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.

Loose Parts

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

Procedure	Description	Qty.	Use
1	No parts required	-	Prepare to install the exhaust kit.
2	No parts required	-	Remove the exhaust system.
3	Muffler Heat shield Flanged-head bolt (1/4 x 5/8 inch) Muffler bracket Tail-pipe bracket Flanged locknut (5/16) Washer (3/8 x 7/8 inch) Exhaust hanger Bolt (5/16 x 1 inch) Exhaust-pipe bracket Bolt (5/16 x 1-1/4 inch)	1 1 6 1 7 7 2 4 1 3	Assemble the muffler shield and brackets.
4	Exhaust pipe Muffler clamp (1-1/4 inch)	1 2	Install the exhaust pipe.
5	Muffler clamp (1-1/2 inch) Muffler clamp (1-1/4 inch)	1 2	Install the muffler.
6	Clamp (1-1/4 inch) Bolt (5/16 x 1 inch) Flanged locknut (5/16 inch)	1 1 1	Install the hose support clamp.



Preparing to Install the Exhaust Kit

No Parts Required

Procedure

Machine weight: 862 kg (1900 lb)

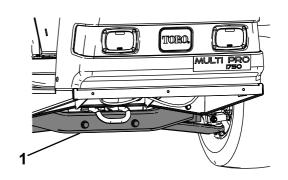
A DANGER

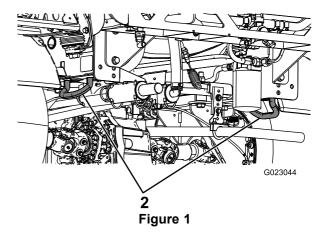
A sprayer on a jack may be unstable and slip off of the jack, injuring anyone beneath it.

- Do not start the engine while the sprayer is on a jack.
- Always remove the key from the ignition before getting off of the sprayer.
- Block the tires when you are raising the sprayer with a jack.
- Support the machine with jack stands.
 - 1. Empty the sprayer tank.
 - 2. Move the machine to a level surface.
 - 3. Shut off the engine, set the parking, and remove the key from the ignition switch.
 - 4. Raise the machine and support it using jack stands with a 862 kg (1900 lb) capacity.

Note: The jacking point at the front of the sprayer is under the front crossbar.

Note: The jacking point at the rear of the sprayer is on the rear frame support, behind the rear tie downs.





- 1. Front jacking point
- 2. Rear tie downs

2

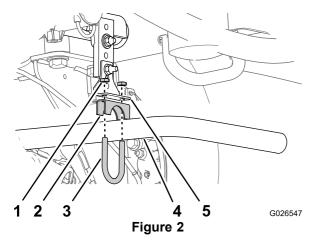
Removing the Exhaust System

No Parts Required

Procedure

1. At the exhaust hanger and exhaust-pipe bracket, remove the 2 nuts, U-bolt, and saddle bracket that secure the tail pipe to the bracket (Figure 2).

Note: Discard the nuts, U-bolt, and saddle bracket.

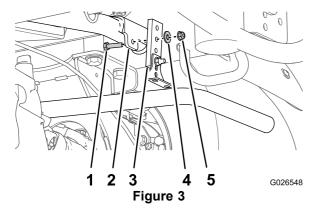


1. Nut

- 4. Tail pipe
- 2. Saddle bracket
- Exhaust-pipe bracket

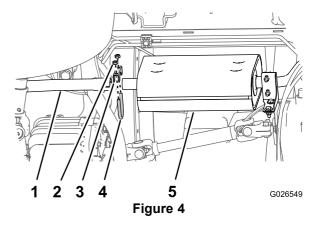
- 3. U-bolt
- 2. At the lug for the mounting plate, remove the bolt, nut, and washer that secure the exhaust hanger to the lug, and remove the exhaust hanger (Figure 3).

Note: Discard the exhaust hanger, exhaust-pipe bracket, bolt, nut, and washer.



1. Bolt

- 4. Washer
- 2. Mounting-plate lug
- 5. Nut
- 3. Exhaust hanger
- 3. Remove the 2 nuts, U-bolt, and saddle bracket that secure the tail pipe to the outlet pipe of the muffler (Figure 4).

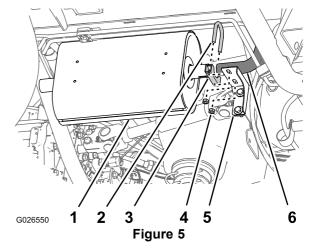


- 1. Tail pipe
- 4. U-bolt

2. Nut

- . Muffler
- Saddle bracket
- 4. Remove the tail pipe from the machine, and discard the pipe (Figure 2 and Figure 4).
- 5. Remove the 2 nuts, U-bolt, and saddle bracket that secure the inlet pipe of the muffle and Y-pipe to the forward-muffler support. (Figure 5).

Note: Discard the 2 nuts, U-bolt, and saddle bracket.



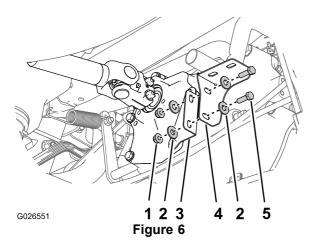
1. Muffler

4. Nut

2. U-bolt

- Forward-muffler support
- 3. Saddle bracket
- 6. Y-pipe
- 6. Remove the muffler from the Y-pile, and discard the muffler.
- 7. Remove the 2 bolts, 4 washers, and 2 nuts that secure the forward-muffler support to the transmission bracket.

Note: Discard the bolts, washers, nuts, and forward-muffler support.



- 1. Flanged locknut
- 2. Washer
- 3. Transmission bracket
- 4. Forward-muffler support
- 5. Bolt



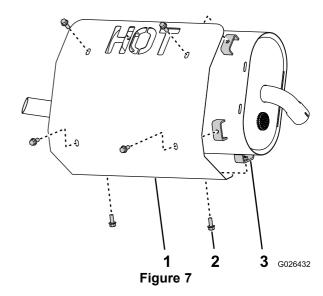
Assembling the Heat Shield and Support Brackets

Parts needed for this procedure:

1	Muffler
1	Heat shield
6	Flanged-head bolt (1/4 x 5/8 inch)
1	Muffler bracket
1	Tail-pipe bracket
7	Flanged locknut (5/16)
7	Washer (3/8 x 7/8 inch)
2	Exhaust hanger
4	Bolt (5/16 x 1 inch)
1	Exhaust-pipe bracket
3	Bolt (5/16 x 1-1/4 inch)

Assembling the Heat Shield onto the Muffler

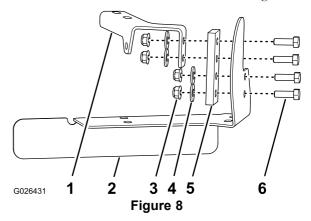
1. Align the holes in the heat shield with the weld nuts in the shield supports of the muffler (Figure 7).



- 1. Heat shield
- 3. Muffler
- Flanged-head bolts (1/4 x 5/8 inch)
- 2. Assemble the shield to the muffler (Figure 7) with 6 flanged-head bolts (1/4 x 5/8 inch).
- 3. Torque the bolts to 1017 to 1243 N-cm (90 to 110 in-lb)

Assembling the Muffler and Tailpipe Brackets

1. Align 2 of the holes in an exhaust hanger with the 2 holes in the muffler bracket as shown in Figure 8.

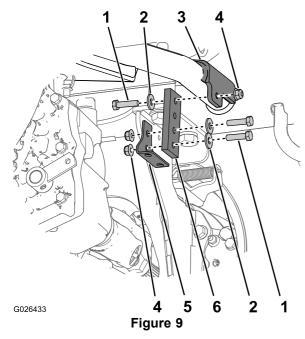


- 1. Muffler bracket
- 4. Washer (3/8 x 7/8 inch)
- 2. Tail-pipe bracket
- Exhaust hanger
- 3. Flanged Locknut (5/16)
- 6. Bolt (5/16 x 1 inch)
- 2. Assemble the exhaust hanger to the muffler bracket with 2 bolt (5/16 x 1 inch), 2 washer, and 2 flanged locknuts (Figure 8).
- 3. Align the 2 remaining holes in the exhaust hanger with the 2 holes in the tail-pipe bracket as shown in Figure 8.
- 4. Assemble the exhaust hanger to the tail-pipe bracket with 2 bolts (5/16 x 1 inch), 2 washers, and 2 flanged locknuts (Figure 8).

Torque the bolts and nuts to 1978 to 2542 N-cm (175 to 225 in-lb).

Installing the Exhaust Pipe Bracket

Align 2 of the holes in the other exhaust hanger with the holes in the exhaust-pipe bracket (Figure 9).



- Bolt (5/16 x 1-1/4 inch)
- Flanged Locknut
- 2. Washer (3/8 x 7/8 inch)
- Exhaust-pipe bracket
- Mounting lug (tank-support 6.
- Exhaust hanger
- Assemble the exhaust hanger to the exhaust-pipe bracket with 2 bolts (5/16 x 1-1/4 inch), washers, and flanged locknuts (Figure 9).
- Align the hole at the other end of the exhaust hanger with the hole in the mounting lug on the tank-support tube (Figure 9).
- Assemble the exhaust hanger to the mounting lug with 2 bolts (5/16 x 1-1/4 inch), washers, and flanged locknuts (Figure 9).
- Torque the bolts and nuts to 1978 to 2542 N-cm (175 to 225 in-lb).



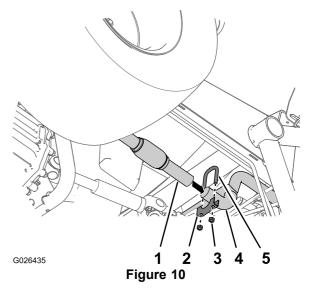
Installing the Exhaust Pipe

Parts needed for this procedure:

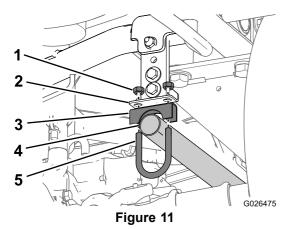
1	Exhaust pipe
2	Muffler clamp (1-1/4 inch)

Procedure

1. Clean the outer surface at the open end Y-pipe (Figure



- Exhaust pipe (near the flex 4. Y-pipe joint)
- Saddle bracket (1-1/4 inch 5. U-bolt (1-1/4 inch muffler muffler clamp)
 - clamp)
- Nut (5/16 inch-muffler clamp)
- Slip the end exhaust pipe (near the flex joint) over the end of the Y-pipe until the Y-pipe is fully seated into the exhaust pipe (Figure 10).
- At the open end of the exhaust pipe, support the pipe by loosely assembling a U-bolt (1-1/4 inch), saddle bracket (1-1/4 inch), and 2 nuts to the pipe and exhaust-pipe bracket (Figure 11).



- Nut (5/16 inch—muffler clamp)
- 4. Exhaust pipe
- 2. Exhaust-pipe bracket
- U-bolt (1-1/4 inch muffler clamp)
- 3. Saddle bracket (1-1/4 inch muffler clamp)
- 4. Assemble a U-bolt (1-1/4 inch), a saddle bracket (1-1/4 inch), and 2 nuts at the joint for the exhaust pipe and Y-pipe (Figure 10).
- 5. At the forward muffler clamp, torque the nuts to 1978 to 2542 N-cm (175 to 225 in-lb).

Note: Do not tighten the clamp at the exhaust-pipe bracket (Figure 11).



Installing the Tailpipe Support Bracket and Muffler

Parts needed for this procedure:

1	Muffler clamp (1-1/2 inch)
2	Muffler clamp (1-1/4 inch)

Installing the Tailpipe Support Bracket

1. Align the muffler and tailpipe brackets that you assembled in Assembling the Muffler and Tailpipe Brackets (page 4) to the tank-support tube (Figure 12).

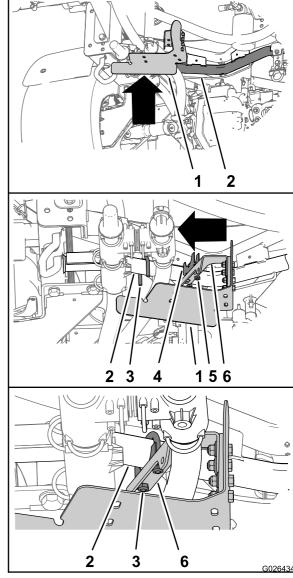


Figure 12

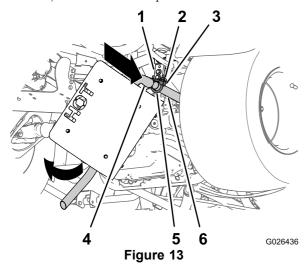
- Tailpipe bracket
- Saddle bracket (1-1/2 inch muffler clamp)
- Tank-support tube
- Nut (5/16 inch—muffler clamp)
- 3. U-bolt (1-1/2 inch muffler clamp)
- 6. Muffler bracket
- 2. Assemble the U-bolt from the muffler clamp (1-1/2 inch) over the tank-support tube (Figure 12).
- 3. Attach the muffler bracket to the tank-support tube with the U-bolt (1-1/2 inch), saddle bracket (1-1/2 inch), and nuts (Figure 12).

Note: Tighten the nuts finger tight.

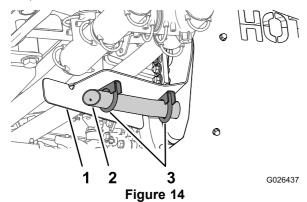
Installing the Muffler

Align the inlet pipe of the muffler to the open end of the exhaust pipe (Figure 13).

Note: Rotate the muffler to provide clearance from the adjacent chassis components.



- Hanger bracket and exhaust-pipe bracket
- Nut (5/16 inch-muffler clamp)
- Saddle bracket (1-1/4 inch 6. Exhaust pipe muffler clamp)
- Inlet pipe (muffler)
- U-bolt (1-1/4 inch muffler clamp)
- Slip the inlet pipe of the muffler over the open end of the exhaust pipe until the inlet pipe is fully seated.
- Rotate the muffler up until the tail pipe of the muffler is aligned to the tail-pipe bracket (Figure 13 and Figure 14).



- Tail-pipe bracket
- Muffler clamp (1-1/4 inch)

- Tail pipe 2.
- Attach the tail pipe to the tail-pipe bracket with 2 muffler clamps (1-1/4 inch) as shown in Figure 14.

Note: Tighten the nuts finger tight.

Torque the nuts for the muffler clamps at the exhaust pipe and muffler-inlet pipe (Figure 13), the tailpipe and tail-pipe bracket (Figure 14), and the muffler bracket

and tank-support tube (Figure 12) to 1978 to 2542 N-cm (175 to 225 in-lb).



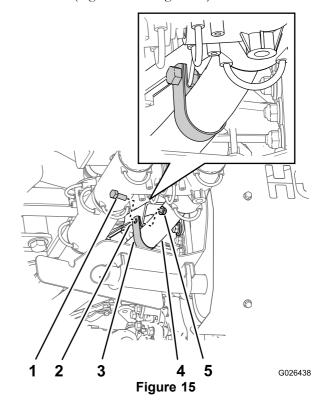
Installing the Hose Support Clamp

Parts needed for this procedure:

1	Clamp (1-1/4 inch)
1	Bolt (5/16 x 1 inch)
1	Flanged locknut (5/16 inch)

Procedure

Slip the clamp (1-1/4 inch) around the 1-1/4 inch hose that is adjacent to the exhaust hanger for the tailpipe bracket (Figure 8 and Figure 15).



- Bolt (5/16 x 1 inch)
- Muffler bracket
- 4. Hose (1-1/4 inch)
- Flanged locknut (5/16 inch)
- Clamp (1-1/4 inch)
- Align the hole in the clamp with the hole in the lug of the muffler bracket (Figure 15).
- Attach the clamp to the bracket (Figure 15) with the bolt $(5/16 \times 1 \text{ inch})$ and flanged locknut (5/16 inch).

- 4. Torque the bolt and nut to 1978 to 2542 N-cm (175 to 225 in-lb).
- 5. Lower the machine and remove the jack stands.