

CVSA Brake Safety Week September 21- 27

Although automatic brake slack adjusters have been required on all new trucks since 1993 there are still questions that exist regarding their operation and adjustment. During a 12-hour period on May 7, 2008, thousands of trucks and buses were pulled off the highways in 45 states and provinces across the U.S. and Canada for a surprise inspection as part of the Commercial Vehicle Safety Alliance's (CVSA's) Operation Air Brake Campaign, which is run independently from RoadCheck 2008. The inspection day resulted in the following:

- 11,908 Vehicles Inspected
- 93,751 Brakes Inspected
- 15.8% of Vehicles Placed Out of Service for Brake-Related Defects
- 9.9% of Vehicles Placed Out of Service for Brake Adjustment Defects
- 8.3% of Vehicles Placed Out of Service for Brake Component Defects
- 9.4% of Brakes with Manual Brake Adjusters Placed out of Service
- 3.8% of Brakes with Self-Adjusting Brake Adjusters placed out of Service
- 4.7% of all Brakes Inspected Placed Out of Service for Brake Adjustment Defects

Data provided by CVSA

You will notice in the above figures that 3.8% of the brakes inspected had automatic slack adjusters and were placed out of service. So the question arises, **how do you adjust the brakes on a unit with automatic slack adjusters?**

Answer: A portion of the above violations can be attributed to the technical working of the automatic slack adjuster. Professional drivers typically will maintain a space cushion between themselves and the vehicles in front of them. They will usually apply the brakes with 15% to 25% air application. Only in a defensive action will a driver apply the brakes with greater than 60% air application. These braking incidents are referred to as "Panic Stops" or "Rapid De-acceleration Occurrences". Analysis reflects that most professional drivers will require less than 6 of this type of brake application per 1,000 miles driven.

Most International® trucks are equipped with a "Stroke Sensitive" automatic adjuster. This type of slack adjuster adjusts the brakes on the return stroke. This adjustment occurs only when the application is greater than 60%. The better the driver, the less opportunity for an automatic brake adjustment. To ensure that the brakes are always in adjustment, we recommend the following:

- 1) An automatic slack adjuster will adjust approximately ½ inch with every 10 full brake applications. Including this procedure as part of your pre-trip inspection will ensure that your brakes are always fully in adjustment. In the event of a roadside inspection, repeat this process while waiting your turn in line for the inspection process. This will ensure that you are not red tagged due to a slack adjuster "Out of Service" condition.
- 2) After completing this procedure and the brakes are still not adjusted or are inspected and found out of service, then it indicates there is a problem with the adjuster, the adjuster's installation, or related foundation brake components.

AS A DRIVER, DO NOT TRY TO MANUALLY ADJUST AN AUTOMATIC SLACK ADJUSTER!!!!

Truck Driver Appreciation Week

August 24 - 30, 2008. Just two weeks now until Truck Driver Appreciation Week. Show them how much you appreciate the work they do everyday.

CVSA Brake Safety Week

September 21- 27, 2008. The CVSA will be completing additional education and enforcement during this week.

Large Truck Crashes Fatalities Decline in 2007

The number of large-truck crash fatalities fell 4.4%, from 5,027 in 2006 to 4,808 in 2007. That number included 802 truck occupants, 502 of those in single-vehicle crashes, numbers virtually identical to last year. However, there were nearly 200 fewer people killed in other vehicles involved in crashes with heavy trucks.



National Transportation Safety Board

Facts on Truck Brake Maintenance: Dangers of Manually Adjusting Slack Adjusters

The Problem

- Automatic slack adjusters should not be manually adjusted after the initial installation adjustment.
- Manually adjusting an automatic slack adjuster to correct an out-of-adjustment brake will not fix the underlying problem, and the brake will likely go out of adjustment again soon.
- When an automatic slack adjuster is out of adjustment, it indicates there is a problem with the adjuster, the adjuster's installation, or related foundation brake components, which manual adjustment will not fix.
- In a 2003 accident in Glen Rock, Pennsylvania, a dump truck with out-of-adjustment brakes was unable to stop on a steep downgrade. The truck struck four cars, and one car struck three nearby children. Two people died as a result of the accident.
- Mechanics had repeatedly manually adjusted the dump truck's automatic slack adjusters. They did not look for underlying problems with the adjusters or related foundation brake components, so they misdiagnosed the brake problems. They were not properly educated on automatic slack adjusters and how they relate to foundation brake systems.
- The potential problem is enormous. According to Federal Motor Carrier Safety Administration estimates, about 8 million registered commercial motor vehicles are equipped with air brakes. Many may be operated by drivers with no air brake training, who may be poorly informed about automatic slack adjusters.
- Even professional truck maintenance and repair organizations sometimes give out inaccurate or inadequate information on automatic slack adjusters.

What You Need to Know

- The bottom line? Manually adjusting automatic slack adjusters is dangerous.
- Don't do it—except during installation or in an emergency to move the vehicle to a repair facility.
- Manually adjusting automatic slack adjusters does not address the true reason why the brakes are not keeping adjustment; instead, it gives the driver a false sense of security that the problem has been fixed, though the brakes will likely go out of adjustment again soon.
- Manual adjustment also causes abnormal wear to the internal adjusting mechanisms for most automatic slack adjusters, which may lead to adjuster failure.
- Ask your employer for proper training.
- Make sure maintenance and driver operating manuals are up to date and contain the correct information about automatic slack adjusters.