

#### Roll-Over Protection System Kit TimeCutter<sup>®</sup> HD Zero-Turn-Radius Riding Mower

Model No. 136-7495

Installation Instructions

#### A WARNING

#### CALIFORNIA Proposition 65 Warning

This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

## Safety

# Rollover Protection System (ROPS) Safety

- **Do not** remove the roll bar from the machine.
- Ensure that the seat belt is attached and that you can release it quickly in an emergency.

## Installation

- Always wear your seat belt when the roll bar is up.
- Check carefully for overhead obstructions and do not contact them.
- Keep the roll bar in safe operating condition by thoroughly inspecting it periodically for damage and keeping all the mounting fasteners tight.
- Replace a damaged roll bar. Do not repair or alter it.

#### 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.
	Left lower roll bar	1	
	Right lower roll bar	1	
	Bolt (1/2 x 4 inches)	4	
	Washer	6	
2	Locknut (1/2 inch)	6	Install the lower tubes and seat belt.
-	Left support bracket	1	
	Right support bracket	1	
	Bolt (1/2 x 1-1/4 inches)	2	
	Bolt (1/2 x 1-3/4 inches)	2	



Procedure	Description	Qty.	Use
	Left seat-belt bracket (machines without MyRide only)	1	
	Right seat-belt bracket (machines without MyRide only)	1	
3	Seat-belt assembly	1	Install the seat belt.
	Seat-belt buckle	1	
	Bolt (1/2 x 1-1/4 inches)	4	
	Locknut (1/2 inch)	4	
	Self-tapping screw (1/4 x 5/8 inch)	2	
	Roll bar	1	
	Side plate	4	
	Bolt (1/2 x 3 inches)	8	
	Flat spacer	4	
Λ	Washer	6	Install the roll bar.
4	Locknut (1/2 inch)	8	
	Bumper	3	
	Cylindrical spacer	4	
	Lanyard with pivot pin, washer, and hairpin cotter	1	

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



### **Preparing the Machine**



#### No Parts Required

#### Procedure

- 1. Park the machine on a level surface.
- 2. Disengage the blade-control switch.
- 3. Move the motion-control levers outward to the NEUTRAL-LOCK position.
- 4. Engage the parking brake.
- 5. Shut off the engine and remove the key.

#### Parts needed for this procedure:

and Seat Belt

1	Left lower roll bar
1	Right lower roll bar
4	Bolt (1/2 x 4 inches)
6	Washer
6	Locknut (1/2 inch)
1	Left support bracket
1	Right support bracket
2	Bolt (1/2 x 1-1/4 inches)
2	Bolt (1/2 x 1-3/4 inches)

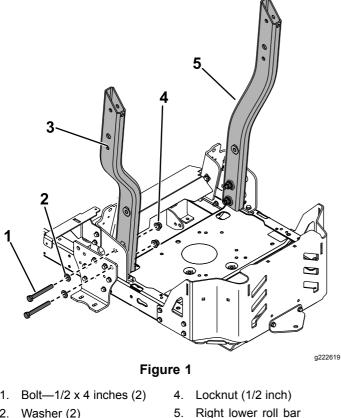
#### Procedure

**Note:** The engine and left and right pods are not shown in the figures.

- 1. Raise and support the machine so that the rear wheels are off the ground.
- 2. Remove the rear wheels.

3. Loosely install the left and right lower roll bar tubes using 2 bolts (1/2 x 4 inches), 2 washers, and 2 locknuts (1/2 inch) for each tube (Figure 1).

**Note:** Ensure that the battery cables route between the right pod and the right roll bar.



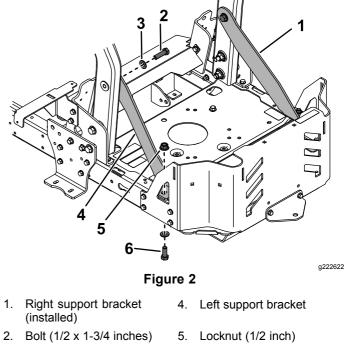
1.

3. Left lower roll bar tubes

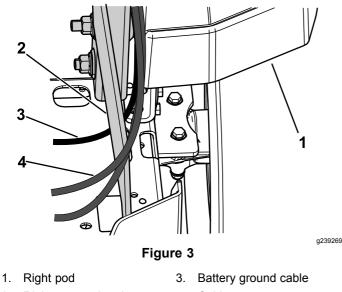
- Washer (2) 2.
- (installed)

4. Loosely install the left and right support brackets using 1 bolt (1/2 x 1-1/4 inches), 1 locknut (1/2 inch), 1 bolt (1/2 x 1-3/4 inches), and 1 washer for each bracket (Figure 2).

Note: Ensure that the battery ground cable routes under the right support bracket and other cables route above the right support bracket (Figure 3).



- 3. Washer (2)
- 6. Bolt (1/2 x 1-1/4 inches)



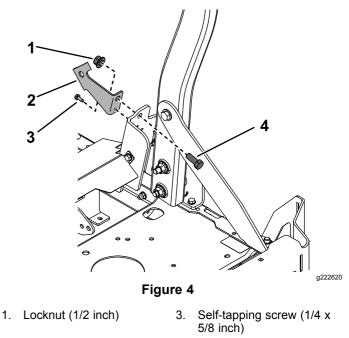
2. Right support bracket Cable 4.

#### Installing the Seat Belt

1	Left seat-belt bracket (machines without MyRide only)
1	Right seat-belt bracket (machines without MyRide only)
1	Seat-belt assembly
1	Seat-belt buckle
4	Bolt (1/2 x 1-1/4 inches)
4	Locknut (1/2 inch)
2	Self-tapping screw (1/4 x 5/8 inch)

#### Machines without MyRide

Install the left and right seat-belt brackets using 1. 1 bolt (1/2 x 1-1/4 inches), 1 locknut (1/2 inch), and 1 self-tapping screw (1/4 x 5/8 inch) for each bracket (Figure 4). Torque the bolts to 41 N·m (30 ft-lb).



- 2. Right seat-belt bracket
- 4. Bolt (1/2 x 1-1/4 inches)
- 2. Install the seat-belt assembly and buckle to the brackets using 2 bolts (1/2 x 1-1/4 inches) and 2 locknuts (1/2 inch) as shown in Figure 5. Torque the bolts to 41 N·m (30 ft-lb).

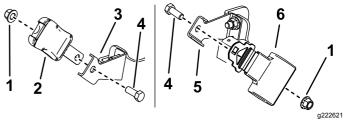


Figure 5

1. Locknut (1/2 inch) Seat-belt buckle

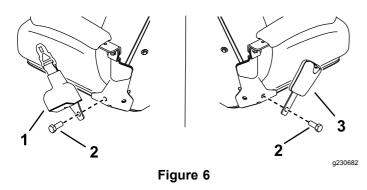
2.

- 4. Bolt (1/2 x 1-1/4 inches)
- Left seat-belt bracket 5.
- 3. Right seat-belt bracket

- 6. Seat-belt assembly

#### Machines with MyRide

Install the seat-belt assembly and buckle to the seat using 2 bolts (1/2 x 1-1/4 inches) as shown in Figure 6.



- 1. Seat-belt assembly 3. Seat-belt buckle
- 2. Bolt (1/2 x 1-1/4 inches)

# Installing the Roll Bar

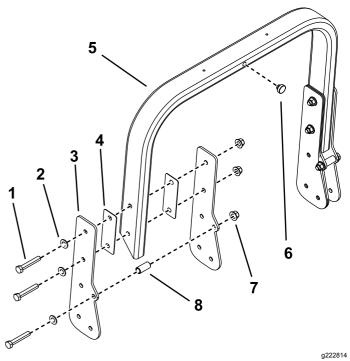
#### Parts needed for this procedure:

1	Roll bar
4	Side plate
8	Bolt (1/2 x 3 inches)
4	Flat spacer
6	Washer
8	Locknut (1/2 inch)
3	Bumper
4	Cylindrical spacer
1	Lanyard with pivot pin, washer, and hairpin cotter

#### **Procedure**

**Note:** Leave the bolts loose enough so that the parts are free to shift around.

Install 2 side plates to both sides of the roll bar 1. using 3 bolts (1/2 x 3 inches), 2 flat spacers, 3 washers, 1 cylindrical spacer, and 3 locknuts (1/2 inch) on each side (Figure 7).

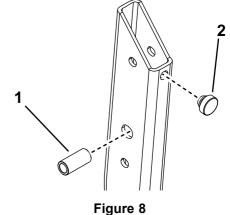


#### Figure 7

- 1. Bolt—1/2 x 3 inches (3) 5. Roll bar
- 2. Washer (3)
- 3. Side plate (2)
- 4. Flat spacer (2)
- 7. Locknut—1/2 inch (3)
- 8. Cylindrical spacer

6. Bumper

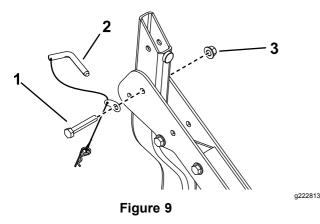
- 2. Install a bumper in the center of the roll bar (Figure 7).
- 3. Install a bumper and cylindrical spacer to both lower roll bar tubes (Figure 8).



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1. Cylindrical spacer 2. Bumper

With the assistance of a second person, attach 4. the roll bar assembly and the lanyard washer to the lower roll bar tubes using a bolt (1/2 x 3 inches) and locknut (1/2 inch) on each tube (Figure 9).



- 1. Bolt (1/2 x 3 inches) 3. Locknut (1/2 inch)
- 2. Pivot pin
- 5. Raise the roll bar into the upright position and lock it into place using the pivot pin and hairpin cotter on both sides of the roll bar (Figure 10).

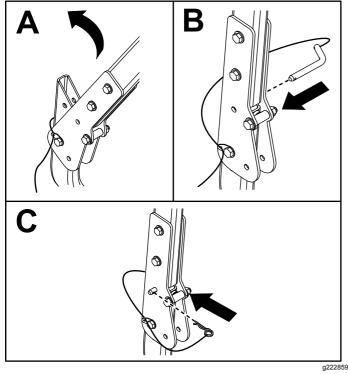


Figure 10

- 6. Torque all 1/2-inch bolts to 95 N·m (70 ft-lb).
- 7. Install the rear tires. Torque the lug nuts to 95 to 122 N·m (70 to 90 ft-lb).
- 8. Lower the machine to the ground.

## Operation

## Using the Rollover-Protection System

#### A WARNING

To avoid injury or death from rollover: keep the roll bar in the fully raised, locked position and use the seat belt.

Ensure that the seat is secured to the machine.

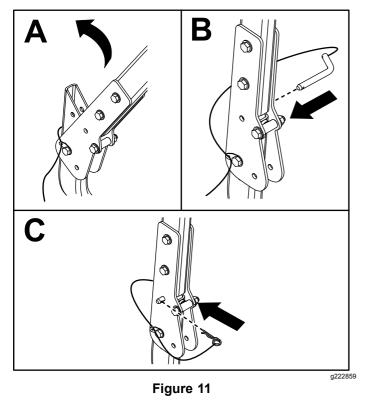
#### A WARNING

There is no rollover protection when the roll bar is in the down position.

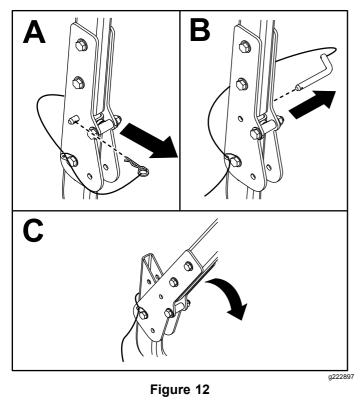
- Lower the roll bar only when absolutely necessary.
- Do not wear the seat belt when the roll bar is in the down position.
- Drive slowly and carefully.
- Raise the roll bar as soon as clearance permits.
- Check carefully for overhead clearances (i.e., branches, doorways, electrical wires) before driving under any objects, and do not contact them.

*Important:* Ensure that the seat is secured to the machine.

#### Raising the Roll Bar



#### Lowering the Roll Bar





#### Count on it.