Form No. 3373-452 Rev C

TORO®

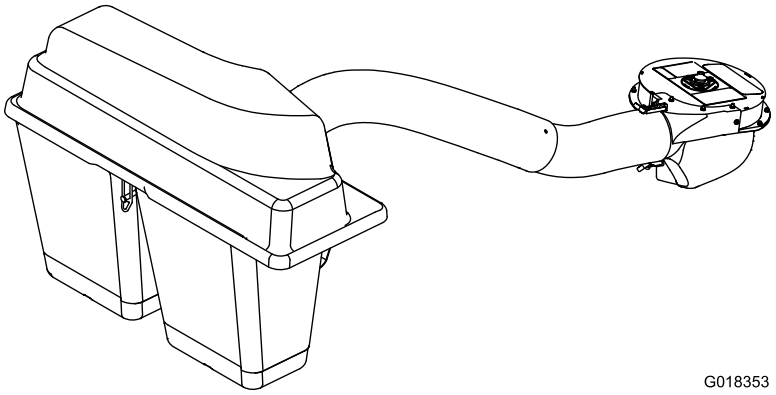
Count on it.

Operator's Manual

48in, 52in, and 60in E-Z Vac™ Twin Soft Bagger

Z Master® 2000 Series Mower

Model No. 78569—Serial No. 312000001 and Up



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Register at www.Toro.com.
Original Instructions (EN)

CE

3373-452 C

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 for product and 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, and Figure 2 identify the location of the model numbers and serial numbers on the product. Write the model number and serial number in the space provided.

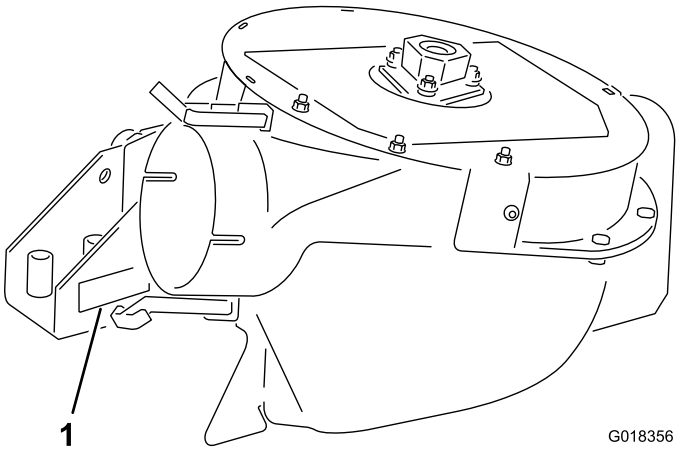


Figure 1

1. Blower model and serial number location

Model No. _____

Serial No. _____

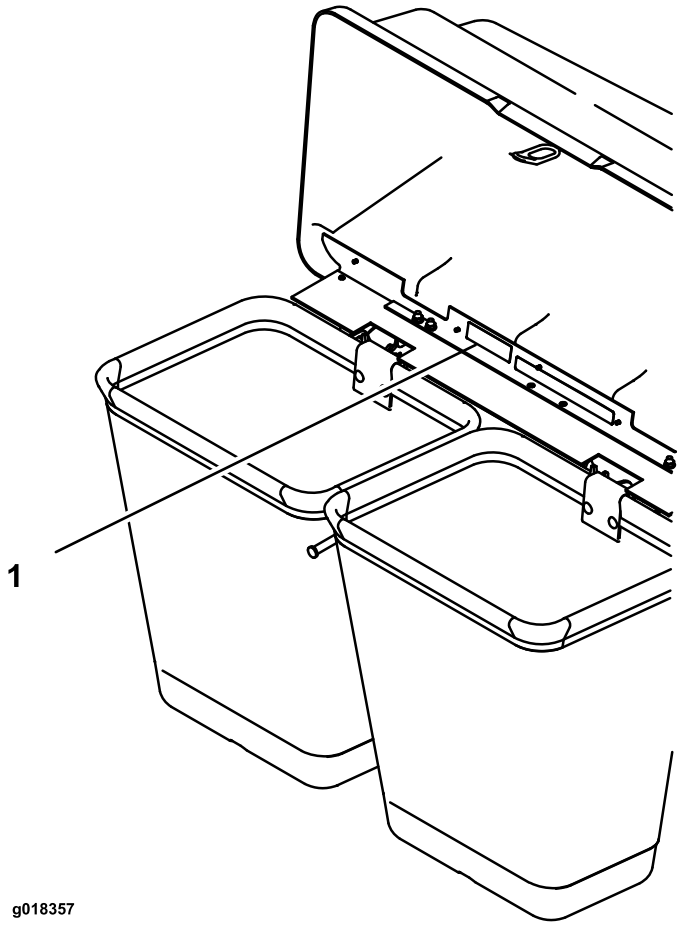


Figure 2

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.

8111 Lyndale Avenue South
Bloomington, MN 55420

Contents

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 the 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 mower without either the entire grass catcher or the grass deflector in place.
- Shut off the engine before removing the grass catcher or unclogging the chute.
- Use a stick, not your hands, to remove an obstruction from the blower tube.
- 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.

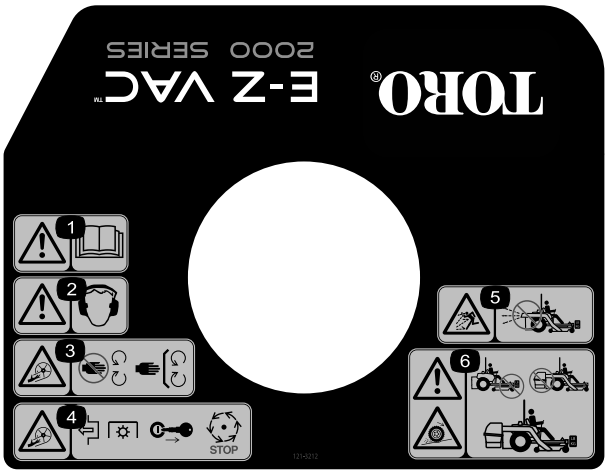
Safety and Instructional Decals

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.

1-653558

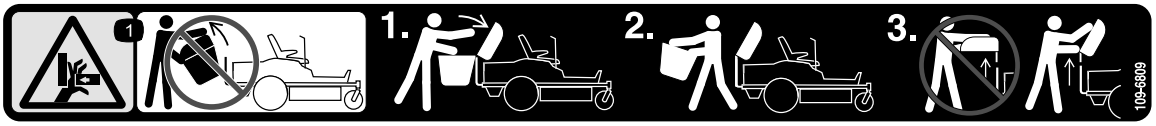
103–2076

106-0871



121–3212

1. Warning—read the *Operator's Manual.*
2. Warning—wear hearing protection.
3. Cutting/dismemberment hazard, impeller—keep hands away from moving parts; keep all guards in place.
4. Cutting/dismemberment hazard, impeller—disengage the PTO, remove the key from the ignition, wait for all moving parts to stop.
5. Thrown object hazard—do not run the blower without the collection system installed and latched.
6. Warning; loss of traction/control hazard—ultra vac counterbalance weight(s) installed without ultra vac may cause loss of traction and steering control; ultra vac installed without ultra vac counterbalance weight(s) will cause reduced stability; install the weight(s) only when ultra vac is installed.



109–6809

1. Crushing hazard of hand—do not remove the whole bagger from the machine: 1. Open the bagger top. 2. Remove the bag(s) from the bagger. 3. Do not remove the bagger top when it is closed; open the bagger top and then remove it.

Setup

Loose Parts

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

Procedure	Description	Qty.	Use
1	No parts required	–	Prepare the mower.
2	Left bumper Left frame-support bracket Right bumper Right frame-support bracket Carriage bolt (3/8 x 1-1/4 inches) Flange nut (3/8 inch)	1 1 1 1 6 6	Install the side bumpers and support brackets.
3	Tailpipe extension Washer-head screw (#8 x 1/2 inch, self-threading)	1 1	Install the muffler extension.
4	Exhaust shield Flange-hex-head bolt (3/8 x 1 inch) Nut (3/8 inch)	1 2 2	Drill the exhaust-shield mounting holes.
5	Exhaust shield Flange-hex-head bolt (3/8 x 1 inch) Nut (3/8 inch)	1 3 3	Install the exhaust heat shield.
6	Hopper-support frame Hairpin Hood hold-down rod	1 2 1	Install the bagger mounting brackets.
7	Bagger hood Baffle Hairpin (small)	1 1 2	Install the hood baffle.
8	Hood assembly Bag	1 2	Install the hood assembly and bags.
9	Blower (from the blower and drive kit) Blower belt (from the blower and drive kit)	1 1	Route the blower belt into the blower assembly.
10	Blower assembly (from the blower and drive kit) Spring (from the blower and drive kit)	1 1	Install the blower assembly.
11	Belt cover (from the blower and drive kit) Cover knob	1 1	Install the belt cover.
12	Upper discharge tube Screw (1/4 x 3/4 inch) Locknut (1/4 inch) Lower discharge tube	1 3 3 1	Install the discharge tubes.

Procedure	Description	Qty.	Use
13	Weight-mount bracket Carriage bolt (5/16 x 3/4 inch) Flange nut (5/16 inch) Front weight Bolt (3/8 x 1 inch) Lock washer Flat washer Flange nut (3/8 inch)	1 2 2 3 6 6 6 3	Install the weights.
14	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 Mower

No Parts Required

Procedure

Perform the following procedure to prepare the mower for attaching the blower and bagger kit.

1. Disengage the PTO, move the motion-control levers to the NEUTRAL locked position, and set 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 the mower deck and replace any missing parts.
4. Clean the mower of any debris on the deck or rear part of the mower to ease installation.

2

Installing the Side Bumpers and Support Brackets

Parts needed for this procedure:

1	Left bumper
1	Left frame-support bracket
1	Right bumper
1	Right frame-support bracket
6	Carriage bolt (3/8 x 1-1/4 inches)
6	Flange nut (3/8 inch)

Procedure

1. Remove the left and right bumpers as follows:
   A. Remove the nuts and bolts securing the left side bumper and muffler shield to the chassis and center engine guard as shown in Figure 4.

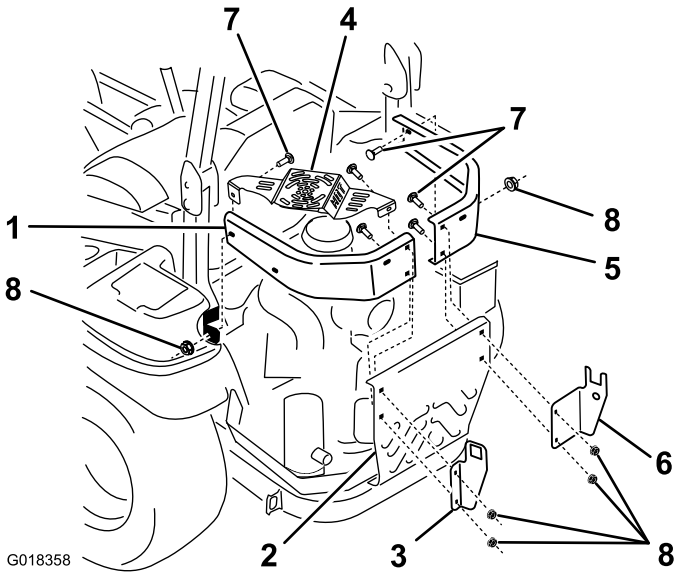


Figure 4

Side Bumper and Bracket Installation

1.	Left side bumper	5.	Right side bumper
2.	Center engine guard	6.	Right frame-support bracket
3.	Left frame-support bracket	7.	Carriage bolt (3/8 x 1-1/4 inches)
4.	Muffler shield	8.	Flange nut (3/8 inch)

B. Remove the left bumper and muffler shield from the machine.

Note: Retain the muffler shield for installation with the new left side bumper.

C. Remove the nuts and bolts securing the right side bumper to the chassis and center engine guard.

Note: Discard the carriage bolts and flange nuts that secure the original left and right side bumpers to the machine.

2. Install the new left side bumper as follows:

A. Align the new left side bumper with the forward-mounting point on the chassis and the bumper-mounting points on the center engine guard (Figure 4).

B. Align the mounting flange (the flange with 2 holes) of the left frame-support bracket to the left as shown in Figure 4.

C. Align the holes of the left frame-support bracket and the back holes of the left side bumper with the holes in the center engine guard (Figure 4).

D. Loosely secure the bracket and bumper to the center engine guard at the lower hole with a carriage bolt (3/8 x 1-1/4 inches) and a flange nut (3/8 inch) (Figure 4).

E. Position the muffler heat shield with the mounting flanges inside the left side bumper (Figure 4).

F. Align the holes for the left frame- support bracket, left side bumper and muffler guard to the upper hole in the center engine guard (Figure 4).

G. Loosely secure the bracket, bumper and muffler guard to the center engine guard at the upper hole with a carriage bolts (3/8 x 1-1/4 inches) and a flange nut (3/8 inch) (Figure 4).

H. Align the front holes in the left side bumper and the muffler guard with the forward-mounting point on the chassis. (Figure 4).

I. Secure the bumper and guard to the mounting point with a carriage bolt (3/8 x 1-1/4 inches) and a flange nut (3/8 inch) (Figure 4).

J. Tighten the hardware that secures the bracket, bumper and muffler guard to the center engine guard.

3. Install the new right side bumper as follows:

A. Align the new right side bumper with the forward-mounting point on the chassis and the bumper-mounting points on the center engine guard (Figure 4).

B. Align the mounting flange (the flange with 2 holes) of the right frame-support bracket to the left as shown in Figure 4.

C. Align the holes of the right frame-support bracket and back holes of the right side bumper with the back, center engine guard (Figure 4).

D. Loosely secure the bracket and bumper to the center engine guard with 2 carriage bolts (3/8 x 1-1/4 inches) and 2 flange nut (3/8 inch) (Figure 4).

E. Align the front hole in the new right side bumper with the forward mounting point on the chassis (Figure 4).

F. Secure the bumper to the mounting point with a carriage bolt (3/8 x 1-1/4 inches) and a flange nut (3/8 inch) (Figure 4).

G. Tighten the hardware that secures the bracket and bumper to the center engine guard.

3

Installing the Tailpipe Extension

Parts needed for this procedure:

1	Tailpipe extension
1	Washer-head screw (#8 x 1/2 inch, self-threading)

Procedure

Install the tailpipe extension as follows:

1. Locate the muffler tailpipe at the lower left corner of the engine.

   Note: If you need additional room to install the tailpipe extension, do the following steps:

   A. Remove the 3 flange nuts that secure lower-left engine guard to the machine (Figure 5).

   Note: Retain these parts.

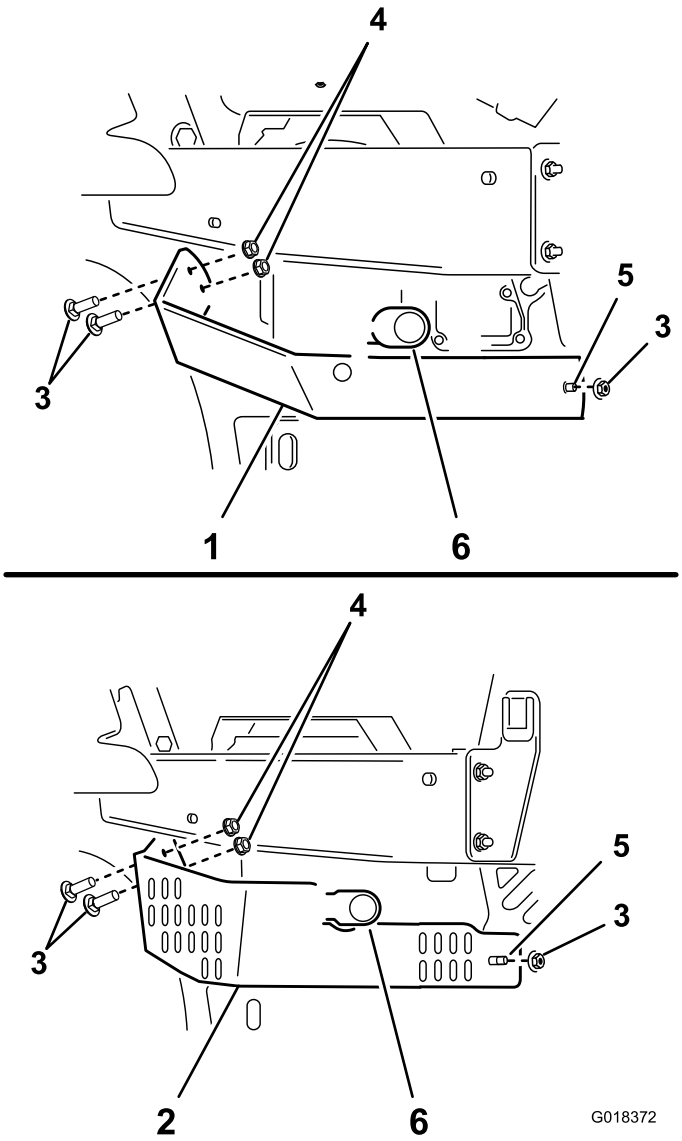


Figure 5
Lower-Left Engine Guard

1. Lower-left engine guard (US domestic mowers)
2. Lower-left engine guard (International mowers)
3. Carriage bolt (front mount point)
4. Flange nut
5. Carriage bolt (center engine guard)
6. Muffler tailpipe

   B. Remove the 2 carriage bolts at the front-mount point and the lower-left engine guard. (Figure 5).

   Note: Retain these parts. Do not remove the carriage bolt at the center engine guard.

2. Measure 19 mm (3/4 inch) along the outside of the muffler tailpipe, from the outlet end moving toward the muffler as illustrated in Figure 6, and mark the surface of the tailpipe at this measurement.

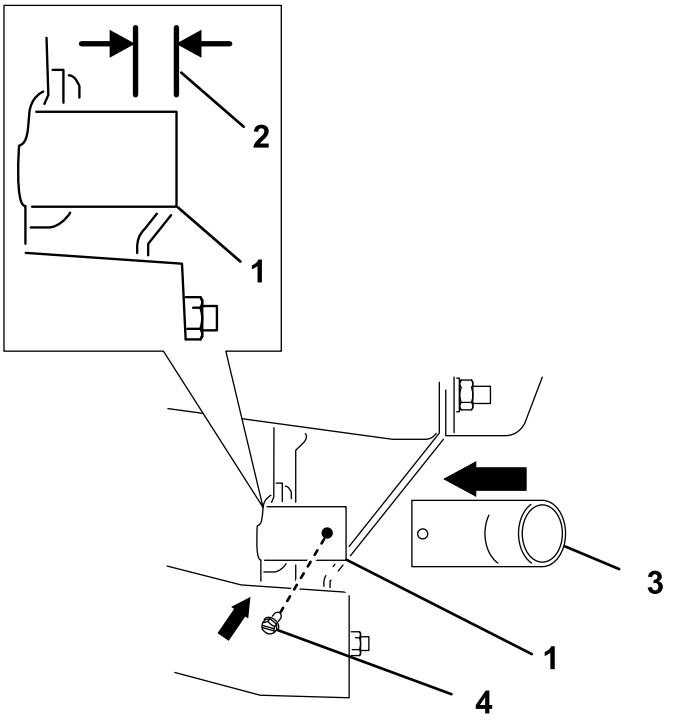


Figure 6
Tailpipe Extension Installation

1. Muffler tailpipe
2. 3/4 inch (19 mm)
3. Tailpipe extension
4. Washer head screw (#8 x 1/2 inch, self-threading)

3. Slip the pre-drilled end of the tailpipe extension over the muffler tailpipe, and align the end of the extension with the mark created in step 2. Rotate the tailpipe extension until the pre-drilled hole in the extension is aligned outward and horizontal (Figure 6).
4. Mark the outline of the hole in the tailpipe extension on to the muffler tailpipe, and remove the tailpipe extension.
5. Locate the center of the mark on the muffler tailpipe surface, and center-punch the location.
6. Drill a 1.5 mm (1/16 inch) hole in the muffler tailpipe at the center-punch mark.
7. Slip the tailpipe extension on the muffler tailpipe and align the holes.
8. Secure the tailpipe extension with the self-threading screw (#8 x 1/2 inch) (Figure 6).

Note: Do the following steps to install the engine guard if removed in step 1:

A. Align the holes in the guard with back side of the front-mounting point and the center engine guard (Figure 5).

B. Loosely secure the lower engine guard to the carriage bolt at the center engine guard with one of the previously retained flange nuts (Figure 5).

C. Secure the lower engine guard to the front mounting point with the previously retained carriage bolts and flange nuts (Figure 5).

D. Tighten all the mounting hardware to secure the lower-left engine guard.

4

Drilling the Exhaust-Shield Mounting Holes

Parts needed for this procedure:

1	Exhaust shield
2	Flange-hex-head bolt (3/8 x 1 inch)
2	Nut (3/8 inch)

Procedure

Note: If the exhaust-shield mounting holes are present in the lower-left engine guard, skip to the instructions in section 5 Installing the Exhaust Shield (page 11).

Note: Install the tailpipe extension and the lower-left engine guard before installing the exhaust-heat shield.

Drill the holes in the lower-left bumper holes for the exhaust shield as follows:

1. Locate the muffler tailpipe and tailpipe extension at the left-rear corner of the engine, and locate the lower-left engine guard.
2. Align the exhaust shield to the lower-left engine guard as follows:

A. Center the arched part of the shield to the tailpipe extension.

B. Locate and mark the heat-shield mounting holes as follows:

- **For Domestic (US) Mowers**

i. Align the right flange of the exhaust shield (the flange with 2 holes) to the rear surface of the lower-left engine guard (Figure 7).

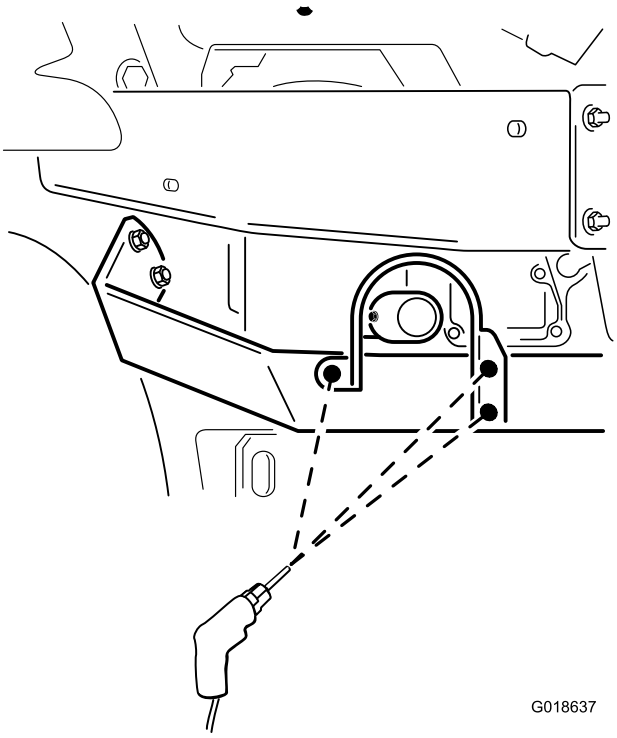


Figure 7
Heat Shield Installation on US Domestic Mower

ii. Align the bottom edge of the exhaust-shield right flange to the bottom edge of the engine guard (Figure 7).

iii. Align the left flange of the exhaust shield (the flange with 1 hole) to the surface of the small, angular area of the lower-left engine guard. (Figure 7).

Note: Ensure the left flange (the flange with 1 hole) of the exhaust shield is flush with the engine-guard surface.

iv. Align the top edge of the exhaust-shield left flange and the top edge of the lower-left engine guard so that the flange edge and the guard edge are parallel (Figure 7).

v. Mark the outline of all holes in the exhaust-shield flanges on to the lower-left engine guard, and remove the exhaust shield from the engine guard.

- **For International (TE) Mowers**

i. Align the holes of the exhaust-shield right flange (the flange with 2 holes) to the two left-most-vertical slots in the lower-left engine guard (Figure 8).

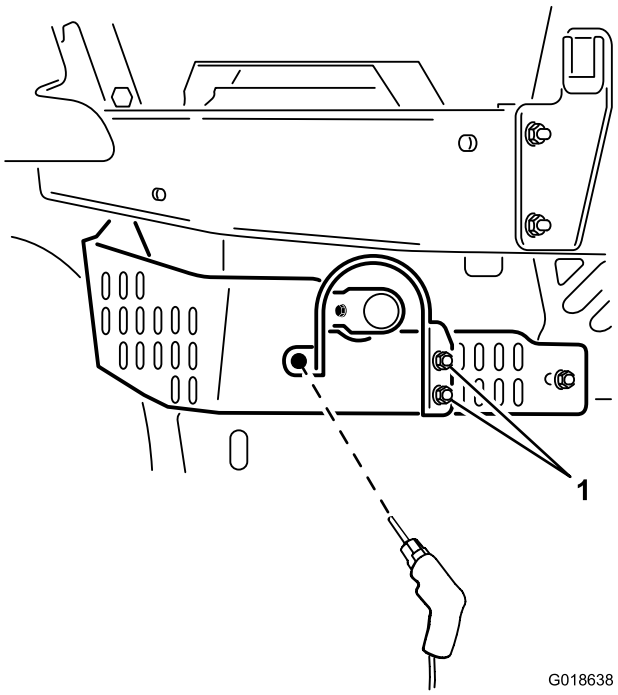


Figure 8
Heat Shield Installation on International (TE) Mower

1. Flange-hex-head bolt (3/8 x 1 inch) and Nut (3/8 inch)

ii. Align the bottom edge of the right flange of the of the exhaust shield to the bottom edge of the engine guard (Figure 8).

iii. Loosely secure the right flange of the exhaust shield to the engine guard with 2 flange-hex-head bolts (3/8 x 1 inch) and 2 flange nuts (3/8 inch).

iv. Align the left flange of the exhaust shield (the flange with 1 hole) to angular area of the lower-left engine guard (Figure 8).

Note: Ensure that the left flange (the flange with 1 hole) of the exhaust shield is flush with the engine-guard surface.

v. Mark the outline of the hole in the left flange of the exhaust shield on to the lower-left engine guard.

vi. Remove the fasteners and exhaust shield from the engine guard.

3. Locate the center of the marks on the lower-left engine-guard surface, and center-punch the locations.

4. Drill a 10 mm (3/8 inch) hole in the engine guard at the center-punch mark created in step 3.

Important: **Ensure that the drill bit does not contact the muffler when drilling the heat-shield-mounting hole in the lower-left engine guard.**

5

Installing the Exhaust Shield

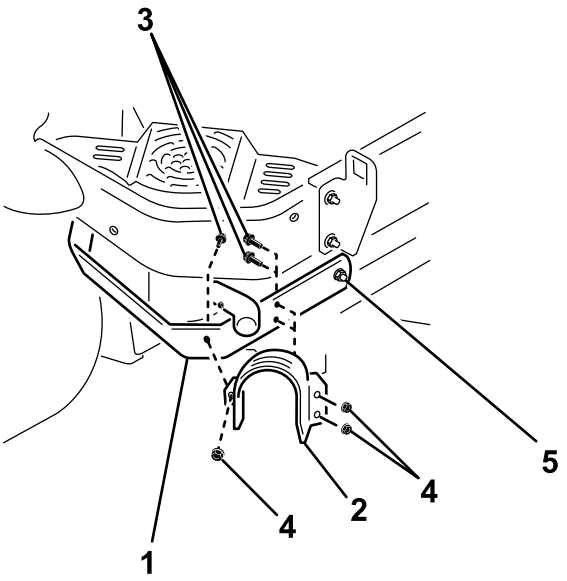
Parts needed for this procedure:

1	Exhaust shield
3	Flange-hex-head bolt (3/8 x 1 inch)
3	Nut (3/8 inch)

Procedure

Install the exhaust guard on the lower-left bumper as follows:

1. Align the hole of the exhaust-guard left flange to the hole in the small, angular area of the engine guard as illustrated in Figure 9 for **Domestic (US) mowers** or in Figure 10 for **International (TE) mowers.**



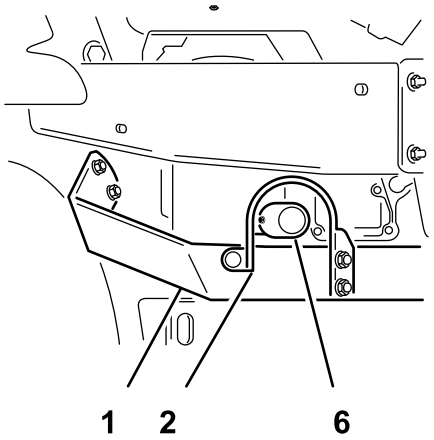
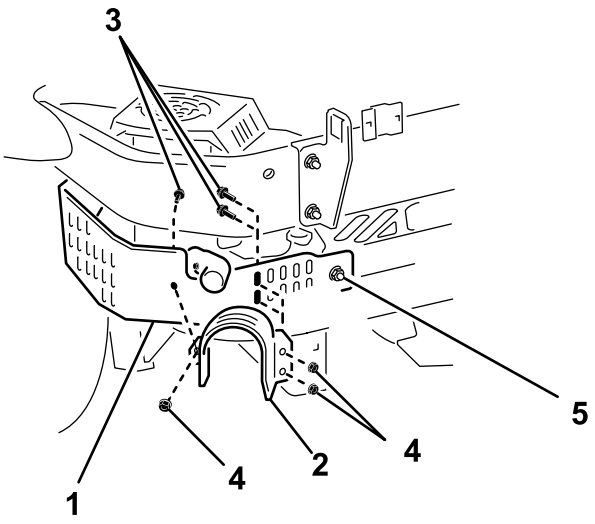


Figure 9

Heat-Shield Installation on US Domestic Mower

1. Lower-left engine guard
2. Exhaust shield
3. Flange-hex-head bolt (3/8 x 1 inch)
4. Nut (3/8 inch)
5. Flange nut (lower-left engine guard, back-mounting point)
6. Tailpipe extension



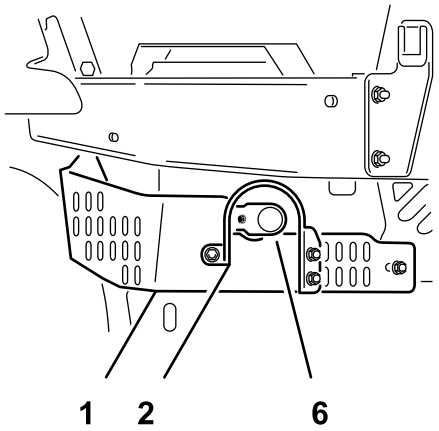


Figure 10

Heat-Shield Installation on International (TE) Mower

1. Lower-left engine guard
2. Exhaust shield
3. Flange-hex-head bolt (3/8 x 1 inch)
4. Nut (3/8 inch)
5. Flange nut (lower-left engine guard, back-mounting point)
6. Tailpipe extension

2. **For Domestic (US) Mowers,** align the holes in the right flange of the exhaust guard with the holes in the back of the lower-left bumper (Figure 9).

   For International (TE) Mowers, align the holes in the right flange of the exhaust guard with the 2 left-most-vertical slots in the back of the lower-left engine guard (Figure 10).

3. Secure the heat shield to the engine guard with the 3 flange-hex-head bolts (3/8 x 1 inch) and 3 flange nuts (3/8 inch) (Figure 9 for **US Domestic (US) mowers** or Figure 10 for **International (TE) mowers.**)

6

Installing the Hopper Support Frame and Hood Rod

Parts needed for this procedure:

1	Hopper-support frame
2	Hairpin
1	Hood hold-down rod

Procedure

Install the hopper-support frame as follows:

1. Align the hopper-support frame so that the 2 keyed-hood pins on the top of the frame are pointing to the right, and the mounting pin on the bottom of the frame is pointing to the left as shown in Figure 11.

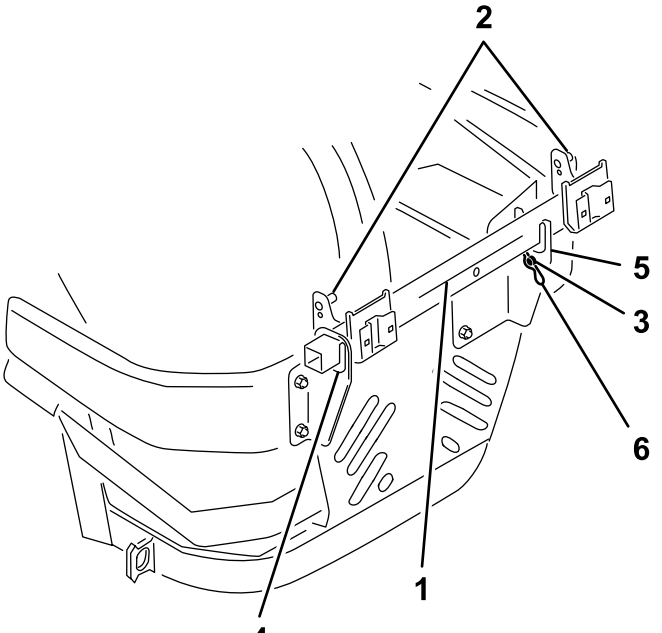


Figure 11

Hopper-Support Frame Installation

1. Hopper-support frame
2. Keyed-hood pins
3. Mounting pin
4. Left frame-support bracket
5. Right frame-support bracket
6. Hairpin

2. Insert the hopper-support frame into the square-shaped opening of the left frame-support bracket (Figure 11).
3. Align the mounting pin to the right of the right frame-support bracket (Figure 11).
4. Lower the frame between the U-shape tabs of the of the right bracket (Figure 11).

5. Slide the hopper-support frame to the left until the mounting pin passes through the hole in the right frame-support bracket (Figure 11).

   Note: The hopper-support frame and the frame-support brackets are a close fit. If necessary, use a soft-faced mallet to position the hopper-frame support in the frame brackets.

6. Install the hairpin through the hole of the mounting pin to secure the frame to the bracket (Figure 11).

Install the hood rod as follows:

1. Align the hood rod so that the stop flange is toward the hopper-support frame (Figure 12).

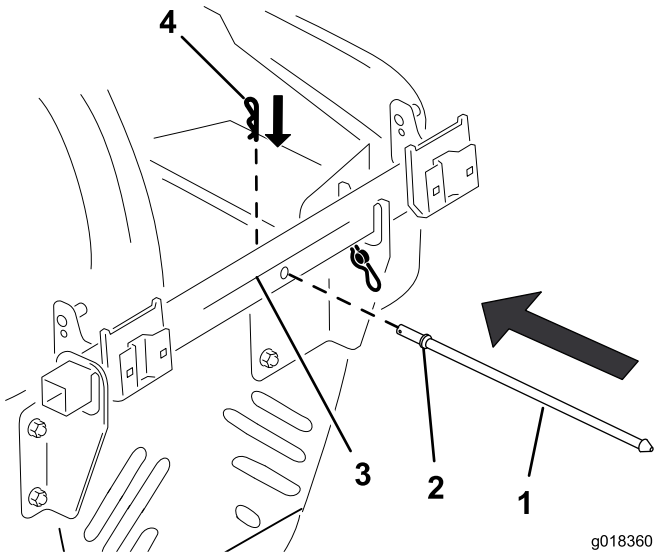


Figure 12
Hood Rod Installation

1. Hood rod
2. Stop flange
3. Hopper-support frame
4. Hairpin

2. Insert the rod through the hole in the hopper-support frame until the stop flange is against the back side of the frame (Figure 12).

   Note: Ensure that the hole in the hood rod is extending beyond the forward side of the hopper-frame hole.

3. Secure the hood rod to the support frame by inserting the hairpin through the hole in the hood rod (Figure 12).

7

Installing the Hood Baffle

Parts needed for this procedure:

1	Bagger hood
1	Baffle
2	Hairpin (small)

Install the Baffle in the Bagger Hood

1. Remove and retain the hairpins from the baffle.
2. Locate the baffle slots in the front and back side walls of the bagger hood, and the mounting tabs on the hood baffle (Figure 13).

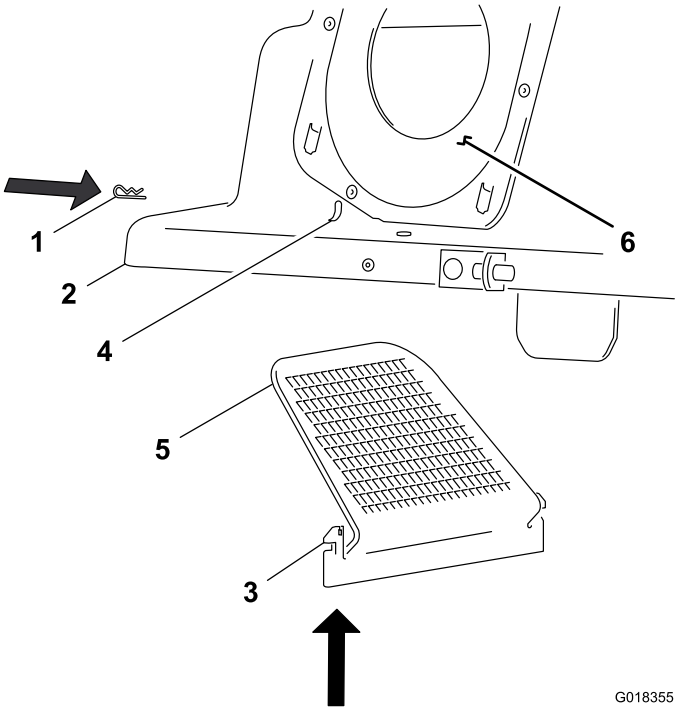


Figure 13
Hood, Baffle, and Hairpin

1. Hairpin
2. Bagger Hood
3. Baffle-mounting tab
4. Baffle slot
5. Baffle
6. Duct seal

3. Position the hood so that the duct seal is on your left, as illustrated in Figure 13.
4. Align the baffle so that the screened area is up and angled left (Figure 13).
5. Insert the baffle up into the hood from the bottom (Figure 13).

6. Align the baffle-mounting tabs with the baffle slots in the hood, and push the mounting tabs up and through the slots (Figure 13).
7. Secure the baffle to the hood by inserting the hairpins into the holes in the baffle-mounting tabs as shown in Figure 14.

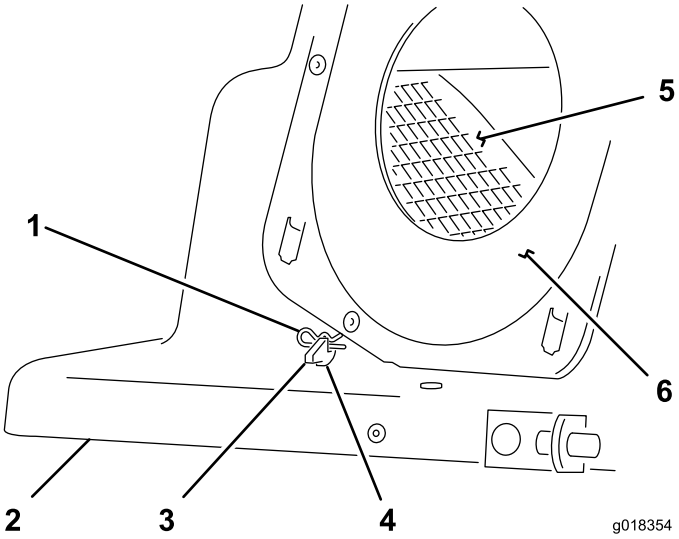


Figure 14
Bagger Hood Assembly

1. Hairpin
2. Bagger hood
3. Baffle-mounting tab
4. Baffle slot
5. Baffle
6. Duct seal

8

Installing the Hood Assembly and Bags

Parts needed for this procedure:

1	Hood assembly
2	Bag

Procedure

Remove the air-cleaner cover as follows:

1. Open the 2 latches that secure the air-filter cover to the air-filter housing (Figure 15).

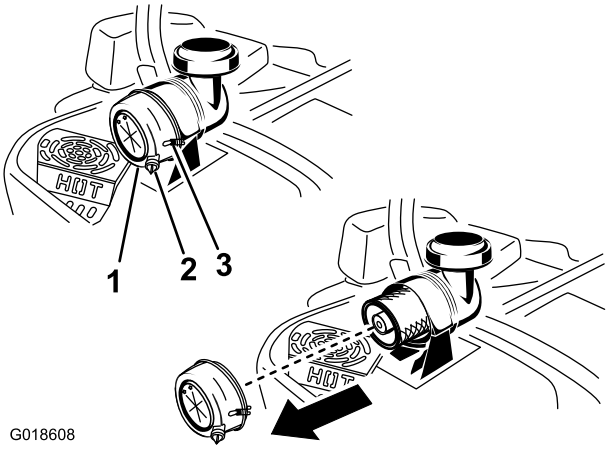


Figure 15
Air-Cleaner Cover Removal

1. Air-cleaner cover
2. Breather valve
3. Air-cleaner latch

2. Pull the air-filter-cover back and remove the air-filter cover.

Install the hood assembly as follows:

1. On the hood, locate the keyhole slot in the left and right-hood brackets (Figure 16).
2. On the hopper-support frame, locate the 2 keyed pins at the pivot brackets on the top of the hopper-support frame (Figure 16).

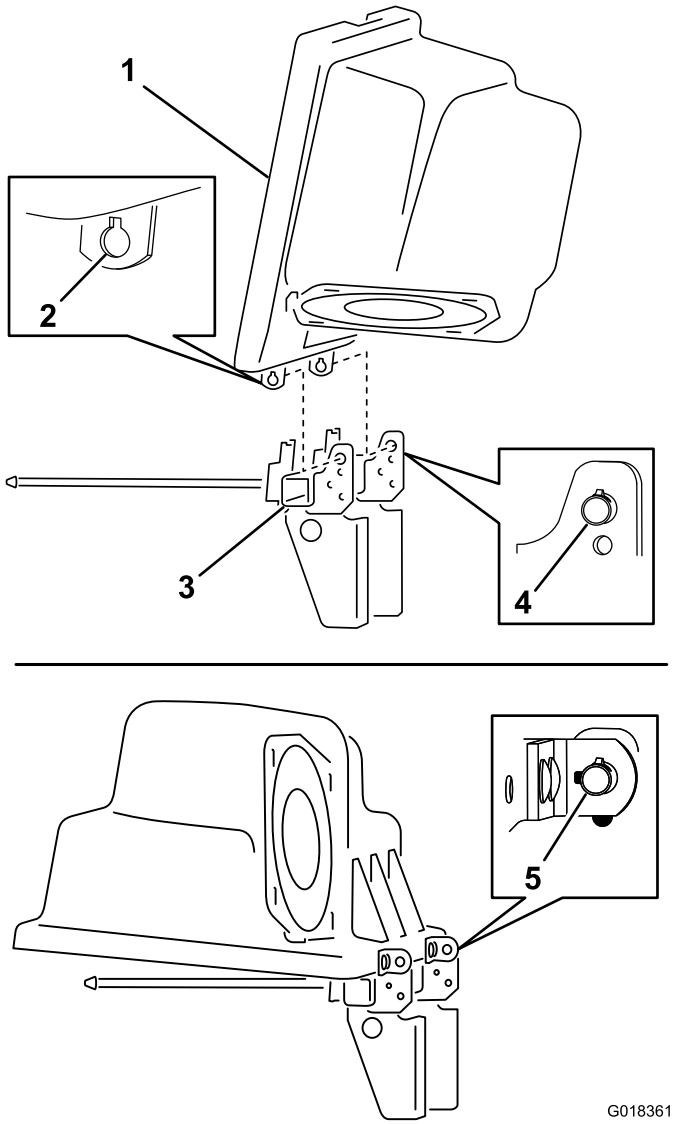


Figure 16
Hood Installation

1. Hood
2. Hood bracket with keyhole slot
3. Hopper-support frame
4. Pivot bracket with keyed-pivot pin
5. Hood installed

3. Rotate the hood so that the keyhole slot is up, and align the hood to the right of the keyed-pivot pins (Figure 16).
4. Assemble the hood to the hopper frame by sliding the keyhole brackets over the keyed pins (Figure 16).
5. Rotate the hood down to secure the hood to the hopper-support frame as shown in Figure 16.

Install the air-cleaner cover as follows:

Note: Ensure that the primary air filter is fully seated by pushing on its outer rim.

Important: Do not press on the soft inside area of the filter

1. Position the air-cleaner cover so that the breather valve is located at approximately 5 o'clock (Figure 17).

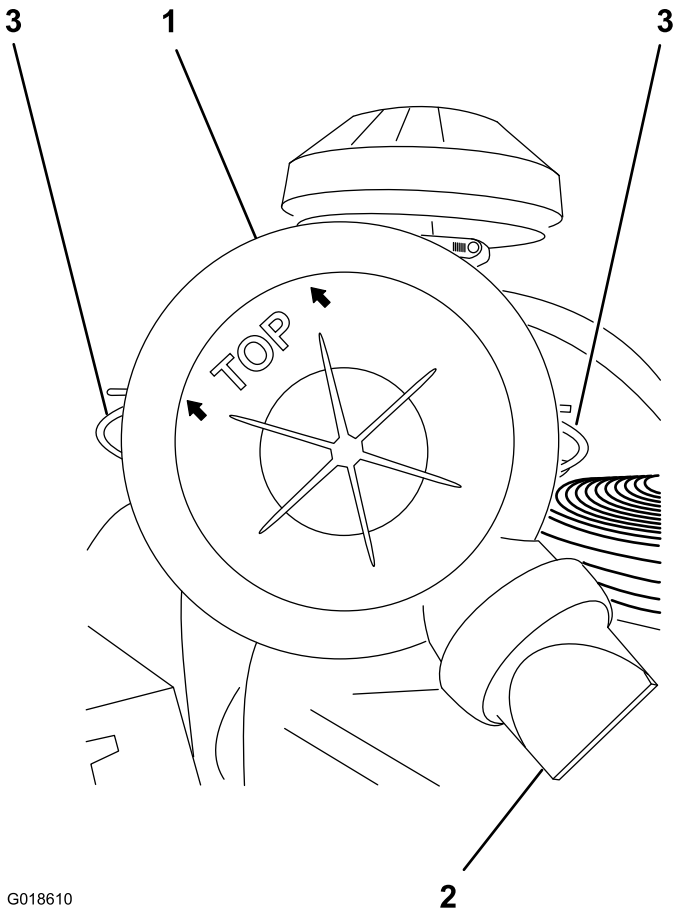


Figure 17
Air-Cleaner Cover

1. Air-cleaner cover
2. Breather valve
3. Air-cleaner latch

2. Secure the latches (Figure 15).

Install the bag assemblies onto the hopper-support frame as follows:

1. Raise the hood to expose the notched-bag brackets on the hopper-support frame as shown in Figure 18.

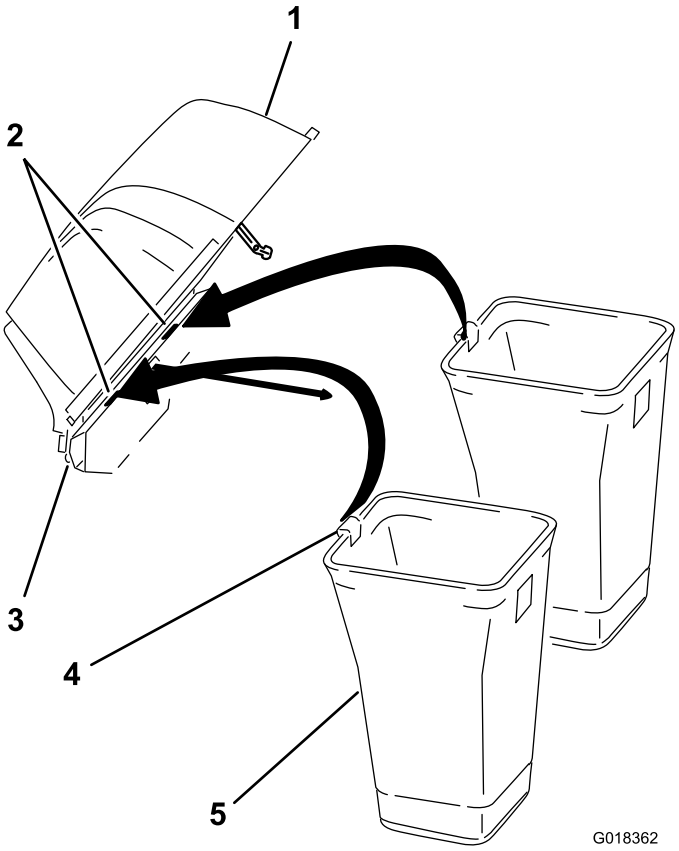


Figure 18
Bag Installation

1. Hood
2. Notched-bag bracket
3. Hopper-support frame
4. Mount tab
5. Bag

2. Align the mount tab of the bag assembly with the notched-bag bracket (Figure 18).
3. Lower the bag assembly until the bag tab is fully seated in to the notched bracket (Figure 18).
4. Repeat steps 1 and 2 for the other bag (Figure 18).
5. Lower the bagger hood over the bags (Figure 18).
6. Align the hole in the hood latch with the hood hold-down rod. (Figure 19).
7. Push the hood latch forward until the end of the hood rod has passed through latch as shown in Figure 19.

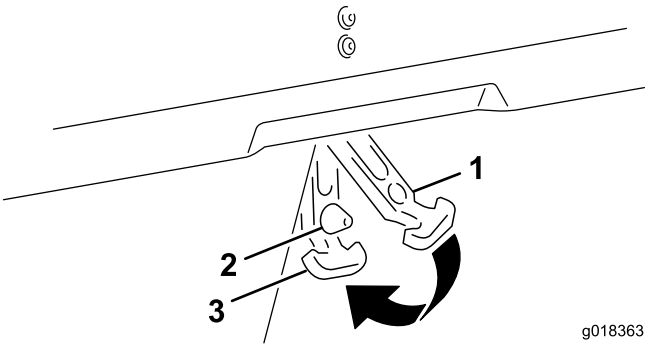


Figure 19

9

Routing the Blower Belt into the Blower Assembly

Parts needed for this procedure:

1	Blower (from the blower and drive kit)
1	Blower belt (from the blower and drive kit)

Procedure

1. Install the belt around the blower pulley (Figure 20 and Figure 21).

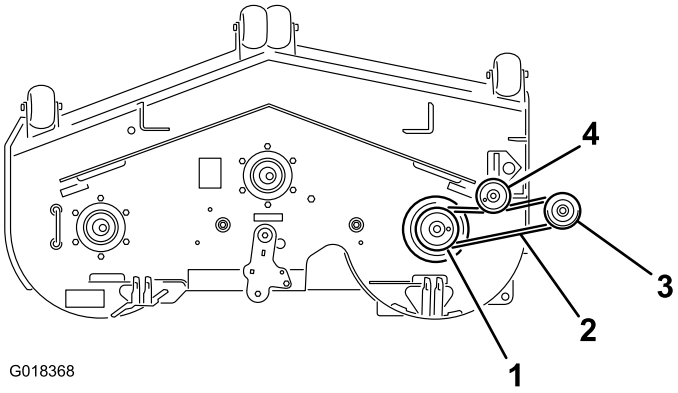
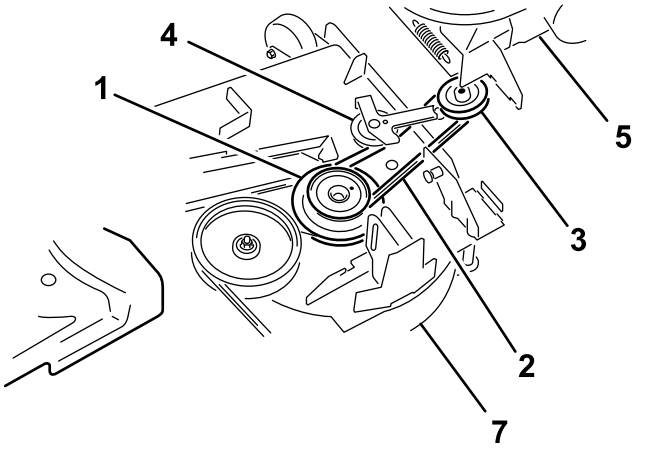


Figure 20
Blower Belt Routing

1. Drive pulley
2. Blower belt
3. Blower pulley
4. Idler/tension pulley



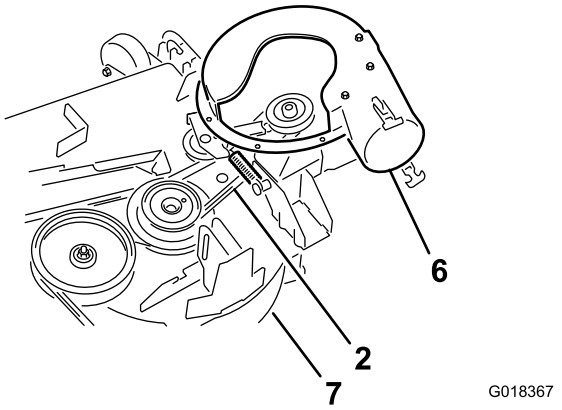


Figure 21
Blower Belt Routing

1. Drive pulley
2. Blower belt
3. Blower pulley
4. Idler/tension pulley
5. Blower (housing repositioned for illustrative purposes)
6. Blower in position (housing portion removed for illustrative purposes)
7. Mower deck

2. Ensure that the belt remains aligned to the blower pulley while you are installing the blower assembly.

10

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 lawn mower to throw objects toward you or bystanders, resulting in serious injury. Also, contact with the blade could occur.

- **Never operate the lawn mower unless you install a cover plate, a mulch plate, or a grass chute and catcher.**
- **Ensure that the grass deflector is installed when you remove the grass chute and catcher.**

Remove the side-discharge chute as follows:

Important: Install the side-discharge chute when you remove the bagger and blower.

Important: Save all the hardware and the side-discharge chute.

1. Remove the locknut, bolt, spacer, and spring that secure the side-discharge chute to the mower deck (Figure 22).

   Note: Retain the removed hardware.

2. Remove the side discharge chute from the mower deck.

   Note: Retain the chute.

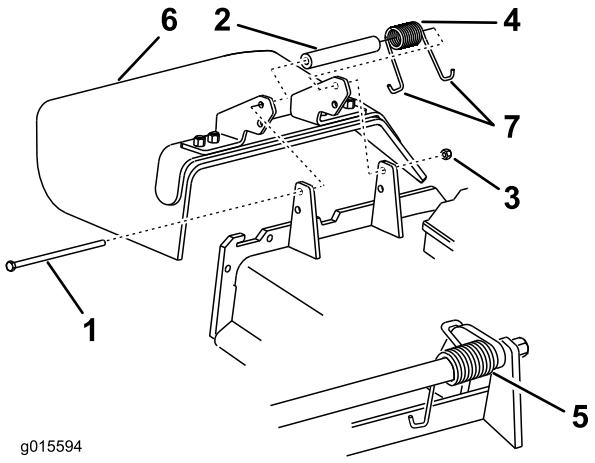


Figure 22

1. Bolt
2. Spacer
3. Locknut
4. Spring
5. Spring installed
6. Grass deflector
7. **J** hook end of spring

Install the blower assembly as follows:

1. Remove the original right-hand belt cover from the mower deck.

   Note: Retain the original belt cover for installation when you operate the mower with the bagging-kit blower removed.

2. Align the pivot pin on the blower with the pivot-pin hole in the deck (Figure 23).

3. Lower the blower and slide the pivot pin into the pivot hole (Figure 23).

   Note: Ensure that the belt remains positioned in the blower pulley.

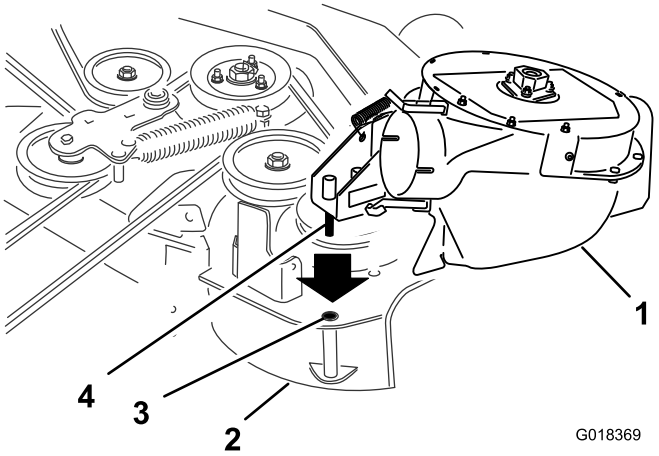


Figure 23

Installing Blower to Deck Pivot Hole

1. Blower assembly
2. Deck
3. Pivot hole
4. Blower-pivot pin

4. Move the latch pin from the locking position to the open position (Figure 24).

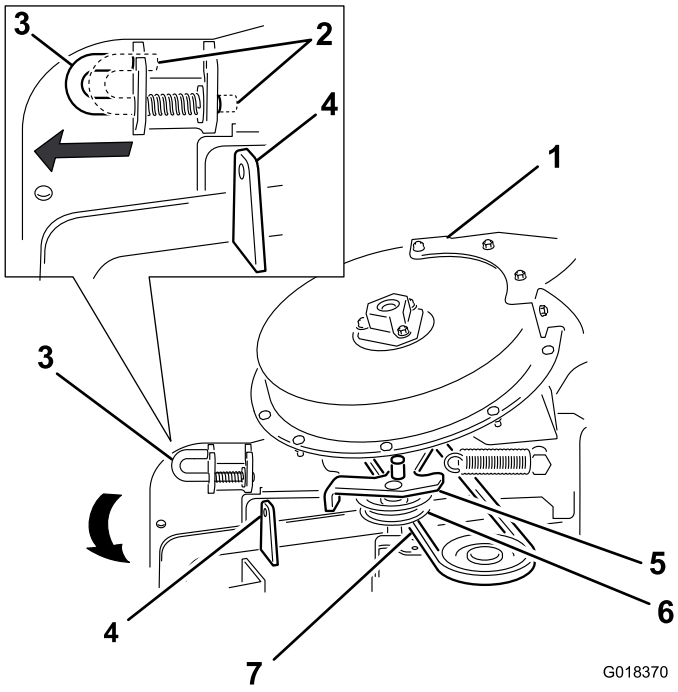


Figure 24

Securing the Blower to the Chute Bracket

1. Blower assembly
2. Latch pin (locking position)
3. Latch pin (open position)
4. Chute bracket
5. Idler pivot bracket
6. Idler pulley
7. Belt (beneath the idler pulley)

5. Close the blower assembly and align the latch pin with the hole in the chute bracket.

6. Move the latch pin to the locking position (Figure 25).

   Note: Ensure that the latch pin extends through the hole in chute bracket.

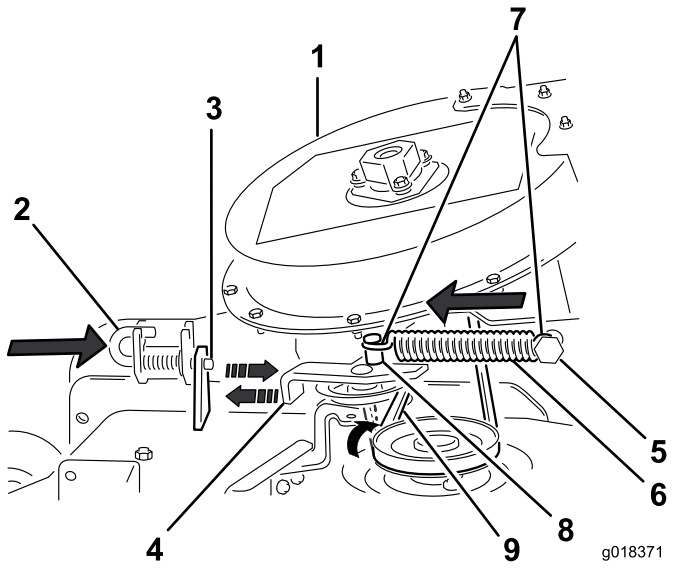


Figure 25

Installing the Tension Spring and Aligning the Belt

1. Blower assembly
2. Latch pin (locking position)
3. Chute bracket
4. Idler pivot bracket
5. Fixed spring post
6. Spring
7. Idler spring post
8. Spring hook end
9. Belt (aligned to the idler pulley)

Note: Ensure that the latch firmly holds the blower assembly against the mower deck, but can be released by hand.

7. Route the belt around the drive pulley as illustrated in Figure 20 and Figure 21.
8. Temporarily route the belt beneath the idler pulley (Figure 25).
9. Move the idler pivot bracket toward the fixed spring post. Install the spring by aligning the spring hook on to the idler spring post (Figure 25).

Note: Ensure that the spring hooks are correctly positioned on the spring posts.

10. Pull the spring loaded idler pulley away from the fixed spring post, and route the belt around the mower deck pulley (Figure 25).

Note: Ensure the belt is routed around the blower pulley correctly.

11

Installing the Belt Cover

Parts needed for this procedure:

1	Belt cover (from the blower and drive kit)
1	Cover knob

Procedure

1. Lower the mower deck to the lowest height-of-cut position.
2. Align the new right-hand belt cover with the belt-cover bracket and the notches in the deck bracket.
3. Install the new belt cover so that the notches on both sides of the cover go over the belt-cover supports and secure the latch (Figure 26).

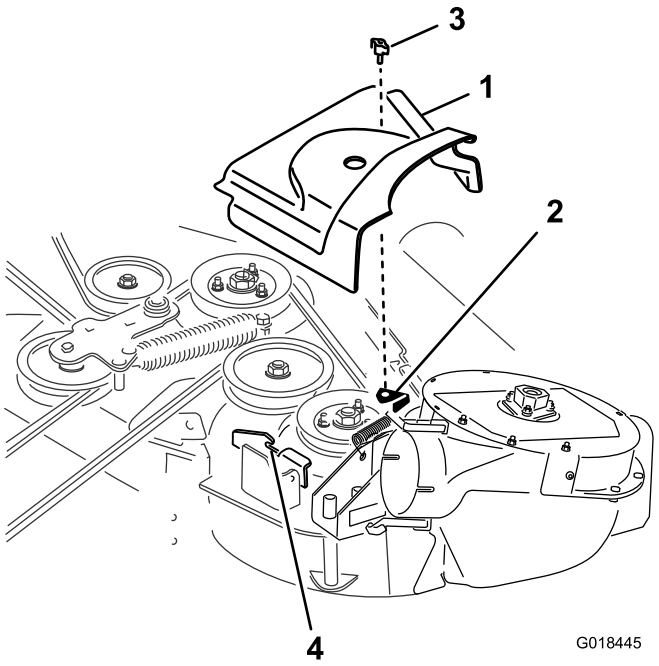


Figure 26

Installing the Belt Cover

1. Belt cover
2. Belt-cover support
3. Cover knob
4. Notch

4. Secure the new belt cover to the deck by installing the cover knob from the blower and drive kit through the cover and threaded into the belt cover support (Figure 26).

12

Installing the Discharge Tube

Parts needed for this procedure:

1	Upper discharge tube
3	Screw (1/4 x 3/4 inch)
3	Locknut (1/4 inch)
1	Lower discharge tube

Procedure

Important: Ensure that the mower deck is in the lowest height-of-cut position before installing the discharge tubes.

Note: Remember to install the grass deflector when you remove the bagger from the mower; refer to Replacing the Grass Deflector (page 30).

1. Disengage the PTO and set 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 height-of-cut position.
4. Remove the bags for viewing the tube under the hood.
5. Lower and latch the hood for the hopper.
6. For a bagger kit installed on a 52-inch mower or a 60-inch mower, skip to the instructions for step 8.
7. **For a bagger kit installed on a 48-inch mower,** cut the upper discharge tube as follows:
   A. Locate the upper end of the upper discharge tube (Figure 27).

      Note: The lower end of the upper discharge tube has pre-drilled holes.

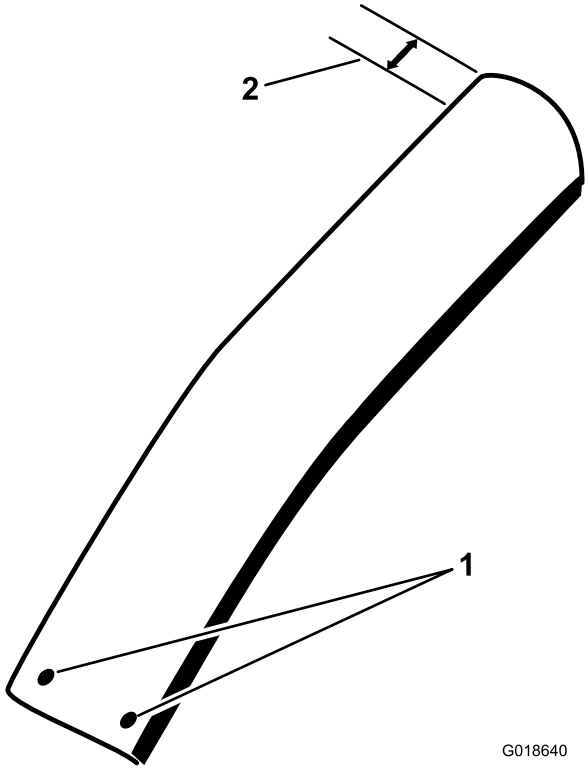


Figure 27
Upper Discharge Tube

1. Pre-drilled holes
2. 17.8 cm (7 inches)

   B. Measure 17.8 cm (7 inches) from the end of the tube, and mark the tube at this location (Figure 27).
   C. Apply masking tape around the circumference of the upper discharge tube aligned with the mark on the tube created in step B (Figure 27).
   D. Using tape as a guide, carefully cut off and discard the excess length of tube (Figure 27).
8. Drill the holes for the lower discharge tube as follows:
   A. Locate the white dot at the upper end of the lower discharge tube.
   B. Drill the lower discharge tube with a 1/4 inch (6.5 mm) drill bit at the center-punch mark (Figure 28).

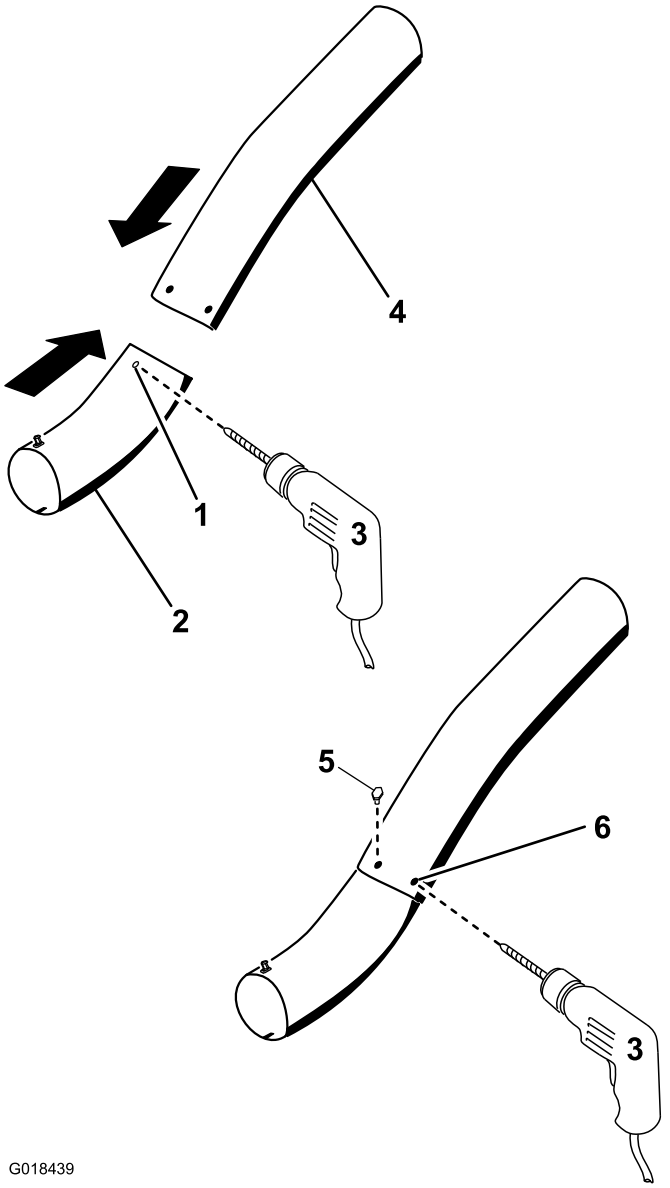


Figure 28
Drilling Lower Discharge Tube

1. White dot
2. Lower discharge tube
3. Drill 6.5 mm (1/4 inch) diameter hole
4. Upper discharge tube
5. Screw (1/4 x 3/4 inch)
6. Upper discharge-tube hole

C. Remove and retain the hardware in the lower end of the upper discharge tube.

Note: The holes in the lower end of the upper discharge tube are spaced an equal distance around the tube circumference.

D. Align one of the pre-drilled holes at the lower end of the upper discharge tube with the hole in the upper end of the lower discharge tube that was drilled in step B (Figure 28).

E. Insert a screw (1/4 x 3/4 inches) through one of the holes to maintain the alignment of the upper and lower tubes (Figure 28).

F. Using the remaining holes in the lower end of the upper tube as a template, drill the 2 remaining holes in the upper end of the lower discharge tube (Figure 28).

G. Remove the screw used to align the upper and lower tubes.

9. Install the upper and lower discharge tubes as follows:

Note: Ensure that the mower deck is at the lowest cutting position and the hopper bags are removed.

A. Insert the upper end (no holes) of the upper discharge tube through the tube seal in the hood by pushing the tube in until the tube contacts the inside of the hood, then pull the tube out slightly so that the seal extends outward (Figure 29).

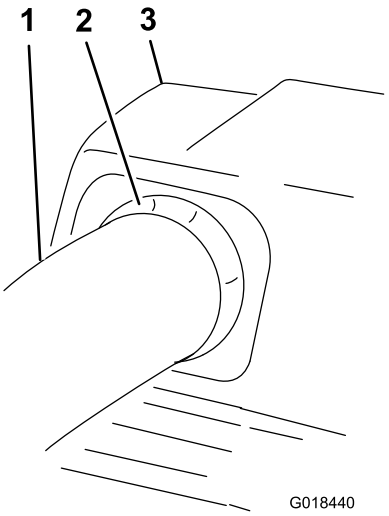


Figure 29
Upper Discharge Tube and Bagger Hood

1. Upper tube
2. Rubber seal protruding out
3. Bagger hood

B. Align lower end of the lower discharge tube with the blower-discharge port.

C. Align the notch in the lower discharge tube to lower latch adjacent to the blower-discharge port.

D. Slip the discharge tube on the blower port and attach the latches.

E. Slip the upper and lower discharge tubes together (Figure 30).

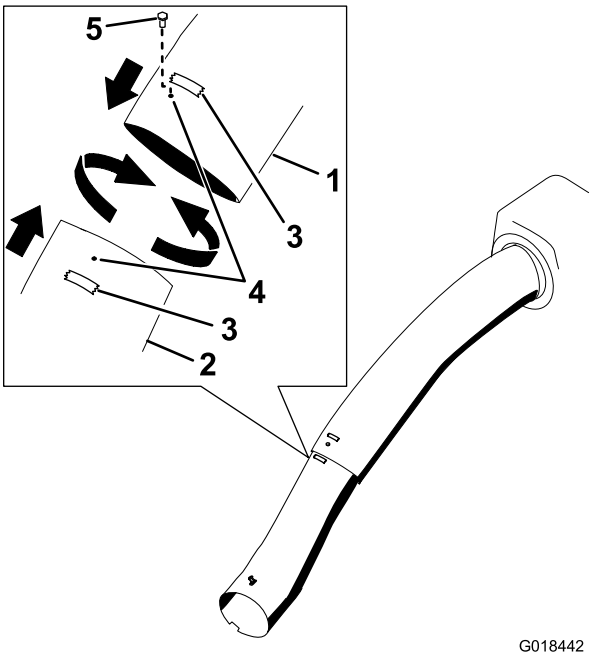


Figure 30

Tape Marking the Aligned Holes

1. Upper discharge tube
2. Lower discharge tube
3. Tape (marker)
4. Hole (1/4 inch)
5. Screw (1/4 x 3/4 inches)

F. Rotate the upper tube so that the end in the hood points towards the center of the hood (Figure 30).

Note: The parting lines on the tube will be approximately horizontal at the hood seal (Figure 31).

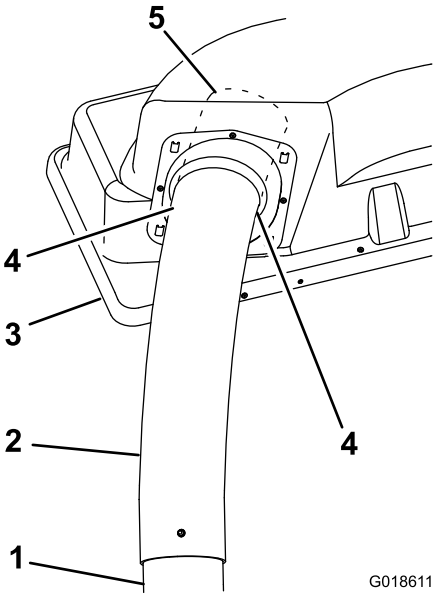


Figure 31

Upper Discharge Tube and Bagger Hood

1. Lower discharge tube
2. Upper discharge tube
3. Bagger hood
4. Parting line
5. Projecting end of upper discharge tube

G. While maintaining the approximate position of the upper discharge tube, align the holes in the upper and lower duct (Figure 30).

H. Insert a screw (1/4 x 3/4 inch) through one of the holes to maintain the alignment of the upper and lower tubes (Figure 30).

I. Mark each tube on the area adjacent to the screw with a piece of tape (Figure 30).

Note: Accomplish measurement and marking the upper discharge tube with the hood closed and accessed from beneath the hood.

J. With the deck in the lowest position and the hood closed, look underneath the hood and measure the length of the upper discharge tube protruding into the hopper. If the discharge tube extends more than 7.6 cm (3 inches), remove the excess tube length (Figure 33).

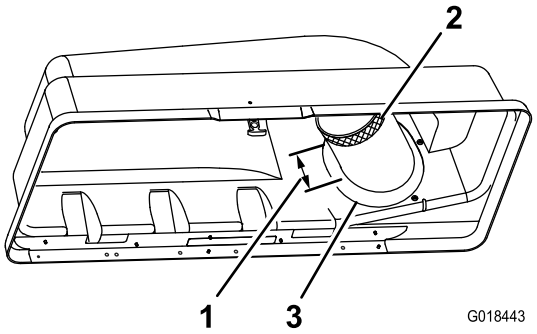


Figure 32

Upper Discharge Tube Measurement

1. 7.6 cm (3 inches)
2. Excess tube length
3. Tube seal

If necessary, shorten the upper discharge duct as follows:

i. Measure 7.6 cm (3 inches) along the upper discharge tube from the tube seal toward the end of the tube and mark the tube at this location (Figure 32).

ii. Remove the screw that is aligning the upper and lower discharge tubes, and remove upper tube from the hood and the lower tube from the blower.

i. Apply masking tape around the circumference of the upper discharge tube aligned with the mark on the tube created in step i (Figure 32).

ii. Using tape as a guide, carefully cut off and discard the excess length of tube.

K. Locate the tape marking the holes on the lower and upper discharge tubes applied in step I.

L. Slip the tubes together and align the holes marked with the tape (Figure 30).

M. Secure the tubes at all the holes with the screws (1/4 x 3/4 inch) and locknuts (1/4 inch) (Figure 30).

N. Insert the upper discharge tube through the tube seal in the hood by pushing the tube in until the tube contacts the inside of the hood (Figure 29).

O. Pull the tube out slightly so that the seal is extended outward (Figure 29).

P. Slip lower end of the lower discharge tube over the blower discharge port, and align the notch in the tube with the lower latch, and secure the lower discharge tube the latches (Figure 33).

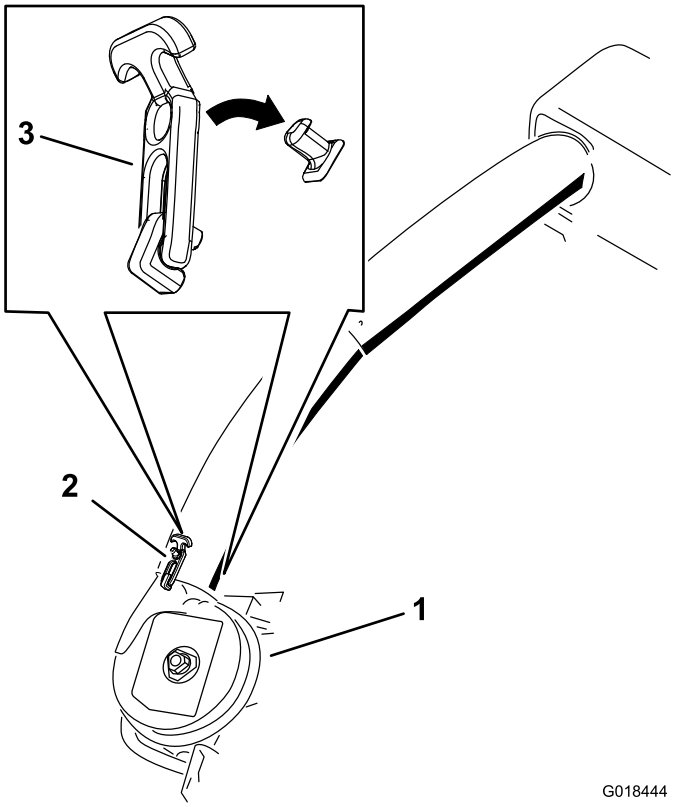


Figure 33

Lower Discharge Tube Latch

10. Unlatch the hood, install the hopper bags, and latch the hood (Figure 18 and Figure 19); refer to 8 Installing the Hood Assembly and Bags (page 14).

13

Installing the Weights

Parts needed for this procedure:

1	Weight-mount bracket
2	Carriage bolt (5/16 x 3/4 inch)
2	Flange nut (5/16 inch)
3	Front weight
6	Bolt (3/8 x 1 inch)
6	Lock washer
6	Flat washer
3	Flange nut (3/8 inch)

Procedure

Install the weights to comply with ANSI/OPEI B71.4-2012 Standard.

⚠ CAUTION

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

1. Install the weight-mount bracket under the footrest with 2 carriage bolts (5/16 x 3/4 inch) and 2 flange nuts (5/16 inch).

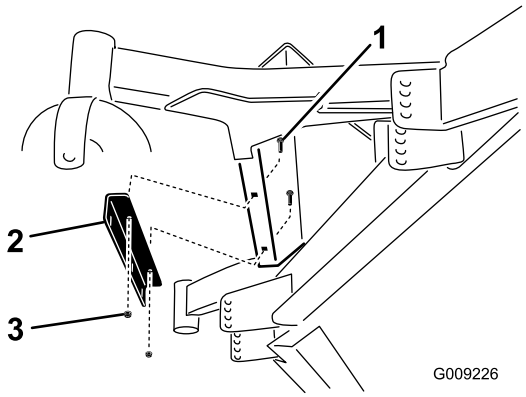


Figure 34

1. Carriage bolt (5/16 x 3/4 inch)
2. Weight-mount bracket
3. Flange nut (5/16 inch)

2. Install the front weights on top of the foot rest (Figure 35).
3. Secure the front weights on top of the foot rest and to the weight-mount bracket with 6 bolts (3/8 x 1 inch), 6 lock washers, 6 flat washers, and 3 flange nuts (3/8 inch) (Figure 35).

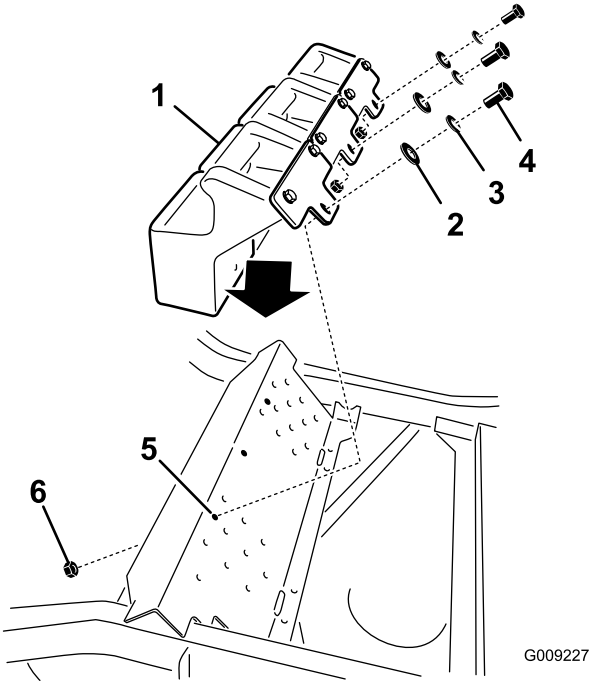


Figure 35

1. Front weight
2. Flat washer
3. Lock washer
4. Bolt (3/8 x 1 inch)
5. Hole in footrest
6. Flange nut (3/8 inch)

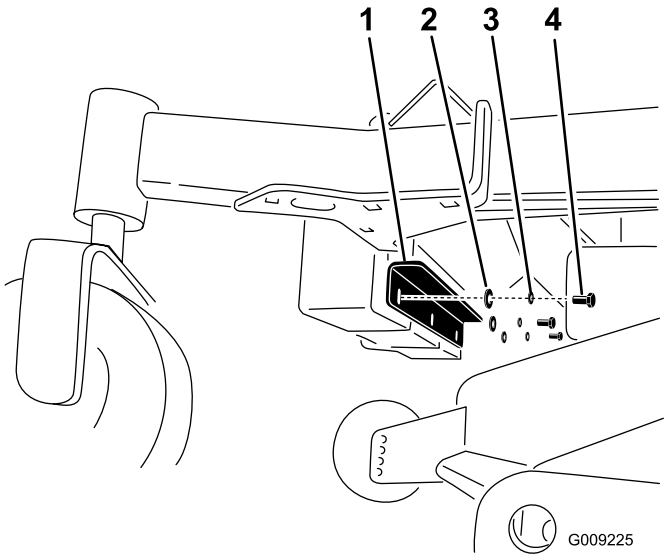


Figure 36

1. Weight-mount bracket
2. Flat washer
3. Lock washer
4. Bolt (3/8 x 1 inch)

14

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 37).

Pressure in the rear tires: 138 kPa (20 psi)

Pressure in the front caster wheels: 172 kPa (25 psi)

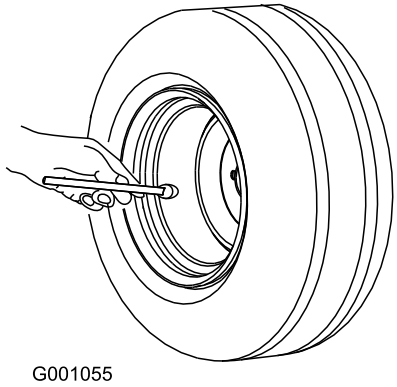


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Figure 37

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 mower before using this attachment.**
- **Never remove the bagger or bagger tubes while the engine is running.**
- **Always shut off the engine 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 a 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 mower.**
- **Never try to clear the discharge area or mower blades unless you move the power takeoff (PTO) to OFF, shut off the engine, and remove the key. Disconnect the spark plug(s) wires.**
- **Shut off the engine before unclogging the discharge chute.**

⚠ 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 set the parking brake when leaving the machine unattended, even if just for a few minutes.

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 the machine is on a slope.
2. Unlatch the bagger latch.
3. Open the bagger hood.
4. Compress the debris into the bags.
5. Use both hands to 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 38).

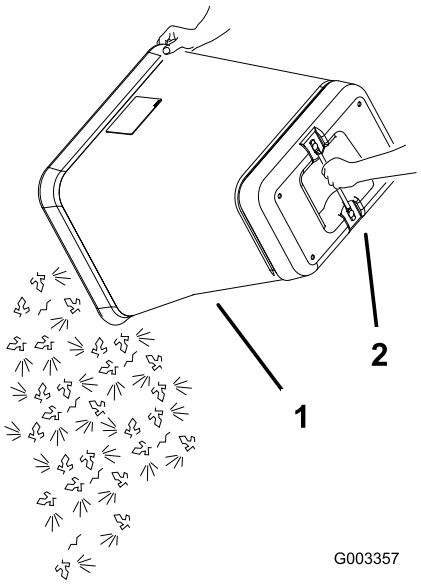

Figure 38

1. Bag
2. Bottom handle

7. Repeat step 5 and step 6 the other bag.
8. Install the bag tab of each bag into the notch in the bagger-support frame.
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 be rotating and cut off or injure 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 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. 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. 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, you can shake the debris 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. Shut 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. Remove the knob and 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 that 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 mower.**
- **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 Machines

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 mower. Do not trim with the right side of the mower because you could damage the bagging tubes.

Cutting Height

For optimum bagging performance, set the deck height-of-cut to remove no more that 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).

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

Bagging Blades

For 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 damage 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 the machine onto a trailer.

Maintenance

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 8 hours	• Inspect the blower belt. • Inspect the bagger.
Before each use or daily	• Clean the hood screen. • Clean the bagger.
Every 25 hours	• Inspect the blower belt.
Every 50 hours	• Grease the idler arm.
Every 100 hours	• Inspect the bagger.

Preparing for Maintenance

Do the following steps before preforming maintenance on the machine:

1. Park the machine on a level surface.
2. Disengage the PTO, move the motion control levers to the NEUTRAL locked position, and set the parking brake.
3. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
4. Clean the mower of any debris on the deck or rear part of the mower to ease maintenance.

Cleaning the Hood Screen

Service Interval: Before each use or daily

1. Disengage the power take off (PTO) and set 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. 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

1. Wash the inside and outside of the bagger hood, bags, tube, and the underside of the mower.

   Note: Use a mild automotive detergent to remove dirt.
2. Ensure 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 Blower 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 Blower Belt

1. Disengage the PTO, move the motion control levers to the NEUTRAL locked position, and set 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. Pull back on the spring-loaded idler pulley to relieve the belt tension (Figure 39).

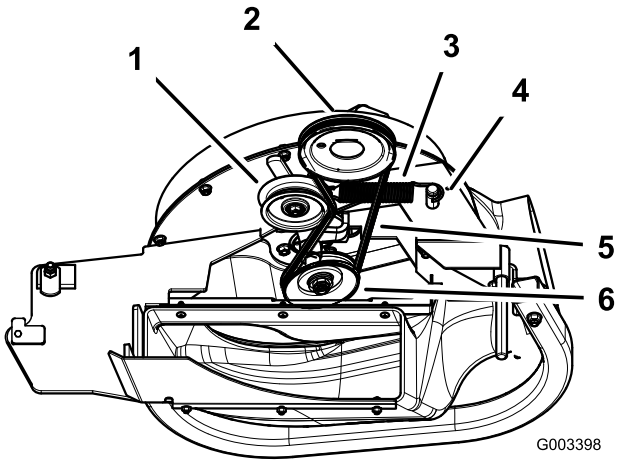

Figure 39

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

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 39).
6. Install the spring as shown in Figure 40.

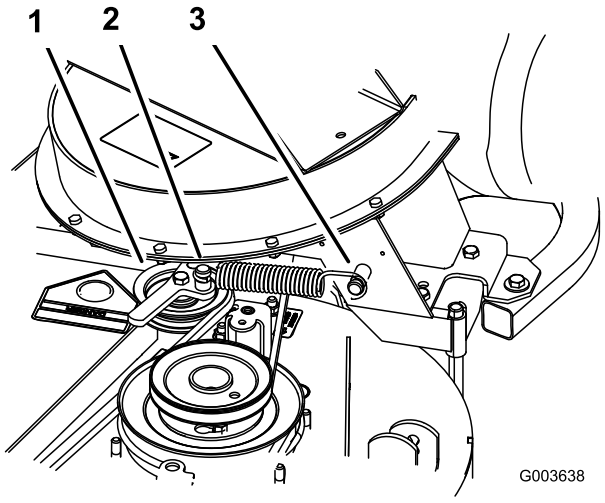

Figure 40

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 39).

Greasing the Idler Arm

Service Interval: Every 50 hours

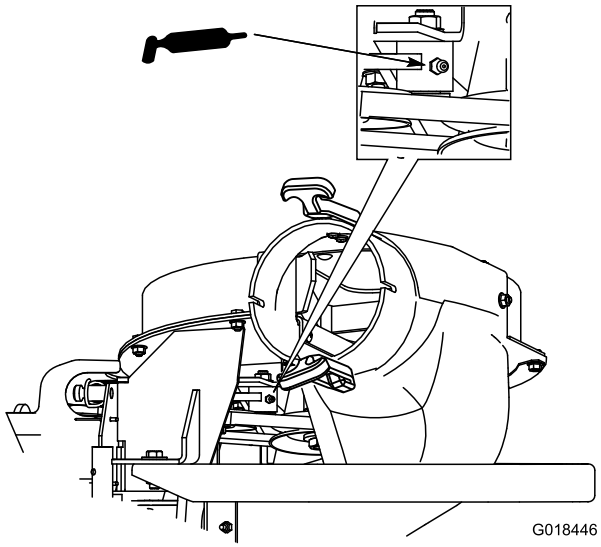

Figure 41

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 locked position, and set 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.

   Note: Replace these parts if they are cracked or broken.
4. Check the bags, bagger frame, and screen.

   Note: 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.

Choosing the Mower Blades

In most mowing conditions, the standard high lift blades will 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 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 mower *Operator's Manual* for more information on installing blades.

Replacing the Grass Deflector

⚠ WARNING

An uncovered discharge opening could allow the lawn mower to throw objects toward you or bystanders, resulting in serious injury. Also, contact with the blade could occur.

- **Never operate the lawn mower unless you install a cover plate, a mulch plate, or a grass deflector and a bagger.**
- **Ensure that the grass deflector is in the down position.**

1. Remove the locknut, bolt, spring, and spacer that secure the grass deflector to the pivot brackets on the deck (Figure 42). Remove the damaged or worn grass deflector.

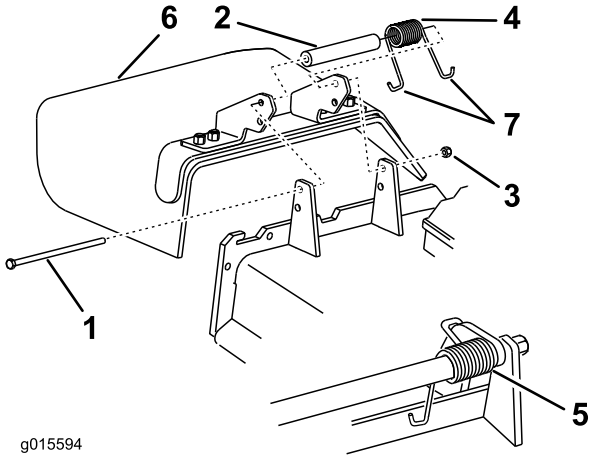

Figure 42

1. Bolt
2. Spacer
3. Locknut
4. Spring
5. Spring installed
6. Grass Deflector
7. **J**- hook end of the spring

2. Place the spacer and spring onto the grass deflector. Place 1 **J**-hook end of the spring behind the deck edge.

   Note: Ensure that 1 **J**-hook end of the spring is installed behind the deck edge before installing the bolt shown in Figure 42.

3. Install the bolt and nut. Place 1 **J**-hook end of the spring around the grass deflector (Figure 42).

   Important: The grass deflector must be able to rotate. Lift the deflector up to the full open position and ensure that it rotates to the full down position.

Storage

1. Clean the bagger attachment; refer to Cleaning the Bagger and Bags (page 29).
2. Inspect the bagger attachment for damage; refer to Inspecting the Bagger (page 30).
3. Ensure 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
Abnormal vibration.	1. Cutting blade(s) is/are bent or unbalanced. 2. Blade-mounting bolt is loose. 3. Loose blower pulley or pulley assembly. 4. Worn bagger belt. 5. Blower fan blade(s) is/are bent or unbalanced.	1. Install new cutting blade(s). 2. Tighten the blade-mounting bolt. 3. Tighten the appropriate pulley. 4. Replace the belt. 5. Contact an Authorized Service Dealer.
Reduced bagging performance.	1. Low engine speed. 2. Plugged screen in bagger hood. 3. Loose bagger belt. 4. A plugged tube or blower. 5. Full bags.	1. Always operate the engine at full throttle. 2. Remove debris, leaves or grass clippings from the screen. 3. Replace the bagger belt. 4. Locate and remove plugged debris. 5. Empty the hopper.
Blower and tubes plug too frequently.	1. Bags are too full. 2. Low engine speed. 3. Grass is too wet. 4. Grass is too long. 5. Plugged screen in hood. 6. Ground speed is too fast. 7. Worn bagger belt.	1. Dump more frequently. 2. Always operate the engine at full throttle. 3. Cut grass when it is dry. 4. Cut no more than 51-76 mm (2-3 inches) or 1/3 of the grass height, which ever is less. 5. Remove debris, leaves or grass clippings from the screen. 6. Drive slower at full throttle. 7. Replace belt.
Debris blowout.	1. Bags are too full. 2. Ground speed is too fast. 3. Mower deck is not leveled.	1. Dump more frequently. 2. Drive the machine at slow ground speed while operating the engine at full throttle. 3. See the machine *Operator's Manual* for leveling the mower deck.
Blower impeller does not spin freely.	1. Plugged blower. 2. Impeller not aligned.	1. Remove debris, leaves or grass clippings from the blower impeller. 2. Contact an Authorized Service Dealer.