Component Procedures: Brake Master Cylinder

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Parts and Labor (itype_189)

Parts

Qualifier	Part #	Name	Price	Note
Master Cylinder	22956542	Master Cylinder	181.29	
Master Cylinder Reservoir	22956543	Master Cylinder Reserv?	66.50	

Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Remove & Replace	Hydraulic System > Master Cylinder Reservoir,?	B	0.3	0.2
Remove & Replace	Hydraulic System > Master Cylinder, R&R	B	1.3	0.9

Brake Master Cylinder Bench Bleeding (Article 10677)

- Secure the mounting flange of the brake master cylinder in a bench vise so that the rear of the primary piston is accessible. Click for full-size image
- Remove the master cylinder reservoir cap and diaphragm.
- Install suitable fittings to the master cylinder ports that match the type of flare seat required and also provide for hose attachment.
- Install transparent hoses to the fittings installed to the master cylinder ports, then route the hoses into the master cylinder reservoir.
- Fill the master cylinder reservoir to at least the half-way point with GM approved brake fluid from a clean, sealed brake fluid container. Refer to Brake Master Cylinder Reservoir Filling .
- Ensure that the ends of the transparent hoses running into the master cylinder reservoir are fully submerged in the brake fluid.
- Using a smooth, round-ended tool, depress and release the primary piston as far as it will travel, a depth of about 25 mm (1 in), several times. Observe the flow of fluid coming from the ports. As air is bled from the primary and secondary pistons, the effort required to depress the primary piston will increase and the amount of travel will decrease.
- Continue to depress and release the primary piston until fluid flows freely from the ports with no evidence of air bubbles.
- Remove the transparent hoses from the master cylinder reservoir.
- Install the master cylinder reservoir cap and diaphragm.
- Remove the fittings with the transparent hoses from the master cylinder ports. Wrap the master cylinder with a clean shop cloth to prevent brake fluid spills.
- Remove the master cylinder from the vise.

Brake Master Cylinder Replacement (Article 10678)

Removal Procedure

- With the engine OFF, apply and release the brake pedal several times until the pedal becomes firm to deplete the power vacuum brake booster vacuum reserve.
- Disconnect the clutch master cylinder supply hose, if equipped.
- Disconnect the brake fluid level indicator switch electrical connector.
- Disconnect the master cylinder secondary brake pipe fitting (1). Cap the brake pipe fitting and plug the master cylinder outlet port to prevent brake fluid loss and contamination. Click for full-size image
- Disconnect the master cylinder primary brake pipe fitting (1). Cap the brake pipe fitting and plug the master cylinder outlet port to prevent brake fluid loss and contamination. Click for full-size image
- Remove the master cylinder nuts (1). Click for full-size image
- Remove the master cylinder (1) from the power vacuum brake booster . Click for full-size image
- Remove the master cylinder O-ring seal (1). Inspect the O-ring seal for damage and replace, if necessary. Click for full-size image

Installation Procedure

- Install the master cylinder O-ring seal (1). Position the O-ring seal in the groove in the master cylinder body. Click for full-size image
- If installing a new master cylinder, bench bleed the master cylinder. Refer to Brake Master Cylinder Bench Bleeding .
- Install the master cylinder (1) to the power vacuum brake booster. Click for full-size image

- Install the master cylinder nuts (1) and tighten to 25 Nm (18 lb ft) . Click for full-size image
- Connect the master cylinder primary brake pipe fitting (1) and tighten the fitting to 23 Nm (17 lb ft) .
Click for full-size image
- Connect the master cylinder secondary brake pipe fitting (1) and tighten the fitting to 23 Nm (17 lb ft) .
Click for full-size image
- Connect the clutch master cylinder supply hose, if equipped.
- Connect the brake fluid level indicator switch electrical connector.
- Bleed the hydraulic brake system. Refer to Hydraulic Brake System Bleeding .

All Technical Service Bulletins (itype_100)

Tsbs
- Brakes - Brake Fluid Seepage at Master Cylinder Cap (09-05-22-005C, 2013/07/29)

Customer Interest Bulletins (itype_109)

Tsbs
- Brakes - Brake Fluid Seepage at Master Cylinder Cap (09-05-22-005C, 2013/07/29)

Leaks (itype_149)

Tsbs
- Brakes - Brake Fluid Seepage at Master Cylinder Cap (09-05-22-005C, 2013/07/29)