

2013 BRAKES

Drum Brakes - Cruze

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Fastener Tightening Specifications

Application	Specification	
	Metric	English
Brake Pipe Fittings	18 N.m	11 lb ft
Drum Brake Mounting Bolt	7 N.m	62 lb in
Wheel Cylinder Mounting Bolts	10 N.m	89 lb ft

DRUM BRAKE COMPONENT SPECIFICATIONS

Drum Brake Component Specifications

Application	Specification	
	Metric	English
Brake Drum Discard Diameter	256 mm	10.078 in
Brake Drum Diameter- New	254 mm	10 in
Brake Drum Maximum Allowable Radial Runout	0.05 mm	0.002 in
Brake Drum Maximum Allowable Scoring	1 mm	0.039 in
Brake Drum Maximum Diameter After Refinish	256 mm	10.078 in
Brake Shoe Lining Minimum Thickness	1.6 mm	0.063 in
Brake Shoe Lining-to-Drum Clearance	0.4-0.9 mm	0.016-0.035 in
Brake Shoe Lining Thickness- New	5.0 mm	0.197 in

ADHESIVES, FLUIDS, LUBRICANTS, AND SEALERS

Adhesives, Fluids, Lubricants, and Sealers

Application	Type of Material	GM Part Number
Rear Backing Plate	Lubricant	Refer to Electronic Parts Catalog

COMPONENT LOCATOR

REAR DRUM BRAKES COMPONENT VIEWS

2013 Chevrolet Cruze

2013 BRAKES Drum Brakes - Cruze

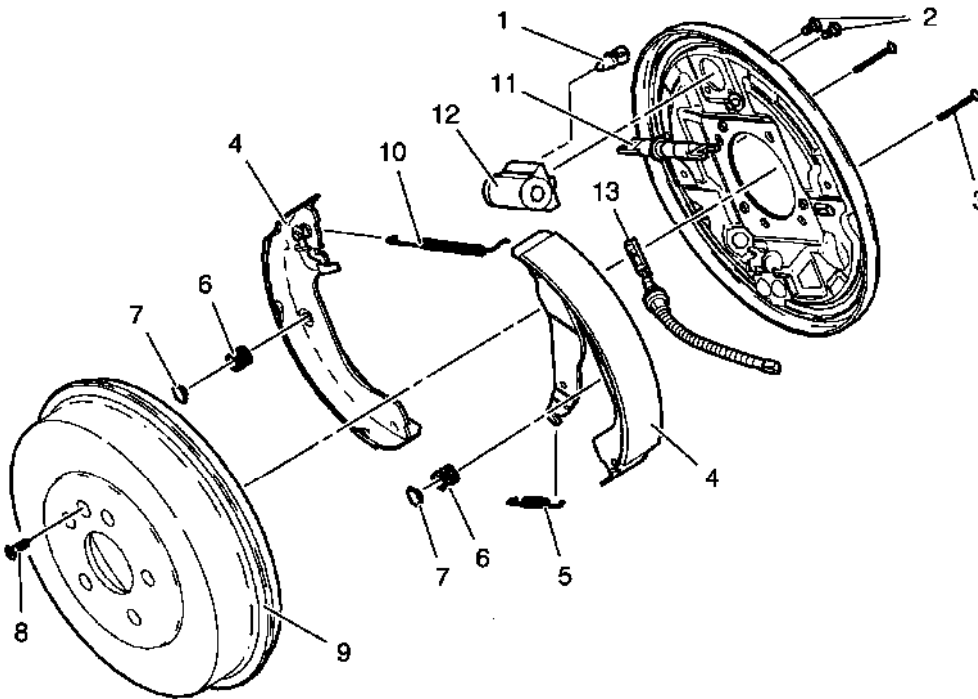


Fig. 1: Exploded View Of Brake Drum Assembly
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Wheel Cylinder Bleeder Valve
2	Wheel Cylinder Mounting Bolts
3	Hold Down Spring Pins
4	Brake Shoes
5	Brake Shoe Return Spring
6	Brake Shoe Hold Down Springs
7	Brake Shoe Hold Down Spring Caps
8	Brake Drum Mounting Bolt
9	Brake Drum
10	Adjuster Spring
11	Adjuster Assembly
12	Wheel Cylinder
13	Parking Brake Cable

DIAGNOSTIC INFORMATION AND PROCEDURES

BRAKE DRUM DIAMETER MEASUREMENT

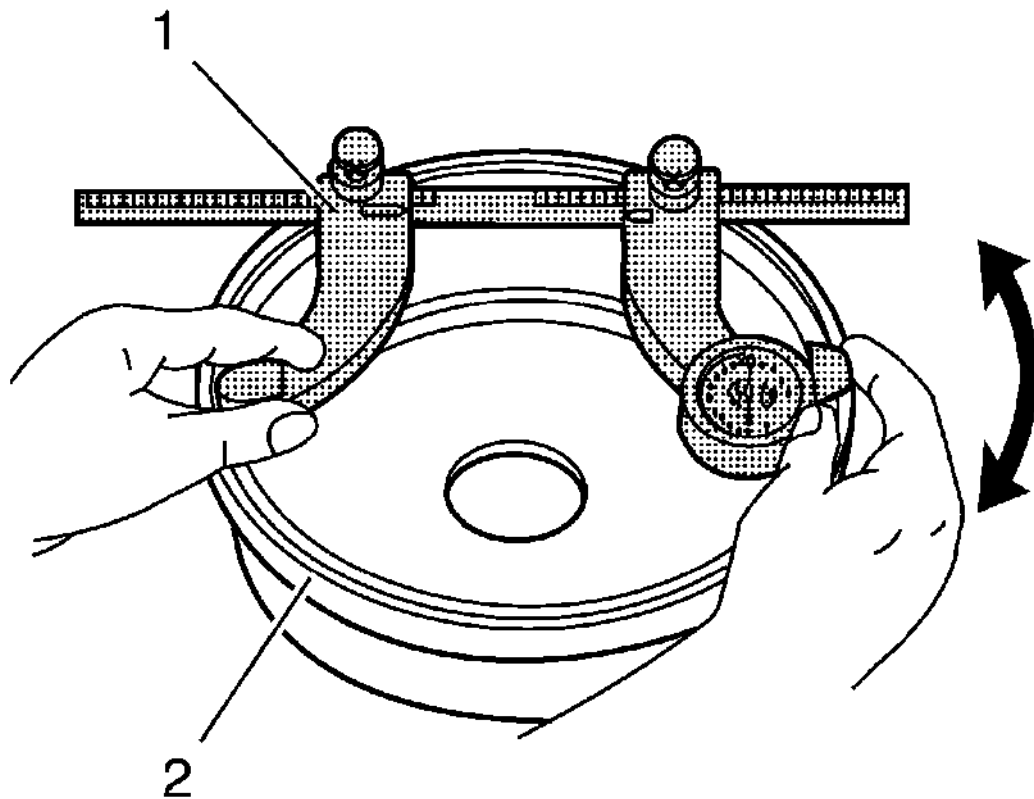


Fig. 2: Measuring Brake Drum Diameter
Courtesy of GENERAL MOTORS COMPANY

WARNING: Refer to Brake Dust Warning .

1. Remove brake drum. Refer to Brake Drum Replacement
2. Clean the brake shoe lining contact surface of the brake drum (2) with denatured alcohol or an equivalent approved brake cleaner.
3. Using a brake drum micrometer (1) calibrated in thousandths-of-an-inch, measure and record the largest diameter of the brake drum at four 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.

4. Compare the largest diameter measurement recorded to the brake drum component specifications. Refer

to **Drum Brake Component Specifications**.

5. 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.
6. If the largest diameter measurement of the brake drum is equal to or greater than the maximum allowable diameter after refinishing specification; the drum may not be refinished.
7. If the largest diameter measurement of the brake drum is equal to or greater than the discard diameter specification; the drum requires replacement.
8. Install brake drum. Refer to **Brake Drum Replacement**.

BRAKE DRUM SURFACE AND WEAR INSPECTION

Special Tools

GE 572 Dial Indicator

For equivalent regional tools, refer to **Special Tools**.

WARNING: Refer to Brake Dust Warning .

1. Remove brake drum. Refer to **Brake Drum Replacement**.
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
- If the braking surface of the brake drum exhibits one or more of the Braking Surface Conditions listed, the drum requires refinishing or replacement. Refer to **Brake Drum Replacement**, or **Rear Brake Drum Refinishing**.

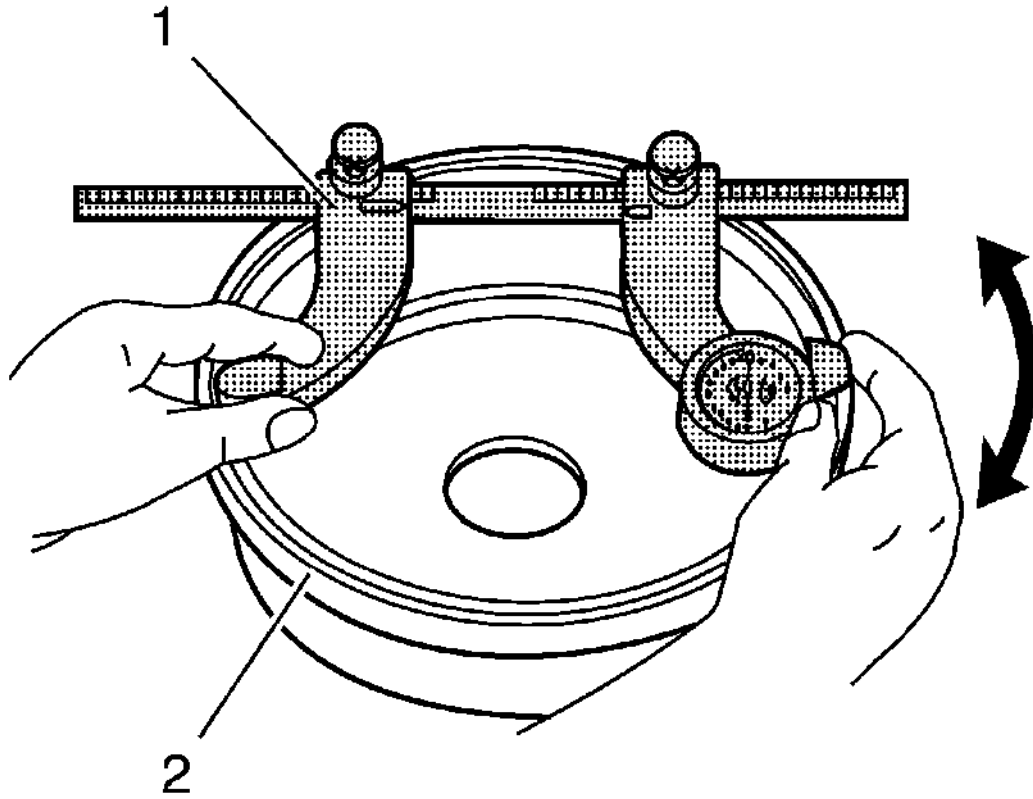


Fig. 3: Measuring Brake Drum Diameter
Courtesy of GENERAL MOTORS COMPANY

3. Using a brake drum micrometer (1) 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.

4. Compare the groove, or scoring depth recorded to brake drum component specification. Refer to **Drum Brake Component Specifications**.
5. If the brake drum scoring depth exceeds the specification, or if an excessive amount of scoring is present, the drum requires refinishing or replacement. Refer to **Brake Drum Replacement**, or **Rear Brake Drum Refinishing**.
6. Mount the brake drum on a brake lathe.

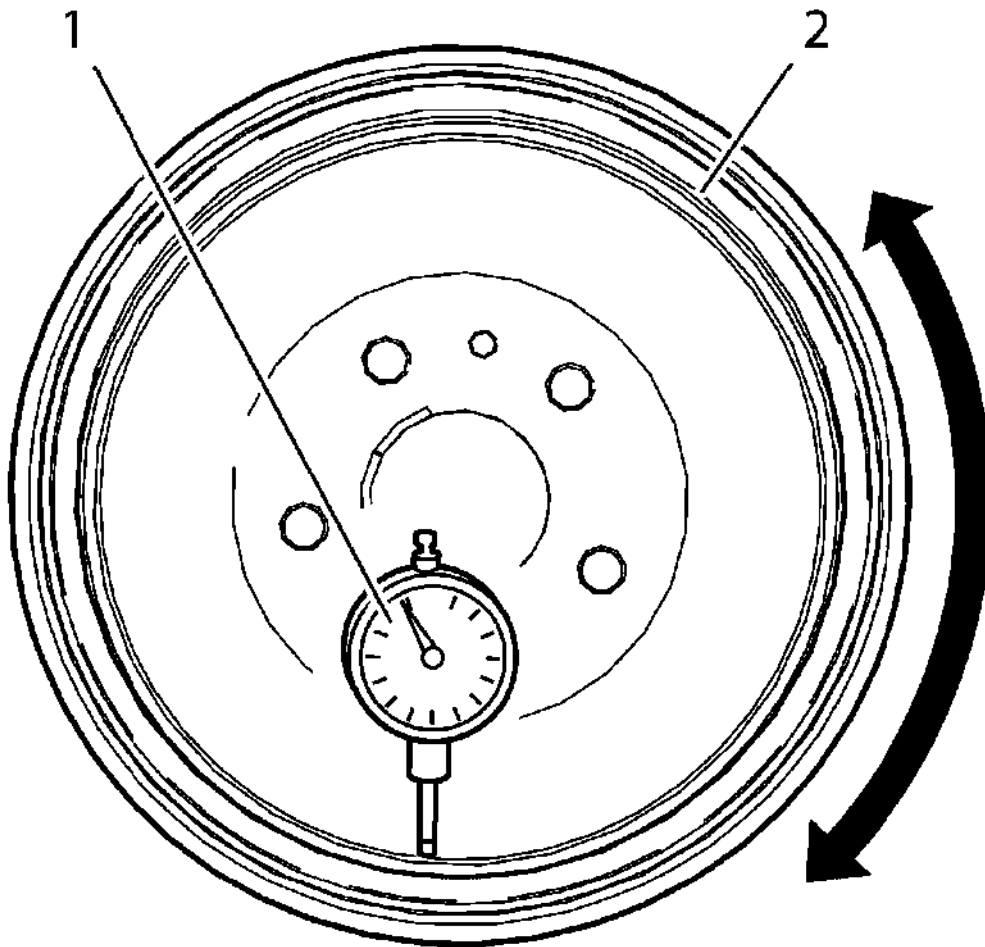


Fig. 4: Measuring Brake Drum Radial Runout

Courtesy of GENERAL MOTORS COMPANY

7. Mount a dial indicator, **GE 572** dial indicator (1) or equivalent, and position the indicator button so it contacts the braking surface of the brake drum (2) at a 90 degree angle, approximately 19 mm (0.75 in) from the outer edge of the drum.
8. 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.
 3. Compare the radial runout of the brake drum to the brake drum component specifications. Refer to **Drum Brake Component Specifications**.
 4. If the brake drum radial runout exceeds the specification, the drum requires refinishing or replacement. Refer to **Brake Drum Replacement**, or **Rear Brake Drum Refinishing**.

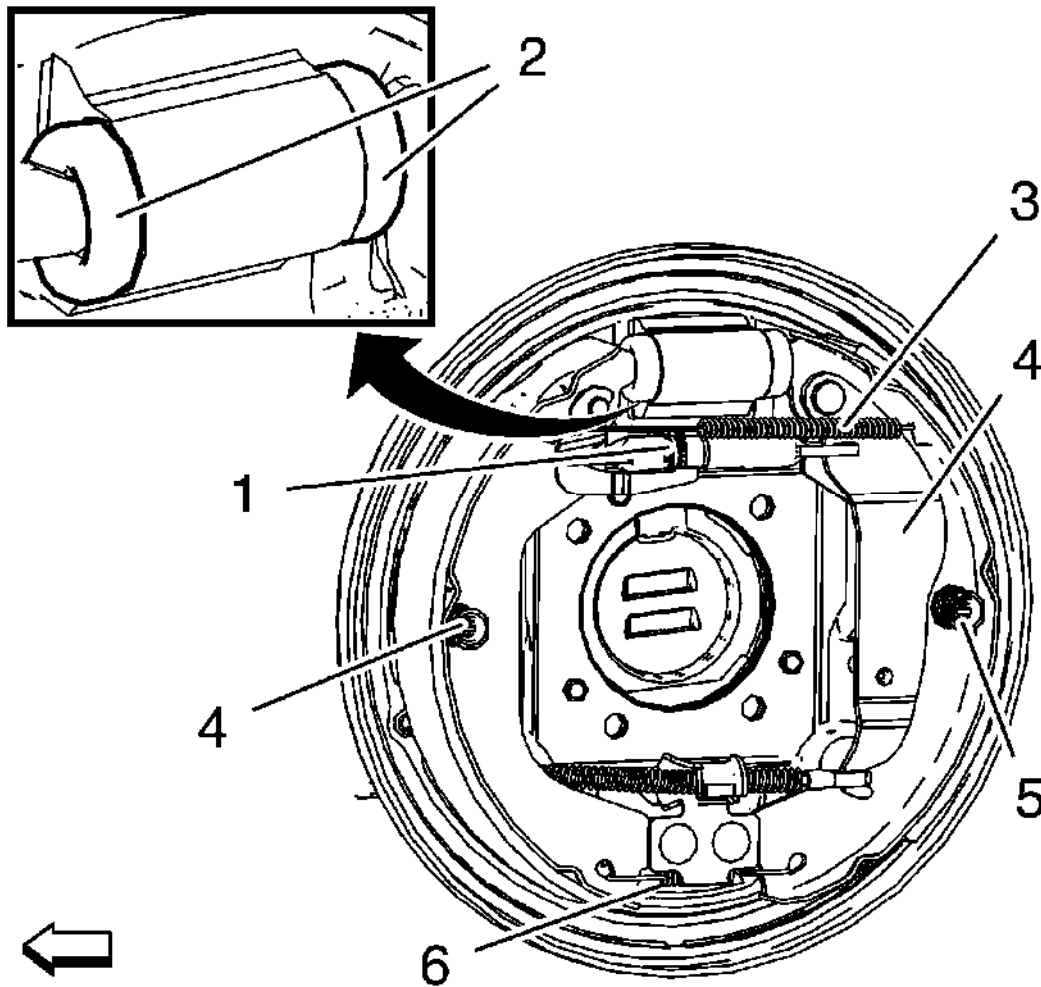


Fig. 5: Identifying Drim Brake Hardware
Courtesy of GENERAL MOTORS COMPANY

WARNING: Refer to Brake Dust Warning .

1. Visually inspect the drum brake system brake shoe springs (3) for the following conditions:
 - The brake shoe springs (3) being bent, damaged, or broken at any point along the spring
 - Excessive corrosion of brake drum components
 - Excessive stretching, twisting, or binding of brake drum components
 - Damages or leakage to the wheel cylinder boots (2)
2. If any of the conditions listed were found the brake shoe springs and/or the wheel cylinder require replacement. Refer to Brake Shoe Replacement, and/or Rear Brake Cylinder Replacement.

DRUM BRAKE ADJUSTING HARDWARE INSPECTION

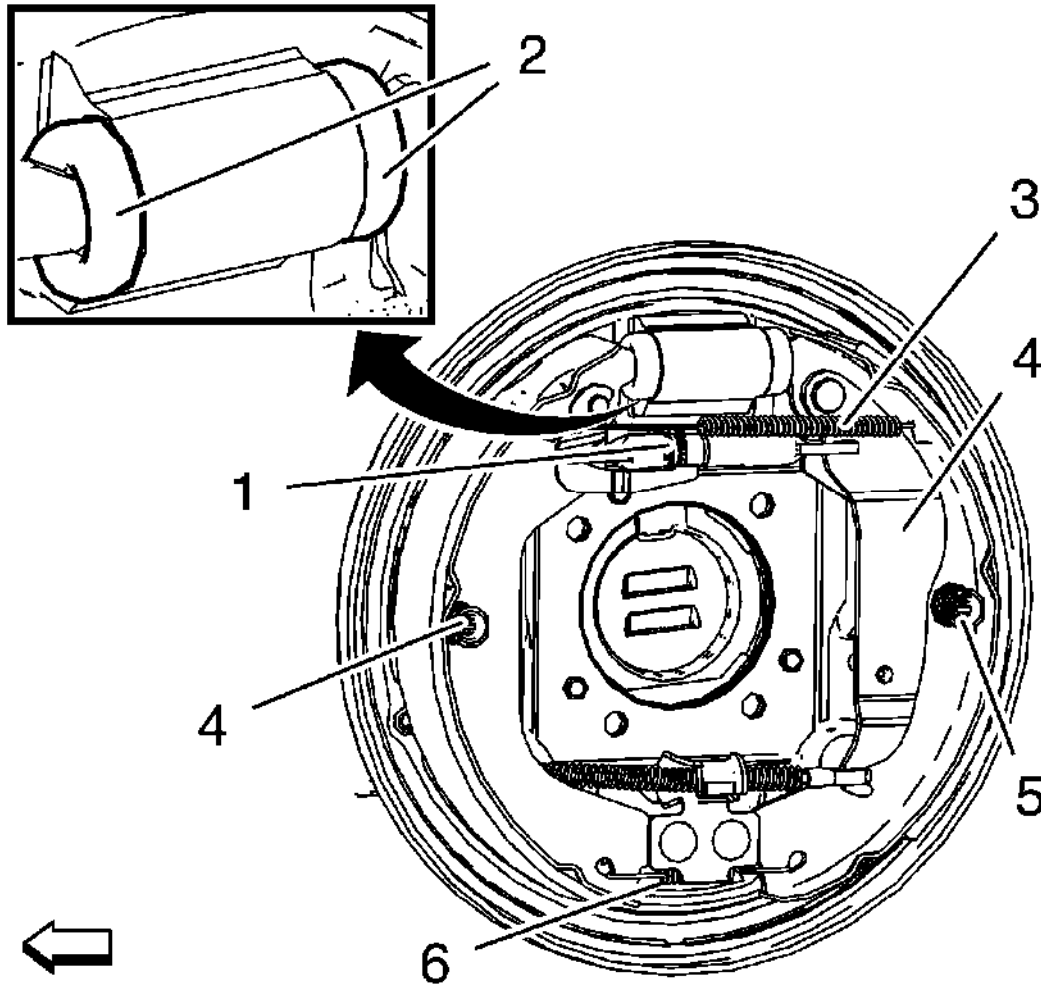


Fig. 6: Identifying Drim Brake Hardware
Courtesy of GENERAL MOTORS COMPANY

WARNING: Refer to Brake Dust Warning .

1. Visually inspect the adjuster actuator spring (3) for the following conditions:
 - The spring being bent, or broken at any point along the spring
 - Excessive corrosion
 - Missing
2. Visually inspect the adjuster assembly (1) for the following conditions:
 - The adjuster being bent, or broken
 - Excessively worn, damaged, or missing teeth
3. Visually inspect the adjuster actuator lever for the following conditions:
 - The lever being bent, or broken

- The lever to adjuster surface being excessively worn
 - Broken spring attachment tab
 - Missing
4. If any of the conditions listed were found, the affected part, or parts require replacement. Refer to **Drum Brake Hardware Replacement**.

REPAIR INSTRUCTIONS

BRAKE SHOE INSPECTION

Special Tools

CH 230 Disc Gauge

For equivalent regional tools, refer to **Special Tools**.

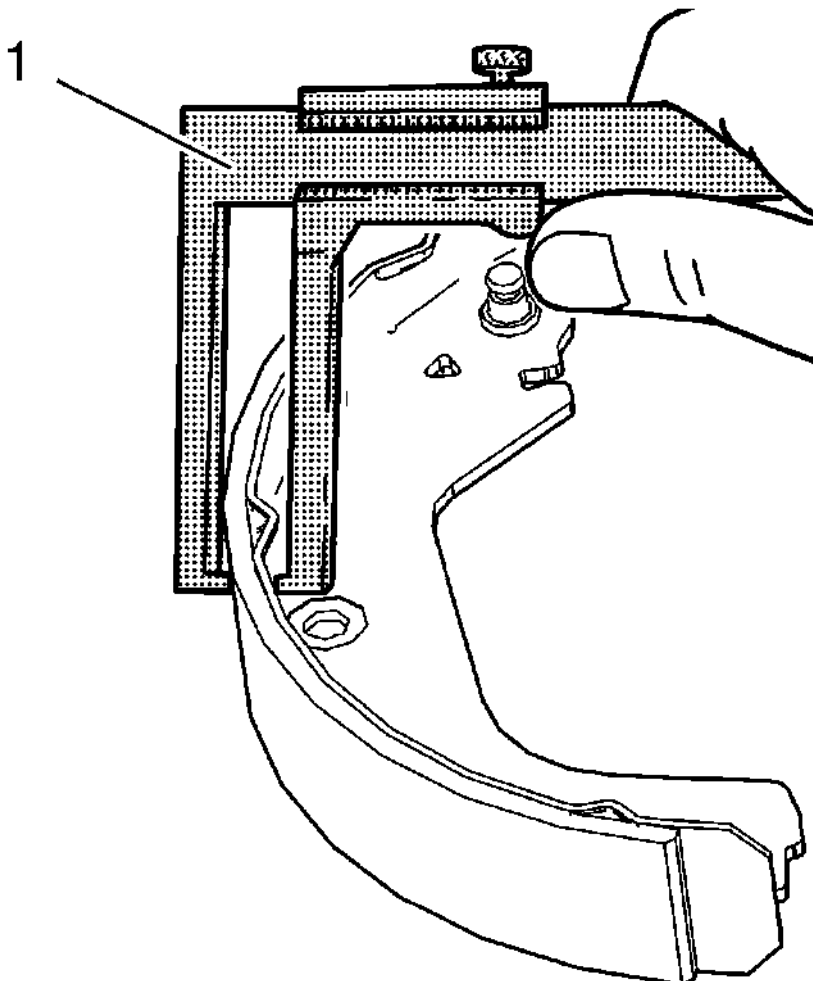


Fig. 7: Measuring Brake Shoe Thickness**Courtesy of GENERAL MOTORS COMPANY****WARNING: Refer to Brake Dust Warning .**

1. Measure the brake shoe lining thickness, using the **CH 230** gauge (1).
2. Compare the brake shoe lining thickness recorded to the brake drum component specification. Refer to **Drum Brake Component Specifications**.

NOTE: Replace the shoe and lining assembly in axle sets only.

3. If the brake shoe lining thickness is less than the specification, or if a defect is found, replace the linings. Refer to **Brake Shoe Replacement**.

BRAKE DRUM REPLACEMENT**Special Tools**

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

For equivalent regional tools, refer to **Special Tools**.

Removal Procedure**WARNING: Refer to Brake Dust Warning .**

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

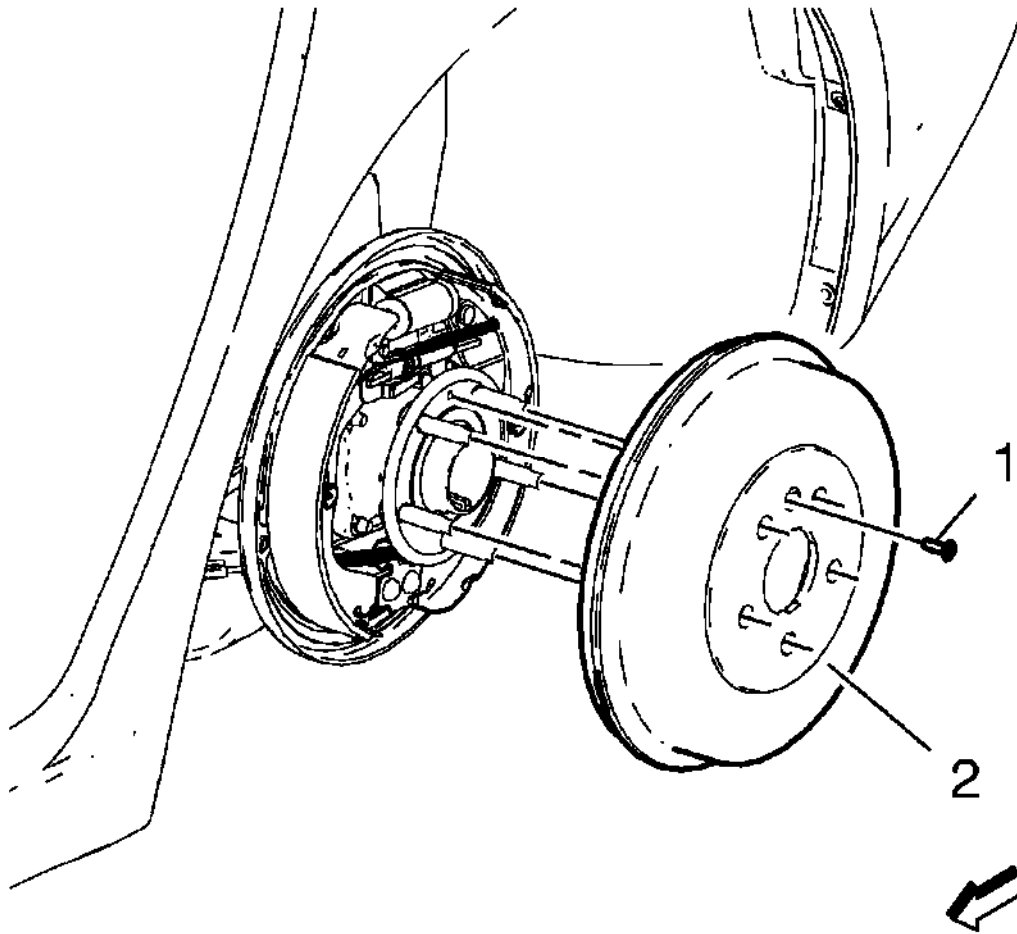


Fig. 8: Brake Drum And Brake Drum Retaining Screw
Courtesy of GENERAL MOTORS COMPANY

4. Remove the brake drum screw (1).
5. Remove the brake drum (2).
6. If the brake drum is to be reinstalled to the vehicle, use the **CH-41013** resurfacer or equivalent to clean any rust or corrosion from the hub/flange mating surface of the brake drum (2).
7. Use the **CH-42450-A** resurfacer or equivalent to clean the wheel hub flange.

Installation Procedure

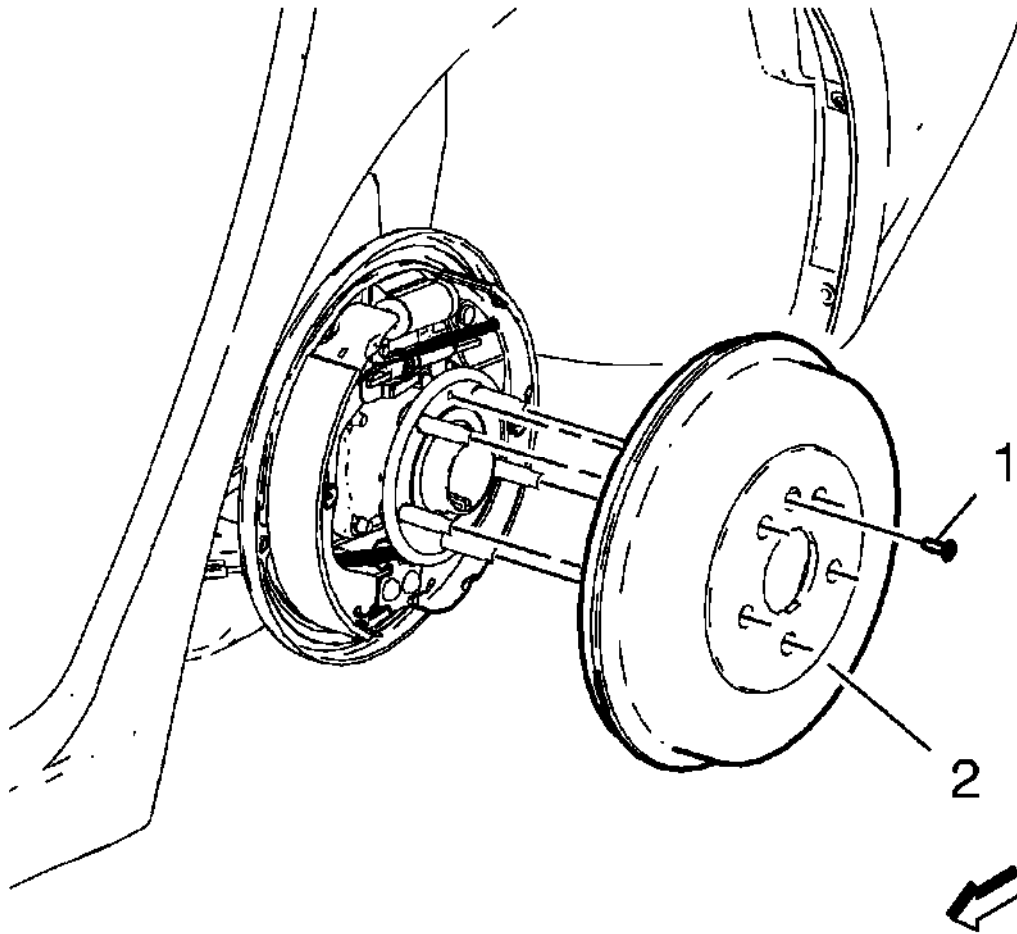


Fig. 9: Brake Drum And Brake Drum Retaining Screw
Courtesy of GENERAL MOTORS COMPANY

1. If installing a new brake drum (2), use denatured alcohol or an equivalent approved brake cleaner and a clean shop towel to remove the protective coating from the friction surface of the drum.
2. Adjust the drum brakes. Refer to **Drum Brake Adjustment**.
3. Install the drum brake.

CAUTION: Refer to **Fastener Caution** .

4. Install drum brake screw (1) and tighten to 7 N.m (62 lb in).
5. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** .
6. Lower the vehicle.
7. Apply the brakes approximately three times in order to seat and center the brake shoes within the drum.

REAR BRAKE DRUM REFINISHING

Special Tools

CH 41013 Resurfacing Kit

For equivalent regional tools, refer to Special Tools.

NOTE: Do NOT refinish the brake drums in order to correct any of the following complaints:

- Brake noise (growl/squeal)
- Premature brake lining wear
- Cosmetic or superficial corrosion of the drum braking surface
- Drum discoloration

Refinish the brake drums ONLY when one or more of the following conditions exist:

- Severe scoring of the drum braking surface (groove depth in excess of 1 mm (0.039 in))
 - Brake pulsation caused by the following:
 - Brake drum out of round
 - Corrosion or pitting that is deeper than the drum braking surface
1. Use a micrometer in order to measure the largest diameter of the brake drum. If the largest diameter of the brake drum exceeds the brake drum maximum refinish diameter, do NOT refinish the brake drum. Replace the brake drum.
 2. Use the **CH 41013** resurfacer in order to thoroughly clean the rust from the brake drum flange.
 3. Refinish the brake drum. Refer to the brake lathe manufacturer's operating instructions.

NOTE: Failure to obtain the best possible braking surface finish may cause the vehicle to stop with difficulty.

4. After machining the brake drum, use 120 grit aluminum oxide sandpaper in order to create a non-directional braking surface.

CAUTION: Improperly tightened wheel bolts or nuts can lead to brake pulsation and rotor damage. In order to avoid expensive brake repairs, evenly tighten the wheel bolts or nuts to the proper torque specification.

5. Clean the braking surfaces with denatured alcohol or with a suitable brake cleaner.

BRAKE SHOE REPLACEMENT

2013 Chevrolet Cruze
2013 BRAKES Drum Brakes - Cruze

Special Tools

CH 346 Mounting Tool

For equivalent regional tool, refer to **Special Tools**.

Removal Procedure

WARNING: Refer to **Brake Dust Warning** .

NOTE: Always replace brake shoes in axle sets.

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** .
2. Remove the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** .
3. Remove the brake drum. Refer to **Brake Drum Replacement**.

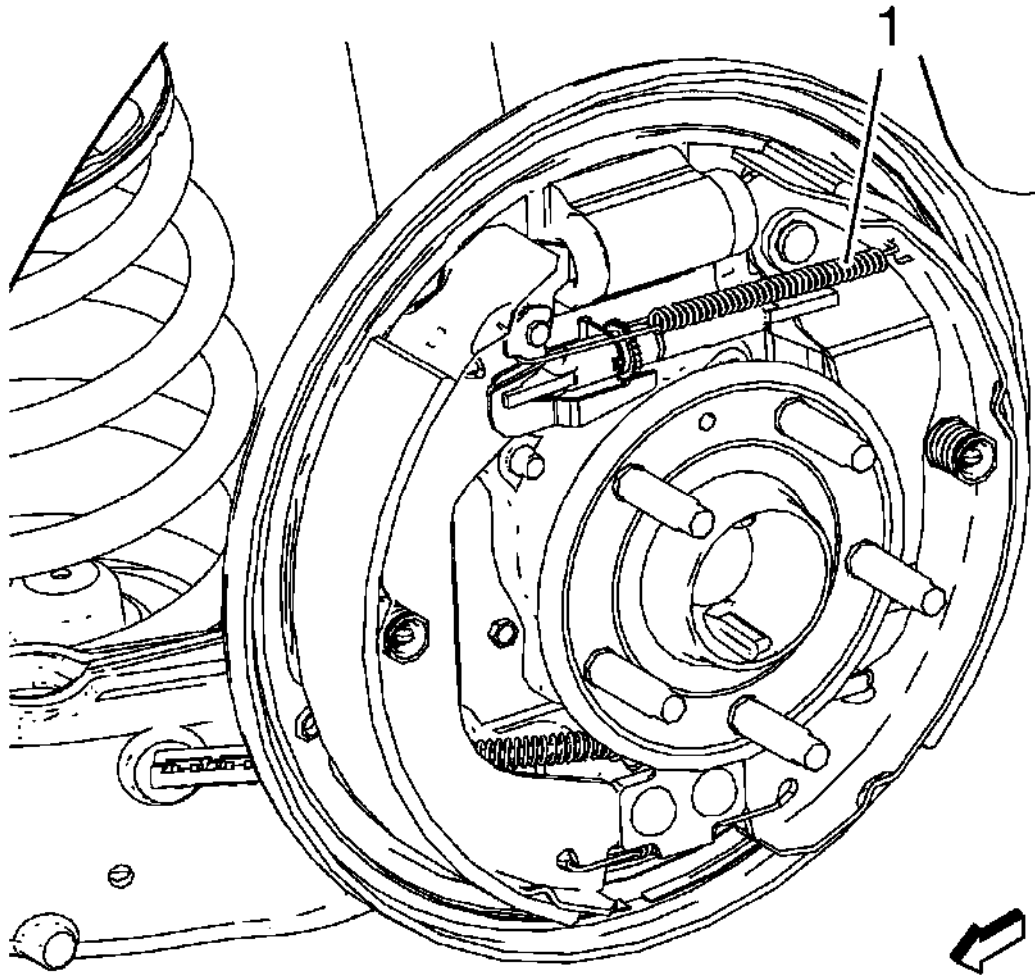


Fig. 10: Identifying Brake Shoe Adjuster Spring
Courtesy of GENERAL MOTORS COMPANY

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

4. Remove the adjuster spring (1). Disengage the adjuster spring hook end from the tab on the adjuster actuator lever, then release the spring from the brake shoe web hole.

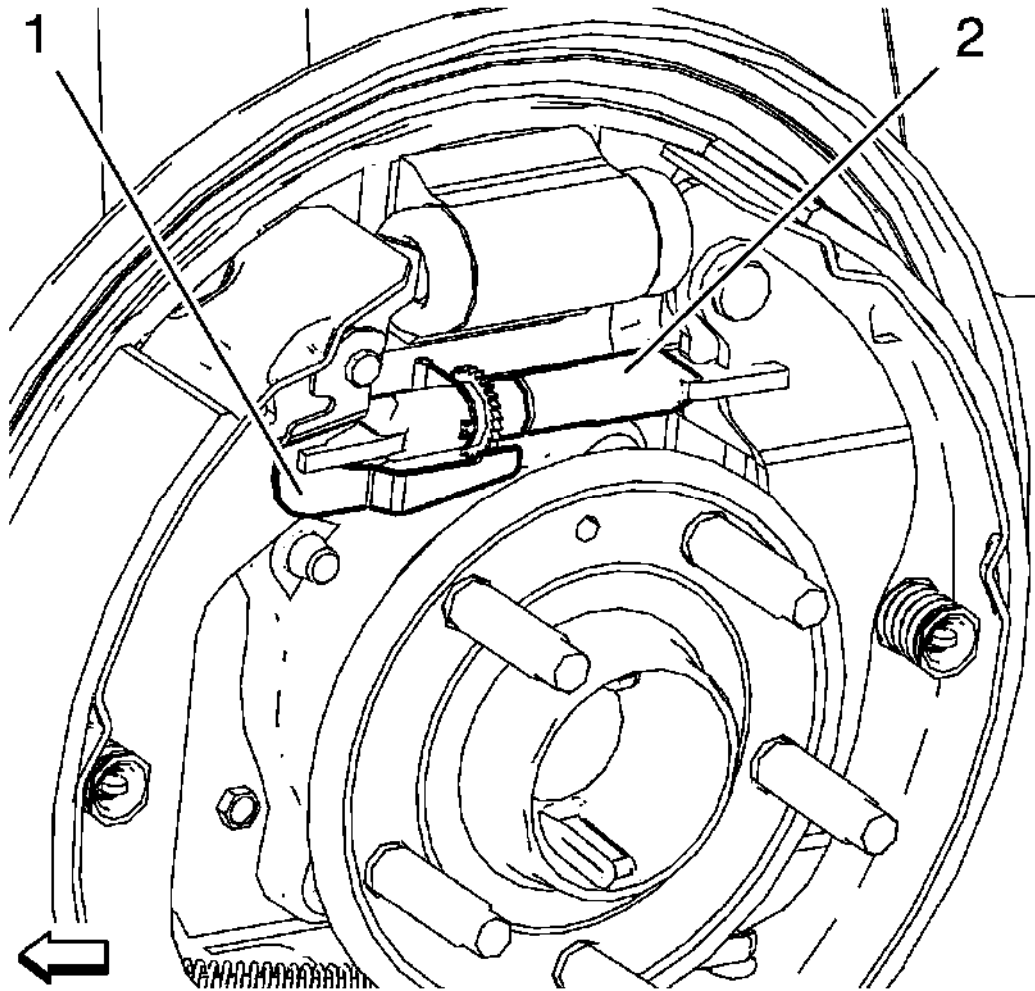


Fig. 11: Drum Brake Adjuster Actuator Lever And Adjuster Assembly
Courtesy of GENERAL MOTORS COMPANY

5. Release the adjuster actuator lever (1) from the adjuster assembly (2).

Remove the adjuster assembly (2).

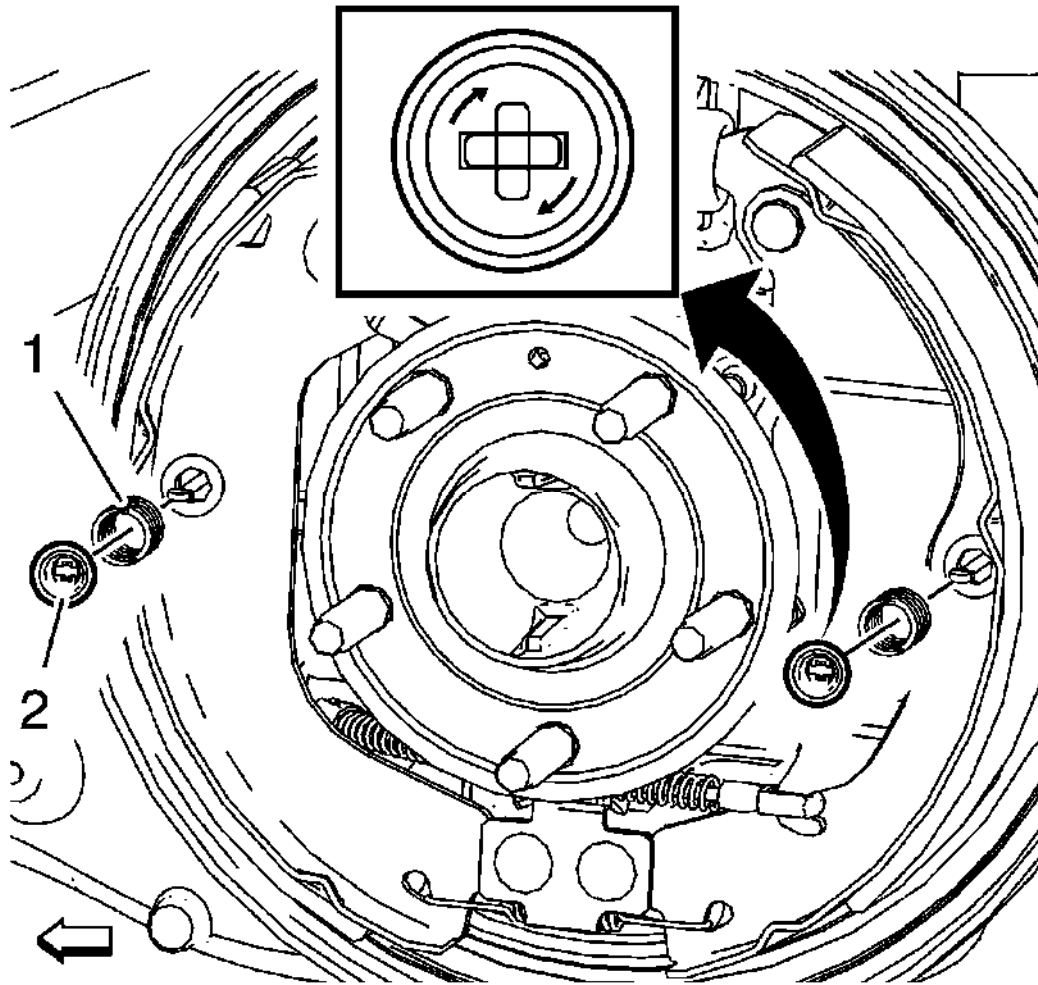


Fig. 12: Brake Shoe Springs

Courtesy of GENERAL MOTORS COMPANY

6. Remove the brake shoe springs (1), using the **CH 346** mounting tool to twist spring caps (2).

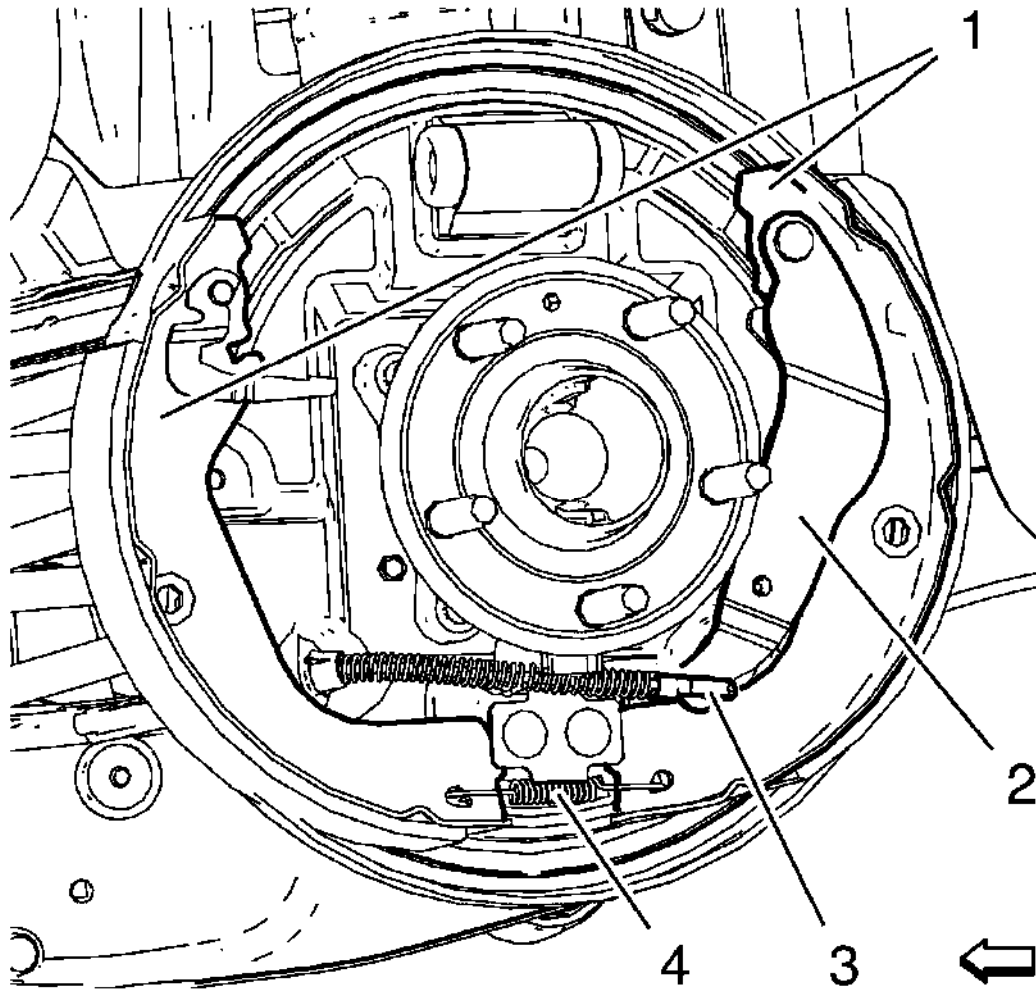


Fig. 13: Drum Brake Components
Courtesy of GENERAL MOTORS COMPANY

7. Remove the brake shoes (1).

Remove the lower spring (4) from front brake shoe.

8. Remove the parking brake cable (3) from the parking brake lever (2).

Installation Procedure

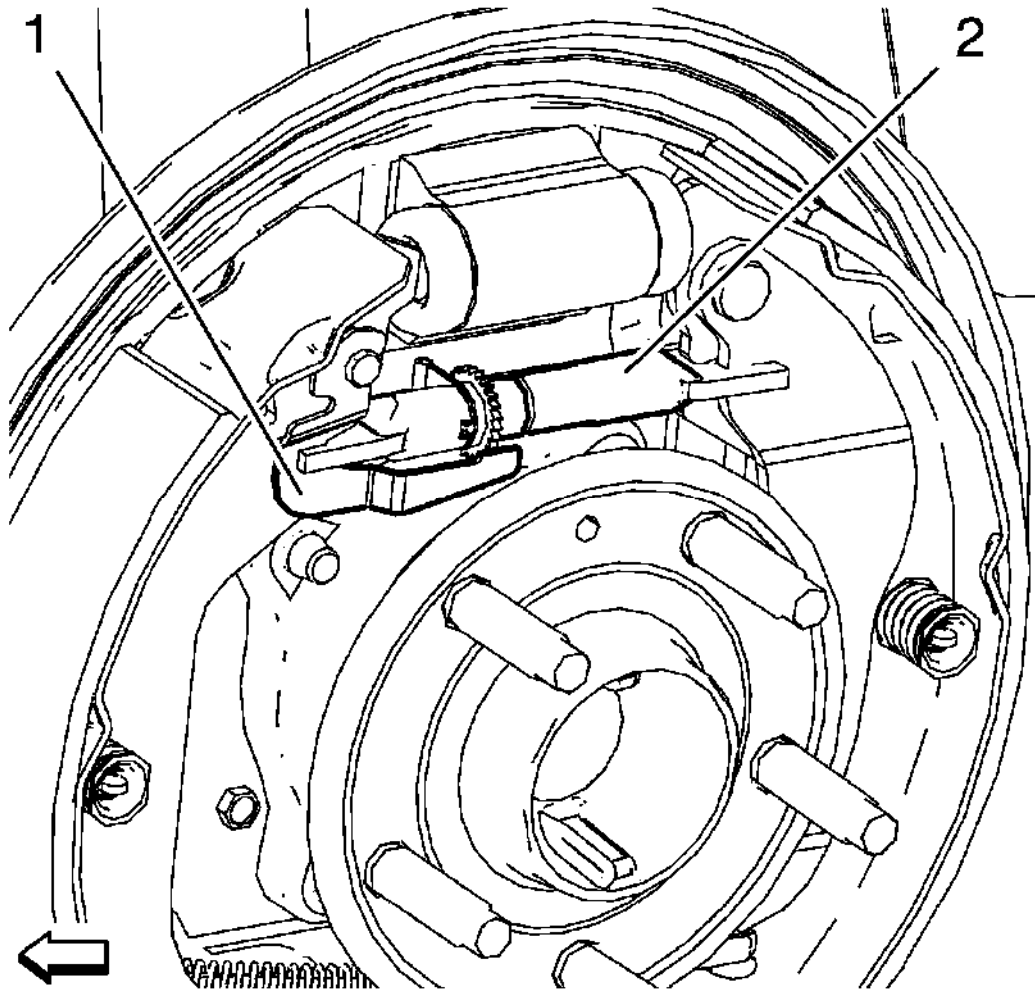


Fig. 14: Drum Brake Adjuster Actuator Lever And Adjuster Assembly
Courtesy of GENERAL MOTORS COMPANY

1. Install the adjuster assembly (2) to the adjuster actuator lever (1).

Turn in the adjuster as far as possible.

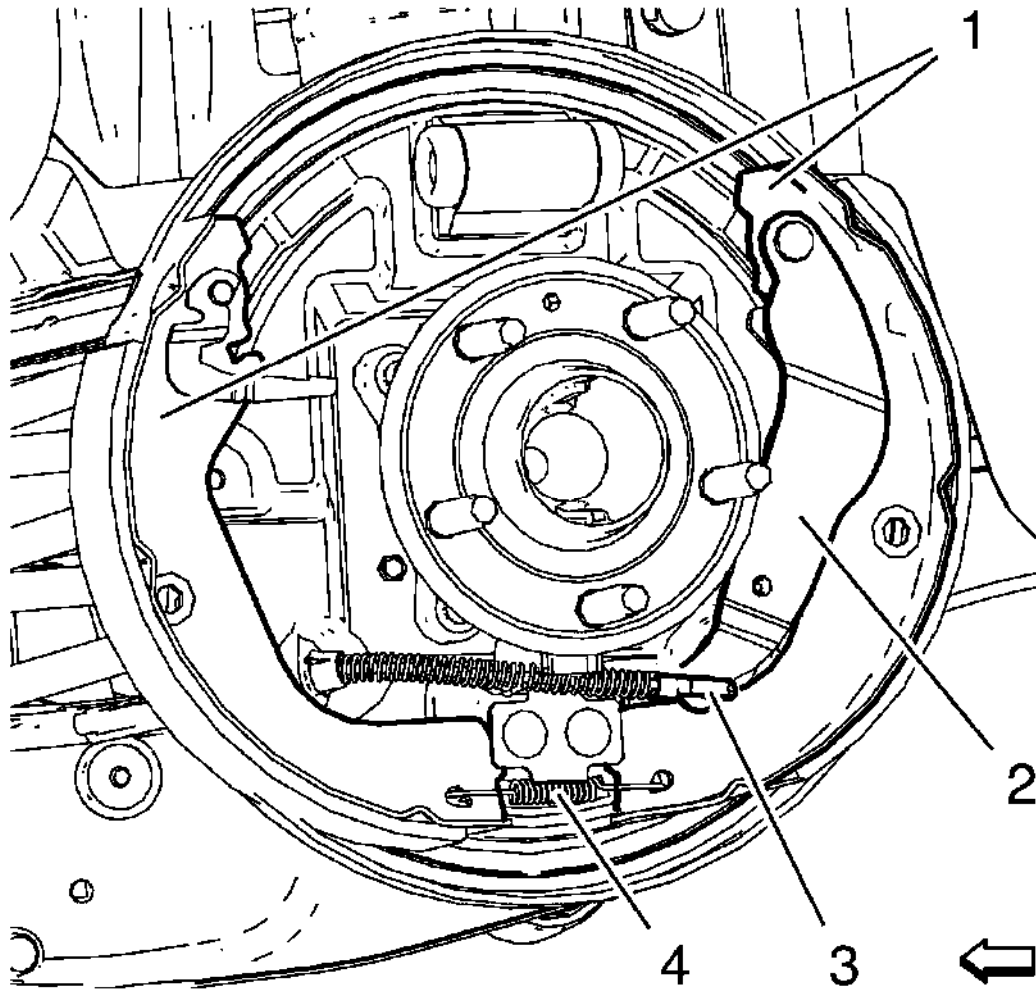


Fig. 15: Drum Brake Components
Courtesy of GENERAL MOTORS COMPANY

2. Install the parking brake cable (3) to the parking brake lever (2).
3. Install the lower spring (4) to front brake shoe.
4. Install the brake shoes (1).
5. Install the brake shoe springs (1), using the **CH 346** mounting tool to twist spring caps.

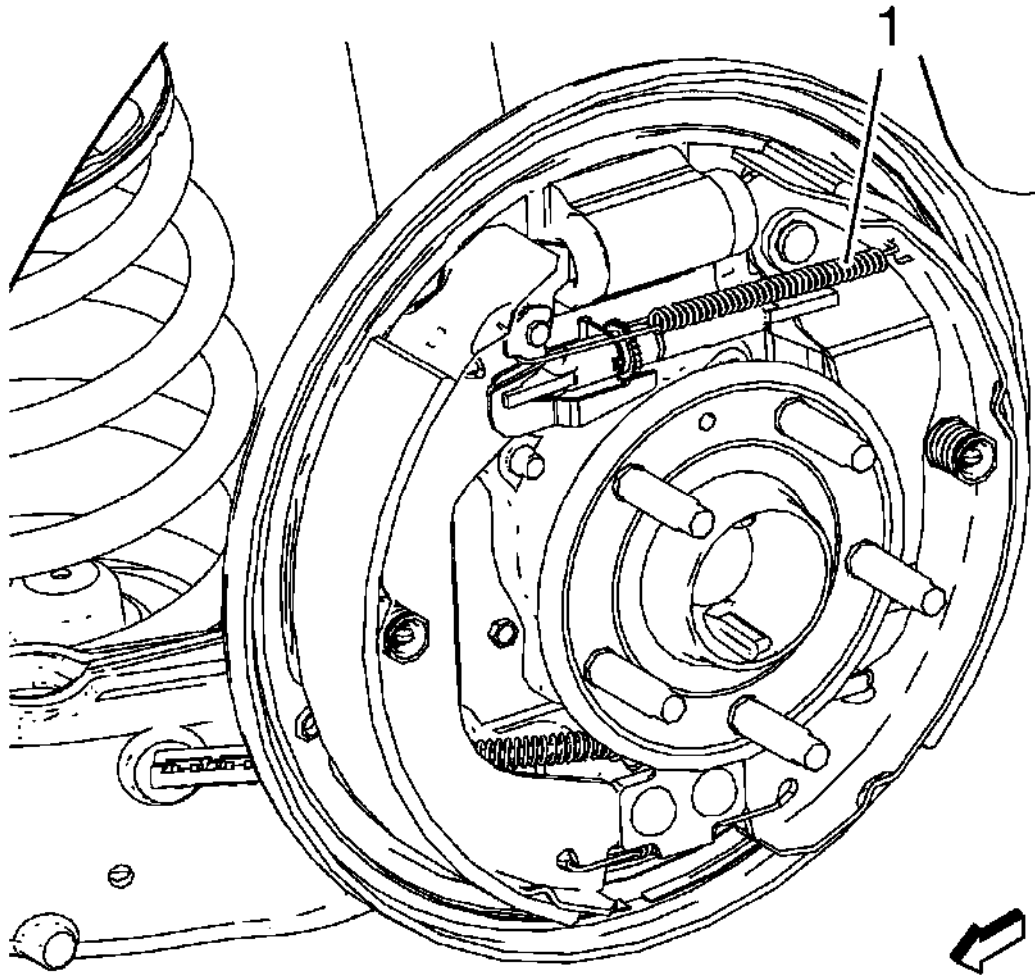


Fig. 16: Identifying Brake Shoe Adjuster Spring
Courtesy of GENERAL MOTORS COMPANY

6. Install the adjuster spring (1). Ensure that the loop end of the spring fully engages the tab on the actuator lever.
7. Install the brake drum. Refer to **Brake Drum Replacement**.
8. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation**
9. Lower the vehicle.

REAR BRAKE BACKING PLATE REPLACEMENT

Removal Procedure

WARNING: Refer to **Brake Dust Warning** .

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** .
2. Remove the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** .
3. Remove the brake drum. Refer to **Brake Drum Replacement**.
4. Remove the brake shoes. Refer to **Brake Shoe Replacement**.
5. Remove the wheel cylinder. Refer to **Rear Brake Cylinder Replacement**.

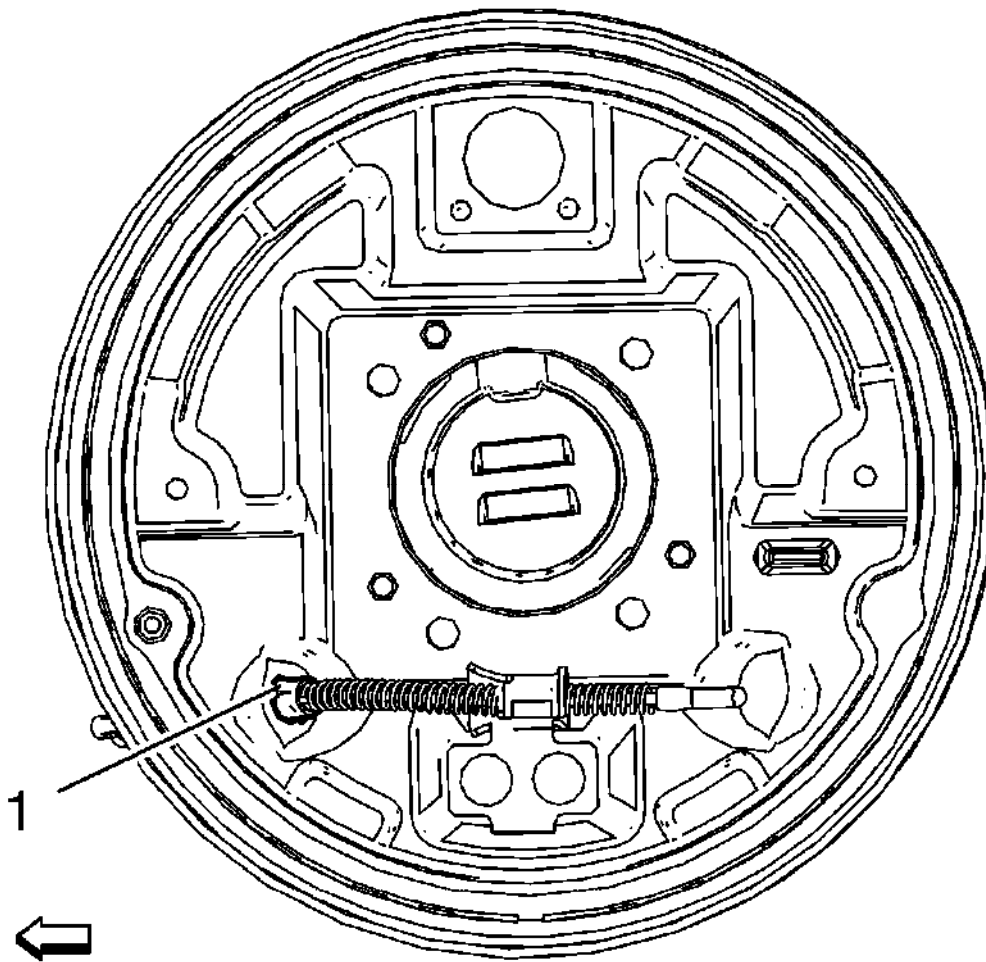


Fig. 17: Park Brake Cable End

Courtesy of GENERAL MOTORS COMPANY

6. Release the rear park brake cable end fitting (1) from the drum brake backing plate.
7. Remove the wheel bearing/hub assembly. Refer to **Rear Wheel Bearing and Hub Replacement (Drum Brake)** , **Rear Wheel Bearing and Hub Replacement (Disc Brake)**

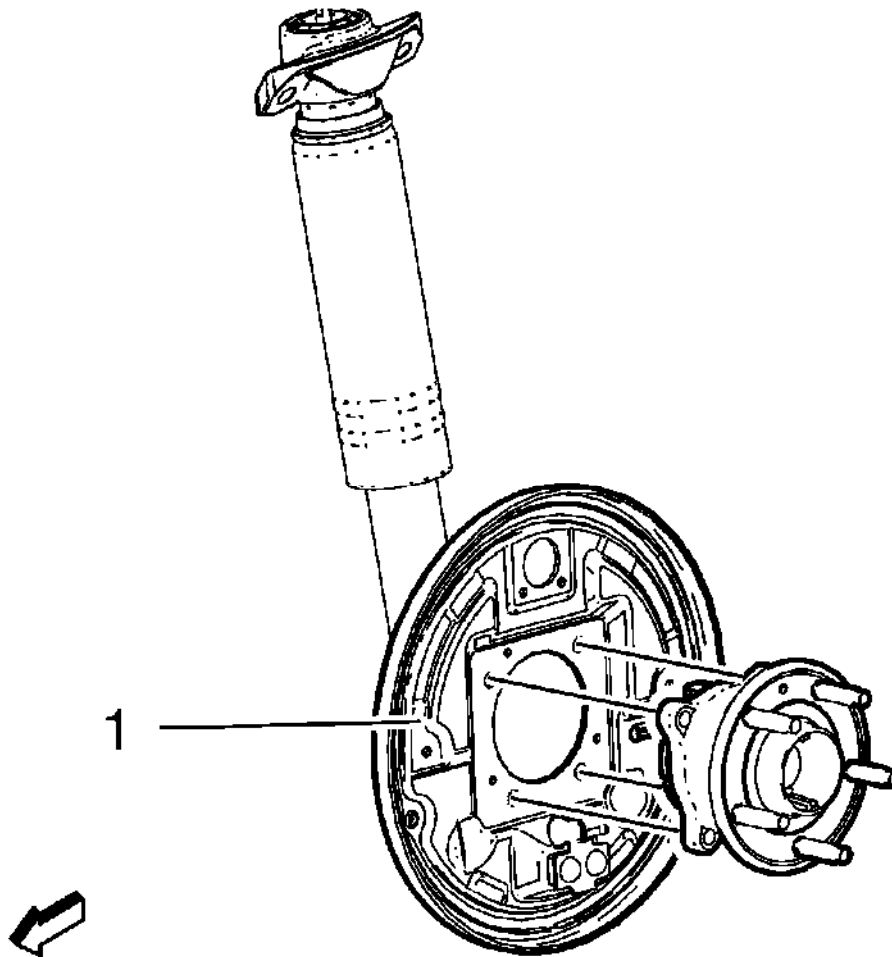


Fig. 18: Brake Backing Plate

Courtesy of GENERAL MOTORS COMPANY

8. Remove the brake backing plate (1).

Installation Procedure

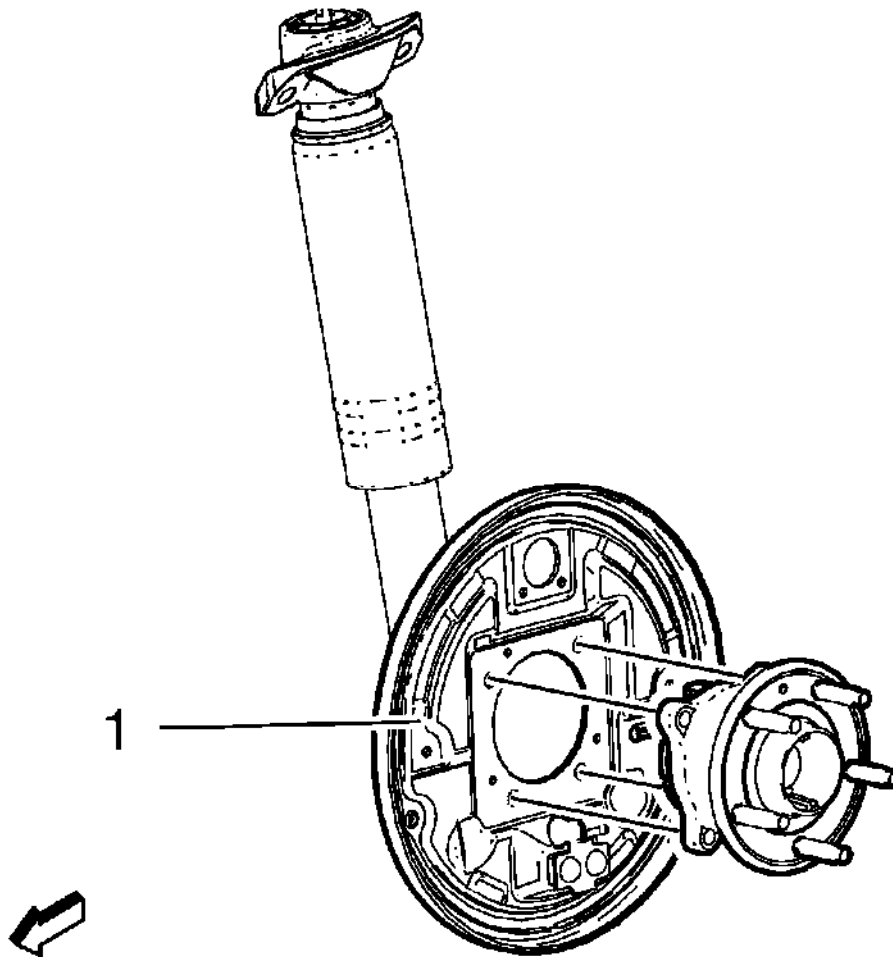


Fig. 19: Brake Backing Plate

Courtesy of GENERAL MOTORS COMPANY

1. Install the brake backing plate (1).
2. Install the wheel bearing/hub assembly. Refer to **Rear Wheel Bearing and Hub Replacement (Drum Brake)** , **Rear Wheel Bearing and Hub Replacement (Disc Brake)**

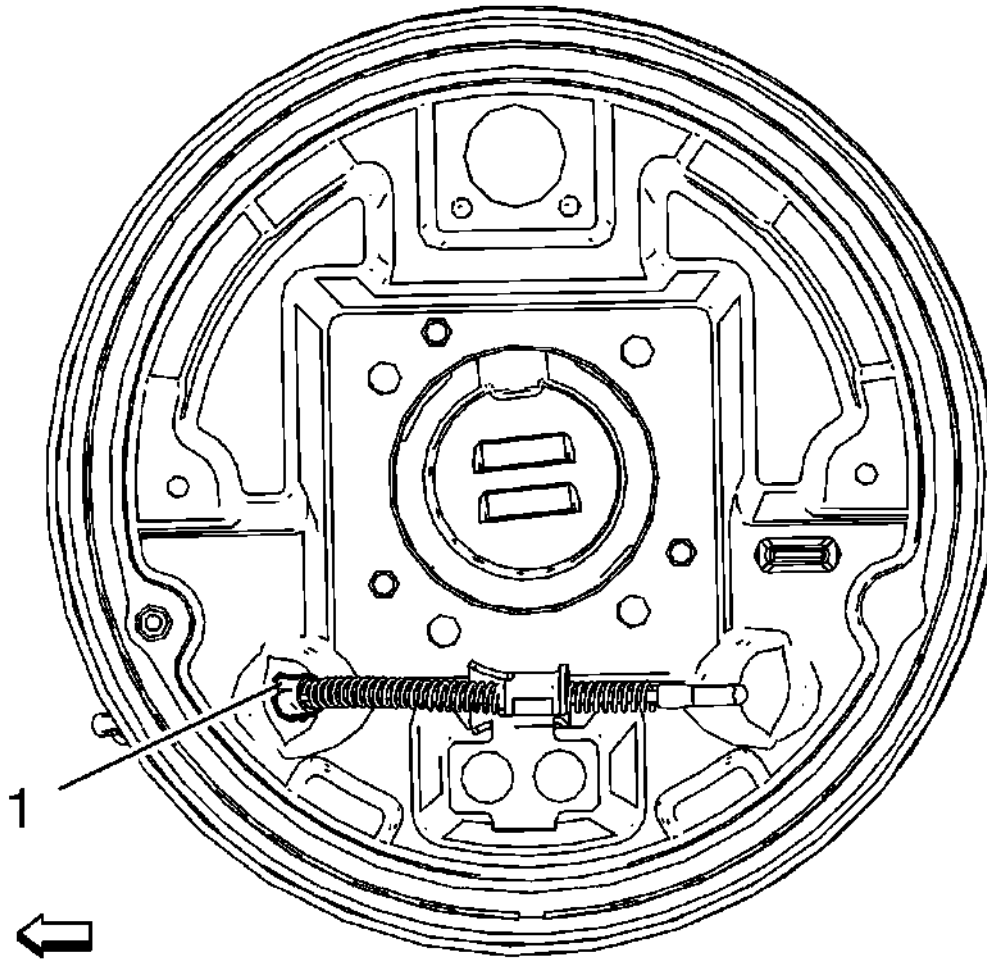


Fig. 20: Park Brake Cable End

Courtesy of GENERAL MOTORS COMPANY

3. Secure the rear park brake cable end fitting (1) to the brake backing plate.
4. Install the wheel cylinder. Refer to **Rear Brake Cylinder Replacement**.
5. Install the brake shoes. Refer to **Brake Shoe Replacement**.
6. Adjust the drum brakes. Refer to **Drum Brake Adjustment**.
7. Install the brake drum. Refer to **Brake Drum Replacement**.
8. Bleed the hydraulic brake system. Refer to **Hydraulic Brake System Bleeding (Manual Bleeding)** , **Hydraulic Brake System Bleeding (Pressure Bleeding)** .
9. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** .
10. Lower the vehicle.

DRUM BRAKE HARDWARE REPLACEMENT

Special Tools

CH 346 Mounting Tool

For equivalent regional tool, refer to Special Tools.

Removal Procedure

WARNING: Refer to Brake Dust Warning .

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle .
2. Remove the tire and wheel assembly. Refer to Tire and Wheel Removal and Installation .
3. Remove the brake drum. Refer to Brake Drum Replacement.

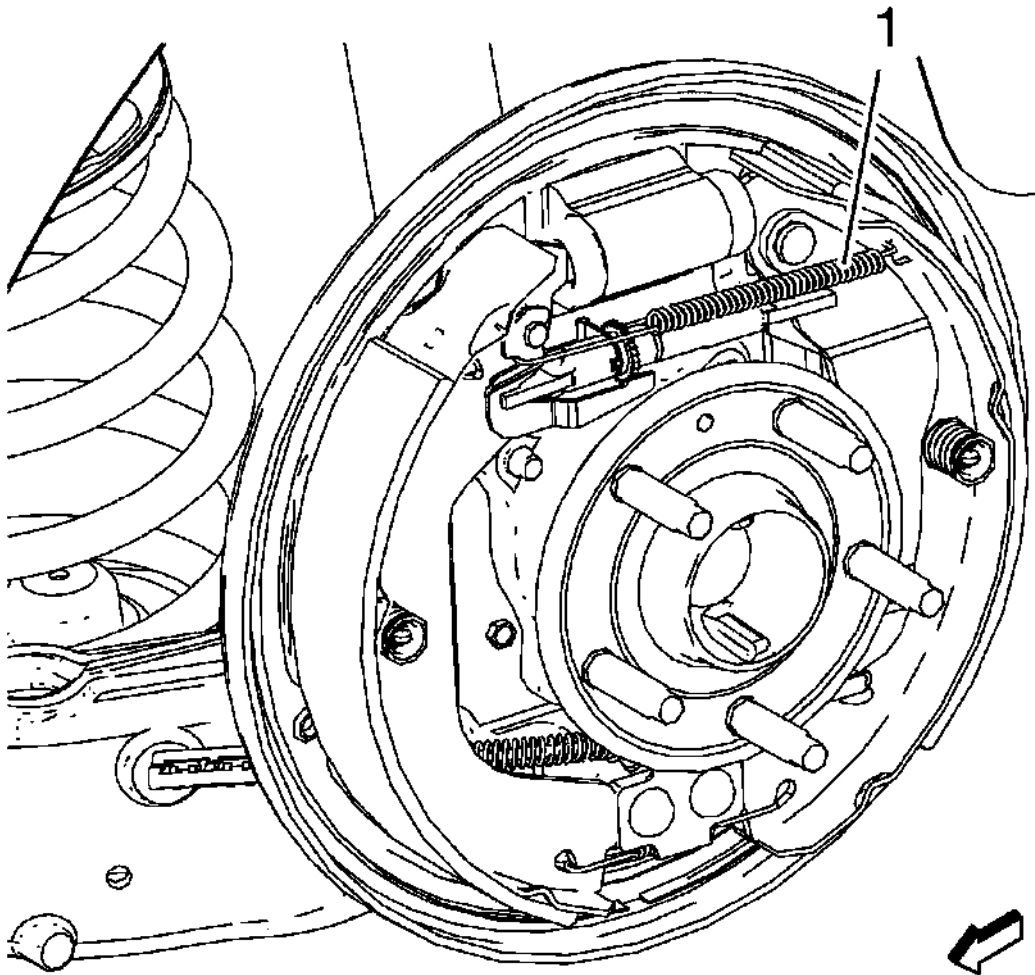


Fig. 21: Identifying Brake Shoe Adjuster Spring
Courtesy of GENERAL MOTORS COMPANY

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

4. Remove the adjuster spring (1). Disengage the adjuster spring hook end from the tab on the adjuster actuator lever, then release the spring from the brake shoe web hole.

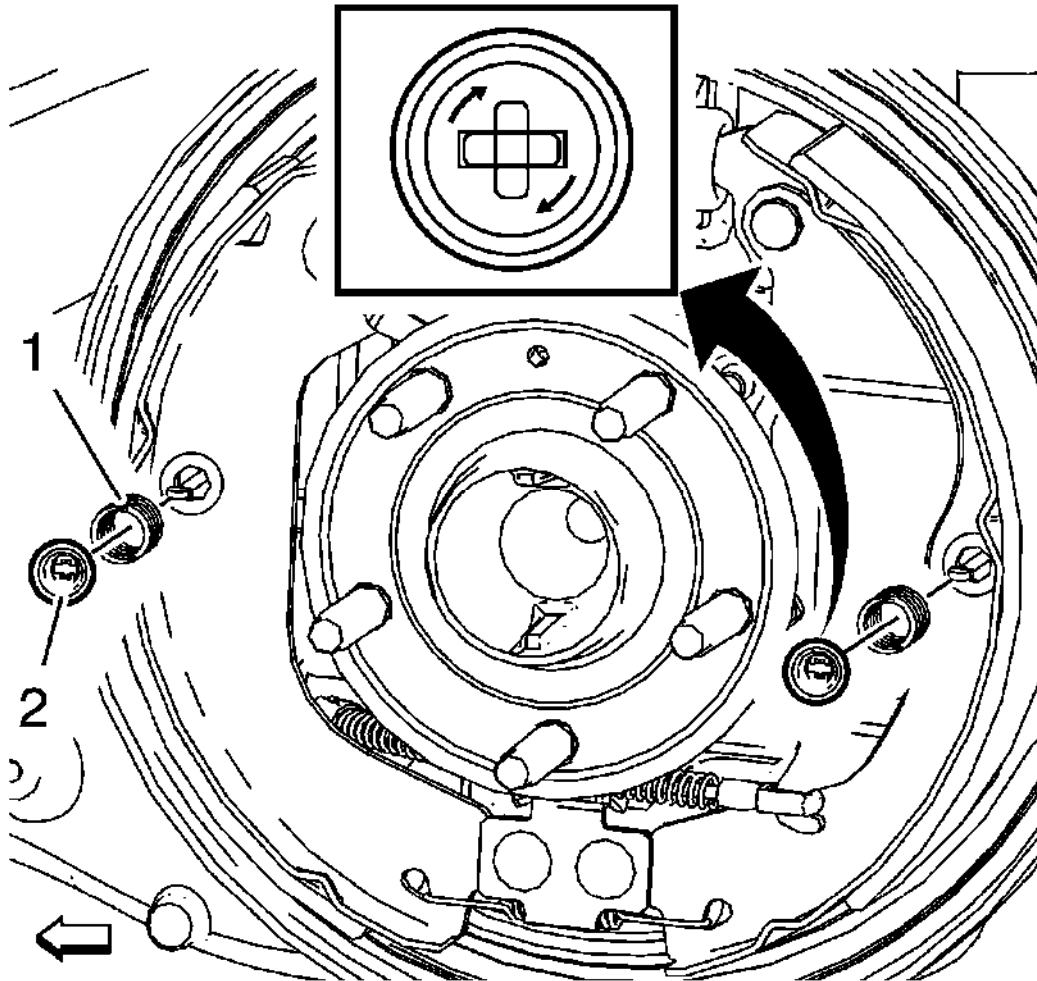


Fig. 22: Brake Shoe Springs

Courtesy of GENERAL MOTORS COMPANY

5. Remove the brake shoe springs (1), using the **CH 346** mounting tool to twist spring caps (2).
6. Remove the lower spring from front brake shoe.

Installation Procedure

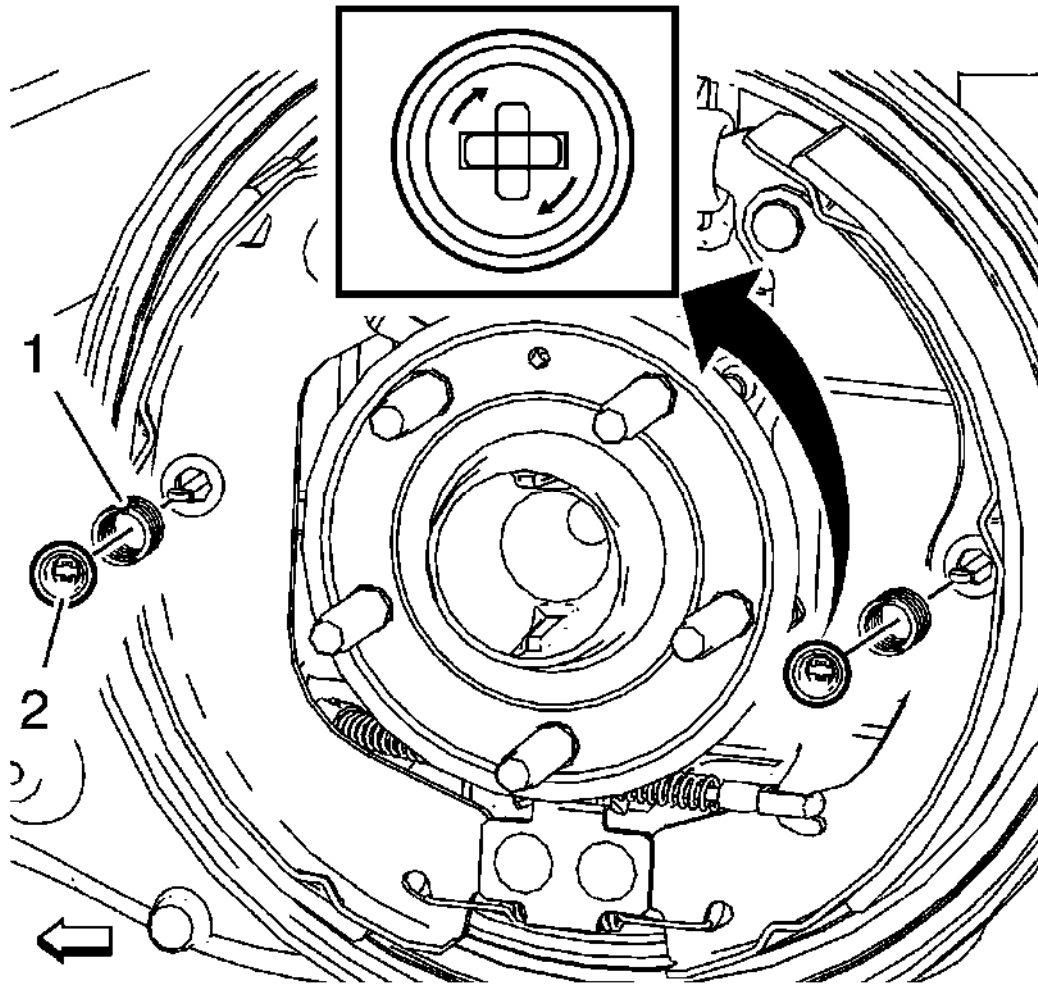


Fig. 23: Brake Shoe Springs

Courtesy of GENERAL MOTORS COMPANY

1. Install the lower spring to front brake shoe.
2. Install the brake shoe springs (1), using the **CH 346** mounting tool to twist spring caps.

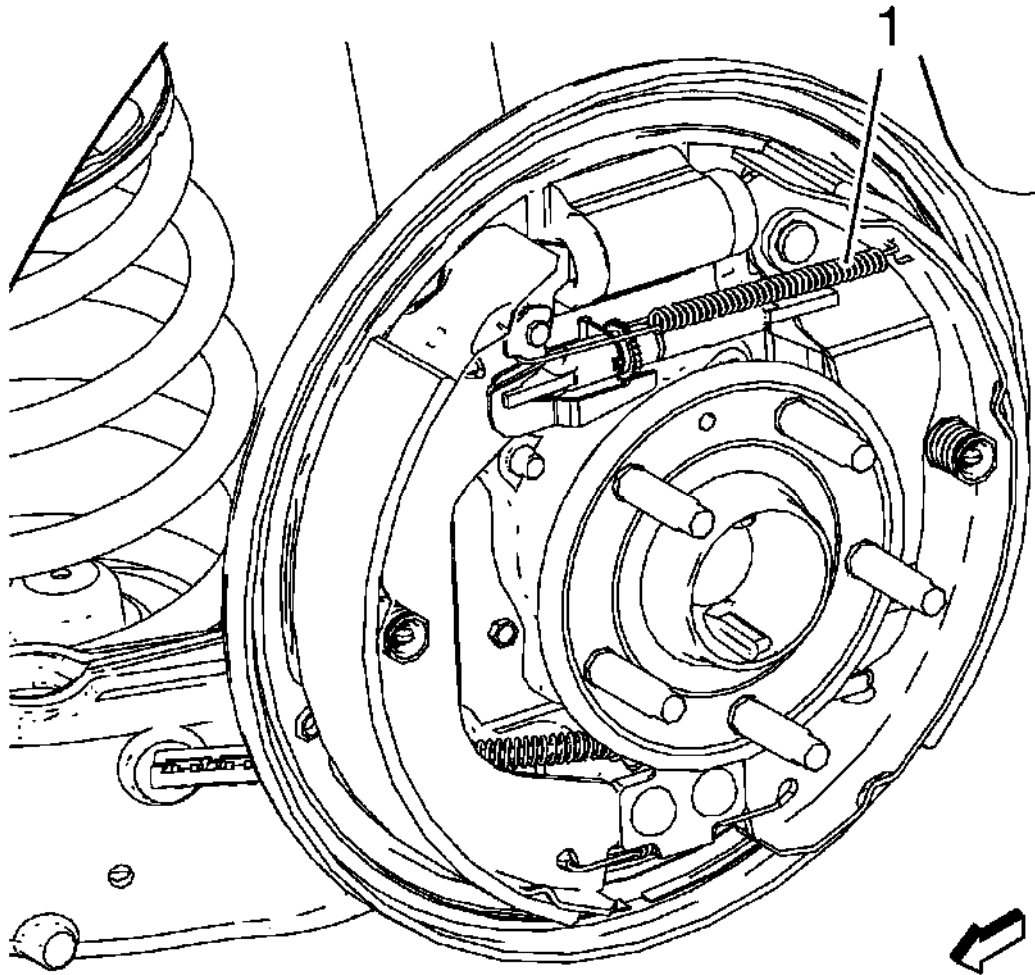


Fig. 24: Identifying Brake Shoe Adjuster Spring
Courtesy of GENERAL MOTORS COMPANY

3. Install the adjuster spring (1). Ensure that the loop end of the spring fully engages the tab on the actuator lever. Ensure that the loop end of the spring fully engages the tab on the actuator lever.
4. Install the brake drum. Refer to **Brake Drum Replacement**.
5. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation**.
6. Lower the vehicle.

DRUM BRAKE ADJUSTING HARDWARE REPLACEMENT

Removal Procedure

WARNING: Refer to **Brake Dust Warning** .

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle .
2. Remove the tire and wheel assembly. Refer to Tire and Wheel Removal and Installation .
3. Remove the brake drum. Refer to Brake Drum Replacement.

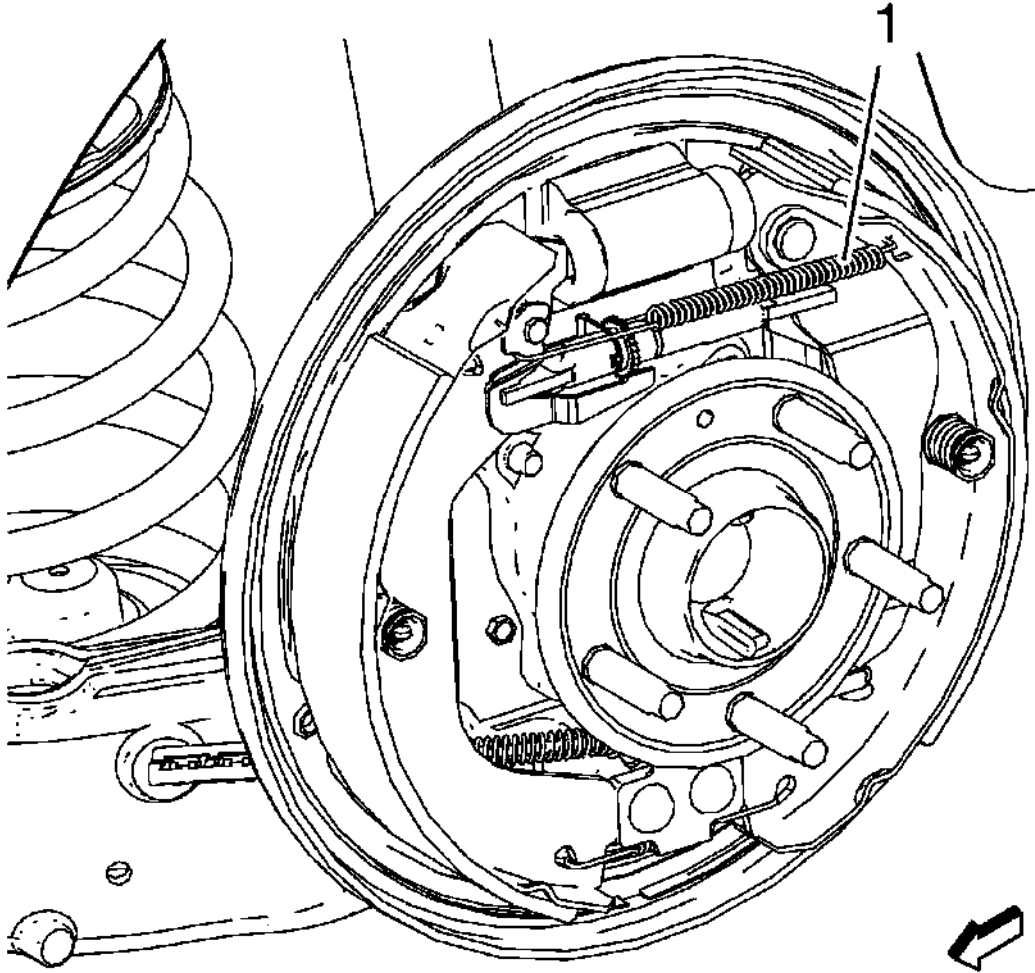


Fig. 25: Identifying Brake Shoe Adjuster Spring
Courtesy of GENERAL MOTORS COMPANY

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

4. Remove the adjuster spring (1). Disengage the adjuster spring hook end from the tab on the adjuster actuator lever, then release the spring from the brake shoe web hole.

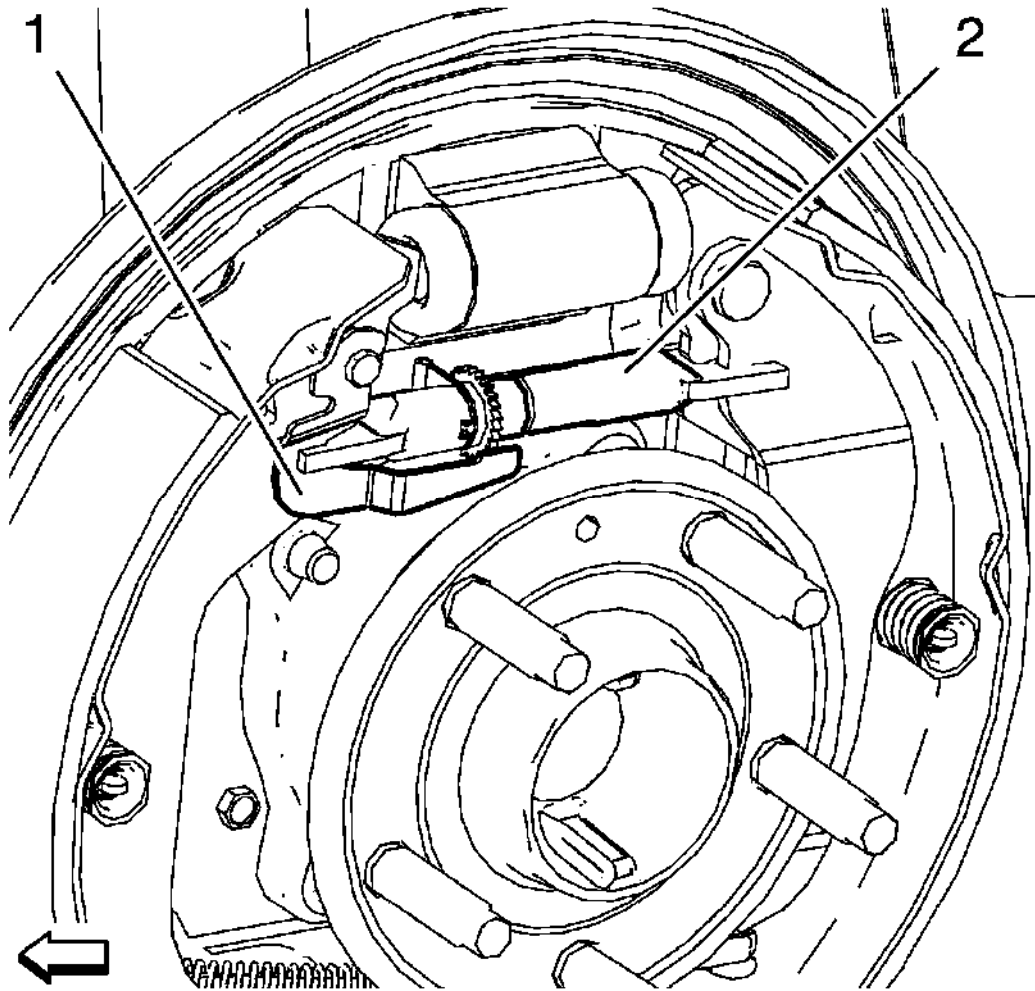


Fig. 26: Drum Brake Adjuster Actuator Lever And Adjuster Assembly
Courtesy of GENERAL MOTORS COMPANY

5. Release the adjuster actuator lever (1) from the adjuster assembly (2).

Remove the adjuster assembly (2).

6. Remove the adjuster assembly (2) and inspect for the following conditions:
- Binding or seized threaded adjuster assembly.
 - Damaged or missing adjuster screw teeth.
7. Replace the adjuster assembly if any of the conditions listed are present.

Installation Procedure

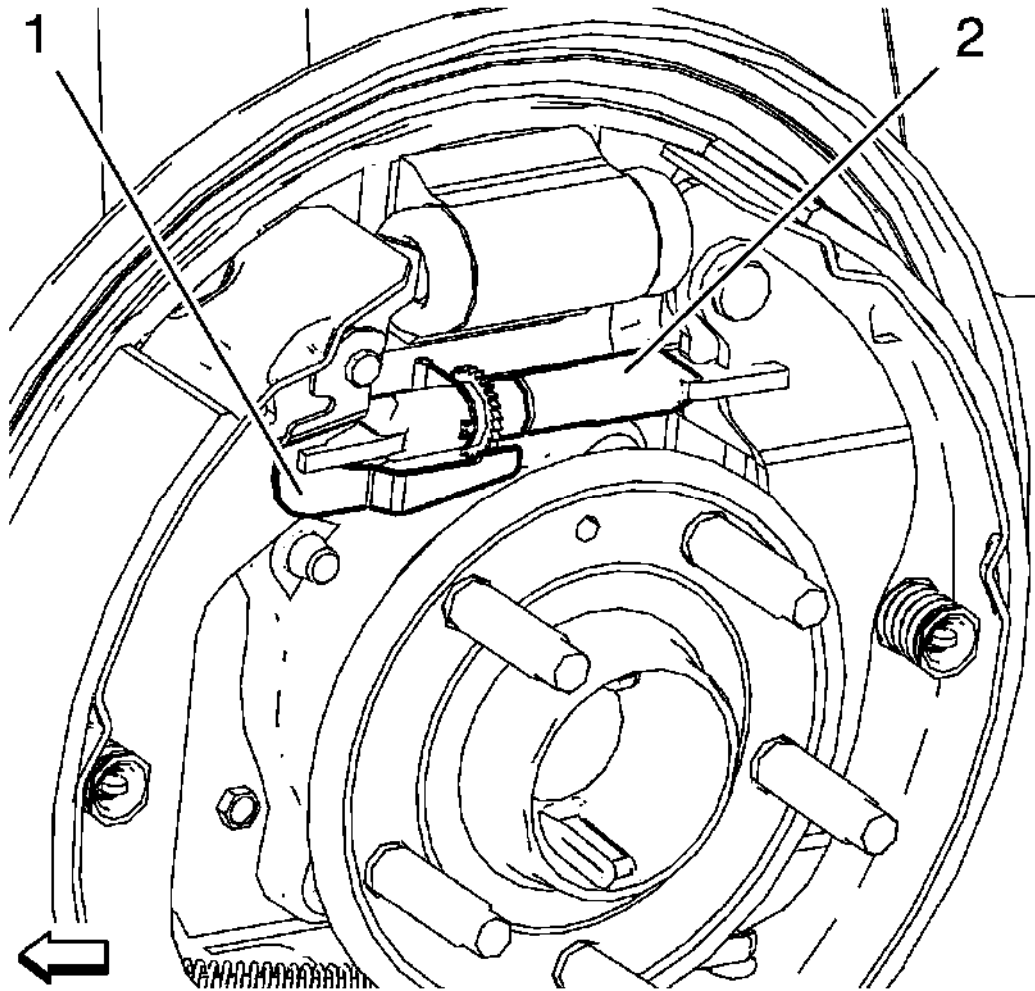


Fig. 27: Drum Brake Adjuster Actuator Lever And Adjuster Assembly
Courtesy of GENERAL MOTORS COMPANY

1. Install the adjuster assembly (2) to the adjuster actuator lever (1).

Turn in the adjuster as far as possible.

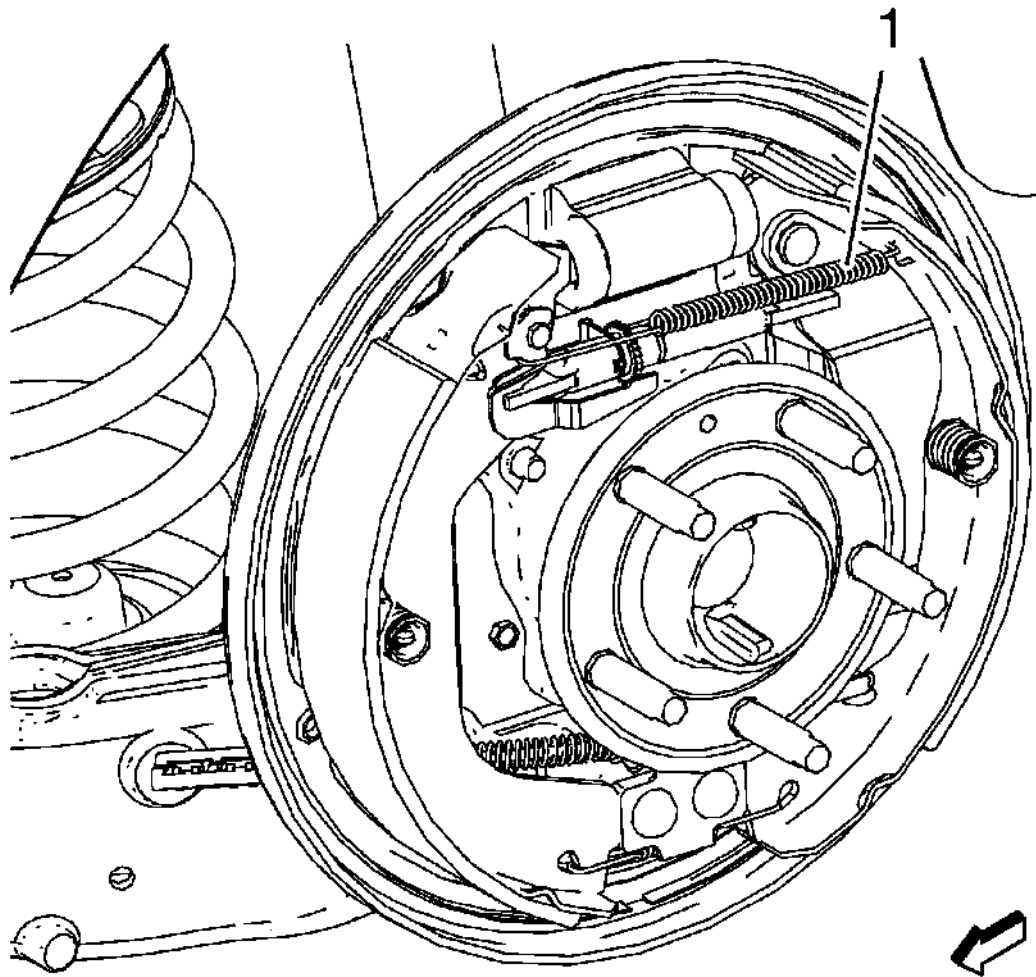


Fig. 28: Identifying Brake Shoe Adjuster Spring
Courtesy of GENERAL MOTORS COMPANY

2. Install the adjuster spring (1). Ensure that the loop end of the spring fully engages the tab on the actuator lever.
3. Install the brake drum. Refer to **Brake Drum Replacement**.
4. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation**.
5. Lower the vehicle.

REAR BRAKE CYLINDER REPLACEMENT

Removal Procedure

WARNING: Refer to **Brake Dust Warning** .

WARNING: Refer to Brake Fluid Irritant Warning .

CAUTION: Refer to Brake Fluid Effects on Paint and Electrical Components Caution .

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle .
2. Remove the tire and wheel assembly. Refer to Tire and Wheel Removal and Installation .
3. Remove the brake drum. Refer to Brake Drum Replacement.
4. Remove the brake shoes. Refer to Brake Shoe Replacement.
5. Clean any debris and contaminants from around the wheel cylinder.

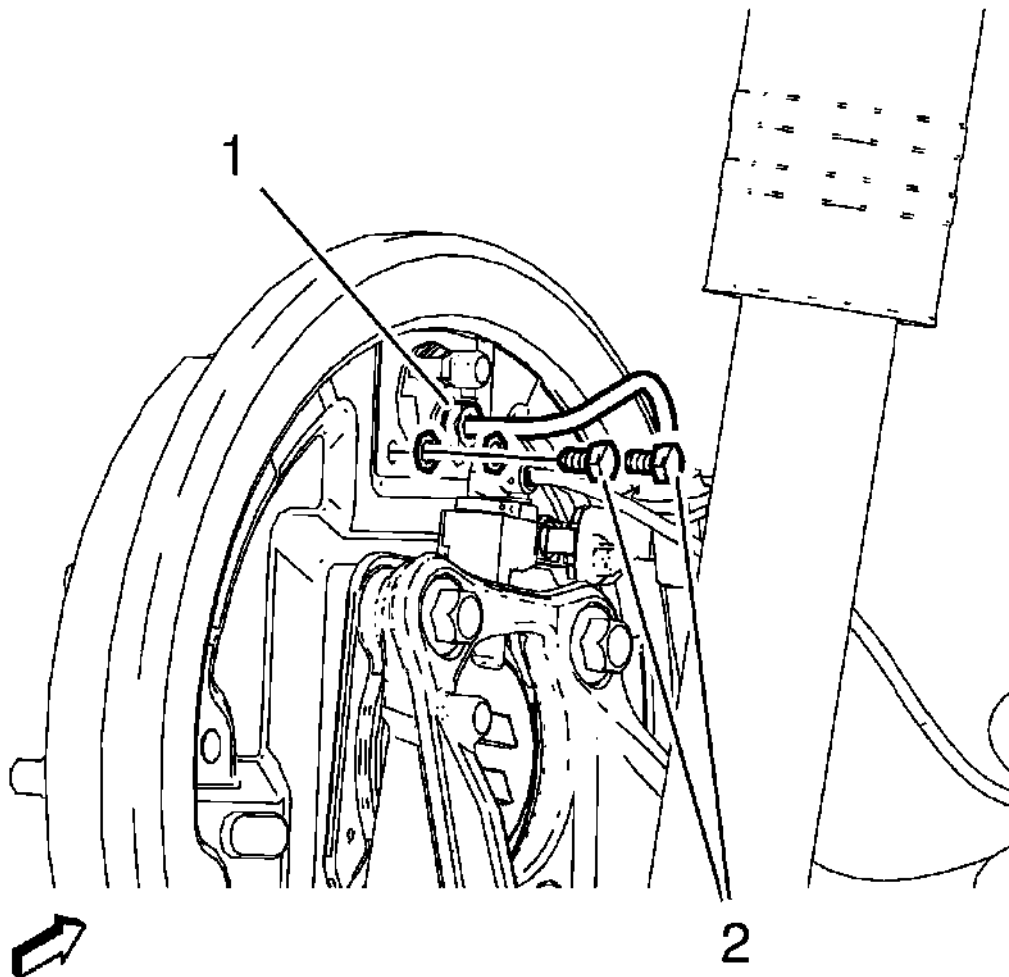


Fig. 29: Brake Pipe Fitting And Wheel Cylinder Mounting Bolts
Courtesy of GENERAL MOTORS COMPANY

6. Disconnect the brake pipe fitting (1) from the wheel cylinder. Cap the exposed brake pipe end to prevent fluid loss.
7. Remove the 2 wheel cylinder mounting bolts (2).

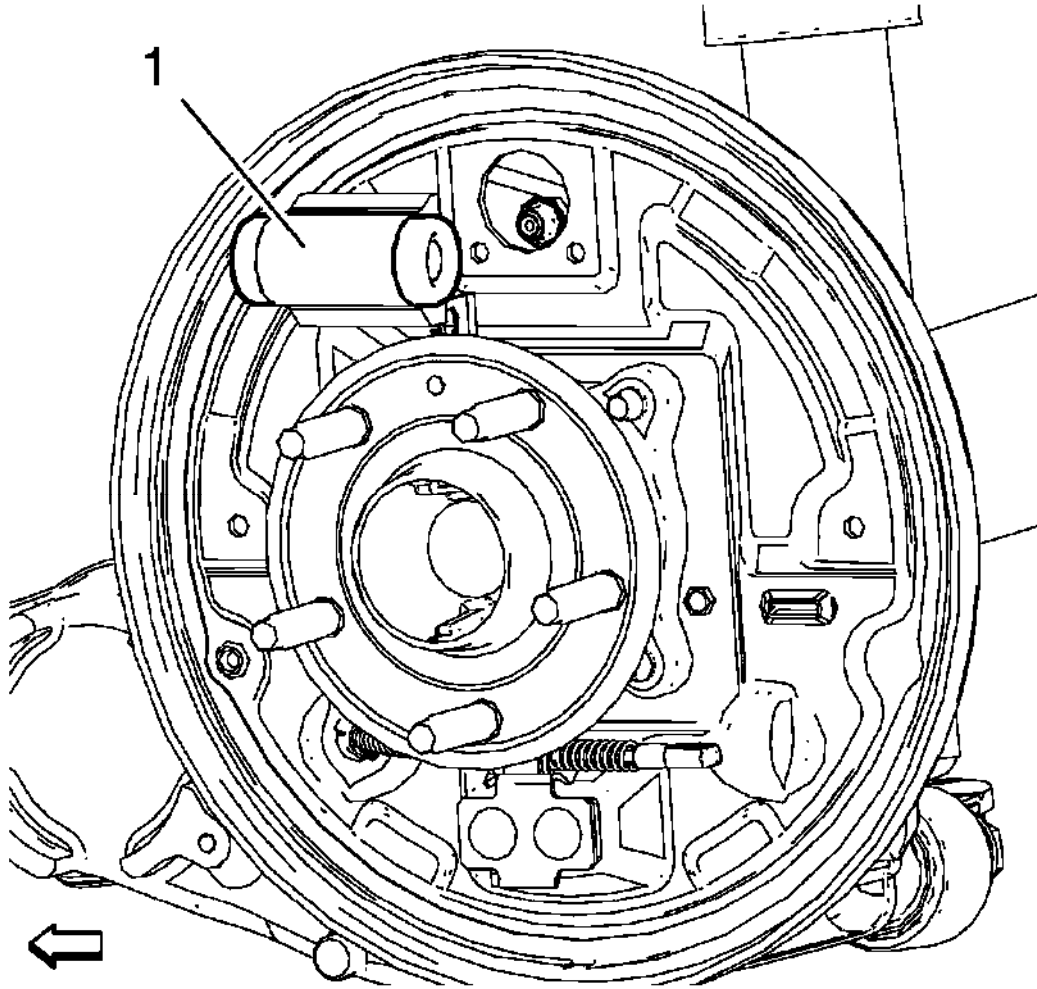


Fig. 30: Wheel Cylinder

Courtesy of GENERAL MOTORS COMPANY

8. Remove the wheel cylinder (1) from the backing plate.

Installation Procedure

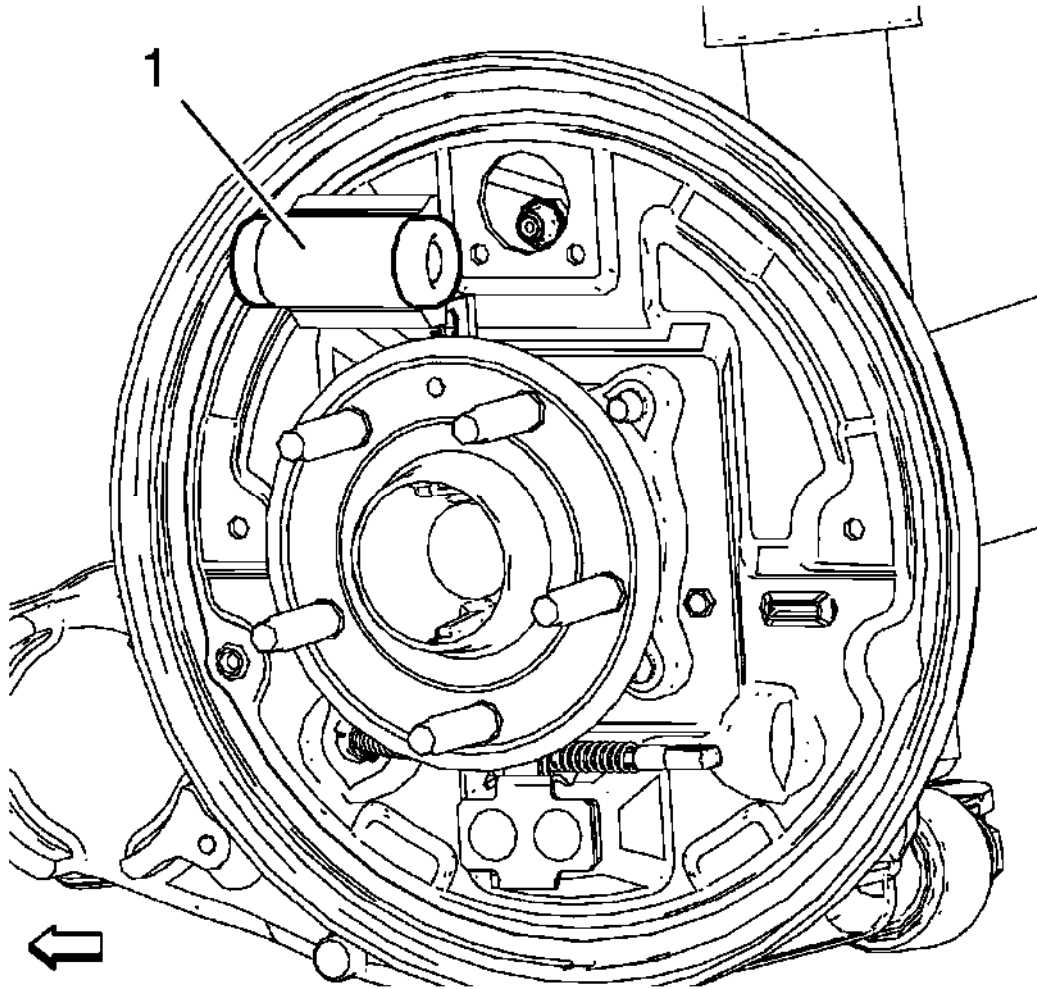


Fig. 31: Wheel Cylinder

Courtesy of GENERAL MOTORS COMPANY

1. Install the wheel cylinder (1) to backing plate.

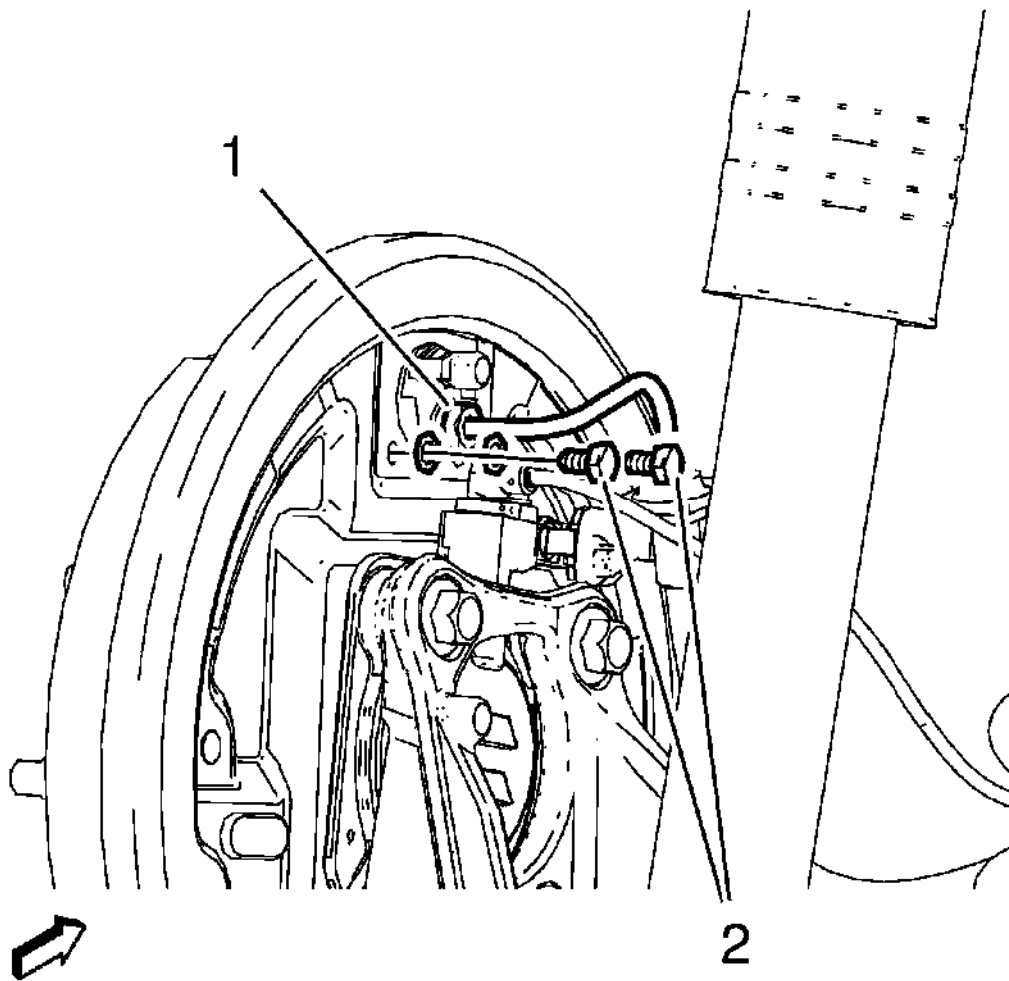


Fig. 32: Brake Pipe Fitting And Wheel Cylinder Mounting Bolts
Courtesy of GENERAL MOTORS COMPANY

CAUTION: Refer to Fastener Caution .

2. Install wheel cylinder mounting bolts (2) and tighten to 10 N.m (89 lb in).
3. Connect the brake pipe fitting (1) at the wheel cylinder and tighten to 18 N.m (14 lb ft).
4. Install the brake shoes. Refer to **Brake Shoe Replacement**.
5. Install the brake drum. Refer to **Brake Drum Replacement**.
6. Bleed the hydraulic brake system. Refer to **Hydraulic Brake System Bleeding (Manual Bleeding)** , **Hydraulic Brake System Bleeding (Pressure Bleeding)** .
7. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** .
8. Lower the vehicle.

DRUM BRAKE ADJUSTMENT

Special Tools

CH-21177-A Drum to Brake Shoe Clearance Gauge

For equivalent regional tools, refer to **Special Tools**

WARNING: Refer to **Brake Dust Warning** .

1. Ensure the park brake lever is in the fully released position.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle**
3. Remove the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** .
4. Remove the brake drum. Refer to **Brake Drum Replacement**.

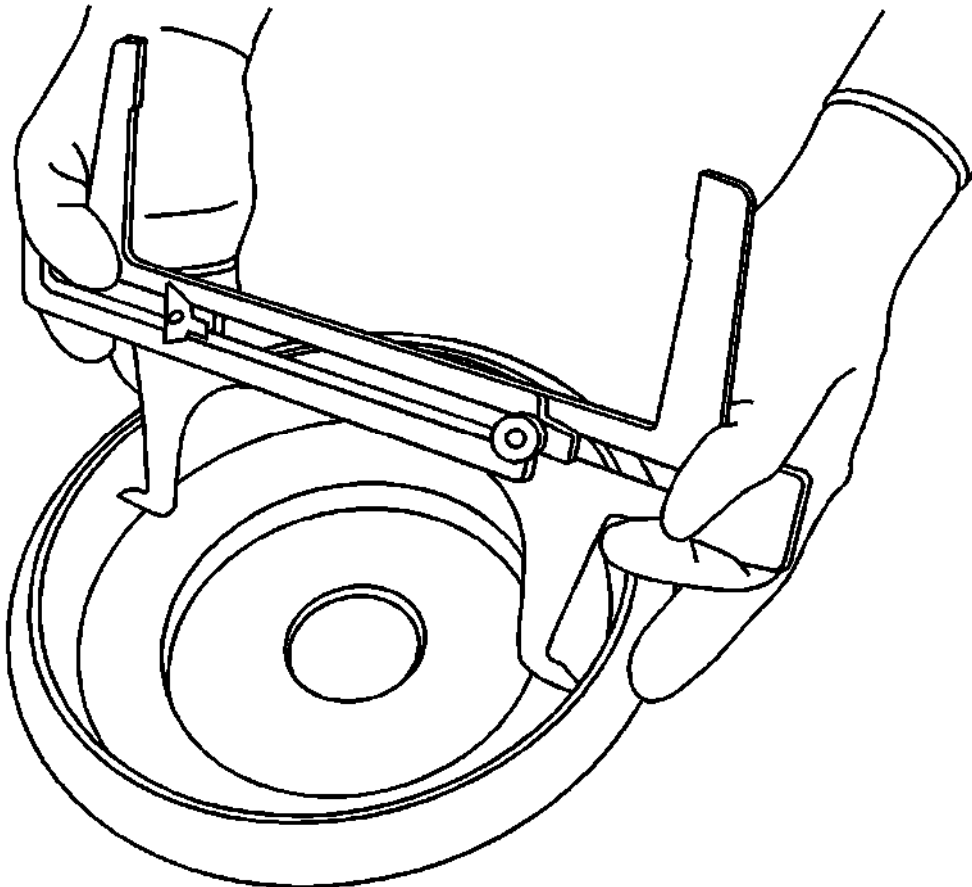


Fig. 33: Installing J 21177-A Inside Brake Drum Diameter

Courtesy of GENERAL MOTORS COMPANY

5. Position the **CH-21177-A** gauge to the widest point of the brake drum inside diameter.
6. Firmly hand tighten the set screw on the **CH-21177-A** gauge.

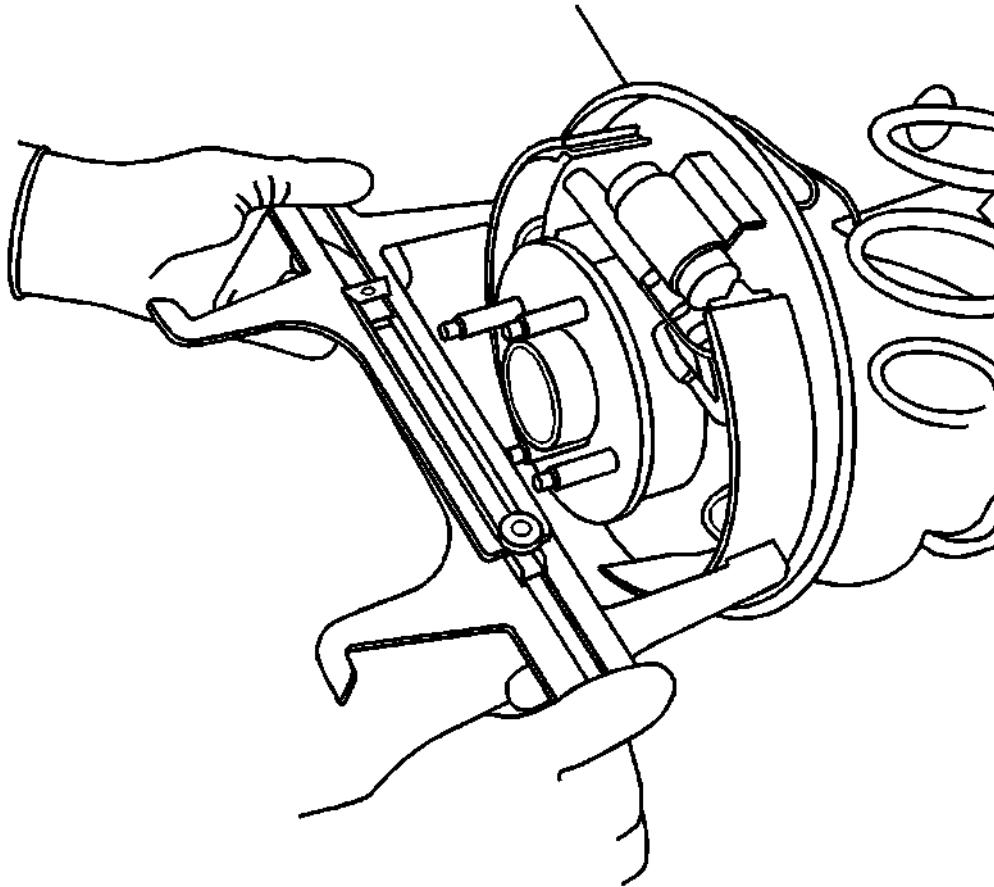


Fig. 34: Positioning J 21177-A Over Brake Shoe Assembly
Courtesy of GENERAL MOTORS COMPANY

7. Remove the **CH-21177-A** gauge from the brake drum and position it over the corresponding brake shoe assembly at its widest point.
8. While holding the **CH-21177-A** gauge in position, insert a proper feeler gauge between one side of the **CH-21177-A** gauge, and the corresponding brake shoe lining.
9. Rotate the brake shoe adjuster screw until the brake shoe linings contact the **CH-21177-A** gauge and the feeler gauge.

Specification

Brake shoe lining-to-drum clearance: 0.4-0.9 mm (0.016-0.035 in)

10. Repeat the above steps for the opposite brake drum and brake shoe assembly.
11. Install the brake drum. Refer to **Brake Drum Replacement**.
12. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation**
13. Lower vehicle.
14. Apply the brake pedal at least 10 times. Verify the clicking sound of the adjuster assembly is not audible from either brake drum.
15. Adjust the park brake. Refer to **Parking Brake Adjustment (Mechanical Parking Brake)** .
16. 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

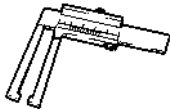
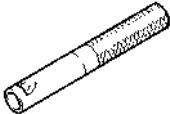
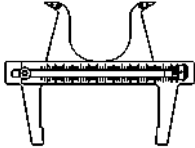
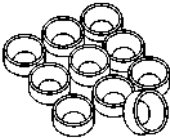
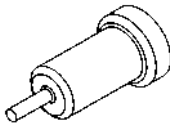
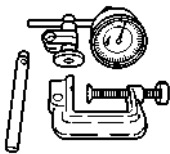
Provides automatic adjustment of brake shoes to brake drum friction surface whenever brake apply occurs.

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

Illustration	Tool Number/ Description
	CH-230-A MKM-230-A J-21177-A Disc Gauge
	CH-346 KM-346 Mounting Tool
	CH-21177 J-21177-A Drum to Brake Shoe Clearance Gauge
	CH-41013 J-41013 Rotor Resurfacing Kit
	CH-42450-A J-42450-A Wheel Hub Resurfacing Kit
	GE-572 MKM-572 GE-7872 J-8001 Dial Indicator