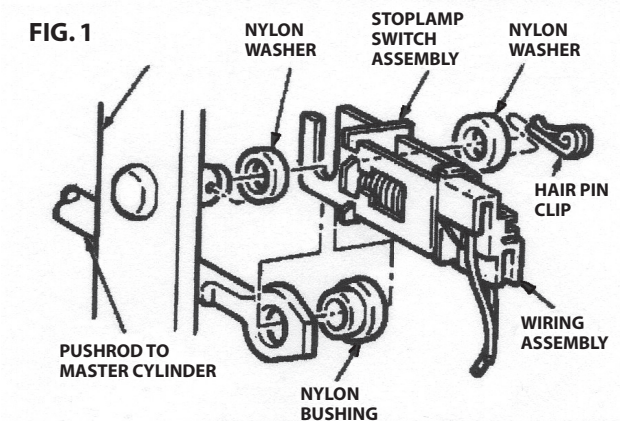
FACTORY BRAKE SOLUTIONS

For Some Loss of Brake Pedal Concerns

Imagine this scenario…you are driving a one ton truck with a 24-foot trailer attached and a 10,000 pound farm tractor loaded on the trailer. Approaching an intersection, you apply the brakes and to your surprise, the brake pedal falls to the floor with no resistance, and remains there. The condition was mechanical related instead of a hydraulic problem; therefore pumping the brake pedal to regain pedal height was not an option. Panic doesn't describe the helpless sensation, and seconds seem like minutes. Fortunately, the trailer was equipped with electric brakes, and the controller incorporated a manual override switch that allowed the trailer brakes to be applied directly and separately from the normal brake switch signal. Some quick thinking and the application of the trailer brakes brought the rig to a safe stop. It was a frightening, tire screeching braking experience, but an accident was avoided.

The truck was a recent purchase and someone had replaced the power brake vacuum booster in what turned out to be a botched installation. On this Ford truck, the stoplight switch shares the same brake pedal pin as the input rod to the vacuum booster *(see Fig. 1).*

FIG. 1



Someone had improperly installed the assembly, which incorporates bushings, washers and a stop light switch secured by a hair pin clip. The clip that keeps the assembly secured to the brake pedal pin had been damaged during installation, and it was found on the floorboard. The clip had dislodged, allowing the vacuum booster input rod to detach from the brake pedal. When this occurred, the brake pedal hit the floor during brake application without any means of applying hydraulic pressure to the brakes.

IMPROPERLY FORMED OR MISSING BRAKE BOOSTER CLIP

Chrysler recalls vehicles for an improperly formed or missing brake booster input rod clip.

Vehicles affected include:

2010	Chrysler Sebring
2010	Dodge Avenger
2010	Nitro
2010	Jeep Liberty
2010	Commander
2010	Grand Cherokee
2009–2010	Dodge Ram Trucks

Chrysler reports that an improperly formed, missing or detached brake booster input rod clip could result in a brake failure without warning. Chrysler's action involves replacing the clip on all vehicles mentioned except the Dodge Ram trucks. Chrysler Safety Recall J37 (NHTSA #10V009000) identifies specific vehicles and production dates that may have been manufactured with an improperly formed or missing brake booster input rod clip. Vehicles already inspected and repaired, as determined by the warranty records, were excluded from this notice. Approximately 20,000 of the mentioned vehicles may have incorrectly manufactured clips. The mentioned Dodge Ram trucks would be inspected for the presence of the clip, as some were left off during assembly. Trucks identified without

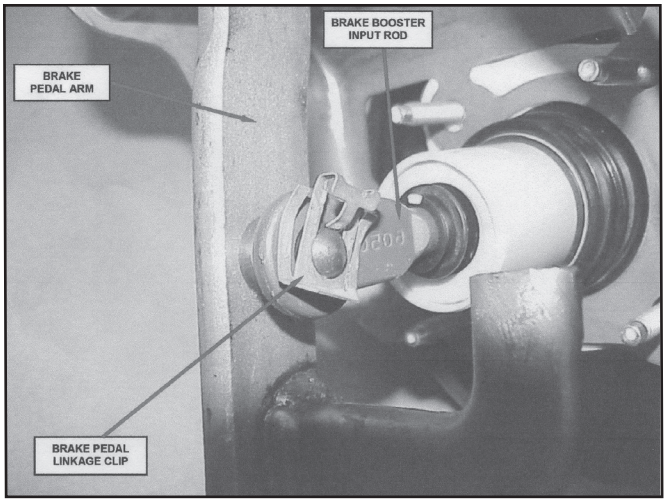


FIG. 2

the clip must have a new clip installed. When the clip is properly secured it will make an audible click when attached *(see Fig. 2, Courtesy of Chrysler)*.

While this recall should have been completed and 100% of the mentioned vehicles inspected, it is just good business to further inspect any of the mentioned vehicles that come into your facility for service, especially for brake service. Vehicles get traded and recalls have a way of slipping through the cracks.

I would make it a policy to inspect the same on any vehicle that you service whereby brake repairs have been performed by others; for example, a vehicle that is brought to you with a brake system complaint and someone else has replaced the brake booster or master cylinder. Make it a habit to inspect all clips, bolts, etc. to be certain that all fasteners are secured. The last thing you want is to be held liable for someone else's mistakes or negligence.

NISSAN BRAKE PEDAL INSPECTION

Nissan has recalled certain 2008–2010 Titan, Armada and Infiniti QX56 and model years 2008–2009 Quest vehicles due to the possibility of a brake pivot pin sliding out of the brake pedal bracket. A total of 179,383 vehicles could be affected by this recall (NHTSA ID#10V-072).

According to Nissan, the end of the pivot pin was not spin-formed to specification during the manufacturing process of the brake pedal assembly. It is possible for the pivot pin to slide from its proper position, causing the brake pedal to partially disengage from the brake pedal bracket. When this occurs, the brake pedal will be loose, causing a reduction in pedal stroke, which could result in a crash.

It may be necessary to reposition a wiring harness to get a good visual inspection of the pivot pin. Inspect the pivot pin on the right hand or inboard side of the brake pedal bracket *(see Figs. 3 & 4, Courtesy of Nissan)*. The pivot pin on a good assembly should reflect a rolled end as illustrated in Fig. 3. If the pivot pin reflects a square end as illustrated in Fig. 4, the brake pedal assembly must be replaced to prevent the pedal from detaching from its mounted position.

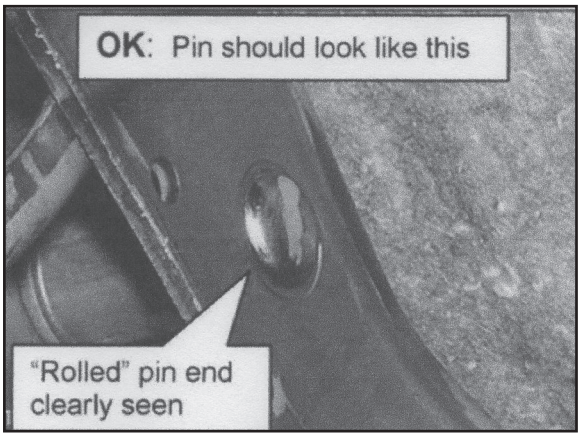


FIG. 3

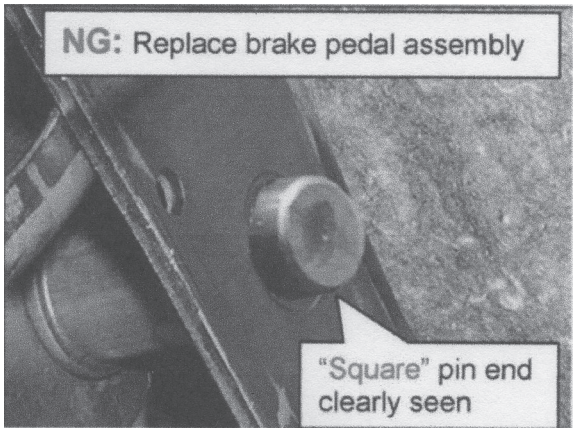


FIG. 4

Think safety and always inspect the other person's repairs. It may save you and the shop from liability and more important, save a human life.

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