# **FMVSS**

#### **Federal Motor Vehicle Safety Standards (FMVSS)**

US-amerikanische Sicherheitsvorschriften für Kraftfahrzeuge

- <a href="https://www.nhtsa.gov/laws-regulations/fmvss">https://www.nhtsa.gov/laws-regulations/fmvss</a>
- http://www.nhtsa.dot.gov/cars/rules/import/FMVSS/index.html

Das europäische Pendant sind die <u>ECE-Regelungen</u>; in Canada gibt es die *Canada Motor Vehicle Safety Standards* (<u>CMVSS</u>), welche in großen Teilen den *FMVSS* entsprechen.

### **Inhaltsverzeichnis**

- 1 Standards (12/2015)
  - 1.1 Crash Avoidance
  - 1.2 Crashworthiness
  - 1.3 Post Crash Standards
  - 1.4 Further Standards
  - 1.5 Other Regulations
- 2 Siehe auch

## **Standards (12/2015)**

#### Crash Avoidance

- FMVSS 101 Controls and Displays Passenger Cars (Effective 1-1-68). This standard requires that essential controls be located within reach of the driver when the driver is restrained by a lap belt and upper torso restraint, and that certain controls mounted on the instrument panel be identified. Passenger Cars (Effective 1-1-72), Multipurpose Passenger Vehicles, Trucks, and Buses (Effective 9-1-72). All manually operated controls must be identified by words. Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses (Effective 9-1-72). Except for foot-operated controls or manually operated controls mounted on the steering column, the identification of essential controls and displays must be illuminated whenever the headlamps are lit. Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses (Effective 9-1-80). Certain essential hand-operated controls and certain displays must be identified by a symbol, and such identification be illuminated.
- FMVSS 102 Transmission Shift Lever Sequence, Starter Interlock, and Transmission Braking Effect Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses (Effective 1-1-68). This standard specifies the requirements for the transmission shift lever sequence, a starter interlock, and for a braking effect of automatic transmissions, to reduce the likelihood of shifting errors, starter engagement with vehicle in drive position, and to provide supplemental braking at speeds below 40 km/h (25 mph).
- FMVSS 103 Windshield Defrosting and Defogging Systems Passenger Cars, Multipurpose

- Passenger Vehicles, Trucks, and Buses (Effective 1-1-88). This standard specifies requirements for windshield defrosting and defogging systems.
- FMVSS 104 Windshield Wiping and Washing Systems Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses (Effective 1-1-88). This standard specifies requirements for windshield wiping and washing systems.
- FMVSS 105 Hydraulic and Electric Brake Systems Passenger Cars (Effective 1-1-68) This standard specifies requirements for vehicles equipped with hydraulic and electric service brake systems and associated parking brake systems to ensure safe braking performance under normal conditions and emergency conditions. Passenger Cars (Effective 1-1-76), School Buses (Effective 4-1-77) Multipurpose Passenger Vehicles, Trucks and Buses (Effective 9-1-83) Vehicles with Electric Brake Systems (Effective 10-20-97). All braking effectiveness tests measure stopping distance. Passenger Cars (Effective 3-6-95 until 9-1-2000), Multipurpose Passenger Vehicles, Trucks and Buses (Effective 12-1-97 until 9-1-2002). Manufacturers of passenger cars and multipurpose passenger vehicles (MPVs), trucks and buses with a gross vehicle weight rating (GVWR) less than or equal to 3,500 kg (7,716 lbs.) may certify compliance with either \*FMVSS No. 105 or \*FMVSS No. 135 described later in this booklet. After the terminal dates shown above, \*FMVSS No. 105 continues to apply to MPVs, Trucks and Buses with a GVWR greater than 3,500 kg (7,716 lbs.). Multipurpose Passenger Vehicles, Trucks and Buses (Effective 3-1-99) Multipurpose passenger vehicles, trucks and buses with a GVWR greater than 4,536 kg (10,000 lbs.) must be equipped with an antilock brake system and meet additional stopping distance requirements.
- FMVSS 106 Brake Hoses Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, Trailers, and Motorcycles, and Hydraulic, Air, and Vacuum Brake Hose, Brake Hose Assemblies, and Brake Hose End Fittings for use in those vehicles (Effective 1-1-68). This standard establishes performance and labeling requirements for hydraulic, air, and vacuum brake hoses, brake hose assemblies, and brake hose fittings for all motor vehicles. The purpose of this standard is to reduce brake system failure from pressure or vacuum loss due to hose or hose assembly rupture.
- FMVSS 107 Reserved
- FMVSS 108 Lamps, Reflective Devices, and Associated Equipment Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, Trailers, (except pole trailers and trailer converter dollies), and Motorcycles (Effective 1-1-68 for vehicles 2,032 mrn (80 or more inches) in width and Effective 1-1-69 for all other vehicles). This standard specifies requirements for original and replacement lamps, reflective devices, and associated equipment. Its purpose is to reduce traffic crashes and deaths and injuries resulting from traffic crashes, by providing adequate illumination of the roadway, and by enhancing the conspicuity of motor vehicles on the public roads so that their presence is perceived and their signals understood, both in daylight and in darkness or other conditions of reduced visibility
- FMVSS 109 New Pneumatic Tires Passenger Cars manufactured after 1948 (Effective 1-1-68). This standard specifies tire dimensions and laboratory test requirements for bead unseating resistance; strength, endurance, and high-speed performance; defines tire load rating; and specifies labeling requirements.
- FMVSS 110 Tire Selection and Rims Passenger Cars, Non-Pneumatic Spare Tire Assemblies for Use on Passenger Cars (Effective (4-1-68). This standard specifies requirements for original equipment tire and rim selection on new cars to prevent overloading. These include placard requirements relating to load distribution as well as rim performance requirements under conditions of rapid tire deflation.
- FMVSS 111 Rearview Mirrors Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, School Buses and Motorcycles (Effective 1-1-68). This standard specifies requirements for the performance and location of inside and outside rearview mirrors. Its purpose is to reduce the number of deaths and injuries that occur when the driver of a motor vehicle does

not have a clear and reasonably unobstructed view to the rear. School Buses (Effective 12-2-93). Revised requirements for driver visibility in front of and along both sides of school buses.

- FMVSS 112 Reserved
- FMVSS 113 Hood Latch System Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses (Effective 1-1-69). This standard establishes the requirement for providing a hood latch system or hood latch systems.
- FMVSS 114 Theft Protection and Rollaway Prevention Passenger Cars (Effective 1-1-70), Multipurpose Passenger Vehicles, Trucks, and Buses with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less (Effective 9-1-83). However, it does not apply to walk-in van-type vehicles. This standard specifies requirements for theft protection to reduce the incidence of crashes resulting from unauthorized use of a motor vehicle and to reduce the incidence of crashes resulting from rollaway of parked vehicles with automatic transmissions.
- FMVSS 115 Reserved
- FMVSS 116 Motor Vehicle Brake Fluids All fluids for use in hydraulic brake systems of motor vehicles; Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, Trailers, and Motorcycles (Effective 1-1-68, amended 3-1-72). This standard specifies requirements for fluids for use in hydraulic brake systems of motor vehicles, containers for these fluids, and labeling of the containers. The purpose of this standard is to reduce failures in the hydraulic braking systems of motor vehicles which may occur because of the manufacture or use of improper or contaminated brake fluid.
- FMVSS 117 Retreaded Pneumatic Tires Retreaded Pneumatic Tires for use on Passenger Cars Manufactured after 1948 (Effective 1-1-72). This standard specifies performance, labeling, and certification requirements for retreaded pneumatic passenger car tires. Its purpose is to require retreaded pneumatic car tires to meet safety criteria similar to those for new pneumatic passenger car tires.
- FMVSS 118 Power-Operated Window, Partition, and Roof Panel Systems Passenger Cars and Multipurpose Passenger Vehicles (Effective 2-1-71), Trucks (Effective 7-25-88). This standard specifies requirements for power operated window, partition, and roof panel systems to minimize the likelihood of death or injury from their accidental operation.
- FMVSS 119 New Pneumatic Tires Multipurpose Passenger Vehicles, Trucks, Buses, Trailers, and Motorcycles (Effective 3-1-75). This standard establishes performance and marking requirements for tires for use on multipurpose passenger vehicles, trucks, buses, trailers, and motorcycles. Its purpose is to provide safe operational performance levels for tires used on motor vehicles other than passenger cars, and to place sufficient information on the tires to permit their proper selection and use.
- FMVSS 120 Tire Selection and Rims for Motor Vehicles Other Than Passenger Cars Multipurpose Passenger Vehicles, Trucks, Buses, Trailers, and Motorcycles, to Rims for use on those vehicles, and to Non-Pneumatic Spare Tire Assemblies for use on those vehicles (Effective 8-1-76). This standard specifies tire and rim selection requirements and rim marking requirements. Its purpose is to provide safe operational performance by ensuring that vehicles to which it applies are equipped with tires of adequate size and load rating and with rims of appropriate size, type designation, and manufacturer identification.
- FMVSS 121 Air Brake Systems Trucks, Buses, and Trailers (Effective 1-1-75). This standard specifies performance, equipment and dynamometer test requirements for braking systems on vehicles equipped with air brake systems, including air-over-hydraulic brake systems, to ensure safe braking performance under normal and emergency conditions. Trucks and Trailers (Effective 8-9-79) Stopping distance requirements not applicable. Truck Tractors (Effective 3-1-97) Air-braked truck tractors must be equipped with an antilock brake system, meet stopping distance requirements under normal and emergency conditions, and can be stopped in a controlled manner on a curved, wet test road. Trucks, Buses and Trailers (Effective

- 3-1-98). Air-braked trucks, buses and trailers must be equipped with an antilock brake system and meet stopping distance requirements under normal and emergency conditions.
- FMVSS 122 Motorcycle Brake Systems (Effective 1-1-74). This standard specifies performance requirements for motorcycle brake systems. Its purpose is to ensure safe motorcycle braking performance under normal and emergency conditions.
- FMVSS 123 Motorcycle Controls and Displays Motorcycles equipped with handlebars, except for motorcycles that are designed and sold exclusively for use by law enforcement agencies (Effective 9-1-74). This standard specifies requirements for the location, operation, identification and illumination of motorcycle controls and displays, and for stands and footrests. Its purpose is to minimize crashes caused by operator error in responding to the motoring environment, by standardizing certain motorcycle controls and displays.
- FMVSS 124 Accelerator Control Systems Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses (Effective 9-1-73). This standard establishes requirements for the return of a vehicle's throttle to the idle position when the driver removes his or her foot from the accelerator control, or in the event of a severance or disconnection in the accelerator control system.
- FMVSS 125 Warning Devices (Effective 1-1-74). This standard establishes shape, size, and performance requirements for reusable day and night warning devices that can be erected on or near the roadway to warn approaching motorists of the presence of a stopped vehicle. This standard applies to devices that do not have self-contained energy sources that are designed to be carried in buses and trucks that have a gross vehicle weight rating greater than 4,536 kg (10,000 lbs.).
- FMVSS 126 Electronic Stability Control Systems (ESC)
- FMVSS 127 reserved
- FMVSS 128 reserved
- FMVSS 129 New Non-Pneumatic Tires for Passenger Cars New Temporary Spare Non-Pneumatic Tires for Use on Passenger Cars (Effective 8-20-90). This standard specifies tire dimensions and laboratory test requirements for lateral strength, endurance, and high-speed performance; defines the tires load rating; and specifies labeling requirements for non-pneumatic spare tires.
- FMVSS 130 ?
- FMVSS 131 School Bus Pedestrian Safety Devices (Effective 5-3-91) This standard establishes requirements for devices that can be installed on school buses to improve the safety of pedestrians in the vicinity of stopped school buses. Its purpose is to reduce deaths and injuries by minimizing the likelihood of vehicles passing a stopped school bus and striking pedestrians in the vicinity of the bus.
- FMVSS 132 ?
- FMVSS 133 ?
- FMVSS 134 ?
- FMVSS 135 Light Vehicle Brake Systems Passenger Cars (Effective 3-6-95), Multipurpose Passenger Vehicles, Trucks and Buses (Effective 12-1-97). This standard specifies requirements for vehicles equipped with hydraulic and electric service brakes and parking brake systems to ensure safe braking performance under normal conditions and emergency conditions. Manufacturers of passenger cars and multipurpose passenger vehicles, trucks and buses with a gross vehicle weight rating less than or equal to 3,500 kg (7,716 lbs.) may certify compliance with either \*FMVSS No. 105, described earlier in this booklet, or \*FMVSS No. 135. The options expire on September 1, 2000 for passenger cars and on September 1, 2002 for other vehicles, on which dates compliance with FMVSS No. 135 is mandatory.
- FMVSS 136 Electronic Stability Control Systems for Heavy Vehicles
- FMVSS 137 -?
- FMVSS 138 Tire Pressure Monitoring Systems (TPMS)

- FMVSS 139 New Pneumatic Radial Tires for Light Vehicles
- FMVSS 140 ?
- FMVSS 141 Minimum Sound for Hybrid and Electric Vehicles (Draft)

#### Crashworthiness

- FMVSS 201 Occupant Protection in Interior Impact. This standard specifies performance requirements to provide head impact protection for occupants. Passenger Cars (Effective 1-1-68); Multipurpose Passenger Vehicles, Trucks and Buses with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less (Effective 9-1-81). Shall meet requirements for instrument panels, seat backs, sun visors, and arm rests. interior compartment doors are required to remain closed during a crash. Passenger Cars, Multipurpose Passenger Vehicles, and Trucks with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less, and Buses with a Gross Vehicle Weight Rating of 3,860 kg (8,510 lbs.) or less (Effective 9-18-95) Shall meet phase-in requirements for vehicle upper interior components, including, but not limited to, pillars, side rails, roof headers and the roof. Passenger Cars, Multipurpose Passenger Vehicles, Trucks with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less, and Buses with a Gross Vehicle Weight Rating of 3,860 kg (8,510 lbs.) or less (Effective 9-1-98). Optional requirements for dynamically deploying upper interior head protection systems providing head injury protection in lateral crashes. Passenger Cars, Multipurpose Passenger Vehicles, Trucks with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less, and Buses with a Gross Vehicle Weight Rating of 3,860 kg (8,510 lbs.) or less (Effective 9-1-2000). All shall meet upper interior head protection criteria.
- FMVSS 202 Head Restraints Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less (Effective 1-1-69). This standard specifies requirements for head restraints to reduce the frequency and severity of neck injuries in rear-end and other collisions.
- FMVSS 203 Impact Protection for the Driver from the Steering Control System Passenger Cars (Effective 1-1-68), Multipurpose Passenger Vehicles, Trucks, and Buses with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less (Effective 9-1-81). This standard specifies requirements for minimizing chest, neck, and facial injuries by providing steering systems that yield forward, cushioning the impact of the driver's chest by absorbing much of his or her impact energy in front-end crashes. Such systems are highly effective in reducing the likelihood of serious and fatal injuries.
- FMVSS 204 Steering Control Rearward Displacement Passenger Cars (Effective 1-1-68), Multipurpose Passenger Vehicles, Trucks, and Buses with Unloaded Vehicle Weight (UVW) of 1,814 kg (4,000 lbs.) or less (Effective 9-1-81). UVW of 2,495 kg (5,500 lbs.) or less (Effective 9-1-91). Walk-in Vans are excluded. This standard specifies requirements limiting the rearward displacement of the steering column into the passenger compartment to reduce the likelihood of chest, neck, or head injuries.
- FMVSS 205 Glazing Materials Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, Motorcycles, Slide-In Campers, and Pickup Covers [designed to carry persons while in motion] (Effective 1-1-68). This standard specifies requirements for glazing materials for use in motor vehicles and motor vehicle equipment for the purpose of reducing injuries resulting from impact to glazing surfaces. The purpose of this standard is to ensure a necessary degree of transparency in motor vehicle windows for driver visibility, and to minimize the possibility of occupants being thrown through the vehicle windows in collisions.
- FMVSS 206 Door Locks and Door Retention Components Passenger Cars (Effective 1-1-68), Multipurpose Passenger Vehicles (Effective 1-1-70), and Trucks (Effective 1-1-72). This standard specifies requirements for side door locks and side door retention components including latches, hinges, and other supporting means, to minimize the likelihood of occupants

- being thrown from the vehicle as a result of impact.
- FMVSS 207 Seating Systems Passenger Cars (Effective 1-1-68), Multipurpose Passenger Vehicles, Trucks, and Buses (Effective 1-1-72). This standard establishes requirements for seats, attachment assemblies, and installation, to minimize the possibility of failure as a result of forces acting on the seat in vehicle impact.
- FMVSS 208 Occupant Crash Protection This standard originally specified the type of occupant restraints (i.e., seat belts) required. It was amended to specify performance requirements for anthropomorphic test dummies seated in the front outboard seats of passenger cars and of certain multipurpose passenger vehicles, trucks, and buses, including the active and passive restraint systems identified below. The purpose of the standard is to reduce the number of fatalities and the number and severity of injuries to occupants involved in frontal crashes. Generally, the requirements are as follows: Passenger Cars (Effective 1-1-68). Lap or lap and shoulder seat belt assemblies for each designated seating position. Except in convertibles, lap and shoulder seat belt assemblies are required in each front outboard seating position. Passenger Cars (Effective 1-1-72), Multipurpose Passenger Vehicles, Trucks and Buses Options A and B only (Effective 1-1-72). Passenger cars, multipurpose passenger vehicles and trucks with a gross vehicle weight rating of 4,536 kg (10,000 lbs.) or less, and buses (driver's seat only) shall have:
  - FMVSS 208 A. A complete passive protection system, or
  - $\circ\,$  FMVSS 208 B. Lap belts, belts warning and meeting 48 km/h (30 mph) crash test requirements, or
  - FMVSS 208 C. Lap or lap and shoulder belts, seat belt warning; outboard seats shall have a single-point pushbutton release and emergency-locking or automatic-locking seat belt retractors. Passenger Cars (Effective 1-1-73). Requirements same as above except upper torso restraints shall have an emergency-locking retractor. Multipurpose Passenger Vehicles, Trucks and Buses (Effective 9-1-95). The lap portion of each seat belt in a forward-facing seat or a seat that can be adjusted to forward-facing shall have a lap belt portion that is lockable. Front, outboard designated seating positions for Passenger Cars and Multipurpose Passenger Vehicles, Trucks and Buses as listed below with a Gross Vehicle Weight Rating of 3,856 kg (8,500 lbs.) or less and Unloaded Vehicle Weight of 2,495 kg (5,500 lbs.) or less: Passenger Cars (Effective 9-1-86), Multipurpose Passenger Vehicles, Trucks and Buses (Effective 9-1-94). Shall meet passive restraint phase-in requirements. Multipurpose Passenger Vehicles, Trucks and Buses (Effective 9-1-91). Shall meet 48 km/h (30 mph) crash test requirements with seat belts fastened. Passenger Cars (Effective 9-1-89), Multipurpose Passenger Vehicles and Trucks (Effective 9-1-97)- Shall meet passive restraint requirements. Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses (Effective 6-22-95 until 9-1-2000) Vehicles with no rear seats or rear seats too small to accommodate a rear-facing infant seat may be equipped with an air bag cut-off switch for the right front passenger air bag. Passenger Cars (Effective 9-1-96), Multipurpose Passenger Vehicles, Trucks and Buses (Effective 9-1-97). Shall meet phase-in requiring air bags. Passenger Cars (Effective 9-1-97), Multipurpose Passenger Vehicles, Trucks and Buses (Effective 9-1-98). Shall be equipped with air bags. Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses (Effective 2-25-97). Shall be equipped with a warning label. Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses (Effective 3-19-97). For the unbelted dummy test condition, manufacturers have the option to certify vehicles using the sled test specified in the standard versus the 48 km/h (30 mph) vehicle-into-barrier crash test. All outboard designated seating positions: Passenger Cars, except convertibles (Effective 12/11/89), Convertibles (Effective 9-1-91), Multipurpose Passenger Vehicles and Trucks with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less (Effective 9-1-91). Shall be equipped with integral lap and shoulder belts at

every forward facing, outboard designated seating position.

- FMVSS 209 Seat Belt Assemblies Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses (Effective 3-1-67) This standard specifies requirements for seat belt assemblies. The requirements apply to straps, webbing, or similar material, as well as to all necessary buckles and other fasteners and all hardware designed for installing the assembly in a motor vehicle, and to the installation, usage, and maintenance instructions for the assembly
- FMVSS 210 Seat Belt Assembly Anchorages Passenger Cars (Effective 1-1-68), Multipurpose Passenger Vehicles, Trucks, and Buses (Effective 7-1-71). This standard establishes requirements for seat belt assembly anchorages to ensure proper location for effective occupant restraint and to reduce the likelihood of failure. The requirements apply to any component, other than the webbing or straps, involved in transferring seat belt loads to the vehicle structure.
- FMVSS 211 Reserved
- FMVSS 212 Windshield Mounting Passenger Cars (Effective 1-1-70), Multipurpose Passenger Vehicles, Trucks, and Buses with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less (Effective 9-1-78). This standard requires that, when tested as described, each windshield mounting must be anchored in place and retain one of two specified percentages of its periphery in a crash situation. The purpose of this standard is to keep vehicle occupants within the confines of the passenger compartment during a crash.
- FMVSS 213 Child Restraint Systems Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses, and Child Restraint Systems for use in Motor Vehicles and Aircraft (Effective 4-1-71, amended 1-1-81). This standard specifies requirements for child restraint systems used in motor vehicles and aircraft. Its purpose is to reduce the number of children killed or injured in motor vehicle crashes and in aircraft.
- FMVSS 214 Side Impact Protection. This standard specifies performance requirements for protection of occupants in side impact crashes. The purpose of this standard is to reduce the risk of serious and fatal injury to occupants of passenger cars, multipurpose passenger vehicles, trucks, and buses. STATIC REQUIREMENT Vehicle doors must provide resistance to load applied via a rigid steel cylinder. Passenger Cars (Effective 1-1-73). All shall meet requirements. Multipurpose Passenger Vehicles, Trucks and Buses with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less (Effective 9-1-93). Shall meet phase-in schedule. (Effective 9-1-94). All shall meet requirements. CRASH TEST REQUIREMENTS Dummies in vehicle must meet requirements when stationary vehicle is impacted by moving deformable barrier at 54 km/h (33.5 mph), similar to intersection crash. Passenger Cars (Effective 9-1-93). Shall meet phase-in schedule. (Effective 9-1-96). All shall meet requirements. Multipurpose Passenger Vehicles, Trucks and Buses with a Gross Vehicle Weight Rating of 2,722 kg (6,000 lbs.) or less (Effective 9-1-98). All shall meet requirements.
- FMVSS 215 Reserved
- FMVSS 216 Roof Crush Resistance Passenger Cars (except convertibles) (Effective 9-1-75) and Multipurpose Passenger Vehicles, Trucks and Buses (except school buses) with a Gross Vehicle Weight Rating of 2722 kg (6,000 lbs.) or less (Effective 9-1-94). This standard specifies requirements for roof crush resistance over the passenger compartment.
- FMVSS 217 Bus Emergency Exits and Window Retention and Release (Effective 9-1-73). This standard establishes minimum requirements for bus window retention and release to reduce the likelihood of passenger ejection in crashes; and for emergency exits to facilitate passenger exit in emergencies. It also requires that each school bus have an interlock system which will prevent the engine from starting if an emergency door is locked and an audible warning system which will sound an alarm if an emergency door release mechanism is not closed while the engine is running.
- FMVSS 218 Motorcycle Helmets (Effective 3-1-74). This standard establishes minimum performance requirements for helmets designed for use by motorcyclists and other motor

vehicle users. The purpose of this standard is to reduce deaths and injuries to motorcyclists and other motor vehicle users resulting from head impacts.

- FMVSS 219 Windshield Zone Intrusion Passenger Cars (Effective 9-1-76), Multipurpose Passenger Vehicles, Trailers, Buses with a Gross Vehicle Weight Rating of 4,556 kg (10,000 lbs..) or less (Effective 9-1-77), 2,495 kg (5,500 lbs.) Unloaded Weight (Effective 4-3-80). This standard specifies limits for the displacement into the windshield area of motor vehicle components during a crash. Its purpose is to reduce crash injuries and fatalities that result from occupants contacting vehicle components displaced near or through the windshield.
- FMVSS 220 School Bus Rollover Protection (Effective 4-1-77). This standard establishes performance requirements for school bus rollover protection. The purpose of this standard is to reduce the number of deaths and the severity of injuries that result from failure of the school bus body structure to withstand forces encountered in rollover crashes.
- FMVSS 221 School Bus Body Joint Strength (Effective 4-1-77). This standard establishes requirements for the strength of the body panel joints in school bus bodies. The purpose of this standard is to reduce deaths and injuries resulting from the structural collapse of school bus bodies during crashes.
- FMVSS 222 School Bus Passenger Seating and Crash Protection (Effective 4-1-77). This standard establishes occupant protection requirements for school bus passenger seating and restraining barriers. The purpose of this standard is to reduce the number of deaths and the severity of injuries that result from the impact of school bus occupants against structures within the vehicle during crashes and sudden driving maneuvers.
- FMVSS 223 Rear Impact Guards Rear Impact Guards for Trailers and Semitrailers subject to \*FMVSS No. 224, Rear Impact Protection (Effective 1-26-98). This standard specifies requirements for rear impact guards for trailers and semitrailers. The purpose of this standard is to reduce the number of deaths and serious injuries that occur when light duty vehicles collide with the rear end of trailers and semitrailers.
- FMVSS 224 Rear Impact Protection Trailers, Semitrailers with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or more (Effective 1-26-98). This standard establishes requirements for the installation of rear impact guards on trailers and semitrailers with a gross vehicle weight rating (GVWR) of 4,536 kg (10,000 lbs.) or more. The purpose of this standard is to reduce the number of deaths and serious injuries occurring when light duty vehicles impact the rear of trailers and semitrailers with a GVWR of 4,536 kg (10,000 lbs.) or more. This standard does not apply to pole trailers, pulpwood trailers, low chassis vehicles, special purpose vehicles, wheels back vehicles, or temporary living quarters as defined in 49 CFR 529.2.
- FMVSS 225 Child Restraint Anchorage Systems. This Standard applies to trucks and MPVs with a GVWR of 8,500 lbs. (3,859 kg) or less (except walk-in vans, shuttle buses and vehicles manufactured to be sold exclusively to the U.S. Postal Service) and to buses (including school buses) with a GVWR of 10,000 lbs. (4,536 kg) or less. It establishes child restraint anchorage requirements for proper location and strength.
- FMVSS 226 Ejection Mitigation

#### **Post Crash Standards**

- FMVSS 301 Fuel System Integrity Passenger Cars (Effective 1-1-68), Multipurpose Passenger Vehicles, Trucks, and Buses with a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less (Effective 1-76), and School Buses with a Gross Vehicle Weight Rating greater than 4,536 kg (10,000 lbs.) (Effective 4-1-77). This standard specifies requirements for the integrity of motor vehicle fuel systems. Its purpose is to reduce deaths and injuries occurring from fires that result from fuel spillage during and after motor vehicle crashes.
- FMVSS 302 Flammability of Interior Materials Passenger Cars, Multipurpose Passenger

Vehicles, Trucks, and Buses (Effective 9-1-72). This standard specifies burn resistance requirements for materials used in the occupant compartments of motor vehicles. Its purpose is to reduce deaths and injuries to motor vehicle occupants caused by vehicle fires, especially those originating in the interior of the vehicle from sources such as matches or cigarettes.

- FMVSS 303 Fuel System Integrity of Compressed Natural Gas Vehicles Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses that have a Gross Vehicle Weight Rating of 4,536 kg (10,000 lbs.) or less and use compressed natural gas as a motor fuel, and School Buses regardless of weight that use compressed natural gas as a motor fuel (Effective 4-25-94, Amended 9-1-96). This standard specifies requirements for the integrity of motor vehicle fuel systems using compressed natural gas (CNG), including the CNG fuel systems of bifuel, dedicated, and dual fuel CNG vehicles. The purpose of this standard is to reduce deaths and injuries occurring from fires that result from fuel leakage during and after motor vehicle crashes.
- FMVSS 304 Compressed Natural Gas Fuel Container Integrity (Effective 3-27-95). This standard specifies requirements for the integrity of compressed natural gas (CNG) motor vehicle fuel containers. The purpose of this standard is to reduce deaths and injuries occurring from fires that result from fuel leakage during and after motor vehicle crashes. This standard applies to containers designed to store CNG as motor fuel onboard any motor vehicle.
- FMVSS 305 Electric-Powered Vehicles, Electrolyte Spillage and Electrical Shock Protection. This Standard applies to MPVs, trucks and buses with a GVWR of 10,000 lbs. (4,536 kg) or less, that use more than 48 nominal volts of electricity as propulsion power and whose speed attainable in one mile (1.6 km) on a paved level surface is more than 25 mph (40 km/h). It specifies requirements for limitation of electrolyte spillage, retention of propulsion batteries during a crash, and electrical isolation of the chassis from the high-voltage system.

#### **Further Standards**

- FMVSS 401 Interior Trunk Release
- FMVSS 402 Reserved
- FMVSS 403 Platform Lift Systems for Motor Vehicles
- FMVSS 404 Platform Lift Installations in Motor Vehicles
- FMVSS 500 Low-Speed Vehicles (Effective 6-17-98). This standard specifies requirements for low-speed vehicles. A low-speed vehicle is a 4-wheeled motor vehicle, other than a truck, whose attainable speed is more than 32 km/h (20 mph) and not more than 40 kmlh (25 mph). The standard requires ten specific items of safety equipment.

## **Other Regulations**

- Part 523 Vehicle Classification
- Part 525 Exemptions from Average Fuel Economy Standards
- Part 526 Petitions and Plans for Relief under the Automobile Fuel Efficiency Act of 1980
- Part 529 Manufacturers of Multistage Automobiles
- Part 531 Passenger Automobile Average Fuel Economy Standards
- Part 533 Light Truck Fuel Economy Standards
- Part 534 Rights and Responsibilities of Manufacturers in the Context of Changes in Corporate Relationships
- Part 536 Transfer and Trading of Fuel Economy Credits
- Part 537 Automotive Fuel Economy Reports
- Part 538 Manufacturing Incentives for Alternative Fuel Vehicles
- Part 541 Federal Motor Vehicle Theft Prevention Standard
- Part 542 Procedures for Selecting Light Duty Truck Lines to Be Covered by the Theft Prevention Standard

- Part 543 Exemption from Vehicle Theft Prevention Standard
- Part 544 Insurer Reporting Requirements
- Part 545 Federal Motor Vehicle Theft Prevention Standard Phase-in and Small-volume Line Reporting Requirements
- Part 551 Procedural Rules
- Part 552 Petitions for Rulemaking, Defect, and Noncompliance Orders
- Part 553 Rulemaking Procedures
- Part 554 Standards Enforcement and Defects Investigation
- Part 555 Temporary Exemptions from Motor Vehicle Safety Standards
- Part 556 Exemption for Inconsequential Defect or Noncompliance
- Part 557 Petitions for Hearings on Notification and Remedy of Defects
- Part 563 Event Data Recorders (EDR)
- Part 564 Replaceable Light Source and Sealed Beam Headlamp Information
- Part 565 Vehicle Identification Number Content Requirements
- Part 566 Manufacturer Identification
- Part 567 Certification Regulation
- Part 568 Vehicles Manufactured in Two or More Stages
- Part 569 Regrooved Tires
- Part 570 Vehicle-In-Use Inspection Standards
- Part 571 Federal Motor Vehicle Safety Standards
- Part 572 Anthropomorphic Test Devices
- Part 573 Defect and Noncompliance Reports
- Part 574 Tire Identification and Record Keeping
- Part 575 Consumer Information Regulations Subpart B
  - Part 575.103 Truck-Camper Loading
  - Part 575.104 Uniform Tire Quality Grading (UTQG) Standards
  - o Part 575.105 Utility Vehicles
- Part 576 Record Retention
- Part 577 Defect and Noncompliance Notification
- Part 578 Civil and Criminal Penalties
- Part 579 Defect and Noncompliance Responsibility
- Part 580 Odometer Disclosure Requirements
- Part 581 Bumper Standard
- Part 582 Insurance Cost Information Regulation
- Part 583 Automobile Parts Content Labeling
- Part 585 Phase-in Reporting Requirements
- Part 586 Reserved
- Part 587 Deformable Barriers
- Part 588 Child Restraint System Recordkeeping Requirements
- Part 589 Upper Interior Component Head Impact Protection Phase-In Reporting Requirements
- Part 590 Reserved
- Part 591 Importation of Vehicles and Equipment Subject to Federal Safety, Bumper, and Theft Prevention Standards
- Part 592 Registered Importers of Vehicles not Originally Manufactured to Conform to the Federal Motor Vehicle Safety Standards
- Part 593 Determinations that A Vehicle not Originally Manufactured to Conform to the Federal Motor Vehicle Safety Standards Is Eligible for Importation
- Part 594 Schedule of Fees Authorized by U.S.C. 30141
- Part 595 Retrofit On-Off Switches for Air Bags

# Siehe auch

- wikipedia: FMVSS
- CMVSS: <a href="https://www.tc.gc.ca/eng/acts-regulations/regulations-crc-c1038.htm">https://www.tc.gc.ca/eng/acts-regulations/regulations-crc-c1038.htm</a> (den FMVSS ähnliche Vorschriften für Kanada)
- SAE Standards