

figures at least 0.952 cm (3/8-inch) high on the outside of the manway nozzle or the edge of the manway nozzle flange on the left side of the car. The marking may have the last numeral of the specification number omitted (e.g., "DOT 111A100W" instead of "DOT 111A100W1").

(d) When pressure tested within six months of installation and protected from deterioration, the test date marking of a safety relief device is the installation date on the tank car.

§ 180.517 Reporting and record retention requirements.

(a) *Certification and representation.* Each owner of a specification tank car shall retain the certificate of construction (AAR Form 4-2) and related papers certifying that the manufacture of the specification tank car identified in the documents in accordance with the applicable specification. The owner shall retain the documents throughout the period of ownership of the specification tank car and for one year thereafter. Upon a change of ownership, the requirements of Section 1.3.15 of the AAR Specifications for Tank Cars apply.

(b) *Inspection and test reporting.* Each tank car that is inspected as specified in § 180.509 must have a written report, in English, prepared according to this

paragraph. The owner must retain a copy of the inspection and test reports until successfully completing the next inspection and test of the same type. The inspection and test report must include the following:

- (1) Type of inspection and test performed (a checklist is acceptable);
- (2) The results of each inspection and test performed;
- (3) Owner's reporting mark;
- (4) DOT Specification;
- (5) Inspection and test date (month and year);
- (6) Location of defects found and method used to repair each defect;
- (7) The name and address of the tank car facility and the signature of inspector.

§ 180.519 Periodic retest and inspection of tank cars other than single-unit tank car tanks.

(a) *General.* Unless otherwise provided in this subpart, tanks designed to be removed from cars for filling and emptying and tanks built to specification DOT 107A**** and their safety relief devices must be retested periodically as specified in Retest Table 1 of paragraph (b) of this section. Retests may be made at any time during the calendar year the retest falls due.

(b) *Pressure test.* (1) Each tank, except as provided in paragraph (b)(8) of this section, must be subjected to the

specified hydrostatic pressure and its permanent expansion determined. Pressure must be maintained for 30 seconds and as much longer as may be necessary to secure complete expansion of the tank. The pressure gauge must permit reading to an accuracy of 1 percent. The expansion gauge must permit reading of total expansion to an accuracy of 1 percent. Expansion must be recorded in cubic centimeters. Permanent volumetric expansion must not exceed 10 percent of total volumetric expansion at test pressure and tank must not leak or show evidence of distress.

(2) Each tank, except tanks to specification DOT 107A, must also be subjected to interior air pressure test of at least 100 psi under conditions favorable to detection of any leakage. No leaks may appear.

(3) Safety relief valves must be retested by air or gas, must start to discharge at or below the prescribed pressure and must be vapor tight at or above the prescribed pressure.

(4) Frangible discs or fusible plugs must be removed from the tank and visually inspected.

(5) Tanks must be retested as specified in Retest Table 1 of this paragraph before return to service after repairs involving welding or heat treatment.

RETEST TABLE 1

Specification	Retest interval—years		Retest pressure—p.s.i.		Safety relief valve pressure—p.s.i.	
	Tanks	Safety relief devices ⁴	Tank hydrostatic expansion ³	Tank air test	Start-to-discharge	Vapor tight
DOT 27	5	2	500	100	375	300
106A500	5	2	500	100	375	300
106A500X	5	2	500	100	375	300
106A800	5	2	500	100	375	300
106A800X	5	2	800	100	600	480
106A800NCI	5	2	800	100	600	480
107A****	5	2	800	100	600	480
110A500-W	5	2	(2)	None	None	None
110A600-W	5	2	500	100	375	300
110A800-W	5	2	600	100	500	360
110A1000-W	5	2	800	100	600	480
BE-27	5	2	1,000	100	750	600
	5	2	500	100	375	300

¹ If DOT 107A**** tanks are used for transportation of flammable gases, one frangible disc from each car must be burst at the interval prescribed. The sample disc must burst at a pressure not exceeding the marked test pressure of the tank and not less than 7/10 of the marked test pressure. If the sample disc does not burst within the prescribed limits, all discs on the car must be replaced.

² The hydrostatic expansion test pressure must at least equal the marked test pressure.

³ See § 180.519(d)(8).

⁴ Safety relief valves of the spring-loaded type on tanks used exclusively for fluorinated hydrocarbons and mixtures thereof which are free from corroding components may be retested every 5 years.

(6) The month and year of test, followed by a "V" if visually inspected as described in paragraph (d)(8) of this section, must be plainly and permanently stamped into the metal of

one head or chime of each tank passing test; for example, 1-60 for January 1960. On DOT 107A**** tanks, the date must be stamped into the metal of the marked end, except that if all tanks mounted on

a car have been tested, the date may be stamped into the metal of a plate permanently applied to the bulkhead on the "A" end of the car. Dates of previous