## Water Injection Training Prop

Training brought to you



Updated: Sunday, January 21, 2018



Our mobile training prop provides multiple training opportunities including: Bobtail simulator prop

- Water injection (Spray Fill)
  - Dual liquid leak options
    - 1 ¼' and 2" internal
- Vapor out
  - Excess flow valve training
  - o Flaring
  - Bobtail Tank volume
    - Horizontal liquid level gauge
    - Roto-Gauge
- Emergency shutoff control options

#### **Residential tank prop**

- Multivalve
  - o POL
  - Vapor connection (1-1/4" ACME vapor return)
  - Liquid fill (1-3/4" Double-Check Fill Valve)
  - Liquid level (spit tube)
  - Vertical liquid level gauge
  - Pressure gauge
  - ¾ inch NPT liquid out (plugged) w/excess flow
- Two liquid withdrawal options
  - Top (1-3/4" Double-Check Fill Valve)
  - Bottom (1-3/4" Double-Check Fill Valve)

## **Bobtail simulator prop**

- Water injection (Spray Fill) [1]
- Vapor out [2]
  - Excess flow valve training
  - o Flaring
  - o Tank pressure
- Bobtail Tank volume (horizontal liquid level gauge)
   [3]



- Emergency shutoff controls [4]1-1/4" drain [5]
- Liquid leak options [6]
  1 ¼' and 2" internal
- 1-3/4" Double-Check Fill Valve
  [7]



- Roto-Gauge [8]
- MC331 Transport piping



• Pneumatic Valve/Emergency Control





# **Residential Tank prop**



#### Multivalve

- POL with shut off valve [A]
- Vapor connection (1-1/4" ACME vapor return) [B]
- Liquid fill (1-3/4" Double-Check Fill Valve) [C]
- Liquid level (spit tube) [D]
- Pressure gauge
- Liquid port (E)



**POL** (Prest-O-Lite) port Adapter connected. Valve in closed position



**Vapor connection** [B] 1-1/4" ACME vapor return connector (#ME 141)



#### Liquid fill connector [C]

 The 1 3/4" ACME male hose connection of the Multivalve is used to fill the tank.

#### Liquid fill connector [F]

• The #3121 threads directly onto the 1 3/4" ACME male hose connection of the Multivalve.

Unloading adapters can be used to withdraw vapor or liquid provided the container is equipped with a dip pipe extending from the filler valve to the bottom of the container (this prop does NOT have a liquid withdrawal pipe in this location).

# Liquid fill and Vapor Out

#### Double-Check Fill Valve, L7579 Fill/Vapor withdrawal Top of tank

- Double back check provides added system protection.
- Both checks are spring actuated for quick, precise closure when flow into the valve stops or reverses.
- This training prop uses the L7579 as a liquid fill and vapor out adapter on the top of the tank.

Unloading adapter #3119A - Threads directly onto the 1 3/4" ACME male hose connection of the L7579

The unloading adapter can be used to withdraw vapor or liquid provided the container is equipped with a dip pipe extending from the filler valve to the bottom of the container (this prop does NOT have a liquid withdrawal pipe in this location).

#### **Unloading adapter** #3121

Threads directly onto the 1 3/4" ACME male hose connection of the L7579 The unloading adapter can be used to withdraw vapor or liquid provided the container is equipped with a dip pipe extending from the filler valve to the bottom of the container (this prop does NOT have a liquid withdrawal pipe in this location).











# Liquid Withdrawal

#### Top of tank

- 7579U Chek-Lok<sup>®</sup> Excess Flow Valve (a) requires a Rego 7590U-10 adapter (b).
- Chek-Lok<sup>®</sup> Excess Flow Valves do not use ACME thread.
- The 7590U and 7591U Chek-Loks<sup>®</sup> are also designed for use on permanent installations provided the excess flow valve is sized properly for the system and piping.
- The unloading adapter can be used to withdraw vapor or liquid provided the container is equipped with a dip pipe extending from the filler valve to the bottom of the container (this prop does have a liquid withdrawal pipe in this location).
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## Bottom of tank

# Double-Check Fill Valve, L7579 Fill/Vapor withdrawal

Top of tank

- Double back check provides added system protection.
- Both checks are spring actuated for quick, precise closure when flow into the valve stops or reverses.
- The unloading adapter is used to withdraw liquid from the bottom of the container.



# Liquid leak options

Two options exist under the tank in the form of cable operated internal valves. Each internal has a ball valve the provides remote shutoff control options. A 1-3/4 inch male ACME connection is used to attach leak orifice that will provide the leak volume.



- i. 2-inch internal valve
- ii. 1-1/4 inch internal valve

(i) and (ii) both have emergency shut off cables connections on both sides of the prop



# **RESPONDERTRAINING.COM**

### Leak Mitigation Using Water Injection

Course length: 8 hours Single or multiple days Contact us to schedule this training tool for your personnel. Ron Huffman (765) 524-4848 <u>respondertraining.rdh@gmail.com</u> www.respondertraining.com