



## Recycler Kit

### GrandStand® Mower With 122cm Rear Discharge TURBO FORCE® Cutting Unit

Model No. 145-3495

#### Installation Instructions

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## Safety

### Rear Discharge or Mulch Grass

#### **▲ WARNING**

Without the grass deflector 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 guard from the mower because the grass guard routes material down toward the turf. If the grass guard 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 engage the parking brake, disengage the power take off (PTO) lever, shutoff the engine, remove the ignition key, and wait for all motion to stop. Also pull the wire off the spark plug(s).

Ensure that the mower has the rear grass guard to disperse clippings rearward and down toward the turf while in rear discharge mode.

To mulch grass clippings, install the baffles on the mower deck as instructed in the following procedures.



# Installation

## 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 mower.
<b>2</b>	No parts required	–	Open the engine guard and remove the guard extension (gas models only).
<b>3</b>	No parts required	–	Remove the left belt cover (gas models only).
<b>4</b>	No parts required	–	Remove the existing blades.
<b>5</b>	No parts required	–	Drill the mower deck.
<b>6</b>	Left baffle support Center/right baffle support Hex-head flange bolt (5/16 x 3/4 inch) Flange nut (5/16 inch) Carriage bolt (5/16 x 1-1/4 inches)	1 2 2 6 4	Install the baffle supports.
<b>7</b>	Left baffle Center baffle Right baffle Baffle plate adapter Carriage bolt (3/8 x 1 inch) Locknut (3/8 inch)	1 1 1 1 10 10	Install the baffles (gas models only).
<b>8</b>	Left baffle Center baffle Right baffle Carriage bolt (3/8 x 1 inch) Locknut (3/8 inch)	1 1 1 9 9	Install the baffles (electric models only).
<b>9</b>	Kicker Carriage bolt (3/8 x 1 inch) Locknut (3/8 inch)	3 6 6	Install the kickers.
<b>10</b>	Recycler blade (sold separately)	3	Install the new blades.
<b>11</b>	No parts required	–	Install the left belt cover (gas models only).
<b>12</b>	No parts required	–	Install the guard extension and close the engine guard (gas models only).
<b>13</b>	Flange-head bolt (3/8 x 1 inch)	8	Convert the mower deck for rear-discharge operation.

**Note:** Recycler blades (sold separately) are required to install this kit; refer to the *Parts Catalog* for your machine.

# 1

## Preparing the Mower

No Parts Required

### Procedure

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

1. Park the machine on a level surface.
2. Disengage the drives and the power take-off.
3. Shut off the machine and remove the key.
4. Wait for all moving parts to stop.
5. **Electric models only:** turn the battery-disconnect switch to the OFF position.
6. Thoroughly clean the mower deck. Remove all debris to ensure that the baffles fit properly against the mower deck.
7. Repair all bent or damaged areas of the mower deck and replace any missing or damaged parts.

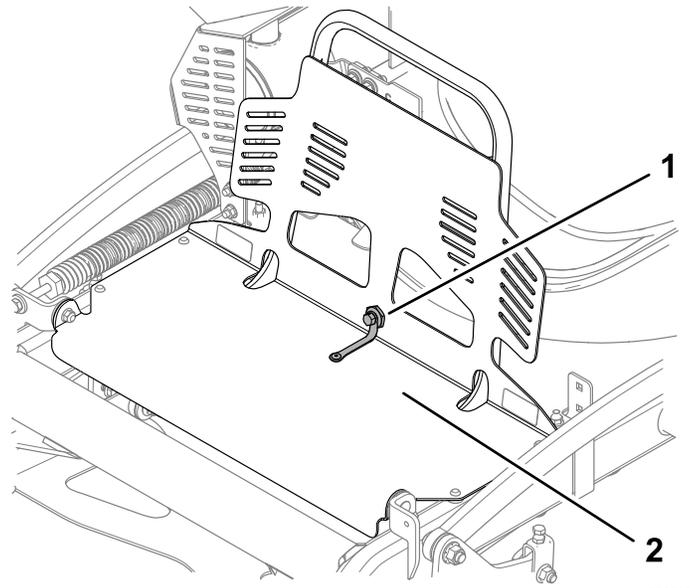


Figure 1

1. Bolt and shoulder nut
2. Engine guard

g279539

2. Rotate the engine guard forward as shown in Figure 2.

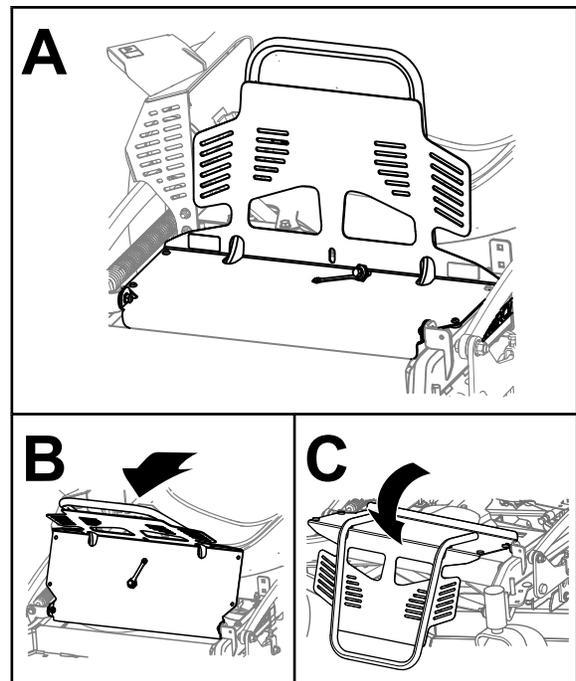


Figure 2

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# 2

## Opening the Engine Guard and Removing the Guard Extension (Gas Models Only)

No Parts Required

### Opening the Engine Guard

1. Remove the bolt and shoulder nut securing the engine guard to the guard extension (Figure 1).

## Disconnecting the Spark-Plug Wire

Remove the spark-plug wire from the spark plug.

## Removing the Guard Extension

1. Remove the 2 bolts (5/16 x 1 inch) and belt guard (Figure 3).

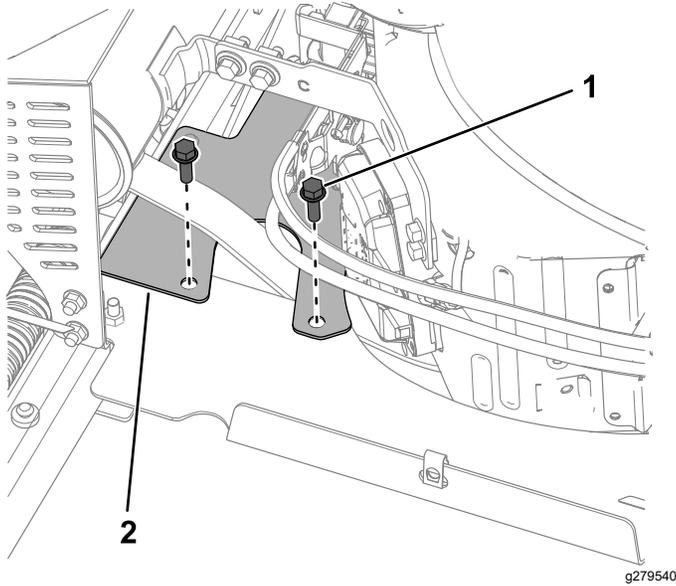


Figure 3

1. Bolt (5/16 x 1 inch)
2. Belt guard

2. Remove the hex nut (5/16 inch) nut (5/16 inch) securing the guard extension to the carriage bolts (Figure 4). Remove the guard extension.

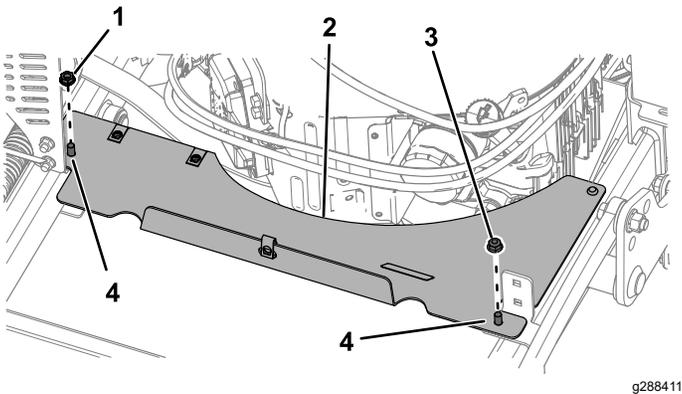


Figure 4

1. Hex nut (5/16 inch)
2. Guard extension
3. Nut (5/16)
4. Carriage bolt (5/16 x 4 inches)

# 3

## Removing the Left Belt Cover (Gas Models Only)

No Parts Required

### Procedure

1. Remove the 2 flange-head screws that secure the tensioner cover to the left belt cover and remove the tensioner cover (Figure 5).

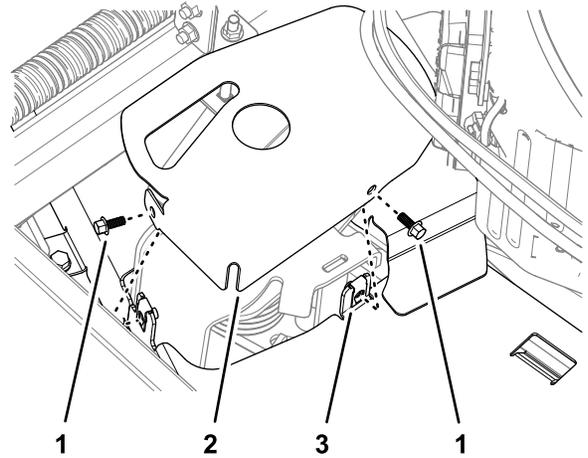
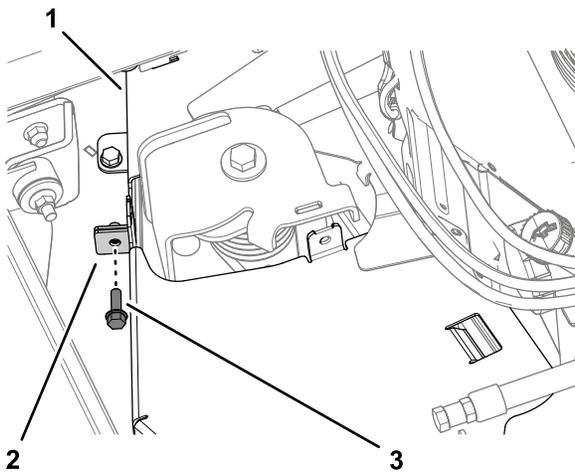


Figure 5

1. Flange-head screws (1/4 x 5/8 inch)
2. Tensioner cover
3. Left belt cover

2. Remove the bolt that secures the belt cover flanges as shown in Figure 6.

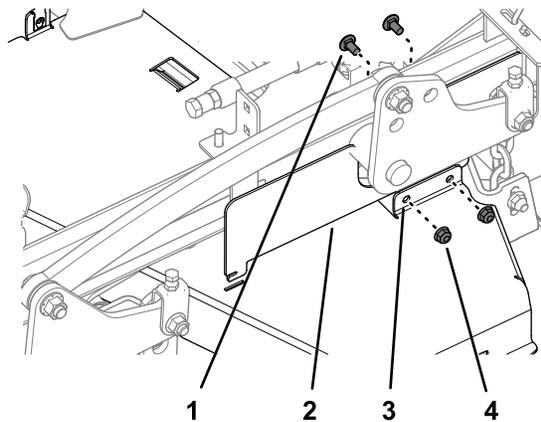


**Figure 6**

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1. Right belt cover
2. Flange (left belt cover)
3. Flange-head screw (left and right belt cover)

3. Remove the 2 carriage bolts and 2 locknuts that secure the left side CE cover to the left belt cover ([Figure 7](#)).

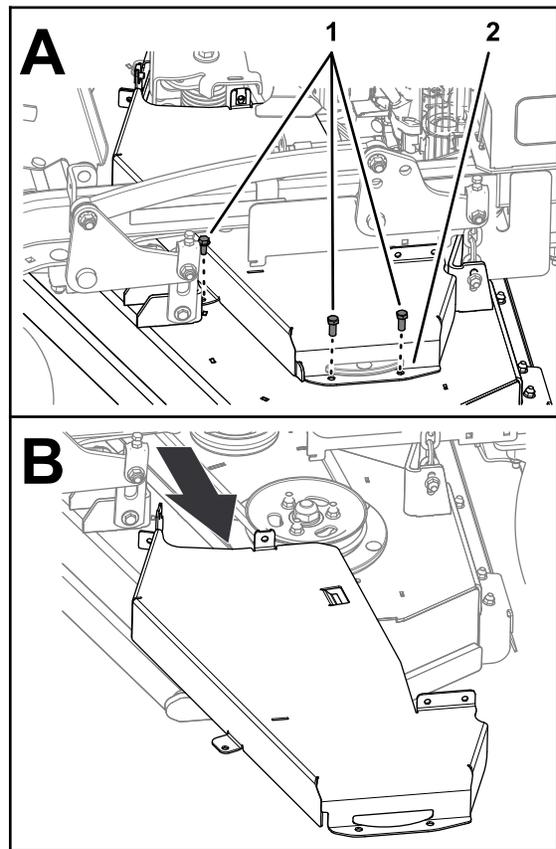


**Figure 7**

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1. Carriage bolt
2. Left side CE cover
3. Left belt cover
4. Flange locknut

4. Remove the 3 bolts that secure the left belt cover to the deck and remove the cover ([Figure 8](#)).



**Figure 8**

g270488

1. Bolts
2. Left belt cover

# 4

## Removing the Existing Blades

**No Parts Required**

### Procedure

#### **⚠ 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.

1. Lift the machine so that you can access the bottom of the mower deck.
2. Remove the existing blades from the spindles; refer to the *Operator's Manual* for your machine.

# 5

## Drilling the Mower Deck

No Parts Required

### Procedure

#### ⚠ WARNING

Using a drill without proper eye protection may allow debris to enter the eye, causing injury.

When drilling, always wear eye protection.

1. **Electric models only:** drill the 10 pilot holes in the deck to a diameter of 9.8 mm (0.3875 inch) as shown below.

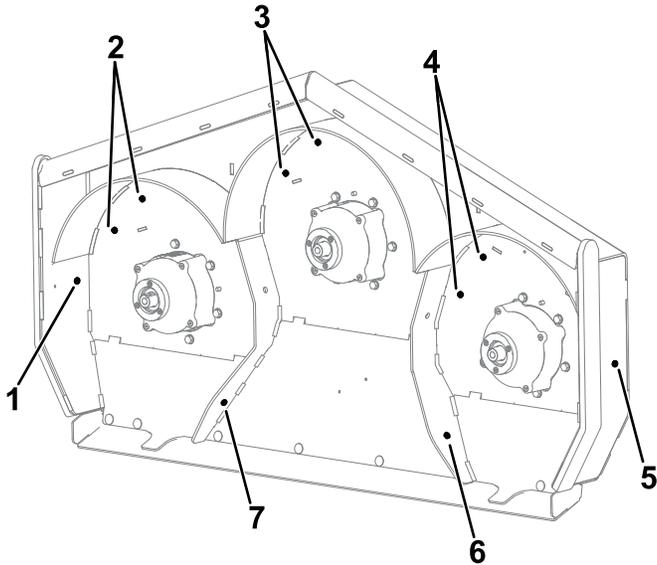


Figure 9

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- |                            |                               |
|----------------------------|-------------------------------|
| 1. Holes for right baffle  | 5. Holes for left baffle      |
| 2. Holes for right kicker  | 6. Holes for left baffle      |
| 3. Holes for center kicker | 7. Holes for the right baffle |
| 4. Holes for left kicker   |                               |

2. **Gas models only:** drill the 9 pilot holes in the deck to a diameter of 9.8 mm (0.3875 inch) as shown below.

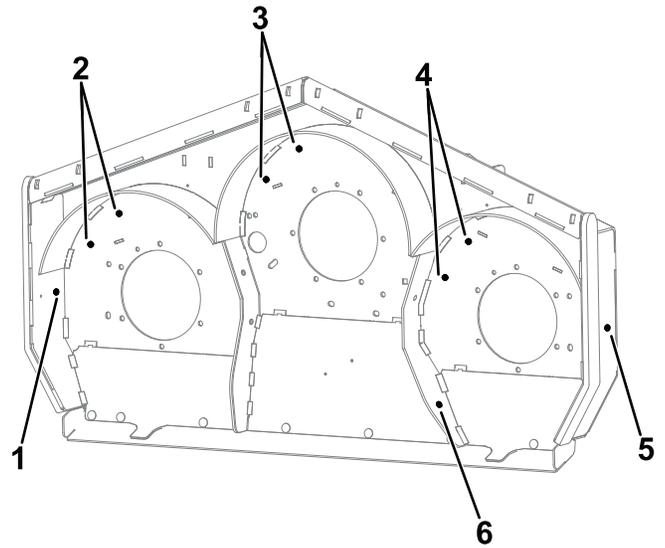


Figure 10

g453176

- |                            |                          |
|----------------------------|--------------------------|
| 1. Holes for right baffle  | 4. Holes for left kicker |
| 2. Holes for right kicker  | 5. Holes for left baffle |
| 3. Holes for center kicker | 6. Holes for left baffle |

3. Drill the 2 pilot holes to a diameter of 8.23 mm (0.325 inch) as shown below.

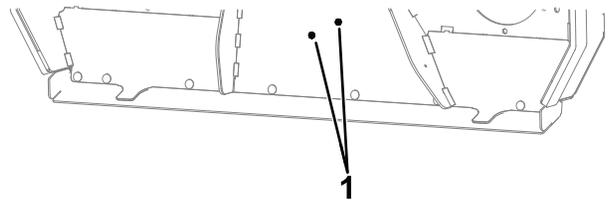


Figure 11

g453178

- |                            |
|----------------------------|
| 1. Holes for center baffle |
|----------------------------|

# 6

## Installing the Baffle Supports

### Parts needed for this procedure:

1	Left baffle support
2	Center/right baffle support
2	Hex-head flange bolt (5/16 x 3/4 inch)
6	Flange nut (5/16 inch)
4	Carriage bolt (5/16 x 1-1/4 inches)

### Procedure

1. Remove the 4 outboard carriage bolts (5/16 x 7/8 inch) and 4 outboard locknuts (5/16 inch) that secure the deflector bracket to the mower deck.

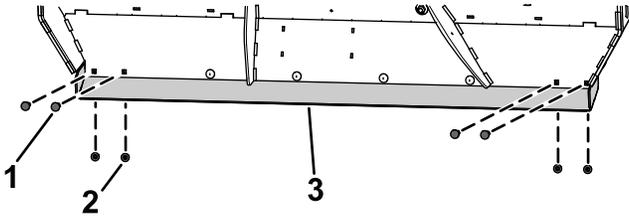


Figure 12

g453182

1. Carriage bolt (5/16 x 7/8 inch)
2. Locknut (5/16 inch)
3. Deflector bracket

2. Secure the left and right baffle supports to the deflector bracket and mower deck using 4 carriage bolts (5/16 x 1-1/4 inches) and 4 flange nuts (5/16 inch) as shown in [Figure 13](#).
3. Secure the center baffle support to the mower deck using 2 hex-head flange bolts (5/16 x 3/4 inch) and 2 flange nuts (5/16 inch) as shown in [Figure 13](#).

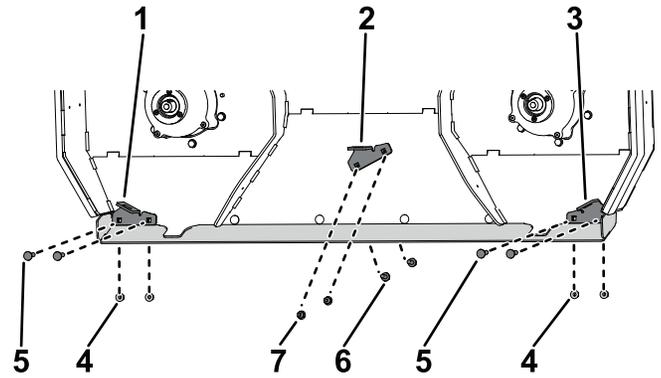


Figure 13

g453180

1. Right baffle
2. Center baffle
3. Left baffle
4. Flange nus (5/16 inch)
5. Carriage bolt (5/16 x 1-1/4 inches)
6. Hex-head flange bolt (5/16 x 3/4 inch)
7. Flange nut (5/16 inch)

# 7

## Installing the Baffles (Gas Models Only)

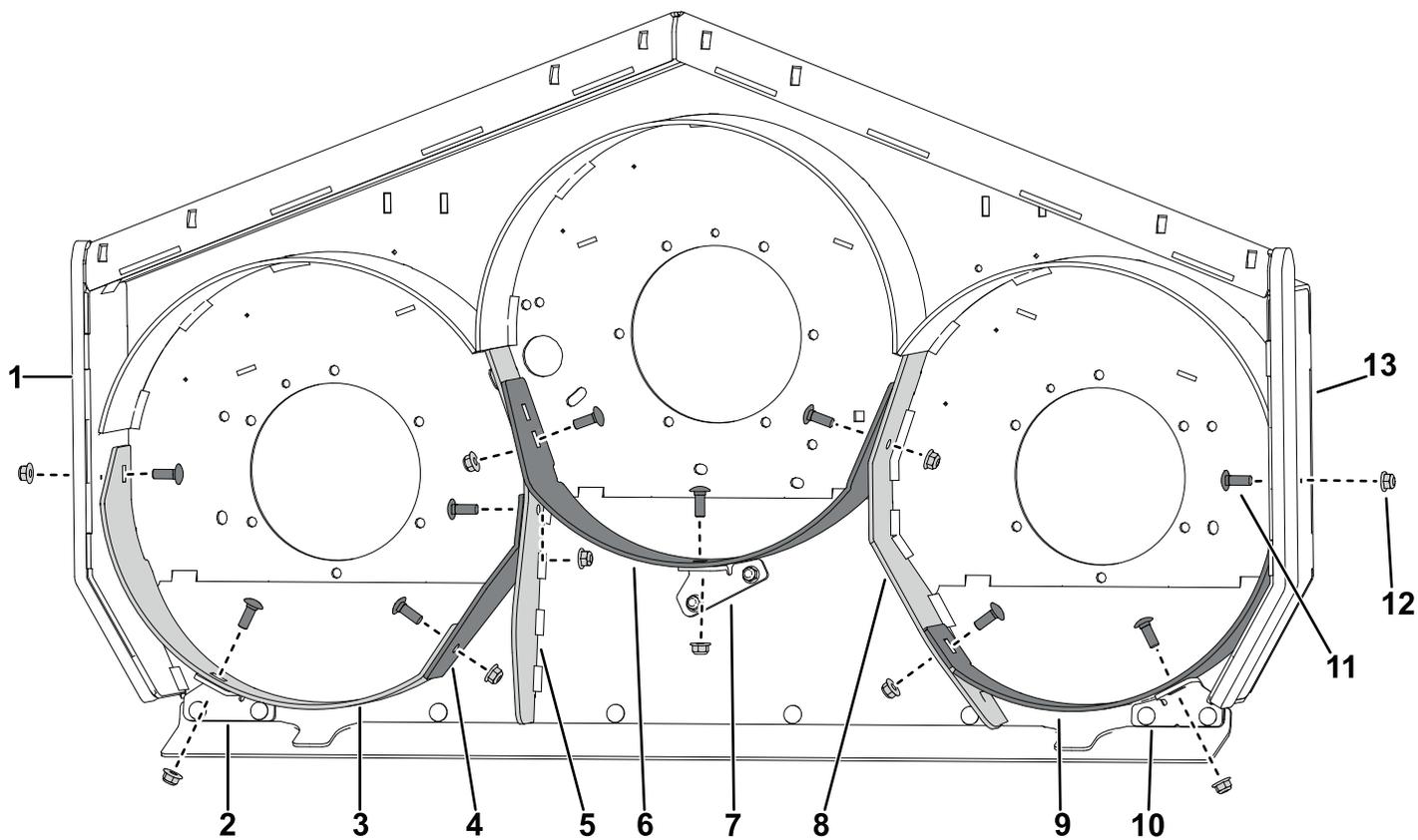
### Parts needed for this procedure:

1	Left baffle
1	Center baffle
1	Right baffle
1	Baffle plate adapter
10	Carriage bolt (3/8 x 1 inch)
10	Locknut (3/8 inch)

### Procedure

**Loosely install** the baffles to align the baffles with all the holes in the mower deck ([Figure 14](#)).

1. Position the right baffle into the mower deck.
2. Loosely secure the right baffle to the right discharge plate using 1 carriage bolt (3/8 x 1 inch) and 1 locknut (3/8 inch) as shown in [Figure 14](#).
3. Loosely secure the right baffle to the baffle plate adapter using 1 carriage bolt (3/8 x 1 inch) and 1 locknut (3/8 inch) as shown in [Figure 14](#).
4. Loosely secure the baffle plate adapter to the right mower deck divider using 1 carriage bolt (3/8 x 1 inch) and 1 locknut (3/8 inch) as shown in [Figure 14](#).
5. Position the left baffle in the mower deck.
6. Loosely secure the left baffle to the left discharge plate using 1 carriage bolt (3/8 x 1 inch) and 1 locknut (3/8 inch) as shown in [Figure 14](#).
7. Loosely secure the left baffle to the left mower deck divider and left baffle support using 2 carriage bolts (3/8 x 1 inch) and 2 locknuts (3/8 inch) as shown in [Figure 14](#).
8. Position the center baffle into the mower deck.
9. Loosely secure the center baffle to the right and left mower deck dividers and center baffle support using 3 carriage bolts (3/8 x 1 inch) and 3 locknuts (3/8 inch) as shown in [Figure 14](#).
10. Tighten all the locknuts.



g453260

**Figure 14**

- |                             |                                  |
|-----------------------------|----------------------------------|
| 1. Right discharge plate    | 8. Left mower deck divider       |
| 2. Right baffle support     | 9. Left baffle                   |
| 3. Right baffle             | 10. Left baffle support          |
| 4. Baffle plate adapter     | 11. Locknut (3/8 inch)           |
| 5. Right mower deck divider | 12. Carriage bolt (3/8 x 1 inch) |
| 6. Center baffle            | 13. Left discharge plate         |
| 7. Center baffle support    |                                  |

# 8

## Installing the Baffles (Electric Models Only)

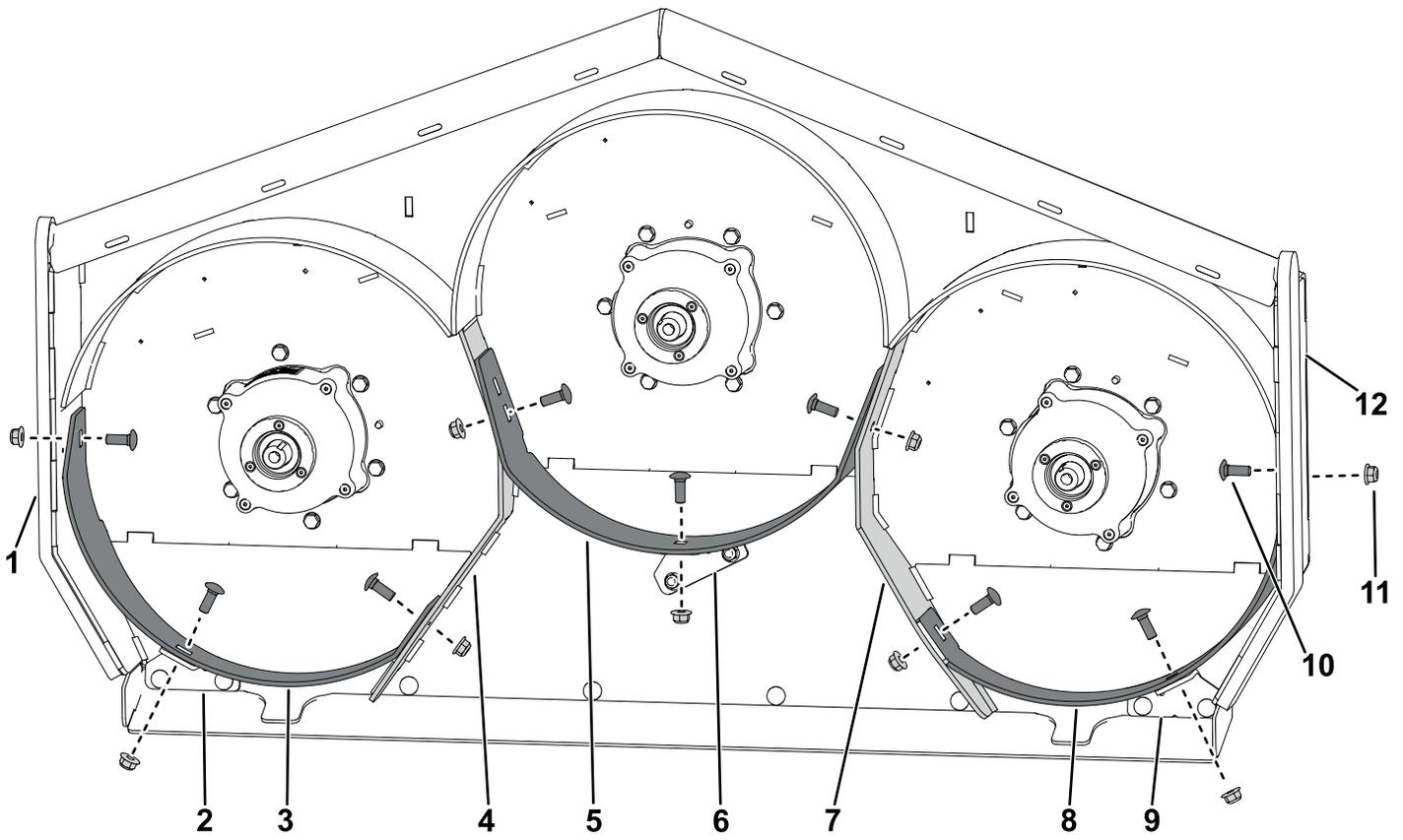
### Parts needed for this procedure:

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

### Procedure

**Loosely install** the baffles to align the baffles with all the holes in the mower deck ([Figure 15](#)).

1. Position the right baffle into the mower deck.
2. Loosely secure the right baffle to the right discharge plate using 1 carriage bolt (3/8 x 1 inch) and 1 locknut (3/8 inch) as shown in [Figure 15](#).
3. Loosely secure the right baffle to the baffle plate adapter using 1 carriage bolt (3/8 x 1 inch) and 1 locknut (3/8 inch) as shown in [Figure 15](#).
4. Loosely secure the right baffle to the right mower deck divider and right baffle support using 2 carriage bolts (3/8 x 1 inch) and 2 locknuts (3/8 inch) as shown in [Figure 15](#).
5. Position the left baffle in the mower deck.
6. Loosely secure the left baffle to the left discharge plate using 1 carriage bolt (3/8 x 1 inch) and 1 locknut (3/8 inch) as shown in [Figure 15](#).
7. Loosely secure the left baffle to the left mower deck divider and left baffle support using 2 carriage bolts (3/8 x 1 inch) and 2 locknuts (3/8 inch) as shown in [Figure 15](#).
8. Position the center baffle into the mower deck.
9. Loosely secure the center baffle to the right and left mower deck dividers and center baffle support using 3 carriage bolts (3/8 x 1 inch) and 3 locknuts (3/8 inch) as shown in [Figure 15](#).
10. Tighten all the locknuts.



g453273

**Figure 15**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Right discharge plate</li> <li>2. Right baffle support</li> <li>3. Right baffle</li> <li>4. Right mower deck divider</li> <li>5. Center baffle</li> <li>6. Center baffle support</li> </ol> | <ol style="list-style-type: none"> <li>7. Left mower deck divider</li> <li>8. Left baffle</li> <li>9. Left baffle support</li> <li>10. Locknut (3/8 inch)</li> <li>11. Carriage bolt (3/8 x 1 inch)</li> <li>12. Left discharge plate</li> </ol> |
|---|--|

# 9

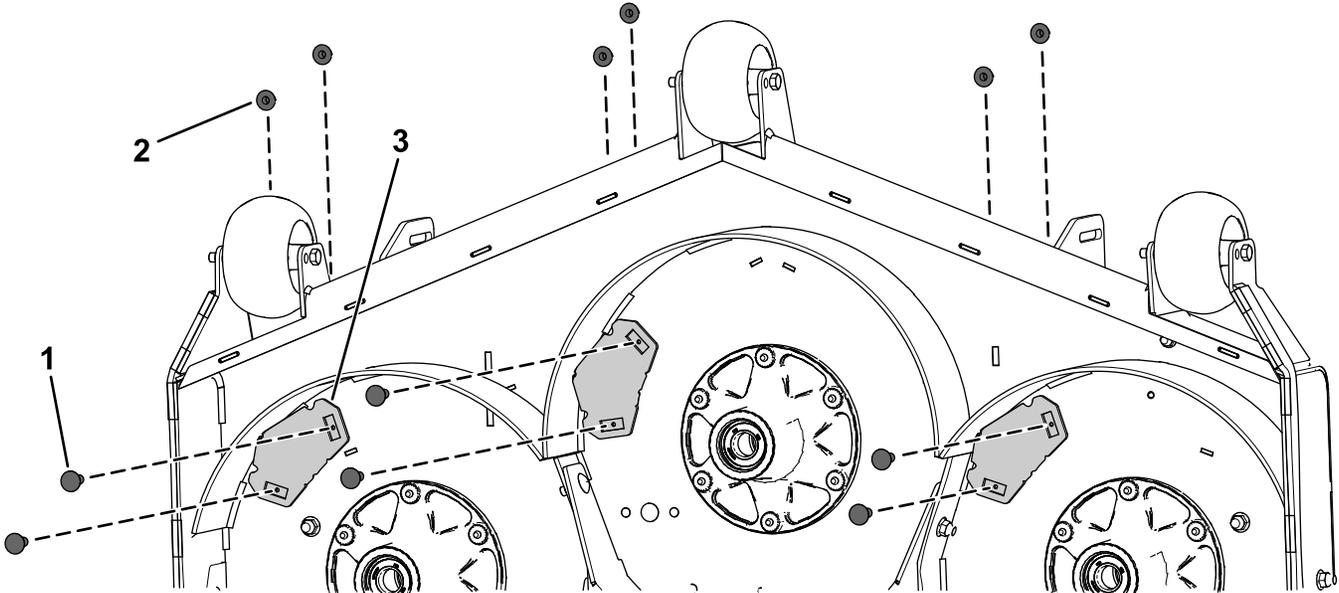
## Installing the Kickers

Parts needed for this procedure:

3	Kicker
6	Carriage bolt (3/8 x 1 inch)
6	Locknut (3/8 inch)

### Procedure

Secure the 3 kickers to the mower deck using 6 carriage bolts (3/8 x 1 inch) and 6 locknuts (3/8 inch) as shown in [Figure 16](#).



g453274

Figure 16

- 1. Carriage bolt (3/8 x 1 inch)
- 2. Locknut (3/8 inch)
- 3. Kicker

# 10

## Installing the New Blades

Parts needed for this procedure:

3	Recycler blade (sold separately)
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### Procedure

#### ⚠ 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.

Refer to the *Operator's Manual* for instructions on installing the blades.

# 11

## Installing the Left Belt Cover (Gas Models Only)

No Parts Required

### Procedure

1. Assemble the left belt cover to the deck with the 3 bolts that were previously removed.

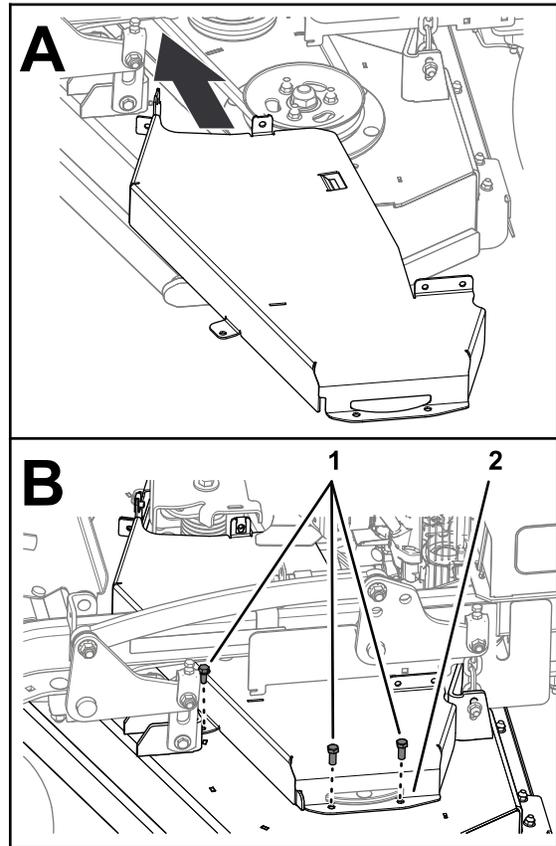


Figure 17

g270503

1. Bolts
2. Left belt cover

2. Assemble the left side CE cover to the left belt cover with the 2 carriage bolts and 2 locknuts that were previously removed.

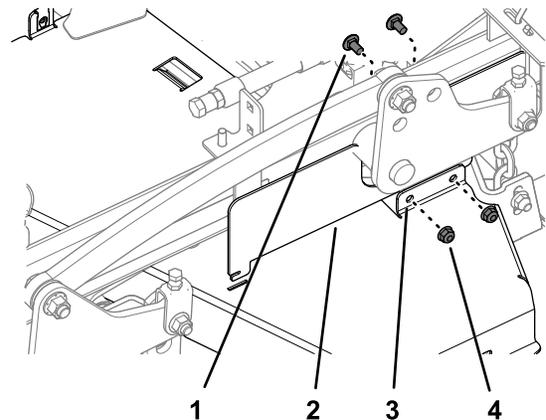
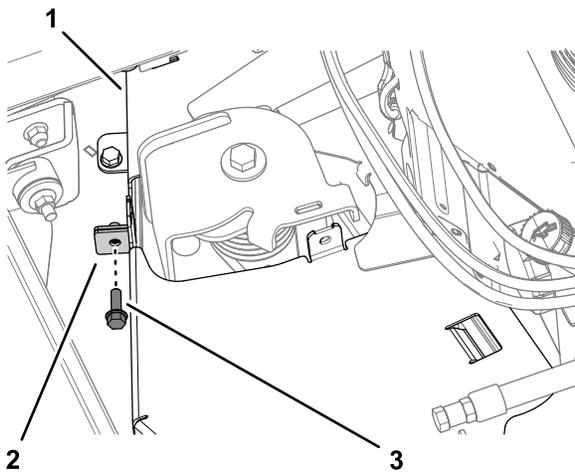


Figure 18

g270474

1. Carriage bolt
2. Left side CE cover
3. Left belt cover
4. Flange locknut

3. Secure the belt cover flanges with the flange-head screw that was previously removed.

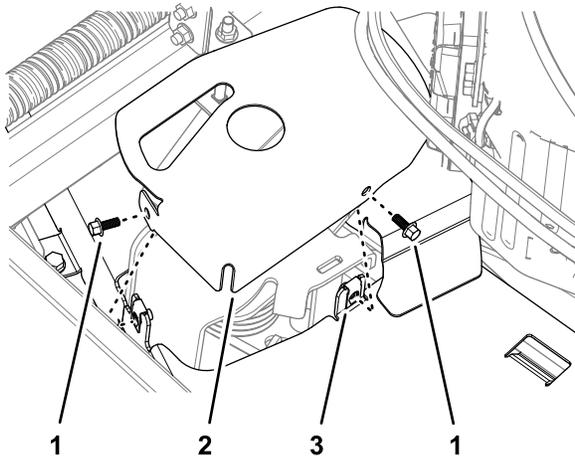


**Figure 19**

g270486

1. Right belt cover
2. Flange (left belt cover)
3. Flange-head screw (left and right belt cover)

4. Assemble the tensioner cover to the left belt cover with the 2 flange-head screws that were previously removed.



**Figure 20**

g270487

1. Flange-head screws (1/4 x 5/8 inch)
2. Tensioner cover
3. Left belt cover

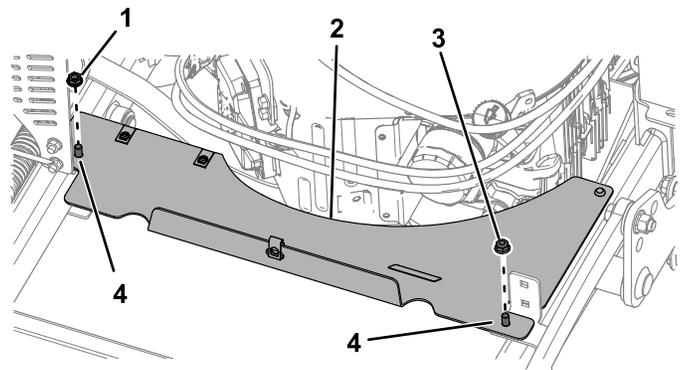
# 12

## Installing the Guard Extension and Closing the Engine Guard (Gas Models Only)

No Parts Required

### Installing the Guard Extension

1. Install the extension guard as shown in [Figure 21](#). Torque the nuts to 20 to 25 N·m (15 to 18 ft-lb).

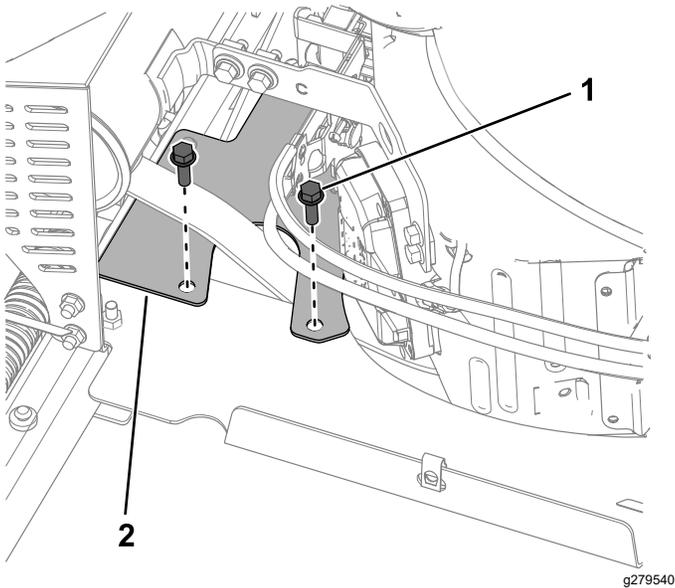


**Figure 21**

g288411

1. Hex nut (5/16 inch)
2. Guard extension
3. Nut (5/16)
4. Carriage bolt (5/16 x 4 inches)

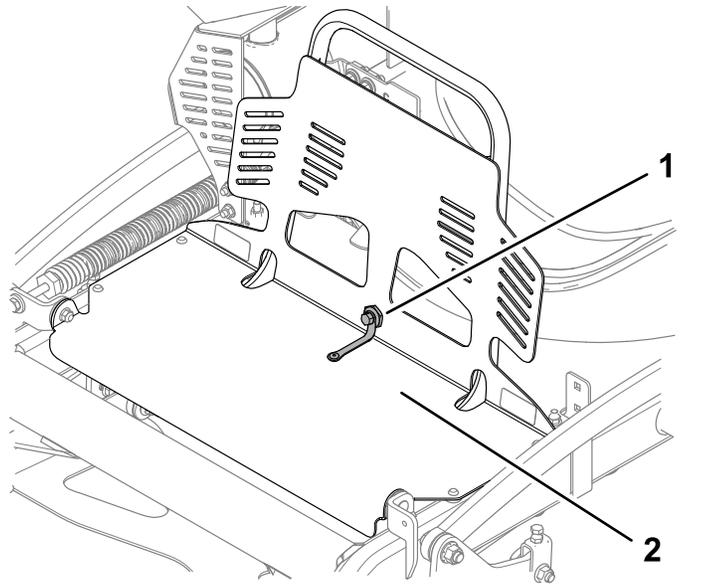
2. Install the belt guard as shown in [Figure 22](#). Torque the bolts to 20 to 25 N·m (15 to 18 ft-lb).



**Figure 22**

1. Bolt (5/16 x 1 inch)
2. Belt guard

2. Secure the engine guard to the extension guard using the bolt and shoulder nut as shown in [Figure 24](#).



**Figure 24**

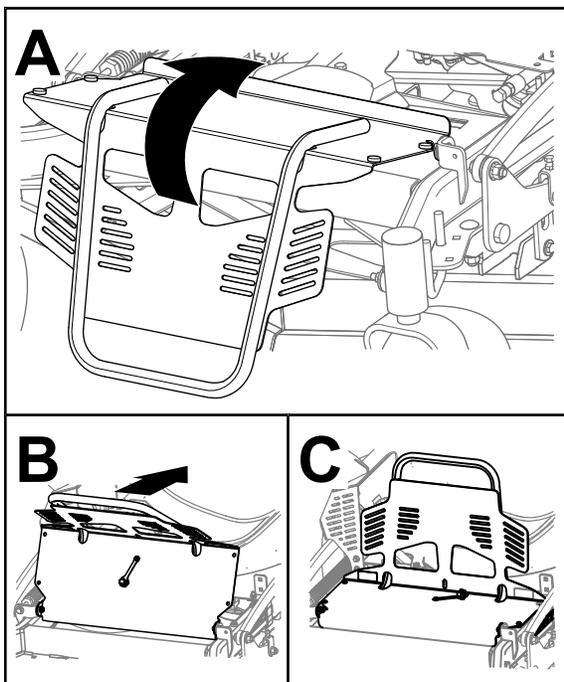
1. Bolt and shoulder nut
2. Engine guard

## Connecting the Spark-Plug Wire

Connect the spark-plug wire to the spark plug.

## Closing the Engine Guard

1. Rotate the engine guard back as shown in [Figure 23](#).



**Figure 23**

# 13

## Converting the Mower Deck for Rear-Discharge Operation

Parts needed for this procedure:

8	Flange-head bolt (3/8 x 1 inch)
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### Preparing to Remove the Recycler Kit

1. Prepare the mower; refer to [1 Preparing the Mower \(page 3\)](#).
2. **Gas models only**, remove the guard and remove the left belt cover; refer to [2 Opening the Engine Guard and Removing the Guard Extension \(Gas Models Only\) \(page 3\)](#) and [3 Removing the Left Belt Cover \(Gas Models Only\) \(page 4\)](#).
3. Remove the recycling blades; refer to the *Operator's Manual* for your machine.

### Removing the Kickers

Reverse the steps in [9 Installing the Kickers \(page 12\)](#) and install new flange-head bolts (3/8 x 1 inch) and previously removed locknuts (3/8 inch) where you removed the kickers.

### Removing the Baffles

Reverse the steps in [7 Installing the Baffles \(Gas Models Only\) \(page 8\)](#) or [8 Installing the Baffles \(Electric Models Only\) \(page 10\)](#) and install new flange-head bolts (3/8 x 1 inch) and previously removed locknuts (3/8 inch) where you removed the baffles.

### Removing the Baffle Supports

Reverse the steps in [6 Installing the Baffle Supports \(page 6\)](#) and install the previously removed carriage bolts (5/16 x 7/8 inch) and locknuts (5/16 inch) where you removed the baffle supports.

### Finishing Converting the Mower Deck for Rear-Discharge Operation

1. Install the non-recycling blades; refer to the *Operator's Manual* for your machine.

2. **Gas models only**: install the belt cover and guard; refer to [11 Installing the Left Belt Cover \(Gas Models Only\) \(page 13\)](#) and [12 Installing the Guard Extension and Closing the Engine Guard \(Gas Models Only\) \(page 14\)](#).

# Operation

## Selecting the Proper Height of Cut

Remove approximately 2.5 cm (1 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 the mower deck for rear discharge 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 fully surround the housing by uncut grass. Always try to keep the back up of the mower deck 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 the machine if the mower starts to clog.

## Mowing at Correct Intervals

Grass grows at different rates at different times of the year. To maintain the same cutting height, mow more often in early spring. As the grass growth rate slows in midsummer, mow less frequently. If you cannot mow for an extended period, first mow at a high cutting height, then mow again 2 days later at a lower height setting.

## Mowing with Sharp Blades

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

## Cleaning the Mower Deck

**Service Interval:** After each use

To ensure optimum performance, clean the underside of the mower deck after each use.

**Important:** Do not use brackish or reclaimed water to clean the machine.

**Note:** If residue grass builds up in the mower deck, cutting performance decreases.

**Notes:**

**Notes:**



**Count on it.**