



ProLine

# Vacuum Bagger

for 60" ZRT MOWER

Model No. 79431 – 590001 & Up

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## Installation Instructions

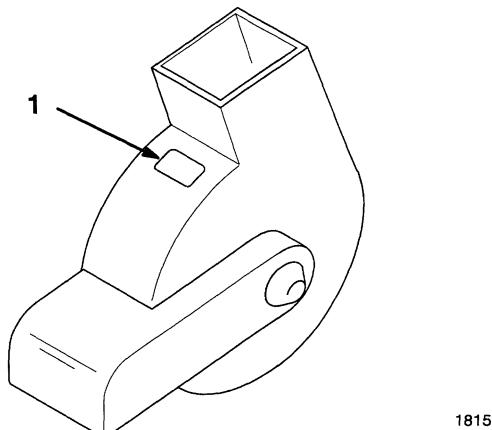
**IMPORTANT:** Read this manual carefully. It contains information about your safety and the safety of others. Also become familiar with the controls and their proper use before you operate the product.

# Introduction

Thank you for purchasing a Toro product.

All of us at Toro want you to be completely satisfied with your new product, so feel free to contact your local Authorized Service Dealer for help with service, genuine Toro replacement parts, or other information you may require.

Whenever you contact your Authorized Service Dealer or the factory, always know the model and serial numbers of your product. These numbers will help the Service Dealer or Service Representative provide exact information about your specific product. You will find the model and serial number plate located in a unique place on the product as shown below.



1. Model and Serial Number Plate

For your convenience, write the product model and serial numbers in the space below.

<b>Model No:</b> _____
<b>Serial No.</b> _____

Read this manual carefully to learn how to operate and maintain your product correctly. Reading this manual will help you and others avoid personal injury and damage to the product. Although Toro designs, produces and markets safe, state-of-the-art products, you are responsible for using the product properly and safely. You are also responsible for training persons who you allow to use the product about safe operation.

The Toro warning system in this manual identifies potential hazards and has special safety messages that help you and others avoid personal injury, even death. **DANGER**, **WARNING** and **CAUTION** are signal words used to identify the level of hazard. However, regardless of the hazard, be extremely careful.

**DANGER** signals an extreme hazard that will cause serious injury or death if the recommended precautions are not followed.

**WARNING** signals a hazard that may cause serious injury or death if the recommended precautions are not followed.

**CAUTION** signals a hazard that may cause minor or moderate injury if the recommended precautions are not followed.

Two other words are also used to highlight information. "Important" calls attention to special mechanical information and "Note" emphasizes general information worthy of special attention.

The left and right side of the machine is determined by sitting on the seat in the normal operator's position.

## Safety and Instruction Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.

### ON BLOWER HOUSING (Part No. 93-1122)



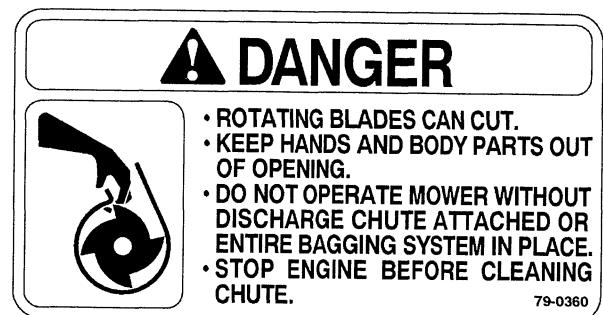
### ON BLOWER MOUNTING PLATE (Part No. 82-5510)



### ON BLOWER HOUSING AND BELT COVER (Part No. 79-0350)



### ON TOP OF BLOWER HOUSING (Part No. 79-0360)



### ON CANISTER SUPPORT (Part No. 79-3970)



## Loose Parts

**Note:** Use the chart below to verify all parts have been shipped.

DESCRIPTION	QTY.	USE
Baffle	1	
Blower deflector	1	
Bolt 5/16-18 x 3/4"	4	Install baffles to mower.
Lock nut 5/16-18	4	
Bolt 5/16-18 x 1/2" Thread forming	1	
Template	1	
Blower assembly	1	
Pulley	1	
Bolt 5/8-11 x 2-1/2"	1	Install blower to mower.
V-Belt	1	
Bolt 5/16-18 x 3/4"	6	
Lock nut 5/16-18	6	
Spring support	1	
Spring bracket	1	
Spring	1	Install lift assist spring.
Belt cover support	1	
Carriage bolt 3/8-16 x 1-1/4"	2	
Lock nut 3/8	2	
Belt cover	1	
Strap	1	
Wing nut 3/8	2	Install belt covers.
Washer 3/8	1	
Bolt 5/16-18 x 1/2" Thread forming	4	
Bagger mount	1	
Support bracket	1	
Bolt 1/2-13 x 4"	1	Install lower bagger mount to frame.
Lock nut 1/2	1	
Hairpin cotter	1	
Heat shield	1	
Bolt 5/16-18 x 3/4"	4	Install heat shield to bagger mount.
Washer 5/16	4	
Lock nut 5/16	4	

DESCRIPTION	QTY.	USE
Canister support	1	
Bolt 3/8-16 x 2-1/4"	2	Install canister support to bagger mount.
Lock nut 3/8	4	
Canister top	1	
Bolt 3/8-16 x 2-1/4"	2	
Nut 3/8	4	Install canister to bagger mount.
Spring	2	
Canister	1	
Seal	1	
Wire tie	1	
Hose	1	Install hose.
Adaptor	1	
Hose clamp	1	

## Mower Preparation

1. Remove bolt and washer from right hand spindle pulley and install new pulley (supplied) on top of original pulley using existing washer and new 5/8-11 x 2-1/2 bolt (Fig. 1). Align with long side of hub down so pilot engages I.D. of original mower pulley.
2. Torque bolt to 100–150 ft-lbs. (140–210 Nm).

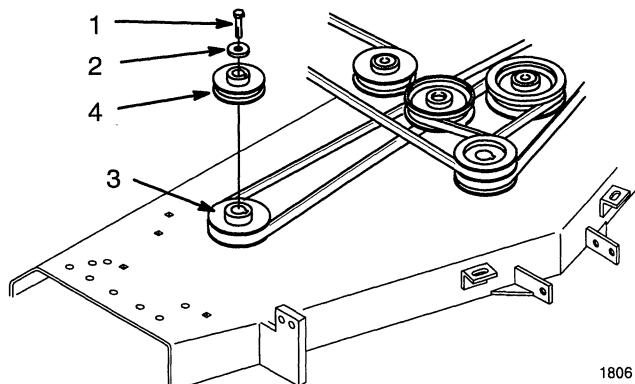


Figure 1

1. Bolt 5/8-11 x 2-1/2"	3. Original pulley
2. Washer (reuse)	4. New pulley

3. Remove discharge chute from mower and save for installation when vacuum bagger is removed.

4. Align template with edge of discharge opening. Mark and drill (6) 11/32 in. and (2) 3/8 in. holes in top right hand surface of mower deck (Fig. 2).

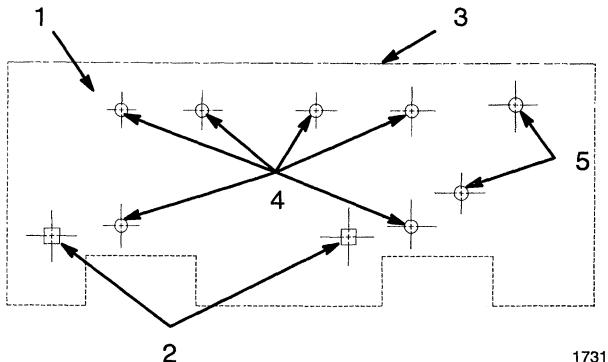


Figure 2

1. Template	4. Mark and drill 11/32in. hole
2. Align with square holes in deck	5. Mark and drill 3/8 in. hole
3. Align with edge of discharge opening	

5. Mark location of deflector hole in front of mower deck and drill (1) 13/32 in. hole (Fig. 3).

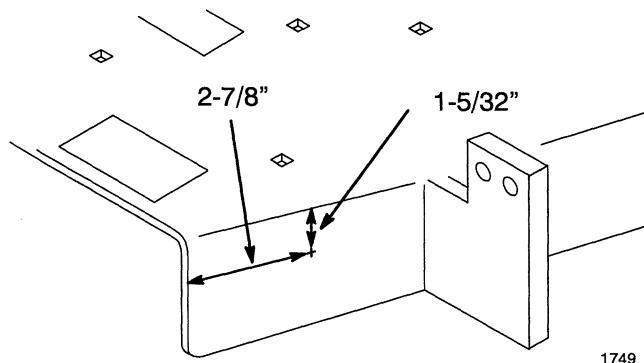
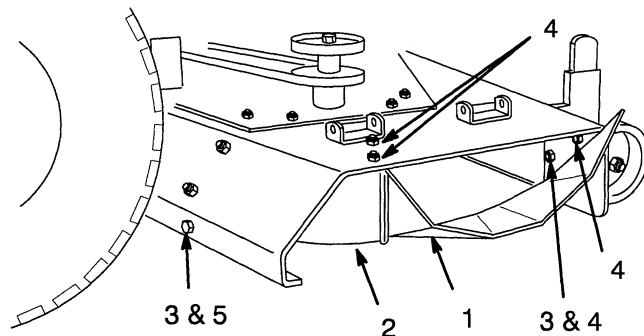


Figure 3

1. Mark and drill 13/32 in. hole

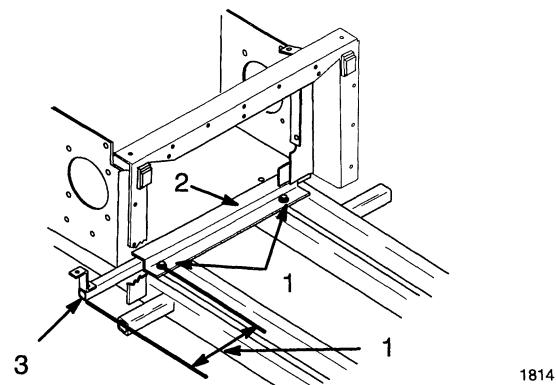
6. Position (2) mounting holes of deflector on top of mating baffle holes (Fig. 4). Install the deflector and baffle at top of mower deck with (2) 5/16-18 x 3/4 bolts and lock nuts.
7. Using deflector (at front) and baffle (at rear) as a guide, mark and drill remaining (2) 11/32 in. holes in mower.
8. Secure deflector and baffle to mower with (1) 5/16-18 x 3/4 in. bolt at the front and (1) 5/16-18 x 1/2 in. bolt at the rear and lock nuts (Fig. 4).

**Figure 4**

1. Deflector	4. Bolt 5/16-18 x 3/4
2. Baffle	5. Bolt 5/16-18 x 1/2
3. Mark and drill 11/32 in. hole	Thread forming

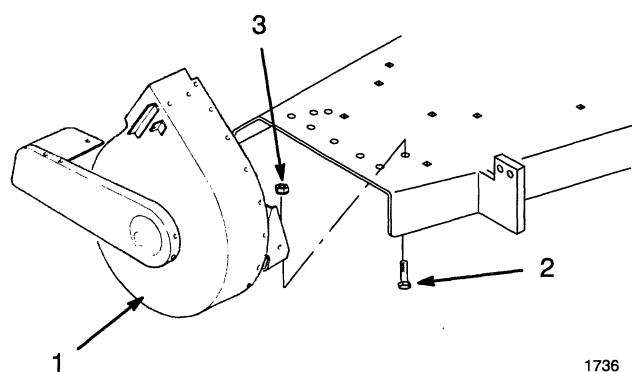
## Install Blower

9. Remove floor pan and loosen two bolts on machine cross channel. Slide spring support inside and against front wall of cross channel (Fig. 5).
10. Adjust spring support so it extends 12-1/2 inches out from mounting bolt (Fig. 5). Tighten two bolts on machine cross channel to wedge spring support.

**Figure 5**

1. Bolts	3. Spring support
2. Cross channel	4. 12-1/2 inches out from bolt

11. Install blower assembly on mower deck using (6) 5/16-18 x 3/4 in. bolts and lock nuts (Fig. 6).

**Figure 6**

1. Blower	3. Lock nut
2. Bolt 5/16-18 x 3/4	

12. Remove and discard original hardware from deck to install spring bracket and belt cover support (Fig. 7). Loosely install spring bracket and belt cover support on deck using (2) 3/8-16 x 1-1/4 in. carriage bolts and lock nuts.
13. Raise mower to highest height-of-cut and install spring (Fig. 7). Adjust spring bracket on deck so that spring is vertical. Tighten carriage bolt and lock nut.

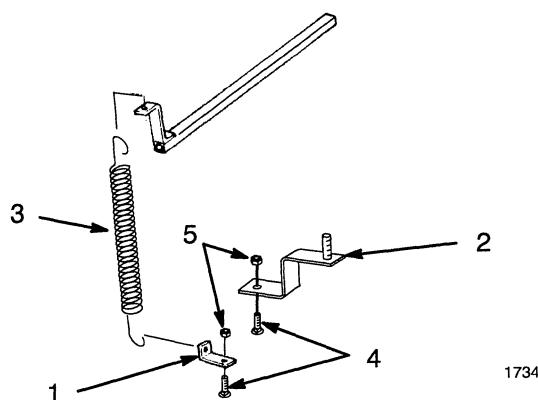


Figure 7

1. Spring bracket	4. Carriage bolt 3/8-16 x 1-1/4
2. Belt cover support	5. Lock nut
3. Spring	

14. Install drive belt as shown around idler pulleys and right side mower pulley. (Fig. 8).

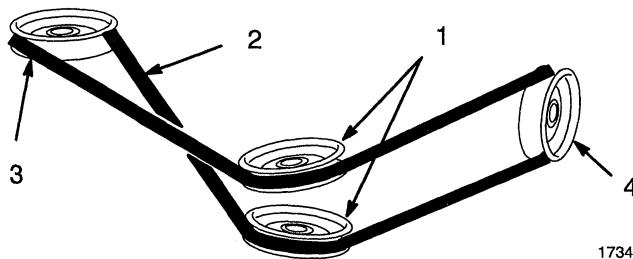


Figure 8

1. Idler pulley	3. Mower pulley
2. Drive belt	4. Blower pulley

15. Install outside belt cover to blower and mower with (4) 5/16-18 x 1/2 thread forming bolts (Fig. 9).
16. Place strap (1 x 2-1/2) over carriage bolt and loosely install in outside belt cover using one wing nut (Fig 9).
17. Slide slotted end of inner belt cover between plate and outside belt cover. Position hole in other end of inside belt cover over stud on cover support Loosely install washer and wing nut.
18. Push inner belt cover as far toward outside belt cover as possible. Tighten wing nuts.

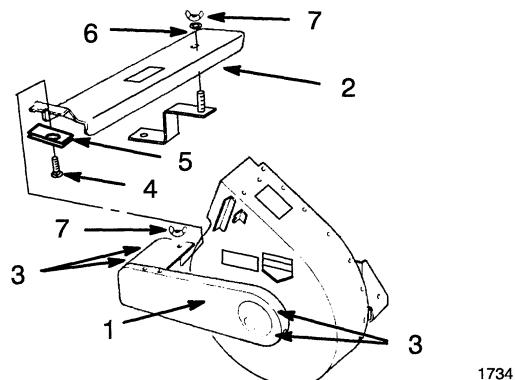
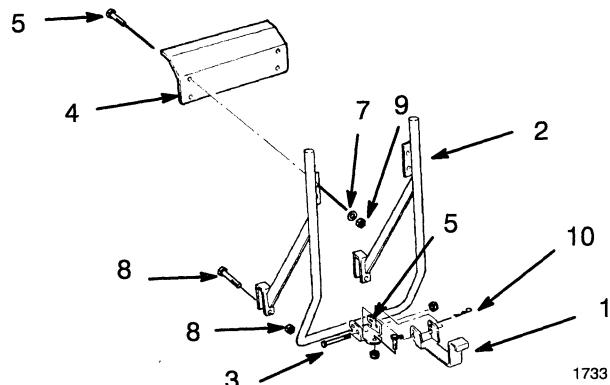


Figure 9

1. Outside belt cover	5. Strap
2. Inside belt cover	6. Washer
3. Bolt 5/16-18 x 1/2 Thread forming	7. Wing nut
4. Carriage bolt 5/16-18 x 3/4"	

## Install Canister

19. Assemble lower canister support into bagger mount with 1/2-13 x 4 in. bolt and lock nut (Fig. 10).
20. Assemble the heat shield to the bagger mount with (4) 5/16-18 x 5/8 in. bolts, flat washers and lock nuts (Fig. 10).
21. Install the bagger mount to the frame of tractor using (1) 1/2-13 x 1 in. bolt and lock nut through the rear hitch, and (2) 3/8-16 x 2-1/4 in. bolts and lock nuts at frame cross member (Fig. 10).
22. Lock the lower canister support in storage or operating position with the hairpin cotter (Fig. 10).

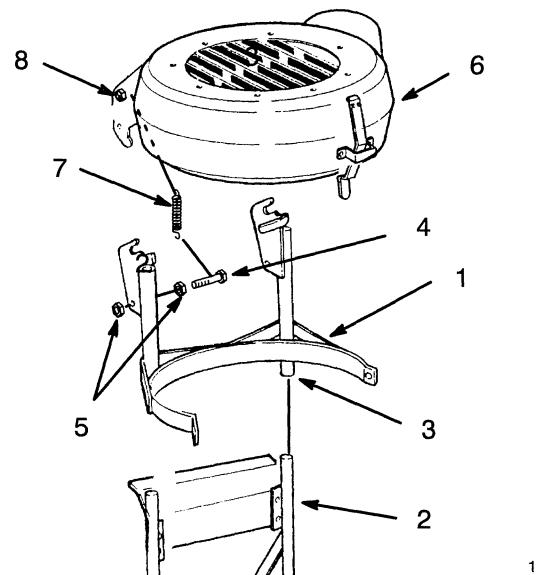


**Figure 10**

1. Lower canister support	6. Bolt 5/16-18 x 5/8
2. Bagger mount	7. Washer
3. Bolt 1/2-13 x 4	8. Bolt 3/8-16 x 2-1/4
4. Heat shield	9. Lock nut
5. Bolt 1/2-13 x 1	10. Hairpin cotter

23. Align canister support over tubes of bagger mount and slide down (Fig. 11).
24. Assemble spring anchor bolts to canister support brackets. Thread (1) lock nut part way onto 3/8-16 x 2-1/4 in. bolt. Install bolt into bracket with head toward the inside. Install second lock nut onto end and tighten inner lock nut, so bolt extends inward (Fig. 11). Repeat for second bracket.

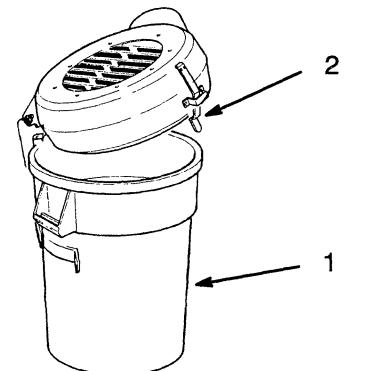
25. Slide the top assembly pivot bolts into slots of canister support brackets. Retain top assembly with springs hooked between top anchor bolts and spring anchor bolts in canister support brackets (Fig. 11).



**Figure 11**

1. Canister support	5. Lock nut
2. Bagger mount	6. Top assembly
3. Tube	7. Spring
4. Bolt 3/8-16 x 2-1/4	8. Anchor bolt

26. Raise top and install canister (Fig. 12). Lower top assembly and latch in place.



**Figure 12**

1. Canister	2. Latch
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## Install Tube

1. Assemble tube onto adaptor and secure with clamp (Fig. 13).
2. Slide adapter onto blower assembly and secure with latch handle (Fig. 13).

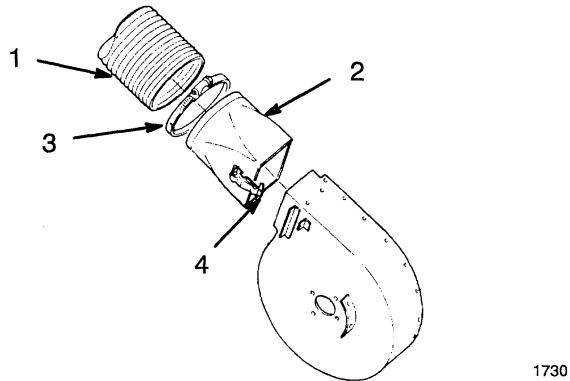


Figure 13

1. Tube	3. Clamp
2. Adapter	4. Latch Handle

5. Fold seal into top assembly inlet and install discharge tube (Fig. 15). Seal should remain folded inside top assembly inlet to prevent blowout.

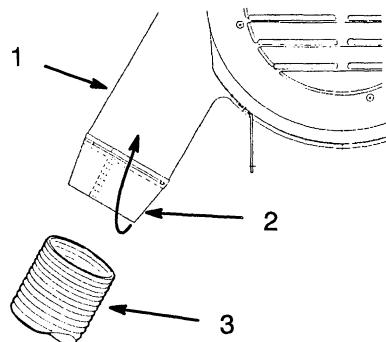


Figure 15

1. Top assembly	3. Tube
2. Seal	

3. Slide large opening of seal over inlet of top assembly (Fig. 14). Place seam to the bottom and overlap seal 1 in. onto top.
4. Secure with tie strap over seal in groove of top assembly inlet. Pull tie strap tight and cut off loose end (Fig. 14).

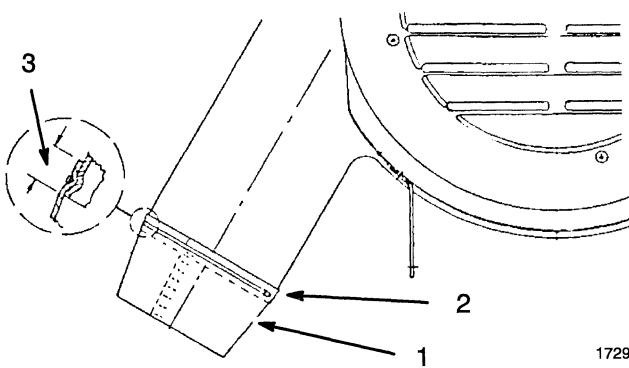


Figure 14

1. Seal	3. 1 in. overlap
2. Tie strap	

## Operation

Become familiar with all operating instructions and safety suggestions contained in applicable Operator's Manual before attempting to operate this equipment. Never do any maintenance or repairs while engine is running.

1. Never remove discharge tube while engine is running. Debris can fly out of discharge area and injure you.
2. With a few exceptions, operation of machine with vacuum bagger is similar to operation without it. Keep in mind that machine is made longer and wider when this attachment is installed so be sure to avoid sharp turns in confined places. Also, do not trim with right side of mower. Trimming with right side of mower can result in damage to blower assembly.
3. Vacuum attachment is designed to operate efficiently at normal mowing speed. Due to extra amount of power required to drive mower and vacuum, it may be necessary to reduce ground speed of machine to keep engine running smoothly at maximum governed RPM. When mowing uphill, it is recommended that machines ground speed be reduced. This will help to avoid a large power drop. When practical, set up a mowing pattern that will permit as much downhill mowing as possible.
4. Avoid stopping when mowing uphill. If it becomes necessary to stop when moving uphill, place machine back into motion with extreme care. Sudden starts can cause roll-over or personal injury.
5. Suction action generated by mower and vacuum is capable of picking up grass clippings, leaves, small twigs and other light debris from lawn and deposit them in the canister. Remove larger twigs, branches, tree limbs, stones and other solid debris from lawn before mowing to avoid damage to mower and vacuum.
6. During operation, when a small amount of grass clippings are blown out front of mower, this is an indication that canister is full.
7. If suction action, or pick-up should stop during use, disengage mower and shut off engine. Check for full canister or a clogged discharge elbow or blower assembly. Always empty canister when filled and after each use.
8. Grass canisters are not storage containers. Never leave fresh grass clippings or other organic material in canister for any length of time. Under the right conditions spontaneous combustion, a fire generating process which occurs without an external source of Ignition, can occur with this type of material and cause severe injury to you.

## Emptying the Canister

1. Move transmission levers into neutral position, apply parking brake and disengage PTO. Stop engine before leaving operator position. Pull canister handle up to remove or look inside canister. If applicable, empty canister. To reinstall canister or close top assembly, lower top in latched position.

## Maintenance and Storage

1. Normal maintenance of vacuum bagger attachment is minimal. After use, remove discharge tube and wash tube and discharge elbow with a garden hose. Use a mild detergent to remove stubborn dirt. After washing, allow parts to thoroughly dry. Check underside of mower and inside of canister after use and clean as necessary. Matted grass in these areas can effect performance.
2. After first 10 hours of operation, inspect that all parts of vacuum and all fasteners are in good condition. Pay particular attention to condition of elbow and tube – replace if cracked or broken with new parts. Inspect blower wear strip every 25 hours of operation. Replace strip when it is worn thin.

**IMPORTANT: Inspect mower blades and blower impeller frequently and whenever a blade strikes a foreign object. If mower blades or blower Impeller are worn or damaged, install new parts.**

## Lubrication

1. Lubricate blower pulley idler arm every 25 operating hours with # 2 multi-purpose lithium grease (Fig. 16). Belt cover must be removed to gain access to grease fitting.

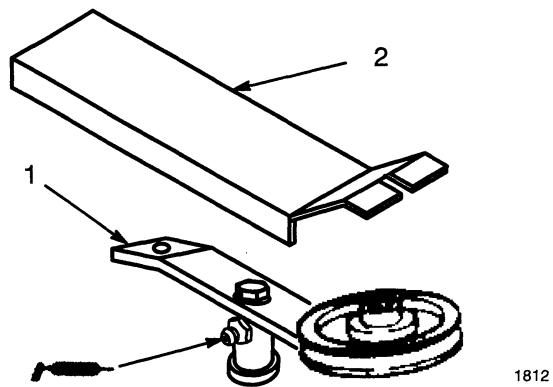


Figure 16

1. Idler arm

2. Belt cover

## Replace Drive Belt

1. Remove belt covers and note routing of belt (Fig. 17). Remove belt. This belt is designed specifically for this application. Install belt and belt covers as outlined under Install Vacuum .

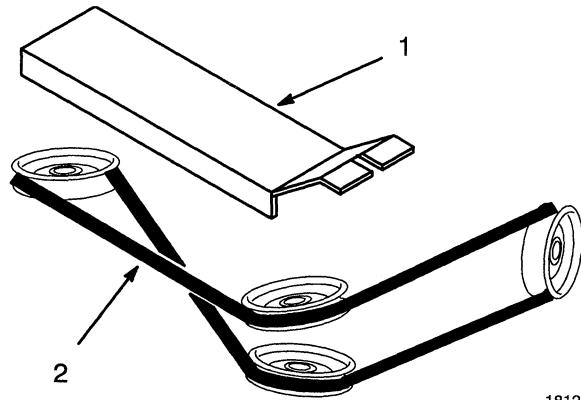


Figure 17

1. Belt cover

2. Belt

## Replace Blower Wear Strip

1. Remove adaptor from blower. Remove five bolts and pull wear strip from blower (Fig. 18).
2. Clean inside of blower thoroughly. Slide new wear strip inside blower and install three bottom bolts, washers and nuts (Fig. 18).
3. Push wear strip tight against blower and install (2) top bolts, washers and nuts (Fig. 18).
4. Check that blower impeller clears wear strip.

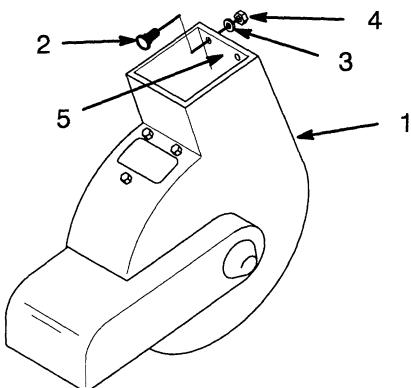


Figure 18

1. Blower housing

4. Nut

2. Carriage bolt

5. Wear Strip

3. Washer







ProLine  
Products

## THE TORO TOTAL COVERAGE GUARANTEE

### A One Year Limited Warranty (A Full Two-Year Warranty for Residential Use)

#### What Is Covered By This Express Warranty?

The Toro Company promises to repair any TORO ProLine product used for commercial, institutional, or rental purposes if defective in materials or workmanship for a period of one year from the date of purchase. The cost of parts and labor are included as well as transportation within a 15 mile radius of a TORO ProLine Service Dealer.

#### What Products Are Covered By This Warranty?

ProLine products covered by this warranty include the ProLine 118, 120, 220, 616, 620, 724 riding products and wide area walk behind mowers and their cutting decks and accessories.

#### How About Residential Use?

TORO ProLine products used for residential use are covered by a full two-year warranty.

#### How Do You Get Warranty Service?

Should you feel your TORO ProLine product contains a defect in materials or workmanship, contact the dealer who sold you the product or any TORO ProLine Service Dealer. The Yellow Pages of your telephone directory is a good reference source; look under TORO Commercial Service Dealers. The Service Dealer will either arrange service at his/her dealership or recommend another authorized Service Dealer who may be more convenient. You may need proof of purchase (copy of registration card, sales receipt, etc.) for warranty validation.

If for any reason you are dissatisfied with a Service Dealer's analysis of the defect in materials or workmanship or if you need a referral to a TORO ProLine Service Dealer, please feel free to contact us at the following address:

Toro Customer Service Department  
8111 Lyndale Avenue South  
Bloomington, MN 55420-1196  
612-888-8801

#### What Must You Do To Keep The Warranty In Effect?

You must maintain your TORO Product by following the maintenance procedures described in the operator's manual. Such routine maintenance, whether performed by a dealer or by you, is at your expense.

#### What Does This Warranty Not Cover?

#### How Does Your State Law Relate To This Warranty?

There is no other express warranty except as described above. This express warranty does not cover:

- Cost of regular maintenance service or parts, such as filters, fuel, lubricants, tune-up parts, blade sharpening, brake and clutch adjustments.
- Any product or part which has been altered or misused or required replacement or repair due to normal wear, accidents, or lack of proper maintenance.
- Repairs necessary due to improper fuel, contaminants in the fuel system, or failure to properly prepare the fuel system prior to any period of non-use over three months.
- Pickup and delivery charges for distances beyond a 15 mile radius from a TORO ProLine Service Dealer.

All repairs covered by this warranty must be performed by a TORO Service Dealer using Toro approved replacement parts.

Repair by a TORO Service Dealer is your sole remedy under this warranty.

**The Toro Company is not liable for indirect, incidental or consequential damages in connection with the use of the TORO Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty. Some states do not allow exclusions of incidental or consequential damages, so the above exclusion may not apply to you.**

**This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.**

#### COUNTRIES OTHER THAN THE UNITED STATES OR CANADA

Customers who have purchased TORO products exported from the United States or Canada should contact their TORO Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the TORO importer. If all other remedies fail, you may contact us at The Toro Company.