

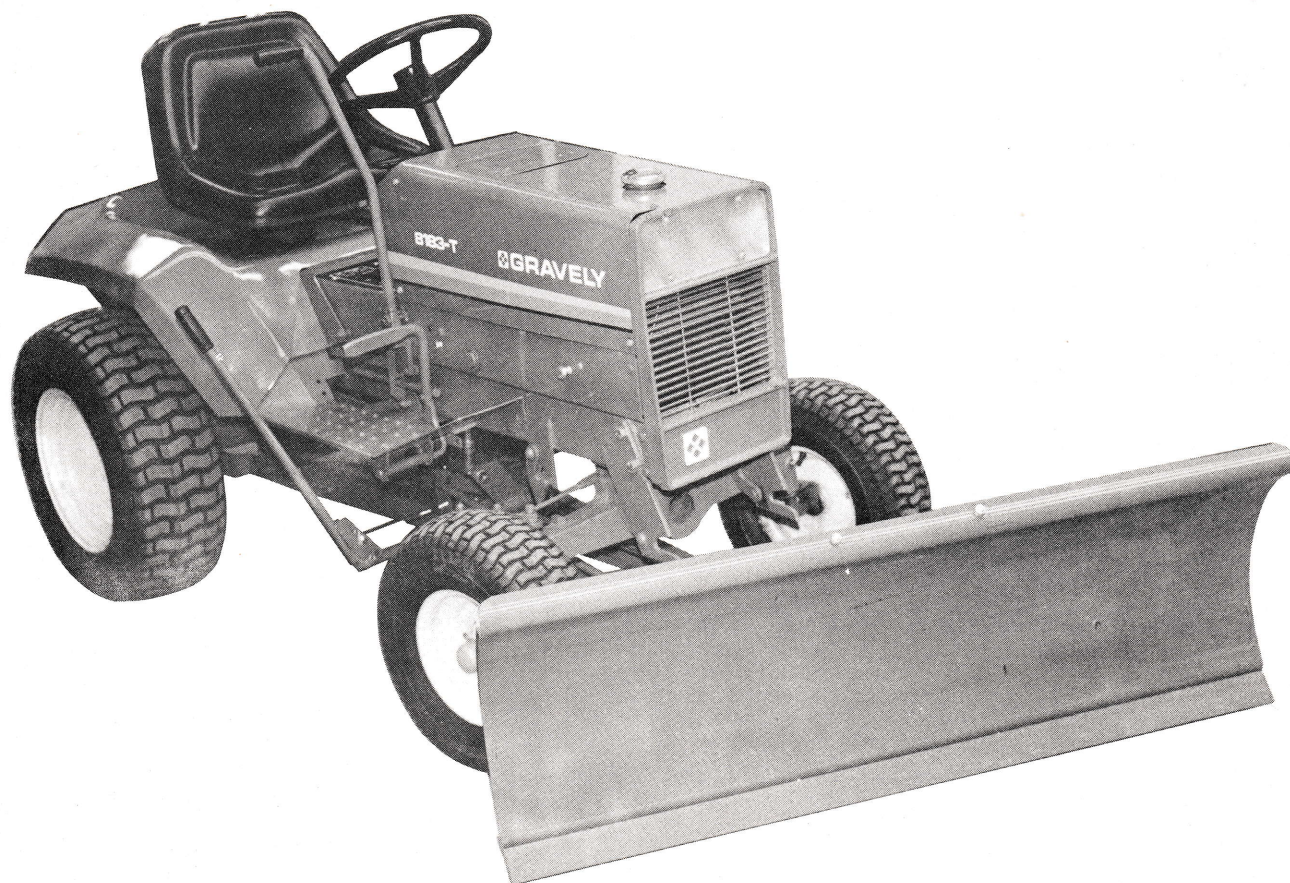
**GRAVELY**<sup>®</sup>

CLARKE-GRAVELY CORPORATION  
A Studebaker-Worthington Company

# OPERATOR'S MANUAL

**NAME:** 48 INCH SNOWDOZER

**PART NUMBER(S):** 24678



The 48 Inch Snowdozer is used with Gravelly 800 and 8000 Series tractors.

All reference to left side, right side, front and rear are from the operator's position.

To continue its program of quality and design improvement, the manufacturer reserves the right to change specifications, designs and prices without notice and incurring obligation.

Form No. 25040 (10-78)

Printed in U.S.A.

## 1.0 WARNINGS FOR SAFE OPERATION

This section gives Warnings for Safe Operation.

Using this equipment the wrong way can cause injury to persons and damage to the equipment. Persons using or doing maintenance on this equipment must read this Operator's Manual and follow the instructions.

It is important to understand that the warnings in this Operator's Manual and any other Gravelly instruction book do not list every possible danger. It is not possible for Gravelly to know and tell the operator or person doing service on the equipment of all the dangers in operating and doing maintenance on the equipment.

The purchaser must give these instructions to the persons operating and doing maintenance on this equipment. The purchaser must get the operator and person doing maintenance on this equipment to use eye and foot protection.

### 1.1 INSTRUCTIONS BEFORE OPERATION

1. Read the Operator's Manual and learn the function of the tractor's controls. Know how to stop the tractor.
2. Never let children operate the equipment.
3. Let adults operate the equipment only after reading and understanding the instructions in this Operator's Manual.

### 1.2 PREPARATION FOR OPERATION

1. Before snowfall, inspect the area of operation and remove all material that will be thrown, stop or do damage to the Snowdozer.
2. Put the Direction Control lever in the neutral position and the PTO control in the OFF position before starting the engine.
3. Use foot protection that will decrease sliding.
4. Use caution when putting gasoline in the fuel tank.
5. Use a clean and tight fuel container.
6. Never put gasoline in the fuel tank while the engine is running.
7. Never put gasoline in the fuel tank while the tractor is inside a building.
8. Clean off any gasoline that falls on the tractor before starting the engine.

### 1.3 OPERATION

1. Keep away from moving parts.
2. Never use the tractor for person transport.
3. Keep the PTO in the OFF position.
4. After hitting an item, turn the ignition switch to the OFF position and lower the blade. Make repairs before restarting.
5. Never start and run the engine inside a building except to move the equipment outside.
6. Always stop the engine and lower the blade before leaving the operator's position.
7. When removing snow from a slope, go up and down the slope, never across.
8. Use caution when changing direction on slopes.
9. Discharge the snow away from any area where the snow can cause damage.
10. Use a slow speed when moving the equipment to decrease sliding on surfaces with ice.
11. Use only Gravelly accessories for the Snowdozer and tractor.
12. Do not operate unless you can check the area visually.
13. After using the Snowdozer, stop the engine and remove all snow and ice before putting the Snowdozer in storage.

## 2.0 SNOWDOZER ILLUSTRATED PARTS AND PARTS LIST

This section shows the Snowdozer illustrated parts and a list of the parts.

### 2.1 ILLUSTRATED PARTS

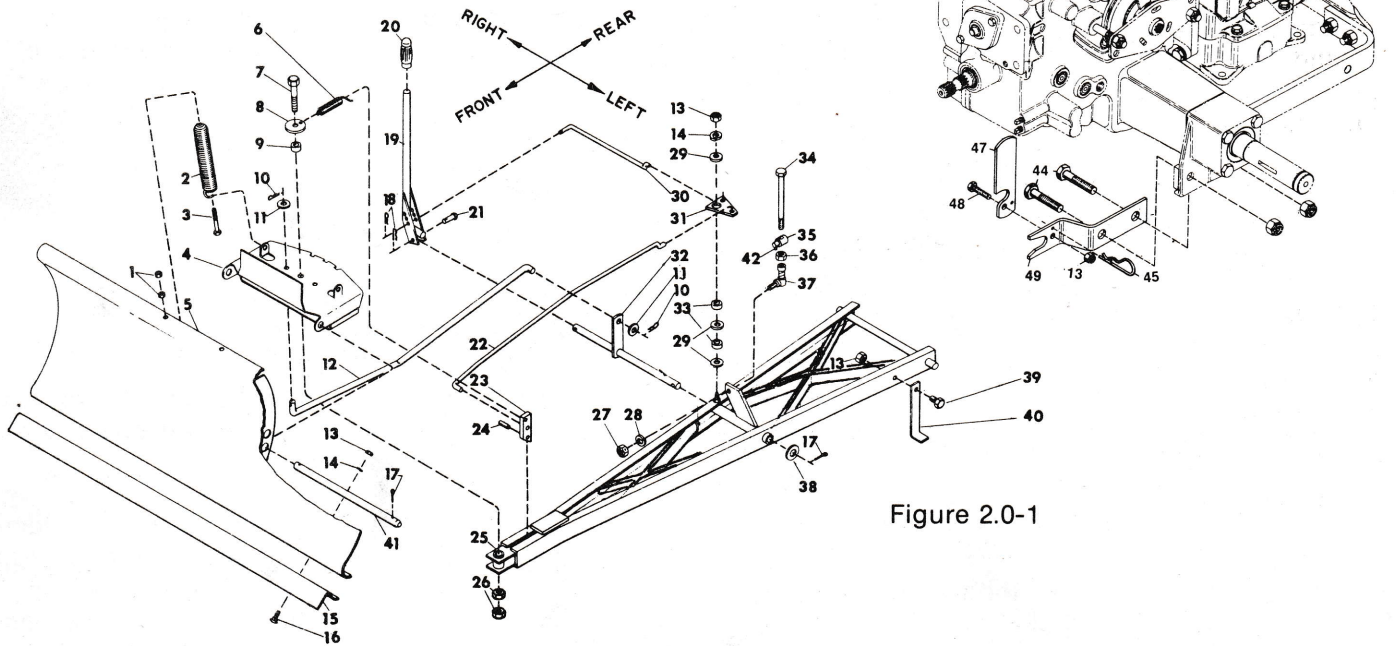


Figure 2.0-1

### 2.2 PARTS LIST

ITEM NO.	PART NO.	QTY.	DESCRIPTION	ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	124829	4	Nut, Jam; 3/8-16 Hex	27	190171	1	Nut, Lock; 1/2-20 Washer Insert Hex
2	11865	2	Spring, Trip	28	120384	1	Washer, Lock; 1/2 Spring
3	18505	2	Bolt, Special; 3/8-16 x 4-1/2	29	120394	3	Washer, Flat; 13/32 x 13/16 x .065
4	18501	1	Plate, Pivot Assembly	30	18504	1	Latch, Control (Short)
5	18499	1	Blade Assembly 48"	31	14421	1	Bell Crank
6	11851	1	Spring, Blade Angling	32	18502	1	Shaft, Pivot Assembly
7	271781	1	Bolt, Hex; 3/4-10 x 4-1/2	33	18508	2	Spacer
8	11850	1	Spring, Anchor Washer	34	193496	1	Bolt, Hex; 1/2-20 x 7
9	18506	1	Spacer	35	11317	1	Pivot, Mower Lift Assembly
10	14412	2	Pin, Hair Cotter	36	124934	1	Nut, Jam; 1/2-20 Hex
11	131016	2	Washer, Flat	37	11315	1	Joint, Ball Assembly Quick Disconnect
12	11864	1	Rod, Angling Control	38	131017	1	Washer, Flat; 13/16 x 1-15/32 x .134
13	456004	8	Nut, Lock; 3/8-16	39	180122	1	Bolt, Hex; 3/8-16 x 1
14	120382	4	Washer, Lock; 3/8 Spring	40	11868	1	Stand, Kick
15	18500	1	Plate, Wear	41	11846	1	Blade, Pivot
16	120915	4	Bolt, 3/8-16 x 1 RD HD SQ NK	42	142485	1	Pin, Groove; 1/8 x 5/8 Type A
17	137218	3	Pin, Cotter 5/32 x 1-1/4	NS	19365	1	Decal, Gravely
18	11860	2	Pin, Hair Cotter	NS	14424	1	Nut, 5/16 Push
19	18503	1	Handle Assembly	43	180175	2	Bolt, Hex; 1/2-13 x 1-1/4
20	11861	1	Grip, Handle	44	180181	4	Bolt, Hex; 1/2-13 x 2
21	18507	1	Pin, Drilled	45	10405	2	Pin, Hair Cotter
22	14420	1	Rod, Latch Control (Long)	46	19766	1	Plate, Axle Latch R.H.
23	14422	1	Bar, Pivot Lock	47	19172	2	Strap, Locking
24	9412281	1	Pin, Spring; 1/4 x 1	48	180124	2	Bolt, Hex; 3/8-16 x 1-1/4
25	14417	1	Frame, Push Assembly	49	19767	1	Plate, Axle Latch L.H.
26	426897	2	Nut, Jam; 3/4-10 Hex				

NOTE: Item 44 (Part No. 180181) in circle "A" to be used on tractor with standard axle bearing retainer.

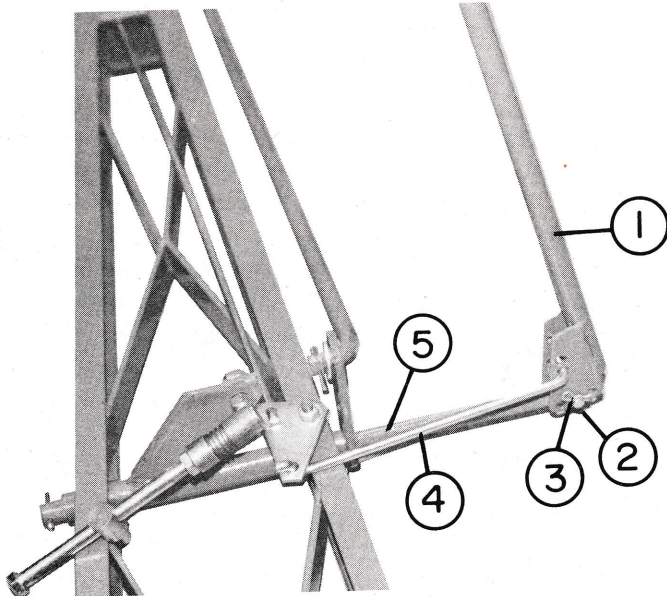
Item 43 (Part No. 180175) in circle "B" to be used on tractor with axle bearing retainer for rear P.T.O.

Figure 2.0-2

### 3.0 HOW TO CONNECT THE SNOWDOZER TO THE TRACTOR

This section gives the procedure for connecting the Snowdozer to the tractor.

1. Remove the hitch pins, clevis pin and Latch Control from the Control Handle and remove the handle from the Pivot Shaft on the Push Frame. See figure 3.0-1.



- 1 — Control Handle
- 2 — Hitch Pin
- 3 — Clevis Pin
- 4 — Latch Control
- 5 — Pivot Shaft

Figure 3.0-1

2. Put the tractor in position so the Snowdozer Push Frame is between the front wheels of the tractor. Stop the engine and put the Direction Control Lever and Gear selector in the neutral position.
3. Move the Locking Straps on the Axle Latch up as shown in figure 3.0-2.

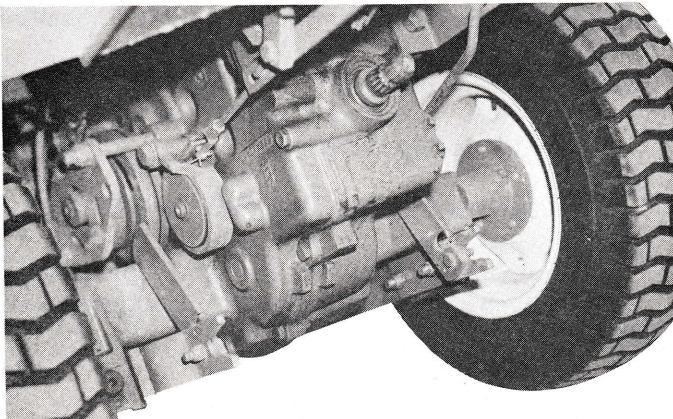
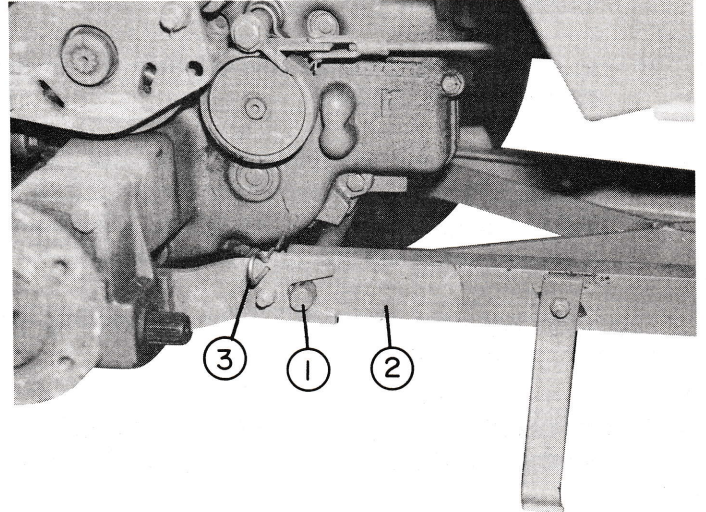


Figure 3.0-2

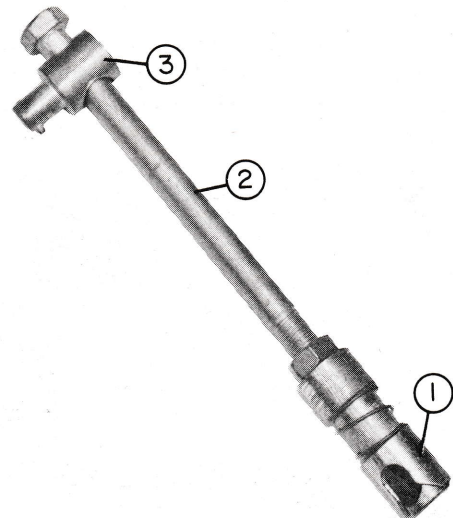
4. Roll the tractor forward over the Push Frame.
5. Put the cross rod of the Push Frame into the Axle Latch on each side of the tractor and push the Locking Straps down to fasten the cross rod in position as shown in figure 3.0-3. Fasten the Locking Straps in position with the hitch pins.



- 1 — Cross Rod
- 2 — Locking Strap
- 3 — Hitch Pin

Figure 3.0-3

6. Reconnect the Control Handle and Latch Control as shown in figure 3.0-1.
7. Pull the Locking Collar on the Quick Disconnect towards the bolt and remove the assembly from the ball. See figure 3.0-4.



- 1 — Locking Collar
- 2 — Bolt
- 3 — Lift Pivot

Figure 3.0-4

8. Put the tractor's attachment lift in the down position.
9. Hold the Quick Disconnect assembly with the head of the bolt down and put the Lift Pivot in the second hole from the bottom of the tractor attachment lift. Then rotate the Quick Disconnect assembly so the bolt head is up.
10. Pull the Locking Collar and connect the Quick Disconnect to the ball.
11. Put the tractor attachment lift in the raised position. If the Snowdozer hits the front axle of the tractor, put the Quick Disconnect Lift Pivot in a lower hole in the tractor attachment lift.

This completes the instructions for connecting the Snowdozer to the tractor.

#### 4.0 PROCEDURE FOR OPERATING THE SNOWDOZER

This section shows the procedure for operating the snowdozer. Read this Operator's Manual and the tractor Operator's Manual before operating the Snowdozer.

##### 4.1 CHANGING THE ANGLE OF THE BLADE

The Snowdozer has three blade angle positions, left angle, center and right angle. To change the angle of the blade follow these procedures.

1. Use the tractor attachment lift to raise the blade to the up position.
2. Push the Control Handle out, away from the operator and at the same time push the handle forward or pull the handle backwards. See figure 4.0-1.

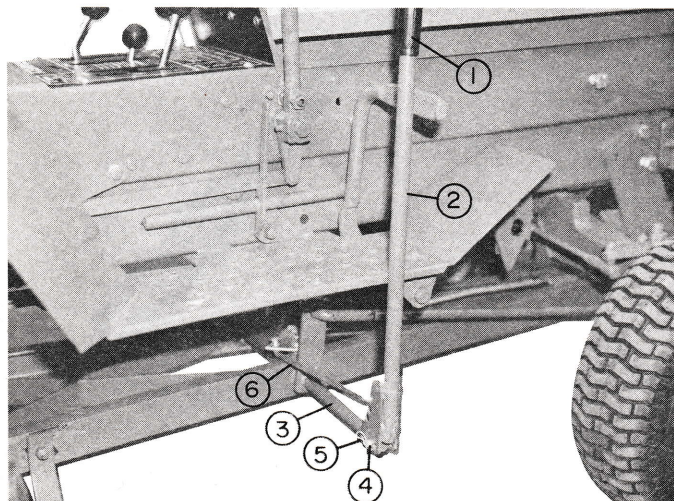


Figure 4.0-1

- A. Push the Control Handle forward to rotate the blade to the left.
- B. Pull the Control Handle backwards to rotate the blade to the right.

#### 4.2 PROCEDURE FOR MOVING SNOW WITH THE SNOWDOZER

1. Start the tractor engine. Wait until the engine is running smoothly before operating.
2. Move the blade to the angle position needed.

**CAUTION:** Be sure the Pivot Lock has fastened the blade in the selected position before operating the tractor. See figure 4.0-2.

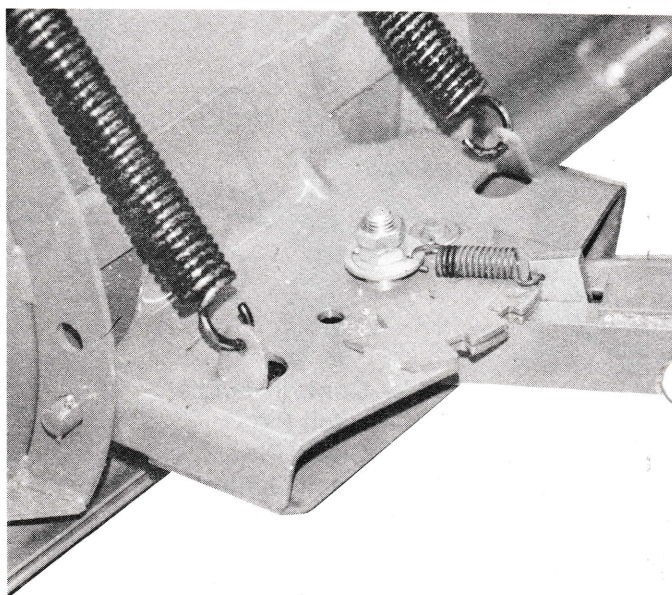


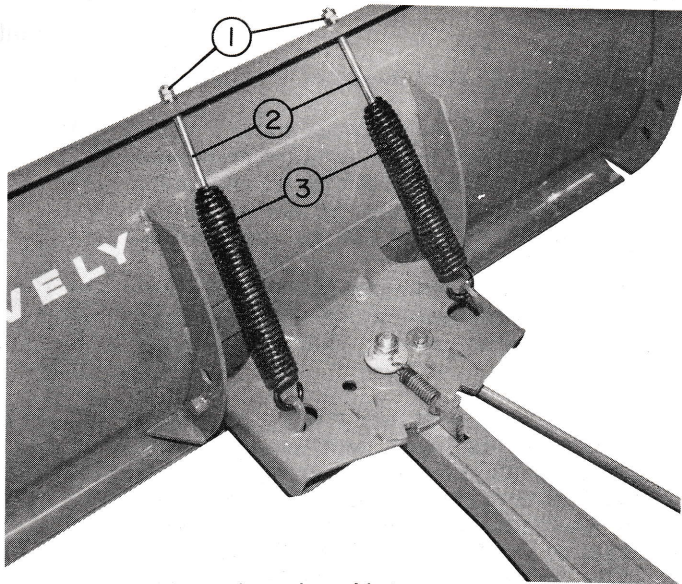
Figure 4.0-2

3. Lower the blade to the ground.
4. Put the RANGE selector in the "HI" position.
5. Put the GEAR selector in the 2 position.
6. Move the throttle lever to the "FAST" position.
7. Put the Direction Control Lever in the forward position. Always use caution on surfaces where the tractor can slide.

#### 4.3 HOW TO ADJUST THE TRIP SPRINGS

If the adjustment on the Trip Springs become too loose to hold the blade in position while moving snow follow these procedures:

1. Loosen the jam nuts on both Trip Spring Bolts shown in figure 4.0-3.



- 1 — Jam Nuts  
2 — Trip Spring Bolts  
3 — Trip Springs

Figure 4.0-3

2. Turn the nuts next to the blade three complete turns clockwise.
3. Tighten the jam nuts.
4. If the springs need more adjustment, repeat steps 1, 2 and 3.

**CAUTION:** Do not make the Trip Springs too tight. The spring must be adjusted to let the bottom of the blade move backwards when hitting an item that will not move and then return to the normal position.

## 5.0 REMOVING THE SNOWDOZER FROM THE TRACTOR

This section gives the procedure for removing the Snowdozer from the tractor.

1. Lower the Snowdozer Blade to the ground and stop the engine.
2. Disconnect the Quick Disconnect Assembly from the ball.
3. Turn the Quick Disconnect Assembly so the bolt head is down and remove the Lift Pivot from the tractor lift.

4. Remove the hitch pins, clevis pin and Latch Control from the Control Handle and remove the handle. See figure 3.0-1.
5. Open the Axle Latches by removing the hitch pins and pushing the Locking Straps up.
6. Roll the tractor backwards and away from the Snowdozer Push Frame. Reconnect the Control Handle and put the Quick Disconnect Assembly on the ball. Close the Axle Latch Locking Straps and install the hitch pins.

## 6.0 PROCEDURES FOR MAINTENANCE

This section gives the procedures for doing maintenance after each use.

1. Inspect all nuts, bolts and other fasteners to make sure they are tight and replace any that are missing.
2. Put engine lubricant on the Quick Disconnect Ball Joint and Pivot Lock.

## 7.0 PROCEDURES FOR PUTTING THE SNOWDOZER IN STORAGE

This section shows the procedure to put the Snowdozer in storage.

1. Clean the Snowdozer.
2. To prevent rust, put paint or multi-purpose grease on any area where the paint has been removed.





## ATTACHMENT LIMITED WARRANTY

This Limited Warranty is issued by Clarke-Gravely Corporation, Gravely Division, and consists of the following terms:

1. Only the original purchaser of new Gravely manufactured attachments 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 NINETY (90) DAYS for attachments used in Roofer applications, and TWELVE (12) MONTHS for products used in all other applications.
4. Some components of Gravely attachments are not covered by the Gravely Warranty. These components are covered by the original manufacturer's warranty. They are:
  - (a) Tires - Goodyear, Goodrich, Armstrong, General and Firestone
5. To obtain warranty service on Gravely attachments including components not manufactured by Gravely, use this procedure:
  - (a) Notify the Gravely dealer from whom you purchased the attachment.
  - (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 attachment delivered to the dealer (refer to paragraph 6(a) below).
  - (d) If you have any questions concerning the Gravely Warranty, they should be referred to:

Gravely  
Clarke-Gravely Corporation  
A Studebaker-Worthington Company  
One Gravely Lane  
Clemmons, N. C. 27012  
Attn: Manager of Customer Services
  - (e) Warranty service on Gravely attachments 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 attachment, he will charge the owner his usual rate for such service.
  - (b) Normal maintenance services and normal replacement of items such as belts lubricants, mower, plow or cultivator blades.
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 registration card is supplied with each Gravely attachment. Please complete the card and return it to Gravely at the address listed on the card. The 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 advantage 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.