Wheel Horse®

LAWN AND GARDEN TRACTORS

TRAILBLAZER "7" SNOW THROW

MODEL 4-2651

OWNERS MANUAL

"Quality is Standard Equipment in Every Wheelhorse Product"

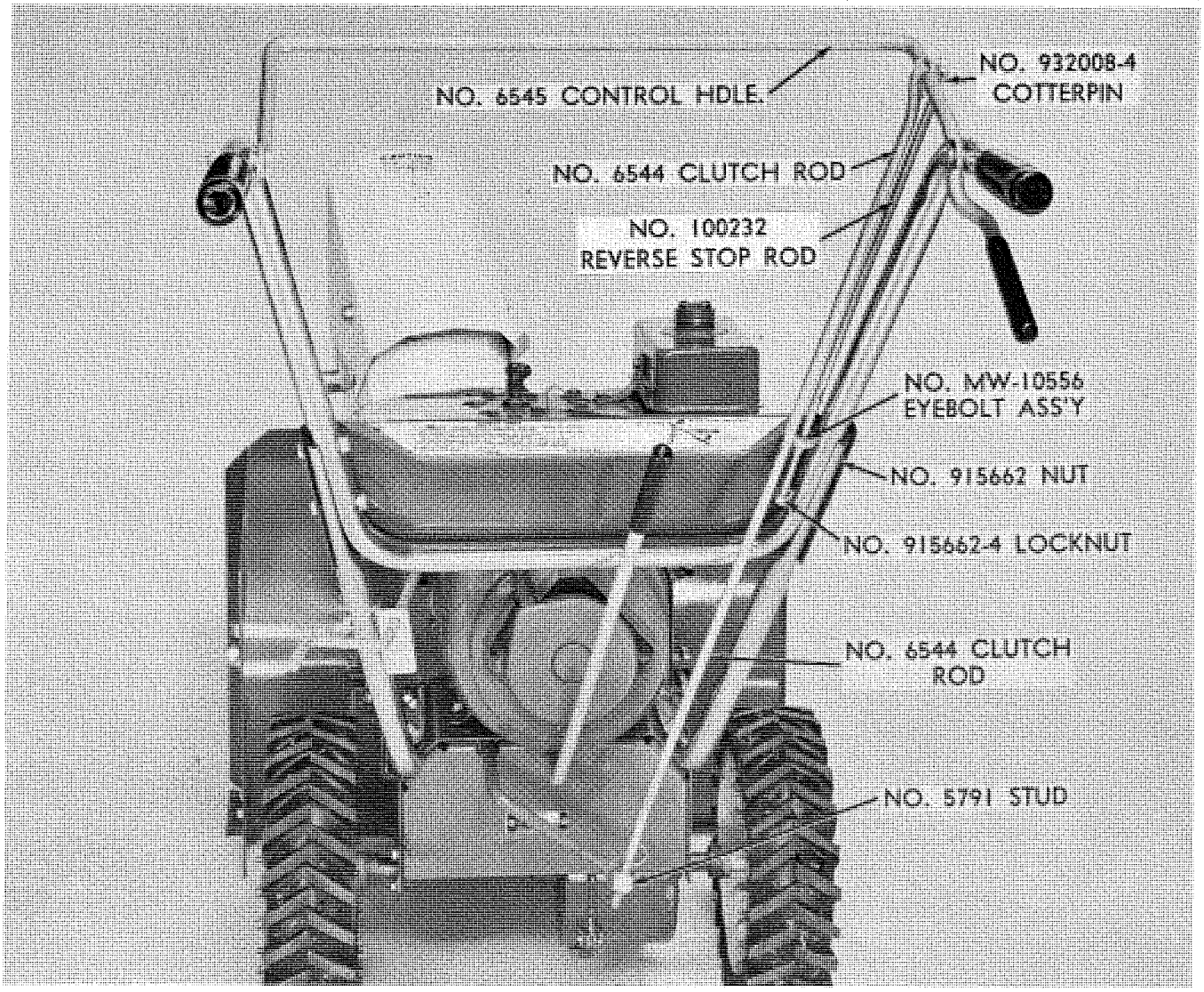


FIGURE 1

ASSEMBLY:

Remove Snow Thrower and all other parts from carton.

1. Assemble upper handles, MW-10284 and panel, 6599 to lower handle with three hex bolts and one 5/16 eyebolt which goes in the upper hole on the right hand side. The eye of the eyebolt must be on the inside of handles. Secure with four 5/16 elastic stop nuts. See Figure 1 and Exploded View drawing.

2. Assemble control handle, 6545, to the upper handle using two bushing, one 5/16 x 1 1/2 hex bolt (right side), one 5/16 x 1 3/4 hex bolt (left side), and two 5/16 elastic stop nuts. See the exploded view drawing and Figure 1.

3. Screw the trunnion stud 5791 onto the clutch rod 6544 and install trunnion stud and rod assembly between control handle and the clutch arm assembly 6983 and secure trunnion stud to the clutch arm assembly with hairpin cotter 933504-4.

Place upper end of clutch rod 6544 through hole in control handle. To properly adjust the clutch rod start the engine (see starting procedure) and move shift rod to low, squeeze on the right side of the control handle. The clutch should reach a firm engagement before the clutch rod handle touches the handle grip. If it is too tight or too loose, remove rod from hole and turn in trunnion stud until correct adjustment is achieved. Next insert threaded end of reverse stop rod 100232 through eyebolt, and attach other end over the clutch rod end as shown above (Figure 1). Secure upper end with cotterpin 932008-4. Screw 5/16 nut on threaded end of rod. This nut is for adjustment in reverse, so that an excess amount of pressure cannot be applied on the reverse belt. With control handle 6545 pulled in reverse position, adjust 5/16 nut up until it makes contact with eyebolt. (**Note:** When pulling back on clutch bar for reverse, the nut of the reverse stop rod should always make contact with the eyebolt. Adjust nut so that there is just enough rearward movement of the clutch bar for reverse traction and no more.)

OIL AND GASOLINE:

DO NOT MIX OIL WITH GASOLINE.

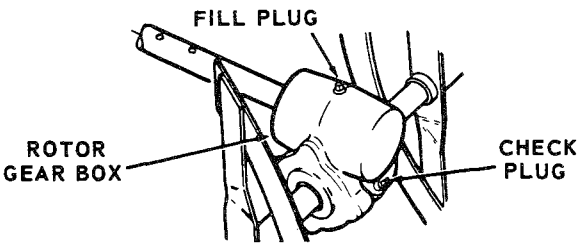
Fill gas tank with clean **regular** gasoline.

Fill engine crankcase with SAE 5W 20 which is recommended, however for temperatures above 0°F. SAE 10W 30 is satisfactory. Fill to (Full) mark on dip stick. **Caution: Do Not Overfill.**

ROTOR GEAR BOX:

The proper amount of oil was installed at the factory but should be checked before using.

Remove check plug on gear box, if oil is not to the check plug level, remove fill plug and add SAE #90 Hypoid Gear Lube until oil runs out of the check plug. The oil level should be checked every 8 to 10 hours of operation.



TRANSMISSION:

The transmission has been lubricated at the factory and requires only seasonal (see maintenance) attention. The grease fitting on the right hand wheel hub should be lubricated before using and then after every eight to ten hours of operation. Use regular pressure gun lubricant.

A light machine oil should be used on all moving parts to prevent rust and to keep linkages working freely.

STARTING:

For safe starting, it is necessary to make sure that the rotor clutch is in the disengaged position and the shift lever is in the neutral position.

PRE START:

1. Check engine oil level.

2. Refuel engine with fresh winter blend regular gasoline from sealed container.

3. Place manual choke in full choke position.

4. Place throttle in run position.

5. Open fuel shut off valve on gas tank.

STARTING PROCEDURE:

1. Temperatures 10° F. and below use "Primer."

   A. To Prime Engine:

      1. With primer button held in, pull engine slowly over compression once.

      2. **Release primer button.**

2. To start, pull engine on compression, then pull starter handle quickly.

3. When engine starts, advance choke immediately to ¾ choke position (first notch).

4. As the engine warms up advance to ½ choke and no choke position.

   If engine falters return to ½ choke and repeat.

5. Warm Up Period: Let engine run ½ throttle ½ minute, then slowly engage rotor clutch and run one minute before blowing snow.

6. For final shut down, stop engine by closing fuel shut off valve on gas tank.

   Do not refuel engine at this time.

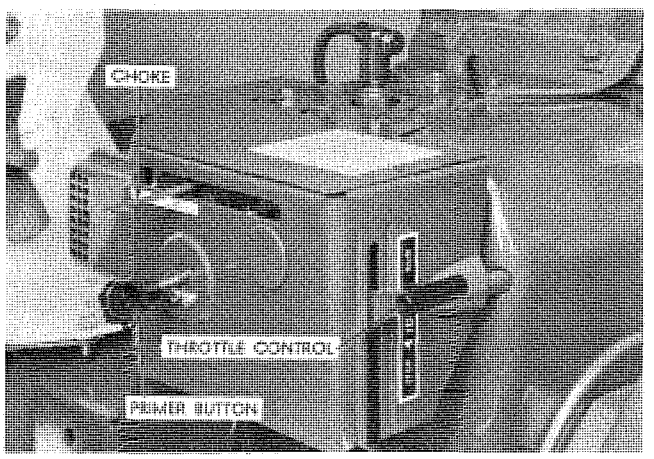


FIGURE II

TO STOP ENGINE:

Place shift lever in the neutral position and slide throttle lever into the stop position, as far as possible. (See above photo.)

To avoid accidents, shut off engine before adding gas, oil, before making adjustments, or inspections of any kind.

TO THROW SNOW:

Place throttle lever in **wide open**, run position, engage rotor clutch slowly. Place shift control in desired range (low or hi), and squeeze handle on right hand

handle bar to go forward. To go in reverse pull back on the cross bar above the handles. The machine will back up only when the cross bar is pulled back. When the control is released the machine will stop regardless of direction of travel.

To change direction or distance of throw, turn chute crank accordingly. Move capper up or down, by loosening wing nuts, tighten nuts securely after adjustment.

CAUTION: Always STOP ENGINE and disengage rotor clutch before attempting to remove obstructions from the chute or rotor.

If an object should get jammed in the rotor, proceed as follows:

1. Shut off engine, and disconnect spark plug wire.

2. Using long screw driver reach down through chute opening and rotate impeller blades clockwise. This will release object.

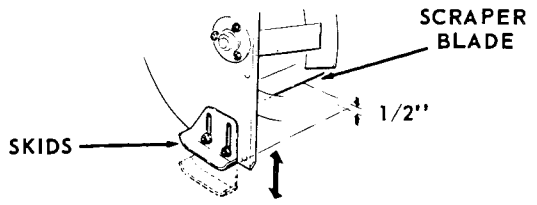
3. Remove object, check for visible damage, restart engine and engage rotor clutch slowly and observe for any operational damage.

4. If chute should become plugged with snow, DO NOT stick your hand in chute and attempt to clean it out. Disengage rotor clutch and **shut off engine.** The chute should be cleaned out with something other than your hand.

The rotor shear pins are designed to protect parts from becoming damaged when the rotors become lodged with an object too large to be handled by the Snow Thrower. It is important they be replaced with a genuine Wheel Horse Shear Pin. No. 7491.

TO ADJUST SKIDS — First Shut Off Engine

FOR USE ON CONCRETE — adjust skids ½ inch lower than scraper blade. FOR USE ON GRAVEL — adjust skids one inch lower than scraper blade. NOTE: These adjustments move entire unit up or down.



TO ADJUST SCRAPER — First Shut Off Engine

The blade is adjusted by 5 bolts which hold blade to chassis. Blade is located behind rotor. FOR USE ON CONCRETE — adjust blade ½ inch lower than rotor. FOR USE ON GRAVEL — adjust blade to level of rotor.

If the snow discharge chute binds or will not stay in place it can be adjusted as follows:

CHUTE TURNING TENSION ADJUSTMENT:

Loosen the nut that secures the chute rod hanger bracket (Item No. 77, Part No. 7237). Slide the bracket down to relieve bind or up to correct looseness, then tighten the nut.

DIFFERENTIAL LOCK:

A differential lock has been provided on this machine to produce maximum traction under adverse conditions.

If one wheel loses traction and spins, both wheels can be made to drive by rotating the pin in the differential lock on the right hand wheel hub and letting the cross pin drop into the deep notch. This locks the differential forcing both wheels to drive at all times. For easiest handling under normal conditions the pin should be pulled out and the cross pin turned to engage the shallow notch. This permits the operator to turn the machine with far less effort because skidding of the wheels is eliminated.

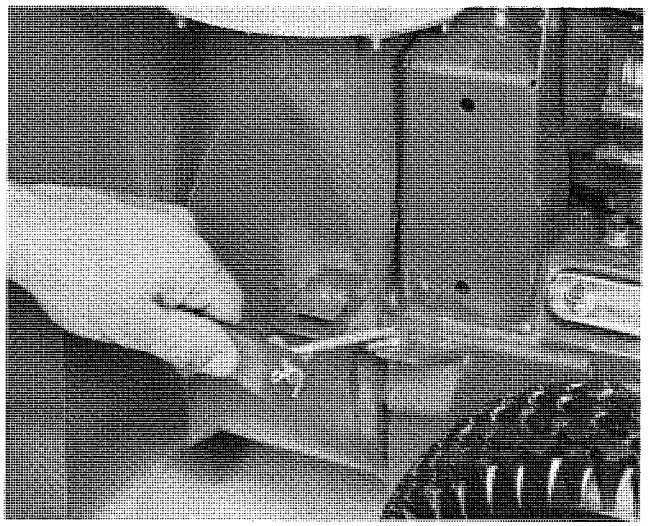


FIGURE III

SEPARATION OF SNOW HANDLER FROM PROPULSION UNIT:

To separate the snow handler from the propulsion unit the following procedure should be followed:

1. Remove plastic belt cover 6539 by removing three (3) screws holding it.

2. Slip impeller drive belt 6506 off of engine pulley.

3. Rotate chute to extreme left hand position so that sprocket will disengage chute through slot provided in flange.

4. To unlock cam levers, rap cam lever arm, toward rotor and upwards, with short light raps of a hammer. Swing lock arms away from channels. Stand at operator's position and pull on handles to separate the propulsion unit from the rotor unit. To recouple reverse the above procedure. The cam locks can be adjusted by turning the cam lock trunnion in or out as required. **The locks should be adjusted to where it takes light raps of a hammer to pull them down.** The cams must be fully down and tight in order to obtain a positive lock.

BELT REMOVAL:

After separation of snow handler from propulsion unit, belt removal can be easily attained.

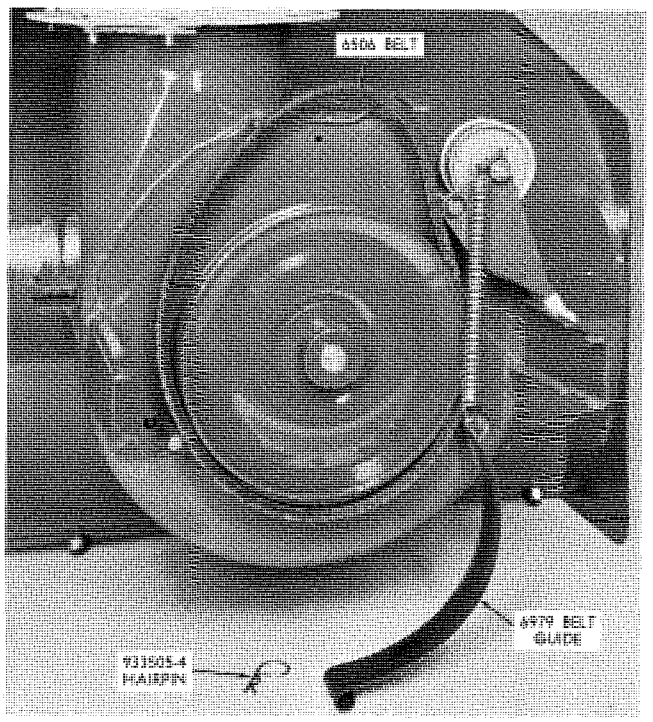


FIGURE IV

To change impeller drive belt 6506, remove hairpin 933505-4, slide one end of belt guide 6979 off pin and let it swing down. Now the belt can easily be removed.

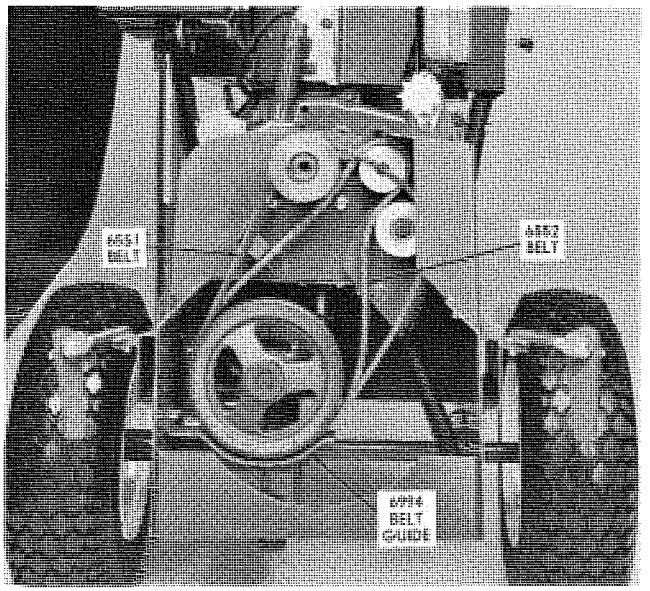


FIGURE V

To change drive belts, remove belt guide 6994 below transmission pulley, then remove hairpin 933504-4 next to small idler pulley and slip spacer off of pin. Now the belts can be slipped off the pulleys.

MAINTENANCE:

Drain and refill crankcase after the **first** (2) hours of operation. Then drain and refill after each 25 hours of operation. — See engine manual.

Check oil in crankcase each time unit is used.

Check rotor gear case every 10 hours of operation.

Grease R.H. wheel hub (zerk provided) each 10 hours of operation.

Before the snow season check unit, tighten any loose bolts, lubricate transmission at the grease fittings with regular gun grease.

STORING:

Drain gas from tank. If the Snow Throw is to be stored for long periods. Remove engine spark plug, pour in about two tablespoons of motor oil, replace spark plug and crank engine a few turns.

To protect rotor from rust when storing coat it with a light coating of grease or oil.

Approximate shipping weight 260 lbs.

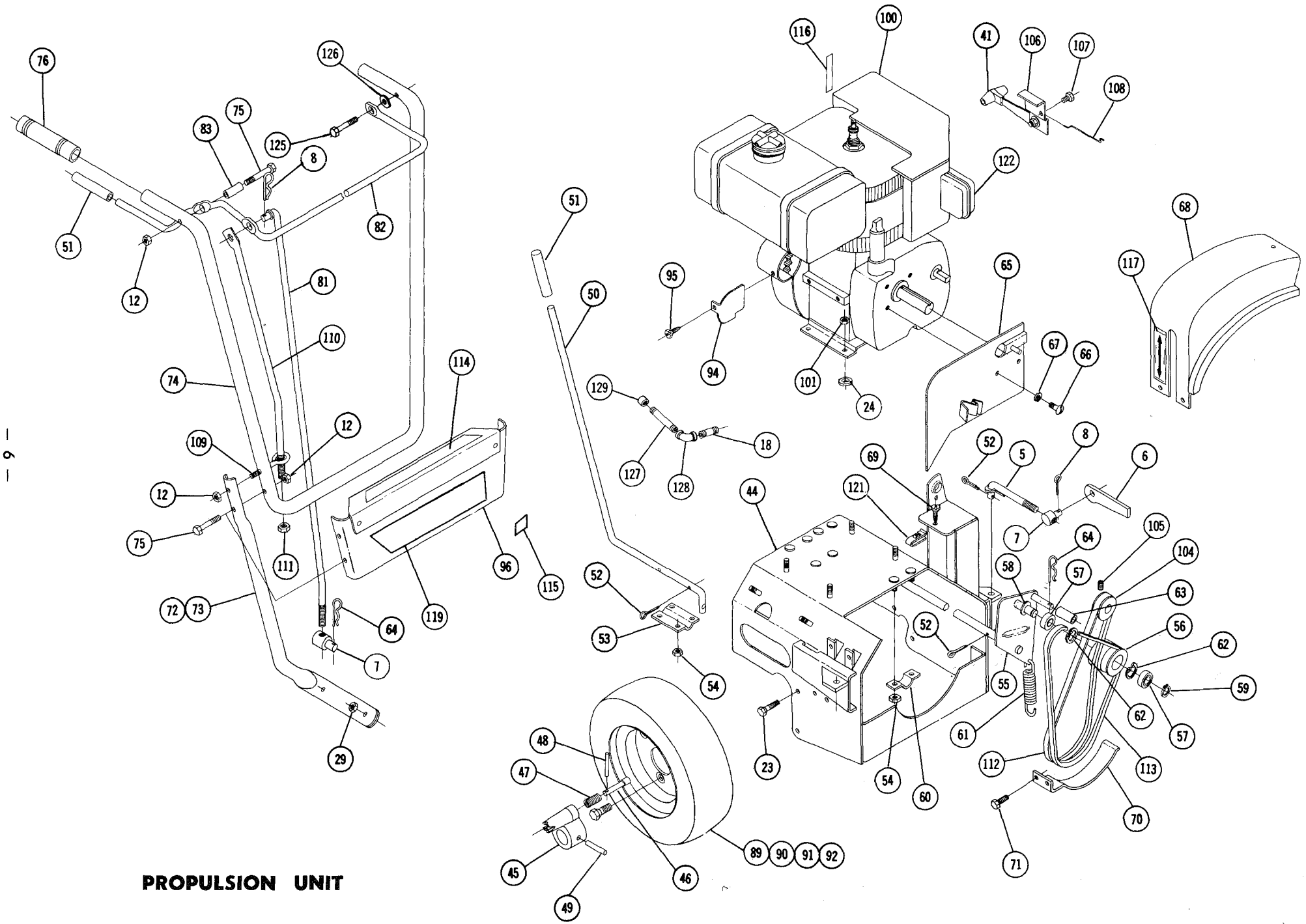
ACCESSORIES:

ELECTRIC START:

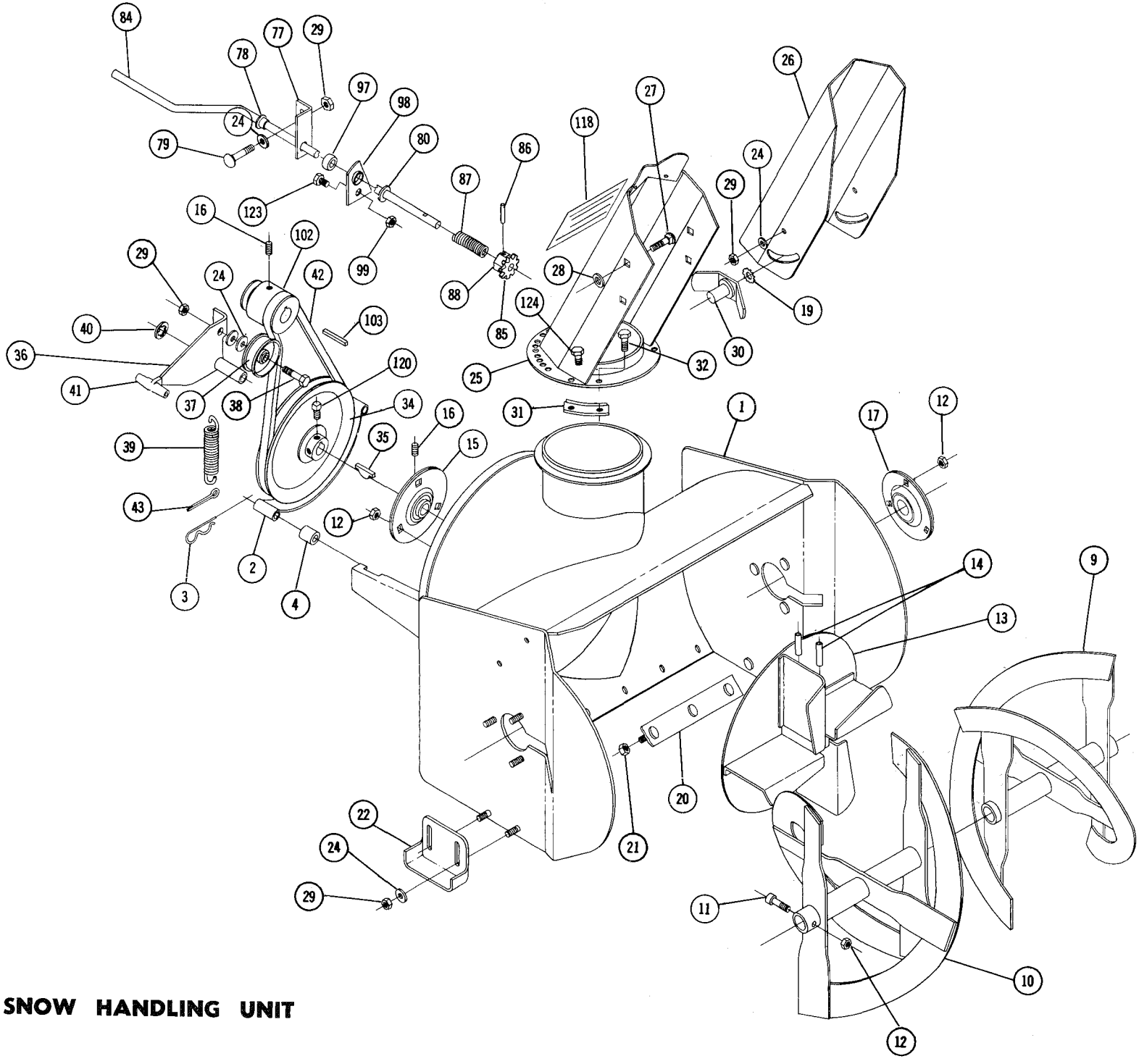
Electric starting is available as an accessory. Order Wheel Horse 8-0111.

TIRE CHAINS: 8-2111

Purchase from any Wheel Horse dealer.



PROPULSION UNIT

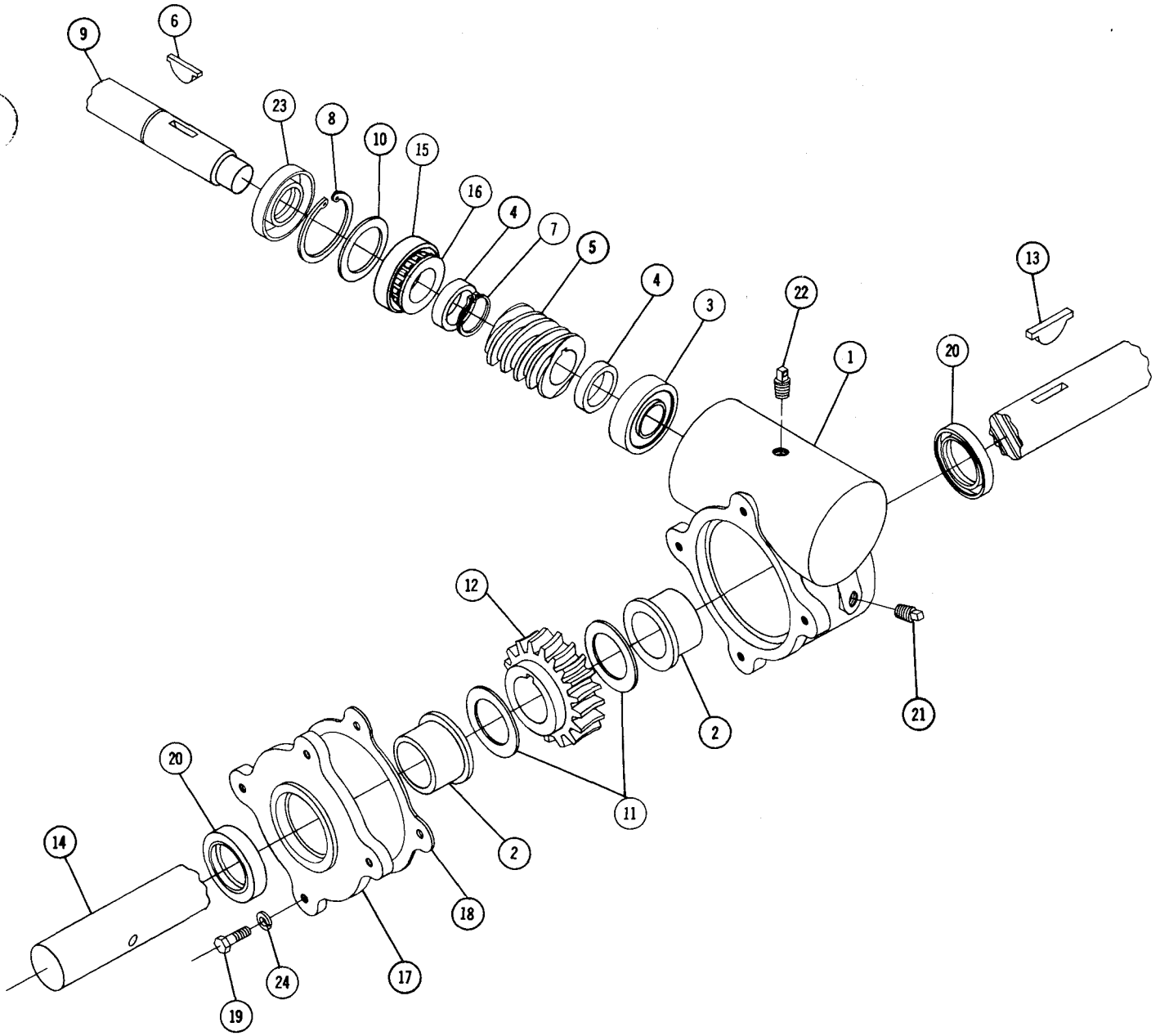


SNOW HANDLING UNIT

SNOW THROW PARTS LIST

Parts available only through Authorized Dealers
When ordering parts always list Part No. and name of part.
(Specifications subject to change without notice.)

Item No.	Part No.	Description	No. Req'd.
1	6976	Assembly — Rotor Housing	1
2	6979	Guide — Belt	1
3	933505-4	Hairpin	1
4	2138	Spacer	1
5	6980	Rod — Clamp	2
6	6981	Cam — Clamp	2
7	5791	Stud — Trunnion	3
8	932008-4	Cotter Pin 3/32 x 3/4	4
9	7489	Assembly Rotor L.H.	1
10	7488	Assembly Rotor R.H.	1
11	7491	Bolt — Shear 5/16-18	2
12	915112-6	Nut — 5/16-18 Nylok	17
13	MW-10293	Assembly Impeller	1
14	933217	Roll Pin 1/4 x 1 1/2	2
15	5269	Bearing — Flange Mount	1
16	909862-5	Set Screw 5/16-18 x 5/16 Nylok	5
17	7985	Bearing — Flange Mount	2
18	943308-4	Nipple 1/4 Pipe x 1 1/4	1
19	920124-4	Lockwasher 3/8 Ext. Tooth	2
20	MW-10512	Assembly — Scraper Blade	1
21	960010-4	Nut Whizlock 5/16-18	5
22	MW-10507	Skid	2
23	6352	Bolt — Lug 3/8-16 x 5/8	2
24	920009-4	Washer 3/8 SAE	16
25	MW-10340	Assembly Chute	1
26	MW-10276	Deflector	1
27	900062-4	Bolt — Carriage 3/8-16 x 3/4	4
28	920011-4	Washer 1/2 Dia. SAE	4
29	915113-6	Nut — 3/8-16 Nylok	11
30	6973	Assembly — Wing Nut	2
31	MW-10283	Assembly — Retainer	2
32	908001-4	Bolt — Hex 1/4-20 x 1/2	5
33	920007-4	Washer 1/4 SAE	8
34	MW-10376	Pulley — 8" Dia.	1
35	937159	Key — Hi-Pro 3/16 x 3/4	1
36	6502	Assembly Lever	1
37	MW-8821	Pulley — Idler	1
38	908036-4	Bolt — Hex 3/8-16 x 1 1/2	1
39	6949	Spring	1
40	6505	Ring — Truarc	1
41	6290	Knob	1
42	6506	Belt 32" 4L	1
43	932024-4	Cotter Pin	1
44	6999	Assembly Housing	1
45	6525	Housing — Diff. Lock	1
46	6526	Pin — Diff. Lock	1
47	6293	Spring	1
48	933270	Roll Pin	1
49	933269	Roll Pin	1
50	6527	Rod — Shift	1
51	6528	Grip — Shift Rod	2
52	932016-4	Cotter Pin	4
53	5842	Bracket	1
54	915111-6	Nut — Hex 1/4-20 Nylok	8
55	6983	Assembly — Clutch Arm	1
56	6775	Pulley — Forward-Rev. Idler	1
57	6593	Bearing — Ball 7/16 I.D.	2
58	920201-4	Washer	2
59	936115	Snap Ring 7/16 Ext.	1
60	6532	Bracket	2
61	6533	Spring	1
62	936020	Snap Ring — Truarc	2
63	4395	Spacer	1
64	933504-4	Hairpin	2
65	6987	Assembly — Cover & Guide	1
66	1432	Screw — Rd. Hd. 5/16-24 x 1/2	2
67	920082-4	Lockwasher 5/16 Dia.	2
68	6539	Cover — Belt	1
69	911685-4	Screw — Hex Hd. Slotted #14-10 x 7/8	3
70	6994	Guide Belt	1
71	960163-4	Screw — Hex Hd. Whiz-Loc 1/4-28 x 1/2	2
72	MW-10294	Handle — Lower L.H.	1
73	MW-10295	Handle — Lower R.H.	1
74	MW-10284	Handle — Upper	1
75	908021-4	Bolt — Hex 5/16-18 x 1 1/2	5
76	6542	Grip — Handle	2
77	7237	Hanger	1
78	5979	Bushing	1
79	MW-10751	Bolt — Carriage 5/16-18 x 1 3/8	1
80	920038-4	Washer 5/16 US	1
81	6544	Rod — Clutch	1
82	6545	Handle — Control	1
83	6990	Bushing	2
84	6546	Rod — Chute Control	1
85	MW-8935	Sprocket — 9 Tooth	1
86	933173	Roll Pin 5/32 x 1 1/4	1
87	6547	Spring	1
88	6991	Collar — Hex	1
89	6383	Assembly — Wheel & Tire	2
90	5837	Wheel	2
91	MW-10493	Tire	2
92	MW-10494	Tube	2
93	1004	Bolt — Lug 7/16-20	6
94	MW-10739	Cover — Starter Opening	1
95	MW-4194	Screw — Hex Slotted #10-24 x 3/8	1
96	6599	Assembly Panel	1
97	7413	Ball — Spherical	1
98	7414	Socket — Crank Bushing	1
99	915112-6	Nut — 5/16-18 Nylok	1
100	8004	Engine 6 H.P.	1
101	960012-4	Nut — Whizlock 3/8-16	4
102	6536	Pulley — Crankshaft	1
103	MW-10304	Key — 1/4 Square	1
104	6535	Pulley — Cam Shaft	1
105	909850-5	Set Screw — Nylok	1
106	7029	Assembly Throttle Control	1
107	911263-4	Screw — Hex Sems #10-32 x 3/8	1
108	7030	Wire — Throttle Lever	1
109	MW-10556	Eyebolt	1
110	100232	Rod — Reverse Stop	1
111	915662-4	Nut — 5/16-18 Elastic Stop	1
112	6552	Belt — 30"	1
113	6551	Belt — 30.5"	1
114	7681	Decal — Safety	1
115	8034	Decal — "7"	1
116	6819	Decal — Throttel Control	1
117	MW-10545	Decal — Rotor Clutch	1
118	MW-8378	Decal — Caution Snow Chute	1
119	8063	Decal — Trailblazer	1
120	909540-4	Set Screw Sq. Hd. 5/16-18 x 1/2	2
121	6519	Speed Nut #14-10	3
122	7628	Muffler	1
123	908015-4	Bolt — Hex 5/16-18 x 1/2	1
124	908000-4	Bolt — Hex 1/4-20 x 3/8	1
125	908022-4	Bolt — Hex 5/16-18 x 1 3/4	1
126	920008-4	Washer — 5/16 SAE	1
127	943317-4	Nipple 1/4 Pipe x 4	1
128	943002-4	Elbow 1/4 Pipe x 90°	1
129	4217	Cap 1/4" Pipe	1



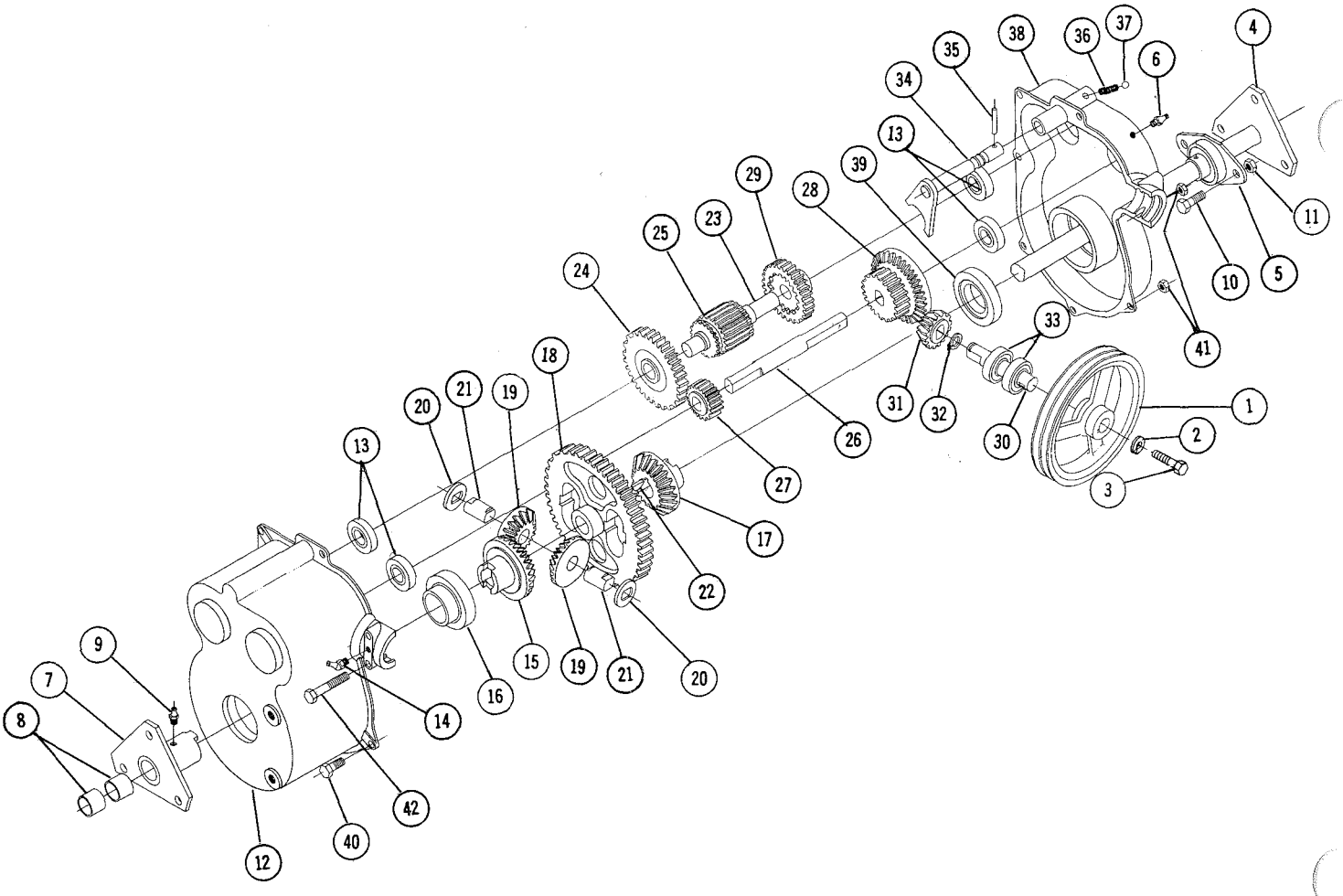
PARTS LIST 7487 GEAR BOX — ROTOR DRIVE

(Order Part No. 7487 for Complete Gear Box)

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

Item No.	Part No.	Description	No. Req'd.
1	MW-8869	Housing — Rotor Drive	1
2	MW-5332	Bushing — Sleeve	2
3	5596	Bearing — Ball	1
4	7038	Spacer — Worm	2
5	MW-8938	Worm	1
6	937159	Key — Hi-Pro 3/16 x 3/4	1
7	936125	Ring — Retaining — 3/4 Shaft	1
8	936028	Ring — Retaining Int.	1
9	7034	Shaft — Impeller	1
10	7039	Washer	1
11	MW-10327	Washer — Thrust	2
12	MW-8941	Gear — Worm	1

Item No.	Part No.	Description	No. Req'd.
13	937168	Key — Hi-Pro 1/4 x 1	1
14	7490	Shaft Rotor	1
15	7037	Cup — Timken	1
16	7036	Cone — Timken	1
17	MW-8870	Cover	1
18	5326	Gasket	1
19	908002-4	Bolt — Hex 1/4-20 x 5/8	4
20	MW-10390	Seal — Oil 1.00 Shaft	2
21	943418	Plug — Pipe	1
22	MW-10440	Plug — Vent	1
23	MW-10459	Seal — Oil .75 Shaft	1
24	920081-4	Lockwasher 1/4 Plain	4



PARTS LIST 5077 — TRANSMISSION

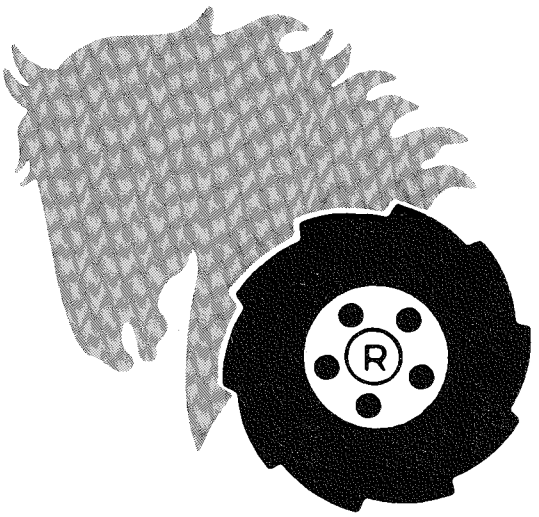
(Order Part No. 5077 for Complete Transmission)
When ordering parts always list Part No. and name of part.
(Specifications subject to change without notice.)

Item No.	Part No.	Description	No. Req'd.
1	6671	Pulley	1
2	920038-4	Washer	1
3	908016-6	Bolt 5/16-18 x 5/8 Nylok	1
4	6520	Assembly Axle	1
5	5770	Assembly Flanged Ball Bearing	1
6	1291	Fitting — Grease	1
7	6522	Assembly Hub & Flange	1
8	1504	Bushing	2
9	1030	Fitting — Grease	1
10	908031-4	Bolt — Hex 3/8-16 x 5/8	2
11	915113-6	Nut — 3/8-16 Nylok	2
12	5738	Case — R.H.	1
13	7060	Bearing — Ball 5/8 I.D.	4
14	1291	Fitting — Grease	2
15	5746	Gear	1
16	6639	Bearing — Ball 1 1/4 I.D.	1
17	5747	Gear — Axle L.H.	1
18	5745	Gear — Final Drive	1
19	5748	Gear — Diff. Pinion	2
20	5749	Washer — Thrust	2
21	5750	Pin — Diff.	2

Item No.	Part No.	Description	No. Req'd.
22	937017	Key — #11 Woodruff	1
23	5751	Shaft — Sliding Gear	1
24	5755	Gear — Low	1
25	5758	Gear — Sliding	1
26	6678	Shaft — Hi-Low	1
27	6679	Pinion — Low	1
28	6680	Gear — Combination	1
29	5752	Gear — High	1
30	6681	Shaft — Input	1
31	6682	Gear — Pinion — Input	1
32	936121	Snap Ring 5/8 Ext.	1
33	6192	Bearing Ball 5/8 I.D.	2
34	6553	Assembly Shift Fork	1
35	933190	Roll Pin 3/16 x 1 1/4	1
36	6188	Spring	1
37	3517	Ball	1
38	5739	Case — L.H.	1
39	5741	Bearing — Ball 1 1/4 I.D.	1
40	908018-4	Bolt — Hex 5/16-18 x 7/8	6
41	915972-4	Nut — 5/16-18 Keps	8
42	908025-4	Bolt — Hex 5/16-18 x 2 1/2	2

SAFETY TIPS

1. Know the controls and how to stop quickly — READ THE OWNERS 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. Keep children and pets a safe distance away.
6. Never direct discharge of any material toward bystanders nor allow anyone near machine while in operation.
7. Take precautions when leaving machine unattended (to avoid starting, rolling away).
8. Stay alert for holes and other hidden hazards.
9. Know what is behind you before backing up.
10. Beware of steep slopes; reduce speed on all side slopes and sharp turns to prevent tipping or losing control.
11. Don't stop or start suddenly when going uphill or downhill.
12. Watch out for traffic when near roadways.
13. 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 and wipe up spilled gasoline.
    c. Replace gasoline cap securely.
    d. Open doors if motor is run in garage — exhaust gases are dangerous.
14. Keep machine in good operating condition and keep safety devices in place.
15. Stop motor before making repairs or adjustments.



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