



Recycler® Kit

Z Master® Riding Mower with 48in, 52in, and 60in Cutting Unit

Model No. 120-2401

Model No. 120-2402

Model No. 120-2403

Installation Instructions

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

Safety

Side Discharge or Mulch Grass

▲ WARNING

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.

- Never remove the grass deflector from the mower because the grass deflector routes material down toward the turf. If the grass deflector is ever damaged, replace it immediately.
- Never put your hands or feet under the mower.
- Never try to clear the discharge area or mower blades unless you disengage the power take off (PTO) lever and turn the ignition key to off. Also remove the key and pull the wire off the spark plug(s).

Ensure the mower has the hinged grass deflector that disperses clippings to the side and down toward the turf, while in side discharge mode.

To mulch grass clippings, the baffles must be installed into the mower as shown in the following steps.

Installation

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	No parts required	–	Remove the existing blades.
3	No parts required	–	Remove the existing baffle.
4	Discharge plate Carriage bolt, (5/16 x 7/8 inch) Flange nut, (5/16 inch) Flange nut, (3/8 inch) Carriage bolt, (3/8 x 1 inch)	1 1 1 2 2	Install the discharge plate.
5	Left baffle Center baffle Right baffle Flange nut, (3/8 inch) Carriage bolt (3/8 x 1 inch)	1 1 1 9 9	Install the baffles for 48 inch and 52 inch mower decks.
6	Left baffle Center baffle Right baffle Flange nut (3/8 inch) Carriage bolt (3/8 x 1 inch)	1 1 1 9 9	Install the baffles for 60 inch mower decks.
7	Recycler blades	3	Install the new blades.
8	No parts required	–	Tighten all fasteners.

1

Preparing the Mower

No Parts Required

Procedure

1. Thoroughly clean mower deck. All debris must be removed to ensure baffles will fit properly against mower deck.
2. Repair all bent or damaged areas of mower deck and replace any missing parts.

2

Removing the Existing Blades

No Parts Required

Procedure

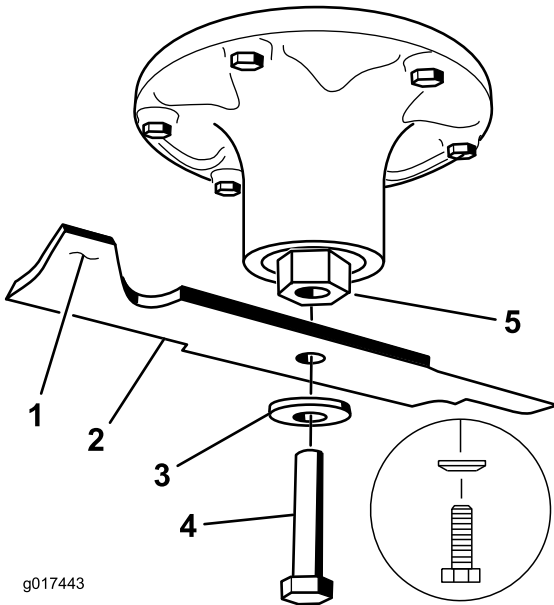
1. To hold the spindle shaft, use an open end wrench (1-1/2) on the spindle shaft hex end.
2. Remove the blade bolt, curved washer, and blade from the spindle shaft (Figure 1).

Note: Save the blades for use when in side discharging mode. Use the blade bolt and washer for installing the recycler blades in Step 4.

⚠ WARNING

The blades are sharp. Contact with a sharp blade can cause serious personal injury.

Wear gloves or wrap the sharp edges of the blade with a rag.



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Figure 1

- | | |
|-----------------------|--------------------------|
| 1. Sail Area of Blade | 4. Blade Bolt |
| 2. Blade | 5. Spindle shaft hex end |
| 3. Curved washer | |

3

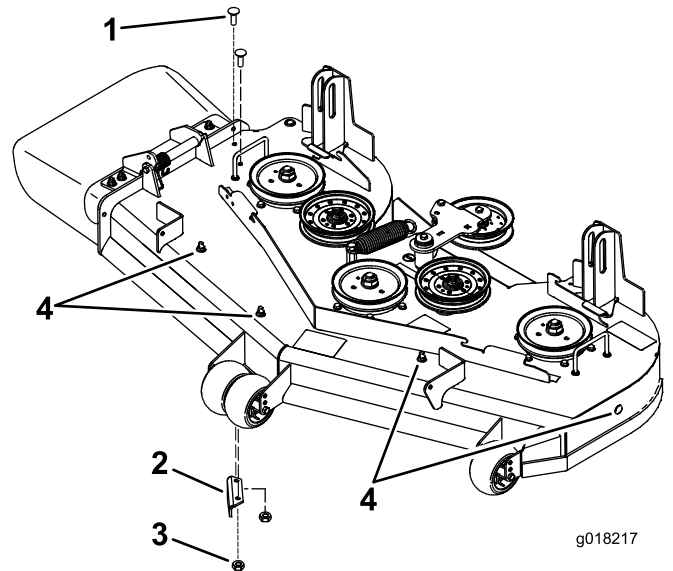
Removing the Existing Baffle

No Parts Required

Procedure

1. Remove the flange nuts holding the baffle in place (Figure 2).
2. Remove the bolts holding the baffle in place (Figure 2).
3. Remove the baffle and replace the nuts and bolts in the holes for the baffle (Figure 2).
4. Remove the hardware as indicated in (Figure 2). Save the hardware.

Note: Save the baffle and hardware for use when changing to side discharging mode.



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Figure 2

- | | |
|-----------|--|
| 1. Bolts | 3. Nuts |
| 2. Baffle | 4. Remove hardware before installing baffles |

4

Installing the Discharge Plate

Parts needed for this procedure:

1	Discharge plate
1	Carriage bolt, (5/16 x 7/8 inch)
1	Flange nut, (5/16 inch)
2	Flange nut, (3/8 inch)
2	Carriage bolt, (3/8 x 1 inch)

Procedure

1. Install the discharge plate to the outside of the mounting bracket with 2 carriage bolts (3/8 x 1-1/4 inches) and 2 flange nuts (small flange) (3/8 inch) (Figure 3).
2. Install the tab to the inside of the mower deck with 1 carriage bolt (5/16 x 7/8 inch) and 1 flange nut (5/16 inch) (Figure 3).

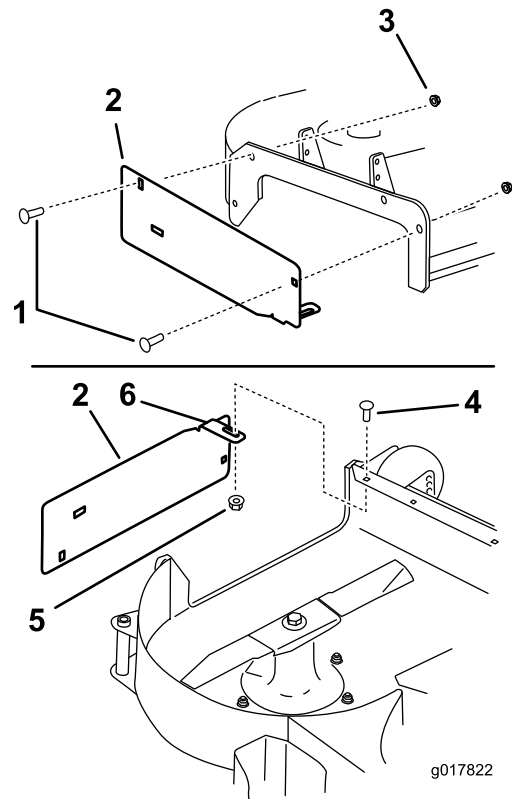


Figure 3

- | | |
|---------------------------------|---|
| 1. Carriage bolt (3/8 x 1 inch) | 4. Carriage bolt (5/16 x 7/8 inch) |
| 2. Discharge plate | 5. Flange nut (5/16 inch) |
| 3. Flange nut (3/8 inch) | 6. Ensure the tab is positioned inside the mower deck |

5

Installing the Baffles for 48 inch and 52 inch Mower Decks

Parts needed for this procedure:

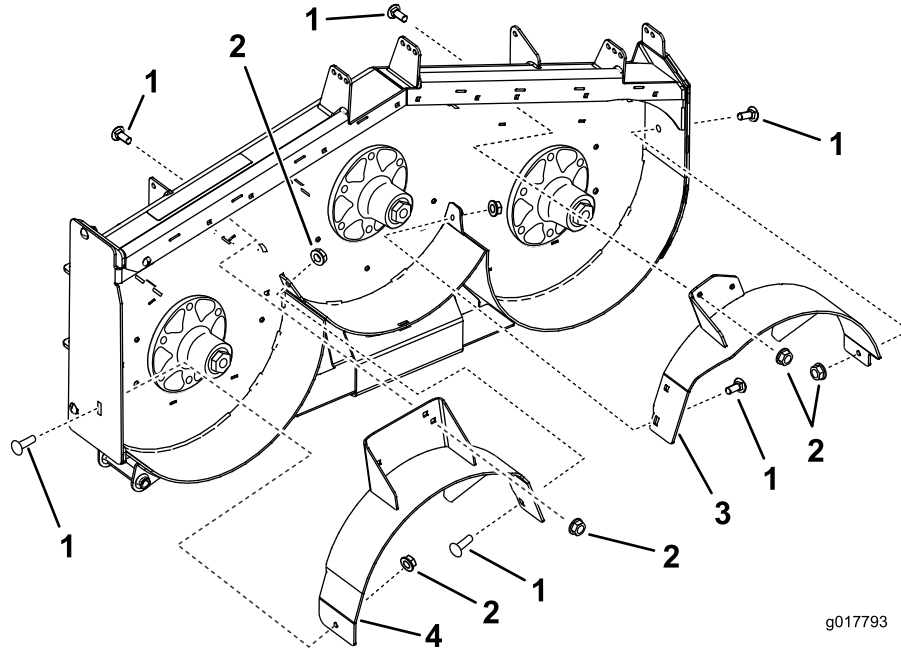
1	Left baffle
1	Center baffle
1	Right baffle
9	Flange nut, (3/8 inch)
9	Carriage bolt (3/8 x 1 inch)

Procedure

Note: Loosely install the baffles to align the baffles with all holes in the mower (Figure 4).

1. Position the right baffle into the mower.

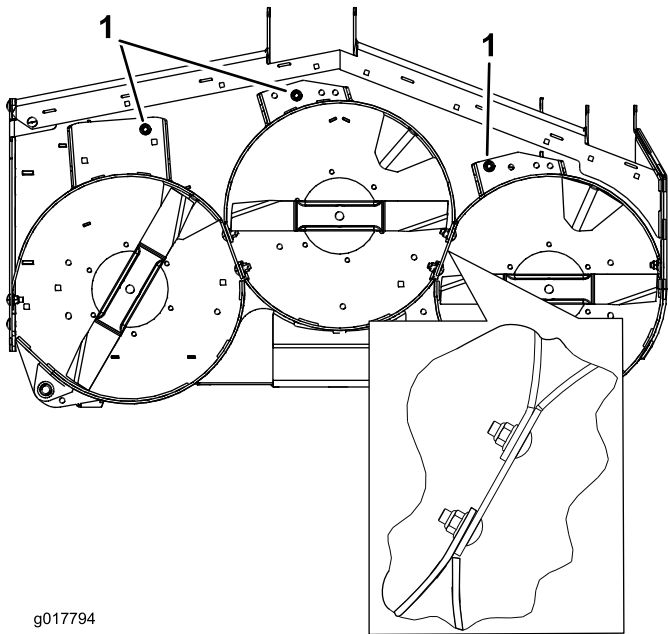
2. Loosely install the right baffle to the discharge plate with 1 carriage bolt (3/8 x 1 inch) and a flange nut (3/8 inch) (Figure 4).
3. Loosely install the right baffle to the top of the mower deck with 1 carriage bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 4). Refer to Figure Figure 5 and Figure 6 for the correct holes to use.
4. Loosely install the right baffle to the mower deck with 1 carriage bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 4).
5. Position the left baffle into the mower.
6. Loosely install the left baffle to the top of the mower deck with 1 bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 4). Refer to Figure Figure 5 Figure 6 for the correct holes to use.
7. Loosely install the left baffle to the mower deck with 1 carriage bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 4).
8. Loosely install the left baffle to the side of the mower deck with 1 carriage bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 4).



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Figure 4
52 inch mower deck shown

1. Carriage bolt (3/8 x 1 inch) 2. Flange nut (3/8 inch) 3. Left baffle 4. Right baffle

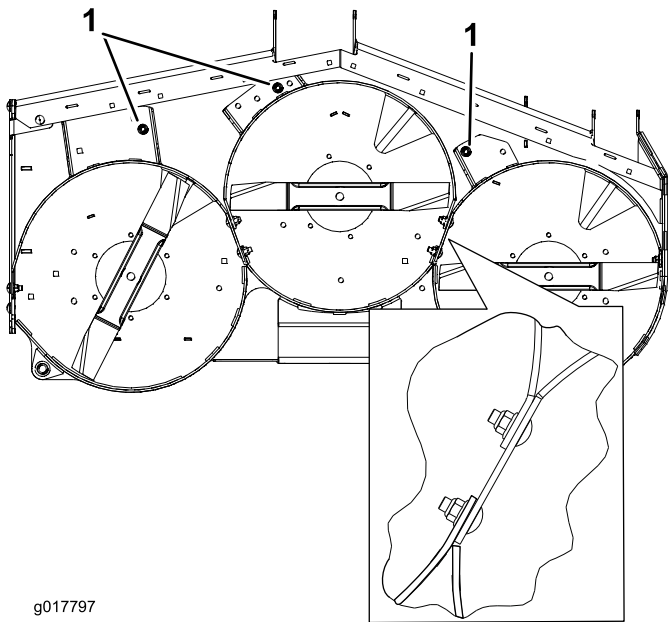


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Figure 5

48 inch mower deck shown

1. Use these holes for 48 inch mower decks



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Figure 6

52 inch mower deck shown

1. Use these holes for 52 inch mower decks

9. Position the center baffle into the mower.
10. Loosely install the center baffle to the left baffle with 1 carriage bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 7). Refer to Figure 5 and Figure 6 for the correct holes to use.
11. Loosely install the center baffle to the right baffle with 1 carriage bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 7).

12. Loosely install the center baffle to the top of the mower deck with 1 bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 7).

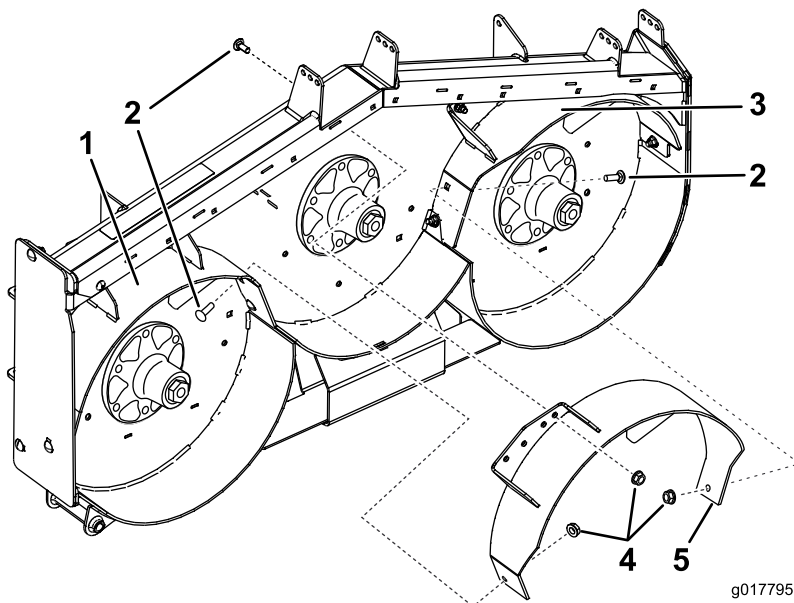


Figure 7

- | | | |
|---------------------------------|--------------------------|------------------|
| 1. Right baffle | 3. Left baffle | 5. Center baffle |
| 2. Carriage bolt (3/8 x 1 inch) | 4. Flange nut (3/8 inch) | |

6

Installing the Baffles for 60 inch Mower Decks

Parts needed for this procedure:

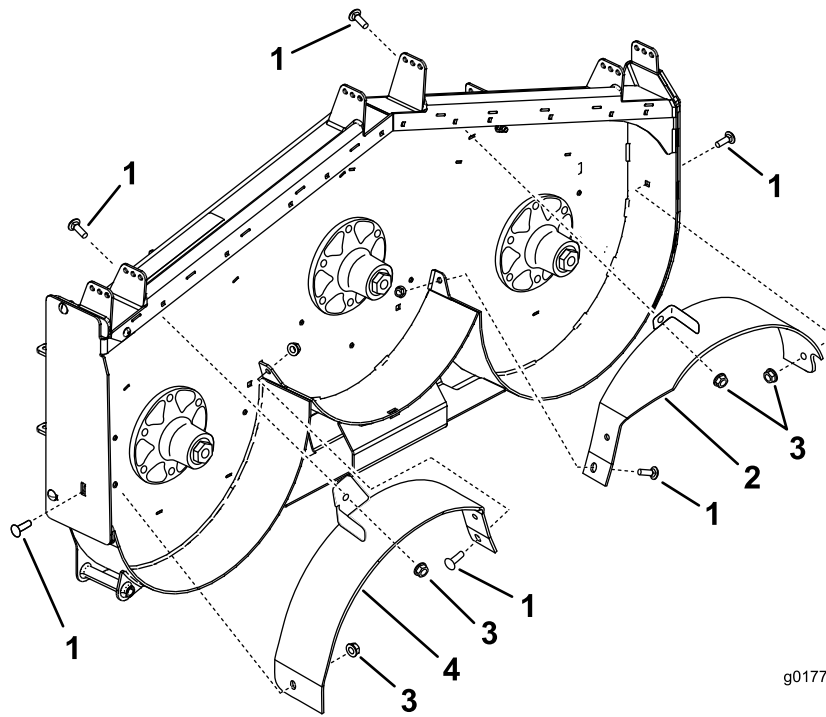
1	Left baffle
1	Center baffle
1	Right baffle
9	Flange nut (3/8 inch)
9	Carriage bolt (3/8 x 1 inch)

Procedure

Note: Loosely install the baffles to align the baffles with all holes in the mower (Figure 8).

1. Position the right baffle into the mower.
2. Loosely install the right baffle to the discharge plate with 1 carriage bolt (3/8 x 1 inch) and a flange nut (3/8 inch) (Figure 8).
3. Loosely install the right baffle to the top of the mower deck with 1 carriage bolt (3/8 x 1 inch) and 1 flange nut, (3/8 inch) (Figure 8).
4. Loosely install the right baffle to the mower deck with 1 carriage bolt (3/8 x 1 inch) and a flange nut (3/8 inch) (Figure 8).

5. Position the left baffle into the mower.
6. Loosely install the left baffle to the top of the mower deck with 1 bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 8).
7. Loosely install the left baffle to the mower deck with 2 carriage bolts (3/8 x 1 inch) and 2 flange nuts (3/8 inch) (Figure 8).



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Figure 8

60 inch mower deck shown

1. Carriage bolt (3/8 x 1 inch) 2. Flange nut (3/8 inch) 3. Left baffle 4. Right baffle

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8. Position the center baffle into the mower.
 9. Loosely install the center baffle to the left baffle with 1 carriage bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 9).
 10. Loosely install the center baffle to the right baffle with 1 carriage bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 9).
 11. Loosely install the center baffle to the top of the mower deck with 1 bolt (3/8 x 1 inch) and 1 flange nut (3/8 inch) (Figure 9).

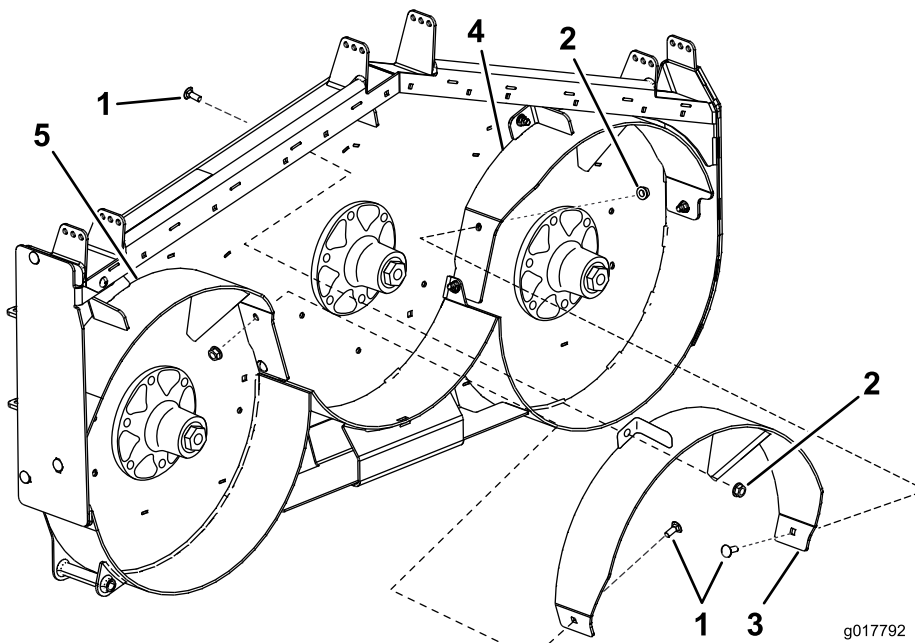


Figure 9

- | | | |
|---------------------------------|------------------|-----------------|
| 1. Carriage bolt (3/8 x 1 inch) | 3. Center baffle | 5. Right baffle |
| 2. Flange nut (3/8 inch) | 4. Left baffle | |

7

Installing the New Blades

Parts needed for this procedure:

3	Recycler blades
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Procedure

Important: The sail part of the blade (i.e., the turned up section) must face the inside of the mower (Figure 10).

- To hold the spindle shaft, use an open end wrench (1-1/2) on the spindle shaft hex end (Figure 10).
- Install the blade, spring disk and blade bolt. The spring disk cone must be installed toward the bolt head (Figure 79). Torque the blade bolt to 85-110 ft-lb (115-150 N-m).

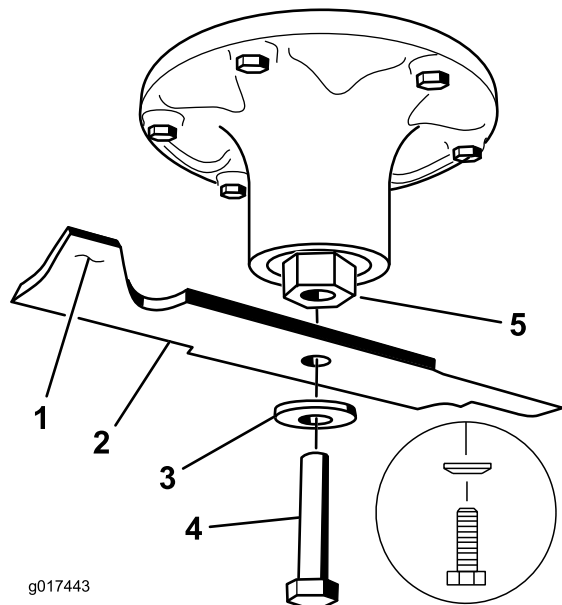


Figure 10

- | | |
|-----------------------|--------------------------|
| 1. Sail Area of Blade | 4. Blade Bolt |
| 2. Blade | 5. Spindle shaft hex end |
| 3. Curved washer | |

⚠ WARNING

The blades are sharp. Contact with a sharp blade can cause serious personal injury.

Wear gloves or wrap the sharp edges of the blade with a rag.

8

Tightening all Fasteners

No Parts Required

Procedure

1. Tighten all nuts and bolts for the baffles (Figure 3, Figure 4, Figure 7, Figure 8 and Figure 9).
2. Rotate the blades and ensure there is clearance between the blades and the baffles. If there is interference, loosen the baffle and reposition it.

Operation

Selecting the Proper Height-of-Cut

Remove approximately one inch or no more than 1/3 of the grass blade when cutting. In exceptionally lush and dense grass you may need to raise the height-of-cut setting or convert to side discharge or bagging operations.

Mowing in Extreme Conditions

Air is required to cut and recut grass clippings in the mower housing, so do not set the height-of-cut too low or totally surround the housing by uncut grass. Always try to have one side of the mower housing free from uncut grass, allowing air to be drawn into the housing. When making an initial cut through the center of an uncut area, operate the machine slower and back up if the mower starts to clog.

Mowing at Proper Intervals

Under most normal conditions you will need to mow every 4–5 days. However, grass grows at different rates at different times. Thus, in order to maintain the same height-of-cut, which is a good practice, you'll need to cut more frequently in early spring; as the grass growth rate slows in mid summer, cut only every 8–10 days. If you are unable to mow for an extended period due to weather conditions or other reasons, convert to side discharge or bagging options or mow first with the height-of-cut at a high level; then mow again 2–3 days later with a lower height setting.

Mowing with Sharp Blades

A sharp blade cuts cleanly and without tearing or shredding the grass. A dull blade will tear and shred the grass. Tearing and shredding causes the grass to turn brown at the edges which impairs growth and increases susceptibility to disease.

After Operating

To ensure optimum performance, clean the underside of the mower housing after each use. If residue is allowed to build up in the mower housing, cutting performance will decrease.

Notes:



Count on it.