

7450.0400 MINIMUM STANDARDS FOR FRAME-ATTACHED DEVICES.

Each frame-attached wheelchair securement device must meet the requirements of items A to G.

A. It must attach to the wheelchair frame on at least three points. The three points of contact must be spaced to provide effective securement. Alternatively, a securement device meeting all other requirements of this chapter may attach to two widely spaced points on the wheelchair frame if the wheel tires or the wheelchair frame abuts an unyielding surface in a manner that meets the approval requirements of part 7450.0500.

B. It must consist of at least two webbing-type belts described in subitem (1) or at least two all-metal devices described in subitem (2) or one or more of each type of device.

(1) Webbing-type devices must be assemblies that meet or exceed Type 2 pelvic restraint seat belt requirements as specified in S4.2(b) of FMVSS No. 209, or be certified by the manufacturer that the device meets or exceeds assembly strength of 5,000 pounds in loop fashion or 2,500 pounds on each anchorage leg.

(a) Certification may be the specification listed in catalogs or publications by the manufacturer.

(b) New construction of these securement devices and repairs to webbing must conform with standards established by the manufacturer of the webbing.

(2) All-metal securement devices must be designed and constructed to provide wheelchair securement strength that is at least equal to the strength of a webbing-type device comprised of three separate attachments and anchorages.

C. It must be free of sharp edges, corners, and jagged projections to minimize injury to persons in the event of unintentional contact.

D. It must be capable of retraction, and be readily removable or otherwise suitably storable when not in use.

E. It must be anchored to the vehicle at not less than two separate points with bolts, nuts, and lock washers or self-locking nuts.

(1) Bolts used must be not less than 3/8-inch in diameter and of National Fine Thread SAE grade 5 designation or equivalent.

(2) Where anchorage bolts do not pierce the vehicle frame, subframe, body post, or equivalent metal structure, a metal reinforcement plate or washer 1/16-inch thick and not less than four square inches or 2-1/4 inches in diameter respectively, is required.

(3) Interior paneling may not be used to constitute anchorage for a point of securement.

(4) A metal track, rail, or similar device permitting attachment of the securement device at optional points on it may be used to anchor the securement device, only if:

(a) the track, rail, or other device is secured to the vehicle in compliance with anchorage requirements of this part; and

(b) the attachment of the securement device to the anchor point is by means of a positive attachment metal fitting.

F. The method or device that provides attachment of the securement device to the wheelchair frame and the method or device locking the securement device in the load-holding mode must each be of a strength and design that will ensure performance of their intended function until the securement device is intentionally released.

G. Buckles, anchorage fittings, and other components essential to the functioning of the securement device must be integrated into the securement device in accordance with recognized practices and in a manner that preserves the overall strength of the securement device.

Statutory Authority: *MS s 299A.01; 299A.12; 299A.18*

History: *16 SR 2246*

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