

**§ 179.101 Individual specification requirements applicable to pressure tank car tanks.**

**§ 179.101-1 Individual specification requirements.**

EDITORIAL NOTE: At 66 FR 45186, Aug. 28, 2001, an amendment published amending a table in §179.101. No text or table appears in §179.101.

In addition to §179.100, the individual specification requirements are as follows:

DOT specification	Insulation	Bursting pressure (psig)	Minimum plate thickness (inches)	Test pressure (psig)	Manway cover thickness	Bottom outlet	Bottom washout	Reference (179.***)
105A100ALW	Yes	500	5/8	100	<sup>2</sup> 2 1/2	No	No.	
105A200ALW	Yes	500	5/8	200	<sup>2</sup> 2 1/2	No	No.	
105A300ALW	Yes	750	5/8	300	<sup>2</sup> 2 5/8	No	No.	
105A100W	Yes	500	<sup>3</sup> 9/16	100	2 1/4	No	No.	
105A200W	Yes	500	<sup>3</sup> 9/16	200	2 1/4	No	No.	
105A300W	Yes	750	<sup>1</sup> 11/16	300	<sup>7</sup> 2 1/4	No	No.	
105A400W	Yes	1,000	<sup>1</sup> 11/16	400	<sup>7</sup> 2 1/4	No	No.	
105A500W	Yes	1,250	<sup>1</sup> 11/16	500	2 1/4	No	No	102-1, 102-2
105A600W	Yes	1,500	<sup>1</sup> 11/16	600	2 1/4	No	No	102-4, 102-17
109A100ALW	Optional	500	5/8	100	<sup>2</sup> 2 1/2	No	Optional.	
109A200ALW	Optional	500	5/8	200	<sup>2</sup> 2 1/2	No	Optional.	
109A300ALW	Optional	750	5/8	300	<sup>2</sup> 2 5/8	No	Optional.	
109A300W	Optional	500	<sup>1</sup> 11/16	300	2 1/4	No	Optional.	
112A200W	Optional <sup>4</sup>	500	<sup>3</sup> 5/9/16	200	2 1/4	No	No.	
112A340W	Optional <sup>4</sup>	850	<sup>1</sup> 11/16	340	2 1/4	No	No.	
112A400W	Optional <sup>4</sup>	1,000	<sup>1</sup> 11/16	400	2 1/4	No	No.	
112A500W	Optional <sup>4</sup>	1,250	<sup>1</sup> 11/16	500	2 1/4	No	No.	
114A340W	Optional <sup>4</sup>	850	<sup>1</sup> 11/16	340	<sup>6</sup>	Optional	Optional	103
114A400W	Optional <sup>4</sup>	1,000	<sup>1</sup> 11/16	400	<sup>6</sup>	Optional	Optional	103
120A200ALW	Yes	500	5/8	200	<sup>2</sup> 2 1/2	Optional	Optional	103
120A100W	Yes	500	<sup>3</sup> 9/16	100	2 1/4	Optional	Optional	103
120A200W	Yes	500	<sup>3</sup> 9/16	200	2 1/4	Optional	Optional	103
120A300W	Yes	750	<sup>1</sup> 11/16	300	2 1/4	Optional	Optional	103
120A400W	Yes	1,000	<sup>1</sup> 11/16	400	2 1/4	Optional	Optional	103
120A500W	Yes	1,250	<sup>1</sup> 11/16	500	2 1/4	Optional	Optional	103

<sup>1</sup>When steel of 65,000 to 81,000 p.s.i. minimum tensile strength is used, the thickness of plates shall be not less than 5/8 inch, and when steel of 81,000 p.s.i. minimum tensile strength is used, the minimum thickness of plate shall be not less than 9/16 inch.

<sup>2</sup>When approved material other than aluminum alloys are used, the thickness shall be not less than 2 1/4 inches.

<sup>3</sup>When steel of 65,000 p.s.i. minimum tensile strength is used, minimum thickness of plates shall be not less than 1/2 inch.

<sup>4</sup>Tank cars not equipped with a thermal protection or an insulation system used for the transportation of a Class 2 (compressed gas) material must have at least the upper two-thirds of the exterior of the tank, including manway nozzle and all appurtenances in contact with this area, finished with a reflective coat of white paint.

<sup>5</sup>For inside diameter of 87 inches or less, the thickness of plates shall be not less than 1/2 inch.

<sup>6</sup>See AAR specifications for tank cars, Appendix E, E4.01 and §179.103-2.

<sup>7</sup>When the use of nickel is required by the lading, the thickness shall not be less than two inches.

[Amdt. 179-52, 61 FR 28679, June 5, 1996 as amended at 66 FR 45390, Aug. 28, 2001]

**§ 179.102 Special commodity requirements for pressure tank car tanks.**

(a) In addition to §§179.100 and 179.101 the following requirements are applicable:

(b) [Reserved]

**§ 179.102-1 Carbon dioxide, refrigerated liquid.**

(a) Tank cars used to transport carbon dioxide, refrigerated liquid must comply with the following special requirements:

(1) All plates for tank, manway nozzle and anchorage of tanks must be made of carbon steel complying with

ASTM Specification A 516, Grades 55, 60, 65, or 70, or AAR Specification TC128-78, Grade B. The ASTM A516 plate must also meet the Charpy V-Notch test requirements of ASTM A20-79b (see table 16) in the longitudinal direction of rolling. The TC128 plate must also meet the Charpy V-Notch energy absorption requirements of 15 ft-lb minimum average for 3 specimens and 10 ft-lb minimum for one specimen at minus 50 °F in the longitudinal direction of rolling in accord with ASTM Specification A 370. Production-welded test plates prepared as required by W4.00 of AAR Specifications for Tank Cars, appendix W, must include impact