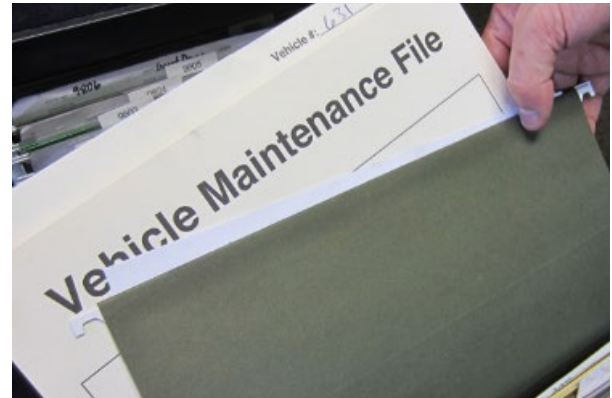


# Inspection and maintenance requirements for commercial motor vehicles

The Federal Motor Carrier Safety Regulations (FMCSR) specify minimum maintenance and inspection criteria for commercial motor vehicles under 49 CFR Part §396. These requirements serve as a minimum best practice for nonregulated vehicles as well. The following is a summary of the regulations and links to additional resources and sample forms. “Motor carrier” is defined as an organization subject to the regulations. “Commercial Motor Vehicle” or “Vehicle” includes power units, trailers and other equipment defined in the regulations.



## A maintenance file (electronic or paper) is required for each vehicle or trailer.

### Understanding of regulations (§396.1)

Every motor carrier, its officers, drivers, agents, representatives and employees directly concerned with the inspection or maintenance of commercial motor vehicles must be knowledgeable of and comply with the rules of §396. Best practice is to validate knowledge during hiring/orientation and cover any gaps with training. Annual refresher training is recommended for all staff members.

### Systematic process for inspection, repair and maintenance (§396.3)

Motor carriers are required to have a systematic inspection, repair and maintenance process. While guidance is stipulated on some inspection requirements, the FMCSR do not define what a systematic program should entail. See Preventive maintenance checks and services (PMCS) at the end of this document for an example of a systematic maintenance and inspection program.

### Recordkeeping requirements (§396.3)

Motor carriers must maintain the following information for every vehicle they have controlled for 30 days or more:

- Identifying information, including company number, make, serial number, year, and tire size.
- A schedule of inspections to be performed, including type and due date.
- Inspection, repair and maintenance records ([sample form](#)).
- Records of tests conducted on buses with push-out windows, emergency doors, and marking lights ([sample form](#)).
- These records must be retained for 1 year at the location where the vehicle is garaged and must be maintained for 6 months after the vehicle leaves the carrier's control (e.g., by sale, trade-in, scrap, etc.).

## Roadside inspection reports (§396.9)

Any driver who receives a roadside inspection report from law enforcement must deliver it to the motor carrier within 24 hours of receiving it. Vehicles that are placed out-of-service (OOS) cannot be moved until the violation(s) which caused them to be OOS are corrected.

**Certification of roadside inspection reports.** An official of the motor carrier is to examine the roadside inspection report and ensure that any violations or defects noted on the report are corrected. Within 15 days after the inspection, the carrier must sign the completed roadside inspection report to certify that all violations have been corrected and then return it to the indicated address. A copy must be retained for 12 months from the date of inspection.



## Many violations identified by law enforcement should have been identified and addressed by the driver during pre- and post-trip inspections.

As a best practice, organizations should:

- Register to access the [FMCSA Portal](#) where they can view all their vehicle inspections and Vehicle Maintenance Safety Measurement System (SMS) score.
- Check weekly to ensure that they're aware of all inspections.
- Investigate why violations have occurred and what can be done to prevent a recurrence.
- Hold maintenance personnel and drivers accountable for violations that should have been identified during required inspection and maintenance procedures.

[Click here for a guide](#) to reducing roadside violations and improving your Vehicle Maintenance SMS score.

### Post-trip inspection report (§396.11)

Every motor carrier must require its drivers to prepare a driver vehicle inspection report (DVIR) at the end of each driving shift. A driver is responsible for preparing such a report for each vehicle driven.

- The report must list any condition that the driver either found or had reported to him/her that would affect safe operation or cause a breakdown.
- Drivers are not required to prepare a report if no defect or deficiency is discovered by or reported to the driver. However, it is considered a best practice as proof that it was conducted. A good inspection form also provides guidance to the driver on what to inspect.

- The FMCSA provides [this sample DVIR](#). An organization should customize it to meet their needs. Refer to §396.11(b) for additional inspection requirements for intermodal equipment.
- Before dispatching the vehicle again, a carrier shall ensure that a certification has been made that the defect or deficiency has been corrected or state those deficiencies that do not require immediate correction.
- Carriers must keep the original post-trip DVIR and the certification of repairs for at least 3 months from the date of preparation.

### Pre-trip driver inspection (§396.13)

Before starting out (pre-trip), the driver must be satisfied that the motor vehicle is in safe operating condition. If the last DVIR notes any deficiencies, the driver must review and sign to acknowledge that necessary repairs have been completed, if required.

The Occupational Safety and Health Administration (OSHA) Construction Standard (29 CFR Part §1926.601(b)(14)) requires a similar pre-shift vehicle inspection.

### En route driver inspections (§392.9)

Drivers are required to inspect their cargo and securement devices after the first 50 miles. Thereafter they must re-examine at every change of duty status; after 3 hours; or after 150 miles while en route, whichever comes first.

## Periodic inspection (§396.17)

Every commercial vehicle, including each segment of a combination vehicle (power unit and trailer), requires a periodic inspection that must be performed at least once every 12 months. They are often referred to as “annual inspections.”

Some states mandate that periodic inspections be carried out by state staff members or their designated representatives. Otherwise, motor carriers may perform required annual inspections themselves or allow a third party to conduct inspections, as long as the inspector meets the qualifications mandated in §396.19. Persons inspecting and maintaining brakes require additional qualifications. [See qualifications/checklist](#) for both.



## Drivers should be trained how to complete a thorough post-trip inspection and document the results properly. Drivers need to verify that repairs have been made prior to starting their next shift.

At a minimum, inspections must include all items listed in the Minimum Periodic Inspection Standards – [§396 Appendix A](#). Click for the [FMCSA's sample form](#).

- The original or a copy of the periodic inspection report must be retained by the motor carrier for 14 months from the report date.
- Documentation (report, sticker or decal) of the most recent periodic inspection must be kept on the vehicle. Decals are typically used with trailers as there is no place to house a paper copy.

## Unsafe operation forbidden (§396.7)

Part §396.7 specifically forbids the operation of motor vehicles found (by inspection or operation) to be defective. A carrier shall not permit or require drivers to operate defective vehicles, and drivers may not drive such vehicles. These vehicles should be declared and marked as OOS.

## Preventive maintenance checks and services (PMCS)

Preventive maintenance checks and services (PMCS) is a process the military uses for systematic inspection and maintenance of equipment. PMCS works well for meeting the systematic inspection and maintenance requirements of §396. Through preventive maintenance schedules, vehicles are inspected, repaired and maintained in such a way that defects are prevented from surfacing in the first place, before a violation, breakdown or accident occurs.

The PMCS is composed of scheduled and standardized inspections and maintenance. This is sometimes referred to as the vehicles' scheduled service. PMCS services are commonly designated as A, B, C, D, etc. As you move down the alphabet from A to B and so on, the PMCS service (and time required) increases in complexity.

**“A” service** is also known as a “maintenance check-out” or “safety inspection” and generally consists of a safety check and lubrication as well as checks of key components such as brakes, lights, tire condition and inflation, and fluids. It also includes checking and adjusting high-wear components. The normal interval for “A” service is between 1,500 and 2,500 miles on light vehicles, and between 5,000 and 10,000 miles on medium- and heavy-duty vehicles.

**“B” service** normally includes all PMCS A items, and also includes an oil and filter change as well as more in-depth checks of the engine and driveline. The normal interval for “B” service is 3,000 to 5,000 miles for light-duty vehicles and 10,000 to 20,000 miles for medium- and heavy-duty vehicles. A PMCS B should also include a download of the ECM and action on any trouble codes or problems reported by the ECM.

**“C” service** calls for both PMCS A and PMCS B service and more extensive service (i.e., alignment, scheduled component replacement, DOT annual inspection, and other scheduled engine and driveline component inspection or replacement). Normally, “C” services are scheduled annually. To make sure they are done in a timely manner, it is not unusual for motor carriers to schedule them at an 11-month interval.



**“D” service** is either a scheduled rebuild or replacement of a major component (e.g., engine, transmission, axle) or a “special” service. Examples of “special service” are seasonal service (winterization or summerization) and scheduled upgrade services. Scheduling of “D” services varies by motor carrier.

### Trailer inspections

**“TA” service** is scheduled every 3 months. This PMCS service includes an inspection and lubrication, including a check of (at a minimum) the lights, tires, brakes, coupling devices, safety equipment, and any other “systems” (refrigeration unit, sliding axles, etc.).

**“TB” service** is scheduled every 6 months. This PMCS service includes all the items of a “TA” and a more in-depth inspection, as well as additional maintenance (pulling off hubcaps to check grease condition, retorquing lugs, etc.).



## A systematic inspection and maintenance program minimizes on-the-road breakdowns.

**“TC” services** are normally scheduled annually. These include all the inspection and maintenance included in a “TA” and “TB” services, along with more extensive maintenance such as an alignment or complete brake overhaul. Some carriers will also perform the periodic (annual) inspection required under §396.17 as part of the “TC” service.

### Best practices

- Maintenance and inspection software programs are a must for large fleets.
- The actual trigger point for inspections and maintenance should be according to the vehicle manufacturers’ recommendations.

- Organizations should track their roadside violations and ensure that frequent problem areas receive additional focus during inspections and maintenance.

### Additional resources

- [FMCSA Motor Carrier Safety Planner, Chapter 5 Vehicle Requirements](#)
- [Federal Motor Carrier Safety Regulations](#)
- Tire Safety: [For Managers](#) [For Drivers](#)
- [Owner-Operator Maintenance](#)

**Note:** There are additional requirements for intermodal containers and chassis and hauling hazardous materials which are beyond the scope of this publication.



### Providing solutions to help our members manage risk.®

For your risk management and safety needs, contact Nationwide Loss Control Services at 1-866-808-2101 or [LCS@nationwide.com](mailto:LCS@nationwide.com).

The information used to create this brochure was obtained from sources believed to be reliable to help users address their own risk management and insurance needs. It does not and is not intended to provide legal advice. Nationwide, its affiliates and employees do not guarantee improved results based upon the information contained herein and assume no liability in connection with the information or the provided suggestions. The recommendations provided are general in nature; unique circumstances may not warrant or require implementation of some or all of the suggestions. Nationwide, the Nationwide N and Eagle, Nationwide is on your side and Providing solutions to help our members manage risk are service marks of Nationwide Mutual Insurance Company. © 2023 Nationwide CMO-1429AO.1 (09/23)

