



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

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

JUL 30 2003

Mr. Raymond Schaffer  
4477 Sheila Street  
Los Angeles, CA 90023

Ref. No. 02-0290

Dear Mr. Schaffer:

This is in response to your August 26, 2002 letter concerning the requirements for a turntable assembly on a DOT Specification cargo tank motor vehicle under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask if the turntable assembly, as depicted in the photographs you provided, must be removed to fulfill either the visual inspection or pressure test required by § 180.407(d)(2)(viii) and (g)(1)(iii), respectively.

Turntable assemblies serve the same function as an upper coupler and must be removed from the cargo tank for inspection in accordance with § 180.407(d)(2)(viii) and (g)(1)(iii), respectively. The primary purpose for this inspection is to inspect for corroded and/or abraded areas of the cargo tank which may require thickness testing. Upper couplers are normally attached to the tank using bolts and are designed to be removed and replaced, if necessary. Turntables are typically attached to the tank by means of welding and are not designed to be removed from the cargo tank without cutting. Turntable assemblies serve as the front support for the trailer in lieu of dolly legs and they normally stay attached to the cargo tank for the life of the tank, very similar to the rear suspension components of the cargo tank.

From the photographs you provided it does not appear that the turntable can be removed from the tank without cutting and welding. Further, removing the turntable would not facilitate a more thorough external visual inspection of the area of the cargo tank directly above the turntable. Therefore, the turntable assembly may remain on the cargo tank under the following conditions:

1. The turntable assembly must allow a complete external visual inspection of the area of the cargo tank that is directly above the turntable. The visual inspection must be as effective as performing an external visual inspection of this area if the turntable were to be removed.
2. The external visual inspection and pressure test must be conducted by directly viewing the tank; therefore, the use of a device that creates an image of the tank (i.e., mirrors, cameras, or fiber optics) is prohibited.



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180.407

3. All major appurtenances and structural attachments on the cargo tank that can be inspected without dismantling the turntable assembly must be inspected for any corrosion or damage that might prevent safe operation (§ 180.407(d)(2)(viii)).
4. Areas covered by the turntable assembly must be inspected for corroded and abraded areas, dents, distortions, defects in welds, and any other condition that may render the cargo tank unsafe for transportation service (§ 180.407(g)(1)(iii)).

If the area above the turntable cannot be observed and the turntable cannot be removed without cutting and welding then the tank must be internally inspected and those areas of the tank above the turntable must be thickness tested in accordance with § 180.407(i)(2). The number of thickness test points is dependent upon the area of the tank shell above the turntable that cannot be visually inspected. For each square foot of tank shell surface area above the turntable you must perform six thickness tests. A copy of the thickness test report identifying the areas tested and the measurements recorded for each test location must be maintained with the external visual inspection report or the pressure test report, as appropriate, and a copy of this report must be provided to the owner and operator, if not the owner, of the cargo tank.

The photographs you provided indicate that this cargo tank and turntable assembly could fulfill the criteria outlined above. However, if the cargo tank is not equipped with a manhole, the turntable assembly must be removed from the cargo tank in order to meet the visual inspection and/or pressure test requirements.

Sincerely,

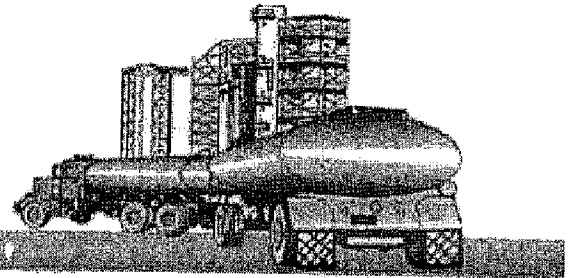


Susan Gorsky

Senior Transportation Regulations Specialist  
Office of Hazardous Materials Standards

# WELD-IT COMPANY

Manufacturers of Liquid Transportation Equipment



August 26, 2002

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Johnsen  
§ 180.407  
Cargo Tanks  
02-0290

Attn: Mr. Daniel G. Shelton  
Hazardous Materials Program Specialist  
Ph # (202) 366-0476  
Fax # (202) 366-7908

Subject: Pressure test of cargo tanks Ref. No.01-0203  
Memo from Thomas G. Allan, Senior  
Transportation Regulations Specialist  
To: William A. Quade  
Chief of Hazardous Materials Division dated August 16, 2001

Dear Sir:

Please excuse the delay of our reply to the phone conversation between yourself and me. It took sometime to get the pictures you asked for on the North West four (4) axle super tanker.

Unlike a semi trailer with a full upper coupler 5<sup>th</sup> wheel plate that prevents inspectors from observing the bottom of a cargo tank during pressure test, two (2) axle West Coast full trailer and the majority of four (4) axle supper trailers this is not the case. We have enclosed pictures of both types of units.

As you can see with both types of units you can see the bottom of cargo tank thru the opening of the roller wheel and turntable upper sub-frame. While there are some manufactures that use a full plate between upper and lower sub-frame this seem to be on the four (4) axle super tanker only. In this case the inspection facility would have to remove the turntable assembly the same as a semi 5<sup>th</sup> wheel plate. On those units that do not need the turntable removed it may be necessary for inspection facility to remove an air tank or some other hardware to make inspection. This is certainly easier and more cost effective than removing the complete turntable assembly.

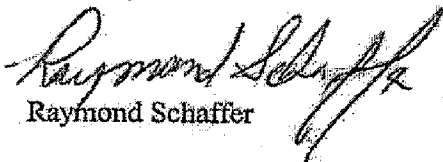
As we discussed in our phone conversation when a turntable assembly and a 5<sup>th</sup> wheel plate are removed for testing they should be marked with dated and inspector after test and replacement.

Unlike a semi trailer, which has land gear to set the cargo tank on a full trailer or super tanker is harder to support without the front turntable. We have some problem with putting 20,000 lbs of water on the trailer and putting an inspector under the front of the unit.

We are asking that Federal Motor Carrier reconsider it's position and allow inspection facilities not to remove the turntable when the bottom of the cargo tank can be inspected during pressure testing. Those units that cannot meet this requirement will have to have turntable removed just like a semi trailer upper 5<sup>th</sup> wheel coupler plate. This option will be a cost benefit to our customer and safer operation for our employee's.

Your earliest consideration will be gratefully appreciated. If we may be of any assistance, please call.

Sincerely,

  
Raymond Schaffer

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