

ATTACHMENT 2B

State of Missouri

MSHP Motor Vehicle Safety Inspection Rules



Rules of
Department of Public Safety
Division 50—Missouri State Highway Patrol
Chapter 2—Motor Vehicle Inspection Division

Title	Page
11 CSR 50-2.010 Definitions	5
11 CSR 50-2.020 Minimum Inspection Station Requirements	5
11 CSR 50-2.030 Inspection Station Classification	6
11 CSR 50-2.040 Private Inspection Stations	6
11 CSR 50-2.050 Inspection Station Permits.....	7
11 CSR 50-2.060 Display of Permits, Signs and Poster.....	7
11 CSR 50-2.070 Hours of Operation.....	7
11 CSR 50-2.080 Licensing of Inspector/Mechanics	8
11 CSR 50-2.090 Inspection Station Operational Requirements	8
11 CSR 50-2.100 Requisition of Inspection Stickers and Decals	9
11 CSR 50-2.110 Issuance of Inspection Stickers and Decals	9
11 CSR 50-2.120 MVI-2 Form	10
11 CSR 50-2.130 Violation of Laws or Rules Penalty	11
11 CSR 50-2.140 Sale of Vehicles for Junk, Salvage or Rebuilding.....	11
11 CSR 50-2.150 Brake Performance.....	13
11 CSR 50-2.160 Brake Components.....	13
11 CSR 50-2.170 Air and Vacuum Brake Systems	14
11 CSR 50-2.180 Lighting Equipment.....	18
11 CSR 50-2.190 Signalling Devices	20
11 CSR 50-2.200 Steering Mechanisms	20
11 CSR 50-2.210 Horn.....	27



11 CSR 50-2.220	Mirrors	27
11 CSR 50-2.230	Windshield Wipers	27
11 CSR 50-2.240	Tires	27
11 CSR 50-2.250	Wheels	28
11 CSR 50-2.260	Exhaust System	28
11 CSR 50-2.270	Glazing (Glass)	28
11 CSR 50-2.280	Air Pollution Control Devices	29
11 CSR 50-2.290	Fuel System	30
11 CSR 50-2.300	Mud Flaps	31
11 CSR 50-2.310	Seat Belts	31
11 CSR 50-2.311	Bumpers	31
11 CSR 50-2.320	School Bus Inspection	34
11 CSR 50-2.321	Special Education Buses	38
11 CSR 50-2.330	Motorcycle Inspection	39
11 CSR 50-2.340	Off-Highway Use Vehicles (ATV-OHV).....	40
11 CSR 50-2.350	Applicability of Motor Vehicle Emission Inspection (Rescinded April 30, 2000)	40
11 CSR 50-2.360	Emission Fee (Rescinded April 30, 2000)	41
11 CSR 50-2.370	Inspection Station Licensing (Rescinded April 30, 2000).....	41
11 CSR 50-2.380	Inspector/Mechanic Licensing (Rescinded April 30, 2000).....	41
11 CSR 50-2.390	Safety/Emission Stickers (Rescinded April 30, 2000)	41
11 CSR 50-2.400	Emission Test Procedures.....	41
11 CSR 50-2.401	General Specifications (Rescinded April 30, 2000)	46
11 CSR 50-2.402	MAS Software Functions (Rescinded April 30, 2000).....	46
11 CSR 50-2.403	Missouri Analyzer System (MAS) Display and Program Requirements (Rescinded April 30, 2000)	46
11 CSR 50-2.404	Test Record Specifications (Rescinded April 30, 2000)	46



11 CSR 50-2.405	Vehicle Inspection Certificate, Vehicle Inspection Report and Printer Function Specifications (Rescinded April 30, 2000)	46
11 CSR 50-2.406	Technical Specifications for the MAS (Rescinded April 30, 2000)	46
11 CSR 50-2.407	Documentation, Logistics and Warranty Requirements (Rescinded April 30, 2000)	47
11 CSR 50-2.410	Vehicles Failing Reinspection (Rescinded April 30, 2000)	47
11 CSR 50-2.420	Procedures for Conducting Only Emission Tests (Rescinded April 30, 2000)	47
11 CSR 50-2.430	Verification of Homemade Trailers.....	47
11 CSR 50-2.440	Vehicle Identification Number and Odometer Reading Verification	47
11 CSR 50-2.500	Definitions.....	48
11 CSR 50-2.510	General Information	49
11 CSR 50-2.520	Procedures.....	49



**Title 11—DEPARTMENT OF
PUBLIC SAFETY
Division 50—Missouri State
Highway Patrol
Chapter 2—Motor Vehicle Inspection
Division**

11 CSR 50-2.010 Definitions

PURPOSE: This rule defines the meaning of words and terms used throughout the inspection rules.

(1) The following words and terms as used in these rules shall have the following meaning:

(A) Approval certificate is the white copy of the written document which is given to the vehicle owner and which shows that the vehicle meets the inspection requirements;

(B) Commercial motor vehicle is a motor vehicle designed or regularly used for carrying freight and merchandise or more than eight (8) passengers;

(C) Decal is a gummed decalcomania that is attached to a motorcycle or trailer when the vehicle meets the inspection requirements;

(D) Inspector/mechanic is any automotive mechanic issued a permit by the superintendent of the Missouri State Highway Patrol to conduct inspections;

(E) Motorcycle is a motor vehicle operated on two (2) wheels;

(F) Motor tricycle is a motor vehicle operated on three (3) wheels, including a motorcycle while operated with any conveyance requiring the use of a third wheel;

(G) Motor vehicle is any self-propelled vehicle not operated exclusively upon tracks, except farm tractors;

(H) Rejection notice is the yellow copy of the written document which is given to the vehicle owner and which shows that the vehicle does not meet the inspection requirements;

(I) Revocation is the rescinding of an inspection permit for a period of not less than one (1) year;

(J) School bus is any motor vehicle used solely to transport students to and from school or to transport students to or from any place for educational purposes.

1. A Type "A" school bus is a van conversion or bus constructed utilizing a cutaway front-section vehicle with a left side driver's door. The entrance door is behind the front wheels. This definition includes two (2) classifications: Type A1, with a Gross Vehicle Weight Rating (GVWR) less than or equal to ten thousand pounds (10,000 lbs.); and Type A2, with a GVWR of greater than ten thousand pounds (10,000 lbs.).

2. A Type "B" school bus is constructed utilizing a stripped chassis. The entrance door is behind the front wheels. This definition includes two (2) classifications: Type B1, with a GVWR less than or equal to ten thousand pounds (10,000 lbs.); and Type B2, with a GVWR greater than ten thousand pounds (10,000 lbs.).

3. A Type "C" school bus is constructed utilizing a chassis with a hood and fender assembly. The entrance door is behind the front wheels.

4. A Type "D" school bus is constructed utilizing a stripped chassis. The entrance door is ahead of the front wheels;

(K) Sticker is a gummed label or decalcomania that is attached to the windshield of a motor vehicle when the vehicle meets the inspection requirements;

(L) Suspension is the temporary removal of an inspection permit for a period of less than one (1) year, but not less than thirty (30) days;

(M) Trailer is any vehicle without motor power designed for carrying property or passengers on its own structure and for being drawn by self-propelled vehicles, except those running exclusively on tracks, including a semitrailer or vehicle of the trailer type designed and used in conjunction with a self-propelled vehicle that a considerable part of its own weight rests upon and is carried by the towing vehicle;

(N) Truck-tractor is any self-propelled motor vehicle designed and used primarily for drawing other vehicles and not constructed to carry a load other than a part of the weight of the vehicle and load being drawn; and

(O) Vehicle owner is any person, firm, corporation or association who holds the legal title of a vehicle or in the event a vehicle is the subject of an agreement for the conditional sale or lease of it with the right of purchase of upon performance of the conditions stated in the agreement and with an immediate right of possession vested in the conditional vendee or lessee, or in the event a mortgagor of a vehicle is entitled to possession, then the conditional vendee or lessee or mortgagor shall be deemed the owner. The term owner also shall include any person renting or leasing a vehicle and having exclusive use of the vehicle for a period longer than thirty (30) days, the holder of a lessee title or the agent or personal representative of an owner as defined in this rule.

AUTHORITY: section 307.360, RSMo 2000. Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed March 3, 1969, effective March 13, 1969. Amended:*

Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Jan. 12, 1982, effective April 11, 1982. Amended: Filed June 2, 1993, effective Nov. 8, 1993. Emergency rescission and rule filed March 12, 1997, effective April 15, 1997, expired Sept. 30, 1997. Rescinded and readopted: Filed March 12, 1997, effective Sept. 30, 1997. Amended: Filed Sept. 15, 2003, effective March 30, 2004.

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979, 1999.*

State v. Cushman, 451 SW2d 17 (1970). While an executive officer may not be delegated the power to make and promulgate rules of a strictly and exclusively legislative nature, the general assembly, having established a sufficiently definite policy, may authorize an administrative officer to make rules or orders relating to the administration or enforcement of the law. In other words, administrative power, as distinguished from legislative power, constitutionally may be delegated by the general assembly. . . section 304.720 (transferred in 1969 to 307.360) directs the superintendent of the state highway patrol to "establish standards and procedures to be followed in the making of inspections required by" the motor vehicle safety inspection laws.

11 CSR 50-2.020 Minimum Inspection Station Requirements

PURPOSE: This rule lists the minimum requirements for all official vehicle inspection stations. These requirements are necessary to insure that stations have the proper premises, equipment and personnel to perform inspections in a uniform manner and in accordance with the inspection rules.

(1) Premises.

(A) Each inspection station must have an inspection area within an enclosed building of sufficient length, width and height to accommodate the type of vehicle being inspected. Class A and D stations are required to accommodate a commercial vehicle. Class B stations must accommodate a full-size domestic made passenger vehicle. Class C stations are required to have sufficient length and width to inspect full-size motorcycles.

1. In addition to an inside area, an outside inspection area may be approved for the inspection of commercial vehicles at Class B stations, if it is of sufficient length and width



of the vehicle or combination of vehicles being inspected.

2. The area shall be substantially level and constructed of hard material, such as asphalt or concrete. It shall be a part of and adjacent to the official vehicle inspection station.

(B) The station must be in compliance with applicable city, county and state regulations relating to zoning, merchant licensing, fictitious name and retail sales tax number.

(C) The inside inspection area shall be sufficiently lighted, adequately heated and properly ventilated.

(D) The floor must be substantially level and constructed of a hard material. Dirt, gravel and bituminous surface or sagging wood floors will not be accepted. The floor must be kept clean, free from excessive dirt, grease and loose material.

(E) If the station has only one (1) inspection area, no major mechanical repair work shall be permitted in the inspection area during normal business hours.

(F) Public inspection stations shall be located on an all-weather road and be readily accessible to the motoring public without entering the station premises by the opening of gates or other similar barriers.

(G) Operational changes, except the addition or deletion of inspector/mechanics, unless the deletion of an inspector/mechanic results in no inspector/mechanic for the station, affecting the current station application must be submitted to the Missouri State Highway Patrol immediately.

(2) Equipment.

(A) All inspection stations, except Class C, must have the following equipment which must be arranged and located at or near the inside inspection area:

1. Brake performance. Some method of testing the service brake performance will be required. The use of a decelerometer, brake testing machine, dynamometer or drive and stop test will be recognized;

2. Brake lining gauge. A gauge will be required to determine the remaining thickness in fractions of an inch of both bonded and riveted linings;

3. Brake pad gauge. Some type of gauging device to accurately measure the remaining thickness of the brake pad in fractions of an inch while the pad is within the caliper assembly;

4. Ball joint gauge. A ball joint gauge to accurately measure any looseness in the load-carrying ball joint. The gauge must be adapted to measure vertical (up and down) and horizontal (side-to-side) movement;

5. Lift or jack. A lift or jack, capable of hoisting a vehicle properly to check ball joints, suspension linkage and wheel play. If a lift is used, it must be the type which allows the front wheels to be suspended by lifting under the outer extremity of a motor vehicle's lower control arm, cross member or frame;

6. Scraper. A scraper to remove old stickers;

7. Measuring device. Yardstick or steel tape preferred;

8. Punch. An open face paper punch with a round die to validate inspection stickers and decals;

9. A tire tread depth gauge which is graduated into one-thirty-second inch (1/32") increments must be part of the equipment at inspection stations that inspect school buses;

10. A one-eighth inch (1/8") drawstring over thirty inches (30") in length with a one-half inch (1/2") hex nut attached to one (1) end to check handrails is required if the station will be inspecting school buses; and

11. A device which is capable of measuring or comparing the light transmission of all tinted windows.

(B) Class C inspection stations must have the following equipment:

- 1. Measuring device; and
- 2. Punch.

(3) Personnel.

(A) Minimum of one (1) inspector/mechanic, except for a short period of time due to illness or annual vacation.

(B) Each inspection station will designate, on the station application, a person in charge of inspections who is responsible for the daily operation of the station insuring that complete and proper inspections are being performed. The employee to be in charge of inspections will be present at the inspection station during the station's hours of inspection, except for short periods of time, such as illness or annual vacation.

AUTHORITY: section 307.360, RSMo 2000. Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Dec. 1, 1975, effective Dec. 11, 1975. Amended: Filed Sept. 1, 1977, effective Dec. 11, 1977. Amended: Filed Aug. 16, 1979, effective Nov. 11, 1979. Amended: Filed July 14, 1982, effective Oct. 11, 1982. Amended: Filed Sept. 16, 1985, effective Jan. 1, 1986. Amended: Filed Aug. 30, 1989, effective Nov. 26, 1989. Amended: Filed April 2, 1992, effective Sept. 6, 1992. Amended: Filed June 2, 1993, effective Nov. 8, 1993. Emergency rescission filed Jan. 28,*

1997, effective Feb. 7, 1997, expired Aug. 1, 1997. Emergency rule filed Jan. 17, 1997, effective Feb. 3, 1997, expired Aug. 1, 1997. Rescinded and readopted: Filed Jan. 17, 1997, effective July 30, 1997. Emergency amendment filed Aug. 15, 2001, effective Aug. 28, 2001, expired Feb. 28, 2002. Amended: Filed Aug. 15, 2001, effective Feb. 28, 2002. Amended: Filed Sept. 15, 2003, effective March 30, 2004.

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979, 1999.*

11 CSR 50-2.030 Inspection Station Classification

PURPOSE: This rule provides different classifications of public inspection stations and lists the type vehicle each class of station is authorized and equipped to inspect.

(1) Public inspection stations shall be classified as follows:

- (A) Class A stations—all vehicles;
- (B) Class B stations—motor vehicles;
- (C) Class C stations—motorcycles only; and
- (D) Class D stations—commercial vehicles.

AUTHORITY: section 307.360, RSMo 1994. Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Sept. 1, 1977, effective Dec. 11, 1977. Amended: Filed June 2, 1993, effective Nov. 8, 1993. Emergency rescission and rule filed March 12, 1997, effective April 15, 1997, expired Sept. 30, 1997. Rescinded and readopted: Filed March 12, 1997, effective Sept. 30, 1997.*

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979.*

11 CSR 50-2.040 Private Inspection Stations

PURPOSE: This rule lists the vehicles that private inspection stations may inspect and other responsibilities that apply only to private stations.

(1) A private official vehicle inspection station permit will be issued to any association, person, partnership, corporation, subsidiary corporation or governmental entity, provided its facilities, equipment and personnel meet the requirements prescribed for a public inspection station.



(A) A private inspection station shall inspect only vehicles registered or to be registered, titled or to be titled in the name of the person or organization described on the application for a permit or which are maintained under a written maintenance agreement of one (1)-year duration.

(B) Before any vehicles which are maintained under a written maintenance agreement can be inspected, a copy of the maintenance agreement must accompany the application for a private station permit or be on file at the Motor Vehicle Inspection Division, Jefferson City, Missouri.

(C) All inspection rules, standards and procedures shall apply to private inspection stations.

AUTHORITY: section 307.360, RSMo 1994. Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974.*

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979.*

Op. Atty. Gen. No. 253, Hockaday (6-18-68). The superintendent of the Missouri State Highway Patrol may issue private official inspection station permits to automobile dealers, municipalities and other governmental entities having one or more vehicles, trailers, or both, with a gross weight in excess of six thousand pounds.

11 CSR 50-2.050 Inspection Station Permits

PURPOSE: This rule prescribes uniform procedures for the licensing of inspection stations. These procedures are necessary to insure that fees are collected according to law for each applicant and that sufficient stations are licensed to perform inspections.

(1) Any person, firm, corporation, partnership or governmental entity requesting appointment as an official inspection station shall submit a completed inspection station application.

(2) The fee for a permit to operate a public or private inspection station is ten dollars (\$10) per year. No fee shall be charged for a permit issued to a governmental entity. A permit is valid for one (1) year from the date of issue. Each permit shall be renewed on or before the expiration date. A completed inspection station application shall be accompanied by a

check or money order made payable to the director of revenue and forwarded to the Missouri State Highway Patrol, Motor Vehicle Inspection, PO Box 568, Jefferson City, MO 65102-0568. Under no circumstances will cash be accepted for the permit fee.

(3) No permit issued to an inspection station may be transferred or used at any other location. Any change in ownership or location shall cancel the station permit. The Missouri State Highway Patrol must be notified immediately when a change of ownership or location occurs or when a station discontinues operation.

(4) When an inspection station permit has been suspended or revoked, or when a station discontinues operation, all inspection supplies must be released on demand to a motor vehicle inspector or a member of the Missouri State Highway Patrol. The failure to account for all inspection supplies will be sufficient cause not to reinstate a station permit.

(5) No motor vehicle inspection station license will be issued to a spouse, child(ren), son/daughter-in-law, employee or any person having an interest in the business for the privilege to conduct inspections at the same location or in close proximity to the location of a station whose license is under suspension or revocation, unless the applicant can provide reasonable assurance that the licensee under suspension or revocation will not be employed, manage, assist in the station operation or otherwise benefit financially from the operation of the business in any way.

AUTHORITY: section 307.360, RSMo 2000. Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Dec. 1, 1975, effective Dec. 11, 1975. Amended: Filed Aug. 16, 1979, effective Nov. 11, 1979. Amended: Filed Nov. 13, 1992, effective May 6, 1993. Emergency rescission and rule filed March 12, 1997, effective April 15, 1997, expired Sept. 30, 1997. Rescinded and readopted: Filed March 12, 1997, effective Sept. 30, 1997. Amended: Filed Sept. 15, 2003, effective March 30, 2004.*

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979, 1999.*

Op. Atty. Gen. No. 127, Hockaday (5-25-72). Section 307.365(5), RSMo (Supp. 1971), dealing with the refunding of moneys for vehicle safety inspection stickers of those inspec-

tion stations which discontinue operation or are suspended or revoked, is applicable only to those inspection stations which discontinued operation or were suspended or revoked after the effective date of section 307.365(5), RSMo (Supp. 1971), September 28, 1971.

11 CSR 50-2.060 Display of Permits, Signs and Poster

PURPOSE: This rule requires inspection station operators and inspector/mechanics to display inspection permits, the official sign and poster. This is necessary to identify the station as an official vehicle inspection station and to identify inspector/mechanics.

(1) The station permit must be framed under clean glass and displayed in a conspicuous location discernible to those presenting vehicles for inspection.

(2) The inspector/mechanic permit must be framed under clean glass and displayed in a conspicuous location discernible to those presenting vehicles for inspection.

(3) The sign designating the station as a public inspection station shall be displayed in a location visible to the traveling public. This is not required for private stations.

(4) The poster, MVI-6, must be framed under clean glass and displayed in a conspicuous location discernible to those presenting vehicles for inspection. This is not required for private stations.

AUTHORITY: section 307.360, RSMo (1994). Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed April 3, 1995, effective Sept. 30, 1995. Emergency rescission and rule March 12, 1997, effective April 15, 1997, expired Sept. 30, 1997. Rescinded and readopted: Filed March 12, 1997, effective Sept. 30, 1997.*

**Original authority 1967, amended 1971, 1973, 1979.*

11 CSR 50-2.070 Hours of Operation

PURPOSE: This rule lists the minimum hours of operation for inspection stations and the obligation of the station operator to inspect vehicles. This rule is necessary to insure that stations will be open and available for inspection purposes.



(1) The normal business hours of every public inspection station shall be at least eight (8) continuous hours per day, five (5) days per week.

(2) Inspection station operators, inspector/mechanics, or both, are obligated to conduct inspections and reinspections of vehicles during normal business hours. A vehicle shall be inspected within a two (2)-hour period after being presented unless other vehicles are being inspected. A reinspection must begin within one (1) hour when a vehicle is presented during the twenty (20) consecutive-day period excluding Saturdays, Sundays and state holidays allowed by law for reinspections.

*AUTHORITY: section 307.360, RSMo (1994). * Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Sept. 1, 1977, effective Dec. 11, 1977. Amended: Filed Aug. 15, 1983, effective Nov. 11, 1983.*

**Original authority 1967, amended 1971, 1973, 1979.*

11 CSR 50-2.080 Licensing of Inspector/Mechanics

PURPOSE: This rule lists minimum requirements and licensing procedures for inspector/mechanics. These requirements and procedures are necessary to insure that inspections are performed by persons with sufficient training, experience and knowledge to perform the inspections uniformly and in accordance with the inspection rules.

(1) Every person requesting appointment as an inspector/mechanic shall submit a completed inspector/mechanic application.

(2) An inspector/mechanic must have at least one (1) year's practical experience as an automotive mechanic or must have completed a course of vocational instruction in automotive mechanics from a generally recognized educational institution, either public or private. All inspector/mechanics must be at least seventeen (17) years of age and able to read the written instructions.

(3) An inspector/mechanic must be thoroughly familiar with the contents of the inspection manual and must have passed a written test indicating knowledge of its contents. An inspector/mechanic will also be required to demonstrate practical knowledge by inspecting a vehicle. A minimum grade of eighty

(80) is required to pass each written examination, practical examination or reexamination.

(4) An inspector/mechanic permit will be issued without charge. Permits are valid for a period of three (3) years from the date of issuance or until suspended or revoked by the superintendent of the Missouri State Highway Patrol. An inspector/mechanic whose permit has been suspended or revoked shall be required to pass a reexamination before the permit will be reinstated.

(5) An inspector/mechanic may be reexamined at any time, and if s/he fails the reexamination or refuses to be reexamined, the permit issued to him/her shall be suspended. If an inspector/mechanic fails a reexamination, s/he cannot again be tested until a period of thirty (30) days has elapsed.

(6) A permit may be renewed before the expiration date or sixty (60) days after expiration without a reexamination. An inspector/mechanic does not have authority to conduct any inspections during the sixty (60)-day grace period unless the permit has been properly renewed.

(7) Two (2) types of inspector/mechanic permits are available—a permit that restricts the inspector/mechanic to motorcycle and motor tricycle inspections only and a permit that authorizes an inspector/mechanic to safety inspect motor vehicles.

*AUTHORITY: section 307.360, RSMo 1994. * Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Aug. 13, 1970, effective Aug. 23, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed Aug. 17, 1972, effective Aug. 27, 1972. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Dec. 1, 1975, effective Dec. 11, 1975. Amended: Filed Sept. 1, 1977, effective Dec. 11, 1977. Amended: Filed Jan. 16, 1978, effective April 13, 1978. Amended: Filed April 2, 1992, effective Sept. 6, 1992. Amended: Filed June 2, 1993, effective Nov. 8, 1993. Emergency rescission and rule filed March 12, 1997, effective April 15, 1997, expired Sept. 30, 1997. Rescinded and readopted: Filed March 12, 1997, effective Sept. 30, 1997. Amended: Filed Feb. 1, 2000, effective July 30, 2000.*

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979, 1999.*

11 CSR 50-2.090 Inspection Station Operational Requirements

PURPOSE: This rule lists the responsibilities of inspection station operators and inspector/mechanics. These procedures are necessary for compliance with the inspection law and to insure proper inspection of vehicles.

(1) The inspection fee, including the issuance of the certificate of inspection, sticker or decal, may be charged for each inspection as established by state statute. Every inspection must be a complete inspection before a vehicle may be approved or rejected. Once an inspection has begun it shall not be terminated until a complete and proper inspection has been made. Every item of vehicular equipment that is required to be inspected shall be inspected according to prescribed procedures before an approval certificate, rejection notice or inspection sticker or decal is issued. A proper and complete inspection consists of a physical inspection of the vehicle and the immediate completion and issuance of all inspection certificates at the time the vehicle is inspected.

(2) All inspections must be conducted at the inspection station in the approved inside inspection area. Large commercial vehicles unable to fit within the approved inside inspection area may be inspected in an outside inspection area, during good weather only, if the station has an approved outside inspection area. Reinspection of a vehicle's lights, windshield wipers, seat belts, horn, glazing and mirrors may be conducted outside the inspection station on the driveway. Under no circumstances may an inspection be performed at any other location.

(3) The inspection of a vehicle shall be made only by an individual who has a valid inspector/mechanic permit, except a person without a valid permit may assist by operating the lights and signaling devices.

(4) No person without a valid inspector/mechanic permit shall issue an approval certificate, a rejection notice, an inspection sticker or decal.

(5) No owner, operator or employee of an inspection station shall furnish, loan, give or sell an approval certificate, inspection sticker or decal to any person except those entitled to receive it.

(6) All current manuals, bulletins or other rules issued by the superintendent of the Missouri State Highway Patrol must be read and



initialed by the station owner or operator and each inspector/mechanic, and must be available at all times for ready reference.

(7) When an inspector/mechanic or a person authorized to purchase inspection stickers or decals resigns or is dismissed, the station owner or operator must report these changes when contacted by a motor vehicle inspector or a member of the Missouri State Highway Patrol.

(8) If the highway patrol is asked to settle a difference of opinion between the vehicle owner and an inspection station owner or an inspector/mechanic concerning the inspection standards and procedures, the decisions of the highway patrol concerning inspection standards and procedures will be final.

(9) Up-to-date inspection records shall be available during normal business hours for examination by any motor vehicle inspector or member of the Missouri State Highway Patrol.

(10) Inspection stickers, decals, and MVI-2s (see 11 CSR 50-2.120) will be kept under lock to prevent them from being lost, damaged or stolen. If stickers, decals, or MVI-2s are lost, damaged or stolen, they shall be reported immediately to the Missouri State Highway Patrol.

(11) Inspection station operators are permitted to advertise as official inspection stations.

*AUTHORITY: section 307.360, RSMo 1994. * Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Feb. 26, 1975, effective March 8, 1975. Amended: Filed Sept. 1, 1977, effective Dec. 11, 1977. Amended: Filed May 9, 1978, effective Aug. 11, 1978. Amended: Filed Sept. 12, 1984, effective Jan. 1, 1985. Amended: Filed April 2, 1992, effective Sept. 6, 1992. Emergency amendment filed Aug. 3, 1992, effective Aug. 28, 1992, expired Dec. 25, 1992. Emergency amendment filed Nov. 2, 1992, effective Dec. 26, 1992, expired April 24, 1993. Amended: Filed Aug. 3, 1992, effective Feb. 26, 1993. Amended: Filed June 2, 1993, effective Nov. 8, 1993. Emergency rescission and rule filed March 12, 1997, effective April 15, 1997, expired Sept. 30, 1997. Rescinded and readopted: Filed March 12, 1997, effective Sept. 30, 1997. Amended: Filed Feb. 1, 2000, effective July 30, 2000.*

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979, 1999.*

11 CSR 50-2.100 Requisition of Inspection Stickers and Decals

PURPOSE: This rule establishes uniform procedures for inspection stations to requisition inspection stickers or decals. These procedures identify stations which submit requisitions and simplify collection of funds. This rule further requires station operators to keep a sufficient number of inspection stickers or decals on hand to meet their needs.

(1) Inspection stickers will be used on the windshield of passenger and commercial motor vehicles. Inspection stickers will be sold only in complete books of twenty (20) stickers at a cost of thirty dollars (\$30) per book. These stickers are valid for any one (1) of the calendar years shown.

(2) Inspection decals will be used for motorcycle inspections and trailer verifications. Inspection decals will be sold only in complete books of twenty (20) decals at a cost of thirty dollars (\$30) per book. These decals are valid for any one (1) of the calendar years shown.

(3) All stations will keep a sufficient number of inspection stickers or decals on hand to meet their needs. Public inspection stations should purchase a minimum of five (5) books of inspection stickers or decals at a time.

(4) The MVI Requisition For Supplies (SHP-455) will be used when ordering both stickers or decals. Requisitions must be accompanied by a check or money order made payable to the director of revenue, in the correct amount for the number of books ordered. The requisition and check or money order must be mailed to the Missouri State Highway Patrol, Motor Vehicle Inspection Division, P.O. Box 568, Jefferson City, MO 65102. If a personal check is returned for any reason because of nonpayment, personal checks will no longer be accepted from that station. Stations that submit a check which is returned for nonpayment are subject to administrative action, including suspension and revocation, and criminal prosecution. Cash will not be accepted under any circumstances. Only the person(s) whose signature(s) appear on the station signature card on file at the Motor Vehicle Inspection Division, Jefferson City, will be authorized to order inspection stickers or decals.

(A) No fee will be charged for inspection stickers or decals issued to governmental entities.

(B) An inspection station owned by a governmental entity will not be required to order complete books of stickers or decals, but will order only the number needed for the calendar year.

(5) Inspection stations may exchange unused expired inspection stickers and decals for the same number of current issue. A request to exchange stickers must be accompanied by a Return Of Expired Stickers/Decals Form (SHP-466) properly completed with the numbers of the stickers/decals being returned and recorded in the appropriate locations. The stickers or decals must be submitted for exchange no later than April 30 of the calendar year following their expiration. Stickers may be traded for decals and vice versa. A station may be sent portions rather than full books. Exchange stickers and decals will be shipped separately from other orders. Do not deduct the price of stickers and decals submitted for exchange.

*AUTHORITY: section 307.360, RSMo 1994. * Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed Oct. 28, 1969, effective Nov. 7, 1969. Amended: Filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Jan. 27, 1971, effective Feb. 6, 1971. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Feb. 26, 1975, effective March 8, 1975. Amended: Filed March 3, 1980, effective June 12, 1980. Emergency amendment filed Aug. 3, 1992, effective Aug. 28, 1992, expired Dec. 25, 1992. Emergency amendment filed Nov. 2, 1992, effective Dec. 26, 1992, expired April 24, 1993. Amended: Filed Aug. 3, 1992, effective Feb. 26, 1993. Emergency rescission and rule filed May 15, 1997, effective June 16, 1997, expired Nov. 30, 1997. Rescinded and readopted: Filed May 15, 1997, effective Nov. 30, 1997. Amended: Filed Feb. 1, 2000, effective July 30, 2000.*

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979, 1999.*

11 CSR 50-2.110 Issuance of Inspection Stickers and Decals

PURPOSE: This rule establishes uniform procedures for inspection station operators and inspector/mechanics to follow when issuing inspection stickers and decals. These pro-



cedures are necessary to insure proper accountability and a record of each sticker and decal issued.

(1) An inspection sticker or decal shall be issued immediately following an inspection or reinspection if the vehicle meets the inspection requirements. The sticker or decal shall immediately be properly affixed to the vehicle by the inspector/mechanic who performed the inspection or reinspection.

(2) When an inspection sticker is issued, the inspector/mechanic shall validate the sticker by punching the month and the year that the inspection was performed and by legibly writing the information asked for on the reverse side of the inspection sticker. Previous inspection stickers affixed to the windshield shall be removed. The inspector/mechanic shall affix the current inspection sticker on the inside of the vehicle's windshield in the lower left-hand corner. On motor vehicles not equipped with a windshield, the inspector/mechanic shall issue a properly validated inspection decal and affix it to the vehicle's dash or steering column.

(3) When an inspection decal is issued for a motorcycle, it shall be affixed in an upright position on the left side of the steering fork sleeve at a visible location near the slider tube. The inspector/mechanic is not required to remove a previous-year issue inspection decal.

(4) Stations which do not punch the correct month and year issue inspection sticker or decal shall be required to remove the sticker or decal from the vehicle and affix a properly validated inspection sticker or decal to the owner's vehicle without charge.

(5) Stations will issue inspection stickers or decals from only one (1) book at a time, starting with their lowest numbered book.

(6) All covers from used books of both stickers and decals will be retained by the inspection station.

(7) Inspection stickers or decals issued to an inspection station can be used only by that station.

*AUTHORITY: section 307.360, RSMo 1994. * Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May*

31, 1974. Amended: Filed Feb. 26, 1975, effective March 8, 1975. Amended: Filed Sept. 1, 1977, effective Dec. 11, 1977. Amended: Filed April 2, 1992, effective Sept. 6, 1992. Amended: Filed Oct. 3, 1994, effective April 30, 1995. Emergency rescission and rule filed May 15, 1997, effective June 16, 1997, expired Nov. 30, 1997. Rescinded and readopted: Filed May 15, 1997, effective Nov. 30, 1997.

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979.*

11 CSR 50-2.120 MVI-2 Form

PURPOSE: This rule provides uniform procedures for the proper use of the MVI-2 form. These procedures are necessary to insure that correct and complete information is recorded on the form. The completed form is needed to evaluate inspections conducted at each station and provides a record of inspections performed. The form is also used as a receipt for vehicle owners.

(1) The MVI-2 form will be used as an approval certificate, rejection notice and station record. It shall be completed and signed by the inspector/mechanic who inspected the vehicle. This form will be issued to an inspection station by number without charge and can be used only by the station to which issued. A station owner shall be accountable for each set. This form shall be used in every instance when a vehicle is presented for inspection, and no part of the form shall be filled out until the vehicle has been presented for inspection. All applicable blanks or spaces on the form shall be completely and accurately filled out in a legible manner. The inspector/mechanic shall obtain the identification number from the vehicle and accurately record the number on the MVI-2 form in the space allotted. If a vehicle does not have an identification number, the inspector/mechanic shall write the word "None" on the form in the space provided. A station will issue approval certificates or rejection notices from one (1) book of MVI-2s at a time, twenty (20) sets to a book, using their lowest numbered book.

(2) Approval of Vehicle.

(A) If each item of equipment required to be inspected meets the inspection requirements, an inspection sticker or decal will be issued and the inspector/mechanic shall record the number on the MVI-2 form in the space provided.

(B) The first sheet of the MVI-2 form (white copy) shall be given to the vehicle

owner or operator as an approval certificate. An approval certificate will not be issued, under any circumstances, without the issuance of an inspection sticker or decal.

(C) No inspection sticker number or decal number shall be recorded on the MVI-2 form until the time a complete and proper inspection has been made and the vehicle described meets the minimum inspection standards established by rule; nor shall any signature of an inspector/mechanic be recorded until the vehicle has been completely and properly inspected.

(3) Rejection of Vehicle.

(A) If an item of equipment or any of its components does not meet the minimum inspection standards, the vehicle shall be rejected and the item or component shall be written under "Defective Part" in the space provided. In addition, the proper code for the defective item shall be determined from the code chart printed on the inside cover of the MVI-2 form and the code letter shall be recorded in the space provided. If an item is rejected for which a specific tolerance or measurement is listed, the measurement shall be recorded on the MVI-2 form.

(B) If a load-carrying ball joint is rejected because of movement in excess of prescribed tolerances, the measured movement shall be recorded. It should also be shown whether the measurement of the rejected ball joint is vertical or horizontal movement.

(C) The vehicle owner must be informed that s/he may repair the defective parts him/herself or have them repaired at any place of his/her choice and s/he shall have the right to remove the vehicle to a place for needed repairs. The inspector/mechanic shall sign the MVI-2 form in the space provided.

(D) Before any repairs are made by the inspection station, the vehicle owner shall be provided with a written estimate of the total cost of the repairs and the vehicle owner must authorize the station to make the repairs by signing the repair authorization in the space provided on the MVI-2 form.

(E) If the vehicle is removed from the inspection station for needed repairs, the second sheet of the MVI-2 form (yellow copy) shall be given to the vehicle owner as a rejection notice. The first sheet (white copy) and the third sheet (pink copy) will be filed with the station's yellow copies which are filed by consecutive control number.

(F) When a vehicle is returned for reinspection after repairs are made, the owner should present his/her rejection notice (yellow copy). The white and pink copies of the MVI-2 form having control numbers that correspond with the owner's rejection notice will



be obtained from the station's files. A reinspection will consist of only those items of equipment or components that were originally rejected. If the vehicle is approved, an inspection sticker or decal will be issued. The inspector/mechanic who made the reinspection shall sign the approval certificate and record his/her inspector/mechanic number and the number of the inspection sticker or decal in the spaces provided. The approval certificate (white copy) then shall be given to the vehicle owner. The yellow copy will be filed by control number.

(G) If the rejected vehicle is returned for a reinspection within twenty (20) consecutive days, excluding Saturdays, Sundays and state holidays, no additional inspection fee can be charged for one (1) reinspection.

(4) Inspection Station Record.

(A) The third sheet of the MVI-2 form (pink copy) will be filed by consecutive issue of sticker or decal number.

(B) Twenty (20) pink copies, which are filed by consecutive issue of sticker or decal number, shall be filed between the front and back cover of the used sticker or decal book which contained corresponding sticker or decal numbers. These pink copies and used covers will be kept by the inspection station for twenty-four (24) months from the date the inspection sticker or decal number was issued, at which time they may be destroyed.

(C) Inspection records (yellow and pink copies) shall be given to any member of the Missouri State Highway Patrol or motor vehicle inspector.

(D) All MVI-2 forms which are voided will be marked Void. All voided sets will be filed with the station's yellow copies that are filed by consecutive control number.

(5) If a vehicle owner loses an approval certificate, the vehicle owner may obtain, within sixty (60) calendar days, a replacement approval certificate at no charge from the inspection station which made the original inspection. Information for a replacement approval certificate will be obtained from the inspection station's records. The words "Replacement Certificate" will be written across the front. The first sheet (original) will be given to the vehicle owner. The second copy (yellow) will be filed by consecutive control number. The third copy (pink) will be filed by sticker or decal number.

AUTHORITY: section 307.360, RSMo 2000. Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed Oct. 28, 1969, effective Nov. 7, 1969. Amended: Filed March 9, 1970, effective March 19, 1970.*

Amended: Filed Aug. 13, 1970, effective Aug. 23, 1970. Amended: Filed Sept. 24, 1970, effective Oct. 4, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed Aug. 17, 1972, effective Aug. 27, 1972. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Dec. 1, 1975, effective Dec. 11, 1975. Amended: Filed Jan. 12, 1982, effective April 11, 1982. Amended: Filed Aug. 15, 1983, effective Nov. 11, 1983. Amended: Filed April 2, 1992, effective Sept. 6, 1992. Amended: Filed June 2, 1993, effective Nov. 8, 1993. Emergency rescission and rule filed May 15, 1997, effective June 16, 1997, expired Nov. 30, 1997. Rescinded and readopted: Filed May 15, 1997, effective Nov. 30, 1997. Amended: Filed Aug. 15, 2001, effective Feb. 28, 2002.

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979, 1999.*

11 CSR 50-2.130 Violation of Laws or Rules Penalty

PURPOSE: This rule advises inspection station operators and inspector/mechanics that compliance with the inspection law and the official inspection rules is required. A failure to comply subjects the inspection station operator or inspector/mechanic to a warning, suspension or revocation of inspection permits and arrest. A permit holder is entitled to a hearing before a suspension or revocation of any inspection permit.

(1) All inspection station operators and inspector/mechanics shall comply with the motor vehicle inspection law and the motor vehicle inspection rules. All inspections shall be conducted in accordance with the motor vehicle inspection rules. Failure to comply with the motor vehicle inspection law or the motor vehicle inspection rules will subject the inspection station operator and inspector/mechanic to a warning, suspension or revocation of inspection permits and arrest.

(2) Before any inspection station permit or inspector/mechanic permit is suspended or revoked by the superintendent of the Missouri State Highway Patrol, the holder will be given the opportunity to have an administrative hearing as provided by law.

AUTHORITY: section 307.360, RSMo 1994. Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974.*

**Original authority 1967, amended 1971, 1973, 1979.*

11 CSR 50-2.140 Sale of Vehicles for Junk, Salvage or Rebuilding

PURPOSE: This rule prescribes the form which shall be used when a vehicle is sold for junk, salvage or for rebuilding and not inspected under the motor vehicle inspection regulations. This is a requirement of section 307.380, RSMo.

(1) When a vehicle is sold for junk, salvage or for rebuilding, the purchaser must give to the seller an affidavit signed before a notary public stating that the vehicle is being purchased for that purpose. A copy of the affidavit will be given to the buyer. The affidavit shall be written in the prescribed manner and shall contain the following information:



**JUNK, SALVAGE OR REBUILDING
AFFIDAVIT**

SHP-498A 2/92

I understand that the _____
(Year) (Make) (Model) (Vehicle Identification No.) (Mileage)

which I am buying from _____
(Name of Seller)

has not been inspected and is in an unsafe mechanical condition. The vehicle is being purchased for junk, salvage or rebuilding. I understand that the vehicle cannot be operated in its present condition; therefore, I agree that the vehicle will either be towed or hauled from the place of purchase. I further understand that the vehicle cannot be registered and operated upon a public highway until I have the vehicle inspected. If any defects are discovered in the vehicle's brakes, lights, turn signals, steering mechanism, horn, mirrors, windshield wipers, tires, wheels, exhaust system, glass or fuel tank, during the inspection, they must be repaired at my own expense.

I certify that I have read the above statement, or that the above statement has been read to me, and that I fully understand the conditions under which the vehicle is being purchased.

(Purchaser's Signature)

(Address)

NOTE: The sale of this vehicle in its present condition without an approval certificate and its operation upon the streets and highways of Missouri from the place of purchase, is a violation of section 307.380, RSMo, and may subject the seller to penalties pursuant to sections 307.380 and 307.390, RSMo, 1986.

FOR NOTARY PUBLIC USE ONLY

Subscribed and sworn to before me this _____ day of _____, 19 _____

Notary Public _____

County of _____, State of Missouri.

My commission expires _____

(A COPY OF THIS AFFIDAVIT MUST BE GIVEN TO THE SELLER)



AUTHORITY: section 307.360, RSMo 1994. Original rule filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Aug. 16, 1979, effective Nov. 11, 1979. Amended: Filed July 14, 1982, effective Oct. 11, 1982. Amended: Filed April 2, 1992, effective Sept. 6, 1992. Emergency rescission and rule filed May 15, 1997, effective June 16, 1997, expired Nov. 30, 1997. Rescinded and readopted: Filed May 15, 1997, effective Nov. 30, 1997.*

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979.*

11 CSR 50-2.150 Brake Performance

PURPOSE: This rule describes the procedures and standards for the inspection of brake performance. The inspection of brakes is a requirement of section 307.365, RSMo.

(1) A brake performance test shall be performed by an inspector/mechanic on all single unit motor vehicles equipped with mechanical, hydraulic or power assisted hydraulic service brakes. The brake performance test may be conducted by using any one (1) of the following procedures: a decelerometer test, a drive and stop test, a brake testing machine or a dynamometer test. The selected test shall be conducted on the inspection station premises.

(A) Decelerometer Test. Mount and level decelerometer on vehicle. At a speed of five to twenty miles per hour (5–20 mph) apply service brake firmly. Observe decelerometer reading.

1. Reject vehicle if:

A. The vehicle is unable to develop deceleration equal to or greater than that listed for its classification as prescribed in Table I.

(B) Drive and Stop Test. The inspector/mechanic shall operate the vehicle at a speed of five to twenty (5–20) mph and apply the service brakes firmly.

1. Reject vehicle if:

A. The vehicle's brakes fail to function or if the vehicle pulls significantly to either side.

(C) Brake Testing Machine. Drive vehicle onto brake testing machine. Apply brakes firmly at a speed from four to eight (4–8) mph without wheel lock-up. If a computerized brake testing machine is utilized, a copy of the results will be provided to the vehicle owner.

1. Reject vehicle if:

A. The vehicle is not capable of developing evaluated braking force equal to or greater than that shown for its classification as prescribed in Table I. At least three (3) tests should be made before a vehicle is rejected;

B. Any wheel fails to indicate braking action;

C. The reading on any one (1) wheel is less than seventy-five percent (75%) of the reading on the other wheel on the same axle; or

D. The braking force of both wheels on one (1) axle is more than seventy-five percent (75%) of the total force of all the wheels.

(D) Dynamometer Test. Test in accordance with the manufacturer's instructions.

Table I

Classification of Vehicles	Braking Force as a Percentage of Gross Vehicle or Combination	Deceleration in Feet Per Second
Passenger vehicles with a seating capacity of 10 people or less including driver, not having a manufacturer's Gross Vehicle Weight Rating	52.8%	17
Single unit vehicles with a manufacturer's Gross Vehicle Weight Rating of 10,000 pounds or less	43.5%	14
Single unit vehicles with a manufacturer's gross weight rating of more than 10,000 pounds	43.5%	14

AUTHORITY: section 307.360, RSMo 2000. Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov. 19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Dec. 1, 1975, effective Dec. 11, 1975. Amended: Filed Aug. 16, 1979, effective Nov. 11, 1979. Amended: Filed March 15, 1999, effective Sept. 30, 1999. Emergency amendment filed Feb. 1, 2000, effective July 1, 2000, expired Dec. 27, 2000. Amended: Filed Feb. 1, 2000, effective July 30, 2000. Amended: Filed Nov. 1, 2001, effective April 30, 2002.*

**Original authority: 307.360, RSMo 1967, amended 1971, 1973, 1979, 1999.*

11 CSR 50-2.160 Brake Components

PURPOSE: This rule describes the procedures and standards for the inspection of brake components. The inspection of brakes is a requirement of section 307.365, RSMo.

(1) Hydraulic System.

(A) Pedal Reserve. With the vehicle stopped, apply moderate foot force on the brake pedal for at least one (1) minute and observe if the pedal moves slowly toward toe board.

1. Reject vehicle if:

A. Brake pedal moves slowly toward the toe board, indicating fluid leakage, while pedal pressure is maintained for one (1) minute;

B. Less than one-fifth (1/5) of the total available pedal travel remains;

C. Less than two-fifths (2/5) of total available pedal travel remains on a school bus; or

D. The brake warning device or light comes on when the brake pedal is depressed. Do not inspect the anti-lock braking system warning device or light.

(B) Power Reserve. Determine if system is operating by first stopping engine, then depress brake pedal several times to destroy all vacuum in system. Depress pedal with a moderate foot force. While maintaining this force on the pedal, start engine; and observe if pedal falls slightly when engine starts. Hydroboost system must have accumulator pressure for two (2) complete brake applications and should have return pressure against foot. If vehicle is equipped with electrohydraulic booster brake system, stop engine, turn ignition to the "on" position, depress brake pedal and observe if electric pump, buzzer and pump indicator lights operate. Inspect school buses manufactured after March 1, 1987, for audible or visible brake warning signals, or both.

1. Reject vehicle if:

A. Service brake pedal does not fall slightly as engine is started while pressure is maintained on pedal;

B. There is audible leakage in the vacuum system;

C. Hydroboost brake system does not have two (2) brake applications available;

D. Electric pump, buzzer and pump indicator lights fail to function on vehicles equipped with electrohydraulic booster brake system; or

E. School bus manufactured after March 1, 1987, is not equipped with proper audible or visible brake warning signals, or both, or signals fail to function.



(C) Master Cylinder. Inspect master cylinder for proper fluid, fluid level, fluid leakage and play in push rod. Power master-type systems should have the brake pedal depressed ten to forty (10–40) times or until the pedal is firm, with the ignition off, before inspecting fluid level. Master cylinder reservoirs with distinctly marked minimum levels should be inspected with the cap on. Observe the fluid level to ensure it complies with the manufacturer's suggested minimum level. The cap will then be removed to inspect the gasket for fluid contamination, swelling, cracking, misshape or tears.

1. Reject vehicle if:

A. Master cylinder contains fluid other than brake fluid, if master cylinder leaks, if fluid level is more than three-fourths inch (3/4") below top of reservoir;

B. Vehicle with disc brakes and dual hydraulic systems show the brake fluid level measuring more than one-half inch (1/2") below the top of the reservoir on master cylinders that have no manufacturer's minimum markings;

C. Master cylinder brake fluid level is below the manufacturer's minimum fluid level as marked on the reservoir;

D. There is no play in the push rod with brake pedal not depressed; or

E. Master cylinder gasket is torn or misshaped.

(2) Drums, Discs and Internal Brake Components. At least one (1) front or one (1) rear wheel and drum must be removed on each passenger vehicle, one-half (1/2) ton and three-quarter (3/4) ton pickup trucks, or similar type vehicles not equipped with dual rear wheels. Only the wheel must be removed on vehicles equipped with disc brakes. Identification marks shall be made on the wheel and lug before removal so the wheel can be remounted in the same position to insure wheel balance. On drum brake systems, a new cotter pin must always be used when remounting a wheel and drum. The removal of a wheel and/or drum is not required if the brake performance test has been administered using an approved computerized brake testing machine. When an approved computerized brake testing machine is used, and no wheel is removed, the inspector shall mark through the space on the MVI-2 form provided for "Brake Inspected" with the letters "CBTM." When removal of a wheel is required, a wheel appearing to leak brake fluid or grease, shall be the wheel removed to inspect for contamination. Wheels on four (4)-wheel drive vehicles equipped exclusively with drum-type brakes are not required to be removed.

(A) Inspect drums, discs, calipers, linings, pads, wheel cylinders, hoses, lines and other internal brake components.

1. Reject vehicle if:

A. There are substantial cracks on the friction surface extending to open edge of drum or to the edge of a disc;

B. A brake drum or disc has external cracks;

C. Friction surface of disc brake pads, rotor, brake linings or brake drum is contaminated with oil, grease or brake fluid;

D. A brake lining is worn into the friction surface of the brake drum where the brake drum cannot be removed after loosening the adjusting screw (backing off of the self-adjusting mechanism);

E. Thinnest point of bonded lining is less than one-thirty-second inch (1/32");

F. Rivets are loose or missing or if lining or pad is not firmly attached to shoe;

G. Riveted lining is worn to less than one-thirty-second inch (1/32") above any rivet head at thinnest point;

H. Wire is visible on the friction surface of wire-backed linings;

I. Lining is broken or cracked, does not include heat cracks;

J. A primary or secondary shoe and lining is improperly installed;

K. Bonded pads are worn at any one (1) point to less than one-thirty-second inch (1/32");

L. Riveted pads are worn at any one (1) point to less than five-thirty-seconds inch (5/32"). If unable to determine if pads are riveted or bonded, pads will be considered to be bonded pads;

M. A wheel cylinder or caliper leaks a sufficient amount of hydraulic brake fluid to cause droplets. Do not mistake assembly fluid for hydraulic fluid;

N. Hoses or tubing leak or are cracked, chafed, flattened, restricted, bubbled, improperly installed or insecurely fastened;

O. Mechanical parts are missing, broken or badly worn;

P. There is excessive friction in brake pedal, linkage or other components;

Q. Pedal levers are improperly positioned or misaligned; or

R. Brake components are misaligned, binding, obstructed or will not function properly.

*AUTHORITY: section 307.360, RSMo 2000. * Original rule filed Nov. 4, 1968, effective Nov. 14, 1968. Amended: Filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed March 9, 1970, effective March 19, 1970. Amended: Filed Nov. 9, 1971, effective Nov.*

19, 1971. Amended: Filed May 21, 1974, effective May 31, 1974. Amended: Filed Dec. 1, 1975, effective Dec. 11, 1975. Amended: Filed Sept. 1, 1977, effective Dec. 11, 1977. Amended: Filed Jan. 16, 1978, effective April 13, 1978. Amended: Filed March 3, 1980, effective June 12, 1980. Amended: Filed Jan. 12, 1982, effective April 11, 1982. Amended: Filed Aug. 26, 1985, effective Nov. 28, 1985. Amended: Filed Aug. 14, 1987, effective Nov. 12, 1987. Amended: Filed April 2, 1992, effective Sept. 6, 1992. Amended: Filed June 2, 1993, effective Nov. 8, 1993. Amended: Filed Oct. 3, 1994, effective April 30, 1995. Emergency rescission and rule filed May 15, 1997, effective June 16, 1997, expired Nov. 30, 1997. Rescinded and readopted: Filed May 15, 1997, effective Nov. 30, 1997. Amended: Filed March 15, 1999, effective Sept. 30, 1999. Emergency amendment filed Feb. 1, 2000, effective July 1, 2000, expired Dec. 27, 2000. Amended: Filed Feb. 1, 2000, effective July 30, 2000. Amended: Filed Sept. 15, 2003, effective March 30, 2004. Amended: Filed Oct. 3, 2005, effective March 30, 2006.

**Original authority: 307.360. RSMo 1967, amended 1971, 1973, 1979, 1999.*

11 CSR 50-2.170 Air and Vacuum Brake Systems

PURPOSE: This rule describes the procedures and standards for the inspection of air and vacuum brake systems. The inspection of brakes is a requirement of section 307.365, RSMo.

(1) Vehicles With a Vacuum Brake System.

(A) On vehicles equipped with a vacuum brake system, the engine should be allowed to run for one (1) minute to build vacuum. Inspect system for collapsed, broken, badly chafed and improperly supported hoses, tubes and loose or broken hose clamps. Depress brake pedal with moderate foot force. While maintaining this force on the pedal, start engine and observe if pedal falls slightly when engine starts. Build full vacuum, then shut off engine and make as many full brake applications as possible. On vehicles with low vacuum indicators, build full vacuum. Shut off engine and reduce vacuum by making a series of moderate brake applications. A flashing or buzzing signal should function when vacuum reaches eight inches (8") mercury.

1. Reject vehicle if:

A. Hoses or tubes are collapsed, leaking, broken, badly chafed, improperly supported or loose because of broken clamps;



B. Service brake pedal does not fall slightly as engine is started while pressure is maintained on pedal;

C. Vacuum reserve is insufficient to make one (1) full application after engine shutoff;

D. Indicator fails to function when system is reduced to eight inches (8") mercury.

(2) Vehicles With an Air Brake System.

(A) The following will apply to all motor vehicles equipped by the manufacturer with an air brake system. Open all drain cocks in system until pressure gauge reads zero (0). Close drain cocks and run engine at fast idle. Record time to raise air pressure from fifty to ninety pounds per square inch (50-90 psi) on gauge. Observe gauge pressure at which light or buzzer on low pressure indicator goes out or off. Continue running engine and observe gauge pressure when governor cuts out. With engine idling, make a series of brake applications and observe gauge pressure when governor cuts in. With fully charged system, stop engine and record pressure drop in psi per minute with brakes fully applied. With fully charged system, stop engine and record pressure drop in psi per minute with brakes released. Make a series of brake applications until low pressure warning signal operates. Stop engine and make one (1) full brake application. With fully charged system, stop engine and make one (1) full brake application. Measure drop in reservoir pressure. Inspect all air hoses and connections. Inspect lines for contact with frame, axles or exhaust system. Inspect for leaks that may be heard from valves, diaphragms and piston cups. Inspect air safety valve. Inspect condition of compressor drive belts.

1. Reject vehicle if:

A. Time required to build pressure from fifty to ninety (50-90) psi at fast idle is more than five (5) minutes;

B. Low pressure warning fails to function when pressure is lowered to between fifty to seventy (50-70) psi;

C. Governor cut-out pressure is higher than one hundred twenty-five (125) psi;

D. Governor cut-in pressure is lower than eighty (80) psi;

E. Leakage in psi per minute exceeds three (3) psi for single vehicles and four (4) psi for combination of two (2) vehicles with brakes applied;

F. Leakage in psi per minute exceeds two (2) psi for single vehicles and three (3) psi for combination of two (2) vehicles with brakes released;

G. Air reserve is not sufficient to permit one (1) full brake application after engine is stopped;

H. Reservoir pressure is lowered more than twenty percent (20%) of first reading;

I. Leaks, breaks, crimps or cracks in the air hoses, tubes or connections are present;

J. Lines are being rubbed by moving parts or are touching the exhaust system;

K. Leaks in valves, diaphragms or piston cups can be heard;

L. Air safety valve does not operate; or

M. Compressor drive belts are badly worn or loose.

(3) Air Brakes Adjustment.

(A) On vehicles equipped with cam brakes, mark each brake chamber push rod at the face of the brake chamber with the brakes released. Apply the air brakes fully, minimum air pressure eighty-five (85) psi, and measure the distance the push rod travels from the face of the chamber to the mark previously made when the brakes were released. This measurement is the push-rod stroke and is illustrated in Figure 1:

(B) Reject vehicle if the push-rod travel exceeds the maximum stroke listed in the following table:

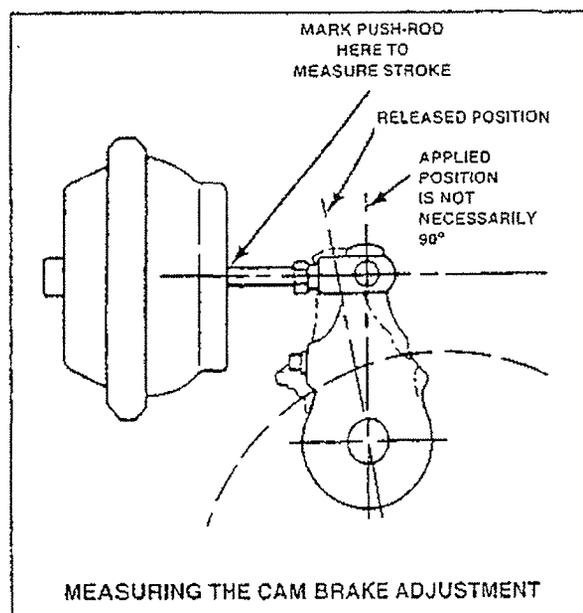


FIGURE 1