

# June 2008 Safety Meeting

## Identifying Requirements

The U.S. Department of Transportation requires employees to have an awareness of cargo tanks, placarding, marking, and labeling. This month we will review each of these areas.

### Cargo Tank

Cargo tanks are the most common type of tank used to transport propane. Bobtail cargo tanks can have a water capacity as small as 350 gallons, but 1,800 to 3,500 gallons is more common. Cargo tanks are manufactured according to the American Society of Mechanical Engineers (ASME) and DOT MC 331 specifications. Some other tanks were built to MC 330 specifications, or were non-specification ASME tanks approved for intrastate service only. These older tanks may not show a DOT specification on the data plate.

### Placarding

Any shipment of 1001 pounds or more of LP gas (aggregate gross weight) requires the vehicle to be placarded on all 4 sides. The placard can be no closer than three inches from any other markings or labels. Any faded, missing, or illegible placards must be removed before the cargo tank is filled.

There are two methods for placarding a vehicle. The first method uses a single combined DOT/UN placard. This placard is a red, diamond shaped sign with a minimum size of 10.8 inches. It contains the universal flammable icon, the UN identification number/proper shipping number (1075), and the material's hazard class (2). This is referred to as a "diamond on point".

The second method uses two separate DOT and UN placards. The DOT placard is a red, diamond shaped sign with a minimum size of 3.9 inches. It contains hazard class name for LP gas (Flammable Gas) and the hazard class number (2). The UN placard is a rectangular orange sign which contains the hazardous material's UN identification number/proper shipping number (1075).

### Marking

Each cargo tank certified after October 1, 2004 must have a corrosion-resistant metal name plate and specification plate permanently attached. The plates must be legibly marked. All plates must be maintained in a legible condition. The specification plate may be attached to the cargo tank motor vehicle chassis rail by a suitable means on the left side near the front head. The specification plate must be in a place accessible for inspection.

Cargo tanks are constructed from a certain type of steel. Some cargo tanks use a heat treated steel that has been through a heating - treating process called quenching and tempering (QT). These tanks are lighter than tanks made from non-quenched and tempered (NQT) steel. Thus the tank is marked QT or NQT depending on the construction process.

The month and year of the latest required annual cargo tank inspections and the tests and inspections required every five years must be displayed near the cargo tank data plate. The annual inspections are: external visual (V) and leak (K). The 5-year test and inspections are: hydrostatic pressure test (P) and internal inspection (I), if the tank has an inspection man-way.

### Labels

A product shipping name is required on the front, back and both sides of the bobtail and it must be consistent with the shipping paper. The shipping name should be located on the upper part of each head and on both sides of the cargo tank. The shipping name must be legible. They are color and symbol coded. It is usually written in all capital letters to more easily comply with the minimum letter height requirement of 2 inches and for easier reading. Bobtails marked with the specific name of LP-gas, such as PROPANE or BUTANE can only carry that specific gas. Bobtails marked LIQUIFIED PETROLEUM GAS can carry either propane or butane.

### Class Discussion

Ask employees to identify the cargo tanks, placarding, marking, and labels on each bobtail at their office or branch.

### Closing

It is important to always check your vehicle for proper identification before leaving each day. DOT requires that all markings, labels, and placards be legible. For the safety of emergency workers, the public and yourself, take the necessary time to make sure your bobtail is compliant.

# June 2008 Test

## Identifying Requirements

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Instructions: Read and answer each of the following questions. When complete, grade the test and review incorrect answers so each employee is “armed” with the correct answers before they leave the training.**

- (1) The number \_\_\_ is the UN identification number or shipping number, and indicates that propane is being transported. The number \_\_\_ identifies the hazard class or division.
  - A. 1250; 5
  - B. 1200; 2
  - C. 1075;3
  - D. 1075;2
  
- (2) If a DOT cargo tank is made from heat-treated steel, it must be marked with the letters \_\_\_\_.
  - A. ASME
  - B. TQ
  - C. RR
  - D. QT
  
- (3) If a CTMV was driven on \_\_\_\_, with the cargo tank marked **03 97 PI**, the driver could be cited for violation of the cargo tank testing and inspection requirements of the DOT hazardous material regulation.
  - A. February 1, 2001
  - B. April 1, 2002
  - C. January 1, 2002
  - D. March 1, 2001
  
- (4) If a CMV transporting a stationary ASME tank which weighs less than \_\_\_ pounds, including the weight of the propane is driven without placards, the driver could not be cited for violation of the cargo tank testing and inspection requirements of the hazardous materials regulations.
  - A. 1,500
  - B. 1,001
  - C. 3,500
  - D. 6,000
  
- (5) Non-ASME spec tanks are approved for intrastate service only.
  - A. True
  - B. False

**June 2008**  
**Answer Sheet**

1. d
2. d
3. b
4. b
5. a