§ 393.100 Which types of commercial motor vehicles are subject to the cargo securement standards of this subpart, and what general requirements apply?

(a) **Applicability.** The rules in this subpart are applicable to trucks, truck tractors, semitrailers, full trailers, and pole trailers.

(b) **Prevention against loss of load.** Each commercial motor vehicle must, when transporting cargo on public roads, be loaded and equipped, and the cargo secured, in accordance with this subpart to prevent the cargo from leaking, spilling, blowing or falling from the motor vehicle.

(c) **Prevention against shifting of load.** Cargo must be contained, immobilized or secured in accordance with this subpart to prevent shifting upon or within the vehicle to such an extent that the vehicle’s stability or maneuverability is adversely affected.

§ 393.102 What are the minimum performance criteria for cargo securement devices and systems?

(a) **Performance criteria—**

1. **Breaking strength.** Tiedown assemblies (including chains, wire rope, steel strapping, synthetic webbing, and cordage) and other attachment or fastening devices used to secure articles of cargo to, or in, commercial motor vehicles must be designed, installed, and maintained to ensure that the maximum forces acting on the devices or systems do not exceed the manufacturer’s breaking strength rating under the following conditions, applied separately:

   (i) 0.8 g deceleration in the forward direction;
   (ii) 0.5 g acceleration in the rearward direction;
   (iii) 0.5 g acceleration in a lateral direction.

2. **Working Load limit.** Tiedown assemblies (including chains, wire rope, steel strapping, synthetic webbing, and cordage) and other attachment or fastening devices used to secure articles of cargo to, or in, commercial motor vehicles must be designed, installed, and maintained to ensure that the forces acting on the devices or systems do not exceed the working load limit for the devices under the following conditions, applied separately:

   (i) 0.435 g deceleration in the forward direction;
   (ii) 0.5 g acceleration in the rearward direction;
   (iii) 0.25 g acceleration in a lateral direction.

(b) **Performance criteria for devices to prevent vertical movement of loads that are not contained within the structure of verDate Mar<15>2010 17:17 Nov 14, 2011 Jkt 223218 PO 00000 Frm 00488 Fmt 8010 Sfmt 8010 Q:\49\49V5.TXT ofr150 PsN: PC150