

# 40"/48" SNOWBLOWER OPERATOR'S MANUAL

FORM NO: 42640 (11-86)

PART NO: 40693 - 40"

40695 - 48"

PRINTED IN USA

#### 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 parts, 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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#### 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 Preparation:

- 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.
- 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.
- Operate the snowblower from the operator's position on the seat of the tractor.
- 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 <u>before</u> 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:

- 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.
- Direct snowblower discharge away from windows, cars, buildings, and people which could be struck by objects thrown with the snow.
- 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.

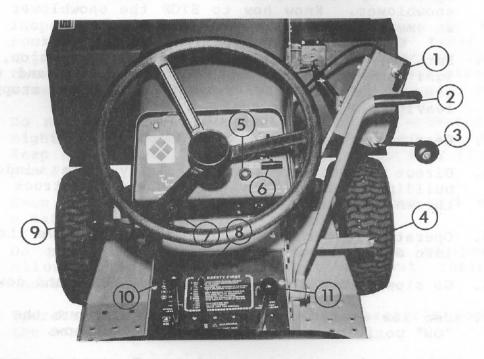
# Controls

- 2.1 See Figure 1 for location of controls. 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. 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.



- 1 Chute Deflector Control 7 Ignition Switch
- 2 Direction Control Lever 8 Range Selector
- 3 Discharge Chute Control 9 Hydraulic Lift Control

  - 5 Choke Control 6 - Throttle Control

- 10 PTO Control
- 11 Gear Selector

FIGURE 1

#### 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 fingers, 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 accidential 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:

- Adjust the deflector angle using the "T" handle, at the operator's right. Raising the deflector will cause snow to be thrown 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.
- Push in on the chute crank to unlock and turn the chute crank, so that the snow will be thrown in the desired direction.

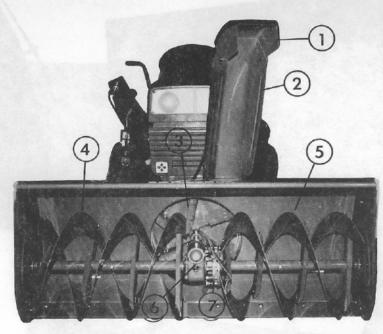
3. Lower the snowblower and start the auger rotating by putting the PTO control in the "ON" position with the engine running at 1/3 fast throttle. Increase engine speed to full throttle after the auger is rotating.

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.

#### 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.
- 4.2 Grease discharge chute base shown in Figure 3 approximately once a season. The discharge chute must be removed to apply the grease.
- Place a few drops of oil behind spool holding lower end of chute crank periodically. Apply all-purpose grease to the slotted bracket around the control rod. See Figure 4.



1 - Chute Deflector 5 - Left Auger

2 - Discharge Chute

3 - Fan

4 - Right Auger

6 - Oil Fill Pluq

7 - Slip Clutch

FIGURE 2

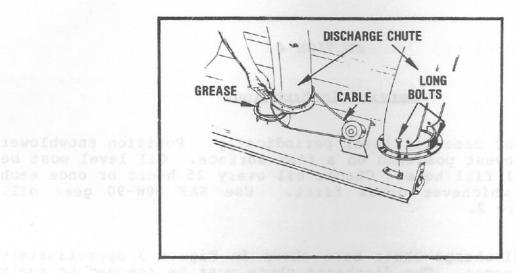


FIGURE 3



FIGURE 4

#### 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, 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:

- 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.
- 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.

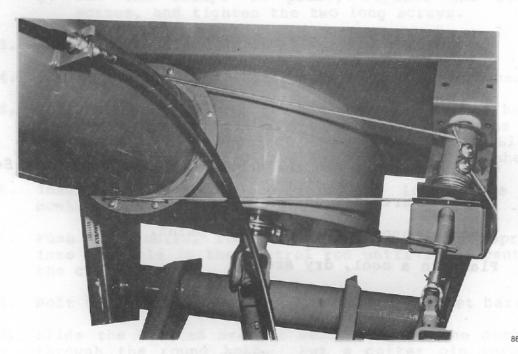


FIGURE 5

- 4. Thread the cable down through hole "B" and back up through hole "A" and through the clamp.
- 5. Thread the cable around (clockwise) the discharge chute to the front and continue to the front of the spool.
- Wrap the cable around the spool (clockwise). Fasten the cable to the bottom of the spool with the carriage bolt, lockwasher, and nut.

#### 4.8 Slip Clutch Adjustment:

- Tighten the (12) hex locknuts in a cross sequence until the springs are fully compressed.
- 2. Back off one full turn on each nut in a cross sequence.

#### 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.

#### 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. Put a cotter pin into the hole closest to the handle of the control rod. Slide a flat washer onto the control rod and slide it against the cotter pin. Slide the spring onto the control rod against the flat washer.
- Insert the control rod into the lower hole of the control bracket from the rear.
- Push the control rod forward and drive the spring pin into the hole in the control rod until it is centered in the control rod.
- 8. Bolt the control bracket to the crank bracket bar.
- 9. Slide the slotted bracket weldment onto the control rod through the round hole. Put a cotter pin through the hole closest to the bend. Place two washers against the cotter pin, twist the bracket and guide the control rod into the slot. Place two flat washers on the rod followed by a cotter pin.

10. Mount the nylon clamp on the lower bolt of the right hand side panel so that the loop is forward and vertical.

#### 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.
  - 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. The spacer and flat washer are used only for the 8000-G tractors and the long frame 8000 Series tractors.
- Mount the crank bracket bar assembly to the tractor frame.
  - 8. Slide the connector rod into the spool so that the holes align and retain with a hair pin cotter.
  - 9. Apply all-purpose grease to the slotted bracket around the control rod.
  - 10. Remove the "T" handle, nuts, and washer from the deflector control. Slide the control through the nylon clamp on the side panel from the bottom. Put one nut on the cable.
    - 11. Slide the deflector control from the front into the top hole in the crank support bracket.
    - 12. Replace the washer and nut and tighten.
    - 13. Replace the "T" handle.
- 14. Check the brake pedal for interference with the crank bracket bar mounting hardware. If necessary, use a piece of pipe to bend the brake pedal 1/2" away from the bolt head.

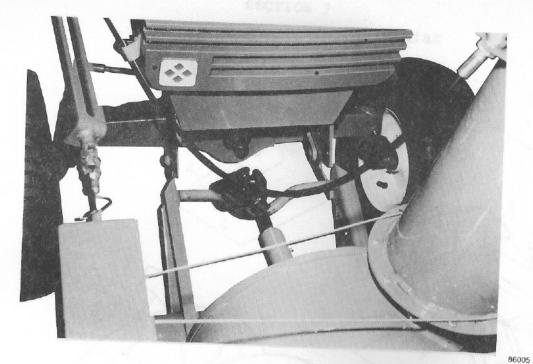
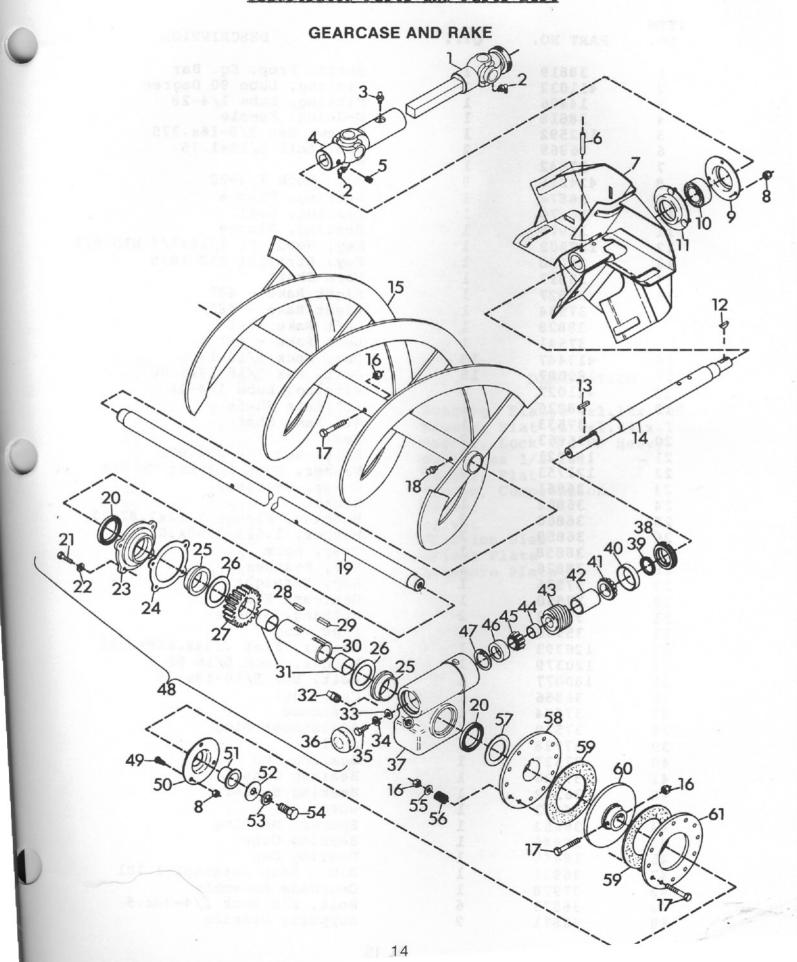


FIGURE 6

#### 6.3 Removal:

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

SECTION 7
Illustrated Parts and Parts List



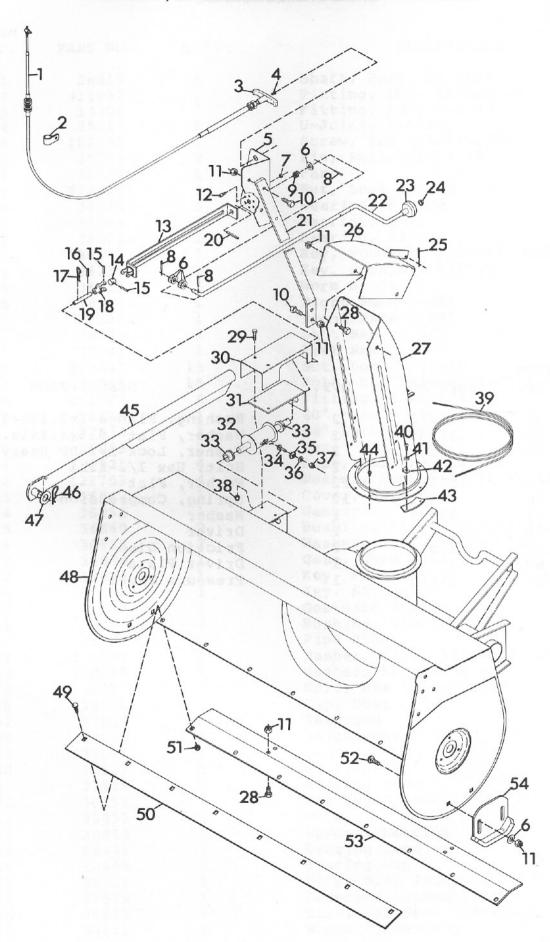
#### **GEARCASE AND RAKE**

ITEM		R AND BLAKE	2408430
NO.	PART NO.	QTY.	DESCRIPTION
1	38819	1	Shaft, Prop. Sq. Bar
2	411032	2	Fitting, Lube 90 Degree
3	14406	1	Fitting, Lube 1/4-28
4	38818	1	U-Joint, Female
5	102592		Screw, Set 3/8-16x.375
2 3 4 5 6 7 8	36869	2	Pin, Roll 5/16x1.75
7	37542	1	Fan
8	424215	9	Nut, Lock 1/4-20
9	36874	1	Bearing, Flange
10	36876	1	Bearing, Ball
11	36875	1	Bearing, Flange
12	120502	1	Key, Woodruff 3/16x7/8 HRD #11
13	36230	1	Key, Straight SAE 1035
14	38817	1	Worm Shaft
15	38827	1	Right Rake - 40"
	37534	1	Right Rake - 48"
	38828	1	Left Rake - 40"
	37541	1	Left Rake - 48"
16	413447	15	Nut, Lock 5/16-18
17	180087	15	Bolt, Hex 5/16-18x2.00
18	411027	4	Fitting, Lube 1/4-28
19	38826	1	40™ Rake Shaft
	37533	1	48" Rake Shaft
20	36863	2	Seal
21	180021	4	Bolt, Hex 1/4-20x.875
22	121753	4	Washer, Lock 1/4 Ext Th TYA
23	36861	1 \2000	Cover, Gearcase
24	36862	1	Gasket
25	36860	2	Bushing, Flange 1.62x1.87x11
26	36859	2	Washer, 1.625x2.50x.012
27	36858	1	Gear, Worm
28	38820	1	Key, Feather
29	37536	1	Key, Straight
30	37530	1	Gearcase Shaft
31	37532		Bushing, Sleeve
32	35945	2	Pipe Plug
33	120393	1	Washer, Flat .344x.688x.065
34	120379	1 20	Washer, Lock 5/16 SP
35	180077	1	Bolt, Hex 5/16-18x.75
36	36856	1 4000	Cap, Dust
37	37524	1	Gearcase
38	37529	1	Adjustment Plug
39	37528	1	Seal
40	37527	1	Bearing Cup
41	37526	1	Bearing Cone
42	36352	1	Bearing Spacer
43	36853	ī	Worm
44	36852	1 00	Spacer, Bearing
45	18446	1	Bearing Cone
46	18445	ī	Bearing Cup
47	36921	ī	Ring, Snap Internal 1.781
48	37978	ī	Gearcase Assembly
49	36873	6	Bolt, Rib Neck 1/4-20x.5
50	36871	2	Support, Bearing

#### GEARCASE AND RAKE

ITEM			
NO.	PART NO.	QTY.	DESCRIPTION
51	36872	2	Bushing, Flange 1x1.12x.625
52	36840	2	Washer, Flat .515x1.441x.1
53	131101	2	Washer, Lock 1/2 SP Heavy
54	180173	2	Bolt, Hex 1/2-13x1
55	120386	12	Washer, Flat
56	12871	12	Spring, Compression
57	37535	1	Washer
58	37537	1	Driver
59	37538	2	Friction Disc
60	37539	1	Driver Plate
61	37540	1	Pressure Plate

## HOUSING, DISCHARGE CHUTE AND CONTROLS



## HOUSING, DISCHARGE CHUTE AND CONTROLS

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	36898	1	Cable, Control
2	35313	ī	Clamp, Nylon
3	36910	1	Handle, Tee
4	36911	ī	Screw, Machine 10-32x.50
5	41255	ī	Bracket, Control
6	120394	9	Washer, Flat .406x.812x.065
7	120361	6	Nut, #10-24 Hex
8	179252	3	Pin, Cotter .06x1.00
9	36058	1	Compression Spring
10	180122	4	Bolt, Hex 3/8-16x1.00
11	413534	14	Nut, Lock 3/8-16
12	36885	6	Screw, #10-24x.375 Cap
13	42056	1	Bracket, Slotted
14		1	Block, Universal
	42058		
15	421202	2	Pin, Spring. 187x1.000
16	415236	1	Pin, Spring .125x.750
17	36566	north 1	Hair Pin, Internal
18	42057		Half, Universal
19	41258	1	Rod, Connector
20	456542	Nuclipedi	Pin, Spring .187x1.500
21	37546	1818.8 1 1818	Bar, Crank Bracket
22	41253	11108	Rod, Control
23	36902	Scrafer B	Knob
24	36903	a relevos	Cap 200 75
25	121222	3 1 1 must	Pin, Cotter .09x.75
26	36893	1000	Deflector, Chute
27	36892	1 0 0 G	Chute, Discharge
28	180120	6	Bolt, Hex 3/8-16x.75
29	180022	2 200	Bolt, Hex 1/4-20x1.00
30	37548	dDecision Index	Cover
31	41254	1	Bracket, Spool
32	36884	1	Spool
33	10174	2	Bushing, Nylon .76xlx.6 Flg.
34	126203	2	Bolt, 1/4-20x.625 Rd Hd Sq Nk
35	38838	2	Washer, Lock Special 5/16 I.D.
36	422845	2	Washer, Flat .281x.625x.065
37	120375	2	Nut, Hex 1/4-20
38	419454	2	Nut, Lock 1/4-20
39	36888	1	Cable
40	36896	2	Screw, Taptite 10-24x.75
41	446161	1	Washer, Flat .219x.438x.049
42	36897	1	Clamp, Cable
43	36894	4	Clamp, Chute Screw, Taptite 10-24x.375
44	36895	6	
45	11809	1	Weldment, Push Rod
46	10405	1	Cotter, Hair Pin
47	131017	1	Washer, Flat .812x1.469x.134
48	42054	1	40" Sno Thro Housing
4.0	42055	6 (40")	48" Sno Thro Housing
49	126353	6 (40")	Bolt, Carriage 5/16-18x.875
FO	10106	8 (48")	Scraper Blade - 40"
50	40496	1	Scraper Blade - 48"
	40495	1	peraper prace - 40

#### HOUSING, DISCHARGE CHUTE AND CONTROLS

PART NO.	QTY.	DESCRIPTION
413447	6 (40°) 8 (48°)	Nut, Lock 5/16-18
120915	mada box	Bolt, 3/8-16x1.00 Rd Hd Sq Nk
38824	1	Scraper Blade Brace - 40"
37522	1	Scraper Blade Brace - 48"
40825	2	Runner, Skid Shoe
36906	Defile tor,	Decal, Chute Crank
24608	eld .1 mg	Decal, Gravely Logo
33927	2	Decal, Danger Foot
33926	roll 10 foll	Decal, Danger Hand
40827	10000	Decal, Chute Crank
	413447 120915 38824 37522 40825 36906 24608 33927 33926	413447 6 (40°) 8 (48°) 120915 4 38824 1 37522 1 40825 2 36906 1 24608 1 33927 2 33926 1

#### LIMITED FIVE-YEAR WARRANTY

- This Limited Five-Year Warranty is issued by Gravely International, Inc., only to the original purchaser. If Gravely equipment is leased by Gravely, this Warranty shall extend also to the original lessee as if such lessee were the original purchaser.
- 2. Gravely warrants that all new equipment manufactured by Gravely ("Gravely Products") shall be free of defects in material and workmanship for the term described in paragraph 4, below. Except as hereinafter provided, this Warranty does not cover any engine, tires or battery forming a part of the Gravely Product. Engine and tires are covered by and subject to separate warranties of the manufacturers thereof.
- In the event that any Gravely Product warranted hereunder shall be defective or fail to conform with this Warranty, Gravely shall, subject to the provisions hereof, pay for, or provide labor and materials for, the repair or replacement of such defective Gravely Product.
- 4. This Warranty is for five years (60 months) from purchase date for Gravely Products used exclusively for personal, family or household purposes, and two years (24 months) for products used for other purposes (commercial use), excluding rental firms. Gravely products used for rental purposes will be warranted for 90 days. Repair of Gravely Products after the second year (24 months from date of purchase) shall be subject to a \$50.00 deductible for each repair. (After two years, Gravely agrees to repair or replace defective Gravely Products used exclusively for personal, family or household purposes only to the extent that the cost of such warranty covered repair or replacement exceeds \$50,00.)

Batteries are warranted by Gravely for a period of twelve (12) months only. If a battery shall fail within twelve (12) months of purchase, the replacement cost thereof shall be prorated over a twelve-month term based upon the number of months since purchase.

- To obtain Warranty Service on a Gravely Product (including any battery or other component not manufactured by Gravely), use this procedure:
  - Notify the Gravely dealer from whom you purchased the equipment.
  - 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.
  - Make arrangements to have the equipment delivered to the dealer (refer to paragraph 6 a., below).
  - 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: Customer Service Department

 Warranty service on Gravely Products must be performed by an authorized Gravely dealer.

- 6. This Warranty does not cover the following:
  - Transportation to the Gravely dealership. (If the Gravely dealer provides transportation, he will charge for such service.)
  - Normal maintenance services and normal replacement of items such as spark plugs, belts, oil, oil filters, air filters, and mower, plow or cultivator blades, gauge wheels, skids and other wear items.
  - Any Gravely Product which has been altered or modified in any way.
  - d. Any repair or replacement occasioned by customer neglect or lack of proper maintenance. (The purchaser is responsible for making sure that Gravely Products are operated and serviced as directed in the applicable manual or service instruction. Incorrect use or maintenance will void this Warranty.)
  - e. Any repair occasioned by the use of any attachment not approved by Gravely. (The use of any such unapproved attachment will void this Warranty.)
- 7. GRAVELY MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES, OR WARRANTIES AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL WARRANTIES ARE LIMITED IN DURATION TO THE TERMS SET OUT IN PARAGRAPH 4, ABOVE. GRAVELY SHALL HAVE NO LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE BREACH OF ANY WARRANTY, INCLUDING, BUT NOT LIMITED TO, LIABILITY FOR INCONVENIENCE, RENTAL OR PURCHASE OF REPLACEMENT EQUIPMENT, OR FOR LOSS OF PROFITS OR OTHER COMMERCIAL LOSS.
- Some states do not allow limitations on how long an implied warranty lasts, so the above statement may not apply to you. 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.
- 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.
  - Notification of owners in compliance with the Consumer Product Safety Act, should any notification be necessary.

The return of such card is necessary for your warranty to be effective.

 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.

#### **ØGRAVELY**

One Gravely Lane, Clemmons, NC 27012