§ 393.67 Liquid fuel tanks.

(a) Application of the rules in this section. The rules in this section apply to tanks containing or supplying fuel for the operation of commercial motor vehicles or for the operation of auxiliary equipment installed on, or used in connection with, commercial motor vehicles.

(b) Liquid fuel tank manufactured or after January 1, 1973, and a side-mounted gasoline tank must conform to all rules in this section.

(c) Fuel tank installation. Each fuel tank must be securely attached to the motor vehicle in a workmanlike manner.

(d) Gravity or syphon feed prohibited. A fuel system must not supply fuel by gravity or syphon feed directly to the carburetor or injector.

(e) Selection control valve location. If a fuel system includes a selection control valve which is operable by the driver to regulate the flow of fuel from two or more fuel tanks, the valve must be installed so that either—

1. The driver may operate it while watching the roadway and without leaving his/her driving position; or

2. The driver must stop the vehicle and leave his/her seat in order to operate the valve.

(f) Fuel lines. A fuel line which is not completely enclosed in a protective housing must not extend more than 2 inches below the fuel tank or its sump. Diesel fuel crossover, return, and withdrawal lines which extend below the bottom of the tank or sump must be protected against damage from impact. Every fuel line must be—

1. Long enough and flexible enough to accommodate normal movements of the parts to which it is attached without incurring damage; and

2. Secured against chafing, kinking, or other causes of mechanical damage.

(g) Excess flow valve. When pressure devices are used to force fuel from a fuel tank, a device which prevents the flow of fuel from the fuel tank if the fuel feed line is broken must be installed in the fuel system.

§ 393.68 Fuel system components.

(a) Application of the rules in this section. The rules in this section apply to any components of fuel systems installed on, or used in connection with, commercial motor vehicles.

(b) Location. Each fuel system component must be located on the motor vehicle so that—

1. No part of the component extends beyond the widest part of the vehicle;

2. No part of a fuel tank is forward of the front axle of a power unit;

3. Fuel spilled vertically from a fuel tank while it is being filled will not contact any part of the exhaust or electrical systems of the vehicle, except the fuel level indicator assembly;

4. Fill pipe openings are located outside the vehicle’s passenger compartment and its cargo compartment;

5. A fuel line does not extend between a towed vehicle and the vehicle that is towing it while the combination of vehicles is in motion; and

6. No part of the fuel system of a bus manufactured on or after January 1, 1973, is located within or above the passenger compartment.

(c) Fuel tank installation. Each fuel tank must be securely attached to the motor vehicle in a workmanlike manner.

(d) Gravity or syphon feed prohibited. A fuel system must not supply fuel by gravity or syphon feed directly to the carburetor or injector.

(e) Selection control valve location. If a fuel system includes a selection control valve which is operable by the driver to regulate the flow of fuel from two or more fuel tanks, the valve must be installed so that either—

1. The driver may operate it while watching the roadway and without leaving his/her driving position; or

2. The driver must stop the vehicle and leave his/her seat in order to operate the valve.

(f) Fuel lines. A fuel line which is not completely enclosed in a protective housing must not extend more than 2 inches below the fuel tank or its sump. Diesel fuel crossover, return, and withdrawal lines which extend below the bottom of the tank or sump must be protected against damage from impact. Every fuel line must be—

1. Long enough and flexible enough to accommodate normal movements of the parts to which it is attached without incurring damage; and

2. Secured against chafing, kinking, or other causes of mechanical damage.

(g) Excess flow valve. When pressure devices are used to force fuel from a fuel tank, a device which prevents the flow of fuel from the fuel tank if the fuel feed line is broken must be installed in the fuel system.