



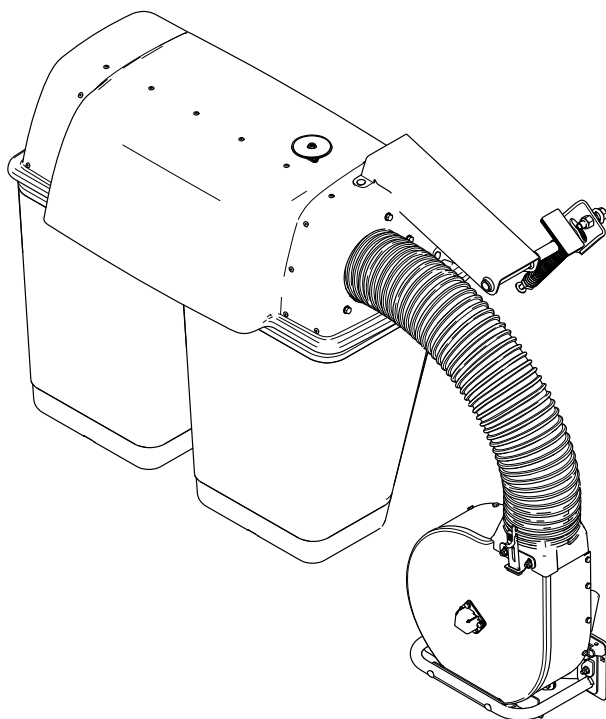
**Count on it.**

Form No. 3423-836 Rev B

# Operator's Manual

## Twin Bagger Grandstand® Mower

Model No. 78524—Serial No. 400000000 and Up



**Note:** This kit requires the simultaneous installation of other kits to function properly. Contact your Authorized Service Dealer to obtain the corresponding necessary parts. For more information, visit us at [www.Toro.com](http://www.Toro.com).



## ⚠ WARNING

### CALIFORNIA Proposition 65 Warning

Use of this product may cause exposure to chemicals known to the State of California to cause cancer, birth defects, or other 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.

Visit [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.

**Important:** With your mobile device, you can scan the QR code on the serial number decal (if equipped) to access warranty, parts, and other product information.

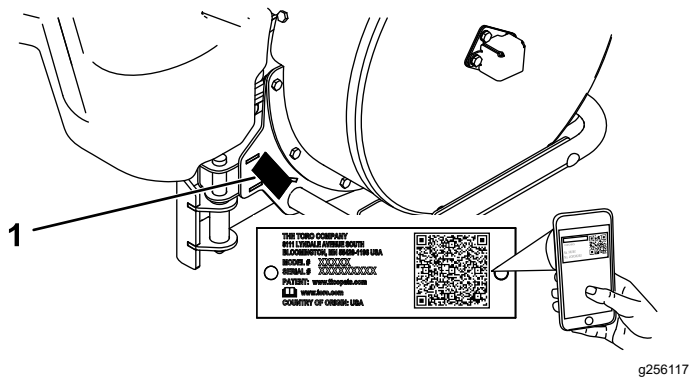


Figure 1

1. Blower model and serial number location

Model No. _____
Serial No. _____

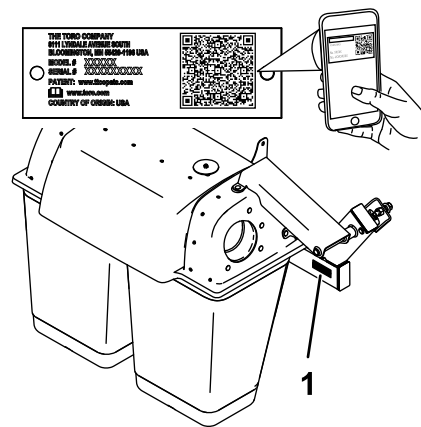


Figure 2

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

## ⚠ WARNING

To avoid personal injury, follow these procedures:

- Become familiar with all operating and safety instructions in the *Operator's Manual* for the mower before using this attachment.
- Never remove the discharge tube, bags, bagger hood, or the chute while the engine is running.
- Always shut off the engine, remove the key, 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.

## ⚠ WARNING

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

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

## ⚠ WARNING

Debris, such as leaves, grass, or brush can catch fire. A fire in the engine area can cause personal injury and property damage.

- Keep the engine and muffler area free of debris accumulation.
- Take care when opening the bagger cover to keep debris from falling onto the engine and muffler area.
- Allow the machine to cool before storing it.

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 recommendations for adding or removing weights as described in the *Operator's Manual* for the machine.
- 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. Mow slopes side to side. Turf conditions can affect the stability of the machine. 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 right. Use extra care when operating the machine 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 you are using a grass catcher.
- Keep your hands and feet away from moving parts. Do not make adjustments with the engine running.
- Stop the machine on level ground, disengage the drives, engage the parking brake, shut off the engine, and remove the key before leaving the operator's position for any reason including emptying the grass catcher or unclogging the chute.
- Do not operate the machine without either the entire grass catcher, the grass deflector, and/or guard in place.
- Shut off the engine and remove the key before removing the grass catcher or unclogging the chute.
- Do not leave grass in the grass catcher for extended periods of time.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose you to moving parts or thrown objects. Frequently check components and replace them with the manufacturer's recommended parts when necessary.

## Safety and Instructional Decals



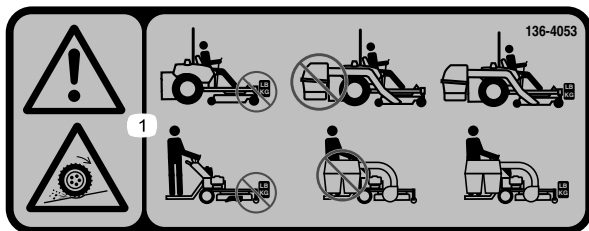
Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.

**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).  
For more information, please visit [www.ticoCAProp65.com](http://www.ticoCAProp65.com)

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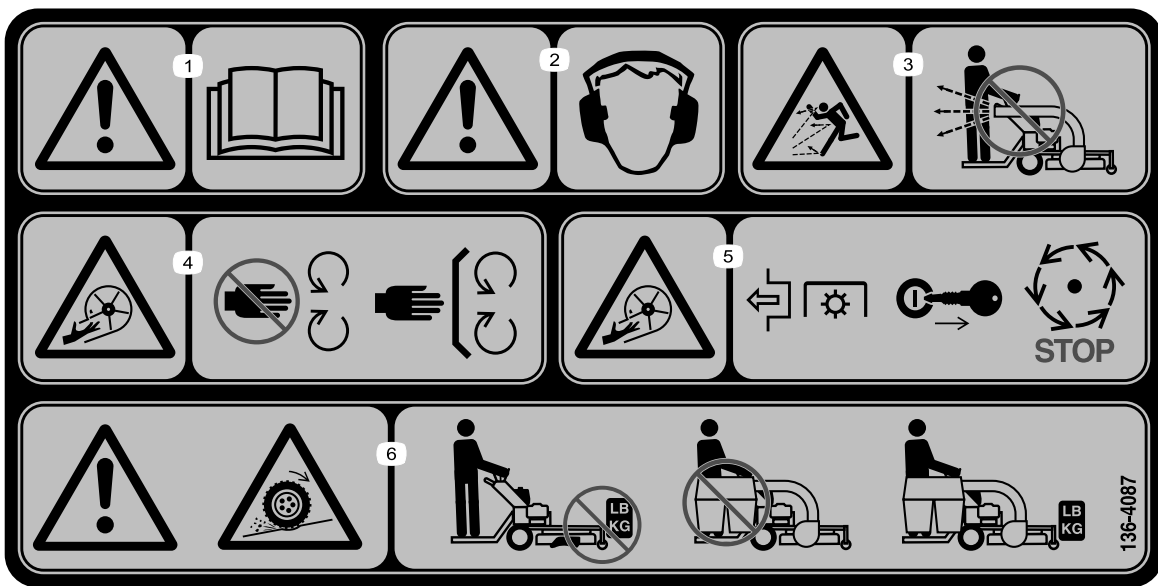
**133-8061**



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**136-4053**

1. Warning; loss of traction—do not operate only with counterbalance weights installed; do not operate only with the E-Z Vac installed; operate only with both the E-Z Vac and counterbalance weights installed.



### 136-4087

decal136-4087

1. Warning—read the *Operator's Manual*.
2. Warning—wear hearing protection.
3. Thrown object hazard—do not run the blower without the entire collection system installed and latched.
4. Cutting/dismemberment hazard, impeller—keep away from moving parts; keep all guards and covers in place.
5. Cutting/dismemberment hazard, impeller—disengage the PTO, remove the ignition key, and wait for all moving parts to stop.
6. Warning; loss of traction—do not operate only with counterbalance weights installed; do not operate only with E-Z Vac installed; operate only with both the E-Z Vac and counterbalance weights installed.

# 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>	E-Z Vac Blower and Drive Kit (sold separately)	1	Install the E-Z Vac Blower and Drive Kit (sold separately).
<b>3</b>	Blower assembly (from the Blower and Drive Kit)	1	Install the blower assembly, belt, and belt cover.
	Belt (from the Blower and Drive Kit)	1	
	Belt cover (from the Blower and Drive Kit)	1	
	Knob (from the Blower and Drive Kit)	1	
<b>4</b>	Bagger Enhancement Kit	1	Install the Bagger Enhancement Kit (optional).
<b>5</b>	Front mount bracket	1	Install the brackets.
	Lower mount bracket	1	
	Rear mount bracket	1	
	Right mount bracket	1	
	Flat washer	2	
	Bolt (3/8 x 4 inches)	2	
	Carriage bolt (3/8 x 1 inch)	1	
	Nut (3/8 inch)	1	
	Carriage bolt (1/4 x 5/8 inch)	2	
	Nut (1/4 inch)	2	
<b>6</b>	Bagger-frame assembly	1	Install the bagger frame.
	Clevis pin	2	
	Hairpin cotter	3	
	Thrust washer	1	
	Nut (3/8 inch)	1	
	Carriage bolt (3/8 x 1 inch)	1	
<b>7</b>	Bag	2	Install the bags.
<b>8</b>	Hose (from the Blower and Drive Kit)	1	Install the bagger hose.
	Hose clamp (from the Blower and Drive Kit)	1	
<b>9</b>	Weight	1	Install the weight.
	U-bolt	1	
	Long U-bolt (for Multi Force™ machines with 52-inch decks only)	1	
	Locknut (1/2 inch)	2	

**Important:** Do not use drive or caster Tweels with this attachment. If the machine is equipped with drive or caster Tweels, replace them with factory pneumatic drive tires or factory pneumatic or semi-pneumatic caster tires.

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

# 1

## Preparing the Machine

No Parts Required

### Procedure

**Note:** Remove the Roller Striper Kit, if installed, prior to installing this attachment.

1. Disengage the PTO, move the motion-control levers to the NEUTRAL-LOCK position, and engage the parking brake.
2. Shut off 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 E-Z Vac Blower and Drive Kit

Parts needed for this procedure:

1	E-Z Vac Blower and Drive Kit (sold separately)
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### Procedure

Refer to the *Installation Instructions* for the kit.

# 3

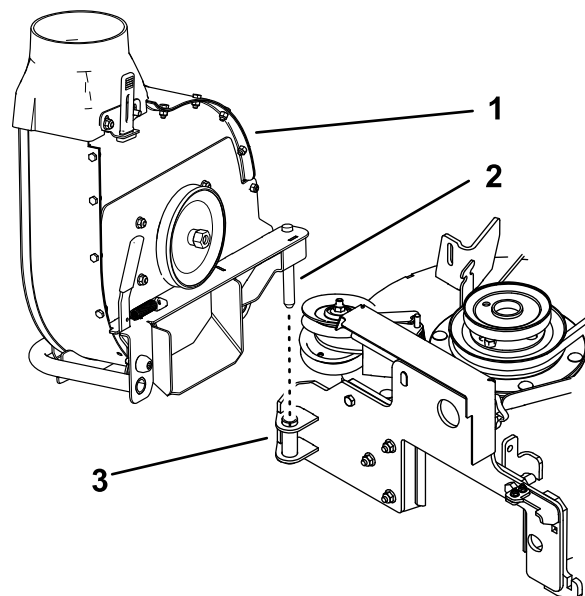
## Installing the Blower Assembly, Belt, and Belt Cover

Parts needed for this procedure:

1	Blower assembly (from the Blower and Drive Kit)
1	Belt (from the Blower and Drive Kit)
1	Belt cover (from the Blower and Drive Kit)
1	Knob (from the Blower and Drive Kit)

### Procedure

1. Lower the mower deck to the lowest setting.
2. Insert the pin from the blower assembly into the blower mount bracket as shown in [Figure 4](#). Do not latch the blower on the blower mount.



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**Figure 4**

1. Blower assembly
2. Pin
3. Insert the pin here.

3. Install the belt to the pulleys and idler assembly as shown in [Figure 5](#) and [Figure 6](#).

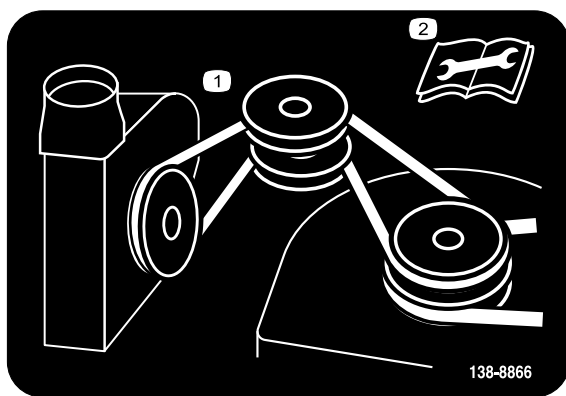


Figure 5

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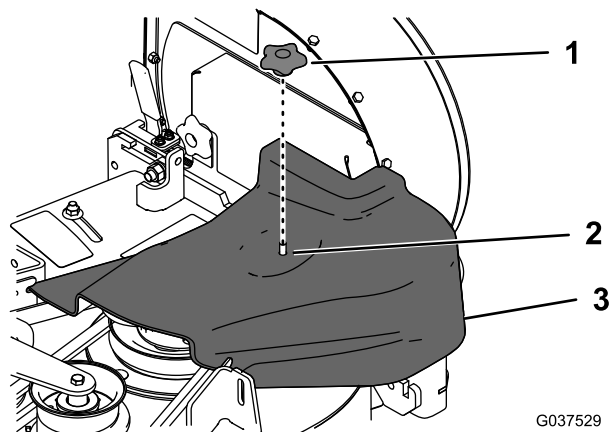


Figure 7

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1. Knob
2. Idler screw
3. Belt cover

**Note:** Whenever you need to open the blower assembly, remove the belt cover first.

## 4

## Installing the Bagger Enhancement Kit (Optional)

**Parts needed for this procedure:**

1	Bagger Enhancement Kit
---	------------------------

## Procedure

Refer to the *Installation Instructions* for the kit.

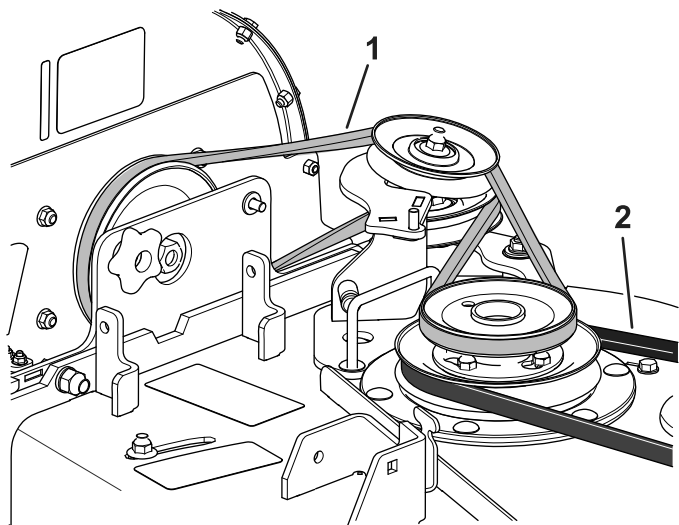


Figure 6

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1. Blower belt
2. Mower deck belt

4. Close the blower assembly so that the handle latches on the blower mount.
5. Install the belt cover and secure it by screwing the knob onto the screw on the idler (Figure 7).



# 5

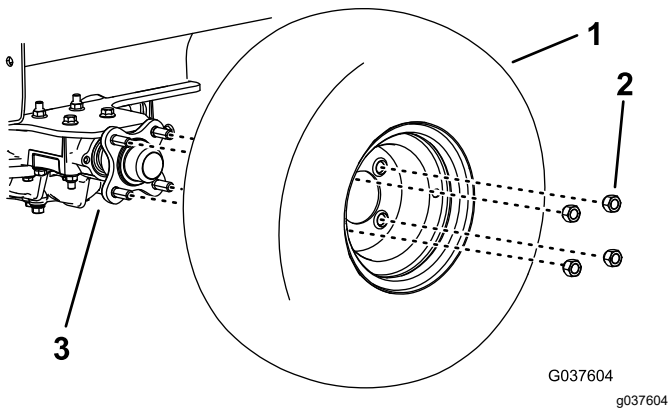
## Installing the Brackets

### Parts needed for this procedure:

1	Front mount bracket
1	Lower mount bracket
1	Rear mount bracket
1	Right mount bracket
2	Flat washer
2	Bolt (3/8 x 4 inches)
1	Carriage bolt (3/8 x 1 inch)
1	Nut (3/8 inch)
2	Carriage bolt (1/4 x 5/8 inch)
2	Nut (1/4 inch)

### Procedure

1. Remove the fuel tank; refer to the *Operator's Manual* for the machine.
2. Jack up the rear, right side of the machine so that no weight is on the right tire.
3. Remove the right tire (Figure 8).



1. Right tire
2. Lug nut
3. Right transaxle

4. Raise the operator's platform.
5. Remove the 2 rear bolts and 2 nuts from the right transaxle (Figure 9). Retain the nuts.

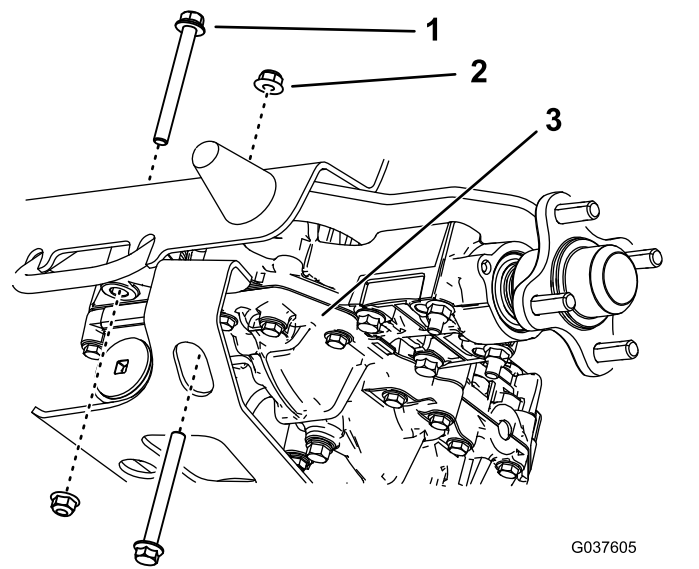


Figure 9

1. Bolt
2. Nut
3. Right transaxle

6. Install the lower mount bracket to the transmission using the 2 nuts that you removed, 2 flat washers, and 2 bolts (3/8 x 4 inches) as shown in Figure 10.

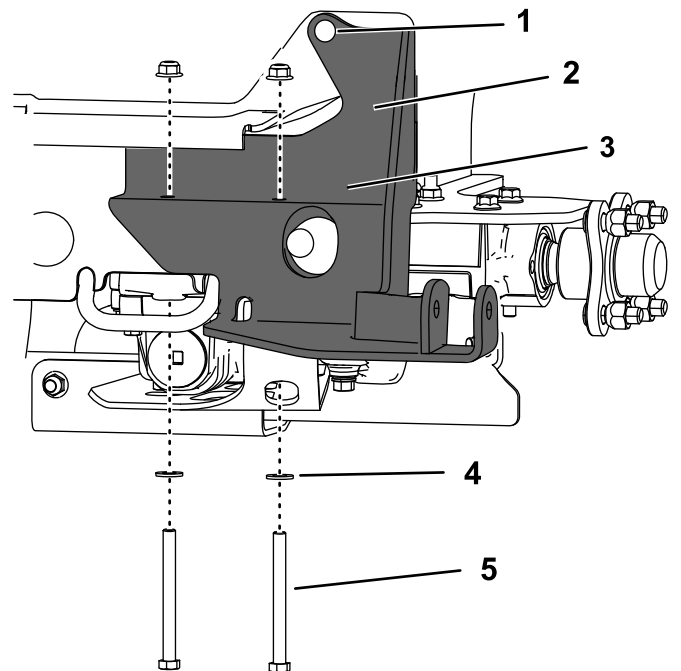


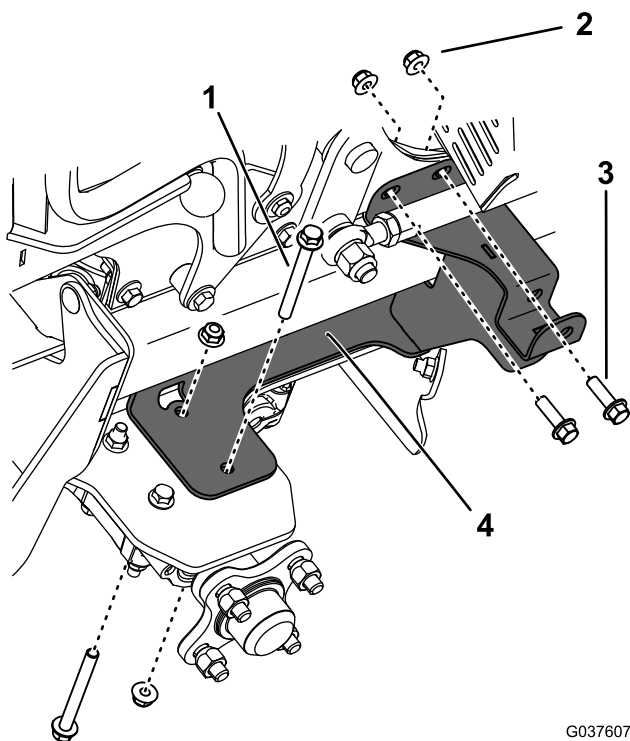
Figure 10

1. Carriage bolt (3/8 x 1 inch) and nut (3/8 inch)
2. Nut
3. Lower mount bracket
4. Flat washer
5. Bolt (3/8 x 4 inches)

7. Secure the top of the bracket using 1 carriage bolt (3/8 x 1 inch) and 1 nut (3/8 inch).

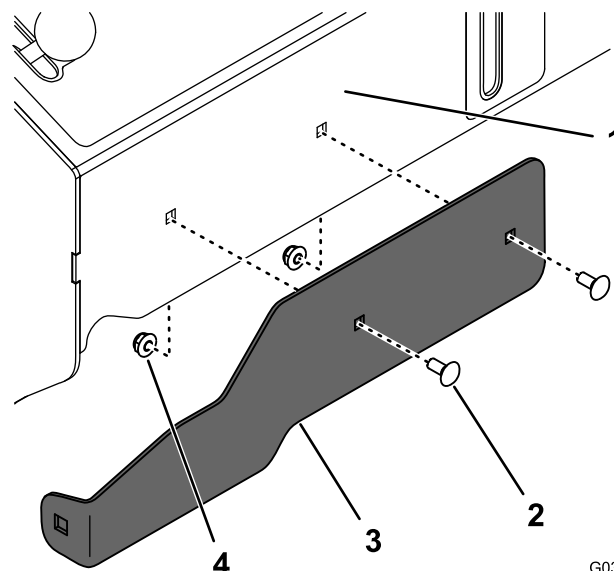
8. Torque the bolts to 37 to 45 N·m (27 to 33 ft-lb).
9. Remove the front 2 bolts and 2 nuts from the right mount bracket and the front 2 bolts and 2 nuts from the right tower panel (Figure 11).

**Important:** Ensure that the fan shroud inside the frame does not fall onto the transaxle as you remove the hardware.



**Figure 11**

- |                      |                        |
|----------------------|------------------------|
| 1. Transmission bolt | 3. Tower-panel bolt    |
| 2. Nut               | 4. Right mount bracket |



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**Figure 12**

- |                                   |                        |
|-----------------------------------|------------------------|
| 1. Front of the control tower     | 3. Front mount bracket |
| 2. Carriage bolt (1/4 x 5/8 inch) | 4. Nut (1/4 inch)      |

12. Lower the operator's platform.
13. Install the right tire, torque the lug nuts to 115 to 142 N·m (85 to 105 ft-lb), and lower the machine (Figure 8).

10. Use the bolts and nuts you removed in step 9 to secure the right mount bracket and fan shroud to the frame (Figure 11). Torque the bolts to 37 to 45 N·m (27 to 33 ft-lb).
11. Loosely install the front mount bracket to the front of the control tower using 2 carriage bolts (1/4 x 5/8 inch) and 2 nuts (1/4 inch) as shown in Figure 12.

# 6

## Installing the Bagger Frame

### Parts needed for this procedure:

1	Bagger-frame assembly
2	Clevis pin
3	Hairpin cotter
1	Thrust washer
1	Nut (3/8 inch)
1	Carriage bolt (3/8 x 1 inch)

### Procedure

1. With the assistance of another person, lift the bagger frame and secure the bottom, rear side of the frame to the lower mount bracket using a clevis pin and hairpin cotter (Figure 13).

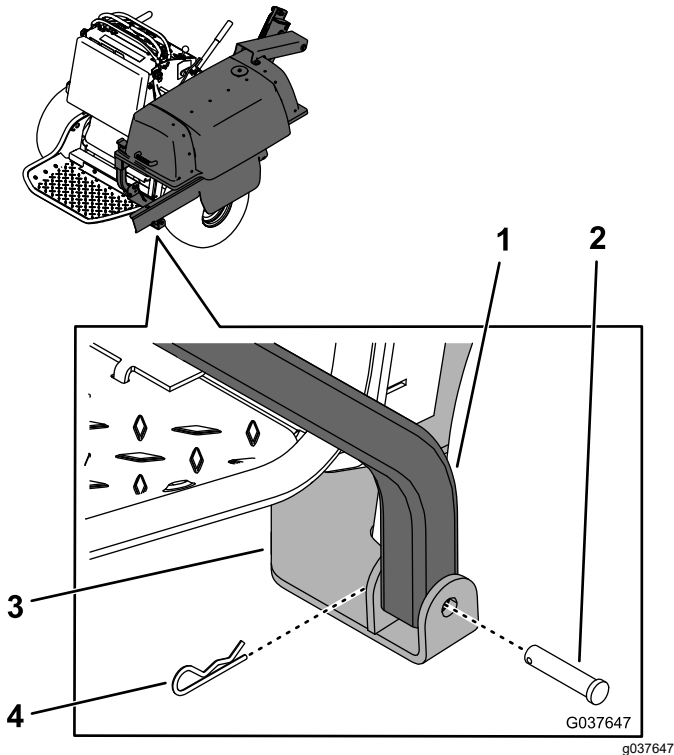


Figure 13

1. Bagger frame
2. Clevis pin
3. Lower mount bracket
4. Hairpin cotter

2. Secure the frame to the pin on the rear mount bracket using a thrust washer and hairpin cotter (Figure 14).

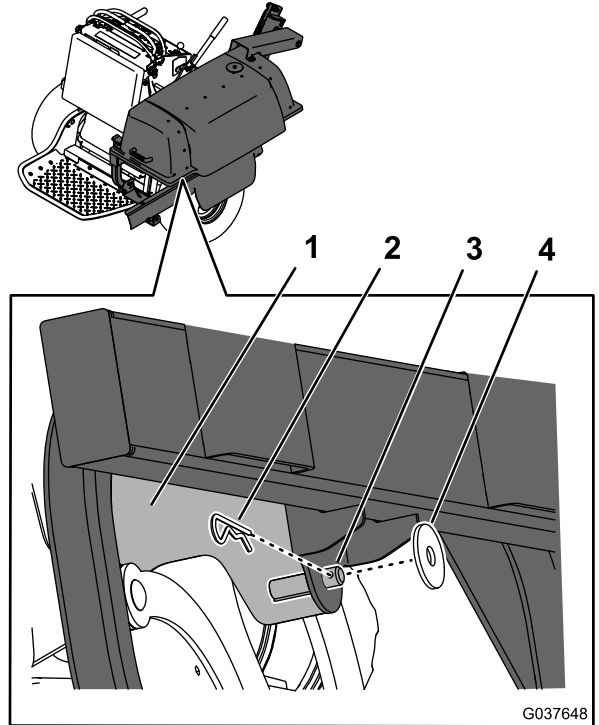


Figure 14

1. Rear mount bracket
2. Hairpin cotter
3. Pin (part of bracket)
4. Thrust washer

3. Secure the bottom, front side of the bagger frame to the transmission mount bracket using a clevis pin and hairpin cotter (Figure 15).

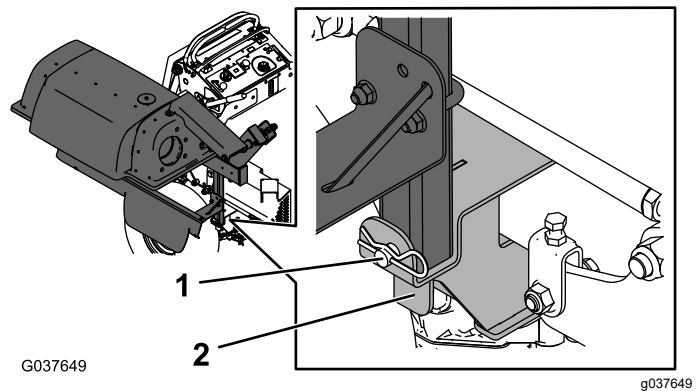
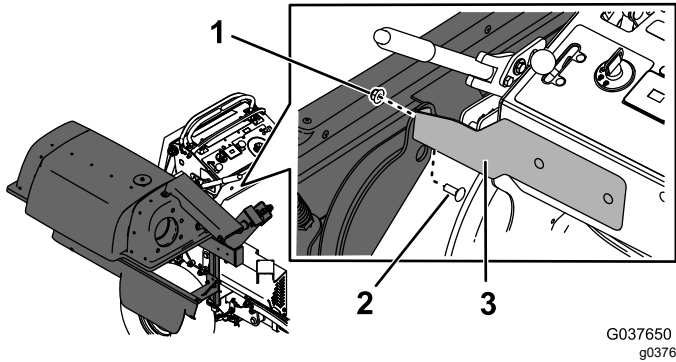


Figure 15

1. Clevis pin and hairpin cotter (installed)
2. Transmission mount bracket

4. Secure the bagger frame to the front mount bracket using a carriage bolt (3/8 x 1 inch) and nut (3/8 inch) as shown in [Figure 16](#).

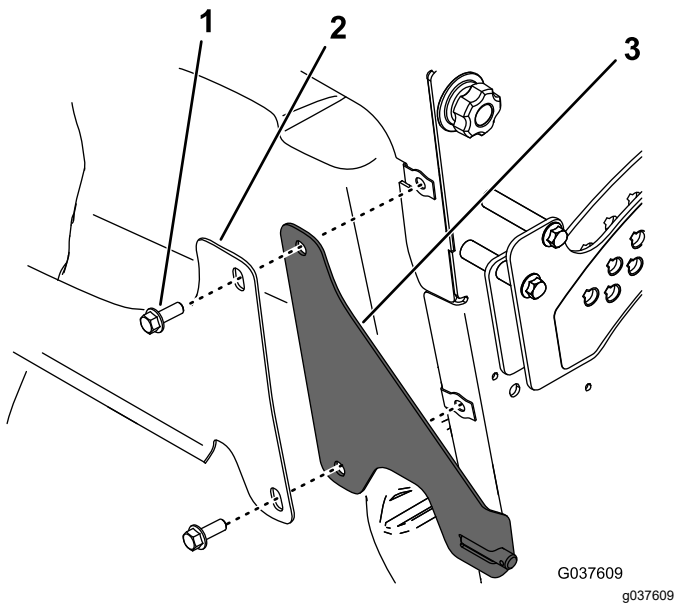


**Figure 16**

1. Nut (3/8 inch)
2. Carriage bolt (3/8 x 1 inch)
3. Front mount bracket

5. Tighten the bagger frame and front mount bracket nuts.
6. Install the fuel tank; refer to the *Operator's Manual* for the machine.

**Note:** When you install the fuel tank bracket, install the rear mount bracket between the control tower and the fuel-tank bracket.



**Figure 17**

1. Bolt
2. Fuel tank bracket
3. Rear mount bracket

7. Raise the cushion.

# 7

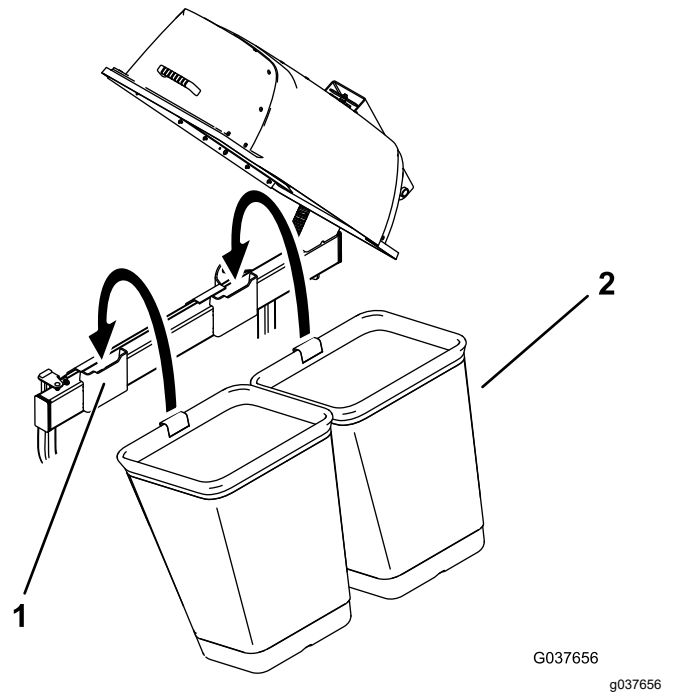
## Installing the Bags

Parts needed for this procedure:

2	Bag
---	-----

### Procedure

1. Unlatch and open the hood assembly.
2. Install the bags onto bag mounts ([Figure 18](#)).



**Figure 18**

1. Bag mount
2. Bag

3. Close and latch the hood assembly.

# 8

## Installing the Bagger Tube

### Parts needed for this procedure:

1	Hose (from the Blower and Drive Kit)
1	Hose clamp (from the Blower and Drive Kit)

### Procedure

1. Thread 1 end of the hose into the hood 2 to 3 threads (Figure 19).

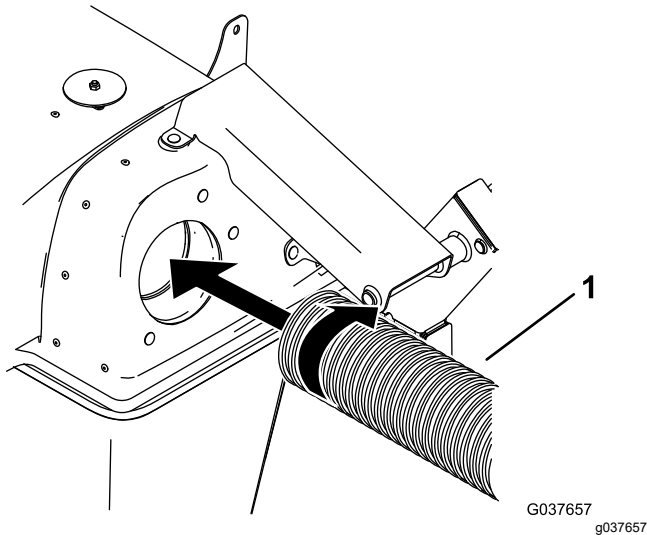


Figure 19

1. Hose

2. Thread the hose clamp onto the other end of the new hose 2 to 3 turns (Figure 20).

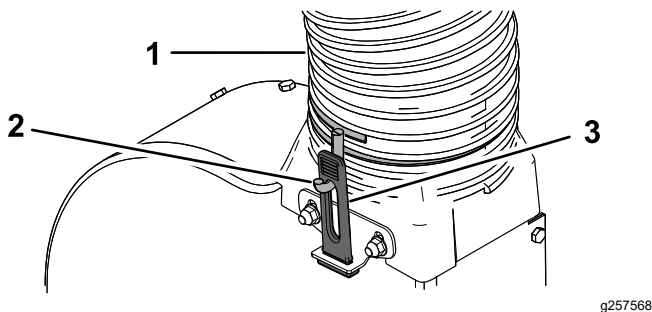


Figure 20

1. Hose
2. Hose clamp
3. Rubber latch

3. Install the hose over the blower transition so that the hose forms an approximately 90-degree bend from the hood. Adjust the orientation of the hose-clamp hooks as needed so that they align with the rubber latches, and secure the hose by stretching the rubber latches over the hooks (Figure 20).

**Note:** Ensure the rubber latches are tight. Thread the clamp further on the hose if the latches are loose.

# 9

## Installing the Weight

### Parts needed for this procedure:

1	Weight
1	U-bolt
1	Long U-bolt (for Multi Force™ machines with 52-inch decks only)
2	Locknut (1/2 inch)

### Procedure

Install the weight to the left caster using a U-bolt and 2 locknuts (1/2 inch) as shown in [Figure 21](#).

**Note:** For Multi Force machines with a 52-inch deck, use the long U-bolt. The weight will rest on top of the frame ([Figure 22](#)).

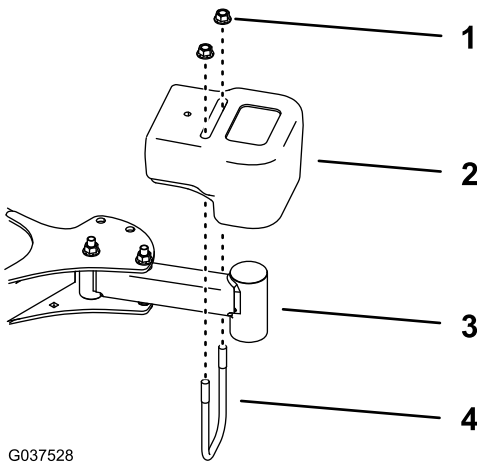


Figure 21

1. Locknut—1/2 inch (2)
2. Weight
3. Caster (wheel not shown)
4. U-bolt

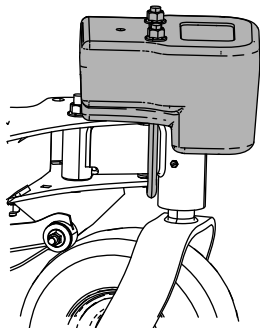


Figure 22

## Operation

### Operation Safety

- 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 off the engine, remove the key, 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.
- Engage 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), impeller, 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 damaged, replace it immediately. The grass deflector directs 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 the spark plug(s).
- Shut off the engine before unclogging the blower housing.

### ⚠ CAUTION

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

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

## Positioning the Flow Baffle

Adjust the baffle to position C (front position) for bagging. Refer to the *Operator Manual* for the machine.

Ensure that the baffle does not contact the blower housing.

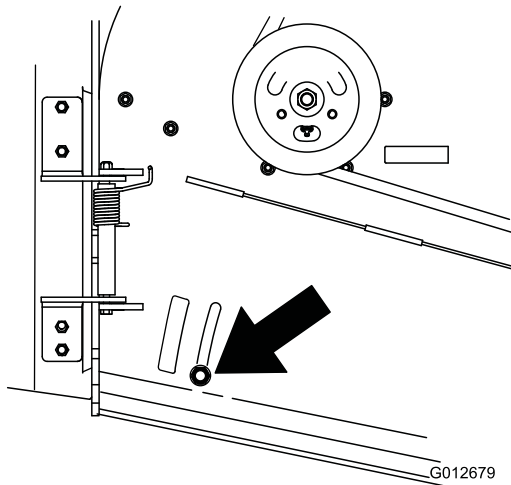


Figure 23

## Using the Fill Indicator

The fill indicator on top of the bagger hood spins as you fill the bags (Figure 24). The bags are full when the indicator stops spinning.

Clean the fill indicator impeller if there is grass or debris buildup.

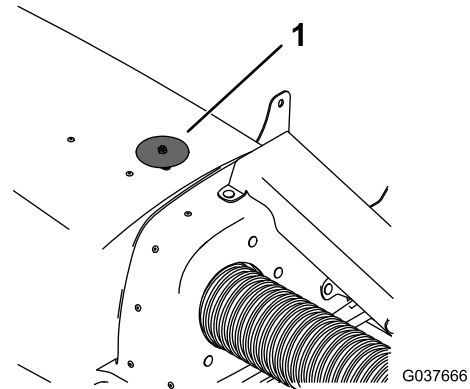


Figure 24

1. Fill indicator

## Using the Bagger

Engage the PTO on the traction unit to start the blower; disengage the PTO to stop the blower.

When bagging in dry conditions, lower the mower deck to limit blowout.

The bagging system may plug if you drive too fast and the engine speed is too slow. On hills, it may be necessary to slow the ground speed of the machine. Mow downhill whenever possible.

### ⚠ CAUTION

As the bagger fills, extra weight is added to the back of the machine. If you stop and start the machine 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.



# 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 mower. Do not trim with the right side of the mower because you could damage the bagger chute and discharge tube.

## 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 reduces 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 16).

## Cutting Technique

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

## Bagging Long Grass

If the grass is 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 Leaves

For cleanest after-cut appearance, keep the height of cut as close to the grass height as possible when bagging leaves. It may be necessary to lower the height of cut below the grass height in dry, dusty conditions to avoid blowout. Mulching leaves prior to bagging can help improve bagging performance.

## 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 the 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 mower. An excessive amount of clipping blow-out indicates that the bagger is full or the blower or tube is plugged.

## Bagging Blades

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

Use a Toro Atomic blade for bagging leaves in dry conditions. In dry dusty conditions, the medium lift or low lift blades 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

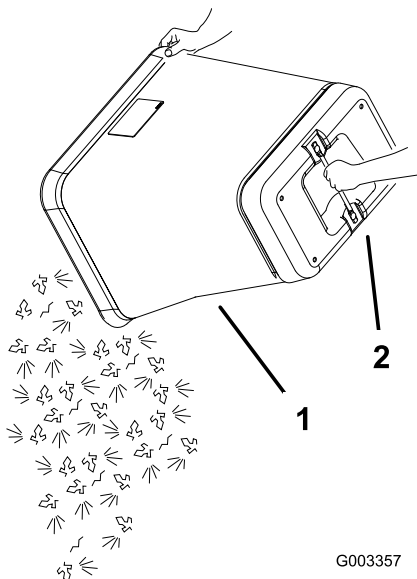
Always lift the deck to the highest position when loading the machine on trailers or ascending/descending a curb. Leaving the mower in a lower position can damage the mower while loading and going over a curb. If a curb is higher than 15.2 cm (6 inches), cross it at a sharp angle with the deck fully raised. Use caution when loading the machine onto a trailer.



# 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, move the motion-control levers to the NEUTRAL-LOCK position, and engage the parking brake.
2. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Unlatch the bagger latch.
4. Open the bagger hood.
5. Compress the debris into the bags. With both hands, lift up on the bag and unhook it from the bagger bracket.
6. Grab the handle on the bottom of the bag and tip it over to empty the bag (Figure 25).



**Figure 25**

1. Bag
2. Bottom handle

7. Repeat for the other bag.
8. Install the bag tab into the notch in the bagger-support frame. Do this for both bags.
9. Lower the bagger hood over the bags.
10. Latch the bagger hood.

# Clearing Obstructions from the Bagger System

## ⚠ WARNING

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

- Before adjusting, cleaning, repairing, and inspecting the blower, and before unclogging the chute, shut 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 your face, hands, feet, and any other part of your body or clothing away from concealed, moving, or rotating parts.

1. Disengage the PTO, move the motion-control levers to the NEUTRAL-LOCK position, and engage the parking brake.
2. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Empty the bags.
4. Disconnect the tube from the blower.
5. Remove the tube from the bagger.
6. Use a stick or similar object, not your hands, to remove and clear the obstruction from the tube.

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

7. Install the tube.
8. If the blower assembly is plugged, remove the belt cover, unlatch the blower assembly, and swing it open.
9. Use a stick or similar object, not your hands, to remove and clear the obstruction from the blower assembly.
10. After you remove the obstruction, close the blower assembly so that the handle latches.

# Removing the Bagger

## ⚠ WARNING

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

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

## ⚠ CAUTION

Failing to remove the front bagger weights and operating the machine without the bagger attachment may cause an unstable condition that could result in a loss of control.

**Always remove the front weights when removing the bagger attachment.**

1. Disengage the PTO, move the motion-control levers to the NEUTRAL-LOCK position, and engage the parking brake.
2. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Remove the bagger by repeating the setup sections in the reverse order, beginning with [Step 8 Installing the Bagger Tube \(page 12\)](#).
4. Remove the blower assembly by repeating the setup sections in the reverse order; refer to the *Installation Instructions* for the blower.

**Note:** Ensure that you remove the front weight and install the grass deflector when you remove the blower assembly.

## ⚠ 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 damaged, replace it immediately. The grass deflector directs 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 takeoff (PTO) to the OFF position, rotate the ignition key to OFF, and remove the key.

# Transporting the Machine

Ensure that the latch is fastened at the rear of the bagger hood before you trailer 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.**

# Maintenance

## ⚠ CAUTION

If you leave the key in the switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the switch before you perform any 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>
After each use	<ul style="list-style-type: none"><li>• Clean the bagger, bags, and fill-indicator impeller.</li></ul>
Every 25 hours	<ul style="list-style-type: none"><li>• Inspect the bagger belt.</li><li>• Inspect the impeller assembly.</li></ul>
Every 100 hours	<ul style="list-style-type: none"><li>• Inspect the bagger.</li></ul>

## Cleaning the Bagger and Bags

**Service Interval:** After each use

**Note:** If you do not clean the bagger, dried grass can accumulate and clog the blower housing and tube.

1. Wash the inside and outside of the bagger hood, bags, tube, fill-indicator impeller, and the underside of the machine. Use a mild automotive detergent to remove dirt.
2. Make sure that 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

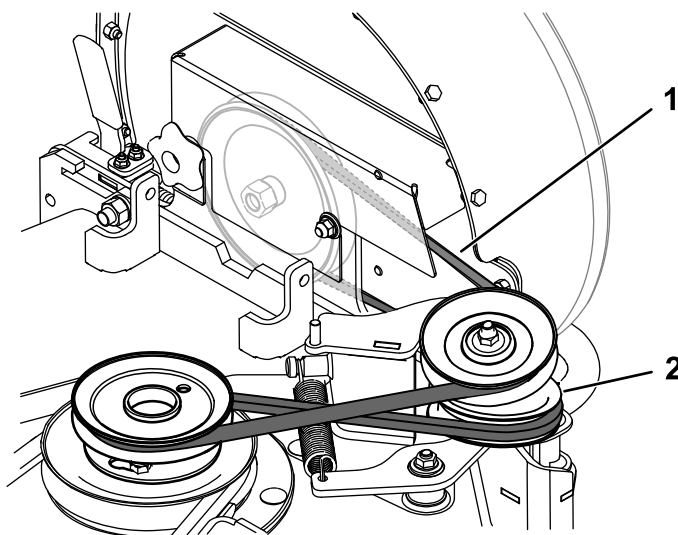
Every 25 hours

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-LOCK position, and engage the parking brake.
2. Shut off 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 setting.
4. Loosen the knob on the belt cover and remove the cover.
5. Open the blower assembly to access the belt and pulley.
6. Pull back on the spring-loaded idler pulley to relieve the belt tension ([Figure 26](#)).



**Figure 26**

1. Belt
2. Spring-loaded idler pulley

7. Remove the existing bagger belt from the deck and blower assembly by rotating the blower pulley as you pull the belt off.
8. Install the belt around the blower and idler pulleys as shown in [Figure 27](#). Place the belt

into the V-groove of the blower pulley. Hold the belt taut and rotate the pulley slowly by hand.

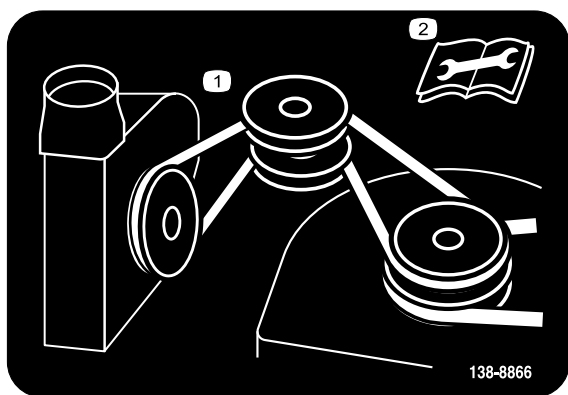


Figure 27

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9. Close the blower assembly so that the handle latches.
10. Install the belt cover.

## Inspecting the Bagger

**Service Interval:** Every 100 hours

After the first 8 hours

1. Disengage the PTO, move the motion-control levers to the NEUTRAL-LOCK position, and engage the parking brake.
2. Shut off 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 the *Operator's Manual* for the machine for complete blade maintenance.

## Installing the Mower Blades

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

Use a Toro Atomic blade for bagging leaves in dry conditions. In dry dusty conditions, the medium lift or low lift blades 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.

# Storage

1. Clean the bagger attachment. Refer to [Cleaning the Bagger and Bags \(page 19\)](#).
2. Inspect the bagger attachment for damage. Refer to [Inspecting the Bagger \(page 20\)](#).
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.

# Troubleshooting

Problem	Possible Cause	Corrective Action
There is abnormal vibration.	<ol style="list-style-type: none"> <li>1. Cutting blade(s) is/are bent or unbalanced.</li> <li>2. The blade-mounting bolt is loose.</li> <li>3. The blower pulley or pulley assembly is loose.</li> <li>4. The bagger belt is worn.</li> <li>5. The blower fan blade(s) is/are bent or unbalanced.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install new cutting blade(s).</li> <li>2. Tighten the blade-mounting bolt.</li> <li>3. Tighten the appropriate pulley.</li> <li>4. Replace the belt.</li> <li>5. Contact an Authorized Service Dealer.</li> </ol>
The bagging performance is reduced.	<ol style="list-style-type: none"> <li>1. The engine speed is low.</li> <li>2. The screen in the bagger hood is plugged.</li> <li>3. The bagger belt is loose.</li> <li>4. The tube or blower is plugged.</li> <li>5. The bags are full.</li> </ol>	<ol style="list-style-type: none"> <li>1. Always operate the bagger at full throttle.</li> <li>2. Remove debris, leaves, or grass clippings from the screen.</li> <li>3. Replace the bagger belt.</li> <li>4. Locate and remove plugged debris.</li> <li>5. Empty the hopper.</li> </ol>
The blower and tubes plug too frequently.	<ol style="list-style-type: none"> <li>1. The bags are too full.</li> <li>2. The engine speed is low.</li> <li>3. Grass is too wet.</li> <li>4. Grass is too long.</li> <li>5. The screen in the bagger hood is plugged.</li> <li>6. The ground speed is too fast.</li> <li>7. The bagger belt is worn.</li> <li>8. The bagger belt is installed incorrectly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Empty the bags more frequently.</li> <li>2. Always operate the bagger at full throttle.</li> <li>3. Cut the grass when it is dry.</li> <li>4. Cut no more than 51 to 76 mm (2 to 3 inches) or 1/3 of the grass height, whichever is less.</li> <li>5. Remove debris, leaves or grass clippings from the screen.</li> <li>6. Drive slower at full throttle.</li> <li>7. Replace the belt.</li> <li>8. Install the belt correctly.</li> </ol>
Debris are blowing out.	<ol style="list-style-type: none"> <li>1. The bags are too full.</li> <li>2. The ground speed is too fast.</li> <li>3. The mower deck is not leveled.</li> </ol>	<ol style="list-style-type: none"> <li>1. Dump the bags more frequently.</li> <li>2. Drive slower at full throttle.</li> <li>3. Refer to the machine's <i>Operator's Manual</i> for leveling the mower deck.</li> </ol>
The blower impeller does not spin freely.	<ol style="list-style-type: none"> <li>1. The blower assembly has an obstruction.</li> <li>2. The impeller is not aligned or is bent.</li> <li>3. The blower impeller is loose.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove debris, leaves, or grass clippings from the blower impeller.</li> <li>2. Contact an Authorized Service Dealer.</li> <li>3. Tighten the hardware on the impeller.</li> </ol>

**Notes:**

# California Proposition 65 Warning Information

## What is this warning?

You may see a product for sale that has a warning label like the following:



**WARNING: Cancer and Reproductive Harm—**[www.p65Warnings.ca.gov](http://www.p65Warnings.ca.gov).

## What is Prop 65?

Prop 65 applies to any company operating in California, selling products in California, or manufacturing products that may be sold in or brought into California. It mandates that the Governor of California maintain and publish a list of chemicals known to cause cancer, birth defects, and/or other reproductive harm. The list, which is updated annually, includes hundreds of chemicals found in many everyday items. The purpose of Prop 65 is to inform the public about exposure to these chemicals.

Prop 65 does not ban the sale of products containing these chemicals but instead requires warnings on any product, product packaging, or literature with the product. Moreover, a Prop 65 warning does not mean that a product is in violation of any product safety standards or requirements. In fact, the California government has clarified that a Prop 65 warning "is not the same as a regulatory decision that a product is 'safe' or 'unsafe.'" Many of these chemicals have been used in everyday products for years without documented harm. For more information, go to <https://oag.ca.gov/prop65/faqs-view-all>.

A Prop 65 warning means that a company has either (1) evaluated the exposure and has concluded that it exceeds the "no significant risk level"; or (2) has chosen to provide a warning based on its understanding about the presence of a listed chemical without attempting to evaluate the exposure.

## Does this law apply everywhere?

Prop 65 warnings are required under California law only. These warnings are seen throughout California in a wide range of settings, including but not limited to restaurants, grocery stores, hotels, schools, and hospitals, and on a wide variety of products. Additionally, some online and mail order retailers provide Prop 65 warnings on their websites or in catalogs.

## How do the California warnings compare to federal limits?

Prop 65 standards are often more stringent than federal and international standards. There are various substances that require a Prop 65 warning at levels that are far lower than federal action limits. For example, the Prop 65 standard for warnings for lead is 0.5 µg/day, which is well below the federal and international standards.

## Why don't all similar products carry the warning?

- Products sold in California require Prop 65 labelling while similar products sold elsewhere do not.
- A company involved in a Prop 65 lawsuit reaching a settlement may be required to use Prop 65 warnings for its products, but other companies making similar products may have no such requirement.
- The enforcement of Prop 65 is inconsistent.
- Companies may elect not to provide warnings because they conclude that they are not required to do so under Prop 65; a lack of warnings for a product does not mean that the product is free of listed chemicals at similar levels.

## Why does Toro include this warning?

Toro has chosen to provide consumers with as much information as possible so that they can make informed decisions about the products they buy and use. Toro provides warnings in certain cases based on its knowledge of the presence of one or more listed chemicals without evaluating the level of exposure, as not all the listed chemicals provide exposure limit requirements. While the exposure from Toro products may be negligible or well within the "no significant risk" range, out of an abundance of caution, Toro has elected to provide the Prop 65 warnings. Moreover, if Toro does not provide these warnings, it could be sued by the State of California or by private parties seeking to enforce Prop 65 and subject to substantial penalties.