

## § 179.22

## 49 CFR Ch. I (10–1–11 Edition)

### § 179.22 Marking.

In addition to any other marking requirement in this subchapter, the following marking requirements apply:

(a) Each tank car must be marked according to the requirements in appendix C of the AAR Specifications for Tank Cars (IBR, see §171.7 of this subchapter).

(b) Each tank car that requires a tank-head puncture-resistance system must have the letter “S” substituted for the letter “A” in the specification marking.

(c) Each tank car that requires a tank-head puncture-resistance system, a thermal protection system, and a metal jacket must have the letter “J” substituted for the letter “A” or “S” in the specification marking.

(d) Each tank car that requires a tank-head puncture-resistance system, a thermal protection system, and no metal jacket must have the letter “T” substituted for the letter “A” or “S” in the specification marking.

(e) Each tank car manufactured after March 16, 2009 to meet the requirements of §173.244(a)(2) or (3) or §173.314(c) or (d) shall be marked with the letter “I” following the test pressure instead of the letter “W”. (Example: DOT 105J600I).

[Amdt. 179–50, 60 FR 49077, Sept. 21, 1995, as amended by Amdt. 179–50, 61 FR 33256, June 26, 1996; 68 FR 75759, Dec. 31, 2003; 74 FR 1802, Jan. 13, 2009]

### Subpart C—Specifications for Pressure Tank Car Tanks (Classes DOT-105, 109, 112, 114 and 120)

#### § 179.100 General specifications applicable to pressure tank car tanks.

##### § 179.100–1 Tanks built under these specifications shall comply with the requirements of §§ 179.100, 179.101 and when applicable, §§ 179.102 and 179.103.

##### § 179.100–3 Type.

(a) Tanks built under this specification shall be fusion-welded with heads designed convex outward. Except as provided in §179.103 they shall be circular in cross section, shall be provided with a manway nozzle on top of the

tank of sufficient size to permit access to the interior, a manway cover to provide for the mounting of all valves, measuring and sampling devices, and a protective housing. Other openings in the tank are prohibited, except as provided in part 173 of this chapter, §§ 179.100–14, 179.101–1, 179.102 or §179.103.

(b) Head shields and shells of tanks built under this specification must be normalized. Tank car heads must be normalized after forming unless specific approval is granted for a facility’s equipment and controls.

[29 FR 18995, Dec. 29, 1964. Redesignated at 32 FR 5606, Apr. 5, 1967, and amended by Amdt. 179–10, 36 FR 21344, Nov. 6, 1971; 65 FR 58632, Sept. 29, 2000; 74 FR 1802, Jan. 13, 2009]

#### § 179.100–4 Insulation.

(a) If insulation is applied, the tank shell and manway nozzle must be insulated with an approved material. The entire insulation must be covered with a metal jacket of a thickness not less than 11 gauge (0.1196 inch) nominal (Manufacturers’ Standard Gauge) and flashed around all openings so as to be weather-tight. The exterior surface of a carbon steel tank, and the inside surface of a carbon steel jacket must be given a protective coating.

(b) If insulation is a specification requirement, it shall be of sufficient thickness so that the thermal conductance at 60 °F is not more than 0.075 Btu per hour, per square foot, per degree F temperature differential. If exterior heaters are attached to tank, the thickness of the insulation over each heater element may be reduced to one-half that required for the shell.

[29 FR 18995, Dec. 29, 1964. Redesignated at 32 FR 5606, Apr. 5, 1967, and amended by Amdt. 179–10, 36 FR 21344, Nov. 6, 1971; Amdt. 179–50, 60 FR 49077, Sept. 21, 1995]

#### § 179.100–6 Thickness of plates.

(a) The wall thickness after forming of the tank shell and heads must not be less than that specified in §179.101, nor that calculated by the following formula:

$$t = Pd / 2SE$$

Where:

$d$  = Inside diameter in inches;

$E$  = 1.0 welded joint efficiency; except for heads with seams=0.9;