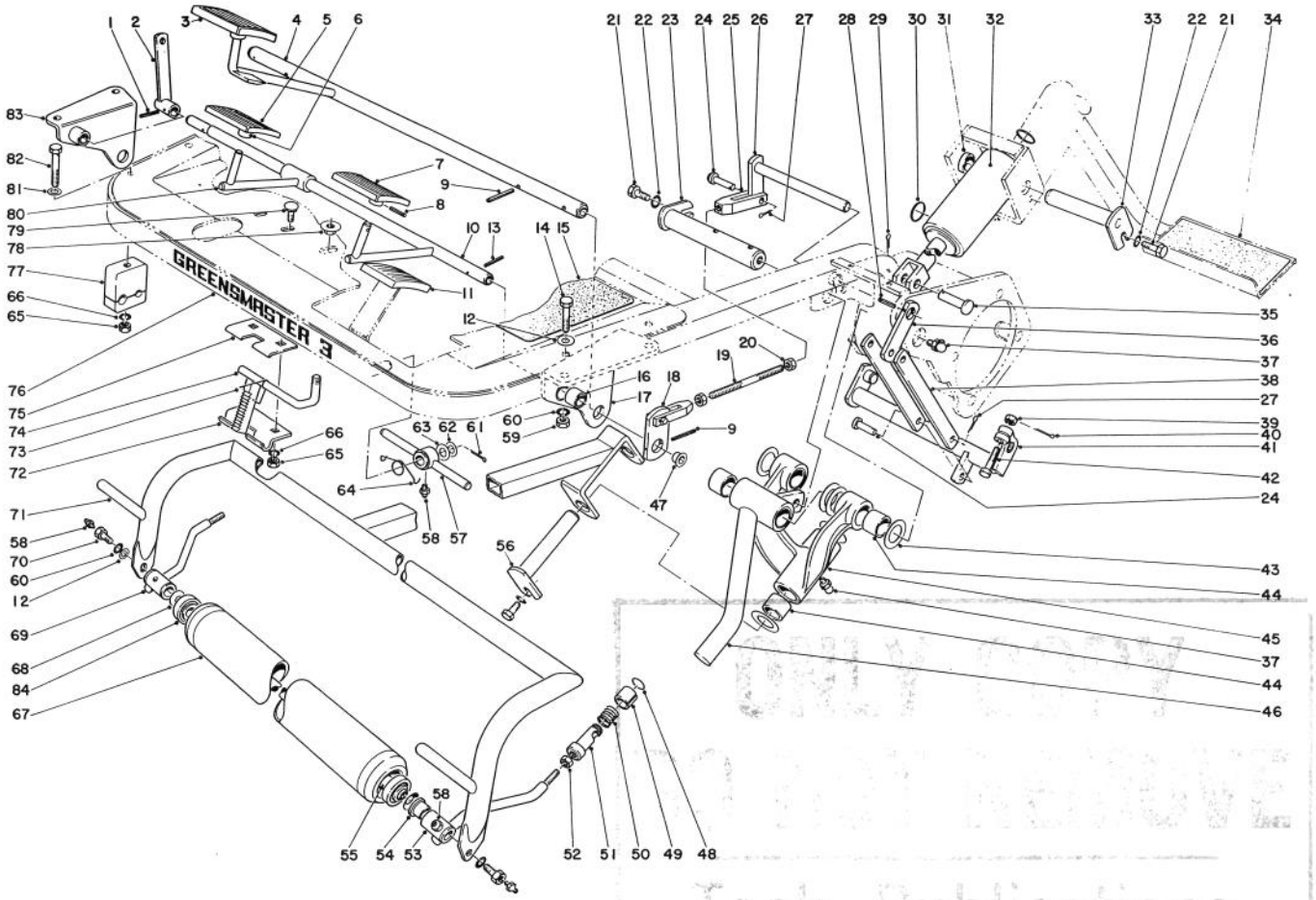
FORM NO. 3310-277 Rev. B

TORO®

TRACTION UNIT MODEL NO. 04312—20001
thru 40001 & UP
CUTTING UNIT MODEL NO. 04401—20001
thru 40001 & UP

PARTS CATALOG

GREENSMASTER® 3



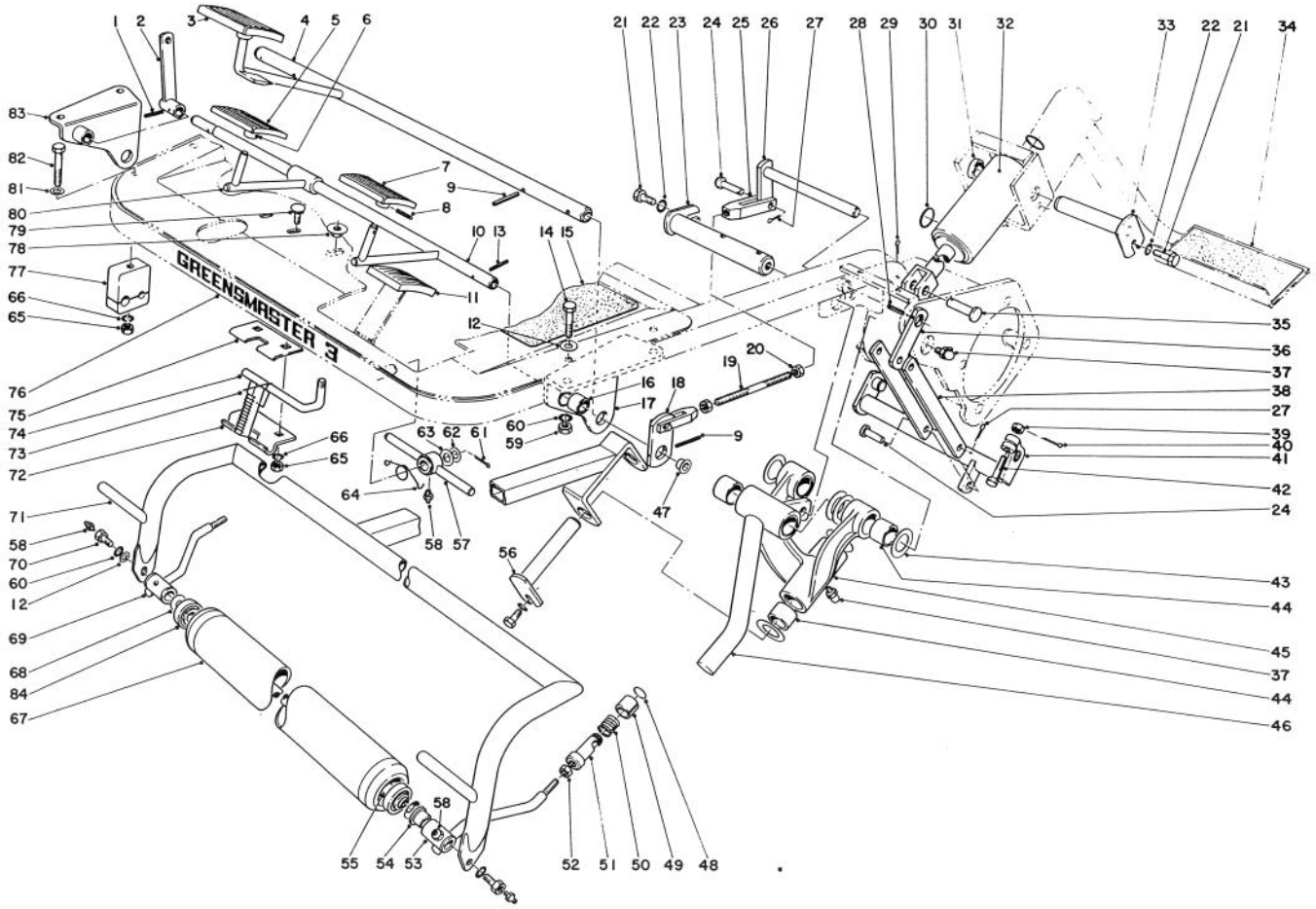
Dept. Service
Tech. Publications

FOOT PEDALS AND ROLLER ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	32121-6	Roll Pin	1
2	10-6320	Lever, Cutting Control	1
3	7-3900	Foot Pad, Brake	1
4	10-6210	Brake Pedal	1
5	10-8250	Foot Pad, Mow	1
6	10-6540	Foot Pedal	3
7	10-8240	Foot Pad, Lift	1
8	32121-45	Roll Pin	3
9	32121-35	Roll Pin	4
10	12-1900	Tube, Cutting Control	1
11	10-8230	Pedal Pad	1
12	3256-24	Washer	7
13	32121-51	Roll Pin	4
14	323-10	Capscrew	4
15	10-8210	Pad, Footrest	1
16	256-32	Bushing	2
17	10-6250	Lift Pivot Bracket L.H. (Incl. Ref. #16)	1
18	10-8100	Strap, Brake Shaft	2
19	10-8080	Brake Rod Adj.	2
20	3220-2	Jam Nut	4
21	322-1	Capscrew	6
22	3253-4	Lockwasher	6
23	10-6110	Pin, Hinge	2
24	283-1	Clevis Pin	6
25	282-2	Yoke	4
26	11-8840	Rod, Pivot Shaft	1
27	3272-6	Cotter Pin	8
28	32121-45	Roll Pin	2
29	3272-10	Cotter Pin	2
30	237-78	"O" Ring	4
31	5-2268	Collar	2

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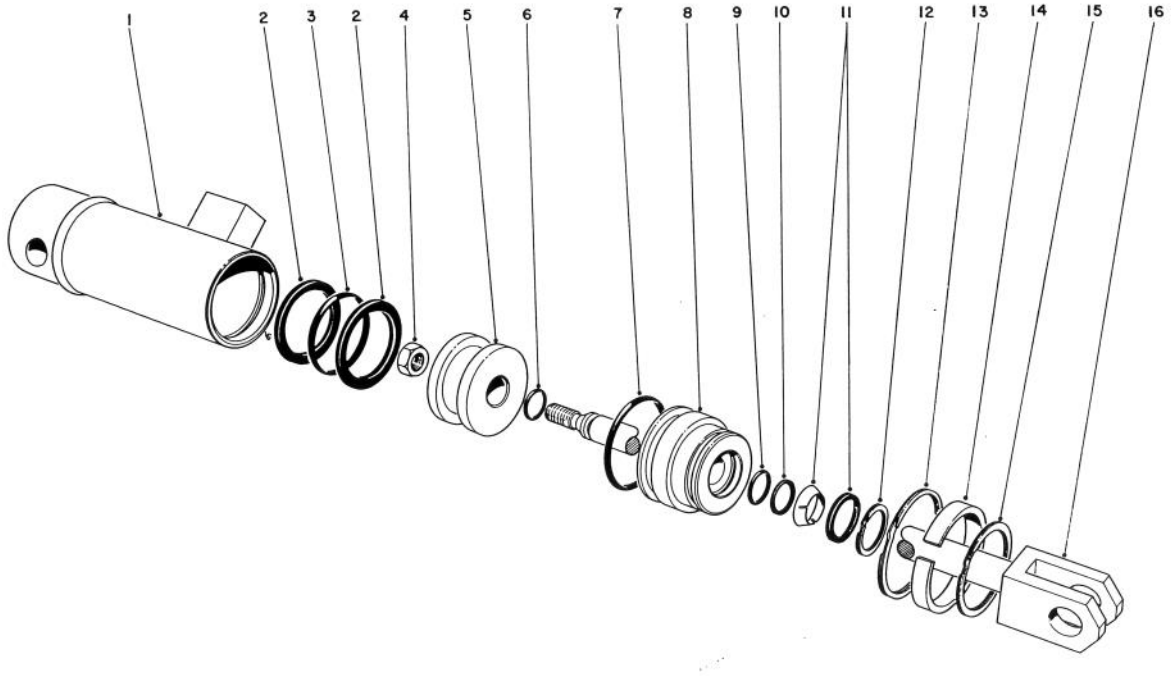
Price



FOOT PEDALS AND ROLLER ASSEMBLY (Continued)

Ref. No.	Part No.	Description	No. Used
32	10-7900	Hydraulic Cylinder	2
33	10-6060	Pin, Ram Pivot	2
34	10-8200	Pad, Foot Step	1
35	283-8	Clevis Pin	2
36	10-8090	Arm, Pivot	2
37	302-40	Grease Fitting	4
38	10-8070	Strap, Brake	4
39	3296-3	Slotted Nut	1
40	3272-2	Cotter Pin	1
41	10-5880	Brake Arm, Left	1
42	329-7	Capscrew	1
43	10-8110	Washer	12
44	3-0348	Bushing	8
45	10-7820	Pivot Hinge (Incl. Ref. #44)	2
46	10-5950	Lift, Front Left	1
47	285-16	Pipe Plug	2
48		Retaining Ring	6
49		Sleeve	6
50		Spring	6
51	8-7710	Ball Joint (Incl. Ref. #48 thru #50)	6
52	3220-3	Jam Nut	6
53	21-8490	Pull Arm (Incl. Ref. #54)	3
54	3-1506	Bushing	12
55	11-0150	Shaft, Yoke Roller	3
56	10-6090	Pivot Pin	3
57	12-9050	Lift Pivot	1
58	302-5	Grease Fitting	13

Ref. No.	Part No.	Description	No. Used
59	3218-3	Jam Nut	4
60	3253-21	Lockwasher	10
61	3272-11	Cotter Pin	1
62	3256-26	Washer	1
63	3290-221	Spring Washer	1
64	10-9090	Spring Lift Pivot	1
65	3217-5	Nut	3
66	3253-3	Lockwasher	3
67	21-8480	Roller (Incl. Ref. #55)	3
68	3290-317	Spring Washer	6
69	21-8500	Pull Arm (Incl. Ref. #54)	3
70	11-0160	Screw, Special (Incl. Ref. #58)	6
71	12-8190	Frame Pull	1
72	10-7890	Parking Brake Hinge, Lower	1
73	10-8140	Spring	1
74	10-7850	Parking Brake Latch	1
75	10-7880	Parking Brake Hinge - Upper	1
76	10-8170	Decal, Greensmaster 3	1
77	10-8190	Clamp, Front Tubing	1
78	32141-111	Adjusting Nut	1
79	3229-22	Carriage Bolt	2
80	10-6300	Foot Pedal	1
81	3256-22	Washer	1
82	321-28	Capscrew	1
83	10-6280	Lift Pivot Bracket R.H. (Incl. Ref. #16)	1
84	251-141	Bearing	6

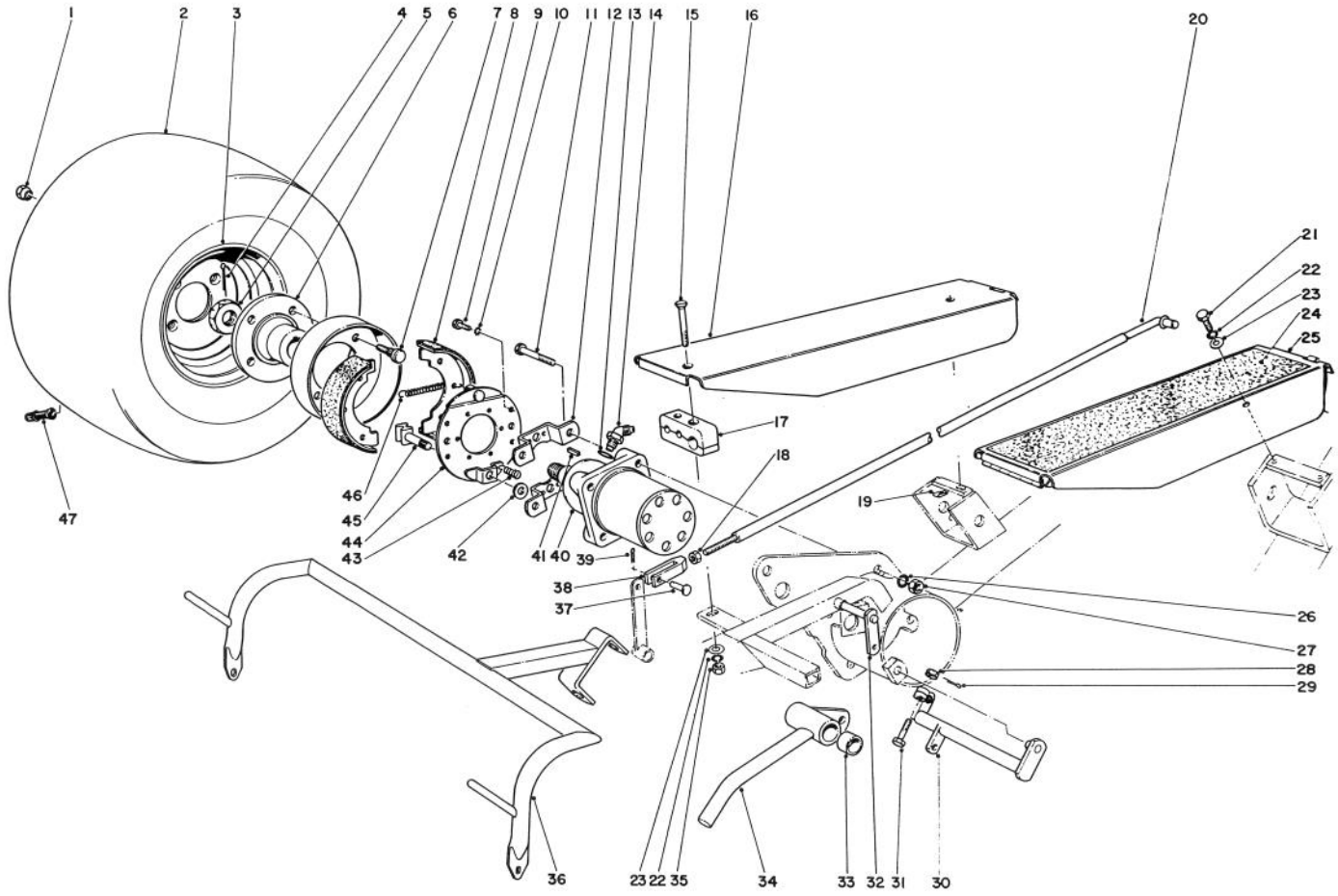


HYDRAULIC CYLINDER (Large Bore)

Ref. No.	Part No.	Description	No. Used
1	353-442	Tube Assembly	1
2	†	Back-Up Washer	2
3	†	Seal Piston	1
4	†353-441	Jam Nut	1
5	353-443	Piston	1
6	†	Seal, Rod, Static	1
7	†	Seal, Head, Static	1
8	353-448	Head	1

Ref. No.	Part No.	Description	No. Used
9	†	Seal, Rod, Dynamic	1
10	†	Back-Up Washer, Rod Seal	1
11	†	Seal Guard	2
12	353-447	Lock Ring	1
13	353-444	Lock Ring	1
14	353-445	Spacer	1
15	353-446	Lock Ring	1
16	353-449	Rod Assembly	1

†Items only available in Seal Repair Kit 353-440

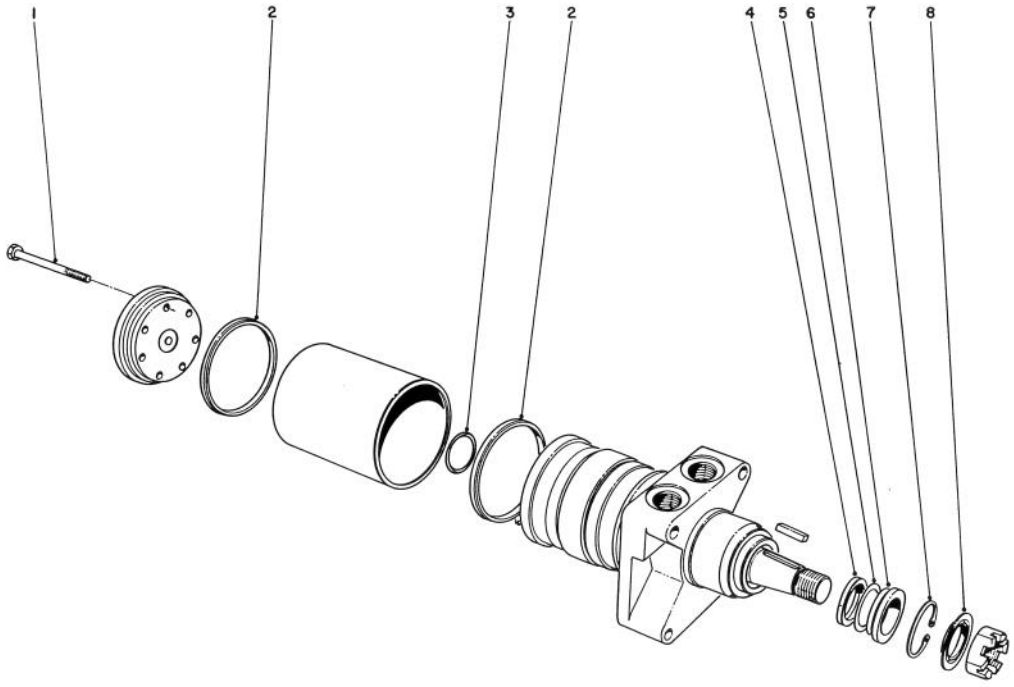


WHEEL AND BRAKE ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	242-50	Wheel Nut	8
2	231-64	Tire	2
3	217-60	Wheel Disc	2
4	3272-13	Cotter Pin	2
5	11-5800	Castle Nut	2
6	10-6820	Wheel Hub (Incl. Ref. #7)	2
7	10-6830	Drive Stud	8
8	215-73	Shoe & Lining Assy. (Pair)	2
9	329-3	Capscrew	8
10	3255-7	Lockwasher	8
11	325-11	Capscrew	8
12	10-8000	Brake Bracket	4
13	237-80	O-Ring	4
14	353-389	45 - Degree Elbow	4
15	32108-10	Flat Head Screw	3
16	10-6450	Cover Plate	1
17	10-8180	Clamp, Tubing, Side	2
18	3220-2	Jam Nut	1
19	3290-318	Tinnerman Nut	1
20	10-6350	Rod, Control	1
21	321-2	Capscrew	4
22	3253-3	Lockwasher	6
23	3256-22	Washer	6
24	10-8220	Pad, Tool Box	1
25	10-6430	Tool Box	1

Ref. No.	Part No.	Description	No. Used
26	3253-7	Lockwasher	8
27	3217-9	Nut	8
28	3296-3	Slotted Nut	1
29	3272-2	Cotter Pin	1
30	10-5890	Brake Arm	1
31	329-7	Capscrew	1
32	11-8840	Pivot Arm	1
33	3-0348	Bushing	2
34	10-5960	Lift (Front Right) (Incl. Ref. #33)	1
35	3217-5	Nut	2
36	12-8200	Pull Frame	1
37	283-1	Clevis Pin	1
38	282-2	Yoke	1
39	3272-6	Cotter Pin	1
40	10-8010	Hydraulic Motor	2
41	11-5790	Square Key	2
42	3256-26	Washer	2
43	215-75	Bendix Spring	4
44	3-6944	Backing Plate	2
45	215-74	Cam	2
46	215-76	Bendix Spring	4
47	232-24	Valve Stem	2
*	10-6790	Wheel Assy. (Incl. Ref. #2, 3, 47)	2

*Not illustrated

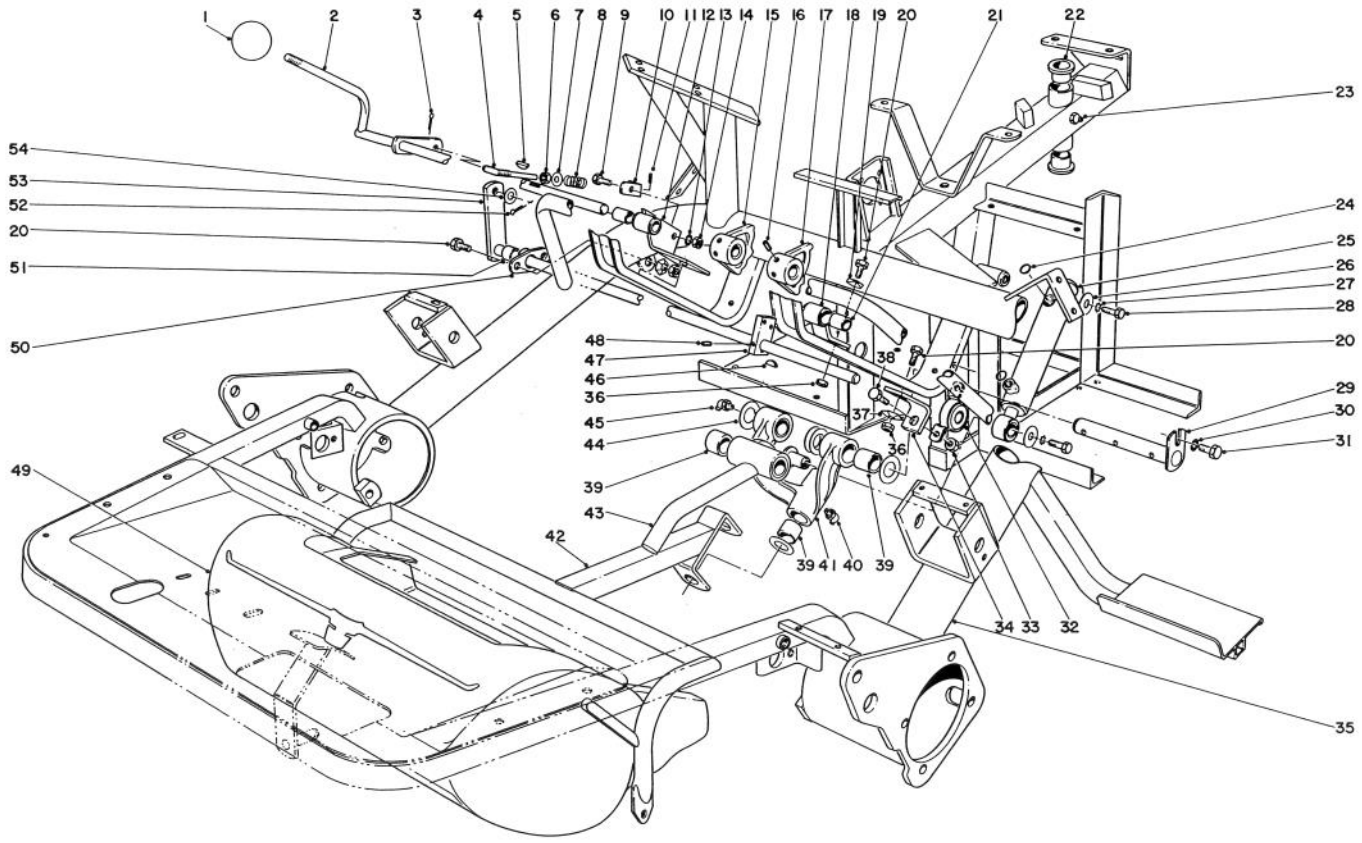


HYDRAULIC DRIVE MOTOR

Ref. No.	Part No.	Description	No. Used
1	3211-32	Capscrew	6
2	†	Seal Ring	2
3	†	Commutator Seal	1
4	†	Seal	1

Ref. No.	Part No.	Description	No. Used
5	†	Shim	1
6	†	Spacer	1
7	†	Retaining Ring	1
8	†	Dirt Seal	1

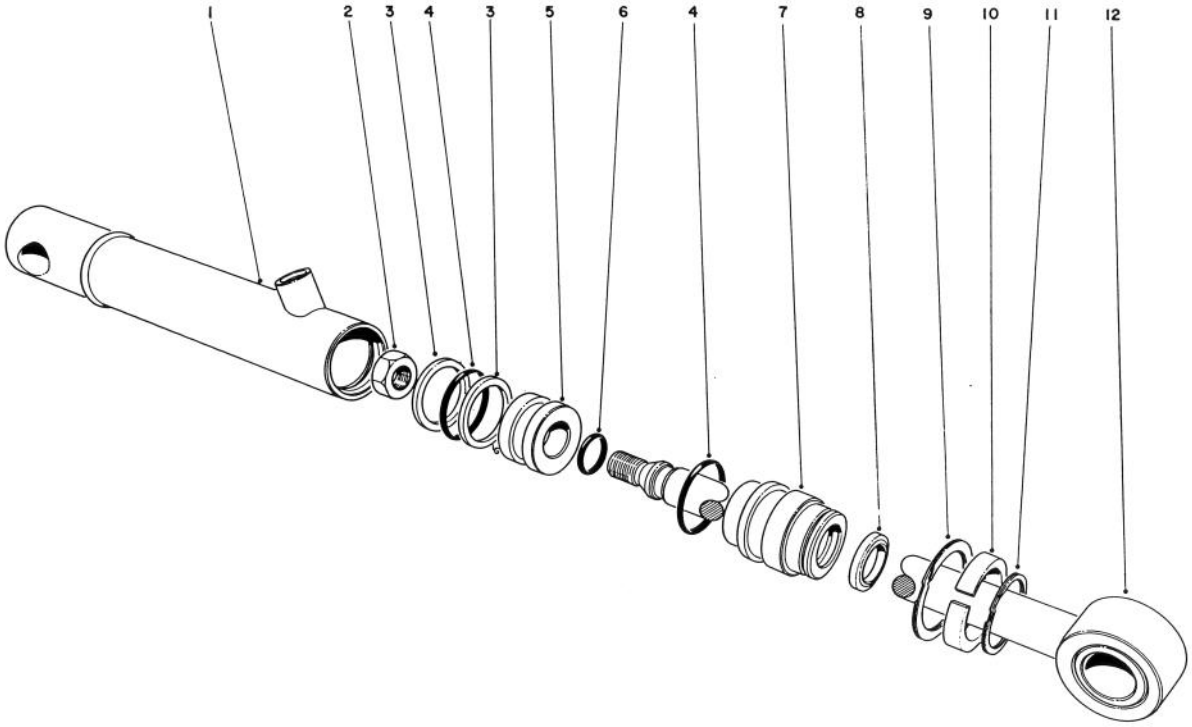
†Item only available in Hydraulic Motor Seal Repair Kit 353-461



FRAME ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	233-24	Knob	1
2	10-6640	Cam Shaft	1
3	3272-6	Cotter Pin	1
4	3-6718	Rod	1
5	3257-24	Key	2
6	32146-6	Locknut	1
7	3256-23	Washer	1
8	3-6685	Compression Spring	1
9	3-7166	Shoulder Screw	1
10	3-6725	Pivot Bracket	1
11	32121-7	Roll Pin	1
12	10-6620	Support Bracket	1
13	3253-3	Lockwasher	1
14	3220-1	Jam Nut	1
15	10-6610	Low Speed Traction Cam	1
16	3245-7	Set Screw	4
17	10-6600	High Speed Traction Cam	1
18	10-6560	Bracket, Front (Incl. Ref. #21)	1
19	3290-224	Washer	4
20	323-6	Capscrew	6
21	256-86	Bushing	2
22	256-150	Bushing	2
23	302-5	Grease Fitting	1
24	237-78	O-Ring	2
25	10-7910	Hydraulic Cylinder	1
26	10-7920	Washer	2
27	3255-9	Lockwasher	2

Ref. No.	Part No.	Description	No. Used
28	323-4	Capscrew	2
29	10-6110	Pin Hinge	1
30	3253-4	Lockwasher	2
31	322-1	Capscrew	2
32	256-235	Bearing - Pillow Block	2
33	3296-42	Locknut	4
34	19-5630	Bearing Support Bracket	2
35	10-5320	Frame (Incl. Ref. #22 & #23)	1
36	3217-7	Nut	6
37	3290-224	Lockwasher	2
38	321-13	Capscrew	4
39	3-0348	Bushing	6
40	302-40	Grease Fitting	1
41	10-7820	Pivot Hinge (Incl. Ref. #39)	1
42	12-8200	Pull Frame	1
43	10-6000	Lift Rear (Incl. Ref. #39)	1
44	10-8110	Washer	6
45	302-11	Grease Fitting	1
46	3257-24	Key	3
47	10-6760	Arm, Valve Actuating	3
48	3290-125	Set Screw	6
49	10-7930	Grass Basket	3
50	256-236	Flange Bearing	1
51	256-216	Bushing	1
52	3272-10	Cotter Pin	1
53	10-6710	Cam Shaft	1
54	3256-23	Washer	1

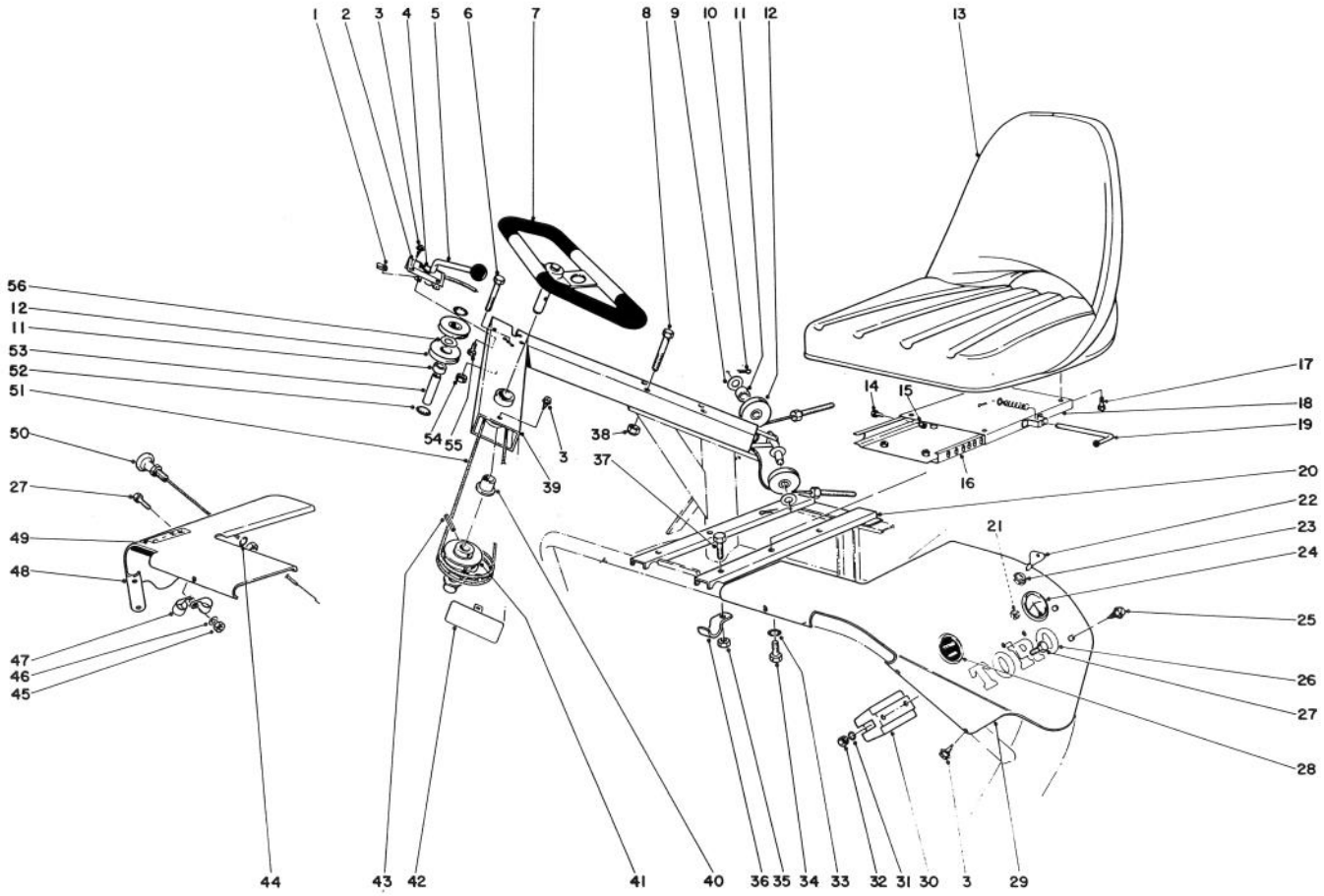


HYDRAULIC CYLINDER (Small Bore)

Ref. No.	Part No.	Description	No. Used
1	353-451	Tube Assembly	1
2	†	Jam Nut	1
3	†	Back Up Washer	2
4	†	O-Ring Piston	2
5	353-457	Piston	1
6	†	Seal Rod	1

Ref. No.	Part No.	Description	No. Used
7	353-470	Head Assy. w/Internal Seal	1
8	†	Rod Wiper	1
9	†	Lock Ring Head	1
10	353-454	Spacer	1
11	353-455	Lock Ring Spacer	1
12	353-456	Rod Assembly	1

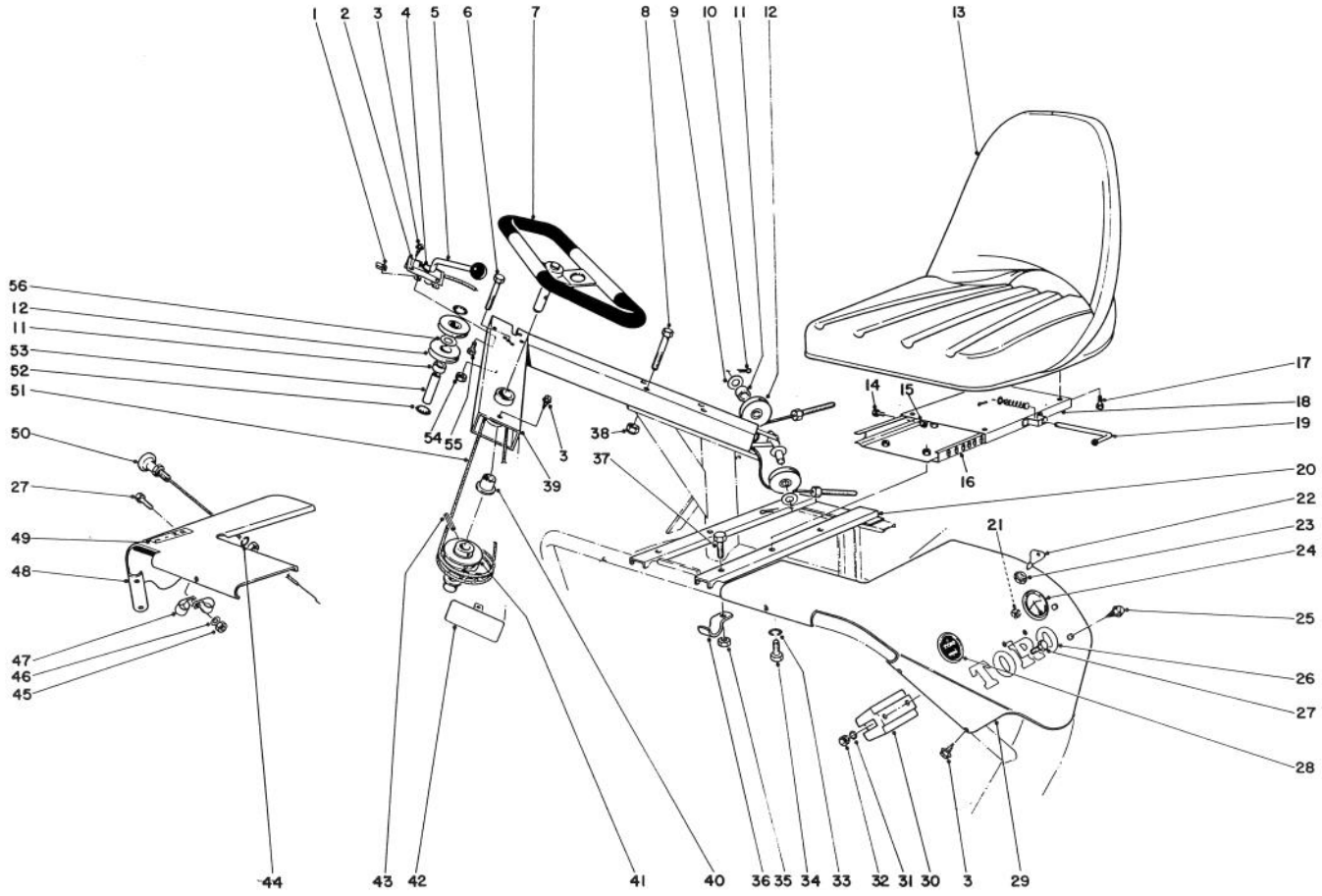
†Items only available in Seal Repair Kit 353-439



STEERING AND SEAT ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	3290-277	Tinnerman Nut	1
2	10-7360	Decal,Throttle	1
3	32104-77	Self-Tapping Screw	11
4	10-9100	Tube Cap	1
5	10-7400	Throttle Control	1
6	321-15	Capscrew	1
7	12-8150	Steering Wheel w/Shaft	1
8	323-14	Capscrew	4
9	3256-4	Washer	2
10	3272-6	Cotter Pin	2
11	256-2	Bushing	4
12	5-2653	Pulley (Incl. Ref. #11)	4
13	351-34	Seat w/o Slide	1
14	321-2	Capscrew	2
15	3218-1	Nut	2
16	351-36	Lower Slide Assembly	1
17	322-1	Capscrew	4
18	351-35	Upper Slide Assembly	1
19	351-52	Plunger Assy.	1
20	10-6480	Channel	1
21	3219-14	Nut	2
22	218-412	Key	1
23	12-8140	Switch	1

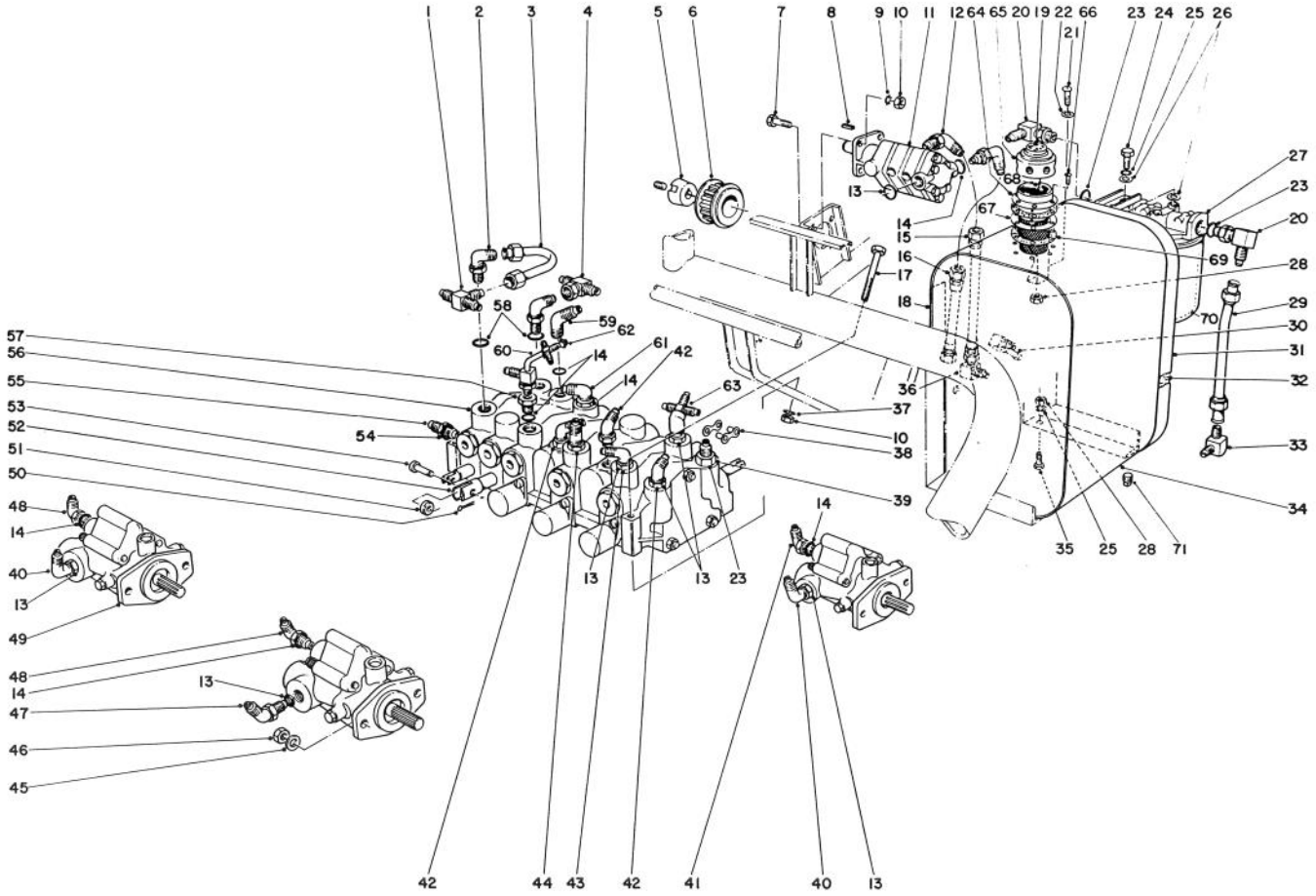
Ref. No.	Part No.	Description	No. Used
24	7-6130	Ammeter	1
25	32140-16	Self-Tapping Screw	4
26	10-8160	Decal	2
27	321-6	Capscrew	3
28	12-9990	Hour Meter	1
29	12-7840	Valve Shield	1
30	218-452	Rectifier	1
31	3253-3	Lockwasher	2
32	3217-5	Nut	2
33	3253-4	Lockwasher	4
34	322-2	Capscrew	4
35	32146-5	Stopnut	2
36	10-9240	Seat Clamp	2
37	322-3	Capscrew	2
38	32146-2	Stopnut	4
39	10-7300	Steering Column (Incl. Ref. #40)	1
40	256-113	Bushing	2
41	10-7210	Pulley, Front Steering	1
42	10-7370	Tube Cap	1
43	32121-34	Roll Pin	1
44	3254-6	Lockwasher	1
45	32146-17	Stop Nut	1
46	3256-2	Washer	1



STEERING AND SEAT ASSEMBLY (Continued)

Ref. No.	Part No.	Description	No. Used
47	2412-4	Hose Clamp	2
48	10-7980	Valve Shield	1
49	10-8150	Decal, Traction	1
50	6-9150	Choke	1
51	10-7220	Steering Cable	1

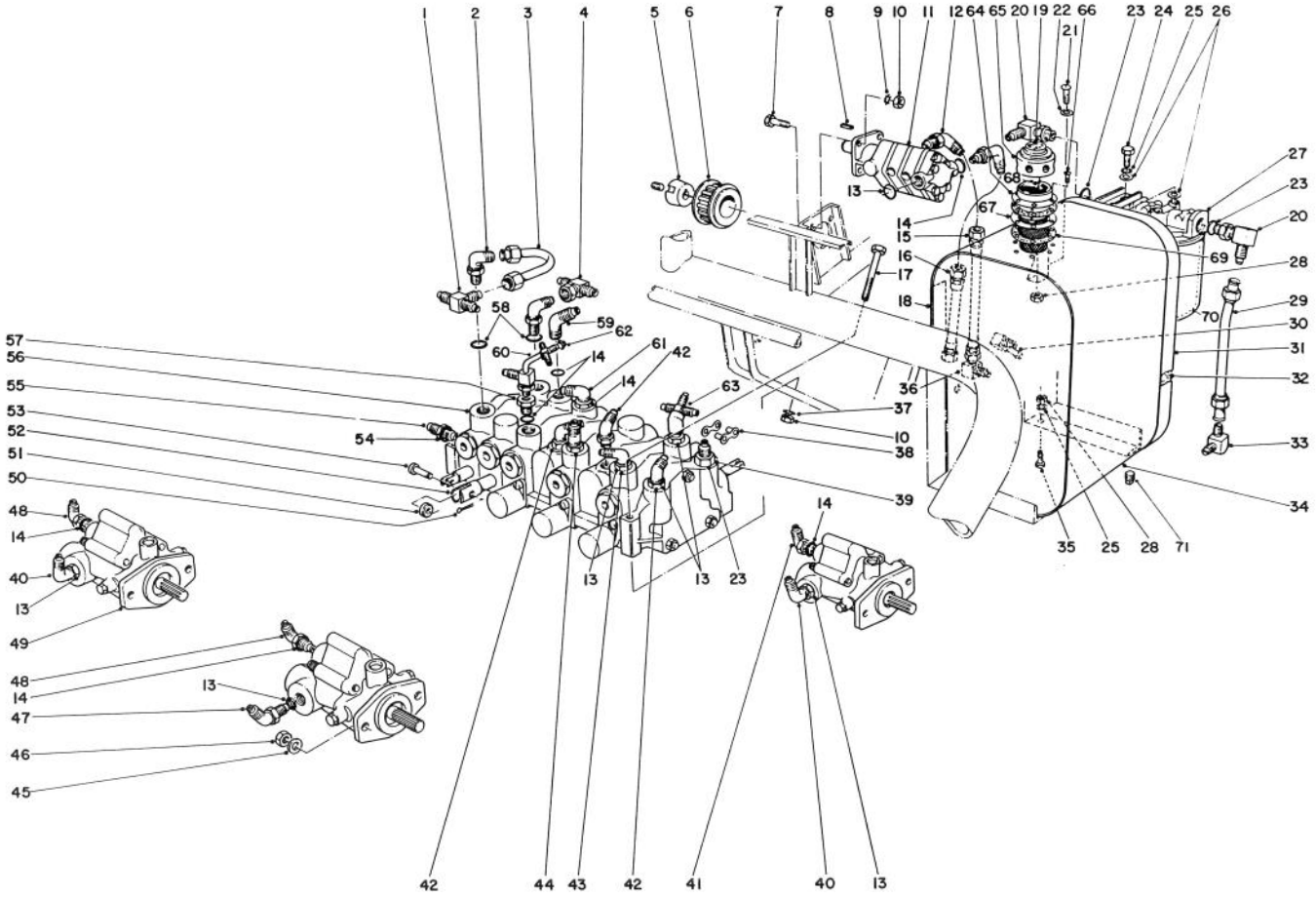
Ref. No.	Part No.	Description	No. Used
52	3290-314	Tinnerman Clip	2
53	10-7240	Sleeve	1
54	32146-17	Stopnut	1
55	3290-321	Screw	3
56	3256-4	Washer	1



VALVE BANK AND HYDRAULIC RESERVOIR ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	353-380	Tube Tee	1
2	353-370	90 Degree Fitting	2
3	10-7570	Pressure Line	1
4	353-381	Tee, Female Swivel	1
5	10-8060	Bushing, Taper Lock	1
6	10-8050	Timing Pulley	1
7	322-5	Capscrew	4
8	10-8040	Square Key	1
9	3255-8	Lockwasher	4
10	3217-6	Nut	7
11	10-7810	Reel Pump	1
12	353-371	90 Degree Elbow	2
13	237-42	O-Ring	13
14	237-79	O-Ring	8
15	10-7580	Hose, Reel Pump	1
16	10-7590	Hose, Tank Reel Pump	1
17	322-13	Capscrew	3
18	10-7440	Felt Strip	2
19	11-6350	Decal — Oil	1
20	353-369	90 Degree Elbow	2
21	3258-20	Round Head Screw	2
22	3256-22	Washer	2
23	237-81	O-Ring	3

Ref. No.	Part No.	Description	No. Used
24	321-3	Capscrew	2
25	3253-3	Lockwasher	4
26	3256-2	Washer	4
27	353-386	Filter	1
28	3217-5	Nut	4
29	10-7480	Return Line, Filter to Tank	1
30	353-377	Barb, Hose Stem	1
31	10-7410	Strap Assembly	2
32	10-7430	Felt Strap	2
33	353-368	90 Degree Elbow	1
34	10-7470	Tank	1
35	321-3	Capscrew	2
36	353-372	90 Degree Elbow	2
37	3253-4	Lockwasher	3
38	2710-30	Connecting Link	3
39	353-383	Straight Fitting	1
40	353-374	90 Degree Elbow	2
41	353-379	45 Degree Elbow	1
42	353-378	45 Degree Elbow Fitting	3
43	353-374	90 Degree	1
44	353-384	Straight Fitting	1
45	3256-24	Washer	6
46	3296-39	Locknut	6

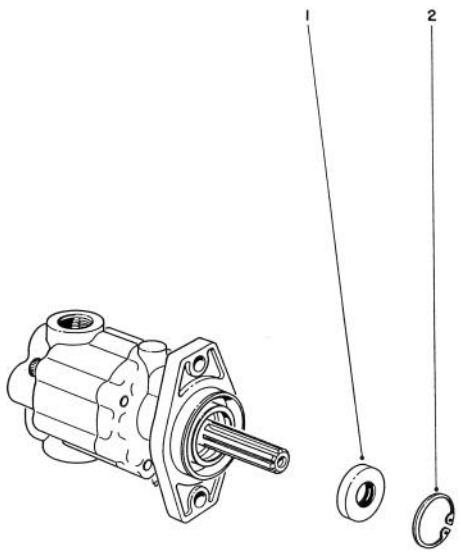


VALVE BANK AND HYDRAULIC RESERVOIR ASSEMBLY (Continued)

Ref. No.	Part No.	Description	No. Used
47	353-378	Elbow	1
48	353-371	Elbow	2
49	10-5090	Reel Motor	3
50	3272-5	Cotter Pin	2
51	10-7770	Cam Follower	2
52	10-7780	Cam Guide	2
53	283-26	Pin	2
54	237-80	O-Ring	3
55	353-385	Straight Fitting	1
56	21-5100	Control Valve, 5-Spool	1
*	17-7530	Control Valve, 5-Spool	1
57	353-397	Adapter, Reducer	1
58	237-80	O-Ring	3
59	353-379	45 Degree Elbow Fitting	1

Ref. No.	Part No.	Description	No. Used
60	10-9250	Brazed Tube	1
61	353-373	90 Degree Elbow Fitting	1
62	11-9680	Orifice Reducer	1
63	10-7790	Crow's Foot	1
64	353-501	Flange Adapter	1
65	353-498	Breather Cap	1
66	32104-111	Screw	6
67	19-5960	Screen Assembly	1
68	353-499	Spring & Chain Assembly	1
69	353-500	Gasket	1
	353-404	Filler Tube Assembly (Incl. Ref. # 64-69)	1
70	353-387	Filter Element	1
71	281-1	Pipe Plug	1

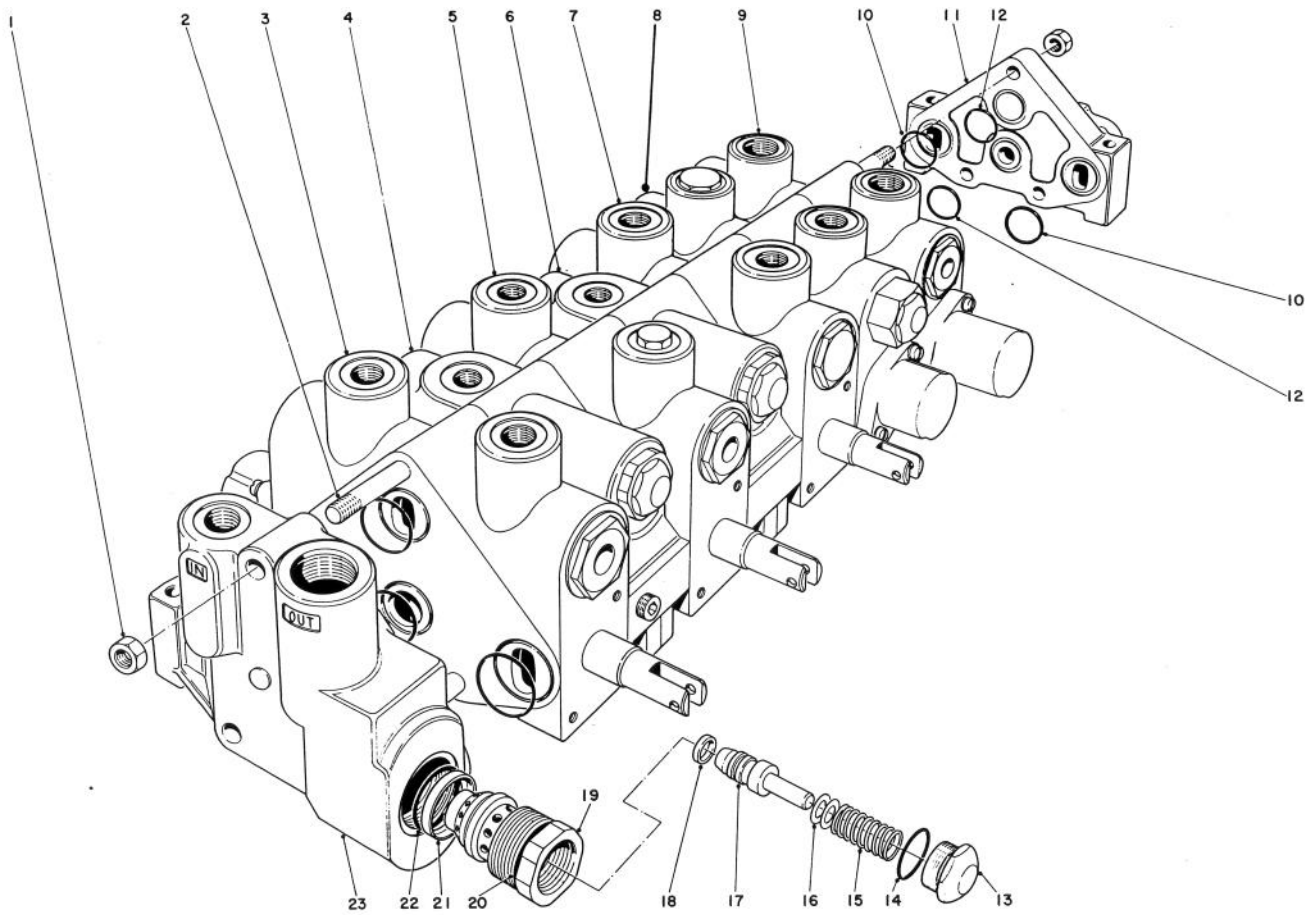
*Not illustrated



REEL MOTOR

Ref. No.	Part No.	Description	No. Used
1	353-469	High Pressure Seal	1

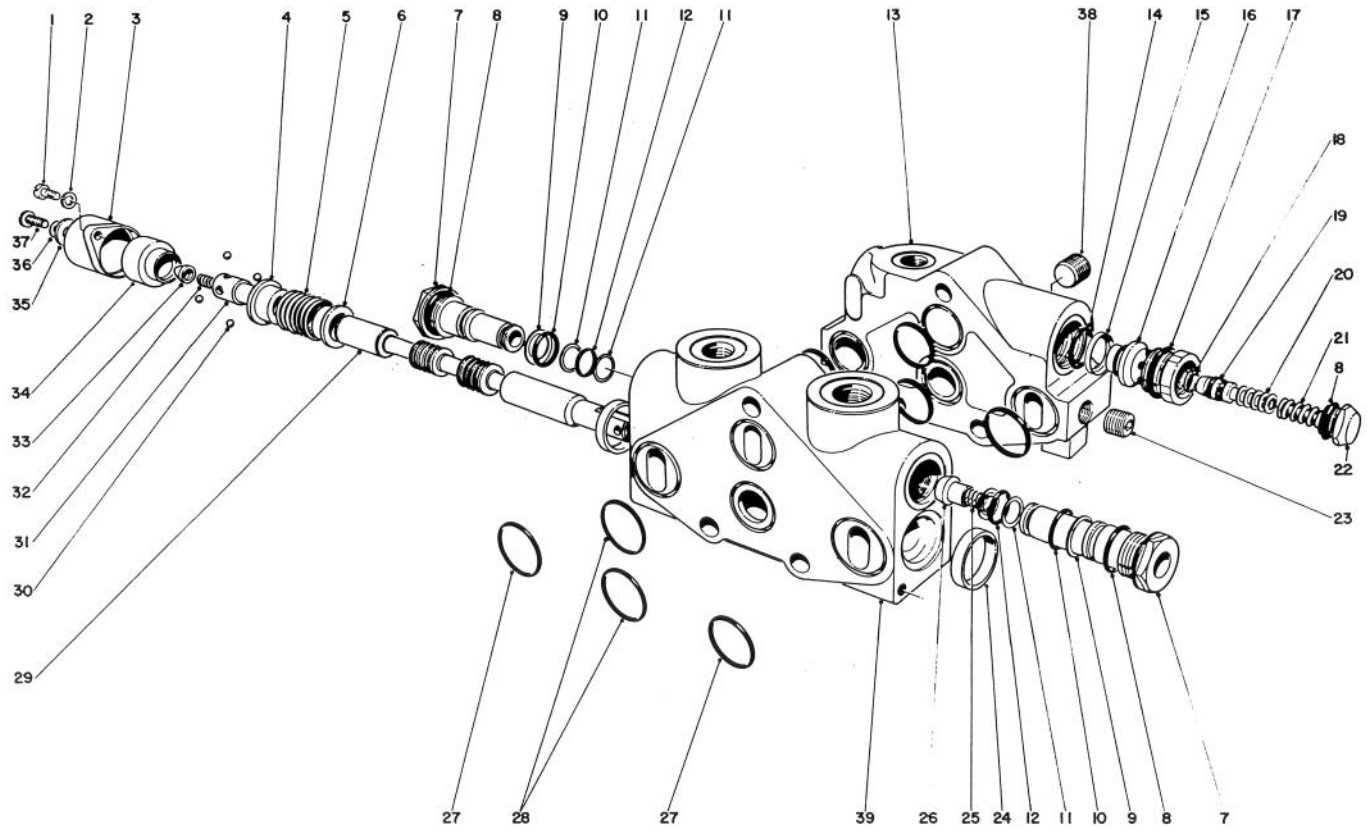
Ref. No.	Part No.	Description	No. Used
2	32151-41	Snap Ring	1



No. 17-7530 — CONTROL VALVE ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	353-343	Stud Nut	6
2	353-395	Stud	3
3	353-471	4-Way Spool & Housing Assembly # 1	1
4	353-472	Split Flow Mid-Inlet Section	1
5	353-473	3-Way Spool & Housing Assembly # 2	1
6	353-474	Combined Flow Mid-Inlet Section	1
7	353-475	3-Way Spool & Housing Assembly # 3	1
8	353-476	Selective Mid-Inlet Spool & Housing Assembly # 4	1
9	353-477	4-Way Spool & Housing Assembly # 5	1
10	353-339	Exhaust Section O-Ring Seal	16
11	353-478	Right End Cover	1
12	353-340	Pressure Section O-Ring Seal	16
	353-479	Mower Relief Cartridge Assy. (Incl. Ref. # 13-22)	3
13	353-334	Cap	3
14	237-54	O-Ring Seal	3
15		Spring	3
16		Shims	as/Req
17	353-531	Poppet and Ring Assembly (Incl. Ref. # 18)	3
18	353-327	Piston Ring	3
19		Cap	3
20	353-331	O-Ring Seal	3
21	353-335	Back-Up Seal	3
22	353-332	O-Ring Seal	3
23	353-521	Left End Cover Assembly (Incl. Ref. # 13-22)	1

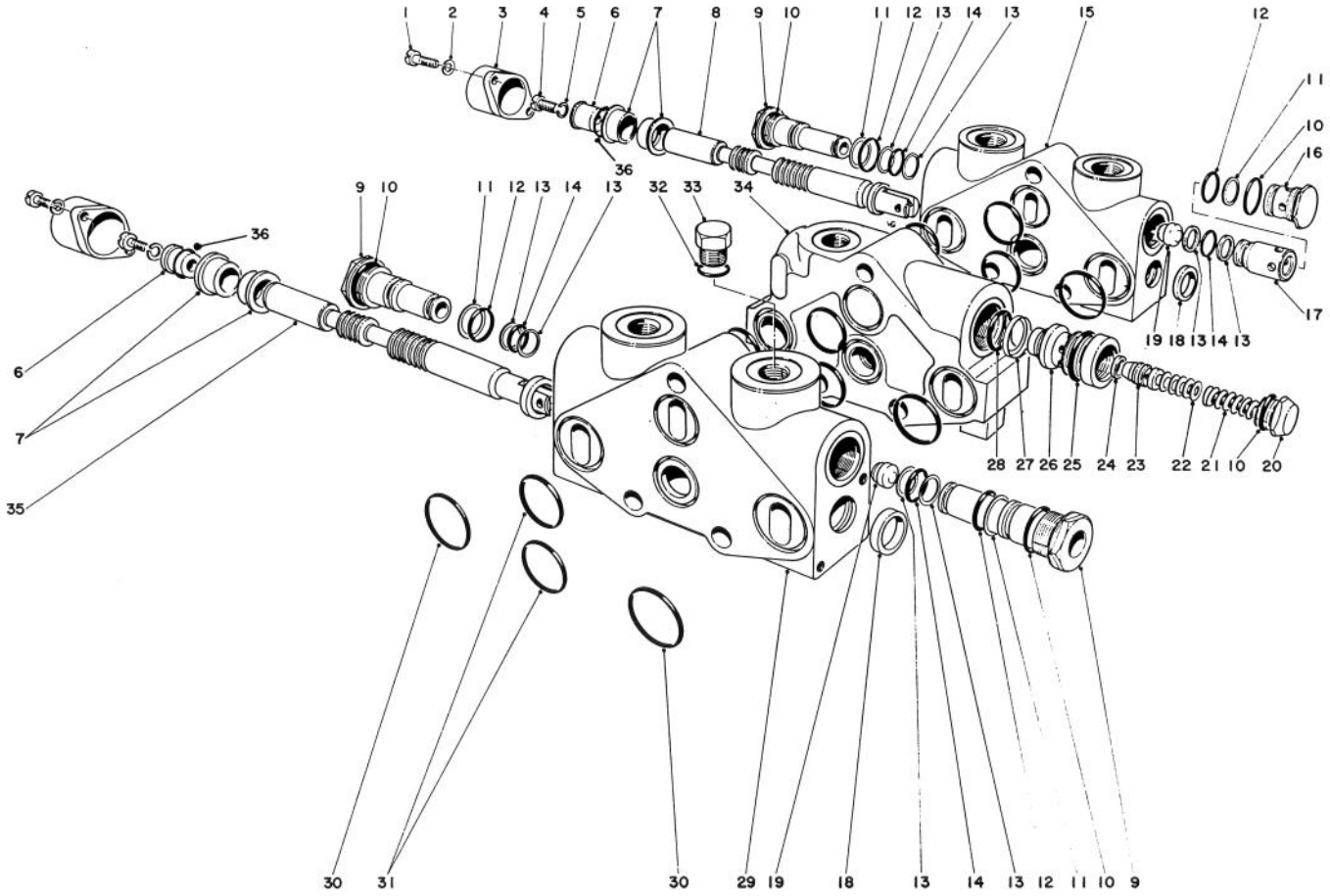
NOTE: The following valve bank part numbers 10-7760, 12-1910, 17-7530 and 21-5100 are interchangeable. Also the spool sections for the above valve banks are interchangeable.



No. 1 SPOOL & MID-INLET HOUSING ASSEMBLY FOR No. 17-7530

Ref. No.	Part No.	Description	No. Used
1	353-315	Screw (Incl. Ref. # 2)	2
2	3253-3	Lockwasher	2
3	353-412	Detent Bonnet	1
4	353-413	Stop Collar	1
5	353-530	Centering Spring	1
6	353-417	Stop Collar	1
	353-481	Lift Check Assembly (Incl. Ref. # 7-12)	2
7		Lift Check Plug	2
8	237-54	O-Ring Seal	3
9	353-306	Back-Up Seal	2
10	353-305	O-Ring Seal	2
11	353-303	Back-Up Seal	4
12	353-302	O-Ring Seal	2
13		Split Flow Mid-Inlet Section Housing	1
	353-479	Mower Relief Cartridge Assy. (Incl. Ref. # 8 & 14-22)	1
14	353-332	O-Ring Seal	1
15	353-335	Back-Up Seal	1
16		Body	1
17	353-331	O-Ring Seal	1
18	353-327	Piston Ring	1

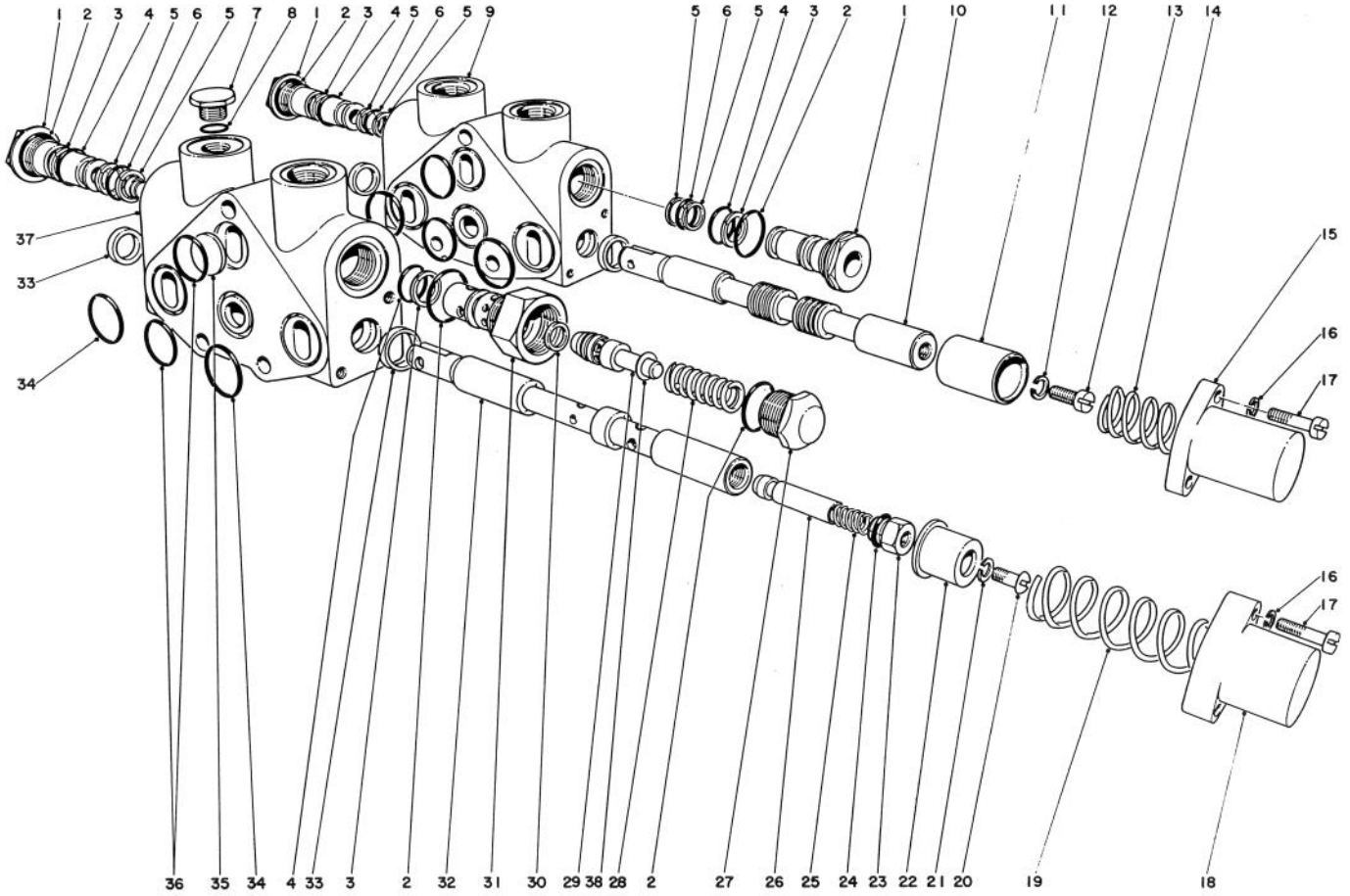
Ref. No.	Part No.	Description	No. Used
19	353-531	Poppet and Ring Assy. (Incl. Ref. # 18)	1
20		Shims	as/Req
21		Spring	1
22	353-334	Cap	1
23	281-10	Pipe Plug	1
24	353-316	Quad Ring Spool Seal	2
25	353-482	Lift Check Spring	1
26	353-301	Lift Check Poppet	1
27	353-339	Exhaust Section O-Ring Seal	4
28	353-340	Pressure Section O-Ring Seal	4
29		4-Way Spool # 1	1
	353-419	Detent Assy. (Incl. items 30-37)	1
30		Ball	4
31		Holder	1
32		Spring	1
33		Follower Detent Ball	1
34		Sleeve	1
35		Washer	1
36		Lockwasher	1
37		Machine Screw	1
38	353-502	Pipe Plug	1
39		4-Way Housing # 1	1



No. 2 & No. 3 SPOOL & MID-INLET HOUSING ASSEMBLY FOR No. 17-7530

Ref. No.	Part No.	Description	No. Used
1	353-315	Screw (Incl. Ref. # 2)	4
2	3253-3	Lockwasher	4
3	353-310	Bonnet	2
4	353-312	Screw	2
5	353-314	Lockwasher	2
6	353-313	Spool Collar	2
7	353-417	Stop Collar	4
8		3-Way Spool # 3	1
	353-481	Lift Check Assy. (Incl. Ref. # 9-14)	3
9		Lift Check Plug	3
10	237-54	O-Ring Seal	4
11	353-306	Back-Up Seal	4
12	353-305	O-Ring Seal	4
13	353-303	Back-Up Seal	8
14	353-302	O-Ring Seal	4
15		3-Way Housing # 3	1
16	353-483	Anti-Cavity Check Body	1
17	353-484	Check Ball Retainer	1
18	353-316	Quad Ring Spool Seal	4
19	353-326	3-Way Conversion Plug	2

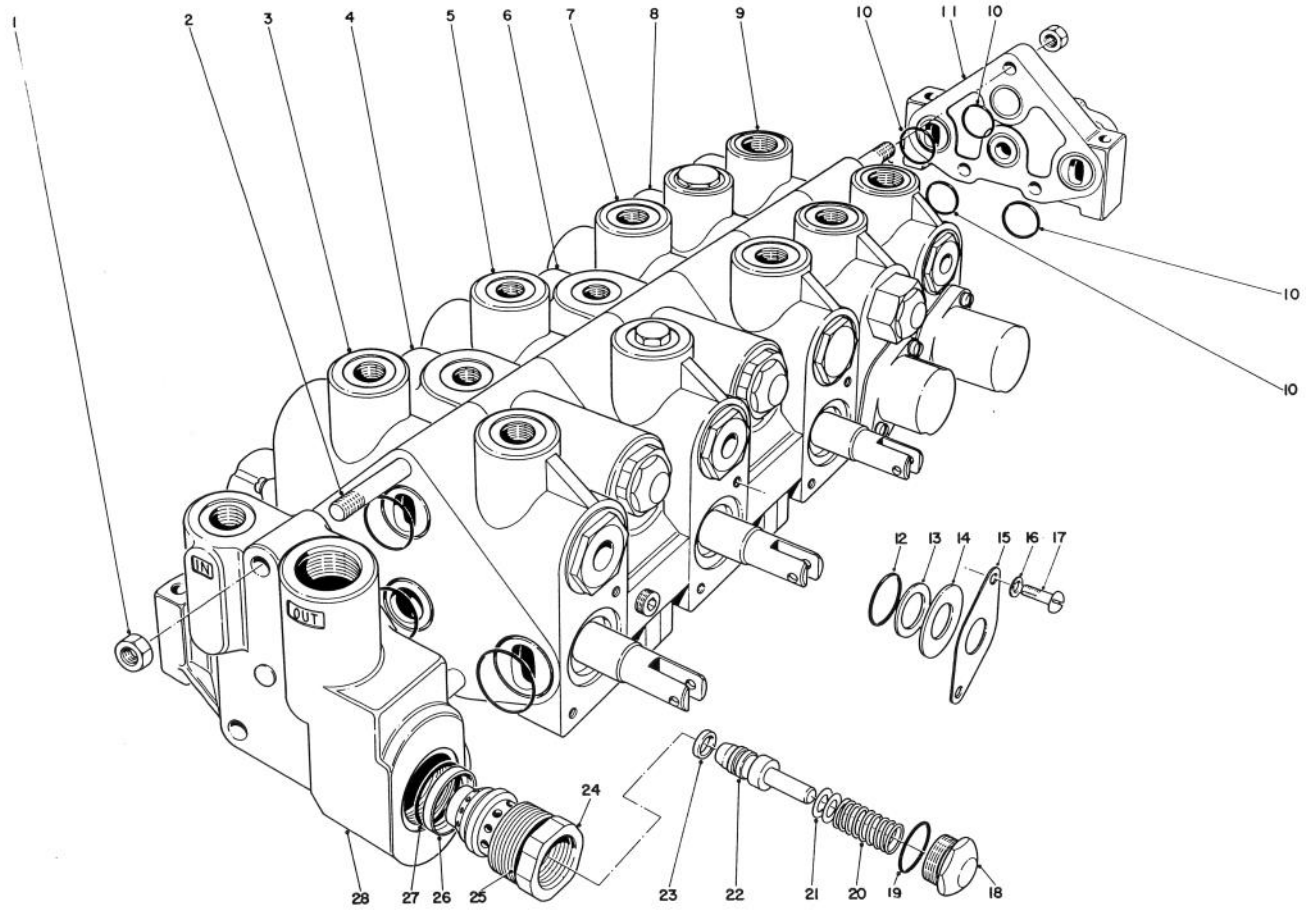
Ref. No.	Part No.	Description	No. Used
	353-479	Mower Relief Cartridge Assy. (Incl. Ref. # 10 & 20-28)	1
20	353-334	Cap	1
21		Spring	1
22		Shims	as/Req
23	353-531	Poppet and Ring Assy. (Incl. Ref. # 24)	1
24	353-327	Piston Ring	1
25	353-331	O-Ring Seal	1
26		Body	1
27	353-335	Back-Up Seal	1
28	353-332	O-Ring Seal	1
29		3-Way Housing # 2	1
30	353-339	Exhaust Section O-Ring Seal	6
31	353-340	Pressure Section O-Ring Seal	6
32	237-42	O-Ring Seal	1
33	353-495	Plug	1
34		Mid-Inlet Combined Flow Section Housing	1
35		3-Way Spool # 2	1
36	32120-38	Shim	2



No. 4 SPOOL AND No. 5 SPOOL ASSEMBLIES FOR No. 17-7530

Ref. No.	Part No.	Description	No. Used
	353-481	Lift Check Assembly (Incl. Ref. # 1-6)	3
1		Lift Check Plug	3
2	237-54	O-Ring Seal	3
3	353-306	Back-Up Seal	3
4	353-305	O-Ring Seal	3
5	353-303	Back-Up Seal	6
6	353-302	O-Ring Seal	3
7	353-494	Plug	1
8	237-79	O-Ring Seal	1
9		4-Way Housing # 5	1
10		4-Way Spool # 5	1
11	353-485	"A" Stop Collar	1
12	353-314	Lockwasher	1
13	353-312	Screw	1
14	353-393	Spring	1
15	353-486	Bonnet	1
16	3253-3	Lockwasher	4
17	353-315	Screw (Incl. Ref. # 16)	4
18	353-310	Bonnet	1
19	353-487	Return Spring	1
20	3258-2	Screw	1

Ref. No.	Part No.	Description	No. Used
21	3253-18	Lockwasher	1
22	353-488	Spool Stop	1
23	353-489	Spool Plug	1
24	237-86	O-Ring Seal	1
25	353-489	Sleeve Spring	1
26	353-491	Spool Sleeve	1
	353-403	Traction Relief Cartridge Assy. (Incl. Ref. # 2-4 & 27-31 & 38)	1
27	353-334	Cap	1
28		Spring	1
29	353-531	Poppet and Ring Assy. (Incl. Ref. # 30)	1
30	353-327	Piston Ring	1
31		Body	1
32		Selective Mid-Inlet Spool # 4	1
33	353-316	Quad Ring Spool Set	4
34	353-339	Exhaust Section O-Ring Seal	4
35	353-519	Disc Seal	1
36	353-340	Pressure Section O-Ring Seal	4
37		Selective Mid-Inlet # 4	1
38		Shim	as/Req



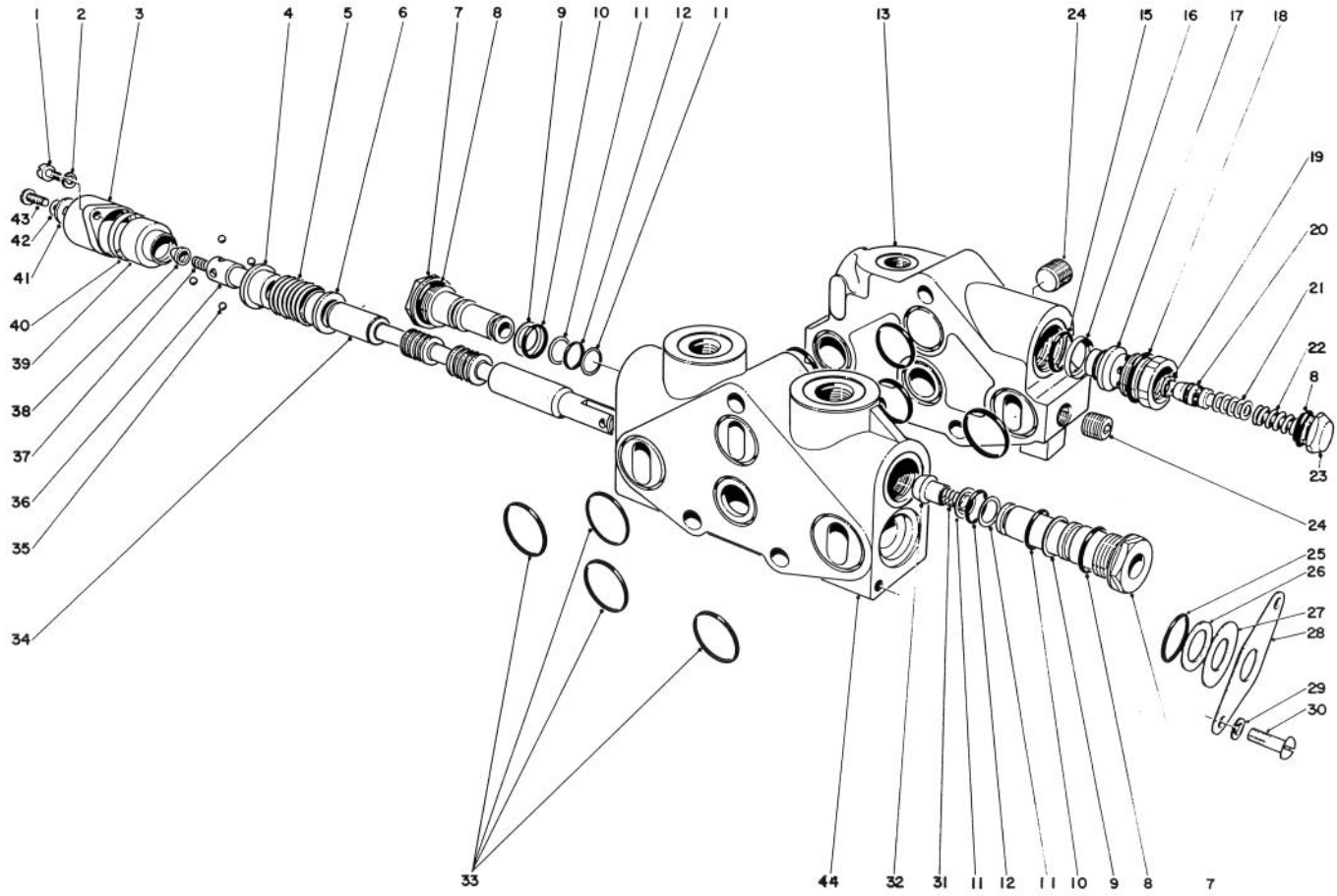
No. 21-5100 — CONTROL VALVE ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	353-343	Stud Nut	6
2	353-395	Assembly Stud	3
3	353-524	4-Way Spool & Housing Assembly # 1	1
4	353-527	Split Flow Mid-Inlet Sections	1
5	353-522	3-Way Spool & Housing Assembly # 2	1
6	353-526	Combined Flow Mid-Inlet Section	1
7	353-523	3-Way Spool Housing Assembly # 3	1
8	353-520	Selective Mid-Inlet Spool & Housing Assembly # 4	1
9	353-525	4-Way Spool & Housing Assembly # 5	1
10	353-528	Section Seal Set	1
11	353-518	Right End Cover	1
12	237-20	O-Ring Seal	10
13		Back-Up Washer	10
14		Seal Retainer	10
15	353-529	Seal Retainer Plate	5

Ref. No.	Part No.	Description	No. Used
16	3253-18	Lockwasher	10
17	3258-2	Machine Screw	10
	353-515	Seal and Retainer Set (Incl. Ref. # 12-14)	10
18	353-334	Cap	3
19	237-54	O-Ring Seal	12
20		Spring	3
21		Shims	A/R
22	353-531	Poppet and Ring Assembly (Incl. Ref. # 23)	4
23	353-327	Piston Ring	4
24		Cap	3
25	353-331	O-Ring Seal	3
26	353-335	Back-Up Seal	3
27	353-332	O-Ring Seal	2
	353-579	Mower Relief Cartridge Assy. 2000 P.S.I. (w/seals) (Incl. Ref. # 18-27)	3
28	353-521	Lift End Cover Assembly (Incl. Ref. # 18-28)	1

NOTE: If valve has external replaceable valve seals use this parts break down.

NOTE: The following valve bank part numbers 10-7760, 12-1910, 17-7530 and 21-5100 are interchangeable. Also the spool sections for the above valve banks are interchangeable.

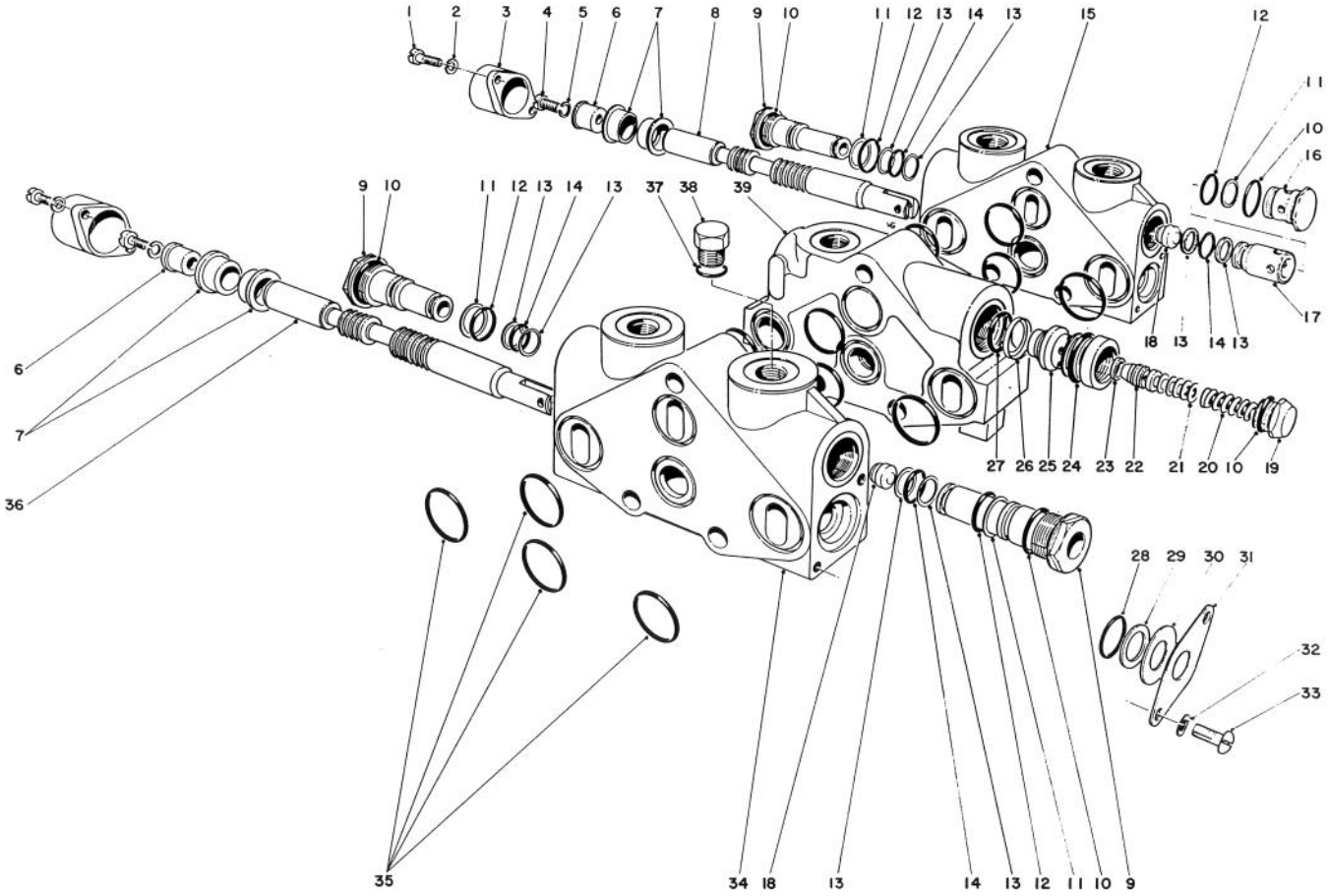


No. 1 SPOOL AND MID-INLET HOUSING ASSEMBLY FOR No. 21-5100

Ref. No.	Part No.	Description	No. Used
1	353-315	Screw (Incl. Ref. # 2)	2
2	3253-3	Lockwasher	2
3	353-412	Detent Bonnet	1
4	353-413	Stop Collar	1
5	353-530	Centering Spring	1
6	353-417	Stop Collar	1
7		Lift Check Plug	2
8	237-54	O-Ring Seal	3
9	353-306	Back-Up Seal	2
10	353-305	O-Ring Seal	2
11	353-303	Back-Up Seal	4
12	353-302	O-Ring Seal	2
	353-481	Lift Check Assembly (Incl. Ref. # 7-12)	2
13		Split Flow Mid-Inlet Section Housing	1
15	353-332	O-Ring Seal	1
16	353-335	Back-Up Seal	1
17		Body	1
18	353-331	O-Ring Seal	1
19	353-327	Piston Ring	1
20	353-531	Poppet and Ring Assembly (Incl. Ref. # 19)	1
21		Shims	A/R
22		Spring	1
23	353-334	Cap	1

Ref. No.	Part No.	Description	No. Used
	353-479	Relief Cartridge Assembly (Incl. Ref. # 8 & 15-23)	1
24	281-10	Socket Pipe Plug	2
25	237-20	O-Ring Seal	2
26		Back-Up Washer	2
27		Seal Retainer	2
28	353-529	Seal Retainer Plate	1
29	3253-18	Lockwasher	2
30	3258-2	Machine Screw	2
	353-515	Seal and Retainer Set (Incl. Ref. # 25-27)	2
31	353-482	Lift Check Spring	1
32	353-301	Lift Check Poppet	1
33	353-528	Section Seal Set	1
34		4 Way Spool # 1	1
35		Ball	4
36		Holder	1
37		Spring	1
38		Follower Detent Ball	1
39		Sleeve	1
40	353-517	Float Bonnet Sleeve	1
41		Washer	1
42		Lockwasher	1
43		Machine Screw	1
	353-419	Detent Assembly (Incl. Ref. # 35-39 & 41-43)	1
44		4-Way Housing # 1	1

NOTE: If valve has external replaceable valve seals use this parts break down.

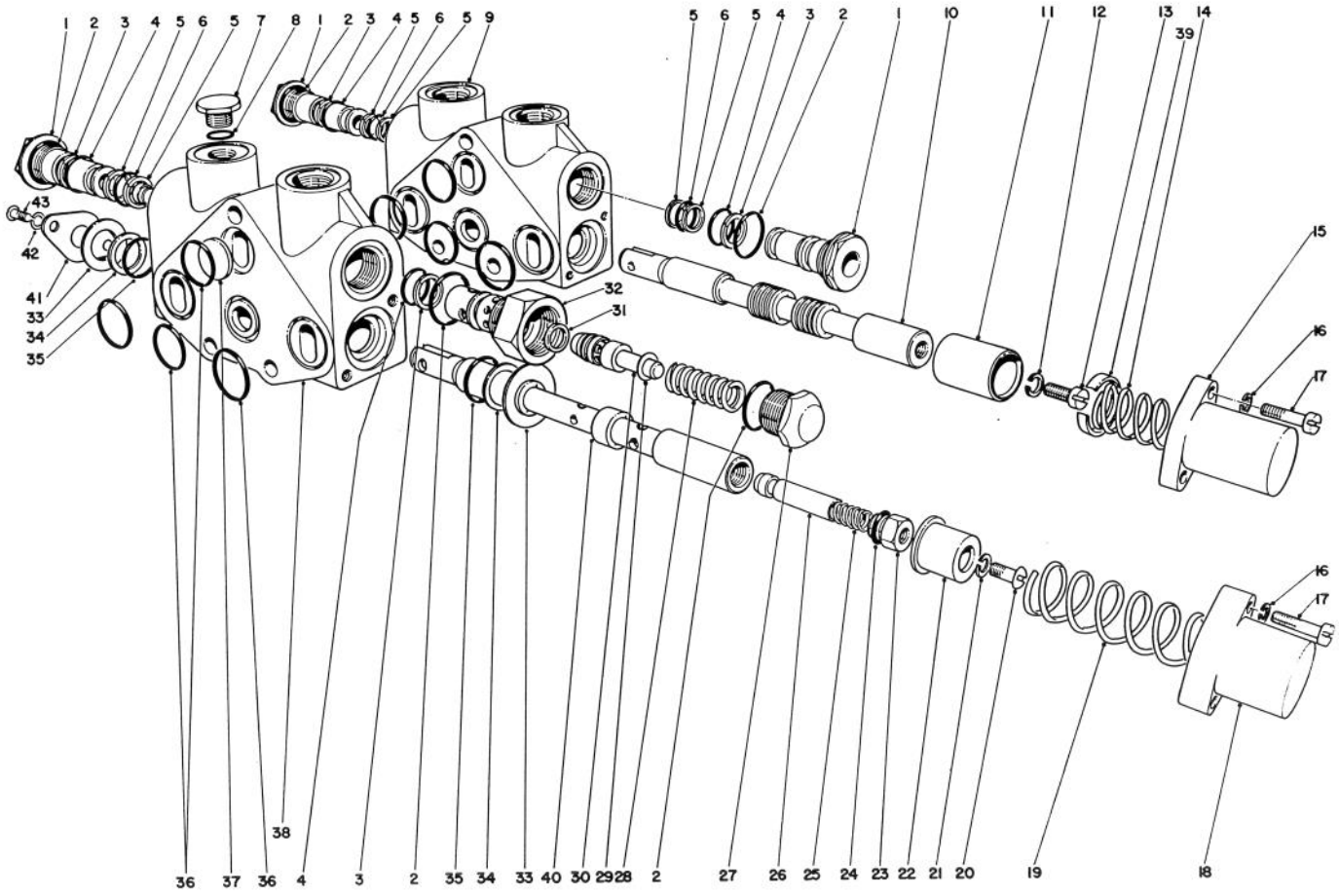


No. 2 AND No. 3 SPOOL AND MID-INLET HOUSING ASSEMBLY FOR No. 21-5100

Ref. No.	Part No.	Description	No. Used
1	353-315	Screw (Incl. Ref. # 2)	4
2	3253-3	Lockwasher	4
3	353-310	Bonnet	2
4	353-312	Screw	2
5	353-314	Lockwasher	2
6	353-313	Spool Collar	2
7	353-417	Stop Collar	4
8		3-Way Spool # 3	1
9		Lift Check Plug	3
10	237-54	O-Ring Seal	4
11	353-306	Back-Up Seal	4
12	353-305	O-Ring Seal	4
13	353-303	Back-Up Seal	8
14	353-302	O-Ring Seal	4
15		3-Way Housing # 3	1
16	353-483	Anti-Cavity Check Body	1
17	353-484	Check Ball Retainer	1
18	353-516	3-Way Conversion Plug	2
19	353-334	Cap	1
20		Spring	1
21		Shims	A/R
22	353-531	Poppet and Ring Assembly (Incl. Ref. # 23)	

Ref. No.	Part No.	Description	No. Used
23	353-327	Piston Ring	1
24	353-331	O-Ring Seal	1
25		Body	1
26	353-335	Back-Up Seal	1
27	353-332	O-Ring Seal	1
28	237-20	O-Ring Seal	4
29		Back-Up Washer	4
30		Seal Retainer	4
31	353-529	Seal Retainer Plate	2
32	3253-18	Lockwasher	4
33	3258-2	Machine Screw	4
	353-515	Seal and Retainer Set (Incl. Ref. # 28-30)	4
34		3-Way Housing # 2	1
35	353-528	Section Seal Set	1
36		3-Way Spool # 2	1
37	237-42	O-Ring Seal	1
38	353-495	Plug	1
39		Mid-Inlet Combined Flow Section Housing	1

NOTE: If valve has external replaceable valve seals use this parts break down.

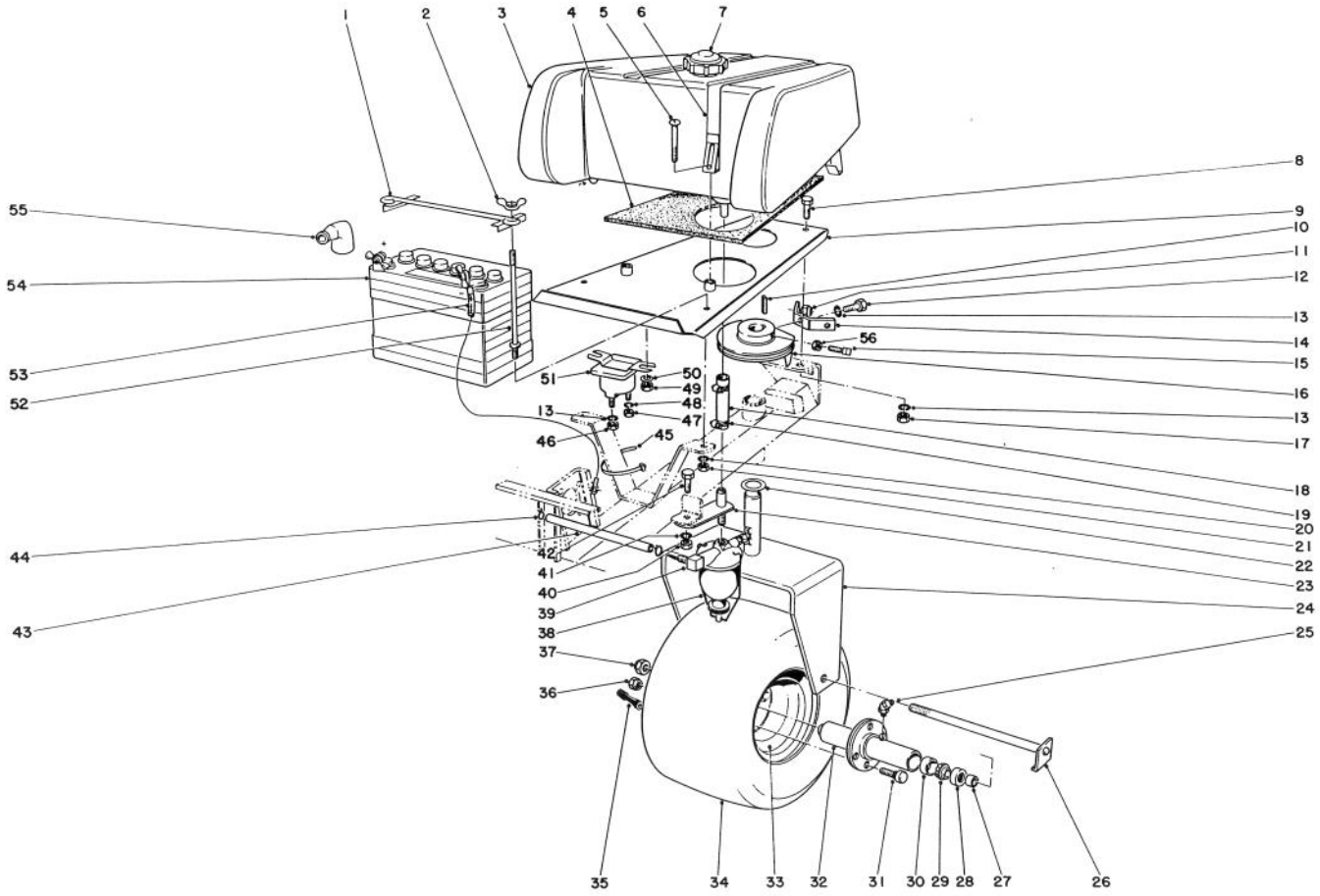


No. 4 SPOOL AND No. 5 SPOOL ASSEMBLIES FOR No. 21-5100

Ref. No.	Part No.	Description	No. Used
1		Lift Check Plug	3
2	237-54	O-Ring Seal	3
3	353-306	Back-Up Seal	3
4	353-305	O-Ring Seal	3
5	353-303	Back-Up Seal	6
6	353-302	O-Ring Seal	3
7	353-494	Plug	1
8	237-79	O-Ring Seal	1
	353-481	Lift Check Assembly. (Incl. Ref. # 1-6)	3
9		4-Way Housing # 5	1
10		4-Way Spool # 5	1
11	353-485	"A" Stop Collar	1
12	353-314	Lockwasher	1
13	353-312	Screw	1
14	353-393	Spring	1
15	353-486	Bonnet	1
16	3253-3	Lockwasher	4
17	353-315	Screw (Incl. Ref. # 16)	4
18	353-310	Bonnet	1
19	353-487	Return Spring	1
20	3258-2	Screw	1
21	3253-18	Lockwasher	1
22	353-488	Spool Stop	1
23	353-489	Spool Plug	1

Ref. No.	Part No.	Description	No. Used
24	237-86	O-Ring Seal	1
25	353-490	Sleeve Spring	1
26	353-491	Spool Sleeve	1
27	353-334	Cap	1
28		Spring	1
29		Shim	A/R
30	353-531	Poppet and Ring Assembly (Incl. Ref. # 31)	1
31	353-327	Piston Ring	1
32		Body	1
	353-403	Traction Relief Cartridge Assy. (Incl. Ref. # 2-4 & 27-32)	1
33		Seal Retainer	4
34		Back-Up Washer	4
35	237-20	O-Ring Seal	4
	353-515	Seal and Retainer Set (Incl. Ref. # 33-35)	4
36	353-528	Section Seal Set	1
37	353-519	Disc Seal	1
38		Selective Mid-Inlet # 4	1
39	353-517	Float Bonnet Sleeve	1
40		Selective Mid-Inlet Spool # 4	1
41	353-529	Seal Retainer Plate	2
42	3253-18	Lockwasher	4
43	3258-2	Machine Screw	4

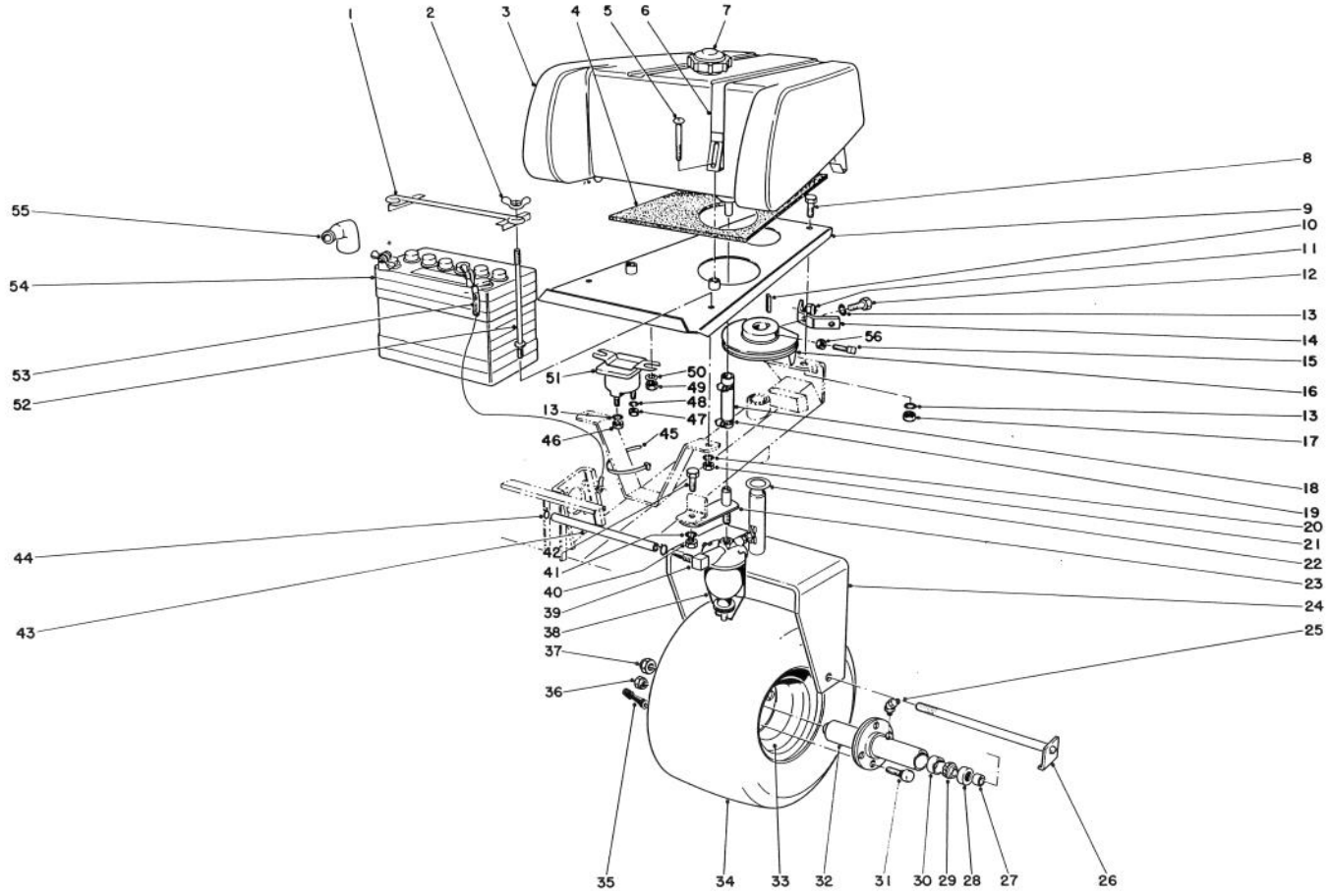
NOTE: If valve has external replaceable valve seals use this parts break down.



GAS TANK, BATTERY AND CASTER WHEEL ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	7-0534	Battery Clamp	1
2	32103-12	Wing Nut	2
3	10-7940	Gas Tank	1
4	10-9080	Foam Tank Support	1
5	3258-20	Round Head Screw	4
6	10-7960	Strap	2
7	10-7950	Gas Cap	1
8	322-2	Capscrew	2
9	10-6130	Base Tank	1
10	5-0946	Key	1
11	3296-4	Locknut	2
12	322-5	Capscrew	1
13	3253-4	Lockwasher	5
14	3-8516	Cable Anchor	1
15	3242-9	Set Screw	2
16	5-1894	Drum Steering	1
17	3217-6	Nut	2
18	10-7970	Gas Line	1
19	2412-36	Clamp	2
20	3253-3	Lockwasher	2
21	3217-5	Nut	2
22	3-6558	Thrust Washer	1
23	10-6510	Mount Sediment Bowl	1

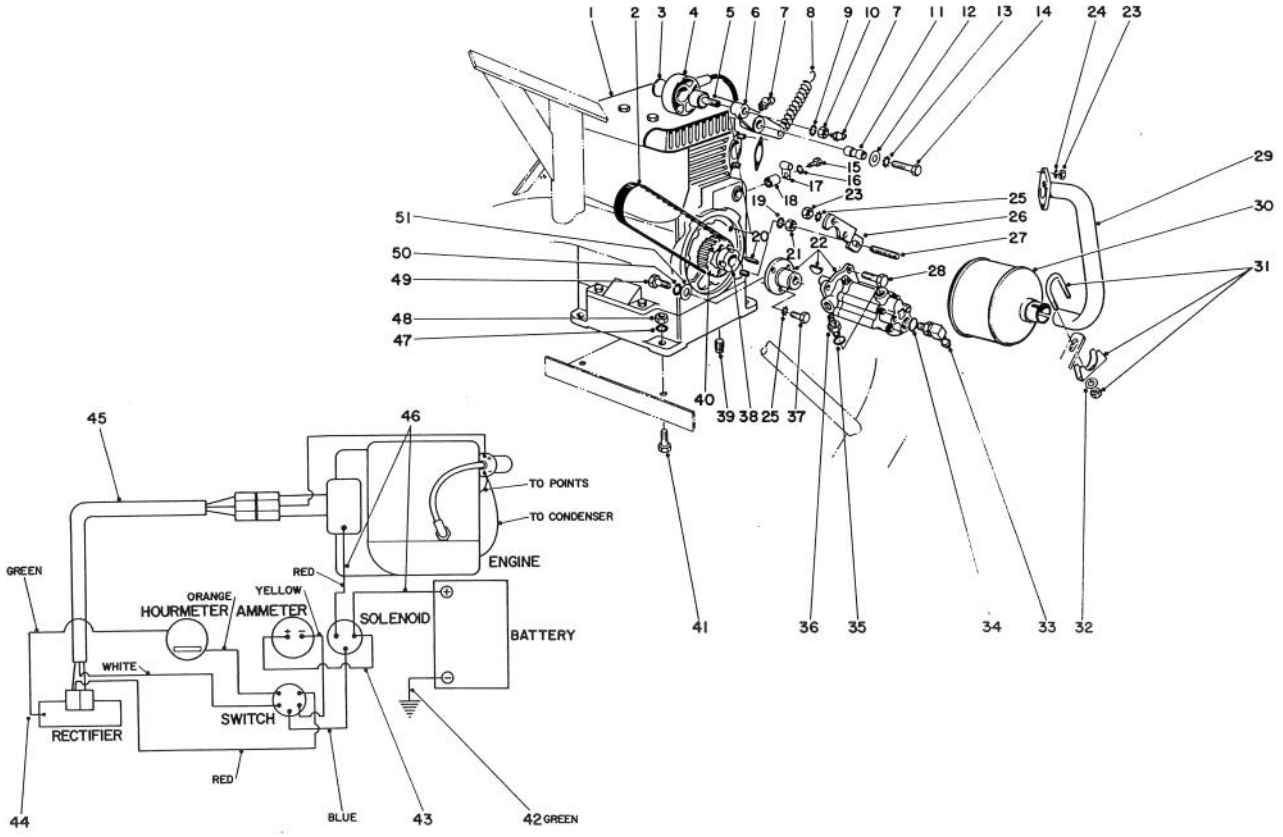
Ref. No.	Part No.	Description	No. Used
24	10-6810	Castor Fork	1
25	302-11	Grease Fitting	1
26	5-3934	Bolt	1
27	217-96	Spacer	2
28	253-111	Oil Seal	2
29	254-78	Bearing Cone	2
30	254-79	Bearing Cap	2
31	10-6830	Drive Stud	4
32	217-95	Hub Assy.	1
33	217-60	Wheel Disc	1
34	231-64	Tire, Tubeless	1
35	232-24	Valve Stem	1
36	242-50	Lug Nut	4
37	3296-50	Locknut	1
38	224-1	Sediment Bowl	1
39	304-75	Connector	1
40	3217-7	Nut	1
41	3253-21	Lockwasher	1
42	323-4	Capscrew	1
43	10-7030	Hose, Fuel Line	1
44	2412-33	Clamp	2
45	7-3123	Cable Tie	1
46	3218-13	Nut	2



GAS TANK, BATTERY AND CASTER WHEEL ASSEMBLY (Continued)

Ref. No.	Part No.	Description	No. Used
47	3219-14	Nut	1
48	3253-17	Lockwasher	1
49	32146-17	Stopnut	2
50	3256-22	Washer	2
51	6-1600	Solenoid	1
52	10-8120	Battery Bolt	2

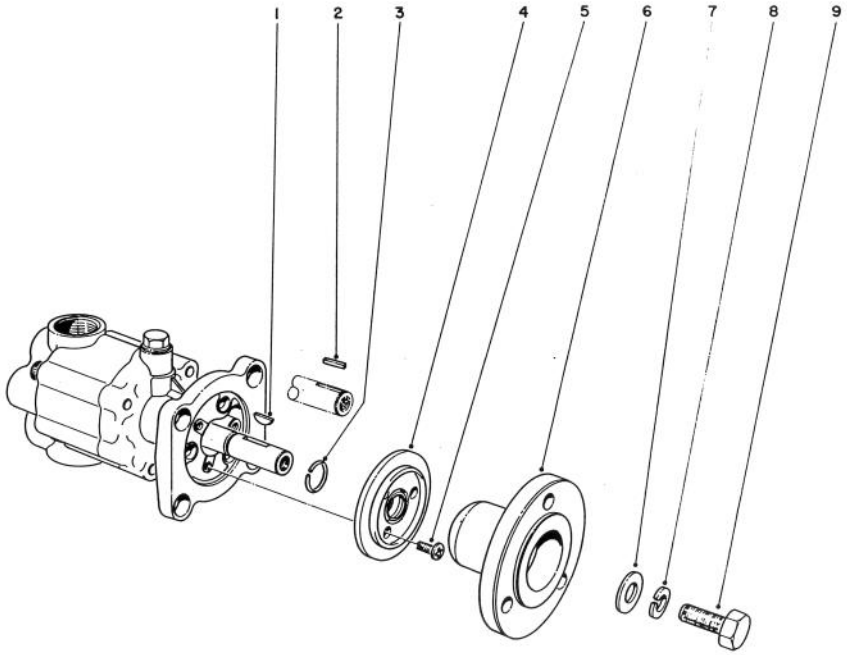
Ref. No.	Part No.	Description	No. Used
53	3-8168	Decal Ground	1
54	239-14	Battery	1
55	218-331	Battery Boot	2
56	3218-2	Jam Nut	2
*	10-6790	Wheel Assy. (Incl. Ref. #33-35)	1



ENGINE AND WIRING DIAGRAM

Ref. No.	Part No.	Description	No. Used
1	10-6940	Engine	1
2	10-7450	Timing Belt	1
3	284-6	Expansion Plug	1
4	10-7000	Pulley	1
5	252-72	Bearing	1
6	10-6970	Belt, Idler Arm	1
7	302-50	Grease Fitting	2
8	12-8720	Spring	1
9	3253-7	Lockwasher	1
10	3220-5	Nut	1
11	10-7080	Spacer Belt Idler	1
12	3256-4	Washer	1
13	3255-9	Washer	1
14	323-12	Capscrew	1
15	321-8	Capscrew	1
16	3253-3	Lockwasher	1
17	2412-31	Boden Clamp	1
18	3-5733	Spacer	1
19	3253-26	Lockwasher	1
20	10-7070	Key	1
21	3217-8	Nut	1
22	5-1749	Traction Pump	1
23	3217-6	Nut	6
24	3253-4	Lockwasher	2
25	3255-8	Lockwasher	5
26	10-7100	Torque Arm	1

Ref. No.	Part No.	Description	No. Used
27	10-7120	Torque Arm Stop	1
28	322-5	Capscrew	2
29	10-7010	Exhaust Pipe	1
30	10-8020	Muffler	1
31	2412-37	Muffler Clamp Assy.	1
32	3256-23	Washer	2
33	353-376	90 Degree Barb Hose Stem	1
34	237-80	O-Ring	1
35	237-79	O-Ring	1
36	353-388	Straight Thread O-Ring Connector	1
37	322-3	Capscrew	3
38	10-7060	Bushing, Taper Lock	1
39	281-2	Pipe Plug	1
40	10-7110	Timing Pulley	1
41	323-8	Capscrew	4
42	10-7160	Wire, Battery to Ground	1
43	10-7170	Wire Assembly	1
44	12-8110	Wire Assembly	1
45	12-8000	Wiring Harness	1
46	10-7130	Wire Starter	2
47	3253-21	Lockwasher	4
48	3217-7	Nut	4
49	3210-2	Capscrew	1
50	3253-4	Lockwasher	1
51	3256-23	Washer	1

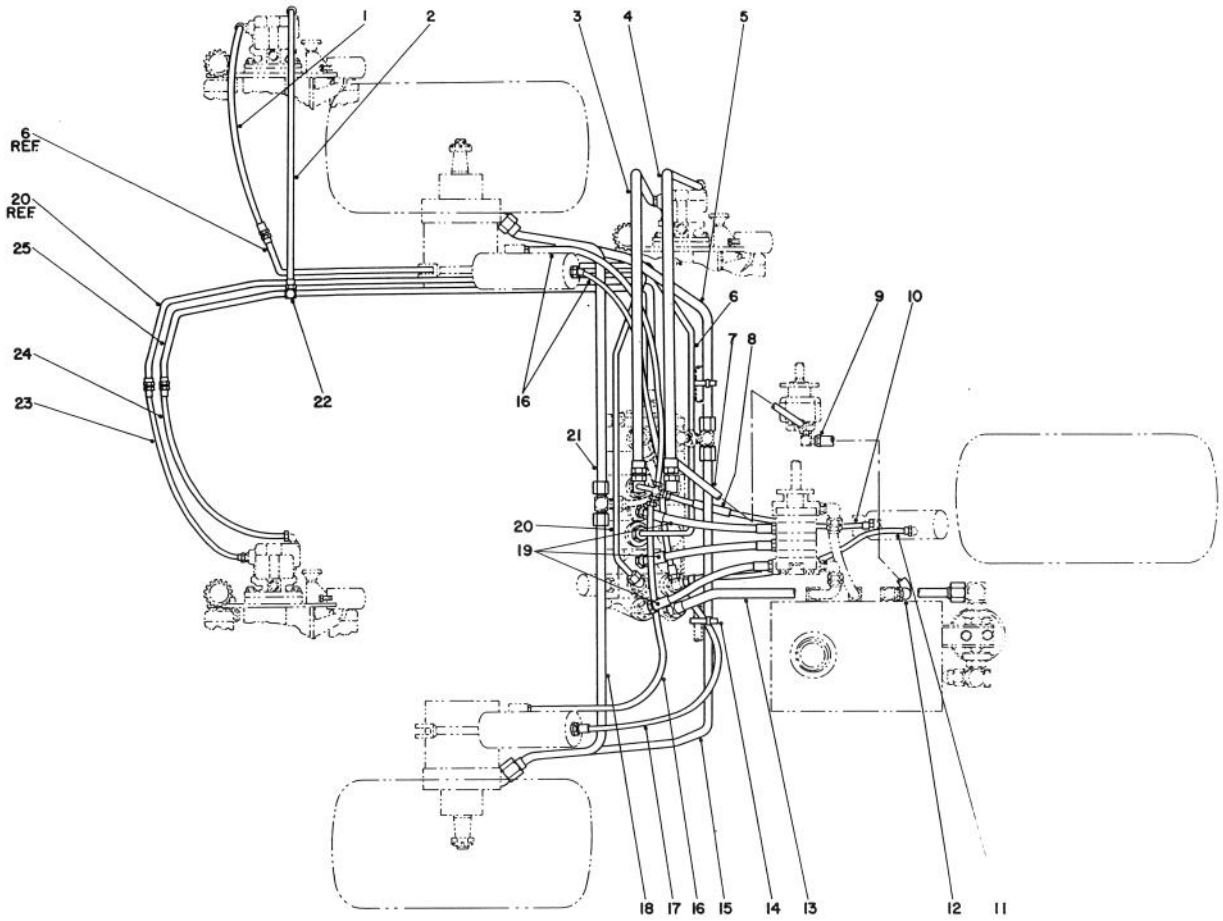


TRACTION PUMP

Ref. No.	Part No.	Description	No. Used
1	†	Woodruff Key	1
2	†	Square Key	1
3	†	Ring Retaining	1
4	†	Seal Plate	1
5	†	Screw	3

Ref. No.	Part No.	Description	No. Used
6	10-7050	Hub	1
7	3256-23	Washer	1
8	3253-4	Lockwasher	1
9	3210-2	Capscrew	1

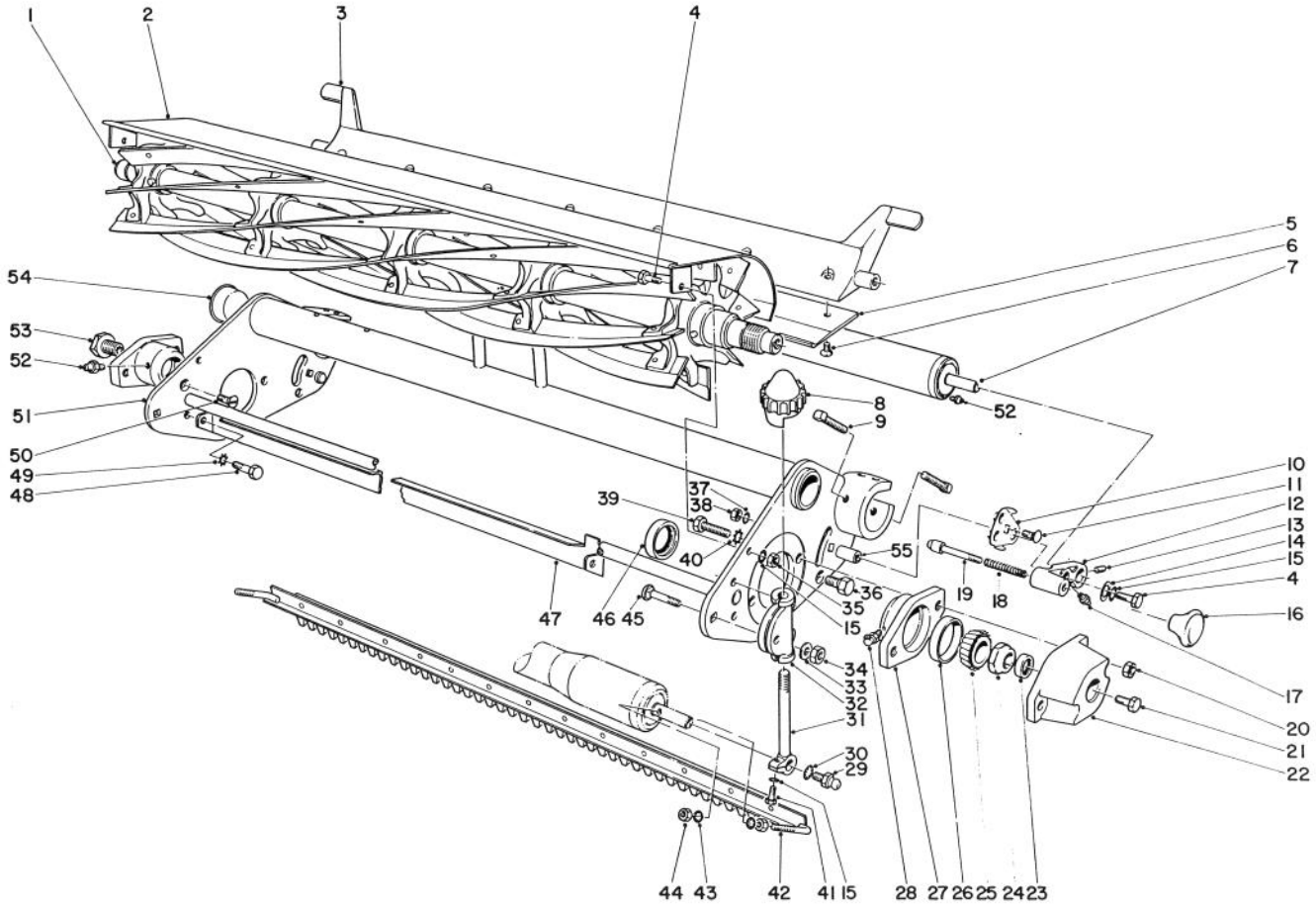
†Items only available in Minor Repair Kit 353-459



HYDRAULIC SYSTEMS DIAGRAM

Ref. No.	Part No.	Description	No. Used
1	10-7650	Hose, Pressure, R. H.	1
2	10-7660	Hose, Return R. H.	1
3	10-7620	Hose, Pressure, Rear	1
4	10-7640	Hose, Return, Rear	1
5	10-7490	Traction Line, R. H., Lower	1
6	10-7560	Pressure Line, R. H. Cutting Unit	1
7	10-7600	Hose, Traction Motor Outlet	1
8	11-6450	Hose Cover	1
9	2412-34	Hose Clamp	2
10	10-7740	Hose, Cylinder Drop	1
11	10-7710	Hose, Lift Rear	1
12	10-7680	Hose, Traction Pump Inlet	1
13	10-7510	Return Line, Valve-to-Filter	1

Ref. No.	Part No.	Description	No. Used
14	7-3123	Cable Tie	3
15	10-7500	Traction Line, L. H., Lower	1
16	10-7700	Hose Lift & Drop Cylinder, R. H. – Drop Cylinder, L. H.	3
17	10-7690	Hose, Lift Cylinder, L. H.	1
18	10-7520	Traction Line, L.H., Upper	1
19	10-7610	Hose, Reel Pump Outlet	3
20	10-7540	Pressure Line, L. H. Cutting Unit	1
21	10-7530	Traction Line, R. H., Upper	1
22	353-382	Female Swivel Elbow	1
23	10-7630	Hose Pressure, L.H.	1
24	10-7670	Hose Return, L.H.	1
25	10-7550	Return Line, Front Cutting Unit	1

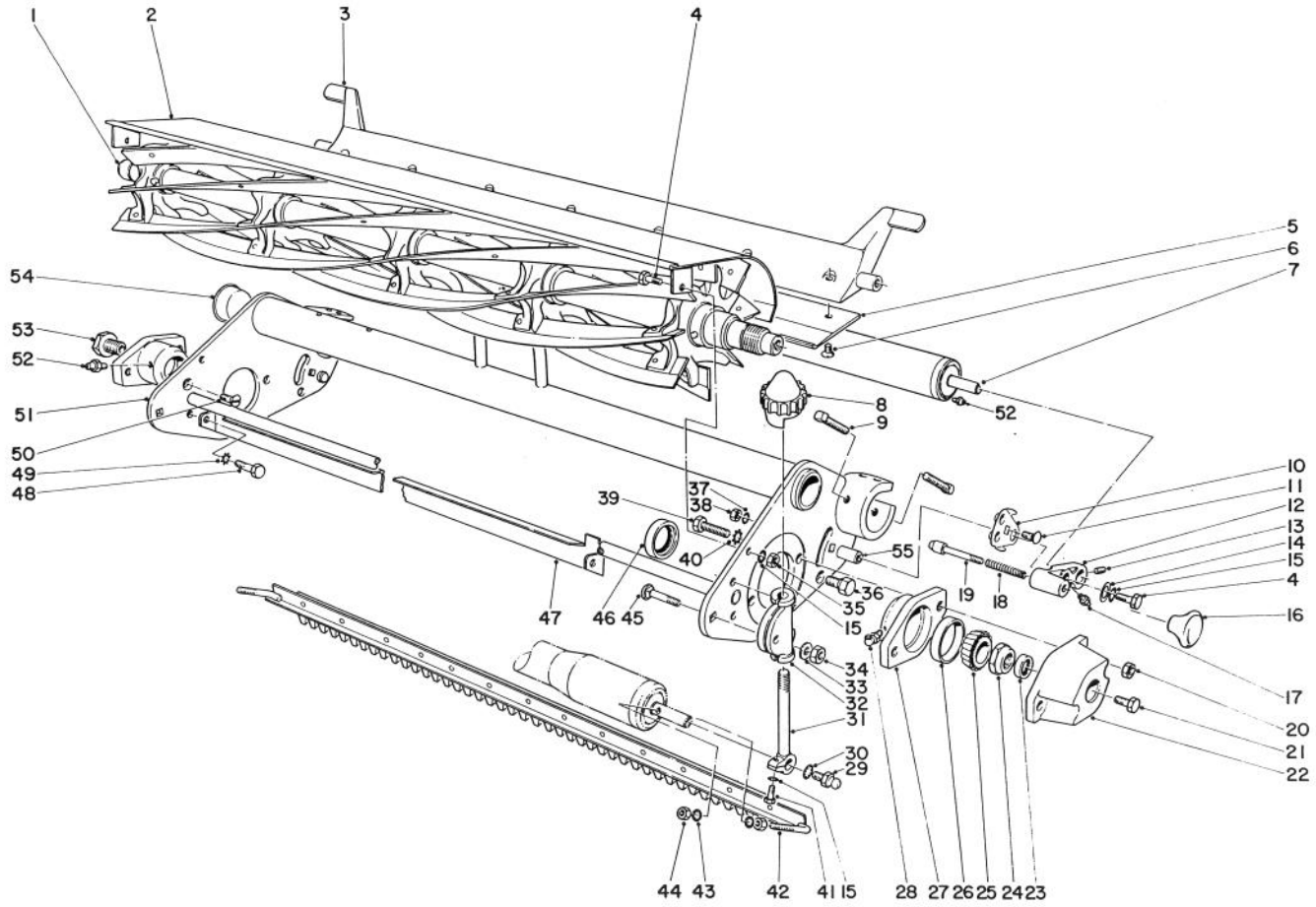


CUTTING UNIT ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	5-3189	Reel Assembly	1
2	10-4940	Grass Shield	1
3	10-4930	Bedbar	1
4	321-3	Capscrew	4
5	17-7040	Bed Knife, Standard	1
*	19-8880	Bed Knife 1/8" Height-of-cut (Optional)	1
6	3-6462	Screw, Special	7
7	21-8450	Roller Assembly, Rear	1
8	10-5040	Knob, Height Adjusting	2
9	3243-13	Set Screw	4
10	10-5140	Adjusting Plate, Height-of-cut	2
11	3-5861	Carriage Bolt	2
12	10-4870	Bracket, Height-of-cut	2
13	3245-7	Set Screw	2
14	3256-2	Washer	2
15	3253-3	Lockwasher	4
16	233-28	Knob	2
17	302-18	Grease Fitting	2
18	10-4850	Spring, Compression	2
19	10-4880	Pin, Height-of-cut	2
20	32146-2	Locknut	2
21	323-2	Capscrew	1
22	10-5080	End Cap	1

Ref. No.	Part No.	Description	No. Used
23	253-61	Oil Seal	1
24	32127-46	Stopnut	1
25	254-94	Bearing Cone	2
26	254-72	Bearing Cup	2
27	10-5120	Bearing Housing	2
28	302-40	Grease Fitting	1
29	2411-7	Ball Stud	2
30	3254-6	Lockwasher	2
31	10-5010	Screw, Roller Adjusting	2
32	10-5060	Bracket, Height-of-cut	2
33	3256-23	Washer	2
34	32146-5	Locknut	2
35	3217-5	Nut	2
36	217-74	Wheel Bolt	2
37	3253-4	Lockwasher	2
38	3217-6	Nut	2
39	3290-316	Machine Screw	4
40	3255-9	Lockwasher	4
41	321-4	Capscrew	2
42	11-0070	Scraper, Comb. Assembly	1
43	3254-8	Lockwasher	4
44	3219-1	Nut	4
45	3230-5	Carriage Bolt	2
46	253-96	Oil Seal	2

*Not illustrated

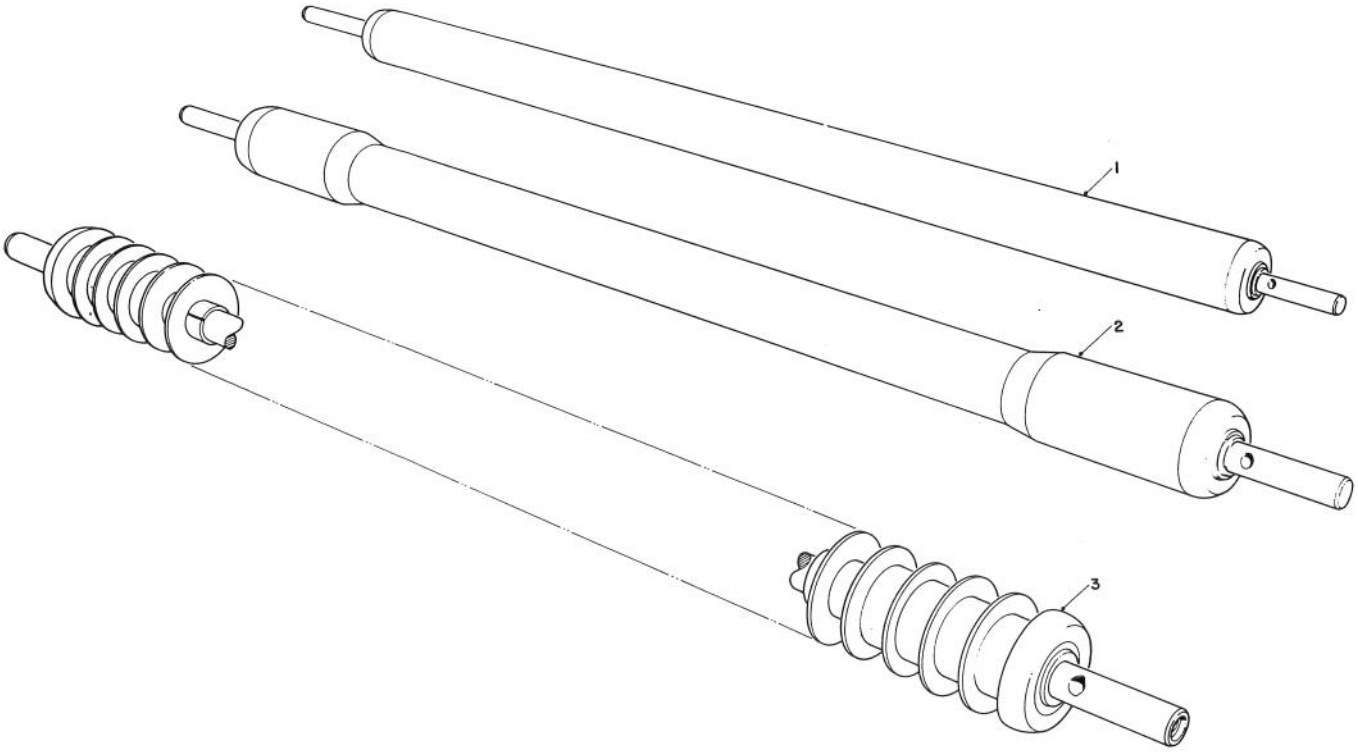


CUTTING UNIT ASSEMBLY (Continued)

Ref. No.	Part No.	Description	No. Used
47	10-5020	Grass Shield, Front	1
48	322-5	Capscrew	2
49	3255-8	Lockwasher	2
50	32108-20	Screw, Flat Head	2
51	20-2930	Frame, Reel	1

Ref. No.	Part No.	Description	No. Used
52	302-5	Grease Fitting	3
53	10-5100	Spline Nut	1
54	285-14	Pipe Plug	2
55	20-4700	Pivot Pin	2
*	1-8789	Bar Adj. Gauge	1

*Not illustrated

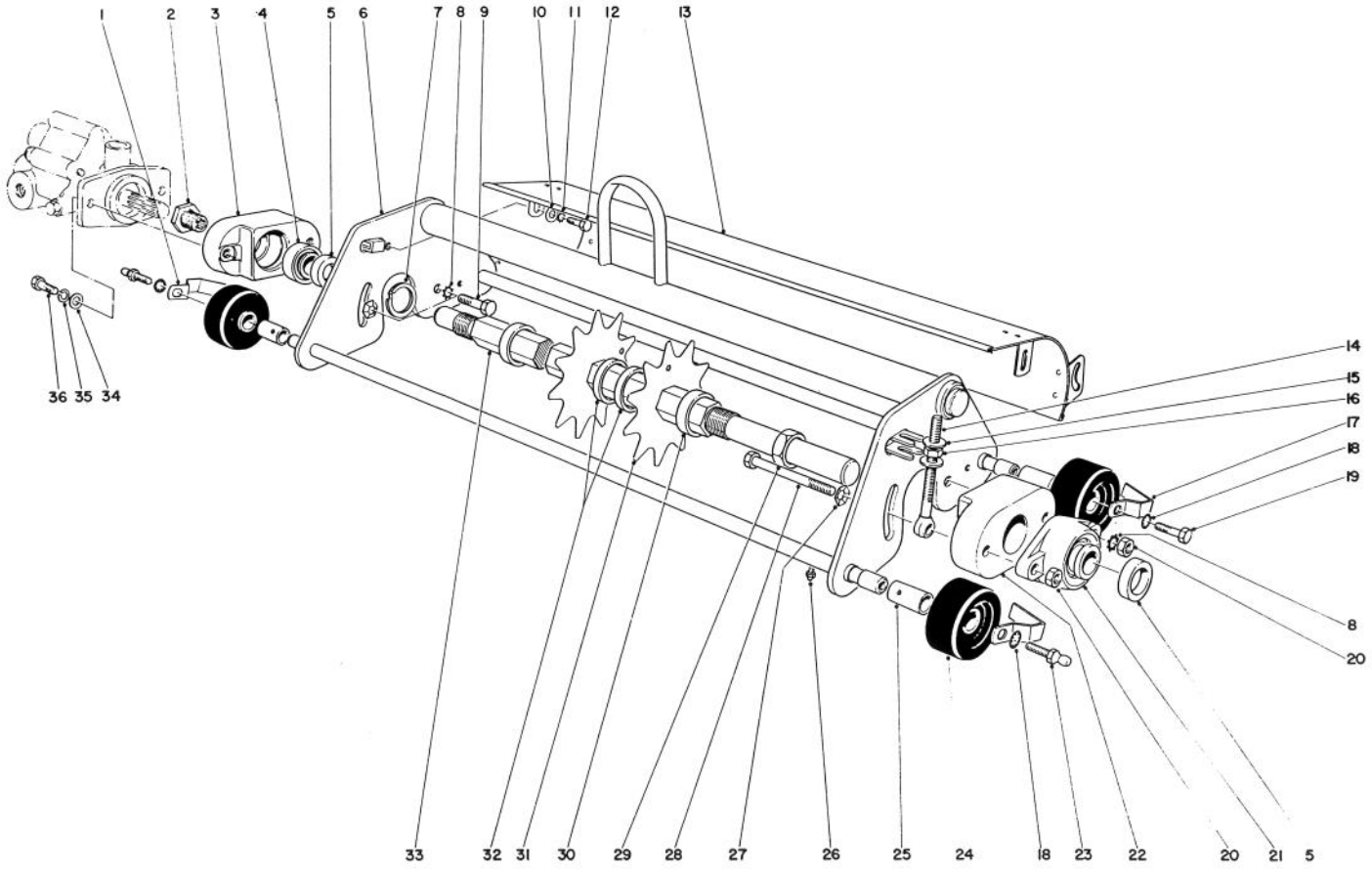


CUTTING UNIT ROLLER OPTIONS

Ref. No.	Part No.	Description	No. Used
1	21-6440	Full Roller	1
2	21-6470	Swaged Roller	1
3	21-6540	Wiehle Roller	1

Ref. No.	Part No.	Description	No. Used
*	04412	Full Roller Carton of 3	
*	04414	Swaged Roller Carton of 3	
*	04413	Wiehle Roller Carton of 3	

*Not Illustrated

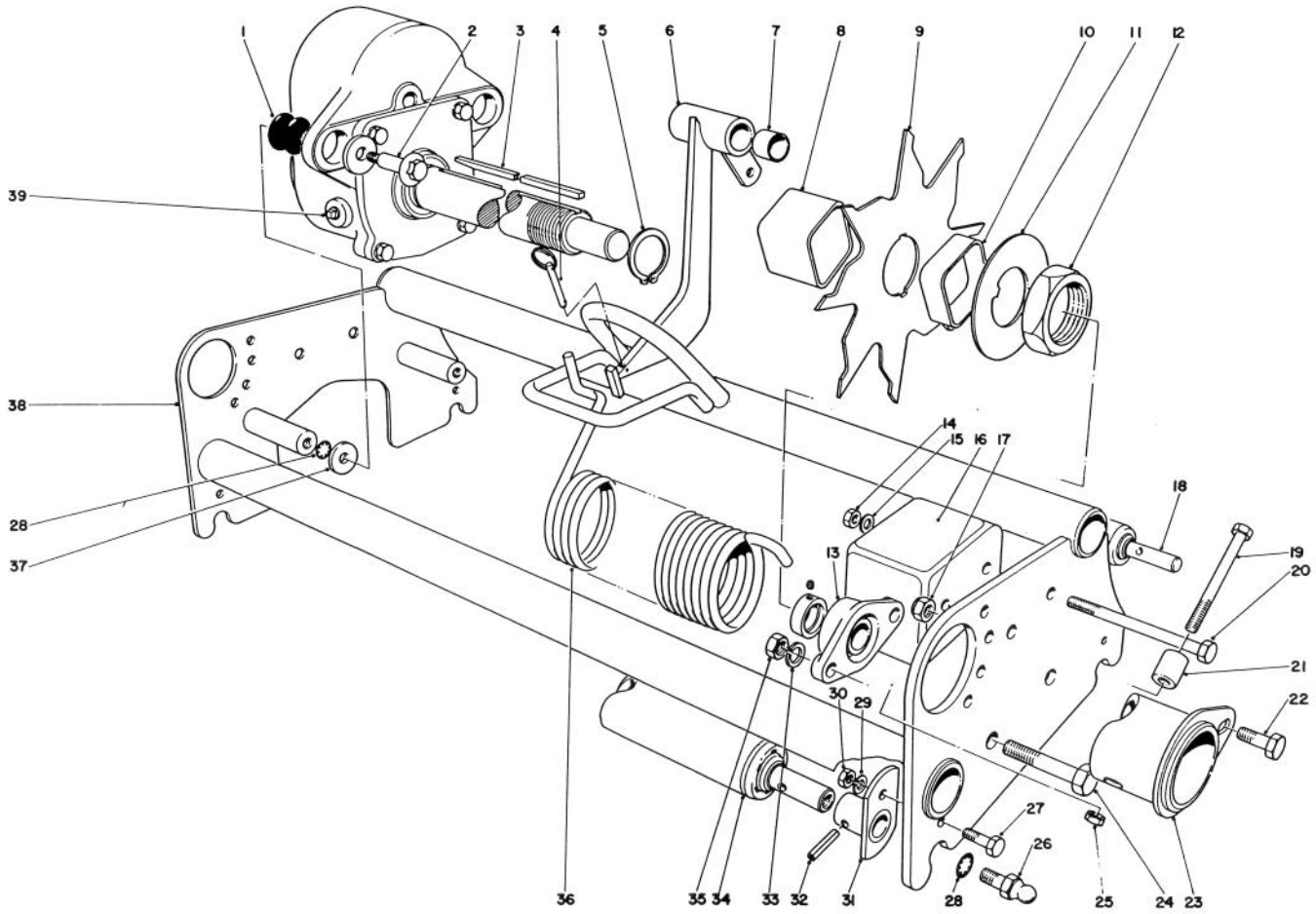


THATCHING REEL ATTACHMENT MODEL NO. 04416

Ref. No.	Part No.	Description	No. Used
1	17-1650	Scraper — Wheel R.H.	2
2	10-5100	Spline Nut	1
3	17-1610	Housing — Bearing	1
4	251-206	Bearing	1
5	251-77	Lock Collar	2
6	17-1450	Frame W.A.	1
7	32120-77	Retaining Ring	1
8	3255-16	Ext. Lockwasher	2
9	324-6	Capscrew	2
10	3256-22	Washer	4
11	3255-7	Ext. Lockwasher	4
12	329-1	Capscrew	4
13	17-1530	Grass Shield	1
14	17-1510	Eye Bolt	2
15	17-1710	Washer	4
16	3217-7	Nut	2
17	17-1640	Scraper-Wheel L.H.	2
18	3254-6	Int. Lockwasher	4
19	3211-3	Capscrew	2
20	3217-8	Nut	2

Ref. No.	Part No.	Description	No. Used
21	251-247	Bearing, Housing	1
22	17-1520	Counterweight	1
23	2411-7	Ball Stud	2
24	17-1630	Wheel	4
25	17-1620	Bushing Wheel	4
26	302-5	Grease Fitting	4
27	3290-334	Pyramidal Lockwasher	2
28	324-12	Capscrew	2
29	3220-18	Jam Nut	2
30	17-1580	Spacer	2
31	17-1590	Blade	37
32	17-1600	Spacer	72
33	17-1570	Shaft Hex	1
34	3256-24	Washer	2
35	3255-9	Lockwasher	2
36	323-6	Capscrew	2
*	17-2290	Gauge .060	2
*	17-2300	Gauge .120	2
*	17-2310	Gauge .250	2

*Not Illustrated

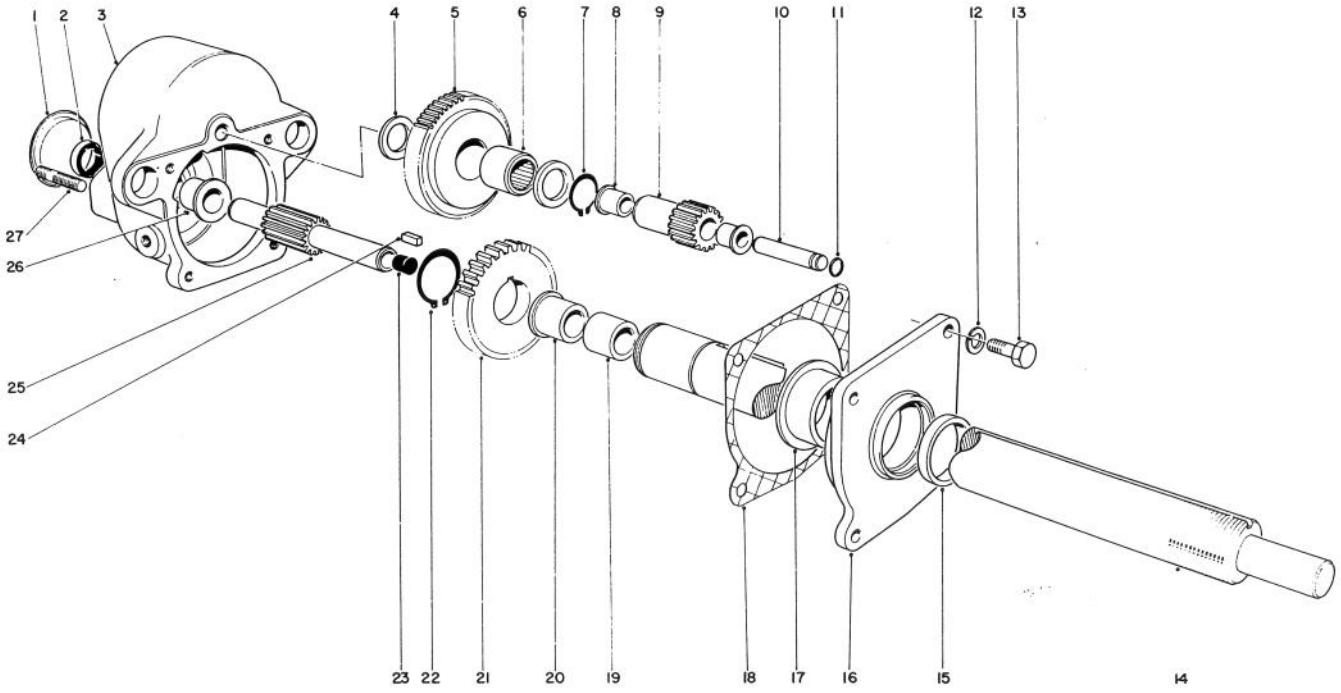


SPIKER ATTACHMENT MODEL NO. 04420

Ref. No.	Part No.	Description	No. Used
1	237-90	Grommet	2
2	3-2652	Bolt	2
3	20-7370	Sq. Key	1
4	21-9110	Ball Lock Pin	1
5	32151-44	Retaining Ring	1
6	20-7670	Lift Arm (Left) (Incl. Ref. 7)	1
*	20-7650	Lift Arm (Right) (Incl. Ref. 7)	1
*	20-7660	Lift Arm (Rear) (Incl. Ref. 7)	1
7	3-0348	Bushing	2
8	20-7390	Spacer	9
9	20-7380	Blade	10
10	20-7400	Spacer	1
11	20-7790	Washer	1
12	3218-17	Nut	1
13	251-256	Bearing Assembly	1
14	3296-39	Locknut	2
15	3256-24	Flatwasher	2
16	20-7720	Counter-Weight	1
17	3296-47	Locknut	1
18	20-8950	Roller Assembly (Rear)	1
19	323-15	Capscrew	1

Ref. No.	Part No.	Description	No. Used
20	323-11	Capscrew	2
21	20-7530	Spacer	1
22	322-3	Capscrew	1
23	20-7540	Spring Tube	1
24	324-6	Capscrew	2
25	3296-39	Locknut	1
26	2411-7	Ball Stud	2
27	321-4	Capscrew	4
28	3254-6	Lockwasher, Int. Tooth	4
29	3253-3	Lockwasher	4
30	3217-5	Nut	4
31	20-7570	Roller Mounting Bracket	4
32	32121-16	Roll Pin	4
33	3255-16	Lockwasher	2
34	11-8180	Front Roller	1
35	3217-8	Nut	2
36	20-7520	Spring	1
37	20-7510	Spacer	4
38	20-7420	Frame	1
39	281-1	Pipe Plug	1
*	21-6000	Spiker Depth Gauge	1

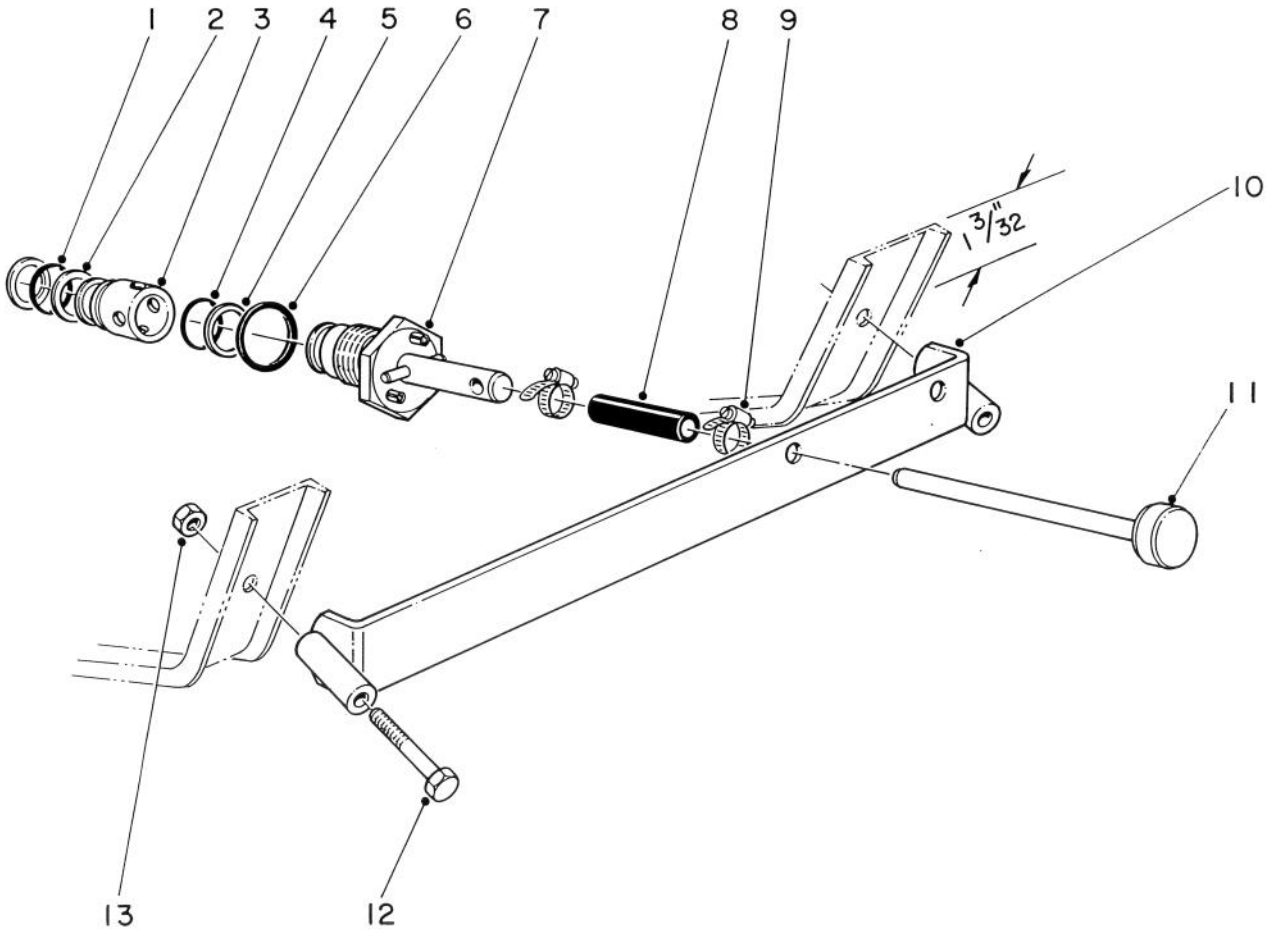
*Not illustrated



GEAR BOX ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	2410-30	Plastic Cap	1
2	253-131	Seal	1
3	20-7680	Housing	1
4	256-115	Thrust Washer	2
5	20-7320	Gear 64T	1
6	352-284	Bearing	1
7	32151-29	Snap Ring	1
8	256-243	Bushing	2
9	20-7690	Gear 15T	1
10	20-7330	Countershaft	1
11	237-22	O-Ring	1
12	3253-4	Lockwasher	4
13	322-5	Capscrew	4
14	20-7780	Shaft	1

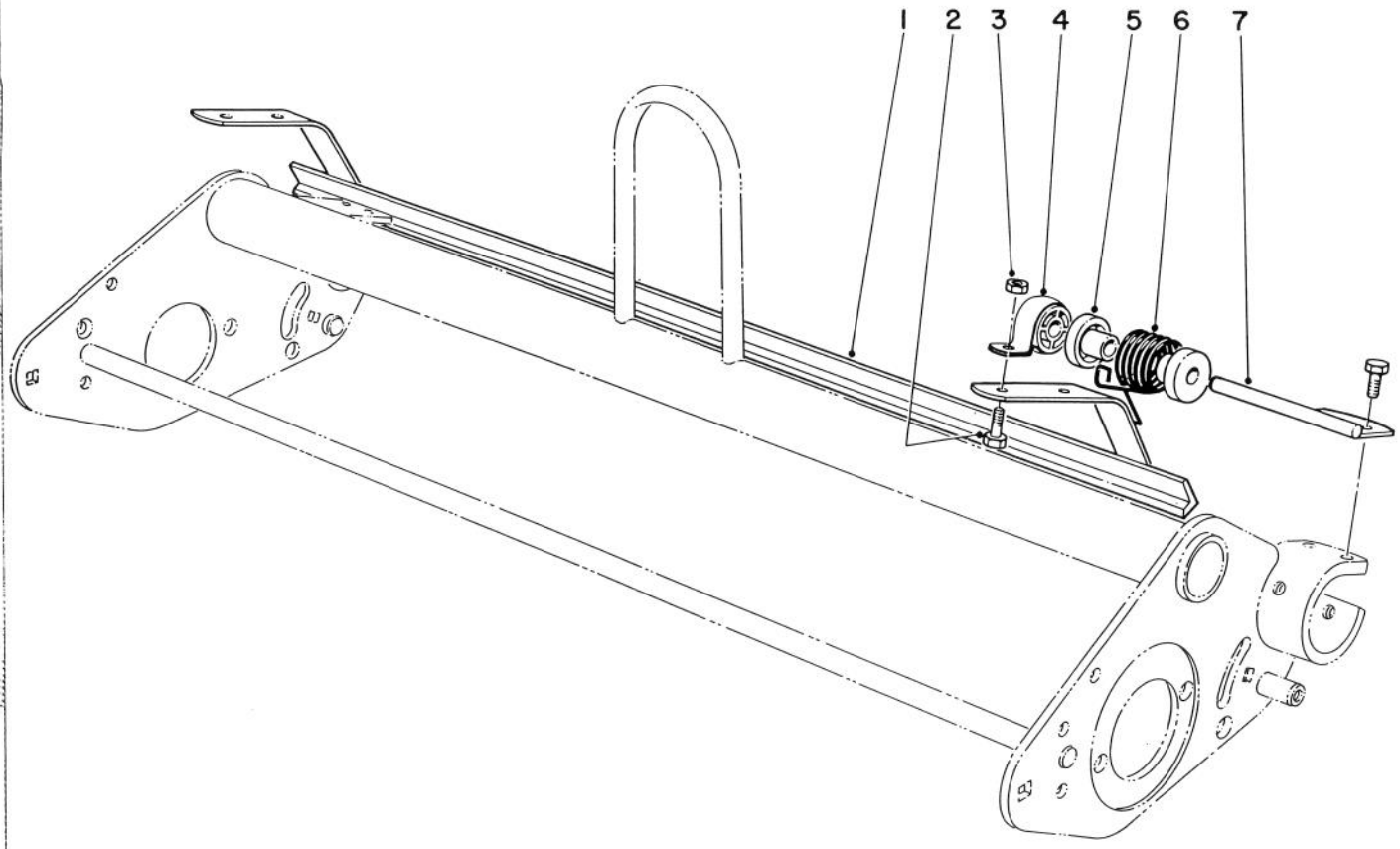
Ref. No.	Part No.	Description	No. Used
15	253-130	Seal	1
16	20-7700	Cover	1
17	20-7740	Bushing	1
18	20-7410	Gasket	1
19	256-27	Bushing	1
20	256-117	Bushing	1
21	20-7820	Gear 45T	1
22	32151-35	Snap Ring	1
23	2410-34	Plug	1
24	20-7360	Key	1
25	20-7340	Gear 16T	1
26	256-244	Bushing	1
27	20-7350	Stud	2



REEL SHUTOFF KIT MODEL NO. 04418

Ref. No.	Part No.	Description	No. Used
1	353-302	O-Ring	2
2	353-303	Back-Up Seal	4
3	353-484	Check Plug (Incl. Items 1 & 2)	2
4	353-305	O-Ring	2
5	353-306	Back-Up Washer	2
6	237-54	O-Ring	2
7	353-503	Shutoff Valve Set (Incl. Items 1 thru 6)	1

Ref. No.	Part No.	Description	No. Used
8	20-2200	Hose, Rubber	2
9	2412-45	Hose Clamp	4
10	20-3370	Front Bracket	1
11	20-2210	Knob Assembly	2
12	321-10	Capscrew	2
13	3217-5	Nut	2



ROLLER SCRAPER KIT MODEL NO. 04417

Ref. No.	Part No.	Description	No. Used
1	19-9520	Scraper Bar	1
2	321-3	Capscrew	8
3	32152-4	Locknut	4
4	256-239	Bearing	2
5	19-9560	Spring Spacer	4

Ref. No.	Part No.	Description	No. Used
6	19-9540	Spring L.H.	1
*	19-9550	Spring R.H.	1
7	19-9500	Scraper Mount L.H.	1
*	19-9510	Scraper Mount R.H.	1

*Not illustrated