

## Brake Replacement Kit Workman® HD or HDX Series Utility Vehicle

Model No. 136-6291

**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.

## 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	No parts required	_	Remove the existing brake assembly.
3	Brake-caliper assembly Bleed screw Front brake-line assembly Rear brake-line assembly Banjo washer Banjo bolt	4 4 1 1 8 4	Install the new brake assembly.
4	No parts required	ı	Bleed the brake calipers.
5	No parts required	_	Install the wheels.



## **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 from the key switch.

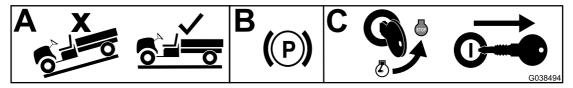


Figure 1

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## Removing the Existing Brake Assembly

### No Parts Required

## **Procedure**

- 1. Lift the front and rear of the machine and support it with jack stands.
- 2. Remove the lug nuts that secure the wheel to the hub (Figure 2).

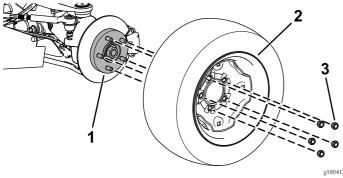


Figure 2

1. Hub

3. Lug nut

2. Wheel

3. Remove the front and rear brake lines from the brake-caliper assembly (Figure 3).

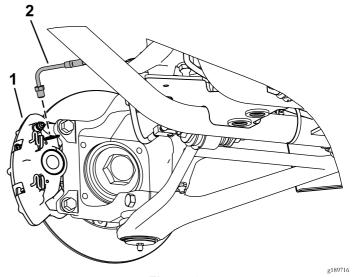


Figure 3

- 1. Brake-caliper assembly
- 2. Brake line

4. Remove the flange-head bolts (3/8 x 1 inch) that secure the brake-caliper assembly to the steering knuckle (front of the machine) and axle (rear of the machine), and remove the brake-caliper assembly (Figure 4).

**Note:** Retain the flange-head bolts  $(3/8 \times 1 \text{ inch})$ .

**Note:** Discard the brake-caliper assemblies.

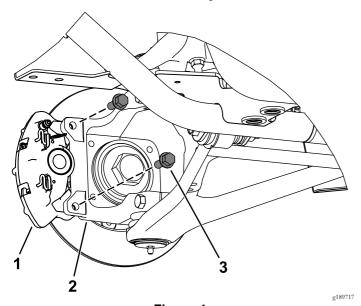
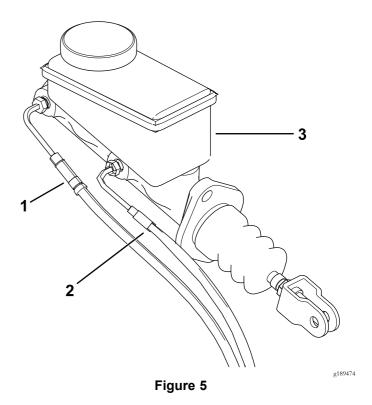


Figure 4

1. Caliper

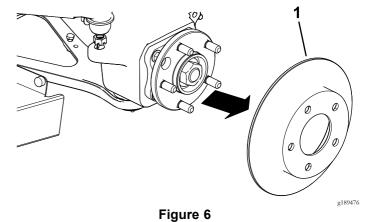
- 3. Flange-head bolt (3/8 x 1 inch)
- 2. Steering knuckle
- 5. Remove the front and rear brake line from the master cylinder (Figure 5).

**Note:** Discard the brake lines, but retain the hardware for installing the new brake lines..



- 1. Front brake line
- Master cylinder
- 2. Rear brake line
- 6. Remove the rotor (Figure 6).

**Note:** Retain the rotors.



- 1. Rotor
- 7. Repeat steps 2 through 6 on all sides of the machine.

## **Installing the New Brake Assembly**

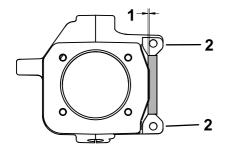
## Parts needed for this procedure:

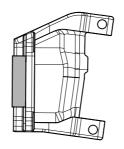
4	Brake-caliper assembly
4	Bleed screw
1	Front brake-line assembly
1	Rear brake-line assembly
8	Banjo washer
4	Banjo bolt

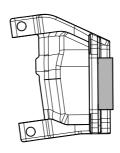
## **Procedure**

1. Grind 1.78 mm (0.07 inches) relief into the right and left steering knuckles as shown in Figure 7.

Important: Do not grind the surfaces shown in Figure 7.







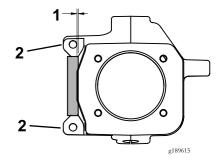
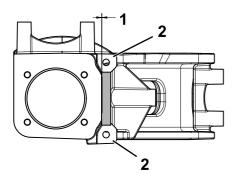


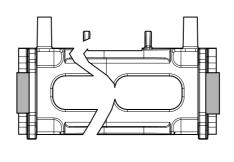
Figure 7

1. Grind 1.78 mm (0.07 inches) here.

- 2. Do not grind these surfaces.
- 2. Grind 0.76 mm (0.03 inches) relief into each side of the rear axle as shown in Figure 7.

Important: Do not grind the surfaces shown in Figure 8.





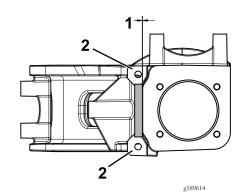
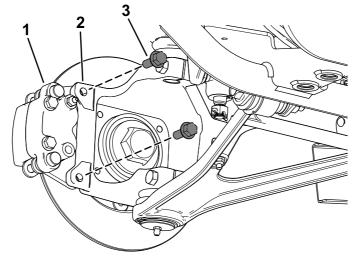


Figure 8

1. Grind 0.76 mm (0.03 inches) here.

2. Do not grind these surfaces.

- 3. Install the front and rear brake line to the master cylinder (Figure 5).
- 4. Install the rotor to the hub (Figure 6).
- 5. Install the new brake-caliper assembly to the steering knuckles and rear axles using the previously removed 2 flange-head bolts (3/8 x 1 inch) as shown in Figure 9.

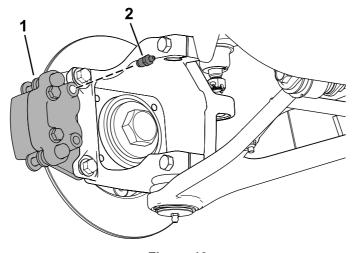


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Figure 9

- 1. Caliper
- 2. Steering knuckle

- 3. Flange-head bolt (3/8 x 1 inch)
- 6. Torque the 2 flange-head bolts (3/8 x 1 inch) to 47 to 54 N·m (35 to 40 ft-lb).
- 7. Install the bleed screw into the top hole of the brake-caliper assembly (Figure 10).



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Figure 10

1. Brake-caliper assembly

- 2. Bleed screw
- 8. Torque the bleed screw to 6 to 7.5 N·m (4.5 to 5.5 ft-lb).
- 9. Install the brake lines to the brake-caliper assemblies using a banjo bolt and 2 banjo washers (Figure 11).

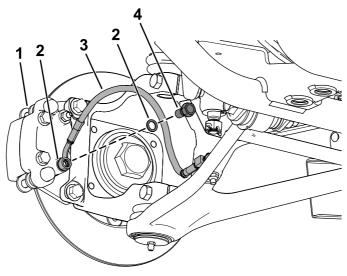


Figure 11

1. Brake-caliper assembly

2. Banjo washers

3. Brake line

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4. Banjo bolt

10. Torque the banjo bolt to 12 to 15 N·m (9 to 11 ft-lb).



## **Bleeding the Brake Calipers**

#### No Parts Required

## **Procedure**

**Important:** You will need 2 people to perform this procedure.

- 1. Fill the master cylinder with brake fluid; refer to your *Operator's Manual*..
- 2. Push down the brake pedal fully.
- 3. With brake pedal pushed down fully, loosen the bleed screw 1/4 turn (Figure 12).
- 4. With brake pedal pushed down fully, tighten the bleed screw 1/4 turn (Figure 12).

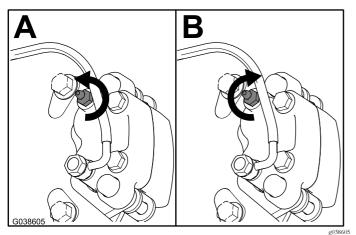


Figure 12

5. Repeat this process until air no longer releases from the calipers.

**Note:** When air no longer releases, you should not see any more air bubbles in the brake fluid.

6. Top off the master cylinder with brake fluid as needed; refer to your *Operator's Manual*.

# 5

## Installing the Wheels

#### No Parts Required

#### **Procedure**

- 1. Install the wheel onto the hub using the previously removed lug nuts (Figure 2).
- 2. Torque the lug nuts in a star pattern to 108 to 122 N·m (80 to 90 ft-lb).

