

Introduction

Improper installation or use of propane fired heaters can result in, serious injury, property loss or death from fire, explosion, burns, asphyxiation, and carbon monoxide poisoning. ONLY qualified crew members familiar with manufacturer instructions shall assemble, light, adjust or operate propane heaters.

Dangers of Carbon Monoxide

Referred to as “the silent killer”, carbon monoxide is a non-irritating, colorless, odorless, tasteless gas that is produced by burning propane. When propane is burned in an area that is properly ventilated, the risk of carbon monoxide poisoning is low, however it is important to monitor for the presence of carbon monoxide and what steps should be taken if detected.

Signs of carbon monoxide exposure include: Headache, dizziness, drowsiness, fatigue, confusion, nausea or vomiting.

Heater Rental

Whenever renting any propane heater equipment, it is recommended to request manufacturer’s instructions regarding safe use and operational procedures. Ensure the equipment you are renting is approved for the intended use. If instructions were not provided with the purchase or rental, they may be accessed online through the manufacturer’s website.

Transportation

When transporting heaters and tanks, ensure:

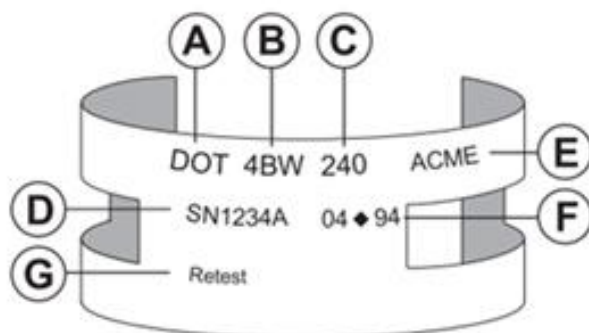
- Heaters and tanks are transported in a secured upright position and all valves are closed and plugged/capped
- Objects do not ding/dent the heaters or tanks
- Never store a propane tank in a vehicle, or leave it in a vehicle for an extended period of time.
- In regards to weight limits and quantities of propane tanks, refer to Transport Canada regulations on quantity for further guidance

Maintenance & Inspection

Heaters and tanks must be inspected before being received by the production. Inspection criteria are found in the manufacturer’s instructions. If there is any evidence of damage or a piece of equipment doesn’t function properly, clearly mark/tag it out of service and return it for repair to the rental company, manufacturer, or qualified repair personnel.

- Propane gas containers shall be within the cylinders stamped hydrostatic testing timeline

Propane cylinders have identifying marks on the cylinder neckring (collar), or cylinder shoulder depending on the cylinder type. The diagram below depicts examples of several of the required markings.



- Ⓐ Manufactured to U.S. DOT specifications
- Ⓑ Cylinder specification type (e.g. 4B, 4BA, 4BW, and 4E)
- Ⓒ Cylinder service pressure (psig)
- Ⓓ Cylinder serial number
- Ⓔ Manufacturer's name (or registered symbol)
- Ⓕ Original manufacture/test date, month and year, and inspector's mark, as required (i.e., this diagram indicates April 1994 and inspector's mark ♦)
- Ⓖ Area for date requalified/retested (no date is shown indicating that the 10-year requalification is overdue)

* Additional markings may be present as authorized by HMR under the specification

Proper Placement, Securing, & Protection

- Heaters shall not be positioned next to or in the path of egress, exits, fire escapes, or smoking areas
- Heaters / propane tanks shall not be placed in high traffic pedestrian or vehicle areas (cars, forklifts, aerial lifts, etc.)
- Ensure heaters are on firm, flat, stable, and even ground to prevent it from being knocked over
- Maintain a 6 ft. radius around the heater that is free and clear of any objects, combustible, or flammable materials (e.g. people, costumes, tent flaps, building materials, paper, chemicals, chairs, hair spray, sawdust, etc.)
 - Clearance distances could vary per local jurisdiction or heater manufacturer instructions. Follow the most stringent requirement
- Secure all tanks through the use of chains, cables, milk crates or propane racks
- Close valves on propane gas containers when heaters are not in use
- Do not leave heaters unattended while in use

Connecting / Disconnecting Procedures

- Wear appropriate PPE based on manufacturer guidelines when connecting/disconnecting hoses from tanks
- Ensure all hoses and connections are properly secured before opening tank valve
- When reconnecting a refilled tank, conduct a leak test on all connections before firing up

Ventilation

Do not use heaters in tightly enclosed areas without proper ventilation and sufficient openings. Heaters should not be placed inside tents, the best practice is to place the heater outside of the tent area with a large front opening or with 2 openings at both ends of a tent.

Propane Tank Storage

- It is prohibited from ever storing tanks in a vehicle
- If INSIDE buildings, propane tanks shall be stored in a well-protected, well-ventilated, dry location, at least 20 feet (or distance per local jurisdiction) from highly combustible or flammable materials.
- If OUTSIDE, store tanks in open-air storage units or cages with a protective roof that is a safe distance from other buildings. Weeds, grass, brush, trash and other combustible materials shall be kept not less than 10 feet (or distance per local jurisdiction) from propane gas tanks or containers
- Do not store tanks near exits, elevator access, stairways or in other areas used for the safe egress of occupants
- areas must be located where tanks will not be damaged by passing or falling objects, or subject to tampering by unauthorized personnel
- Storage areas must be protected from external heat sources such as flame impingement, intense radiant heat, electric arc, or high temperature steam lines.
- Storage areas should have a flat surface that do not collect water
- Tanks shall not be kept in unventilated enclosures such as lockers and cupboards
- Store tanks in the upright position with the relief valve unobstructed. Secure tanks together through the use of chains, cables, or propane racks