

## § 178.348

## 49 CFR Ch. I (10–1–24 Edition)

times tank MAWP, whichever is greater, and the inspection pressure is tank MAWP.

[Amdt. 178–89, 54 FR 25030, June 12, 1989. Re-designated by Amdt. 178–112, 61 FR 18934, Apr. 29, 1996]

### § 178.348 Specification DOT 412; cargo tank motor vehicle.

#### § 178.348–1 General requirements.

(a) Each specification DOT 412 cargo tank motor vehicle must conform to the general design and construction requirements in §178.345 in addition to the specific requirements of this section.

(b) The MAWP of each cargo tank must be at least 5 psig.

(c) The MAWP for each cargo tank designed to be loaded by vacuum must be at least 25 psig internal and 15 psig external.

(d) Each cargo tank having a MAWP greater than 15 psig must be of circular cross-section.

(e) Each cargo tank having a—

(1) MAWP greater than 15 psig must be “constructed and certified in conformance with Section VIII of the ASME Code” (IBR, see §171.7 of this subchapter); or

(2) MAWP of 15 psig or less must be “constructed in accordance with Section VIII of the ASME Code,” except as modified herein:

(i) The recordkeeping requirements contained in Section VIII of the ASME Code do not apply. Parts UG–90 through 94 in Section VIII do not apply. Inspection and certification must be made by an inspector registered in accordance with subpart F of part 107.

(ii) Loadings must be as prescribed in §178.345–3.

(iii) The knuckle radius of flanged heads must be at least three times the

material thickness, and in no case less than 0.5 inch. Stuffed (inserted) heads may be attached to the shell by a fillet weld. The knuckle radius and dish radius versus diameter limitations of UG–32 do not apply for cargo tank motor vehicles with a MAWP of 15 psig or less. Shell sections of cargo tanks designed with a non-circular cross section need not be given a preliminary curvature, as prescribed in UG–79(b).

(iv) Marking, certification, data reports, and nameplates must be as prescribed in §§178.345–14 and 178.345–15.

(v) Manhole closure assemblies must conform to §§178.345–5.

(vi) Pressure relief devices must be as prescribed in §178.348–4.

(vii) The hydrostatic or pneumatic test must be as prescribed in §178.348–5.

(viii) The following paragraphs in parts UG and UW in Section VIII of the ASME Code do not apply: UG–11, UG–12, UG–22(g), UG–32(e), UG–34, UG–35, UG–44, UG–76, UG–77, UG–80, UG–81, UG–96, UG–97, UW–13(b)(2), UW–13.1(f), and the dimensional requirements found in Figure UW–13.1.

[Amdt. 178–89, 54 FR 25031, June 12, 1989, as amended at 55 FR 37065, Sept. 7, 1990; Amdt. 178–89, 56 FR 27877, June 17, 1991; 65 FR 58632, Sept. 29, 2000; 68 FR 19285, Apr. 18, 2003; 68 FR 75756, Dec. 31, 2003]

#### § 178.348–2 Material and thickness of material.

(a) The type and thickness of material for DOT 412 specification cargo tanks must conform to §178.345–2, but in no case may the thickness be less than that determined by the minimum thickness requirements in §178.320(a). The following Tables I and II identify the “Specified Minimum Thickness” values to be employed in that determination.