

§ 393.49

49 CFR Ch. III (10-1-04 Edition)

(ii) Installed in a bus, truck, or truck tractor manufactured after February 28, 1975; or

(iii) Used in the reduced mode except when the vehicle is operating under adverse conditions such as wet, snowy, or icy roads.

(2) *Automatic devices.* An automatic device to reduce the front-wheel braking effort by up to 50 percent of the normal braking force, regardless of whether or not antilock system failure has occurred on any axle, must not—

(i) Be operable by the driver except upon application of the control that activates the braking system; and

(ii) Be operable when the pressure that transmits brake control application force exceeds—

(A) 85 psig on air-mechanical braking systems; or

(B) 85 percent of the maximum system pressure in the case of vehicles utilizing other than compressed air.

(c) *Towed vehicle.* Paragraph (a) of this section does not apply to—

(1) A disabled vehicle being towed; or

(2) A vehicle being towed in a driveway-towaway operation which is exempt from the general rule of § 393.42 under paragraph (b) of that section.

[39 FR 26907, July 24, 1974, as amended at 41 FR 29130, July 15, 1976; 41 FR 53031, Dec. 3, 1976; 67 FR 61824, Oct. 2, 2002]

§ 393.49 Single valve to operate all brakes.

Every motor vehicle, the date of manufacture of which is subsequent to June 30, 1953, which is equipped with power brakes, shall have the braking system so arranged that one application valve shall when applied operate all the service brakes on the motor vehicle or combination of motor vehicles. This requirement shall not be construed to prohibit motor vehicles from being equipped with an additional valve to be used to operate the brakes on a trailer or trailers or as provided in § 393.44. This section shall not be applicable to driveway-towaway operations unless the brakes on such operations are designed to be operated by a single valve.

§ 393.50 Reservoirs required.

(a) *General.* Every commercial motor vehicle using air or vacuum for break-

ing shall be equipped with reserve capacity or a reservoir sufficient to ensure a full service brake application with the engine stopped without depleting the air pressure or vacuum below 70 percent of that pressure or degree of vacuum indicated by the gauge immediately before the brake application is made. For purposes of this section, a full service brake application is considered to be made when the service brake pedal is pushed to the limit of its travel.

(b) *Safeguarding of air and vacuum.* (1) Every bus, truck, and truck tractor, when equipped with air or vacuum reservoirs and regardless of date of manufacture, shall have such reservoirs so safeguarded by a check valve or equivalent device that in the event of failure or leakage in its connection to the source of compressed air or vacuum the air or vacuum supply in the reservoir shall not be depleted by the leak or failure.

(2) Means shall be provided to establish the check valve to be in working order. On and after May 1, 1966, means other than loosening or disconnection of any connection between the source of compressed air or vacuum and the check valve, and necessary tools for operation of such means, shall be provided to prove that the check valve is in working order. The means shall be readily accessible either from the front, side, or rear of the vehicle, or from the driver's compartment.

(i) In air brake systems with one reservoir, the means shall be a cock, valve, plug, or equivalent device arranged to vent a cavity having free communication with the connection between the check valve and the source of compressed air or vacuum.

(ii) Where air is delivered by a compressor into one tank or compartment (wet tank), and air for braking is taken directly from another tank or compartment (dry tank) only, with the required check valve between the tanks or compartments, a manually operated drain cock on the first (wet) tank or compartment will serve as a means herein required if it conforms to the requirements herein.

(iii) In vacuum systems stopping the engine will serve as the required