



Ball Cage Kit

Workman® GTX Utility Vehicle

Model No. 07161—Serial No. 400000000 and Up

Installation Instructions

Important: You cannot use or install the Brush Guard Kit (Model 07145) with this kit.

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

Loose Parts

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

Procedure	Description	Qty.	Use
1	No parts required	—	Prepare the machine for installation.
2	No parts required	—	Remove the seat assembly, handholds, side panels, and rubber covers.
3	Floor brace Flange-head bolts (5/16 x 1 inch) Flange locknut (5/16 inch)	2 20 20	Install the floor braces.
4	Left ROPS bracket Right ROPS bracket Flange-head bolt (1/2 x 3 inches) Flat washer (1/2 inch) Locknut (1/2 inch) Roll bar Flange-head bolt (1/2 x 3-1/2 inches) Locknut (1/2 inch) Cable tie Plastic rivet	1 1 6 10 6 1 4 4 2 4	Install the ROPS assembly.
5	Seat belt Seat latch Hex-head bolt (7/16 x 1 inch) Flat washer (7/16 inch) Locknut (7/16 inch)	2 2 4 8 4	Install the side panels, handholds, and seat belts.



Procedure	Description	Qty.	Use
6	Left windshield support Right windshield support Front support Rear canopy support Left, front mount bracket Right, front mount bracket Left, rear mount bracket Right, rear mount bracket Left, rear corner gusset Right, rear corner gusset Left, front corner gusset Right, front corner gusset Front crosslink Crosslink tube Flange nut (5/16 inch) Nut (1/4 inch) Hex-head flange bolt (1/4 x 1-1/2 inches) Carriage bolt (5/16 x 1-3/4 inches) Hex-flange bolt (5/16 x 1 inch) Carriage bolt (5/16 x 2-3/4 inches) Carriage bolt (5/16 x 1 inch)	1 1 1 1 1 1 1 1 1 1 1 1 1 2 30 2 2 16 2 6 4	Install the ROPS extension.
7	No parts required	—	Install the seat assembly.
8	Right door assembly Left door assembly Door tether Right door hinge Left door hinge Carriage bolt (5/16 x 2-3/4 inches) Shoulder bolt (5/16 x 1/2 inch) Spacer Flange nut (5/16 inch)	1 1 2 2 2 4 4 4 8	Install the doors.
9	No parts required	—	Remove the hood and bumper.
10	Headlight guard Flange bolt (5/16 x 5/8 inch)	2 4	Install the headlight guards.
11	Ball-picker mount Bottom bracket Flange bolt (3/8 x 1 inch) Flange locknut (3/8 inch)	1 1 14 14	Install the ball-picker mount.
12	No parts required	—	Install the bumper and hood.
13	Windshield Shoulder bolt (5/16 x 1-1/4 inches) Hex-head flange bolt (1/4 x 1-1/2 inches) Rubber bushing Backup washer Windshield support assembly Windshield bracket Nut (5/16 inch) Nut (1/4 inch)	1 8 5 16 8 1 1 8 5	Install the windshield.

Procedure	Description	Qty.	Use
14	Latch pin	2	Assemble the latch pin.
	Thrust washer	4	
	Pin guard	2	
	Jam nut	2	
15	Sunshade	1	Install the canopy.
	Clip	2	
	Sealing washer	4	
	Hex-flange bolt (1/4 x 1 inch)	4	
	Friction washer	2	
	Plastic washer	4	
16	Flange bushing	2	Complete the installation.
	No parts required	—	

1

Preparing the Machine

No Parts Required

Procedure

1. Park the machine on a level surface.
2. Engage the parking brake.
3. Shut off the engine and remove the key.

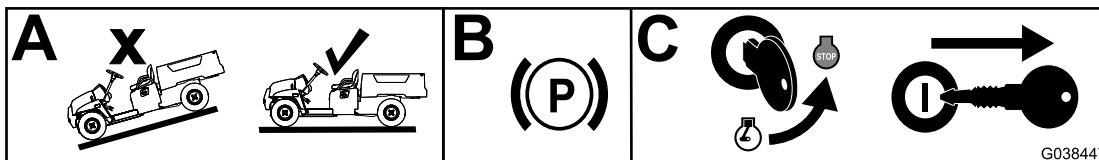


Figure 1

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2

Removing the Seat Assembly, Handholds, Side Panels, and Rubber Covers

No Parts Required

Removing the Seat Assembly

1. Push the seat assembly forward to the raised position.
2. Slide the seat assembly to the side out of the pins, and lift the seat assembly upward (Figure 2).

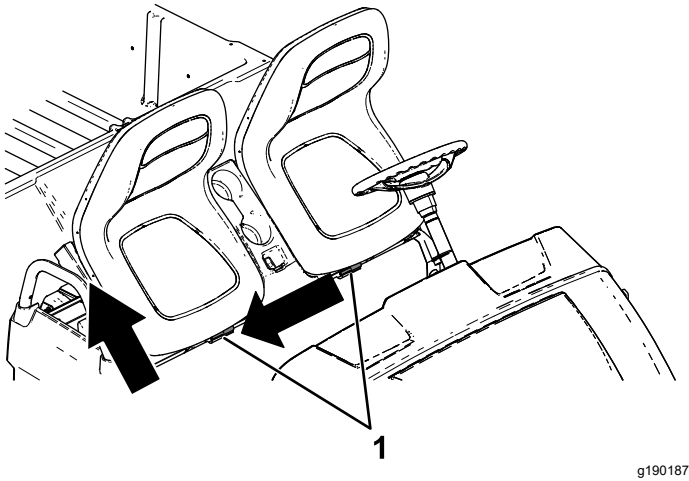


Figure 2

1. Pins

Removing the Handholds

Remove the 3 flange bolts (5/16 x 3/4 inch) and 3 flange nuts (5/16 inch) securing the right and left handholds; remove the handholds (Figure 3 and Figure 4).

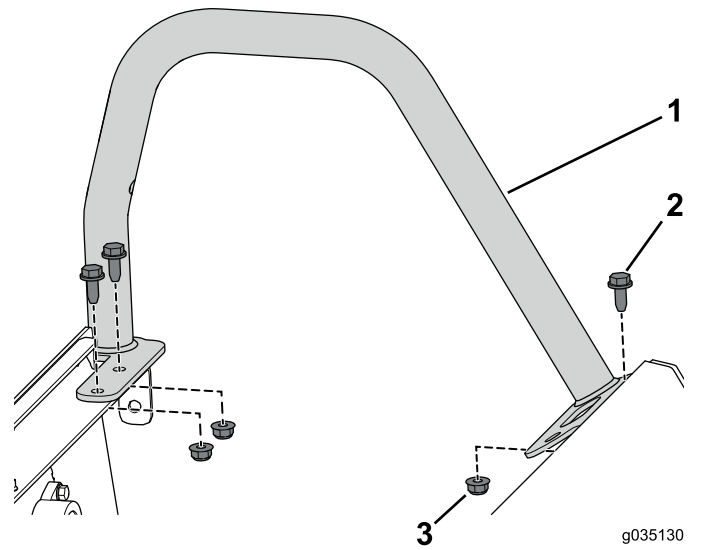


Figure 3

Left Handhold Shown

1. Left handhold
2. Flange bolt (5/16 x 3/4 inch)
3. Flange nut (5/16 inch)

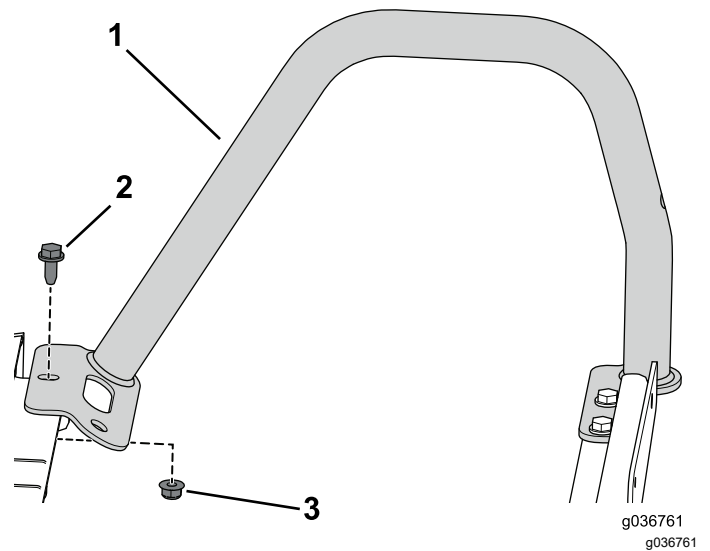


Figure 4

Right Handhold Shown

1. Right handhold
2. Flange bolt (5/16 x 3/4 inch)
3. Flange nut (5/16 inch)

Removing the Side Panels

For Electric Machines

1. Disconnect the batteries; refer to your machine *Operator's Manual*.

Note: Correctly follow the procedure for disconnecting the batteries. Disconnect the main negative-battery cable (black), then disconnect the main positive-battery cable (red).

2. Remove the charger and the charger cable from the charger bracket (Figure 5).

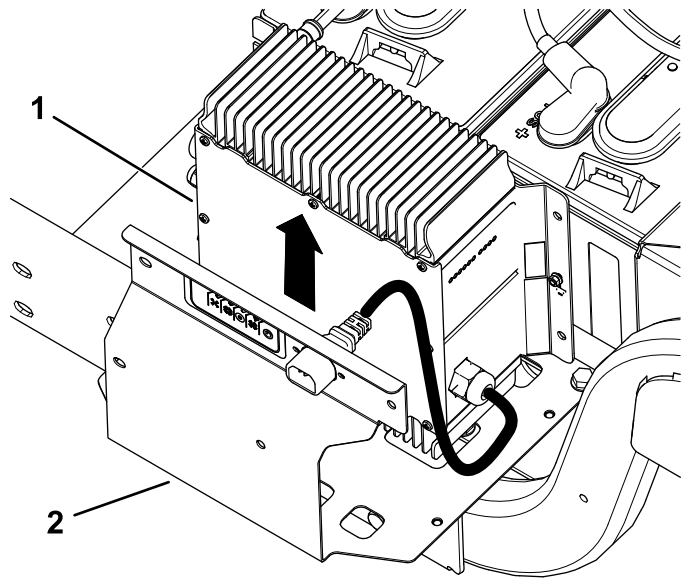


Figure 5
Left Side Shown

1. Charger
2. Charger bracket

3. Remove the 4 torx-head screws (M6.0 x 22 mm) securing the charger bracket to the left side panel (Figure 6).

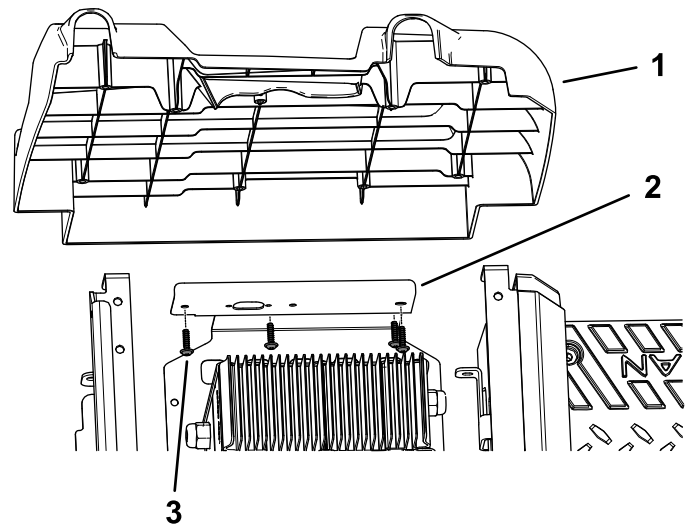
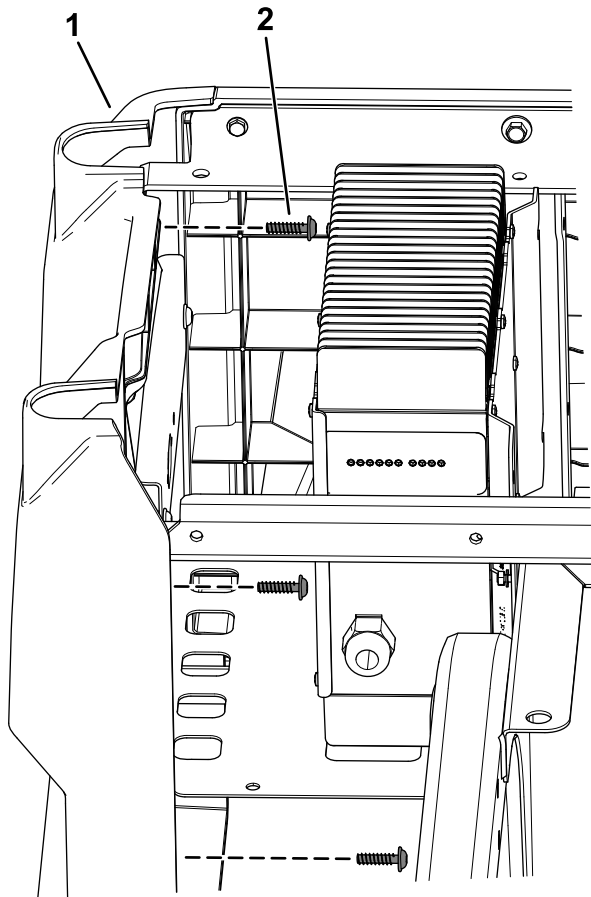


Figure 6
Left Side Shown (Top View)

1. Left side panel
2. Charger bracket
3. Torx-head screw (M6.0 x 22 mm)

- Remove the 4 torx-head screws (M6.0 x 22 mm) from the left side panel and remove it (Figure 7).



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Figure 7
Left Side Shown

- Left side panel
- Torx-head screw (M6.0 x 22 mm)

- Repeat step 4 on the right side.

Removing the Side Panels

For Gasoline Machines

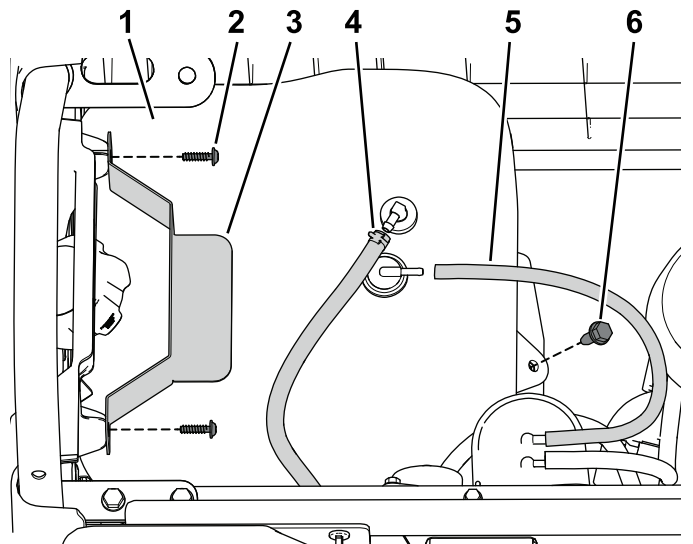
- Disconnect the vent tube and fuel line from the fuel tank (Figure 8).

⚠ DANGER

In certain conditions, fuel is extremely flammable and highly explosive. A fire or explosion from fuel can burn you and others and can damage property.

- Drain fuel from the fuel tank when the engine is cold. Do this outdoors and in an open area. Wipe up any fuel that spills.
- Never smoke when handling fuel, and stay away from an open flame or where a spark may ignite fuel fumes.

- Remove the 2 screws securing the hold-down to the left side panel, and remove the hold-down (Figure 8).
- Remove flange bolt securing the fuel tank to the fuel-tank tray and remove the fuel tank (Figure 8).



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Figure 8
Left Side Shown (Top View)

- Fuel tank
- Screw
- Hold-down
- Fuel line
- Vent hose
- Flange bolt

- Remove the 6 torx-head screws (M6.0 x 22 mm) from the left side panel and remove the side panel (Figure 9).

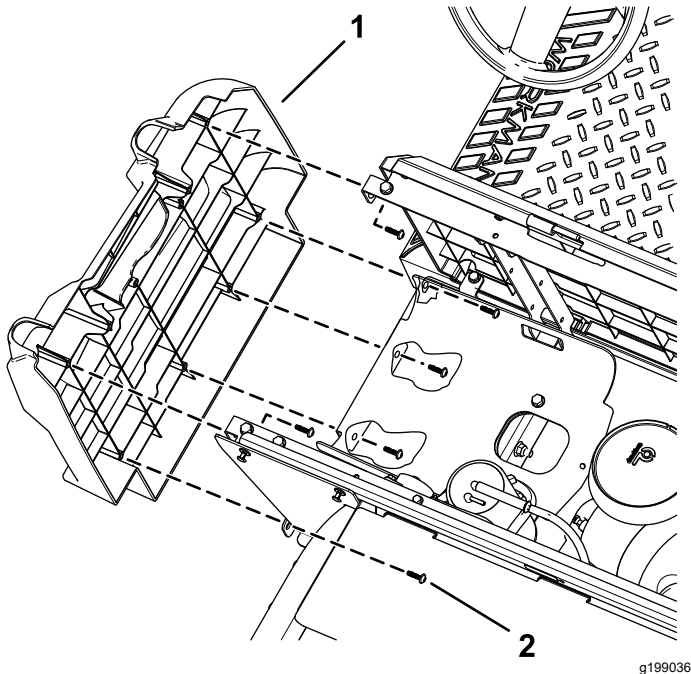


Figure 9

Left Side Shown (Top View)

- Side panel
- Torx-head screw (M6.0 x 22 mm)

- Disconnect the negative (-) battery cable from the battery and then the positive (+) battery cable as shown in Figure 10.

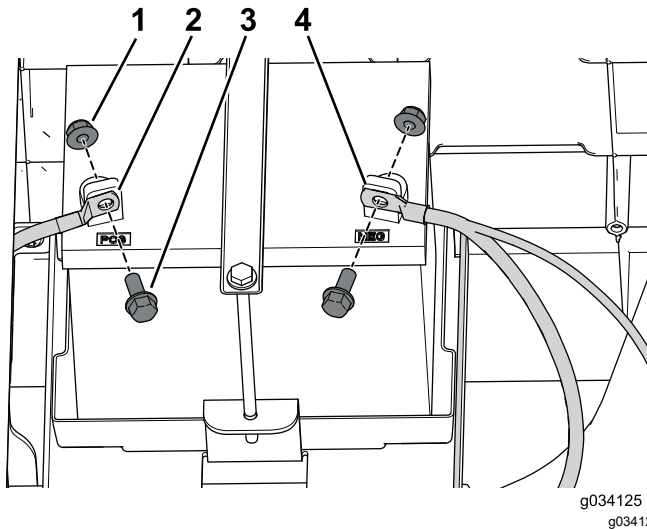


Figure 10

Right Side Shown (Top View)

- Nut
- Positive (+) battery cable
- Bolt
- Negative (-) battery cable

- Remove the 2 flange-head bolts (5/16 x 3/4 inch) that secure the battery tray to the frame and the 4 torx-head screws (M6.0 x 22 mm) that secure the right side panel, and remove the right side panel (Figure 11).

Note: The battery comes off with the right side panel as shown in Figure 11.

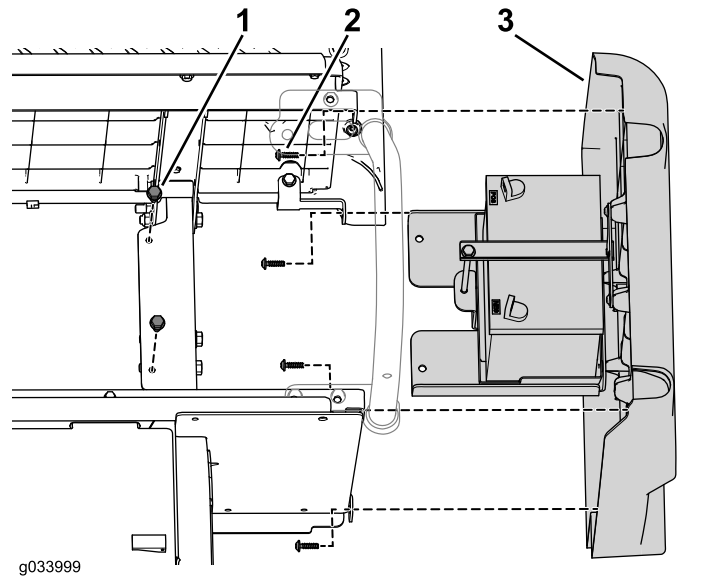


Figure 11

Right Side Shown (Top View)

- Flange-head bolt (5/16 x 3/4 inch)
- Torx-head screw (M6.0 x 22 mm)
- Right side panel

Removing the Rubber Covers

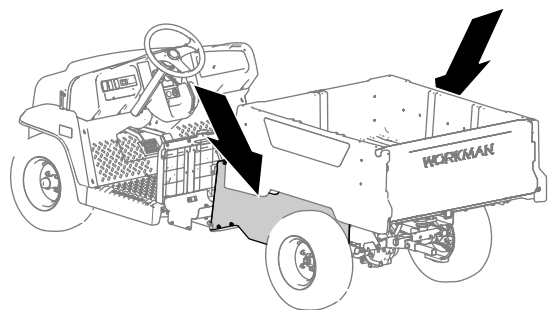


Figure 12

Remove the 10 plastic rivets and the cable tie from each rubber cover and remove the rubber covers (Figure 13).

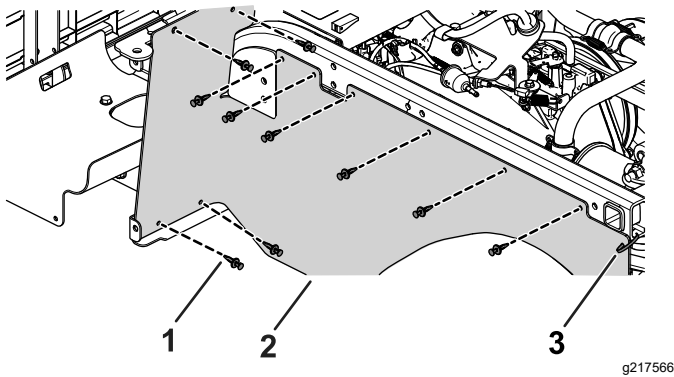


Figure 13
Left Side Shown

1. Plastic rivet (10)
2. Rubber cover
3. Cable tie

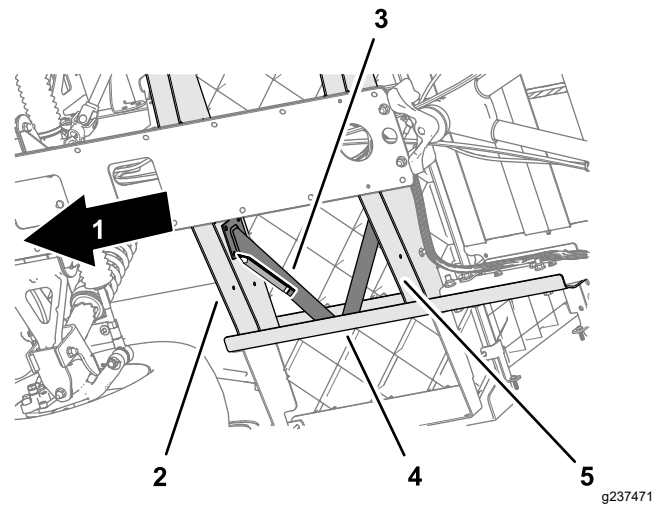


Figure 15

Marking the forward floor channel

1. Front of the machine
2. Forward floor channel
3. Floor brace
4. Side frame channel
5. Rear floor channel

2. Clamp the floor brace to the side frame channel and floor channels.
3. Using the floor brace as a template, mark the hole locations on the side frame channel and floor channels ([Figure 15](#), [Figure 16](#), and [Figure 17](#)).

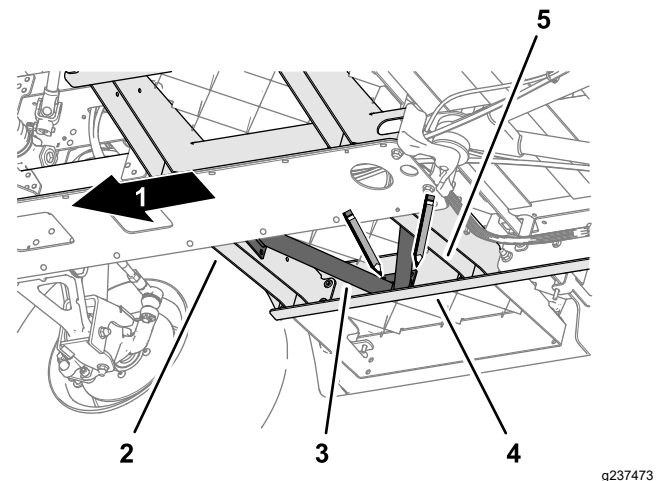


Figure 16

Marking the side frame channel

1. Front of the machine
2. Forward floor channel
3. Floor brace
4. Side frame channel
5. Rear floor channel

3

Installing the Floor Braces

Parts needed for this procedure:

2	Floor brace
20	Flange-head bolts (5/16 x 1 inch)
20	Flange locknut (5/16 inch)

Drilling the Frame Channels

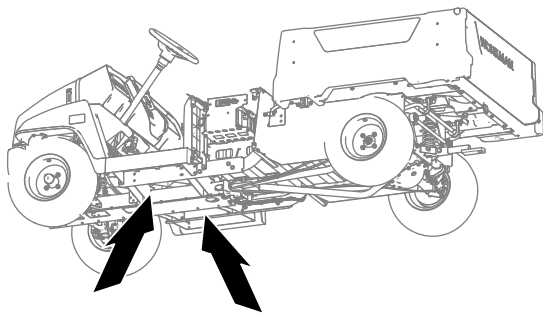
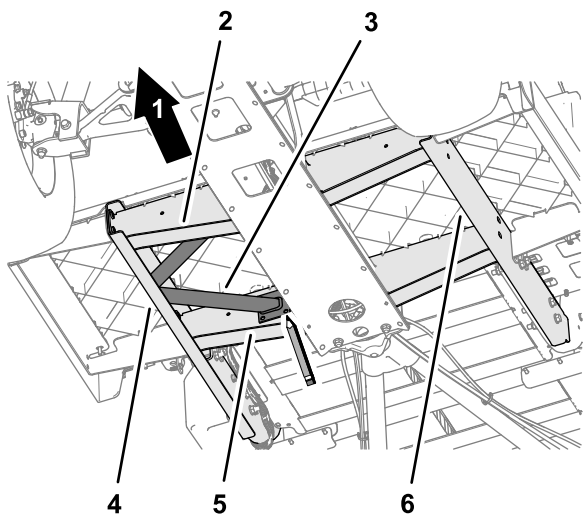


Figure 14

1. Align the floor brace to the machine as follows:
 - Align the flanges of the floor brace flush to the side frame channel, forward floor channel, and rear frame channel of the machine ([Figure 15](#)).
 - Align the floor brace parallel to the floor ([Figure 15](#)).



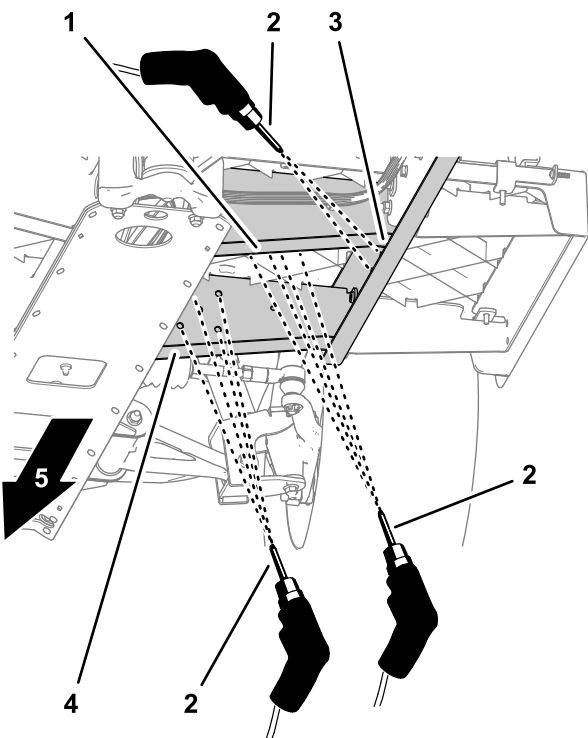
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Figure 17

Marking the rear floor channel

- | | |
|--------------------------|-------------------------------|
| 1. Front of the machine | 4. Side frame channel (left) |
| 2. Forward floor channel | 5. Rear floor channel |
| 3. Floor brace | 6. Side frame channel (right) |

4. Remove the floor brace from the machine.
5. Centerpunch the 10 marks that you made in step 3 of [Drilling the Frame Channels \(page 8\)](#).



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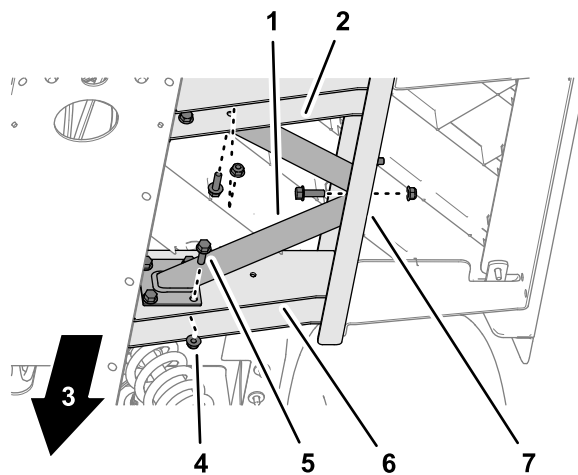
Figure 18

- | | |
|-------------------------------|--------------------------|
| 1. Rear floor channel | 4. Forward floor channel |
| 2. 8 mm (5/16 inch) drill bit | 5. Front of the machine |
| 3. Side frame channel | |

6. Drill the side and floor channels at the centerpunch marks with a 8 mm (5/16 inch) drill bit ([Figure 18](#)).
7. Repeat steps 1 through 6 for the floor brace at the other side of the machine.

Assembling the Floor Braces to the Machine

1. Align the holes in the floor brace with the holes that you drilled in the side and floor channels ([Figure 19](#)).



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Figure 19

- | | |
|-------------------------------|--------------------------------------|
| 1. Floor brace | 5. Flange-head bolts (5/16 x 1 inch) |
| 2. Rear floor channel | 6. Forward floor channel |
| 3. Front of the machine | 7. Side frame channel |
| 4. Flange locknut (5/16 inch) | |

2. Assemble the floor brace to the side and floor channels with 10 flange-head bolts (5/16 x 1 inch) and 10 flange locknuts (5/16 inch) as shown in [Figure 19](#).
3. Torque the flange-head bolts and flange locknuts to 19.8 to 25.4 N·m (175 to 225 in-lb).
4. Repeat steps 1 through 3 for the floor brace at the other side of the machine.

4

Installing the ROPS Assembly

Parts needed for this procedure:

1	Left ROPS bracket
1	Right ROPS bracket
6	Flange-head bolt (1/2 x 3 inches)
10	Flat washer (1/2 inch)
6	Locknut (1/2 inch)
1	Roll bar
4	Flange-head bolt (1/2 x 3-1/2 inches)
4	Locknut (1/2 inch)
2	Cable tie
4	Plastic rivet

Drilling the Hole for the ROPS Brackets

⚠ CAUTION

Use caution when drilling the holes into the right side of the frame on an electric machine.

If you drill too far, you could damage the batteries or other components.

1. Align a ROPS bracket with the 2 holes behind the seat base and the hole toward the front of the frame rail as shown in [Figure 20](#).

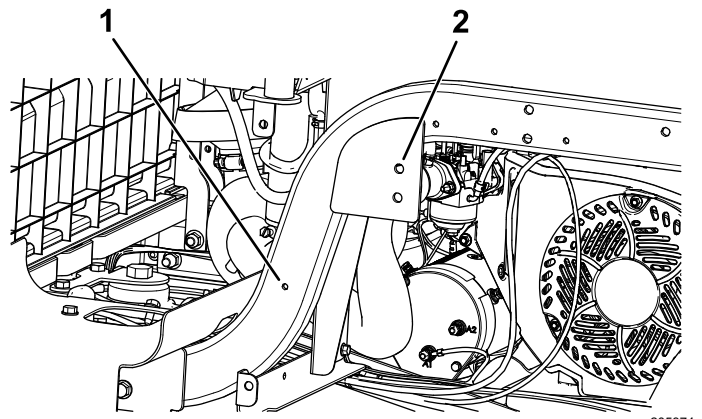


Figure 20
Left Side Shown

1. Hole toward the front of the frame rail
2. 2 holes behind the seat base

2. Using a clamp, secure the ROPS bracket in place.
3. Mark the hole locations on the ROPS bracket ([Figure 20](#)).
4. Using a ROPS bracket as a guide, drill 3 holes (13.5 mm or 17/32 inch) into the frame ([Figure 21](#)).

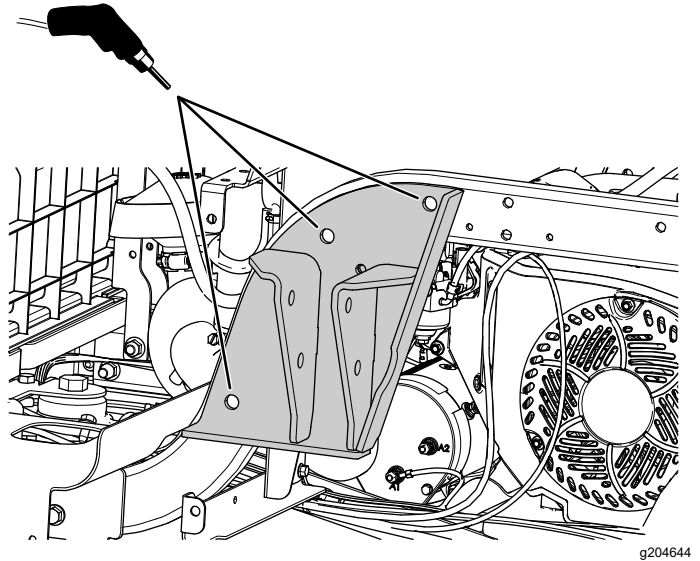


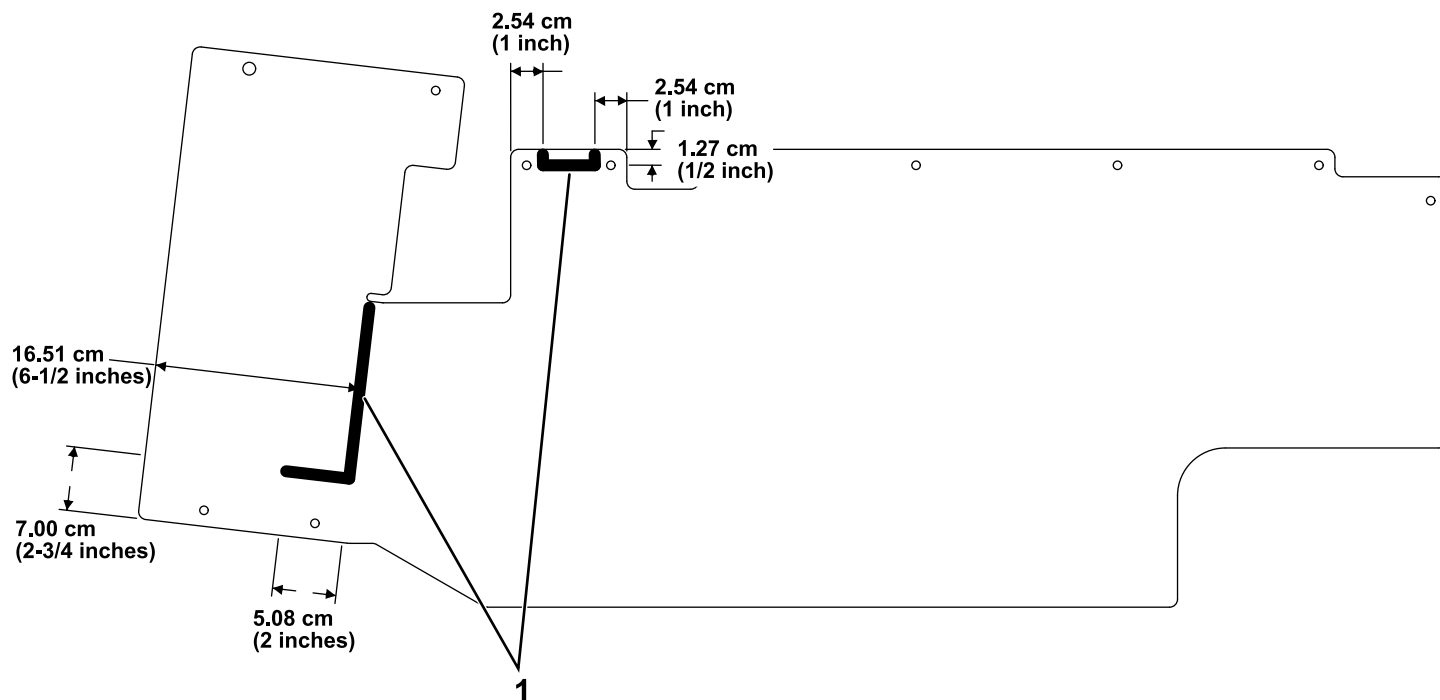
Figure 21
Left Side Shown

5. Repeat this procedure on the other side.

Cutting and Installing the Rubber Covers

1. Cut the rubber covers using the measurements shown in [Figure 22](#).

Note: The cuts in the rubber cover allow for space to install the ROPS brackets.



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Figure 22

1. Location of cut

2. Install each rubber cover using the previously removed 10 plastic rivets and a cable tie ([Figure 23](#)).

Note: If the previously removed rivets are damaged or missing, replace them with the rivets provided in this kit.

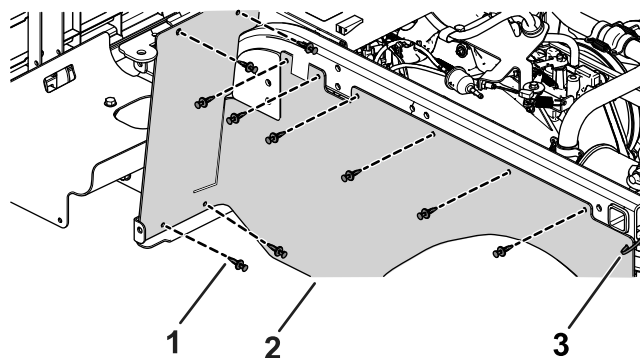


Figure 23

Left Side Shown

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1. Plastic rivet (10)
2. Rubber cover
3. Cable tie

Trimming the Side Panels

Trim the side panels using the measurements shown in [Figure 24](#).

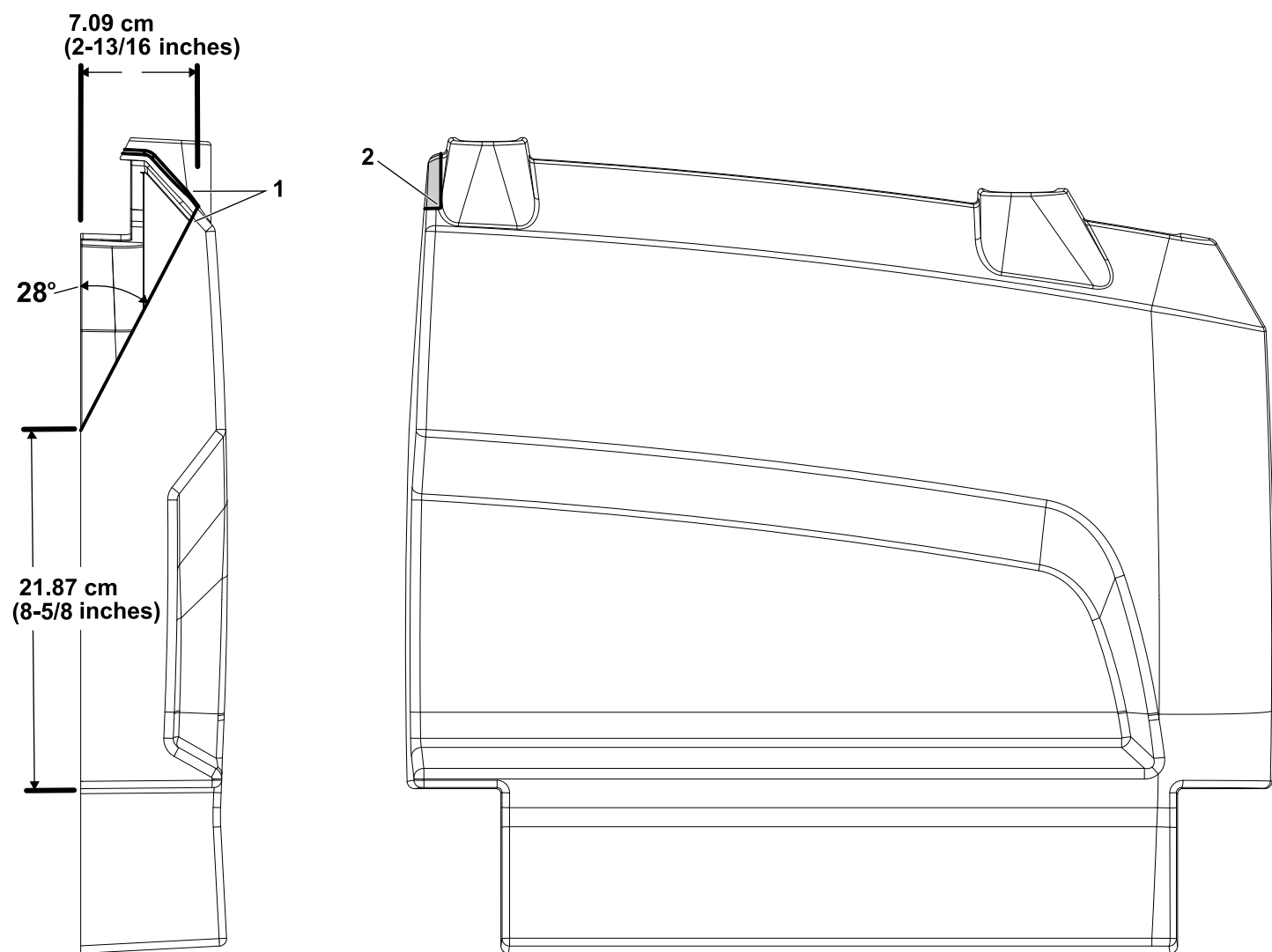


Figure 24

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1. Trim to this line.

2. Trim to this corner.

Installing the ROPS Brackets

1. Install a ROPS bracket using 3 flange-head bolts (1/2 x 3 inches), 5 flat washers (1/2 inch), and 3 locknuts (1/2 inch) as shown in [Figure 25](#).

Note: Ensure that you install the 2 flat washers (1/2 inch) on the outside as shown in [Figure 25](#).

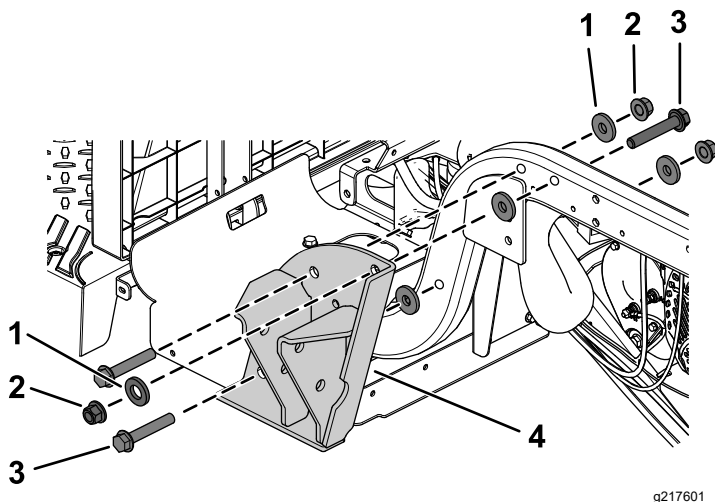


Figure 25

Left Side Shown

- | | |
|---------------------------|--------------------------------------|
| 1. Flat washer (1/2 inch) | 3. Flange-head bolt (1/2 x 3 inches) |
| 2. Locknut (1/2 inch) | 4. ROPS bracket |

2. Torque the 3 flange-head bolts (1/2 x 3 inches) to 94 to 108 N·m (70 to 80 ft-lb).
3. Repeat this procedure on the other side.

Installing the Roll Bar

1. Secure 1 side of the roll bar to a ROPS bracket using 2 flange-head bolts (1/2 x 3-1/2 inches) and 2 locknuts (1/2 inch) as shown in [Figure 26](#).

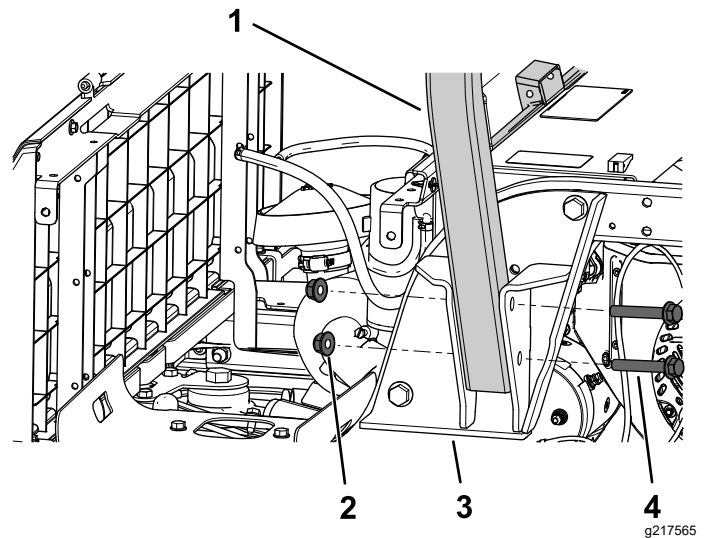


Figure 26

Left Side Shown

- | | |
|-----------------------|--|
| 1. Roll bar | 3. ROPS bracket |
| 2. Locknut (1/2 inch) | 4. Flange-head bolt (1/2 x 3-1/2 inches) |

2. Torque the 2 flange-head bolts (1/2 x 3-1/2 inches) to 94 to 108 N·m (70 to 80 ft-lb).
3. Repeat this procedure on the other side.

5

Installing the Side Panels, Handholds, and Seat Belts

Parts needed for this procedure:

2	Seat belt
2	Seat latch
4	Hex-head bolt (7/16 x 1 inch)
8	Flat washer (7/16 inch)
4	Locknut (7/16 inch)

Installing the Side Panels

For Electric Machines

1. Install the left side panel using the previously removed 4 torx-head screws (M6.0 x 22 mm) as shown in [Figure 7](#).
2. Secure the charge bracket to the left side panel using the previously removed 4 torx-head screws (M6.0 x 22 mm) as shown in [Figure 6](#).
3. Secure the charger and the charger cable to the charge bracket ([Figure 5](#)).
4. Repeat step 1 on the right side.

For Gasoline Machines

1. Install each side panel using the previously removed torx-head screws (M6.0 x 22 mm) as shown in [Figure 9](#) and [Figure 11](#).
2. Secure the fuel tank to the fuel-tank tray using the previously removed flange bolt ([Figure 8](#)).
3. Secure the hold-down to the left side panel using the previously removed 2 screws ([Figure 8](#)).
4. Connect the vent tube and fuel line to the fuel tank ([Figure 8](#)).

Installing the Handholds

Install the 2 handholds using the previously removed 3 flange bolts (5/16 x 3/4 inch) and 3 flange nuts (5/16 inch) on each side ([Figure 3](#) and [Figure 4](#)).

Installing the Seat Belts

1. Install a seat latch using a hex-head bolt (7/16 x 1 inch), 2 flat washers (7/16 inch), and a locknut (7/16 inch) as shown in [Figure 27](#).

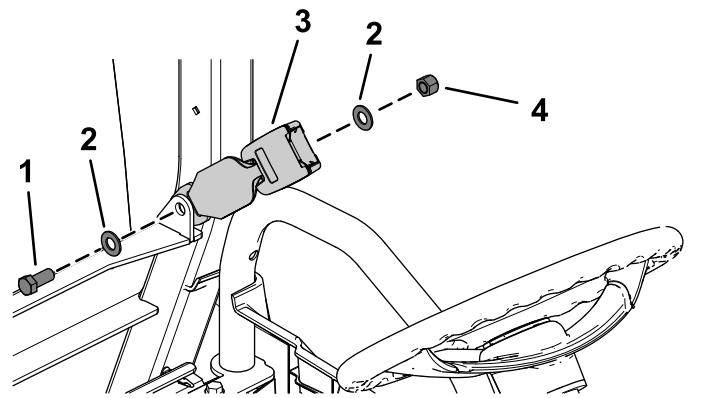


Figure 27

1. Hex-head bolt (7/16 x 1 inch)
2. Flat washer (7/16 inch)
3. Seat latch
4. Locknut (7/16 inch)

2. Torque the hex-head bolt (7/16 x 1 inch) to 68 to 81 N·m (50 to 60 ft-lb).
3. Repeat steps 1 and 2 to install the other seat latch.
4. Install a seat belt using a hex-head bolt (7/16 x 1 inch), 2 flat washers (7/16 inch), and a locknut (7/16 inch) as shown in [Figure 28](#).

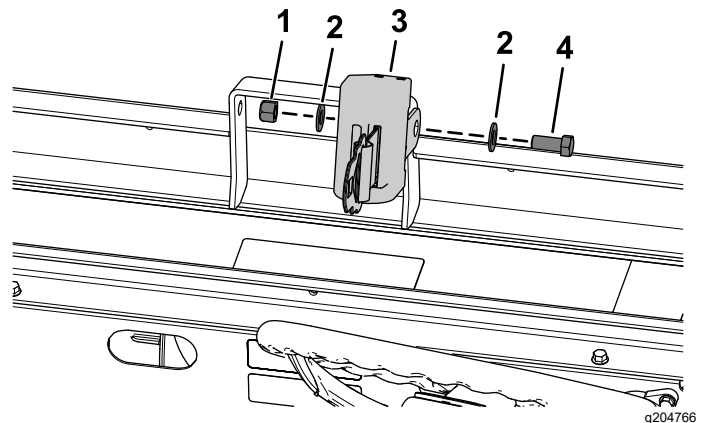


Figure 28

1. Locknut (7/16 inch)
2. Flat washer (7/16 inch)
3. Seat belt
4. Hex-head bolt (7/16 x 1 inch)

5. Torque the hex-head bolt (7/16 x 1 inch) to 68 to 81 N·m (50 to 60 ft-lb).
6. Repeat steps 4 and 5 to install the other seat belt.

6

Installing the ROPS Extension

Parts needed for this procedure:

1	Left windshield support
1	Right windshield support
1	Front support
1	Rear canopy support
1	Left, front mount bracket
1	Right, front mount bracket
1	Left, rear mount bracket
1	Right, rear mount bracket
1	Left, rear corner gusset
1	Right, rear corner gusset
1	Left, front corner gusset
1	Right, front corner gusset
1	Front crosslink
2	Crosslink tube
30	Flange nut (5/16 inch)
2	Nut (1/4 inch)
2	Hex-head flange bolt (1/4 x 1-1/2 inches)
16	Carriage bolt (5/16 x 1-3/4 inches)
2	Hex-flange bolt (5/16 x 1 inch)
6	Carriage bolt (5/16 x 2-3/4 inches)
4	Carriage bolt (5/16 x 1 inch)

Procedure

Note: Do not tighten any fasteners except when instructed.

- Using the dimensions shown in [Figure 29](#), drill 2 holes (5/16 inch) into the outside of the floor plate on the left and right sides of the machine.

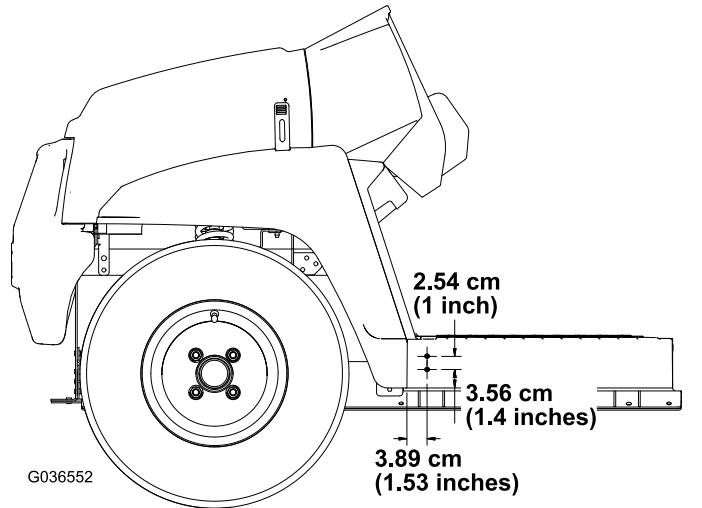


Figure 29

- Using the dimensions shown in [Figure 30](#), drill 1 hole (5/16 inch) into the outside of the footboard on the left and right sides of the machine.

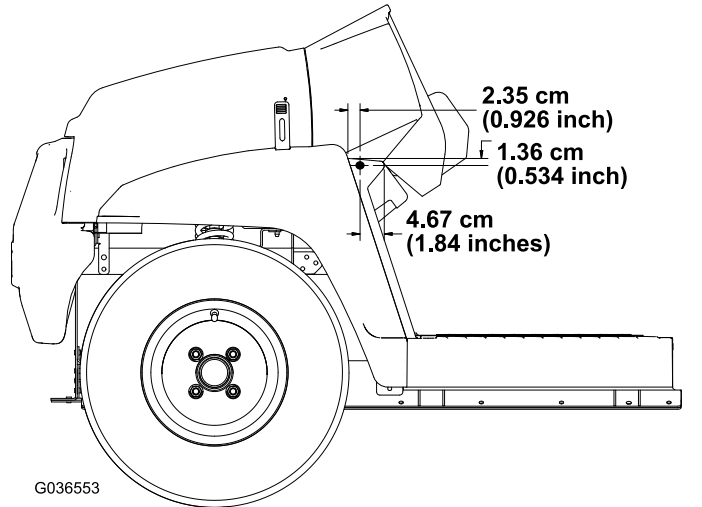


Figure 30

- Secure the middle bracket of the left and right windshield supports to the machine using 2 hex-flange bolts (5/16 x 1 inch) and 2 nuts (5/16 inch) in the holes you drilled ([Figure 31](#)).

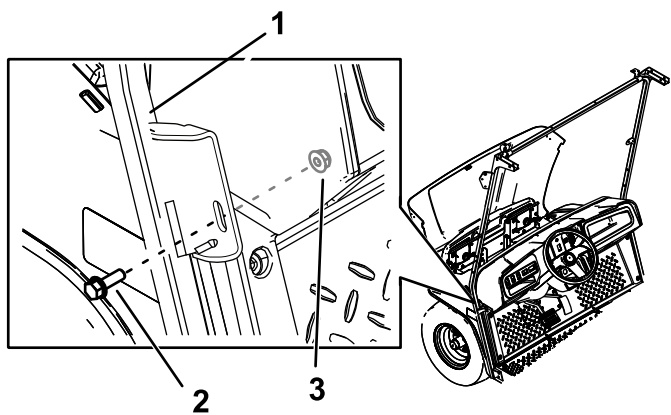


Figure 31

1. Windshield support
2. Hex-flange bolt (5/16 x 1 inch)
3. Nut—inside dash frame (5/16 inch)

4. Secure the lower bracket of the left and right windshield supports to the machine using 4 carriage bolts (5/16 x 1 inch) and 4 flange nuts (5/16 inch) in the holes you drilled in step 1 (Figure 32).

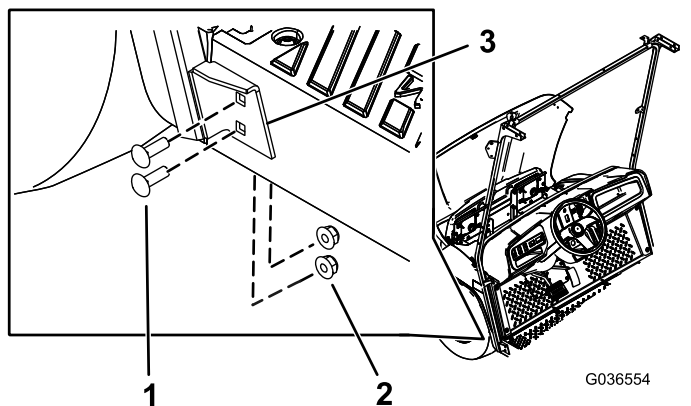


Figure 32

1. Carriage bolt (5/16 x 1 inch)
2. Flange nut (5/16 inch)
3. Lower bracket of windshield support

5. Use 2 carriage bolts (5/16 x 2-3/4 inches) and 2 flange nuts (5/16 inch) to secure the rear canopy support and the rear screen to the roll bar (Figure 33).

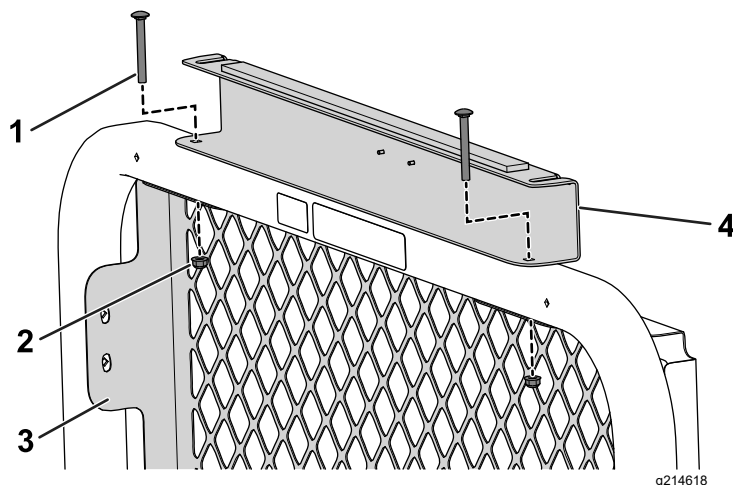


Figure 33

1. Carriage bolt (5/16 x 2-3/4 inches)
2. Flange nut (5/16 inch)
3. Rear screen
4. Rear canopy support

6. Use 4 carriage bolts (5/16 x 2-3/4 inches) and 4 nuts (5/16 inch) to secure the rear mount brackets and the rear corner gussets to the roll bar (Figure 34).

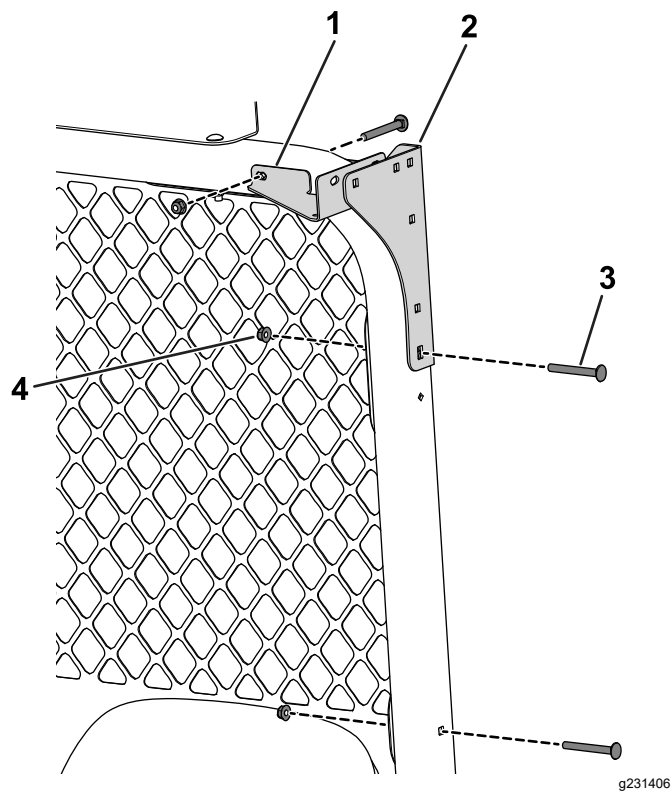


Figure 34

1. Rear corner gusset
2. Rear mount bracket
3. Carriage bolt (5/16 x 2-3/4 inches)
4. Flange nut (5/16 inch)

7. Install 2 carriage bolts (5/16 x 2-3/4 inches) and 2 nuts (5/16 inch) to secure the rear screen to the roll bar (Figure 34)
8. Loosely install the crosslink tubes to the rear mount brackets and rear corner gussets using 4 carriage bolts (5/16 x 1-3/4 inches) and 4 flange nuts (5/16 inch) as shown in Figure 35.

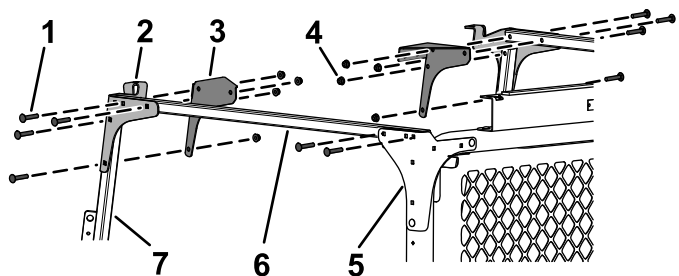


Figure 35

- | | |
|--|-----------------------|
| 1. Carriage bolt (5/16 x 1-3/4 inches) | 5. Rear mount bracket |
| 2. Front mount bracket | 6. Crosslink tube |
| 3. Corner gusset | 7. Windshield support |
| 4. Flange nut (5/16 inch) | |

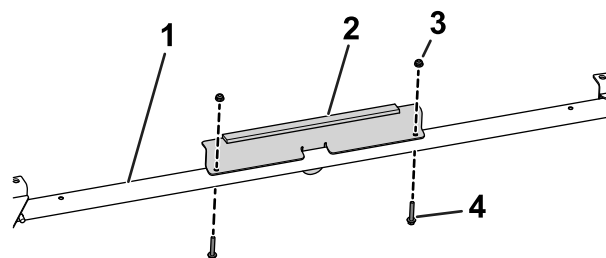


Figure 37

- | | |
|--------------------|--|
| 1. Front crosslink | 3. Nut (1/4 inch) |
| 2. Front support | 4. Hex-head flange bolt (1/4 x 1-1/2 inches) |

12. Tighten all loose fasteners.

9. Loosely install the front mount brackets and front corner gussets to the crosslink tubes and the windshield supports using 8 carriage bolts (5/16 x 1-3/4 inches) and 8 flange nuts (5/16 inch) as shown in Figure 35.
10. Loosely install the front crosslink to the front mount brackets and corner gussets using 4 carriage bolts (5/16 x 1-3/4 inches) and 4 flange nuts (5/16 inch) as shown in Figure 36.

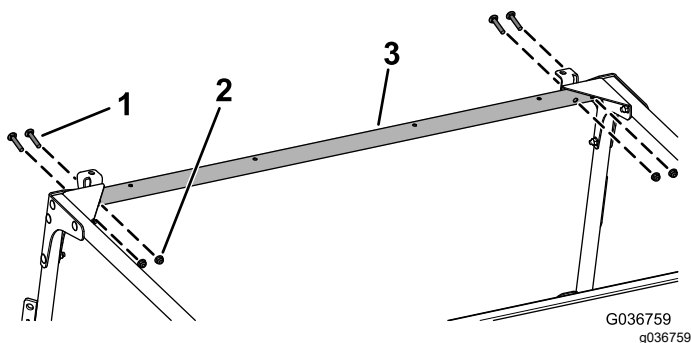


Figure 36

- | | |
|--|--------------------|
| 1. Carriage bolt (5/16 x 1-3/4 inches) | 3. Front crosslink |
| 2. Flange nut (5/16 inch) | |

11. Use 2 hex-head flange bolts (1/4 x 1-1/2 inches) and 2 nuts (1/4 inch) to secure the front support to the front crosslink (Figure 37).

7

Installing the Seat Assembly

No Parts Required

Procedure

Slide the seat assembly onto the pins and lower the seat assembly ([Figure 65](#)).

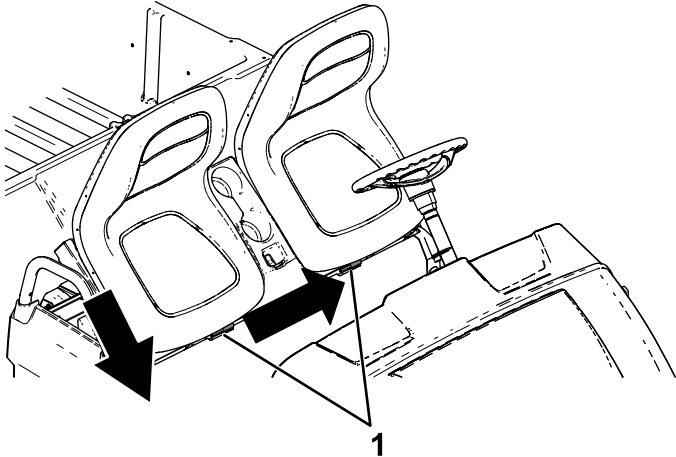


Figure 38

g190186

1. Pins

8

Installing the Doors

Parts needed for this procedure:

1	Right door assembly
1	Left door assembly
2	Door tether
2	Right door hinge
2	Left door hinge
4	Carriage bolt (5/16 x 2-3/4 inches)
4	Shoulder bolt (5/16 x 1/2 inch)
4	Spacer
8	Flange nut (5/16 inch)

Procedure

Refer to [Figure 39](#) as you perform the following steps.

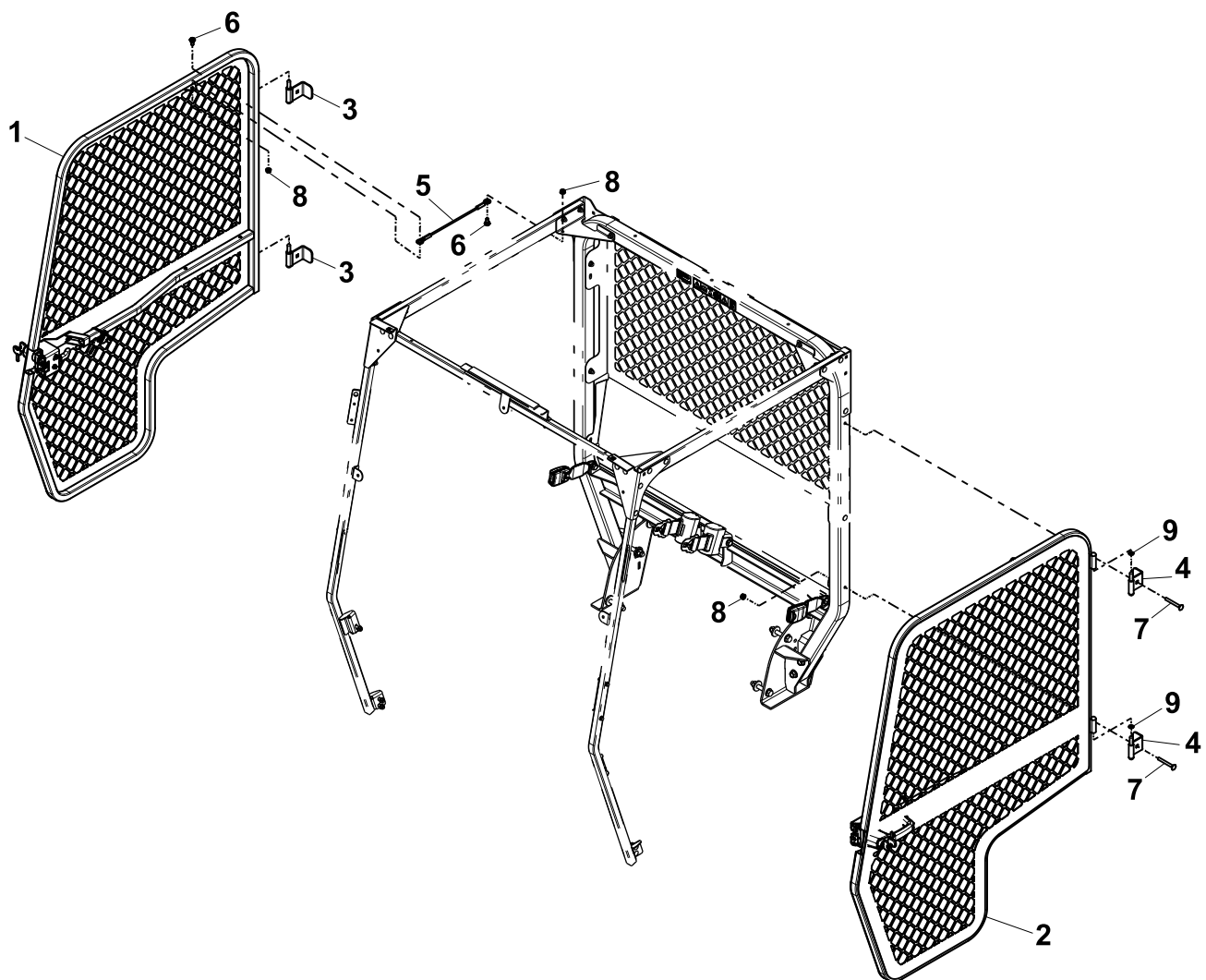
1. Use 4 carriage bolts (5/16 x 2-3/4 inches) and 4 flange nuts (5/16 inch) to secure the left and right door hinges to the roll bar.

Note: This hardware also secures the right and left sides of the rear screen to the roll bar.

2. Place a spacer onto each door hinge.
3. Apply a light coating of grease onto each door hinge.
4. Install each door assembly by sliding the doors onto the door hinges.

Note: Ensure that each door swings freely. Adjust the door latch pin so that it is centered in the door latch handle

5. Use 4 shoulder bolts (5/16 x 1/2 inch) and 4 flange nuts (5/16 inch) to secure the door tethers to the door assemblies and the crosslink tubes.



g214744

Figure 39

- | | |
|------------------------|--|
| 1. Right door assembly | 6. Shoulder bolt (5/16 x 1/2 inch) |
| 2. Left door assembly | 7. Carriage bolt (5/16 x 2-3/4 inches) |
| 3. Right door hinge | 8. Flange nut (5/16 inch) |
| 4. Left door hinge | 9. Spacer |
| 5. Door tether | |

9

Removing the Hood and Bumper

No Parts Required

Removing the Hood from the Machine

1. Lift up the handle of the rubber latches at each side of the hood (Figure 40).

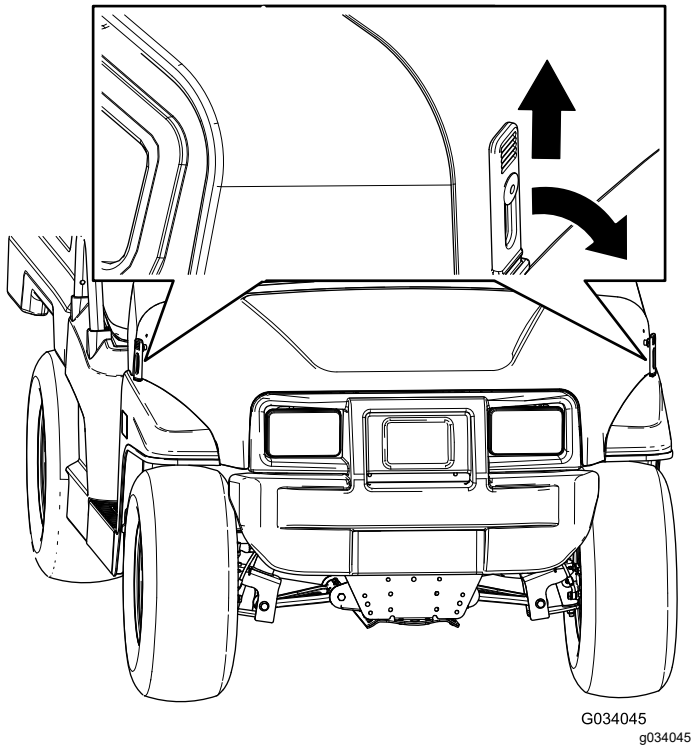


Figure 40

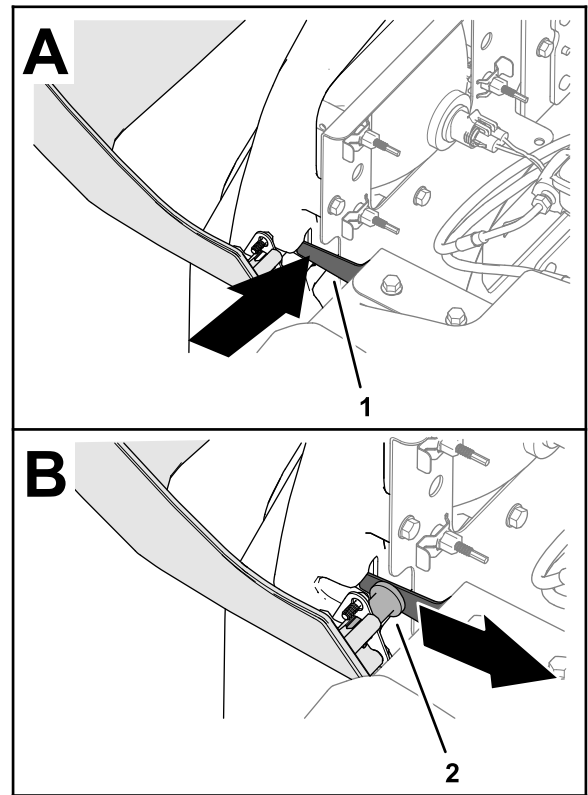


Figure 41

g237474

1. Pivot latch
2. Clevis pin
3. Repeat step 1 at the other side of the hood.
4. Repeat step 3 at the other side of the hood.
5. Remove the hood from the machine.

2. Rotate the hood forward.
3. While supporting the hood, push the pivot latch inward and move the hood rearward until the clevis pin of the hood clears the latch (Figure 41).

Removing the Bumper from the Machine

1. While supporting the bumper, remove the 8 flange-head bolts that secure the bumper to the bumper mounts and headlight brackets ([Figure 42](#))

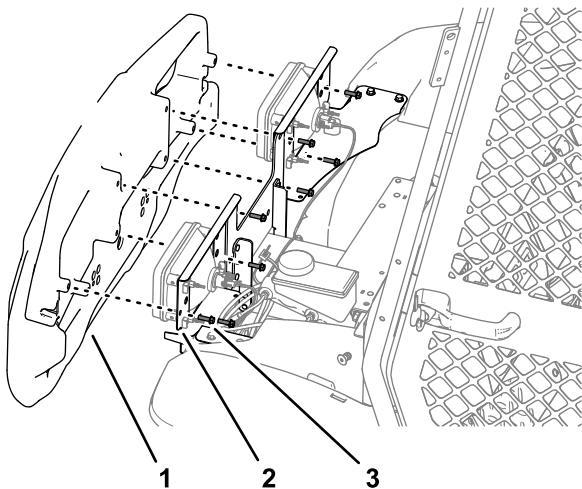


Figure 42

g237475

1. Bumper
2. Bumper and headlight mount
3. Flange-head bolt

2. Remove the bumper from the machine.

10

Installing the Headlight Guards

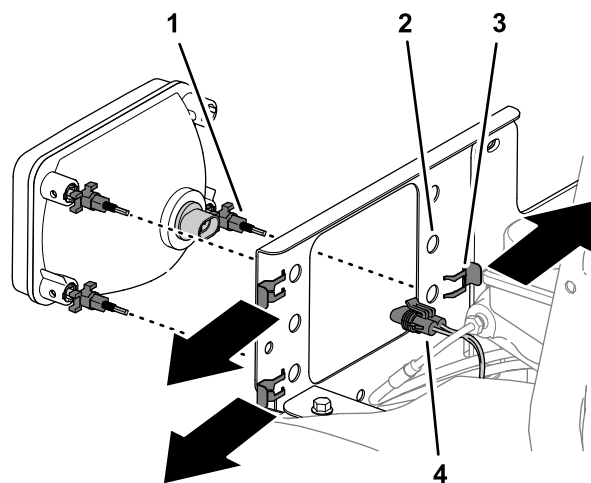
Parts needed for this procedure:

2	Headlight guard
4	Flange bolt (5/16 x 5/8 inch)

Installing the Headlight Guards

1. Remove the 2-socket connector of the machine wire harness from the 2-pin connector at the back of the head light ([Figure 43](#)).

Note: Retain the clips for assembly.



g237538

Figure 43

1. Headlight-adjusting nut
2. Headlight bracket
3. Clip
4. 2-socket connector (machine wire harness)

2. Remove the 3 clips from the 3 headlight-adjusting nuts, and remove the headlight from the headlight bracket ([Figure 43](#)).
3. Inspect the headlight mount brackets for the headlight guard mounting holes.

If the headlight mount brackets do not have mounting holes, use the measurements in [Figure 44](#) to drill 2 holes—11 mm (7/16 inch) in each of the headlight mount brackets.

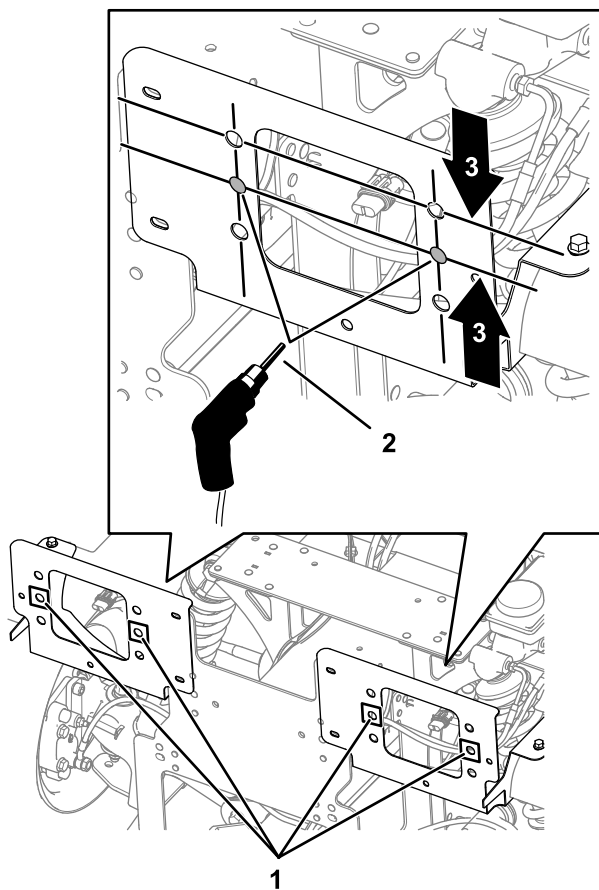


Figure 44

View from under the front hood

1. Guard mounting holes (headlight mount bracket)
2. Drill bit 11 mm (7/16 inch)
3. 37 mm (1-7/16 inches)

4. Assemble the headlight guards onto the headlights as shown in [Figure 45](#).

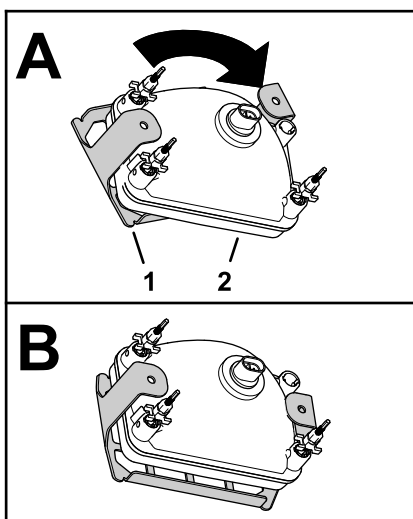


Figure 45

1. Headlight guard
2. Headlight

5. Align the 3 headlight-adjusting nuts through the holes in the headlight mounting bracket and secure the nuts with the clips ([Figure 43](#)) that you removed in step 2.

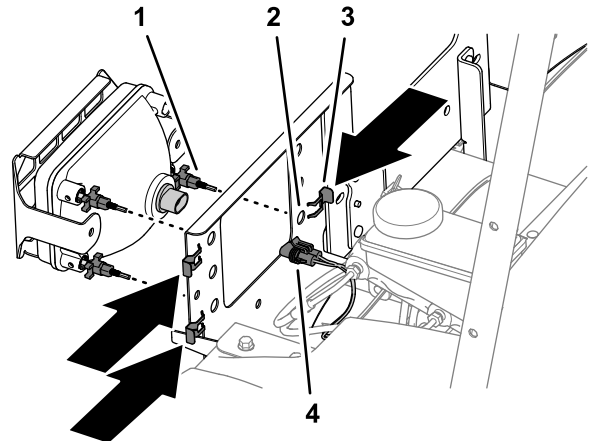


Figure 46

1. Headlight-adjusting nut
2. Headlight bracket
3. Clip
4. 2-socket connector (machine wire harness)

6. Connect the 2-socket connector of the machine wire harness to the 2-pin connector at the back of the headlight ([Figure 46](#)).
7. Secure the head light guard to the headlight mount brackets ([Figure 45](#)) with the 4 flange bolt (5/16 x 5/8 inch).

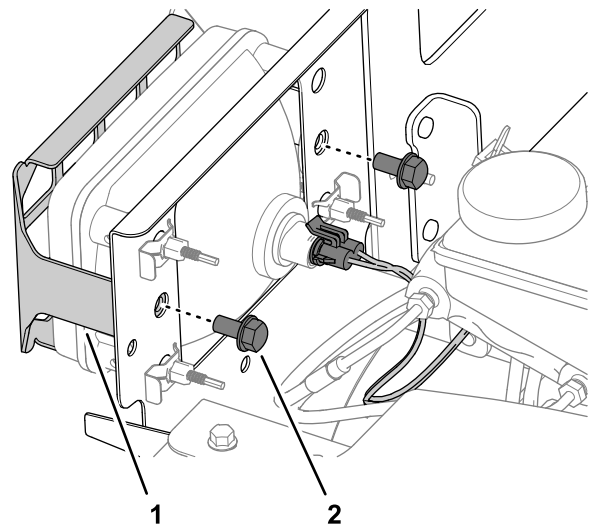


Figure 47

1. Headlight guard
2. Flange bolt (5/16 x 5/8 inch)

11

Installing the Ball-Picker Mount

Parts needed for this procedure:

1	Ball-picker mount
1	Bottom bracket
14	Flange bolt (3/8 x 1 inch)
14	Flange locknut (3/8 inch)

Drilling the Center-Channel Plate

1. Assemble the ball-picker mount onto the bumper support as shown in [Figure 48](#).

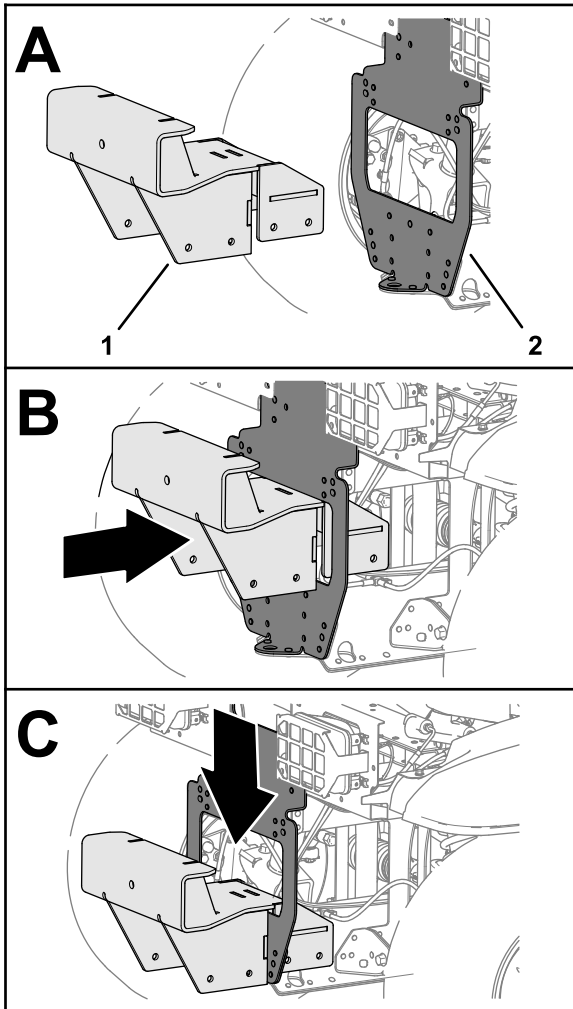


Figure 48

g237670

1. Ball-picker mount
2. Bumper support

2. Loosely assemble the bottom bracket onto the ball-picker mount ([Figure 49](#)) with 4 flange bolts (3/8 x 1 inch) and 4 flange locknuts (3/8 inch).

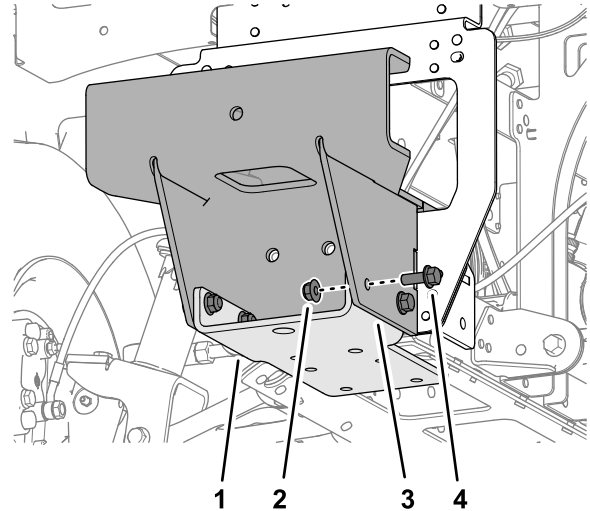


Figure 49

g237671

1. Bottom bracket
2. Flange locknut (3/8 inch)
3. Ball-picker mount
4. Flange bolt (3/8 x 1 inch)

3. Align the rear-most edge of the bottom bracket with the edge of the access opening in the center-channel plate ([Figure 50](#)).

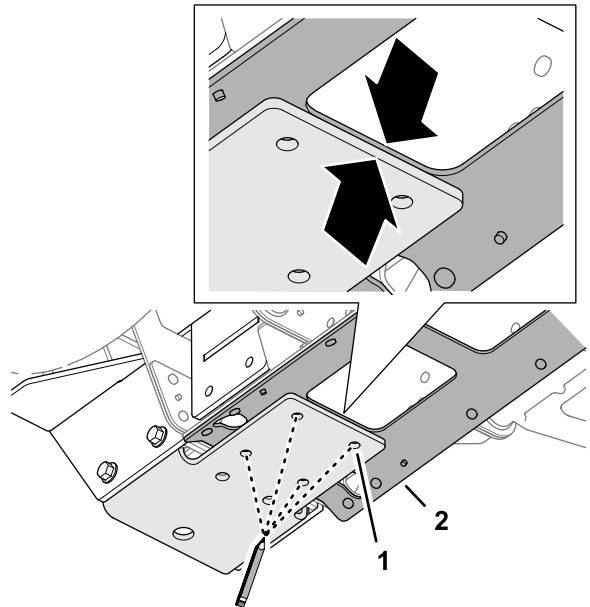


Figure 50

g237673

1. Hole (Bottom bracket)
2. Center-channel plate

4. Mark the 4 hole locations of the bottom bracket onto the center-channel plate as shown in [Figure 50](#).

5. Remove the 4 flange bolts (3/8 x 1 inch), 4 flange locknuts (3/8 inch), and bottom bracket from the ball-picker mount ([Figure 49](#)).
6. Centerpunch the 4 marks that you made on the center-channel plate in [step 4](#).
7. Drill 4 holes 10 mm (3/8 inch) in the center-channel plate at the centerpunch marks that you made in [step 6](#) as shown in [Figure 51](#).

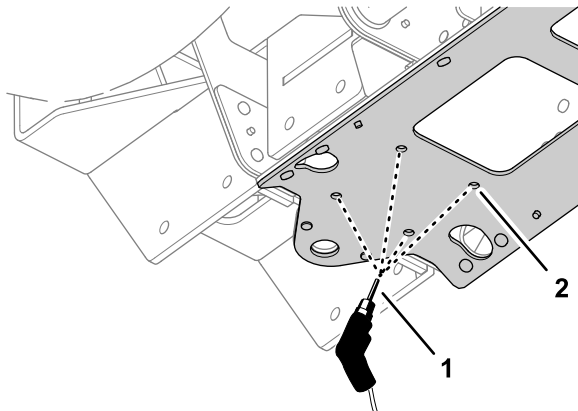


Figure 51

1. Drill bit 10 mm (3/8 inch)
2. Center-channel plate

Drilling the Front Frame Channel

1. Loosely assemble the bottom bracket, ball-picker mount and center-channel plate as shown in [Figure 52](#) with 8 flange bolts (3/8 x 1 inch) and 8 flange locknuts (3/8 inch).

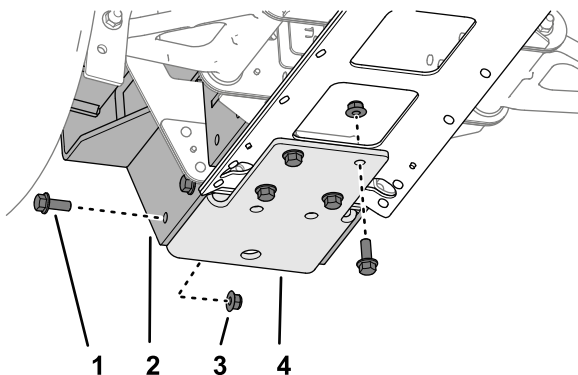


Figure 52

1. Flange bolt (3/8 x 1 inch)
2. Ball-picker mount
3. Flange locknut (3/8 inch)
4. Bottom bracket

2. Mark the 6 hole locations of the bottom bracket onto the center-channel plate as shown in [figures Figure 53, Figure 54, and Figure 55](#).

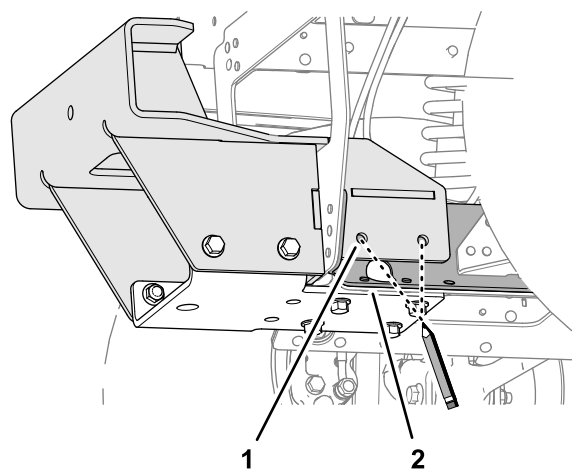


Figure 53

1. Hole (Ball-picker mount)
2. Front frame channel

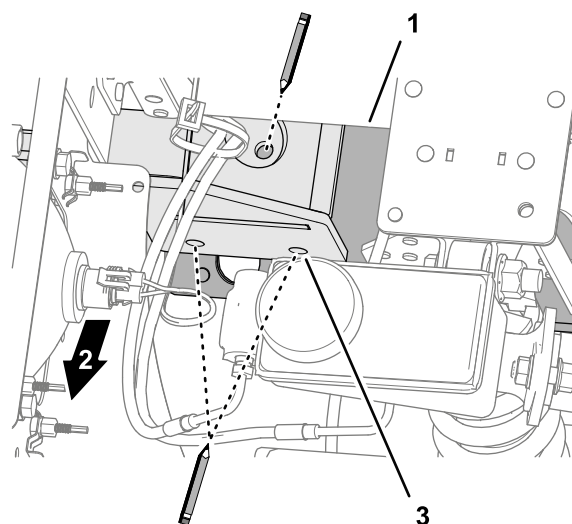


Figure 54

1. Ball-picker mount
2. Left side of the machine
3. Front frame channel

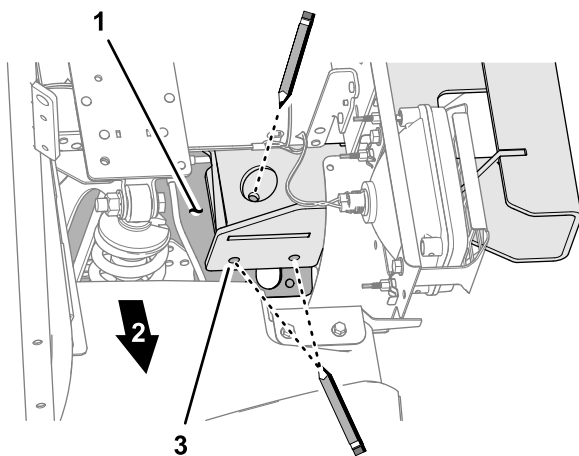


Figure 55

1. Front frame channel
2. Right side of the machine
3. Hole (Ball-picker mount)

3. Remove the 8 flange bolts (3/8 x 1 inch), 8 flange locknuts (3/8 inch), bottom bracket, and ball-picker mount from the machine (Figure 52).
4. Centerpunch the 6 marks that you made on the center-channel plate in step 2.
5. Drill 6 holes 10 mm (3/8 inch) in the center-channel plate at the centerpunch marks that you made in step 4.

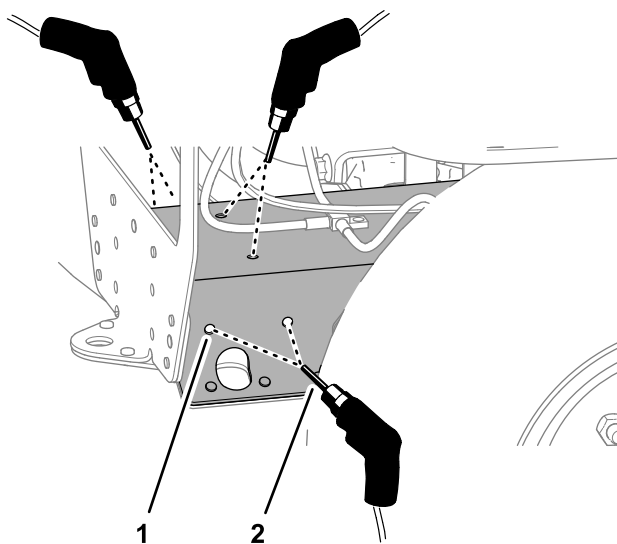


Figure 56

1. Front frame channel
2. Drill bit 10 mm (3/8 inch)

Assembling the Ball-Picker Mount to the Machine

1. Assemble the ball-picker mount and the bottom bracket to the front frame channel and center-channel plate (Figure 57, Figure 58, and Figure 59) with 14 flange bolts (3/8 x 1 inch) and 14 flange locknuts (3/8 inch).

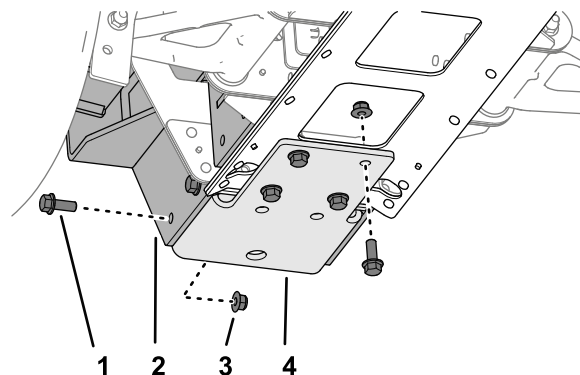


Figure 57

1. Flange bolt (3/8 x 1 inch)
2. Ball-picker mount
3. Flange locknut (3/8 inch)
4. Bottom bracket

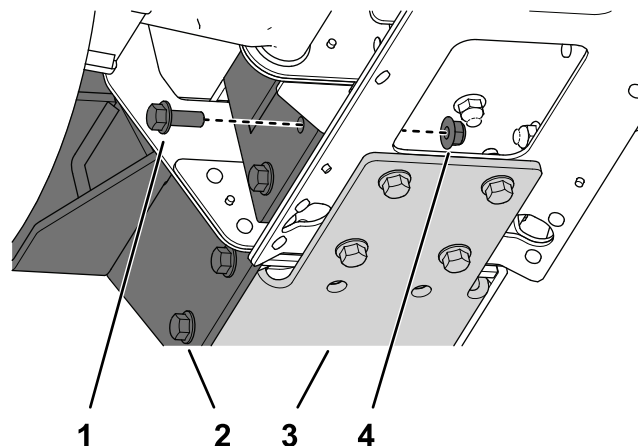


Figure 58

1. Flange bolt (3/8 x 1 inch)
2. Ball-picker mount
3. Bottom bracket
4. Flange locknut (3/8 inch)

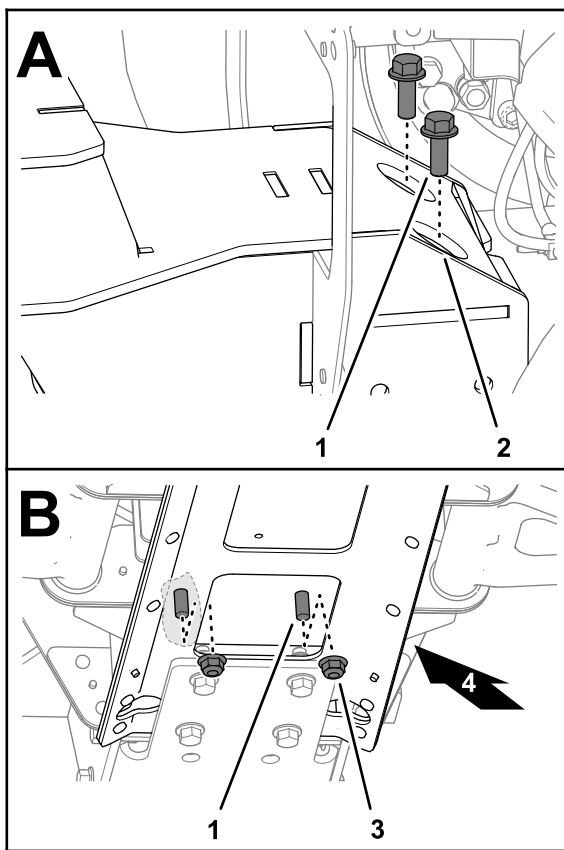


Figure 59

g237837

1. Flange bolt (3/8 x 1 inch)
2. Ball-picker mount
3. Flange locknut (3/8 inch)
4. Top of the machine

2. Torque the bolts and nuts to 37 to 45 N·m (27 to 33 ft-lb).

12

Installing the Bumper and Hood

No Parts Required

Trimming the Bumper

1. On the back side of the bumper, mark 1 inch above the bottom of the bumper in the depressed center area as shown in [Figure 60](#).

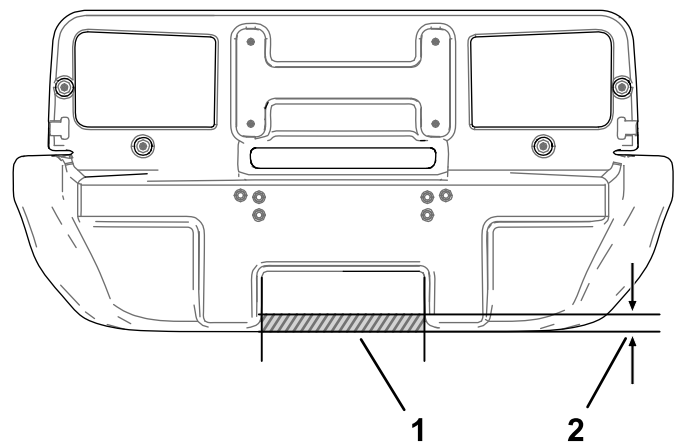


Figure 60

g237868

1. Area to trim
 2. 1 inch from the bottom
-
2. Cut out the area marked to create clearance for the ball-picker mount.

Assembling the Bumper to the Machine

1. Support the bumper so that it aligns with the bumper and headlight mount as shown in [Figure 42](#).
2. Install the bumper with the 8 flange-head bolts removed in [9 Removing the Hood and Bumper \(page 20\)](#).

Assembling the Hood to the Machine

1. With the front of the hood rotated forward, align a clevis pin at the front of the hood with the corresponding spring latch as shown in [Figure 41 of 9 Removing the Hood and Bumper \(page 20\)](#).
2. Slide the clevis pin into the notch so that it is secured by the pivot latch.
3. Repeat step [2](#) at the other side of the hood.
4. Lower the hood and secure it with the rubber latches at each side of the hood as shown in [Figure 40](#).

13

Installing the Windshield

Parts needed for this procedure:

1	Windshield
8	Shoulder bolt (5/16 x 1-1/4 inches)
5	Hex-head flange bolt (1/4 x 1-1/2 inches)
16	Rubber bushing
8	Backup washer
1	Windshield support assembly
1	Windshield bracket
8	Nut (5/16 inch)
5	Nut (1/4 inch)

Procedure

1. Use 1 hex-head flange bolt (1/4 x 1-1/2 inches) and 1 nut (1/4 inch) to secure the windshield bracket to the windshield support assembly (Figure 61).

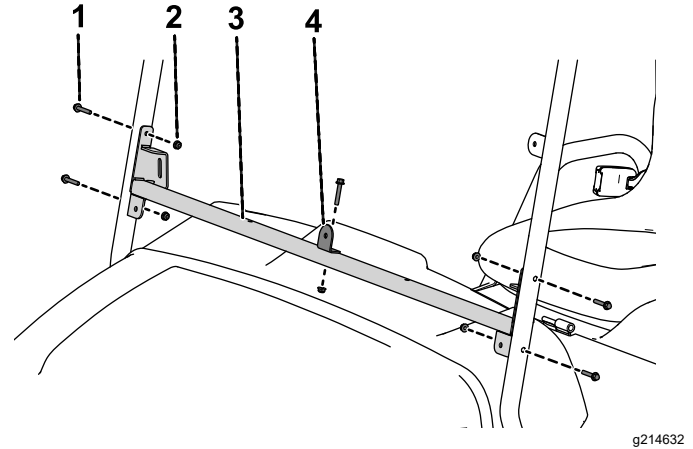


Figure 61

1. Hex-head flange bolt (1/4 x 1-1/2 inches)
2. Nut (1/4 inch)
3. Windshield support assembly
4. Windshield bracket

2. Use 4 hex-head flange bolts (1/4 x 1-1/2 inches) and 4 nuts (1/4 inch) to secure the windshield support assembly to the right and left windshield supports (Figure 61).
3. Install the windshield with 8 shoulder bolts (5/16 x 1-1/4 inches), 8 backup washers, 16 rubber bushings, and 8 nuts (5/16 inch) as shown in Figure 62.

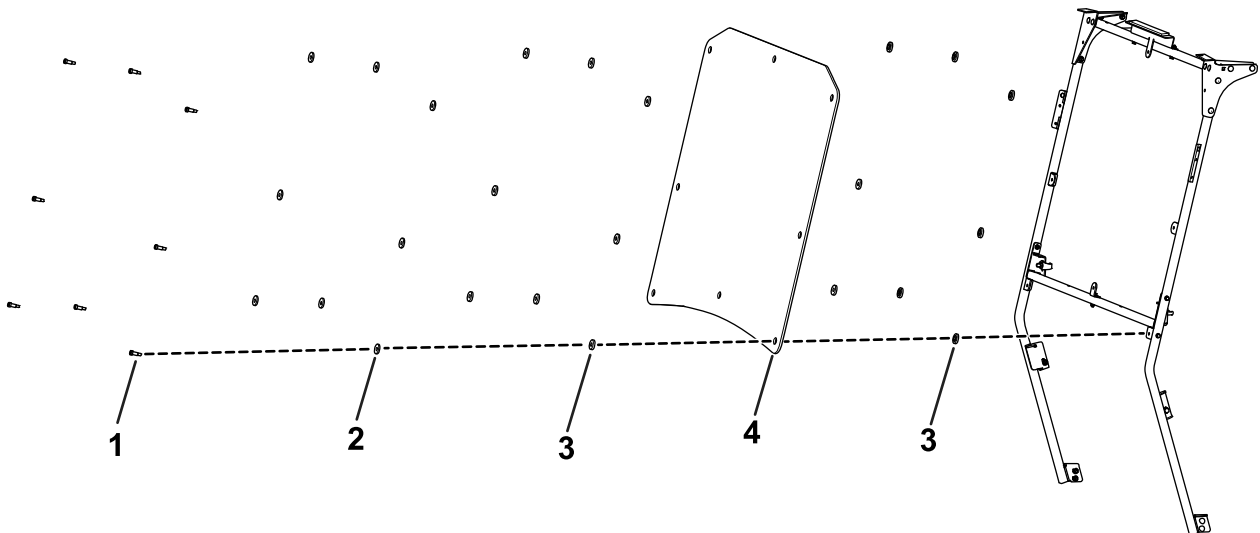


Figure 62

1. Shoulder bolt (5/16 x 1-1/4 inches)
2. Backup washer
3. Rubber bushing
4. Windshield

14

Assembling the Latch Pin

Parts needed for this procedure:

2	Latch pin
4	Thrust washer
2	Pin guard
2	Jam nut

Procedure

1. Align the latch pin and the pin guard with the opening at the mount bracket as shown in [Figure 63](#).
2. Insert the latch pin (without the washers at first) into the pin guard ([Figure 63](#)).

Note: If the latch pin is not centered in the door latch, add 1 or 2 of the thrust washers. Use the thrust washers to align the latch pin to the door handle latch.

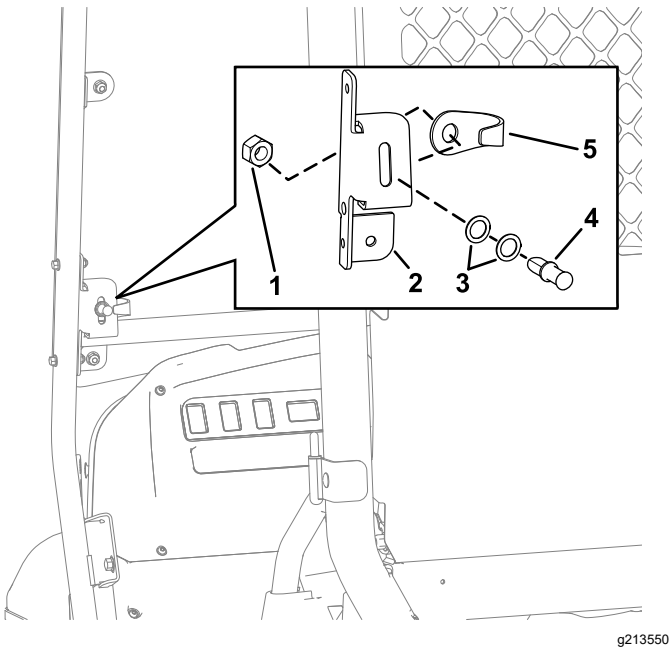


Figure 63

1. Jam nut
2. Mount bracket
3. Thrust washer
4. Latch pin
5. Pin guard

3. Align the latch pin and the jam nut onto the back side of the opening at the mount bracket ([Figure 63](#)).

4. Tighten the jam nut onto the latch pin by hand ([Figure 63](#)).

15

Installing the Canopy

Parts needed for this procedure:

1	Sunshade
2	Clip
4	Sealing washer
4	Hex-flange bolt (1/4 x 1 inch)
2	Friction washer
4	Plastic washer
2	Flange bushing

Procedure

1. Install the sunshade to the front plates using 2 clips, 2 sealing washers, and 2 hex-flange bolts (1/4 x 1 inch) as shown in [Figure 64](#).

Important: Apply thread-locking compound to the hex-flange bolts before installing.

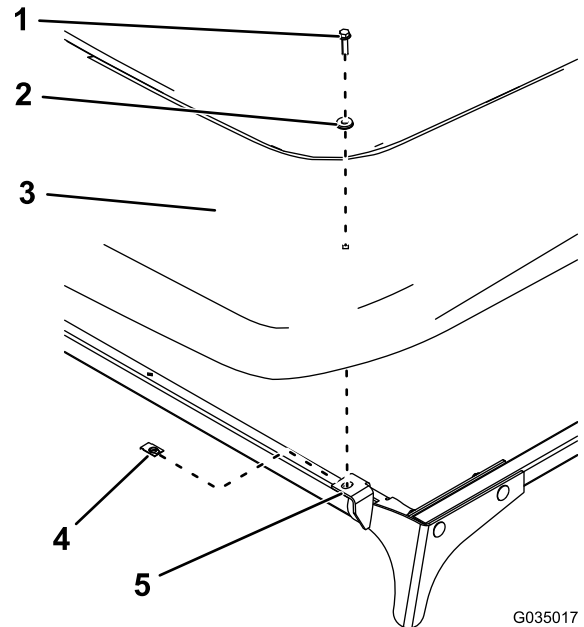


Figure 64

1. Hex-flange bolt (1/4 x 1 inch)
2. Sealing washer
3. Sunshade
4. Clip
5. Front plate

2. Install the sunshade to the rear crosslink using 2 hex-flange bolts (1/4 x 1 inch), 2 sealing washers, 2 friction washers, 4 plastic washers, and 2 flange bushings ([Figure 65](#)).

Important: Apply thread-locking compound to the hex-flange bolts before installing.

Important: Ensure that the plastic washers are installed onto the top and bottom of the sunshade, as this prevents damaging the sunshade.

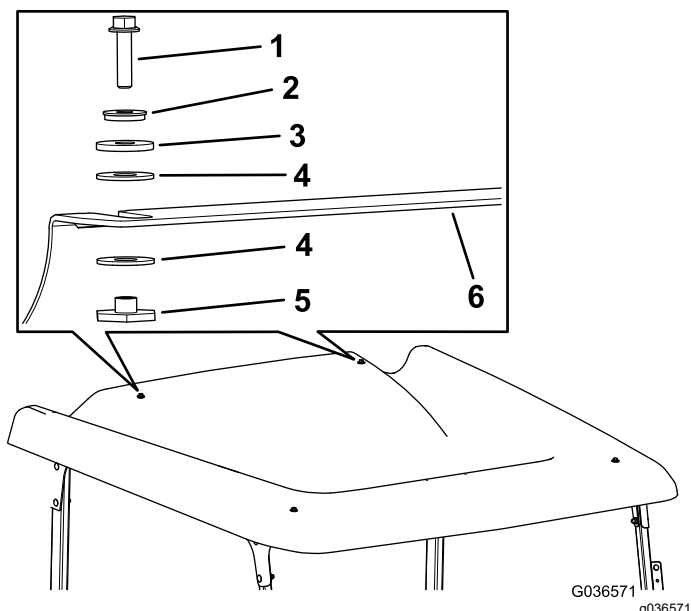


Figure 65

- | | |
|-----------------------------------|-------------------|
| 1. Hex-flange bolt (1/4 x 1 inch) | 4. Plastic washer |
| 2. Sealing washer | 5. Flange bushing |
| 3. Friction washer | 6. Rear crosslink |

16

Completing the Installation

No Parts Required

Procedure

For Electric Machines

Connect the battery; refer to your machine *Operator's Manual*.

Note: Correctly follow the procedure for connecting the batteries. Connect the main positive-battery cable (red), then connect the main negative-battery cable (black).

For Gasoline Machines

1. Secure the battery base on the right side using the previously removed 2 flange-head bolts (5/16 x 3/4 inch) as shown in [Figure 11](#) of [Removing the Side Panels](#) (page 6).
2. Connect the positive (+) battery cable to the battery using the bolt and nut ([Figure 10](#)).
3. Connect the negative (-) battery cable to the battery using the bolt and nut ([Figure 10](#)).

Notes:

Notes:



Count on it.