



WELL-MAINTAINED BRAKES & SAFETY – A WINNING COMBINATION

As the most recent CVSA Roadcheck demonstrated, braking system maintenance is an area that needs renewed focus from fleets. Properly maintaining truck braking systems can result in a more efficient, productive, and safer fleet operation.



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Maintaining a fleet of trucks is a major job; perhaps the biggest one fleet managers must supervise. An aggressive preventive maintenance (PM) program could see trucks regularly pulled out of service for a routine repair, which could affect productivity and the bottom line.

While this is a short-term inconvenience for drivers and their direct managers — downtime caused by predictable, scheduled maintenance will, in fact, improve productivity by maximizing uptime and more importantly, safety.

But as evidenced by the most recent Commercial Vehicle Safety Alliance (CVSA) annual Roadcheck and spot inspection events, a sizeable number of fleets are neglecting some key, basic components in their maintenance programs.

Chief among these components are truck braking systems. The results of having faulty brakes are serious, including:

- ▶ An unsafe vehicle that could result in a serious crash and ruinous liability payments.
- ▶ A vehicle and driver put out of service.
- ▶ A citation that includes both points against a driver and fleet's safety score and the possibility of a big fine.

However, fleets can take positive steps to keep their trucks' braking systems in good working order while maximizing uptime and productivity.



THE HIGH COST OF INADEQUATE BRAKE MAINTENANCE

During the most recent CVSA Roadcheck in August 2019 (the 2020 event was cancelled due to the COVID-19 pandemic), there were 67,072 inspections of commercial vehicles. This resulted in more than 12,000 vehicles and 2,700 drivers being put out of service. The most common reason — a whopping 28% of out of service violations — was for braking systems with another 17% (and the No. 3 violation) for brake adjustment.¹

Certainly, putting the vehicle or the driver out of service for any reason is serious, but if it is for braking systems, this points to potentially serious safety lapses in both the overall maintenance program and the required, daily driver vehicle inspection report (DVIR).

The safety factor is pure physics; without an adequate braking system, there is no way a driver can safely bring a vehicle — which weighs tens of thousands of pounds — to a complete stop. To put this in perspective, a fully loaded tractor trailer weighing 80,000 pounds and traveling under ideal (daytime, dry, flat) conditions at a speed of 65 mph will take 525 feet to stop — about the length of two football fields.²

If a truck's braking system fails at a critical moment, the effect could be a crash, which may result in:

- ▶ **The injury or death of the fleet's driver or another driver or bystander.**
- ▶ **A truck that is badly damaged and out of service for a long time.**
- ▶ **The inability to meet delivery obligations to a client.**

The potential for liability is significant. For example, so-called “nuclear” verdicts against large trucking companies are becoming more common, reaching into the tens and even hundreds of millions of dollars. One recent Texas case awarded the driver of a pickup truck rear-ended by a company tractor-trailer \$101 million, the largest such award on record in the U.S. While this judgment was drastically reduced on appeal to \$2.4 million,³ it still cost the trucking company valuable time and resources to defend, and ultimately cost millions in a direct liability payment.

But beyond direct liability costs, damage to the company's brand could be just as ruinous and long lasting, resulting in the potential loss of customers and drivers. The cause in both instances is the same; the fleet is seen as unsafe.

This is only one leg of the liability stool. The driver and fleet will also likely be assessed CSA points — counted for 24 months following the violation — which goes against its safety score and could affect the company's ability to get or retain business or affect its insurance premiums. The fleet's CSA status is posted publicly by the Federal Motor Carrier Safety Administration (FMCSA). This will reinforce in the minds of the public (who may be potential customers) that the fleet is unsafe.

The points value of a braking system violation isn't the highest. For either a general brake violation or a brake(s) out of adjustment, the violation is 4 points each.⁴ But where there is one violation, it can be expected that others may follow. Often, a vehicle or driver may be found to have other violations, which could net even more points, and in worst-case scenarios, trigger a time-consuming and expensive audit of the fleet by federal regulators.

Finally, while the points will flag the fleet's potential safety deficiencies at the time and could hurt the fleet (and its company's) ability to do business, they also bring with them substantial fines reaching into the tens of thousands of dollars or more for each vehicle, depending on the seriousness of the infraction. For example, if the fleet continues to operate the vehicle even after it was cited for having faulty brakes, it could face a fine for that single infraction of \$26,000 or more.⁵

IMPLEMENTING A BRAKE SAFETY PROGRAM

While the consequences of lacking a strong brake maintenance program could be catastrophic, implementing a safety program is relatively straightforward, relying on both the maintenance team and the driver for success.

On the maintenance side, establishing a strong preventive program that includes regular inspection and service of all brake components will standardize practices throughout the fleet. The PM program can be a component of the fleet's overall safety strategy, and include:



Correcting brake adjustment, either manually or, if equipped with automatic slacks, assuring adjuster rates of travel is correct.



Antilock brake system warning light operation.



Inspection of air hoses and tubing, preferably with the brakes applied.



Assurance that all hardware is in place and secure.



Proper thickness of lining and drums exists.



No presence of air leaks.



The low air warning system operates properly.⁶

In addition, fleets can consult the CVSA Inspection Level I guidelines to further align the PM program to the elements inspectors will be evaluating in the field.⁶

Drivers are also a key part of keeping braking systems in working order and should be doing their part due to the requirement to complete a daily pre-trip driver vehicle inspec-

tion report (DVIR). However, some drivers may just adhere to the spirit of the DVIR, “pencil whipping” their checklist with, at best, a cursory look at the various mechanical elements of the truck, including the braking systems. This could set up a chain of consequences that could end in a violation, the truck being put out of service, or worse, a crash.

Fleet personnel should regularly spot check that their drivers are adequately performing their DVIRs, making it a key component of the safety program to which they're held accountable. Regular spot checks and training will keep the importance of the DVIR top of mind for drivers. In addition, there are electronic solutions that can help further strengthen the DVIR process.

While it's crucial to hold drivers accountable for keeping their vehicles up and running, the truth is that most drivers are committed to having safe, well-maintained vehicles — since it is in their best interest. That means it's incumbent on fleet and company leadership to create a culture that encourages and reinforces safety.

The direct benefit isn't just a vehicle that is well maintained and productive; it is the means by which you'll hold onto your best and safest drivers. In fact, a strong maintenance PM program should be one of the pillars of your driver retention plan.

As you likely already know, finding and retaining good, safe, productive drivers is one of the biggest challenges facing the trucking industry today. Drivers leave their companies for a number of reasons, including: poor pay, time away from their family, scheduling issues, conflicts with supervisors, and poor quality equipment.⁷

Keep in mind that a driver's job is to operate a vehicle and transport a load from point A to point B safely and not to spend their precious productive hours handling maintenance issues.⁸

Having trucks that break down constantly will cause drivers to be frustrated, affecting their relationship and confidence in the company.⁷ And, worse, if drivers think their vehicles aren't just unreliable, but unsafe this will not only make it difficult to keep drivers, but hire them as well. In today's connected world, word about the way a company treats its employees — both good and bad — will get out. You definitely want to do everything you can to get positive marks from employees so you can attract the best drivers possible. Investing in maintenance is one of the ways you can stand out from the crowd.

Finally, as part of the PM process, data should be collected on the wear and tear of all components, including the brake systems, helping to benchmark when parts need to be replaced; further enhancing the PM program.

REINFORCING BEST PRACTICES FOR SUCCESS

Ongoing training, benchmarking, and accountability will help to reinforce these best practices in brake system maintenance and safety.

And while it may seem daunting at first, it's worth the effort because:

- Vehicles and drivers will remain on the road safely and productively.
- Well-maintained vehicles increase driver satisfaction and retention.
- The fleet will be viewed as safe and reliable.
- Costs related to crashes and liability payments will be eliminated and go right to the bottom line instead.

Committing the fleet to a strong safety and PM program related to braking systems will payoff sooner than you think. The CVSA Operation Airbrake Program will hold two events in 2021. A scheduled event will be held Aug. 22--28; and a second unscheduled event will also occur sometime during the year.

GOING FOR THE WIN: CONSIDER OUTSOURCING TRAILER MAINTENANCE

With large numbers of Baby Boomers retiring, the need for technicians will grow. The Bureau of Labor Statistics predicts there will be a need for 75,000 diesel engine specialists by 2022.⁹ With the demand for technicians far outstripping supply, fleets may find it difficult to provide comprehensive service for all of its assets, particularly trailers, which are often a "forgotten" asset for many fleets.

One of the ways fleets can optimize their limited maintenance resources is by outsourcing some or all of their trailer maintenance.

Of course, outsourcing can cause some concerns and complications. For instance, using multiple vendors could lead to inconsistent work and unpredictability. Fleet stakeholders may not have confidence that the needs of the operation are being met related to:

- The quality of the workmanship.
- Timeliness of repairs or the ability to meet roll time targets.
- Adherence to the fleet's specifications or standards.

That being said, outsourcing can maximize the fleet's maintenance operation and provide the same superior quality expected from an internal operation. It requires choosing the right partner who can help you plan and budget accordingly and be able to provide clear visibility or repair status and completion.

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