

# 48" SNOWBLOWER OPERATORS MANUAL



NOTE

Read this manual carefully and learn to operate and service your snowblower before using it.

To keep the warranty, the snowblower must be maintained and operated as directed in this manual.

All references to "left-side", "right-side", "front", and "back" are given from the operator's position.

Use the serial number to ensure prompt and correct service when ordering part, requesting service, or making inquiries.

SNOWBLOWER SERIAL NUMBER \_\_\_\_\_



Look for this symbol to point out important safety precautions. It means -- ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.

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## SECTION 1

### Instructions for Safe Operation

Improper use of this snowblower can injure people and damage the equipment. People using or servicing this snowblower must read and follow the instructions in this manual.

It is important to understand that this manual and any other Gravely instruction manuals do not cover every possible danger. It is impossible for Gravely to know all possible dangers in operating and servicing the equipment.

The purchaser must give these instructions to the people operating and maintaining this snowblower. These people must use eye and foot protection.

#### 1.1 Preparations:

1. Read the tractor and snowblower operator's manuals. Be familiar with all controls and follow the safety precautions outlined in these manuals. Know how to STOP the tractor and snowblower quickly in an emergency.
2. Inspect and clear the work area (prior to snow) of rocks, glass, metal, bones, and any other foreign objects that might be picked up and thrown or tangled in the snowblower. Stay alert for holes and other hidden hazards. Mark obstacles that will be hidden by snow.
3. Do not wear loose fitting clothing or accessories that might get caught in moving parts or on the controls. Keep hands, feet, hair, clothing, etc., away from moving parts.
4. Keep bystanders and pets removed from the work area, and a safe distance away.
5. Do not allow children to operate the equipment, nor allow adults to operate it without their having knowledge of safe operating practices.
6. Operate the snowblower from the operator's position on the seat of the tractor.
7. Keep safety devices, interlocks, and shields in place at all times.



8. Put the PTO in the "OFF" position when the snowblower is not in use or is being transported.
9. Disengage power to the snowblower and STOP the engine before clearing the unit.
10. After striking a foreign object, STOP the engine, put the PTO in the "OFF" position, and lower snowblower before inspecting for damage. Any damage must be repaired before restarting the equipment.
11. Never leave the equipment running when unattended--always STOP engine and put the PTO in the "OFF" position and lower snowblower before leaving the tractor.
12. Do not use the equipment in the dark without adequate lighting.
13. Maintain the snowblower in good condition. Keep the machine as directed in this manual.
14. Follow instructions listed on decals and in the operator's manuals.

#### 1.2 Operation:

1. Read the tractor operator's manual for safety and operating instructions to engage and disengage the snowblower. Know how to STOP the snowblower quickly in an emergency.
2. Put the PTO control in the "OFF" position, turn the ignition switch to the "OFF" position, and wait until the engine and other moving parts have stopped before leaving the tractor seat.
3. Keep away from discharge chute.
4. Direct snowblower discharge away from windows, cars, buildings, and people which could be struck by objects thrown with the snow.
5. Operate tractor engine inside only to move the equipment into or out of storage.
6. Go slowly on slick surfaces. Travel up and down slopes.
7. Use low gear, high engine speed and put the PTO in the "ON" position before moving into the snow.
8. Allow the snowblower to clear of snow before placing the PTO control in the "OFF" position. Stop the engine and remove remaining snow and ice before putting the equipment in storage.
9. Always look behind before backing.

Controls

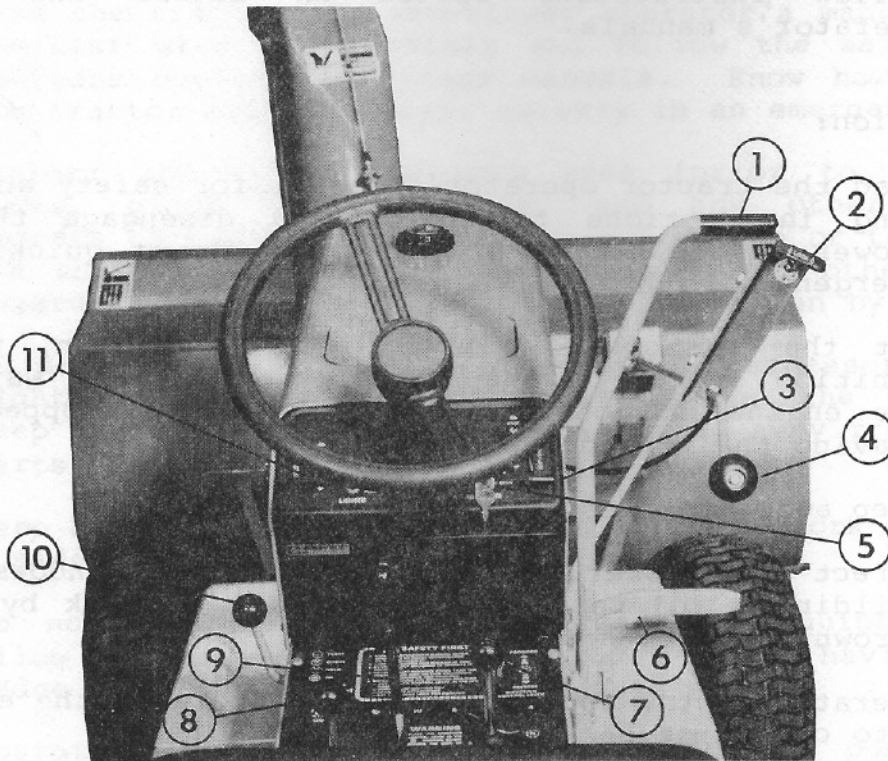
2.1 See Figure 1 for location of controls. See tractor operator's manual for tractor operation.

2.2 Discharge Chute Control:

The discharge chute control rotates the discharge chute to control the direction of the snowblower discharge. Push forward on the control to unlock and rotate the handle to rotate the discharge chute to the desired position.

2.3 Chute Deflector Control:

The chute deflector controls the height of the snowblower discharge. Rotate the control handle horizontal to unlock. Push to lower the discharge and pull to raise the discharge. Rotate the control 1/4 turn to lock in position.



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- |                             |                             |
|-----------------------------|-----------------------------|
| 1 - Direction Control Lever | 7 - Gear Selector           |
| 2 - Chute Deflector Control | 8 - PTO Control             |
| 3 - Throttle Control        | 9 - Range Selector          |
| 4 - Discharge Chute Control | 10 - Hydraulic Lift Control |
| 5 - Ignition Switch         | 11 - Choke Control          |
| 6 - Brake Pedal             |                             |


FIGURE 1

## SECTION 3

### Operating Instructions

#### 3.1 Preparation:

1. Read the tractor and snowblower operator's manuals. Be familiar with all controls and follow the safety precautions outlined in these manuals. Know how to STOP the tractor and snowblower quickly in an emergency.
2. Check the oil level in the gear case. Add oil to maintain level with fill hole. See Section 4.
3. Service tractor as described in the tractor operator's manual.

 **CAUTION:** Moving parts can amputate finger, toes, and cause serious injury.

1. Before servicing any attachment:
  - a. Disengage power to attachment.
  - b. Shut off engine.
  - c. Make sure attachment parts have stopped revolving.
  - d. Disconnect engine spark plug cable to prevent accidental restart.
2. Keep children, bystanders, and pets out of the working area.
3. Keep hands, feet, and clothing away from power driven parts.

#### 3.2 Operation:

1. Adjust the deflector angle using the "T" handle, at the operator's right. Raising the deflector will cause snow to be thrown in the greatest distance. Lowering the angle will shorten the distance and throw the snow down alongside the tractor. Turn the "T" handle to adjust the deflector; PUSH to lower the deflector; PULL to raise the deflector. A quarter turn of the handle will lock the deflector in position.
2. Push in on the chute crank to unlock and turn the chute crank, so that the snow will be thrown in the desired direction.



3. Lower the snowblower and start the auger rotating by putting the PTO control in the "ON" position with the engine running at 1/3 fast throttle. Increase engine speed to full throttle after the auger is rotating.

**⚠ CAUTION:** The auger and gearcase are protected by a slip clutch designed to slip if a solid object enters the auger. The auger will start running when the obstruction is cleared if the PTO control is in the "ON" position.

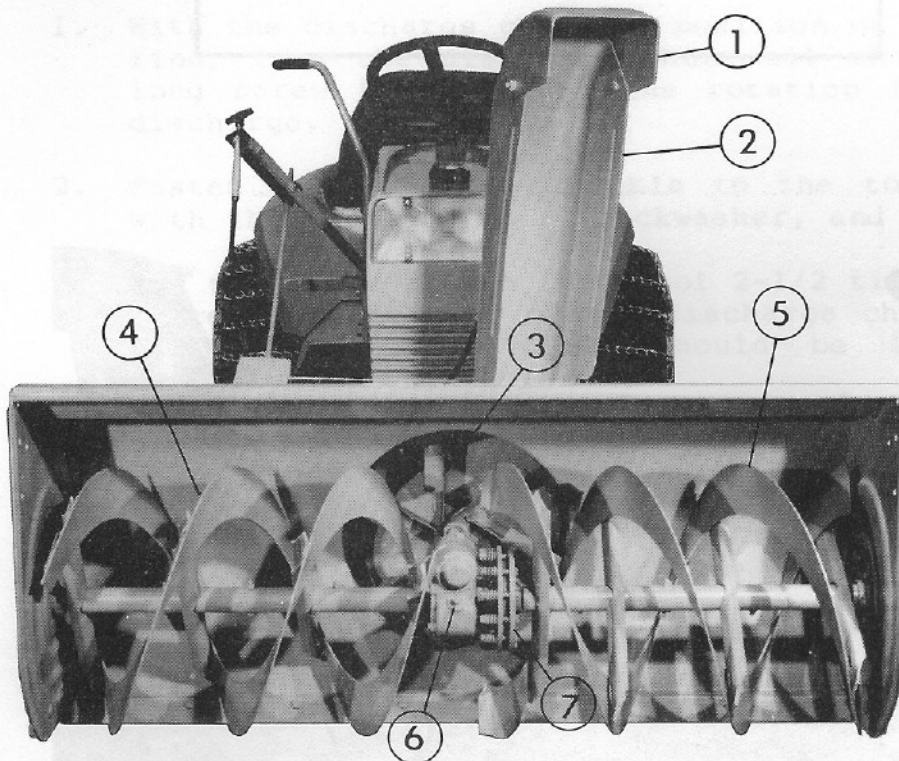
4. For maximum snow removal and discharge, operate the engine at full throttle and regulate the travel speed with the Gear Control Lever. Put the range control in the "Lo" position.



## SECTION 4

### Service Instructions

- 4.1 Check gear case oil level periodically. Position snowblower in the lowest position on a flat surface. Oil level must be up to oil fill hole. Change oil every 25 hours or once each season whichever comes first. Use SAE 80W-90 gear oil. See Figure 2.



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- 1 - Chute Deflector
- 2 - Discharge Chute
- 3 - Fan
- 4 - Right Auger

- 5 - Left Auger
- 6 - Oil Fill Plug
- 7 - Slip Clutch

FIGURE 2

- 4.2 Grease discharge chute base shown in Figure 3, approximately once a season. The discharge chute must be removed to apply the grease.
- 4.3 Place a few drops of oil behind spool holding lower end of chute crank periodically. See Figure 4.

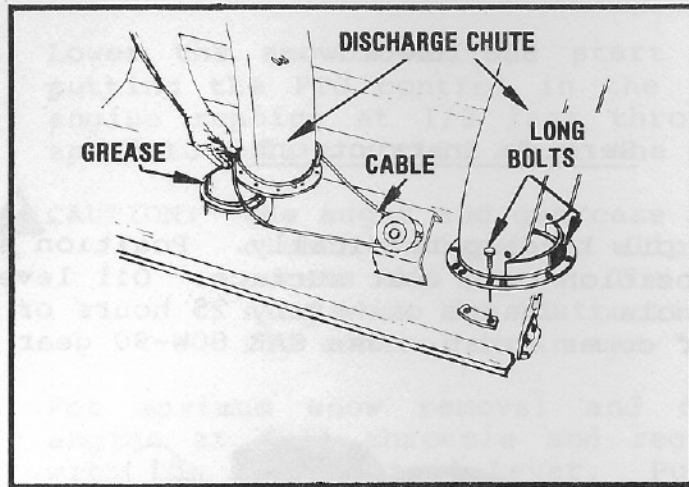


FIGURE 3

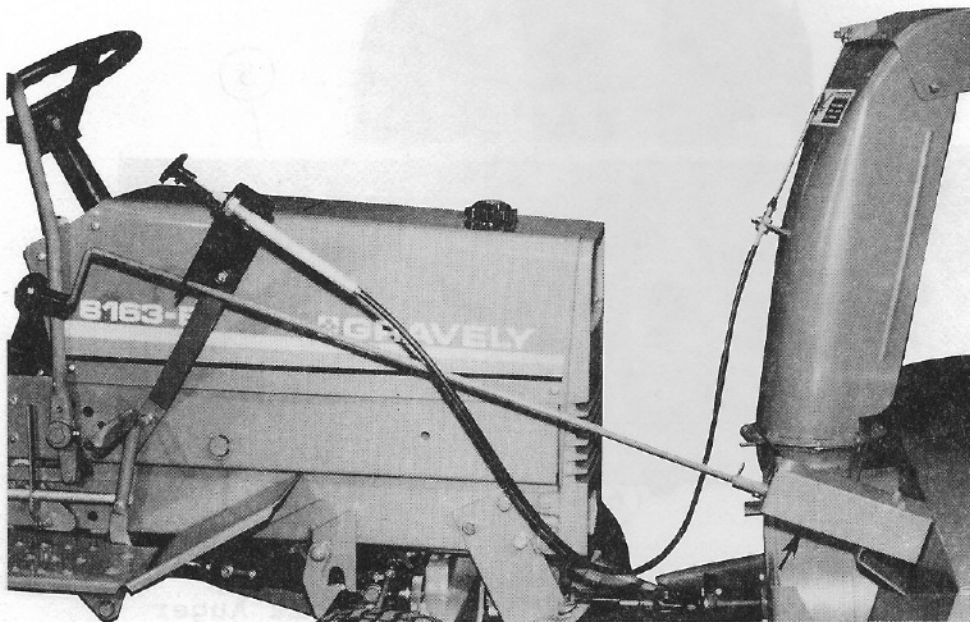


FIGURE 4

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4.4 Skid Adjustment:

When operating on a rough surface or over gravel, lower the skids so that the snowblower will be raised above the gravel or ground.

Adjust by loosening the mounting bolts, sliding to the desired position, and retightening the bolts.

#### 4.5 Scraper Blade Adjustment:

When the scraper blade has worn near the brace, loosen the mounting bolts and advance the blade and retighten the bolts. Replace the blade when all the adjustment has been used.

4.6 Service the tractor according to the instructions in the tractor operator's manual.

#### 4.7 Discharge Chute Cable Assembly:

1. With the discharge chute in position on the blower base ring, turn the discharge chute all the way until the long screw (stop) stops the rotation for a left hand discharge. See Figure 5.
2. Fasten one end of the cable to the top of the spool with the carriage bolt, lockwasher, and nut.
3. Run the cable around the spool 2-1/2 times (clockwise). Proceed to the rear of the discharge chute and through the clamp. The clamp should be loose to allow threading of the cable.
4. Thread the cable down through hole "B" and back up through hole "A" and through the clamp.

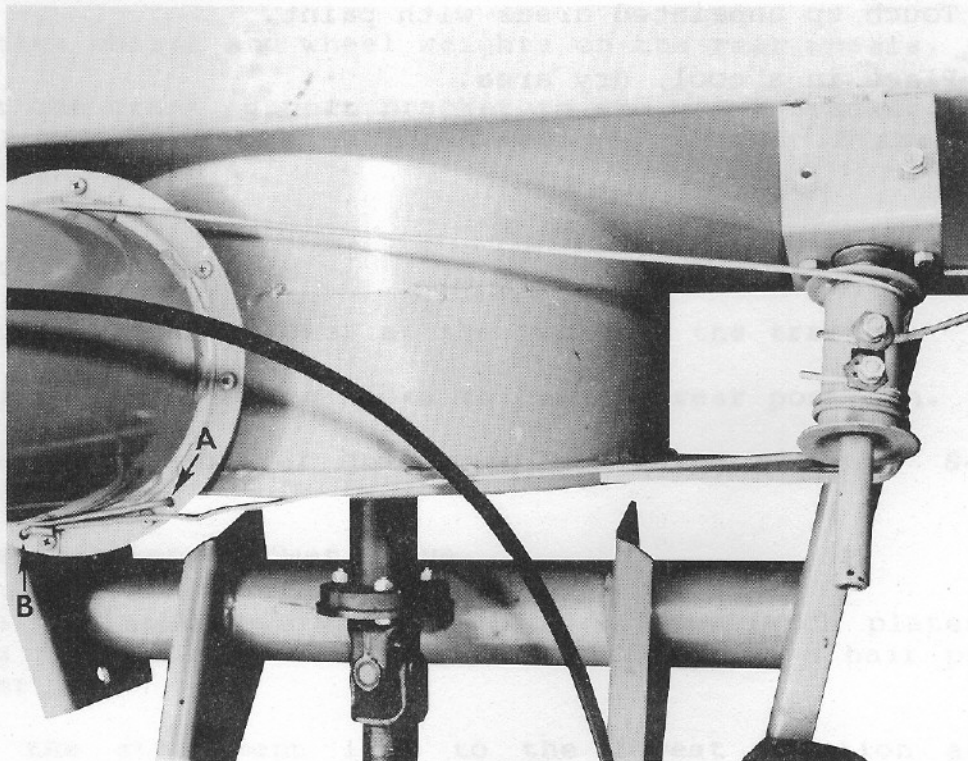


FIGURE 5

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5. Thread the cable around (clockwise) the discharge chute to the front and continue to the front of the spool.
6. Wrap the cable around the spool (clockwise). Fasten the cable to the bottom of the spool with the carriage bolt, lockwasher, and nut.

## SECTION 5

### Storage

- 5.1 Clean and lubricate the snowblower as directed in Section 4.
- 5.2 Inspect parts for damage and wear.
- 5.3 Touch up unpainted areas with paint.
- 5.4 Place in a cool, dry area.



## SECTION 6

### Assembly, Installation, and Removal

#### 6.1 Assembly:

1. Remove snowblower from carton.
2. Discharge chute mounting:
  - a. The snowblower is shipped with the cable in place and adjusted for proper operation. See Figure 5.
  - b. The two long screws are positioned to act as stops to limit the chute rotation.
  - c. Put a coat of grease on the base ring of the blower housing.
  - d. Remove the six short screws and loosen the two long screws.
  - e. Arrange the cable on the base of the discharge chute.
  - f. Position the discharge chute on the base ring of the blower housing.
  - g. Put the clamps in place, replace the six short screws, and tighten the two long screws.
3. Assemble the front drive kit on the tractor.
4. Put tire chains and wheel weights on the rear wheels.
5. Mount the crank support bracket to the crank bracket bar and mount to the right side of the tractor frame as shown in Figure 4.

#### 6.2 Installation:

1. Position the snowblower at the front of the tractor.
2. Swing the latch plate hooks to the top rear position.
3. Guide the snowblower just into the latch plates. See Figure 6.
4. Connect the snowblower drive.
5. Slide the snowblower to the back of the latch plates. Swing the hooks over the rod and secure with a hair pin cotter.
6. Move the attachment lift to the lowest position and connect the lift linkage. Secure with a washer and hair pin cotter at each end. See Figure 7.

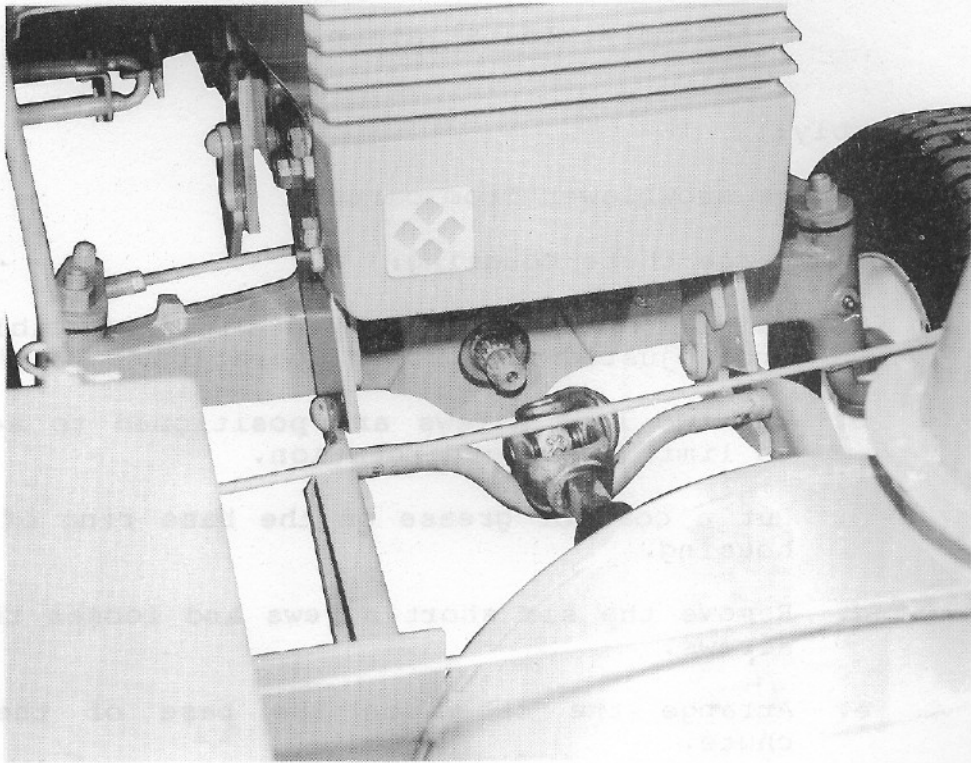


FIGURE 6

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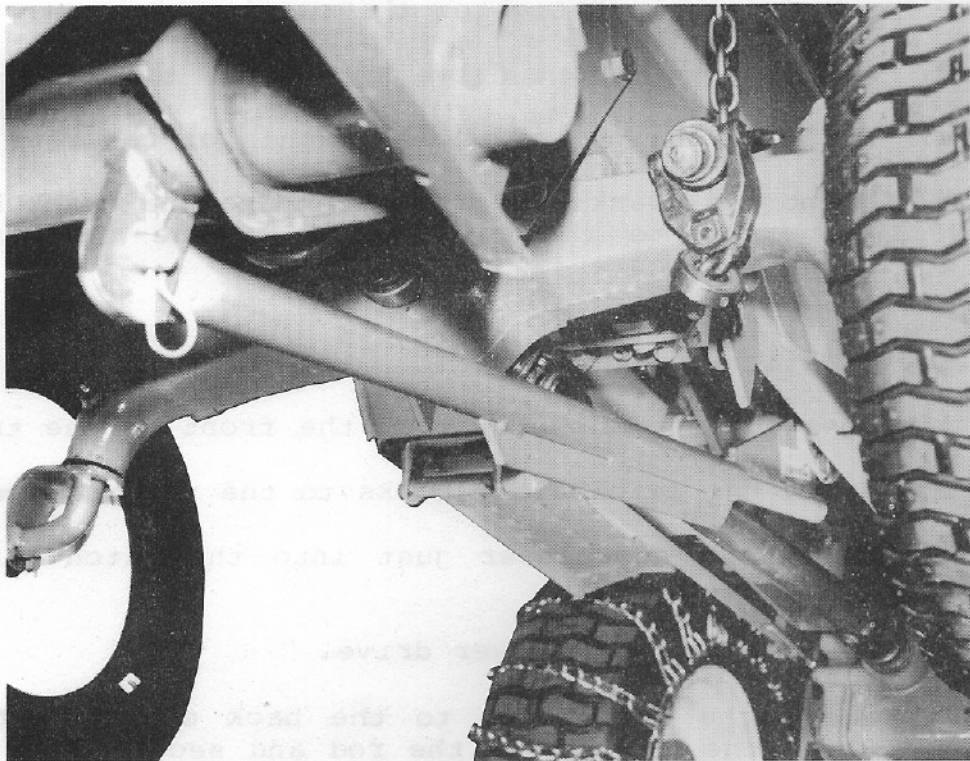


FIGURE 7

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7. Slide the chute crank from the rear through the lower hole of the crank support bracket into the spool. Secure with a hair pin cotter.
8. Remove the "T" handle, nut, and washer from the deflector control.
9. Slide the deflector control from the front into the top hole in the crank support bracket.
10. Replace the washer and nut and tighten.
11. Replace the "T" handle.

### 6.3 Removal:

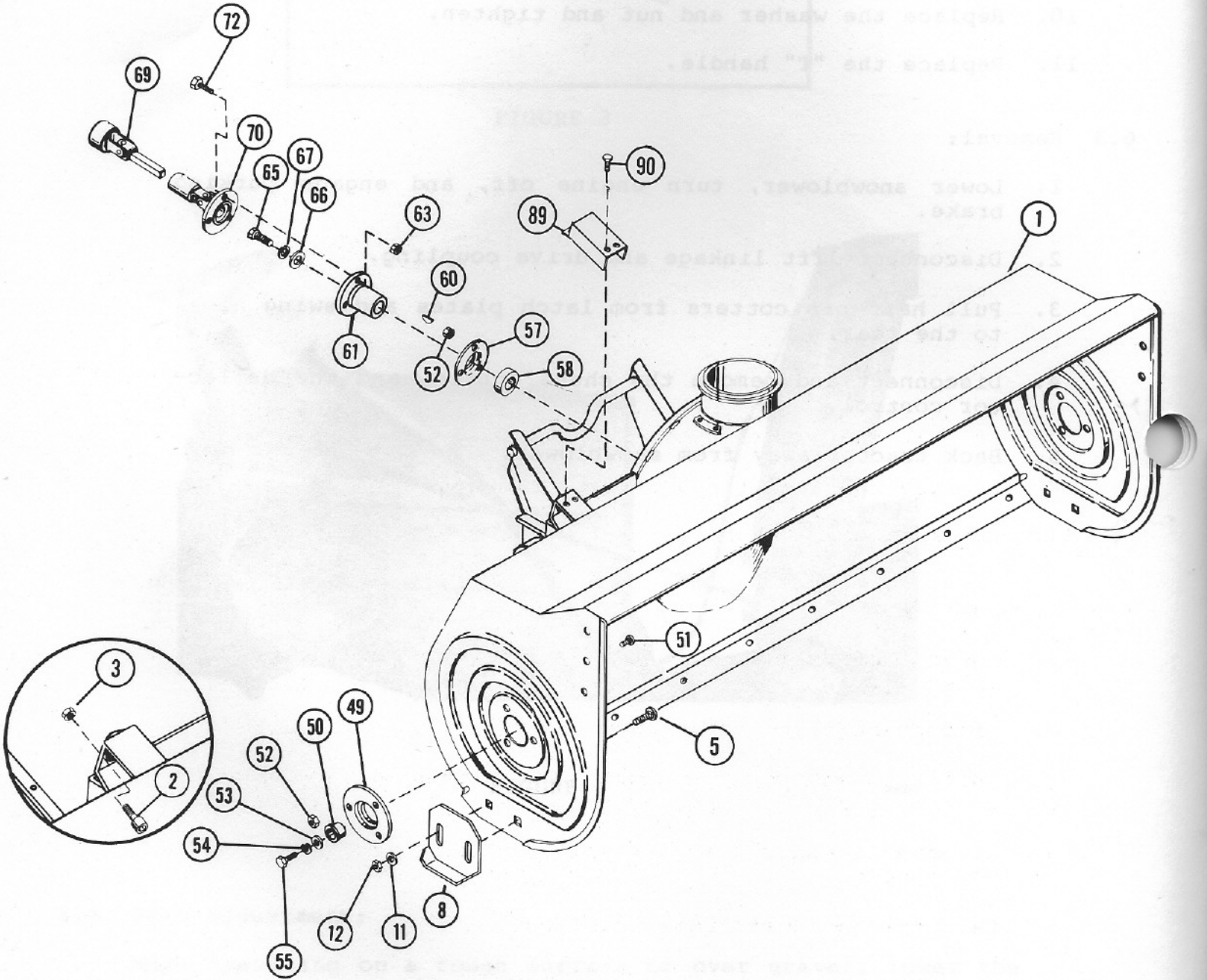
1. Lower snowblower, turn engine off, and engage parking brake.
2. Disconnect lift linkage and drive coupling.
3. Pull hair pin cotters from latch plates and swing hooks to the rear.
4. Disconnect and remove the chute control and the deflector control.
5. Back tractor away from snowblower.



SECTION 7

Illustrated Parts and Parts List

**BLOWER HOUSING**

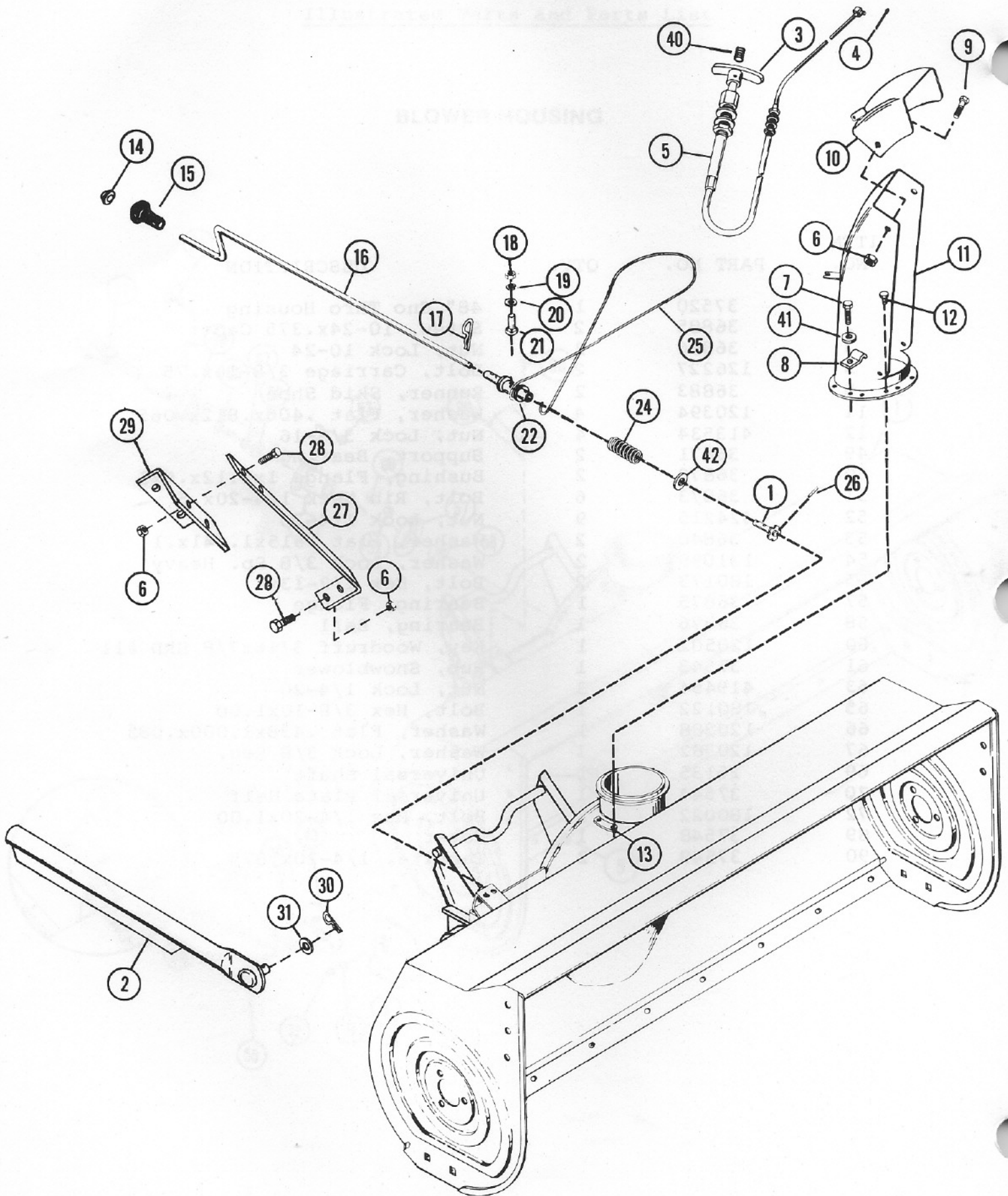




## BLOWER HOUSING

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	37520	1	48" Sno Thro Housing
2	36885	2	Screw, 10-24x.375 Cap
3	36886	2	Nut, Lock 10-24
5	126227	2	Bolt, Carriage 3/8-16x.75
8	36883	2	Runner, Skid Shoe
11	120394	4	Washer, Flat .406x.812x.065
12	413534	4	Nut, Lock 3/8-16
49	36871	2	Support, Bearing
50	36872	2	Bushing, Flange 1x1.12x.625
51	36873	6	Bolt, Rib Neck 1/4-20x.5
52	424215	9	Nut, Lock 1/4-20
53	36840	2	Washer, Flat .515x1.441x.1
54	131099	2	Washer, Lock 3/8 Sp. Heavy
55	180173	2	Bolt, Hex 1/2-13x1
57	36875	1	Bearing, Flange
58	36876	1	Bearing, Ball
60	120502	1	Key, Woodruff 3/16x7/8 HRD #11
61	37543	1	Hub, Snowblower
63	419454	3	Nut, Lock 1/4-20
65	180122	1	Bolt, Hex 3/8-16x1.00
66	120388	1	Washer, Flat .438x1.000x.083
67	120382	1	Washer, Lock 3/8 Reg.
69	25135	1	Universal Shaft
70	37544	1	Universal Plate Half
72	180022	3	Bolt, Hex 1/4-20x1.00
89	37548	1	Cover
90	37549	2	Taptite, 1/4-20x.375

# LIFT ASSIST, CHUTE CRANK & DEFLECTOR

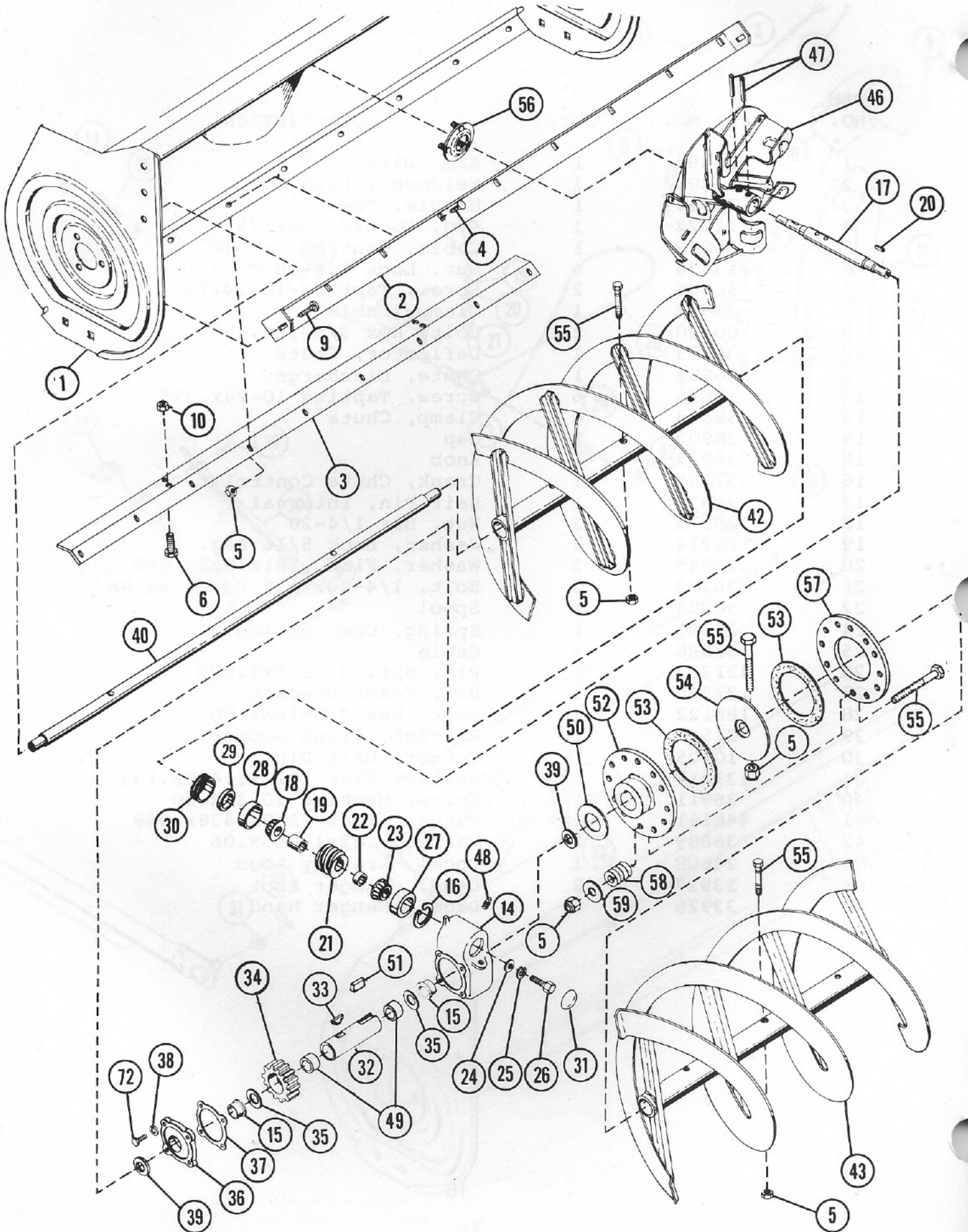


# LIFT ASSIST, CHUTE CRANK & DEFLECTOR

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	36890	1	Arm, Disc
2	11809	1	Weldment, Push Rod
3	36910	1	Handle, Tee
4	121222	1	Pin, Cotter .09x.75
5	36898	1	Cable, Control
6	413534	6	Nut, Lock 3/8-16
7	36896	2	Screw, Taptite 10-24.75
8	36897	1	Clamp, Cable
9	180120	2	Bolt, Hex 3/8-16x.75
10	36893	1	Deflector, Chute
11	36892	1	Chute, Discharge
12	36895	6	Screw, Taptite 10-24x.375
13	36894	4	Clamp, Chute
14	36903	1	Cap
15	36902	1	Knob
16	37545	1	Crank, Chute Control
17	36075	1	Hair Pin, Internal
18	120375	2	Nut, Hex 1/4-20
19	120214	2	Washer, Lock 5/16 Reg.
20	422845	2	Washer, Flat .281x.625x.065
21	126203	2	Bolt, 1/4-20x.625 Rd Hd Sq Nk
22	36884	1	Spool
24	36891	1	Spring, Compression
25	36888	1	Cable
26	421202	1	Pin, Spring .187x1.000
27	37546	1	Bar, Crank Bracket
28	180122	4	Bolt, Hex 3/8-16x1.00
29	37547	1	Bracket, Crank Support
30	10405	1	Cotter, Hair Pin
31	131017	1	Washer, Flat .812x1.469x.134
40	36911	1	Screw, Machine 10-32x.50
41	446161	1	Washer, Flat .219x.438x.049
42	36889	1	Washer, .62x1.005x.06
NS	24608	1	Decal, Gravely Logo
NS	33927	2	Decal, Danger Foot
NS	33926	1	Decal, Danger Hand



GEARCASE AND RAKE



## GEARCASE AND RAKE

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	37520	1	48" Sno Thro Housing
2	37521	1	Scraper Blade
3	37522	1	Scraper Blade Brace
4	126216	8	Bolt, Carriage 5/16-18x.75
5	413447	23	Nut, Lock 5/16-18
6	180120	4	Bolt, Hex 3/8-16x.75
9	120915	2	Bolt, 3/8-16x1 Rd Hd Sq Nk
10	413534	4	Nut, Lock 3/8-16
14	37524	1	Gear Case
15	36860	2	Bushing, Flange 1.62x1.87x11
16	36921	1	Ring, Snap Internal 1.781
17	37525	1	Worm Shaft
18	37526	1	Bearing Cone
19	36352	1	Bearing Spacer
20	36230	1	Key, Straight SAE 1035
21	36853	1	Worm
22	36852	1	Spacer, Bearing
23	18446	1	Bearing Cone
24	120393	1	Washer, Flat .344x.688x.065
25	131099	1	Washer, Lock 3/8 SP Heavy
26	180077	1	Bolt, Hex 5/16-18x.75
27	18445	1	Bearing Cup
28	37527	1	Bearing Cup
29	37528	1	Seal
30	37529	1	Adjustment Plug
31	36856	1	Cap, Dust
32	37530	1	Gearcase Shaft
33	37531	1	Key, Feather .250x.875x.312
34	36858	1	Gear, Worm
35	36859	2	Washer, 1.625x2.50x.012
36	36861	1	Cover, Gear Case
37	36862	1	Gasket
38	121753	4	Washer, Lock 1/4 Ext Th TYA
39	36863	2	Seal
40	37533	1	48" Rake Shaft
42	37534	1	Right Rake
43	37541	1	Left Rake
46	37542	1	Fan
47	36869	2	Pin, Roll 5/16x1.75
48	35945	1	Pipe Plug
49	37532	2	Bushing, Sleeve
50	37535	1	Washer
51	37536	1	Key, Straight
52	37537	1	Driver
53	37538	2	Friction Disc
54	37539	1	Driver Plate
55	180087	15	Bolt, Hex 5/16-18x2.00
56	36874	1	Bearing, Flange
57	37540	1	Pressure Plate
58	12871	12	Spring, Compression
59	446354	12	Washer, Flat .313x.875.065
72	180021	4	Bolt, Hex 1/4-20x.875

## SECTION 8

### GRAVELY LIMITED WARRANTY

This Limited Warranty is issued by Gravely International, Inc., and consists of the following terms:

1. Only the original purchaser of new Gravely equipment is covered by this Warranty.
2. This Warranty covers repair or replacement of parts manufactured by Gravely which are defective in material or workmanship. Gravely will pay for parts and labor only.
3. The Warranty starts the date of purchase and lasts for TWELVE (12) MONTHS.
4. Some components of Gravely equipment are not covered by the Gravely Warranty. These components are covered by the original manufacturer's warranty, which is included with the product. They are:
  - a. Engines
  - b. Tires
5. To obtain warranty service on Gravely equipment including components not manufactured by Gravely, use this procedure:
  - a. Notify the Gravely dealer from whom you purchased the equipment.
  - b. If you have moved and it is not convenient to notify the selling dealer, notify the nearest Gravely dealer. You should supply this dealer with a copy of the bill of sale as proof of the date of purchase.
  - c. Make arrangements to have the equipment delivered to the dealer (refer to paragraph 6(a) below).
  - d. If you have any questions concerning the Gravely Limited Warranty, they should be referred to:

Gravely International, Inc.  
One Gravely Lane  
Clemmons, NC 27012

Attn: Manager of Customer Services
  - e. Warranty service on Gravely equipment must be performed by an authorized Gravely dealer or Gravely factory branch.
6. This Warranty does not cover the following:
  - a. Transportation between owner's home or place of business and the dealership. If the dealer provides the transportation of the equipment, he will charge the owner his usual rate for such service.
  - b. Normal maintenance services and normal replacement of items such as spark plugs, belts, oil, oil filters, air filters, and mower, plow or cultivator blades.
  - c. Alterations or Modifications - All obligations under this warranty shall be terminated if the equipment is altered or modified in any way.
  - d. Customer Neglect or Lack of Proper Maintenance - The purchaser is responsible for making sure that the tractor is operated and serviced as directed in the operator's manual. Incorrect use or maintenance will void the warranty.
7. GRAVELY MAKES NO OTHER EXPRESS WARRANTIES. ANY IMPLIED WARRANTIES, INCLUDING WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE PERIOD SET OUT IN PARAGRAPH 3 ABOVE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE STATEMENT MAY NOT APPLY TO YOU.
8. GRAVELY SHALL HAVE NO RESPONSIBILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE BREACH OF ANY WARRANTY, INCLUDING, BUT NOT LIMITED TO, INCONVENIENCE, RENTAL OR PURCHASE OF REPLACEMENT EQUIPMENT, LOSS OF PROFITS OR COMMERCIAL LOSS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.
9. This Warranty gives you specific legal rights, and you may have other rights which vary from state to state.
10. A Gravely product registration card is supplied with each Gravely product. Please complete the card and return it to Gravely at the address listed on the card. The equipment registration card will be used by Gravely for:
  - a. Recording date of purchase.
  - b. Notification of owners in compliance with the Consumer Product Safety Act, should any notification be necessary.

The return of registration card is not required in order to take advantages of this Warranty.
11. This Warranty is not subject to change or modification by anyone, including Gravely dealers and no Gravely dealer is authorized to make any representations or promises on Gravely's behalf.

 **GRAVELY**