



**ASSOCIATION  
OF AMERICAN  
RAILROADS**

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August 31, 2011

CPC-1232

**Subject: Requirements for Cars Built for the Transportation of Packing Group I and II Materials with the Proper Shipping Names "Petroleum Crude Oil""Alcohols, n.o.s." and "Ethanol and Gasoline Mixture"**

TO MEMBERS AND PRIVATE CAR OWNERS

This is the final action on revisions effecting requirements for cars built for the transportation of packing group I and II materials with the proper shipping names "Petroleum Crude Oil""Alcohols, n.o.s." and "Ethanol and Gasoline Mixture" The changes are shown in the attached pages and marked with change bars.

Comments received from CPC-1230 have been incorporated into this final action. Questions concerning applicability of changes to MSRP M-1002 Chapter 2 should be directed to the Executive Director of Tank Car Safety.

The revised proposal is included in this circular and is in effect as of the publication date of this circular. Under the provisions of Standard S-050, which may be found on the TTCI web site (AAR.com), this circular reflects the final action on this matter.

Sincerely,

K.B. Dorsey

**AAR Manual of Standards and Recommended Practices  
Specifications for Tank Cars**

M-1002

CHAPTER 2

**CHAPTER 2**

**AAR SPECIAL REQUIREMENTS FOR DOT TANK CARS**

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**2.6 Top Fittings Protection Requirements for Nonpressure Cars**

For protection of top fittings against rollovers and accidental horizontal loads, all new nonpressure Class DOT/TC tank cars ordered after July 1, 2010, used to transport Packing Group I (high hazard) and Packing Group II (medium hazard) materials must be equipped per paragraph 10.2.1 of Appendix E.

**2.7 Requirements for Cars Built for the Transportation of Packing Group I and II Materials with the Proper Shipping Names “Petroleum Crude Oil,” “Alcohols, n.o.s.,” and “Ethanol and Gasoline Mixture”**

**2.7.1** Cars ordered after October 1, 2011, for the transportation of packing Group I and II materials with the proper shipping names “petroleum crude oil,” “alcohols, n.o.s.,” and “ethanol and gasoline mixture” must comply with the following requirements.

**2.7.2 Top Fittings Protection**

**2.7.2.1** Class 111 tank cars used to transport packing Group I and II materials with the proper shipping names “petroleum crude oil,” “alcohols, n.o.s.,” and “ethanol and gasoline mixture” must be equipped per Appendix E, paragraph 10.2.1.

**2.7.3 Pressure Relief Devices**

Class 111 tank cars used to transport packing Group I and II materials with the proper shipping names “petroleum crude oil,” “alcohols, n.o.s.,” and “ethanol and gasoline mixture” must be equipped with reclosing pressure relief devices. Upon approval of Pipeline and Hazardous Safety Administration (PHMSA), a non-reclosing device can be used where the applicant demonstrates that a non-reclosing device is required and affords an equivalent level of safety.

**2.7.4 Tank Material and Thickness**

**2.7.4.1** Class 111 tank cars used to transport packing Group I and II materials with the proper shipping names “petroleum crude oil,” “alcohols, n.o.s.,” and “ethanol and gasoline mixture” must have heads and shells constructed of normalized TC128 Grade B steel or normalized A516-70 steel. Tank car heads must be normalized after forming, unless approval is granted by the AAR Executive Director of Tank Car Safety on the basis that a facility has demonstrated that its equipment and controls provide an equivalent level of safety. For tanks constructed of normalized TC128 Grade B steel, non-jacketed tanks must be at least 1/2 in. thick and jacketed cars must be at least 7/16 in. thick. For tanks constructed of normalized A516-70 steel, non-jacketed cars must be at least 9/16 in. thick and jacketed cars must be at least 1/2 in. thick. In all cases the cars must be equipped with at least 1/2 in. half-head shields.

**2.7.4.2** Class DOT-111 cars with high-alloy steel tanks (111 \*\*\*\*W6 and 111 \*\*\*\*W7) used to transport packing Group I and II materials with the proper shipping names “petroleum crude oil,” “alcohols, n.o.s.,” and “ethanol and gasoline mixture” must have heads and shells at least 1/2 in. thick and be equipped with at least 1/2 in. half-head shields if not jacketed. Jacketed tanks must be at least 7/16 in. thick and be equipped with 1/2 in. thick jacket heads at a minimum.

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