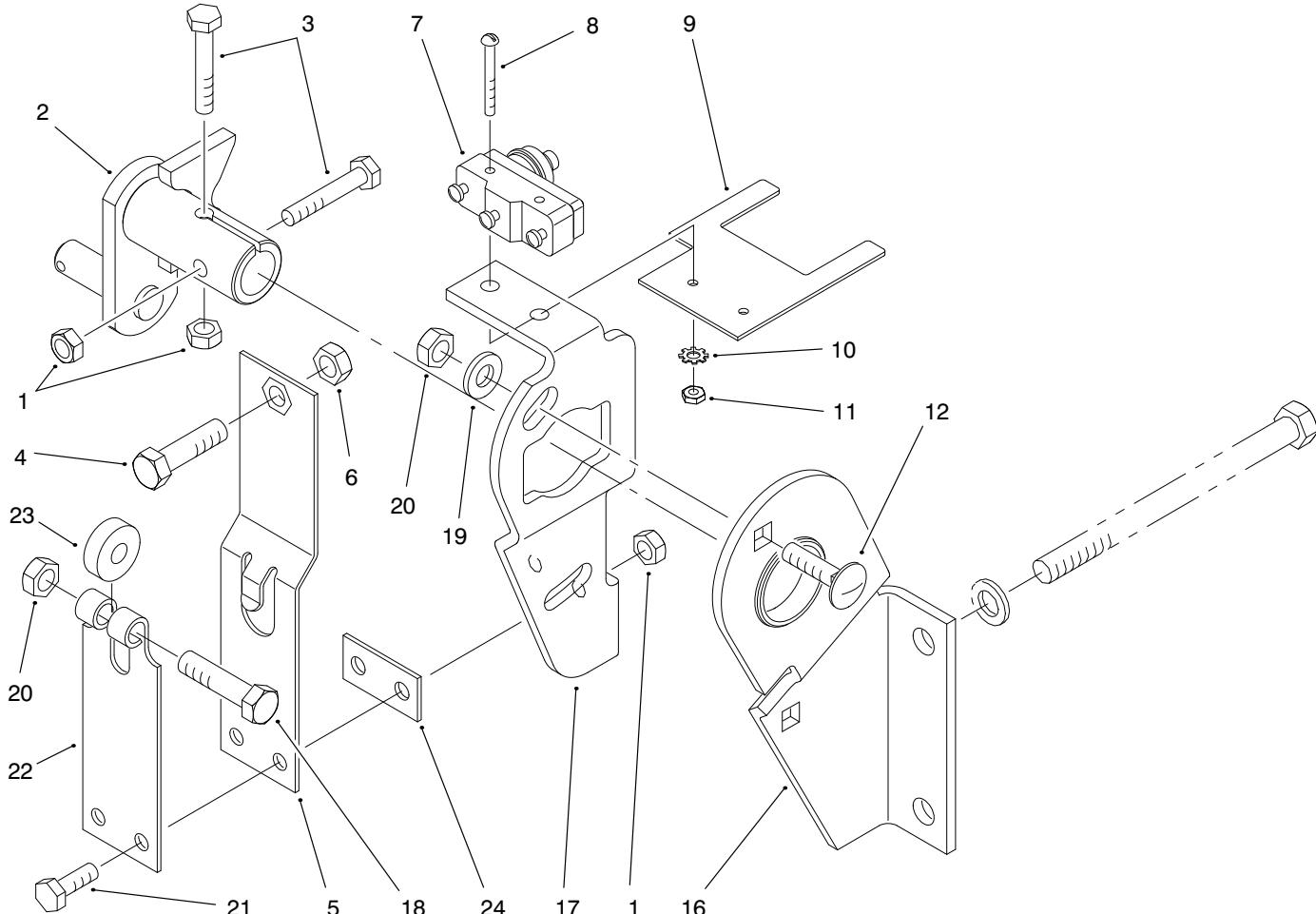


T-2663-1

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

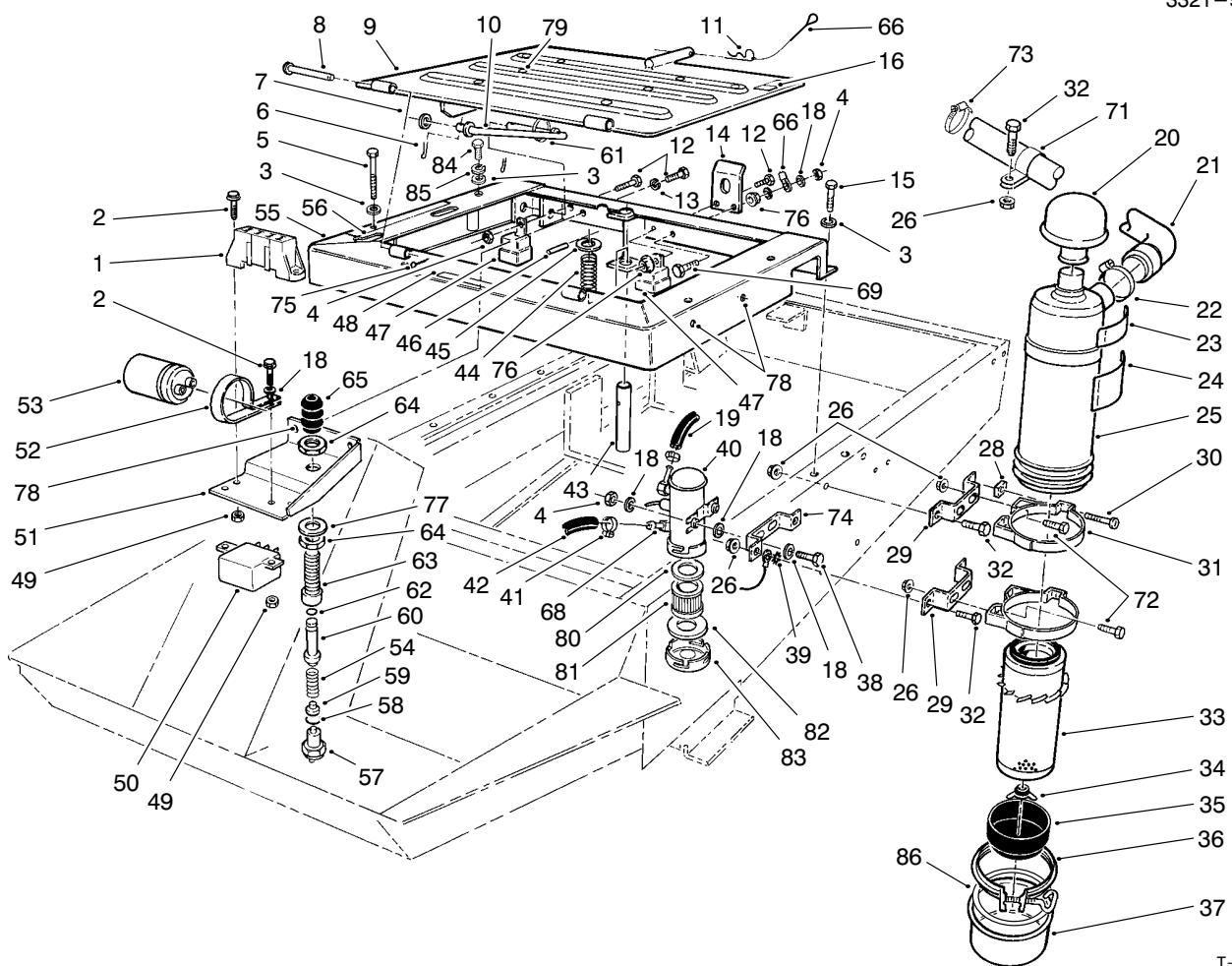


T-0538-3

TRANSMISSION INTERLOCK ASM

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

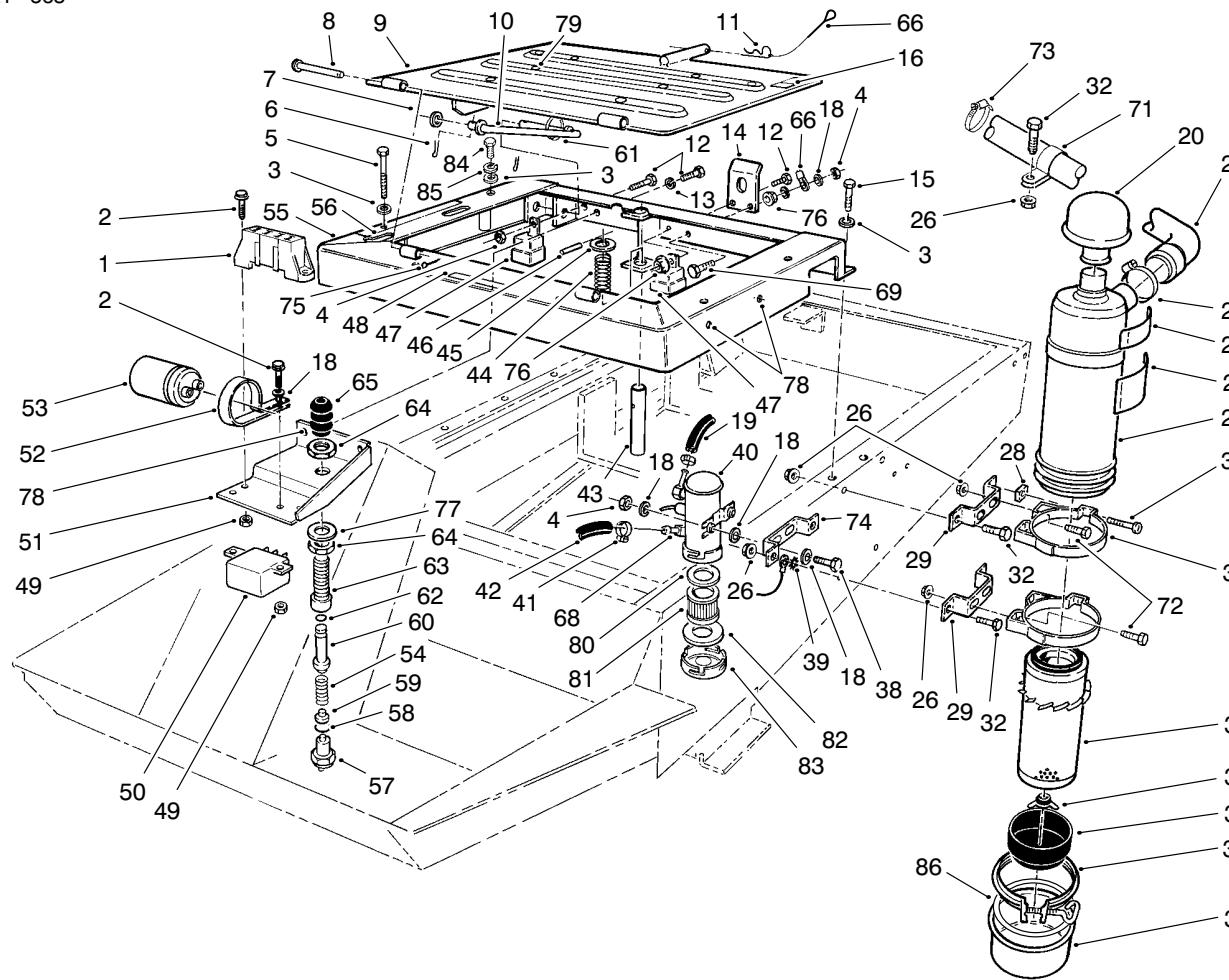
Ref. No.	Part No.	Description	No. Used
12	3230-2	Bolt-Carriage	2
16	52-8890	Bracket-Mounting	2
17	52-9070	Plate-Pump	1
18	322-17	Screw-HH	1
19	3256-23	Washer-Flat	2
20	3296-29	Nut-Lock	3
21	321-4	Screw-HH	2
22	29-6150	Spring-Leaf	1
23	251-259	Bearing-Ball	1
24	51-3150	Shim	1



T-0606-1

SEAT FRAME & AIR CLEANER ASM

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	67-7160	Fuse Block	1	25	27-7100	Asm-Air Cleaner (Incl. Ref. #24 & 32-36)	1
2	32105-13	Screw-HH	4	26	32128-20	Nut-Flange	9
3	3256-23	Washer-Flat	6	28	32107-11	Nut-Square	2
4	3296-42	Nut-Lock	3	29	66-2451	Bracket-Air Cleaner	2
5	322-13	Screw-HH	6	30	3258-19	Screw-HH	2
6	3272-11	Pin-Cotter	2	31	27-7170	Asm-Mounting Band (Incl. Ref. #28 & 30)	2
7	3256-24	Washer-Flat	1	32	322-5	Screw-HH	5
8	283-49	Pin-Clevis	2	33	27-7110	Asm-Element	1
9	92-5759	Plate-Seat (Incl. Ref. #79)	1	34	27-7120	Asm-Nut & Gasket	1
10	66-2800	Rod-Seat Support	1	35	27-7140	Skirt-Baffle	1
11	3290-255	Pin-Hair, Cotter	1	36	27-7130	Asm-Clamp	1
12	321-4	Screw-HH	4	37	27-7150	Asm-Cup	1
13	3253-3	Washer-Lock	2	38	321-8	Screw-HH	2
14	66-2630	Latch-Seat	1	39	3255-8	Washer-Lock, Ext. Tooth	1
15	3234-17	Screw-HFH	2	40	53-8150	Pump-Fuel (Incl. Ref. #80-83)	1
16	52-1321	Decal-Diesel Fuel	1	41	2412-108	Clamp-Hose	4
16	93-6680	Decal-Diesel Fuel (Europe)	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	83-9150	Decal-Starting Fluid	1	48	67-1710	Decal-Interlock	1
	93-7275	Decal-Starting Fluid (Europe)	1				



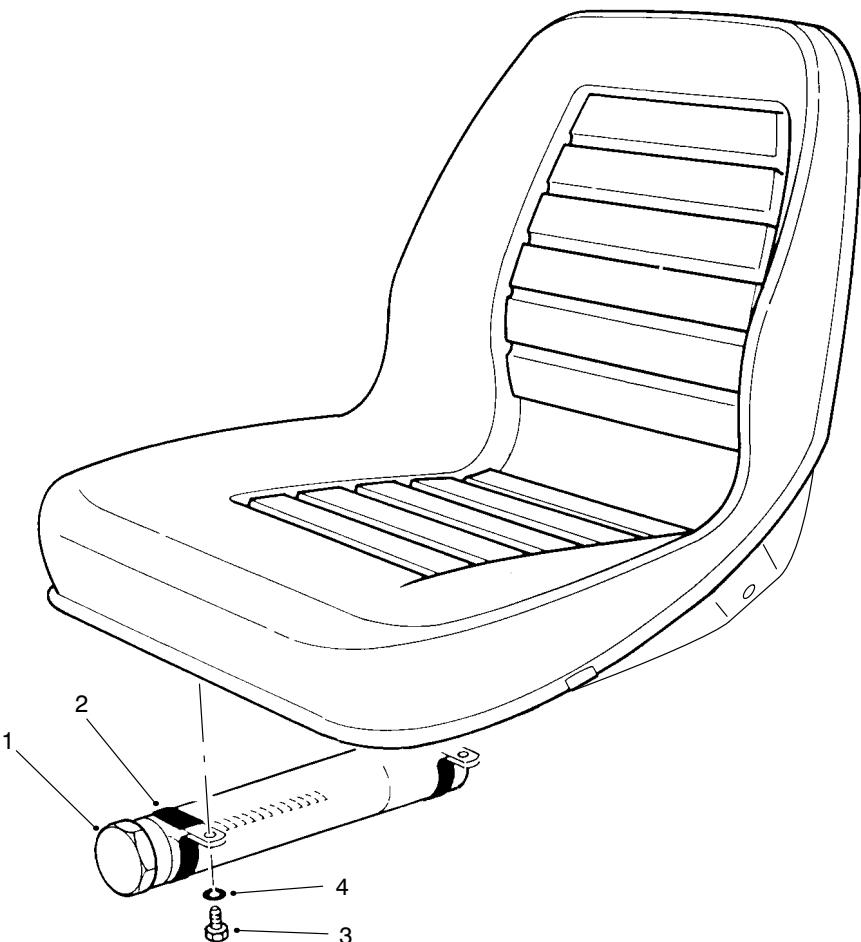
T-0606-1

SEAT FRAME & AIR CLEANER ASM (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	1
56	66-8750	Decal-Control Levers	1
56	93-7833	Decal-Control Levers (Europe)	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

Ref. No.	Part No.	Description	No. Used
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
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

* Not Illustrated

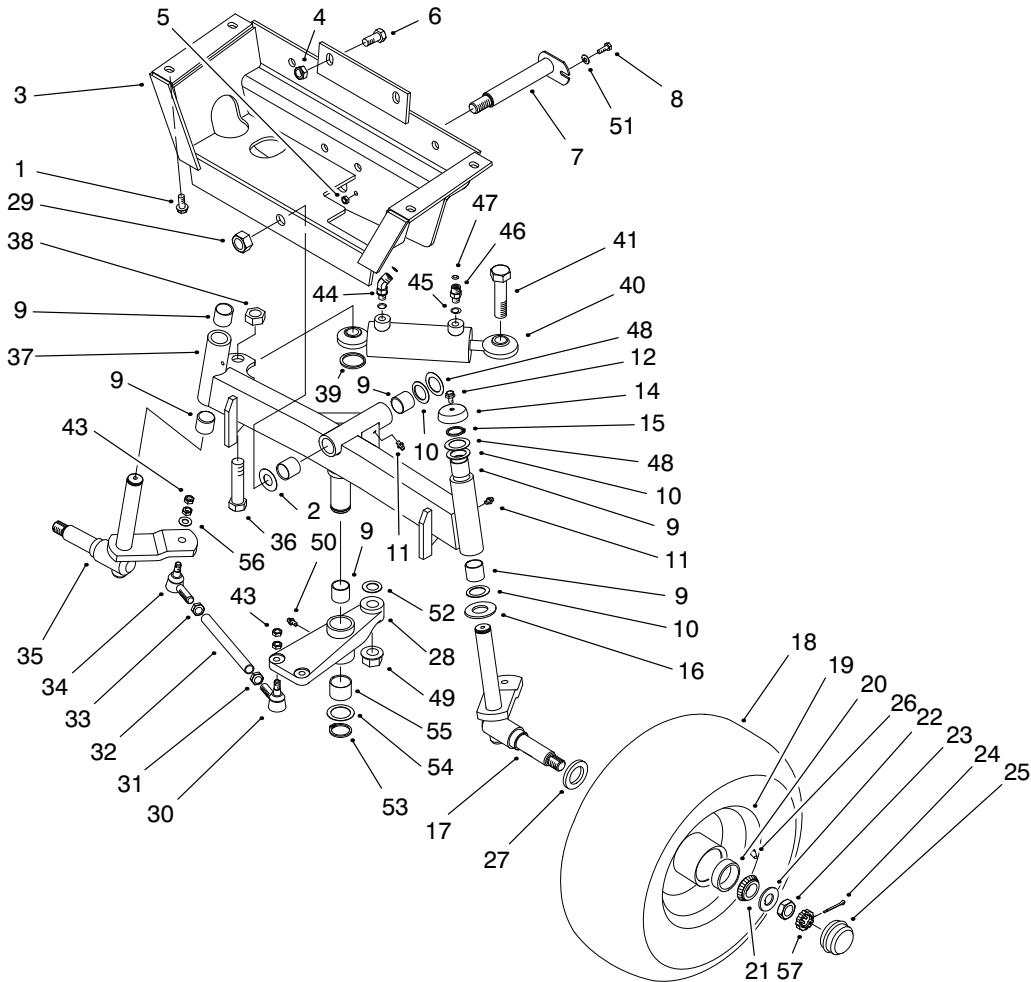


T-1692-1

MANUAL STORAGE ASM

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

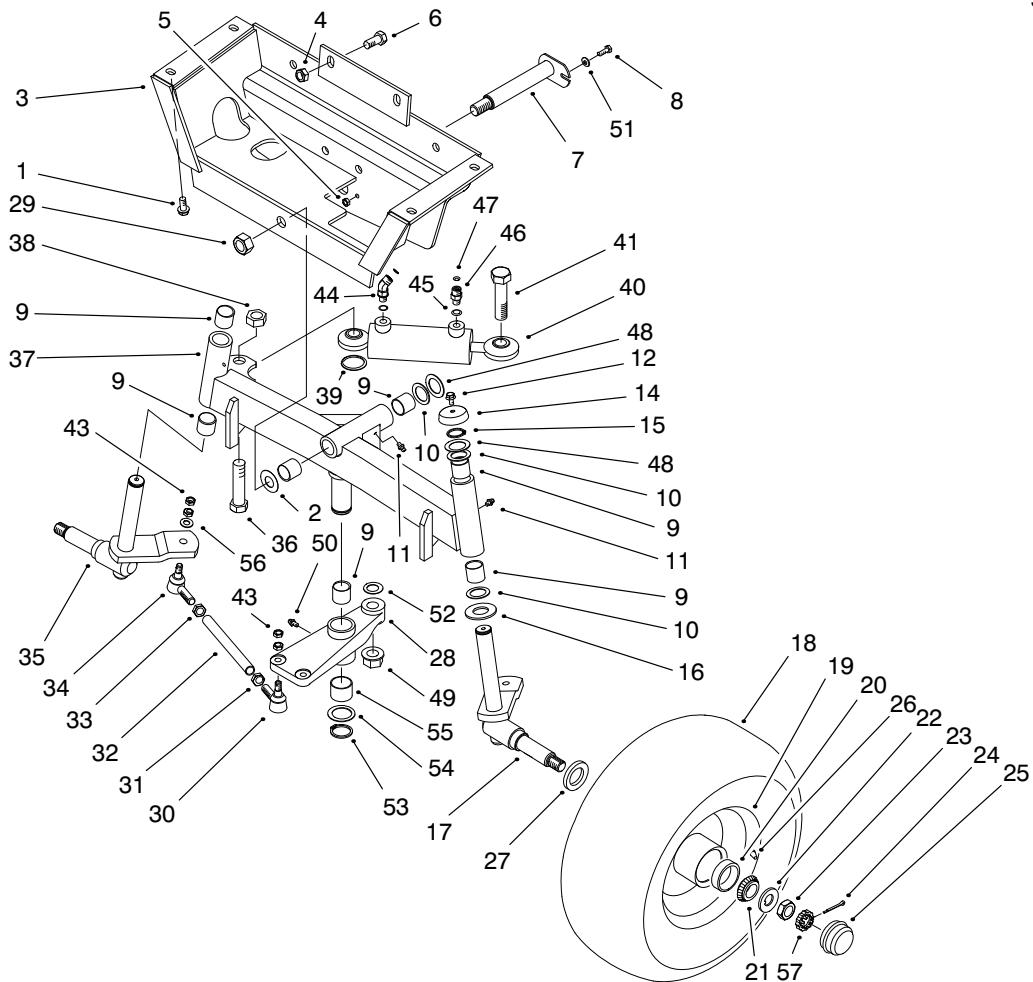


T-0540

REAR AXLE ASM

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

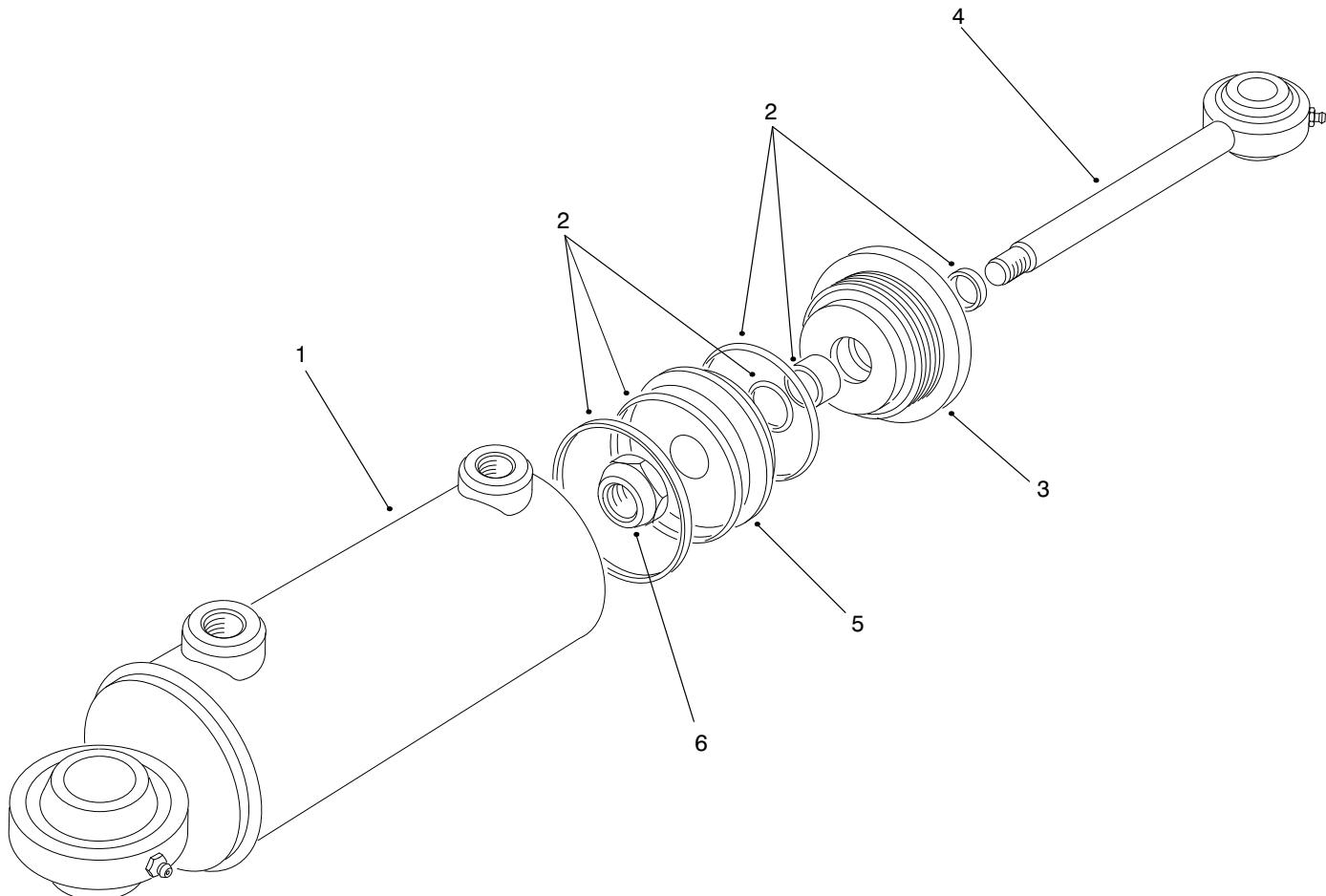
Ref. No.	Part No.	Description	No. Used
28	76-4810	Pivot-Steering (Incl. Ref. #50 & 55)	1
29	3296-51	Nut-Lock	1
30	21-0151	Joint-Ball LH	2
31	3220-12	Nut-Jam LH	2
32	63-6880	Rod-Tie	2
33	3220-5	Nut-Jam RH	2
34	21-0141	Joint-Ball RH	2
35	93-3196	Spindle-Wheel RH	1
36	67-7300	Screw-HH	1
37	76-3000	Axle-Rear (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 ASM (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

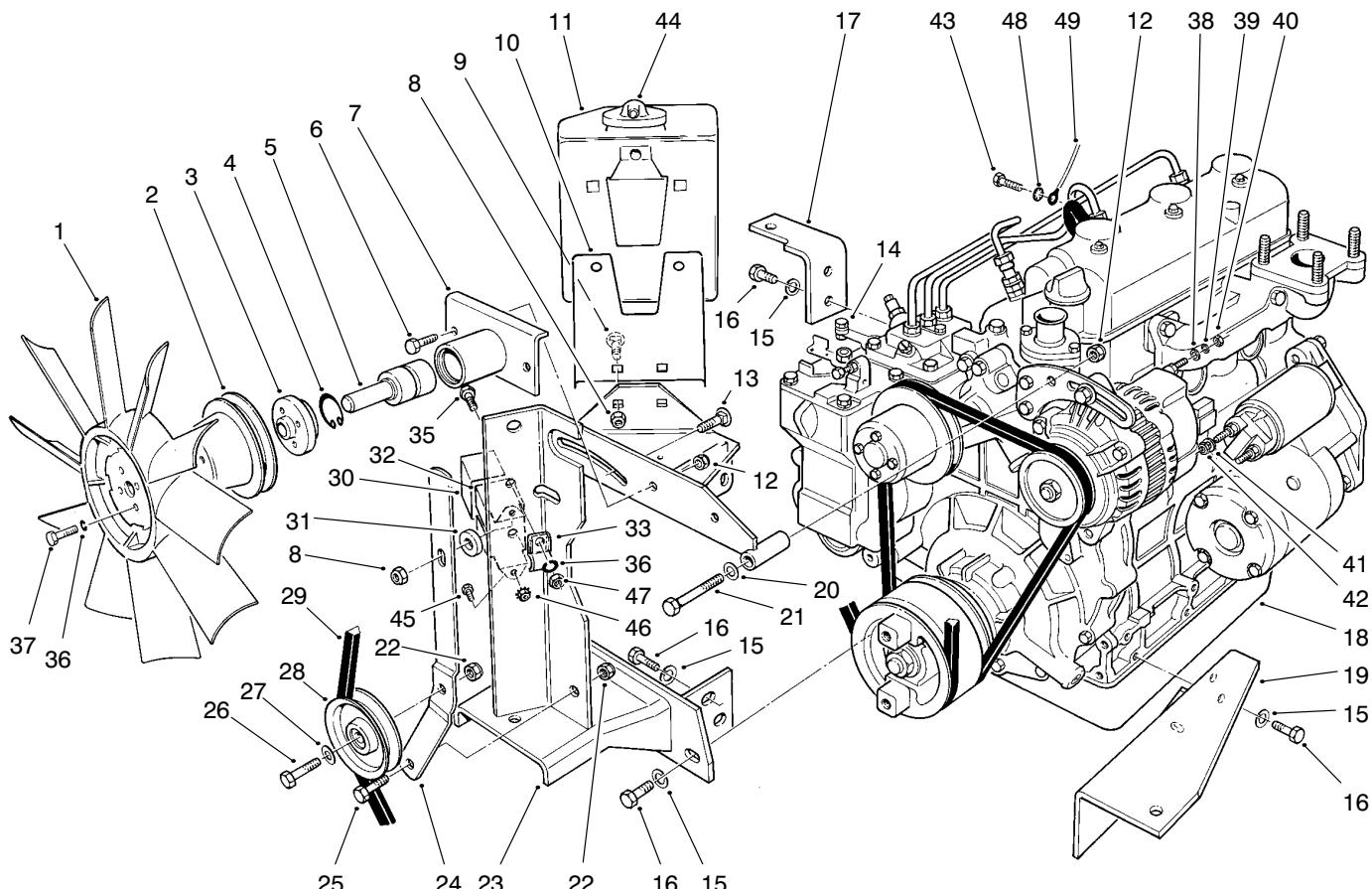


T-0541-3

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

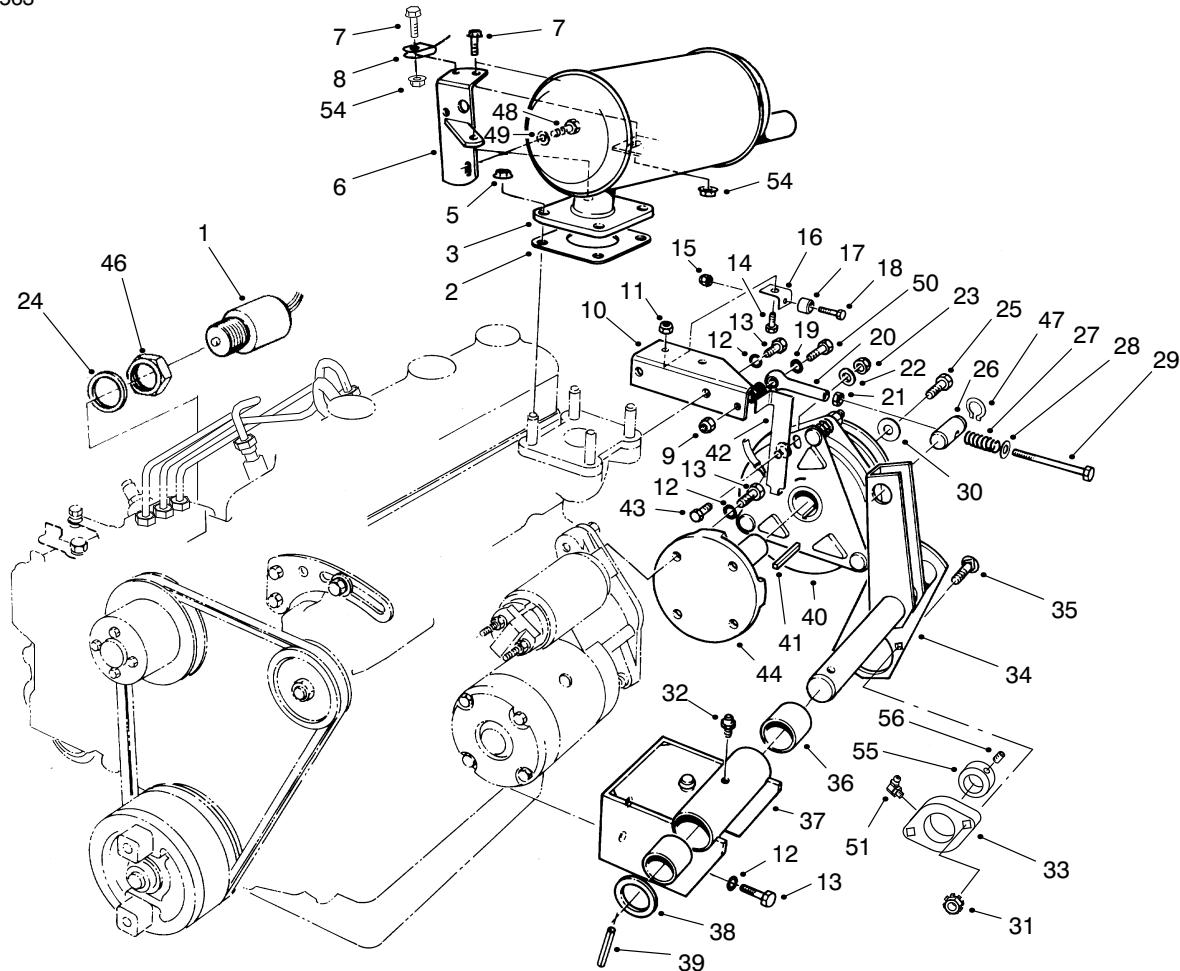
Ref. No.	Part No.	Description	No. Used
4	76-2080	Asm-Piston Rod	1
5	66-1940	Piston	1
6	66-1930	Nut-Lock	1



T-0542-2

ENGINE ASM

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



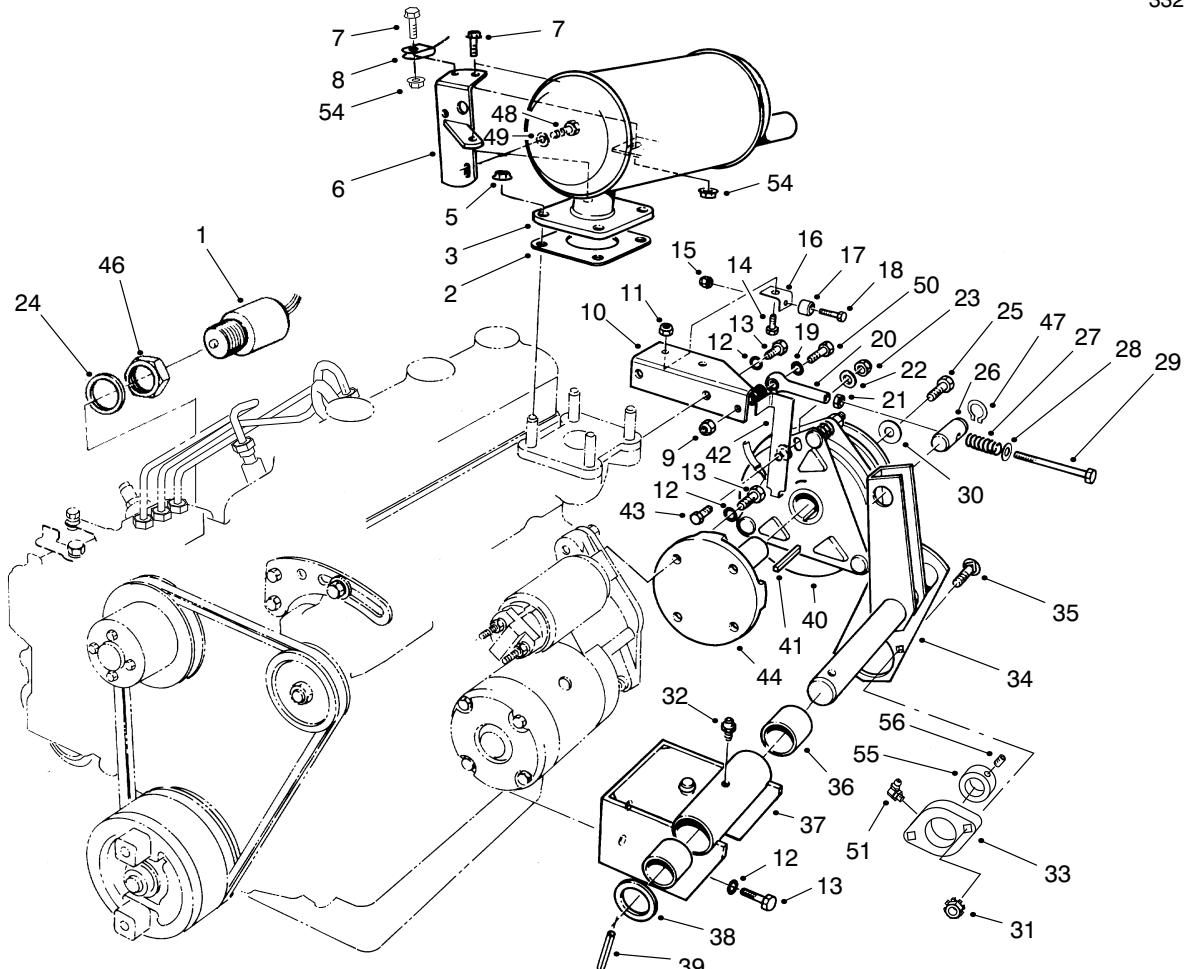
T-0543-3

POWER TAKE OFF ASM

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

* Not Illustrated



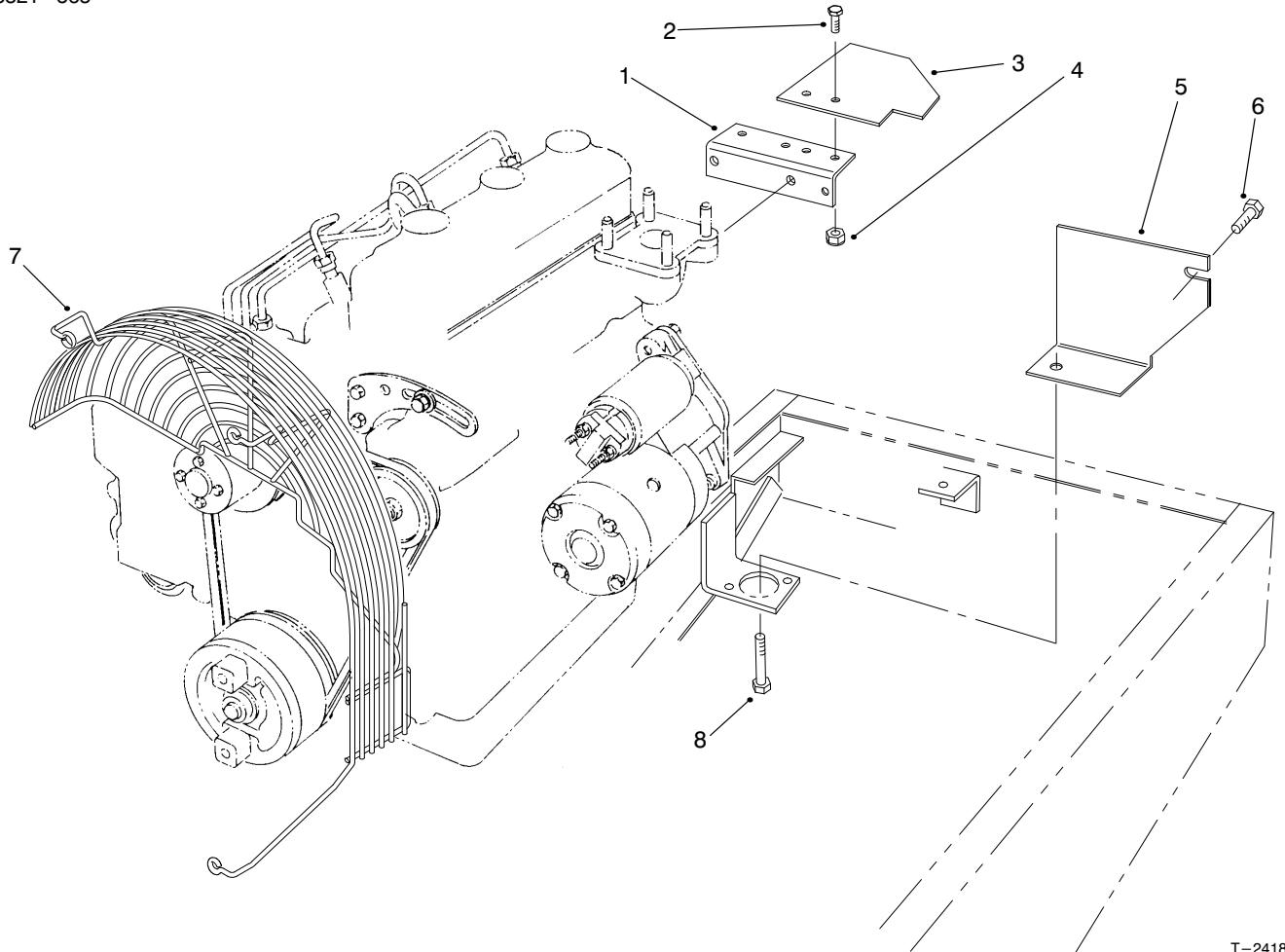
T-0543-3

POWER TAKE OFF ASM (Continued)

Ref. No.	Part No.	Description	No. Used
50	322-6	Screw-HH	1
51	302-40	Fitting-Grease	1
54	32128-25	Nut-Lock	2

Ref. No.	Part No.	Description	No. Used
55	251-77	Collar-Locking	1
56	3245-35	Screw-Set	1

* Not Illustrated

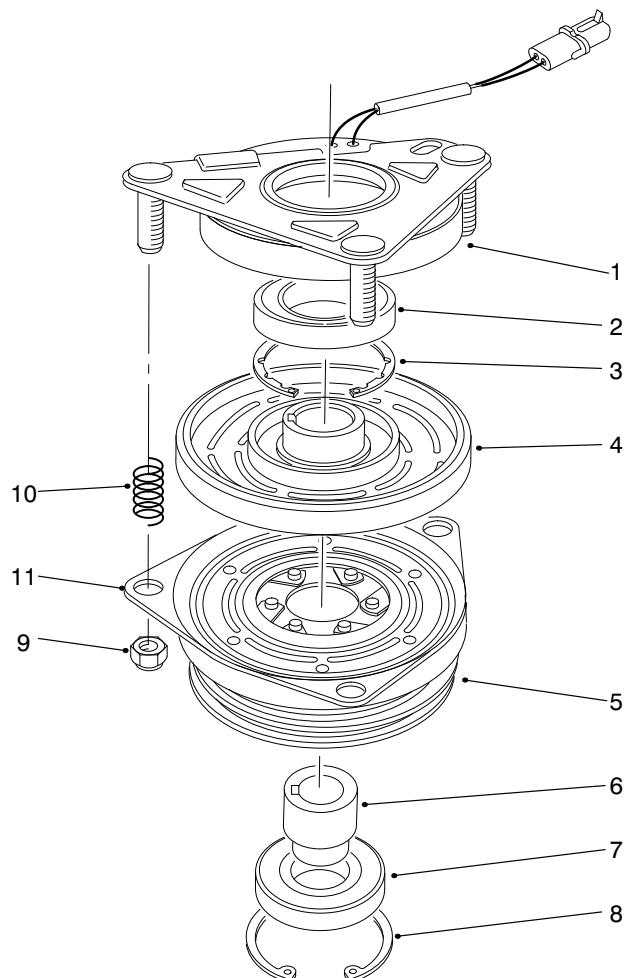


T-2418-2

CE ENGINE COMPONENT ASM (EUROPE)

Ref. No.	Part No.	Description	No. Used
1	93-9991	Bracket-Clutch Anchor	1
2	321-3	Screw-HH	2
3	93-9990	Guard-Flywheel	1
4	3296-42	Nut-Lock	2

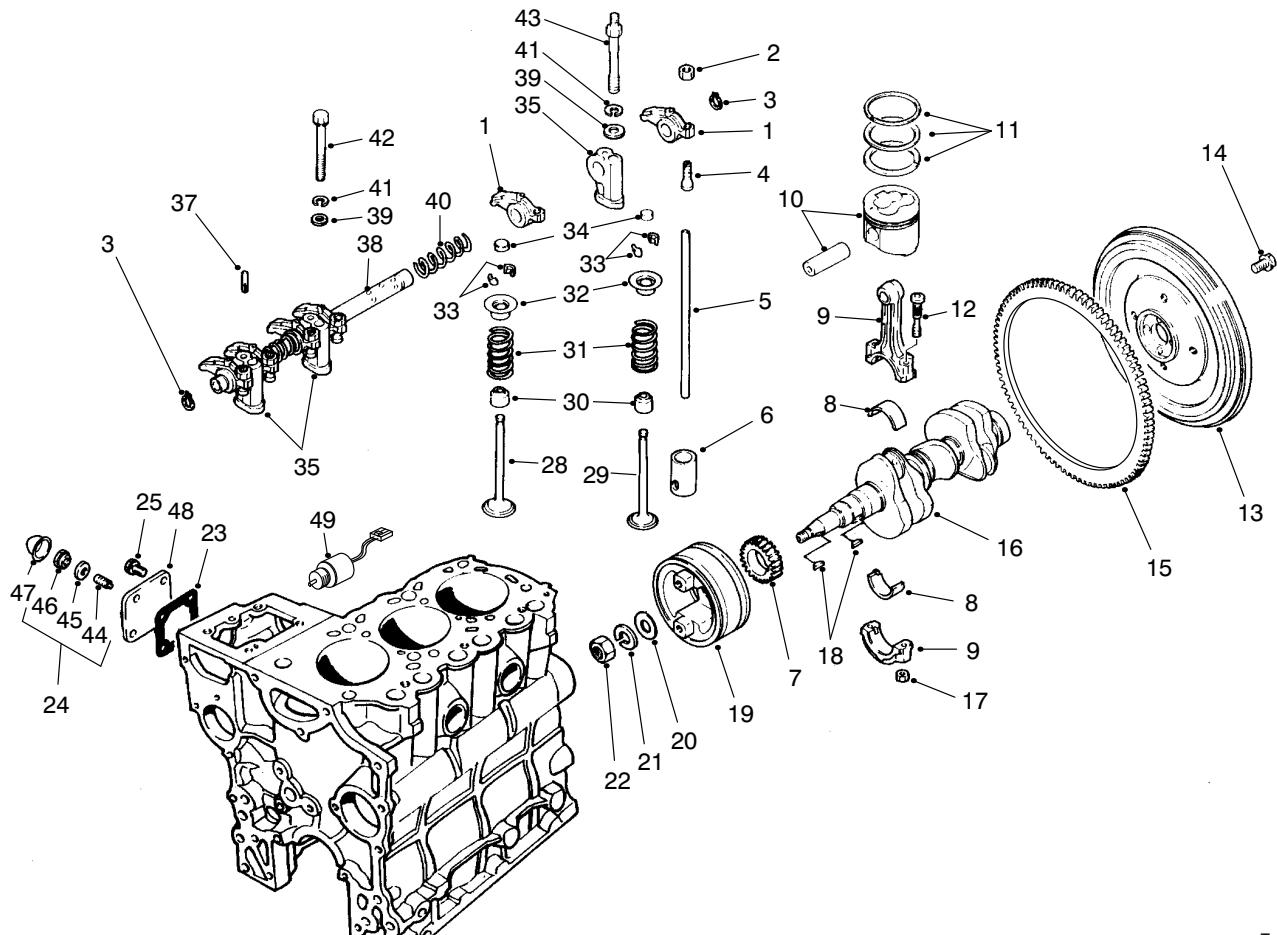
Ref. No.	Part No.	Description	No. Used
5	93-9997	Guard-Flywheel	1
6	93-9992	Screw-HH	1
7	93-9949	Guard-Fan	1
8	323-12	Screw-HH	1



T-0544-2

CLUTCH ASM 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



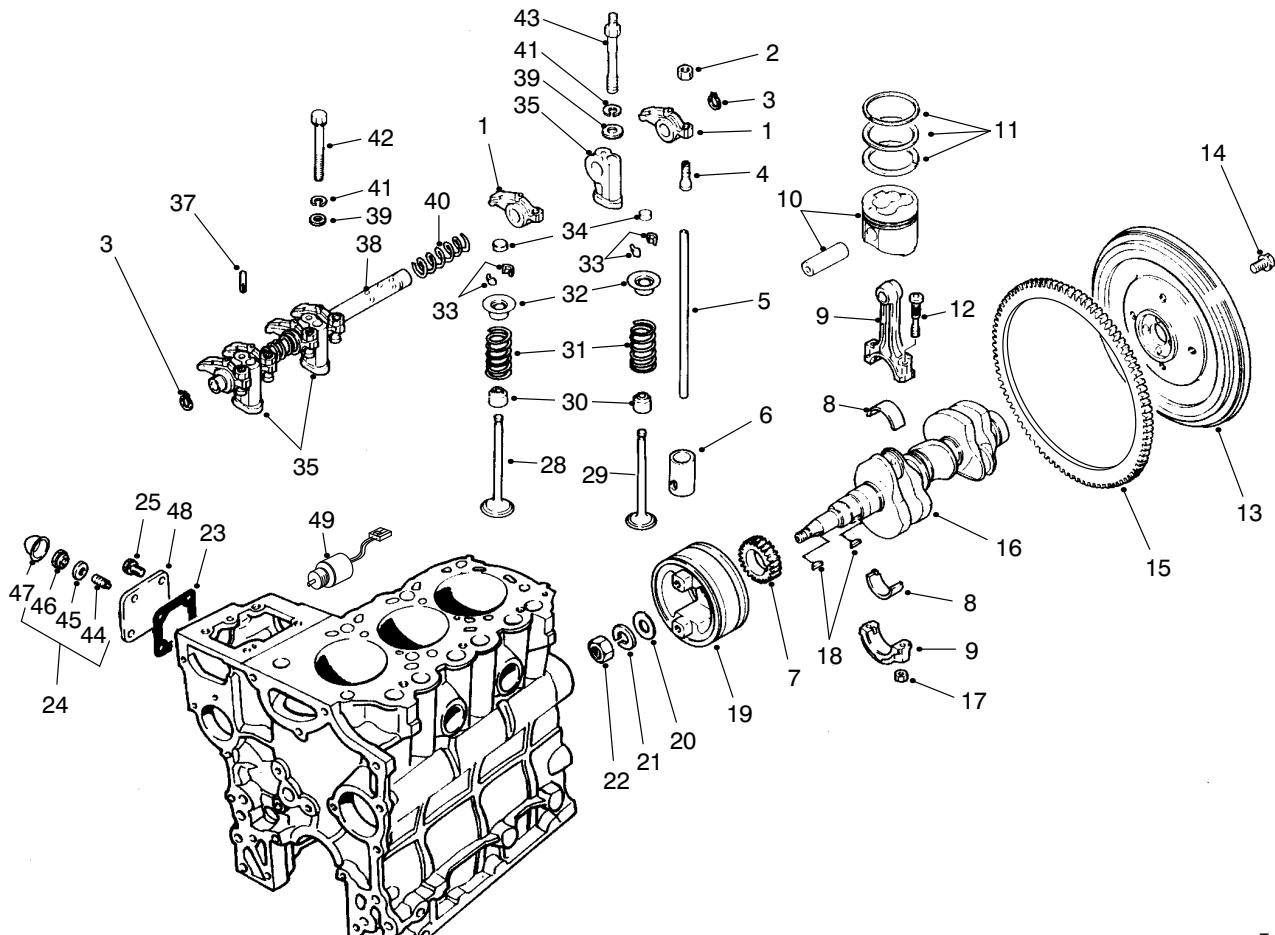
T-0565-1

VALVES AND CRANKSHAFT ASM

Ref. No.	Part No.	Description	No. Used
1	67-3160	Arm-Rocker	6
2	67-3230	Nut-Jam	6
3	67-3240	Snap Ring	2
4	67-3210	Screw-Adjusting	6
5	67-3150	Rod-Push	6
6	67-3120	Tappet	6
7	67-2910	Gear	1
8	75-5010	Bearing Set STD	3
* 67-2890		Bearing Set 0.25 mm US	3
* 67-2900		Bearing Set 0.50 mm US	3
9	67-2850	Asm-Rod, Connecting (Incl. Ref. #12 & 17)	3
10	75-5080	Piston & Pin Set STD	3
* 75-5090		Piston & Pin Set 0.25 mm OS	3
* 75-5100		Piston & Pin Set 0.50 mm OS	3
11	75-5050	Ring Set STD	3
* 75-5060		Ring Set 0.25 mm OS	3
* 75-5070		Ring Set 0.50 mm OS	3
12	67-2860	Bolt	6
13	67-2970	Asm-Flywheel (Incl. Ref. #14)	1

Ref. No.	Part No.	Description	No. Used
14	67-2990	Bolt	4
15	67-2980	Gear-Ring	1
16	92-0845	Crankshaft	1
17	42-9590	Nut	6
18	56-0480	Key-Woodruff	2
19	67-2930	Pulley-Crankshaft	1
20	67-2950	Washer	1
21	67-2960	Washer-Lock	1
22	67-2940	Nut-Jam	1
23	67-4310	Gasket	1
24	75-5110	Asm-Cover (Incl. Ref. #44-46)	1
25	42-9440	Bolt W/Washer	4
28	67-3130	Valve-Intake	3
29	67-3140	Valve-Exhaust	3
30	42-7870	Seal	6
31	67-3110	Spring	6
32	67-3100	Retainer	6
33	42-7860	Lock	12
34	67-3180	Cap	6
35	67-3200	Stay-Rocker	3
37	67-3220	Pin	1
38	67-3190	Asm-Rocker Shaft	1

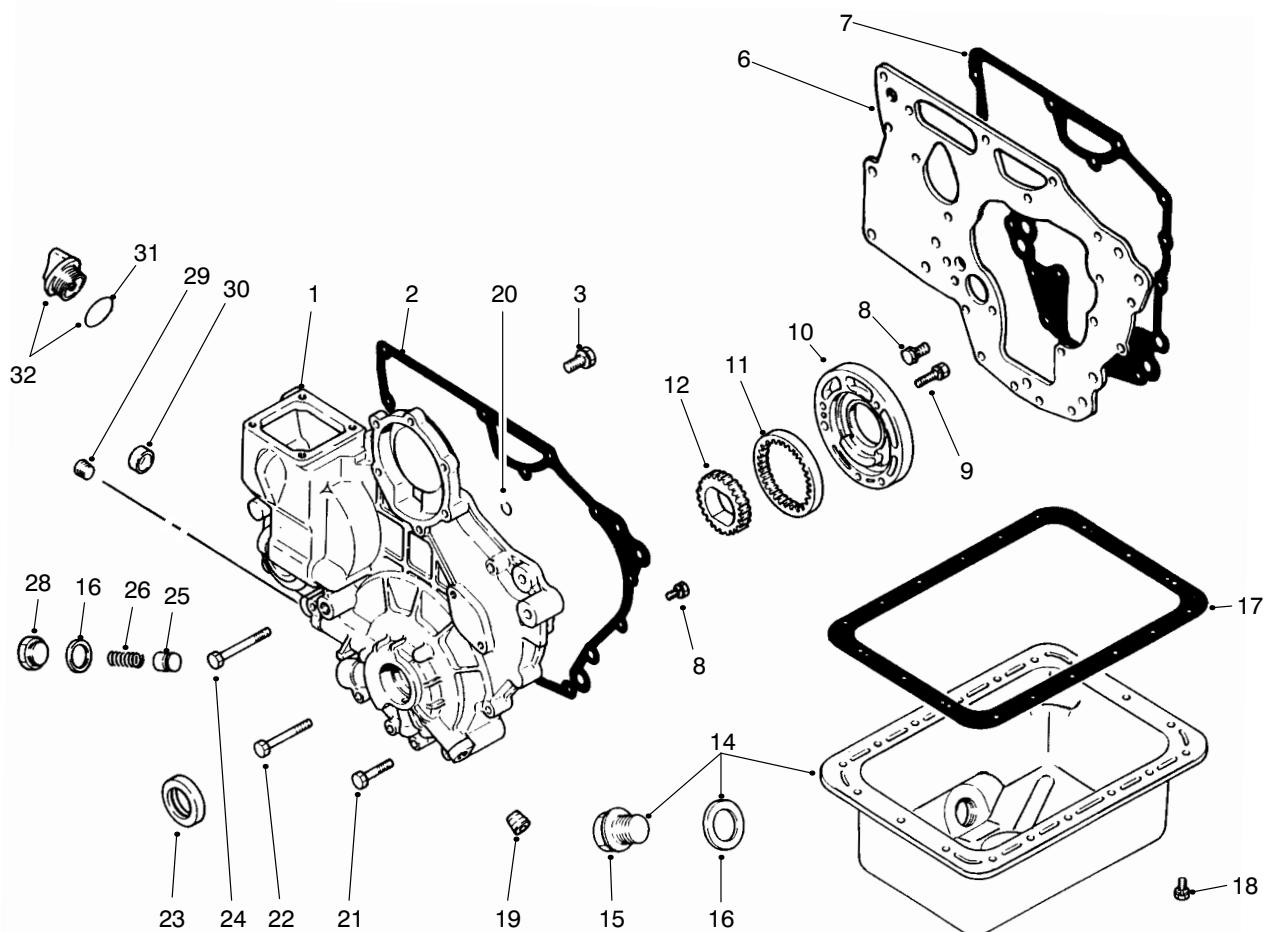
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T-0565-1

VALVES AND CRANKSHAFT ASM (Continued)

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
39	42-9660	Washer	3	45	75-5120	Gasket	1
40	67-3170	Spring	2	46	43-5960	Nut-Special	1
41	67-3260	Washer	3	47	43-2820	Cap-Sealing	1
42	42-9510	Bolt	1	48	67-4250	Cover-Tie Rod	1
43	67-3250	Bolt-Rocker Stay	2	49	63-7440	Solenoid-ETR Stop	1
44	43-3160	Screw-Adjusting	1				



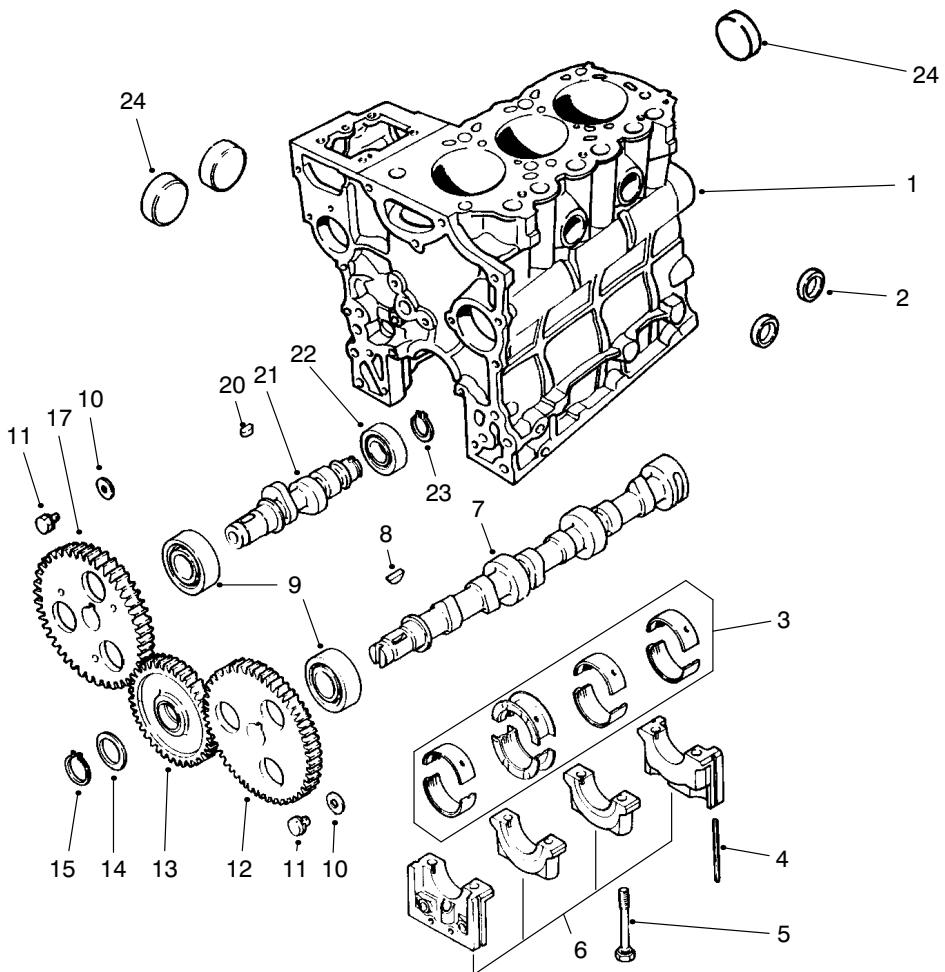
T-0567-1

CRANKCASE ASM

Ref. No.	Part No.	Description	No. Used
1	94-1259	Case	1
2	67-2580	Gasket—Case	1
3	67-2340	Bolt W/Washer	3
6	67-2310	Plate—Front	1
7	67-2320	Gasket—Plate	1
8	42-9440	Bolt W/Washer	11
9	67-2560	Bolt W/Washer	3
10	67-2550	Housing—Oil Pump	1
11	67-2540	Gear—Outer	1
12	67-2530	Gear—Inner	1
14	75-4910	Asm—Oil Pan (Incl. Ref. #15-16)	1
15	42-9260	Plug—Drain	1
16	42-7290	Gasket—Drain	2
17	67-2480	Gasket—Oil Pan	1
18	42-9490	Bolt W/Washer	18

Ref. No.	Part No.	Description	No. Used
19	42-7210	Plug—Taper	1
20	67-2630	O-Ring	2
21	67-2600	Bolt	3
22	67-2610	Bolt	4
23	67-2590	Seal—Oil	1
24	67-2620	Bolt	1
25	67-2500	Plunger—Relief	1
26	67-2510	Spring—Relief	1
28	67-2520	Plug	1
29	67-2570	Plug—Taper	1
30	67-2640	Cap	1
31	67-2660	O-Ring	1
32	67-2650	Asm—Oil Fill Cap (Incl. Ref. #31)	1
*	75-5040	Kit—Gasket, Complete Engine	1

* Not Illustrated

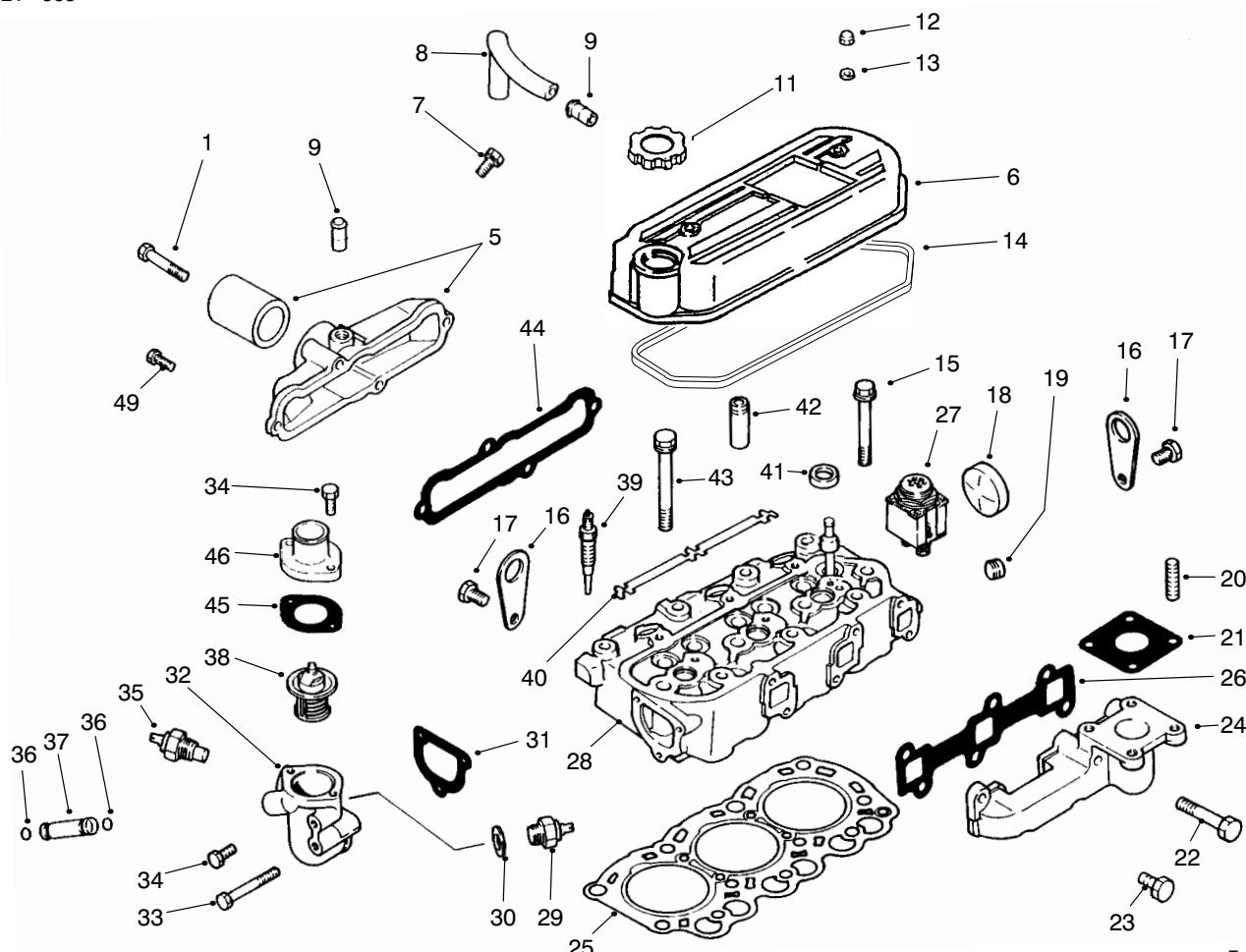


T-0564-1

CAMSHAFT ASM

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	94-1257	Asm-Block (Incl. Ref. #2, 5, 6 & 24)	1	10	67-3000	Washer	2
2	42-7080	Cap	2	11	42-9490	Bolt W/Washer	2
3	75-4900	Bearing Set STD	1	12	67-3020	Gear	1
*	67-2410	Bearing Set 0.25 mm US	1	13	67-3090	Asm-Gear	1
*	67-2420	Bearing Set 0.50 mm US	1	14	67-3040	Plate	1
4	67-2200	Seal	4	15	56-1060	Snap Ring	1
5	67-2250	Bolt	8	17	67-3070	Gear	1
6		Asm-Cap	1	20	42-7840	Key	1
7	67-3010	Cam Shaft	1	21	67-3060	Shaft	1
8	56-0480	Key-Woodruff	1	22	67-3050	Bearing	1
9	67-3030	Bearing	2	23	67-3080	Snap Ring	1
				24	56-0020	Plug	3

* Not Illustrated

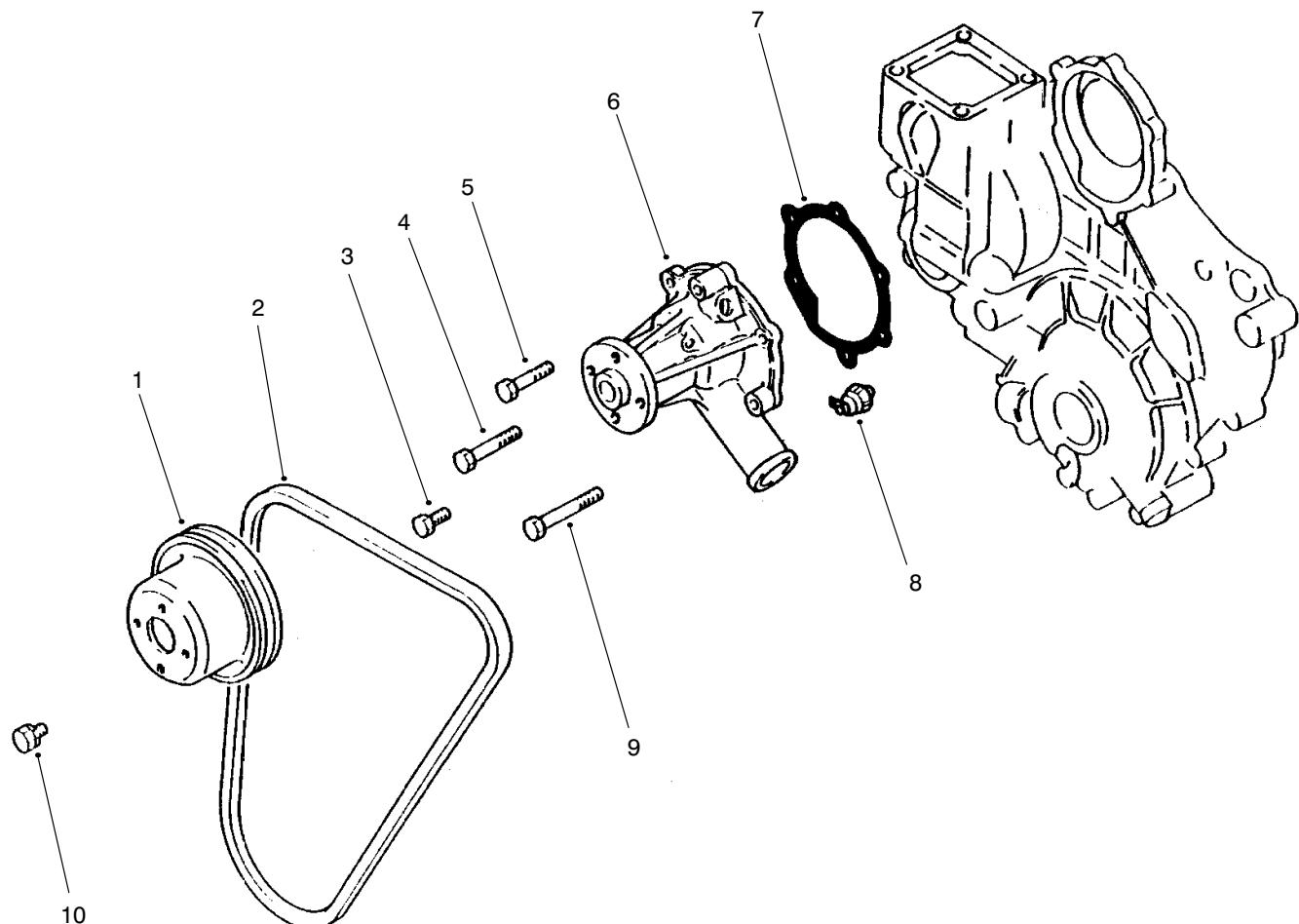


T-0566-3

CYLINDER HEAD ASM

Ref. No.	Part No.	Description	No. Used
1	67-4400	Bolt	2
5	94-3533	Asm-Cover, Intake (Incl. Ref. #9)	1
6	92-0846	Asm-Cover (Incl. Ref. #9)	1
7	42-9430	Bolt W/Washer	1
8	67-2670	Hose-Breather	1
9	42-7510	Pipe	2
11	92-0847	Cap-Oil Filler	1
12	67-2770	Nut-Cap	2
13	67-2780	Washer	2
14	67-2760	Gasket	1
15	67-2740	Bolt-Flange	3
16	67-2680	Hanger-Engine	2
17	67-2340	Bolt W/Washer	4
18	56-0020	Plug-Expansion	1
19	67-2570	Plug-Taper	1
20	42-9570	Stud	4
21	42-9110	Gasket	1
22	67-4580	Bolt	2
23	67-4590	Bolt	4
24	67-4560	Manifold-Exhaust	1
25	94-1258	Gasket-Cylinder Head	1

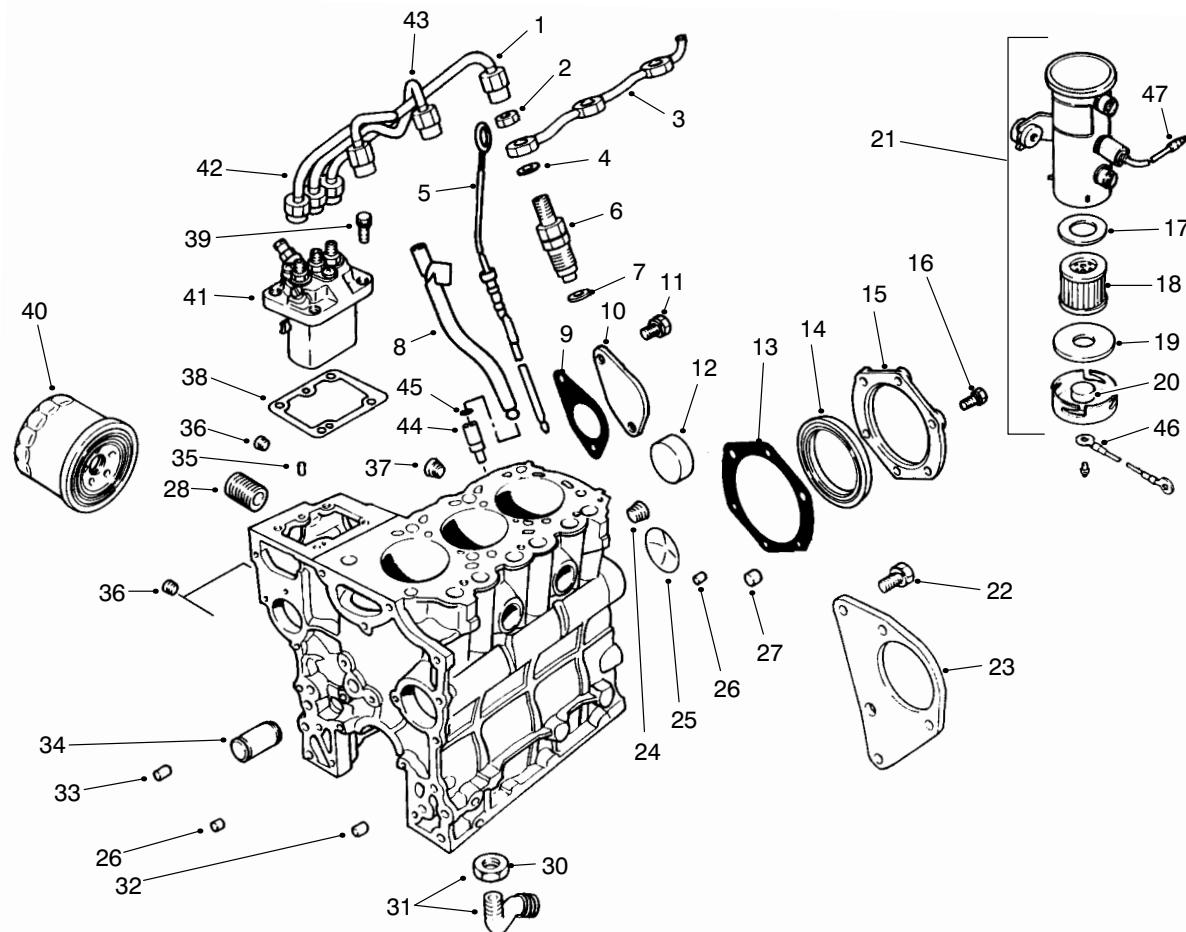
Ref. No.	Part No.	Description	No. Used
26	67-4570	Gasket-Exhaust Manifold	1
27	67-4700	Lamp-Glow	1
28	75-4930	Asm-Cylinder Head (Incl. Ref. #18, 41 & 42)	1
29	67-4500	Switch-Thermo	1
30	67-4490	Gasket	1
31	67-4460	Gasket-Switch	1
32	67-4450	Fitting-Thermostat	1
33	67-4470	Bolt	1
34	67-2330	Bolt	4
35	67-4510	Gauge Nut-Temperature	1
36	43-2710	O-Ring	2
37	67-4480	Pipe-By-Pass	1
38	67-4440	Thermostat	1
39	67-4680	Plug-Glow	3
40	67-4690	Plate-Glow Plug	1
41	67-2710	Cap-Sealing	3
42	67-2700	Guide-Valve	6
43	67-2730	Bolt	8
44	67-4550	Gasket-Intake Manifold	1
45	67-4430	Gasket-Fitting	1
46	67-4420	Fitting-Water	1
49	67-2330	Bolt	2



T-0568-1

WATER PUMP ASM

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	67-4360	Pulley-Water Pump	1	6	67-4380	Asm-Water Pump	1
2	98-2947	V-Belt	1	7	67-4390	Gasket-Water Pump	1
3	67-2330	Bolt	2	8	67-4350	Switch-Oil Pressure	1
4	67-4400	Bolt	1	9	67-2610	Bolt	2
5	67-2600	Bolt	1	10	42-9490	Bolt W/Washer	4



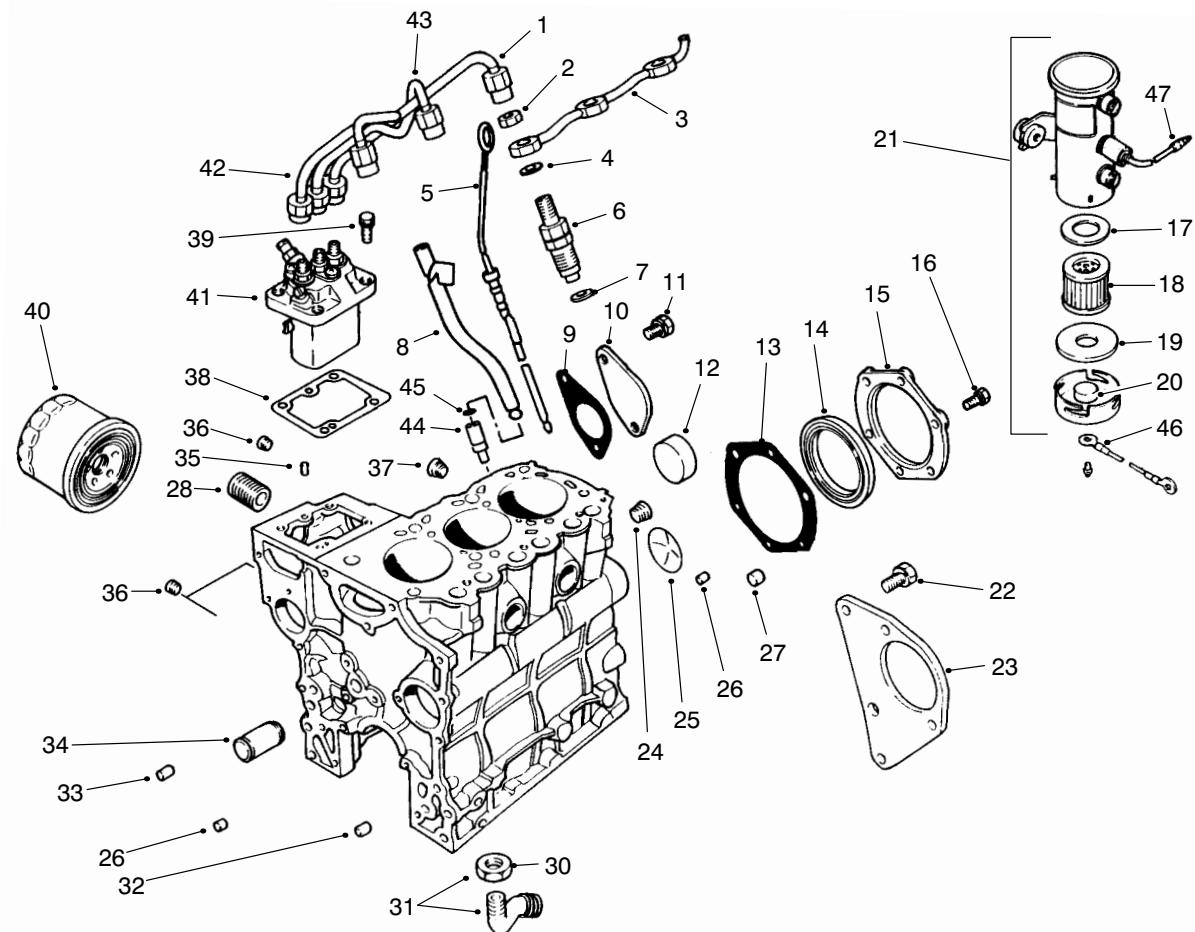
T-0569-3

FUEL SUPPLY & ENGINE BLOCK ASM

Ref. No.	Part No.	Description	No. Used
1	67-3420	Asm-Pipe No. 3	1
2	67-3430	Nut	3
3	70-8700	Pipe-Fuel Return	1
4	67-3440	Gasket	3
5	70-8880	Dipstick	1
6	67-3380	Asm-Nozzle & Holder	1
7	67-3390	Gasket-Nozzle Holder	3
8	70-8870	Guide-Oil Level	1
9	67-2300	Gasket	1
10	67-2290	Cover	1
11	67-2340	Bolt W/Washer	2
12	56-0020	Plug-Expansion	3
13	67-2280	Gasket-Seal, Oil	1
14	67-2230	Seal-Oil	1
15	67-2270	Case-Oil Seal	1
16	67-2330	Bolt	6
17	43-2570	Gasket-Coil Side	1
18	43-2550	Filter	1
19	43-2560	Gasket-Side Cover	1
20	43-2580	Magnet	1
21	53-8150	Asm-Pump (Incl. Ref. #17-20)	1
22	67-2440	Bolt W/Washer	3
23	67-2430	Bracket-Starter	1
24	67-2390	Plug-Taper	1
25	67-2350	Plug-Expansion	1

Ref. No.	Part No.	Description	No. Used
26	67-2360	Bushing-Knock	2
27	67-2380	Bushing-Knock	3
28	56-1230	Shaft-Oil Filter	1
30	42-9650	Nut-Jam	1
31	67-4340	Asm-Screen (Incl. Ref. #30)	1
32	67-2370	Bushing-Knock	1
33	42-7190	Bushing-Knock	2
34	67-2260	Shaft-Idler	1
35	56-0220	Pin-Dowel	2
36	67-2210	Plug-Taper	3
37	56-0100	Plug-Taper	1
38	67-3280	Shim 0.2 mm	1
*	67-3290	Shim 0.3 mm	1
*	67-3300	Shim 0.5 mm	1
*	67-3310	Shim 0.4 mm	1
*	67-3320	Shim 0.6 mm	1
*	67-3330	Shim 0.7 mm	1
*	67-3340	Shim 0.8 mm	1
*	67-3350	Shim 0.9 mm	1
*	67-3360	Shim 1.0 mm	1
39	67-3370	Bolt W/Washer	4
40	67-4330	Asm-Oil Filter	1
41	75-5020	Asm-Injector Pump	1
42	67-3400	Asm-Pipe No. 1	1
43	67-3410	Asm-Pipe No. 2	1

* Not Illustrated

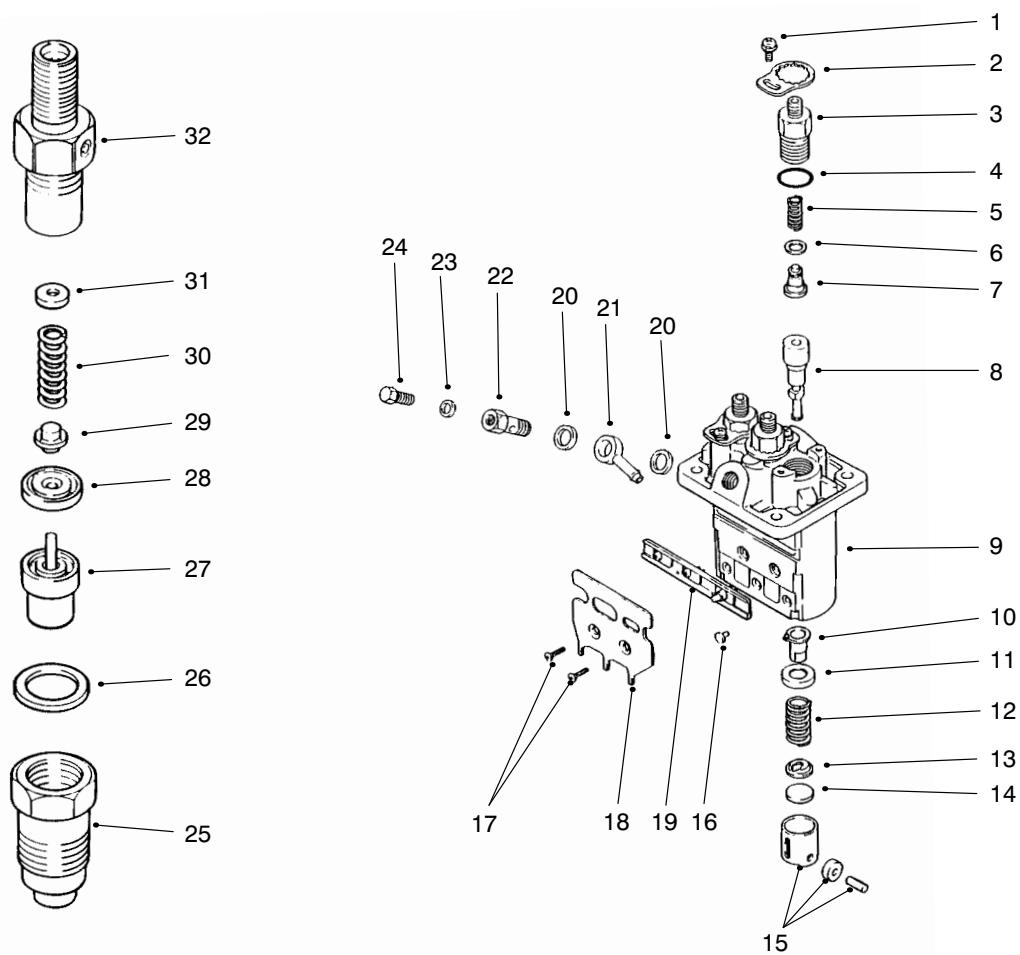


T-0569-3

FUEL SUPPLY & ENGINE BLOCK ASM (Cont.)

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
44	72-6950	Retainer—Oil Guide	1	47 *	218-579	Wire—Fuel Pump	1
45	43-2710	O-Ring	1		95-3074	Kit—400 Hour Filter (Incl. Ref. #40)	1
46	70-8530	Wire—Fuel Pump	1				

* Not Illustrated



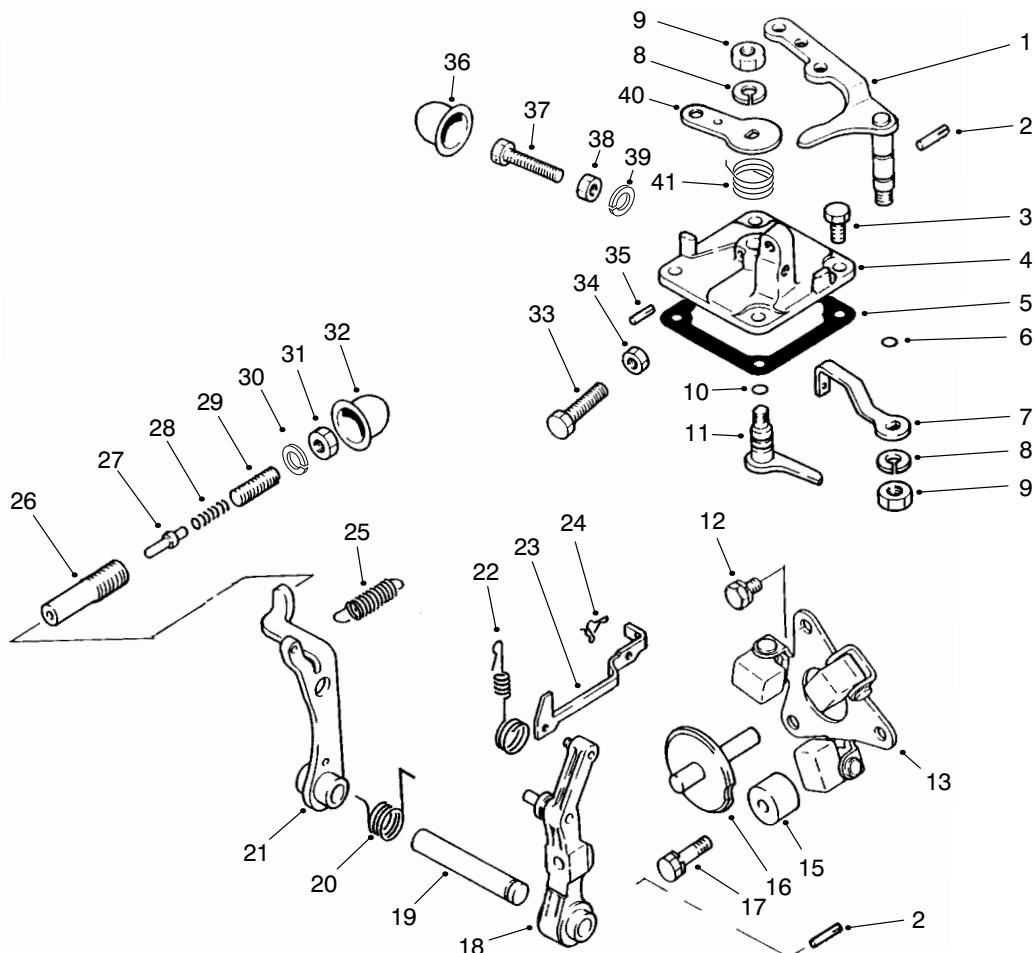
T-0570-4

FUEL INJECTION PUMP ASM

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



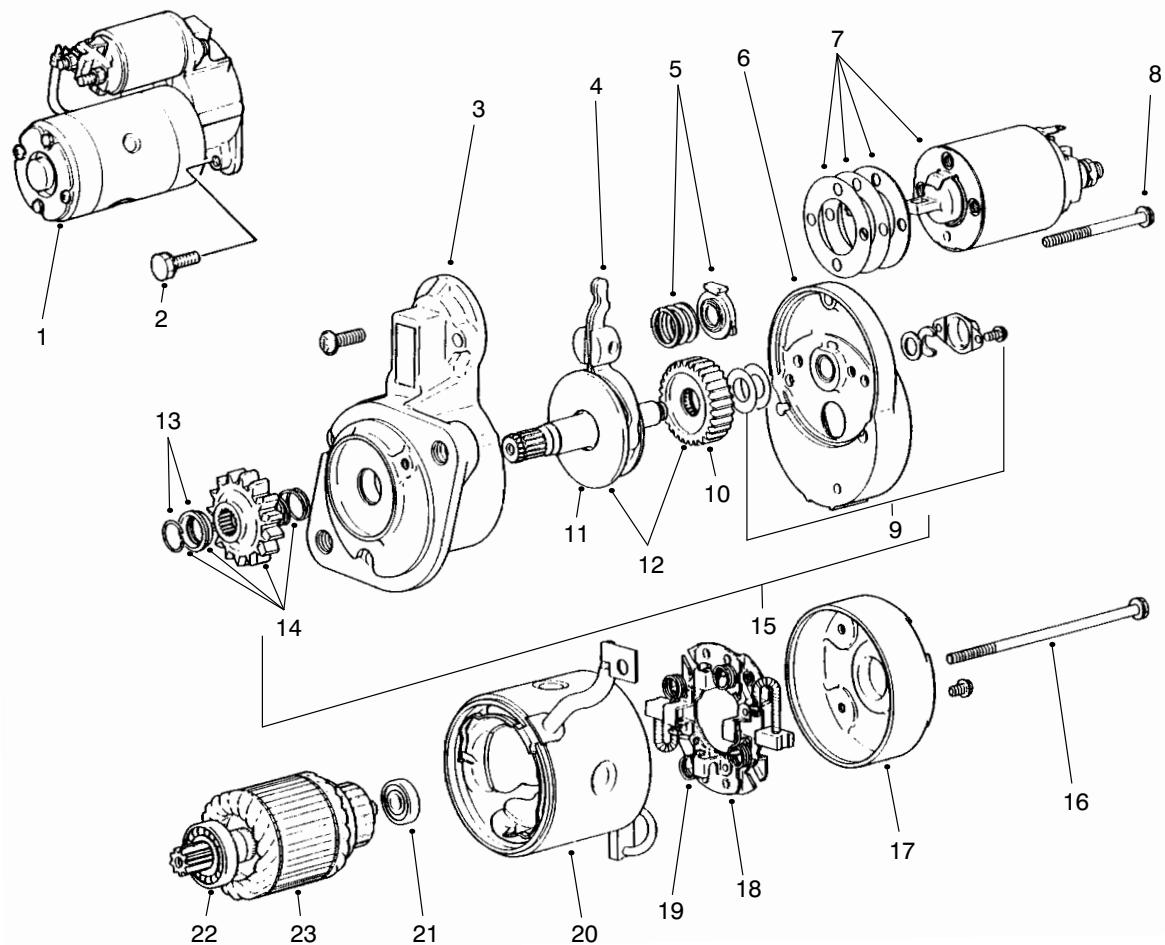
T-0571-2

GOVERNOR ASM

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 (Incl. Ref. #26-29 & 31)	1
22	70-8720	Spring-Tie Rod	1				

* Not Illustrated

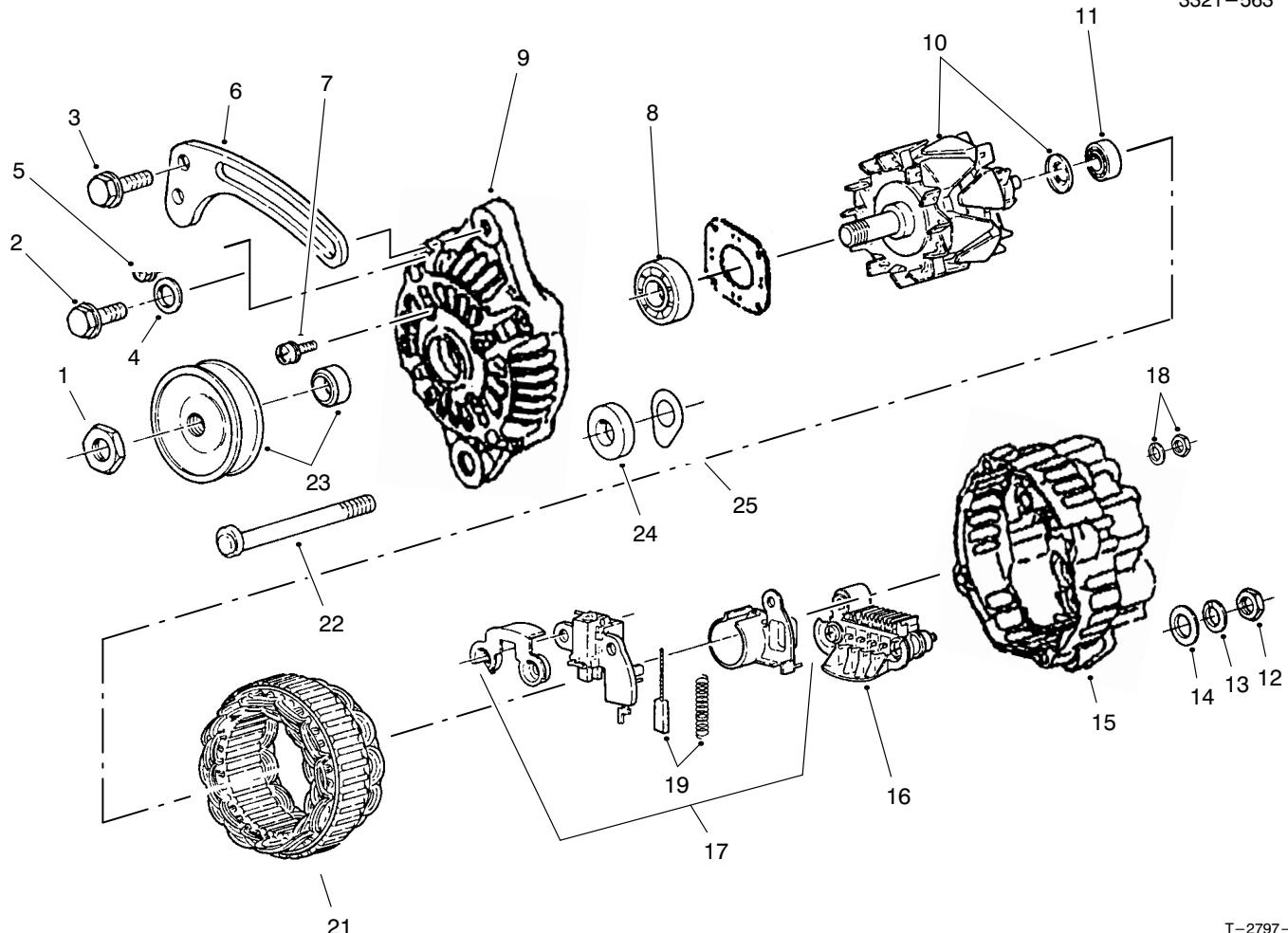
† Item must be serviced by a Mitsubishi Authorized Toro Dealer/Distributor.



T-0572-1

STARTER ASM

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 ASM

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	98-2929	Nut Set	1	15	98-2934	Asm-Housing, Rear (Incl. Ref. #12-19)	1
2	67-4660	Bolt-Flange	1	16	98-2937	Asm-Rectifier	1
3	42-9440	Bolt w/Washer	2	17	98-2935	Asm-Regulator (Incl. Ref. #18 & 19)	1
4	54-8660	Washer-Flat	1	18	98-2938	Nut Set-Terminal	1
5	98-2931	Bolt Set (4 Bolts)	1	19	98-2936	Asm-Brush	2
6	98-2948	Brace-Generator	1	21	98-2933	Asm-Stator	1
7	98-2926	Screw Set (3 Screws)	1	22	67-4640	Bolt	1
8	98-2927	Bearing-Front	1	23	98-2930	Pulley Set	1
9	98-2925	Asm-Front Housing (Incl. Ref. #7 & 8)	1	24	67-4620	Spacer	1
10	98-2928	Rotor Assembly (Incl. Ref. #11)	1	25	43-0370	Shim	1
11	98-2932	Bearing-Rear	1	*	98-2949	Asm-Alternator (Incl. Ref. #1, 5, 7-11, 15-21 & 23)	1
12	67-4670	Nut	1				
13	67-3260	Washer	1				
14	42-9660	Washer	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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