



## Propane Dispenser Operator's Checklist

- 1. Summarize Propane Dispensing procedure.
- 2. Explain Propane Safety Guidelines (TRAIN4400.01).
- 3. Demonstrate Propane Dispensing Procedure (TRAIN4410.01)
- 4. Have trainee fill a 20 lb. Propane tank following all procedures.
- 5. Discuss using Worthington Chart to identify other size tanks and proper setup.
- 6. Explain filling vehicle tanks by volume using Propane Dispensing Procedures for ASME Containers (TRAIN4420.01).
- 7. Explain Propane tank purging procedure (TRAIN4430.01)
- 8. Discuss store policies regarding pricing and handling customer complaints (i.e. contact team leader.)
- 9. Explain Emergency Shutdown Procedure (TRAIN4440.01)
- 10. Discuss proper loading of propane cylinders in vehicles.

Trainee \_\_\_\_\_

Trainer \_\_\_\_\_

Date \_\_\_\_\_



**ACE Hardware**  
Propane Safety Guidelines

1. No smoking or other sources of ignition within 25 feet of bulk tank.
2. Wear protective gloves and eye protection when handling and filling cylinders.
3. Keep access to propane filling equipment secure when not attended.
4. Secure cylinders in an upright position in customer's vehicle and insure POL plug/quick closing coupling is tight.
5. Do not store or transport cylinders where the temperature of the cylinder will exceed 130° F, the safety release valve will release propane vapor.
6. If a cylinder's safety release valve is releasing vapor due to high temperatures, cool the cylinder with water until the safety valve has restored and has stopped releasing vapor. Place cylinder in a safe, cool area.

For more detail see NPGA Bulletin 130-87 and  
Ace Hardware "Safety Tips for Handling Propane Cylinders."

PROPANE DISPENSING PROCEDURE

1. Check the W.C. (water capacity) stamped on the cylinder collar
2. Refer to table of Water Capacity to Propane Capacity to determine the maximum pounds of propane the cylinder will hold (i.e. Propane weight).
3. Check T.W. (Tare Weight) stamped on cylinder collar.
4. Add T.W, propane weight and 1 to 4 pounds for the fill hose adapter, to determine scale setting. Set scales to proper weight.

Below are the most common sizes of steel propane tanks that we fill and the corresponding scale settings:

<i>Size of Cylinder</i>	<i>Scale Setting</i>
20 lb.	39 lbs.
30lb.	55 lbs.
40lb.	70 lbs.
100lb.	175 lbs.

If cylinder is NOT referenced above, use the formula:  $TW + .42(WC) + 1 = \text{scale setting}$

Example:             $TW=17.5$              $WC=47.7$   
 $17.5 + .42(47.7) + 1 = 38.5 \text{ lbs}$

5. Connect fill hose adapter to the cylinder.
6. Open cylinder valve, start pump and open valve on end of hose.
7. When the cylinder is filled to the proper level, immediately close fill hose valve, close cylinder valve, and shot off pump. **DO NOT OVERFILL**
8. Disconnect fill hose adapter. A small amount of propane will escape when the adapter is loosened.
9. Reweigh the cylinder, subtracting the weight used for the fill hose adapter (i.e. a typical steel chamber should weight about 38 pounds).
10. Replace POL plug and cylinder labels as appropriate.
11. Offer to load and secure the cylinder. Never place a cylinder in an unapproved location in a vehicle. Advise the customer of the danger of propane being released if the cylinder becomes to hot (e.g., left in a car trunk).

For more detail see NPGA Bulletin 129-91 and 130-87

## PROPANE DISPENSING PROCEDURE FOR ASME CONTAINERS

ASME containers are usually mounted on a vehicle. Special precautions must be taken in filling these containers as they are filled by volume using a fixed liquid level gauge.

1. Check container to determine if the container is filled to the proper level by opening the fixed liquid level gauge vent valve. If a cloud of visible vapor appears, DO NOT FILL. The container is filled to its capacity. Close vent valve.
2. Cut off vehicle engine and ALL sources of ignition such as all pilot lights in RV's.
3. Reset dispensing meter to zero.
4. Remove fill valve cap and connect fill hose adapter.
5. Open fixed liquid level vent valve, turn on pump and open valve on end of hose.
6. When a burst of white mist (fog) appears, immediately close fill hose valve and shut off pump. DO NOT OVERFILL.

Some containers may have an automatic shut off valve. Do not fill beyond the automatic shut off point indicated by the dispensing meter stopping its advancement.

7. Hand tighten the fixed liquid level gauge vent valve and disconnect fill hose adapter. A small amount of propane vapor will escape when the adapter is loosened.
8. Replace fill valve cap. Hand tighten.
9. Record gallons of propane dispensed and give to cashier.

## PROPANE TANK PURGING PROCEDURE

1. Open cylinder valve and exhaust any air in cylinder.
2. Empty all water in cylinder. Close cylinder valves.
3. Connect fill hose adapter to cylinder. Turn on pump. Open fill hose adapter. Crack open cylinder valve briefly (1-2 seconds) and release a SMALL amount of propane into cylinder in order to vaporize the cylinder (when the cylinder valve is opened you will hear a hiss). Close valve.
4. Shut off fill hose adapter and exhaust vapor in cylinder.
5. Repeat steps 3 and 4 two more times.
6. Cylinder is ready for filling.
7. Fill cylinder using Propane Dispensing Procedure. (TRAIN4410.01)

## PROPANE EMERGENCY SHUTDOWN PROCEDURE

1. If a propane fire occurs, shut off fill valve, cut off bulk tank and cylinder valve, if you can do so safely.
2. **DO NOT ATTEMPT TO EXTUINGISH PROPAN FIRE UNTIL THE PROPANE SUPPLY HAS BEEN CUT OFF.**
3. Attack the fire from upwind. Direct dry chemical stream from a B:C rated fire extinguisher at the source of fuel from the base of the fire.
4. If the bulk tank is exposed to a fire in an adjacent facility, such as a car or building, and you cannot safely remove the source of fire, apply water to the shell of the bulk tank until the source of the fire is removed or controlled.
5. Advise Team Leader.