# Rear Brake Rotor Replacement

## Removal Procedure

**Warning:** Refer to Safety Glasses Warning in the Preface section.

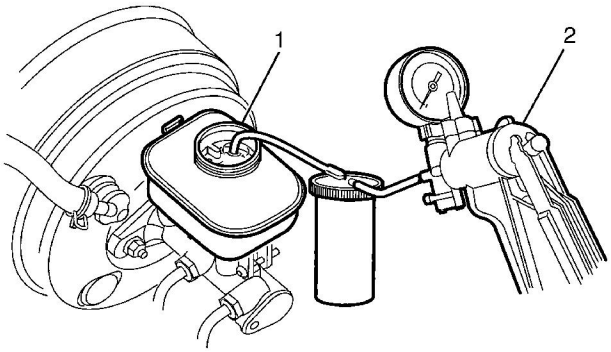
**Warning:** Refer to Brake Dust Warning in the Preface section.

**Warning:** Refer to Brake Fluid Warning in the Preface section.

**Warning:** Refer to Brake Fluid Irritant Warning in the Preface section.

**Caution:** Refer to Adding Fluid to the Brake System Caution in the Preface section.

**Caution:** Refer to Brake Fluid Effects on Paint and Electrical Components Caution in the Preface section.




**Danger:** To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Inspect the fluid level in the brake master cylinder reservoir (1).
   - If the brake fluid level is midway between the maximum fill level and the minimum allowable level, no brake fluid needs to be removed from the master cylinder reservoir (1) before proceeding.

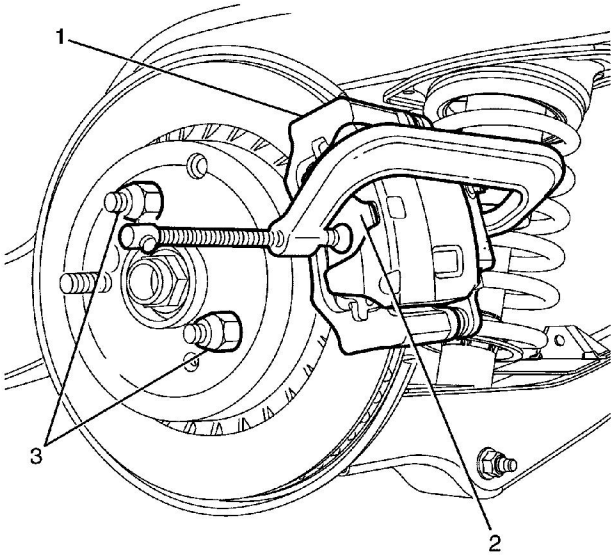
**Note:** DO NOT completely empty the master cylinder reservoir (1) or remove any brake lines otherwise complete bleeding of the braking system will be necessary.

**Note:** DO NOT re use the removed fluid.

- If the brake fluid level is higher than midway between the maximum fill level and the minimum allowable level, syphon the brake fluid to the midway point using a hand vacuum pump (2) before proceeding.

**Note:** Make sure the park brake is fully released.

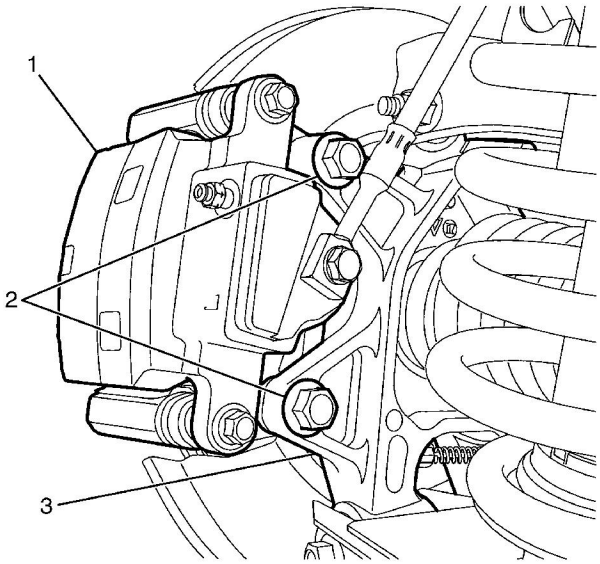
2. Disengage the park brake.
3. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
4. Remove the rear wheels. Refer to Tire and Wheel Removal and Installation.




5. Install 2 wheel nuts in reverse (3) to opposite wheel studs to retain the brake disc to the hub.

**Note:** Position the ends of the G-clamp against the rear of the brake caliper (1) and against the outboard brake pad (2).

6. Install large G-clamp over the body of the brake caliper (1).
7. Tighten the G-clamp until the brake caliper piston bottoms out in the brake caliper bore.
8. Remove the G-clamp from the brake caliper (1).



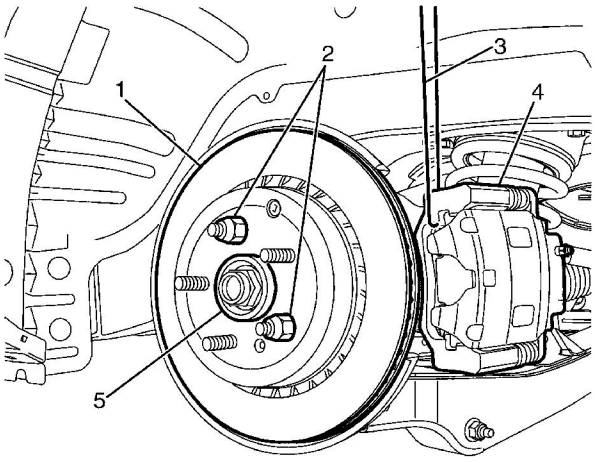

**Note:** Bolts with micro-encapsulated thread sealant must be discarded after removal.

9. Remove and discard the brake caliper anchor plate to knuckle retaining bolts (2).

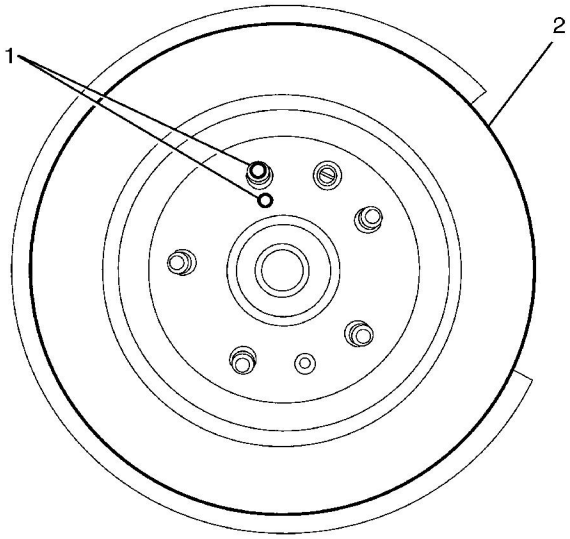
**Note:** DO NOT disconnect the hydraulic brake flexible hose from the brake caliper otherwise complete bleeding of the braking system will be necessary.

10. Remove the brake caliper (1) from the knuckle (3).

**Caution:** Refer to Brake Caliper Caution in the Preface section.



11. Support the brake caliper (4) with heavy mechanic's wire, or equivalent (3).
12. Remove the 2 wheel nuts (2) retaining the brake disc (1) to the hub (5).




**Note:** The brake disc to hub relationship is indexed during production. Mark the relationship of the brake disc to a wheel stud end for installation to minimize the potential of brake shudder.

**Note:** If the brake disc is being removed to be machined or replaced to rectify brake shudder, or if brake disc to hub matching is not evident, the brake disc to the hub must be indexed. Refer to Brake Rotor Assembled Lateral Runout Correction - Indexing.

13. Matchmark the position of the brake disc (2) to the wheel studs (1).
14. Remove the brake disc (2).

## Installation Procedure

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**Caution:** Refer to Adding Fluid to the Brake System Caution in the Preface section.

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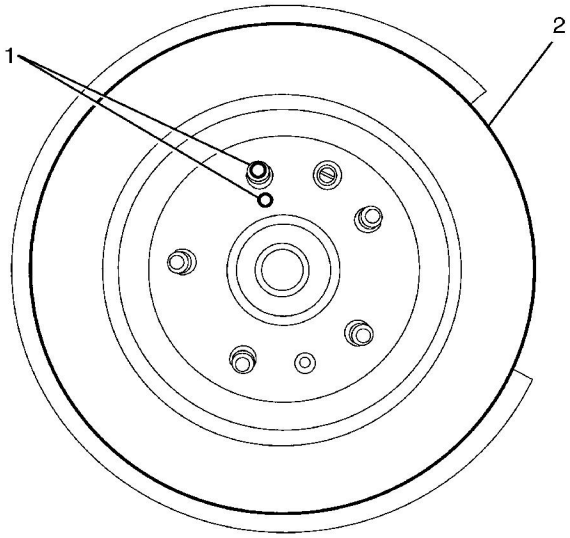
**Danger:** To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being

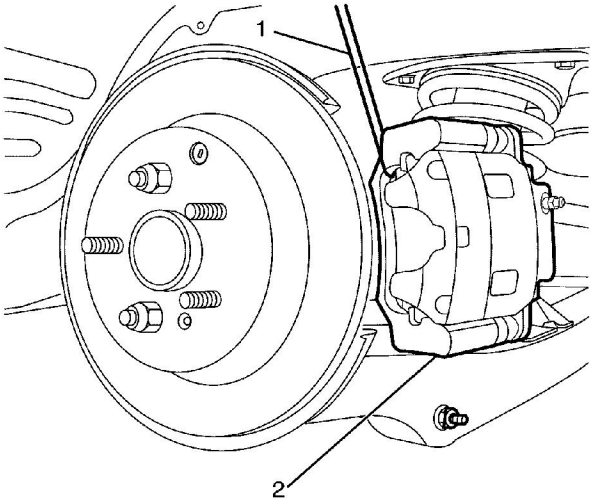
removed and strap the vehicle to the hoist.

**Note:** Whenever the brake disc has been separated from the hub/axle flange, any rust or contaminants should be cleaned from the hub/axle flange and the brake disc mating surfaces. Failure to do this may result in too much assembled lateral runout (LRO) of the brake disc, which may lead to brake pulsation.

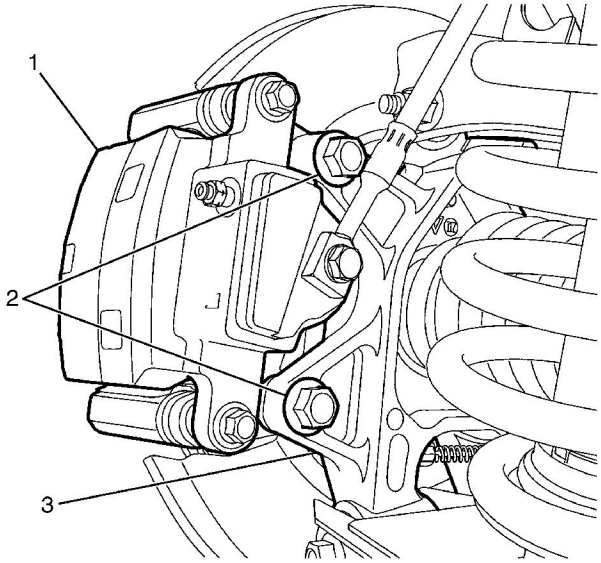
1. Clean any rust or corrosion from the mating surface of the hub/axle flange and mounting surface of the brake disc.
2. Inspect the mating surfaces of the hub/axle flange and the brake disc to make sure that there are no foreign particles or debris remaining.




3. Install the brake disc (2) to the hub/axle flange. Use the matchmark (1) made prior to removal for correct orientation to the flange.
4. If the brake disc was removed and installed as part of a brake system repair, measure the assembled lateral runout (LRO) of the brake disc to make sure optimum performance of the disc brakes. Refer to Brake Rotor Assembled Lateral Runout Measurement.
5. If the brake disc assembled LRO measurement exceeds the specification, bring the LRO to within specifications. Refer to Brake Rotor Assembled Lateral Runout Correction.




6. Remove the heavy mechanic's wire, or equivalent support (1) from the brake caliper (2).




**Caution:** Make sure the brake hose is not twisted or kinked after installation. Damage to the hose could result.

7. Install the brake caliper assembly (1) to the knuckle (3).

**Caution:** Refer to Fastener Caution in the Preface section.

8. Install the NEW brake caliper anchor plate to knuckle retaining bolts (2) and tighten to **110 N·m (82 lb ft)**.
9. Install the rear wheels. Refer to Tire and Wheel Removal and Installation.
10. Lower the vehicle to the ground.

11. With the engine OFF, gradually apply the brake pedal to approximately 2/3 of its travel distance.
12. Slowly release the brake pedal.
13. Repeat steps 11 and 12 until a firm brake pedal is obtained. This will correctly seat the brake caliper pistons and brake pads.
14. Fill the master cylinder reservoir to the correct level. Refer to Master Cylinder Reservoir Filling.
15. If the brake disc was refinished or replaced, or if new brake pads were installed, burnish the brake pads and brake discs. Refer to Brake Pad and Rotor Burnishing.