**Section 558.70 Front-end Structure**

a) General rule. Except as provided in paragraph (g) of this Section, every flatbed vehicle transporting objects meeting the limits indicated in Section 558.40(d) and (e) must be equipped with a headerboard or similar device of sufficient strength to prevent load shifting and penetration or crushing of the driver's compartment.

b) Location. The front-end structure must be located between the vehicle's cargo and the vehicle's driver.

c) Height and width. The front-end structure must extend either to a height of 4 feet above the floor of the vehicle or to a height at which it blocks forward movement of any item of cargo being carried on the vehicle, whichever is lower. The front-end structure must have a width which is at least equal to the width of the vehicle or which blocks forward movement of any item of cargo being transported on the vehicle, whichever is narrower.

d) Strength. The front-end structure must be capable of withstanding the horizontal forward static load specified in either paragraph (1) or (2) as follows.

1) For a front-end structure less than 6 feet in height, a horizontal forward static load equal to one half ½ of the weight of the cargo being transported on the vehicle uniformly distributed over the entire portion of the front-end structure that is within 4 feet above the vehicle's floor or that is at or below a height above the vehicle's floor at which it blocks forward movement of any item of the vehicle's cargo, whichever is less.

2) For a front-end structure 6 feet in height or higher, a horizontal forward static load equal to four-tenths (0.4) of the weight of the cargo being transported on the vehicle uniformly distributed over the entire front-end structure.

e) Penetration resistance. The front-end structure must be designed, constructed, and maintained so that it is capable of resisting penetration by any item of cargo that contacts it when the vehicle decelerates at a rate of 20 feet per second per second. The front-end structure must have no aperture large enough to permit any item of cargo in contact with the structure to pass through it.

f) Substitute devices. The requirements of this Section may be met by the use of devices performing the same functions as a front-end structure, if the devices are at least as strong as, and provide protection against shifting cargo at least equal to, a front-end structure which conforms to those requirements.

g) Exemptions. The following flatbed vehicles are exempt from the rules in this Section:

1) A vehicle which is designed and used exclusively to transport other vehicles, if each vehicle it transports is securely tied down by devices that conform to the requirements of 558.50.

2) A semitrailer being towed by a truck tractor that is equipped with a front-end structure that conforms to the rules in this section.

3) A full trailer being towed by a vehicle that is equipped with a front-end structure that conforms to the requirements of this section for a front-end structure.

4) A full trailer being towed by a vehicle that is loaded in such a manner that the cargo on the towing vehicle conforms to the requirements of this section for a front-end structure.

5) The rules in paragraphs (d) and (e) of this Section do not apply to a motor vehicle manufactured before January 1, 1974.