



Wheel Horse Power

Parts & Service Manual

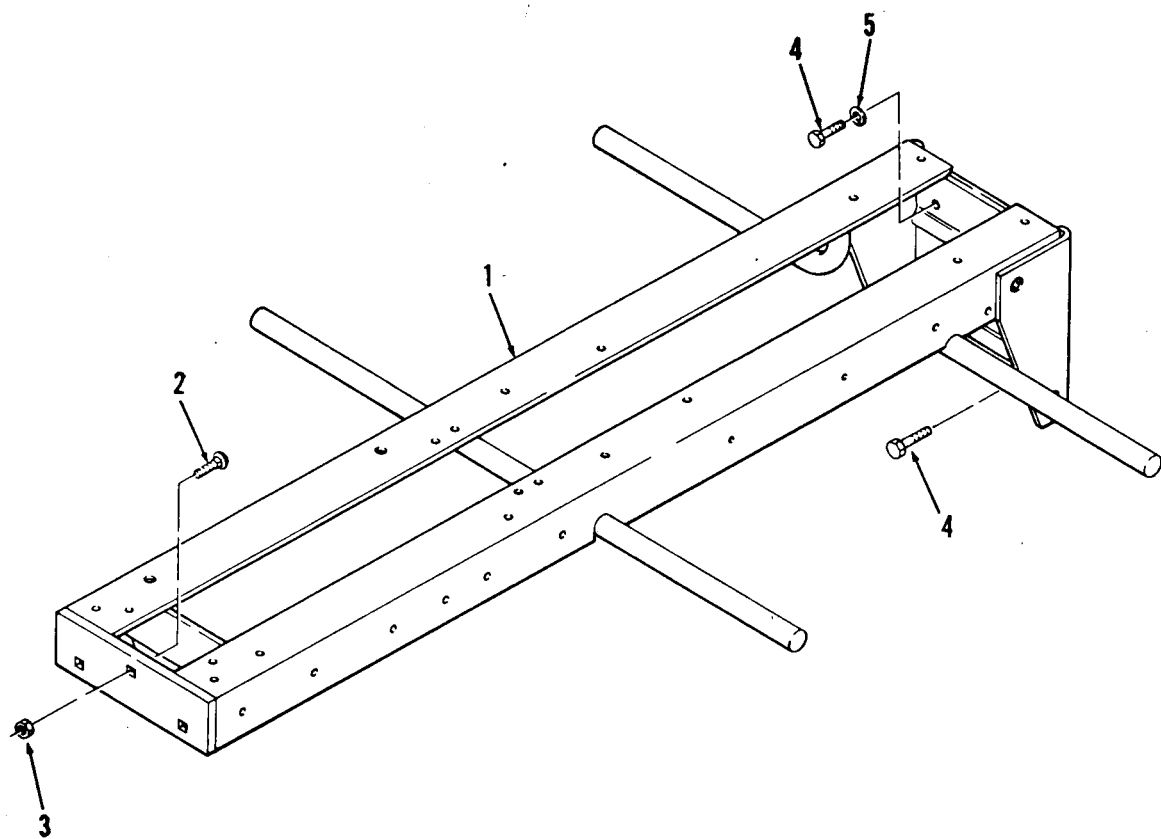
1988 500-SERIES

E1-180E01 518-HE AUTOMATIC

LIST OF ILLUSTRATIONS

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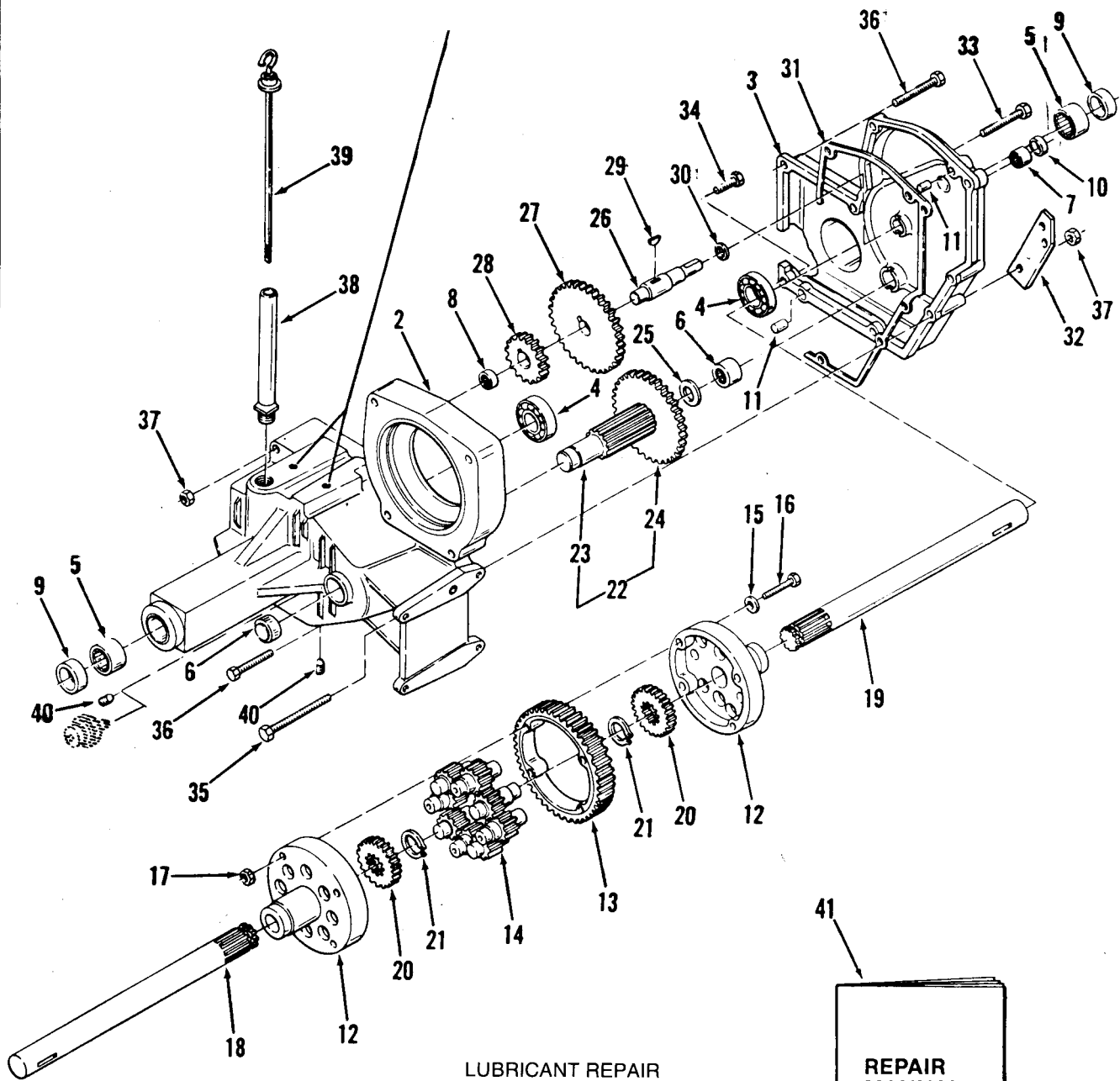
TITLE	FIGURE NUMBER	PAGE
Section 1		
Frame	1-1	3
Section 4		
Transaxle	4-1	5
Automatic Transmission 520-H & 520-HC	4-2	7
Section 5		
Front Axle and Steering	5-1	9
Section 6		
Clutch, Brake and Speed Control Linkage	6-1, 2	11-13
Section 7		
Hitches	7-1	15
Hydraulic Lift Linkage	7-3	17
Section 8		
Sheet Metal and Covers	8-1, 2, 3	19-23
Section 9		
Engine and Exhaust	9-1	25
Section 10		
Blower Housing and Governor	10-2	27
Throttle, Choke and Fuel Controls	10-4	29
Section 11		
Electrical System	11-1	31
Electrical System (Continued)	11-1	33
Electrical System	11-2	35
Section 12		
Hydraulic System	12-1	37
Section 13		
Wheels and Tires	13-1	39
Section 14		
Drive Belt and Pulleys	14-1	41
PTO Clutch and Controls	14-2	43
Section 15		
Seat and Decals	15-1, 2	45-47



SECTION 1 - FRAME

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 1-1 FRAME			
1	110648	Frame	1
2	900063	Carriage Bolt 3/8-16 x 1	3
3	915113	Eslok Nut 3/8-16	4
4	908032	Bolt 3/8-16 x 3/4	4
	908035	Bolt 3/8-16 x 1-1/4	4
5	920083	Lockwasher 3/8	4

To Ease Oil Fill, Remove One Bolt or Use Automotive Trans. Fluid Filler



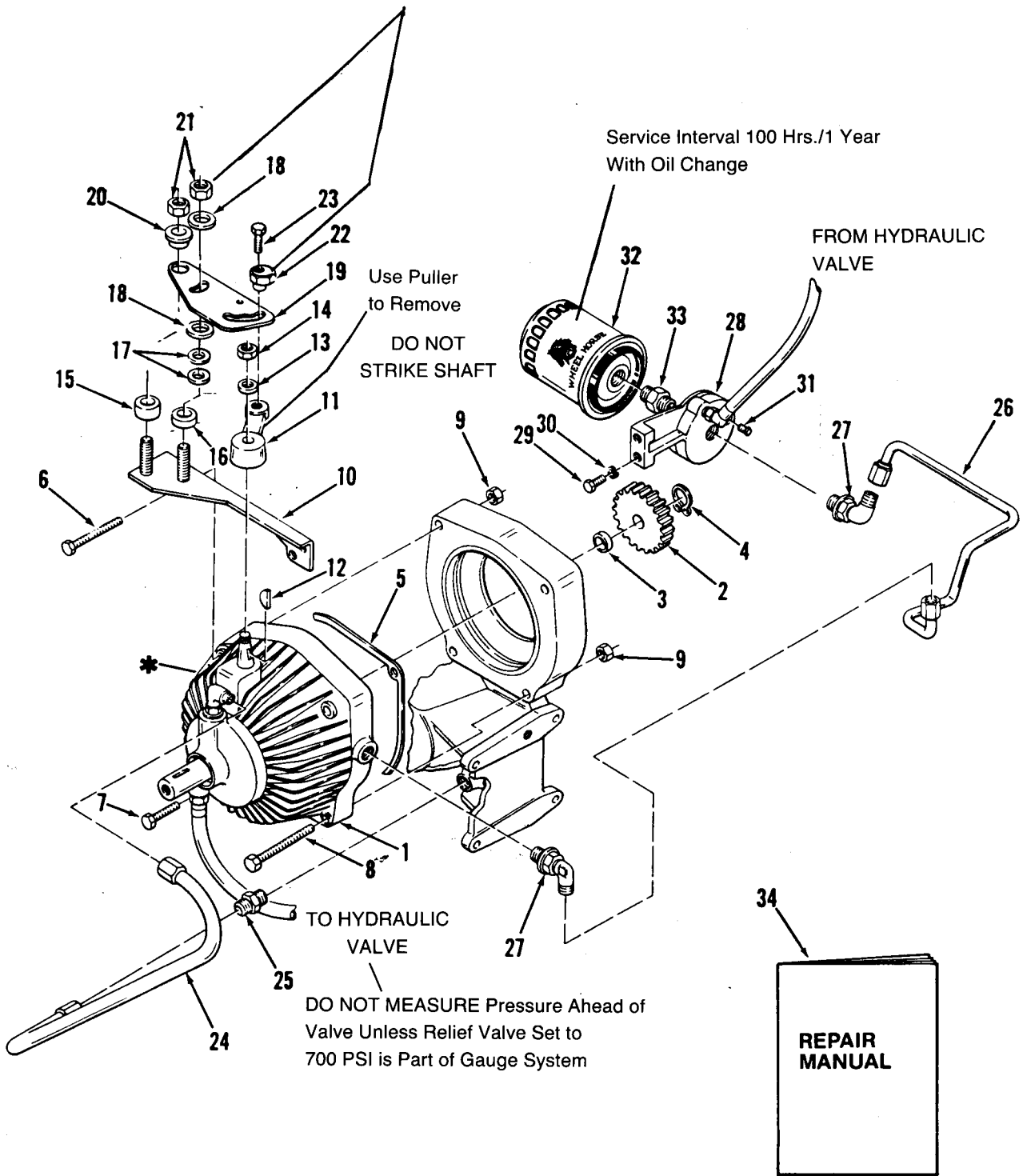
LUBRICANT REPAIR
SAE 10W-30 or 10W-40 MANUAL
400 SERIES SYSTEM CAPACITY 5 QTS.
300 SERIES SYSTEM CAPACITY 3 QTS.
SERVICE INTERVAL 100 HRS. OR 1 YEAR



SECTION 4 - AUTOMATIC TRANSMISSION

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
		Figure 4-1	
		TRANSAXLE	
	115173	Transaxle Complete	1
2	113927	Case-Transaxle RH	1
3	111201	Case-Transaxle LH	1
4	111199	Ball Brg 40 mm I.D.	2
5	9416	Needle Bearing 1-1/8 I.D.	2
6	1532	Needle Bearing 1 I.D.	2
7	1538	Needle Bearing 3/4 I.D.	1
8	1518	Needle Bearing 5/8 I.D.	1
9	6449	Seal Axle	2
10	108357	Seal	1
11	108363	Dowel Pin	2
12	111196	Diff. End Cap	2
13	105061	Differential Ring Gear 43 Tooth	1
14	101623	Differential Pinion Gear 11 Tooth.....	8
15	107374	Special Washer-Case Hardened	4
16	911423	Bolt 3/8-16 x 3-1/2 (Grade 8)	4
17	108881	Nut 3/8-16 High-Tensile	4
18	108362	Rear Axle RH-Long (13 1/8 in./33 cm)	1
19	108361	Rear Axle LH-Short (10 1/8 in./26 cm)	1
20	101889	Differential Axle Gear 24 Tooth	2
21	105876	Special Snapping	2
22	109703	Gear Assembly	1
23	101625	Gear-Pinion 11 Tooth	1
24	101887	Gear-Reduction 46 Tooth	1
25	9547	Thrust Washer	1
26	109370	Shaft	1
27	109752	Gear 46. Tooth	1
28	109742	Gear 20 Tooth	1
29	937099	Woodruff Key 3/16 x 1-1/8	1
30	7956	Thrust Washer	1
31	108312	Gasket-Case	1
32	109367	Bracket-Brake	1
33	908040	Bolt 3/8-16 x 2-1/2 Eslok	1
34	908035	Bolt 3/8-16 x 1-1/4 Eslok	1
35	908149	Bolt 3/8-16 x 5-1/2	1
36	908042	Bolt 3/8-16 x 3	2
37	915113	Nut 3/8-16 Eslok	3
38	106448	Filler Tube	1
39	110768	Dipstick	1
40	943460	Allen Hd. Pipe Plug 1/4 (1 used on 520-H)	2
41	810243R2	Repair Manual	1

REFER TO SECTION 18 FOR ADJUSTMENTS, REPAIR MANUAL FOR SERVICE

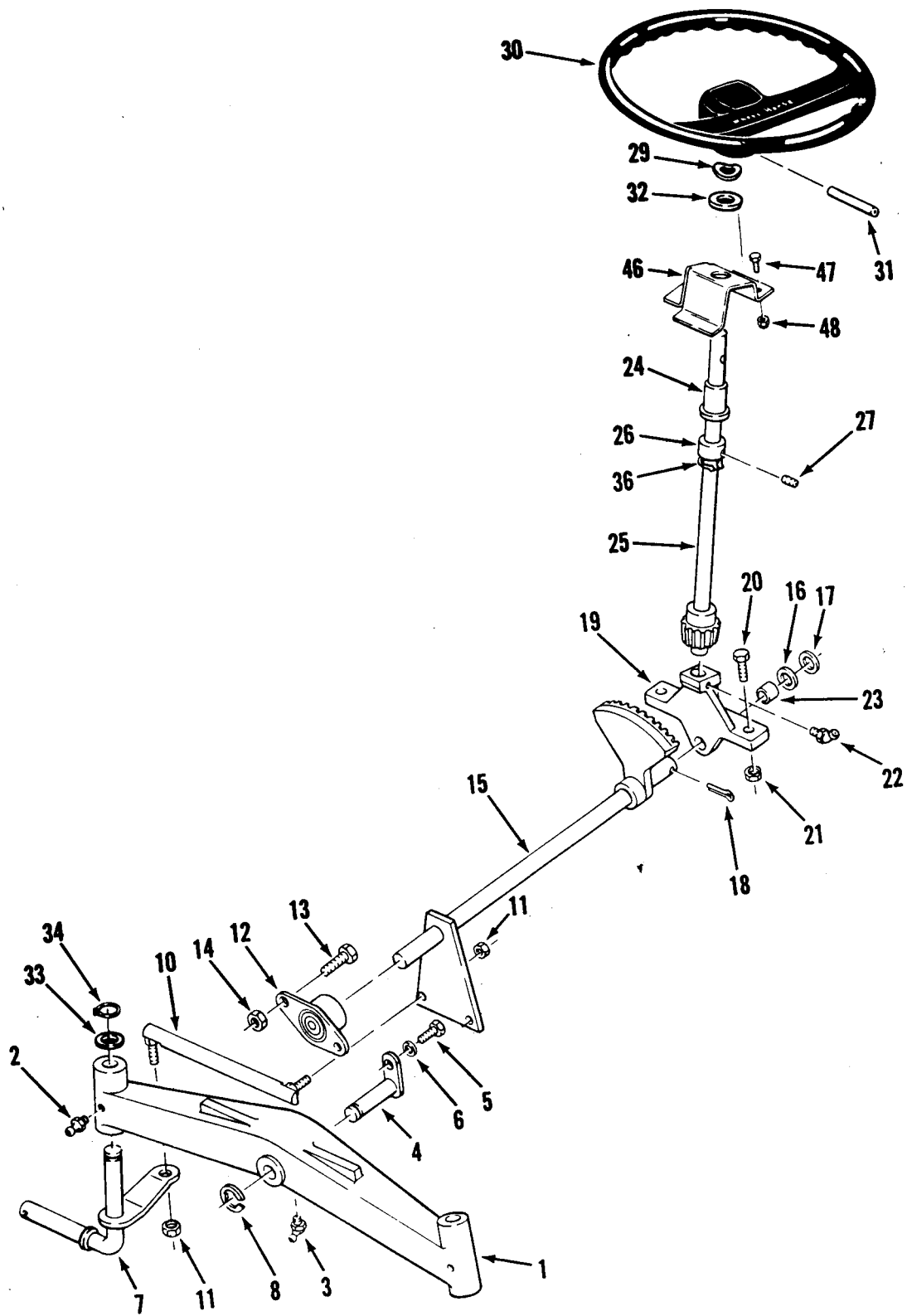


* INTERNAL SERVICE NOT AUTHORIZED UNDER WARRANTY



SECTION 4 - SECTION TRANSMISSION

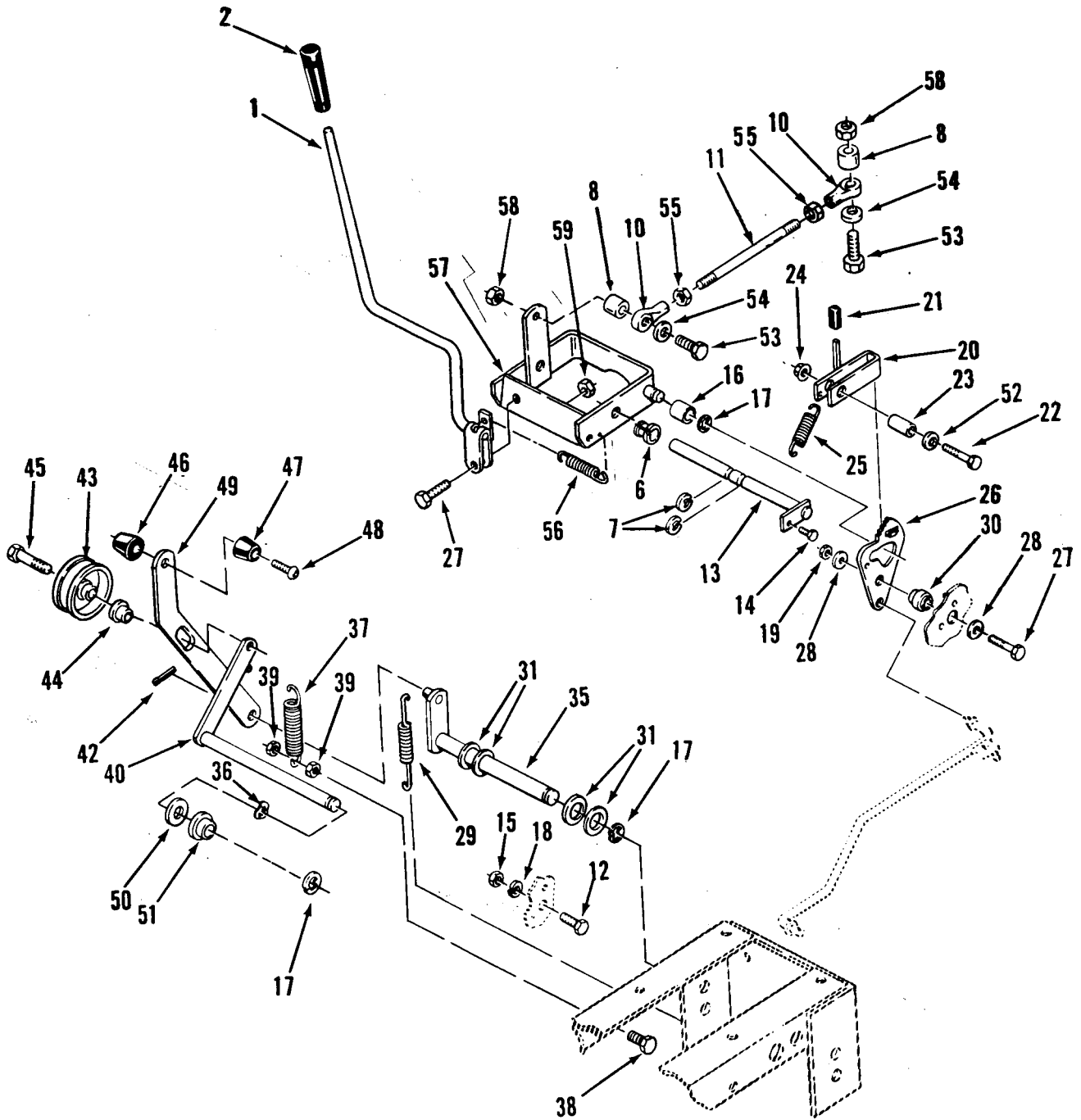
ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 4-2			
AUTOMATIC TRANSMISSION			
1	108368	Pump & Motor (Rebuilt P/N 219020)	1
2	109751	Gear 20 Tooth	1
3	108366	Spacer-Drive Gear	1
4	936121	Snapping 5/8 Ext	1
5	108319	Gasket	1
6	908143	Bolt 3/8-16 x 5	2
7	908040	Bolt 3/8-16 x 2-1/2 Eslok	1
8	911429	Bolt 3/8-16 x 6-1/2	1
9	915113	Nut 3/8-16 Eslok	3
10	108329	Control Plate	1
11	108325	Cam Follower Arm	1
12	937009	Woodruff Key 1/8 x 5/8	1
13	920011	Washer 1/2 SAE	1
14	915115	Nut 1/2 Eslok	1
15	108326	Pivot Spacer (Long)	1
16	108327	Friction Spacer (Short)	1
17	100365	Washer-Spring Disc	2
18	100305	Washer-Friction	2
19	108333	Cam-Speed Control	1
20	100309	Spacer	1
21	108881	Locknut 3/8-16 Hi-Tensile	2
22	106661	Eccentric Cam	1
23	908019	Bolt 5/16-18 x 1 Eslok	1
24	111217	Tube-Suction	1
25	108364	Fitting (With 973620 O-Ring)	1
26	109377	Tube Assembly	1
27	108365	Elbow (With 973370 O-Ring)	2
28	108323	Base-Oil Filter	1
29	908017	Bolt 5/16-18 x 3/4	2
30	920082	Lockwasher 5/16	2
31	943460	Plug 1/4 NPT	1
32	108335	Oil Filter	1
33	5991	Fitting	1
34	810243R2	Repair Manual	1



SECTION 5 - FRONT AXLE AND STEERING

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 5-1			
FRONT AXLE AND STEERING			
1	5638	Front Axle	1
	112762	Front Axle	1
2	1030	Grease Fitting Straight	2
3	1481	Grease Fitting 45 Degree	1
4	6216	Pin and Plate	1
5	908015	Bolt 5/16-18 x 1/2	1
6	920082	Lockwasher 5/16	1
7	113382	Front spindle RH	1
	113381	Front Spindle LH	1
8	5618	E-Ring	1
10	102592	Tie Rod RH	1
	102593	Tie Rod LH	1
11	915002	Eslok Nut 3/8-24	4
12	6472	Flanged Bearing	1
13	908032	Bolt 3/8-16 x 3/4	1
14	915113	Eslok Nut 3/8-16	3
15	114198	Lower Steering Shaft	1
16	5210	Shim Washer 3/4 x .015	X
17	1278	Shim Washer 3/4 x .050	X
18	932035	Cotter Pin 3/16 x 1-1/4	1
19	109733	Steering Support	1
20	908036	Bolt 3/8-16 x 1-1/2	2
21	915113	Eslok Nut 3/8-16	2
22	1481	Grease Fitting 45 Degree	1
23	6397	Bearing-Lower Steering Shaft	1
24	109189	Bearing-Upper Steering Shaft	1
25	106177	Upper Steering Shaft	1
26	1085	Collar	1
27	909848	Eslok Set Screw 1/4-20 x 1/4	1
29	7896	Bowed Washer	1
30	113989	Steering Wheel	1
31	933221	Spirol Pin 1/4 x 2	1
32	109262	Special Washer	X
33	1278	Washer	2
34	936131	Retaining Ring	2
36	111646	Grip Ring	1
46	114528	Steering Bracket	1
47	908002	Bolt 1/4-20 x 5/8	3
48	915661	E.S. Nut 1/4-20	3

REFER TO SECTION 18 FOR ADJUSTMENTS

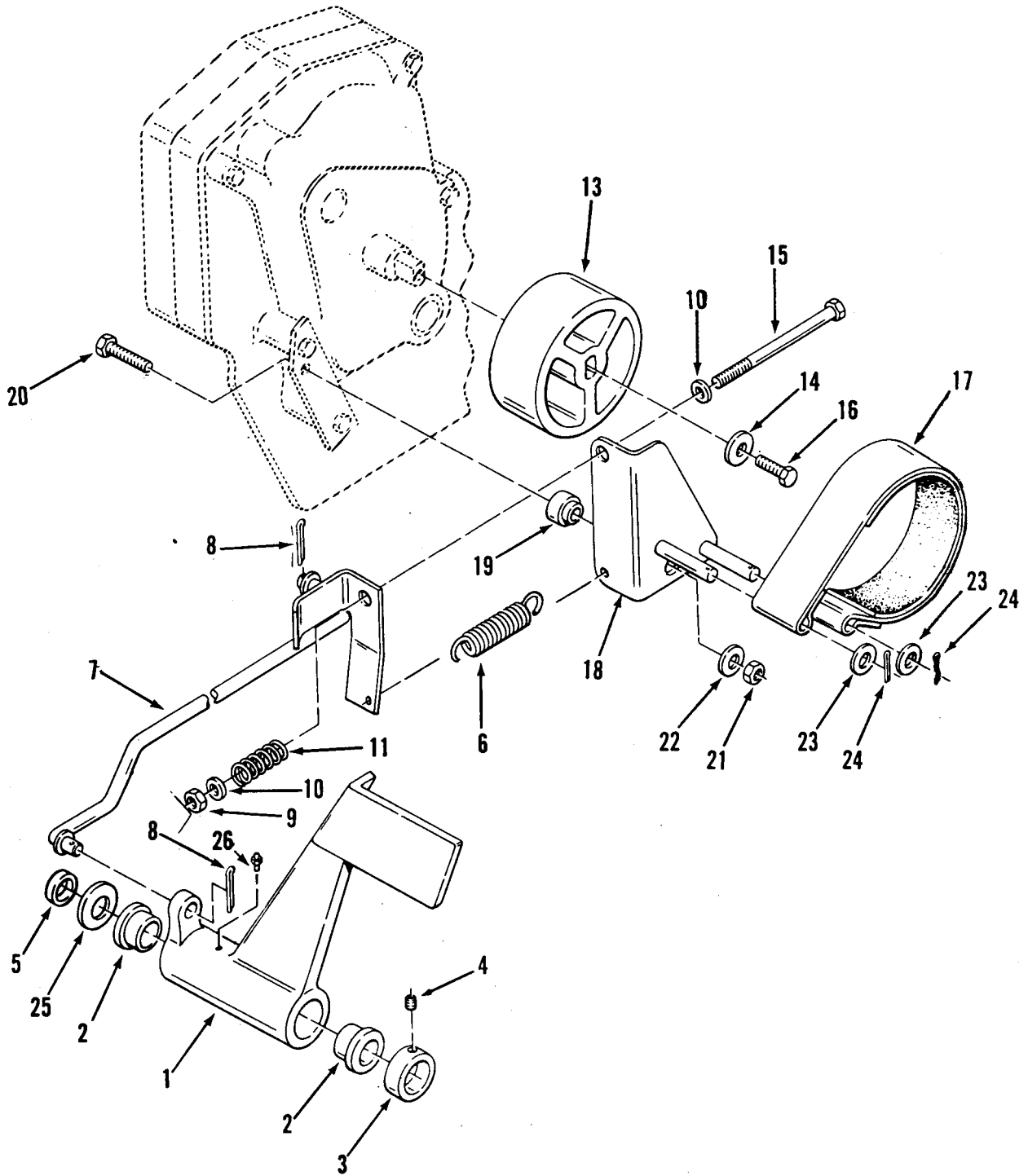


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SECTION 6 - CLUTCH, BRAKE AND MOTION CONTROL LINKAGE

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 6-1			
CLUTCH, BRAKE & SPEED CONTROL LINKAGE			
1	113456	Motion Control Lever	1
2	6129	Knob-Motion Control Linkage	1
3	106319	Detent-Motion Control Lever	1
4	908015	Bolt 5/16-18 x 1/2	2
5	915112	Eslok Nut 5/16-18	2
6	5983	Bushing	2
7	5701	E-Ring	2
8	100304	Spacer 520's	2
10	110189	Rod End	2
11	108904	Rod Control 9" Long 520's	1
12	908003	Bolt 1/4-20 x 3/4	1
13	108496	Pivot Rod-Motion Control Lever	1
14	926694	S.T. Bolt 5/16-18 x 5/8	1
15	915234	Nut 1/4-20	1
16	100656	Cam Bearing	1
17	5701	E-Ring 1/2	4
18	920122	Lockwasher 1/4 External Tooth	1
19	915113	Eslok Nut 3/8-16	1
20	106325	Parking Brake Lever	1
21	100489	Grip-Parking Brake Lever	1
22	908037	Bolt 3/8-16 x 1-3/4	1
23	102025	Spacer	1
24	102809	Special Flanged Nut	1
25	1230	Spring	1
26	108716	Cam Plate	1
27	908035	Bolt 3/8-16 x 1-1/4	1
28	920039	Washer 3/8 SAE	2
29	110769	Spring Anti-Rattle	1
30	108717	Spacer	1
31	920011	Washer 1/2 SAE	1
35	106369	Shaft	1
36	108473	Wave Washer	2
37	107938	Spring	1
38	908005	Bolt 1/4-20 x 1	1
39	915111	Eslok Nut 1/4 x 20	4
40	106368	Pivot Rod	1
42	932001	Cotter Pin 1/16 x 3/4	1
43	112426	Idler Pulley	1
44	106450	Spacer	1
45	106193	Special Bolt 3/8-16 x 1-1/2	1
46	8722	Knob	1
47	8693	Knob	1
48	911747	Screw nr. 10-24 x 1-1/4	1
49	110780	Handle	1
50	920011	Washer 1/2 SAE 520's	1
51	7879	Bushing	1
52	920009	Washer 3/8 SAE	1
53	908007	Bolt 1/4-20 x 1-1/2 520's	2
54	920007	Washer 1/4 SAE	2
55	915083	Jam Nut 1/4-28	2
56	103125	Spring	1
57	113454	Cam Control	1
58	915663	E.S. Nut 3/8-16	1

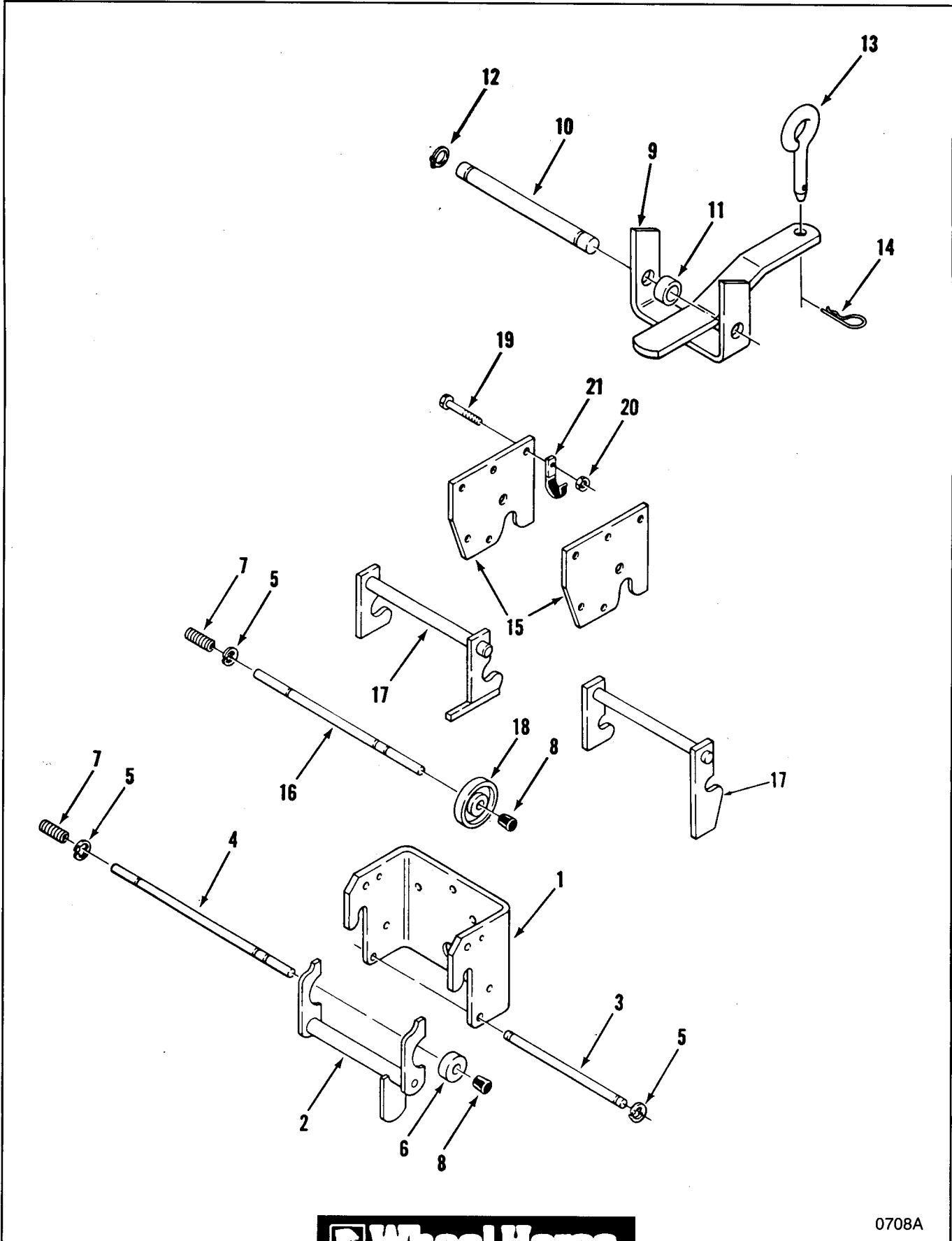
REFER TO SECTION 18 FOR BRAKE ADJUSTMENT



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SECTION 6 - CLUTCH, BRAKE AND MOTION CONTROL LINKAGE

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 6-2			
CLUTCH, BRAKE & SPEED CONTROL LINKAGE			
1	114099	Brake/Return To Neutral Pedal	1
2	6254	Bushing	2
3	1085	Collar	1
4	909848	Eslok Set Screw 1/4-20 x 1/4	1
5	110125	Spacer	1
6	103125	Spring-Brake Return	1
7	109372	Brake Rod-Front 520's	1
8	932017	Cotter Pin 1/8 x 1	2
9	915663	E.S. Nut 3/8-16	1
10	920009	Washer 3/8 SAE	2
11	108680	Spring	1
13	106719	Brake Drum	1
14	2844	Special Washer	1
15	908144	Bolt 3/8-16 x 4-1/2	1
16	908034	Eslok Bolt 3/8-16 x 1	1
17	109371	Brake Band	1
18	109366	Brake Pivot Arm	1
19	109356	Bushing	1
20	908036	Bolt 3/8-16 x 1-1/2	1
21	915113	Eslok Nut 3/8-16	1
22	920039	Washer 3/8 U.S.	1
23	920009	Washer 3/8 SAE	2
24	932008	Cotter Pin 3/32 x 3/4	2
25	1278	Shim Washer	X
26	1030	Grease Fitting	1



 **Wheel Horse**

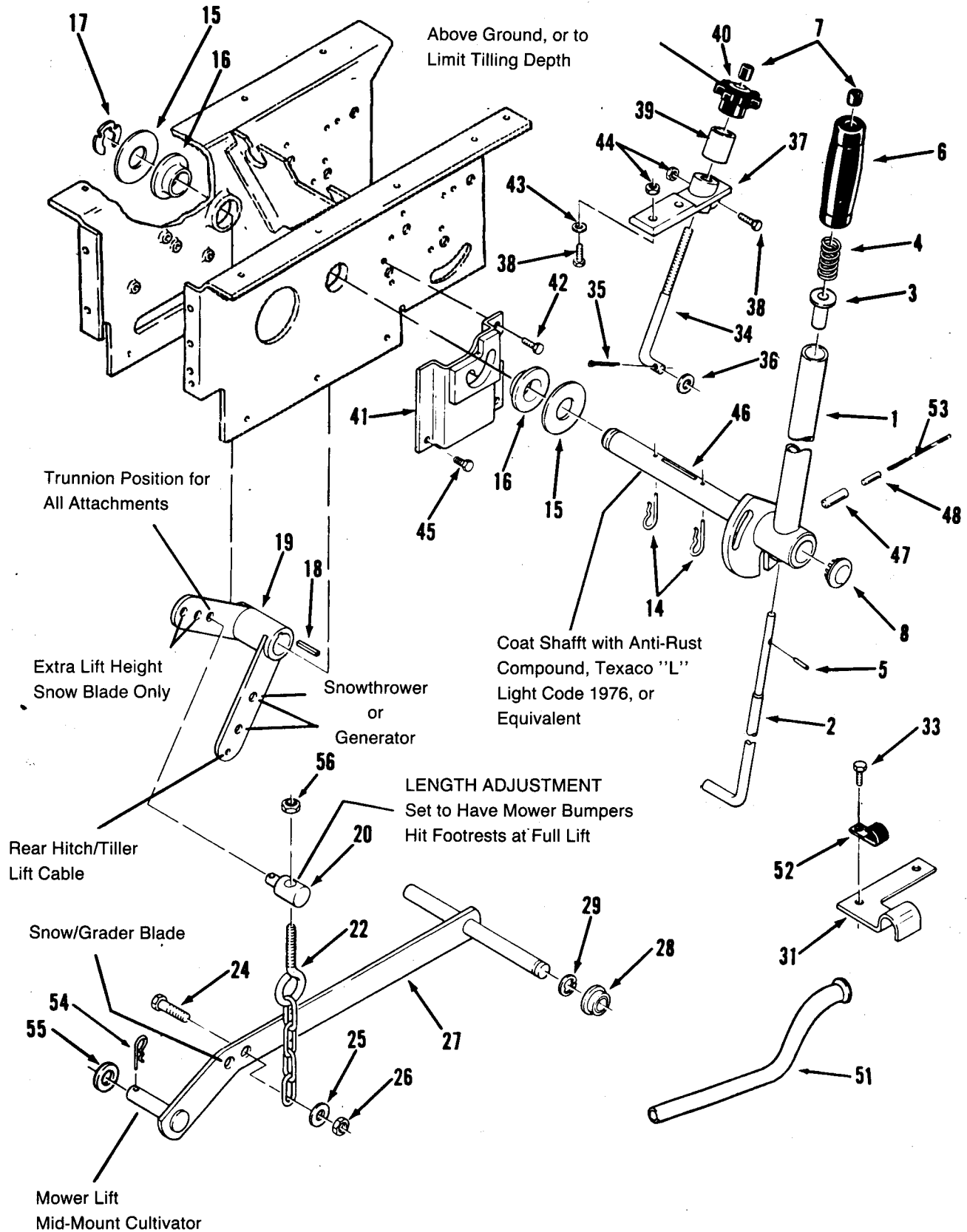
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SECTION 7 - HITCHES AND LIFT LINKAGE

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 7-1			
HITCHES			
1	101711	Front Hitch Housing	1
2	105859	Latch-Front Hitch	1
3	101750	Rod	1
4	101751	Rod-Front Hitch Lock	1
5	105797	E-Ring	8
6	101707	Lock	1
7	8616	Spring	2
8	105316	Cap-Lock Rod	2
9	1644	Drawbar Hitch	1
10	105269	Shaft-Drawbar Hitch	1
11	979120	Spacer	2
12	5618	E-Ring	2
13	106634	Hitch Pin	1
14	933505	Hairpin Cotter	1
15	102644	Mid Hitch Plate	2
16	102672	Rod-Mid Hitch Lock	1
17	102639	Latch-Mid Hitch	1
18	101017	Lock	1
19	908034	Bolt 3/8-16 x 1	2
20	915113	Eslok Nut 3/8-16	4
21	8830	Clip	2

* Use to Hold Snowthrower/Blade

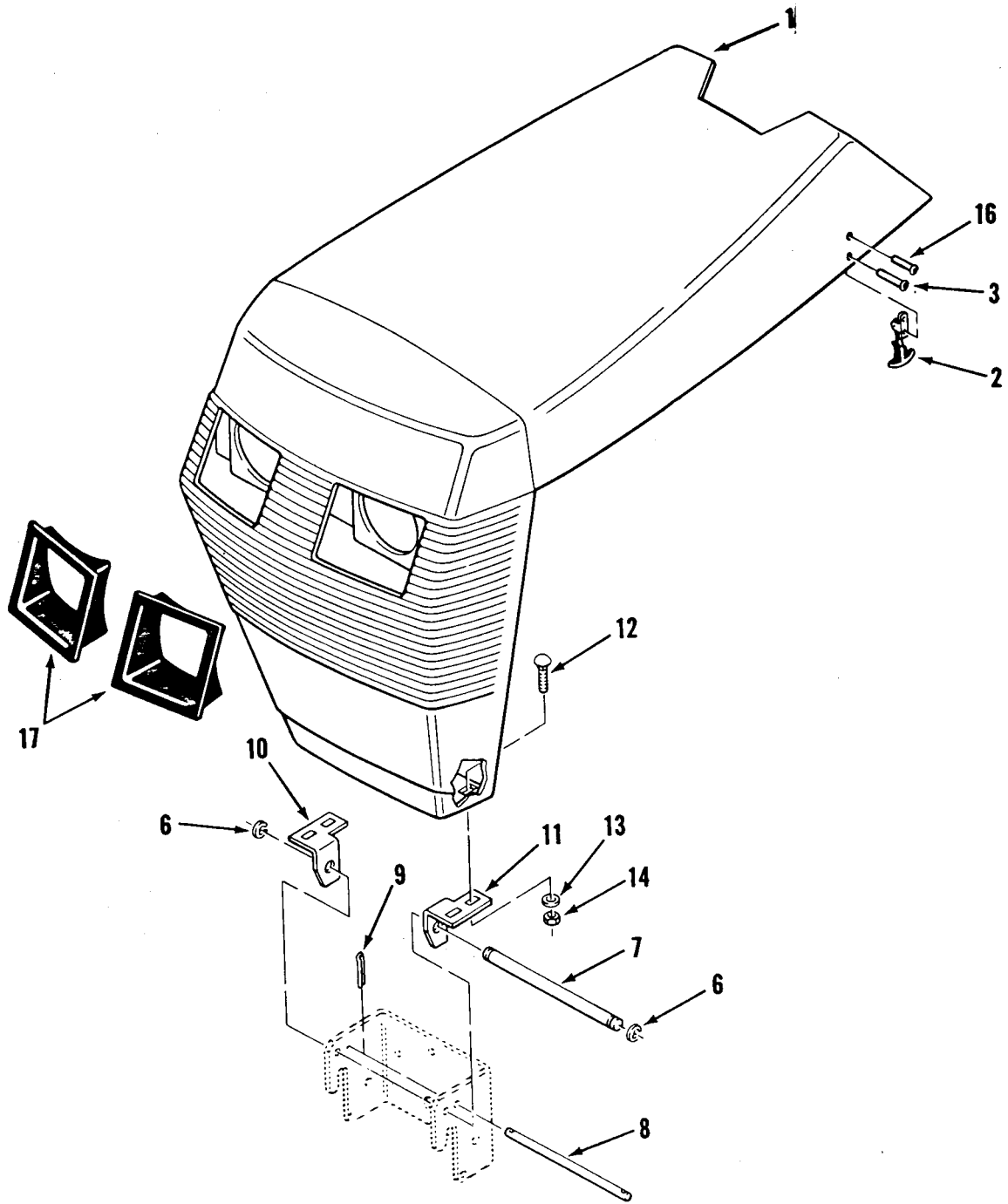
Above Ground, or to
Limit Tilling Depth



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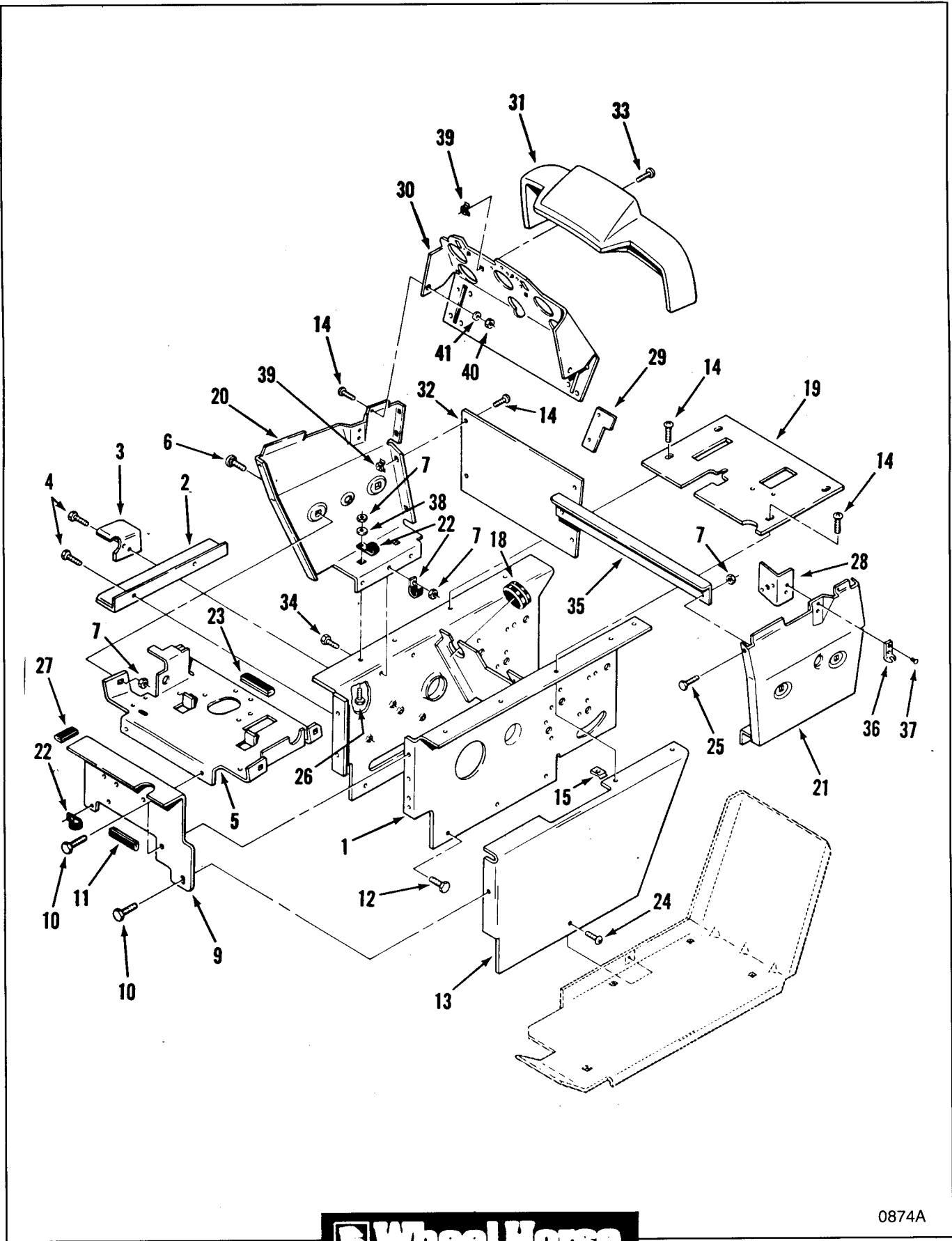
SECTION 7 - HITCHES AND LIFT LINKAGE

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 7-3			
HYDRAULIC LIFT LINKAGE			
1	109320	Lift Lever	1
2	933507	Hairpin Cotter	2
3	920017	Washer 1" SAE	3
4	106269	Bushing	2
5	106414	Retainer	2
6	1121	Key 1/4 sq. x 1-3/16.....	1
7	106218	Bellcrank	1
8	6739	Trunnion	1
9	933505	Hairpin Cotter	1
10	106522	Lift Chain	1
11	908019	Bolt 5/16-18 x 1	1
12	920008	Washer 5/16	1
13	915112	Eslok Nut 5/16-18	1
14	102373	Lift Bar	1
15	6229	Bearing	1
16	5701	E-Ring	1
17	108903	Clamp Tube	1
18	908034	Eslok Bolt 3/8-19 x 1	2
19	108315	Tube - Rear Lift Cable	1
20	8830	Clamp	1
21	933505	Hairpin Cotter	1
22	920011	Washer 1/2 SAE	1
23	915663	E.S. Nut 3/8-16	1



SECTION 8 - SHEET METAL AND COVERS

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 8-1			
SHEET METAL AND COVERS			
1	113966	Hood	1
2	106825	Hood Latch (includes 109236 Handle Ass'y & 109237 Latch Keeper)	2
3	923785	Pop Rivet 1/8 x .294	4
6	105797	E-Ring	2
7	101710	Pivot Rod	1
8	101850	Hood Stop Rod	1
9	932000	Cotter Pin 1/16 x 1/2	2
10	109145	Bracket RH	1
11	109146	Bracket LH	1
12	900015	Carriage Bolt 1/4-20 x 3/4	4
13	920007	Washer 1/4 SAE	4
14	915661	E.S. Nut 1/4-20	4
16	923784	Pop Rivet 1/8 x .232	2
17	109080	Retainer - Headlight Pair	1

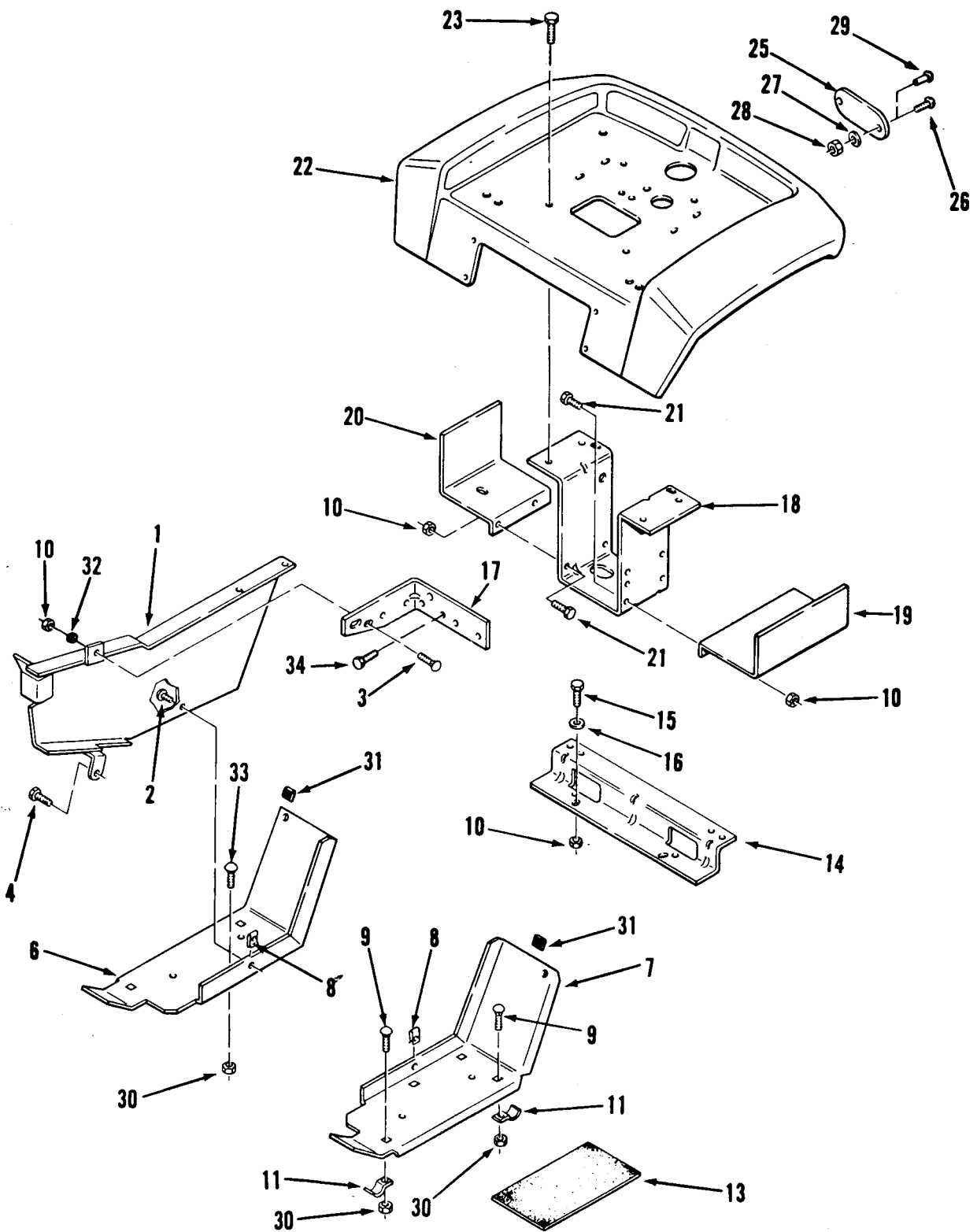


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SECTION 8 - SHEET METAL AND COVERS

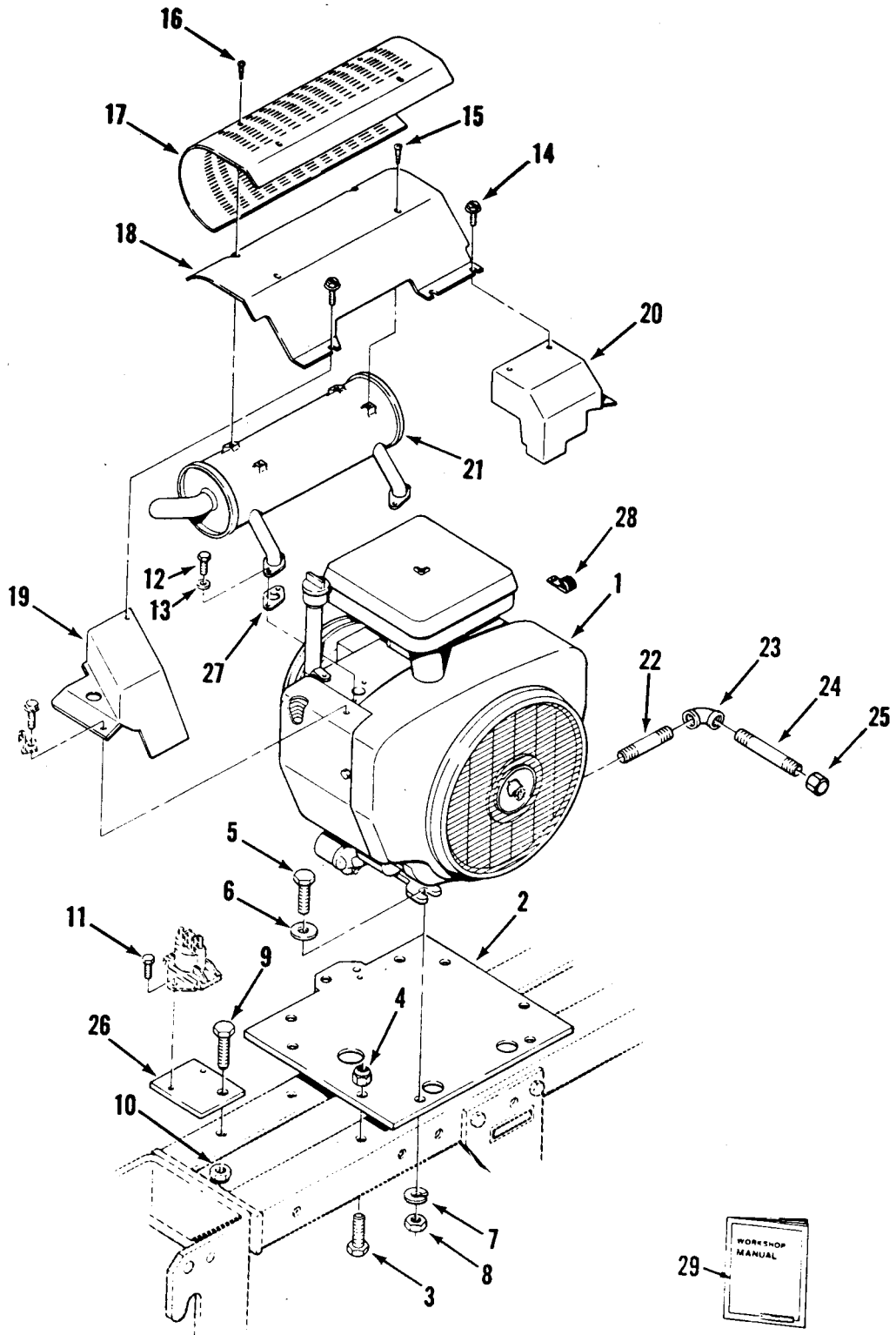
ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 8-2			
SHEET METAL AND COVERS			
1	113937	Hoodstand	1
2	114871	Belt Support Bracket	1
3	108537	Belt Bracket	1
4	926694	S.T. Bolt 5/16-18 x 5/8	4
5	113944	Battery Support Bracket	1
6	900037	Carriage bolt 5/16-18 x 3/4	4
7	915662	E.S. Nut 5/16-18	4
9	113938	Front Plate	1
10	926694	S.T. Bolt 5/16-18 x 5/8	3
11	106454	Edge Trim	1
12	926694	S.T. Bolt 5/16-18 x 5/8	4
	926696	S.T. Bolt 5/16-18 x 7/8	2
13	113936	Side Cover LH 520's	1
14	9108372	Screw 1/4-20 x 5/8 Black	12
15	107069	Speed Nut	4
18	104248	Grommet	1
19	113447	Shift Cover Plate 520-H	1
20	113962	RS Panel	1
21	113963	LS Panel 520's	1
22	8830	Clip	1
23	110142	Edge Trim	1
24	910837	Screw 1/4-20 x 5/8	1
25	908015	Bolt 5/16-18 x 1/2	2
26	900036	Bolt 5/16-18 x 5/8	4
27	106722	Trim Edge	1
28	114628	Switch Bracket	1
29	114641	Choke Stop	1
30	114576	Dash Panel	1
31	113946	Console Cover 518	1
32	113939	Rear Hoodstand Plate	1
33	9108392	Screw 1/4-20 x 7/8	1
34	908016	Bolt 5/16-18 x 5/8	6
35	113932	Stiffner Panel	1
36	109237	Latch Keeper (included in 106825 Hood Latch)	2
37	923786	LS Pop Rivet 1/8 x .35	2
	923785	RS Pop Rivet 1/8 x .294	2
38	920008	Washer 5/16 SAE	4
39	114207	Nut 1/4-20	8
40	915661	E.S. Nut 1/4-20	2
41	920007	Washer 1/4 SAE	2



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SECTION 8 - SHEET METAL AND COVERS

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 8-3			
SHEET METAL AND COVERS			
1	114877	Belt Guard	1
2	910837	Screw 1/4-20 x 5/8	2
3	900037	Carriage Bolt 5/16-18 x 3/4	1
4	926694	S.T. Bolt 5/16-18 x 5/8	1
6	106222	Foot Rest RH	1
7	106223	Foot Rest LH	2
8	107069	Speed Nut	2
9	900037	Carriage Bolt 5/16-18 x 5/8	4
10	915112	Eslok Nut 5/16-18	7
11	7456	Clamp	4
13	110636	Footrest Pad 518	2
14	107951	Front Fender Bracket	1
15	908017	Bolt 5/16-18 x 3/4	2
16	920008	Washer 5/16 SAE	2
17	109554	Support Bracket-Belt Guard	1
18	108897	Fender Support Bracket	1
19	108464	Fuel Tank Support LH	1
20	106236	Fuel Tank Support RH	1
21	908016	Bolt 5/16-18 x 5/8	4
22	110960	Fender	1
23	926694	S.T. Bolt 5/16-18 x 5/8	4
24	920008	Washer 5/16 SAE	4
25	108547	Reflector 516	2
26	910808	Screw nr. 10-32 x 5/8 (Optional) 516	4
27	920079	Lockwasher nr. 10 (Optional) 516	4
28	915551	Nut nr. 10-32 (Optional) 516	4
29	109193	Poprivet 3/16 x .57 Aluminum (Std. Production) 516 Only	2
30	915662	Eslok Nut 5/16-18	4
31	518211	Bumper	2
32	108457	Push Nut	1
33	900214	Carriage Bolt 5/16-18 x 3/4	2
34	926671	S.T. Bolt 1/4-20 x 1/2	3

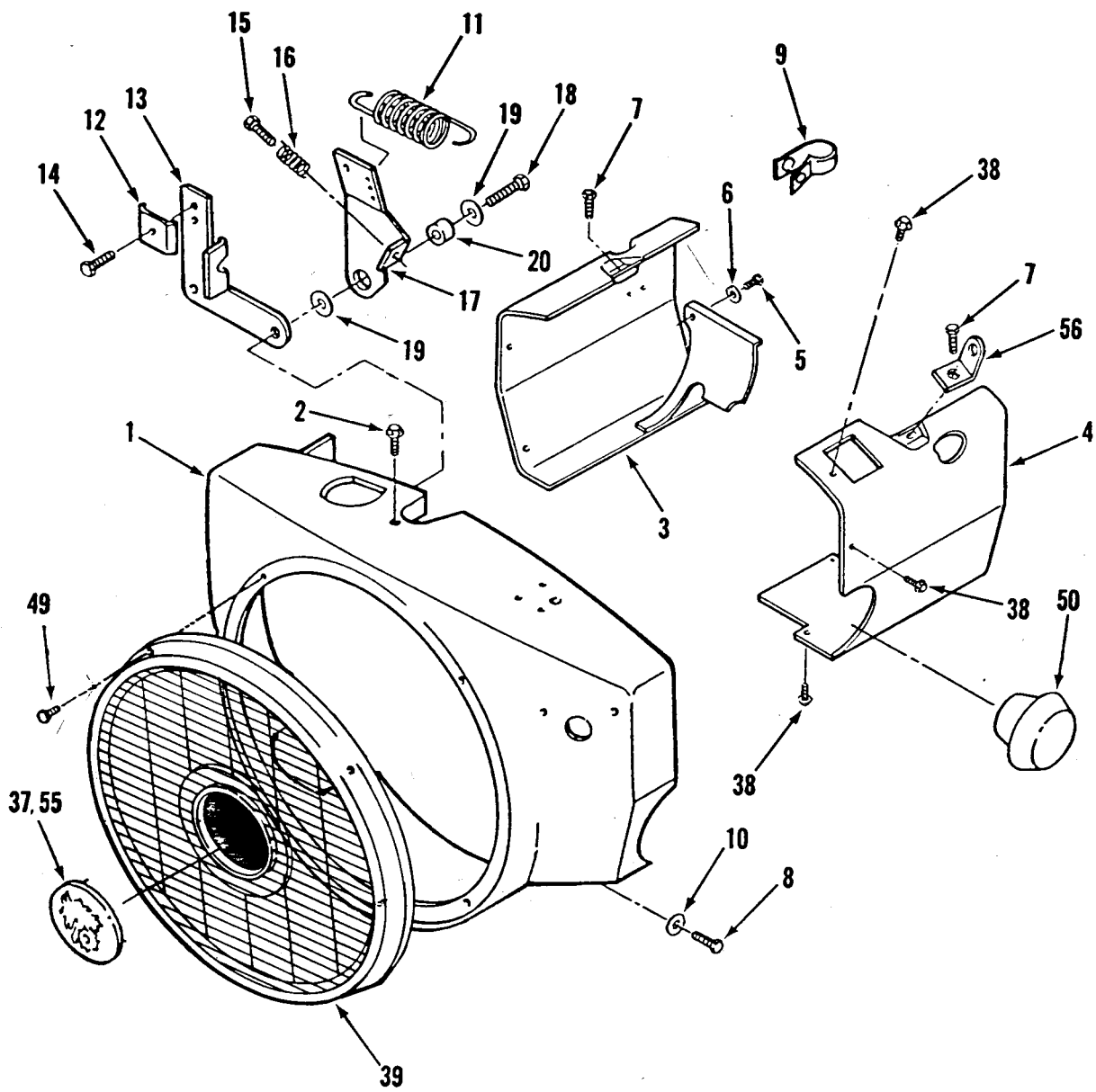


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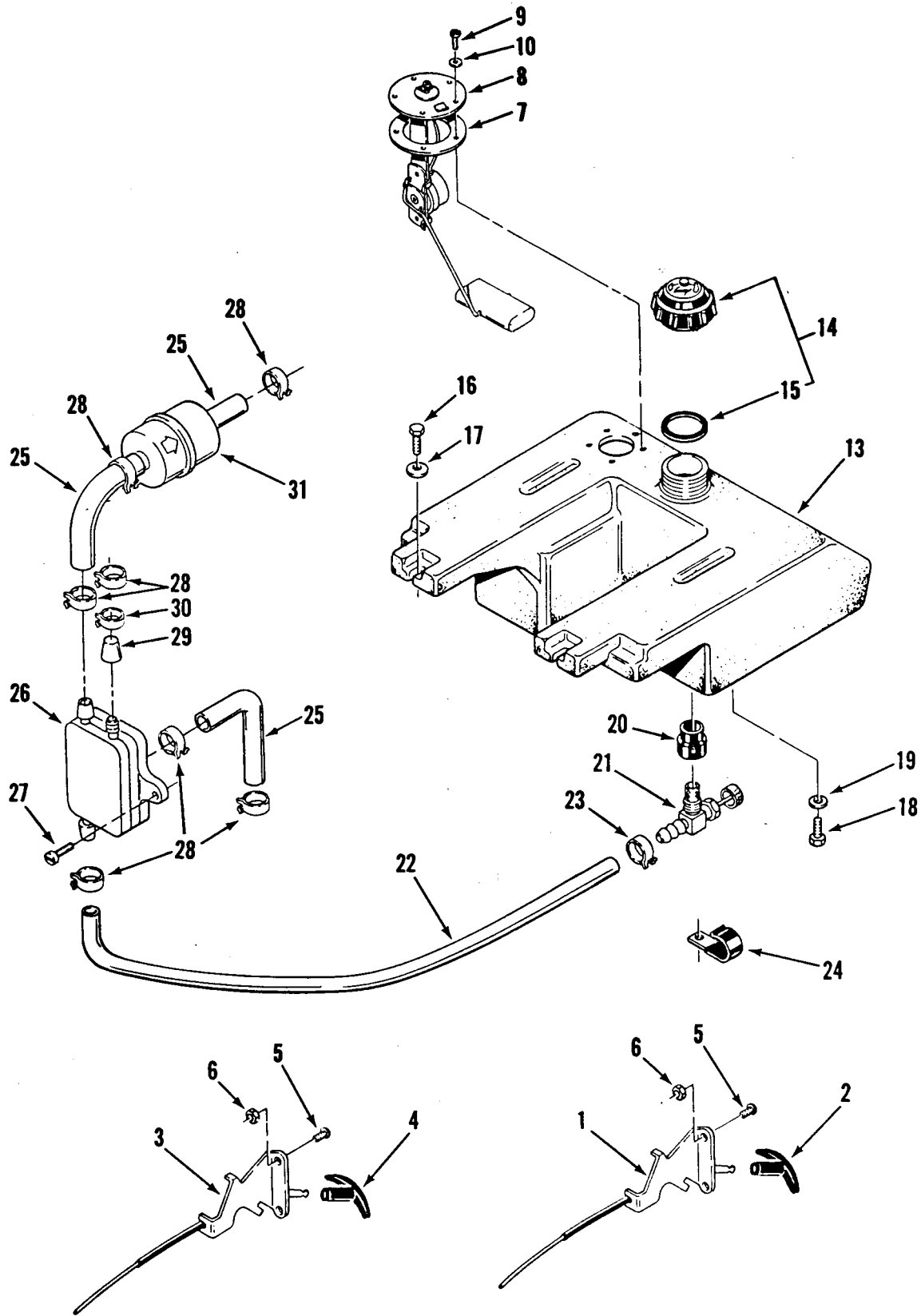
SECTION 9 - ENGINES AND EXHAUST

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 9-1			
ENGINES			
1	113490	Engine - 18HP - Onan 18HP P218G-I/10539A	X
2	113875	Engine Plate	1
3	908035	Bolt 3/8-16 x 1-1/4	4
4	915663	E.S. Nut 3/8-16	4
5	908036	Bolt 3/8-16 x 1-1/4	4
6	920009	Washer 3/8 SAE	4
7	920083	Lockwasher 3/8	4
8	915113	Eslok Nut 3/8-16	4
9	908034	Bolt 3/8-16 x 1	2
10	915663	E.S. Nut 3/8-16	2
11	916671	S.T. Bolt 1/4-20 x 1/2	2
12	908017	Bolt 5/16-18 x 3/4	4
13	920082	Lockwasher 5/16	4
14	908001	Bolt 1/4-20 x 1/2	3
15	910331	Screw nr. 10-24 x 3/8	4
16	114888	Stainless Screw nr. 10-24 x 3/8 520-H	8
17	114903	Stainless Muffler Cover 520-H	1
18	114217	Air Deflector	1
19	114215	LH Exhaust Cover	1
20	114216	RH Exhaust Cover	1
21	114044	Muffler	1
22	114636	Pipe 3/8 x 3	1
23	114764	Elbow 90 Degree	1
24	114763	Pipe 3/8 x 4	1
25	5224	Cap	1
26	114893	Relay Mounting Bracket	1
27	114214	Exhaust Gasket	2
28	8830	Clip	1
29	965-0762	Onan Performer Twin Cylinder Repair Manual	X



SECTION 10 - BLOWER HOUSING AND GOVERNOR

ITEM	WHEEL HORSE PART NUMBER	VENDOR PART NUMBER	DESCRIPTION	QUANTITE
Figure 10-2				
BLOWER HOUSING AND GOVERNOR				
1	NN10173	134-4654-01	Blower Housing	1
2	NN10392	815-0261	Wash. Hd. ST Screw 1/4-20 x 7/16	1
3	NN10170	134-4615-01	Cylinder Air Housing	1
4	NN10169	134-4614-01	Cylinder Air Housing	1
5	NN10393	815-0290	Wash. Hd. ST Screw 1/4-20 x 5/8	2
6	NN10357	526-0021	Flat Washer 1/4	2
7	NN10417	821-0016	Wash. Hd. Screw 5/16-18 x 3/4	2
8	NN10393	815-0290	Wash. Hd. ST Screw 1/4-20 x 5/8	4
9	NN10289	332-2319	Alt. Leads Wire Clamp	1
10	NN10356	526-0018	Flat Washer 1/4	1
11	NN10217	150-1214	Governor Spring - 5 Ball	1
12	NN10440	153-0593	Cable Clamp	1
13	NN10225	150-1725	Cable Bracket	1
14	NN10395	815-0359	ST Screw nr. 10-32 x 1/2	1
15	NN10410	815-0510	ST Screw nr. 6-32 x 5/8	1
16	NN10219	150-1398	Idle Setting Spring	1
17	NN10223	150-1576	Governor Control Arm - w/o Swivel	1
18	NN10397	815-0436	Wash. Hd. Cap Screw 1/4-20 x 1/2	2
19	NN10357	526-0021	Flat Washer 1/4	1
20	NN10218	150-1269	Control Arm Bushing	1
37	NN10340	517-0136	Black Nylon Bushing	1
38	NN10414	821-0008	Wash. Hd. Cap Screw 1/4-20 x 5/16	4
39	NN10174	134-4689	Stationary Guard	1
49	NN10406	815-0575	Wash. Hd. Screw 1/4-20 x 3/8	4
50	NN10341	517-0190	Hole Plug	1
55	NN10435	99-2389	Nameplate Logo	1
56	NN10296	403-1523-01	Lifting Bracket	2

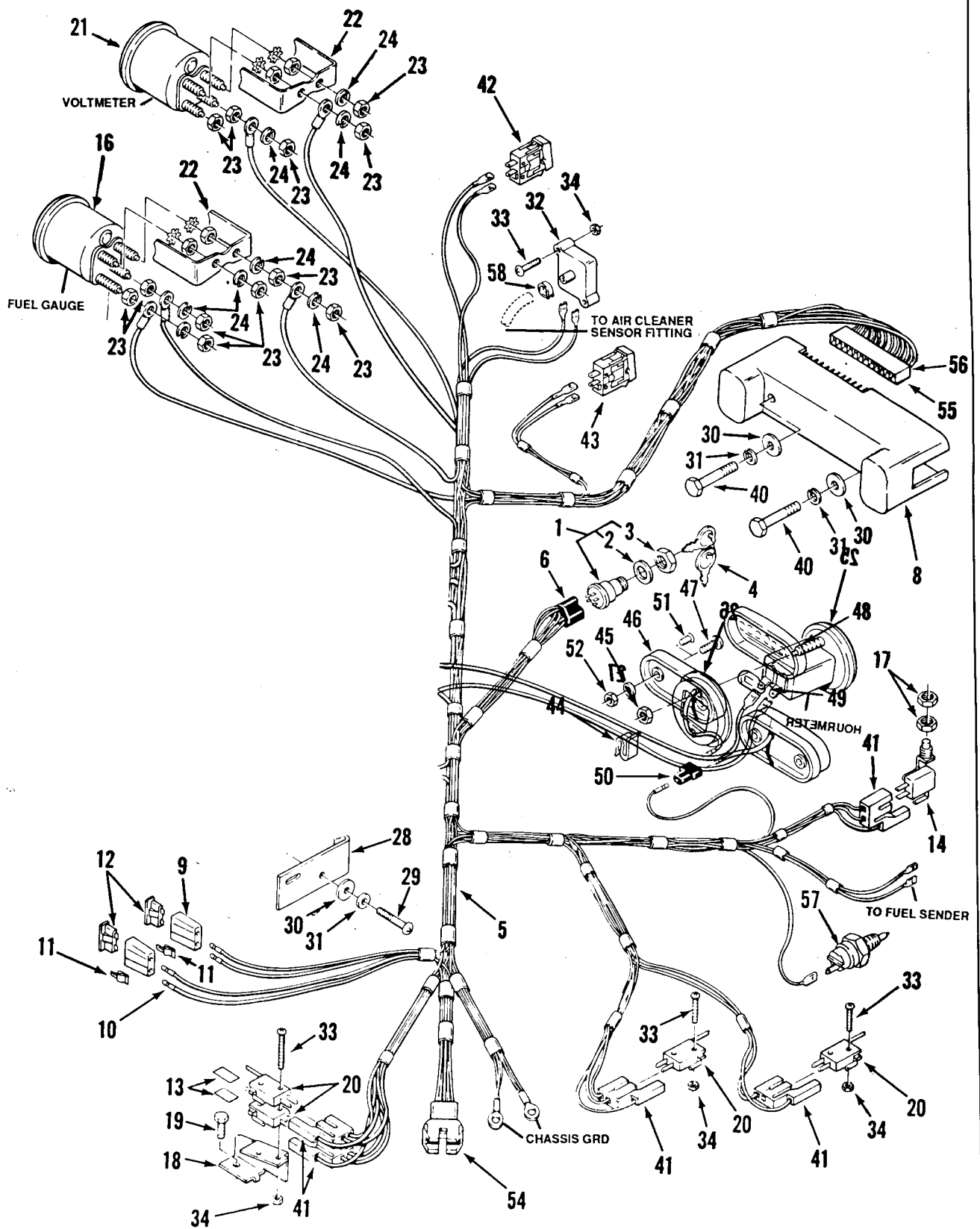


SECTION 10 - THROTTLE, CHOKE AND FUEL CONTROLS

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 10-4			
THROTTLE, CHOKE AND FUEL CONTROLS			
1	114026	Throttle Control	1
2	108509	Knob-Throttle Control	1
3	114027	Choke Control	1
4	108510	Knob-Throttle Control	1
5	9107922	Screw Nr. 10-24 x 1/2 Black	4
6	915740	Lock Nut nr. 10-24	4
7	113372	Gasket	1
8	113358	Fuel Level Sender	1
9	910807	Screw nr. 10-32 x 1/2	5
10	920079	Lockwasher nr. 10	5
13	114012	Fuel Tank (includes items 20 & 21)	1
14	113926	Fuel Cap (includes item 15)	1
15	106931	Rubber Seal	1
16	926697	S.T. Bolt 5/16-18 x 1	2
17	920039	Washer 3/8	2
18	908016	Bolt 5/16-18 x 5/8	3
19	920082	Lockwasher 5/16	2
20	104047	Rubber Bushing	1
21	104048	Fuel Shut-Off Valve	1
22	2739	Fuel Line 53 in.	1
23	108898	Corbin Clamp	2
24	950154	Hose Clamp 1/2 in. (1.3 cm) Diameter	2
	105490	Clamp 1 in. (2.5 cm) Diameter	1
25	NN10302	Fuel Line 12in. (Vendor nr. 503-0707)	2
26	NN10212	Fuel Pump (Vendor nr. 149-1982)	1
27	NN10403	ST PLan Hd. Screw nr. 10-24 x 5/8 (Vendor nr. 815-0555)	2
28	NN10303	Hose Clamp 1/2 (Vendor nr. 503-0731)	6
29	NN10211	Fuel Fitting Cap (Vendor nr. 149-1321)	1
30	NN10301	Hose Clamp 7/16 (Vendor nr. 503-0301)	1
31	NN10213	Fuel Filter (Vendor nr. 149-2005)	1

SECTION 11 - ELECTRICAL SYSTEM

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 11-1			
ELECTRICAL SYSTEM			
1	111216	Ignition Switch (w/101884 & 920160)	1
2	920160	Internal Tooth Lockwasher 5/8	1
3	111811	Special Nut	1
4	111220	Ignition Key	1
	11214	Padded Ignition Key	1
5	114629	Wiring Harness Assembly 518-H	1
6	105302	Connector Body - Ignition Switch - Part of 5	1
8	114626	6-Light Circuit Module	1
9	109117	Single Fuse Body - Part of 5	2
10	108895	One-Way Terminal - part of 5	4
11	109445	Fuse Body Clip - part of 5	2
12	114596	Fuse 10 Amp - ATO or ATC	1
	109101	Fuse 20 Amp - ATO or ATC	1
13	111642	Switch Insulator Barrier	2
14	114240	Seat Switch	1
16	113466	Fuel Gauge (includes item 22) All models	1
17	105802	Special Nut	2
18	111488	Switch Support	1
19	926671	S.T. Bolt 1/4-20 x 1/2	1
20	111332	Interlock Snap Switch	4
21	113468	Voltmeter (includes item 22)	1
22	114016	Clamp	3
23	915551	Nut nr. 10-32	14
24	920079	Lockwasher nr 10	14
25	114469	Hourmeter (includes item 26) 518 & 520's	1
26	114017	Mounting Bracket	1
27	915962	Nut w/ Ext. Lockwasher nr. 8-32	2
28	114581	Light Bracket 516	1
29	910779	Screw nr. 8-32 x 3/4	1
30	920004	Washer nr. 8 SAE	3
31	920078	Lockwasher nr. 8	3
32	114270	Air Cleaner Sensor 518 & 520-H	1
33	910948	Screw nr. 4-40 x 3/4	4
34	915732	Elast Nut nr. 4-40	4
40	910783	Screw nr. 8-32 x 1-1/2	2
41	111498	Connector	5
42	113191	Light Switch	1
43	113190	Test Switch	1

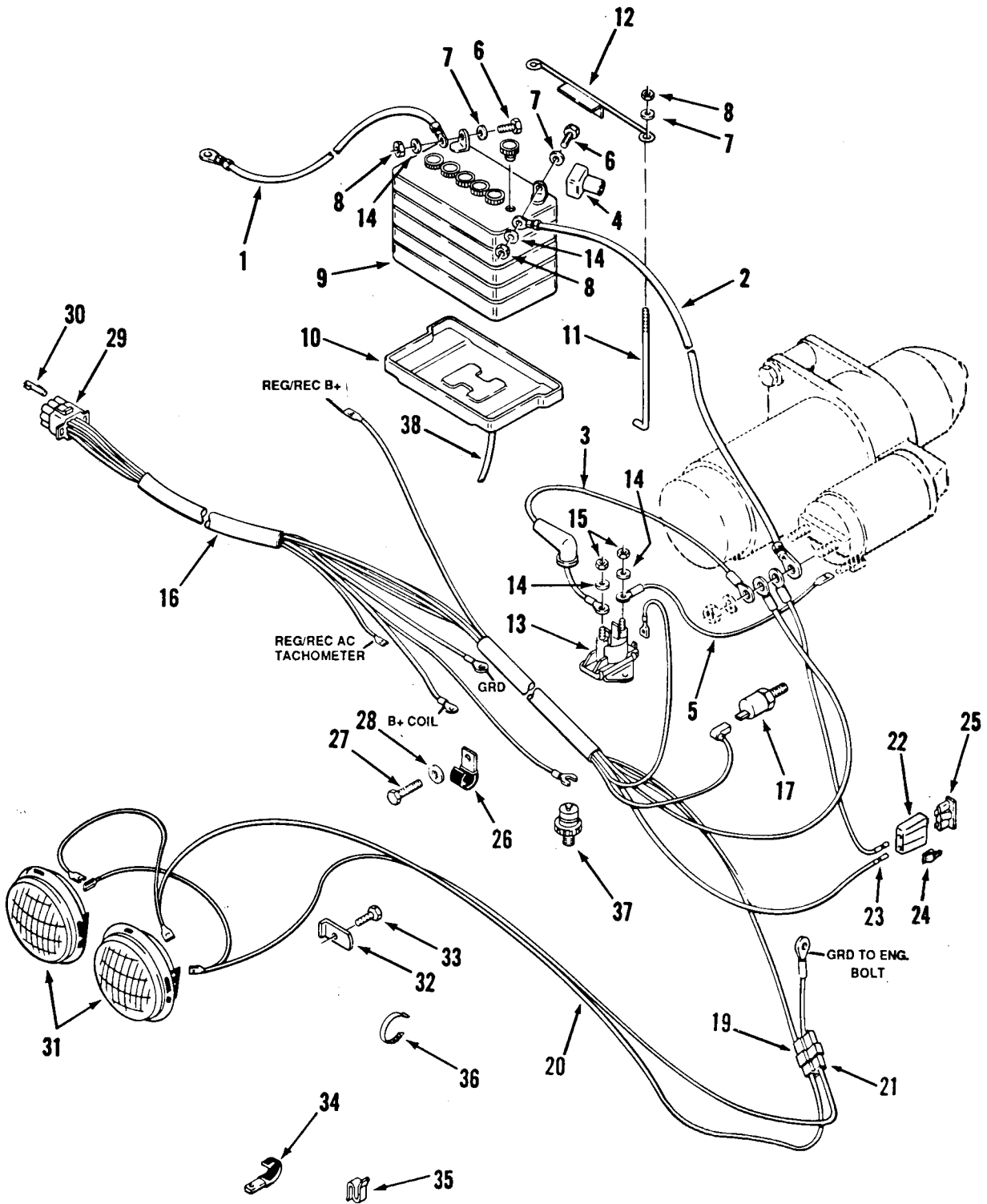


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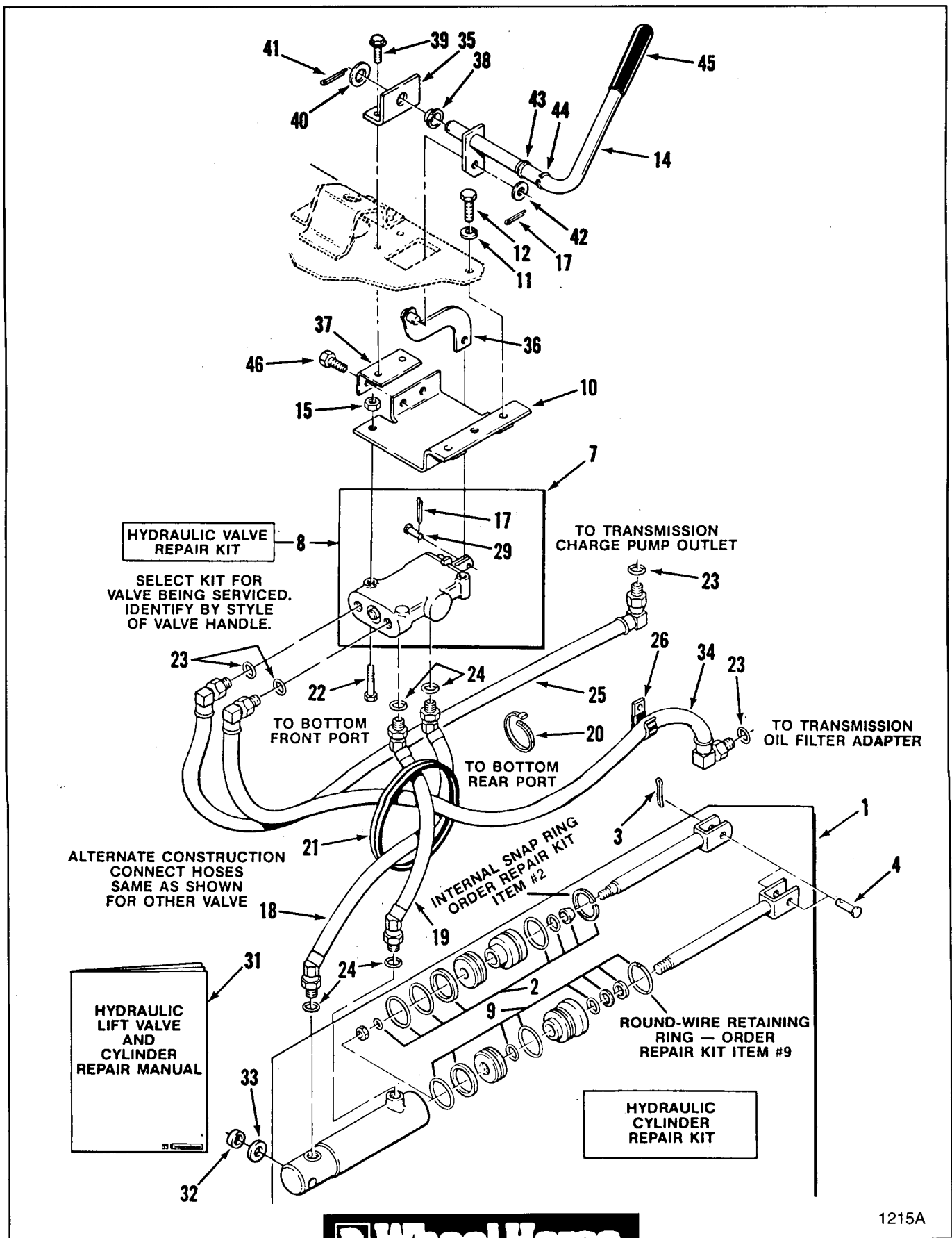
SECTION 11 - ELECTRICAL SYSTEM

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 11-1 ELECTRICAL SYSTEM (CONTINUED)			
44	3023	Clip-Small	X
45	920079	Lockwasher nr. 10 (Optional)	4
46	105202	Taillight Base W/Bulb	2
47	910808	Screw nr. 10-32 x 5/8 (Optional)	4
48	112564	Taillight Lens	2
49	109045	Light Bulb (Auto nr. 194)	2
50	7618	Connector 3-Wire	1
51	923795	Poprivet 3/16 x .402 Aluminum (Production)	4
52	915551	Nut nr. 10-32 (Optional)	4
53	920004	Washer nr. 8 (Use With Poprivet-Production)	4
54	113119	9-Terminal Connector-female	1
55	114632	12-Terminal Connector	1
56	114633	Terminal	12
57	113193	Transmission Oil Temperature Switch	1
58	114761	Clamp 5/16	1
59	108891	Corbin Clamp	1



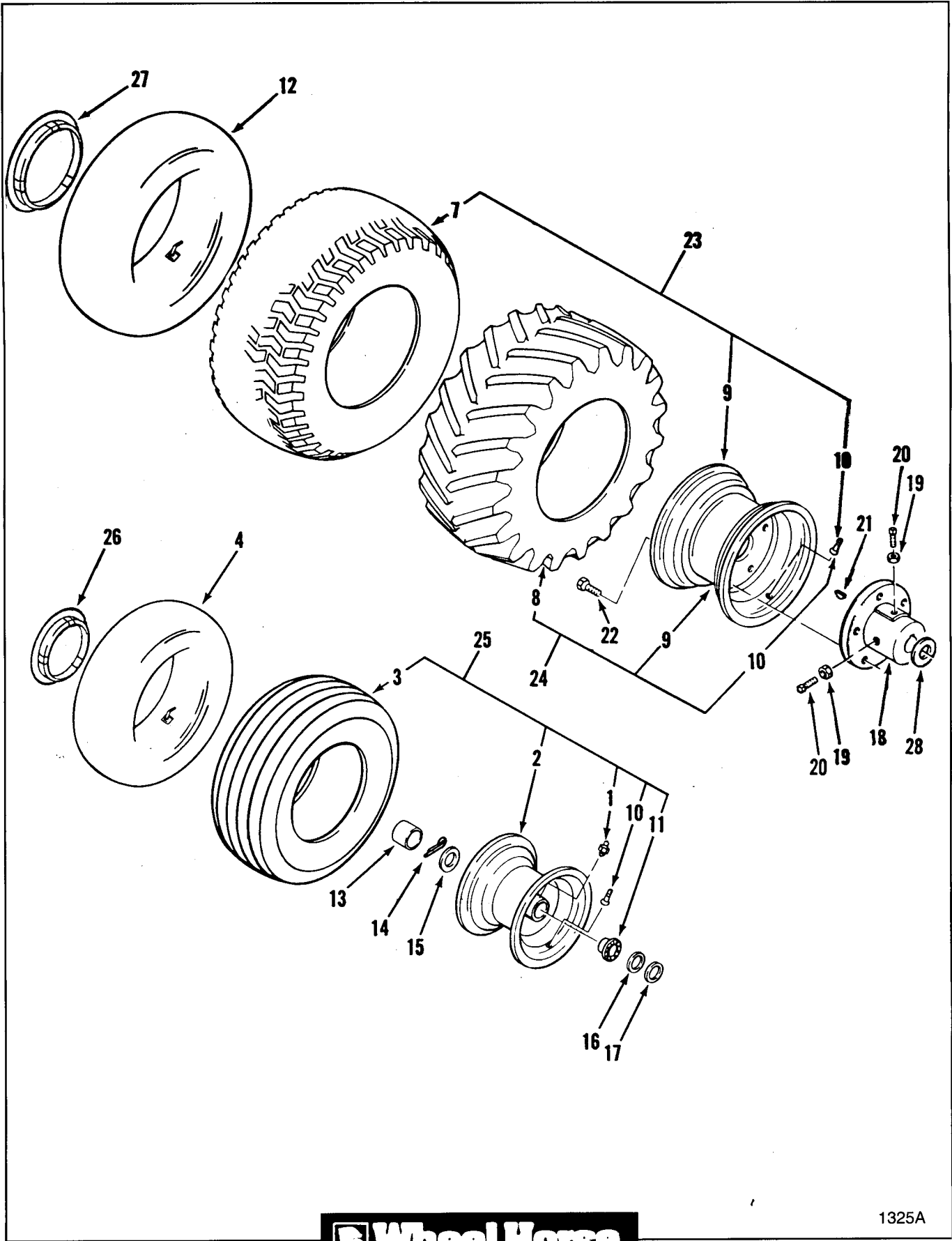
SECTION 11 - ELECTRICAL SYSTEM

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 11-2			
ELECTRICAL SYSTEM			
1	114210	Cable - Battery Ground (24'')	1
2	113925	Cable - Battery (+) to solenoid (40'')	1
3	114212	Wire - Relay to Starter Solenoid	1
4	109553	Terminal Cover	1
5	114211	Wire - Relay to Starter Solenoid	1
6	908003	Bolt 1/4-20 x 3/4	2
7	920007	Washer 1/4 SAE	4
8	915111	Eslok Nut 1/4-20	6
9	105842	Battery	1
10	106948	Battery Tray	1
11	113969	Hook - Battery Hold Down	2
12	113010	Battery Hold Down Rod	1
13	111674	Relay Solenoid	1
14	920081	Lockwasher 1/4	4
15	915234	Jam Nut 1/4-20	2
16	NN10294	Engine Wiring Harness (vendor nr. 338-2175)	1
17	NN10274	High Engine Temp. Switch (vendor nr. 309-0559) 520-H	1
18	NN10291	90 Degree Terminal (vendor nr. 332-2572)	1
19	NN10278	2-Terminal Connector - Male (vendor nr. 323-1085)	1
20	114052	Headlight Harness	1
21	109357	2-Terminal Connector - Female	1
22	109117	Single Fuse Body - Part of 16	1
23	108895	One-Way Terminal - Part of 16	2
	109445	Fuse Body Clip - Part of 16	1
25	NN10277	30 amp Fuse (vendor nr. 321-0291)	1
26	NN10348	Clip (vendor nr. 518-0515)	1
27	NN10399	Screw 1/4-10 x 1/2 (vendor nr. 815-0474)	1
28	NN10425	Int. tooth Washer 1/4 (vendor nr. 854-0014)	1
29	NN10281	9-Terminal Connector-male (vendor nr. 323-1291)	1
30	NN10279	Socket Contact (vendor nr. 323-1200)	1
31	102881	Headlight 516 & 518	2
32	109459	Clamp	2
33	926671	Bolt Hex 1/4-20 x 1/2 ST	2
34	8830	Clip	1
35	3023	Clip-Small	X
36	100571	Cable Tie	X
37	NN10273	Low Oil Pressure Switch (vendor nr. 309-0546)	1
38	114721	Drain Tube 21''	1



SECTION 12 - HYDRAULIC SYSTEM

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 12-1			
HYDRAULIC SYSTEM			
1	108872	Hydraulic Cylinder	1
2	101699	Service Assembly Cylinder Repair Kit	1
3	932017	Cotter Pin 1/8 x 1	1
4	932997	Clevis Pin 1/2 x 1-1/4	1
7	114000	Hydraulic Valve	1
8	109081	Service Assembly Valve Repair Kit	1
9	109088	Service Assembly Cylinder Repair Kit	1
10	113951	Mounting Bracket	1
11	920082	lockwasher 5/16	2
12	908017	Bolt 5/16-18 x 3/4	2
14	114583	Valve Handle	1
15	915661	E.S. Nut 1/4-20	2
16	109082	C-Hook	1
17	932000	Cotter Pin 1/16 x 1/2	2
18	110124	Hose-Valve To Cylinder 14"	1
19	110125	Hose-Valve To Cylinder 9"	1
20	100571	Cable Tie	X
21	106267	Rubber Grommet	1
22	908009	Bolt 1/4-20 x 2	2
23	973370	O-Ring	4
24	973310	O-Ring	4
25	110096	Hose-Transmission To Valve 26 In. (66.0 cm)	1
26	8830	Clip-Small	1
29	932120	Clevis Pin 1/4 SAE	1
31	810242R3	Repair Manual	1
32	110126	Spacer	1
33	1278	Shim Washer	1
34	110504	Hose-Transmission To Valve 29 In. (73.7 cm)....	1
35	113953	Lever Support	1
36	114875	Lift Bar	1
37	113954	Support Bracket	1
38	5983	Nyliner Bushing	1
39	926671	Bolt 1/4-20 x 1/2	2
40	3765	Shim Washer	1
41	932016	Cotter Pin 1/4 x 3/4	1
42	920007	Washer 1/4 SAE	1
43	5666	Bushing	1
44	106649	Grip Ring	1
45	9038	Grip	1
46	926693	S.T. Bolt 5/16-18 x 1/2	1

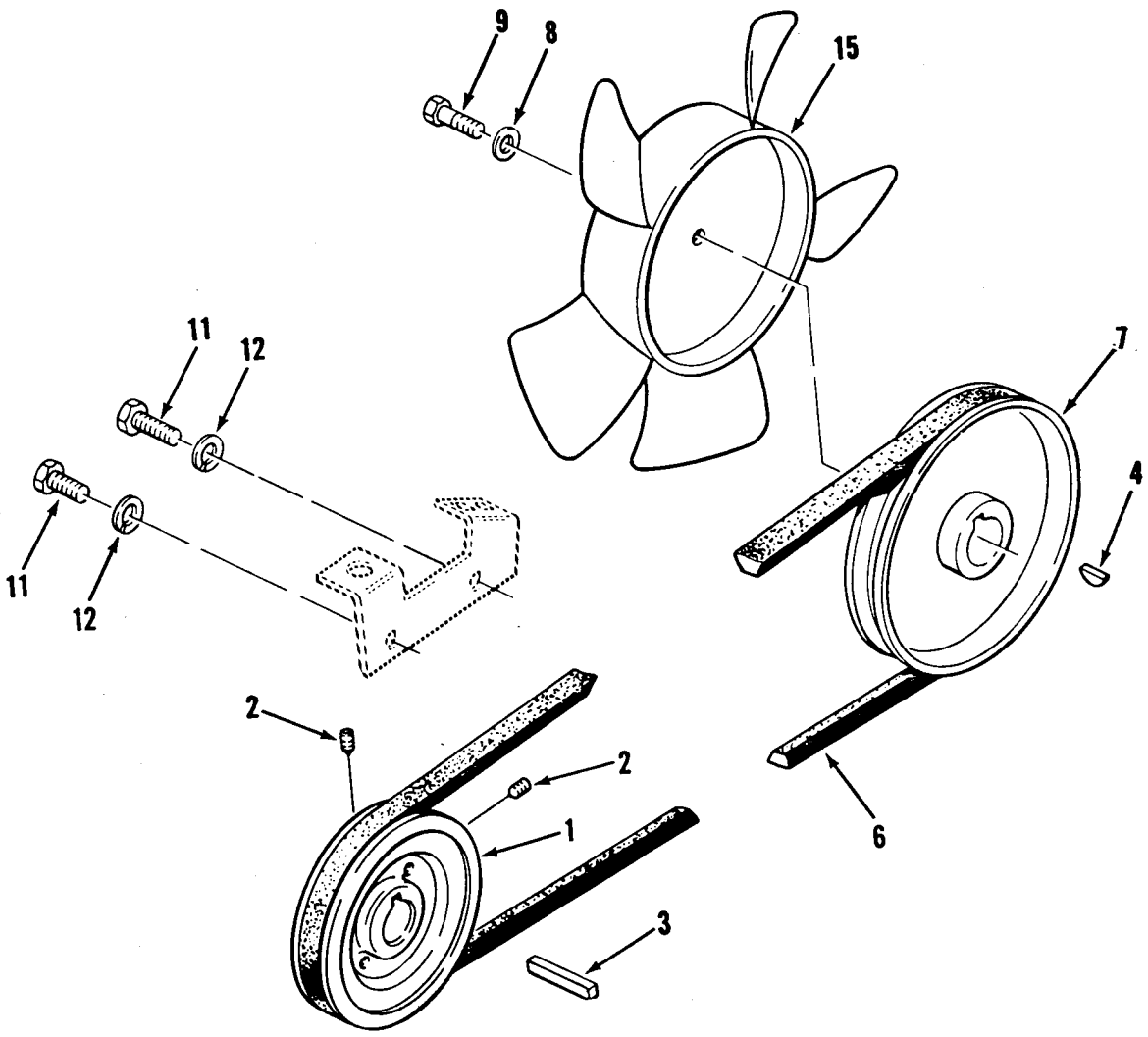


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SECTION 13 - WHEELS AND TIRES

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 13-1			
WHEELS AND TIRES			
1	109500	Grease Fitting	2
2	112219	Front Wheel (includes items 1, 10 & 11)	2
3	9792	Frt Tire 16x6.50-8 Turf Trd	2
4	105293	Tube - Service Only	2
7	102785	Rear Tire 23x9.50-12 Turf Tread	2
8	7607	Rear Tire 23x8.50-12 Cleat	2
9	110677	Rear Wheel 12x7	2
10	5108	Valve Stem	4
11	110513	Ball Bearing	4
12	7007	Rear Tube	2
	100291	TubeCleat Tires	2
13	111951	Hubcap	2
14	932026	Cotter Pin 5/32x 1 1/4	2
15	111952	Special Hub Cap Washer	2
16	1278	Shim Washer .050	X
17	5210	Shim Washer .015	X
18	105763	Hub Rear Whl 1 1/8" I.D.	2
19	915236	Jam Nut 3/8-16	4
20	909554	Set Screw 3/8-16x1	4
21	937108	Woodruff Key 1/4 x 1-3/8	2
22	1004	Lug Bolt	10
23	110678	Rear Wheel & Tire Assy	2
24	110934	RH Cleat Wheel & Tire Assy	1
	110933	LH Cleat Wheel & Tire Assy	1
25	112218	Front Wheel & Tire Assy	2
26	114427	Chrome Embossed Hub Cap 8" w/ Clips 111938	2
27	114428	Chrome Embossed Hub Cap 12" w/ Clips 111938	2
28	106826	Thrust Washer	2

REFER TO SECTION 18 FOR ADJUSTMENTS

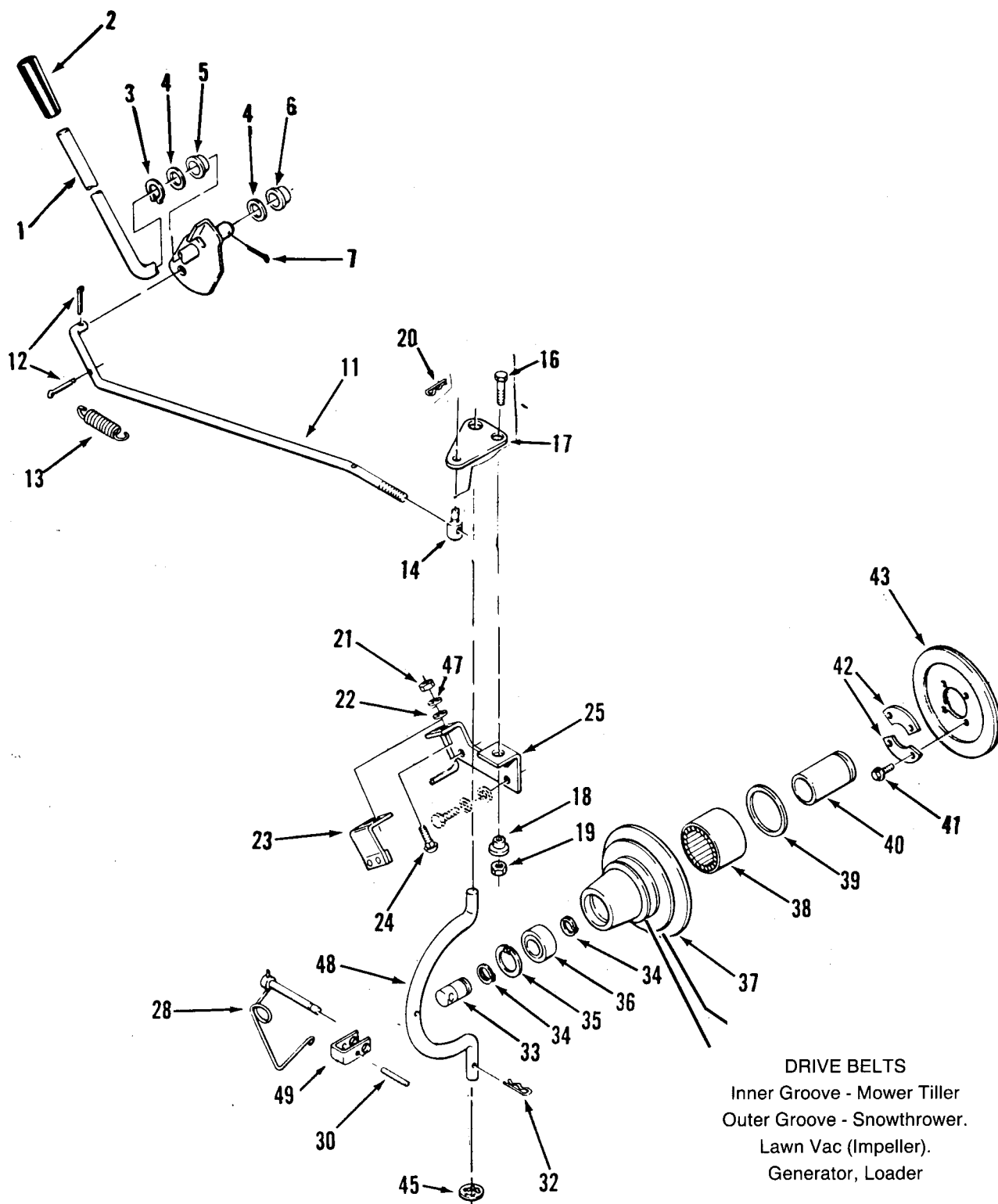


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SECTION 14 - DRIVE BELT, PULLEYS AND PTO CLUTCH

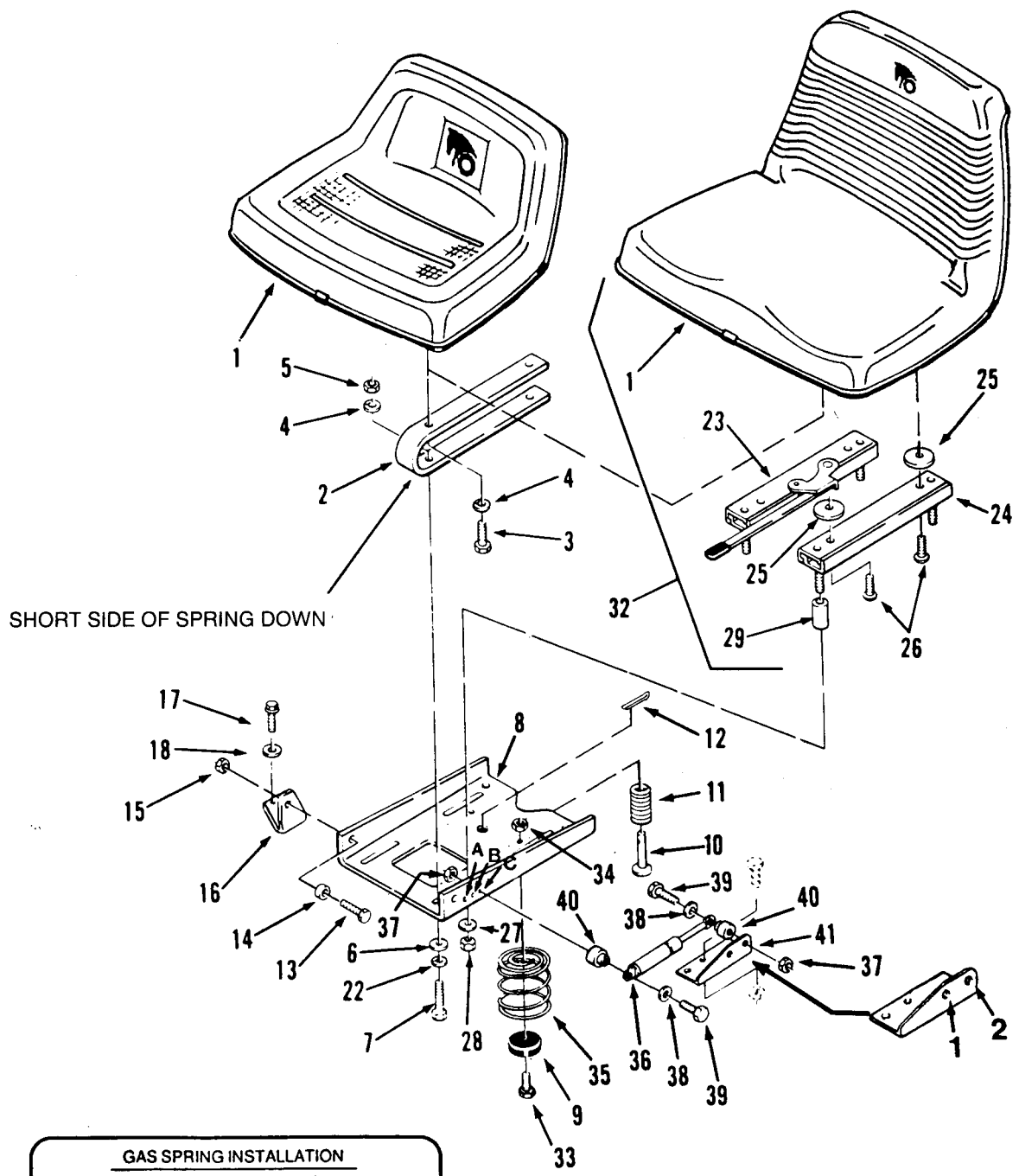
ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 14-1 DRIVE BELT AND PULLEYS			
1	7443	Engine Drive Pulley	1
2	909862	Set Screw 5/16-18 x 5/16	2
3	105453	Key 1/4 x 1/4 x 3/4	1
4	937082	Woodruff Key 1/8 x 1/2	1
6	114895	Drive Belt	1
7	110947	Transmission Drive Pulley	1
8	103995	Special Washer 9/32	2
9	908010	Eslok Bolt 1/4-20 x 2-1/4	1
11	908034	Bolt 3/8-16 x 1"	2
12	920083	Lockwasher 3/8	2
15	108393	Cooling Fan	1

REFER TO SECTION 18 FOR ADJUSTMENTS



SECTION 14 - DRIVE BELT, PULLEYS AND PTO CLUTCH

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 14-2			
PTO CLUTCH AND CONTROL			
1	111234	PTO Clutch Lever	1
2	9038	Grip	1
3	106649	Grip Ring	1
4	3765	Shim Washer	2
5	5666	Nyliner Bushing	1
6	5983	Bushing	1
7	932016	Cotter Pin 1/8 x 3/4	1
11	111052	PTO Clutch Rod	1
12	932016	Cotter Pin 1/8 x 3/4	2
13	103125	Spring	1
14	110656	Trunnion	1
16	908034	Bolt 3/8-16 x 1	1
17	110669	PTO Plate	1
18	104859	Spacer	1
19	915113	Eslok Nut 3/8-16	1
20	933505	Hairpin Cotter	1
21	915234	Jam Nut 1/4-20	2
22	920007	Washer 1/4 SAE	2
23	110665	PTO Brake assembly	1
24	900015	Carriage Bolt 1/4-20 x 3/4	2
25	113922	Engine Bracket	1
28	111314	Locking Pin	1
29	113107	Clevis	1
30	933274	Spirol Pin 5/32 x 1-3/8	1
31	113867	PTO Housing Rod	1
32	933506	Hairpin Cotter	1
33	102872	Stub Shaft	1
34	936125	Snap Ring 3/4 External	2
35	936032	Snap Ring 1 3/4 Internal	1
36	109842	Ball Bearing	1
37	103478	Pulley housing	1
38	106769	Needle Bearing	1
39	6663	Seal	1
40	6658	Bearing Race	1
41	908002	Nylok Bolt 1/4-20 X 5/8	4
42	6659	Retainer	2
43	111238	Clutch Plate & Facing	1
45	106695	Push-On Ring	1
47	920081	Lock Washer 1/4	1



GAS SPRING INSTALLATION		
MODEL	SEAT PLATE	BRACKET
520-HC & 520-H	C	2
518-H	B	1
516-H	A	1



SECTION 15 - SEAT AND DECALS

45

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 15-1			
SEAT			
1	113985	Seat	1
2	110920	Seat Spring	2
3	908017	Bolt 5/8-18 x 3/4	4
4	920082	Lockwasher 5/16	8
5	915112	Nut 5/16-18	4
6	920008	Washer 5/16 SAE	4
7	908018	Bolt 5/16-18 x 7/8	4
8	112478	Seat Pivot Plate	1
9	108889	Bumper	2
10	106449	Pin	2
11	114267	Spring	2
12	932008	Cotter Pin 3/32 x 3/4	2
13	908018	Bolt 5/16-18 x 7/8	2
14	105503	Bushing	2
15	915662	E.S. Nut 5/16-18	2
16	112744	Pivot Bracket RH	1
	112745	Pivot Bracket LH	1
17	913464	S.T. Bolt 5/16-18 x 7/8	4
23	114264	Adjuster RH (With Latch) 520's	1
24	114265	Adjuster LH	1
25	109989	Nylon Spacer	4
26	910865	Screw 5/16-18 x 3/4	4
27	920038	Washer 5/16 SAE	4
28	915112	Eslok Nut 5/16-18	4
29	110932	Spacer	4
33	908019	Bolt 5/16-18 x 1	2
34	915662	E.S. Nut 5/16-18	2
35	114496	Seat Lifter Spring - Black	2
36	114343	Gas Spring	1
37	915111	Eslok Nut 1/4-20	2
38	920007	Washer 1/4 SAE	2
39	908006	Bolt 1/4-20 x 1-1/4	2
40	114344	Spacer	2
41	114345	Gas Spring Bracket	1

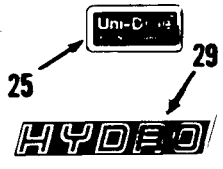
DO NOT OPERATE WITH BATTERY DISCONNECTED. DAMAGE TO ELECTRICAL SYSTEM WILL RESULT.

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Wheel Horse



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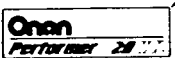
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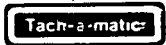


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Wheel Horse

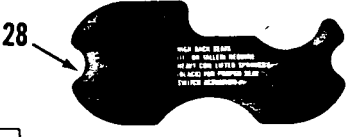
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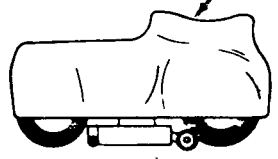
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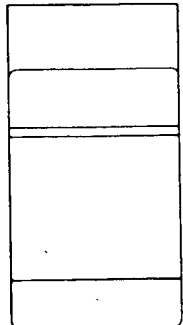
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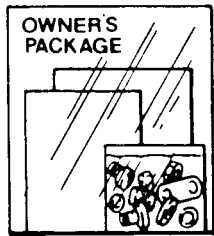
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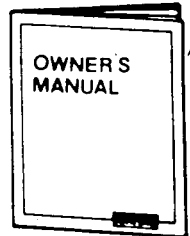
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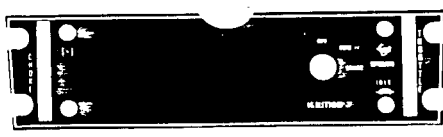
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Wheel Horse



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SECTION 15 - SEAT AND DECALS

ITEM	PART NUMBER	DESCRIPTION	QUANTITE
Figure 15-2			
DECALS			
1	115006	Decal-Hood RH 518-H	X
2	115007	Decal-Hood LH 518-H	X
3	112670	Decal-Danger	1
4	111510	Decal-parking Brake	1
5	111960	Decal-PTO Clutch	1
7	113909	Decal-Motion Control	1
9	110629	Decal-Rear Fender	1
11	114926	Decal-Hood Front	1
13	807159	Loose Parts Package 518-H	X
14	113911	Decal-Front Panel	1
16	114637	Decal-Rear Hood	1
18	114133	Decal-Indicator Lights 518-H	1
20	114706	Decal-Tach-a-matic	1
21	112168	Decal-Lift	1
22	110831	Vinyl Tractor Cover	X
23	111193	Decal-Maintenance	1
24	111926	Decal-Electrical System	1
25	104955	Decal-Unidrive	1
26	112690	Decal-Hand Push Tractor	1
27	112689	Decal-Transmission Oil	1
28	114296	Decal-Seat Lifter	1
29	114050	Decal-Hydro	1
30	NN10432	Decal-Performer 18 HP (vendor nr. 98-5641-04)	3
31	112403	VIN Tag Overlay	1
	111342	Decal-Europa(Not Illustrated)	2
	114621	Decal-Europa Noise (Not Illustrated)	1

TORQUE SPECIFICATIONS

BOLT HEAD MARKINGS	BOLT BODY SIZE In. - Thread	SAE GRADE 1 or 2		SAE GRADE 5		SAE GRADE 6 or 7		SAE GRADE 8	
		Torque		Torque		Torque		Torque	
		Ft-Lb	Nm	Ft-Lb	Nm	Ft-Lb	Nm	Ft-Lb	Nm
<p>Manufacturer's marks may vary. Three-line markings on heads shown below, for example, indicate SAE Grade 5.</p> <p>SAE 1 or 2 SAE 5</p> <p>SAE 6 or 7 SAE 8</p>	1/4-20 -28	5 6	6.8 8.1	8 10	10.8 13.6	10 13.6	13.6 19.0	12 14	16.2 19.0
	5/16-18 -24	11 13	15.0 17.6	17 19	23.0 25.8	19 25.8	25.8 36.6	24 27	32.5 36.6
	3/8-16 -24	18 20	24.4 27.1	31 35	42.0 47.5	34 46.1	46.1 66.4	44 49	59.7 66.4
	7/16-14 -20	28 30	38.0 40.7	49 55	66.4 74.6	55 74.6	74.6 105.8	70 78	95.0 105.8
	1/2-13 -20	39 41	52.9 55.6	75 85	101.7 115.2	85 115.2	115.2 162.7	105 120	142.4 162.7
	9/16-12 -18	51 55	69.1 74.6	110 120	149.1 162.7	120 162.7	162.7 230.5	155 170	210.1 230.5
	5/8-11 -18	83 95	112.5 128.8	150 170	203.3 230.5	167 226.4	226.4 325.4	210 240	284.7 325.4
	3/4-10 -16	105 115	142.4 155.9	270 295	366.1 400.0	280 379.6	379.6 508.4	375 420	508.4 569.4
	7/8-9 -14	160 175	216.9 237.3	395 435	535.5 589.8	440 596.6	596.6 820.3	605 675	820.3 915.2
	1-8 -14	235 250	318.7 339.0	590 660	799.9 894.8	660 894.8	894.8 1233.8	910 990	1233.8 1342.2

FUEL LINE

50' bulk fuel line ID .250 x OD .550nr. 112570

FASTENERS

- * All hex bolts GRADE 5 minimum, GRADE 8 used as noted.
- * All carriage bolts GRADE 1 unless otherwise noted.
- * In place of ESLOK or E.S. nuts, use LOCTITE or lock washers with free running nuts.

PAINT

- Red Enamel - 6 cans, order nr. 8-0311
- Red Enamel - Quart can nr. 5340 (Non-aerosol)*
- Beige Enamel - 6 cans, order nr. 8-0321
- Black Enamel - 6 cans, order nr. 8-0334
- Pewter Metallic Enamel - 6 cans, order nr. 8-0335
- Automotive Equivalent: 1971 Lincoln-Mercury Pewter Metallic)
- White Enamel - 6 cans, order nr. 8-0336
- Pewter Gray Enamel - 6 cans, order nr. 8-0337
- (Automotive Equivalent: 1982 Lincoln Light Pewter)
- Silver Metallic Enamel - 6 cans, order nr. 8-0338
- Pewter Gray Enamel - Quart can nr. 5347 (Non-aerosol)**

* Thinning - use automotive enamel reducer with zylol (slow drying time) or toluol (fast drying time) - no mineral spirits

** Thin with zylol

