

NOTE

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

WARNING

To keep the warranty, the grass catcher 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 point of view.

PRO MASTER GRASS CATCHER

Use the correct service when ordering parts, requesting service or making inquiries.

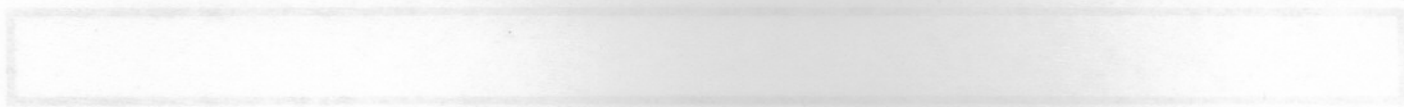
6. WARRANTY

SERIAL NUMBER

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



GRAVELLY



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

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

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

SECTION I

Instructions for Safe Operation

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2. OPERATING INSTRUCTIONS
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SECTION 1

Instructions for Safe Operation

Improper use of this grass catcher can injure people and damage the equipment. People using or servicing this grass catcher 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 of all possible dangers in operating and servicing the tractor and attachments.

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

1.1 Preparation:

1. Read this manual and the Pro Master operator's manual carefully.
2. Learn the location and function of all controls.
3. Learn how to use the controls to stop the wheels and mower quickly.
4. Use caution with gasoline. Gasoline is very flammable. Keep it in a clean and tight container away from flames or hot items. Never put gasoline in the fuel tank while the engine is running or hot. Clean up spilled gasoline before starting engine.
5. Be certain that all shields, guards, and interlock switches are in the correct positions.
6. Never permit children to operate Pro Master.
7. Inspect area to be mowed and remove all material which could be thrown by the mower.
8. Before starting the engine, put the PTO control lever in the "OFF" position and the gear shift lever in the neutral "N" position.
9. When hauling the equipment, connect the chassis to the transporting vehicle. Never connect from control levers, rods, or like items that could be damaged.
10. Operate the equipment only when discharge chute is in place or the complete grass catcher with collector boot and tube is in place.

1.2 Operation:

1. Wear foot and eye protection. Do not wear loose clothing.
2. Do not use the equipment in the dark without adequate lighting.
3. Keep the grass catcher in good condition. Maintain it as directed in this manual.
4. Replace all parts that become damaged or lost.
5. USE ONLY GRAVELY ACCESSORIES AND ATTACHMENTS.
6. Do not overspeed the engine. Do not override the governor.
7. Keep away from moving parts.
8. Keep people and animals away from the operating area.
9. Do not let people other than the operator near the operating equipment.
10. Use a slow speed and engage the direction control lever slowly when operating on slopes.
11. Look for and keep away from hazards.
12. Shut both engines off, move the PTO Control to "OFF", and remove ignition key before unclogging chute or removing grass catcher.
13. Look behind when operating in reverse.
14. After hitting an object with the equipment, stop the engines and check for damage. Repair any damage before continuing operation.
15. Operate only from the operator's position, on the seat.
16. Travel up and down, not across slopes.
17. Never permit children to operate the equipment.
18. Before leaving the operator's position, move the PTO Control to "OFF", lower mower, lock the brake, shut off the vac engine and remove the ignition key.

19. If there is a sudden change in the sound or vibration of the equipment, stop the engines and check for damage. Repair any damage or failure before continuing operation.
20. Never run the engine indoors except to move it outside. Exhaust fumes are dangerous.
21. Go slow on slick surfaces.
22. Follow traffic laws when operating on or near a road.
23. Before making adjustments or servicing, move the PTO to "OFF", shut off the vac engine, turn the ignition switch to "OFF", and wait until all moving parts completely stop.
24. Check the mounting hardware for the blade frequently.
25. Keep the PTO control in the "OFF" position when transporting.

SECTION 2

Operating Instructions

2.1 General:

1. Start vac engine. When the engine is warm, move the throttle to the "FAST" position.
2. When starting to cut grass with the vac in place, start at a slower than normal ground speed but with throttle set for fast engine speed. Use the Gear Selector lever to control speed. Select the gear for the best cutting and vac action. The heavier and wetter the grass, the slower the ground speed.
3. With lush, extra heavy or wet grass, it may be necessary to make two passes. First cut at maximum cutting height from ground surface, then recut at the lower setting.
4. If hose plugs, momentarily stop ground travel and allow it to clear. IF THE HOSE DOES NOT CLEAR, PUT THE PTO IN THE "OFF" POSITION AND STOP THE ENGINES BEFORE ATTEMPTING TO CLEAR THE HOSE.
5. Successful operation results from the thoughtful management of several variables:
 - a. Catcher will work best in dry grass. Between 10 a.m. and 6 p.m. would be an ideal time, after dampness has left in the morning but before the evening dew.
 - b. Use fast throttle settings on the engines at all times, since this gives better air flow into the can.
 - c. Try different travel speeds.

2.2 CAUTION:

1. Be sure the boot, hoses, and blower drive are properly assembled and secured prior to operating the vac and mower.
2. Always move the PTO to "OFF", turn the ignition switch to "OFF", turn off vac engine and wait until all parts have stopped moving before unplugging the hoses.

SECTION 3

Service Instructions

3.1 When the Vac Stops Collecting, Check the Following:

1. Be sure the mower has a sharp Gravely blade on it.
2. Low blower speed--check vac engine RPM and increase to a maximum of 3600 RPM, decrease ground speed.
3. High ground speed on tractor--shift to lower gear.
4. Grass conditions--grass must be dry.
5. Blower belt--belt must be tight. See 3.4.
6. Low mower blade speed. Check power unit engine speed for maximum 3300 RPM.

3.2 Vac Removal:

1. Disconnect the hose from the blower inlet.
2. Remove the klik pins and clevis pins which retain the vac. Remove the vac from the Pro Master frame.
3. Remove the mower boot.
4. Put the discharge chute on the deck and retain with two 3/8-16x1 carriage bolts (from under the deck), two 3/8 flat washers, and two 3/8-16 lock nuts.
5. Reinstall Pro Master rear weight.

3.3 Vac Installation:

Reverse the removal procedure.

3.4 Belt Tension Adjustment:

Adjust the belt tension as follows (must be performed with both engines off):

1. Loosen the four 5/16-18x1.75 bolts and lock nuts securing the vac engine.
2. Loosen the 3/8-16 jam nut and turn the 3/8-16x3 all thread bolt until the mid section of the belt can be moved 1/4".
3. Tighten the jam nut and the engine bolts.

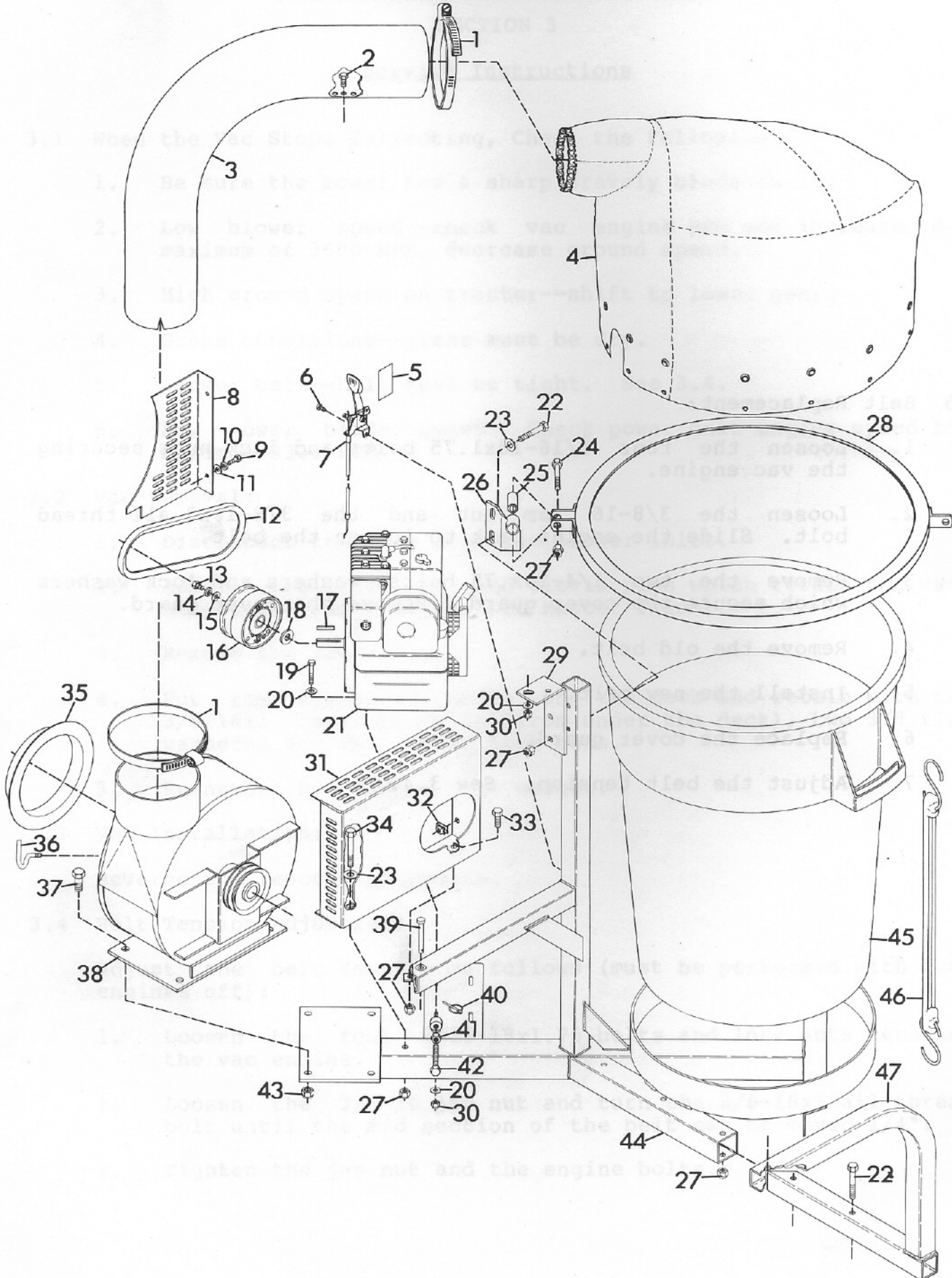


3.5 Belt Replacement:

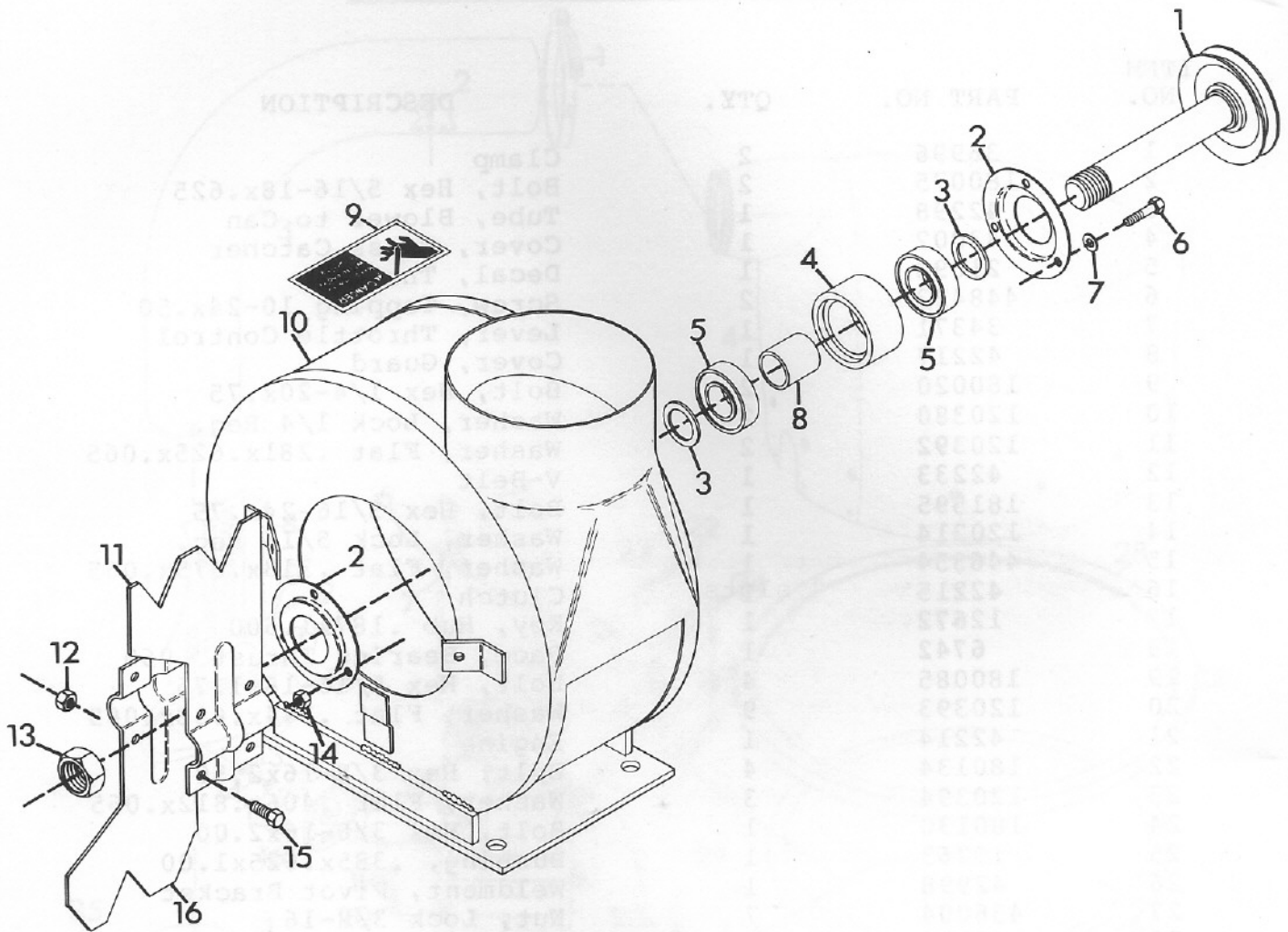
1. Loosen the four 5/16-18x1.75 bolts and lock nuts securing the vac engine.
2. Loosen the 3/8-16 jam nut and the 3/8-16x3 all thread bolt. Slide the engine back to loosen the belt.
3. Remove the two 1/4-20x.75 bolts, washers and lock washers which secure the cover guard. Remove the cover guard.
4. Remove the old belt.
5. Install the new belt.
6. Replace the cover guard.
7. Adjust the belt tension. See 3.4.

SECTION 4

Illustrated Parts and Parts List



ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	36996	2	Clamp
2	180075	2	Bolt, Hex 5/16-18x.625
3	42298	1	Tube, Blower to Can
4	43002	1	Cover, Grass Catcher
5	21092	1	Decal, Throttle
6	448423	2	Screw, Tapping 10-24x.50
7	34371	1	Lever, Throttle Control
8	42217	1	Cover, Guard
9	180020	2	Bolt, Hex 1/4-20x.75
10	120380	2	Washer, Lock 1/4 Reg.
11	120392	2	Washer, Flat .281x.625x.065
12	42233	1	V-Belt
13	181595	1	Bolt, Hex 5/16-24x.75
14	120214	1	Washer, Lock 5/16 Reg.
15	446354	1	Washer, Flat .313x.875x.065
16	42215	1	Clutch
17	12672	1	Key, Hub .187x1.500
18	6742	1	Race, Bearing Thrust .060
19	180085	4	Bolt, Hex 5/16-18x1.75
20	120393	9	Washer, Flat .344x.688x.065
21	42214	1	Engine
22	180134	4	Bolt, Hex 3/8-16x2.50
23	120394	3	Washer, Flat .406x.812x.065
24	180130	1	Bolt, Hex 3/8-16x2.00
25	19263	1	Bushing, .385x.625x1.00
26	42998	1	Weldment, Pivot Bracket
27	456004	7	Nut, Lock 3/8-16
28	42995	1	Weldment, Ring
29	42232	1	Bracket, Tube
30	419455	6	Nut, Lock 5/16-18
31	42216	1	Guard
32	32369	2	Nut, Retainer
33	180121	1	Bolt, Hex 3/8-16x.875
34	180137	1	Bolt, Hex 3/8-16x2.75
35	38585	1	Adapter, Hose
36	42543	2	Handle, Locking
37	180175	4	Bolt, Hex 1/2-13x1.25
38	41700	1	Blower
39	22113	2	Pin, Clevis 3/8x2.62
40	23468	2	Pin, Klik
41	120377	1	Nut, Hex 3/8-16
42	14718	1	Bolt, Hex Spec. 3/8-16x3.00
43	435507	4	Nut, Lock 1/2-13
44	42229	1	Weldment, Frame
45	38085	1	Can, Grass
46	43001	1	Strap, Hold Down
47	42218	1	Weldment, Hanger Tube



ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	39027	1	Weldment, Spindle
2	36874	2	Bearing, Flange
3	39022	2	Washer, 1.000/1.031x1.500x.125
4	39025	1	Housing
5	39023	2	Bearing, Ball
6	180044	3	Bolt, Hex 1/4-20x2.00
7	39026	3	Washer, .263/.273x.562x.046
8	39024	1	Spacer
9	33926	1	Decal, Danger Hand
10	42551	1	Housing, Fan
11	39020	1	Blade, Fan
12	413447	4	Nut, Lock 5/16-18
13	39019	1	Nut, Hex 1-14 Jam Lock
14	424215	3	Nut, Lock 1/4-20
15	180075	4	Bolt, Hex 5/16-18x.625
16	39018	1	Blade, Fan

SECTION 5

Set-up Instructions

- 5.1 Remove the grass catcher from the shipping container. Remove the parts from grass can.
- 5.2 Fasten the tube bracket and the pivot bracket weldment to the frame weldment with two 3/8-16x2.50 hex bolts, flat washers and 3/8-16 lock nuts. (Do not tighten.) See the illustration in Section 4.
- 5.3 Cut off the end of the blower to can tube just above the raised ring. Make two "V" slots about one inch long in the end of the tube. See Figure 1.
- 5.4 Slip a clamp over each end of the tube. Put one end over the blower outlet flange and the other end onto the tube bracket. Tighten the bottom clamp.
- 5.5 Fasten the tube to the tube bracket with two 5/16-18x.625 hex bolts, one .344x.688x.065 flat washer and two 5/16-18 lock nuts. Use the two holes in the tube nearest the end.
- 5.6 Fasten the ring weldment to the pivot bracket weldment using the bushing, one 3/8-16x2.0 hex bolt and a 3/8-16 lock nut. With the ring in the raised position, place the grass can on the frame weldment. Lower the ring on the grass can. Tighten the two 3/8-16x2.50 hex bolts installed in Step 2 above.
- 5.7 Slide the hanger tube weldment into the frame weldment until the width will match that of the holes in the power unit frame. Retain with two 3/8-16x2.50 hex bolts and two 3/8-16 lock nuts.
- 5.8 Slip the cover inlet (small opening) onto the tube and retain with the clamp. Raise the ring and pull the cover inside the ring. Fold the edge of the cover around the ring and secure with the snaps in the cover. Put one end of the hold down strap through the hole in the tab on the ring weldment. Lower the ring and hook the other end of the strap on the frame weldment.
- 5.9 Put the hose adapter in place at the blower inlet and retain with two locking handles.

SECTION 2

Setup Instructions

5.1 Remove the glass catcher from the shipping container. Remove the parts from glass cap.
5.2 Fasten the tube bracket and the pivot bracket weldment to the frame weldment with two 3/8-16x2.50 hex bolts, flat washers and 3/8-16 lock nuts. (Do not tighten.) See the illustration in Section 4.

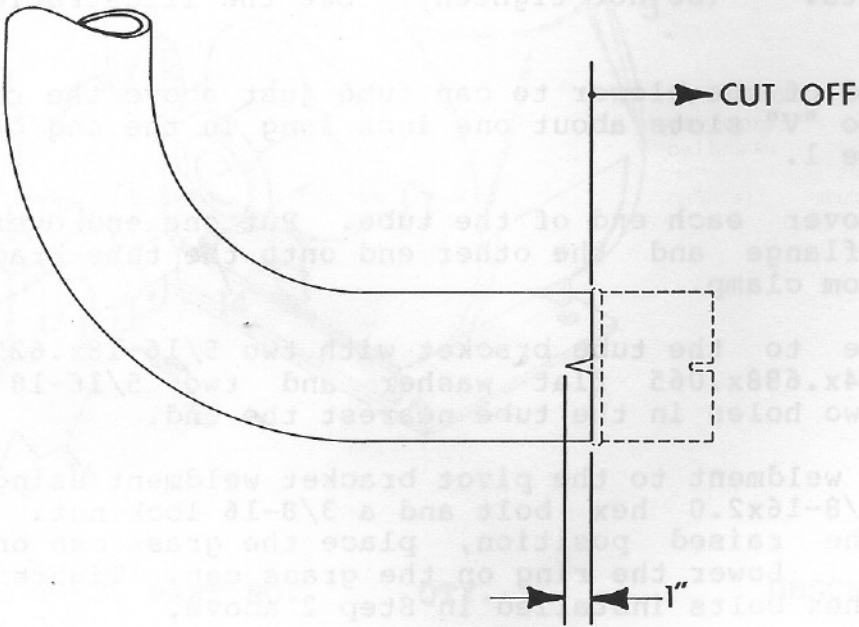


FIGURE 1

5.3 Fasten the ring weldment to the frame weldment using the 3/8-16x2.0 hex bolts and 3/8-16 lock nuts. With the ring in the raised position, place the glass cap on the frame weldment. Lower the ring and fasten the two 3/8-16x2.50 hex bolts in the tube bracket weldment.
5.4 Slip a clamp over each end of the tube. Tighten the bottom clamp and the other end once the glass cap is in place.
5.5 Put the glass catcher in place at the lower end and retain with two locking washers.

SECTION 6

LIMITED FIVE-YEAR WARRANTY

1. 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.
3. 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.
5. To obtain Warranty Service on a Gravely Product (including any battery or other component 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: Customer Service Department
 - e. Warranty service on Gravely Products must be performed by an authorized Gravely dealer.
6. This Warranty does not cover the following:
 - a. Transportation to the Gravely dealership. (If the Gravely dealer provides transportation, he will charge 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, gauge wheels, skids and other wear items.
 - c. 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.
8. 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.
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 such card is necessary for your warranty to be effective.
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**

One Gravely Lane, Clemmons, NC 27012