Parts & Service Manual

1990 500-SERIES

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R1-18OE02

899005

TORO®

Wheel Horse®

Tractors & Riding Mowers

TORO WHEEL HORSE 500-SERIES
PARTS & SERVICE MANUAL

INTRODUCTION PAGE

1. How to use this parts manual

   1.1 The 500-Series parts manual is divided into major sections arranged in the sequence outlined on the following page. Major sections are subdivided into smaller groups of parts, each with its own illustration and illustration reference numbers.

   1.2 Illustrated items are numerically keyed to the parts listing on the facing page. Illustrations are repeated when the parts list is too long for one page. Figure numbers are located at the bottom of each illustration and also at the beginning of each description column. Item numbers are numerically keyed to their respective illustrations.

   1.3 When an (X) appears in the quantity (Qty) column use only if applicable, or as required to meet tolerances.

2. To locate parts

   Refer to the List of Illustrations to locate the proper illustration.

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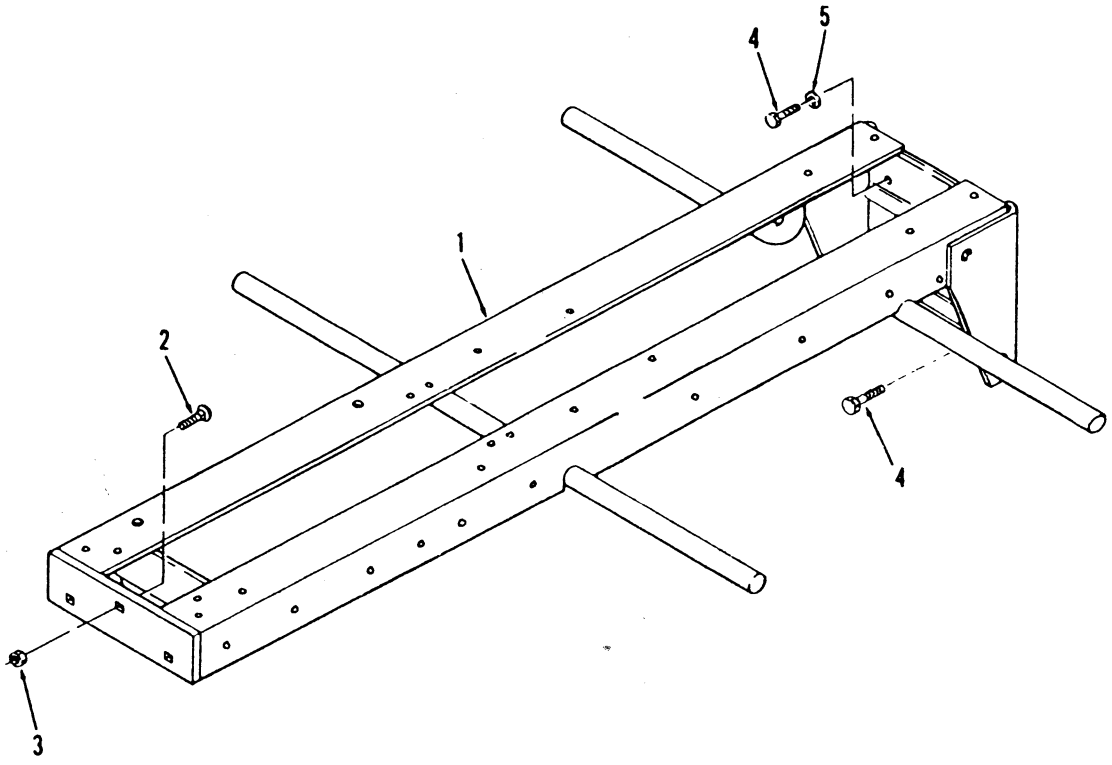


Figure 1-1

TORO® Wheel Horse® Tractors & Riding Mowers

Frame

0103

Figure 1-1 FRAME

Figure 1-1 Frame

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 1-1 **FRAME**	
1	116770	Frame	1
2	900064	Carriage Bolt 3/8-16 x 1 1/4	3
3	915663	E.S. 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

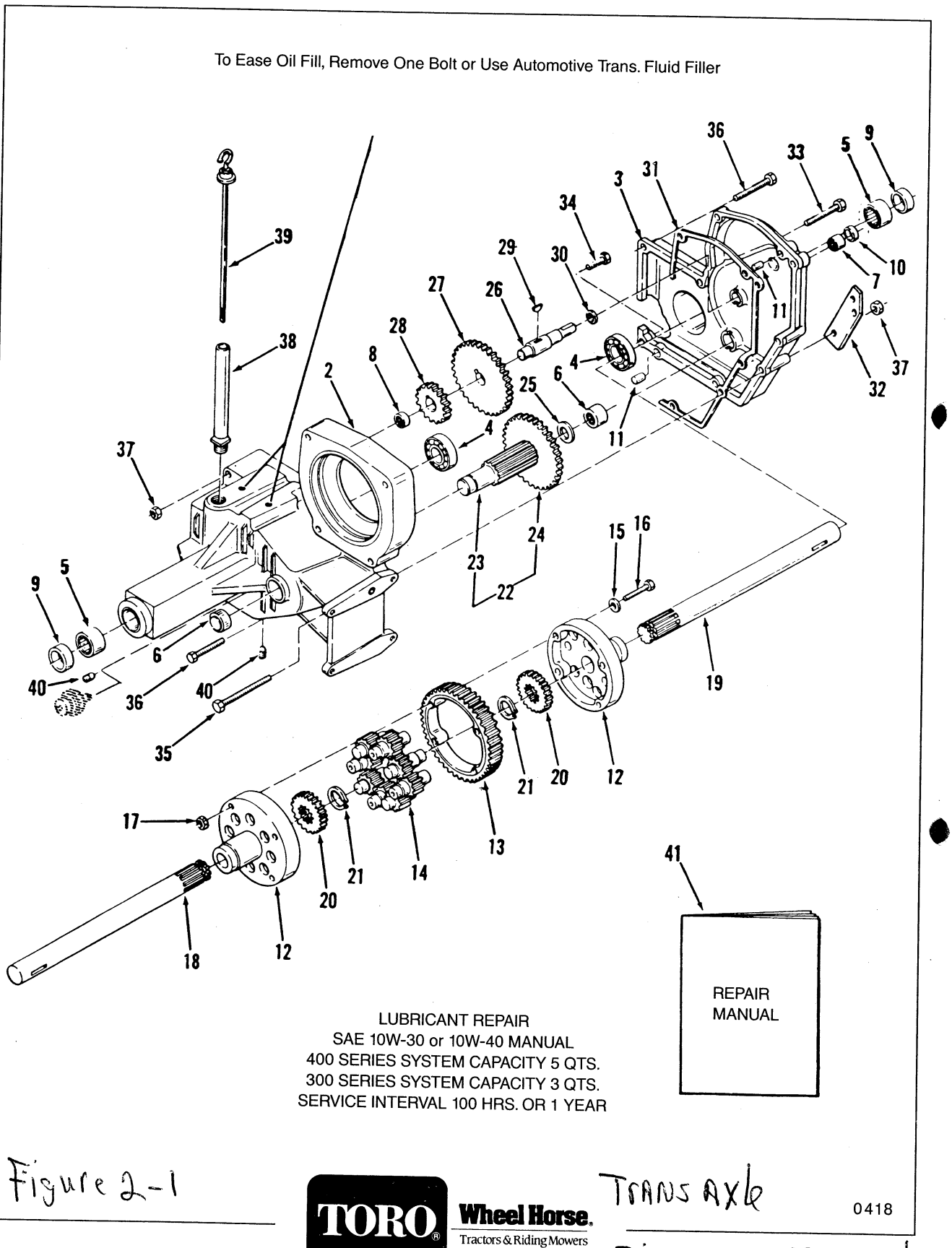


Figure 2-1

TRANSAXLE

Figure 2-1 TRANSAXLE

Figure 2-1 Transaxle

Figure 2-1
TRANSAXLE

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
	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 Snapring	2
22	102974	Gear Assembly	1
23	101625	Gear-Pinion 11 Tooth	1
24	101626	Gear-Reduction 46 Tooth	1
25	9547	Thrust Washer	1
26	109370	Shaft	1
27	108359	Gear 44 Tooth	1
28	108358	Gear 22 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	908043	Bolt 3/8-16 x 3-1/2	2
37	915663	Nut 3/8-16 E.S.	2
38	106448	Filler Tube	1
39	110768	Dipstick	1
40	943460	Allen Hd. Pipe Plug 1/4	2
41	810243R2	Repair Manual	1

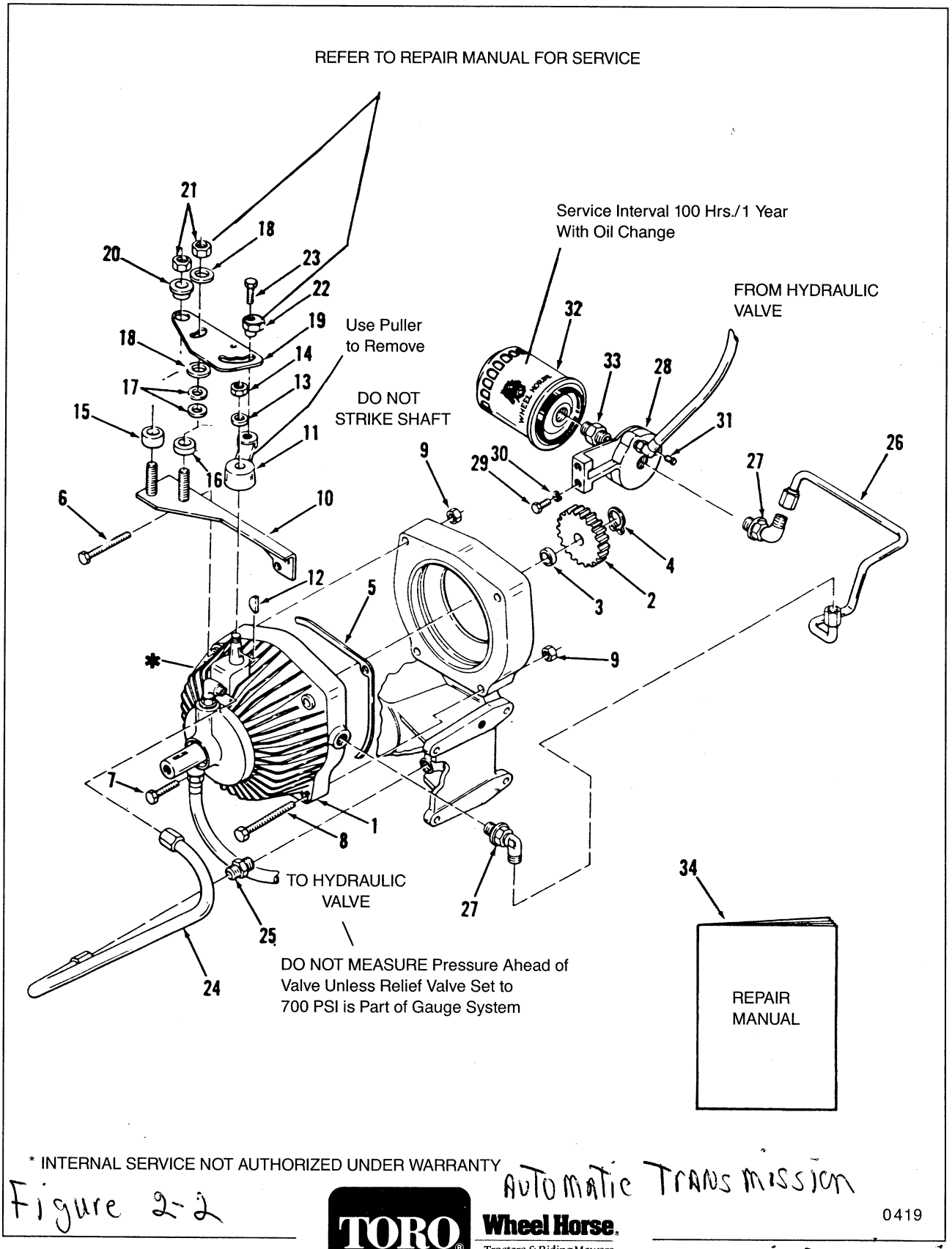


Figure 2-2 AUTOMATIC TRANSMISSION

TORO Wheel Horse Tractors & Riding Mowers

Figure 2-2 AUTOMATIC TRANSMISSION

Figure 2-2 Automatic Transmission

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 2-2	
		AUTOMATIC TRANSMISSION	
1	108368	Pump & Motor (Rebuilt P/N 219020)	1
2	108320	Gear 22 Tooth	1
3	108366	Spacer-Drive Gear	1
4	936121	Snapring 5/8 Ext	1
5	108319	Gasket	1
6	908149	Bolt 3/8-16 x 5-1/2	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	915663	Nut 3/8-16 E.S.	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	915665	Nut 1/2-13 Elastic	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
	937089	Woodruff Key (not illustrated)	1

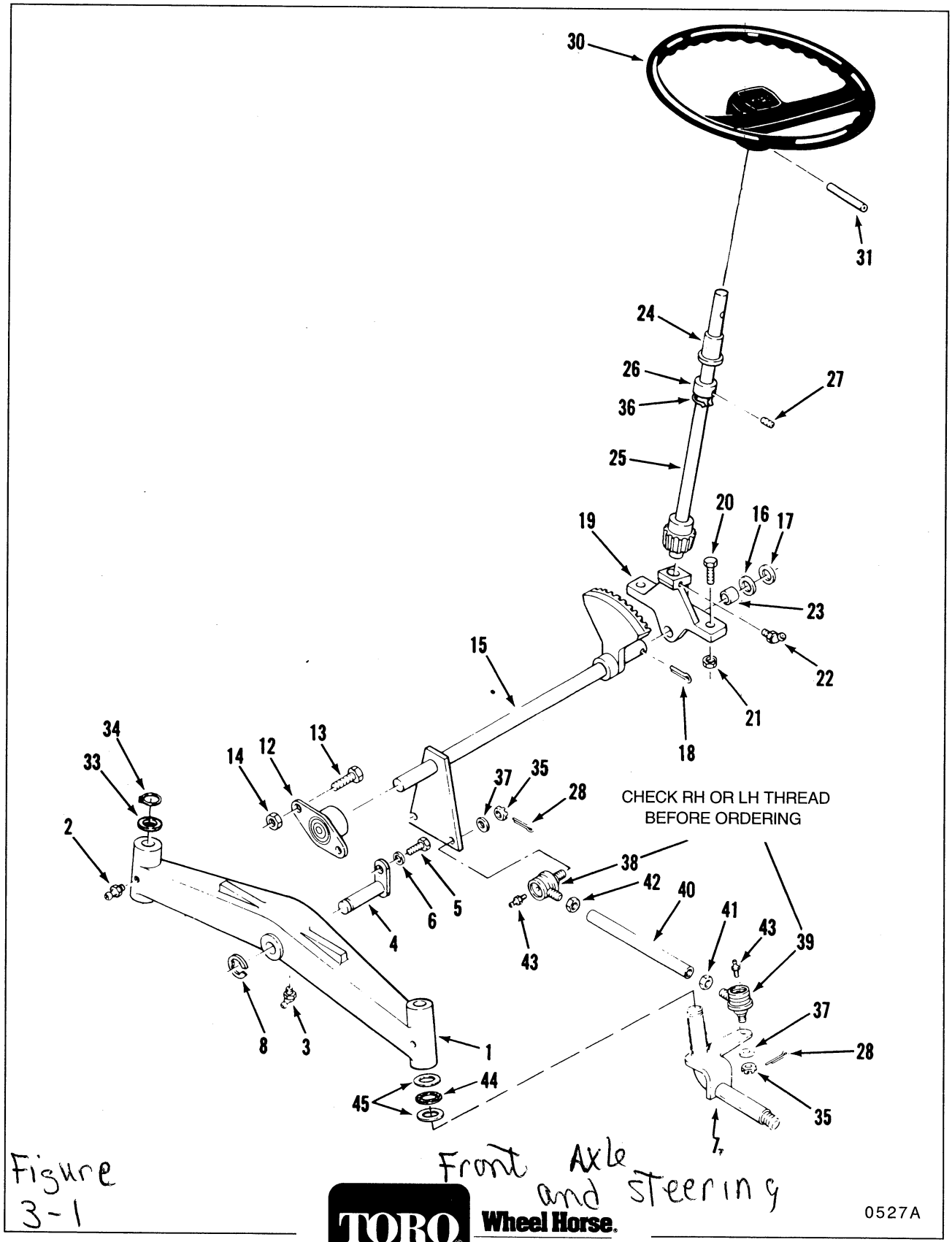


Figure 3-1 Front Axle and Steering

TORO Wheel Horse Tractors & Riding Mowers

Figure 3-1 Front Axle and Steering

Figure 3-1 Front Axle and Steering

Figure 3-1
FRONT AXLE AND STEERING

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	5638	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	915693	E.S. Nut 3/8-24	4
12	6472	Flanged Bearing	1
13	908032	Bolt 3/8-16 x 3/4	1
14	915663	E.S. 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	908037	Bolt 3/8-16 x 1-1/4	2
21	915663	E.S. 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	116318	Upper Steering Shaft	1
26	111383	Collar	1
27	909848	Eslok Set Screw 1/4-20 x 1/4	1
30	117337	Steering Wheel	1
31	933221	Spirol Pin 1/4 x 2	1
33	1278	Washer	2
34	104822	Retaining Ring	2
36	111646	Grip ring	1

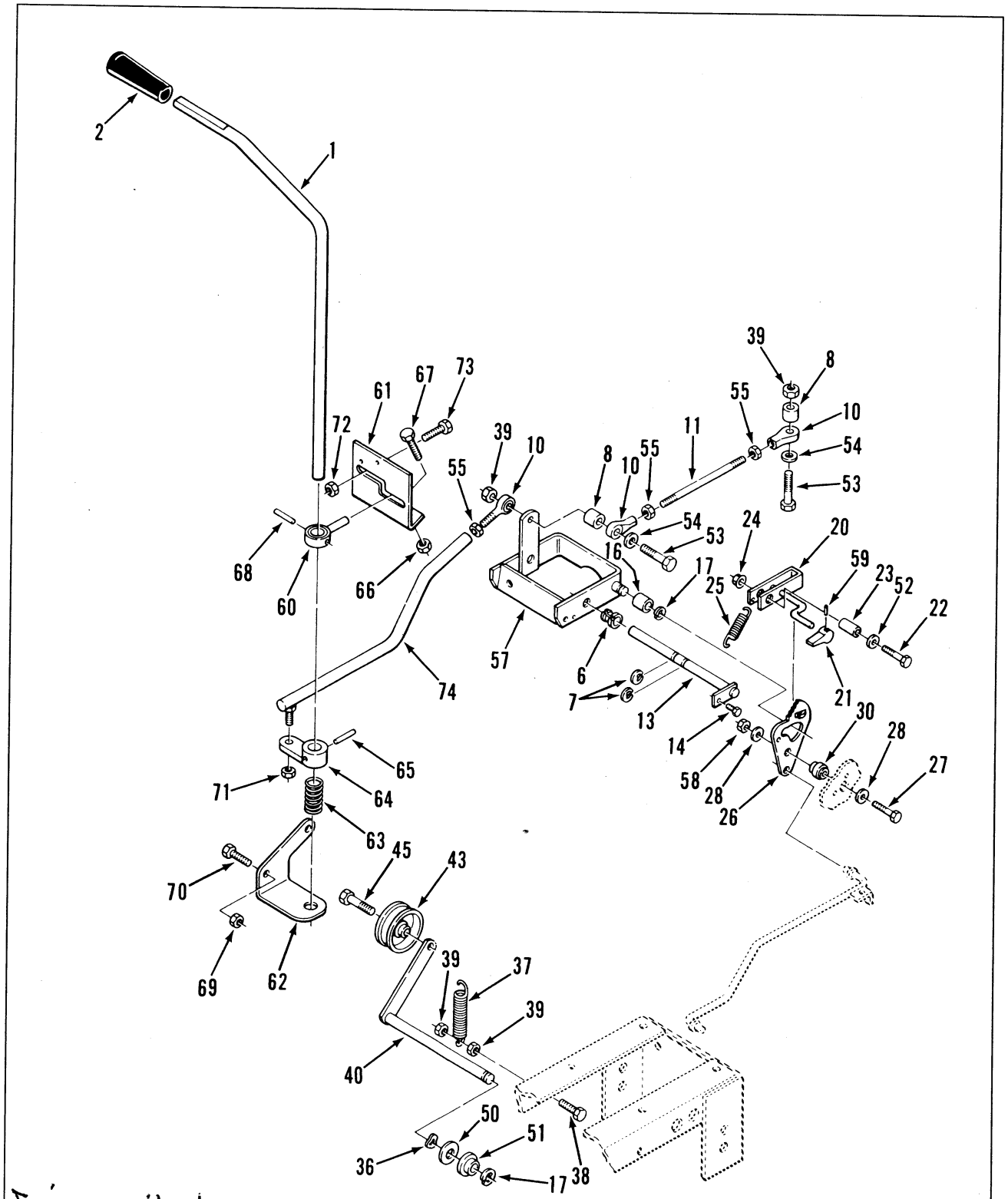


Figure 4-1 Clutch, Brake & Speed Control Linkage

Figure 4-1
CLUTCH, BRAKE & SPEED CONTROL LINKAGE

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	117329	Motion Control Lever	1
2	116635	Knob-Motion Control Linkage	1
6	5983	Bushing	2
7	5701	E-Ring	2
8	100304	Spacer	2
10	116407	Rod End	2
11	108904	Rod Control 9" long	1
13	108496	Pivot Rod-Motion Control Lever	1
14	926694	S.T. Bolt 5/16-18 x 5/8	1
16	100656	Cam Bearing	1
17	5701	E-Ring 1/2	4
20	116296	Parking Brake Lever	1
21	118860	Knob-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	908036	Bolt 3/8-16 x 1-1/2	1
28	920039	Washer 3/8 SAE	2
30	108717	Spacer	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	112792	Pivot Rod	1
43	112791	Idler Pulley	1
45	106193	Special Bolt 3/8-16 x 1-1/2	1
50	920011	Washer 1/2 SAE	1
51	7879	Bushing	1
52	920009	Washer 3/8 SAE	1
53	911458	Bolt 1/4-20 x 1 1/2	2
54	920007	Washer 1/4 SAE	2
55	915083	Jam Nut 1/4-28	3
57	113454	Cam Control	1
58	915663	E.S. Nut 3/8-16	2
59	933135	Spirol Pin 3/32 x 5/8	1
60	118660	Control Guide	1
61	116315	Control Bracket	1
62	116322	Control Bracker-Lower	1
63	101853	Spring	1
64	116321	Control Arm	1
65	933171	Spirol Pin 5/32 x 1	1
66	915661	E.S. Nut 1/4-20	2
67	908003	Bolt 1/4-20 x 3/4	2
68	933198	Spirol Pin 7/32 x 7/8	1
69	915662	E.S. Nut 5/16-18	2
70	908017	Bolt 5/16-18 x 3/4	2
71	915692	Nut 5/16-24	1
72	915662	Stop Nut 5/16-18	1
73	908016	Stop Bolt 5/16-18	1
74	116324	Rod Assembly	1

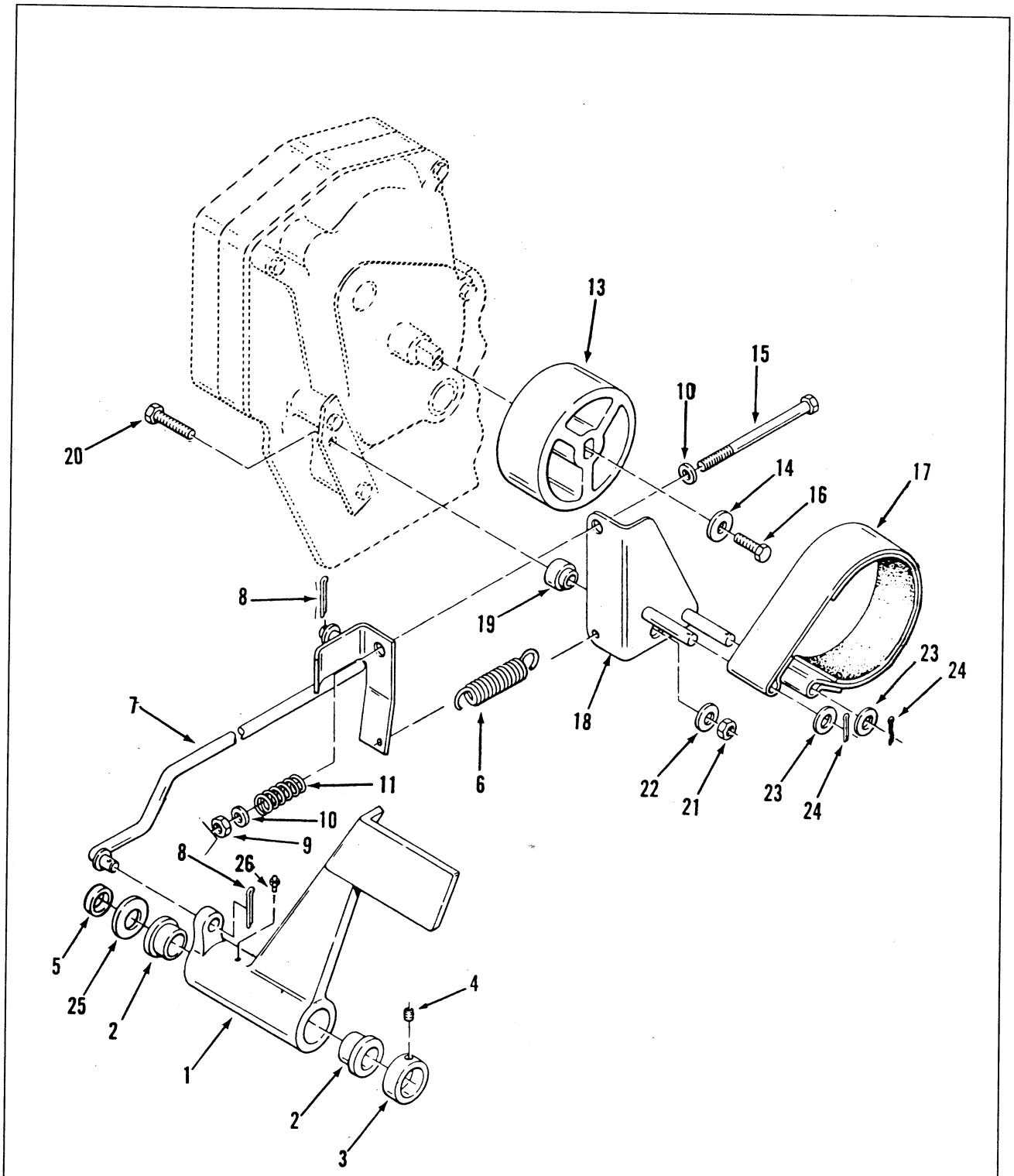


Figure 4-2 Clutch, Brake AND Speed Control LINKAGE

TORO® Wheel Horse® Tractors & Riding Mowers

Figure 4-2 Clutch, Brake & Speed Control Linkage

Figure 4-2 Clutch, Brake & Speed Control Linkage

Figure 4-2
CLUTCH, BRAKE & SPEED CONTROL LINKAGE

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	114099	Brake/Return To Neutral Pedal	1
2	6254	Bushing	2
3	116479	Collar	1
4	909848	Eslok Set Screw 1/4-20 x 1/4	1
5	101757	Spacer	1
6	103125	Spring-Brake Return	1
7	109372	Brake Rod-Front	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	915663	E.S. 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

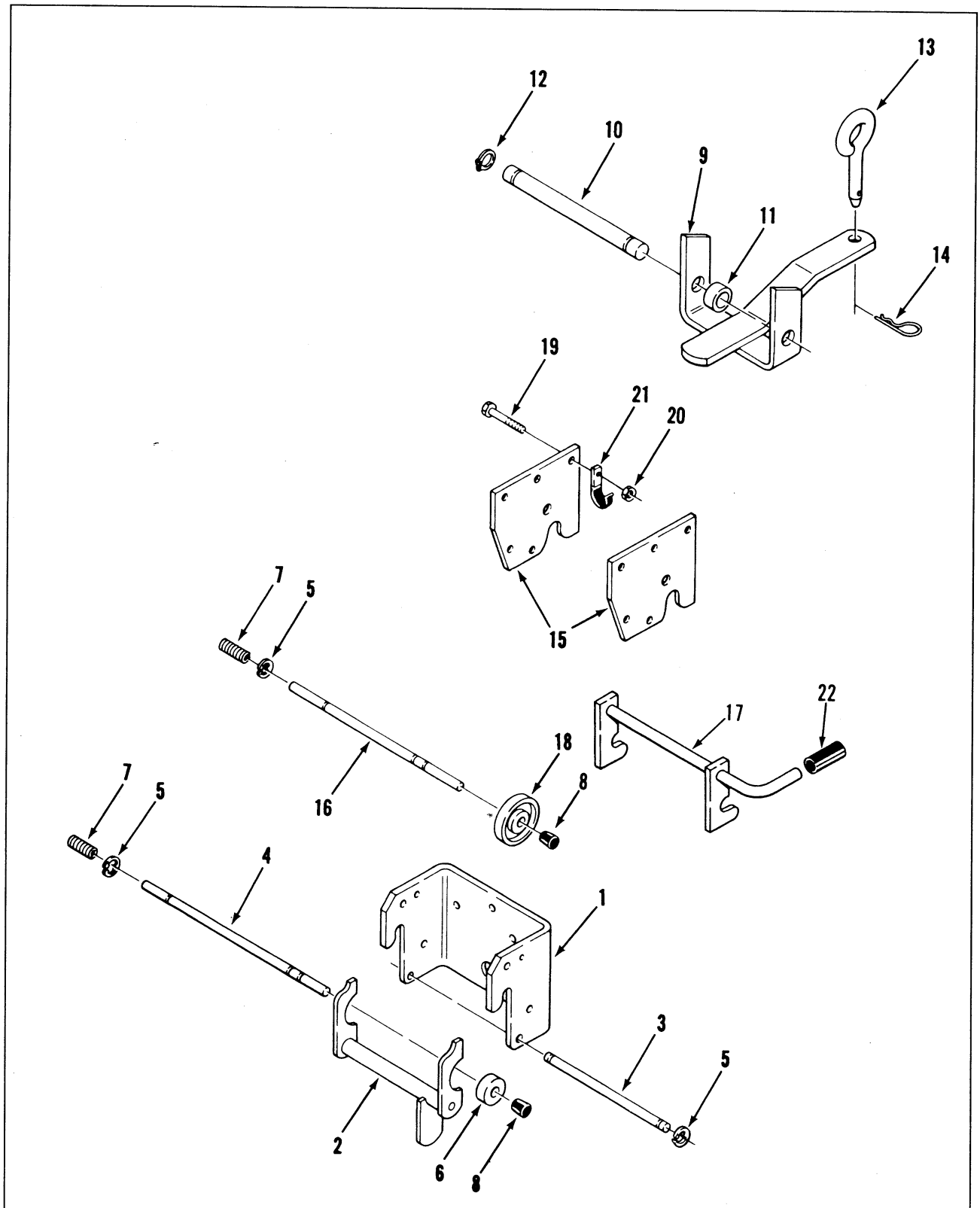


Figure 5-1 Hitches

Figure 5-1
HITCHES

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
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	117930	Latch-Mid Hitch	1
18	101017	Lock	1
19	911435	Bolt 3/8-16 x 1	6
20	108881	E.S. Nut 3/8-16	6
21	8830	Clip	1
22	9038	Grip	1

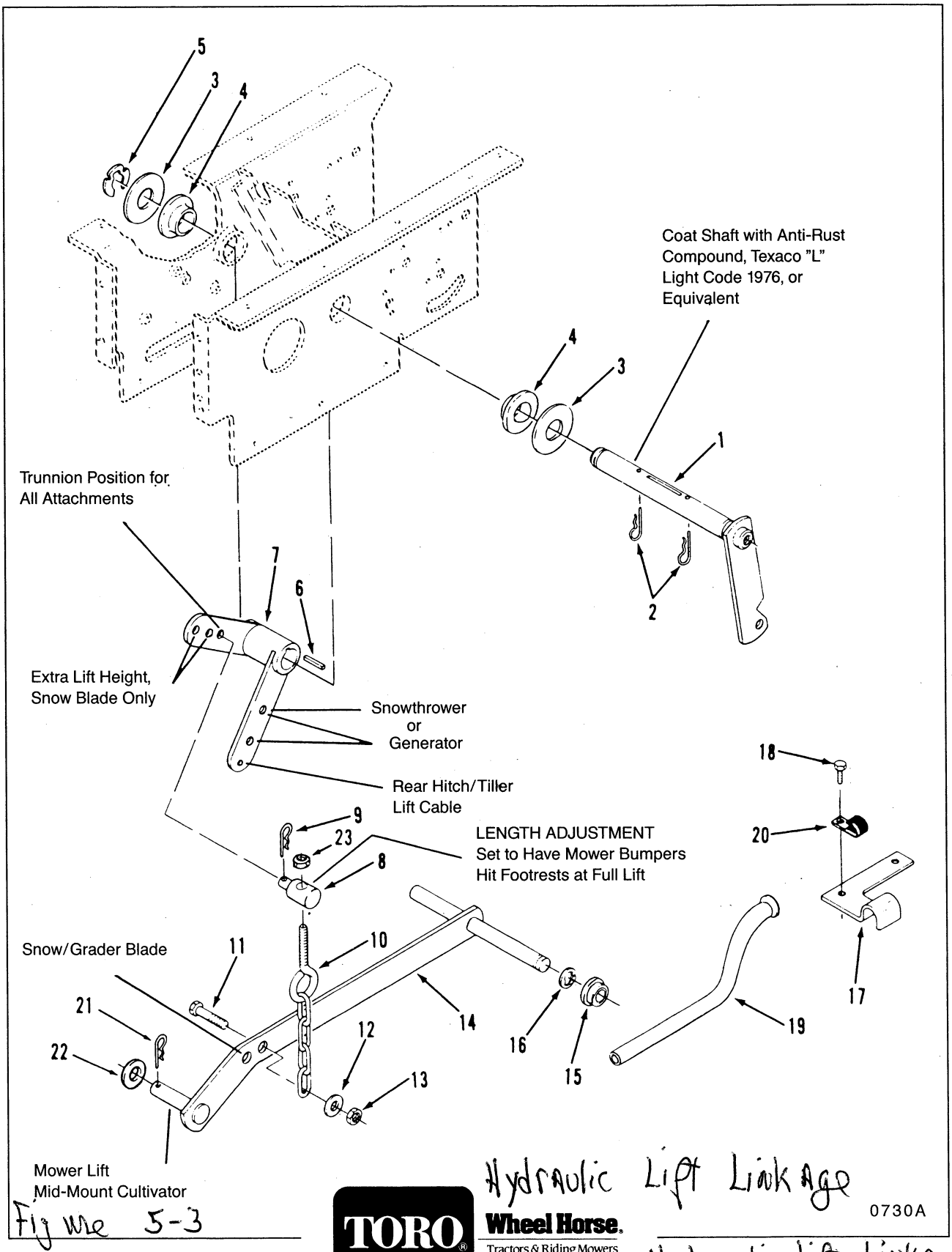


Figure 5-3 Hydraulic Lift Linkage

Figure 5-3
HYDRAULIC LIFT LINKAGE

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	121100	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	915662	E.S. Nut 5/16-18	1
14	113445	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

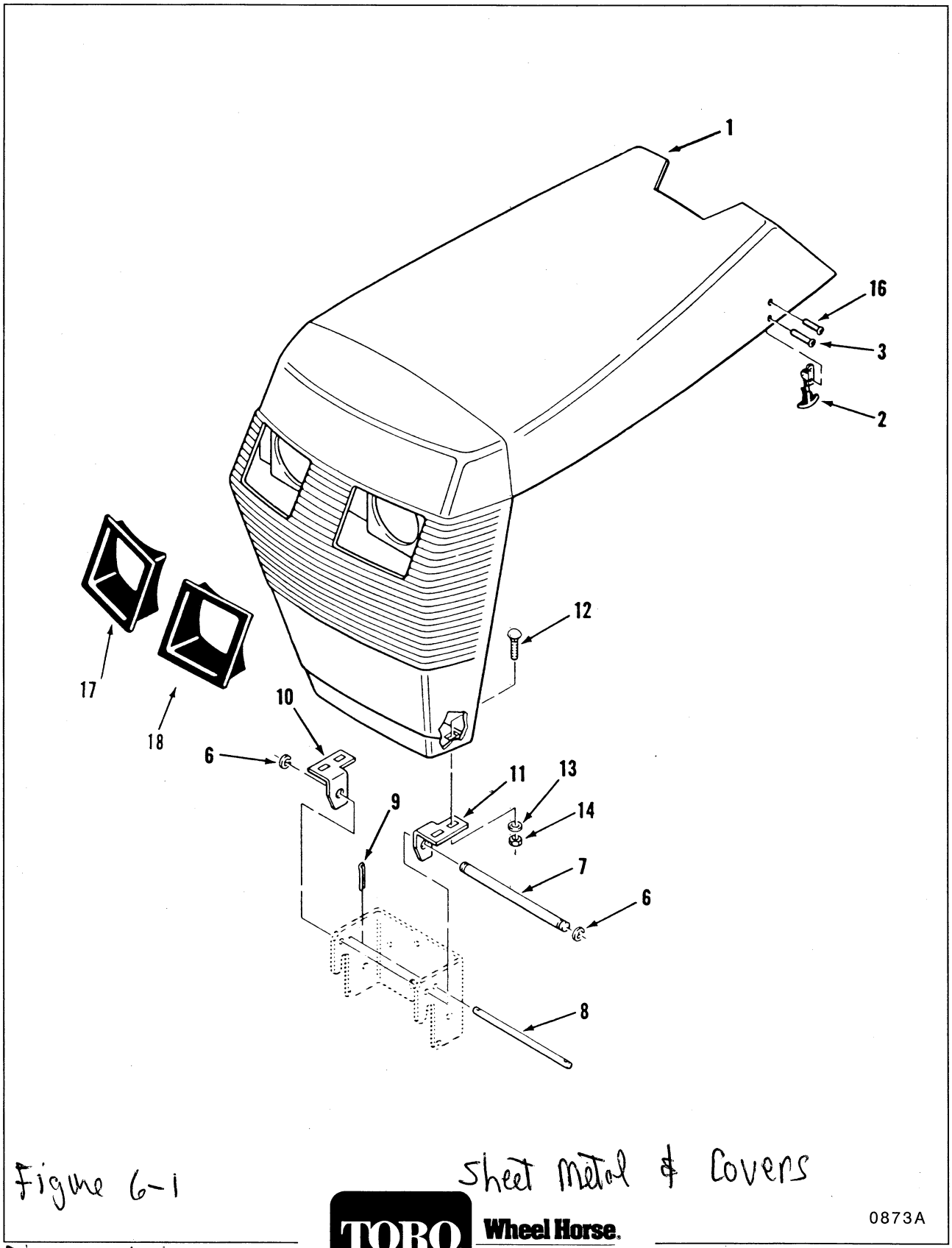


Figure 6-1 Sheet Metal and Covers

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 6-1 **SHEET METAL AND COVERS**	
1	113968	Hood	1
2	117341	Hood Latch (includes 109236 Handle Ass'y & 109237 Latch Keeper)	2
3	117432	Pop Rivet 1/8 x .294	4
6	105797	E-Ring	2
7	116745	Pivot Rod	1
8	101850	Hood Stop Rod	1
9	932000	Cotter Pin 1/16 x 1/2	2
10	116746	Bracket RH	1
11	116747	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	109494	R.H.-Headlight Bezel	1
18	109495	L.H.-Headlight Bezel	1
	5979	Nylon Bushing - used with Hood Brackets (not illustrated)	2

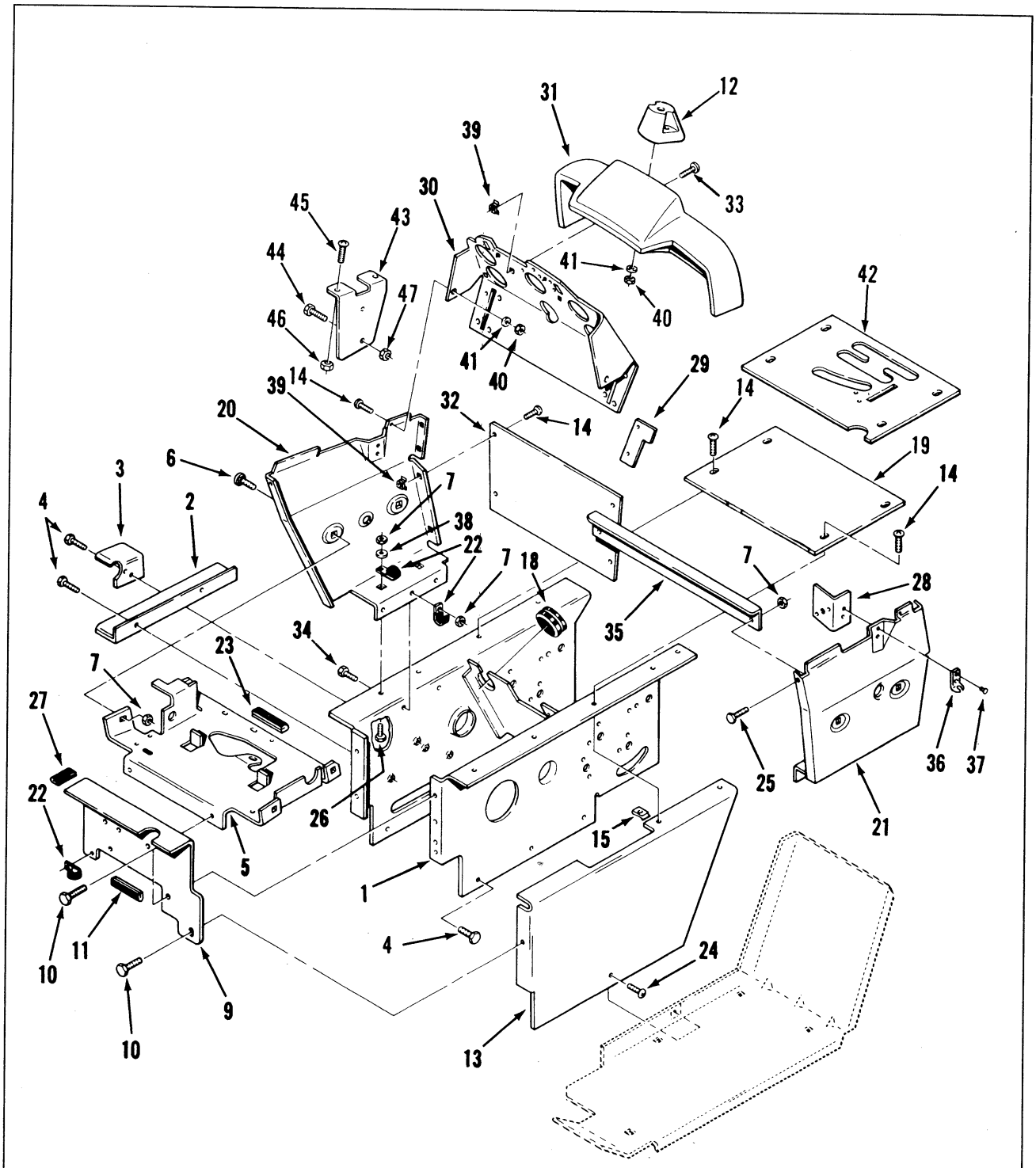


Figure 6-2 Sheet Metal & Covers

Figure 6-2 Sheet Metal & Covers

Figure 6-2 Sheet Metal and Covers

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 6-2 **SHEET METAL AND COVERS**	
1	116327	Hoodstand	1
2	114871	Belt Support Bracket	1
3	106261	Belt Bracket	1
4	926694	ST Bolt 5/16-18 x 5/8	1
5	116309	Battery Support Bracket	1
6	900037	Carriage Bolt 5/16-18 x 3/4	4
7	915662	Eslok Nut 5/16-18	4
9	113938	Front Plate	1
10	926694	ST Bolt 5/16-18 x 5/8	6
11	106454	Edge Trim	1
12	118410	Steering Cover	1
13	116297	Side Cover LH	1
14	9108372	Screw 1/4-20 x 5/8 Black	6
15	107069	Speed Nut	6
18	104248	Grommet	1
19	116315	Shift Cover Plate	1
20	113962	RS Panel	1
21	114432	LS Panel	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	102896	Edge Trim	1
28	114628	Switch Bracket	1
29	114641	Choke Stop	1
30	117266	Dash Panel	1
31	121357	Console Cover Kit (Contains #115620 5-gauge cover, #118410 Steering Cover, (4) 118780 Screw #6 Plastite, & (4) 920270 Washers)	1
32	116862	Rear Hoodstand Plate	1
33	910839	Screw 1/4-20 x 7/8	1
34	908016	Bolt 5/16-18 x 5/8	6
35	113932	Stiffner Panel	1
36	117343	Latch Keeper (Included in 106825 Hood Latch)	2
37	923786	LS Pop Rivet 1/8 x .35	2
	117433	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	6
41	920007	Washer 1/4	6
43	117191	Fuse Holder Bracket	1
44	910794	Screw #10-24 x 3/4	2
45	908002	Screw #10-24 x 5/8	2
46	915740	E.S. Nut #10-24	2
47	915661	E.S. Nut #1/4-20	2

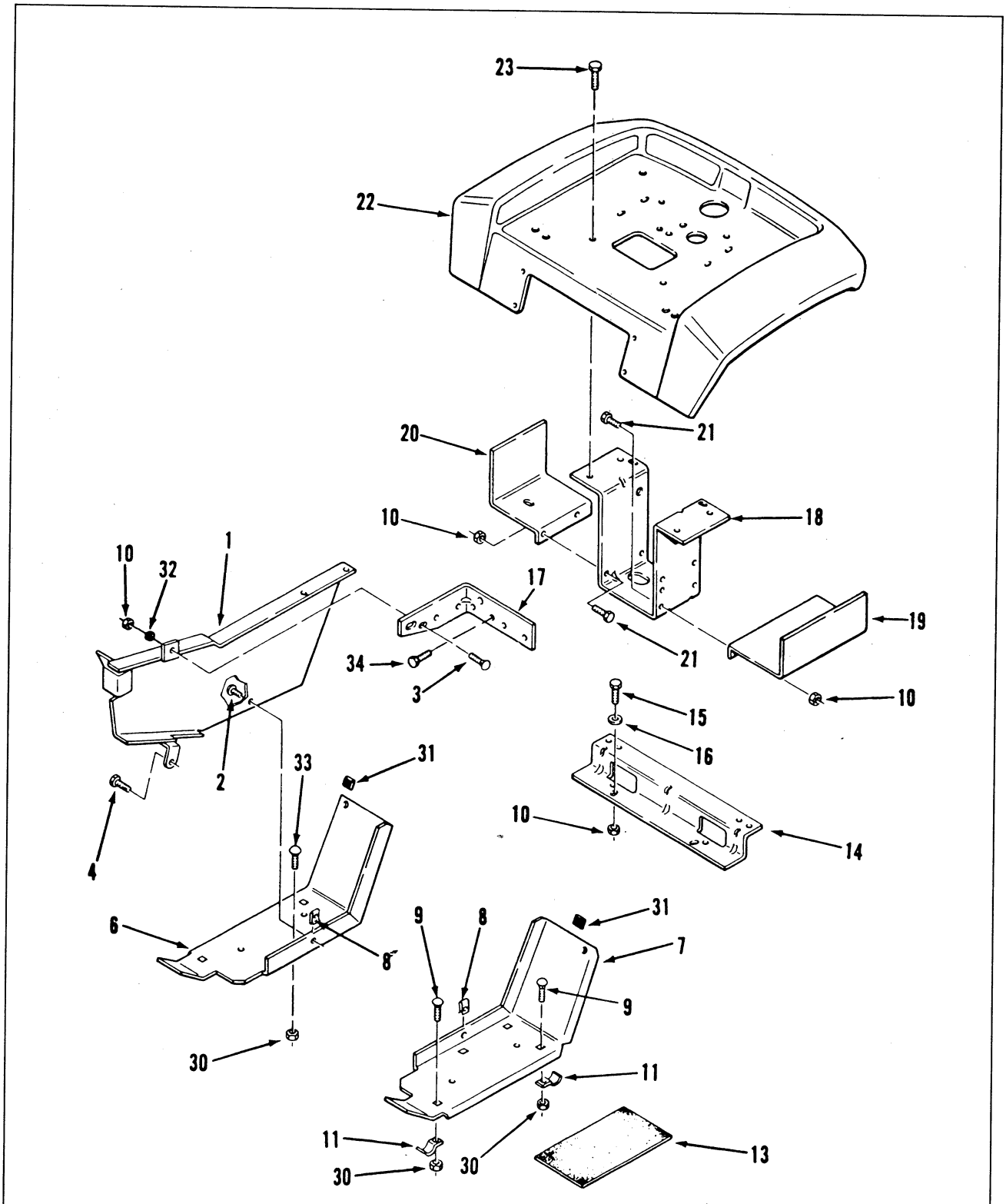


Figure 6-3 Sheet Metal and Covers

Figure 6-3
SHEET METAL AND COVERS

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	114877	Belt Guard	1
2	910837	Screw 1/4-20 x 5/8	2
3	116000	Carriage Bolt 5/16-18 x 3/4	2
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	3
9	900037	Carriage Bolt 5/16-18 x 5/8	4
10	915662	E.S. Nut 5/16-18	7
11	7456	Clamp	4
13	110636	Footrest Pad	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
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
	908019	Bolt 5/16-18 x 1 (not illustrated)	2

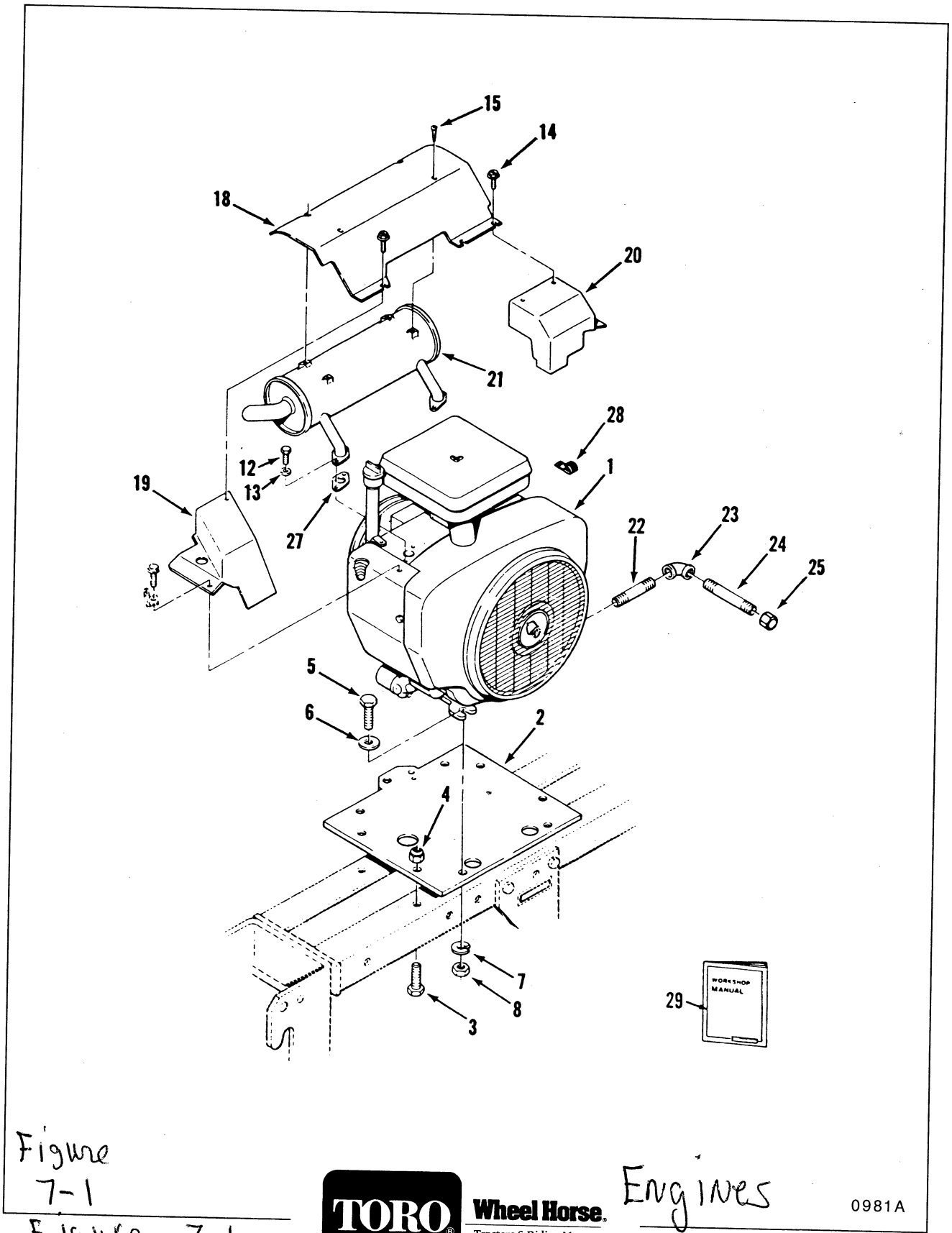


Figure 7-1

TORO Wheel Horse Tractors & Riding Mowers

Engines

Figure 7-1

Engines

Figure 7 - 1 Engines

Figure 7-1
ENGINE

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	117350	Engine - 18HP Toro Power Plus 18HP P218G-I/10539A	X
2	116609	Engine Plate	1
3	908036	Bolt 3/8-16 x 1-1/2	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
12	908017	Bolt 5/16-18 x 3/4	4
13	920082	Lockwasher 5/16	4
14	913136	Screw 1/4-20 x .5	3
15	910331	Screw nr. 10-24 x 3/8	4
18	114217	Air Deflector	1
19	114215	LH Exhaust Cover	1
20	114216	RH Exhaust Cover	1
21	116470	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
27	114214	Exhaust Gasket	2
28	111357	Clip	1
29	810697R1	Toro Power Plus Cylinder Repair Manual	X

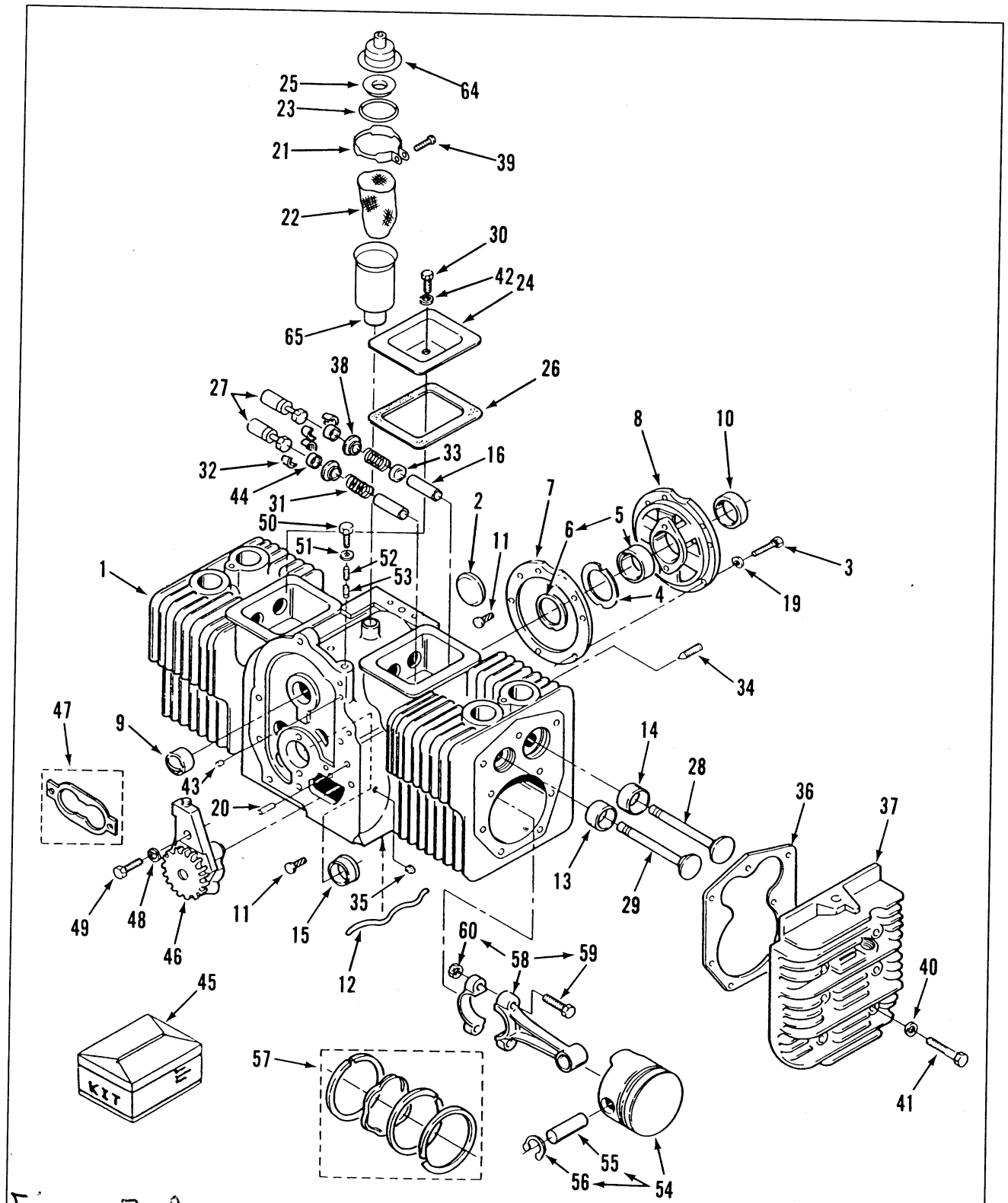


Figure 7-2 Toro Power Plus Engine Cylinder Block

Figure 7-2
ENGINE CYLINDER BLOCK

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	NN10851	Short Block	1
2	NN10338	Plug	1
3	NN10442	Bolt 3/8-16 x 1-1/4	5
4	NN10023	Shim 0.005"	X
5	NN10009	Crankshaft Rear Brg - Standard	1
	NN10010	Crankshaft Rear Brg - .002" Under	1
	NN10011	Crankshaft Rear Brg - .010" Under	1
	NN10012	Crankshaft Rear Brg - .020" Under	1
	NN10013	Crankshaft Rear Brg - .030" Under	1
6	NN10022	Thrust Washer	2
7	NN10002	Gasket	1
8	NN10008	Bearing Plate	1
9	NN10001	Camshaft Brg	2
10	NN10312	Oil Seal	1
11	NN10334	Stop Pin	4
12	NN10139	Oil Tube	1
13	NN10054	Exhaust Seat Insert - Standard	2
	NN10055	Exhaust Seat Insert - .002" Oversize	2
	NN10056	Exhaust Seat Insert - .005" Oversize	2
	NN10057	Exhaust Seat Insert - .010" Oversize	2
	NN10085	Exhaust Seat Insert - .025" Oversize	2
14	NN10035	Intake Seat Insert - Standard	2
	NN10036	Intake Seat Insert - .002" Oversize	2
	NN10037	Intake Seat Insert - .005" Oversize	2
	NN10038	Intake Seat Insert - .010" Oversize	2
	NN10039	Intake Seat Insert - .025" Oversize	2
15	NN10003	Front Crankshaft Brg. - Standard	1
	NN10004	Front Crankshaft Brg - .002" Under	1
	NN10005	Front Crankshaft Brg - .010" Under	1
	NN10006	Front Crankshaft Brg - .020" Under	1
	NN10007	Front Crankshaft Brg - .030" Under	1
16	NN10084	Exhaust Valve Guide	2
	NN10083	Intake Valve Guide	2
19	NN10421	Spring Washer 3/8	5
20	NN10336	Pin	2
21	NN10148	Clamp	1
22	NN10156	Baffle	1
23	NN10322	Seal	2
24	NN10821	RH Valve Cover	1
25	NN10151	Screen	1
26	NN10822	Gasket	3
27	NN10129	Tappet - Standard	4
	NN10130	Tappet .002" Oversize	4
	NN10131	Tappet .004" Oversize	4
28	NN10075	Intake Valve	2
29	NN10076	Exhaust Valve	2
30	NN10370	Bolt 1/4-20 x 1-3/4	2
31	NN10077	Valve Spring	4
32	NN10082	Spring Lock	8
33	NN10326	Intake Valve Seal	2

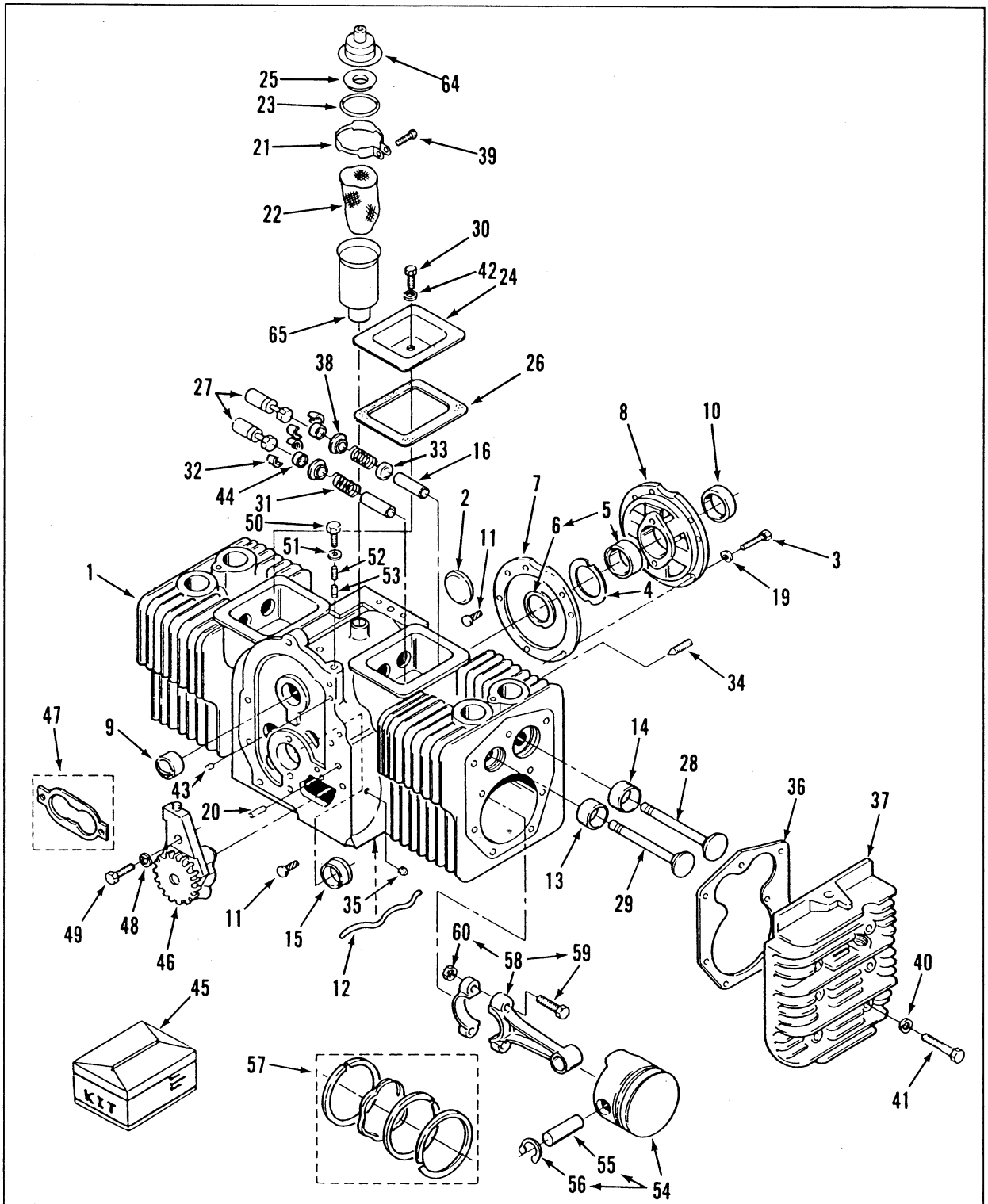


Figure 7-2 Toro Power Plus Engine Cylinder Block

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Figure 7-2 Toro Power Plus Engine Cylinder Block

Figure 7-2
ENGINE CYLINDER BLOCK (CONT'D)

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
34	NN10385	Screw 3/8-16 x 5/8	2
35	NN10307	Pipe Plug	1
36	NN10070	Cylinder Head Gasket	2
37	NN10080	Right Cylinder Head	1
	NN10079	Left Cylinder Head	1
38	NN10078	Retaining Washer	4
39	NN10387	Screw #8 x 3/4	1
40	NN10363	Flat Washer 1/4	18
41	NN10382	Special Bolt 2.375" long	18
42	NN10359	Flat Copper Washer 1/4	2
44	NN10081	Valve Cap	4
45	NN10257	Complete Engine Gasket Kit	1
	NN10561	Valve Grind/Carbon Removal	1
46	NN10136	Oil Pump-Complete	1
47	NN10134	Oil Pump-Gasket Kit	1
48	NN10419	Spring Washer	2
49	NN10369	Bolt 1/4-20 x 1	2
50	NN10383	Bolt 3/8-24 x 7/8	1
51	NN10361	Flat Copper Washer 3/8	1
52	NN10133	Spring	1
53	NN10135	Plunger	1
54	NN10088	Piston (Includes Pin & Retaining Rings) - STD	2
	NN10089	Piston (Includes Pin & Retaining Rings) - .005"	2
	NN10090	Piston (Includes Pin & Retaining Rings) - .010"	2
	NN10091	Piston (Includes Pin & Retaining Rings) - .020"	2
	NN10092	Piston (Includes Pin & Retaining Rings) - .030"	2
	NN10093	Piston (Includes Pin & Retaining Rings) - .040"	2
55	NN10100	Piston Pin	2
56	NN10345	Retaining Ring	4
57	NN10101	Piston Ring Set-Standard	2
	NN10102	Piston Ring Set .005" Oversize	2
	NN10103	Piston Ring Set .010" Oversize	2
	NN10104	Piston Ring Set .020" Oversize	2
	NN10105	Piston Ring Set .030" Oversize	2
	NN10106	Piston Ring Set .040" Oversize	2
58	NN10121	Rod w/ Bolts & Nuts - STD.	2
	NN10122	Rod w/ Bolts & Nuts - .010"	2
	NN10123	Rod w/ Bolts & Nuts - .020"	2
	NN10124	Rod w/ bolts & Nuts - .030"	2
59	NN10120	Special Rod Bolt	4
60	NN10428	Crown Lock Nut	4
64	NN10150	Breather Cap and Valve	1
65	NN10149	Breather Tube	1

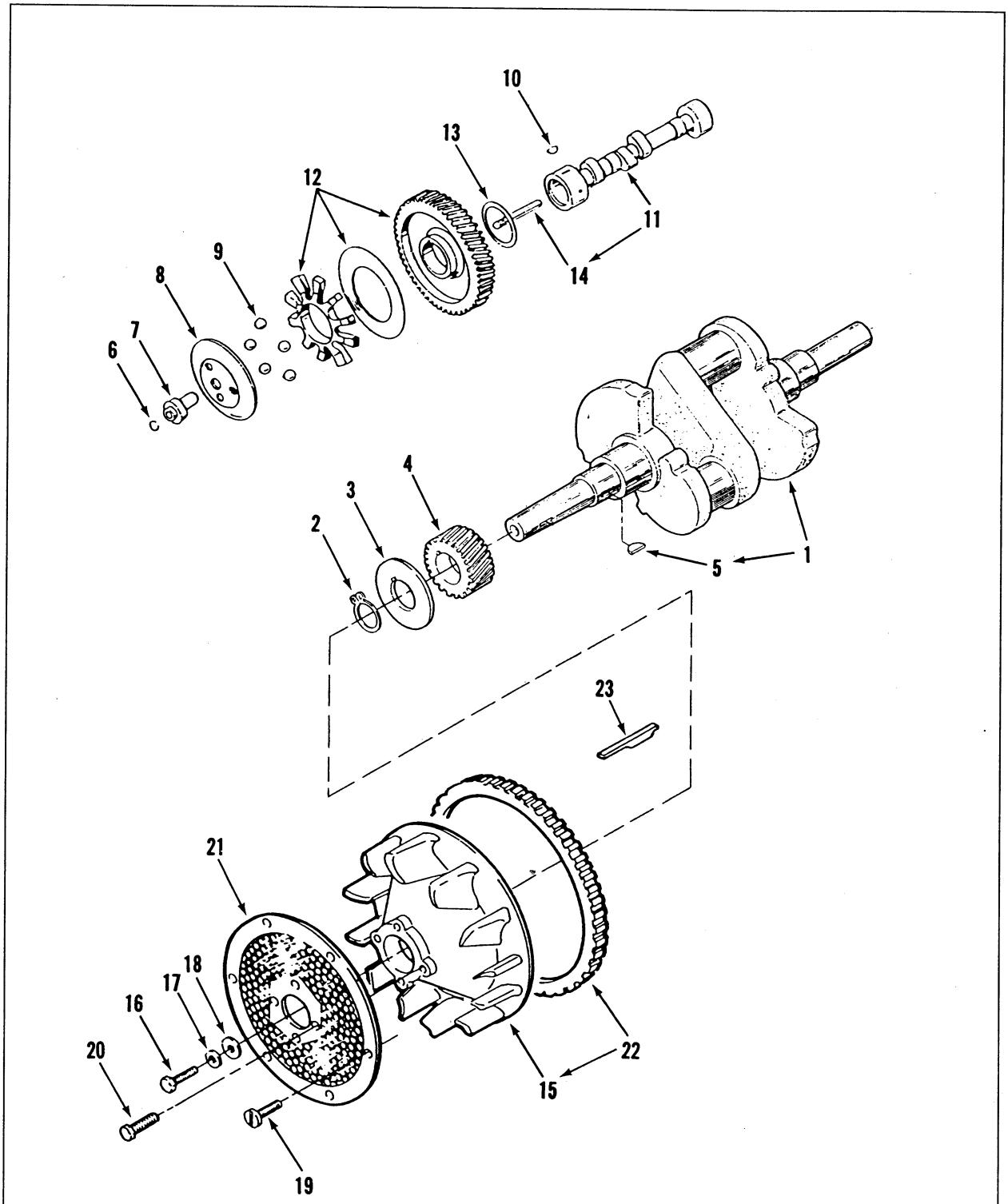


Figure 7-3 Toro Power Plus Crankshaft, Camshaft and Fly wheel

Figure 7-3 Toro Power Plus Crankshaft, Camshaft & Flywheel

FIGURE 7-3 Toro Power Plus Crankshaft, Camshaft & Flywheel

Figure 7-3
CRANKSHAFT, CAMSHAFT, FLYWHEEL

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	NN10773	Crankshaft	1
2	NN10343	Retaining Ring	1
3	NN10439	Special Washer	1
4	NN10438	Crankshaft Gear	1
5	NN10330	Gear Key	1
6	NN10215	Retaining Ring	1
7	NN10221	Governor Cup Hub	1
8	NN10222	Governor Cup	1
9	NN10328	Governor Ball	1
10	NN10330	Woodruff Key	1
11	NN10033	Camshaft (Includes item 13)	1
12	NN10029	Camshaft Gear (Includes Gear, spacer and Plate)	1
13	NN10030	Special Thrust Washer	1
14	NN10214	Center Pin	1
15	NN10171	Flywheel (Includes Ring Gear)	1
16	NN10021	Special Hex Hd Cap Screw	1
17	NN10422	Spring Lockwasher 7/16	1
18	NN10335	Flat Washer 7/16	1
19	NN10409	Flange Lock Hd. Screw #10-24 x 3/8	6
20	NN10416	Hex Hd. Locking Cap Screw 5/16-18 x 1/2	4
21	NN10496	Air Inlet Screen	1
22	NN10024	Ring Gear	1
23	NN10332	Flywheel Key	1

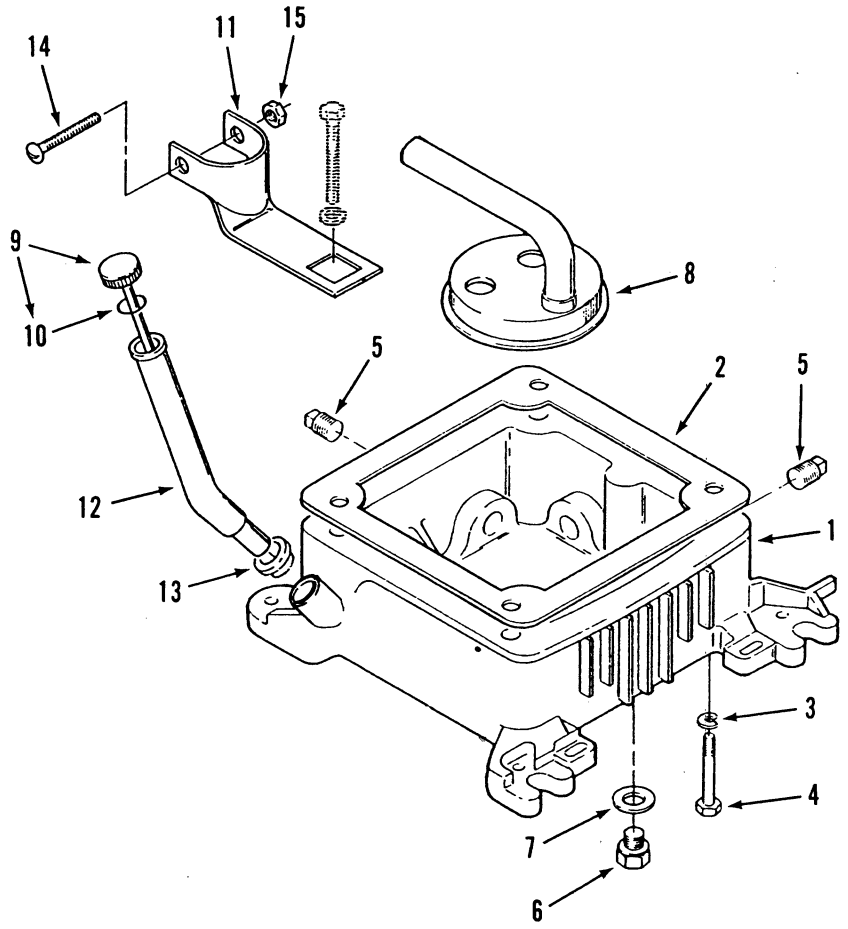


Figure 7-4 Toro Power Plus Oil Base Fill Tube and Bracket 1912

TORO Wheel Horse Tractors & Riding Mowers

Figure 7-4 Toro Power 7-4 Toro Power Plus Oil Base Fill Tube and Bracket Plus Oil Base Fill Tube & Bracket

Figure 7-4 Toro Power Plus Oil Base Fill Tube and Bracket

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 7-4 **OIL BASE FILL TUBE AND BRACKET**	
1	NN10018	Oil Base (Includes All Plugs and Plug Gasket	1
2	NN10565	Oil Base Gasket	1
3	NN10421	Spring Lockwasher 3/8	4
4	NN10379	Cap Screw 3/8-16 x 3-3/4	4
5	NN10682	Sq. Hd. Plug 3/8	2
6	NN10015	Special Hex Hd. Plug	1
7	NN10014	Hex Hd. Plug Gasket	1
8	NN10138	Oil Pump Intake Cup	1
9	NN10159	Oil Fill Cap and Indicator (Includes "O" Ring)	1
10	NN10323	Oil Fill Cap Oil Ring	1
11	NN10162	Fill Tube Bracket	1
12	NN10161	Oil Fill Tube-Chrome 15-3/4" Lg.	1
13	NN10325	Oil Fill Tube Seal	1
14	NN10407	Pan Hd. Screw #10 x 1-1/4	1
15	NN10431	Speed Nut	1

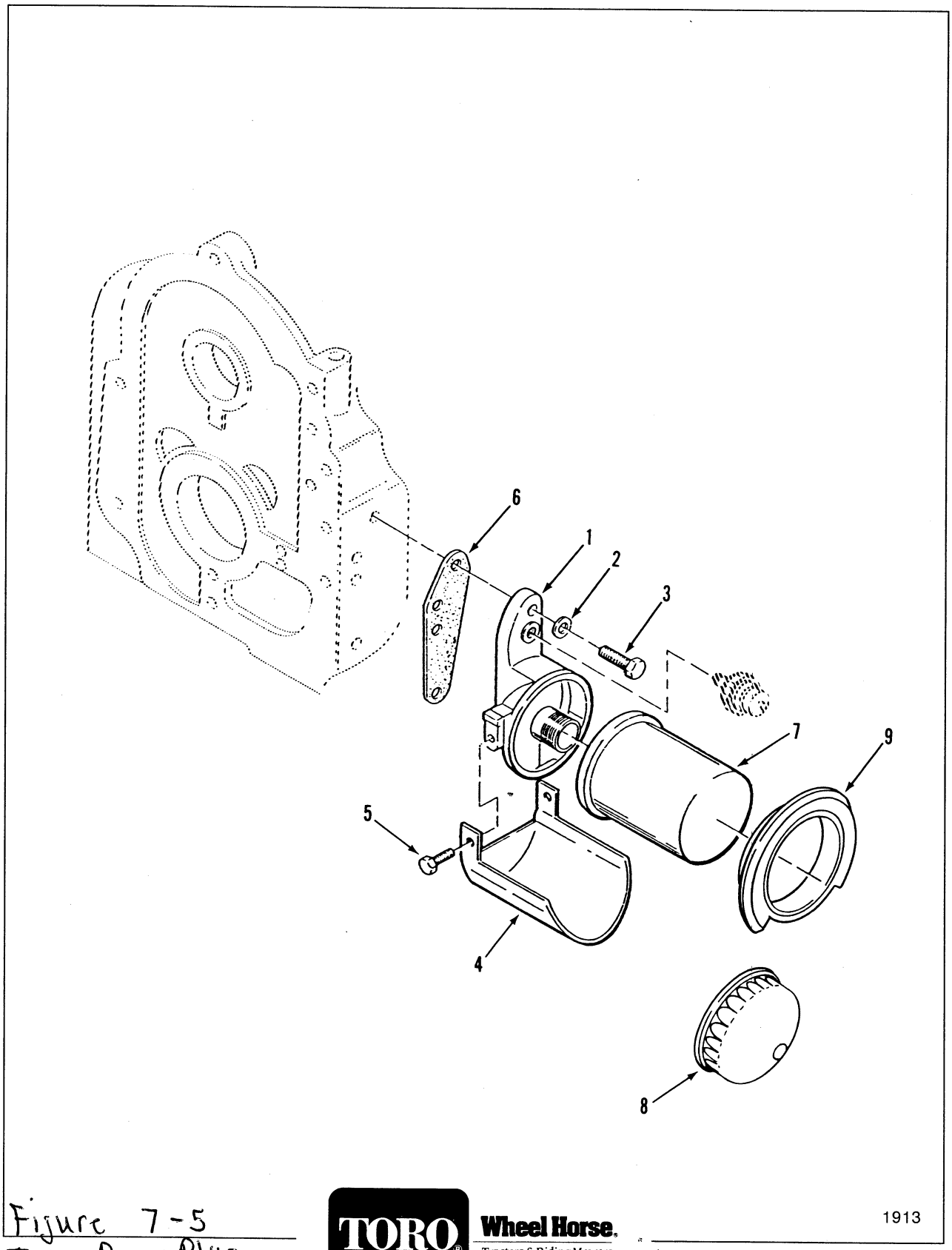


Figure 7-5
Toro Power Plus Oil Filter

Figure 7-5 Toro Power Plus Oil Filter

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 7-5 **OIL FILTER**	
1	NN10141	Oil Filter Adapter	1
2	NN10360	Flat Copper Washer 5/16	2
3	NN10373	Hex Hd. Cap Screw 5/16-18 x 1	2
4	NN10146	Oil Filter Drain	1
5	NN10391	Hex Hd.Cap Screw #10-32 x 3/8	2
6	NN10455	Oil Filter Adapter Gasket	1
7	NN10147	Oil Filter	1
8	NN10465	Oil Filter Wrench	1
9	NN10823	Gasket	1

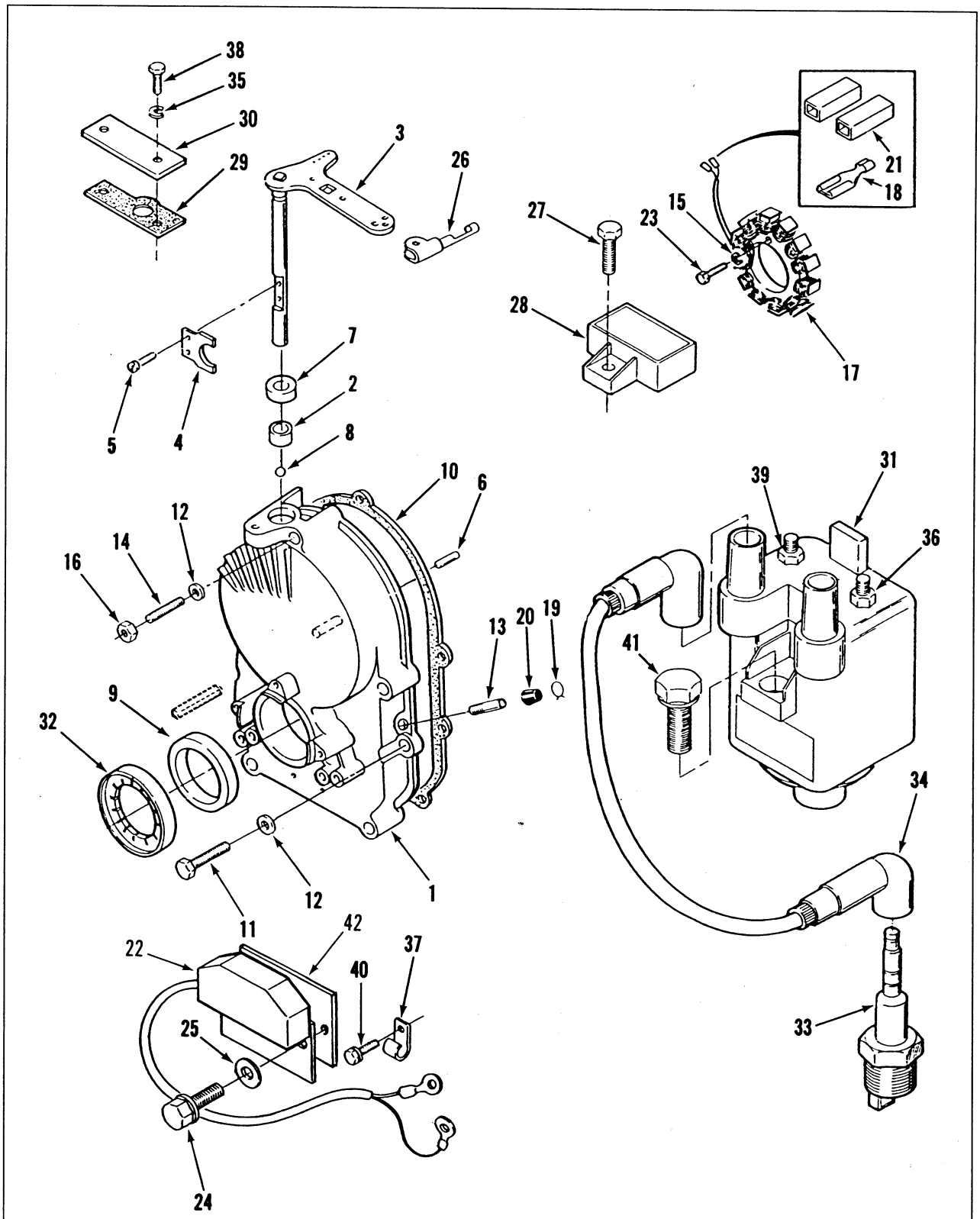


Figure 7-6 Toro Power Plus Gearcase and Ignition Controls

Figure 7-6
GEARCASE AND IGNITION CONTROLS

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	NN10825	Gearcase Kit (Includes Items 2 thru 9, 13, 19, & 20)	1
2	NN10329	Governor Shaft Bearing	1
3	NN10826	Governor Shaft and Arm-Chromed	1
4	NN10216	Governor Shaft Yoke	1
5	NN10388	Pan Hd. Screw #8-32 x 3/8	1
6	NN10335	Governor Cup Stop Dowl Pin	1
7	NN10310	Governor Shaft Oil Seal	1
8	NN10327	Governor Shaft Ball Bearing	1
9	NN10320	Crankshaft Oil Seal	1
10	NN10019	Gearcase Mounting Gasket	1
11	NN10374	Hex Hd. Cap Screw 5/16-18 x 1-3/4	4
12	NN10360	Flat Copper Washer 5/16	5
13	NN10210	Vacuum Port Tube	1
14	NN10352	Gear Cover Stud	1
15	NN10418	Lockwasher #10	3
16	NN10426	Nut 5/6-18	1
17	NN10518	Stator w/Terminals	1
18	NN10290	Stator Leads Terminal	3
19	NN10301	Vacuum Port Clamp	1
20	NN10211	Vacuum Port Cap	1
21	NN10280	Terminal Connector Body Kit (Includes Terminals)	1
22	NN10444	Ignition Control	1
23	NN10389	Self-Lock Hex Hd. Mach. Screw #10-32 x 1	3
24	NN10394	HexWasher Hd. Screw #10-32 x 3/8	2
25	NN10424	Lockwasher IT #10	2
26	NN10346	Retaining Clip	1
27	NN10414	Hex Washer Hd. Cap Screw 1/4-20 x 5/16	1
28	NN10261	Voltage Regulator-20 amp	1
29	NN10243	Plate Gasket	1
30	NN10515	Ignition Plunger Cover	1
31	NN10245	Battery Ignition Coil w/Nuts	1
32	NN10247	Ignition Rotor	1
33	NN10517	Spark Plug	2
34	NN10253	Spark Plug Cable-9" Long	1
	NN10254	Spark Plug Cable-18.5" Long	1
35	NN10419	Lockwasher 1/4	2
36	NN10248	Hex Flange Nut	1
37	NN10348	Wire Clip	1
38	NN10368	Hex Hd. Cap Screw 1/4-20 x 5/8	1
39	NN10249	Hex Flange Nut	1
40	NN10396	Hex Washer Hd. Screw 1/4-20 x 1	1
41	NN10408	Hex Washer Hd. Screw 1/4-20 x 1	2
42	NN10516	Ignition Module Insulator	1

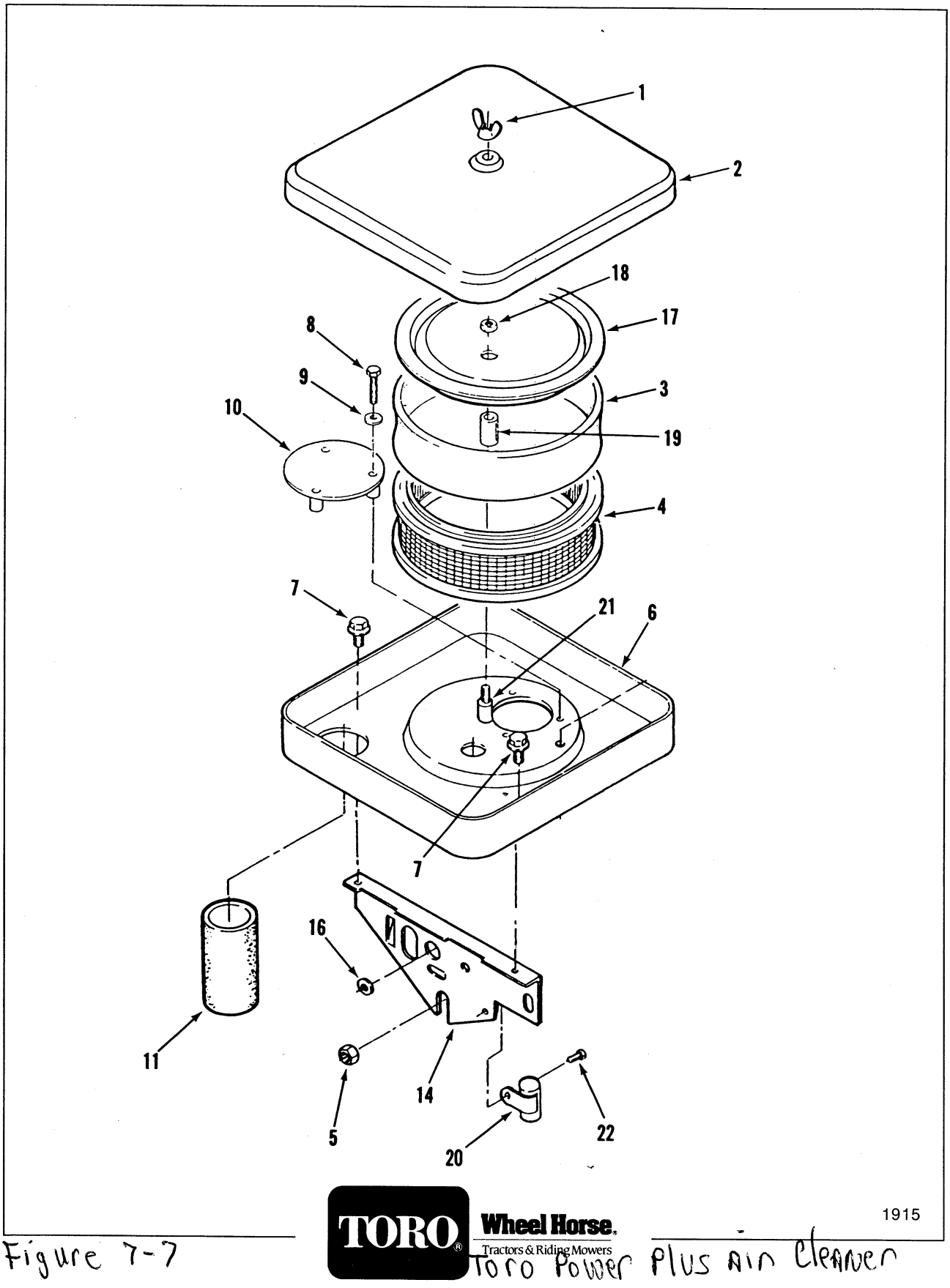


Figure 7-7

Figure 7-7 Toro Power Plus Air Cleaner

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 7-7 **AIR CLEANER**	
1	NN10427	Wing Nut 1/4-20	1
2	NN10446	Air Cleaner Cover	1
3	NN10176	Air Cleaner Foam Element	1
4	NN10175	Air Cleaner Element	1
5	NN10430	Hex Washer Hd. Flange Nut 5/16-18	1
6	NN10827	Air Cleaner Housing	1
7	NN10406	Hex Washer Hd. ST Screw 1/4-20 x 3/8	2
8	NN10398	Hex Hd. Mach. Screw #10-32 x 1 - 1/2	3
9	NN10365	Flat Washer #10	3
10	NN10193	Air Deflector Plate	1
11	NN10187	Air Intake Tube	1
14	NN10186	Air Cleaner Support	1
16	NN10309	Rubber Grommet - 3/4" Hole	1
17	NN10177	Element Cover	1
18	NN10429	Hex Nut 1/4-20	1
19	NN10272	Air Cleaner Stud Spacer	1
20	NN10276	Capacitor (300 VD)	1
22	NN10390	Hex Washer Hd. Screw #10-32 x 5/8	1

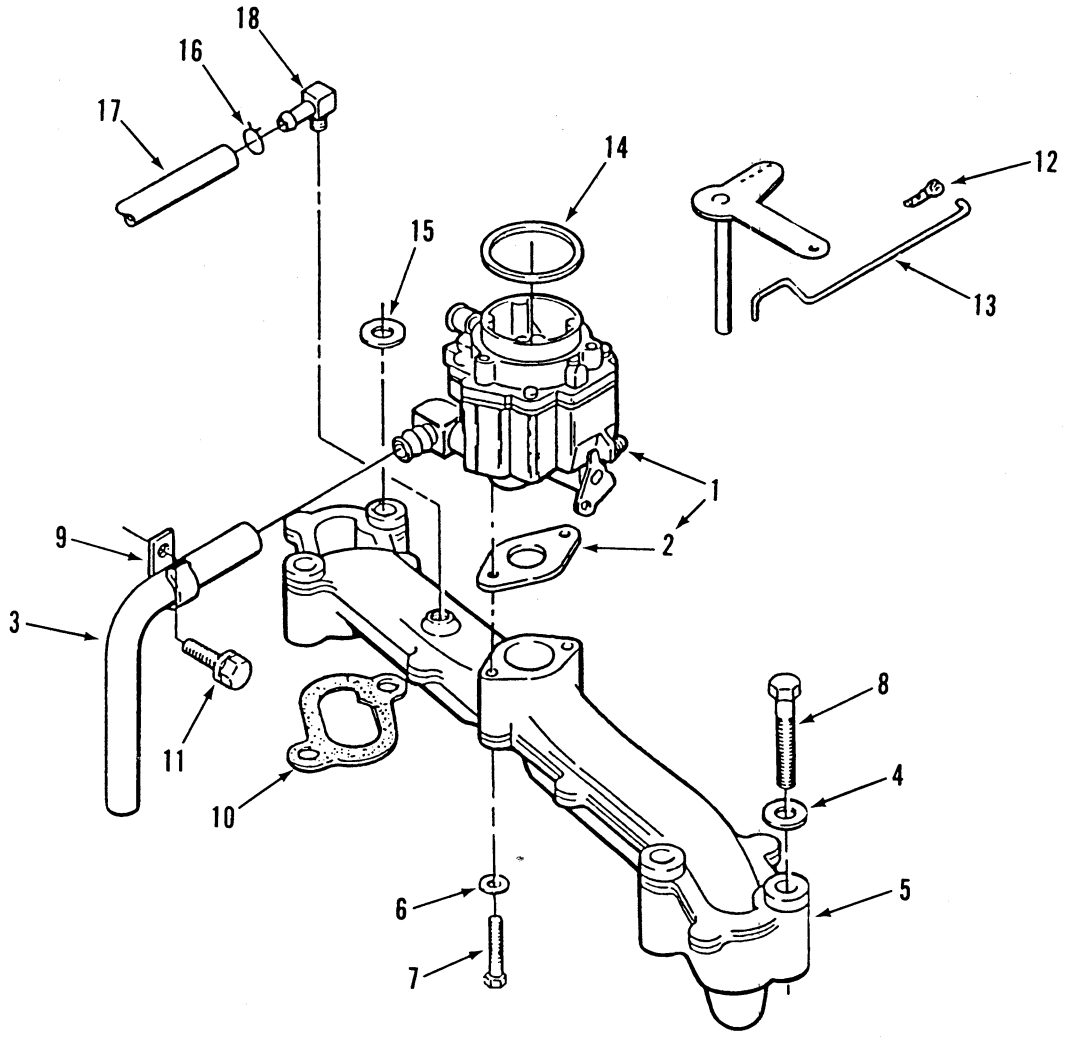


Figure 7-8

1916

Toro Power Plus Intake Manifold

Figure 7-8 Toro Power Plus Intake Manifold

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 7-8	
		INTAKE MANIFOLD	
1	NN10855	Carburetor (Includes Mounting Gasket, Elbow and "O" Ring)	
		See section 7-9 for complete carburetor breakdown)	1
2	NN10235	Carburetor to Adapter Gasket	2
3	NN10856	Hose 17"	1
	NN10306	Hose 30"	1
	NN10857	Hose 15"	1
4	NN10420	Lockwasher 1/4	4
5	NN10777	Intake Manifold	1
6	NN10419	Spring Lockwasher 1/4	2
7	NN10372	Screw Hex Hd. 1/4-20 x 1-3/8	2
8	NN10375	Screw Hex Hd.	4
9	NN10348	Clip	1
10	NN10236	Gasket	2
11	NN10399	Screw Hex Hd. 1/4-14 x 1/2	1
12	NN10342	Retaining Clip Rod to Carburetor	1
13	NN10227	Governor Control Rod	1
14	NN10423	O-Ring	1
15	NN10362	Flat Washer 5/16	1
16	NN10829	Clamp .44" Dia	2
	NN10789	Clamp 1/2" Dia	1
17	NN10305	Hose 3.25"	1
	NN10447	Hose	1
18	NN10299	Barbed Fitting	1

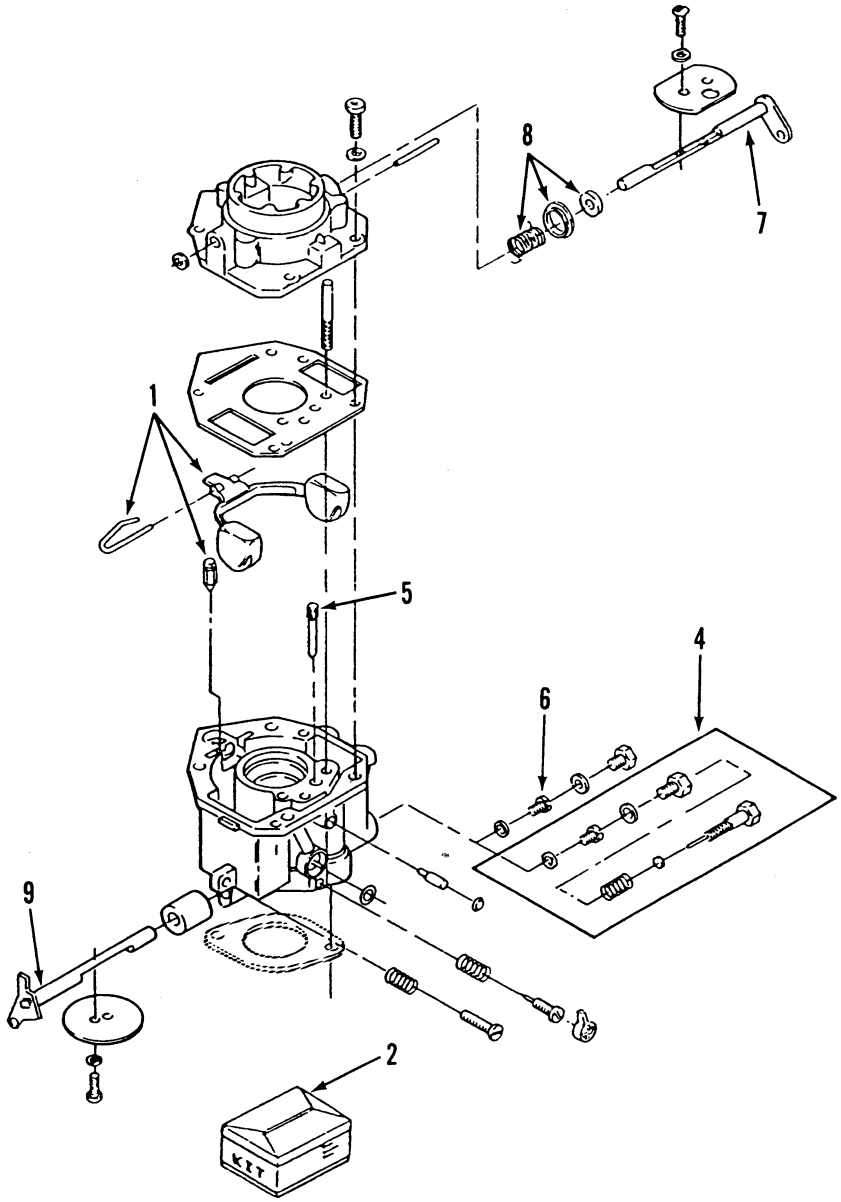


Figure 7-9
Toro Power Plus

TORO® Wheel Horse® Tractors & Riding Mowers

1917

Carburetor Components

Figure 7-9 Toro Power Plus Carburetor Components

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 7-9 **CARBURETOR COMPONENTS**	
1	NN10209	Float Kit (Includes Float, Pin and Valve)	X
2	NN10807	Repair Kit (Includes Screw and Plug Package, Gasket Package, Float Valve, Idle Adjustment Needle and Spring, Mounting Gaskets, Idle Limit Cap)	X
4	NN10858	Variable Jet Kit-Optional (High Altitude Application Includes Power Jet and Gasket, Retainer, Power Needle Spring, Power Needle and Power Plug Gasket)	X
5	NN10859	Idle Jet	1
6	57-9050	Power Jet	1
7	NN10207	Choke Shaft Kit (Includes Choke Valve, Valve Set Screw and Air Filter)	1
8	NN10208	Choke Lever Kit (Includes Choke Lever Ring, Choke Spring and Choke Collar)	1
9	NN10811	Throttle Shaft Kit (Includes Valve Set Screw, Air Filter and Throttle Valve	1

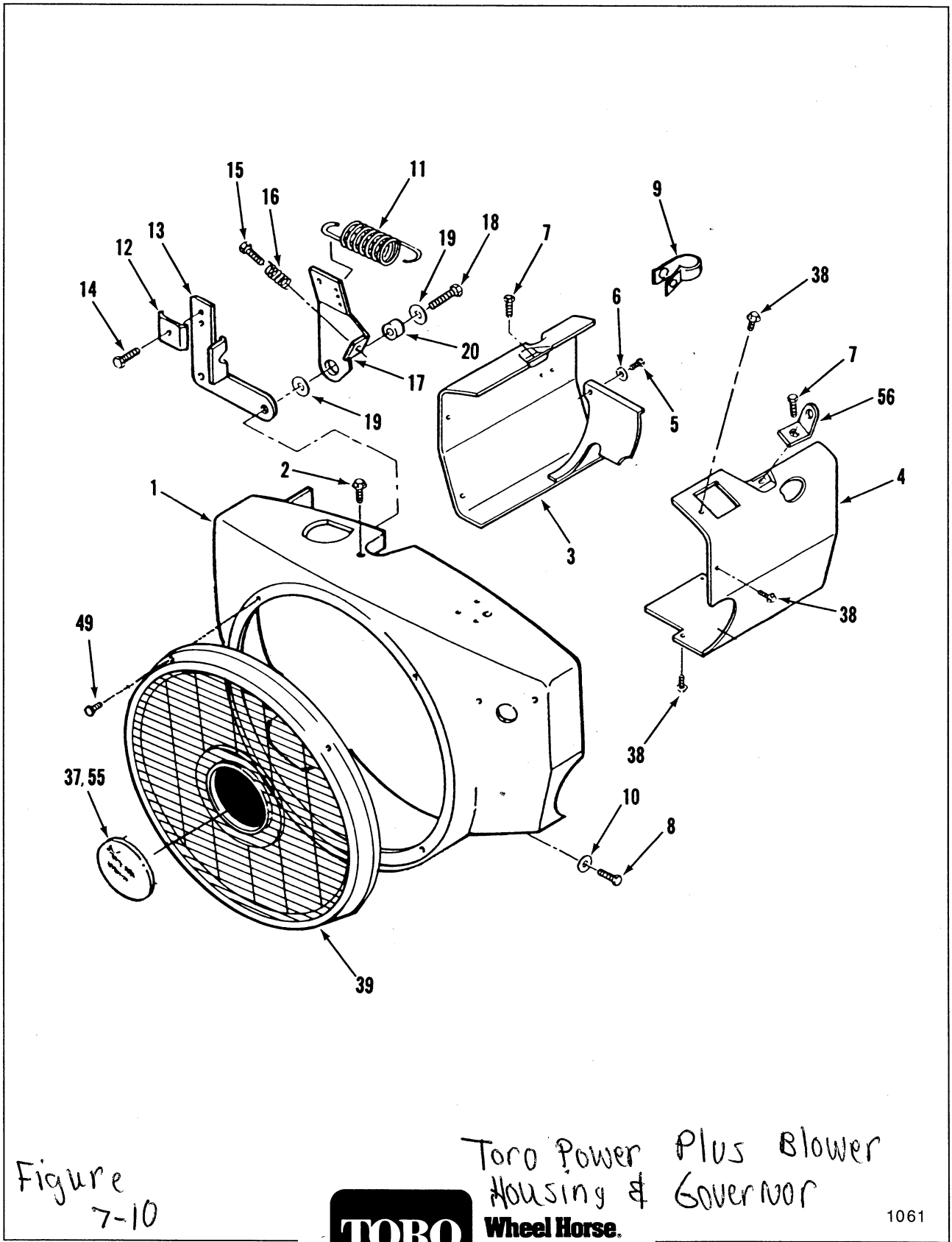


Figure 7-10 Toro Power Plus Blower Housing and Governor

Figure 7-10
BLOWER HOUSING AND GOVERNOR

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	NN10831	Blower Housing	1
2	NN10392	Washer Hd. ST Screw 1/4-20 x 7/16	1
3	NN10170	Cylinder Air Housing	1
4	NN10860	Cylinder Air Housing	1
5	NN10393	Washer Hd. ST Screw 1/4-20 x 5/8	2
6	NN10357	Flat Washer 1/4	2
7	NN10417	Washer Hd. Screw 5/16-18 x 3/4	2
8	NN10393	Washer Hd. ST Screw 1/4-20 x 5/8	4
9	NN10289	Alt. Leads Wire Clamp	1
10	NN10356	Flat Washer 1/4	1
11	NN10217	Governor Spring-5 Ball	1
12	NN10440	Cable Clamp	1
13	NN10508	Cable Bracket	1
14	NN10395	ST Screw #10-32 x 1/2	1
15	NN10410	ST Screw #6-32 x 5/8	1
16	NN10219	Idle Setting Spring	1
17	NN10507	Governor Control Arm w/o Swivel	1
18	NN10397	Washer Hd. Cap Screw 1/4-20 x 1/2	2
19	NN10357	Flat Washer 1/4	1
20	NN10218	Control Arm Bushing	1
37	NN10340	Black Nylon Bushing	1
38	NN10414	Washer Hd. Cap Screw 1/4-20 x 5/16	4
39	NN10861	Stationary Guard	1
49	NN10406	Washer Hd. Screw 1/4-20 x 3/8	4
55	118530	Nameplate Logo	1
56	NN10296	Lifting Bracket	2

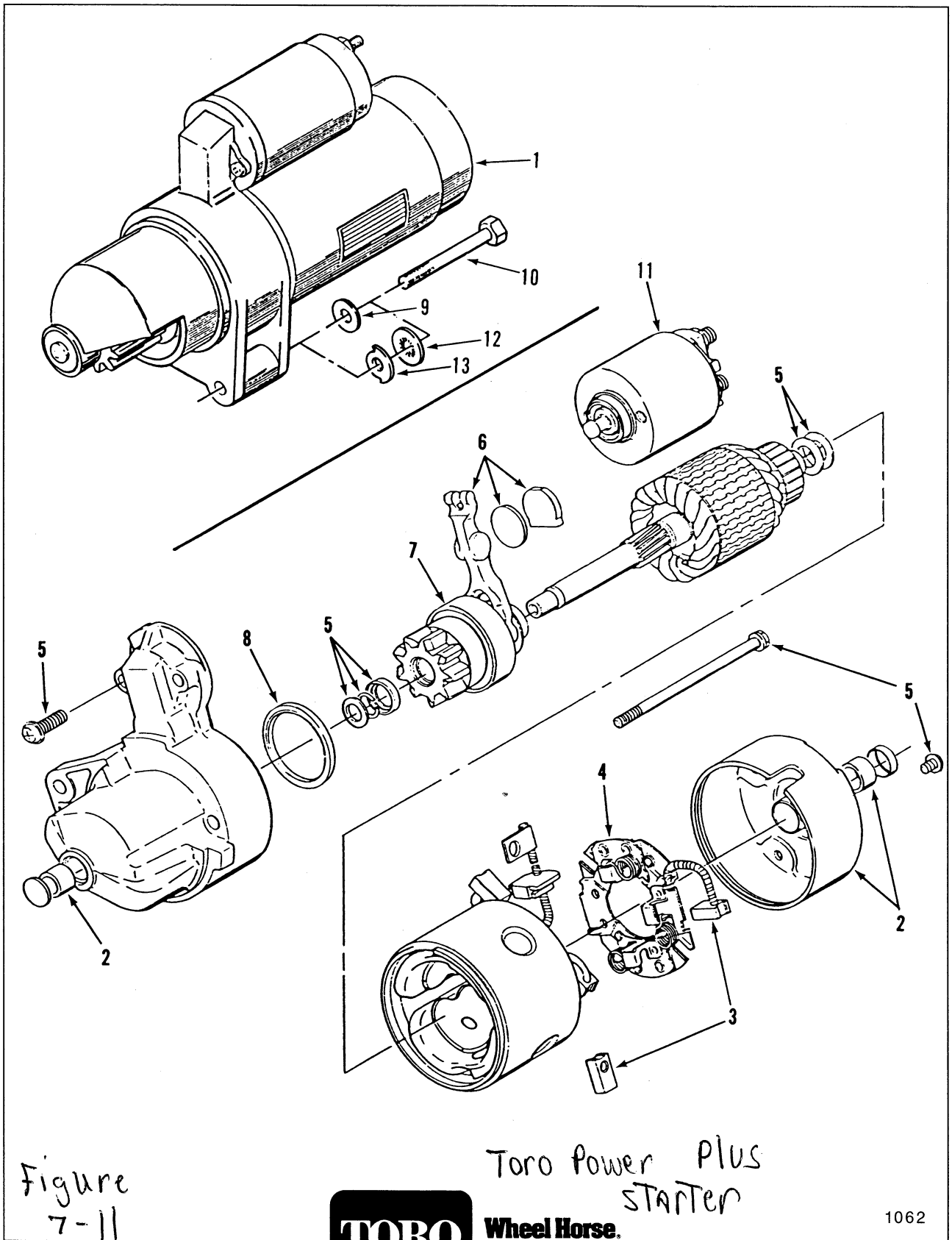


Figure 7-11 Toro Power Plus Starter

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 7-11 **STARTER**	
1	NN10268	Starter, Complete - See Components Below	1
2	NN10262	Bushing Kit (Includes Front Bushing and Rear Cap w/Bushing)	1
3	NN10263	Starter Brush Kit (Includes Positive Brush (2) and Negative Brush w/Pigtail)	1
4	NN10264	Starter Brush Holder (Includes Brush Holder w/Negative Brush)	1
5	NN10265	Starter Hdwr Kit (Includes Solenoid Screws (2), Brush Holder Screws (2), Thru Bolts (2), Armature Shims (2), Pinion Stop Collar, and Pinion Retaining Ring)	1
6	NN10266	Starter Shift Lever Kit (Includes Shift Lever, Wear Plate and Rubber Plug)	1
7	NN10270	Starter Clutch (Includes Pinion Gear w/Clutch)	1
8	NN10271	Dust Seal	1
9	NN10363	Flat Washer 5/16	2
10	NN10376	Cap Screw 5/16-18 x 3-1/2	2
11	NN10269	Starter Solenoid Kit (Includes Solenoid, Spring and Plunger)	1
12	NN10834	Special Washer	1
13	NN10833	Washer 5/16	1

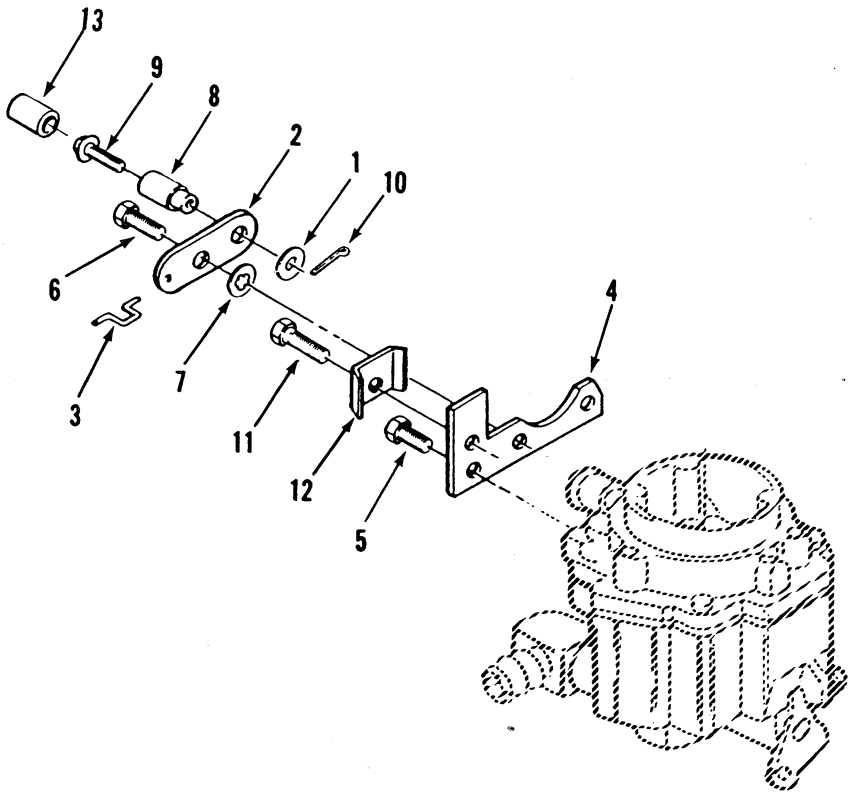


Figure 8-1

Toro Power Plus Choke Linkage

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TORO Wheel Horse Tractors & Riding Mowers

Figure 8-1 Toro Power Plus Choke Linkage

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 8-1 **CHOKE LINKAGE**	
1	NN10364	Flat Washer #10	2
2	NN10233	Choke Lever	1
3	NN10231	Choke Link	1
4	NN10513	Choke Cable Bracket	1
5	NN10412	Washer Hd. Cap Screw #10-32 x 1-1/4	1
6	NN10400	Shoulder Screw #10-32 x .34	1
7	NN10424	Lockwasher IT #10	1
8	NN10230	Choke Lever Swivel	1
9	NN10410	Machine Screw #8-32 x .375	1
10	NN10333	Cotter Pin	1
11	NN10395	Washer Hd. S.T. Screw #10-32 x 7/8	1
12	NN10440	Choke Cable Clip	1
13	NN10830	Cap	1

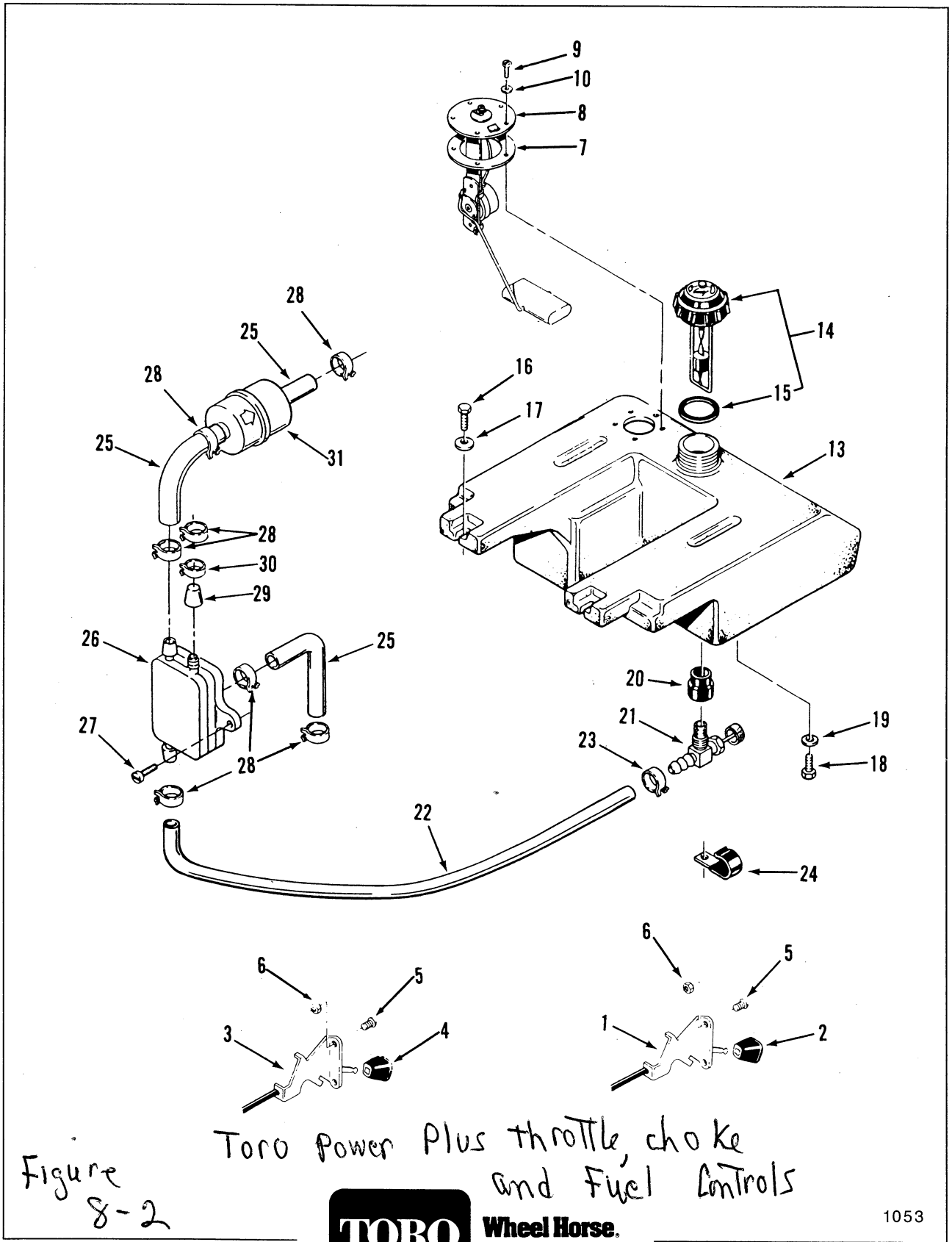


Figure 8-2 Toro Power Plus Throttle, Choke and Fuel Controls

Figure 8-2
THROTTLE, CHOKE AND FUEL CONTROLS

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	115392	Throttle Control	1
2	116454	Knob-Throttle Control	1
3	114027	Choke Control	1
4	116454	Knob-Choke 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	103787	Fuel Line 53 in.	1
23	108898	Corbin Clamp	2
24	114767	Hose Clamp 4/16	1
	920262	Washer 63 x 1-1/8 x .015 (not illustrated)	1
25	NN10302	Fuel Line 12 in. (Vendor nr. 503-0707)	2
26	NN10212	Fuel Pump (Vendor nr. 149-1982)	1
27	NN10403	S.T. 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

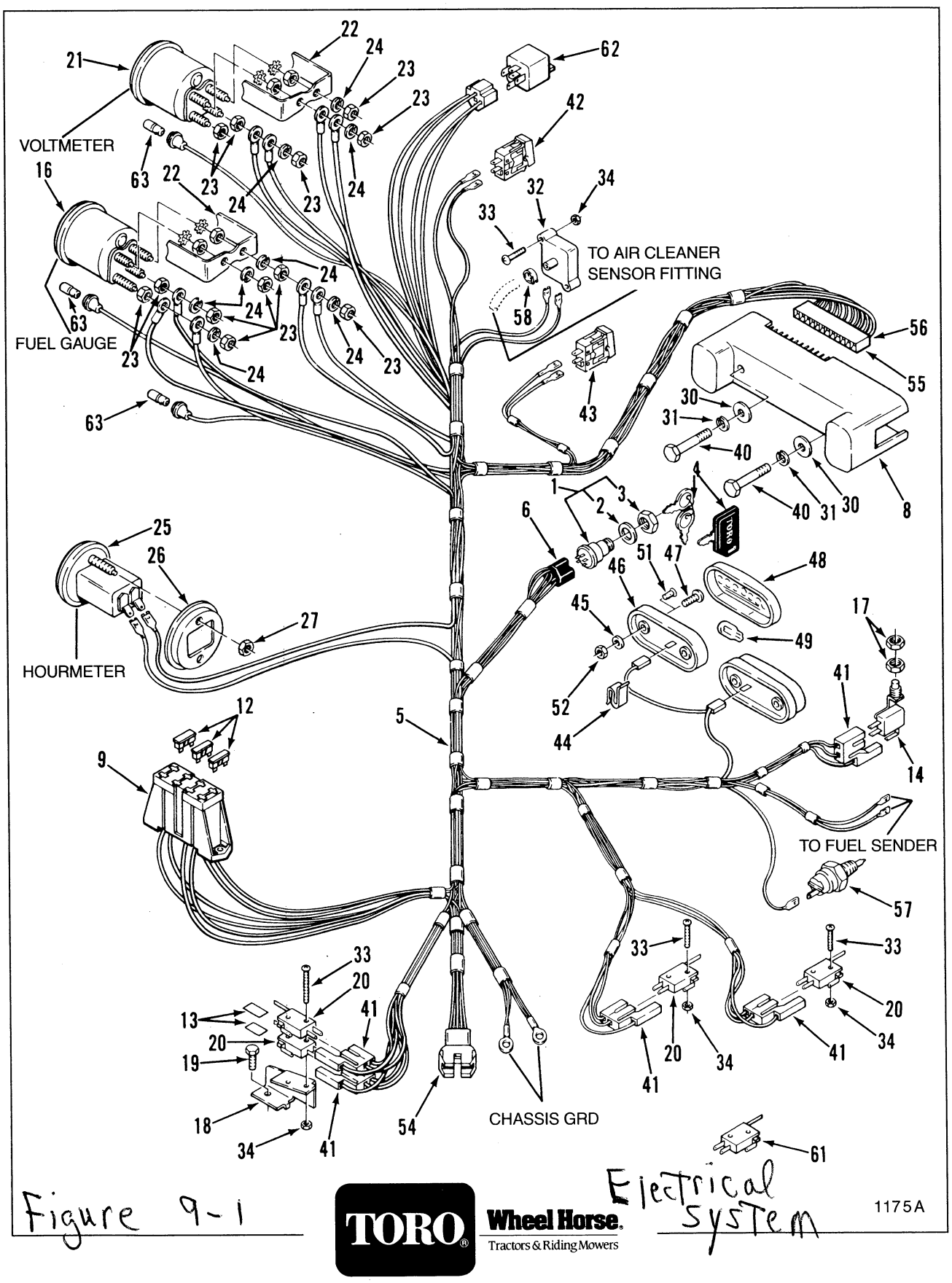


Figure 9-1 Electrical System

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 9-1 **ELECTRICAL SYSTEM**	
1	111216	Ignition Switch (w/101884 & 920160)	1
2	920262	Washer 64 x 1 1/8 x .015	1
3	101884	Special Nut	1
4	111220	Ignition Key	1
	116738	Padded Ignition Key	1
5	117372	Wiring Harness Assembly	1
6	105302	Connector Body - Ignition Switch (Part of 5)	1
8	114626	6-Light Circuit Module	1
9	120930	Fuse Body (Part of 5)	1
12	114594	Fuse 10 Amp - ATO or ATC	1
	109101	Fue 20 Amp - ATO or ATC	1
	NN10277	Fuse 30 Amp - ATO or ATC	1
13	111642	Switch Insulator Barrier	2
14	114240	Seat Switch	1
16	113466	Fuel Gauge (Includes item 22)	1
17	105805	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	Mounting Bracket	2
23	915551	Nut #10-32	10
24	920079	Lockwasher #10	10
25	113469	Hourmeter (Includes item 26)	1
26	114017	Mounting Bracket	1
27	915962	Nut W/External Lockwasher #8-32	2
30	920004	Washer #8 SAE	3
31	920078	Lockwasher #8	3
32	114270	Air Cleaner Sensor	1
33	910948	Screw #4-40 x 3/4	4
34	915732	Elast. Nut #4-40	4
40	910783	Screw #8-32 x 1 1/2	2
41	111498	Connector	5
42	113191	Light Switch	1
43	113190	Test Switch	1
44	3023	Clip-Small	X
45	920079	Lockwasher #10 (Optional)	4
46	105202	Tail Light Base W/Bulb	2
47	910808	Screw #10-32 x 5/8 (Optional)	4
48	112564	Taillight Lens	2
49	109045	Light Bulb (Auto #194)	2

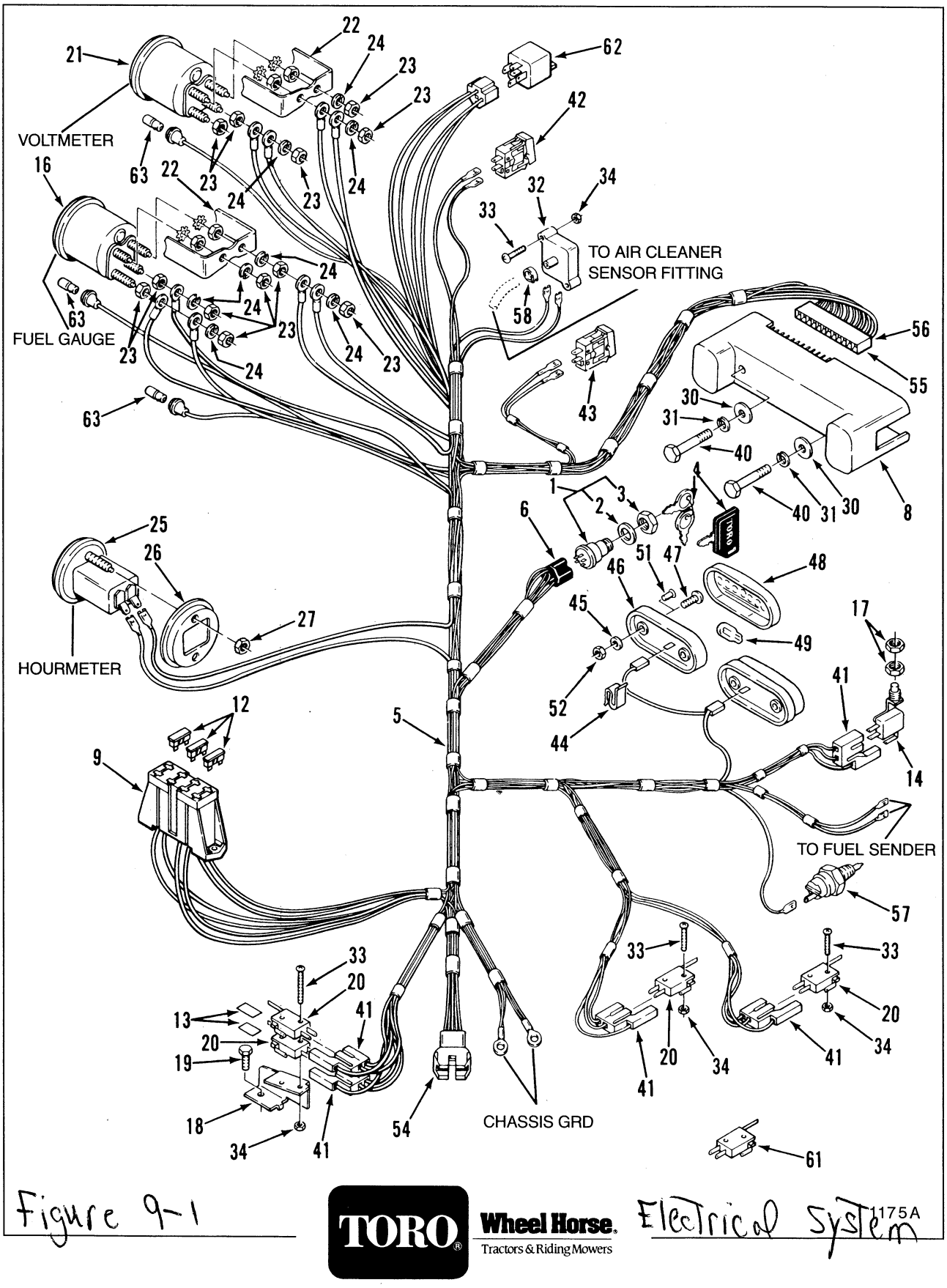


Figure 9-1 Electrical System

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 9-1 **ELECTRICAL SYSTEM (CONTINUED)**	
51	923795	Poprivet 3/16 x .402 Aluminun (Production)	4
52	915551	Nut #10-32 (Optional)	4
54	113119	9-Terminal Connector-Female	1
55	114632	12-Terminal Connector-Male	1
56	114633	Terminal	12
57	113193	Transmission Oil Temp. Switch	1
58	114767	Clamp 5/16	1
61	115230	Clutch Switch	1
62	116397	Relay	1
63	117010	Lamp-Miniature	2

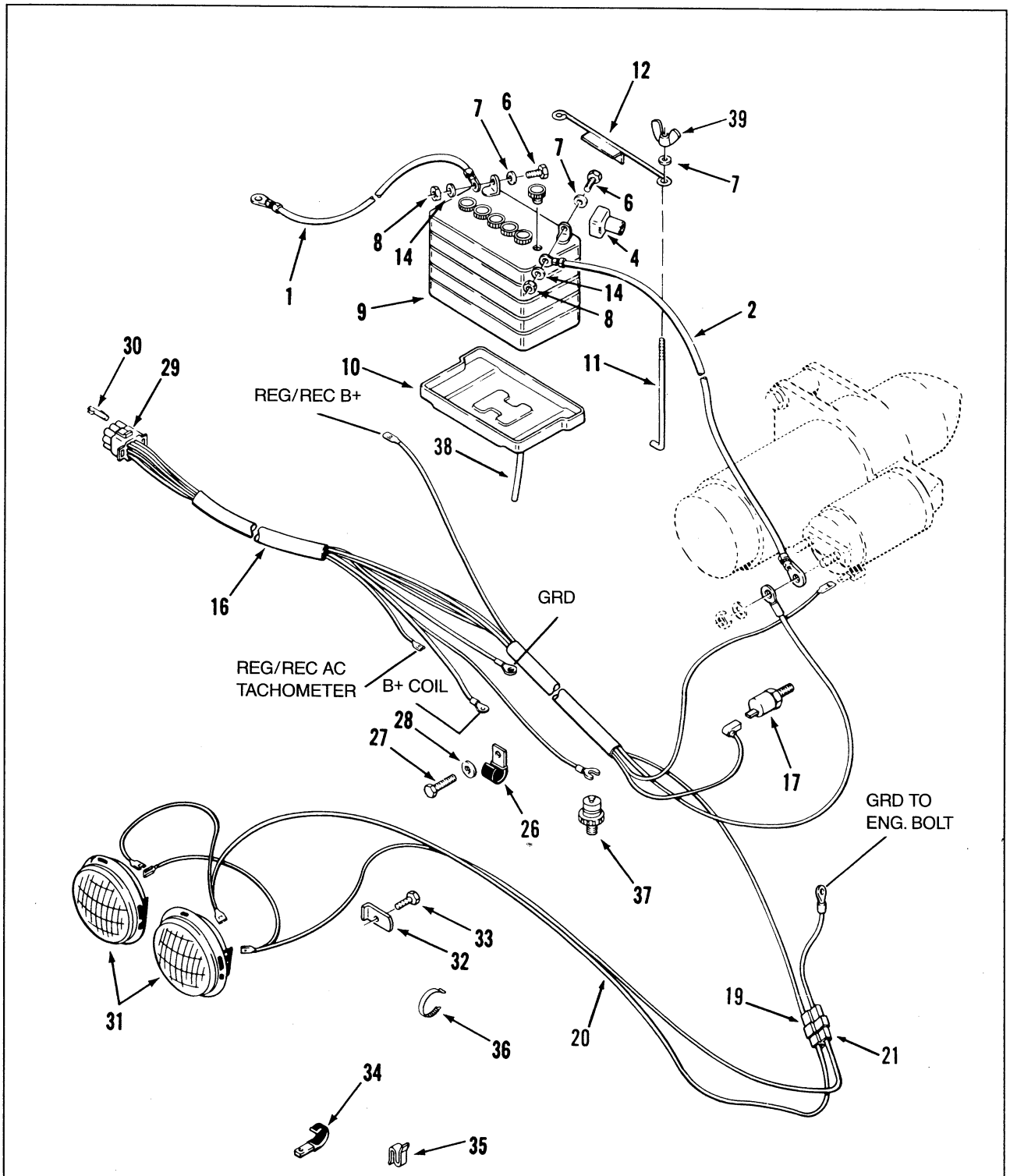


Figure 9-2 Electrical System

Figure 9-2 Electrical System

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 9-2 **ELECTRICAL SYSTEM**	
1	114210	Cable - Battery Ground (24")	1
2	113925	Cable - Battery (+) to Solenoid (40")	1
4	109553	Terminal Cover	1
6	908003	Bolt 1/4-20 x 3/4	2
7	920007	Washer 1/4 SAE	4
8	915661	E.S. Nut 1/4-20	5
9	115877	Battery - Low Maintenance (280 CCA)	1
10	106498	Battery Tray	1
11	113969	Hook - Battery Hold Down	2
12	113010	Battery Hold Down Rod	1
14	920081	Lockwasher 1/4	2
16	NN10294	Engine Wiring Harness	1
17	NN10274	High Engine Temp. Switch	1
19	NN10278	2-Terminal Connector - Male	1
20	114052	Headlight Harness	1
21	109357	2-Terminal Connector - Female	1
26	NN10348	Clip	1
27	NN10399	Screw 1/4-10 x 1/2	1
28	NN10425	Int. Tooth Washer 1/4	1
29	NN10281	9-Terminal Connector - Male	1
30	NN10279	Socket Contact	1
31	102881	Headlight	2
32	109459	Clamp	2
33	926671	Bolt Hex 1/4-20 x 1/2 S.T.	2
34	8830	Clip	1
35	3023	Clip-Small	X
36	100571	Cable Tie	X
37	NN10273	Low Oil Pressure Switch	1
38	114721	Drain Tube 21"	1
39	116497	Wing Nut	1

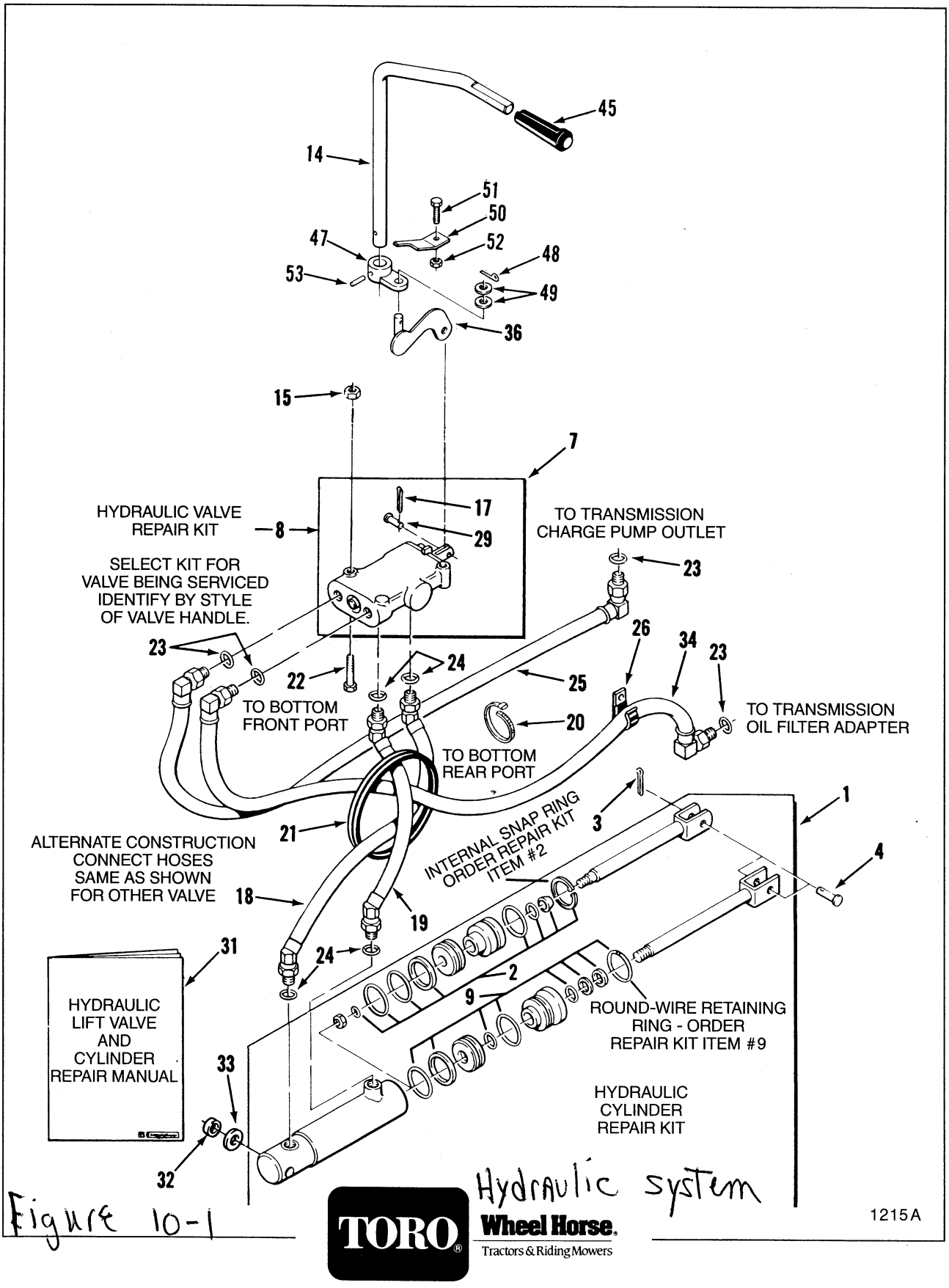


Figure 10-1 Hydraulic System

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 10-1 **HYDRAULIC SYSTEM**	
1	119340	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 1/4	1
7	114000	Hydraulic Valve	1
8	109081	Service Assembly Valve Repair Kit	1
9	109088	Service Assembly Cylinder Repair Kit	1
14	121110	Valve Handle	1
15	915661	E.S. Nut 1/4-20	2
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
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" (73.7 cm)	2
36	116307	Lift Bar	1
45	116634	Grip	1
47	116302	Control	1
48	932008	Cotter Pin 3/32 x 3/4	1
49	920008	Washer 5/16 SAE	1
50	116305	Control Rod Bracket	1
51	908003	Screw 1/4-20 x 3/4	1
52	915661	E.S. Nut 1/4-20	1
53	933198	Spirol Pin 7/32 x 7/8	1

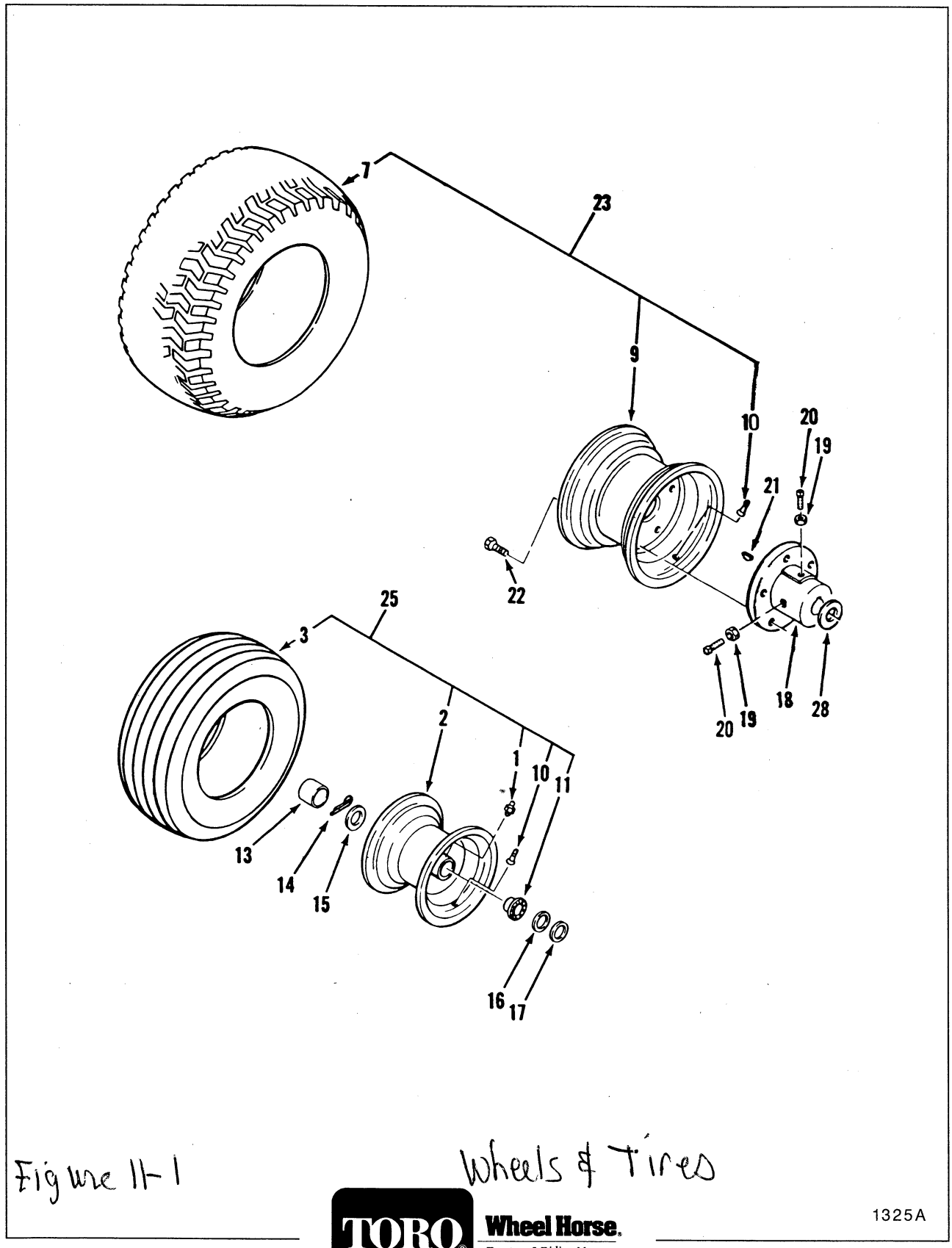


Figure 11-1 Wheels and Tires

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 11-1 **WHEELS AND TIRES**	
1	109500	Grease Fitting	2
2	117399	Front Wheel (includes items 1, 10 & 11)	2
3	117127	Frt Tire 16x6.50-8 Turf Trd	2
7	116744	Rear Tire 23x9.50-12 Turf Tread	2
9	111516	Rear Wheel 12x7	2
10	5108	Valve Stem	4
11	110513	Ball Bearing	4
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	116743	Rear Wheel & Tire Assy	2
25	117398	Front Wheel & Tire Assy	2
28	106826	Thrust Washer	2

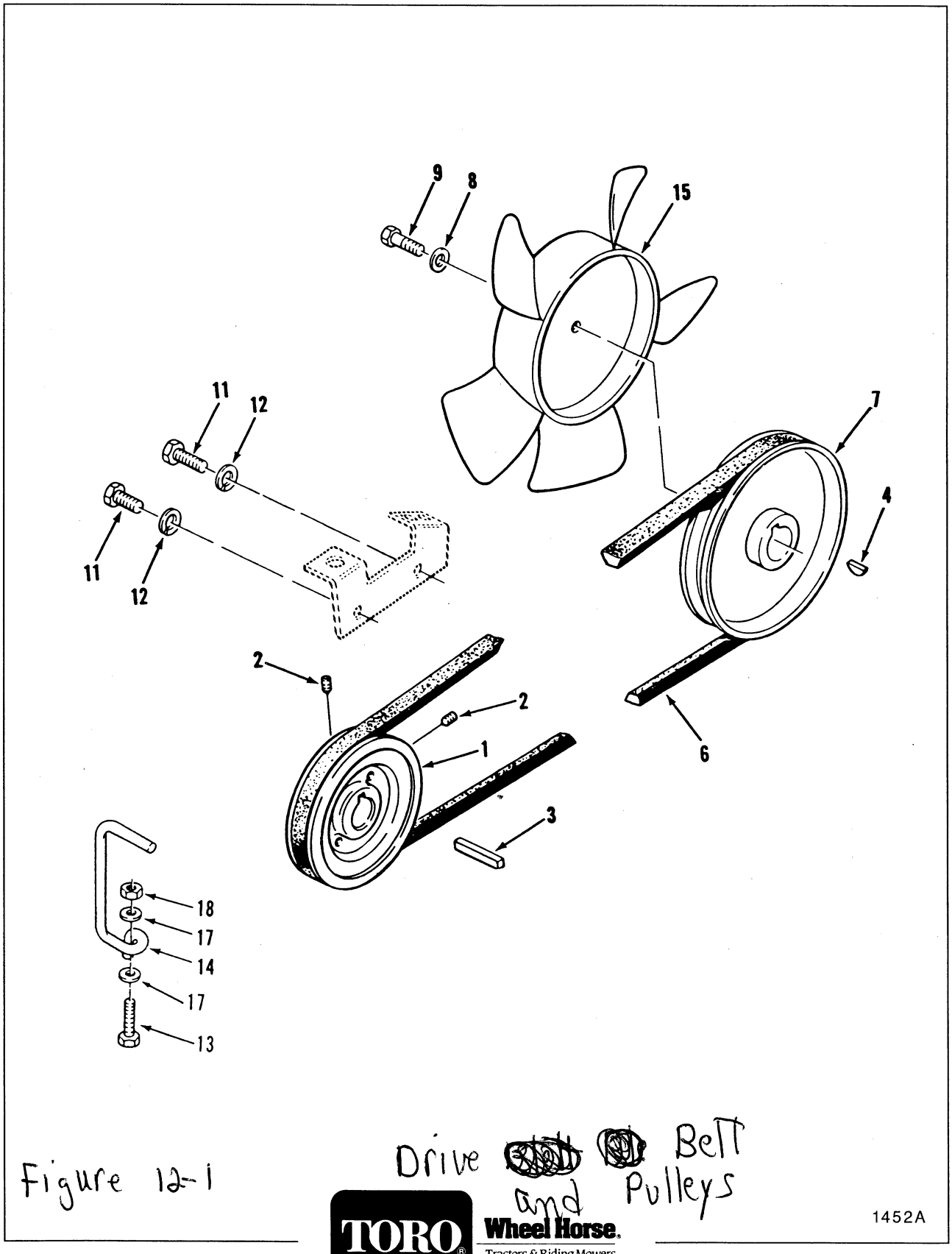


Figure 12-1 Drive Belt and Pulleys

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 12-1 **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	108316	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
13	908020	Bolt 5/16 - 18 x 1-1/4	1
14	113924	Belt Guide Bottom	1
15	108393	Cooling Fan	1
17	920038	Washer 5/16	2
18	915662	E.S. Nut 5/16 - 18	1

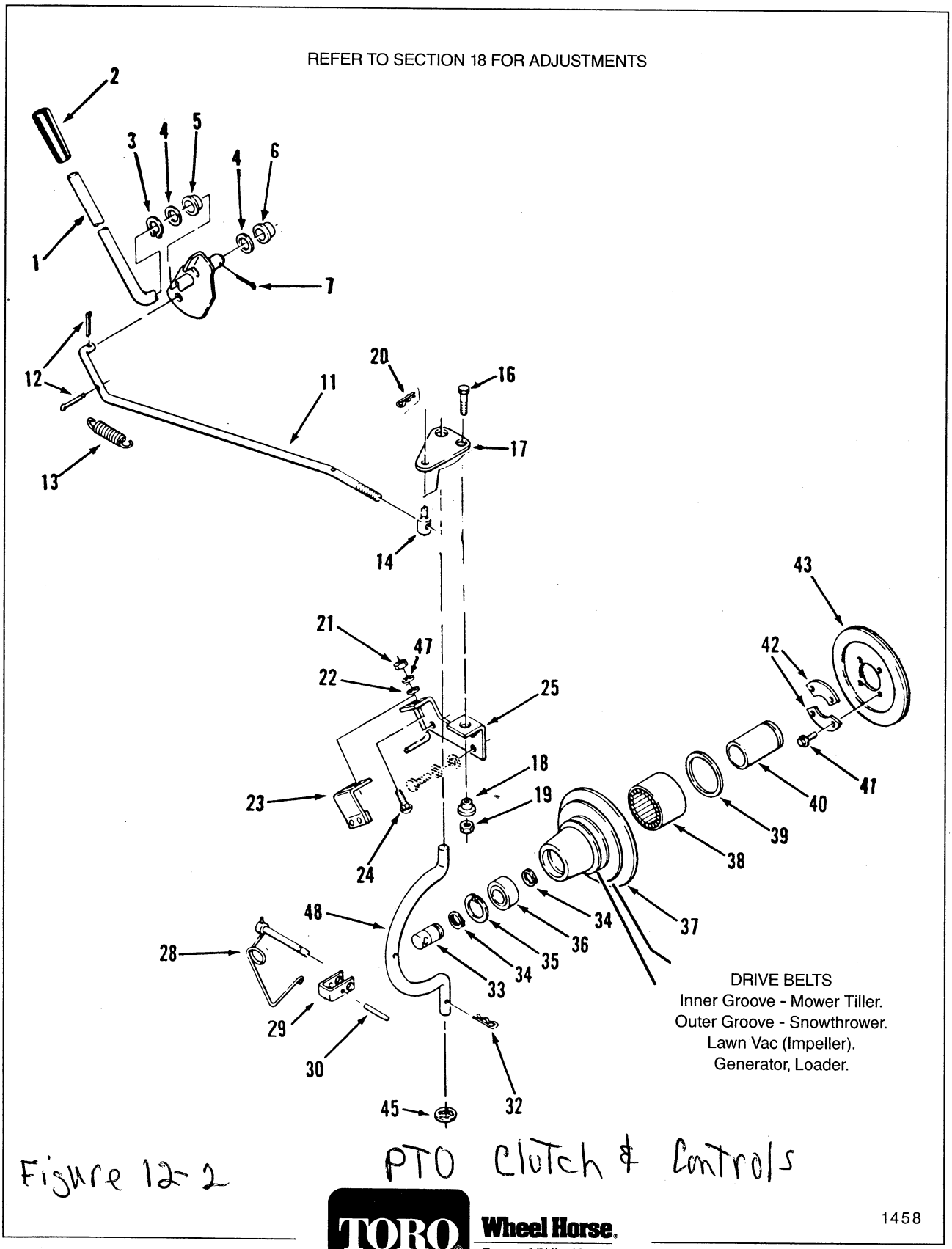


Figure 12-2 PTO Clutch and Control

Figure 12-2
PTO CLUTCH AND CONTROL

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
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	908035	Bolt 3/8-16 x 1-1/4	1
17	110669	PTO Plate	1
18	104859	Spacer	1
19	915663	E.S. 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	113874	Engine Bracket	1
28	111314	Locking Pin	1
29	113107	Clevis	1
30	933274	Spirol Pin 5/32 x 1-3/8	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	114881	Clutch Plate & Facing	1
45	106695	Push-On Ring	1
47	920081	Lock Washer 1/4	2
48	113108	PTO Housing Rod	1

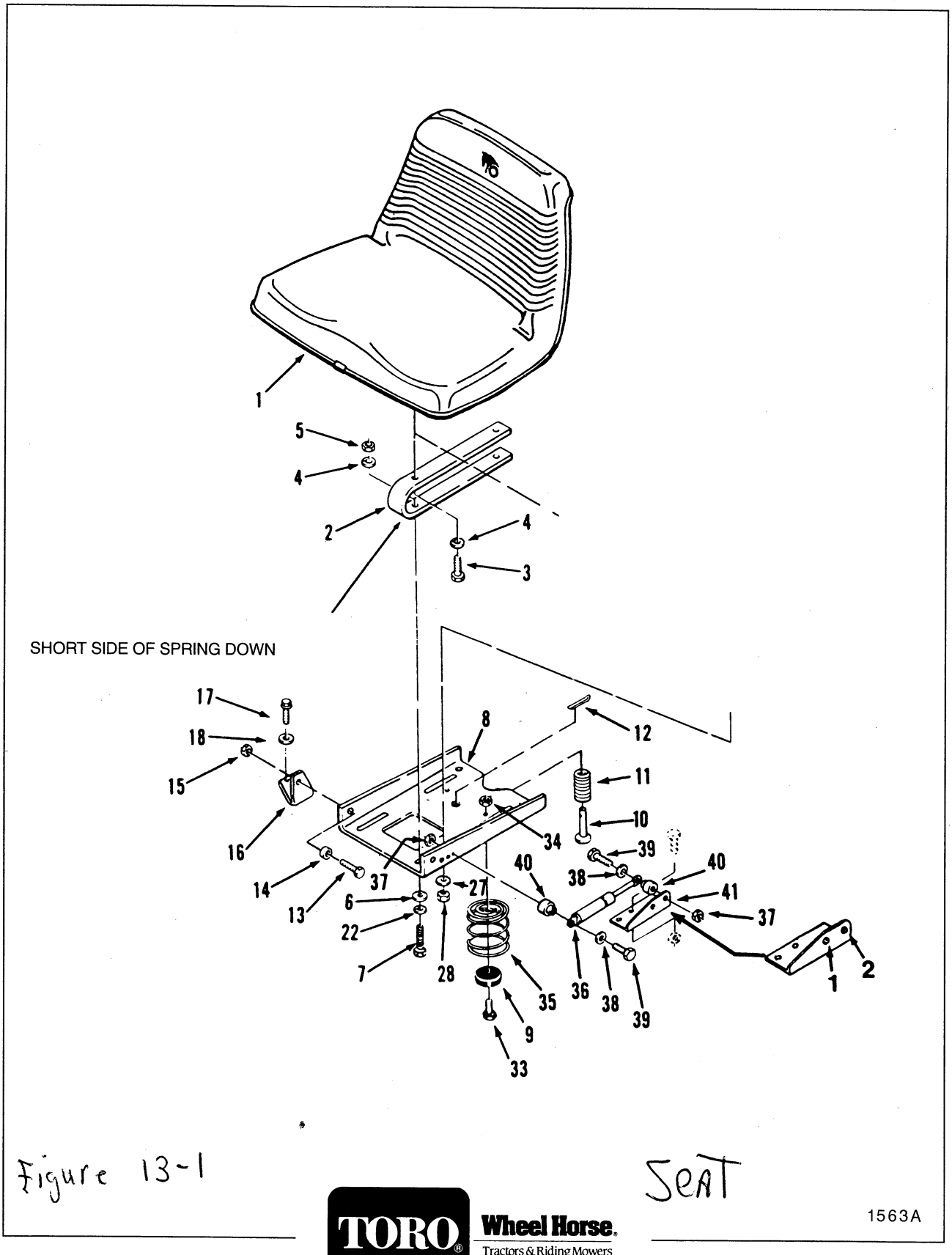


Figure 13-1 Seat

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 13-1 **SEAT**	
1	113985	Seat	1
2	110920	Seat Spring	2
3	926694	Bolt 5/8-18 x 5/8	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
27	920038	Washer 5/16 SAE	4
28	915662	E.S. Nut 5/16-18	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	915661	E.S. 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

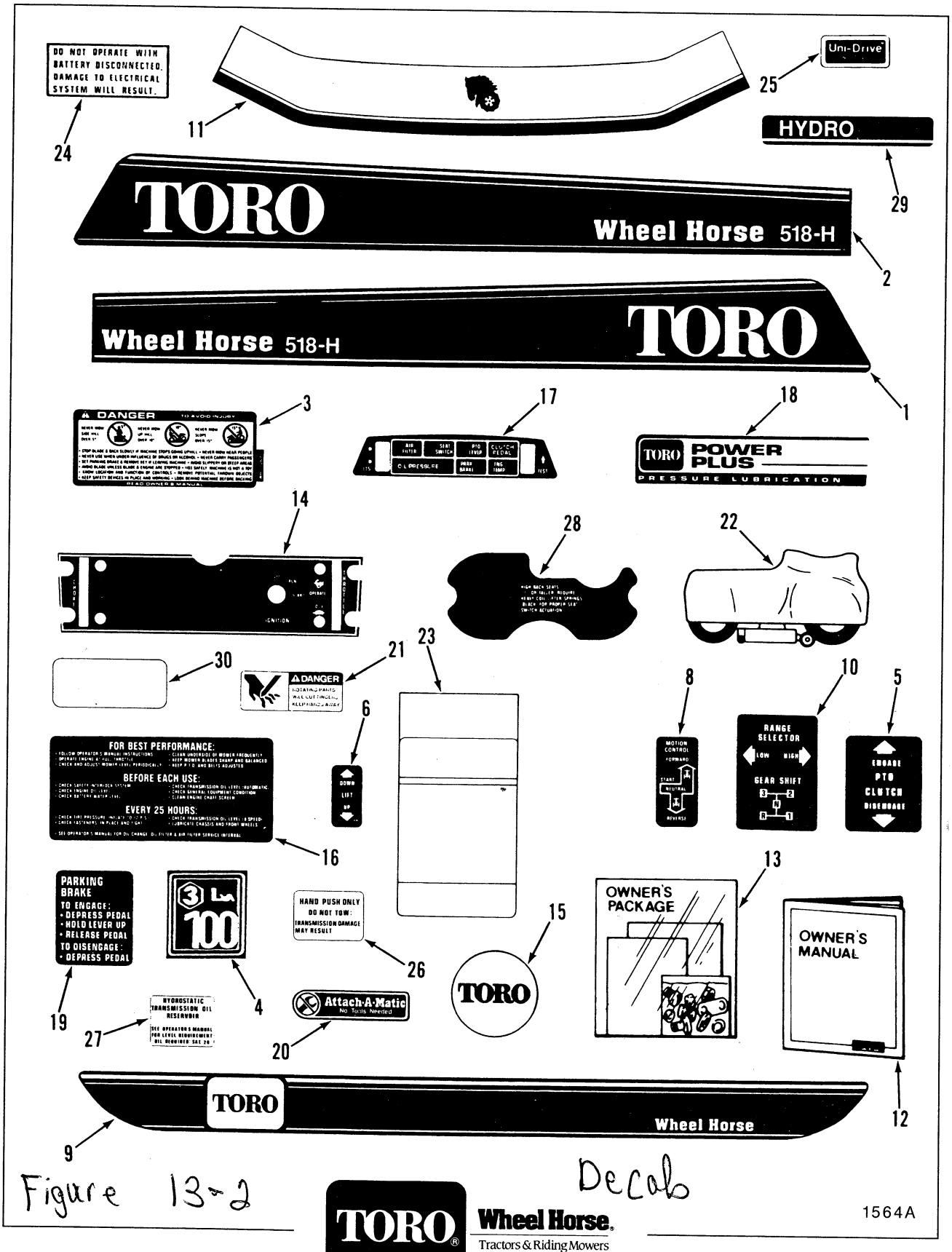


Figure 13-2 Decals

TORO® Wheel Horse® Tractors & Riding Mowers

1564A

Figure 13-2 Decals

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 13-2	
		DECALS	
1	117498	Decal-Hood RH	X
2	117499	Decal-Hood LH	X
3	112670	Decal-Danger	1
	88093	Decal-Danger German	1
	88094	Decal-Danger French	1
	88095	Decal-Danger Dutch	1
4	114621	Decal-Europe Noise	1
5	111960	Decal-PTO Clutch	1
	88081	Decal-PTO Clutch Symbol	1
6	112168	Decal-Lift	1
	88067	Decal-Lift German	1
	88066	Decal-Lift French	1
	88068	Decal-Lift Dutch	1
8	113909	Decal-Motion Control	1
	88263	Decal-Motion Control German	1
	88264	Decal-Motion Control French	1
	88265	Decal-Motion Control Dutch	1
9	117760	Decal-Rear Fender TORO	1
10	111534	Decal-Hi-Low Shift 8-Speed	1
11	117509	Decal-Hood Front TORO	1
12		Owner's Manuel	1
13	807727	Loose Parts Package 518-H	X
14	119230	Decal-Front Panel	1
	88266	Decal-Front Panel German	1
	88267	Decal-Front Panel French	1
	88268	Decal-Front Panel Dutch	1
15	118530	Decal-TORO Nameplate	1
16	116544	Decal-Rear Hood	1
	88269	Decal-Rear Hood German	1
	88270	Decal-Rear Hood French	1
	88271	Decal-Rear Hood Dutch	1
17	114133	Decal-Indicator Lights 518-H	1
	88272	Decal-Indicator Lights 518-H German	1
	88273	Decal-Indicator Lights 518-H French	1
	88274	Decal-Indicator Lights 518-H Dutch	1
18	118550	Decal-TORO Power Plus	1
19	116445	Decal-Parking Brake	1
	88278	Decal-Parking Brake German	1
	88279	Decal-Parking Brake French	1
	88280	Decal-Parking Brake Dutch	1

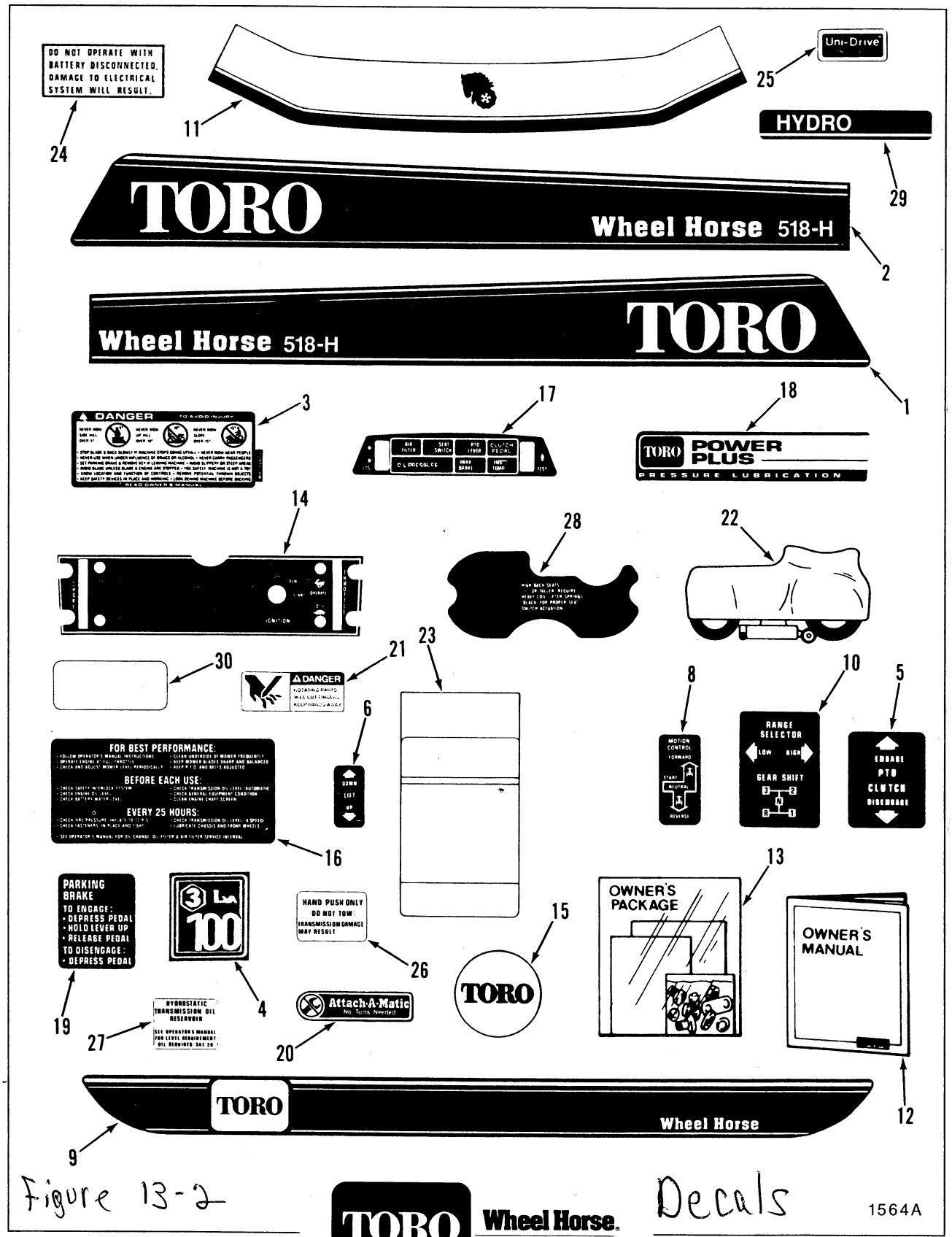


Figure 13-2 Decals

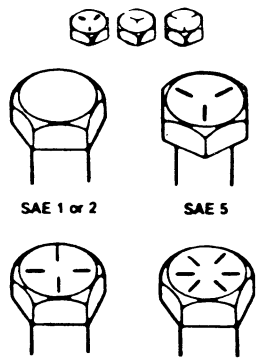
TORO® Wheel Horse® Tractors & Riding Mowers

1564A

Figure 13-2 Decals

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
		Figure 13-2 **DECALS**	
20	115197	Decal-Attach-a-Matic	1
	88160	Decal-Attach-a-Matic German	1
	88161	Decal-Attach-a-Matic French	1
	88162	Decal-Attach-a-Matic Dutch	1
21	116235	Decal-Danger	1
22	802695	Plastic Tractor Cover	X
23	115398	Decal-Maintenance	1
	88064	Decal-Maintenance German	1
	88063	Decal-Maintenance French	1
	88065	Decal-Maintenance Dutch	1
24	111926	Decal-Electrical System	1
	88121	Decal-Electrical System German	1
	88122	Decal-Electrical System French	1
	88123	Decal-Electrical System Dutch	1
25	104955	Decal-Uni-Drive	1
26	116446	Decal-Do Not Tow	1
27	112679	Decal-Transmission Oil	1
28	114296	Decal-Seat Lifter	1
	88087	Decal-Seat Lifter German	1
	88088	Decal-Seat Lifter French	1
	88089	Decal-Seat Lifter Dutch	1
29	117511	Decal-Hydro	1
30	112403	Decal-Vin Tag Overlay	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
Manufacuter's marks may vary. Three-line markings on heads shown below, for example, indicate SAE Grade 5. 	1/4-20	5	6.8	8	10.8	10	13.6	12	16.2
	-28	6	8.1	10	13.6			14	19.0
	5/16-18	11	15.0	17	23.0	19	25.8	24	32.5
	-24	13	17.6	19	25.8			27	36.6
	3/8-16	18	24.4	31	42.0	34	46.1	44	59.7
	-24	20	27.1	35	47.5			49	66.4
	7/16-14	28	38.0	49	66.4	55	74.6	70	95.0
	-20	30	40.7	55	74.6			78	105.8
	1/2-13	39	52.9	75	101.7	85	115.2	105	142.4
	-20	41	55.6	85	115.2			120	162.7
	9/16-12	51	69.1	110	149.1	120	162.7	155	210.1
	-18	55	74.6	120	162.7			170	230.5
	5/8-11	83	112.5	150	203.3	167	226.4	210	284.7
	-18	95	128.8	170	230.5			240	325.4
	3/4-10	105	142.4	270	366.1	280	379.6	375	508.4
	-16	115	155.9	295	400.0			420	569.4
	7/8-9	160	216.9	395	535.5	440	596.6	605	820.3
	-14	175	237.3	435	589.8			675	915.2
	1- 8	235	318.7	590	799.9	660	894.8	910	1233.8
	-14	250	339.0	660	894.8			990	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

Product information and specifications are shown herein as of the time of printing. Wheel Horse Products, Inc. reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligation.

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Tractors & Riding Mowers

Printed in Belgium