

#### **Exhaust Kit**

#### Groundsmaster® 3200, 3300 or 3310 All-Wheel Drive Traction Units

Model No. 144-0487 Model No. 144-0488 Model No. 144-0489

Installation Instructions

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

This kit is for models 31900, 31901, 31902, 31903, 31907, and 31909.

#### **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	Exhaust pipe Clamp Support assembly	1 1 1	Install the new exhaust pipe for 37hp engines with a DPF Filter.
3	Exhaust pipe Clamp Support assembly	1 1 1	Install the new exhaust pipe for 24hp engines.
4	Exhaust pipe Clamp Support assembly	1 1 1	Install the new exhaust pipe for 37hp engines without a DPF filter.

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### **Preparing the Machine**

#### No Parts Required

#### **Preparing the Machine**

- 1. Park the machine on a level surface.
- 2. Shift to the NEUTRAL position.
- 3. Lower all attachments (if equipped).
- 4. Engage the parking brake.
- 5. Shut off the engine and remove the key.
- 6. Disconnect the battery; refer to your machine *Operator's Manual*.
- 7. Allow the machine components to cool before installing this kit.

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# Installing the New Exhaust Pipe for 37hp Engines with a DPF Filter

#### Parts needed for this procedure:

1	Exhaust pipe
1	Clamp
1	Support assembly

#### **Procedure**

1. Raise the hood (Figure 1).



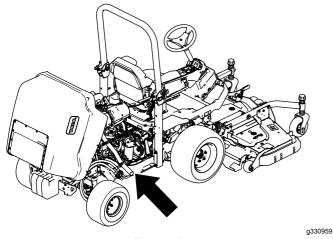


Figure 1

- 2. Loosen the clamp at the muffler (Figure 2).
- Remove the engine bolts and washers from the existing exhaust pipe support (Figure 2) and remove the exhaust pipe.

**Note:** Retain the hardware and clamp.

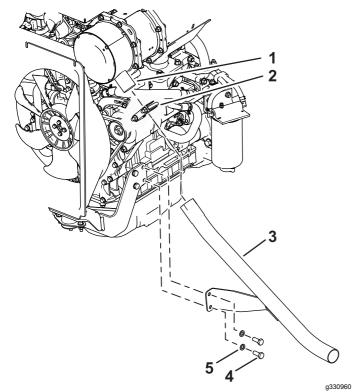


Figure 2

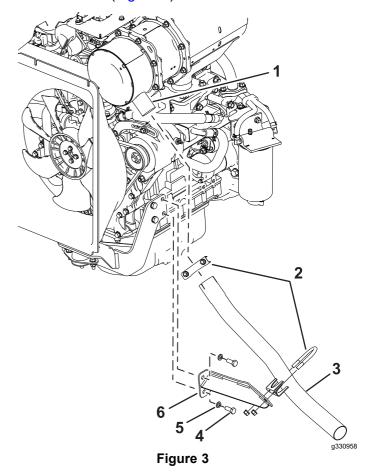
- 1. DPF outlet
- 2. Clamp
- 3. Exhaust pipe
- 4. Engine bolt
- 5. Washer
- 4. Install the new support assembly to the side of the engine with the previously removed washers and engine bolts (Figure 3).

Note: Do not fully tighten the bolts.

5. Slide the existing clamp over the new exhaust pipe and install the new exhaust pipe onto the DPF outlet (Figure 3).

**Note:** Do not fully tighten the bolts.

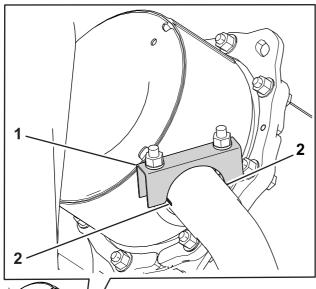
6. Install the new clamp around the new exhaust pipe and to the support assembly with the clamp hardware (Figure 3).



- 1. DPF outlet
- 2. Clamp
- 3. Exhaust pipe
- 4. Engine bolt
- 5. Washer
- 6. Support assembly

7. Align the clamp flush with the end of the exhaust pipe and rotate it as shown in Figure 4.

**Note:** Ensure the clamping surface is parallel to the slots in the pipe (Figure 4).



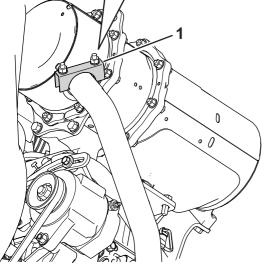


Figure 4

- Clamp in the correct position
- 2. Slot
- Torque the engine bolts to 54 N·m (40 ft-lb) and then tighten all of the clamps (Figure 3).

## **Installing the New Exhaust** Pipe for 24hp Engines

#### Parts needed for this procedure:

1	Exhaust pipe
1	Clamp
1	Support assembly

#### **Procedure**

Raise the hood (Figure 5).

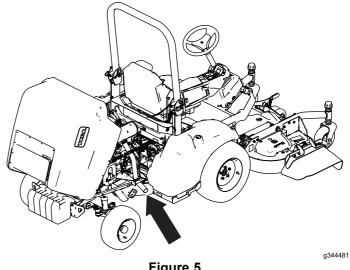


Figure 5

- Loosen the clamp at the muffler (Figure 6).
- Remove the engine bolts and washers from the existing exhaust pipe support (Figure 6) and remove the exhaust pipe.

**Note:** Retain the hardware and clamp.

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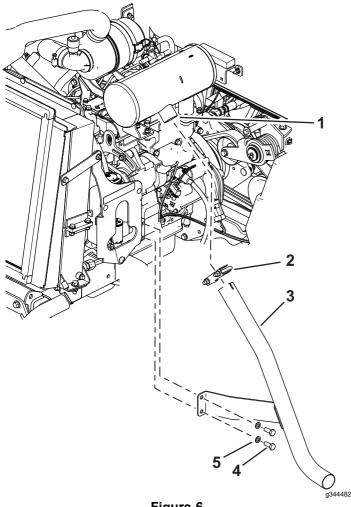


Figure 6

- Muffler outlet 1.
- Clamp 2.
- Exhaust pipe
- 4. Engine bolt
- 5. Washer
- Install the new support assembly to the side of the engine with the previously removed washers and engine bolts (Figure 7).

Note: Do not fully tighten the bolts.

Slide the existing clamp over the new exhaust pipe and install the new exhaust pipe onto the muffler outlet (Figure 7).

Note: Do not fully tighten the bolts.

Install the new clamp around the new exhaust pipe and to the support assembly with the clamp hardware (Figure 7).

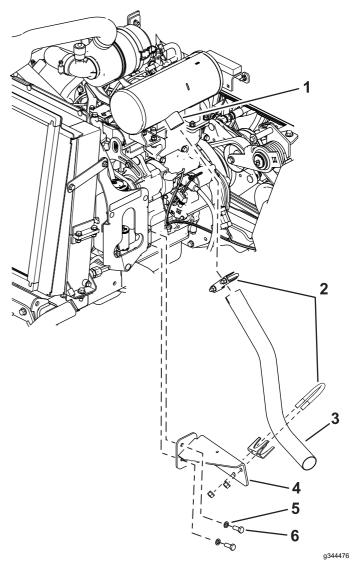
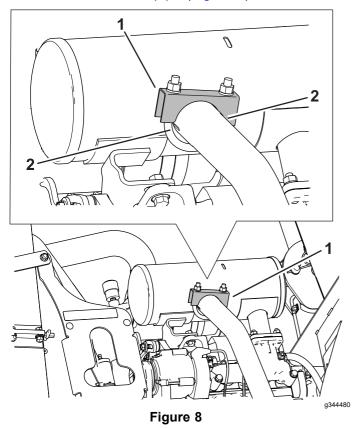


Figure 7

- Muffler outlet
- Clamp
- Exhaust pipe
- 4. Support assembly
- Washer
- 6. Engine bolt

7. Align the clamp flush with the end of the exhaust pipe and rotate it as shown in Figure 8.

**Note:** Ensure the clamping surface is parallel to the slots in the pipe (Figure 8).



- 1. Clamp in the correct position
- 2. Slot
- 8. Torque the engine bolts to 54 N·m (40 ft-lb) and then tighten all of the clamps (Figure 7).



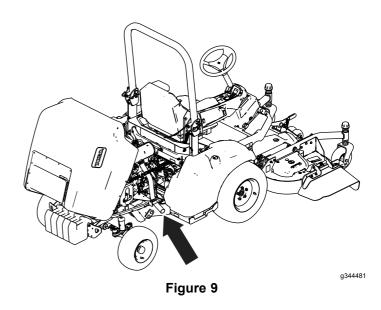
# Installing the New Exhaust Pipe for 37hp Engines without a DPF Filter

#### Parts needed for this procedure:

1	Exhaust pipe
1	Clamp
1	Support assembly

### **Procedure**

1. Raise the hood (Figure 9).



- 2. Loosen the clamp at the muffler (Figure 10).
- 3. Remove the engine bolts and washers from the existing exhaust pipe support (Figure 10) and remove the exhaust pipe.

**Note:** Retain the hardware and clamp.

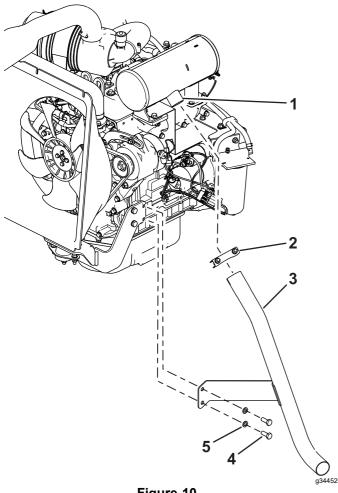


Figure 10

- Muffler outlet 1.
- 2. Clamp
- 3. Exhaust pipe
- 4. Engine bolt
- Washer
- 4. Install the new support assembly to the side of the engine with the previously removed washers and engine bolts (Figure 11).

Note: Do not fully tighten the bolts.

Slide the existing clamp over the new exhaust pipe and install the new exhaust pipe onto the muffler outlet (Figure 11).

Note: Do not fully tighten the bolts.

Install the new clamp around the new exhaust pipe and to the support assembly with the clamp hardware (Figure 11).

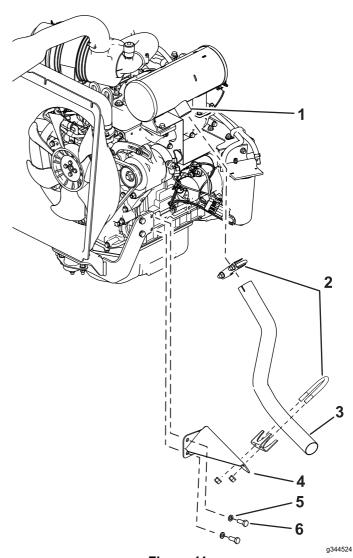


Figure 11

- Muffler outlet
- Clamp
- Exhaust pipe
- 4. Support assembly
- Washer
- 6. Engine bolt

7. Align the clamp flush with the end of the exhaust pipe and rotate it as shown in Figure 12.

**Note:** Ensure the clamping surface is parallel to the slots in the pipe (Figure 12).

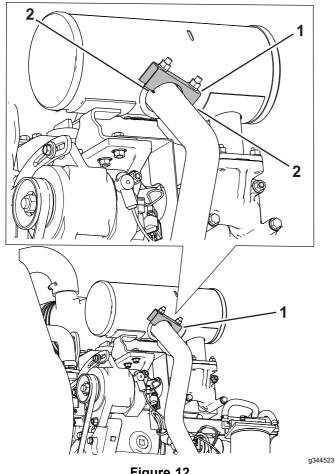


Figure 12

- 1. Clamp in the correct position
- 2. Slot
- Torque the engine bolts to 54 N·m (40 ft-lb) and then tighten all of the clamps (Figure 11).

