

2006 Chevrolet Equinox LS

2006 BRAKES Drum Brakes - Equinox & Torrent

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Drum Brakes - Equinox & Torrent

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Fastener Tightening Specifications

Application	Specification	
	Metric	English
Brake Pipe Fitting at the Wheel Cylinder	19 N.m	14 lb ft
Wheel Cylinder Bleeder Valve	8 N.m	71 lb in
Wheel Cylinder Mounting Bolts	15 N.m	11 lb ft

DRUM BRAKE COMPONENT SPECIFICATIONS

Drum Brake Component Specifications

Application	Specification	
	Metric	English
Brake Drum Diameter - New	250.0 mm	9.84 in
Brake Drum Discard Diameter	251.5 mm	9.90 in
Brake Drum Maximum Allowable Radial Runout	0.03 mm	0.001 in
Brake Drum Maximum Allowable Scoring	1.5 mm	0.059 in
Brake Drum Maximum Diameter After Refinish	251.5 mm	9.90 in
Brake Shoe Lining Minimum Thickness	1.0 mm	0.04 in
Brake Shoe Lining Thickness - New	6.0 mm	0.24 in
Brake Shoe Lining-to-Drum Clearance	0.50 mm	0.020 in

DIAGNOSTIC INFORMATION AND PROCEDURES

DIAGNOSTIC STARTING POINT - DRUM BRAKES

Begin the drum brake system diagnosis with **Diagnostic Starting Point - Hydraulic Brakes** in Hydraulic Brakes. The use of the Diagnostic Starting Point leads to the identification of the correct procedure for diagnosing the system and where the procedure is located.

BRAKE DRUM DIAMETER MEASUREMENT

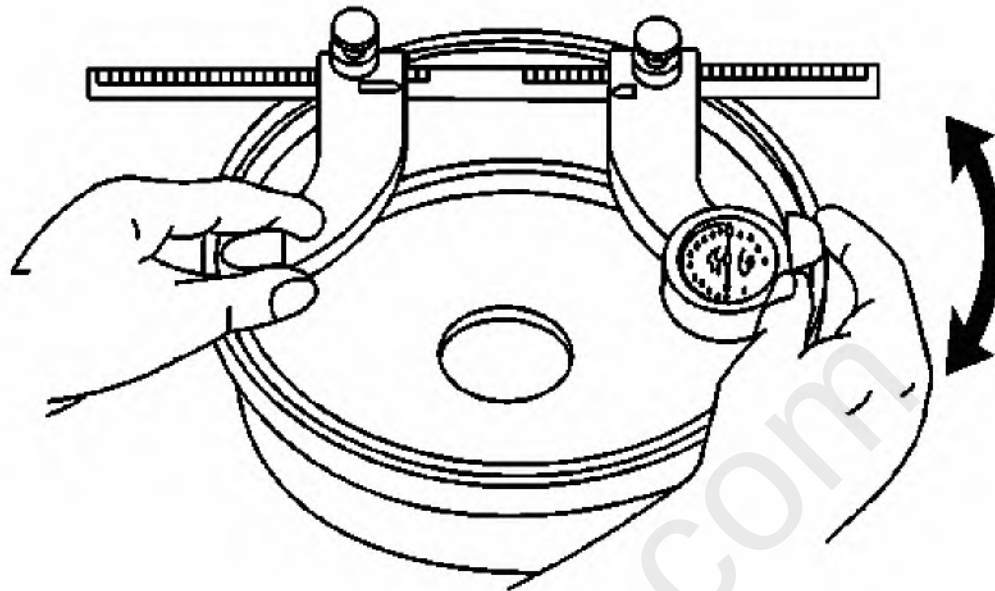


Fig. 1: Measuring Brake Drum
Courtesy of GENERAL MOTORS CORP.

CAUTION: Refer to Brake Dust Caution in Cautions and Notices.

1. Clean the brake shoe lining contact surface of the brake drum with denatured alcohol or an equivalent approved brake cleaner.
2. Using a brake drum micrometer calibrated in thousandths of an inch, measure and record the largest diameter of the brake drum at 4 or more points, equally spaced around the drum.

Ensure the measurements are only taken within the brake shoe lining contact area. The micrometer must be positioned the same distance from the outside edge of the drum for each measurement.

3. Compare the largest diameter measurement recorded to the following specifications:

Specification:

- Brake drum maximum allowable diameter after refinish: 251.5 mm (9.90 in)
- Brake drum discard diameter: 251.5 mm (9.90 in)

4. If the largest diameter measurement of the brake drum is less than the maximum allowable inside diameter after refinishing specification, the drum may be refinished, depending upon surface and wear conditions.
5. If the largest diameter measurement of the brake drum is equal to the maximum allowable diameter after refinishing specification, the drum may not be refinished.
6. If the largest diameter measurement of the brake drum is greater than the discard diameter specification, the drum requires replacement.

BRAKE DRUM SURFACE AND WEAR INSPECTION

Tools Required

J 8001 Dial Indicator, or equivalent. See Special Tools.

CAUTION: Refer to Brake Dust Caution in Cautions and Notices.

1. With the brake drum removed, clean the brake shoe lining contact surface of the brake drum with denatured alcohol or an equivalent approved brake cleaner.
2. Inspect the braking surface of the brake drum for the following Braking Surface Conditions:

- Heavy rust and/or pitting

Light surface rust can be removed with an abrasive disc; heavy surface rust and/or pitting must be removed by refinishing the drum.

- Cracks and/or heat spots
- Excessive blueing discoloration
- Missing balance weights

3. If the braking surface of the brake drum exhibits one or more of the Braking Surface Conditions listed, the drum requires refinishing or replacement.

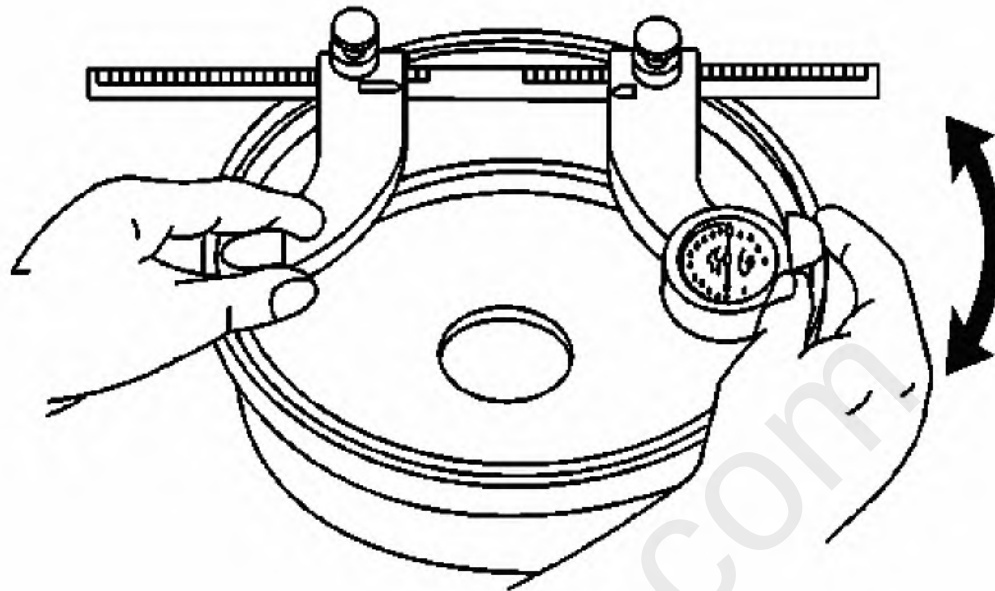


Fig. 2: Measuring Brake Drum
Courtesy of GENERAL MOTORS CORP.

4. Using a brake drum micrometer calibrated in thousandths-of-an-inch, measure and record any grooves present on the drum braking surface.

Ensure that the measurements are only taken within the brake shoe lining contact area.

5. Compare the groove, or scoring depth recorded to the following specification:

Specification: Brake drum maximum allowable scoring: 1.5 mm (0.059 in)

6. If the brake drum scoring depth exceeds the specification, or if an excessive amount of scoring is present, the drum requires refinishing or replacement.
7. Mount the brake drum on a brake lathe.
8. Mount a dial indicator, **J 8001** or equivalent, and position the indicator button so it contacts the braking surface of the brake drum at a 90 degree angle, approximately 19 mm (0. See **Special Tools**.75 in) from the outer edge of the drum.
9. Measure and record the radial runout of the brake drum.
 1. Rotate the drum until the lowest reading is displayed on the indicator dial, then zero the dial.
 2. Rotate the drum until the highest reading is displayed on the dial.

10. Compare the radial runout of the brake drum to the following specification:

Specification: Brake drum maximum allowable radial runout: 0.03 mm (0.001 in)

11. If the brake drum radial runout exceeds the specification, the drum requires refinishing or replacement.

DRUM BRAKE HARDWARE INSPECTION

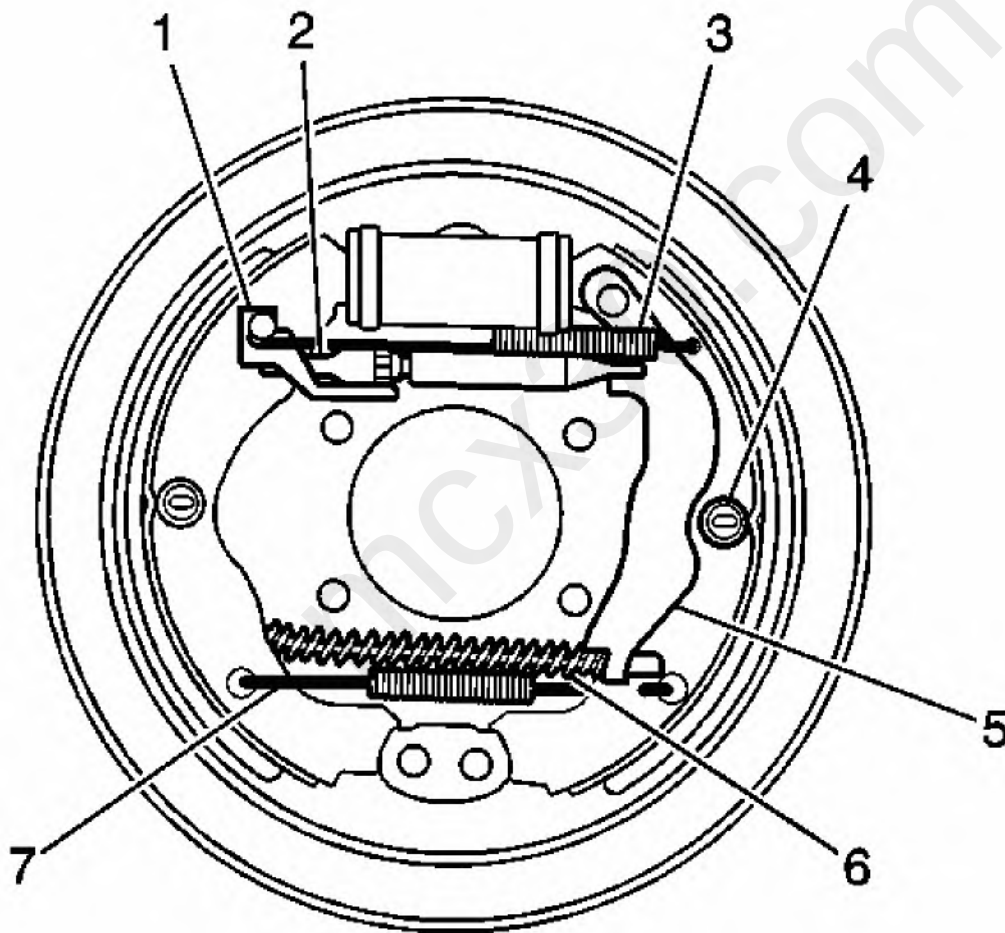


Fig. 3: View Of Brake Components

Courtesy of GENERAL MOTORS CORP.

1. Visually inspect the drum brake system hold-down springs (4) for the following:
 - Excessive corrosion
 - Damaged or bent locating pins

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- Broken spring coils
 - Damaged retaining cups
2. Visually inspect the lower return spring (7) and the upper return/adjuster actuator spring (3) for the following:
 - Excessive corrosion
 - Excessive stretching
 - Broken hook ends
 - Twisting or binding
 3. If any of the conditions listed were found, the drum brake system hardware requires replacement.
 4. Visually inspect the park brake lever (5) for the following:
 - Bent
 - Broken pivot
 - Broken at park brake cable attachment
 5. If any of the conditions listed were found, the park brake lever and/or attaching hardware requires replacement.

DRUM BRAKE ADJUSTING HARDWARE INSPECTION

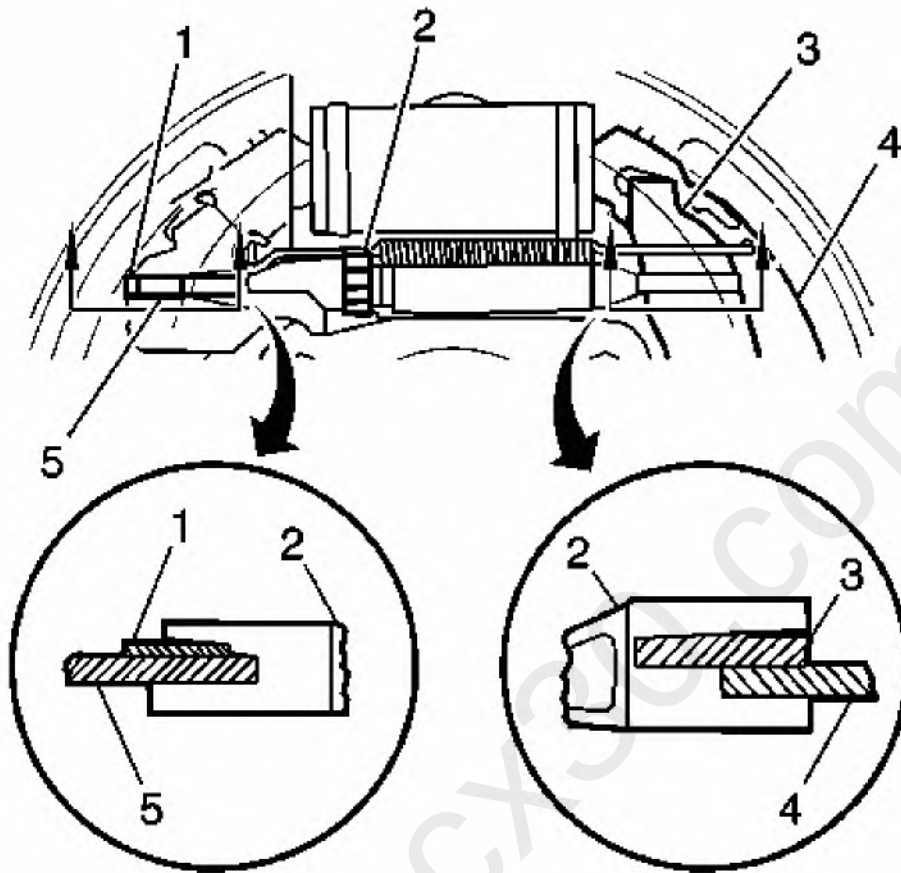


Fig. 4: Identifying Park Brake Adjuster Actuator Components
 Courtesy of GENERAL MOTORS CORP.

CAUTION: Refer to Brake Dust Caution in Cautions and Notices.

1. Visually inspect the adjuster actuator spring (2) for the following:
 - Excessive corrosion
 - Excessive stretching
 - Broken hook ends
 - Twisting or binding
 - Missing
2. If any of the conditions listed were found, the drum brake system adjuster hardware requires replacement.

3. Visually inspect the adjuster actuator lever (1) for the following conditions:
 - Bent
 - Broken
 - Missing
 - Broken spring attachment tab
4. If any of the conditions listed were found, the adjuster actuator lever and/or attaching hardware requires replacement.

REPAIR INSTRUCTIONS

BRAKE DRUM REPLACEMENT

Tools Required

- **J 41013** Rotor Resurfacing Kit
- **J 42450-A** Wheel Hub Resurfacing Kit

CAUTION: Refer to **Brake Dust Caution** in Cautions and Notices.

Removal Procedure

1. Check to ensure that the park brake is fully released.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Remove the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.

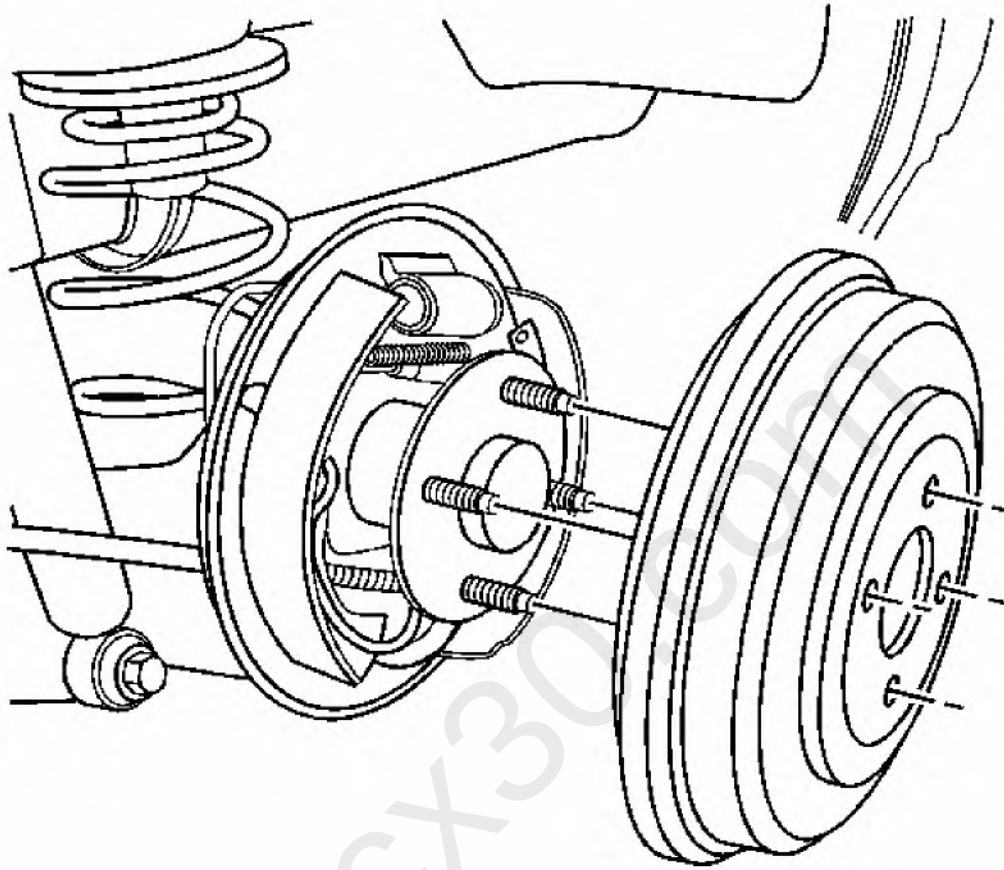


Fig. 5: View Of Brake Drum
Courtesy of GENERAL MOTORS CORP.

4. Remove the brake drum.
5. If the brake drum is to be reinstalled to the vehicle, use the **J 41013** to clean any rust or corrosion from the hub/flange mating surface of the brake drum.

If necessary, carefully remove any corrosion from the edge of the drum braking surface in order to ease installation.

6. Use the **J 42450-A** to clean the wheel hub flange.

Installation Procedure

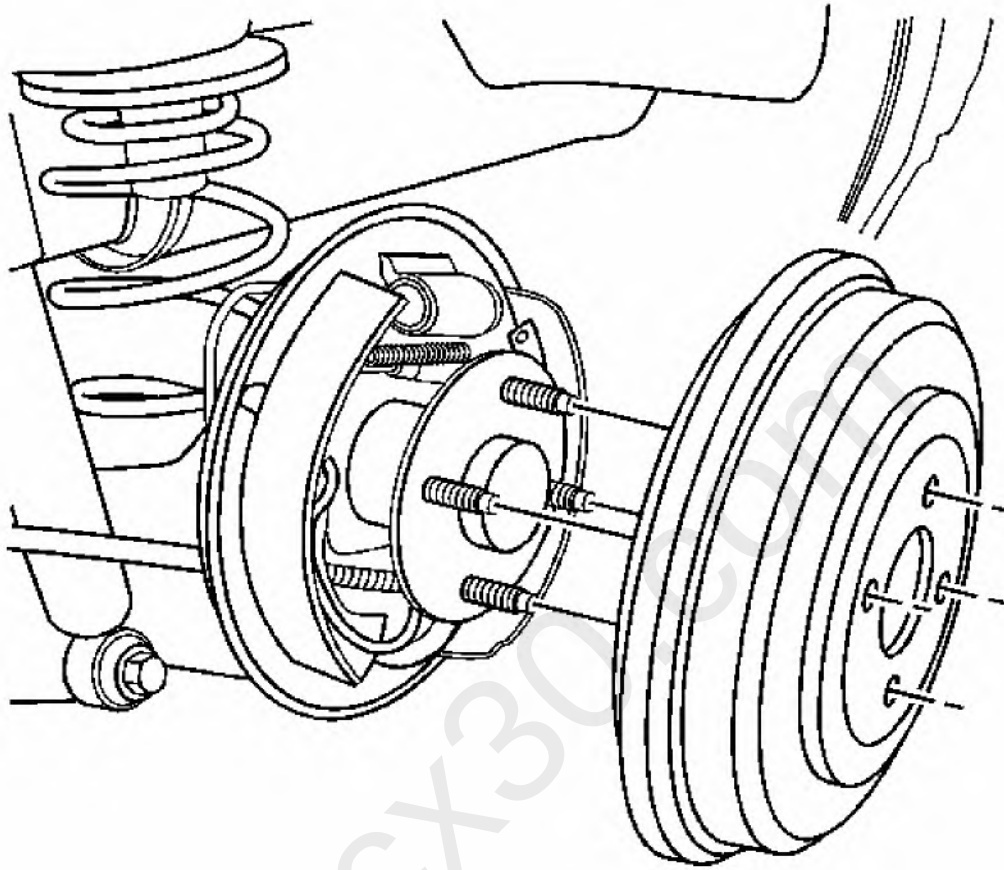


Fig. 6: View Of Brake Drum
Courtesy of GENERAL MOTORS CORP.

1. Adjust the drum brakes. Refer to **Drum Brake Adjustment**.
2. Install the brake drum.
3. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
4. Apply the brakes approximately three times in order to seat and center the brake shoes within the drum.
5. Lower the vehicle.

BRAKE DRUM REFINISHING

Tools Required

- **J 41013** Rotor/Drum Flange Resurfacing Kit

- **J 42450-A** Hub Cleaning Kit

CAUTION: Refer to Brake Dust Caution in Cautions and Notices.

1. The brake drums do not require refinishing as part of routine brake system service. Do not refinish brake drums in an attempt to correct the following conditions:
 - Brake system noise (squeal, growl, groan)
 - Uneven and/or premature brake lining wear
 - Superficial or cosmetic corrosion/rust of the brake drum surface
 - Scoring of the brake drum surface (less than the maximum allowable specification)
2. Brake drums should only be refinished if the following conditions exist:
 - Excessive corrosion/rust and/or pitting
 - Cracks and/or heat spots
 - Excessive blueing discoloration
 - Scoring of the brake drum surface (in excess of the maximum allowable specification)
 - Radial runout in excess of the maximum allowable specification
3. Inspect each of the brake drums and determine if the brake drums can be refinished and remain within the maximum allowable diameter after refinish specification:
 1. With the tire and wheel assemblies removed, measure the diameter of each of the brake drums. Refer to **Brake Drum Diameter Measurement** .
 2. Inspect each of the brake drums for excessive surface wear and/or radial runout. Refer to **Brake Drum Surface and Wear Inspection** .
4. If the brake drums can be refinished, proceed with the rotor refinishing procedure.
5. If necessary, use the **J 41013** in order to thoroughly clean any corrosion/rust from the brake drum flange.
6. Mount the brake drum to the brake lathe according to the lathe manufacturer's instructions.
7. Ensure that any vibration dampening attachments are securely in place.
8. With the brake lathe running, slowly bring in the cutting tool until it just contacts the brake drum friction surface.
9. Observe the witness mark on the brake drum. If the witness mark extends approximately three-quarters or more of the way around the brake drum surface, the brake drum is properly mounted to the lathe.
10. If the witness mark does not extend three-quarters or more of the way around the brake drum, re-mount the brake drum to the lathe.
11. Following the brake lathe manufacturer's instructions, refinish the brake drum

12. After each successive cut, inspect the brake drum diameter. Refer to **Brake Drum Diameter Measurement**.
13. If at any time the brake drum exceeds the maximum allowable diameter after refinish specification, the brake drum must be replaced.
14. After refinishing the brake drum, use the following procedure in order to obtain the desired non-directional finish:
 1. Follow the brake lathe manufacturer's recommended speed setting for applying a non-directional finish
 2. Using moderate pressure, apply the non-directional finish:
 - If the lathe is equipped with a non-directional finishing tool, apply the finish with 120 grit aluminum oxide sandpaper.
 - If the lathe is not equipped with a non-directional finishing tool, apply the finish with a sanding block and 150 grit aluminum oxide sandpaper.
 3. After applying a non-directional finish, clean each friction surface of the brake drum with denatured alcohol or an equivalent brake cleaner
15. Remove the brake drum from the brake lathe.

IMPORTANT: Failure to clean the corrosion from the wheel bearing flange may result in increased lateral runout of the brake drum and brake system pulsation.

16. If necessary, use the **J 42450-A** in order to thoroughly clean any corrosion from the wheel bearing flange.

BRAKE SHOE REPLACEMENT

Removal Procedure

CAUTION: Refer to Brake Dust Caution in Cautions and Notices.

CAUTION: Keep fingers away from rear brake shoe springs to prevent fingers from being pinched between spring and shoe web or spring and backing plate.

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
2. Remove the brake drum. Refer to **Brake Drum Replacement**.

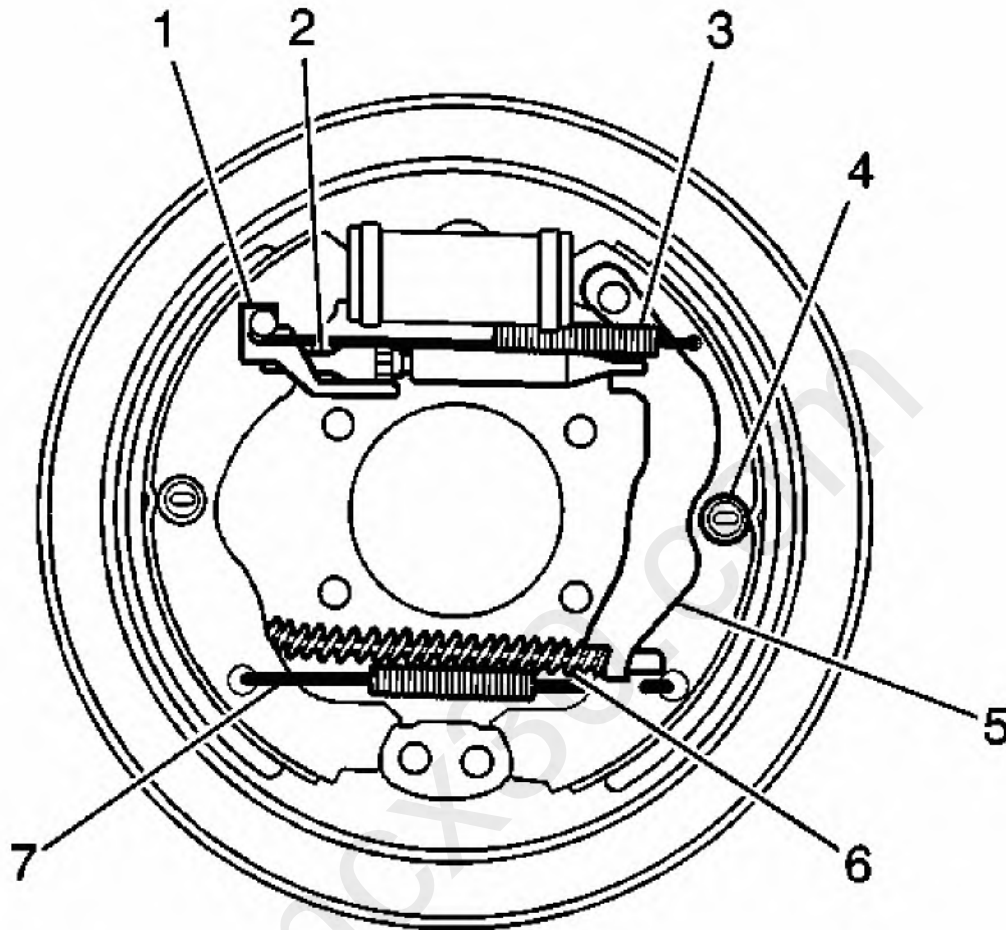


Fig. 7: View Of Brake Components
Courtesy of GENERAL MOTORS CORP.

NOTE: Do not over stretch the adjuster spring. Damage can occur if the spring is over stretched.

3. Disengage the adjuster spring hook end from the tab on the adjuster actuator (1).
4. Remove the straight end of the adjuster spring from the brake shoe.
5. Remove the adjuster actuator from the brake shoe.
6. Remove the return spring (7) from the brake shoes.
7. Remove the park brake cable (6) from the park brake actuator lever (5).
8. Remove the brake shoe hold-down springs and retainers (4) from the brake shoes.
9. Remove the adjuster from the brake shoes and the park brake actuator lever (2).

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10. Remove the horseshoe clip retaining the park brake actuator lever to the brake shoe.
11. Remove the park brake actuator lever and wave washer from the brake shoe.
12. Clean all of the drum brake system components with denatured alcohol.
13. Inspect all of the drum brake system components. Refer to **Drum Brake Hardware Inspection** and **Drum Brake Adjusting Hardware Inspection**.
14. Replace drum brake system components as necessary.
15. Inspect the wheel cylinder for the following conditions:
 - Brake fluid leakage
 - Worn or damaged dust boots
16. Replace damaged or leaking wheel cylinders as necessary. Refer to **Wheel Cylinder Replacement**.

Installation Procedure

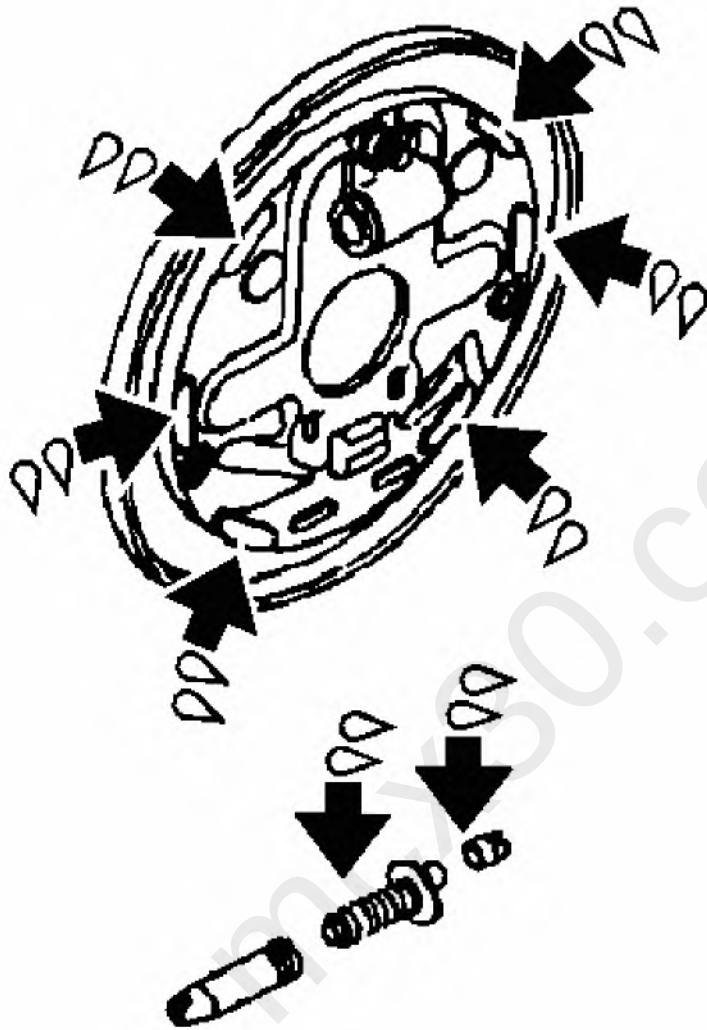


Fig. 8: Identifying Brake Shoe Assembly Lubrication Areas
Courtesy of GENERAL MOTORS CORP.

1. Apply a thin, light coat of high temperature, silicone brake lubricant to the following areas:
 - The brake shoe contact points on the backing plate
 - The adjuster screw threads
 - The inside diameter of the adjuster socket

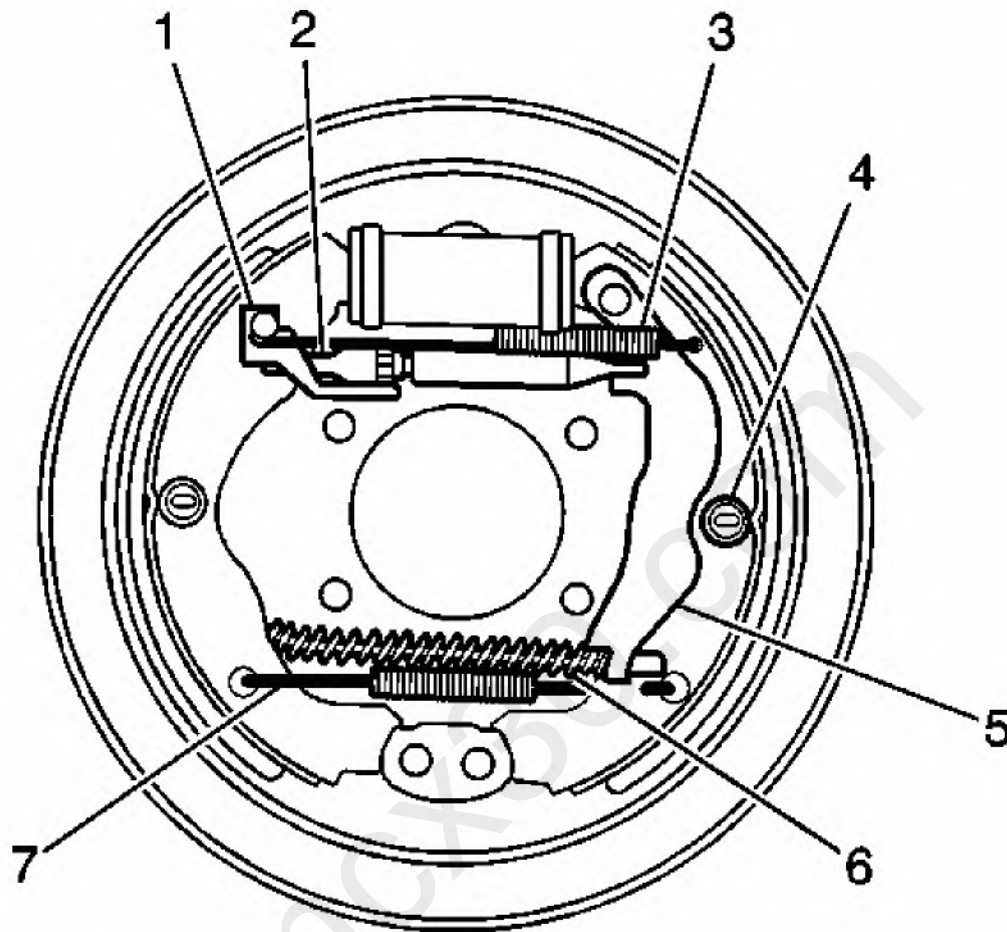


Fig. 9: View Of Brake Components
Courtesy of GENERAL MOTORS CORP.

2. Install the park brake actuator lever (5) to the lever pivot pin.
3. Install the horseshoe clip to the park brake actuator lever pivot pin.
4. Install the brake shoes to the brake backing plate.
5. Install the brake shoe hold-down pins, springs and retainers (4) to the brake shoes.
6. Install the park brake cable (6) to the park brake actuator lever.

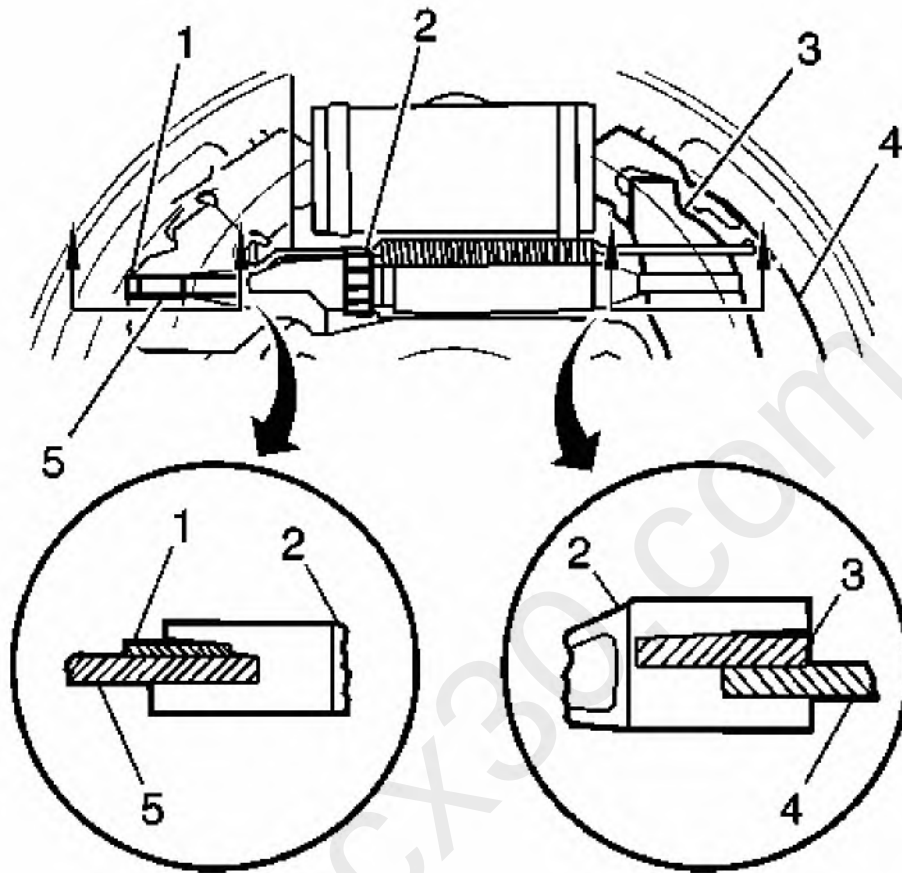


Fig. 10: Identifying Park Brake Adjuster Actuator Components
Courtesy of GENERAL MOTORS CORP.

IMPORTANT: Ensure that the adjuster (2) engages the brake shoe (4) and the park brake actuator (3) properly.

7. Install the adjuster screw to the brake shoe and the park brake actuator.
8. Apply a thin, light coat of high temperature, silicone brake lubricant to the adjuster actuator/brake shoe interface.
9. Install the adjuster actuator (1) to the brake shoe.

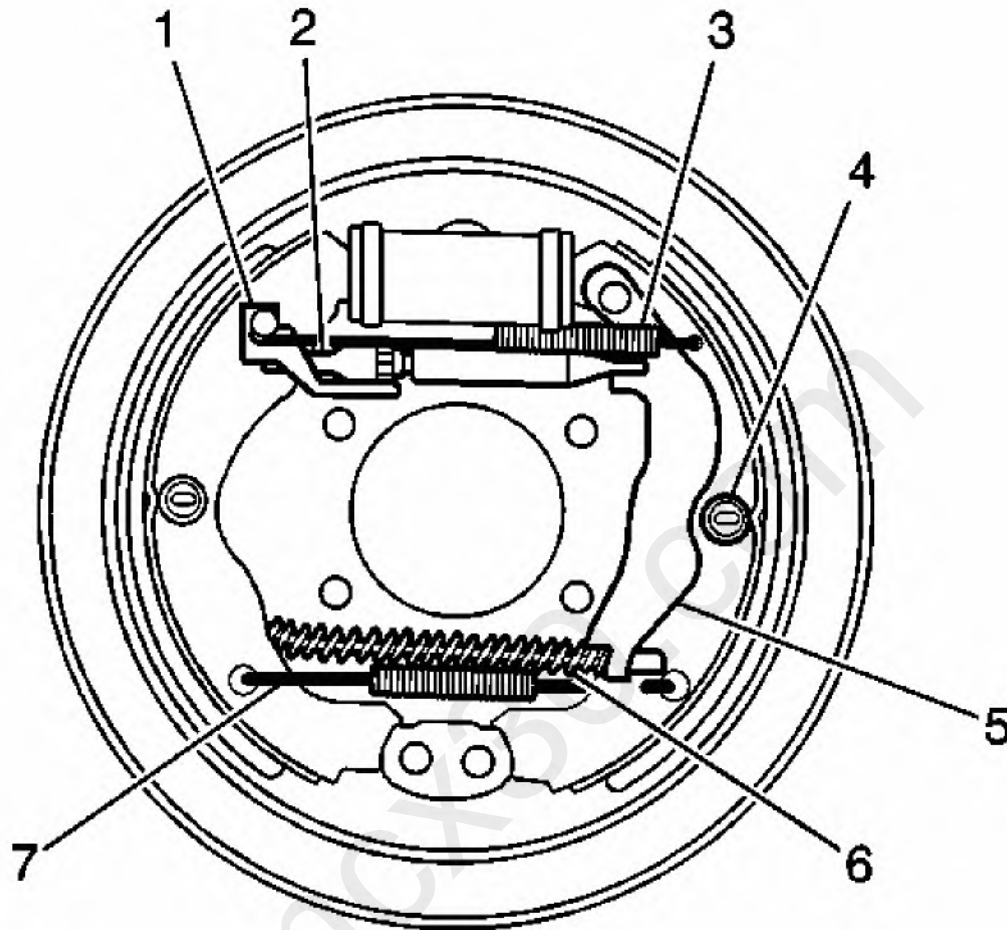


Fig. 11: View Of Brake Components
Courtesy of GENERAL MOTORS CORP.

NOTE: Do not over stretch the adjuster spring. Damage can occur if the spring is over stretched.

10. Install the straight end of the adjuster spring (3) to the brake shoe.
11. Install the adjuster spring hook end to the tab on the adjuster actuator (1).
12. Install the return spring (7) to the brake shoes.

IMPORTANT: Ensure that the adjuster operates properly.

13. Move the park brake actuator lever (5) in order to spread the brake shoes apart. The adjuster actuator lever should move downward, then upward as the park brake actuator

lever is released, forcing the adjuster wheel to rotate.

If the adjuster does not operate properly, remove then reinstall the adjuster.

14. Adjust the brake shoes. Refer to **Drum Brake Adjustment**.
15. Adjust the park brake cable. Refer to **Park Brake Adjustment** in Park Brake.
16. Install the brake drum. Refer to **Brake Drum Replacement**.
17. Lower the vehicle.

DRUM BRAKE BACKING PLATE REPLACEMENT

Removal Procedure

CAUTION: Refer to **Brake Dust Caution** in Cautions and Notices.

NOTE: Do not pry against the splash shield or backing plate in attempt to free the drum. This will bend the splash shield or backing plate. A bent backing plate may cause brake chatter and/or pulsation.

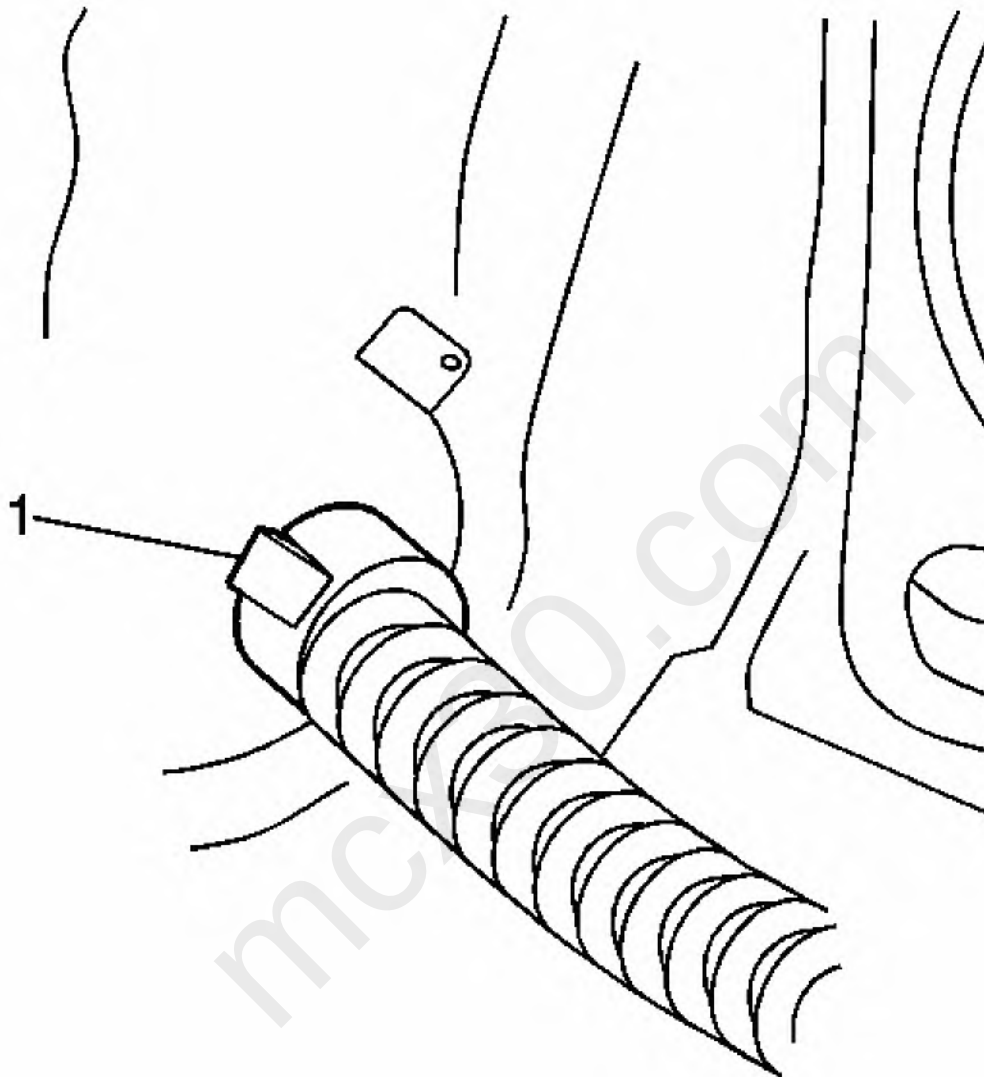


Fig. 12: View Of Rear Park Brake Cable End Fitting
Courtesy of GENERAL MOTORS CORP.

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
2. Remove the tire and wheel. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
3. Remove the brake drum. Refer to **Brake Drum Replacement**.
4. Remove the brake shoes. Refer to **Brake Shoe Replacement**.
5. Remove the park brake cable from the park brake actuator lever.

6. Depress the retaining fingers on the park brake cable (1) and remove the park brake cable from the backing plate.

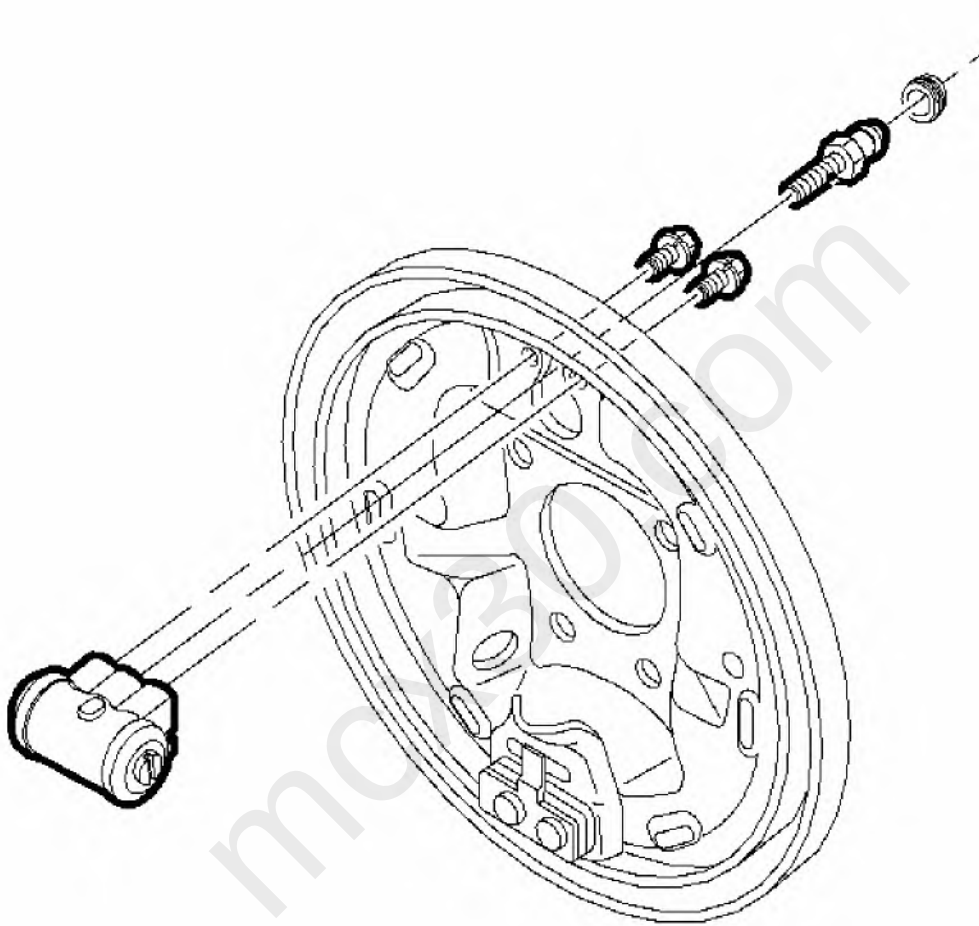


Fig. 13: Removing/Installing Wheel Cylinder
Courtesy of GENERAL MOTORS CORP.

7. Remove the wheel cylinder. Refer to **Wheel Cylinder Replacement**.

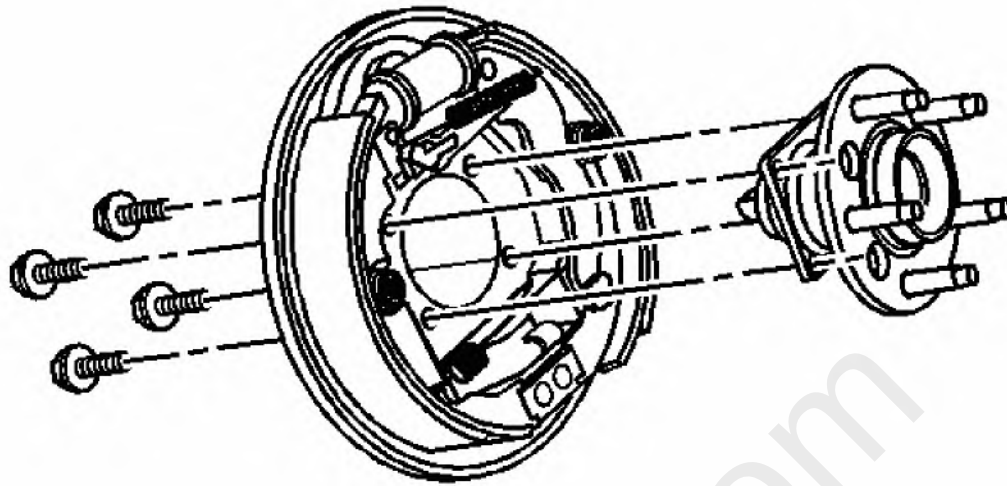


Fig. 14: Identifying Wheel Bearing/Hub
Courtesy of GENERAL MOTORS CORP.

8. Remove the wheel bearing/hub assembly. Refer to **Wheel Bearing/Hub Replacement - Rear** in Rear Suspension.
9. Remove the backing plate.

Installation Procedure

1. Install the backing plate.

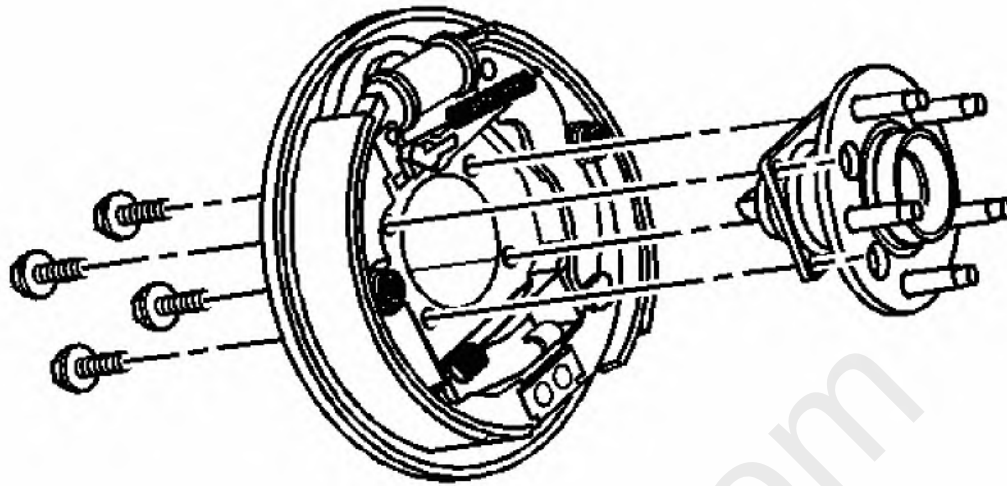


Fig. 15: Identifying Wheel Bearing/Hub
Courtesy of GENERAL MOTORS CORP.

2. Install the wheel bearing/hub assembly. Refer to **Wheel Bearing/Hub Replacement - Rear** in Rear Suspension.

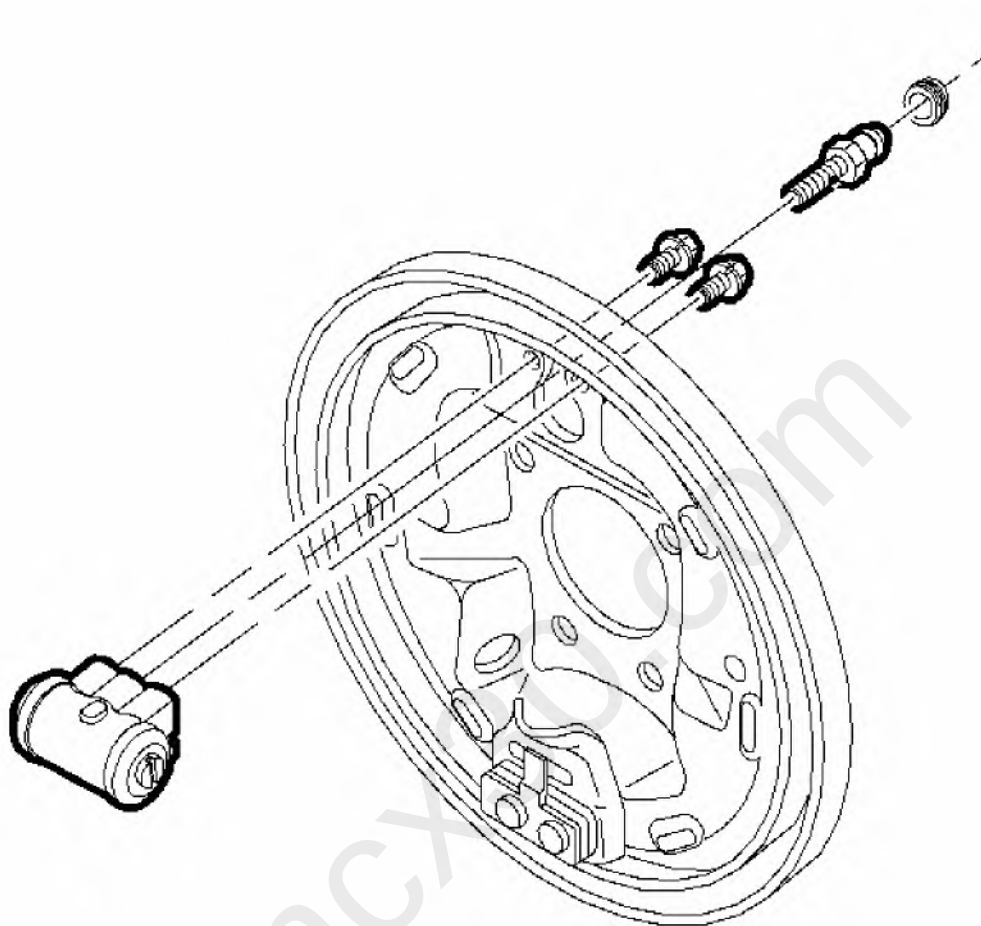


Fig. 16: Removing/Installing Wheel Cylinder
Courtesy of GENERAL MOTORS CORP.

3. Install the wheel cylinder. Refer to **Wheel Cylinder Replacement**.

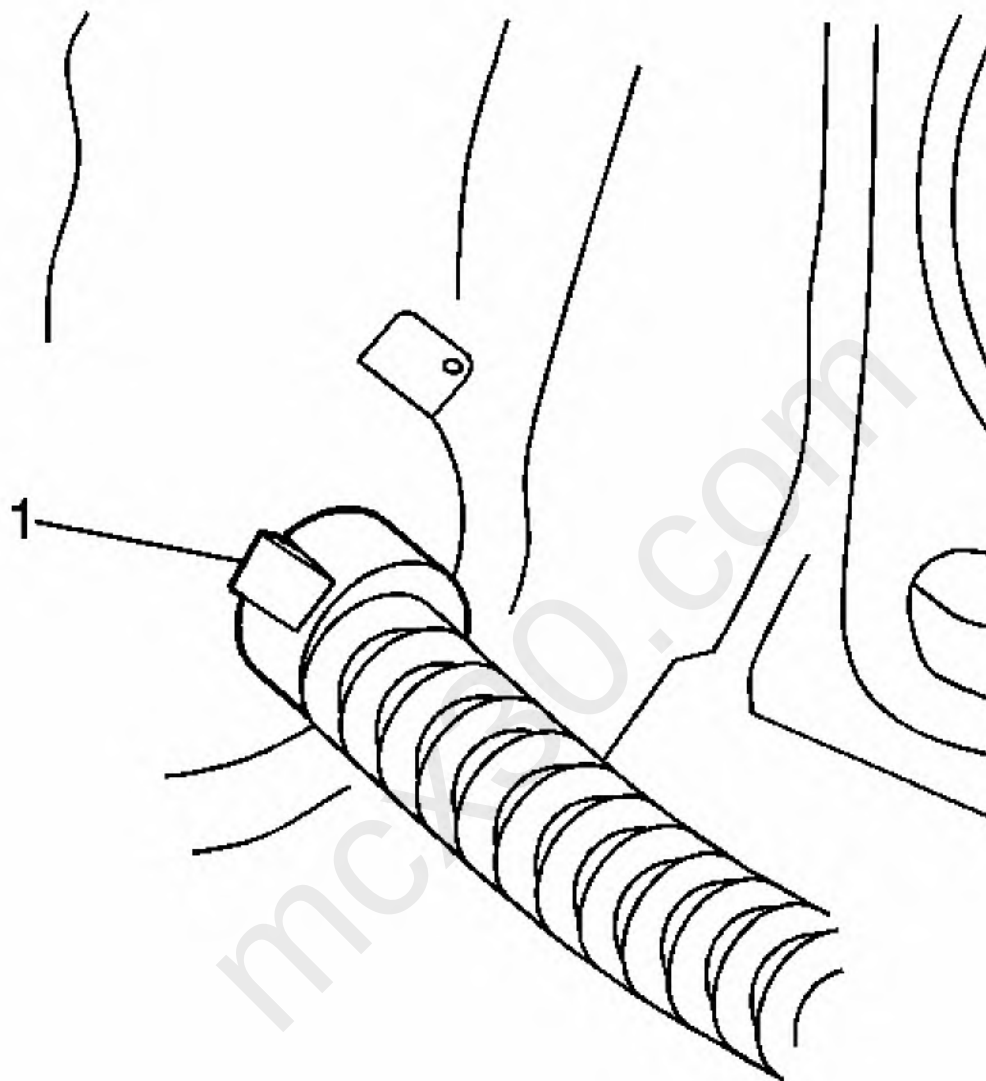


Fig. 17: View Of Rear Park Brake Cable End Fitting
Courtesy of GENERAL MOTORS CORP.

4. Install the park brake cable (1) to the backing plate.

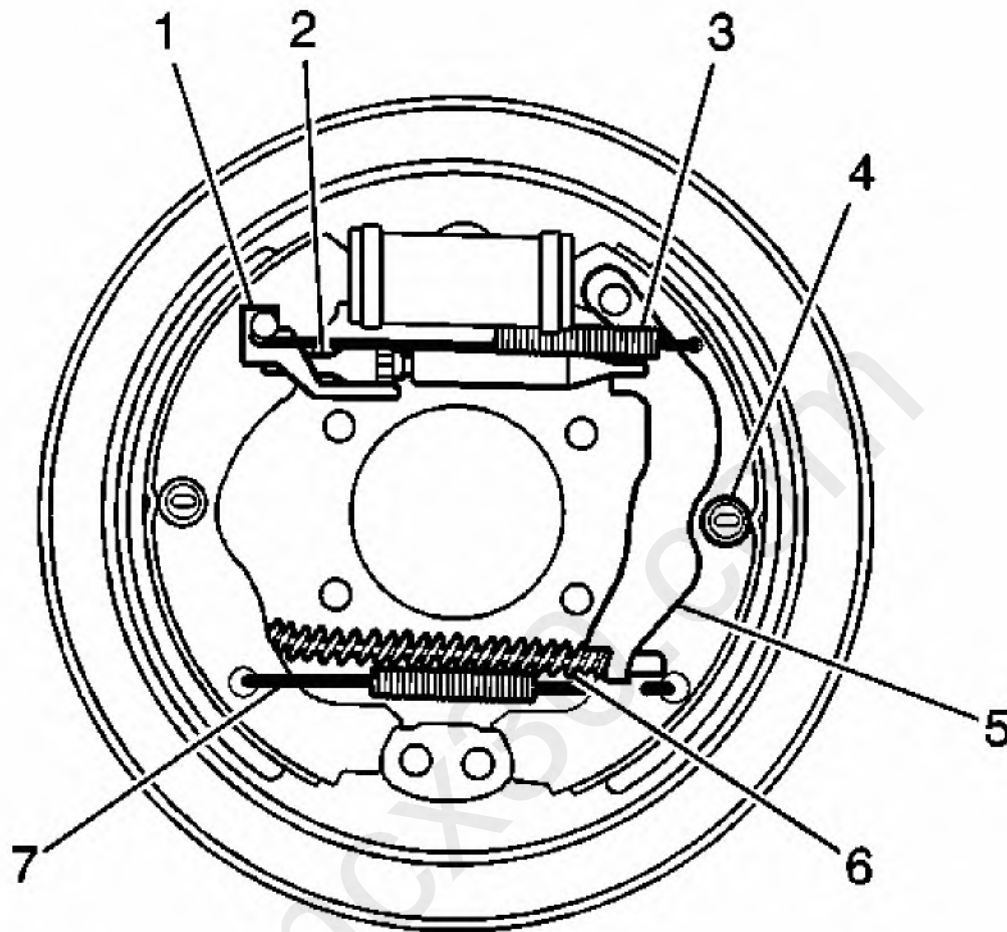


Fig. 18: View Of Brake Components
Courtesy of GENERAL MOTORS CORP.

5. Install the park brake cable to the park brake actuator (5).
6. Install the brake shoes. Refer to **Brake Shoe Replacement**.
7. Adjust the brake shoes. Refer to **Drum Brake Adjustment**.
8. Adjust the park brake cable. Refer to **Park Brake Adjustment** in Park Brake.
9. Install the brake drum. Refer to **Brake Drum Replacement**.
10. Install the tire and wheel. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
11. Lower the vehicle.

DRUM BRAKE HARDWARE REPLACEMENT

Removal Procedure

CAUTION: Refer to Brake Dust Caution in Cautions and Notices.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle in General Information.
2. Remove the brake drum. Refer to Brake Drum Replacement.

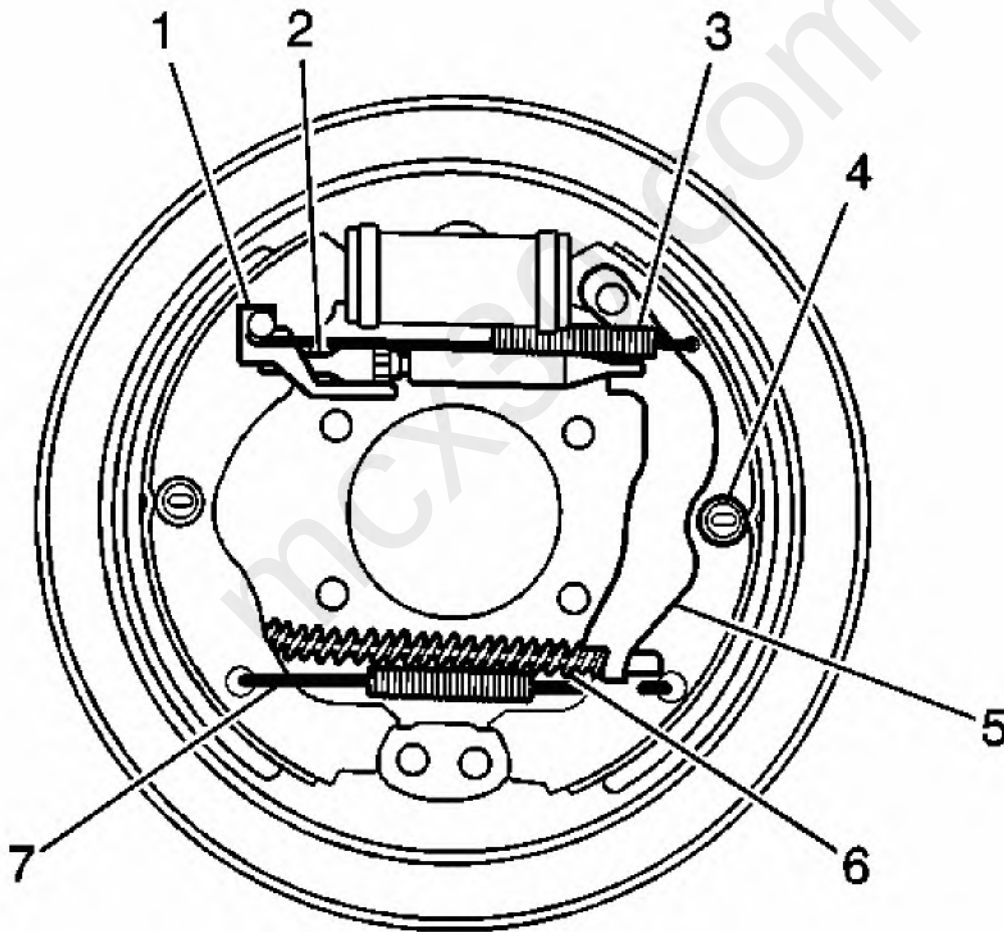


Fig. 19: View Of Brake Components
Courtesy of GENERAL MOTORS CORP.

3. Disengage the adjuster spring hook end from the tab on the adjuster actuator (1).
4. Remove the straight end of the adjuster spring from the brake shoe.
5. Remove the return spring (7) from the brake shoes.

6. Remove the brake shoe hold-down springs and retainers (4) from the brake shoes.
7. Remove the park brake actuator lever and wave washer from the brake shoe.
8. Clean all of the drum brake system components with denatured alcohol.
9. Inspect all of the drum brake system components. Refer to **Drum Brake Hardware Inspection** and **Drum Brake Adjusting Hardware Inspection**.

Installation Procedure

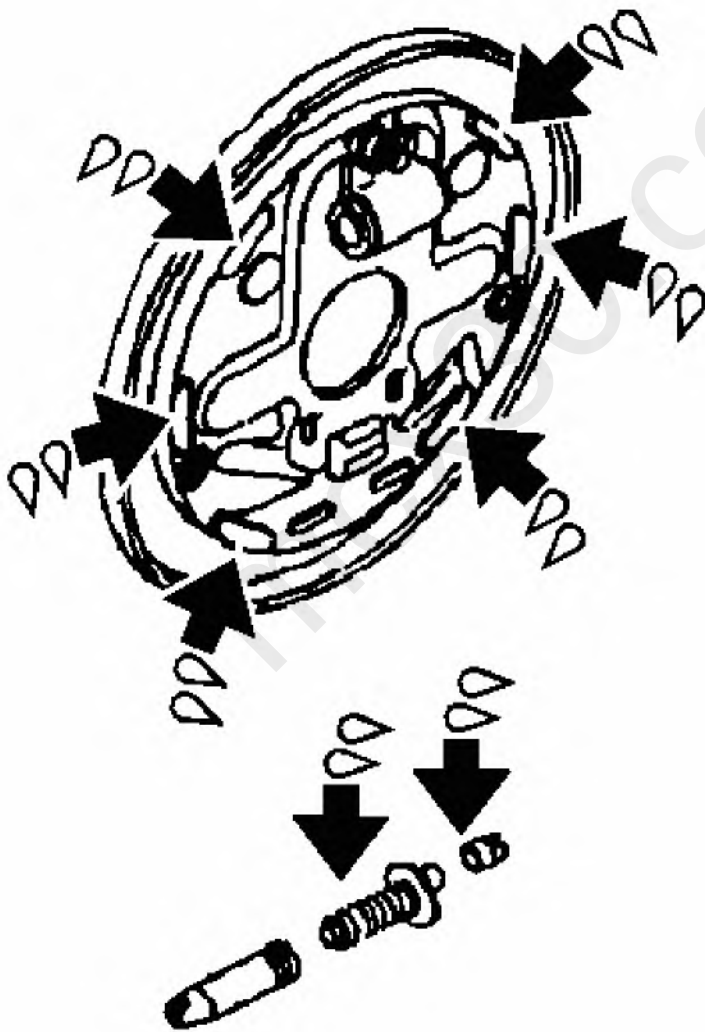


Fig. 20: Identifying Brake Shoe Assembly Lubrication Areas
Courtesy of GENERAL MOTORS CORP.

1. Apply GM P/N 1052196 (Canadian P/N 5264008) brake lubricant or equivalent to the

backing plate in the following areas:

- The brake shoe contact points on the backing plate
- The adjuster screw threads and inside diameter of the adjuster socket

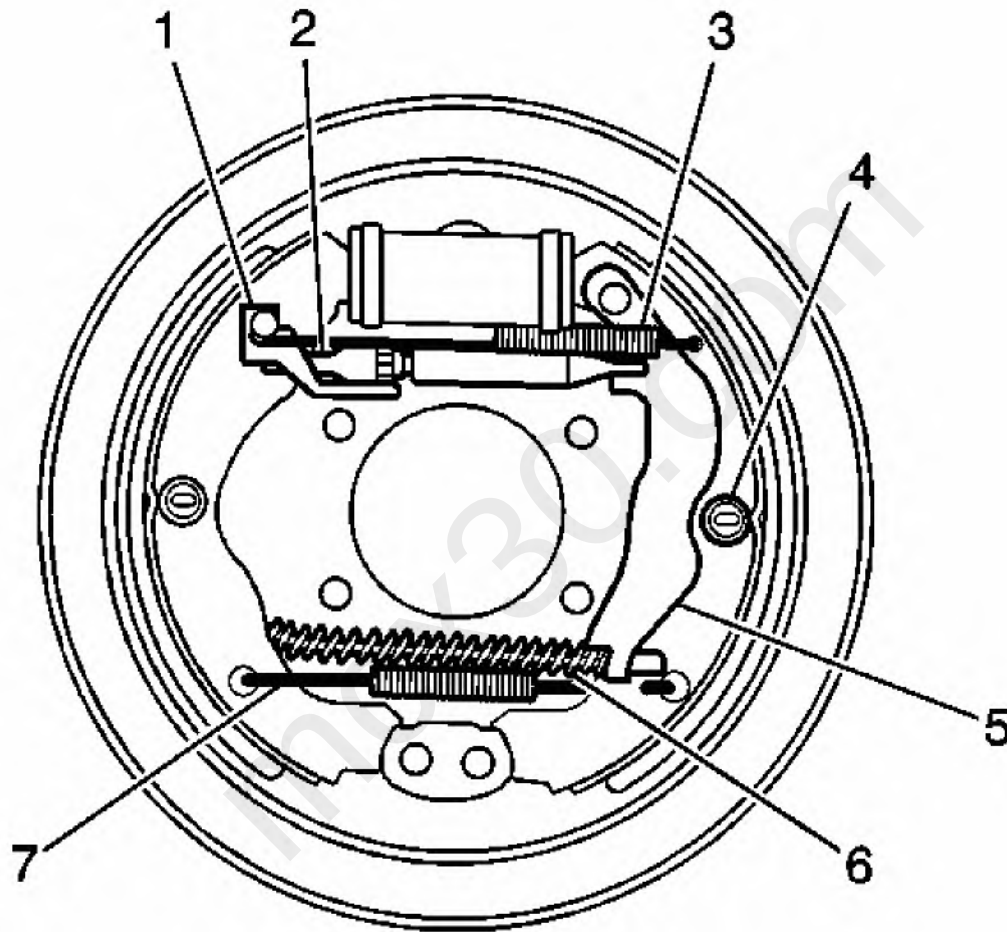


Fig. 21: View Of Brake Components
Courtesy of GENERAL MOTORS CORP.

2. Install the brake shoe hold-down pins, springs and retainers (4) to the brake shoes.

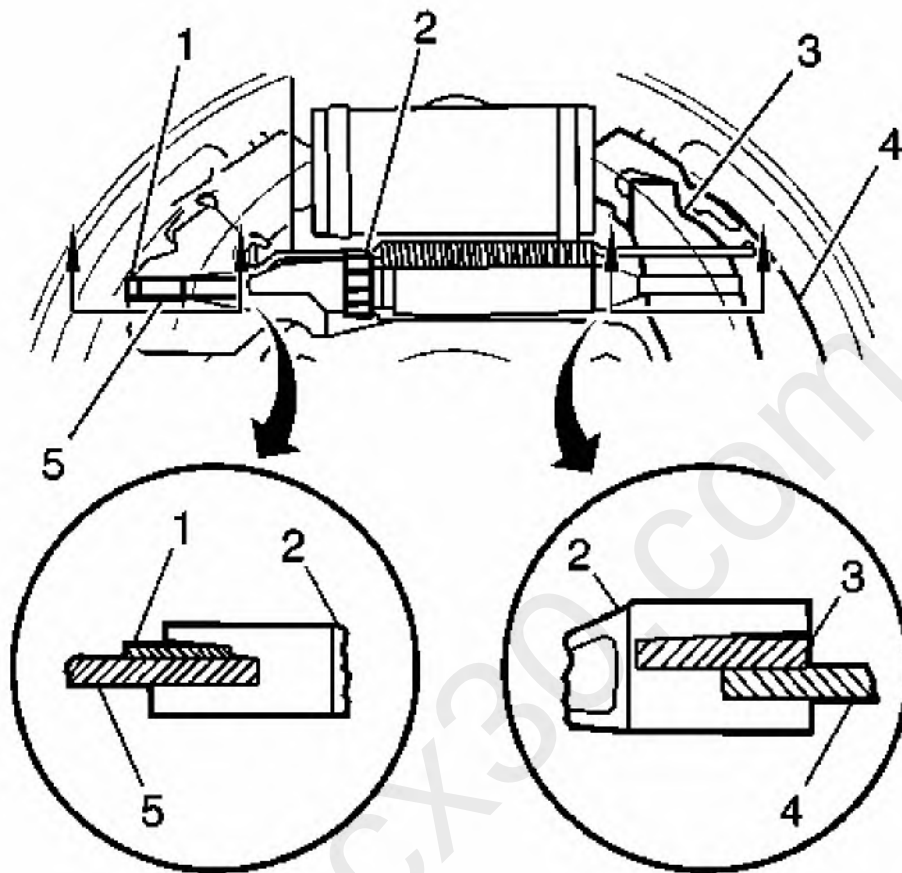


Fig. 22: Identifying Park Brake Adjuster Actuator Components
Courtesy of GENERAL MOTORS CORP.

3. Install the adjuster spring (2) to the brake shoe.

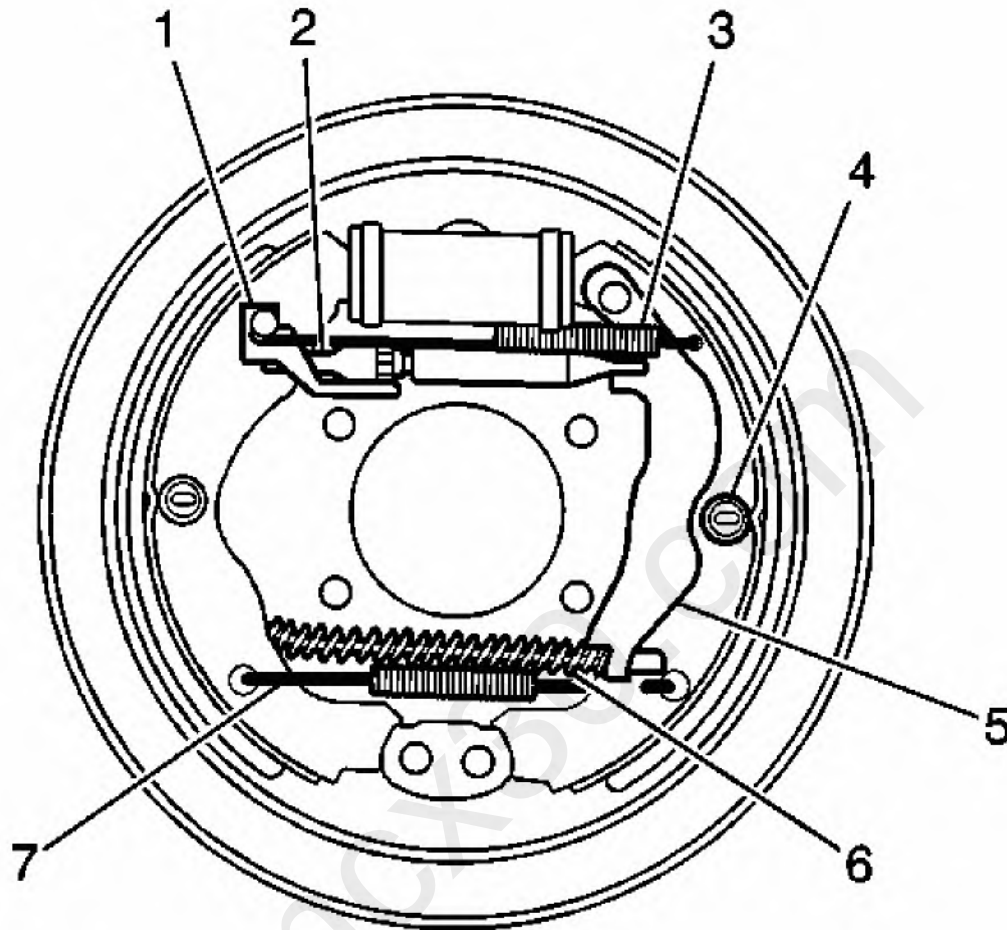


Fig. 23: View Of Brake Components
Courtesy of GENERAL MOTORS CORP.

4. Install the adjuster spring hook end to the tab on the adjuster actuator (1).
5. Install the return spring (7) to the brake shoes.
6. Adjust the brake shoes. Refer to **Drum Brake Adjustment**.
7. Check for proper park brake cable Adjustment. Refer to **Park Brake Adjustment** in Park Brake.
8. Install the brake drum. Refer to **Brake Drum Replacement**.
9. Lower the vehicle.

DRUM BRAKE ADJUSTING HARDWARE REPLACEMENT

Tools Required

J 38400 Brake Shoe Spanner and Spring Remover. See **Special Tools**.

Removal Procedure

CAUTION: Refer to **Brake Dust Caution** in Cautions and Notices.

1. Remove the brake drum. Refer to **Brake Drum Replacement**.

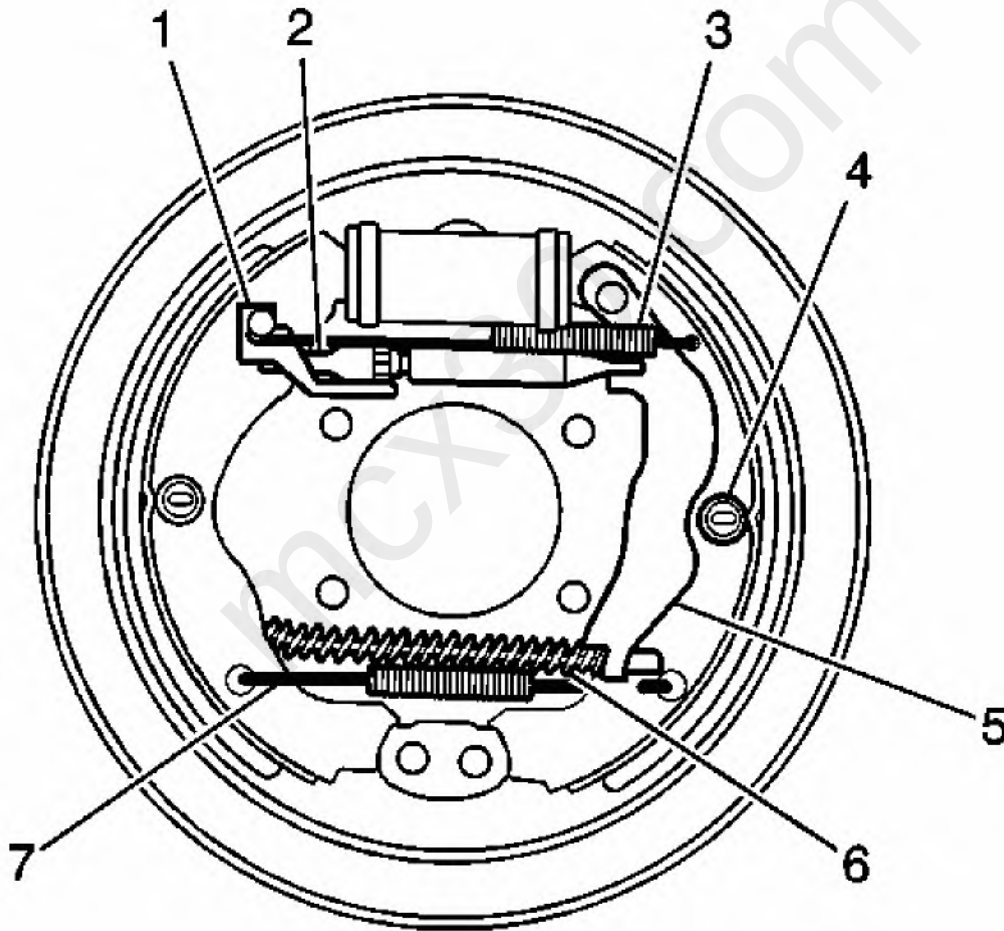


Fig. 24: View Of Brake Components
Courtesy of GENERAL MOTORS CORP.

2. Remove the adjuster spring (3). Disengage the adjuster spring hook end from the tab on the adjuster actuator (1).

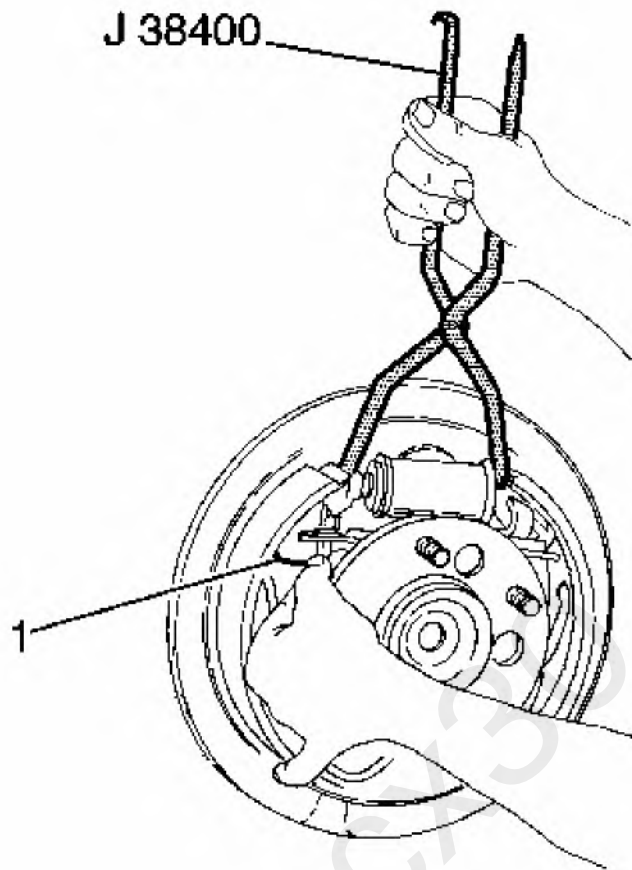


Fig. 25: Spreading Brake Shoes Apart
Courtesy of GENERAL MOTORS CORP.

3. Use the **J 38400** in order to spread the brake shoes (1) apart. See **Special Tools**.
4. Remove the adjuster.

Installation Procedure

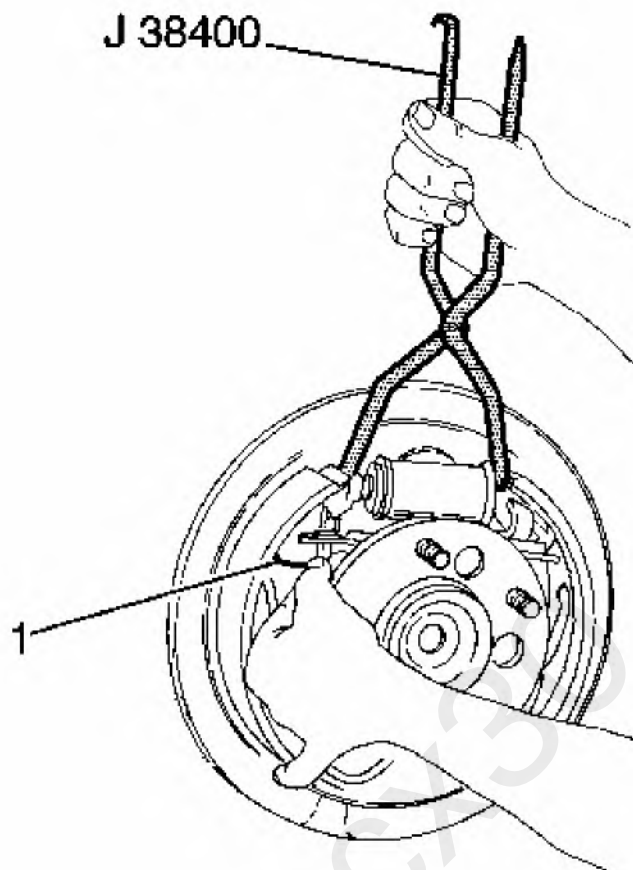


Fig. 26: Spreading Brake Shoes Apart
Courtesy of GENERAL MOTORS CORP.

1. Use the **J 38400** in order to spread the brake shoes (1) apart. See **Special Tools**.

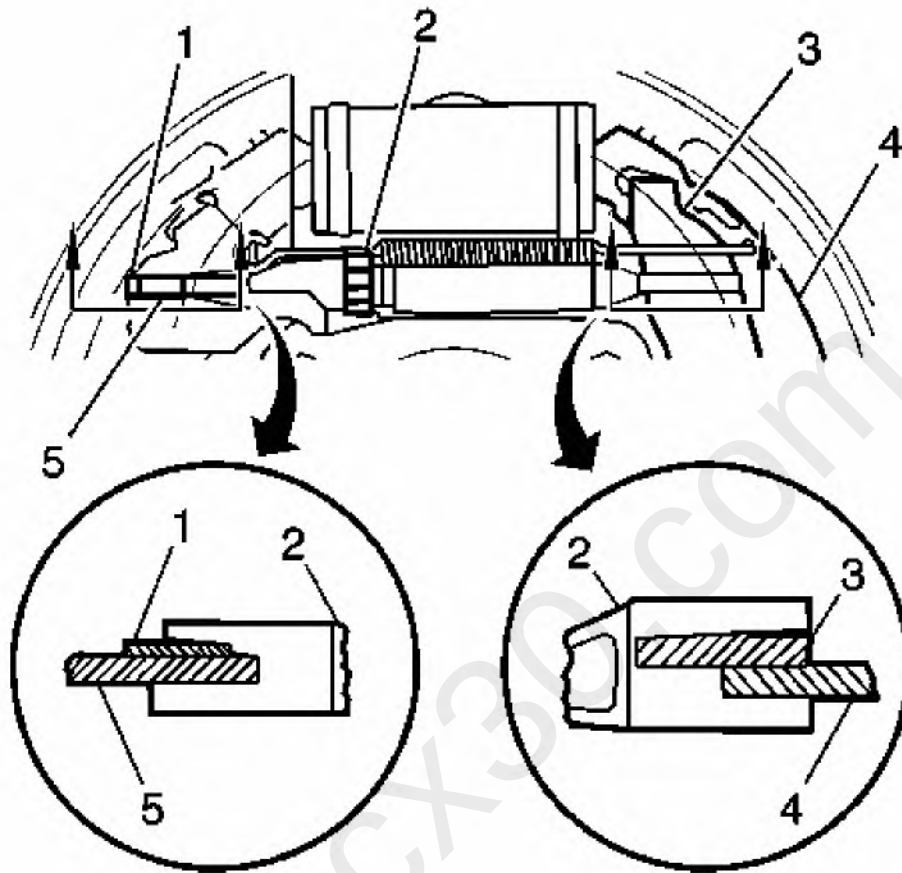


Fig. 27: Identifying Park Brake Adjuster Actuator Components
Courtesy of GENERAL MOTORS CORP.

IMPORTANT: Ensure that the adjuster (2) engages the brake shoes (4 and 5), the park brake actuator (3), and the adjuster actuator (1) properly.

2. Install the adjuster.

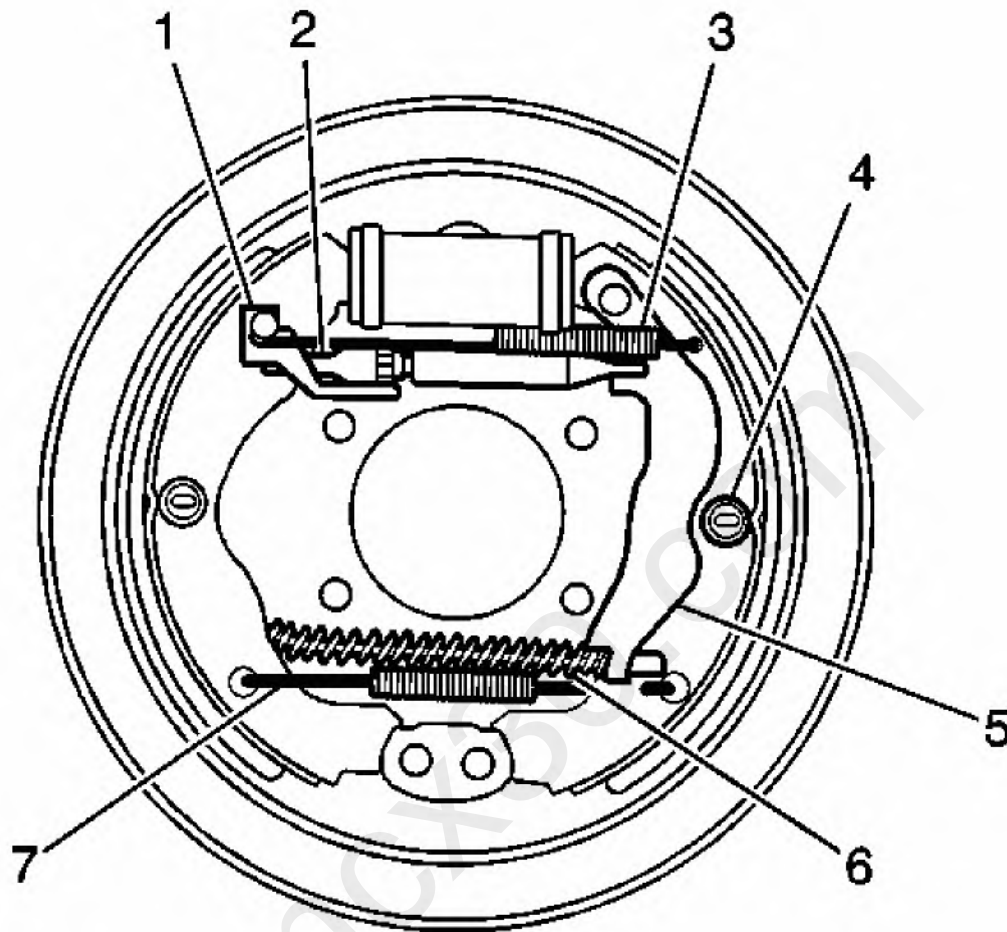


Fig. 28: View Of Brake Components
Courtesy of GENERAL MOTORS CORP.

3. Install the adjuster spring (3).
 1. Install the straight end of the adjuster spring into the brake shoe.
 2. Install the hook end of the adjuster spring to the adjuster actuator (1).
4. Adjust the brake shoes. Refer to **Drum Brake Adjustment**.
5. Install the brake drum. Refer to **Brake Drum Replacement**.
6. Lower the vehicle.

WHEEL CYLINDER REPLACEMENT

Tools Required

J 38400 Brake Shoe Spanner and Spring Remover. See **Special Tools**.

Removal Procedure

CAUTION: Refer to Brake Fluid Irritant Caution in Cautions and Notices.

NOTE: Refer to Brake Fluid Effects on Paint and Electrical Components Notice in Cautions and Notices.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle in General Information.
2. Remove the tire and wheel. Refer to Tire and Wheel Removal and Installation in Tires and Wheels.
3. Clean all dirt and foreign material from the wheel cylinder brake pipe fitting and the bleeder valve.

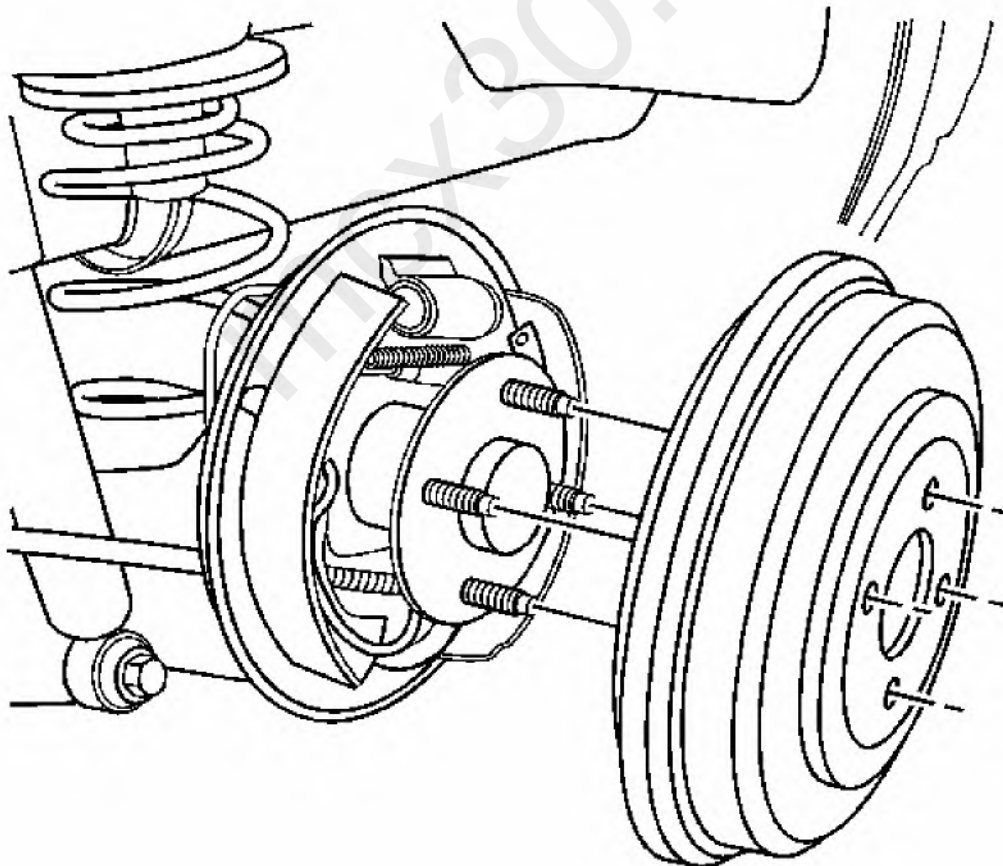


Fig. 29: View Of Brake Drum

Courtesy of GENERAL MOTORS CORP.

4. Remove the brake drum. Refer to **Brake Drum Replacement**.
5. Remove the brake pipe nut.
6. Install a cap over the end of the brake pipe in order to prevent brake fluid loss and/or brake fluid contamination.

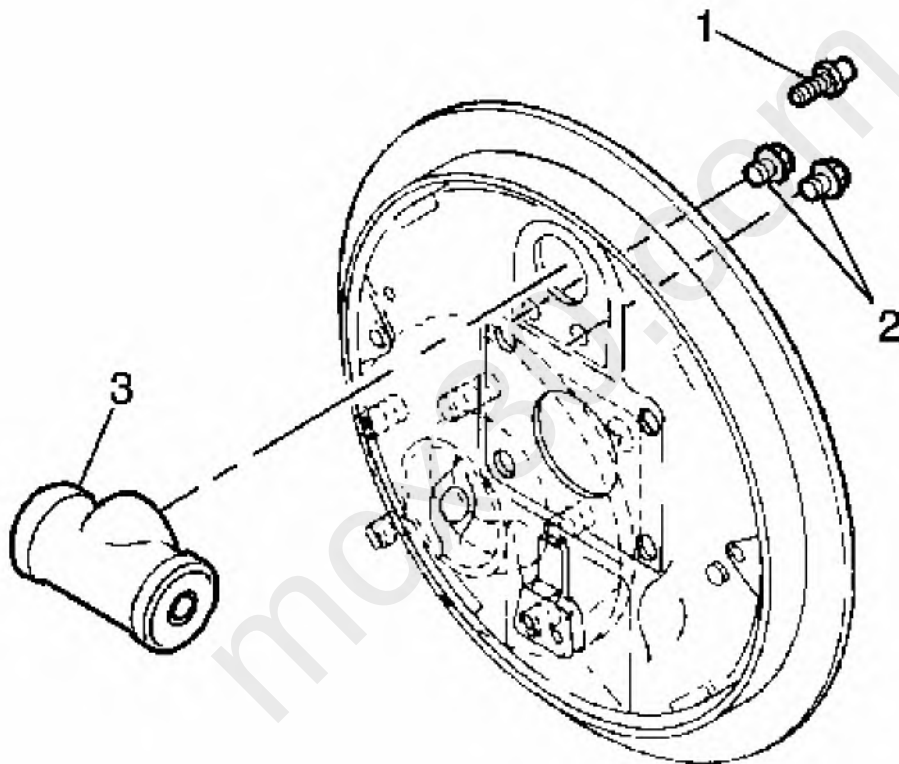


Fig. 30: Removing/Installing Wheel Cylinder
Courtesy of GENERAL MOTORS CORP.

7. Remove the wheel cylinder bolts (2).

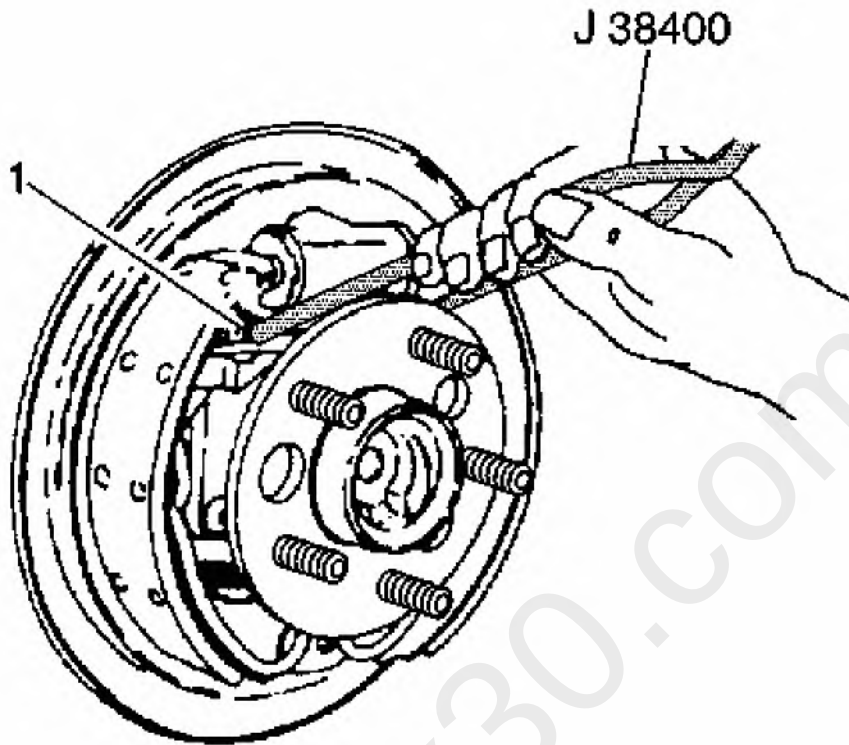


Fig. 31: Using J 38400 To Spread The Brake Shoes Apart
Courtesy of GENERAL MOTORS CORP.

8. Use the **J 38400** in order to spread the brake shoes apart (1). See **Special Tools**.
9. Remove the wheel cylinder.
10. Clean the old sealant from the backing plate where the wheel cylinder was installed.
Clean the sealant from the wheel cylinder if you are reusing the wheel cylinder.

Installation Procedure

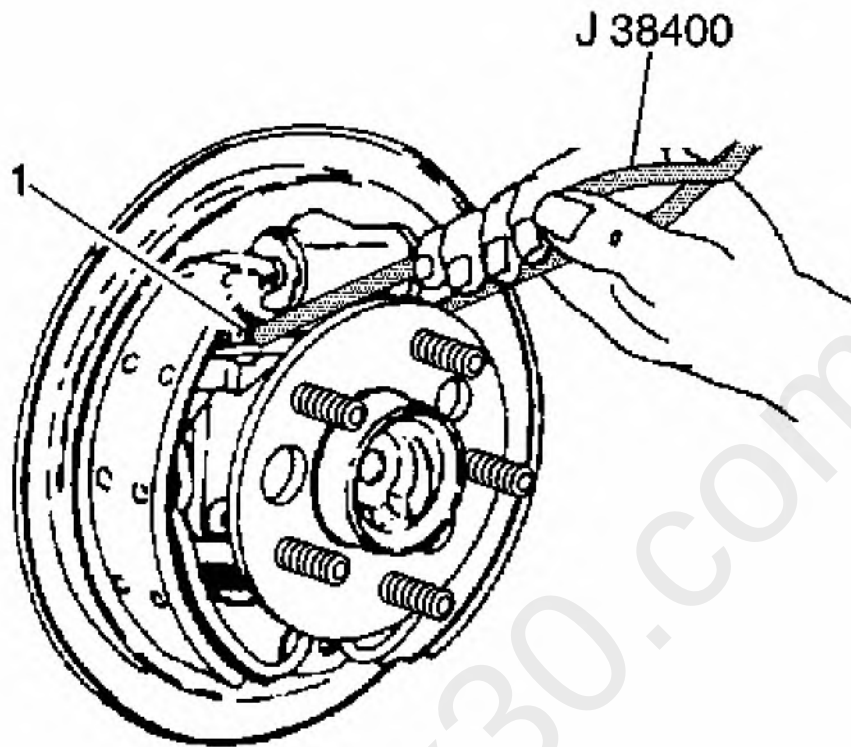


Fig. 32: Using J 38400 To Spread The Brake Shoes Apart
Courtesy of GENERAL MOTORS CORP.

1. Use the **J 38400** in order to spread the brake shoes apart (1). See **Special Tools**.

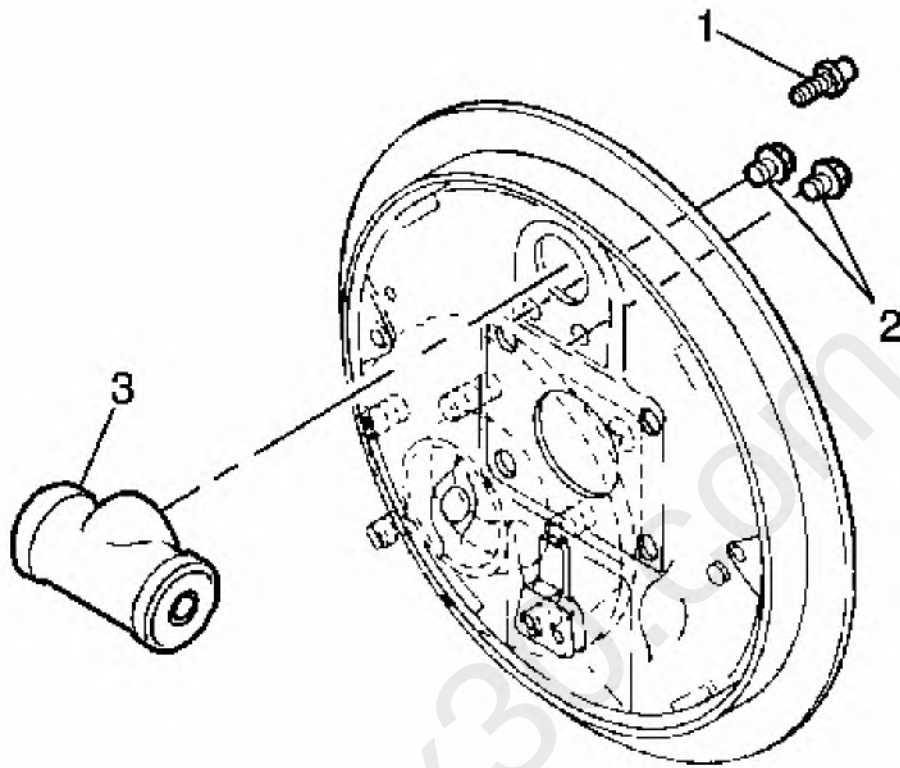


Fig. 33: Removing/Installing Wheel Cylinder
Courtesy of GENERAL MOTORS CORP.

2. Install the wheel cylinder.

NOTE: Refer to Fastener Notice in Cautions and Notices.

3. Install the wheel cylinder bolts (2).

Tighten: Tighten the bolts to 15 N.m (11 lb ft).

4. Remove the cap from the brake pipe and install the brake pipe to the wheel cylinder.

Tighten: Tighten the nut to 19 N.m (14 lb ft).

5. Install the brake drum. Refer to **Brake Drum Replacement**.
6. Bleed the hydraulic brake system at the wheel cylinder. Refer to **Hydraulic Brake System Bleeding (Manual)** or **Hydraulic Brake System Bleeding (Pressure)** in

Hydraulic Brakes.

7. Install the tire and wheel. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
8. Lower the vehicle.

DRUM BRAKE ADJUSTMENT

Tools Required

J 21177-A Drum-to-Brake Shoe Clearance Gage. See **Special Tools**.

CAUTION: Refer to **Brake Dust Caution** in Cautions and Notices.

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
2. Remove the rear wheels and tires. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
3. Relieve cable tension from the park brake system at the equalizer. There should be no tension on the park brake cables, so that the brake shoes are positioned only by the adjuster strut.

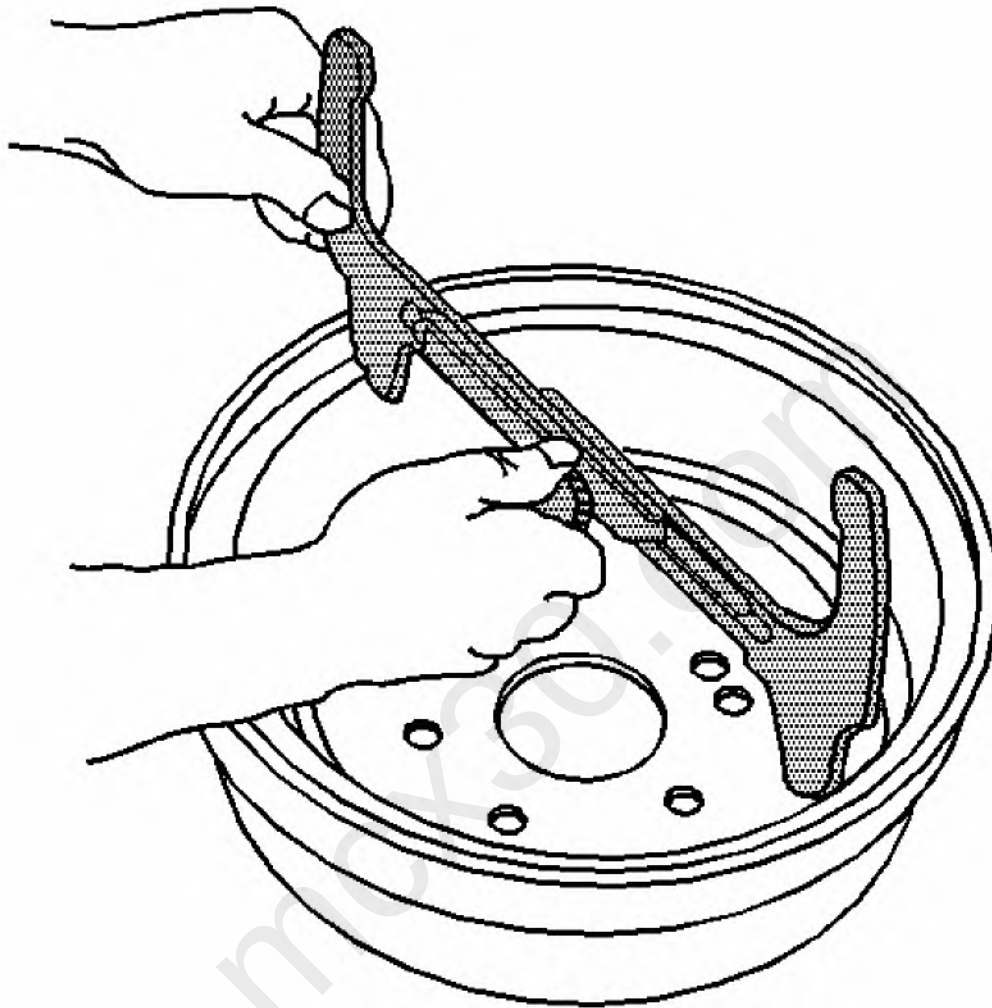


Fig. 34: Setting J 21177-A To Widest Inside Diameter Of Drum
Courtesy of GENERAL MOTORS CORP.

4. Remove the rear drums. Refer to **Brake Drum Replacement**.
5. Set the **J 21177-A** so that the **J 21177-A** contacts the inside diameter of the drum at the widest point. See **Special Tools**.

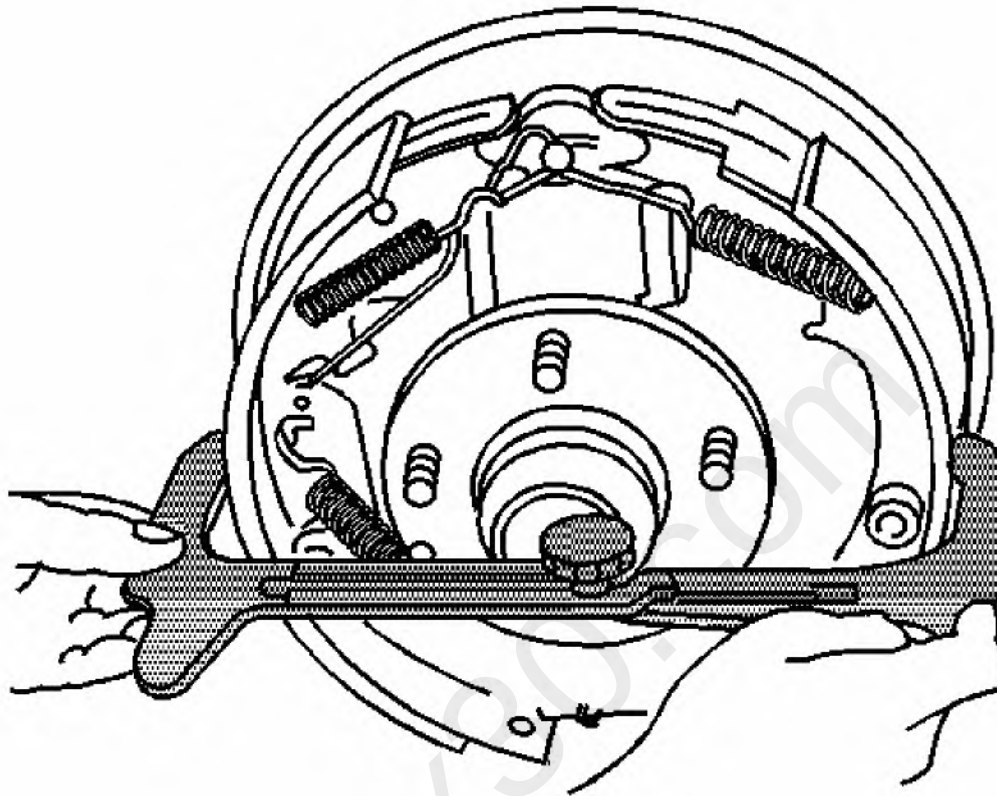


Fig. 35: Setting J 21177-A To Widest Point Of Parking Shoes
Courtesy of GENERAL MOTORS CORP.

6. Position the **J 21177-A** over the shoes at the widest point. See **Special Tools**.
7. Turn the adjuster nut until the shoes just contact the **J 21177-A** . See **Special Tools**.
8. Repeat steps 2-7 for the other rear brake assembly.
9. Install the rear drums. Refer to **Brake Drum Replacement**.
10. Install the rear wheels and tires. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
11. Adjust the park brake cable system. Refer to **Park Brake Adjustment** in Park Brake.
12. Lower the vehicle.

DESCRIPTION AND OPERATION

DRUM BRAKE SYSTEM DESCRIPTION AND OPERATION

System Component Description

The drum brake system consists of the following:

Drum Brake Shoes

Applies mechanical output force, from hydraulic brake wheel cylinders, to friction surface of brake drums.

Brake Drums

Uses mechanical output force applied to friction surface from drum brake shoes to slow speed of tire and wheel assembly rotation.

Drum Brake Hardware

Secures drum brake shoes firmly in proper relationship to hydraulic brake wheel cylinders. Enables sliding motion of brake shoes needed to expand toward friction surface of drums when mechanical output force is applied. Provides return of brake shoes when mechanical output force is relieved.

Drum Brake Adjusting Hardware

Provides automatic adjustment of brake shoes to brake drum friction surface whenever brake apply occurs.

System Operation

Mechanical output force is applied from the hydraulic brake wheel cylinder pistons to the top of the drum brake shoes. The output force is then distributed between the primary and secondary brake shoes as the shoes expand toward the friction surface of the brake drums. The brake shoes apply the output force to the friction surface of the brake drums, which slows the rotation of the tire and wheel assemblies. The proper function of both the drum brake hardware and adjusting hardware is essential to the proper distribution of braking force.

SPECIAL TOOLS AND EQUIPMENT

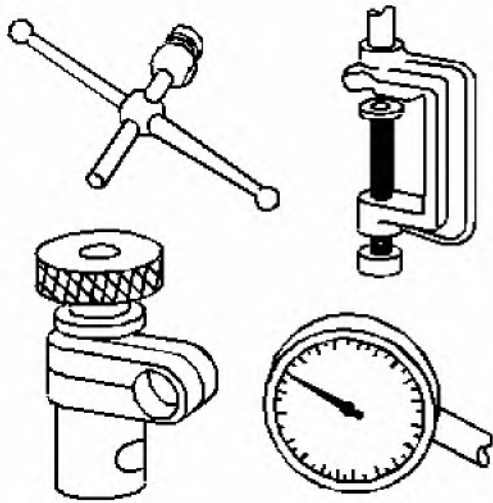
SPECIAL TOOLS

Special Tools

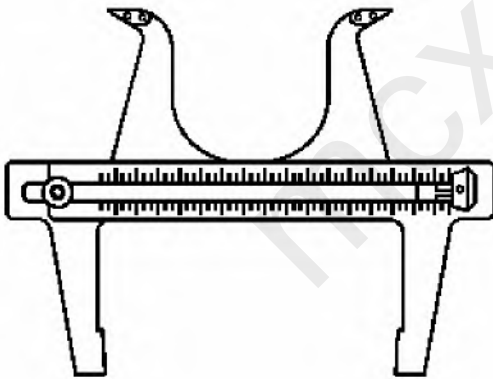
Illustration	Tool Number/ Description

2006 Chevrolet Equinox LS

2006 BRAKES Drum Brakes - Equinox & Torrent



J 8001
Dial Indicator Set

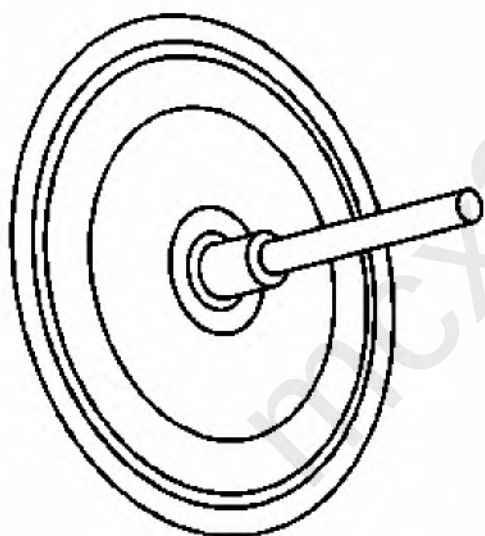
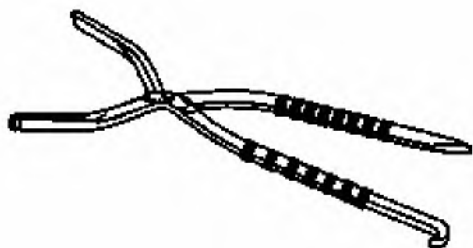


J 21177-A
Drum to Brake Shoe Clearance Gage

J 38400
Brake Shoe Spanner and Spring
Remover

2006 Chevrolet Equinox LS

2006 BRAKES Drum Brakes - Equinox & Torrent

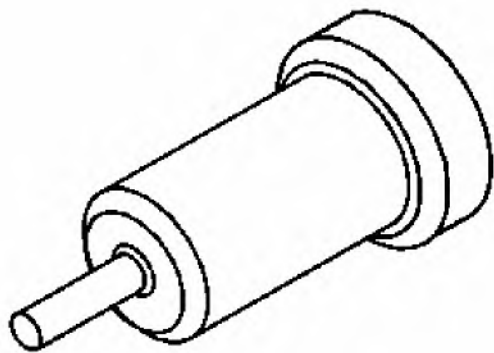


J 41013
Rotor Resurfacing Kit

J 42450-A
Wheel Hub Resurfacing Kit

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