

Common Causes of Semi-truck Breakdowns

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Posted by Tim Moore on **June 30, 2017** - 7:10 AM



Experiencing big rig breakdowns

According to the [Technology & Maintenance Council \(TMC\)](#), tires are the cause of 53.5 percent of roadside breakdowns. However, tires aren't the only contributor to truck problems. Other components like brakes, electrical systems and refrigeration units cause issues, too. Learn how each part can create disruptions and who to call for fast and reliable breakdown service.

4 components that cause truck problems

Even though roadside failures aren't always predictable, knowing what typically triggers them can help you establish a maintenance plan that reduces your breakdown risk. Stay safe on the road by knowing which four components commonly lead to semi-truck malfunctions.

1. Tires

Tires are usually considered the most important elements of any vehicle because they're the only contact your truck has with the road. But, they can also be the most dangerous when they're not cared for properly. As mentioned, tires are the leading cause of truck problems, accounting for more than 50 percent of all roadside failures. Most tires fail because of:

- Under inflation (causes excessive heat buildup in the tire sidewall)
- Low tread depth (more susceptible to road damages such as punctures)
- Misaligned axles (accelerates tire wear)

Learn more about [commercial truck tires](#) and get safety tips about maintaining them.

2. Brakes

A study conducted by the [Federal Motor Carrier Safety Administration](#) (FMCSA) shows that brake-related issues lead to 29 percent of semi-truck accidents. Because [a semi's disc and drum brakes](#) are exposed to consistent heat, pressure and friction, they wear down without appropriate maintenance. If you're experiencing brake issues, they're likely caused by:

- Air leaks
- External corrosion and wear
- Internal water contamination causes air line freeze ups in the winter months

3. Electrical System

The [electrical system](#) is another component that leads to truck breakdowns. This system is composed primarily of the starter motor, alternator and battery. If any of these crucial parts fail to operate, your vehicle can't function. Signs of a malfunctioning electrical system include corroded battery connections; dead batteries; dim or flickering lights; strong, unusual odors; and clicking sounds when starting the engine.

4. Refrigerated trailers

[Refrigerated trailers](#), also called reefer units, are critical for shipping temperature-controlled freight. When a reefer breaks down, repairs are needed quickly to protect the freight from damage. Because of this, it's important to monitor the trailer during transit and pay attention to any in-cab signals that indicate the unit is not working properly.

Tips for avoiding truck breakdowns

Use the following tips to reduce the likelihood of breakdowns:

- Implement a [regular preventive maintenance](#) (PM) program
- Conduct pre-trip, en-route and post-trip inspections
- [Analyze maintenance data](#) to guide future fleet maintenance decisions