



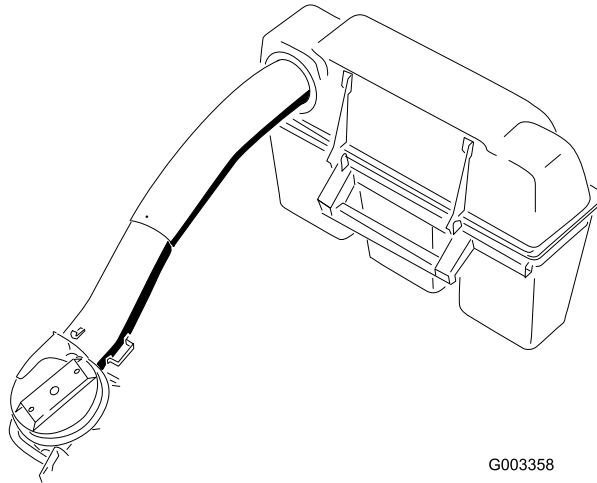
**Count on it.**

# Operator's Manual

## 60in or 72in E-Z Vac™ Bagger Z500 Series Z Master® Mowers

Model No. 78534—Serial No. 315000001 and Up

Model No. 78535—Serial No. 315000001 and Up



G003358



## ⚠ WARNING

### CALIFORNIA Proposition 65 Warning

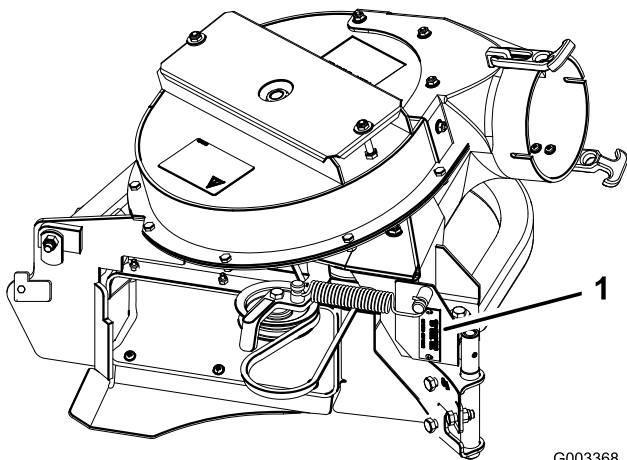
This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

## Introduction

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

You may contact Toro directly at [www.Toro.com](http://www.Toro.com) for product safety and operation training materials, accessory information, help finding a dealer, or to register your product.

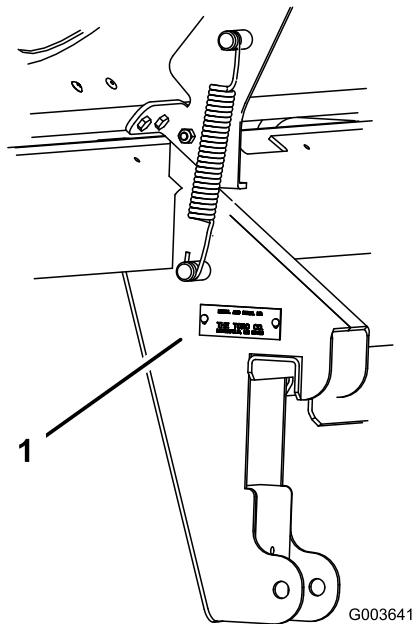
Whenever you need service, genuine Toro parts, or additional information, contact an Authorized Service Dealer or Toro Customer Service and have the model and serial numbers of your product ready. [Figure 1](#) identifies the location of the model and serial numbers on the product. Write the numbers in the space provided.



**Figure 1**

1. Blower model and serial number location

Model No. _____
Serial No. _____



**Figure 2**

1. Bagger model and serial number location

Model No. _____
Serial No. _____

This manual identifies potential hazards and has safety messages identified by the safety alert symbol ([Figure 3](#)), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



**Figure 3**

1. Safety alert symbol

This manual uses 2 words to highlight information.

**Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

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# Safety

The following list contains safety information specific to Toro products and other safety information you must know.

- Become familiar with the safe operation of the equipment, with the operator controls, and safety signs.
- Use extra care with grass catchers or other attachments. These can change the operating characteristics and the stability of the machine.
- Follow the manufacturer's recommendations for adding or removing wheel weights or counterweights to improve stability.
- Do not use a grass catcher on steep slopes. A heavy grass catcher could cause loss of control or overturn the machine.
- Slow down and use extra care on hillsides. Be sure to travel in the recommended direction on hillsides. Turf conditions can affect the machine's stability. Use extreme caution while operating near drop-offs.
- Keep all movement on slopes slow and gradual. Do not make sudden changes in speed, directions or turning.
- The grass catcher can obstruct the view to the rear. Use extra care when operating in reverse.
- Use care when loading or unloading the machine into a trailer or truck.
- Never operate with the discharge deflector raised, removed or altered, unless using a grass catcher.
- Keep hands and feet away from moving parts. Do not make adjustments with the engine running.
- Stop on level ground, disengage drives, chock or block wheels, shut off engine before leaving the operator's position for any reason including emptying the grass catcher or unclogging the chute.
- If you remove the grass catcher, be sure to install any discharge deflector or guard that might have been removed to install the grass catcher. Do not operate the machine without either the entire grass catcher or the grass deflector in place.
- Stop the engine before removing the grass catcher or unclogging the chute.
- Do not leave grass in grass catcher for extended periods of time.
- Grass catcher components are subject to wear, damage and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.

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# Safety and Instructional 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.



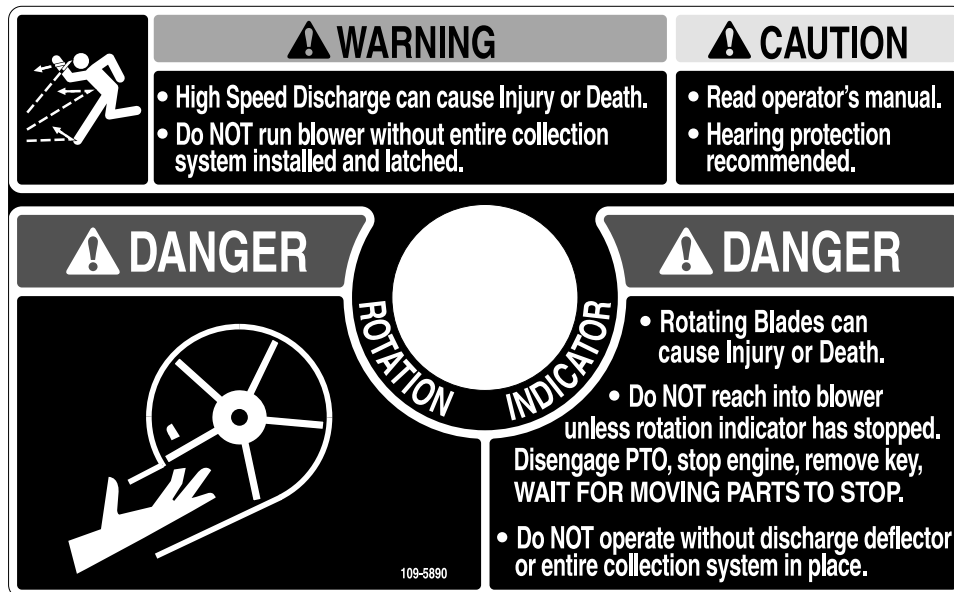
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98-5954



106-3339



109-5890

# Setup

## Loose Parts

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

Procedure	Description	Qty.	Use
<b>1</b>	No parts required	–	Prepare the machine.
<b>2</b>	Bagger mounting bracket Bagger side plate Spacer Bolt (3/8 x 1-1/2 inches) Bolt (3/8 x 1 inch) (for Z593 machines only) Flange Nut (3/8 inch) Curved washer	1 2 2 14 2 14 14	Install the bagger mounting bracket.
<b>3</b>	No parts required	–	Tighten all mounting bolts.
<b>4</b>	Hood assembly Bags Clevis pin Hairpin cotter	1 3 2 2	Install the hood assembly and bags.
<b>5</b>	Bagger belt (from the Blower and Drive Kit)	1	Route the bagger belt into the blower assembly.
<b>6</b>	Blower assembly (from the Blower and Drive Kit) Spring (from the Blower and Drive Kit)	1 1	Install the blower assembly.
<b>7</b>	Upper tube	1	Size the upper tube for 60-inch machines with gas engines.
<b>8</b>	Upper tube Lower tube Bolt (#10 x 3/4 inches) Locknut (#10) Washer (7/32 inch)	1 1 3 3 3	Install the discharge tubes.
<b>9</b>	Belt cover (from the Blower and Drive Kit)	1	Install the belt cover.
<b>10</b>	Caster weight U-bolt Nut (1/2 inch) Lock washer (1/2 inch) Plate Top weight (for 60 inch mower decks only) Bolt, 1/2 x 2–1/2 inch- for top weights	2 2 4 4 2 2 2	Install the weights.
<b>11</b>	No parts required	–	Adjust the parking brake.
<b>12</b>	No parts required	–	Check the tire pressure.

**Note:** Determine the left and right sides of the machine from the normal operating position.

# 1

## Preparing the Machine

### No Parts Required

#### Procedure

1. Disengage the PTO, move the motion control levers to the NEUTRAL-LOCKED position and set the parking brake.
2. Stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Repair all bent or damaged areas of mower deck and replace any missing parts.
4. Clean the machine of any debris on the deck or rear part of the machine to ease installation.

# 2

## Installing the Bagger Mounting Bracket

### Parts needed for this procedure:

1	Bagger mounting bracket
2	Bagger side plate
2	Spacer
14	Bolt (3/8 x 1-1/2 inches)
2	Bolt (3/8 x 1 inch) (for Z593 machines only)
14	Flange Nut (3/8 inch)
14	Curved washer

#### Procedure

**Important:** Do not tighten any bolts until both side brackets and bagger mounting bracket are fit loose on the machine.

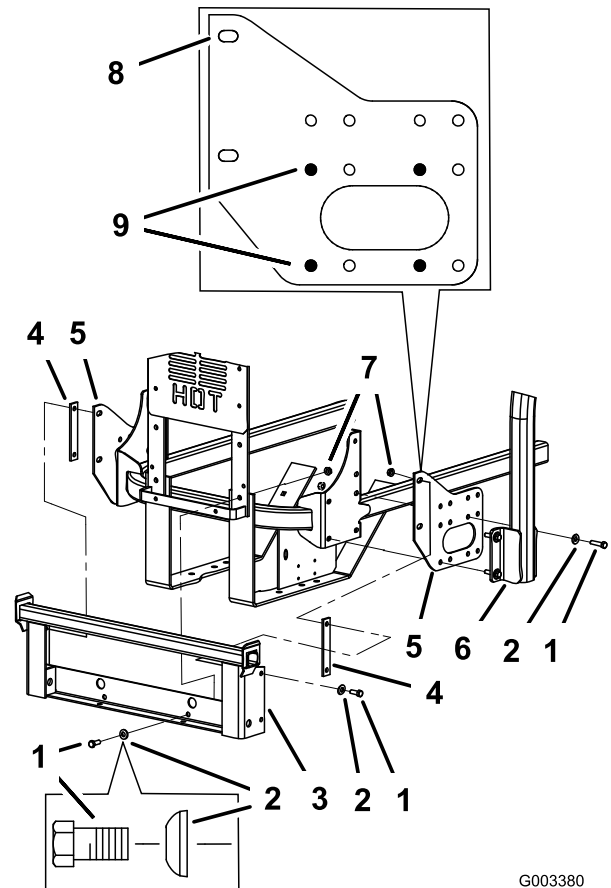
Refer to [3 Tightening all Mounting Bolts \(page 8\)](#) for the correct procedure to tighten the bolts.

1. Remove the bolts, nuts, and washers holding the roll bar to one side of the machine. Discard the nuts, bolts, and washers ([Figure 4](#), [Figure 5](#), and [Figure 6](#)).
2. Install the bagger side plate and the roll bar section to the side of the machine using 4 bolts (3/8 x 1-1/2 inches), 4 curved washers (3/8 inch), and 4 flange nuts (3/8 inch) as shown in [Figure 4](#), [Figure 5](#), and [Figure 6](#).

3. Repeat the steps above for the opposite side ([Figure 4](#), [Figure 5](#), and [Figure 6](#)).

**Note:** Make sure the curved washers are installed as shown in [Figure 4](#), [Figure 5](#), and [Figure 6](#).

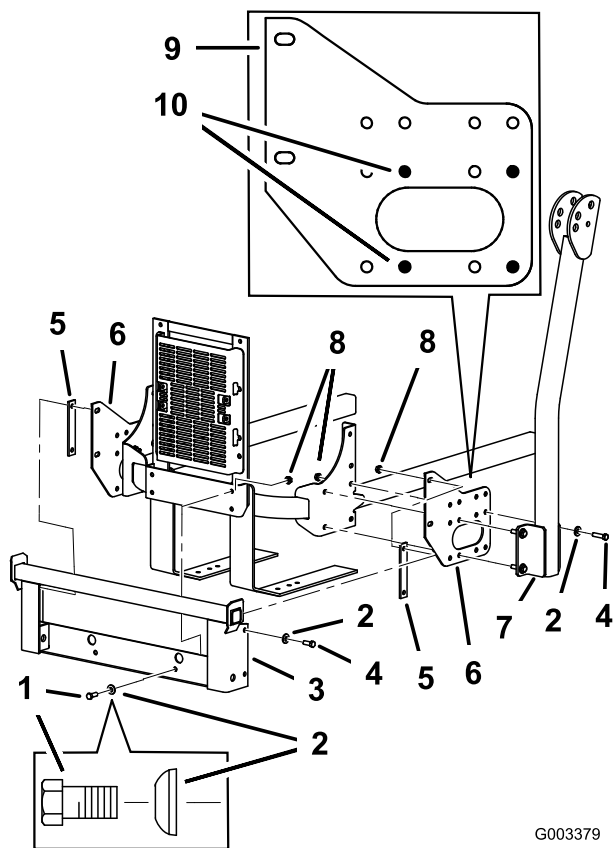
4. Install the bagger mounting bracket to the left and right side bagger brackets with 4 bolts (3/8 x 1-1/2 inches), 4 curved washers (3/8 inch), and 4 flange nuts (3/8 inch) as shown in [Figure 4](#), [Figure 5](#), and [Figure 6](#).
5. Install the bagger mounting bracket to the rear frame of the machine with 2 bolts (3/8 x 1-1/2 inches) (use 2 bolts (3/8 x 1 inch) for Z593 machines as shown in [Figure 5](#)), 2 curved washers (3/8 inch), and 2 flange nuts (3/8 inch) as shown in [Figure 4](#), [Figure 5](#), and [Figure 6](#).



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**Figure 4**  
For Z500 Gas Mowers

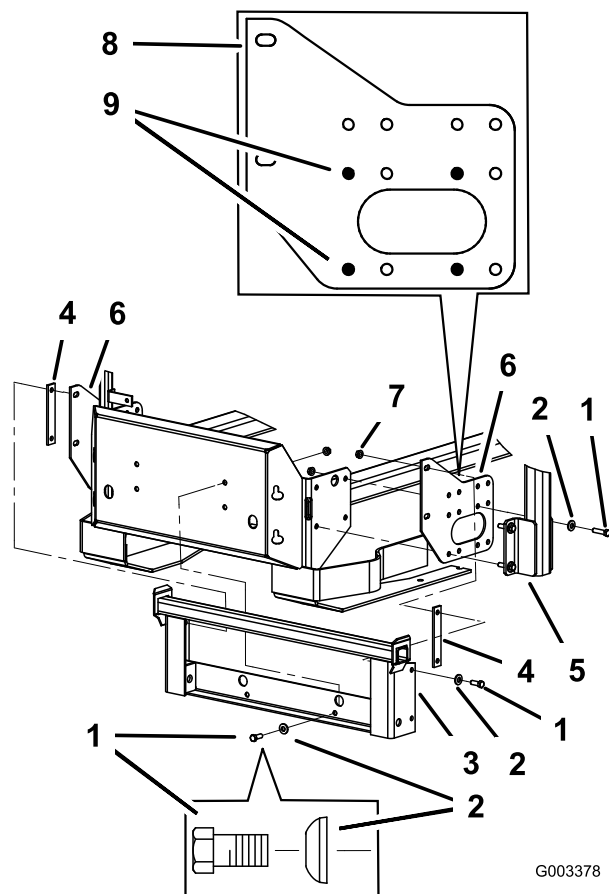
- |                              |  |
|------------------------------|--|
| 1. Bolt (3/8 x 1-1/2 inches) | 6. ROPS                                  |
| 2. Curved washer (3/8 inch)  | 7. Flange nut (3/8 inch)                 |
| 3. Bagger mounting bracket   | 8. Side view of bagger side plate        |
| 4. Spacer                    | 9. Holes for installing the side bracket |
| 5. Bagger side plate         |  |



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**Figure 5**  
For Z593 Diesel Mowers

- |                              |   |
|------------------------------|---|
| 1. Bolt (3/8 x 1 inch)       | 6. Bagger side plate                      |
| 2. Curved washer (3/8 inch)  | 7. ROPS                                   |
| 3. Bagger mounting bracket   | 8. Flange nut (3/8 inch)                  |
| 4. Bolt (3/8 x 1-1/2 inches) | 9. Side view of bagger side plate         |
| 5. Spacer                    | 10. Holes for installing the side bracket |



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**Figure 6**  
For Z597 Diesel Mowers

- |                              |  |
|------------------------------|--|
| 1. Bolt (3/8 x 1-1/2 inches) | 6. ROPS                                  |
| 2. Curved washer (3/8 inch)  | 7. Flange nut (3/8 inch)                 |
| 3. Bagger mounting bracket   | 8. Side view of bagger side plate        |
| 4. Spacer                    | 9. Holes for installing the side bracket |
| 5. Bagger side plate         |  |

# 3

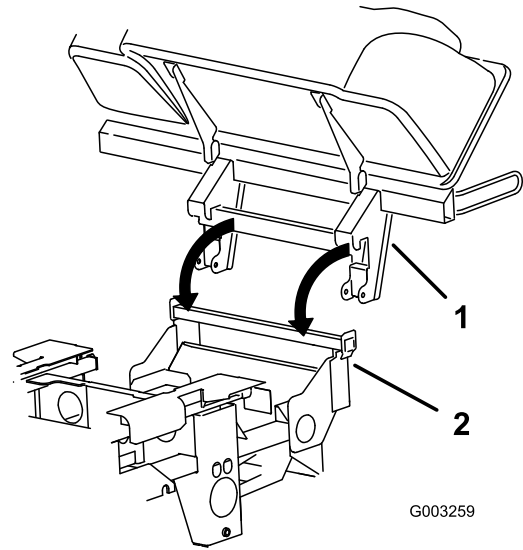
## Tightening all Mounting Bolts

### No Parts Required

### Procedure

**Note:** All mounting bolts need to be torqued to 48 N-m (35 ft-lb).

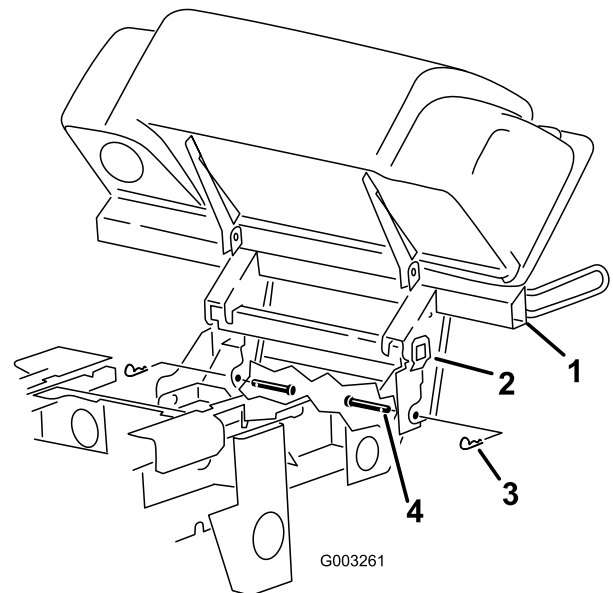
1. Tighten the bagger mounting bracket to the rear frame first.
2. Tighten the ROPS and side brackets to the side of the machine.
3. If the bagger mounting bracket moves side to side 0.32 cm (1/8 inch) or more, install one or both of the spacers between the bagger mounting bracket and mounting plates (Figure 4, Figure 5, and Figure 6).
4. Tighten the bagger mounting bracket to the side brackets.



**Figure 7**

1. Hood assembly
2. Bagger mounting bracket

2. Install the 2 clevis pins into the hood assembly and bagger mounting bracket. Secure them with 2 hairpin cotters (Figure 8).



**Figure 8**

1. Hood assembly
2. Bagger mounting bracket
3. Hairpin cotter
4. Clevis pin

3. Install the bag tab into the notch in the hood assembly. Do this for all bags (Figure 9).

**Note:** The bags will rest on the bagger frame.

# 4

## Installing the Hood Assembly and Bags

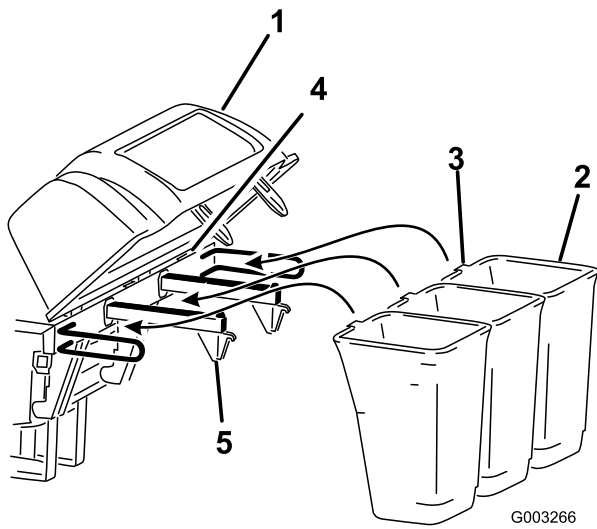
### Parts needed for this procedure:

1	Hood assembly
3	Bags
2	Clevis pin
2	Hairpin cotter

### Procedure

1. Install the hood assembly onto the bagger mounting bracket (Figure 7).

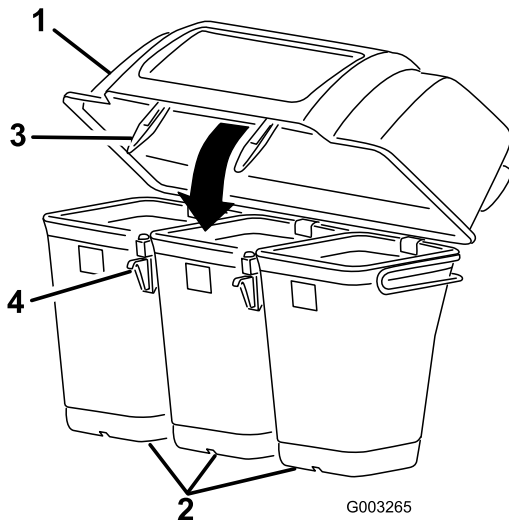




**Figure 9**

1. Hood assembly
2. Bag
3. Bag tab
4. Notch
5. Bagger frame

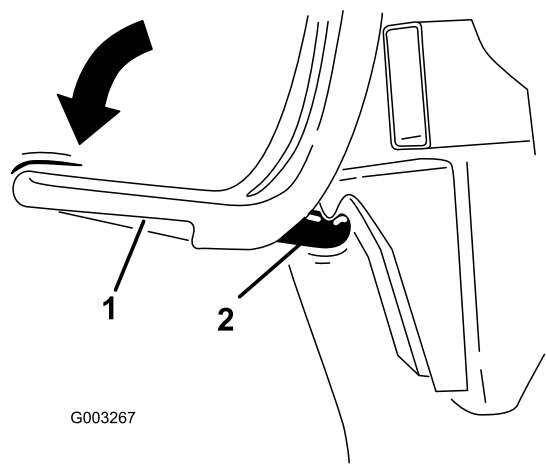
4. Lower the bagger hood over the bags (Figure 10).



**Figure 10**

1. Hood
2. Bag
3. Bagger latch
4. Latch hook

5. Position the bagger latch under the latch hook (Figure 11).
6. Push down on the bagger latch until it locks into place (Figure 11).



**Figure 11**

1. Bagger latch
2. Latch hook

## 5

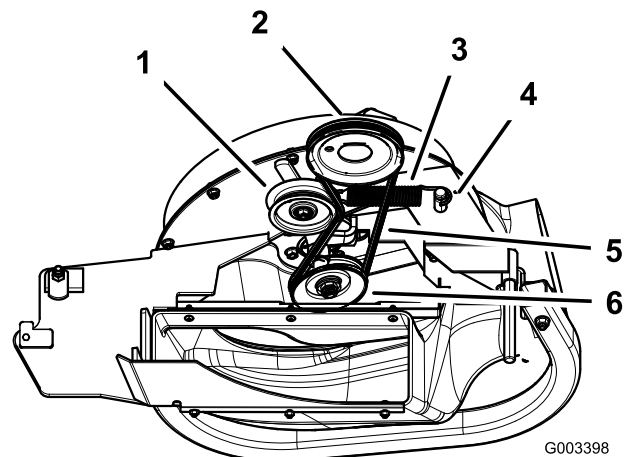
### Routing the Bagger Belt into the Blower Assembly

#### Parts needed for this procedure:

- |   |   |
|---|---|
| 1 | Bagger belt (from the Blower and Drive Kit) |
|---|---|

#### Procedure

1. Install the belt around the blower pulley (Figure 12).
2. Install the spring to the idler arm and the peg on the blower assembly (Figure 12).



**Figure 12**

1. Idler pulley
2. Mower-deck pulley
3. Spring
4. Peg
5. Belt
6. Blower pulley

# 6

## Installing the Blower Assembly

### Parts needed for this procedure:

1	Blower assembly (from the Blower and Drive Kit)
1	Spring (from the Blower and Drive Kit)

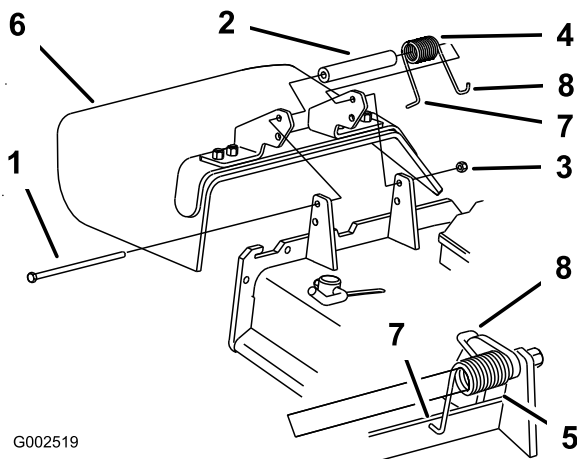
### Procedure

#### ⚠ WARNING

An uncovered discharge opening could allow the machine to throw objects in the operator's or bystander's direction and result in serious injury. Also, contact with the blade could occur.

- Never operate the machine unless you install a cover plate, a mulch plate, or a grass chute and catcher.
- Make sure the grass deflector is installed when the grass chute and catcher are removed.

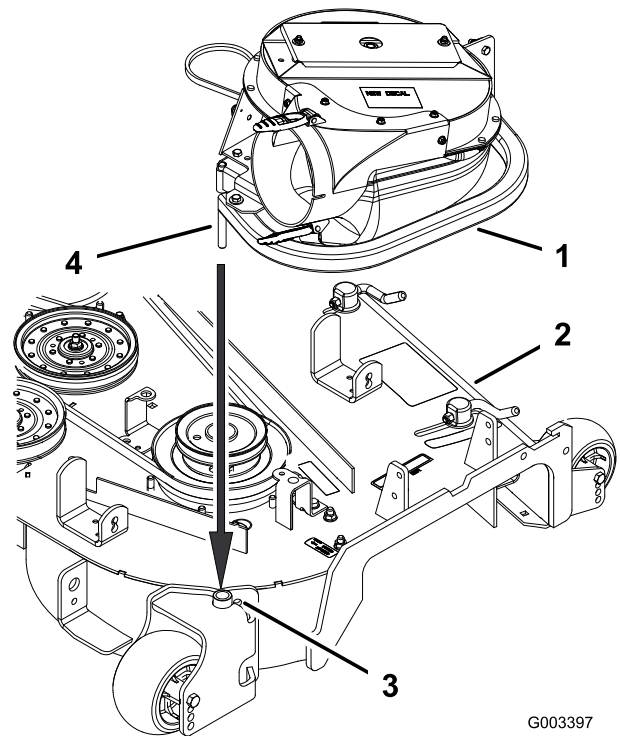
1. Remove the side discharge chute from the mower deck (Figure 13).



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**Figure 13**

- |            |   |
|------------|---|
| 1. Bolt    | 5. Spring installed   |
| 2. Spacer  | 6. Grass Deflector  |
| 3. Locknut | 7. L-end of spring, place behind deck edge before installing bolt |
| 4. Spring  | 8. J-hook end of spring   |

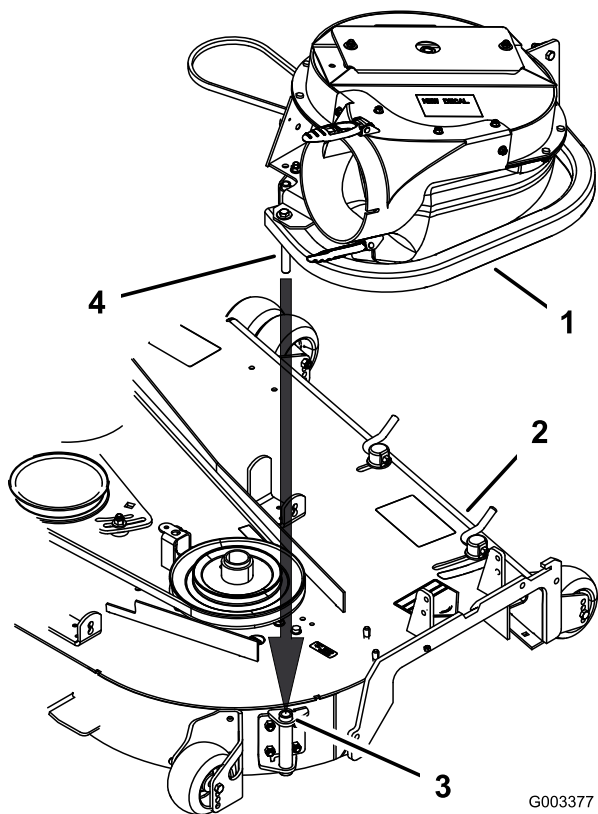


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**Figure 14**  
60-inch Mower Deck

- |                    |                        |
|--------------------|------------------------|
| 1. Blower assembly | 3. Pivot hole          |
| 2. Mower deck      | 4. Blower assembly peg |

2. Slide the blower assembly peg into the pivot hole. For 60-inch machines refer to Figure 14 and for 72-inch machines refer to Figure 15.

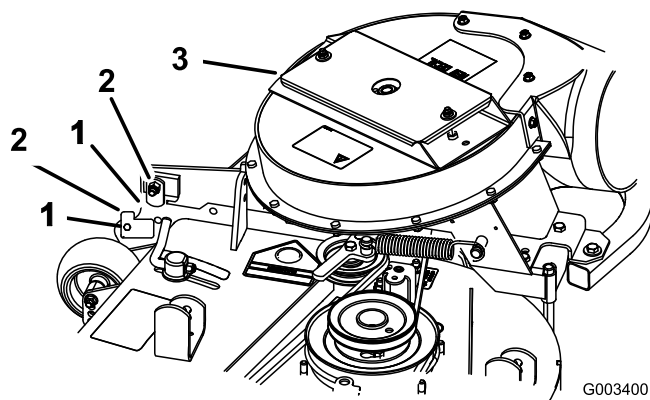


**Figure 15**  
72-inch Mower Deck

- |                    |                        |
|--------------------|------------------------|
| 1. Blower assembly | 3. Pivot hole          |
| 2. Mower deck      | 4. Blower-assembly peg |

- Close the blower assembly to see if the latches are adjusted correctly (Figure 16).

**Note:** Loosen or tighten the bolt so the latches firmly hold the blower assembly against the mower deck but can be released by hand.

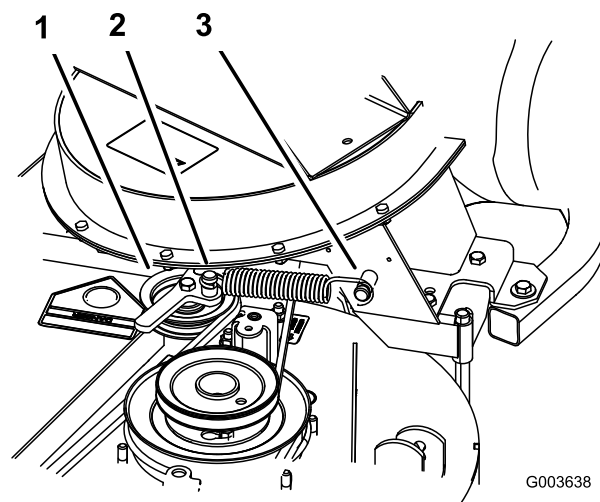


**Figure 16**

- |          |                    |
|----------|--------------------|
| 1. Latch | 3. Blower assembly |
| 2. Bolt  |                    |

- Install the spring as shown in Figure 17.

**Note:** Make sure that the hooks are in the correct position.

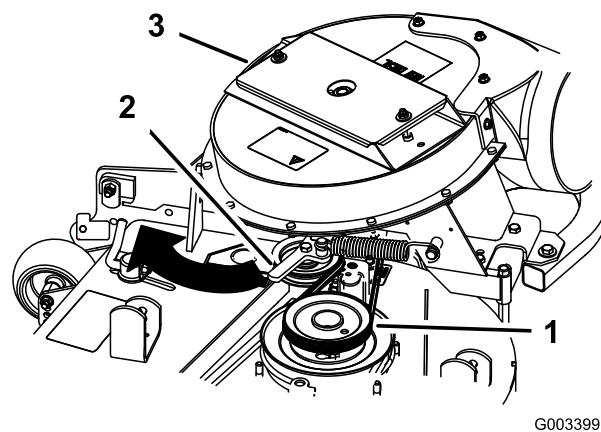


**Figure 17**

- |                               |                  |
|-------------------------------|------------------|
| 1. Spring-loaded idler pulley | 3. Long-hook end |
| 2. Short-hook end             |                  |

- Pull the spring-loaded idler pulley back and route the belt around the mower-deck pulley (Figure 18).

**Note:** Ensure that the belt is routed around the blower pulleys correctly.



**Figure 18**

- |                               |           |
|-------------------------------|-----------|
| 1. Mower-deck pulley          | 3. Blower |
| 2. Spring-loaded Idler pulley |           |

# 7

## Sizing the Upper Tube for 60-inch Machines with Gas Engines

### Parts needed for this procedure:

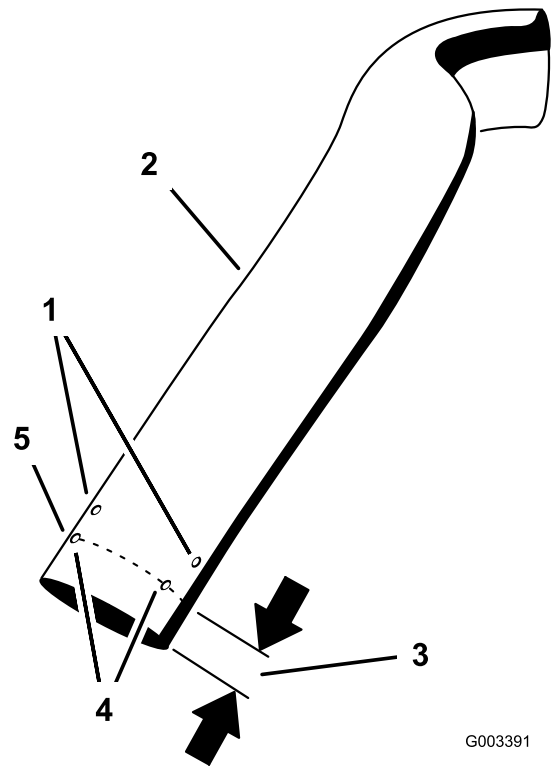
1	Upper tube
---	------------

### Procedure

**Note:** This procedure is for 60-inch machines with gas engines only.

1. Measure up 89 mm (3-1/2 inches) from the bottom of the upper tube. Use the existing 3 holes as marks and then mark it in several places to create a line around the tube ([Figure 19](#)).
2. Cut the 89 mm (3-1/2 inches) off the upper tube ([Figure 19](#)).

**Note:** Notice the 3 indentations in the tube. This is where holes will be drilled in the following procedure.



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**Figure 19**

1. Indentations for drilling holes
2. Upper tube
3. Cut off 89 mm (3-1/2 inches) for 60-inch machines with gas engines only
4. Use the existing holes to create a line
5. Line to cut tube

# 8

## Installing the Discharge Tubes

### Parts needed for this procedure:

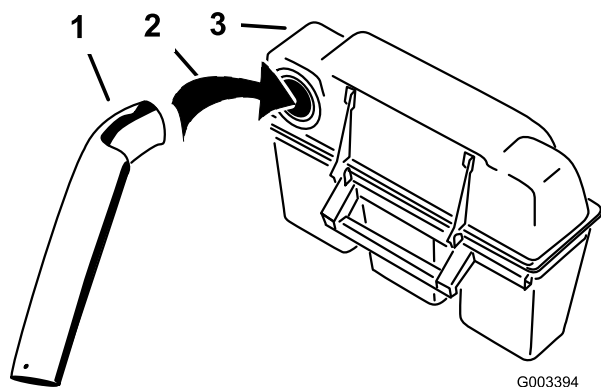
1	Upper tube
1	Lower tube
3	Bolt (#10 x 3/4 inches)
3	Locknut (#10)
3	Washer (7/32 inch)

### Procedure

**Important:** Make sure that the mower deck is in the lowest height-of-cut position while installing the discharge tubes.

**Note:** Remember to replace the grass deflector when the bagger is removed from the machine. Refer to [Installing the Grass Deflector](#) (page 23).

1. Disengage the PTO and set the parking brake.
2. Stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Lower the mower deck to the lowest height-of-cut position.
4. Remove the bags for viewing the tube under the hood.
5. Install the upper tube into the bagger opening and pull it back out so the rubber seal is protruding out (Figure 20).

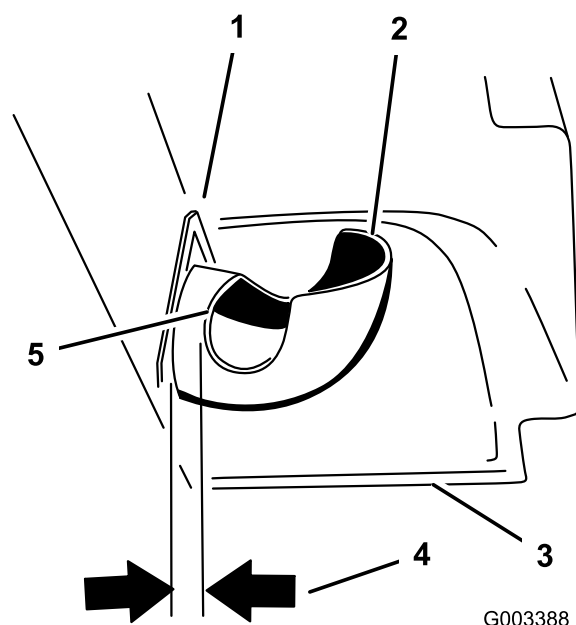


**Figure 20**

- |                   |                |
|-------------------|----------------|
| 1. Upper tube     | 3. Bagger hood |
| 2. Bagger opening |                |

6. With the hood in the down position, measure the distance the tube is inside the hood.

**Note:** Measure from the hood plate to the edge of the tube as shown in Figure 21. This distance needs to be 19 mm (3/4 inch).

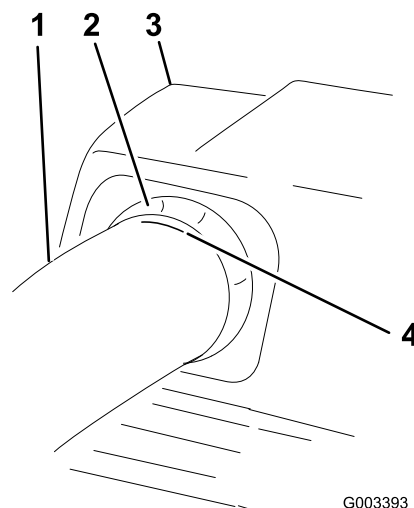


**Figure 21**

- |                              |                     |
|------------------------------|---------------------|
| 1. Hood plate                | 4. 19 mm (3/4 inch) |
| 2. Upper tube                | 5. Edge of tube     |
| 3. Hood in the down position |                     |

7. Once the 19 mm (3/4 inch) measurement has been achieved, mark the upper tube on the out side where the rubber seal protrudes out (Figure 22).

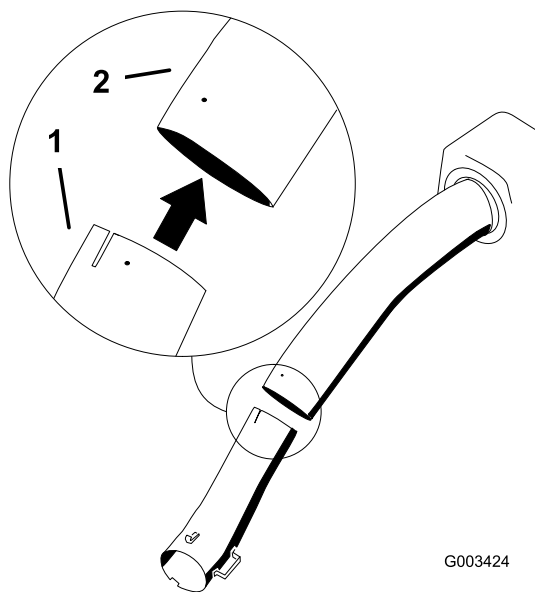
**Note:** This is to ensure the correct position for the upper tube when drilling the holes and connecting the upper and lower tubes. The rubber seal must protrude out from the bagger hood.



**Figure 22**

- |                               |                                      |
|-------------------------------|--------------------------------------|
| 1. Upper tube                 | 3. Bagger hood                       |
| 2. Rubber seal protruding out | 4. Mark here against the rubber seal |

8. Install the lower tube into the upper tube (Figure 23).

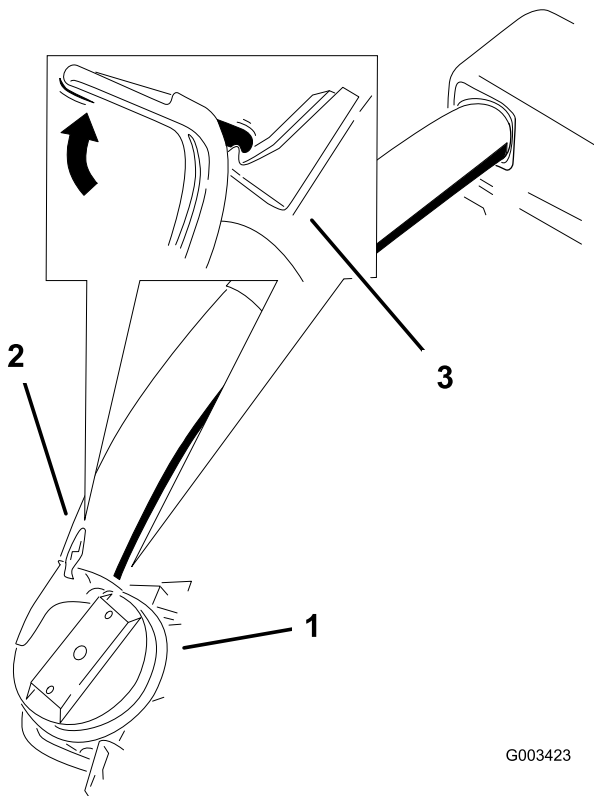


**Figure 23**

1. Lower tube                      2. Upper tube

9. Slide the lower tube onto the boot and latch them together (Figure 24).

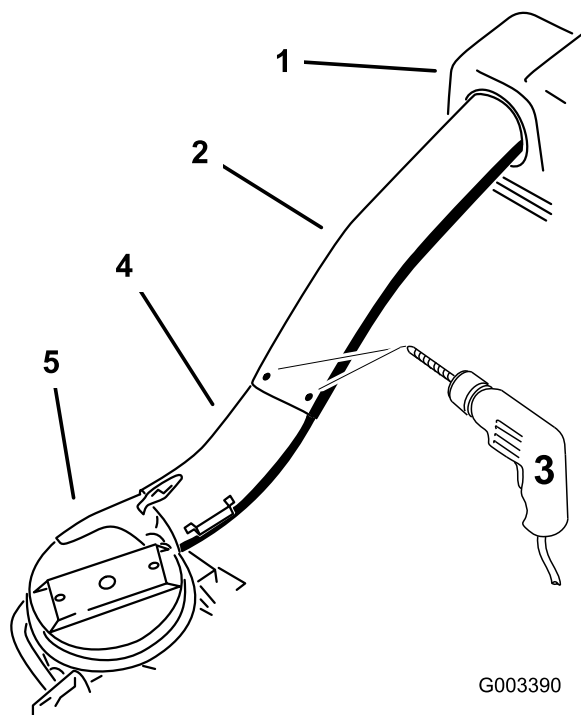
**Note:** There is a latch on the top and bottom of the blower housing.



**Figure 24**

1. Blower assembly              3. Latch  
2. Lower tube

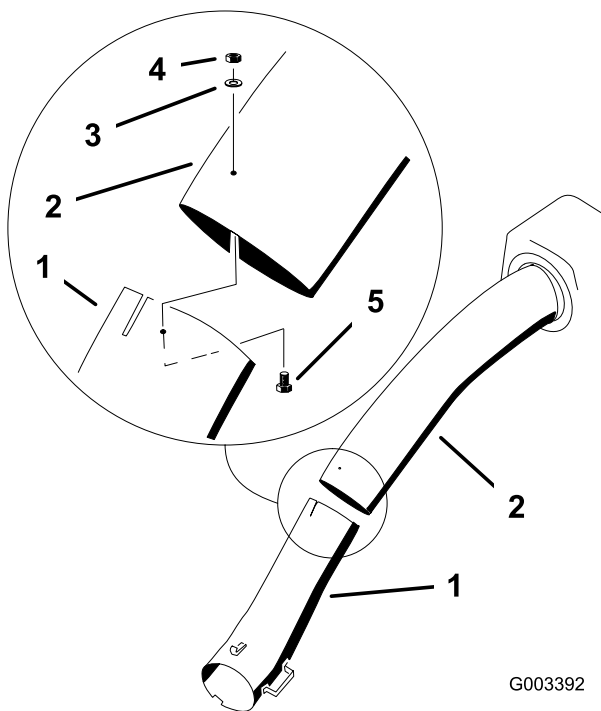
10. Make sure that the mower deck is in the lowest height-of-cut position.
11. Check to make sure that the mark from Figure 22 is still in place.
12. Using the 3 holes or indentations in the upper tube as a template, drill 3 holes (7/32 inch diameter) where the upper and lower tubes join together (Figure 25).



**Figure 25**

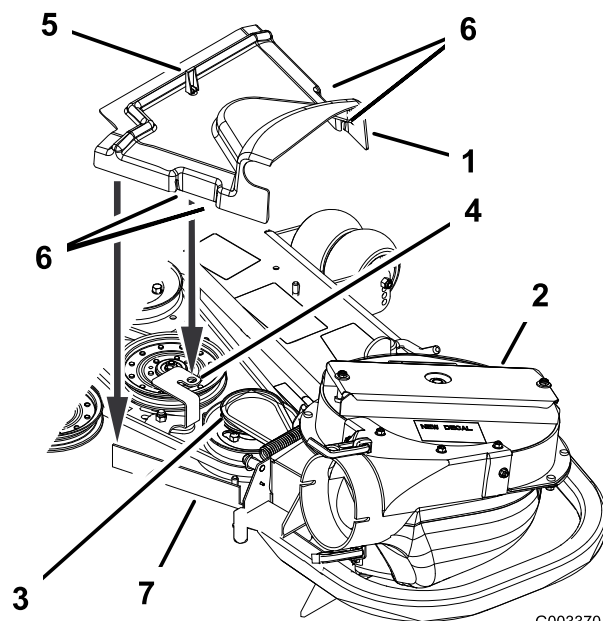
1. Bagger hood                      4. Lower tube  
2. Upper tube                      5. Blower assembly  
3. Drill 7/32 inch diameter holes here (use upper tube as a template)

13. Remove the lower tube from the blower.
14. Join the upper and lower tubes with 3 bolts (#10 x 3/4 inches), 3 flat washers (7/32 inch), and 3 locknuts (#10) as shown in Figure 26.



**Figure 26**

1. Lower tube
2. Upper tube
3. Flat washer (7/32 inch)
4. Locknut (#10)
5. Bolt (#10 x 3/4 inches)



**Figure 27**

1. Belt cover
2. Blower assembly
3. Pulley assembly
4. Belt-cover bracket
5. Latch
6. Belt-cover notch
7. Belt-cover support

15. Install the lower tube onto the blower housing and secure it with the latches.
16. Install the bags onto the bagger.

## 9

### Installing the Belt Cover

#### Parts needed for this procedure:

1	Belt cover (from the Blower and Drive Kit)
---	--

#### Procedure

1. Lower the mower deck to the lowest height-of-cut position.
2. Install the new belt cover so the notches on both sides go over the belt-cover supports and secure the latch (Figure 27).

## 10

### Installing the Weights

#### Parts needed for this procedure:

2	Caster weight
2	U-bolt
4	Nut (1/2 inch)
4	Lock washer (1/2 inch)
2	Plate
2	Top weight (for 60 inch mower decks only)
2	Bolt, 1/2 x 2-1/2 inch- for top weights

#### Procedure

To comply with ANSI/OPEI B71.4-2012 Standard, add weights to the machine.

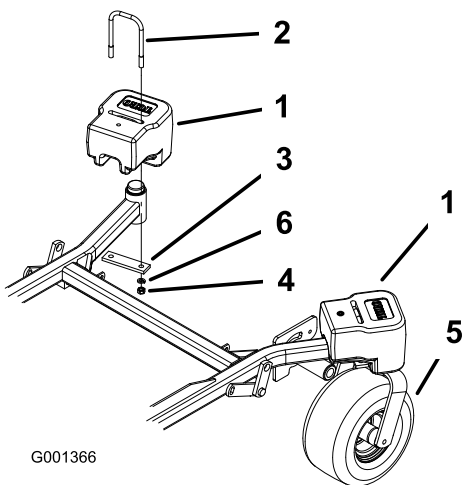
#### ⚠ CAUTION

The bagger adds a lot of weight to the rear of the machine and may cause an unstable condition that could result in a loss of control.

1. Place caster weights on the front casters.

2. Install 1 plate, 2 nuts (1/2 inch) and 2 lock washers (1/2 inch) under the frame and weight (Figure 28).
3. Repeat for the opposite side.

**Note:** All Z Master machines receive the caster weights.

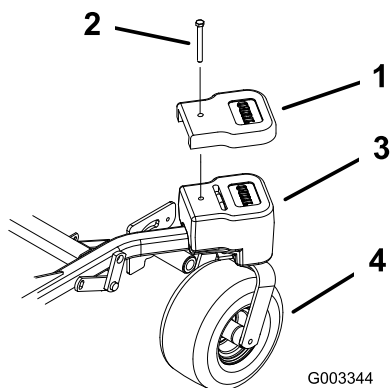


**Figure 28**

- |                        |                 |
|------------------------|-----------------|
| 1. Front caster weight | 4. Nut          |
| 2. U-bolt              | 5. Front caster |
| 3. Plate               | 6. Lock washer  |

**Note:** Only Z Master machines with 60-inch mower decks receive the top weights.

4. Install the top weights on top of each caster weight for 60-inch machines with 2 bolts (1/2 x 2-1/2 inches) as shown in Figure 29.



**Figure 29**

- |                              |                        |
|------------------------------|------------------------|
| 1. Top weight                | 3. Front caster weight |
| 2. Bolt (1/2 x 2-1/2 inches) | 4. Front caster wheel  |

# 11

## Adjusting the Parking Brake

### No Parts Required

### Procedure

Check to make sure the parking brake is adjusted properly. Refer to your *Operator's Manual* for the correct procedure.

# 12

## Checking the Tire Pressure

### No Parts Required

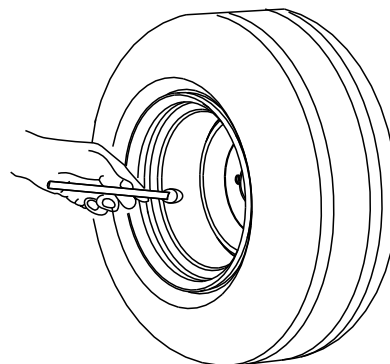
### Procedure

**Note:** Increase the tire pressure due to the additional weight.

Check and increase the air pressure in the front caster wheels and rear tires (Figure 30).

Pressure: Rear tires—90 kPa (20 psi)

Front caster wheels—90 kPa (25 psi)



**Figure 30**



# Operation

**Note:** Determine the left and right sides of the machine from the normal operating position.

**Important:** Set the parking brake when leaving the machine unattended, even if just for a few minutes.

## ⚠ WARNING

To avoid personal injury, follow these procedures:

- Become familiar with all operating and safety instructions in the *Operator's Manual* for your machine before using this attachment.
- Never remove the bagger or bagger tubes while the engine is running.
- Always shut the engine off and wait for all moving parts to stop before clearing an obstruction from the bagging system.
- Never do maintenance or repairs while the engine is running.
- Set the parking brake.

## ⚠ WARNING

Without the grass deflector, bagger tubes or complete bagger assembly mounted in place, you and others are exposed to blade contact and thrown debris. Contact with the rotating mower blade(s) and thrown debris will cause injury or death.

- Always install the grass deflector when removing the bagger and changing to side discharge mode.
- If the grass deflector is ever damaged, replace it immediately. The grass deflector routes material down toward the turf.
- Never put your hands or feet under the machine.
- Never try to clear the discharge area or mower blades unless you move the power take-off (PTO) to off and rotate the ignition key to off. Also remove the key and pull the wire off of the spark plug(s).
- Turn off the engine before unclogging the discharge chute.

## ⚠ CAUTION

Children or bystanders may be injured if they move or attempt to operate the tractor while it is unattended.

Always remove the ignition key and set the parking brake when leaving the machine unattended, even if just for a few minutes.

## Positioning the Adjustable Baffle

Adjust the baffle to position B (middle position) for bagging. Refer to the *Operator Manual* for the machine.

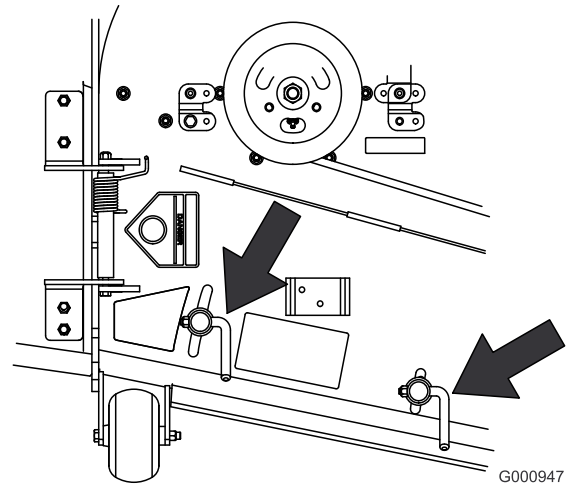
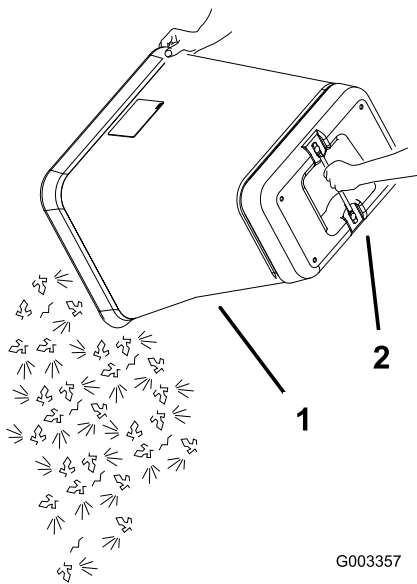


Figure 31

## Emptying the Grass Bags

Grass bags are heavy when full. Be careful when lifting or handling a grass bag that is full.

1. Disengage the PTO, set the parking brake, and chock or block the tires if on a slope.
2. Unlatch the bagger latch.
3. Open the bagger hood.
4. Compress the debris into the bags. With both hands, lift up on the bag and unhook it from the bagger bracket.
5. Grab the handle on the bottom of the bag and tip it over to empty the bag (Figure 32).



**Figure 32**

1. Bag
2. Bottom handle

6. Repeat for the other bag.
7. Install the bag tab into the notch in the bagger support frame.

**Note:** Do this for both bags.

8. Lower the bagger hood over the bags.
9. Latch the bagger hood.

## Clearing Obstructions from the Bagger System

### **⚠ WARNING**

When the bagger is in operation, the blower can be rotating and cut off or injure hands.

- Before adjusting, cleaning, repairing and inspecting the blower, and before unclogging the chute, turn off the engine and wait for all moving parts to stop. Remove the key.
- Use a stick, not your hands, to remove an obstruction from the blower and tube.
- Keep face, hands, feet, and any other part of your body or clothing away from concealed, moving, or rotating parts.

1. Disengage the PTO and set the parking brake.
2. Turn off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Empty the bags.
4. Unlatch the lower tube.

5. Remove the tubes from the bagger.
6. Use a stick or similar object, not your hands, to remove and clear the obstruction from the tube assembly.

**Note:** In most cases, the debris can be shaken out of the tubes.

7. If the blower assembly is plugged, unlatch the bagger blower assembly, remove the belt, and swing it open.
8. Use a stick or similar object, not your hands, to remove and clear the obstruction from the blower assembly.
9. After you remove the obstruction, install the complete bagger system and resume operation.

## Removing the Bagger

### **⚠ WARNING**

Components around engine will be hot if the machine has been running. Touching hot components can cause burns.

- Do not touch engine components when hot.
- Allow engine to cool before removing the bagger.

1. Disengage the PTO, set the parking brake, and chock or block the tires.
2. Turn off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Unlatch the lower tube from the blower and remove the tube from the blower assembly.
4. Remove the tube from the bagger hood.
5. Lower the mower deck to the lowest height-of-cut position.
6. Unlatch the belt cover over the mower pulley assembly.
7. Remove the bagger belt from the mower pulley assembly.
8. Open the blower assembly.
9. Remove the blower assembly from the pivot hole.
10. If you are changing to side discharge mode, ensure the grass deflector is installed and can be lowered into working position.
11. Remove the hood and bag assembly.

# Using the Grass Deflector

## ⚠ DANGER

Without the grass deflector, discharge cover, or complete grass catcher assembly mounted in place, you and others are exposed to blade contact and thrown debris. Contact with rotating mower blade(s) and thrown debris will cause injury or death.

- Always install the grass deflector when removing the bagger and changing to side discharge mode.
- If the grass deflector is ever damaged, replace it immediately. The grass deflector routes material down toward the turf.
- Never put your hands or feet under the machine.
- Never try to clear the discharge area or mower blades unless you move the power take off (PTO) to the off position, rotate the ignition key to off and remove the key.

# Transporting the Machine

Do not leave grass or debris in the bagger while transporting the machine.

## ⚠ DANGER

Transporting the machine with grass or debris in the bagger can damage the machine.

Do not leave grass or debris in the bagger while transporting the machine.

# Operating Tips

## Machine Size

Remember that the machine is longer and wider with this attachment installed. By turning too sharply in confined places you may damage the attachment or other property.

## Trimming

Always trim with the left side of the machine. Do not trim with the right side of the machine because you could damage the bagging tubes.

## Cutting Height

For optimum bagging performance, set the deck height-of-cut to remove no more than 51 to 76 mm (2 to 3 inches) or 1/3 of the grass height, whichever is less. Cutting off more than this will reduce the capacity of the vacuum system.

## Cutting Frequency

Cut the grass often, especially when it grows rapidly. You will have to cut your grass twice if it gets excessively long (refer to [Bagging Long Grass](#) (page 19)).

## Cutting Technique

For best lawn appearance, be sure to slightly overlap the machine into the previously cut area. This helps reduce the load on the engine and reduces the chance of plugging the blower assembly and tubes.

## Bagging Speed

The bagging system may plug if you drive too fast and the engine speed gets too slow. On hills it may be necessary to slow the machine's ground speed. Mow down hill whenever possible.

## ⚠ CAUTION

As the bagger fills, extra weight is added to the back of the machine. If you stop and start suddenly on hills, you may lose steering control or the machine may tip.

- Do not start or stop suddenly when going uphill or downhill. Avoid uphill starts.
- If you do stop the machine when going uphill, disengage the PTO. Then back down the hill using a slow speed.
- Do not change speeds or stop on slopes.

## Bagging Long Grass

If the grass is ever allowed to grow longer than normal, or if it contains a high degree of moisture, raise the cutting height higher than usual and cut and bag the grass at this setting.

Then cut and bag the grass again using the lower, normal setting.

Excessively long grass is heavy and may not be propelled completely into the bagger. If this happens, the tube and blower may plug. To avoid plugging the bagging system, mow the grass at a high height-of-cut, then lower the mower to your normal cutting height and repeat the bagging process.

## **Bagging Wet Grass**

If possible, always try to cut grass when it is dry. Wet grass can cause plugging.

## **Reducing Plugging**

To avoid plugging the bagging system, reduce ground speed and mow the grass at a high height-of-cut, then lower the mower to your normal cutting height and repeat the bagging process.

## **Signs of Plugging**

As you are bagging, a small amount of grass clippings normally blow out the front of the machine. An excessive amount of clipping blowout indicates that the bagger is full or the tube is plugged.

## **Bagging Blades**

In most mowing conditions, the standard high lift blades will provide the best bagging performance.

The Toro Atomic blade is recommended for bagging leaves in dry conditions. In dry dusty conditions, the medium lift or low lift blades will reduce dust and dirt blowout while providing effective bagging air flow.

Contact an Authorized Service Dealer for the proper blades for different mowing conditions.

## **Curb Climbing and Loading**

Always lift the deck to the highest position when loading the machine on trailers or ascending/descending a curb. Leaving the mower in a lower position can cause damage to the machine while loading and going over a curb. If a curb is higher than 152 mm (6 inches), cross it at a sharp angle with the deck fully raised. Use extreme caution when loading onto a trailer.

# Maintenance

## Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 8 hours	<ul style="list-style-type: none"><li>• Inspect the bagger belt.</li><li>• Inspect the bagger.</li></ul>
Before each use or daily	<ul style="list-style-type: none"><li>• Clean the hood screen.</li><li>• Clean the bagger.</li></ul>
Every 25 hours	<ul style="list-style-type: none"><li>• Inspect the bagger belt.</li></ul>
Every 50 hours	<ul style="list-style-type: none"><li>• Grease the idler arm.</li></ul>
Every 100 hours	<ul style="list-style-type: none"><li>• Inspect the bagger.</li></ul>

## Cleaning the Hood Screen

**Service Interval:** Before each use or daily

The screens need to be cleaned before each use. In wet grass they will need to be cleaned more often.

1. Disengage the power take off (PTO) and set the parking brake.
2. Turn off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Open the bagger hood.
4. Clean the debris from the screen.
5. Close the bagger hood.

## Cleaning the Bagger and Bags

**Service Interval:** Before each use or daily

The bagger needs to be cleaned daily.

1. Wash the inside and outside of the bagger hood, bags, tube, and the underside of the machine. Use a mild automotive detergent to remove dirt.
2. Make sure you remove matted grass from all parts.
3. After washing all parts, let them dry thoroughly.

**Note:** With all parts installed, start and run the machine for a minute to assist in drying.

## Inspecting the Bagger Belt

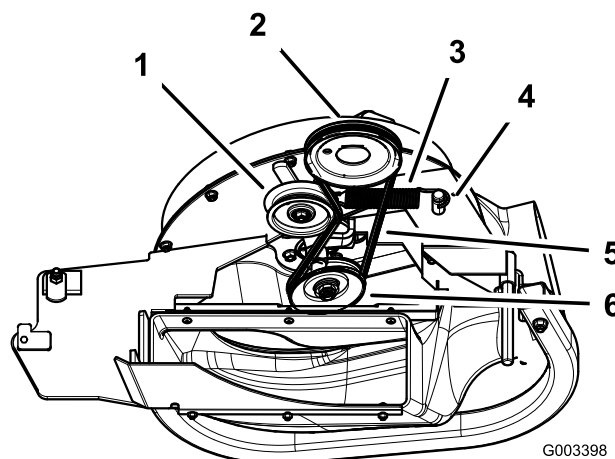
**Service Interval:** After the first 8 hours

Every 25 hours

Check belts for cracks, frayed edges, burn marks or any other damage. Replace damaged belts.

## Replacing the Bagger Belt

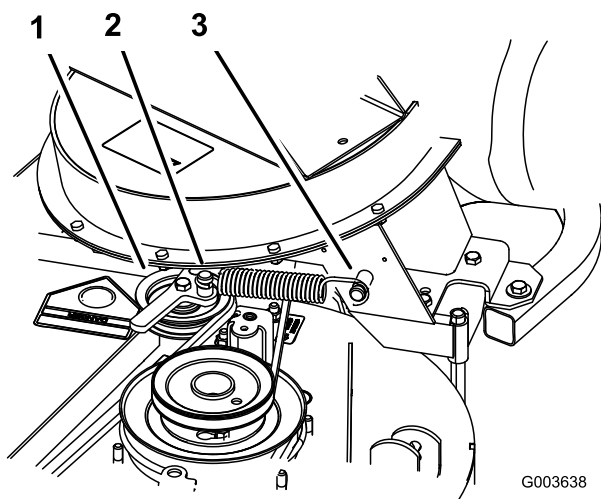
1. Disengage the PTO, move the motion control levers to the NEUTRAL-LOCKED position, and set the parking brake.
2. Stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Pull back on the spring-loaded idler pulley to relieve the belt tension ([Figure 33](#)).
4. Remove the existing bagger belt from the mower-deck pulley and then the blower pulleys.
5. Install the new belt around the blower pulleys and the mower-deck pulley ([Figure 33](#)).



**Figure 33**

- |                      |                  |
|----------------------|------------------|
| 1. Idler pulley      | 4. Peg           |
| 2. Mower-deck pulley | 5. Belt          |
| 3. Spring            | 6. Blower pulley |

6. Install the spring as shown in [Figure 34](#).



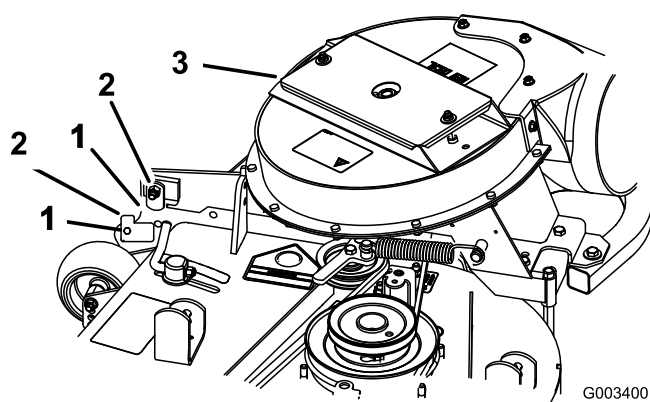
**Figure 34**

1. Spring loaded idler pulley
2. Short hook end
3. Long hook end

7. Pull back on the spring-loaded idler pulley and install the belt onto the spring-loaded idler pulley (Figure 33).

## Checking and Adjusting the Blower Latch

Close the blower assembly to see if the latches are adjusted correctly. Loosen or tighten the bolts so the latches firmly hold the blower assembly against the mower deck, but can be released by hand.



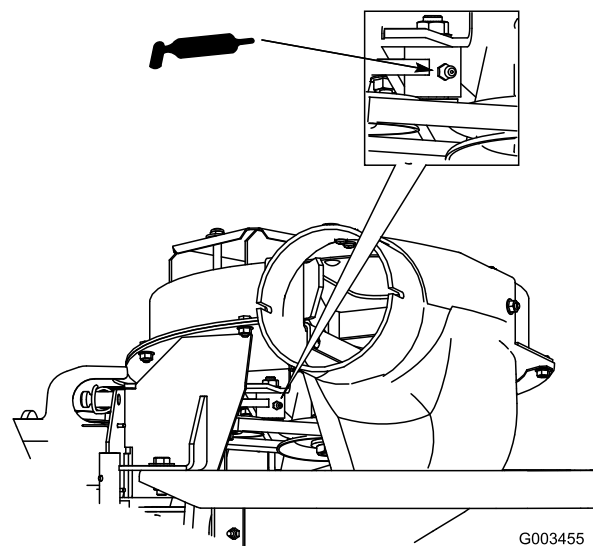
**Figure 35**

1. Latch
2. Bolt
3. Blower assembly

## Greasing the Idler Arm

**Service Interval:** Every 50 hours

Grease the bagger belt idler arm (Figure 36) every 50 hours.



**Figure 36**

## Inspecting the Bagger

**Service Interval:** Every 100 hours

After the first 8 hours

Inspect the bagger attachment after the first eight hours of operation, and 100 hours thereafter.

1. Disengage the PTO, move the motion control levers to the NEUTRAL-LOCKED position, and set the parking brake.
2. Stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Check the upper tube, lower tube, bagger hood, and the blower assembly. Replace these parts if they are cracked or broken.
4. Check the bags, bagger frame, and screen. Replace any parts that are cracked or broken.
5. Tighten all nuts bolts and screws.

## Inspecting the Mower Blades

1. Inspect the mower blades regularly and whenever a blade strikes a foreign object.
2. If blades are badly worn or damaged, install new blades. Refer to your machine *Operator's Manual* for complete blade maintenance.

## Installing the Mower Blades

In most mowing conditions, the standard high lift blades will provide the best bagging performance.

The Toro Atomic blade is recommended for bagging leaves in dry conditions. In dry dusty conditions, the medium lift or low lift blades will reduce dust and dirt blowout while providing effective bagging air flow.

Contact an Authorized Service Dealer for the proper blades for different mowing conditions.

Refer to the machine *Operator's Manual* for more information on installing blades.

## Installing the Grass Deflector

### **⚠ WARNING**

An uncovered discharge opening could allow the machine to throw objects in the operator's or bystander's direction and result in serious injury. Also, contact with the blade could occur.

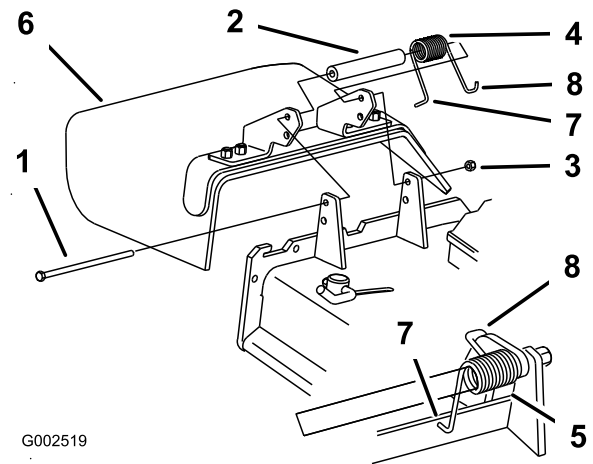
- Never operate the machine unless you install a cover plate, a mulch plate, or a grass chute and catcher.
- Make sure the grass deflector is in the down position.

1. Remove the locknut, bolt, spring and spacer holding the deflector to the pivot brackets ([Figure 37](#)).
2. Remove the damaged or worn grass deflector.
3. Place the spacer and spring onto the grass deflector. Place the **L**-end of the spring behind the deck edge.

**Note:** Make sure the **L**-end of the spring is installed behind the deck edge before installing the bolt as shown in [Figure 37](#)

4. Install the bolt and nut.
5. Place the **J**-hook end of the spring around the grass deflector ([Figure 37](#)).

**Important:** The grass deflector must be able to lower down into position. Lift the deflector up to test that it lowers into the full down position.



**Figure 37**

- |            |   |
|------------|---|
| 1. Bolt    | 5. Spring (installed)   |
| 2. Spacer  | 6. Grass deflector  |
| 3. Locknut | 7. L-end of spring (place it behind deck edge before installing the bolt) |
| 4. Spring  | 8. J-hook end of spring   |

# Storage

1. Clean the bagger attachment. Refer to [Cleaning the Bagger and Bags \(page 21\)](#).
2. Inspect the bagger attachment for damage. Refer to [Inspecting the Bagger \(page 22\)](#).
3. Make sure that the bags are empty and thoroughly dry.
4. Check the belt for wear or cracks.
5. Store the machine in a clean, dry place, out of direct sunlight. If you must store the machine outside, cover it with a weatherproof cover. This protects the plastic parts and extends the life of the machine.



**Notes:**

**Notes:**

**Notes:**



# The Toro Total Coverage Warranty

A Limited Warranty (see warranty periods below)

Landscape  
Contractor  
Equipment  
(LCE)

## Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly promise to the original purchaser to repair the Toro Products listed below if defective in materials or workmanship.

The following time periods apply from the date of purchase by the original owner:

Products	Warranty Period
21 in. Mowers	2 years Residential Use <sup>1</sup> 1 year Commercial Use
• Engines <sup>4</sup>	Honda – 2 years Kawasaki – 3 years
30 in. Mowers	2 years Residential Use <sup>1</sup> 1 year Commercial Use
• Engines <sup>4</sup>	Kawasaki – 3 years
Mid-Size Walk-Behind Mowers	2 years
• Engines <sup>4</sup>	Kawasaki – 3 years
Grand Stand® Mowers	5 years or 1,200 hours <sup>2</sup> 3 years
• Engines <sup>4</sup>	Lifetime (original owner only) <sup>3</sup>
• Frame	
Z Master® 2000 Series Mowers	4 years or 500 hours <sup>2</sup> 3 years
• Engines <sup>4</sup>	Lifetime (original owner only) <sup>3</sup>
• Frame	
Z Master® 3000 Series Mowers	5 years or 1,200 hours <sup>2</sup> 3 years
• Engines <sup>4</sup>	Lifetime (original owner only) <sup>3</sup>
• Frame	
Z Master® 5000 Series Mowers	5 years or 1,200 hours <sup>2</sup> Kohler Command – 2 years Kohler EFI – 3 years
• Engines <sup>4</sup>	Lifetime (original owner only) <sup>3</sup>
• Frame	
Z Master® 6000 Series Mowers	5 years or 1,200 hours <sup>2</sup> Kawasaki – 3 years
• Engines <sup>4</sup>	Lifetime (original owner only) <sup>3</sup>
• Frame	
Z Master® 7000 Series Mowers	5 years or 1,200 hours <sup>2</sup> 2 years
• Engines <sup>4</sup>	Lifetime (original owner only) <sup>3</sup>
• Frame	
Z Master® 8000 Series Mowers	2 years or 1,200 hours <sup>2</sup> 2 years
• Engines <sup>4</sup>	Lifetime (original owner only) <sup>3</sup>
• Frame	
All Mowers	
• Battery	90 days Parts and Labor 1 year Parts only
• Belts and Tires	90 days
• Attachments	1 year

<sup>1</sup>Residential use means use of the product on the same lot as your home. Use at more than one location is considered commercial use and the commercial warranty would apply.

<sup>2</sup>Whichever occurs first.

<sup>3</sup>Lifetime Frame Warranty - If the main frame, consisting of the parts welded together to form the tractor structure that other components such as the engine are secured to, cracks or breaks in normal use, it will be repaired or replaced, at Toro's option, under warranty at no cost for parts and labor. Frame failure due to misuse or abuse and failure or repair required due to rust or corrosion are not covered.

<sup>4</sup>Some engines used on Toro Products are warranted by the engine manufacturer.

## Instructions for Obtaining Warranty Service

If you think that your Toro Product contains a defect in materials or workmanship, follow this procedure:

1. Contact any Authorized Toro Service Dealer to arrange service at their dealership. To locate a dealer convenient to you, refer to the Yellow Pages of your telephone directory (look under "Lawn Mowers") or access our web site at [www.Toro.com](http://www.Toro.com). You may also call the numbers listed in item #3 to use the 24-hour Toro Dealer locator system.
2. Bring the product and your proof of purchase (sales receipt) to the Service Dealer. The dealer will diagnose the problem and determine if it is covered under warranty.
3. If for any reason you are dissatisfied with the Service Dealer's analysis or with the assistance provided, contact us at:

RLC Customer Care Department  
Toro Warranty Company  
8111 Lyndale Avenue South  
Bloomington, MN 55420-1196  
888-865-5676 (U.S. Customers)  
888-865-5691 (Canada customers)

## Owner Responsibilities

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.

## Items and Conditions Not Covered

There is no other express warranty except for special emission system coverage and engine warranty coverage on some products. This express warranty does not cover the following:

- Cost of regular maintenance service or parts, such as filters, fuel, lubricants, oil changes, spark plugs, air filters blade sharpening or worn blades, cable/linkage adjustments, or brake and clutch adjustments
- Components failing due to normal wear
- Any product or part which has been altered or misused or neglected and requires replacement or repair due to accidents or lack of proper maintenance
- Pickup and delivery charges
- Repairs or attempted repairs by anyone other than an Authorized Toro Service Dealer
- Repairs necessary due to failure to follow recommended fuel procedure (consult *Operator's Manual* for more details)
  - Removing contaminants from the fuel system is not covered
  - Use of old fuel (more than one month old) or fuel which contains more than 10% ethanol or more than 15% MTBE
  - Failure to drain the fuel system prior to any period of non-use over one month

## General Conditions

All repairs covered by these warranties must be performed by an Authorized Toro Service Dealer using Toro approved replacement parts.

**Neither The Toro Company nor Toro Warranty Company is 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.**

**All implied warranties of merchantability (that the product is fit for ordinary use) and fitness for use (that the product is fit for a particular purpose) are limited to the duration of the express warranty.**

**Some states do not allow exclusions of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations 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 outside 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 Toro Warranty Company.

**Australian Consumer Law:** Australian customers will find details relating to the Australian Consumer Law either inside the box or at your local Toro Dealer.