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## Vehicle Maintenance Overview

**What is the Vehicle Maintenance BASIC?** The Vehicle Maintenance Behavior Analysis and Safety Improvement Category (BASIC) is one of seven categories that the Federal Motor Carrier Safety Administration (FMCSA) uses to determine how a motor carrier ranks relative to other carriers with a similar number of safety events (i.e., inspections, violations, or crashes). The Vehicle Maintenance BASIC addresses the requirements within the Federal Motor Carrier Safety Regulations (FMCSRs), specifically 49 CFR Parts 392, 393 and 396, to properly maintain a commercial motor vehicle (CMV) and to prevent shifting loads, spilled or dropped cargo, and overloading of a CMV.

Proper maintenance includes, among other things, ensuring that lamps and reflectors are working, and tires are not worn. Some example roadside safety violations that may cause a motor carrier to rank poorly in this BASIC include operating an out-of-service vehicle or operating a vehicle with inoperative brakes, lights, and/or other mechanical defects, and failure to make required repairs. Improper load securement (see the specific requirements by commodity type in 49 CFR Part 393.116 – 393.136) and cargo retention violations are also examples of roadside violations included in this BASIC.

**How do motor carriers know where they stand?** FMCSA's Safety Measurement System (SMS) determines an overall BASIC status for each motor carrier based upon roadside inspection results that are reflected as a percentile rank and/or prior investigation violations. This information can be seen by logging into the **SMS Website (<https://ai.fmcsa.dot.gov/sms>)**. Once logged into the SMS Website, a motor carrier with safety compliance problems in the Vehicle Maintenance BASIC will see a warning symbol in that BASIC. You can also view the records of your company's roadside inspections and request a review of any records you think are inaccurate through DataQs. Violations of the regulations related to the Vehicle Maintenance BASIC raise the percentile rank, which indicates lower safety compliance and may lead to safety interventions such as warning letters or investigations.

**What documents associated with this BASIC should motor carriers keep?** If an investigation is conducted, Safety Investigators (SIs) may request from motor carriers these types of documents: roadside inspection reports, vehicle maintenance files, annual vehicle inspection reports, Driver Vehicle Inspection Reports (DVIRs), equipment repair receipts, evidence of driver training on load securement, and accident reports. Motor carriers should keep these documents as required by the FMCSRs, and know that SIs may use them to assess the nature and severity of safety problems.

**How can motor carriers and their drivers improve safety performance in the Vehicle Maintenance BASIC?** Drivers should know how to properly maintain CMVs, for their safety and the safety of others. Employers should ensure that their drivers know that any vehicle malfunction, maintenance problem, or load securement issue must be addressed proactively to prevent crashes.

Motor carriers should educate drivers about how to properly conduct pre- and post-trip inspections, record vehicle defects on DVIRs, and ensure that any defects which would hinder safe operation of the vehicle are repaired prior to operating the vehicle. Motor carriers should train drivers on how to properly load CMVs to prevent shifting loads, spilled or dropped cargo, and overloading. Motor carriers should answer drivers' questions, and direct them to the information they need, including FMCSA's Websites.

Motor carriers should know that violations related to the Vehicle Maintenance BASIC adversely affect SMS results for 24 months; time and/or inspections with no Vehicle Maintenance violations can improve motor carriers' BASIC percentile ranks. Also, they should check out the "What can a motor carrier do to improve?" section of the SMS Information Center for answers to commonly asked questions about safety performance.



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CSA is FMCSA's enforcement and compliance program to improve large truck and bus safety and ultimately reduce CMV-related crashes, injuries, and fatalities. For more information about CSA, visit <http://csa.fmcsa.dot.gov>

