

# CHANGING FORKLIFT CYLINDERS

## PROPANE SAFETY BULLETIN

### Summary

This bulletin covers procedures for exchanging forklift cylinders.

**Changing:** Forklift cylinders should be changed only by trained personnel using proper safety procedures.

### Who should attend

- Employees who change propane forklift cylinders

NOTE: Employees in this job category who do not attend this meeting should be trained on this subject as soon as possible.

### Additional Material

- Video (available through AFRED's Video Lending Library) Manchester Forklift Cylinders (13:15 min)
- Material Safety Data Sheet (MSDS) (available from propane supplier)

### Key codes and standards for this topic

National Fire Protection Association (NFPA) 58, *LP-Gas Code*, 2001 Edition, §8.3, Industrial (and Forklift) Trucks Powered by LP-Gas

Railroad Commission *LP-Gas Safety Rules*, April 2007 edition, §9.51(b)(4)

### Company Standard Operating Procedures (SOP)

Note any additional materials used on the attached documentation form, or indicate not applicable.

A company SOP may provide information regarding proper supervision and training of employees who perform propane activities.

### Documentation

Complete the attached documentation form listing the date, time and location of the safety meeting and the printed names and signatures of attendees, names of persons who need to attend but did not, and copies of any materials distributed, video shown, or visual aids used in a demonstration. These materials should be properly filed in a safe location.

### Notice

This document and any associated meeting, presentation, or materials do not satisfy any training or continuing education requirement for any license or permit issued or required by the Railroad Commission of Texas. This document is a guide only and the Railroad Commission of Texas is not responsible for the use of this document at any meeting or presentation or for any other use of the document.



# CHANGING PROPANE FORKLIFT CYLINDERS

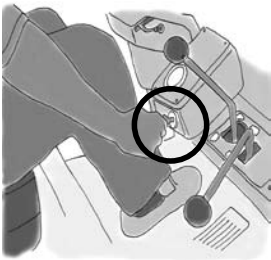
## PROPANE SAFETY BULLETIN HANDOUT

### General rules

- Forklift cylinders should be filled or changed only by trained personnel using proper safety procedures.
- Follow any and all of your company's procedures relating to propane activities.
- Contact your supervisor immediately if you have any propane safety concerns or questions.
- Never attempt to change a cylinder if you have not been properly trained to do so.
- Wear proper gloves and eye protection when performing propane activities, including connecting or disconnecting a cylinder.
- Avoid contact with liquid propane, as it can cause frostbite.
- Forklift cylinders are not required to be filled by weight and may be filled either on or off the forklift and in either the vertical or horizontal position.



Turn off the engine and engage parking brake.



### STEP 1. Remove empty cylinder from the forklift.

- Turn the forklift engine off and set the parking brake.
- Close the cylinder's service valve by turning it to the right (clockwise).
- Disconnect the female quick-connect fitting from the male quick-connect fitting by turning it to the left (counterclockwise).
- Disconnect the toggle clamp that secures the propane cylinder to the forklift.
- Remove the cylinder from forklift, using proper lifting techniques.

### STEP 2. Reinstall the full cylinder on the forklift.

- Lift the filled cylinder using proper lifting techniques and place it on the forklift with the locating pin properly inserted through the locating pin hole in the cylinder's neck ring.
- Reconnect the toggle clamp be sure the clamp properly secures the cylinder.
- Make sure the propane hose is not cut or chafed and the gasket and O-ring are properly installed in the male quick-connect fitting. Connect and tighten the male and female quick-connect fittings.
- Slowly open the cylinder service valve by turning it to the left (counterclockwise). Check for leaks using an approved leak-detector solution.
- Make sure the propane hose or cylinder does not extend beyond the forklift's sides or rear.
- Make sure the propane cylinder is properly secured against movement or displacement.
- Start engine and resume operation.

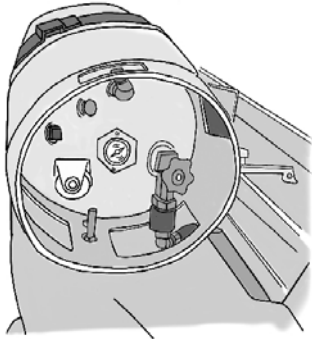
**Notice:** This document and any associated meeting, presentation, or materials do not satisfy any training or continuing education requirement for any license or permit issued or required by the Railroad Commission of Texas. This document is a guide only, and the Railroad Commission of Texas is not responsible for the use of this document at any meeting or presentation or for any other use of the document.



RAILROAD COMMISSION OF TEXAS



Mount cylinders with the locating pin fully engaged.



Source: Railroad Commission of Texas, Texas Propane Training Module 2.1

### To store cylinders properly

- Store propane forklift cylinders in a location set forth in National Fire Protection Association (NFPA) 58, *LP-Gas Code*, 2001 edition, and the cylinders must be secured against tampering and damage.
- Do not store cylinders or park propane forklifts in areas of excessive heat or near sources of ignition.
- Store propane cylinders and unattended forklifts with their service valves closed and the cylinders positioned so that their relief valve is in direct communication with the vapor space of the cylinder.



### Openings and Valves on a Forklift Cylinder

- 1 – Filler valve with dust cap
- 2 – Float gauge (not an approved gauging device)
- 3 – Liquid service valve with male quick-connect connector
- 4 – Fixed maximum liquid level gauge
- 5 – Pressure relief valve with weather cap
- 6 – Locating pin hole



**PROPANE  
SAFETY**

RAILROAD COMMISSION OF TEXAS