



Think Safety!

A Publication Of The West Virginia Propane Gas Association

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DOT Tank Transportation And Required Markings

Often it is necessary to transport bulk propane tanks with some product in them from customer locations. When this occurs there are several requirements that must be met from the way the tank is loaded on to vehicle or trailer to the way those tanks are marked during transportation.

We will outline some of those requirements in this newsletter, including proper ways to load and secure the tanks, the markings required for tanks and in some cases tank transport vehicles, along with how where the markings are to be placed.

Loading The Tank:

Before the tank is loaded, it must be inspected by a trained and qualified person.

The tank must be inspected for leaks, corroded or scraped areas, dents, distortions, defects in welds or any other condition that might make it unsafe to transport.

The inspecting person must

then record the inspection, date it and then sign it to certify that no problems were found that would make it unsafe for transportation.

This inspection report must be kept on file for a period of two years. It must include the tank serial number, the tank size, any problems found,



where the tank is being moved from and where it is going.

Only one tank can be transported at a time in or on a vehicle.

The container must be lifted by slings that wrap entirely around the container. Lifting lugs may not be used to lift it. The slings must be rated at a weight sufficient to lift the tank, and they must be visually inspected prior to each use. Any sling showing signs of excessive wear may not be used.

The tanks must be cradled on the vehicle. The supporting legs may not have any weight placed on them during the transportation.

The tank must be secured

to prevent shifting within the vehicle on which it is being transported. All valves or other fittings must be loaded in a manner to minimize the likelihood of damage during transportation.

The tank must be strapped, chained or tied down with a fastener of some sort that is rated to exceed the maximum load transported.

A vehicle or trailer should be used that contains the entire tank within the envelope of the vehicle. The tank cannot extend beyond the vehicle's frame. A trailer must provide adequate protection for the rear of the tank.

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Required Tank Markings:

The required tank markings are independent of the placarding required for the transporting vehicle. ASME tanks with a water capacity of less than 999 gallons require markings on two opposing sides while ASME tanks of 1,000 gallons and above capacity require markings on each side and each end. You will find the requirements for tank markings in 49 CFR 172.332. The identification number is

found in table 172.101. Placards are an allowable form of marking the tanks.

The letters must have a width of at least .16 inch and a height of at least one inch for portable tanks with capacities of less than 1,000 gallons water capacity.

Tanks with 1,000 gallons or more water capacity require lettering with a width of at least .24 inch and two inches high.



Required Portable Tank Markings:



When transporting a portable propane tank up to 999 gallons water capacity, it must be legibly marked on two opposing sides with the proper

shipping name specified in table 172.01. If the tank is 1,000 gallons water capacity or above, it must be marked on

each side and each end.

The name of the owner or lessee must be displayed on any portable tank containing a hazardous material.

In the event that the markings required in 172.302(a) are not visible, a transport vehicle or freight container used to transport the tank must be marked on each side and each end to meet the requirements of 172.332. The correct identification number to be used will be found in table 172.101.

Any person who provides a portable tank to a motor carrier for transportation, either in a vehicle or freight container, must provide the motor carrier

with the required identification placards, orange panels, or the white square-on-point configuration for each side and end of the transport vehicle or freight container from which the portable tank identification markings are not visible.

Transporting portable tanks containing unodorized propane is forbidden in accordance with 173.315(b)(1) unless it is legally marked “Non-Odorized” or “Not Odorized” on two opposite sides near the marked shipping name or near the placards. The Non Odorized wording may appear on a tank used for unodorized or odorized Propane.

Identification Number Markings:

Propane markings must be displayed on orange panels, placards, or on white square-on-point configurations.

If an orange panel is used it must be 6.3 inches high by 15.7 inches wide and surrounded by a black border. The actual number must be 3.9

inches and printed in black Helvetica Medium numerals. The measurements may vary by .2 inches.

The panel must be made of any durable material



that meets the requirements of 172.519. The name of the material may be included but limited to a size on no more than .25 inch high and po-

sitioned within the upper left border of the orange panel.

The identification number itself must be positioned in the center of the panel.

If a placard is used, the number must be displayed in

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Identification Number Markings:

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the center of the placard in 3.5-inch wide black Alpine Gothic or Alternate Gothic No. 3 typeface and 3.9 inches

high. The numeral may be outlined by a solid or dotted border. It must be displayed on the appropriate placard for propane or the particular

hazardous material if for a hazardous material other than propane.

The name "propane" or other hazardous material, if

not propane, may be displayed but it must be within the upper border of the space on the placard and no more than 0.25 inch high.

Tank Transport Checklist



- A trained and qualified person must inspect the tank for leaks, corroded or scraped areas, dents, distortions, defects in welds or any other condition that might make it unsafe to transport
- Inspection must include the tank serial number, tank size, any defects found, be recorded and kept on file for two years.
- Only one tank can be transported per vehicle at a time.
- The tank must be lifted by slings that wrap entirely around the tank. It must not be lifted by lifting lugs. The slings must be rated at a weight sufficient to lift the tank, and they must be visually inspected prior to each use.
- The tank must be cradled on the vehicle. The supporting legs may not have any weight placed on them during the transportation.
- The tank must be secured to prevent shifting within the vehicle on which it is being transported.
- All valves or other fittings must be loaded in a manner to minimize the likelihood of damage during transportation.
- The tank must be strapped, chained or tied down with a fastener of some sort that is rated to exceed the maximum load transported.

Accident Reporting Requirements:

Any Hazardous Materials Incident that occurs while transporting the tank are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR 171.15.

As soon as practical but no later than 12 hours after the occurrence of an incident, the person in possession of the tank must contact the National Response Center (NRC).

It is important to note that a reportable hazardous materials incident doesn't necessarily

have to include an accident. DOT reportable incidents, however, have to occur during transportation.

Breaking the valve off or creating a leak in the tank due to a collision of some kind during transportation would be considered an accidental incident. A tank leaking during its transportation could be considered an incident even though it might be the result of corrosion or some other factor not directly related to the transportation.

An incident must be reported by phone at the earliest possible opportunity anytime it results in:

A death

A person receives injuries that require hospitalization

The estimated property damage exceeds \$50,000

An evacuation of the general public occurs lasting one or more hours

One or more major transportation arteries or facilities are closed or shut down for one hour or more

A fire occurs

If the company involved in the incident feels that it should be reported even if it does not meet any of the above criteria.

Notify your company as soon as possible. Be prepared

to provide:

The number where you can be reached

The date, time and location of the incident

Extent of any injuries

What happened

If the incident is over or ongoing.

Your company should be able to use this information to determine the extent of the situation and the proper reporting procedure.

When an incident occurs an employee at the scene should never proceed beyond his or her training or beyond the direction of the employer, and most importantly, the employee should never place his or her life in danger.

Articles in this publication are for information only. Nothing in this publication is to be construed as setting standards or requirements. Please consult with appropriate regulatory and rulemaking bodies for all legal requirements.



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Training Quiz

Name _____ Social Security Number _____

1. Before the tank is loaded, it must be inspected by a trained and qualified person.
A. True B. False
2. The tank must be inspected for leaks, corroded or scraped areas, dents, distortions, defects in welds or any other condition that might make it unsafe to transport.
A. True B. False
3. The inspection must be recorded, dated, and signed.
A. True B. False
4. The inspection report must be kept on file for a period of ____ years.
A. 3 B. 2 C. 5 D. 1
5. The inspection report must include the tank serial number, the tank size, any problems found, where the tank is being moved from and where it is going.
A. True B. False
6. Only one tank can be transported at a time in or on a vehicle.
A. True B. False
7. The container must be lifted by slings that wrap entirely around the container.
A. True B. False
8. The slings must be rated at a weight sufficient to lift the tank, and they must be visually inspected prior to each use.
A. True B. False
9. Any sling showing signs of excessive wear may not be used.
A. True B. False
10. The tanks must be cradled on the vehicle.
A. True B. False
11. All valves or other fittings must be loaded in a manner to minimize the likelihood of damage during transportation.
A. 20 B. 90 C. 30 D. 60
12. The tank must be strapped, chained or tied down with a fastener of some sort that is rated to exceed the maximum load transported.
A. True B. False
13. A vehicle or trailer should be used that contains the entire tank within the envelope of the vehicle.
A. True B. False

Training Quiz Answers

Name _____ Social Security Number _____

1. Before the tank is loaded, it must be inspected by a trained and qualified person.
 A. True B. False
2. The tank must be inspected for leaks, corroded or scraped areas, dents, distortions, defects in welds or any other condition that might make it unsafe to transport.
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