TTMA Report

TTMA Introduction

GHG2 Update

Venting
TTMA Introduction

Who are these guys anyway?
• Trade association representing heavy duty trailer builders (10,000+lb GAWR).

• Associate members build components, supply materials and provide services to the industry.

• Established in 1941.

• Approximately 90% of the trailers operating on US Highways are manufactured by TTMA member companies.

TTMA = Truck Trailer Manufacturers Association
The association as a whole attends to issues common to all truck trailers, such as lighting, brakes, etc.

Cargo tanks have unique needs and so we have a Tank Conference within TTMA to focus on those issues exclusive to cargo tanks.
Some of what we do...
Engineering Committee

Technical experts from across the industry provide input and control to the association.

Monitor the Government

Watch a variety of government agencies (PHMSA, FMCSA, EPA, etc.) for new proposals, rules or regulations.

Produce Publications to Advise Industry

Technical Bulletins and Recommended Practices are regularly reviewed for relevance and accuracy and made available to the public.
Nothing Moves Until You're Engaged...

Who We Are

Truck Trailer Manufacturers Association (TTMA) is an international trade association whose current membership produces more than 90% of the truck trailers built in the United States. Our Associate Members include more than 100 global material and component suppliers who keep those lines moving. Our efforts engage policies and regulations that play a role in assuring the timely, smooth flow of material to keep production flowing or that affect the cost of production.

For almost 75 years the Truck Trailer Manufacturers Association has been here to assist North America’s trailer manufacturers.
If you know the RP or TB number, you can easily find it that way, or browse by subject covered.
Some Noteworthy TTMA Publications:

RP-36 Tank Trailer Nomenclature

RP No. 36-14

CFR:

CHRISTMAS TREE:
   See Vent.

COCK, SHUT-OFF:
   A device used to restrict or stop flow of air or liquid.

COMPARTMENT, TANK: (SEE TANK, CARGO):
   The product carrying space of a tank motor vehicle. A cargo tank motor vehicle may have one or more such spaces.

COMPARTMENT, VOID:
RP-105 Cargo Tank Risk Management Committee (CTRMC) Vision 2020 for Common Tank Trailer Ladders, Walkways & Dimensions
TB No. 80 7 April 23, 2010

and heating system is adequate for the product hauled. Do not load a cargo tank with hot product which exceeds cargo tank manufacturers' maximum temperature rating or with a product that will have a corrosive effect on the cargo tank. To do so could endanger the structural integrity of the cargo tank. Aluminum, stainless steel, and carbon steel cargo tanks require close attention to this caution.

**DO NOT MIX PRODUCT IN A CARGO TANK.**

*Example: Many acids react violently upon addition of water to the cargo tank.*

7.3 Do not load the vehicle beyond the maximum product load or maximum product density specified on the metal certification plate or on the vehicle certification label which specifies the Gross Vehicle Weight Rating (GVWR). The GVWR is the maximum allowable total weight of vehicle, payload and equipment on the vehicle.

7.4 Do not load a cargo tank semitrailer with an air operated suspension which has been
(iii) Areas near openings;
(iv) Areas around weld joints;
(v) Areas around shell reinforcements;
(vi) Areas around appurtenance or any device attached to the shell or heads;
(vii) Areas near upper coupler (fifth wheel) assembly and all visible attachments;
(viii) Areas near suspension system attachments and connecting structures, and
(ix) Known thin areas in the tank shell and nominal liquid level lines;
(x) Connecting structures joining multiple cargo tanks of carbon steel in a self-supporting cargo tank motor vehicle.
(xi) All locations where pits have occurred;

(5) Minimum thicknesses for MC 300, MC 301, MC 302, MC 303, MC 304, MC 305, MC 306, MC 307, MC 310, MC 311, and MC 312 cargo tanks are shown in the tables below. The columns headed “Specified Manufactured Thickness” tabulate the minimum values required for new construction, generally found in Tables I and II of each specification. “In-Service Minimum Thicknesses” are based on 90 percent of the manufactured thickness as specified in the DOT specification, rounded to three places.

(The following charts apply to MC 300 series cargo tanks only)

<table>
<thead>
<tr>
<th>Specified manufactured thickness (US gauge or inches)</th>
<th>Nominal decimal equivalent for reference (inches)</th>
<th>In-service minimum thickness (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>0.0418</td>
<td>0.038</td>
</tr>
<tr>
<td>18</td>
<td>0.0478</td>
<td>0.043</td>
</tr>
<tr>
<td>17</td>
<td>0.0538</td>
<td>0.048</td>
</tr>
</tbody>
</table>
3.0 Background:

The codes for these cargo tanks were printed in the Code of Federal Regulations until they were superseded by the DOT-400 specifications. At that time, DOT changed the section of regulations to read “49 CFR 178.340-178.343 - [Reserved].” Since that time, interested parties have had to rely on older printed copies of the regulations, or on a handful of third parties that have been sporadically printing copies.

4.0 Pre-Reserved Text of 49 CFR 178.340-178.343

NOTE: Construction of MC 306, 307 and 312 cargo tanks was allowed until 31 August 1995 to specifications in effect on 30 December 1990.

§178.340 General design and construction requirements applicable to specifications MC 306 (§178.341), MC 307 (§178.342), and MC 312 (§178.343) cargo tanks.


(a) Specification MC 306, MC 307 and MC 312 cargo tanks constructed on or after December 1, 1967 for the bulk transportation of hazardous commodities must meet the requirements contained in this section in addition to the requirements of each applicable specification as contained in §178.341 (MC 306), §178.342 (MC 307) and (MC 312).

(b) All of these specification requirements are minimum requirements.
Any Questions about TTMA or our Publications?
Biggest Issue We’ve Been Monitoring:

EPA & NHTSA’s Joint GHG\textsubscript{2} Rule.
What is GHG2?

Formally titled *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles - Phase 2*

The rule has been signed and EPA has made it available on the web: [https://www3.epa.gov/otaq/climate/regs-heavy-duty.htm](https://www3.epa.gov/otaq/climate/regs-heavy-duty.htm) but it has yet to have been published in the Federal Register.

EPA insists this is all great stuff: After all, who doesn’t want to save money?
What Will GHG2 Mean for My Trailers?

The most stringently regulated trailers will be box vans (good news* for cargo tank haulers) with those trailers requiring an increasing stringency of Aerodynamic devices, Low Rolling Resistance Tires, Tire Pressure Systems and Light-weighting.

These regulations begin with 2018 Model Year trailers and reach full effect by 2027.

For Tank Trailers (also Container Chassis and Flatbeds), you’ll be required to buy new equipment with Low Rolling Resistance Tires and a Tire Pressure System. This will start in 2018, or 2019 if you’re buying from a small business.
A Few Flies In The Ointment

Problems for Cargo Tank users:

1. Tires and Tire Pressure Systems are considered “Emissions Control Devices” with all the associated EPA rules and regulations in effect.
   - Users may not “Remove or Render Inoperative” such devices under a civil penalty of $4,454 “for each engine or piece of equipment in violation” – 40CFR1068(b)(1).
   - Changing out 8 tires with unqualified retreads with no TPMS monitors in place could result in a $71,264 fine.

2. Expect tire selection to go down and costs to go up.

3. If you’re already using LRR tires and good about monitoring your tire pressures, you’ll see no gains.
A Matter of Definitions

The rule defines a box van as “trailers with enclosed cargo space that is permanently attached to the chassis, with fixed sides, nose, and roof. Tank trailers are not box vans.” 40CFR1037.801

Tank Trailers are defined as “a trailer designed to transport liquids or gases.”

But what about this:
EPA plans to have a guidance document and a compliance officer for manufacturers to work with.

Manufacturers “are encouraged to ask the agencies to make a determination before production begins.”

How Will We Know?

DELAYS  
COST  
FLEXIBILITY
Authority

Potentially the biggest issue, overshadowing the entire discussion:

Remember that star from earlier?

This is GHG$_2$, if we accept that EPA has authority here, then we accept that a GHG$_3$, 4 or 5 can come along and those will be stricter and stricter still. How many of you are satisfied with how GHG$_1$ has worked with your tractors?

EPA’s authority comes from the Clean Air Act’s mandate to regulate new Motor Vehicles. Trailers don’t have motors.
Apart from authority issues, we’re concerned that the rule is structured to force changes onto trailers that gain the least benefit.

EPA’s voluntary SmartWay program works well, allowing owners to select strategies that work for them, so those who can gain benefit are already doing so.

That bold claim from earlier?

Paper Gains. Many of you won’t see anything.
Before we move on to Glen Harm’s presentation, are there any Questions?