



Vacuum Bagger

for 52" Mowers on Z-118 and 616\620

Model No. 79402 – 790001 & Up

Operator's Manual

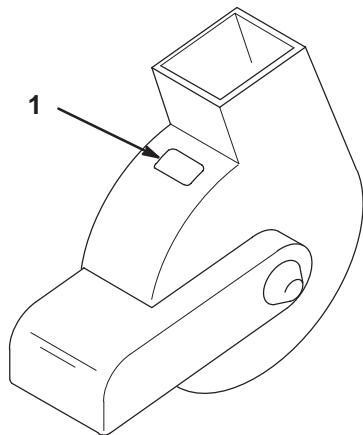
IMPORTANT: Read this manual carefully. It contains information about your safety and the safety of others. Also become familiar with the controls and their proper use before you operate the product.

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.



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1. Model and Serial Number Plate

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

Model No.: _____
Serial No.: _____

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.

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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)



- ROTATING PARTS CAN CUT OR PINCH.
- DO NOT OPERATE THIS UNIT UNLESS ALL SHIELDS ARE FIRMLY IN PLACE.
- DO NOT REACH UNDER SHIELD. 79-0350

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



ON CANISTER SUPPORT (Part No. 79-3970)



Assembly

Loose Parts

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

DESCRIPTION	QTY.	USE
Blower deflector	1	
Bolt – 5/16"-18 x 3/4" (19 mm)	3	Install deflector to mower deck
Locknut – 5/16"	3	
Drill template	1	
Blower assembly	1	
Dual pulley	1	
V-Belt	1	Install blower to mower
Bolt – 5/16"-18 x 3/4" (19 mm)	6	
Locknut – 5/16"	6	
Bracket assembly – welded	1	
Spring clip	1	
Extension spring	1	Install lift assist spring
Carriage bolt – 3/8"-16 x 3/4" (19 mm)	1	
Locknut – 3/8"	2	
Belt cover	1	
Bolt – 5/16"-18 x 3/4" (19 mm)	1	
Belt shield bracket	1	
Locknut – 5/16"	2	Install belt cover and pulley shield
Washer – 11/32"	2	
Bolt – 5/16"-18 x 1/2", thread-forming	4	
Bagger mount	1	
Support bracket	1	
Bolt – 3/8"-16 x 3/4" (19 mm)	2	Install lower bagger mount and canister to frame
Locknut – 3/8"	2	
Canister	1	

DESCRIPTION	QTY.	USE
Canister support	1	
Bolt – 3/8"-16 x 3/4" (32 mm)	2	
Locknut – 3/8"	2	
Canister top assembly	1	Install canister top assembly to canister support assembly
Bolt – 3/8"-16 x 2-1/4"	2	
Nut – 3/8"-16	2	
Extension spring	2	
Seal	1	
Wire tie	1	
Hose	1	Install hose
Adaptor	1	
Hose clamp	1	

DANGER

POTENTIAL HAZARD

- When Vacuum Bagger is attached to the tractor, without Front Weight Kit, the tractor may become unstable.

WHAT CAN HAPPEN

- Loss of traction and stability may cause loss of tractor control.

HOW TO AVOID THE HAZARD

- NEVER operate tractor, equipped with the Vacuum Bagger, unless the Front Weight Kit (p/n 81127) is installed.

IMPORTANT: The tractor requires a minimum of one Front Weight Kit when equipped with a Vacuum Bagger Attachment. Two kits should be used if terrain to be cut is not flat.

Note: The Front Weight kit (part number 81127) is an accessory for the ZRT Tractor, and is purchased separately from the Vacuum Bagger Kit.

For Optimum Performance with your Vacuum Bagger

For optimum performance, Toro recommends that you install a High-lift Blade Kit (p/n 56-2390) and a Front Baffle Kit (p/n 68-7210) on the mower deck when you install the Vacuum Bagger.

Mower Preparation

1. Remove the belt, nut and washer from the right-hand spindle pulley and remove the pulley from the spindle. Save the old pulley for installation when the vacuum bagger is removed. (Fig. 1).
2. Install the new dual pulley (provided with the kit) onto the right-hand spindle and belt using the existing washer and nut. Install the new pulley with the larger diameter pulley down (Fig. 1).
3. Torque the nut to 80–100 ft-lbs. (108–136 N•m).

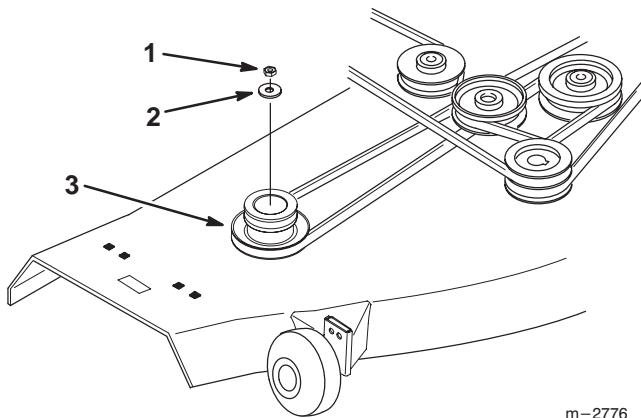


Figure 1

1. Nut (reuse)	3. New Dual Pulley
2. Washer (reuse)	

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

5. Align the square holes in the drill template with the square holes in the deck. Mark and drill six (6) 11/32" (9 mm) holes in the top right-hand surface of the mower deck (Fig. 2).

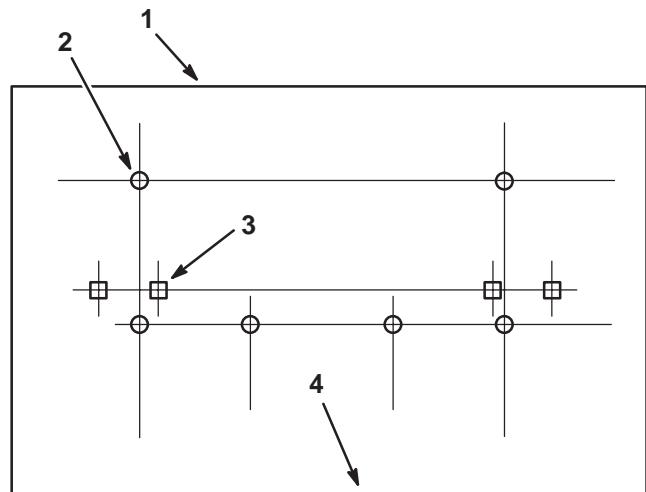


Figure 2

1. Drill Template	3. Align with square holes in deck
2. Mark and drill (6) 11/32" (9 mm) holes	4. Discharge Opening Side

6. Mark the location of the lower deflector hole in the front of the mower deck and drill one (1) 11/32" (9 mm) hole (Fig. 3).

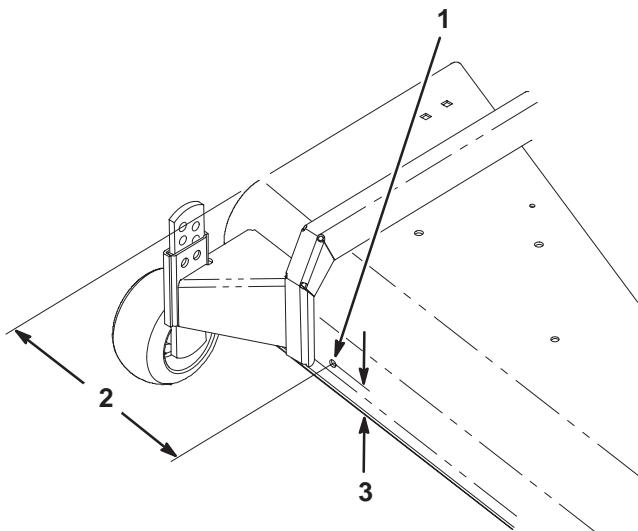


Figure 3

1. Mark and drill 11/32" (9 mm) hole
2. 11" (4.5 cm)

3. .7/8" (22.5 mm) from lowest part of deck

7. Mark the location of the deflector hole in the rear of the mower deck and drill one (1) 11/32" (9 mm) hole (Fig. 4).

8. Mark the location of the spring clip mounting hole, then drill the 13/32" (11 mm) hole in the deck (Fig. 4).

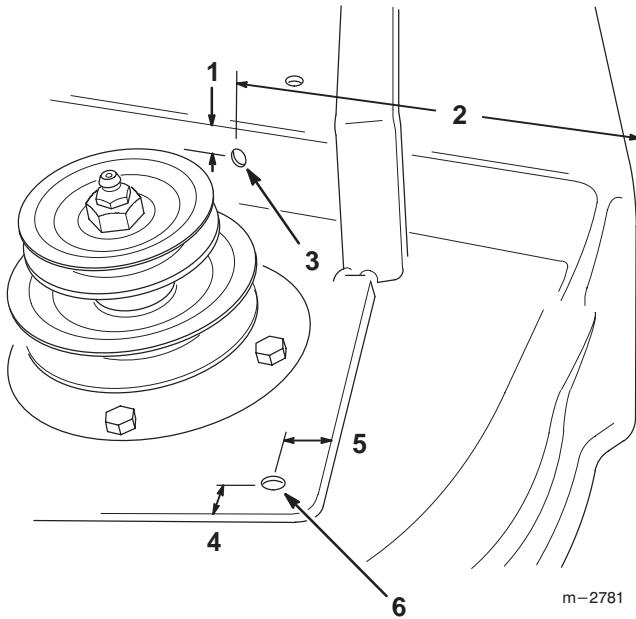


Figure 4

1. 7/8" (22.5 mm)
2. 9-1/2" (3.9 cm)
3. Mark and drill 11/32" (9 mm) hole
4. 3/4" (19 mm)
5. 1-1/8" (28 mm)
6. Mark and drill 13/32" (11 mm) hole

9. Position the deflector underneath the deck and align the front and rear deflector mounting holes with the drilled holes in the deck. Fasten the deflector to the mower deck with two (2) 5/16"-18 x 3/4" (19 mm) bolts and locknuts. Insert the bolts from the inside of the deflector (Fig. 5).
10. Using the deflector as a guide, mark and drill the one (1) remaining 11/32" (9 mm) deflector mounting hole in the front of the mower deck (Fig. 5).
11. Finish fastening the deflector to the mower with one (1) 5/16"-18 x 3/4" (19 mm) bolt and locknut (Fig. 5).

IMPORTANT: Check to make sure the right-hand mower blade does not hit the deflector. Adjust the position of the deflector if necessary to make sure it clears the blade.

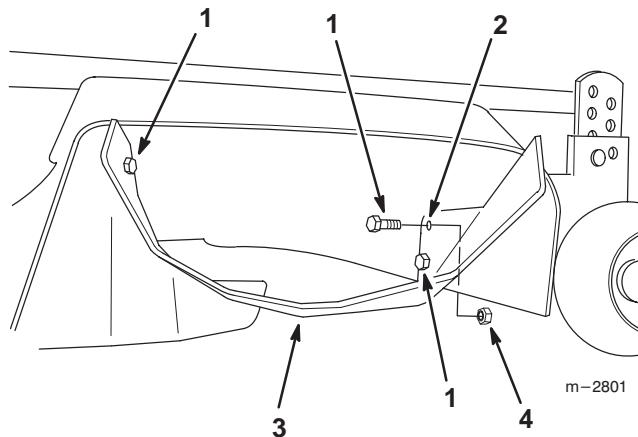


Figure 5

1. 5/16"-18 x 3/4" (19 mm) Bolt	3. Deflector
2. Mark and drill 11/32" (9 mm) hole	4. 5/16" Locknut (3)

12. Inflate the tractor front tires to 12 psi (83 kPa), and the rear tires to 10 psi (69 kPa).

Installing the Blower

1. Fasten the spring clip to the deck using a 3/8"-16 x 3/4" (19 mm) bolt, with head below housing, and secure with locknut (Fig. 6).
2. Remove the existing hardware from spindle mounting hole, then fasten the belt shield bracket to the spindle hole using a 3/8"-16 x 1-1/4" (32mm) bolt, washer under the bracket, and locknut (Fig. 6).

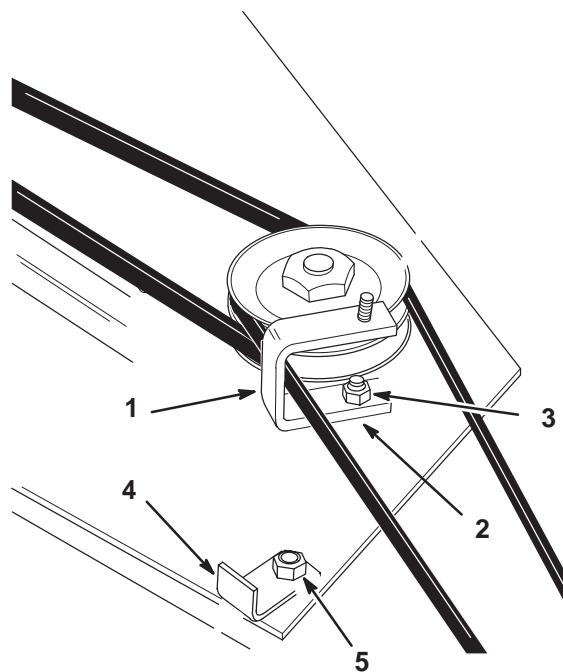
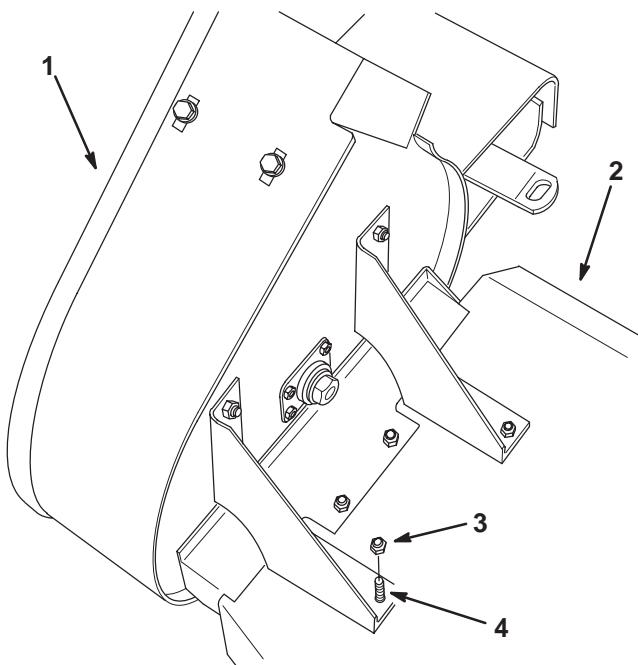


Figure 6

1. Belt Shield Bracket	4. Spring Clip
2. Washer (under bracket)	5. 3/8"-16 x 3/4" (19 mm) Bolt and Locknut
3. 3/8"-16 x 1-1/4" (32 mm) Bolt and Locknut	

3. Install the blower assembly onto the mower using (6) 5/16"-18 x 3/4" (19 mm) bolts and locknuts (Fig. 7).



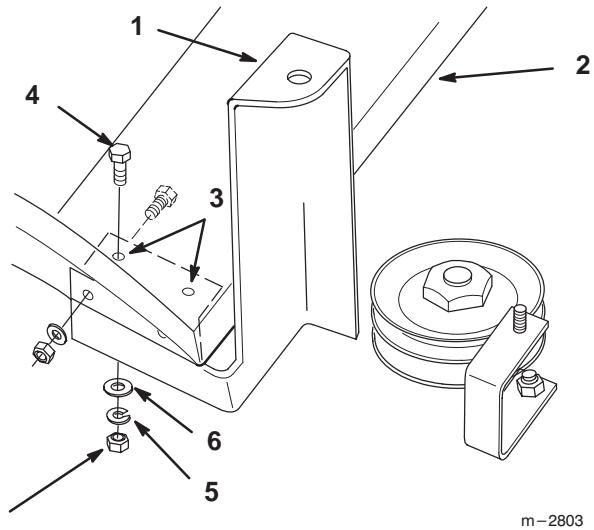
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1. Blower Assembly
2. Mower
3. Locknut (6)
4. 5/16"-18 x 3/4" (19 mm)
Bolt (6)

Figure 7

4. Remove hardware securing right fender to footrest. Save for installing spring bracket. Fasten spring bracket below footrest using previously removed hardware (Fig. 8).
5. Locate holes in footrest, covered over by footpads. Punch out footpad at holes and secure spring bracket with (2) 3/8"-16 x 1-1/4" (32 mm) bolts, washers, lock washers and locknuts

Note: On units with rubber footpads use lock washer as spacer, then flatwasher and nut for holes in footrest.



m-2803

Figure 8

1. Spring Bracket	5. Lock washer
2. Footrest	6. Washer
3. Punch out hole	7. Locknut 3/8"
4. Bolt 3/8-16 x 1-1/4" (32 mm)	

6. Raise the mower to the highest height-of-cut and install the spring between spring bracket and spring clip. Adjust the position of the spring clip on the deck if necessary so the spring is vertical (Fig. 9).

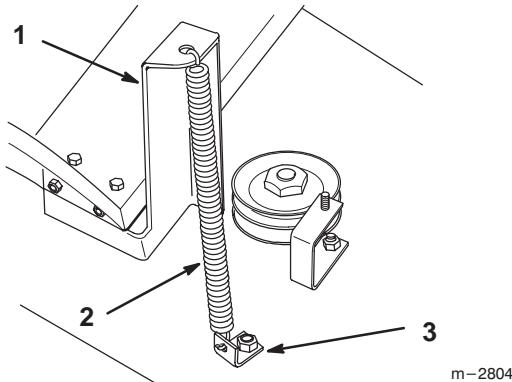


Figure 9

1. Spring Bracket
2. Spring
3. Spring Clip

7. Install the drive belt as shown around the idler pulleys and right side mower pulley (Figs. 6 and 10).

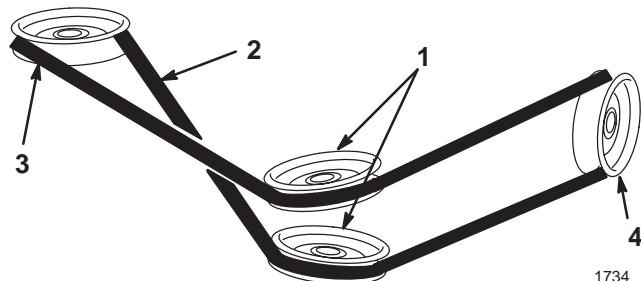


Figure 10

1. Idler Pulley
2. Drive Belt
3. Mower Pulley
4. Blower Pulley

8. Install the pulley shield to the blower and mower with four (4) 5/16"-18 x 1/2" (13 mm) thread-forming bolts (Fig. 11).

9. Install a 5/16"-18 x 3/4" carriage bolt through the 1" x 2-1/2" (25 x 64 mm) flat plate. Install a flat washer and locknut onto the 5/16"-18 x 3/4" (19 mm) carriage bolt. Leave the locknut finger-tight (Fig 11).

10. Position the 1" x 2-1/2" (25 x 64 mm) flat plate underneath the shield with the flat washer and locknut above the shield (Fig 11).

11. Slide the slotted end of the belt cover onto the carriage bolt in the flat plate between the top of the shield and the flat washer (Fig 11).

12. Position the hole in the other end of the belt cover over the stud on the shield bracket. Loosely install the washer and locknut (Fig 11).

13. Push the belt cover as far toward the pulley shield as possible, then tighten the locknuts (Fig 11).

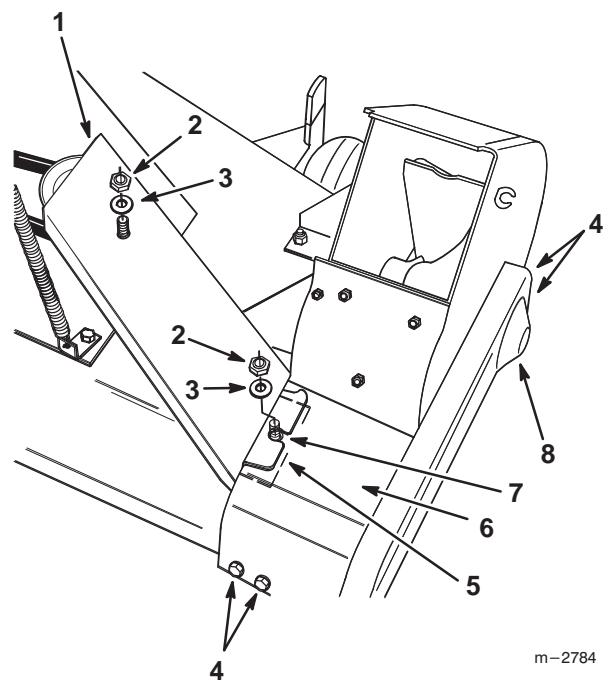


Figure 11

1. Belt Cover	5. 1" x 2-1/2" (25 x 64 mm) Flat Plate
2. Locknut	6. Shield
3. Washer	7. 5/16"-18 x 3/4" (19 mm) Carriage bolt
4. 5/16"-18 x 1/2" (13 mm) Thread-forming Bolt	8. Pulley Shield

Installing the Canister

1. Assemble the support bracket into the bagger mount with (2) 3/8"-13 x 3/4" (19 mm) bolts and locknuts (Fig. 12).
2. Install the bagger mount over pin inside rear traction frame cross member (Fig. 12).
3. Lift latch levers and install mounting rod (Fig. 12).
4. Secure latch levers closed with clevis pins and hairpin cotters (Fig. 12).

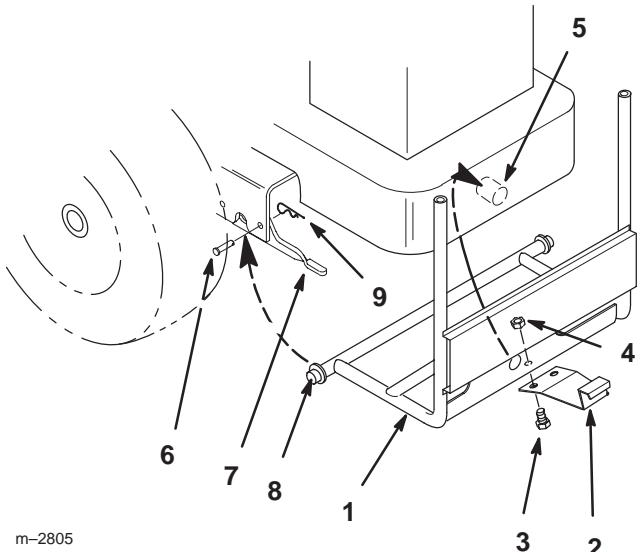


Figure 12

1. Bagger Mount	5. Pin
2. Support Bracket	6. Clevis pin
3. 3/8"-16 x 3/4" (19 mm) Bolt	7. Latch lever
4. 3/8" Locknut	8. Mounting rod
	9. Hairpin cotter

5. Align the canister support over the bagger mount tubes and slide down (Fig. 13).
6. Assemble the spring anchor bolts to the canister support brackets. Thread a locknut partway onto the 3/8"-16 x 2-1/4" (57 mm) bolt. Install the bolt into the bracket with the head toward the inside. Install a second locknut onto the end and tighten the inner locknut so bolt extends inward. Repeat for the second bracket (Fig. 13).
7. Slide the top assembly pivot bolts into the slots of the canister support brackets. Retain the top assembly with springs hooked between the top anchor bolts and the spring anchor bolts in the canister support brackets (Fig. 13).

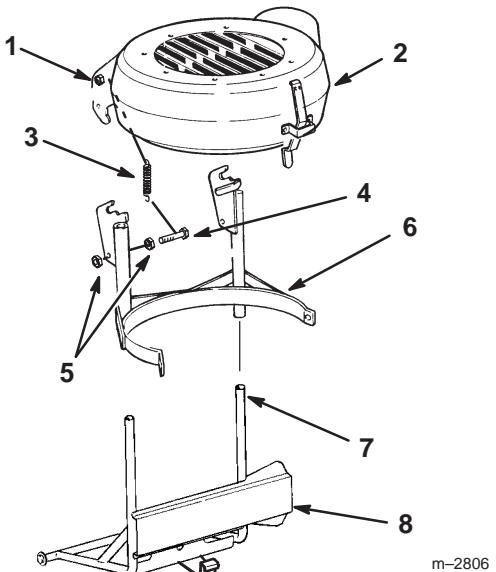


Figure 13

1. Anchor Bolt (2)	5. Locknut (4)
2. Top Assembly	6. Canister Support
3. Spring (2)	7. Tube (typical)
4. 3/8"-16 x 2-1/4" 57 mm) Bolt (2)	8. Bagger Mount

8. Raise the top and install the canister. Lower the top assembly and latch in place (Fig. 14).



Figure 14

1. Latch
2. Canister

Installing the Hose

1. Assemble the hose onto the adaptor and secure with the clamp (Fig. 15).
2. Slide the adapter onto the blower assembly and secure with the latch handle (Fig. 15).

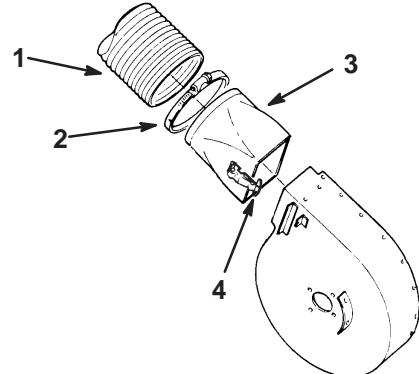


Figure 15

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

3. Slide the large opening of the seal over the top assembly inlet. Place the seam to the bottom and overlap the seal one inch onto the top (Fig. 16).
4. Position the tie strap in the groove in the top assembly inlet. Pull the tie strap tight to secure the seal to the top assembly, then cut off the loose end (Fig. 16).

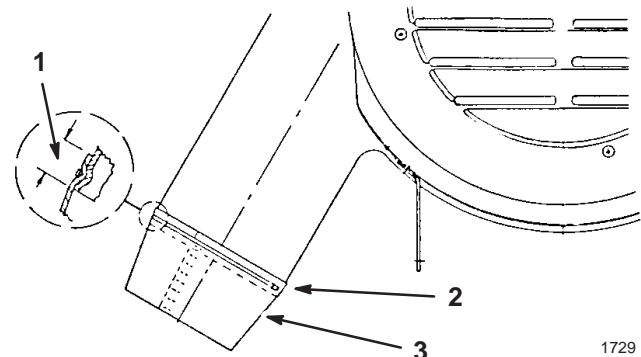
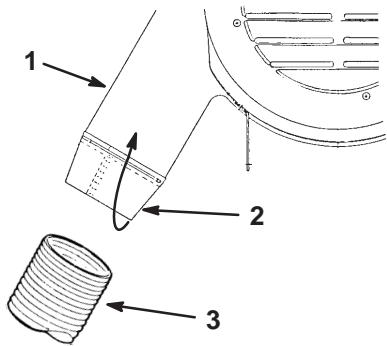


Figure 16

1. 1" overlap	3. Seal
2. Tie Strap	

5. Fold the seal into the top assembly inlet and install the discharge tube. The seal should remain folded inside the top assembly inlet to prevent blowout (Fig. 17).



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Figure 17

1. Top Assembly	3. Hose
2. Seal	

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 the engine is running.

DANGER

POTENTIAL HAZARD

- **When Vacuum Bagger is attached to the tractor, without Front Weight kit, the tractor may become unstable.**

WHAT CAN HAPPEN

- **Loss of traction and stability may cause loss of tractor control.**

HOW TO AVOID THE HAZARD

- **NEVER operate tractor, equipped with the Vacuum Bagger, unless the Front Weight kit (p/n 81127) is installed.**

1. Never operate the tractor with the vacuum bagger attached unless the front weight kit is installed.
2. Never remove the discharge hose while the engine is running. Debris can fly out of the discharge area and injure you.
3. With a few exceptions, operation of the machine with the vacuum bagger is similar to operation without it. Keep in mind that the 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 the right side of the mower. Trimming with the right side of the mower can result in damage to the blower assembly.

4. The vacuum attachment is designed to operate efficiently at normal mowing speed. Due to the extra amount of power required to drive the mower and vacuum, it may be necessary to reduce the machine ground speed to keep the engine running smoothly at maximum governed RPM. When mowing uphill, it is recommended that the machine's 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.
5. Avoid stopping when mowing uphill. If it becomes necessary to stop when moving uphill, place the machine back into motion with extreme care. Sudden starts can cause a roll over or personal injury.
6. The suction action generated by the mower and vacuum is capable of picking up grass clippings, leaves, small twigs and other light debris from the lawn and depositing it in the canister. Remove larger twigs, branches, tree limbs, stones and other solid debris from the lawn before mowing to avoid damage to the mower and vacuum.
7. Small amounts of grass clippings blown out of the front of the mower during operation indicates that the canister is full.
8. If the suction action or pick-up should stop during use, disengage the mower and shut off the engine. Check for a full canister, or a clogged discharge adaptor or blower assembly. Always empty the canister when full, and after each use.
9. Grass canisters are not storage containers. Never leave fresh grass clippings or other organic material in the canister for any length of time. Under the right conditions, spontaneous combustion, a fire generating process which occurs without an external ignition source, can occur with this type of material and cause severe injury to you.

Emptying the Canister

1. Move the traction levers into the neutral position, apply the parking brake and disengage the PTO (power take off). Stop the engine before leaving the operator position.
2. Pull the canister handle up to remove or look inside the canister. Empty the canister if full. To reinstall the canister or close the top assembly, lower the top to the latched position.

Maintenance

Service Interval Chart

Service Operation	Each Use	8 Hours	25 Hours	Storage Service	Notes
Blower wear strip – inspect			X		Replace if necessary
Belts – check for wear/cracks				X	Replace if necessary
Blower pulley idler arm – grease		X			
Wash hose and discharge adaptor	X				Replace if cracked or broken
Canister – clean	X				
Chipped Surfaces – paint				X	

Maintenance and Storage

1. Normal maintenance of the vacuum bagger attachment is minimal. After use, remove the discharge tube and wash the tube and discharge elbow with a garden hose. Use a mild detergent to remove stubborn dirt. Allow the parts to dry thoroughly after washing. Check the underside of the mower and the inside of canister after use and clean as necessary. Matted grass in these areas can affect performance.

2. After the first 10 hours of operation, inspect all parts of the vacuum and all fasteners to make sure they are in good condition. Pay particular attention to the condition of the elbow and tube. Replace the elbow or tube if they are cracked or broken. Inspect the blower wear strip every 25 hours of operation. Replace the strip when it is worn thin

IMPORTANT: Inspect the mower blades and blower impeller frequently, and whenever a blade strikes a foreign object. Replace the mower blades and blower impeller if worn or damaged.

Replacing the Drive Belt

1. Remove the belt covers and note the belt routing (Fig. 18).
2. Remove the worn belt (Fig. 18).

Note: This belt is designed specifically for this application.

3. Install the new belt and belt covers as outlined under Installing the Blower on page 7 (Fig. 18).

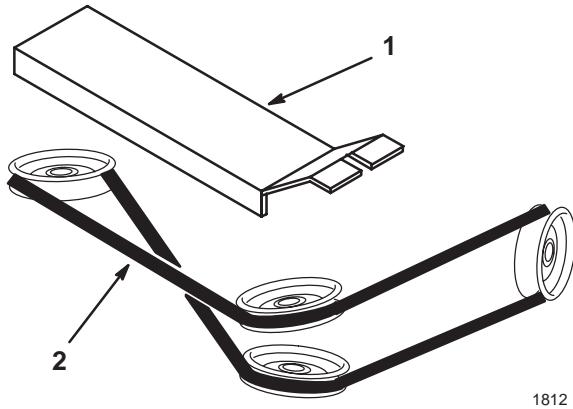


Figure 18

1. Belt Cover

2. Belt

Lubrication

Lubricate the blower pulley idler arm every 25 operating hours with # 2 multi-purpose lithium grease. Note that the belt cover must be removed to access the grease fitting (Fig. 19).

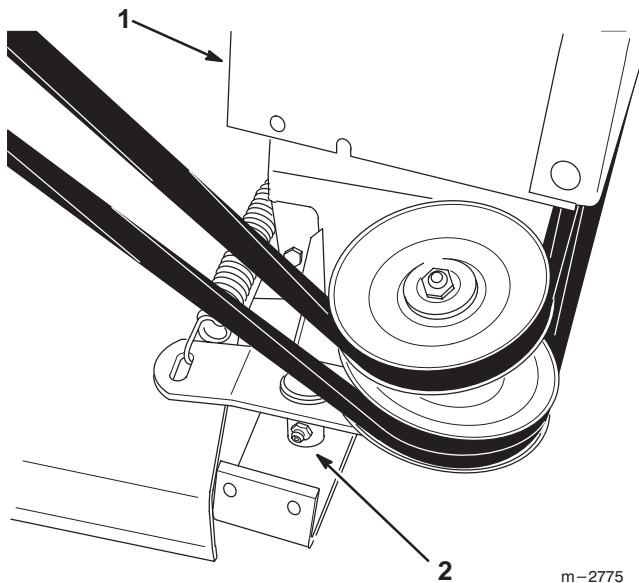


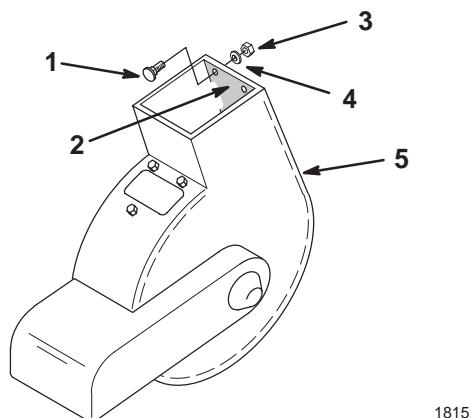
Figure 19

1. Belt Cover

2. Idler Arm Grease Fitting

Replacing the Blower Wear Strip

1. Remove the adaptor from the blower. Remove the five bolts and pull the wear strip from the blower (Fig. 20).
2. Clean the inside of the blower thoroughly. Slide the new wear strip inside the blower and install the three bottom bolts, washers and nuts (Fig. 20).
3. Push the wear strip tight against the blower and install the two (2) top bolts, washers and nuts (Fig. 20).
4. Check that the blower impeller clears the wear strip (Fig. 20).



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Figure 20

1. Carriage Bolt	4. Washer
2. Wear Strip	5. Blower Housing
3. Nut	

