

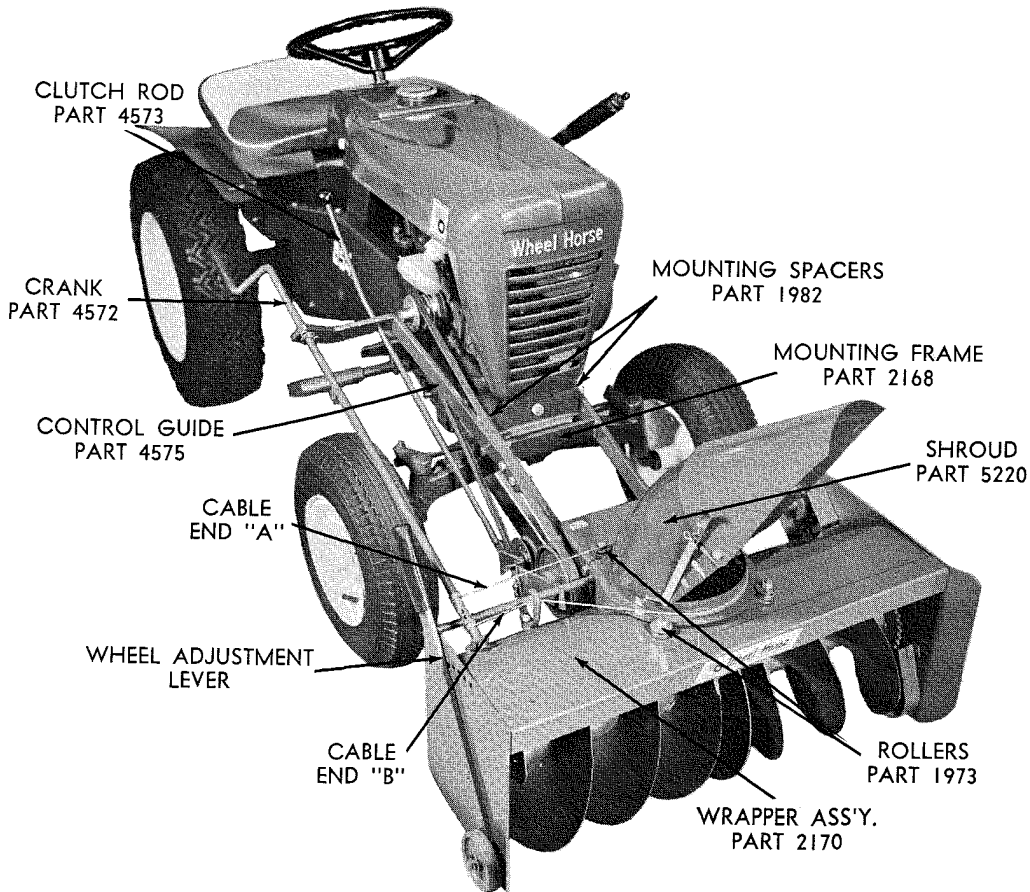
# PARTS LIST AND INSTRUCTIONS



*Wheel Horse*

WHEELHORSE PRODUCTS, INC. • SOUTH BEND, IND.

## SNOW THROWER ST-324



(Fig. 1)

### ASSEMBLY

Remove Snow Thrower from carton and fasten control guide part 4575 to mounting frame, part 2168. Secure with two  $\frac{3}{8}$ -16 x  $1\frac{1}{4}$  bolts, part 908035-4 and  $\frac{3}{8}$ -16 nylock nuts, part 915113-6. (NOTE: Be sure the drive belt, part 1589 is on the inside of bracket toward the tractor).

Install mounting frame to wrapper assembly, part 2170 and secure with four  $\frac{3}{8}$ -16 x  $\frac{7}{8}$  bolts, part 908033-4 and nylock nuts, part 915113-6.

Install the shroud, part 5220 in the grooves of the front and rear rollers, part 1973. Adjust rear rollers by sliding forward. Be sure rollers turn freely and shroud turns freely. Secure with two  $\frac{1}{4}$ -20 x  $1\frac{1}{4}$  bolts, part 908006-4 and hex nylock nuts, part 915111-6.

Move wheel adjustment lever all the way forward so wheels are down. Roll the unit to the tractor and secure with two mounting spacers, part 1982 and one  $\frac{3}{8}$ -16 x  $8\frac{1}{2}$  bolt, part 900854-4 and nylock nut, part 915113-6.

Install crank, part 4572 thru the hole in the control guide, and thru the hole in the bracket on the

wrapper assembly, part 2170. Secure with cotter pin,  $\frac{1}{8}$  x 1, part 932017-4. Bend both ends around the crank.

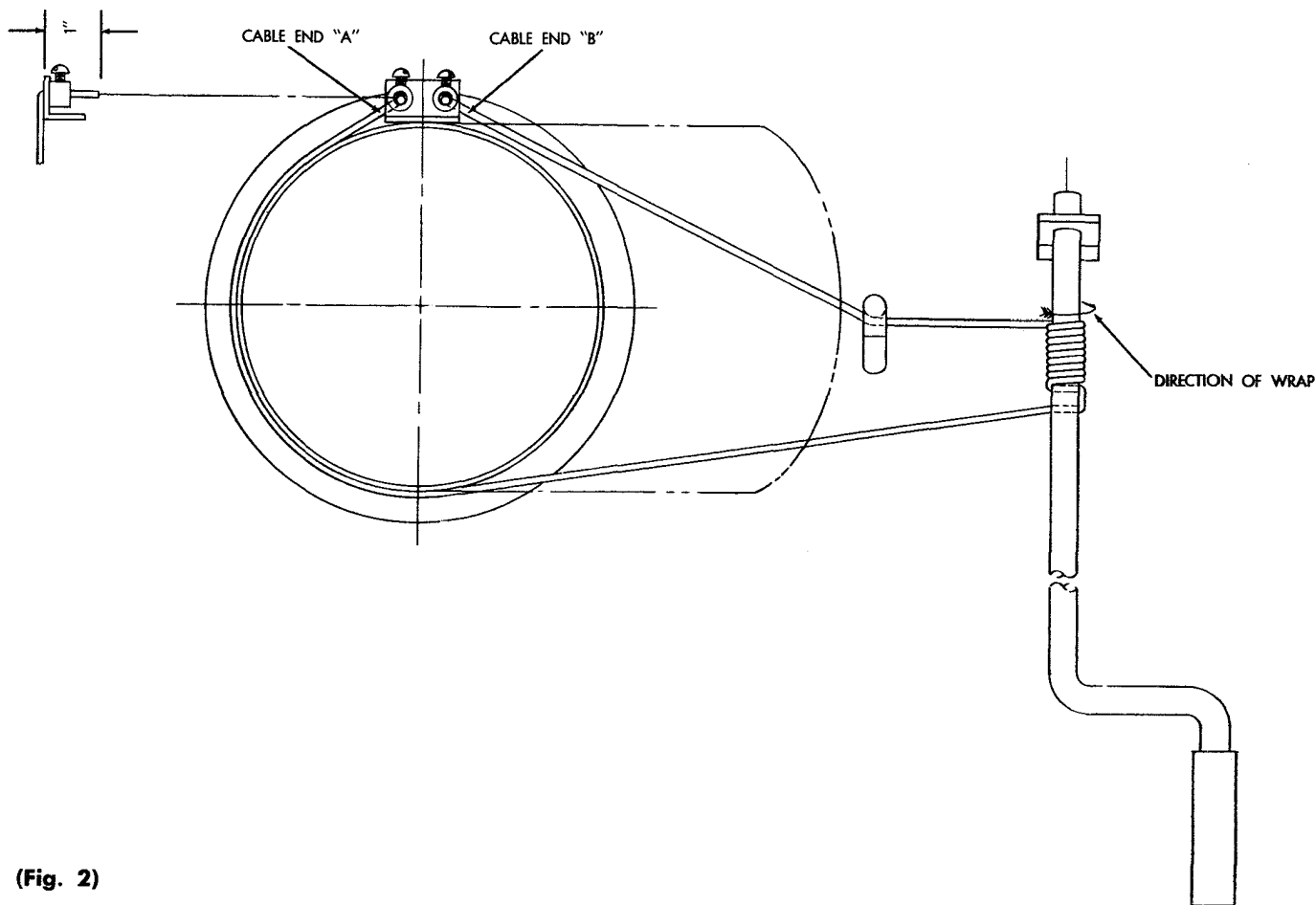
Install drive belt, part 1589 in outside groove on the tractor engine pulley.

Install clutch rod, part 4573 thru slot in control guide and secure to idler bracket, with hair pin cotter, part S-52-4. Install lift rod, part 1986 to top hole in bottom arm of tractor lift and secure with hairpin cotter, part S-52-4.

Top hole in the tractor lift must be enlarged to  $\frac{13}{32}$  in diameter on all 701, 552, 502, and 702 tractors.

Slide lift tube, part 3093 over lift rod, and over pin on snow thrower wear plate. Secure with  $\frac{1}{2}$ " flat washer, part 920011-4 and cotter pin, part 932034-4.

Fasten the belt stop, part 4441 to the engine with  $\frac{5}{16}$ -24 x  $\frac{3}{4}$  screw, part 3385 and  $\frac{5}{16}$  lock washer, part 920082-4 on all tractors with Lauson engines. Tractors with Kohler engines use  $\frac{3}{8}$ -16 x  $\frac{3}{4}$  screw, part 909084-4 and  $\frac{3}{8}$  lock washer, part 920083-4. Adjust belt stop so that it holds the belt when the attachment clutch rod is declutched. (NOTE: Belt stop bracket should not touch the belt when running.)



(Fig. 2)

### CABLE WRAPPING

1. Face shroud, part 5220 to the right.
2. Thread cable, part 4795 end "A" up thru hole in collar on the shroud about 1" and secure with screw, part 908980-4.
3. Pull cable around the shroud and thread end of cable "B" thru the top hole in crank, part 4572 and back thru the bottom hole of crank. Wrap

8 complete turns down in direction shown, see Fig. 2. Finish last turn on bottom of crank. Pull cable end "B" behind the hook on the wrapper assembly and thread up thru the second hole in shroud. Secure with screw, part 908980-4.

4. Face shroud forward and grip cable end "A" with pliers. Loosen screw, pull cable tight and secure with screw.

### OPERATION

The adjustable shroud allows the operator to control the direction the snow may be thrown by turning the convenient crank. The upper part of the snow shroud is adjustable to deflect the snow in an upward or downward direction depending upon conditions. There are wheels on each side for raising or lowering to prevent the Snow Thrower from catching on uneven surfaces. Under some conditions it will be necessary to coat the auger, shroud and the inside with paraffin or wax to prevent snow and ice from sticking. Best results are obtained with slow forward movement of the tractor and high auger speed, therefore under normal conditions the tractor should be operated in first gear with full throttle.

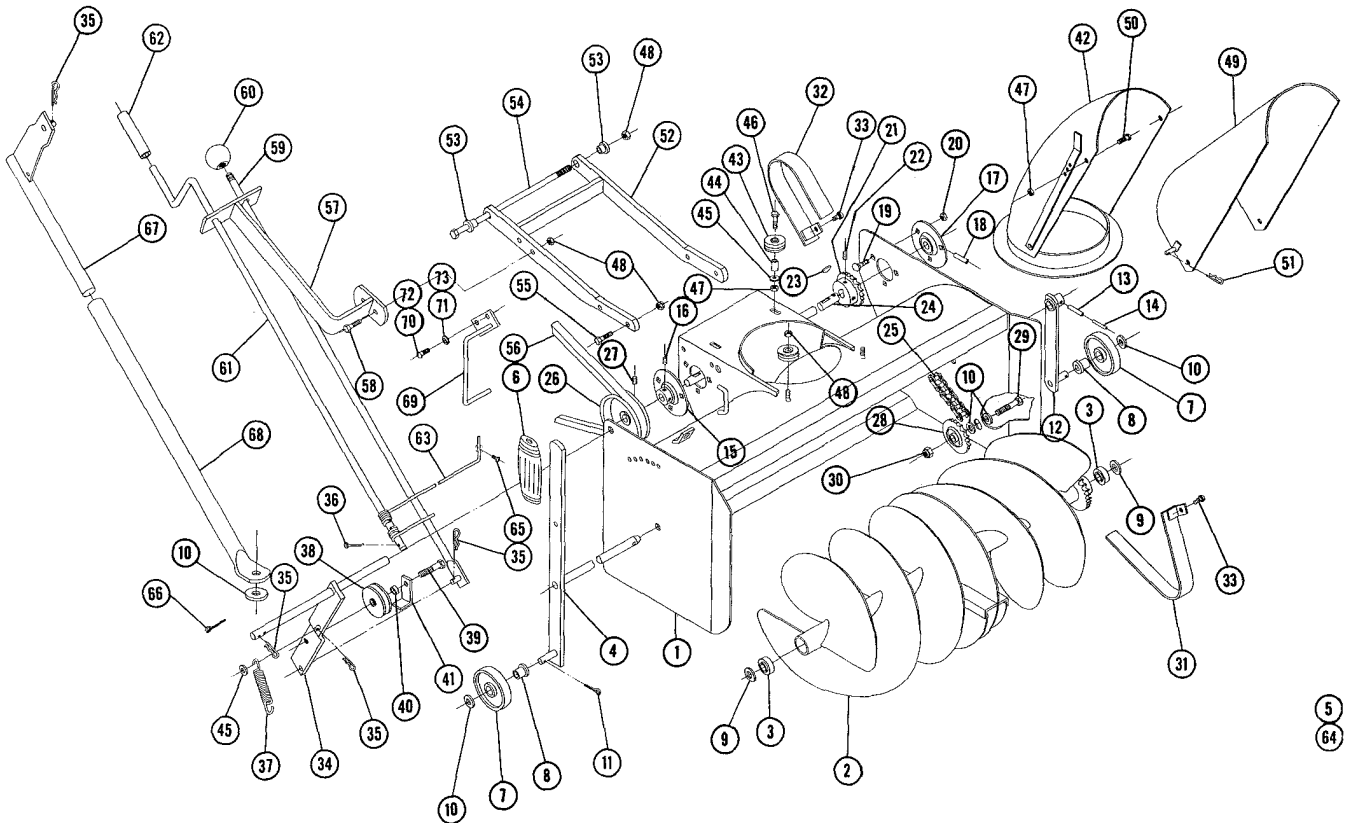
**CAUTION** — Engage clutch gently. Do not snap into engagement. Be especially careful after the

blower has set outdoors after use. The auger could be frozen to the deck. Always shut off the engine before making any adjustment or lubrication.

After the first hour of use recheck all bolts, nuts, and set screws — tighten securely. Check chains and belt alignment. Keep children and pets away while operating, there may be rocks or metal in the snow which could be thrown forward or out the chute. Never permit anyone to stand in front of blower when engine is running.

### LUBRICATION

The drive chain should be oiled with a light grade of machine oil. All other bearing and movable parts should be oiled frequently. In storing the Snow Thrower, it is advisable to coat the auger with a heavy machine oil to prevent rust.



## PARTS LIST

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	2170	Ass'y. Wrapper	1	38	1623	Pulley — Idler	1
2	2172	Ass'y. Auger	1	39	908038-6	Bolt $\frac{3}{8}$ -16 x $1\frac{1}{4}$ Hex Nylock	1
3	1515	Bearing	2	40	1536	Spacer $\frac{3}{16}$ Long	1
4	5155	Ass'y. Auger Shaft	1	41	3760	Bracket — Belt Guide	1
5	4411	Decal — Attachment	1	42	5220	Ass'y. Shroud	1
6	1000	Grip	1	43	1973	Roller	4
7	1987	Wheel	2	44	2163	Spacer	2
8	1974	Bushing — Nylon	2	45	920007-4	Washer $\frac{1}{4}$ SAE	2
9	2090	Washer Auger	1	46	908006-4	Bolt — Hex $\frac{1}{4}$ -20 x $1\frac{1}{4}$	2
10	920011-4	Washer	6	47	915111-6	Nut — Nylock $\frac{1}{4}$ -20	4
11	932016-4	Cotter Pin $\frac{1}{8}$ x $\frac{3}{4}$	2	48	915113-6	Nut Nylock $\frac{3}{8}$ -16	9
12	5157	Ass'y. Wheel Support	1	49	2165	Ass'y. Deflector	1
13	933215	Roll Pin $\frac{1}{4}$ x $1\frac{1}{4}$	1	50	909052-4	Bolt — R.D. H.D. $\frac{1}{4}$ -20 x $\frac{1}{2}$	2
14	933173	Roll Pin $\frac{5}{32}$ x $1\frac{1}{4}$	1	51	S-52-3	Hairpin — .058 x $1\frac{1}{8}$	1
15	5269	Bearing — Flanged Ball	1	52	2168	Ass'y. Mounting Frame	1
16	909862-6	Set Screw $\frac{5}{16}$ -20 x $\frac{5}{16}$ Nylock	2	53	1982	Spacer	2
17	4571	Bearing — Flanged Ball	1	54	900854-4	Bolt — Sq. Hd. $\frac{3}{8}$ -16 x $8\frac{1}{2}$	1
18	933216	Roll Pin $\frac{1}{4}$ x $1\frac{5}{8}$	1	55	908033-4	Bolt Hex $\frac{3}{8}$ -16 x $\frac{7}{8}$	4
19	900037-4	Bolt Carriage $\frac{5}{16}$ -18 x $\frac{3}{4}$	6	56	1589	Belt — Drive	1
20	915112-6	Nut Nylock $\frac{5}{16}$ -18	6	57	4575	Bracket — Control Guide & Support	1
21	2176	Sprocket	1	58	908035-4	Bolt — Hex $\frac{3}{8}$ -16 x $1\frac{1}{4}$	2
22	909848-6	Set Screw $\frac{1}{4}$ -20 Hex-Soc. Nylock	2	59	4573	Ass'y. Rod — Clutch	1
23	937014	Key #9 Woodruff	2	60	1001	Knob	1
24	2083	Shaft — Drive	1	61	4572	Crank	1
25	2175	Chain	1	62	4569	Tube — Rubber	1
26	1969	Pulley — Drive Shaft — $4\frac{3}{4}$ O.D.	1	63	4795	Cable	1
27	909862-6	Set Screw $\frac{5}{16}$ -18 x $\frac{5}{16}$ Nylock	2	64	4498	Decal — Gen. Caution	1
28	2174	Sprocket — Idler	1	65	908980-4	Screw — Rd. Hd. Mach. #6-32 x $\frac{1}{4}$	2
29	908060-4	Bolt — Hex $\frac{1}{2}$ -13 x $1\frac{3}{4}$	1	66	932034-4	Cotter Pin $\frac{3}{16}$ x 1	1
30	915607-4	Nut-Type TU $\frac{1}{2}$ -13 Elastic Stop	1	67	1986	Ass'y. Lift Rod	1
31	2089	Ass'y. Guard — Inner	1	68	3093	Lift Tube	1
32	2162	Ass'y. Guard — Outer	1	69	4441	Ass'y. Belt Stop	1
33	1391	Screw — Sems $\frac{1}{4}$ -20 x $\frac{3}{8}$	4	70	3385	Screw — R.D. H.D. $\frac{3}{16}$ -24 x $\frac{3}{4}$ (Lauson)	1
34	4576	Ass'y. Idler Bracket	1	71	920082-4	Lock Washer $\frac{5}{16}$ Dia. (Lauson)	1
35	S-52-4	Hairpin Cotter — .072 x $1\frac{1}{16}$	4	72	909084-4	Screw — Rd. Hd. $\frac{3}{8}$ -16 x $\frac{3}{4}$ (Kohler)	1
36	932017-4	Cotter Pin $\frac{1}{8}$ x 1	1	73	920083-4	Lock Washer $\frac{3}{8}$ Dia. (Kohler)	1
37	5185	Spring	1				