Installation Instructions

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

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 machine.
2	Tilt-cylinder pin	1	Replace the tilt-cylinder pin.
3	Quick-attach plate Small bolt Large bolt Small washer Large washer Spacer Nut Tie-down link Pin lock	1 2 8 4 24 8 10 2 4	Install the quick-attach plate and tie-down links.
4	Jumper wire (for use on traction units with serial number 3999999999 and below only) Fit-up kit electrical harness Electrical harness cap Cable tie	2 1 1 4	Install the wire harness.
5	Heat shield	1	Install the heat shield.
6	Hook-and-loop strap (20 inches x 1 inch)	1	Install the hook-and-loop strap.



Preparing the Machine

No Parts Required

Procedure

- 1. Park the machine on a level surface.
- 2. Engage the parking brake.
- 3. Lower the loader arms.
- 4. Shut off the engine, remove the key, and allow the machine to cool.
- 5. Open the rear-access cover and engine hood.
- 6. Turn the battery-disconnect switch to the OFF position.
- 7. Remove the cover plate by removing the 3 bolts holding it in place (Figure 1).

Note: Retain the cover plate and corresponding bolts for later installation.

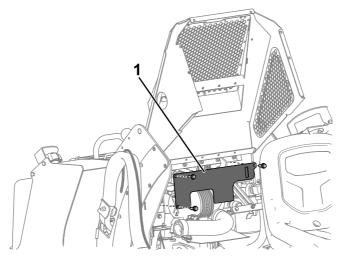


Figure 1

1. Cover plate

2

Replacing the Tilt-Cylinder Pin

Parts needed for this procedure:

1 Tilt-cylinder pin

Procedure

- Tilt the traction unit attachment mount plate flat and gently rest the attachment mount plate on top of a block.
- 2. Place a block in front of the mount plate so that it cannot swing forward when you remove the tilt-cylinder pin.

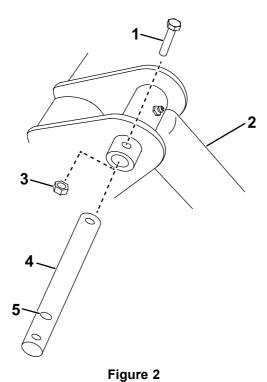
A CAUTION

When you remove the tilt-cylinder pin, the mount plate may swing forward, crushing your feet or hands, or those of bystanders.

Place a block in front of the mount plate before removing the tilt-cylinder pin.

- 3. Remove the bolt and nut securing the upper tilt-cylinder pin on the traction unit (Figure 2).
- 4. Using a hammer and punch, remove the tilt-cylinder pin.
- 5. Install the new pin into position and secure it with the bolt and nut removed previously, using the middle hole on the pin (Figure 2).
- 6. Grease the pin using the fitting on the tilt cylinder.

Note: Leave the new pin installed, even when the backhoe is removed.



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- 1. Bolt
- 2. Tilt cylinder
- 3. Nut

- - 4. New tilt-cylinder pin
 - 5. Middle hole

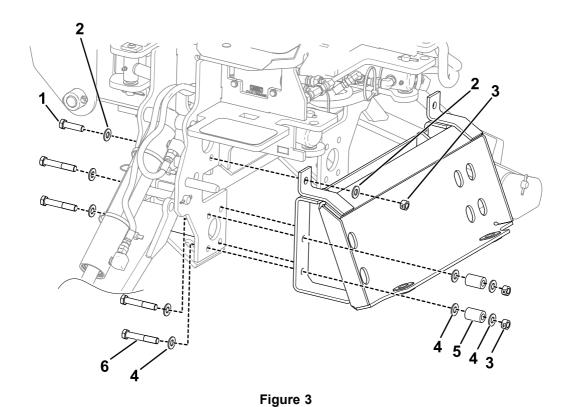
Installing the Quick-Attach Plate and Tie-Down Links

Parts needed for this procedure:

1	Quick-attach plate
2	Small bolt
8	Large bolt
4	Small washer
24	Large washer
8	Spacer
10	Nut
2	Tie-down link
4	Pin lock

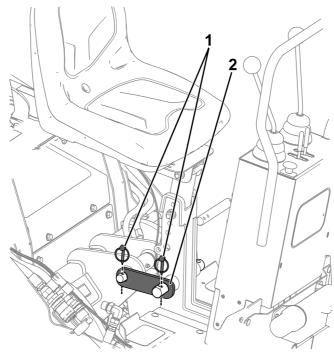
Procedure

1. Install the quick-attach plate onto the backhoe using 2 small bolts, 4 small washers, 8 large bolts, 24 large washers, 8 spacers, and 10 nuts (Figure 3). Torque the bolts to 94 to 102 Nm (70 to 75 ft-lb).



- 1. Small bolt (2)
- 2. Small washer (4)
- 3. Nut (10)

- 4. Large washer (24)
- 5. Spacer (8)
- 6. Large bolt (8)
- 2. Connect the traction unit receiver plate to the backhoe quick-attach plate and engage the quick-attach pins; refer to the traction unit *Operator's Manual*.
- 3. Install a tie-down link as shown in Figure 4. Secure the tie-down link with 2 pin locks.
- 4. Repeat step 3 on the other side of the machine.



1. Pin locks (4)

2. Tie-down link (2)

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5. Connect the hydraulic hoses; refer to the traction unit Operator's Manual.



Installing the Wire Harness

Parts needed for this procedure:

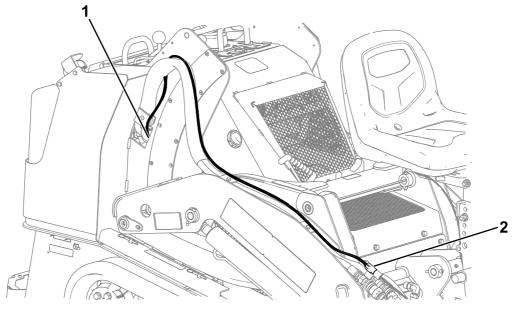
2	Jumper wire (for use on traction units with serial number 3999999999 and below only)	
1	Fit-up kit electrical harness	
1	Electrical harness cap	
4	Cable tie	

Procedure

Note: Use the jumper wires on traction units with serial number 399999999 and below only.

- 1. Plug the fit-up kit harness connector into the backhoe electrical harness connector (Figure 5).
 - **Note:** When you are not using the backhoe, ensure to install the electrical harness cap on the backhoe end of the fit-up kit harness.
- 2. Route the fit-up kit electrical harness alongside the hydraulic hoses as shown in Figure 5.
- 3. Route the harness through the hydraulic hose access hole into the underside of the control panel (Figure 5).

Note: Use the hydraulic hose tie downs to secure the harness.



1. Harness routed through access hole

2. To backhoe electrical harness connector

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- 4. Open the rear-access cover.
- 5. For traction units with serial numbers 399999999 and below:
 - A. Plug the 2 jumper wires into the corresponding fit-up kit harness connectors (Figure 6).

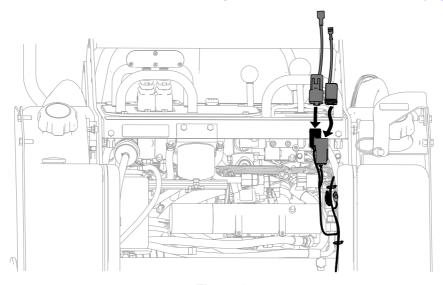
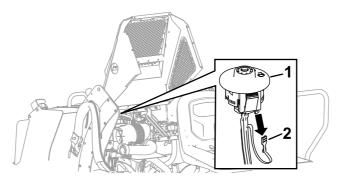


Figure 6

B. Under the control panel, remove the traction unit harness terminal from the ignition switch (Figure 7).



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1. Ignition switch

- 2. Traction unit harness terminal
- C. Plug the traction unit harness ignition terminal into the corresponding jumper terminal (Figure 8).
- D. Plug the other jumper terminal into the ignition switch (Figure 8).

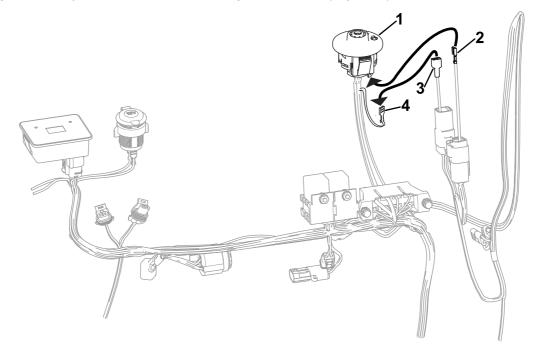


Figure 8

- 1. Ignition switch
- 2. Jumper terminal (to ignition switch)

- 3. Jumper terminal (to traction unit harness ignition terminal)
- 4. Traction unit harness ignition terminal (to jumper terminal)

For traction units with serial numbers 400000000 and up:

A. Under the control panel, remove the traction unit harness connector from the ignition switch (Figure 9).

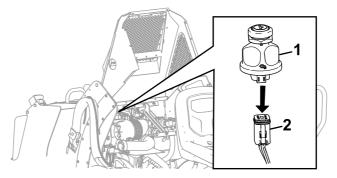
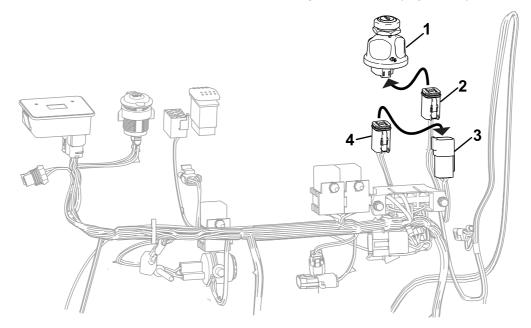


Figure 9

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1. Ignition switch

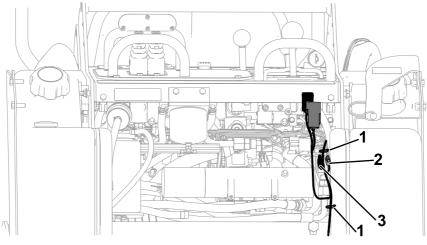
- 2. Traction unit harness connector
- B. Plug the traction unit harness connector into the fit-up kit harness connector (Figure 10).
- C. Plug the other fit-up kit harness connector into the ignition switch (Figure 10).



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Figure 10

- 1. Ignition switch
- 2. Fit-up kit harness connector (to ignition switch)
- 3. Fit-up kit harness connector (to traction unit harness ignition terminal)
- 4. Traction unit harness connector (to fit-up kit harness connector)
- 6. Below the ignition switch, under the hood, connect the 2 light kit connections (Figure 11).
- 7. Secure the harness to the traction unit wire harness with 2 cable ties as shown in Figure 11.



1. Cable tie

3. To light kit connection

- 2. To main harness light kit connection
- 8. Route the rest of the harness down the inside of the traction unit frame alongside the traction unit wire harness as shown in Figure 12.

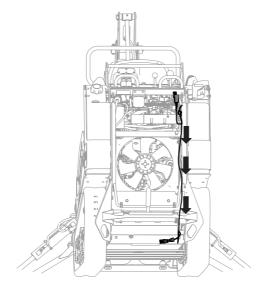


Figure 12

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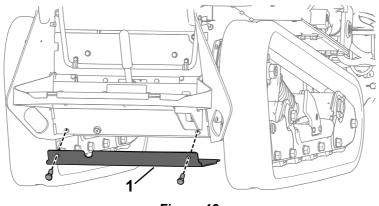
9. Lift the back of the machine off the ground. Support the machine using jack stands.

Note: Use jack stands rated for your machine.

A WARNING

Mechanical or hydraulic jacks may fail to support the machine and cause serious injury. Use jack stands when supporting the machine.

10. Remove the bottom cover from the traction unit by removing the 2 bolts holding it in place (Figure 13).



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- 1. Bottom cover
- 11. Connect the remaining 2 connectors into the main harness parking brake switch connection and the parking brake (Figure 14).

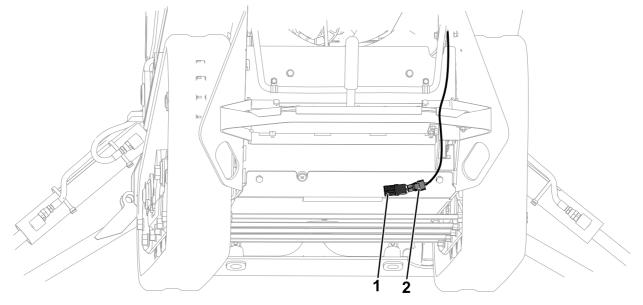


Figure 14

1. To parking brake

2. To main harness parking brake switch connection

12. Secure the harness to the traction unit wire harness with the 2 remaining cable ties as shown in Figure 15.

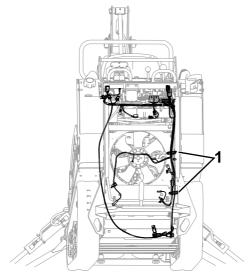


Figure 15

- 1. Cable tie
- 13. Install the bottom cover and the 2 corresponding bolts removed in Step 10.
- 14. Install the cover plate with the 3 corresponding bolts removed in Step 7 of 1 Preparing the Machine (page 2).
- 15. Close the rear-access cover and engine hood.

Installing the Heat Shield

Parts needed for this procedure:

Heat shield

Procedure

Unplug the wire-harness connector (Figure 16) from the seat.

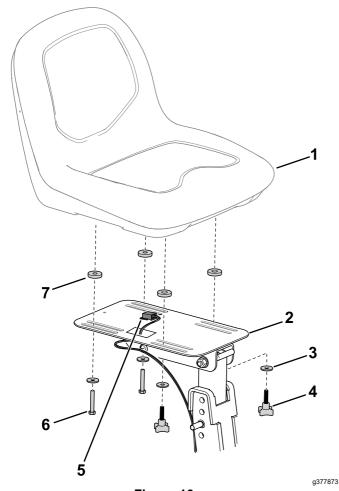


Figure 16

- 1. Seat
- Seat mount
- 3. Washer
- 4. Knob

- 5. Wire-harness connector
- Bolt
- 7. Spacer
- Remove the hardware that secures the seat to the seat mount (Figure 16) and remove the seat.
- Position the spacers, heat shield, and seat on the seat mount (Figure 17).

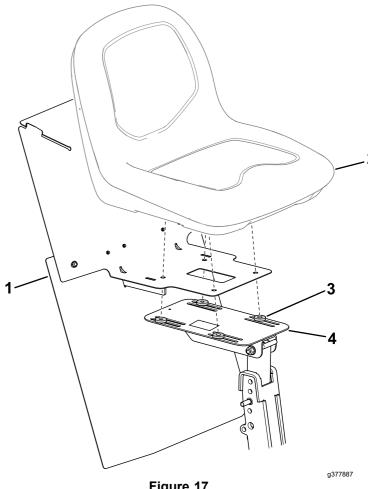


Figure 17

- 1. Heat shield
- 2. Seat

- 3. Spacer
- 4. Seat mount
- Install the wire-harness connector (Figure 16) to the seat.
- Use the previously removed hardware (Figure 16) to secure the seat and heat shield to the seat mount.



Installing the **Hook-and-Loop Strap**

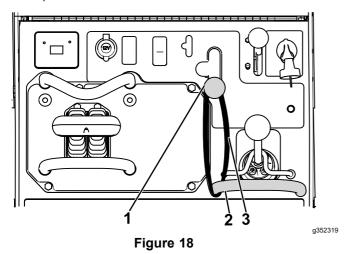
Parts needed for this procedure:

Hook-and-loop strap (20 inches x 1 inch)

Procedure

Turn the battery-disconnect switch to the ON position and start the engine.

- 2. Move the auxiliary-hydraulics lever to the reverse position (Figure 18).
- 3. Wrap the hook-and-loop strap around right reference bar and the auxiliary-hydraulics lever to hold the lever in the reverse position (Figure 18).



- Auxiliary-hydraulics lever in the reverse position
- 3. Hook-and-loop strap
- 2. Right reference bar

Notes:

