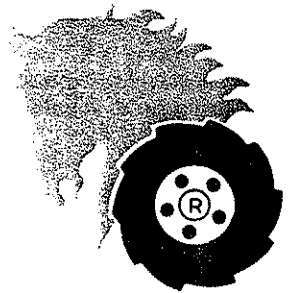


# *Wheel Horse*<sup>®</sup>

LAWN AND GARDEN TRACTORS

OWNERS MANUAL

"500 SPECIAL"  
TRACTOR  
MODEL  
1-3631



WHEEL-HORSE PRODUCTS, INC.

SOUTH BEND, IND.

*"Quality is Standard Equipment in Every Wheelhorse Product"*

## ASSEMBLY

A. The tractor is shipped in one carton with the rear wheel and tire assemblies, Part No. 1667, in a separate carton.

B. Mount rear wheels to hubs using the ten lug bolts, Part No. 1004.

C. Mount front wheels to spindles using the  $\frac{3}{8}$ -16 x  $\frac{7}{8}$  Nylok bolts, Part No. 908033-6 and washers, Part No. 2844. There are two shim washers, one .015 thick and one .050 thick, in the loose part package for each wheel. Use one or both as shown on the exploded view drawing to provide a close fit. Press on hub caps.

D. Mount the steering wheel to steering shaft with the  $\frac{1}{4}$  x  $1\frac{1}{4}$  Roll Pin, Part No. 933215. Press on steering wheel insert.

## BEFORE YOU START

There is **NO OIL** in the crankcase of the engine when shipped from the factory. **OIL . . .** See Engine Manual.

Check oil level every 5 operating hours or each time equipment is used.

Change oil every 25 operating hours or sooner if equipment is operated in extremely dusty or dirty conditions. Read Engine Manual and follow all instructions pertaining to type of lubrication specified. The engine is the heart of your tractor and it is very important that you keep it in good condition.

Lubricate all grease fittings with a regular pressure gun lubricant every eight to ten hours of operation. Refer to Figure 1 for the location of grease fittings.

A light machine oil should be used on all moving parts to keep joints from wearing and squeaking.

Remove oil filler plug, located at the left rear side of the transmission, and fill to level of hole with a good grade of S.A.E. 90 oil (will require about 3 pints).

The transmission oil level should be checked after every 40 hours of use. The transmission should be drained once a year by removing plug on bottom to drain oil. Refill as outlined in above paragraph. This is a regular automotive type transmission with sliding gears and should have the same care as your car.

## TIRES

The front tires are 4.00-8 and should be inflated to 12 pounds of air pressure. **The rear tires are 6 x 12 and should have 8 pounds of air pressure.** The tires can also be filled with ballast if desired. Ordinarily this is not necessary as the weight of the operator will add sufficient weight for adequate traction.

## STARTING ENGINE

1. Before starting the engine fill gas tank (located under the hood) with a good grade of regular gas, and open valve on fuel filter. See Page 4.

2. Place gear shift lever in neutral position and apply the parking brake.

3. Pull throttle lever  $\frac{1}{2}$  way out and turn to the right to lock it in position. **Note:** The throttle control has a locking device. Turn the throttle control to the left to unlock, adjust to the desired position and turn to the right to lock.

4. Pull choke lever all the way out to choke engine. If engine is warm and has been running, choking may not be necessary.

5. Turn the key to the right. Pull the starter rope slowly till the engine reaches the compression stroke, allow the rope to return then pull with a fast smooth stroke.

6. When engine starts push choke into off position and regulate throttle control by turning to the left to unlock and push in or out to desired speed.

7. Depress clutch pedal on left side of tractor before selecting desired gear range.

8. When starting tractor in winter it is desirable to depress clutch so engine does not have to turn transmission.

## CLUTCHING

Don't force the gear shift lever if the gears do not immediately mesh. Depress clutch pedal all the way down and let up, then depress again and shift. To avoid sudden starts, release clutch pedal slowly. While in motion do not shift gears without depressing clutch pedal.

The clutch pedal also operates the brakes **WHEN DEPRESSED ALL THE WAY DOWN.** For this reason, you should depress the clutch pedal **ONLY  $\frac{2}{3}$  OF THE WAY DOWN WHEN SHIFTING** while in motion. This clutch-brake pedal combination makes clutching automatic as you apply the brakes to stop.

## PARKING BRAKE

The parking brake is located on the left side of the tractor as shown in Figure 1. To set the parking brake depress the clutch-brake pedal as far as possible and push the parking brake down. To release the brake depress the clutch-brake pedal.

## ATTACHING TOOLS

Complete information on the assembly, attachment, operation and service of the many attaching tools will be provided with each attachment.

All drawn implements attach in seconds. Simply lift the tractor hitch pin, insert the tongue, and replace pin.

All power implements will use the attachment clutch pedal located on the right side of the tractor.

## CARE OF TRACTOR

1. Keep tractor greased and oiled regularly. Refer to Figure 1 for the location of grease fittings. Check transmission and engine case oil levels.

2. Keep engine air cleaner clean. This will add to engine life.

3. Keep tires properly inflated. See previous instructions.

4. Keep tractor covered and in a dry place when not in use.

5. Keep grass and dirt out of engine cowling as these will stop the flow of air and decrease engine life.

6. **BRAKE ADJUSTMENT.** The brake band, located on the left side of the transmission, brakes the transmission and in turn stops the wheels.

To adjust, depress clutch brake pedal and move parking brake lever forward into the engaged position. Tighten nut on brake rod until both rear wheels skid when tractor is pushed — parking brake engaged. Tighten nut another  $\frac{1}{2}$  turn. The brake and parking brake are now properly adjusted.

7. **CLUTCH-BRAKE PEDAL ADJUSTMENT.** The clutch-brake pedal rod may be turned in or out to adjust the pedal to operator's desired position. Remove pin from rod and turn rod in or out for adjustment. There are also two holes in the pedal to adjust for travel. The upper hole is for a short movement of travel, the lower hole is for long movement.

8. When replacing belts or mounting drive implements make sure all pulleys are in line.

9. Your tractor is only as good as the service you give it. See your Wheel Horse Dealer for a thorough check-up after each season of use.

10. When replacing belts be sure to purchase genuine Wheel Horse belts, as these belts are specifically designed for each application.

**(NOTE: Make sure all pulleys are in line.)**

11. To raise seat/fender unit pull knob back. See Figure 1. Seat should be latched before operating tractor.

## SAFETY SUGGESTIONS

Recommended by Outdoor Power Equipment Institute

1. Know the controls and how to stop quickly — read the owner's manual.

2. Do not allow children to operate machine; nor adults to operate it without proper instruction.

3. Clear work area of objects which might be picked up and thrown.

4. Disengage all clutches and shift into neutral before starting motor. Keep hands, feet, and clothing away from power driven parts.

5. Do not carry passengers. Keep children and pets a safe distance away.

6. Never direct discharge of any materials toward bystanders, nor allow anyone near machine while in operation.

7. Disengage power to attachment(s) and stop motor before leaving operator position.

8. Take precautions when leaving machine unattended (to avoid accidental starting, rolling away, accidental dropping of any attachment, etc).

9. Disengage power to any attachment whenever it is not in use, or when traveling from one work area to another.

10. Stay alert for holes and other hidden hazards. Know what is behind you, before backing up.

11. Beware of steep slopes; reduce speed on all side slopes and sharp turns, to prevent tipping or losing control.

12. Don't stop or start suddenly when going uphill or downhill.

13. Use care when pulling loads or using heavy equipment.

14. Watch out for traffic when near roadways.

15. Handle gasoline with care — it is highly flammable.

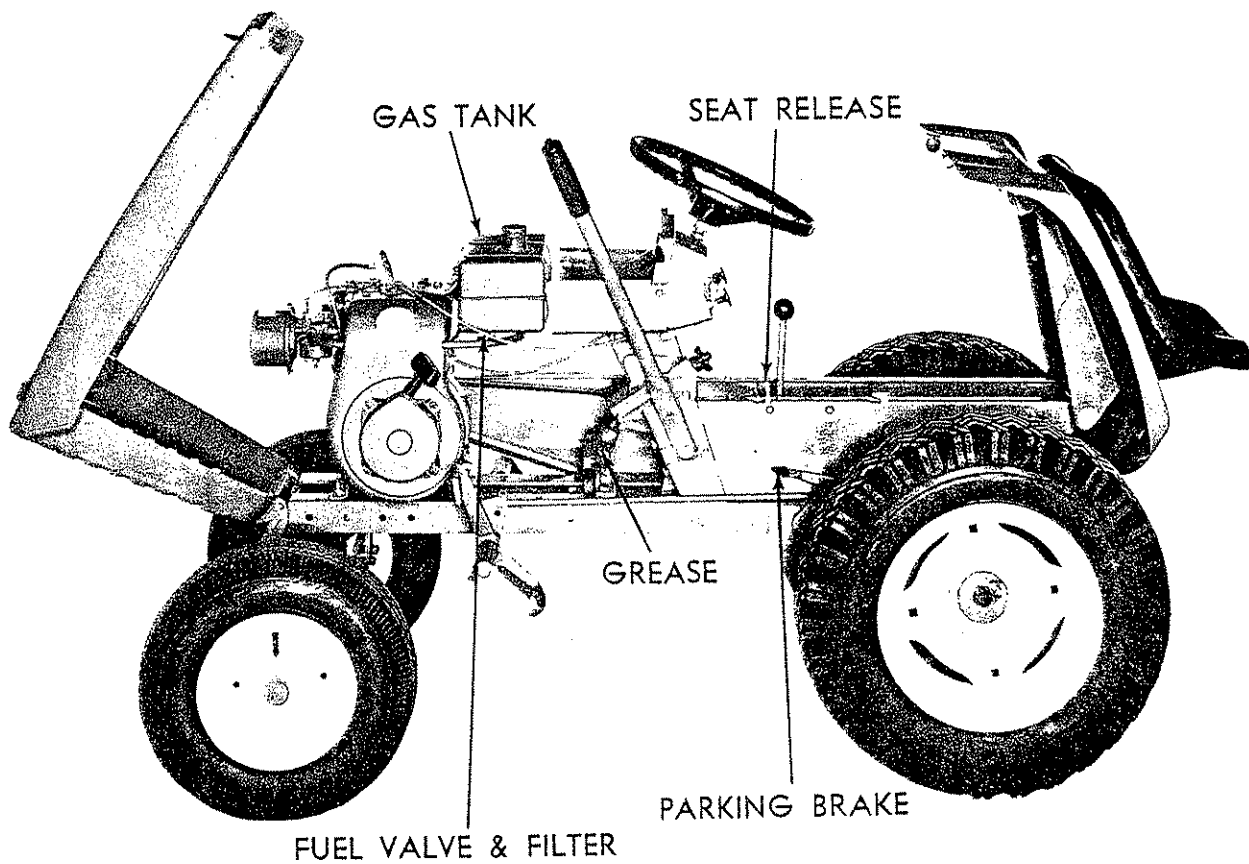
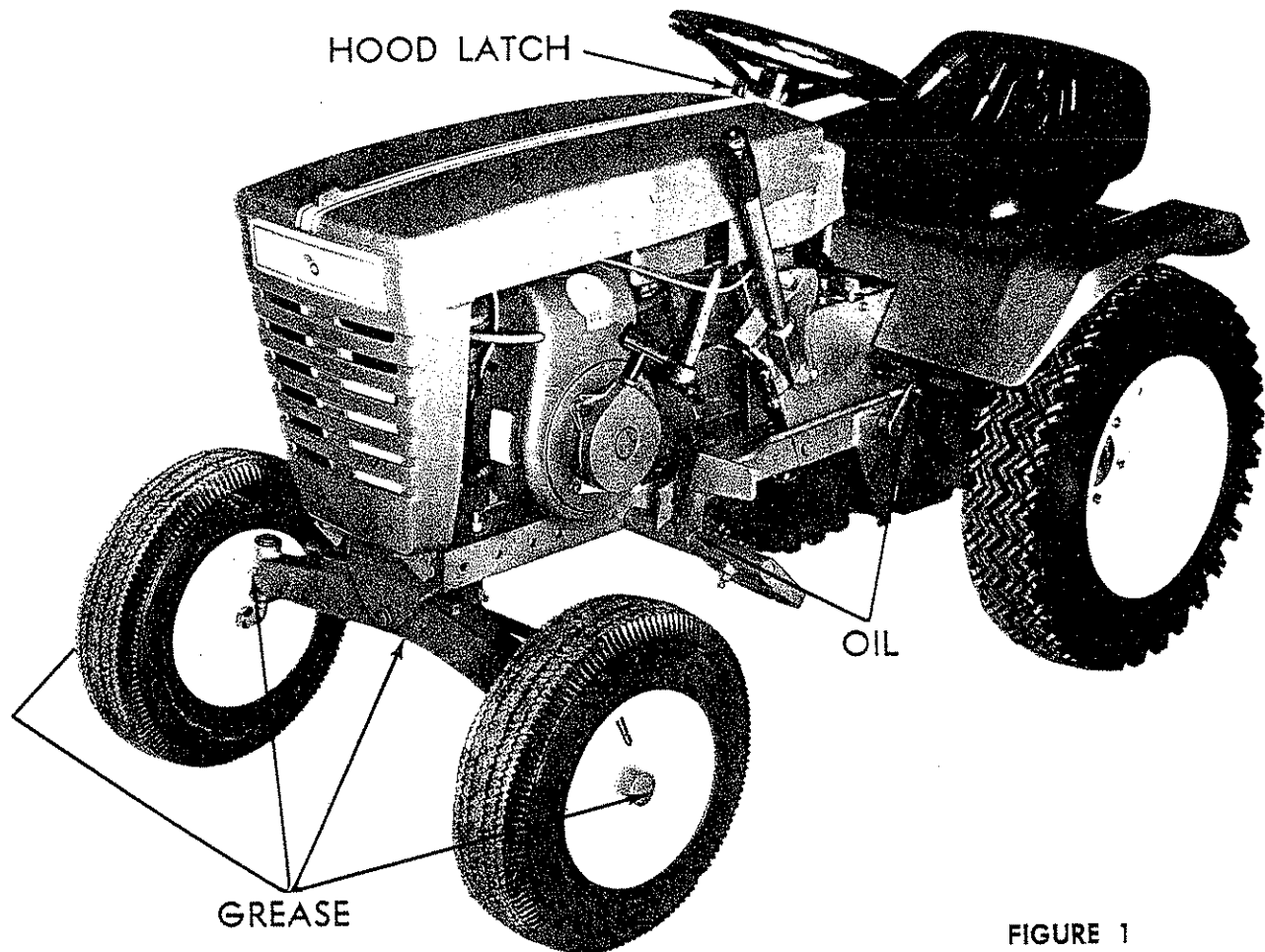
a. Use approved gasoline container.

b. Never add gasoline to a running motor — fill tank out of doors, wipe up spilled gasoline.

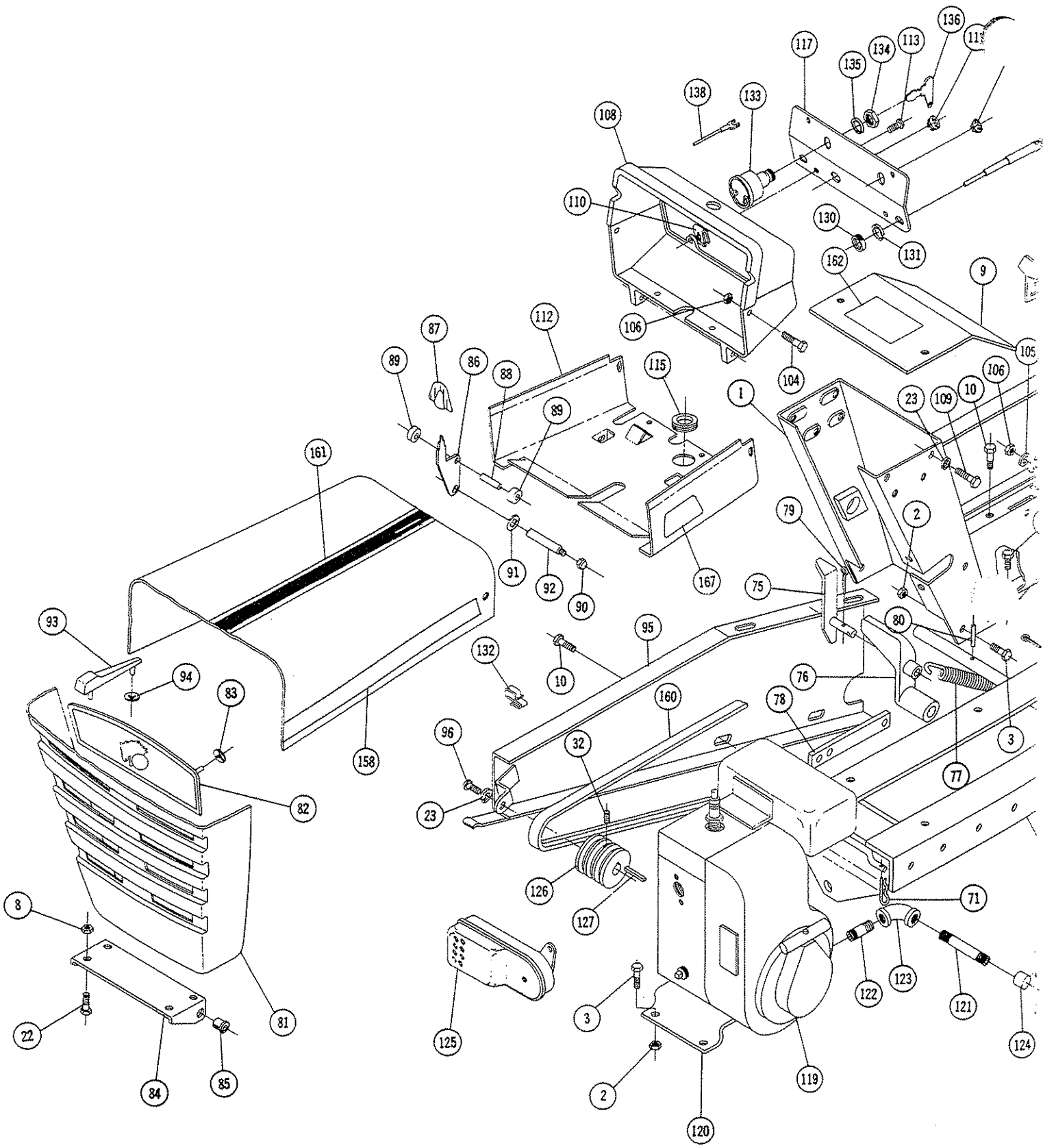
c. Replace gasoline cap securely.

d. Open doors if motor is run in garage — exhaust gases are dangerous.

16. Keep machine in good operating condition and keep safety devices in place. Use guards as instructed in owner's manual.

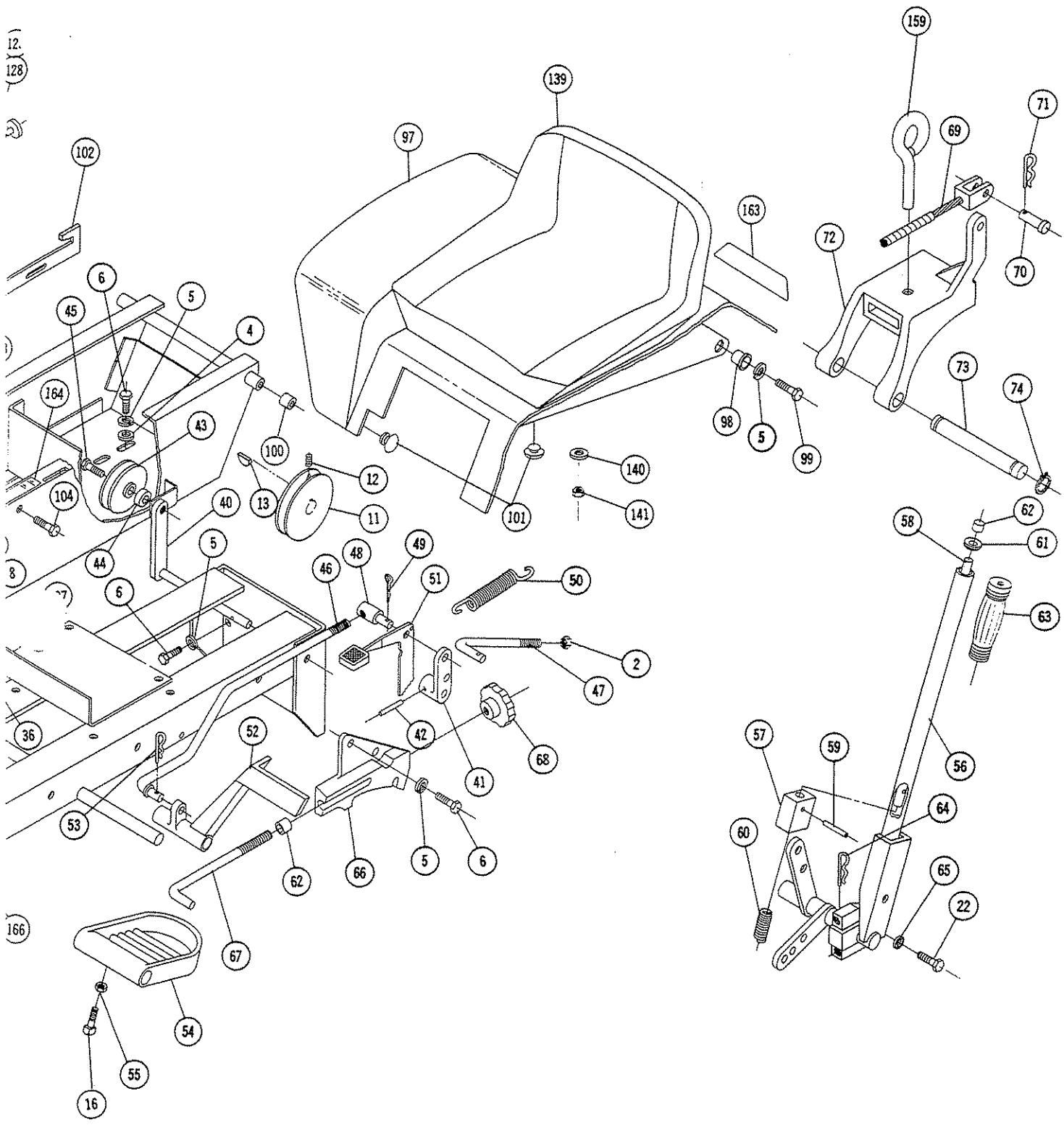






MAIN FRAME, FEND

12.  
128



HOOD & HOOD ASS'Y.

## PARTS LIST "500 SPECIAL" TRACTOR

(Except Transmission — see page 11 for Transmission break down and Parts List)

When ordering parts always list Part No. and name of part.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
1	5645	Ass'y. Hood Stand	1	43	1623	Pulley — Idler	1
2	915663-4	Nut $\frac{3}{8}$ -16 Elastic Stop	9	44	1536	Bushing	1
3	908034-4	Bolt Hex $\frac{3}{8}$ -16 x 1	6	45	1363	Bolt Hex Special $\frac{3}{8}$ -16 x $\frac{3}{8}$	1
4	920009-4	Washer $\frac{3}{8}$ SAE	2	46	2593	Rod Clutch	1
5	920083-4	Lockwasher $\frac{3}{8}$ Plain	13	47	3935	Rod — Brake	1
6	908032-4	Bolt Hex $\frac{3}{8}$ -16 x $\frac{3}{4}$	8	48	1861	Stud — Clutch Rod	1
7	908017-4	Bolt Hex $\frac{5}{16}$ -18 x $\frac{3}{4}$	2	49	932017	Cotter Pin $\frac{1}{8}$ x 1	2
8	915112-6	Nut Nylok $\frac{5}{16}$ -18	6	50	1014	Spring — Clutch	1
9	5622	Ass'y. Cover Plate	1	51	5544	Ass'y. Lever & Knob — Brake	1
10	960151-4	Bolt Whizlock $\frac{1}{4}$ -20 x $\frac{1}{2}$	6	52	2267	Pedal — Clutch	1
11	1611	Pulley	1	53	933504-4	Hairpin Cotter	1
12	909849-5	Set Screw Nylok $\frac{1}{4}$ -20 x $\frac{5}{16}$	1	54	4421	Foot Rest	2
13	937014	Key #9 Woodruff	1	55	915113-4	Nut — Hex $\frac{3}{8}$ -16	2
14	4996	Hub — Wheel 5 Bolt	2	56	2266	Ass'y. Lift Lever	1
15	937022	Key #15 Woodruff	2	57	4438	Plunger	1
16	909554	Set Screw Square Head $\frac{3}{8}$ -16 x 1	4	58	4439	Rod	1
17	915236-4	Nut Hex $\frac{3}{8}$ -16 Jam	2	59	933168	Roll Pin $\frac{5}{32}$ x $1\frac{1}{16}$	1
18	5638	Axle — Front	1	60	3624	Spring	1
19	1030	Fitting — Grease	3	61	3578	Guide — Plunger Rod	1
20	1481	Fitting — Grease 45°	1	62	3680	Cap — Plunger Rod	2
21	6216	Ass'y. Pin & Plate	1	63	1000	Grip — Handle	1
22	908015-4	Bolt Hex $\frac{5}{16}$ x $\frac{1}{2}$	8	64	933506-4	Hairpin Cotter	1
23	920082-4	Lockwasher $\frac{5}{16}$ Plain	6	65	920082-4	Lockwasher $\frac{5}{16}$ Dia.	3
24	5630	Ass'y. Spindle R.H.	1	66	5640	Quadrant	1
25	5631	Ass'y. Spindle L.H.	1	67	2179	Rod — Height Control	1
26	5618	"E" Ring $\frac{3}{4}$ Dia.	3	68	5280	Knob — Height Control	1
27	6396	Support — Steering	1	69	3931	Ass'y. Cable — Lift	1
28	6397	Bushing	1	70	932120-4	Pin — Clevis $\frac{1}{4}$ Dia.	2
29	908035-4	Bolt Hex $\frac{3}{8}$ -16 x $1\frac{1}{4}$	2	71	933503-4	Hairpin Cotter	4
30	6567	Ass'y. Steering Shaft — Upper	1	72	3926	Hitch	1
31	1085	Collar	1	73	3988	Pin — Hitch	1
32	909848-5	Set Screw— $\frac{1}{4}$ -20 x $\frac{1}{4}$ Nylok	2	74	936125	Snap Ring $\frac{3}{4}$ Shaft	2
33	6565	Ass'y. Steering Shaft — Lower	1	75	6393	Ass'y. Trip Lever	1
34	5210	Washer — Shim (.015)	3	76	4239	Pedal — Attachment Clutch	1
35	1278	Washer — Shim (.050)	3	77	5714	Spring	1
36	932035-4	Cotter Pin $\frac{3}{16}$ x $1\frac{1}{4}$	2	78	5385	Link	1
37	5628	Ass'y. Ball Joint R.H.	1	79	932025-4	Cotter Pin $\frac{5}{32}$ x 1	2
38	5629	Ass'y. Ball Joint L.H.	1	80	933213	Roll Pin $\frac{1}{4}$ x 1	1
39	915002-6	Nut — Nylok $\frac{3}{8}$ -24	4	81	7231	Ass'y. Hood	1
40	3950	Ass'y. Idler Arm & Shaft	1	82	7416	Plate — Escutcheon	1
41	4899	Arm — Clutch Rod Pivot	1	83	7721	Clip — Tinnerman	4
42	933158	Roll Pin $\frac{1}{8}$ x $1\frac{1}{4}$	1	84	5455	Bracket — Hood Hinge	1

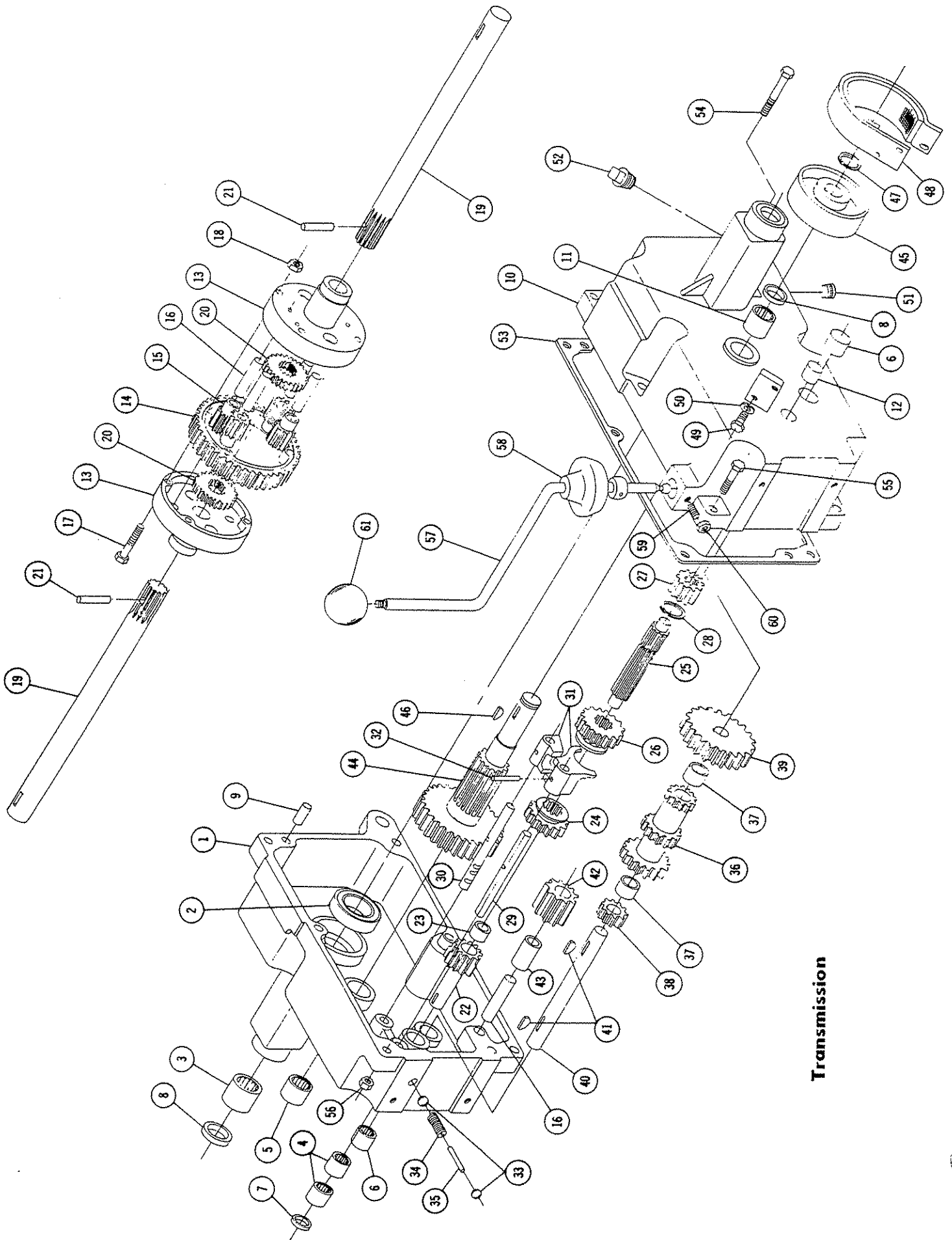


## PARTS LIST "500 SPECIAL" TRACTOR

(Except Transmission — see page 11 for Transmission break down and Parts List)

When ordering parts always list Part No. and name of part.

Item No.	Part No.	Description	No. Req'd.	Item No.	Part No.	Description	No. Req'd.
85	5457	Bushing — Nylon	2	127	1349	Key $\frac{1}{4} \times \frac{1}{4} \times 1\frac{1}{2}$	1
86	5467	Lever — Hood Latch	1	128	7888	Ass'y. Control — Choke	1
87	5469	Knob	1	129	7886	Ass'y. Control — Throttle	1
88	933182	Roll Pin $\frac{3}{16} \times \frac{5}{8}$	1	130	1364	Nut $\frac{3}{16}$ -18 Round	2
89	5468	Roller — Steel	2	131	920127-4	Lockwasher $\frac{3}{16}$ Shakeproof	2
90	915932-4	Nut — High Crown #10-24	2	132	3023	Retainer — Cable	1
91	5466	Speed Nut	2	133	7596	Ass'y. Switch — Ignition	1
92	5522	Rod — Hood Latch	1	134	7261	Nut Hex $\frac{3}{16}$ -24 Special	1
93	5438	Ornament — Hood Latch	1	135	920159-4	Lockwasher $\frac{3}{16}$ Internal	1
94	5437	Speed Nut $\frac{1}{8}$ Dia. Push-On	2	136	7262	Key — Ignition	2
95	5308	Ass'y. Belt Guard	1	137	935113-4	Plug Button $\frac{25}{32}$ Hole	1
96	1432	Screw — Round Head $\frac{3}{16}$ -24 x $\frac{1}{2}$	1	138	4434	Wire Switch to Ground	1
97	7444	Ass'y. Fender	1	139	7070	Seat	1
98	7879	Bushing $\frac{1}{2}$ I.D. Flanged	2	140	920008-4	Washer $\frac{3}{16}$ SAE	4
99	908182-4	Bolt Hex $\frac{3}{8}$ -24 x $\frac{7}{8}$	2	141	915662-4	Nut $\frac{3}{16}$ -18 Elastic Stop	4
100	4937	Spacer	2	142	6389	Assembly Wheel Complete	2
101	5667	Bumper — Rubber	4	143	5635	Wheel	2
102	5695	Latch	1	144	4999	Bearing — Ball	4
103	MW-4404	Spring Washer $\frac{3}{32}$ I.D.	2	145	1656	Tire	2
104	960152-4	Bolt — Whizlock $\frac{1}{4}$ -20 x $\frac{5}{8}$	6	146	1657	Tube	2
105	920007-4	Washer $\frac{1}{4}$ SAE	2	147	2844	Washer — Wheel Retainer	2
106	915111-6	Nut — Nylak $\frac{1}{4}$ -20	6	148	908033-6	Bolt — Nylak $\frac{3}{8}$ -16 x $\frac{7}{8}$	2
107	6825	Cover — Dust	1	149	7747	Hub Cap	2
108	5450	Housing — Control Panel	1	150	1667	Assembly Wheel Complete	2
109	908016-4	Bolt Hex $\frac{5}{16}$ -18 x $\frac{5}{8}$	4	151	1700	Wheel	2
110	5442	Speed Nut #10-16 Thread	4	152	1662	Tire 6 x 12 Lawn & Garden	2
111	5409	Bushing — Nylon	1	153	1654	Tube	2
112	5458	Support — Fuel Tank	1	154	1004	Lug Bolt — Wheel $\frac{7}{16}$ -20	10
113	926308-4	Screw — Self Tap #10-16 x $\frac{3}{4}$	4	155	2897	Insert	1
115	5439	Grommet — Rubber	1	156	933215	Roll Pin $\frac{1}{4} \times 1\frac{1}{4}$	1
117	5453	Panel — Control Dash	1	157	4983	Steering Wheel	1
118	5506	Plug Button $\frac{25}{32}$ Hole	1	158	8376	Decal—Hood Trim—"500" Special	2
119	5530	Ass'y. Engine — Lauson	1	159	1813	Tool Pin	1
120	4416	Base	1	160	1576	"V" Belt — Drive	1
121	943317-4	Nipple $\frac{1}{4}$ Pipe x 4	1	161	8378	Decal — Racing Stripe	1
122	4218	Nipple $\frac{1}{4}$ Pipe $1\frac{1}{4}$	1	162	7883	Decal — Shift Pattern	1
123	4216	Elbow $\frac{1}{4}$ Pipe x 90°	1	163	5604	Decal — Fender	1
124	4217	Cap $\frac{1}{4}$ Pipe	1	164	6165	Decal — Seat Latch	1
125	7628	Muffler	1	165	7421	Decal — Steering Wheel	1
126	1621	Pulley — Engine	1	166	5634	Ass'y. Frame	1
				167	8379	Decal — Racing Flags	2



Transmission

# 5053 TRANSMISSION PARTS LIST

\*(ORDER NO. 5053 FOR COMPLETE TRANSMISSION)

When ordering parts always list Part No. and Name of Part.

Ref. No.	Part No.	Description	No. Req'd.	Ref. No.	Part No.	Description	No. Req'd.
1	3900	Case R.H.	1	32	933156	Roll Pin 1/8 x 1	2
2	1533	Bearing — Ball 1 1/2 I.D.	2	33	3517	Ball — Shift Stop	2
3	1528	Bearing — Needle	2	34	3518	Spring — Shift Stop	1
4	1508	Bearing — Needle 3/4 I.D.	2	35	5614	Pin — Shift Stop	1
5	1532	Bearing — Needle 1" I.D.	1	36	3525	Gear — Cluster	1
6	1529	Bearing — Needle 3/4 I.D.	1	37	1504	Bearing — Bronze 3/4 I.D.	2
7	1303	Seal — Oil 3/4 Shaft	1	38	3528	Gear — Reduction Pinion	1
8	1232	Seal — Oil 1" Shaft	3	39	3527	Gear — Reduction	1
9	3915	Pin — Dowel	2	40	3910	Shaft — Cluster Gear	1
10	3901	Case L.H.	1	41	937014	Key #9 Woodruff	2
11	1530	Bearing — Needle 1" I.D.	1	42	4204	Gear — Reverse Idler	1
12	1531	Bearing — Needle 5/8 I.D.	1	43	1516	Bushing — Bronze 1/2 I.D.	1
13	3905	Case — Differential	2	44	3903	Gear — Brake Shaft	1
14	3906	Gear — Differential Bull	1	45	3902	Drum — Brake	1
15	4235	Gear — Differential Pinion	4	46	937022	Key #15 Woodruff	1
16	3909	Shaft	5	47	936131	Snap Ring 1" Shaft	1
17	908146	Bolt Hex 5/16-18 x 3 1/4	4	48	7376	Ass'y. Brake Band & Lining	1
18	1316	Nut Huglock 5/16-18	4	49	908002-4	Bolt Hex 1/4-20 x 5/8	2
19	3904	Axle — Rear	2	50	920081-4	Lockwasher 1/4 Dia.	2
20	3908	Gear — Axle	2	51	943460	Plug 1/4 Pipe	1
21	933217	Roll Pin 1/4 x 1 1/2	2	52	943420	Plug 3/8 Pipe	1
22	3522	Gear — Input	1	53	3912	Gasket	1
23	1518	Bearing — Needle 5/8 I.D.	1	54	908043-4	Bolt Hex 3/8-16 x 3 1/2	1
24	3523	Gear Hi & 2nd	1	55	908038-4	Bolt Hex 3/8-16 x 2	5
25	3907	Shaft Spline	1	56	915113-6	Nut Hex 3/8-16 Nylok	6
26	3524	Gear — Low & Reverse	1	57	5632	Ass'y. Shift Stick	1
27	3526	Gear — Pinion — Spline	1	58	3577	Boot — Shift Stick	1
28	936125	Snap Ring 3/4 Truarc	1	59	1239	Set Screw Dog Point 1/4-20 x 3/4	1
29	5615	Rail — Front Shift	1	60	915111-6	Nut Hex 1/4-20 Nylok	1
30	5616	Rail — Rear Shift	1	61	1001	Knob	1
31	3503	Fork — Shift	2				

\*Not included in No. 5053 Assembly.

## SPECIFICATIONS

(Specifications subject to change without notice.)

Length Overall .....	61 inches
Wheelbase .....	41 1/4 inches
Width Overall .....	34 inches
Width at Front Wheels .....	32 1/2 inches
Height .....	37 1/2 inches
Height to Top of Hood .....	33 1/2 inches
Approx. Shipping Weight .....	450 lbs.
Crop Clearance .....	7 1/4 inches
Frame Clearance .....	13 1/2 inches
Engine Horsepower (Engine Mfgr's Rating) .....	6 H.P.
Engine Crankcase Oil Capacity .....	25 oz.
Fuel Capacity .....	1 gallon
Tires (front) 4.00-8 Pneumatic (16" wheel dia.)	
Tires (rear) 6.00 x 12" Pneumatic (22 1/2" wheel dia.)	
Speeds — 3 Forward to 6 mph. 1 Reverse to 2 1/2 mph.	
Turning radius (to outside wheel) .....	6'

## ATTACHMENTS AVAILABLE "500 SPECIAL" TRACTOR

36" ROTARY MOWER (5-2362)  
32" ROTARY MOWER (5-2322)  
32" SNOW THROWER (6-2211)  
42" SICKLE BAR MOWER (7-1321)  
42" SNOW-DOZER (6-4111)  
32" DISC (7-1511)  
8" PLOW (7-1421)  
TRAILING CULTIVATOR (7-1711)  
TWO SECTION CULTIVATOR (7-1721)  
SPIKE TOOTH HARROW (7-1611)  
2-WHEEL DUMP TRAILER (7-2211)  
4-WHEEL UTILITY WAGON (7-2111)  
SPIKED DISC AERATOR (7-2411)  
GRADER BLADE (7-1111)  
LAWN ROLLER (7-2311)



### OPTIONAL ACCESSORIES

TIRE CHAINS (8-2411)  
FRONT AND REAR WHEEL DISCS (8-0511)  
WHEEL WEIGHTS — FRONT (8-1211)  
WHEEL WEIGHTS — REAR (8-1111)  
AUXILIARY HITCH (8-5111)  
DUAL WHEELS (8-0711)  
SPEED HITCH (8-5211)  
POWER TAKE OFF (8-3211)

