

# Gimme A Brake

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for Mighty Auto Parts

**F**inding and correcting the source of excessive pedal travel on some F 250 and 350 series trucks has been a source of frustration for many a shop. Countless hours have been spent trying every sort of fix with little success in most cases. These vehicles represent a typical scenario that occurs far too often, I call it “trying to re-invent the wheel syndrome”.

TSB's or Technical Service Bulletins are written to address vehicle specific problems, and should be incorporated into the inspection/diagnostic process. These

to apply the disc brake pads. Under ideal circumstances the master cylinder provides just enough fluid to move the caliper pistons to apply the front brakes. Over time the caliper tolerances change due to wear and the master cylinder no longer can provide the necessary volume without added pedal travel. The end result is excessive pedal travel, which is often described as a “pedal that goes to the floor”.

Diagnosing the problem starts with performing a line lock test on the vehicle. If the problem is the master cylinder the

pedal will be high and hard. Contradiction you say? Not really when you consider the only reason the pedal

moves is due to the caliper and wheel cylinder piston movement. Removing the rear line lock should only add 1/4” or so.

## TSB SAVES THE DAY WITH TRICKY FORD PICK-UP REPAIR

documents represent recognized problems that have been identified and more importantly the correct remedy. Ford issued a TSB on 1995 F-250 and F350 Light Trucks. The bulletin number is 98-5A-34 and the issuing date is 3/18/1998. Its title is “High Brake Pedal Travel or Low Brake Pedal Feel”. The problem addressed is described as – “The brake pedal may feel low or there may be long brake pedal travel on some vehicles. This may be due to the master cylinder bore size”.

The typical scenario goes something like this - the vehicle comes in for service with a marginal or acceptable brake pedal. The shop repairs the front brakes and tries the pedal after the repairs have been made only to find it now has excessive travel. If not aware of this bulletin the shop has now entered into a time intensive process that usually doesn't yield positive results.

To understand what's going on we must first think about the brake system used on these trucks. These vehicles use dual piston floating calipers (Figure 1). Dual piston calipers require a large volume of fluid to move the caliper pistons in order

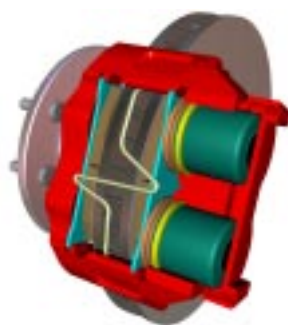


Figure 1

Removing one front line lock with the other still installed should yield just over 1/2 the excessive travel. Removing the last line lock will add the remaining excessive travel. Before condemning the master cylinder perform a thorough front brake inspection. This inspection will usually not result in finding the cause of the excessive pedal travel. If problems are found correct them and retest.

Assuming the front brake inspection does not provide the cause of the problem, proceed with the master cylinder replacement. Use the chart in Figure 2 to determine the

part number. The master cylinders listed have larger bores than the original equipment unit. They will provide the necessary volume to work the dual piston calipers in an acceptable amount of pedal travel. Make sure to use the correct application.

Some shops and aftermarket trainers have

Figure 2: Application Chart

Vehicles w/o Speed Control	Part Number
F-250 Gas 4x2	F6TZ-2140-AB
F-350 DRW	F6TZ-2140-AB
F-350 SRW Gas 4x2	F6TZ-2140-AB
F-350 SRW 7.3L 4x2 168" WB	F6TZ-2140-AB
F-250 4x4	F6TZ-2140-EB
F-250 7.3L 4x2	F6TZ-2140-EB
F-350 SRW 4x4	F6TZ-2140-EB
F-350 SRW 7.3L 4x2 133" WB	F6TZ-2140-EB

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F-250 7.3L 4x2	F6TZ-2140-FB
F-350 SRW 4x4	F6TZ-2140-FB
F-350 SRW 7.3L 4x2 133" WB	F6TZ-2140-FB

reported using the same fix on the E series vans that are experiencing the same problem. While there is no TSB involving these vehicles, independent sources have verified the discussed process works on these vehicles. It should be noted that normally the information supplied in any TSB should only be applied to those vehicles listed in the header portion of the TSB. This one represents an exception to the rule. In closing, if you are operating without easy access to TSB's it might be a good idea to explore making the investment. The amount of saved time and aggravation will be worth the money!



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