

## FUEL IN CREW CARRIERS, HELITENDERS, AND ENGINES

Fuel and other hazardous materials shall not be transported in a crew carrier (figure 108) if other options are available.



Figure 108—A crew carrier.

- Aluminum fuel bottles (National Stock Number 7240–01–351–2133).
- Plastic fuel bottles.

**Plastic fuel bottles shall be phased out by June 2012.**

### Labeling—

- Metal jerricans, safety transport cans, drip torches, and metal safety cans:
  - Diamond-shaped *FLAMMABLE LIQUID* label.
- Two-compartment fuel and oil containers, aluminum fuel bottles, and plastic fuel bottles:
  - Not required.

### Marking—

- Metal jerricans, safety transport cans, and metal safety cans, gasoline or mixed gas:
  - GASOLINE UN1203*.
- Drip-torch fuel:
  - FLAMMABLE LIQUIDS N.O.S. (DIESEL GASOLINE MIXTURE) UN1993*. In addition, the container also may be marked with the words *DRIP TORCH FUEL* to help employees identify the contents.
- Two-compartment fuel and oil containers:
  - GASOLINE* molded into the container (no additional markings required).
- Drip torches, aluminum fuel bottles, and plastic fuel bottles:
  - None.
- For all of these containers, the markings must:
  - Be permanent.
  - Contrast sharply with the container’s background color.
  - Not be obscured by any labels or attachments.
  - Be far enough away from other markings or labels to prevent confusion.
  - Be at least  $\frac{3}{16}$  inch high by  $\frac{1}{8}$  inch wide.
  - Be applied on the container where they are easily visible.

**Under no circumstances shall fuel be carried in the crew compartment.**

If fuel must be transported in a crew carrier, helitender, or engine, the following conditions shall be met:

### Allowable Containers and Their Specifications—

- Metal jerricans and safety transport cans (UN 3A1 and UN 1A1).
- Drip torches (UN 3B1, UN 1B1, UN 3A1, and those that do not meet DOT specifications).

**All drip torches that do not meet DOT specifications shall be replaced by June 2019.**

- Metal safety cans (UL or FM listed).
- Two-compartment fuel and oil containers (often called Dolmars, UL listed).

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### Inspection Criteria—

- Drip torches: Inspect each drip torch before transporting it full of fuel to make sure that the lock ring and plug gaskets are not cut, cracked, or weather checked, and that neither the body nor the cover of the torch has been damaged. Replace or repair drip torches that do not meet these criteria.
- Metal jerricans: Make sure that the lid's gasket is not cut, cracked, or weather checked. Check the body of the can to make sure there is no damage that could allow the can to leak. Replace or repair cans that do not meet these criteria.
- Safety transport cans and safety cans: Make sure that all lid gaskets and pouring valve gaskets and seals are not cut, cracked, or weather checked. Verify that the safety can's linkages operate without binding and that the lids are not deformed. Check the body of the can to make sure there is no damage that could allow the can to leak. Replace or repair cans that do not meet these criteria.
- Two-compartment fuel and oil containers: Make sure that the spout's closure cap and spout O-rings are in good condition, the vent cap is undamaged, and that the container's body has not been damaged. Replace or repair containers that do not meet these criteria.
- Aluminum and plastic fuel bottles: Make sure the body, cap, and seal are not damaged and the bottle does not leak. Replace or repair bottles that do not meet these criteria.

### Container Capacity Requirements—

- Containers shall not be larger than 8 gallons.
- Containers shall not be filled more than 90 percent to allow fuel to expand and to reduce the possibility that the container might leak.

**Quantity Limitations—**The total weight of all hazardous materials being transported (including their containers) must be 440 pounds or less, and no fuel container shall be larger than 8 gallons.

### Securing Containers for Transport—

- If a jerrican is equipped with a spillproof (CARB-compliant) spout, the spout must be replaced with a bung before the jerrican is transported.
- Make sure that all closures are tight and do not leak. Do not transport leaking containers.
- Wipe any excess fuel from the outside of all containers.
- Containers shall be secured so that they will not fall over or move while they are being transported.
- Loose articles in the fuel storage compartment shall be removed or secured so they cannot damage the containers while they are being transported.
- Drip torches shall not be mounted on a vehicle's bumper.

**Incompatible Items—**Fuel shall be transported in a separate compartment from other hazardous materials such as fusees, flares, and oxidizers. Do not transport fuel in the same vehicle with explosives, poisonous gases, or poisonous liquids.

### Design of Fuel Storage Compartments—

If fuel containers will be transported in a vehicle storage compartment, the storage compartment shall be:

- Separated from the crew compartment by a fireproof boundary, such as a metal floor or walls. The fuel compartment and passenger compartment shall not be connected by any openings.
- As far as possible from the crew compartment doors or exits.
- As far as possible from the vehicle's exhaust system.
- Vented to allow fumes to escape. Expanded metal mesh in the sides or floor of the compartment, louvered doors, or a vent pipe may be used for venting (figures 109a and 109b). The compartment shall not be vented near the exhaust system.



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Figure 109a.



Figure 109b.

Figures 109a and 109b—Examples of vented compartments for carrying fuel. Figure 109a shows the vent on the outside of the vehicle. Figure 109b shows the vent on the inside of a compartment used to carry fuel containers.

### Labeling Fuel Storage Compartments—

- A diamond-shaped *FLAMMABLE LIQUID* label shall be applied to the outside of a storage compartment for flammable liquids (figure 110).



Figure 110—A *FLAMMABLE LIQUID* label.

- This label shall be applied where it is visible and it must be maintained in good condition.

### Special Driver's License Requirements—

- None.

### Training—(See page 23 for additional information.)

- OSHA *Hazard Communication* training.
- DOT *Materials of Trade* training.

### Shipping Papers and the *Emergency Response Guidebook*—

- None required.

### Fire Extinguishers—

- At least one 5–B:C or two 4–B:C fire extinguishers are required.