

**MAY - 1 1998**

Mr. Michael J. Young  
Engineer  
Weld-It Company  
4477 Shelia Street  
Los Angeles, CA 90023

Dear Mr. Young:

This is in response to your letter requesting clarification on the calculation of exposed area in square feet for 49 CFR 178.345-10. You state that it is your understanding that in § 178.345-10(e), in Table 1, the exposed area in square feet is determined from outside of the cargo tank. Therefore, for a typical straight barrel four compartment tank the exposed area of compartments one and four would include the area of one head, and the middle compartments two and three would only include the shell since both heads for these compartments are internal.

Your understanding is correct. For the purpose of calculation, the exposed area is determined from outside of the tank, and the internal heads of compartments two and three would not be included in the calculation.

I trust this satisfies your inquiry.

Sincerely,  
**Original signature by**  
**Thomas G. Allan**

Thomas G. Allan  
Senior Transportation Regulations Specialists  
Office of Hazardous Materials Standards

Karim:dhm-12:68553:5/2/96  
Revised:ta:4/27/98  
File:178.345

98-0567



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

NOV 8 1996

File 178.345-1

400 Seventh St. S.W.  
Washington D.C. 20590

**REGULATORY GUIDANCE  
PART 178 - SPECIFICATIONS FOR PACKAGINGS  
Section 178.345-1 - General Requirements**

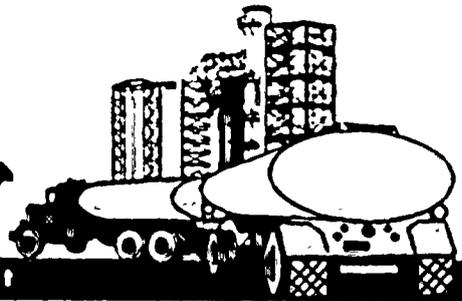
**Question:** May a cargo tank motor vehicle be composed of multiple cargo tanks that includes a combination of DOT specification and non-specification cargo tanks?

**Guidance:** Yes. Section 178.345-1(i) indicates a multi-tank cargo tank motor vehicle may be constructed with cargo tanks made to the same specification or to different specifications. This is not intended to prohibit the combination of DOT specification cargo tanks with non-specification cargo tanks. However, the connecting structure between the DOT specification cargo tanks and non-specification cargo tanks must meet the requirements of 178.345-1(i)(2), and the location of the non-specification compartment(s) must be indicated on the nameplate as required by 178.345-14(b) and (d).

  
Paul L. Brennan, Director  
Office of Motor Carrier  
Research and Standards

# WELD-IT COMPANY

Manufacturers of Liquid Transportation Equipment

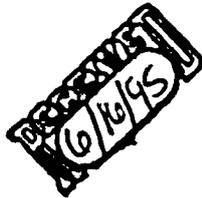


4477 SHEILA STREET • LOS ANGELES, CALIFORNIA 90023

(213) 263-7524

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June 12, 1995



Edward T. Mazzullo  
Director, Office of Hazardous Materials Standards  
Research & Special Programs Administration  
U.S. Department of Transportation  
400 Seventh Street, S.W.  
Washington, D.C. 20590

**SUBJECT:** The calculation of exposed area in square feet for 178.345-10(e).

Dear Mr. Mazzullo:

After talking with Mr. Ron Kirkpatrick on the phone last week it is my understanding that the surface area that is to be determined for the exposed area in 178.345-10(e) is the outside of the cargo tank. Thus in this calculation one must only include exposed shell and head surface areas. Therefore in a typical straight barrel four compartment tank the exposed area of compartments one and four would include the area of one head each. The two middle compartments (two and three) would only include the shell since both heads are internal for each of these compartments.

Please send a letter either stating that this interpretation is correct or one stating what the correct method for calculating exposed surface areas. Thank you for your time on this matter.

Sincerely,

*Michael J. Young*

Michael J. Young  
Engineer