## Propane Refueling at Facilities Services

## Step One

Insert the filler nozzle into the P.O.L. fitting on the vapor valve (P.O.L. is the common term for the left-hand thread fitting standard on most cylinders and motor vehicle vessels). Remember, this is left-hand thread. Open the fill valve by turning the handle counter-clockwise. Open the $80 \%$ valve with either your finders or a screwdriver, whichever it's construction necessitates. If the tank is not completely empty, you should hear the hissing of escaping vapor. If liquid escapes, the tank is full. Open the valve on the fill nozzle, set the meter to zero and turn the pump on. The tank is now being filled.

## Step Two

Continue to fill the tank until liquid begins to escape from the $80 \%$ valve. At first it may be intermittent. At this point close the fill nozzle valve and check if the stream is constant. Continue to add a little at a time, shutting the flow off to check the $80 \%$ valve. It is often the case that the flow of liquid into the cylinder blocks the liquid from escaping out the $80 \%$ valve at the proper time, so by shutting the flow off, the proper reading is obtained. When liquid flows in a constant stream from the $80 \%$ valve, shut it off. Gloves may be needed if you are using your hands. Shut off the pump and the fill nozzle valves.

## Step Three

Turn the fill nozzle clockwise and allow the pressure to bleed off, then continue and remove the nozzle. The cylinder is now full. Check the fill and $80 \%$ valves again to ensure that they are secure.

If leakage is visible or audible, check the source. Common locations are around the fill handle, out the fill valve, out the relief valve, or around the threads on the valve. If the leak is around the threads, the valve can be removed and re-tightened when the tank is empty. Leaks at the other locations can only be remedied by replacing the valve.

The same amount of liquid. . .

... will occupy less space at a low temperature...

Safety in Cylinder Filling

. . . than it will occupy when heated to a higher temperature.


Properly filled cylinder (left) has space above liquid for expansion. Overfilling cylinder (right) results in blowing liquid through safety relief valve when temperature rises.

Cylinders must be accurately filled with sufficient space for expansion. All cylinders must be weighted to be sure they are not overfilled.

## Common Terms of Propane Tanks

1. POL - Vapor Withdrawal Service Valve
2. Liquid Level Guage
3. Vapor Withdrawal Tube - (Used on Tanks Where POL Valve is Not Located on Top of Tank)
4. Bottom Ring or Stand Legs
5. Safety Relief Valve
6. POL - Spud and Nut (Left Hand)
7. Low Pressure Regulator


## LP Gas Refueling Instructions for Permanently Mounted Tanks

1. Stop Engine - Put in Gear - Set Hand Break
2. No Smoking or Open Flames
3. Connect Fill Hose to Tank
4. Open Main Valve at Storage Tank
5. Turn Propane Pump "On"
6. Slowly Open Valve and End of Fill Hose
7. Open $80 \%$ Liquid Fill Valve on Tank
8. Fill Until Liquid Appears, Then Close $80 \%$ Fill Valve
9. Close Valve on End of Fill Hose Immediately
10. Shut Propane Pump "Off"
11. Disconnect Fill Hose From Tank
12. Close Main Valve at Storage Tank

DO NOT OVER-FILL

Created: November 13, 2001
Reviewed:
Approved by: Steve Pelkey, Safety Manager
Facilities Services
1276 University of Oregon
Eugene, OR 97403

