



**Equipment**

**Hydrant Bag:** Each apparatus is assigned with a Blue custom hydrant bag containing the following equipment:

**Standard**

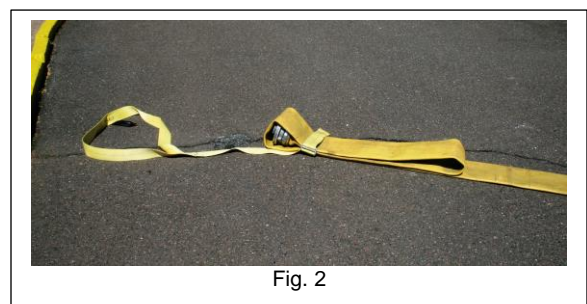
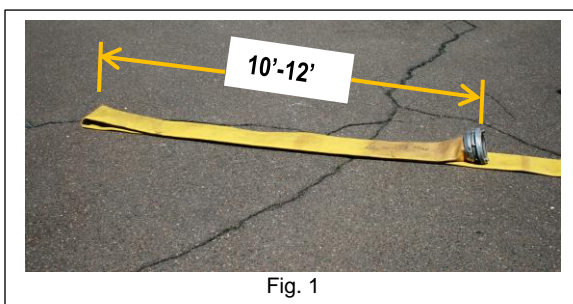
| Quantity | Item / Size:   | Manufacturer    | Part #    |
|----------|--|-----------------|-----------|
| 1        | Hydrant Wrench with Spanner  | Akron           | 15        |
| 2        | Spanner Wrench – LDH 4-5" Stortz/1-3" Rocker   | Akron           | SS-525    |
| 2        | Spanner Wrench – Universal   | Akron           | 10        |
| 1        | Hydrant Valve – Small Straight Screw Valve<br>2 1/2" Male Outlet x 2 1/2" Threaded Inlet – w/ Hand Wheel | Kochek          | 09K25225M |
| 1        | Hydrant Valve – Small Straight Ball Valve<br>2 1/2" Male Outlet x 2 1/2" Threaded Inlet                  | Kochek          | HBv25     |
| 1        | Large Diameter Hose Strap  | R&R Fabrication | LDH-01YL  |



**Additional Appliances**



**LDH Hose Strap:** Tri-Fold the Large Diameter Hose with the Stortz protected under the fold.





## Forward Lay

**Step 1:** Firefighter locates and retrieves the hydrant bag (Fig. 1) and places it near the hydrant, placing it on the side away from the direction of lay (Fig. 2).



Fig. 1



Fig. 2

**Step 2:** The Firefighter deploys the LDH from the hose bed (Fig. 3) and drags the approximately 20' past the hydrant (Fig. 4). This will ensure the filled hose will not kink at the hydrant gate.

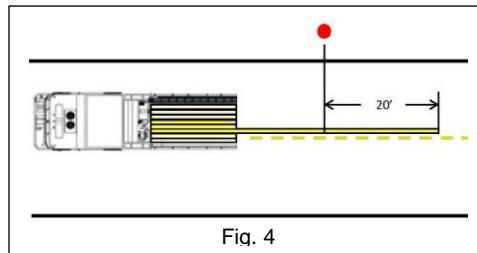


Fig. 4



Fig. 3

**Step 3:** Using LDH Hose Strap: Secure the LDH to the hydrant by placing the Hydrant Strap over the barrel of the hydrant (Fig. 5) including the webbing that is secured to the LDH.

### **THIS IS THE PERFERED CFA METHOD**

Utilizing a LDH Wrap: Secure the LDH to the hydrant by wrapping the Hydrant 2 times with the LDH (Fig. 6). Approximately 10-15' of hose should be used to wrap the hydrant.

**NEVER stand on the LDH as the Apparatus begins the hose lay. Doing so could cause Injuries.**



Fig. 5



Fig. 6



**Step 4:** Apparatus deploy the supply line by driving away from the hydrant towards the fire positioning the Engine where it would not interfere with the placement of the Aerial device at the incident.

The Firefighter may return to the apparatus after the first 100' of the LDH has been deployed.

When short hose lays (100'-300' feet) are to be deployed, walk along LDH, moving coupling to the shoulder of the roadway.

The Firefighter should stand behind the apparatus in position that the Operator can see him/her in their Mirror.

Verbally and use a hand signal to indicate the LDH is ready to be deployed (Fig. 7).



Fig. 7



Fig. 8

It may be necessary to hold the L.D.H. when the hydrant is located around or near the corner of the street. Stand on a fold and hold the LDH with both hands until the first 100' has been deployed (Fig. 10).



Fig. 9



Fig. 10

Do not unwarp the L.D.H. hydrant strap from the hydrant until the Engine has stopped its lay or at least 400' has been deployed. It may be necessary to hold the L.D.H. when the hydrant is located around or near the corner of the street.





### Checking the Hydrant

**Step 1:** Remove the 4 ½ Streamer Cap (Fig. 1).



Fig. 1

**Step 2:** Adjusting the hydrant wrench to the bonnet nut and check on the bonnet for the correct direction for opening the hydrant (Fig. 2).



Fig. 2

**Step 3:** Open the Hydrant until air can be heard escaping and water is moving up the barrel. A steady flow must be seen in ½ to ¾ of the steamer opening (Fig. 3).



Fig. 3

Fully opening the Hydrant when flushing may cause any debris to be lodged to the underside of the bonnet (Fig. 4 & 5).



Fig. 4

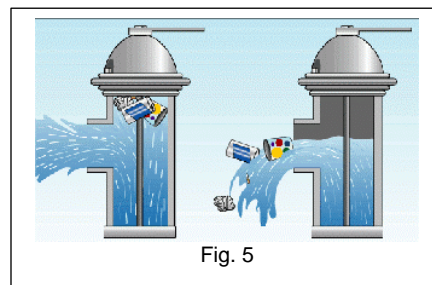


Fig. 5

**Immediately Notify the Incident Commander when the steamer cap cannot be removed, a hydrant cannot be opened, fully opened or appears to be flowing an inadequate amount of water (Fig. 6).**



Fig. 6



### **Dressing the Hydrant**

The following steps will be used to “**Dress the Hydrant**” with consideration that the Pump Operator can call for water at any time. When the Pump Operator calls “Charge the Hydrant”, the Hydrant man must complete that step and immediately open the hydrant.

**Step 1:** Attach the Hydrant Gate and LDH to the Steamer outlet (Fig. 1 & 2).



Fig. 1



Fig. 2

**Step 2:** Remove the cap and attach a Hydrant Screw Gate to the 2 ½ outlet that faces away from the incident (Fig. 3).



Fig. 3

**Step 3:** Remove the cap on the second 2 ½ outlet and attach a Hydrant Screw Gate (Fig. 4).



Fig. 4

**Step 4:** Ensure all the hydrant gates are closed and COMPLETELY Open the Hydrant (Fig. 5).



Fig. 5

**Step 5:** Radio “*Water Supply Ready*” or if the Pump Operator and Hydrant man are in visual contact use a hand signal. Arm to the side, waving up and down - from side to above head. Use a personal hand light to signal at night.



Fig. 10



### **Establishing Water Supply**

The Pump Operator is the person to call back to the firefighter at the hydrant and ask for water, after they have connected to the intake on the engine.

**Step 1:** The apparatus operator will either use hand signals (*if distance and line of sight allow*) or communicate over the radio asking the firefighter still at the hydrant to “Charge the Hydrant.” (Fig.1).



Fig. 1

**Step 2:** The Pump Operator should open the Piston Intake bleeder valve to allow any air to be purged from the LDH. The bleeder should be closed when there is continuous flow water (Fig. 2).

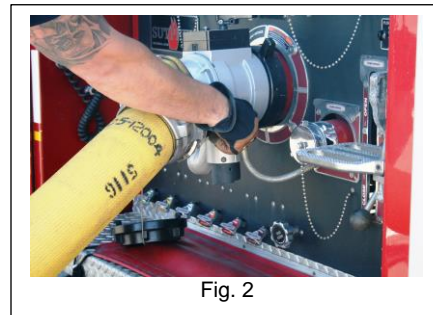


Fig. 2

**Step 3:** The Firefighter should stretch out the LDH prior to opening the hydrant to clear obstructions and prevent kinks (Fig. 3). The Firefighter will fully open the hydrant in a controlled manner allowing the water to fill the hose at a “walking” pace.



Fig. 3

**Step 4:** The Firefighter will move the L.D.H. when a kink appears. The firefighter should kneel facing the hose and pull the section of hose towards him until the kink is removed (Fig. 4). If there is need for additional apparatus to have access to the fire ground the hose line should be moved to the side of the road.



Fig. 4



**Step 5:** Once the water supply has reached the apparatus and the Pump Operator has made the change from tank water to the external source (Fig. 5), they will announce to command the **Benchmark** of *“Water supply established.”*



Fig. 5

**Step 6:** The Firefighter will carry the Hydrant Bag from the Hydrant and place it near the rear tail board of the pumping Apparatus (Fig. 6).



Fig. 6

**Special Note:** *A “hand jack” operation may be used in situations where the supply line lay is 100’ in length or less. Steps are the same as a traditional forward lay, the exception is that the second arriving Engine’s Firefighter needs to ensure and/or complete the water supply connection.*





### Shutting Down the Hydrant

**Step 1:** After it is determined by the Incident Commander that a continuous supply of water is no longer need for the operations, Water Supply L.D.H. can be “picked up” and the hydrant secured.

The assigned fire fighter should confirm with the Pumping Apparatus Operator that the water supply will shut down and picked up. When the pumping operation has either been shut down or the supplied with tank water (Fig. 1) the firefighter will close the Hydrant.



Fig. 1

**Step 2:** Water should first be drained from the L.D.H. using the 2 ½ gate on the hydrant (Fig. 3) and opening the Piston Intake Bleeder Valve at the pump (Fig. 4).



Fig. 2



Fig. 3

**Step 3:** When drained water has stopped or slowed from the 2 ½ hydrant gate (Fig. 5) remove the L.D.H. from the Hydrant Adapter (Fig. 6) and begin dressing down the hydrant.



Fig. 4



Fig. 5





**Step 4:** Remove all Hydrant Gates from the hydrant (Fig. 8). Place the Streamer (Fig. 9) and one 2 ½ cap on the discharges and hand tighten. Check that the water has completely drained from the hydrant barrel by placing a hand over the open 2 ½ discharge and checking that a vacuum is not present (Fig. 10).



Fig. 8



Fig. 9



Fig. 10

Recap and hand tighten the remaining discharge cap (Fig. 11). Inventory and Inspect Hydrant bag equipment (Fig. 12) and return to proper apparatus compartment.



Fig. 11



Fig. 12

### Training Critical Steps:

#### **Establishing Water Supply – Hydrant Man**

- Stage Hydrant Bag behind Hydrant
- Loop L.D. H. Strap around hydrant
- Make visual contact with Engine Operator and signal to start lay
- Remove 4 ½ Steamer Cap
- Open and Flush the Hydrant, shut hydrant
- Connect the LDH appliances to the Hydrant
- Remove 2 ½ Cap that is away from incident and connect appliance
- Remove remaining 2 ½ Cap and connect appliance
- Ensure gates are closed
- Fully Open Hydrant
- Await signal to Open LDH Gate

#### **Securing Water Supply – Pump Operator**

- Connect L.D.H to Pump
- Open Bleeder Valve
- Make Visual Contact with Hydrant Man
- Call for Water
- Bleed off Air & Close Valve
- Open Piston Intake
- Monitor and Adjust Pump Pressure

#### **Shutting Down – Pump Operator**

- Close Piston Intake Valve
- Open Bleeder Valve
- Make Visual Contact with Hydrant Man
- Drain L.D.H. until flat or most water has drained
- Disconnect LDH from PIV
- Replaces caps

#### **Shutting Down – Hydrant Man**

- Drain water using 2 ½ Hydrant Gate
- Ensure water has drained
- Disconnect L.D.H. from Hydrant Adapter
- Remove all gates from hydrant
- Replace and Hand tighten Streamer Cap
- Check to ensure Hydrant completely drained
- Cap and Hand tighten all Discharges
- Inventory and Inspect all hydrant equipment for readiness