

## BRAKE BOOSTER RESTORATION



A weekend project that nets obvious results

By Craig Fitzgerald

Photography by Matt Litwin and Craig Fitzgerald

**There's nothing that'll wake you up** faster than stepping on the brake pedal of a 4,572-pound Buick and having it go straight to the floor.

For 15 years or so, my recently resurrected 1968 Buick Riviera has been either in a garage or under a tarp, never moving thanks to a cooked 430 V-8. After five years of my ownership, it's finally back on the road, thanks to the efforts of Bill Baylis at Baybury Farms Buicks in Corinth, Vermont. Baylis tackled the heavy lifting in the mechanical department, but a lot of the ancillary components aren't exactly pleased to have been awoken from their long slumber. The master cylinder worked for about two weeks before its piston started pushing right past the fluid in the bore.

I ordered a new one, but I figured while I was at it, I'd clean up the brake booster. I'm assuming it had been replaced at some point in its history, since it seems to work just fine. No sense in buying new if the old one still works.

We contacted the Eastwood Company and the nice folks there sent along a sample of their Silver Cad paint. The natural inclination is to go with gold cadmium plating, but Buicks from the late 1960s were fitted with silver cadmium-plated boosters, at least until midway through 1971. Check reference photos for your particular model.

The results were decent. Does it look like silver cad plating? Not exactly. But it sure looks a lot better than what we started with, and it's a project anybody can do at home.



Here's where we started. The booster had quite a bit of surface rust all over that I'd done my best to clean up. It still looked lousy, though, especially next to a freshly painted 430. We put some absorbent "PigMats" down below the master cylinder to catch any of the caustic drips of brake fluid.



**1** Using a line wrench on the rigid brake lines keeps the wrench from slipping off the brake line ferrules, rounding them off and causing other problems. A good set is a worthwhile investment.



**2** The master cylinder separates from the power brake booster with two nuts. We also removed the windshield washer reservoir for better access to the booster.



**3** The biggest challenge in this whole project was getting the booster off. Full-size Buick boosters mount directly through the firewall with four nuts under the dash. They're tricky to get to, but we used a universal joint, a deep  $\frac{5}{8}$  socket and a 4-inch extension to get at them. The trouble was getting the booster disconnected from the pedal. After removing the cotter pin, we couldn't seem to get it to come off the clevis pin on the brake pedal. With a lot of wiggling, and liberal application of PB Blaster and profanity, it finally dropped off.



**4** We have access to a media blasting cabinet, but the idea of abrasive material flying around inside the booster's diaphragm wasn't too appealing. We plugged whatever holes we could find and went at the surface rust with a wire wheel and wire brushes.



**5** Eastwood's PRE is an aerosol paint prep material that cuts through grease and grime. We sprayed the booster and wiped it down. In any deep crevices, we used compressed air to blow out any residual material.



**6** As a final step before primer, we mixed up a quart of Eastwood's Metal Wash, which comes in a fine powder. Five tablespoons of material plus a quart of warm water makes up a sprayable solution that promotes primer adhesion to bare metal.



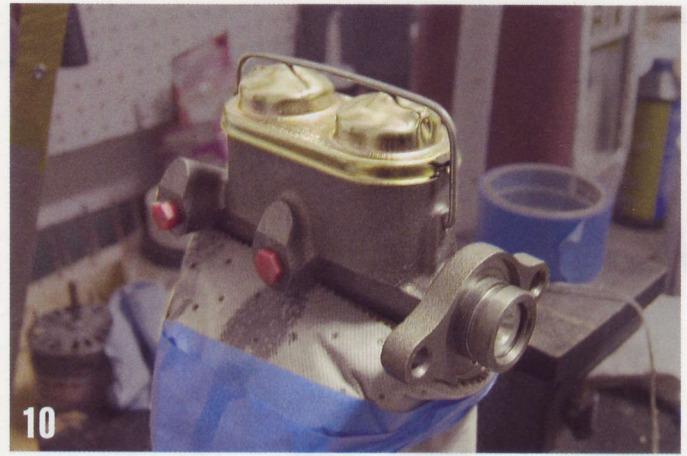
**7** After thoroughly drying the booster, we applied two coats of Eastwood's Self-Etching primer and then allowed it to dry for a couple seconds—it dries almost as fast as it comes out of the can, perfect for a time-crunched hobbyist.



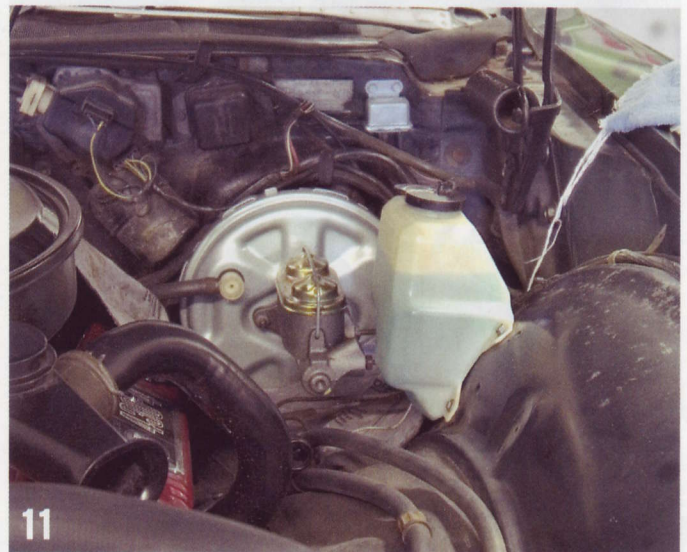
**8** The Silver Cad paint is a mix of silver paint with silver, green and blue metallic highlights that gives the appearance of silver cadmium plating.



**9** The finished product, just before re-installation. We've read tips about applying a final light "dusting" of blue metallic paint to further the impression of a cadmium finish, but decided the booster looked pretty good as-is, and elected to install it.



**10** We bench-bled the new Delco-Moraine master cylinder before installing it on the booster, per the instructions in the box. If you're thinking about painting the master cylinder itself, think twice. During the bench-bleeding and installation, brake fluid gets everywhere. It was hard enough to keep it off the inner fender, let alone keeping it away from a freshly painted master cylinder.



**11** The finished product. To keep the new master cylinder from growing surface rust in the damp weather, we're going to treat it with a wet graphite film lubricant. It'll maintain the dull gray original finish of the cast iron, and protect it from the elements, too. An occasional reapplication will keep it looking new. 🛠️

### Materials:

- Eastwood PRE Painting Prep
- Eastwood Metal Wash
- Eastwood Self-Etching Primer
- Eastwood Silver Cad
- 3M Brake Parts Cleaner
- NAPA Wet Graphite Film Lubricant
- NAPA DOT 4 Brake Fluid

### Source:

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