# WHEELHORSE PRODUCTS, INC. - SOUTH BEND, IND.

# SNOW THROWER MODEL 6-1211

(Formerly ST-376)

CRANK
PART NO. 6413

MOUNTING FRAME ASS'Y.
PART NO. 6424

SHROUD
PART NO. 5220

WRAPPER ASS'Y.
PART NO. 6429

CABLE END
"A"

Figure 1

CABLE END

### ASSEMBLY

Remove Snow Thrower and all parts from carton and place on a clean flat surface.

WHEEL ADJUSTMENT LEVER

- 1. Fasten the Mounting Frame Assembly, Part No. 6424, to the Wrapper Assembly, Part No. 6429 with four  $\frac{3}{8}$ " x  $\frac{7}{8}$ " Hex Head Bolts, Part No. 908033-4 and secure with the four  $\frac{3}{8}$ " Nylock Nuts, Part No. 915113-6.
- 2. Install Crank Support, Part No. 6426 to the Wrapper Assembly, Part No. 6429 with four  $\frac{3}{8}$ " x  $\frac{3}{4}$ " Bolts, Part No. 908032-4 and secure four Elastic Stop Nuts, Part No. 915663-4.

FRONT & REAR ROLLERS

3. Install the Shroud Assembly, Part No. 5220, in the grooves of the Front and Rear Rollers, Part No. 1973. Be sure the Rollers, Part No. 1973, and Shroud, Part No. 5220 turn freely. To adjust slide rear rollers,

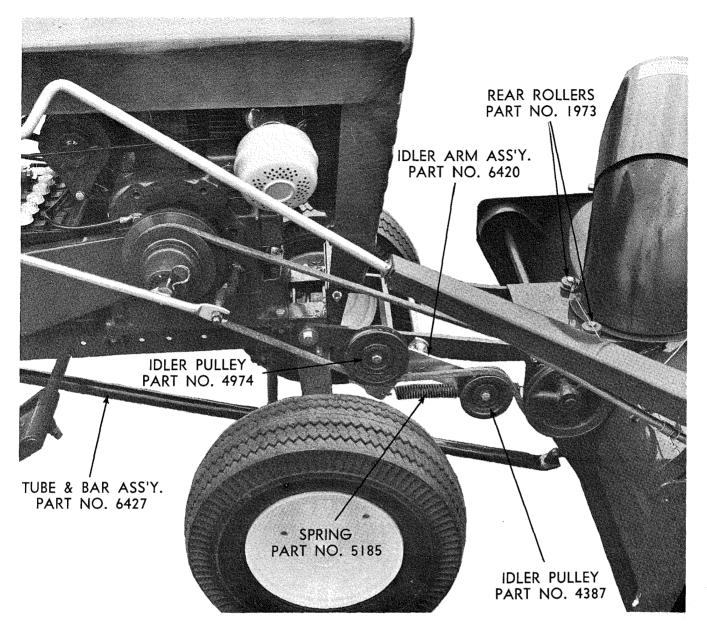


Figure 2

# ASSEMBLY (Continued)

forward or back and secure by tightening the two Nylock nuts on the rear rollers.

- 4. Install Nylon Bushing, Part No. 5982, in hole of upper end of the Crank Support, Part No. 6426. Now with the  $\frac{1}{2}$ " S.A.E. Washer, Part No. 920011-4 on the Crank, Part No. 6413, slide crank down through the nylon bushing and insert it in hole in the bracket of the wrapper assembly. Secure with two  $\frac{1}{8}$ " x 1" Cotter Pins, Part No. 932016-4 through holes in Crank, Part No. 6413. Bend both ends of cotter pins around crank rod.
- 5. Place Tube and Bar Assembly, Part No. 6427, over pin located at lower rear center of wrapper assembly. Now secure with  $\frac{5}{8}$ " Flat Washer, Part No. 920013-4 and  $\frac{3}{16}$ " x 1" Cotter Pin, Part No. 932034-4. Insert Lift Rod Assembly, Part No. 1986, in to end of Tube and Bar Assembly, Part No. 6427.

Move wheel adjustment lever all the way forward so the Wheels, Part No. 1987 are down.

- **6.** Roll unit to the tractor and secure with two Mounting Spacers, Part No. 1982, and  $\frac{3}{8}$ " x  $8\frac{1}{2}$ " square head Bolt, Part No. 900854-4 and Nylock Nut, Part No. 915113-6 in the first hole of the tractor frame.
- 7. Install power take-off clutch as per instructions which came with the P.T.-6 package.
- 8. Install Spring, Part No. 6651, between arm on Idler Arm Assembly, Part No. 6420 and hole in wrapper assembly (Fig. 2). Place Belt Idler Pulleys, Part Nos. 4974 and 4387 and in inner groove on the power take-off clutch. Make sure that the Belt Guide Bracket, Part No. 6423 is correctly positioned to retain belt in groove of the pulley without rubbing back of belt. CAUTION: Check for proper alignment of pulleys.

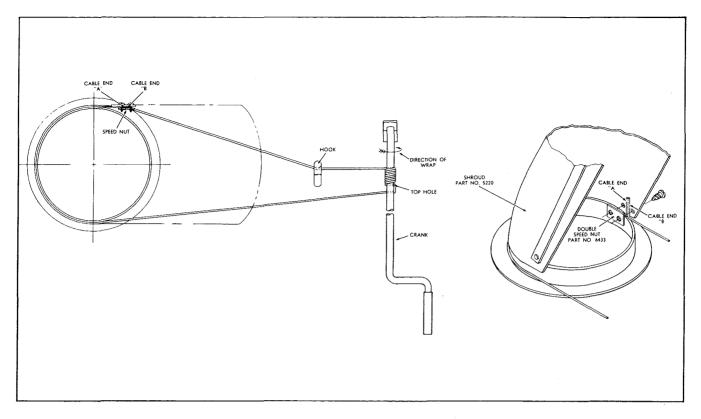


Figure 3

### **CABLE WRAPPING INSTRUCTIONS:**

- Face Shroud, Part No. 5220 to the right. (See Fig. 3.)
- Thread Cable, Part No. 4795, end "A" up under the Double Speed Nut, Part No. 6433, and tighten screws just enough to retain cable.
- Pull cable around the shroud and thread end "B" of cable through top hole in Crank, Part
- No. 6413, and then wrap eight (8) complete turns in direction shown in Fig. 3. Finish last turn on bottom of crank. Pull cable end "B" behind the hook on the wrapper assembly and thread up under the double speed nut. Retighten screws just enough to retain cable.
- Face shroud forward and grip both ends of cable with pliers and pull until cable is tight.
   Tighten screws in speed nut securely.

9. Install Lift Rod, Part No. 1986, into top hole in bottom arm of tractor lift lever and secure with Hairpin Cotter, Part No. 933504-4.

### **OPERATION**

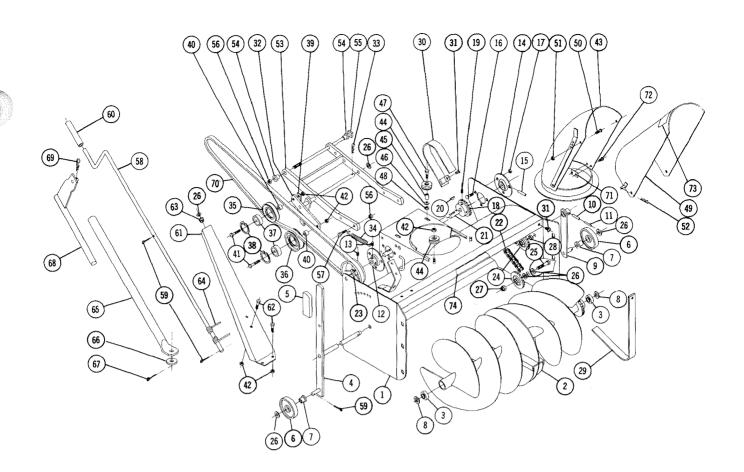
The adjustable shroud allows the operator to control the direction the snow may be thrown by turning the convenient pivot crank. The upper part of the snow shroud is adjustable to deflect the snow in an upward or downward direction depending upon conditions. There are wheels on each side for raising 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 out doors 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 bearings 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.			Ref. No.	Part No.	Description	No. Req'd
7	6429	Ass'y. Wrapper	1	38	936024	Snap Ring — 13/8 Bore	2
2	4467	Ass'y Auger	1	39	6423	Bracket — Belt Guide	1
3	5493	Bearing — Ball	2	40	2233	Spacer	2
4	4477	Ass'y. Auger Shaft	1	41	908037-4	Bolt Hex 3/8-16	2
5	5359	Grip	1	42	915663-4	Nut Elastic Stop 3/8-16	8
6	1987	Wheel	1	43	5220	Ass'y. Shroud	1
7	1974	Bushing - Nylon	1	44	1973	Roller	4
8	2090	Washer — Auger	2	45	2163	Spacer	2
9	5157	Ass'y Wheel Support	ī	46	920007-4	Washer 1/4 SAE	2
10	933215	Roll Pin 1/4 x 11/4	1	47	908006-4	Bolt Hex 1/4-20 x 11/4	2
11	933173	Roll Pin 32 x 11/4	1	48	915111-6	Nut $\frac{1}{4}$ -20 Nylok	2
12	5269	Bearing — Flanged Ball	1	49	2165	Ass'y. Deflector	1
13	909862-6	Set Screw 16-18 x 16 Nylok	4	50	909052-4	Bolt $\frac{1}{4}$ -20 x $\frac{1}{2}$ Round Head	2
14	4571	Bearing — Flanged Ball	1	51	915661-4	Nut 1/4-20 Elastic Stop	2
15	933216	Roll Pin 1/4 x 13/8	į ī	52	933503-4	Hairpin Cotter	1
16	900037-4	Bolt — Carriage $\frac{5}{16}$ -18 x $\frac{3}{4}$	6	53	6424	Ass'y. Mounting Frame	1
17	915112-6	Nut - Nylok 16-18	6	54	1982	Spacer	2
18	6415	Sprocket	1	55	900854-4	Bolt $\frac{3}{8}$ -16 x $8\frac{1}{2}$ Square Head	1
19	909848-6	Set Screw 1/4-20 x 1/4 Nylok	2	56	915113-6	Nut $\frac{3}{8}$ -16 Nylok	5
20	937014	Key #9 Woodruff	2	57	908033-4	Bolt Hex $\frac{3}{8}$ -16 x $\frac{7}{8}$	4
21	4757	Shaft — Drive	1	58	6413	Crank	1
22	6416	Chain	1	59	932016-4	Cotter Pin $\frac{1}{8} \times \frac{3}{4}$	4
23	2707	Pulley — Drive Shaft	1	60	4569	Tube	T
24	2174	Sprocket - Idler	2	61	6426	Support — Crank	1
25	908060-4	Bolt Hex $\frac{1}{2}$ -13 x 1 $\frac{3}{4}$	2	62	908032-4	Bolt Hex $\frac{3}{8}$ -16 x $\frac{3}{4}$	4
26	920011-4	Washer ½ SAE	5	63	5982	Bushing — Nyliner	1
27	915665-4	Nut 1/2-13 Elastic Stop	2	64	4795	Cable	1
28	6417	Spacer	1	65	6427	Ass'y. Tube & Bar	1
29	6418	Ass'y Guard — Inner	1	66	920013-4	Washer 5/8 SAE	1
30	2162	Ass'y. Guard — Outer	1	67	932034-4	Cotter Pin 3/16 x 1	1
31	1391	Screw — Sems $\frac{1}{4}$ -20 x $\frac{3}{8}$	4	68	1 <i>9</i> 86	Ass'y. Lift Rod	1
32	6420	Ass'y Idler Arm	1	69	933504-4	Hairpin Cotter	1
33	933504-4	Hairpin Cotter	1	70	1 <i>5</i> 76	Belt — Drive	1
34	6651	Spring	1	71	6433	Speed Nut (Double)	1
35	4974	Pulley - Idler	1	72	962306-4	Screw #10-16 x ½ Self-Tap	2
36	4387	Pulley — Idler	1	73	4498	Decal — Gen. Caution	] ]
37	4567	Bearing — Ball	2	74	5604	Decal — Attachment	1

### SUPPLEMENTAL SHEET FOR 6-1211 (ST 376) SNOW THROWER

For Mounting To Wheel Horse Tractors
Long Wheel Base (45½").

In order to provide our customers with the most up to date improvements the following changes have been made since the ST 376 Manual was published;

Refer To the Parts List, Back Page.

REF, NO	SHOULD BE	DESCRIPTION	REQ'D.		
42	915113-6	Nut,3/8-16 Nylok	2		
New	<b>*7672</b>	Spacer	2		
New	<b>749</b> 5	Plate-Top Extension	1		
New	5502	Plate-Side Extension	2		
* These	spacers fit on the	bolts with spacers #2233	(Ref #40)		

### SUPPLEMENT INSTRUCTIONS:

To obtain proper belt alignment it is necessary to check the following before attaching the Snow Thrower Unit to a Tractor:

The spacers between the Idler Pulleys (Ref #35&36) and Idler Arm (Ref #32) should be located as follows:

FOR CHARGER AND RAIDER TRACTORS WITH 45½" WHEEL BASE:

Two spacers are to be between the Idler Pulleys and the Clutch Arm.

One #7672 Spacer 1/8 inch long and one #2233 Spacer ½ inch long.

Make sure the Driver Pulley (Ref #23) is aligned with the Idler Pulleys.

FOR ALL OTHER  $45\frac{1}{2}$  INCH WHEEL BASE TRACTORS

One Spacer 1/2 inch long (Ref #40) is to be between the Idler Pulley and the Clutch Arm. Place the 1/8" Spacers next to the Heads of the Idler Pulley Mounting Bolts.

Wheel Horse Service Bulletins 1961 - 1990: #81 Issued: December 1966

## ST-375 Snow Thrower Conversion to ST-376

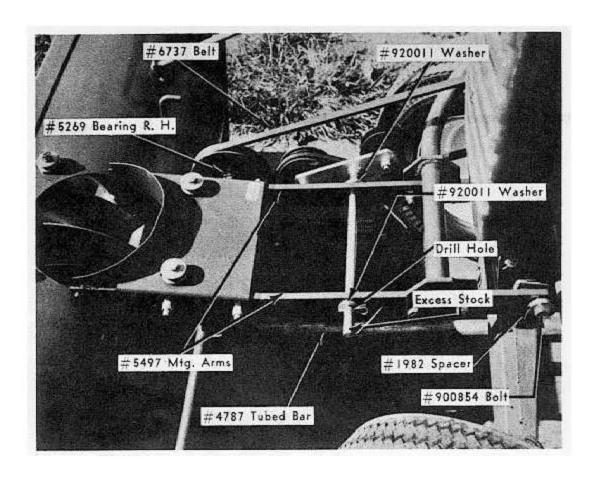
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In order to install the ST-375 Snow Thrower on **long frame tractors**, we recommend the following procedure.

- 1. Remove snow thrower and parts from shipping carton and assemble according to ST-375 instructions with the following exceptions.
- 2. Remove right hand #5269 flanged bearing and reinstall on outside of wrapper assembly.
- 3. Discard both #4774 shims.
- 4. Install #5497 mounting arms on **inside** of wrapper assembly. **NOTE**... A special mounting arm #7364 is being supplied to simplify installation. If a #5497 mounting arm is used on the right hand side, sufficient stock must be removed to eliminate interference with the bearing mounting bolts.
- 5. Discard #4776 rod and replace with 1-#900854 square head bolt and #1982 spacer. **NOTE**... This spacer assembles directly beneath the bolt head.
- 6. Add 1/2" washer #920011 between right hand mounting arm #5497 and #6420 idler assembly.
- 7. Install #920011 washer on left end of idler assembly, locate and drill new hole for hair pin cotter installation. Cut off excess stock.
- 8. Remove #4787 tube and bar assembly and replace with #6427 assembly.
- 9. Remove #4790 lift rod assembly and replace with #1986 assembly.
- 10. Replace #1576 V-belt with #6737 V-belt.

ADDITIONAL PARTS REQUIRED			PARTS REMOVED					
	1-7364	Mounting arm	1-4776	Rod assembly				
	1-1982	Spacer	2-4774	Shims				
	1-920011	Washer	1-4787	Tube and bar assembly				
	1-6427	Tube and bar assembly	1-4790	Lift assembly				
	1-1986	Lift assembly	1-1576	V-belt				
	1-6737	V-belt						
	1-900854	Bolt						

Above additional parts may be ordered in kit form, #6075. List Price \$12.00. Parts removed are **not** returnable.



Wheel Horse Service Bulletins 1961 - 1990: #356 Issued: September 1983

# Self-Aligning Ball Bearing (P/N 107744) Installation - Snowthrowers

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ST-326, ST-375, ST-376, STR-324,

6-0200, 6-0201, 6-0202, 6-1211, 6-2211, 6-3211,

6-6211, 6-6212, 6-6213, 6-6214, 6-6215, 6-7212,

66-42ST01, 76-42ST01, 86-42ST01, 96-42ST01

To All Dealers:

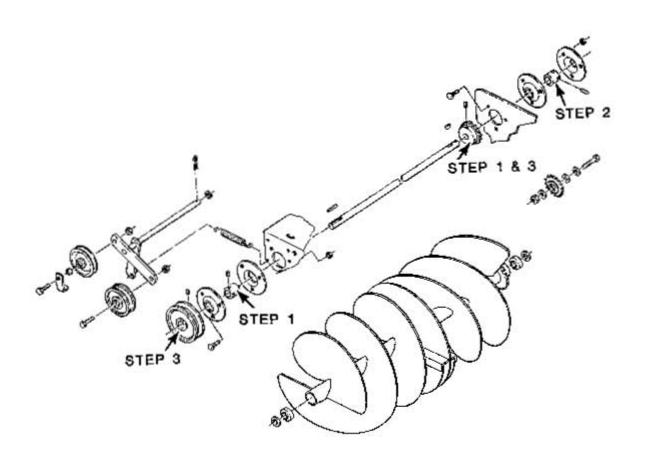
- 1. Subject
- 1.1 The current production self-aligning ball bearing, P/N 107744, is used as a substitute for bearings 4571, 100907, 101782, originally used on the above model snowthrowers. Because of a slight difference in the location of the spirol pin hole, some dealers and consumers have experienced difficulty installing it.
- 2. Service Action
- 2.1 The procedure to use when replacing only this bearing follows. It is suggested that both drive shaft bearings be replaced at the same time, which eliminates the need to loosen parts simply for alignment purposes.

~~	PTING	SERVICE MANAGER	SAL ES MANAGER	PARTS MANAGER	CHIEF	MECHANIC NO 1	MECHANIC NO 2	MECHANIC:	MECHANIC MG #	RETURN THIS TO
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### Installation of P/N 107744 Bearing in

### Place of Original Bearing 4571, 100907, 101782

- 1. Loosen Set Screws Be sure drive shaft is free to slide inside bearing and sprocket.
- 2. Remove and Replace 107744 Bearing Drive spirol pin part way in to locate drive shaft.
- 3. Align Drive Pulley and Sprocket as Required Drive spirol pin completely in and tighten set screws.



Wheel Horse Service Bulletins 1961 - 1990: #377 Issued: December 1984

# **Snowthrower Low Friction Discharge Chute Collar**

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All 37" Snowthrowers, VIN'S ST-374, ST-375, ST-376, STR-376, 6-1211, 6-6211,

6-6212, 6-0201, 6-0202 and 6-37SX01.

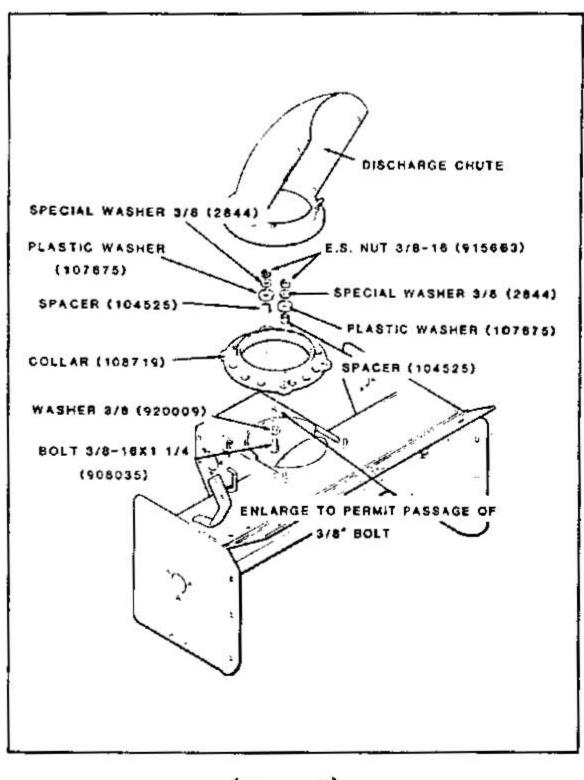
# 1980 and earlier 42" Snowthrowers, VIN'S 6-6213, 6-6214, 6-6215, 66-42ST01,

76-42ST01, 86-42ST01, 96-42ST01 and 06-42ST01

- 1. Subject
- 1.1 To convert older snowthrowers to the current production Low Friction Discharge Chute Collar, obtain and install parts as instructed below.
- 1.2 New parts necessary:

(1)	108719	Collar
(4)	2844	Special Washer 3/8
(2)	920009	Washer 3/8
(4)	107675	Plastic Washer
(4)	104525	Spacer
(2)	908035	Bolt 3/8-16 x 1-1/4
(2)	915663	E.S. Nut 3/8-16

- 2. Service Action
- 2.1 Disassemble and remove Discharge Chute, Rollers and hardware (Fig.1).



(Fig. 1)

2.2 Install new Collar, Discharge Chute and hardware as shown in Figure 1. Make sure that the Chute Flange is properly located between the Plastic Washer and the Collar. DO NOT OVER

<u>TIGHTEN NUTS AND BOLTS.</u> Also, check that the Directional Control Cable is properly returned to its correct position: refer to snowthrower owner's manual.

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MITIAL									

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