Let’s respond to a typical structure fire call

Your driving the Attack Engine

- **What is your task?**
- **What are you going to do to properly set up for a potentially long event?**
- **How are you going to start fighting the fire as quickly as possible?**

1. Get to the scene safely

2. Based on your knowledge of the scene, you may want to do a “Forward Lay” with your supply line

3. Start fighting the fire with your pre-connected attack line and tank water

Tie off supply line and do a forward lay if appropriate.

One 1800’ supply line

or

Two 900’ supply lines

As you arrive SET the Brake and make the Windshield Report

Parking brake

Chock the wheels

Engage the pump

Open tank-to-pump valve to get water into the pump as quickly as possible to prevent pump overheating

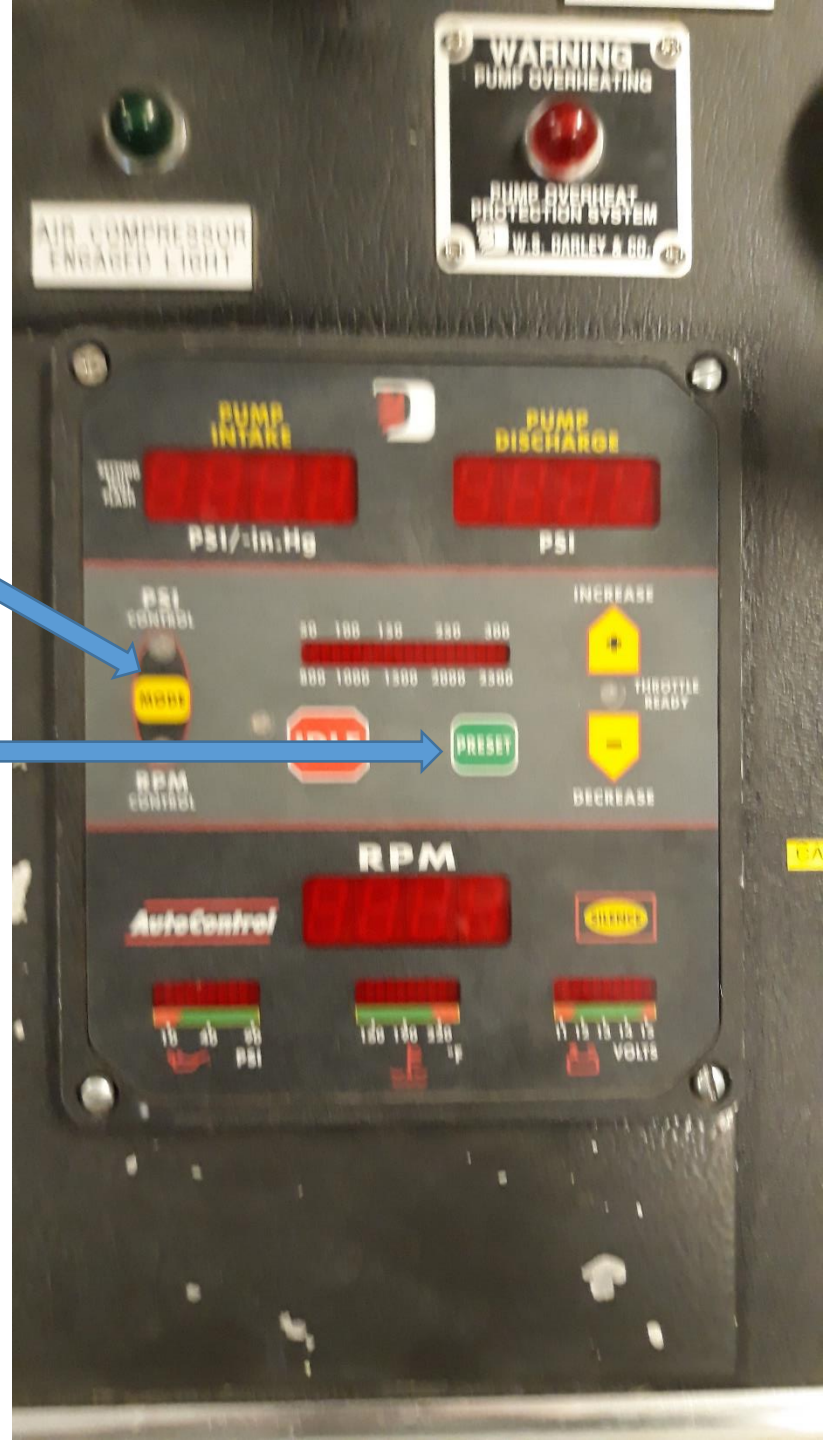
START THE PUMP

1. Select RPM Mode

Note; You will not need to Prime pump from tank input. Gravity feeds the pump

2. Select PRESET

The engine should come up to approx. 1200 RPM which will give about 90-100 PSI



Pull appropriate cross lay pre-connect ie; red 1 ¾” for example

When the person on the Nozzle is ready?

Open “Red” pre-connect water valve ½ way to CAFS marker

Turn on FoamPro Control

Open AIR Valve ½ way to marker

Note; The sequence is **WATER, FOAM, AIR** to prevent “hose bucking”.

1. You are now fighting fire with water from the Attack Engine's 1200 gallon water tank

2. Next you need to connect the supply line, that you "forward laid" as you came in. Hopefully the supply engine has arrived and is set up to supply additional water, to the Pump Inputs.

Run the supply lines directly into the pump. Do not connect the supply lines to tank input

2 ½” Pump Input Available on both sides

Open Driver Side Pump Input

Passenger Side Engineer Compartment

You may need some fittings from the Engineer Cabinet to switch from **“Male to Female”** or **“Female to Male”** connections.

Driver Side Engineer Compartment

Pull out the 3” rear supply line with the gated wye.

Connect the 100’ 1 ½” High Rise Packs to the gated wye and deploy around the structure fire.

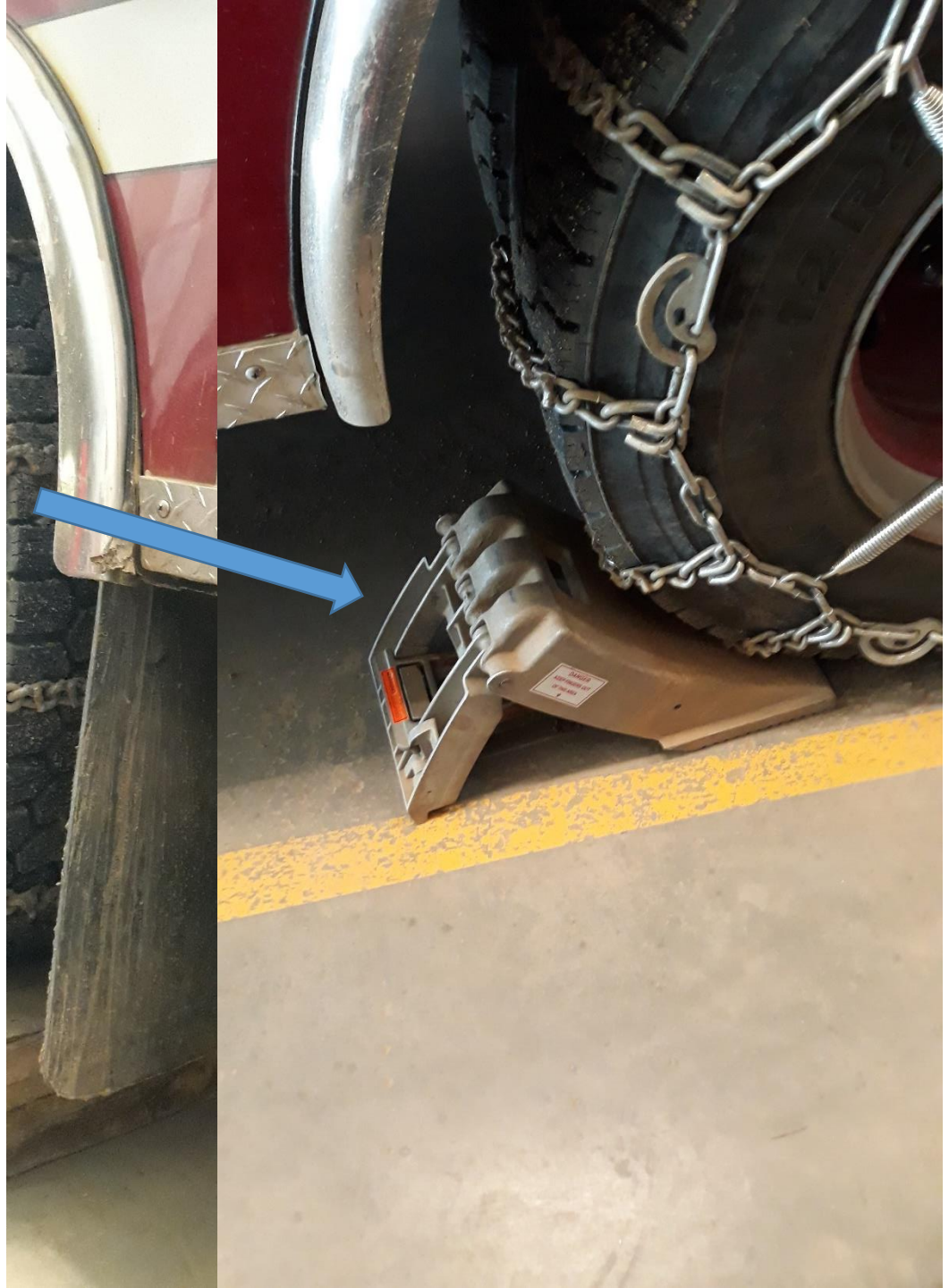
SECOND. Open the air valve ½ way to the foam marker.

FIRST. When the persons on the additional lines are ready, open the water valve ½ way to the Foam marker.

The second engine arrives and sets up as the Supply Engine .

Set the brake

Chock the wheels



Connect the supply line that the attack engine had “forward laid” to one of the water only outlets.

Engage pump control

Open Tank-to-Pump Valve

1. Select RPM Mode

2. Increase RPM by depressing the INCREASE Button to approx. 50-60 psi

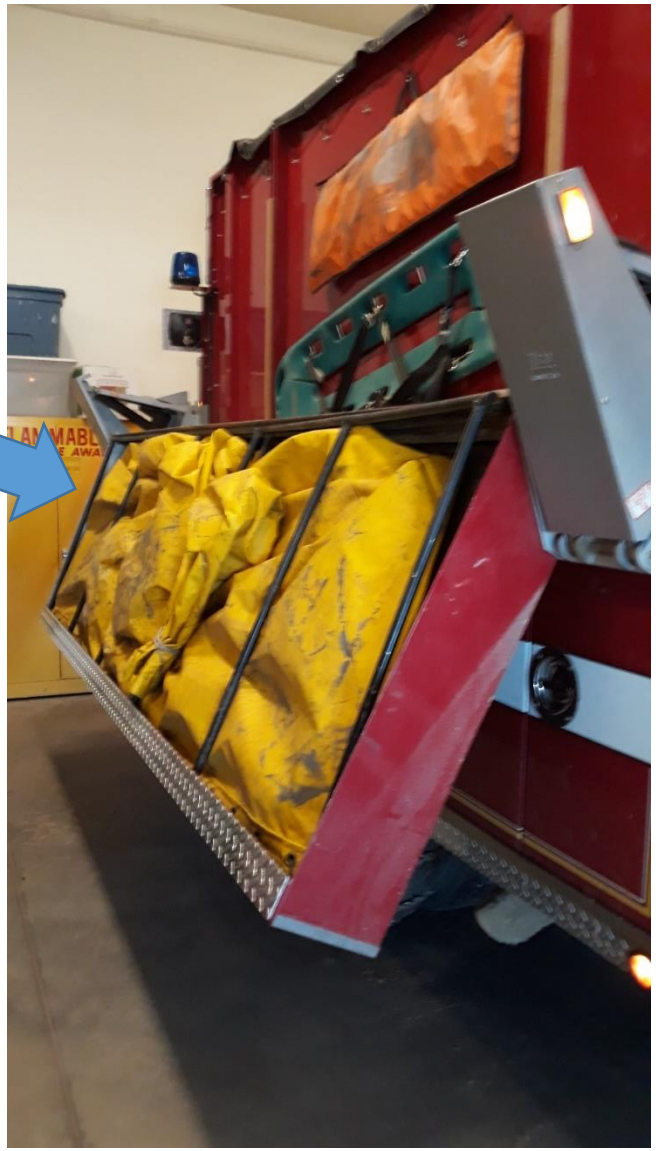
3. Switch to PSI Mode

Open Pump-to-Tank Valve slightly to allow some circulation and avoid pump from overheating

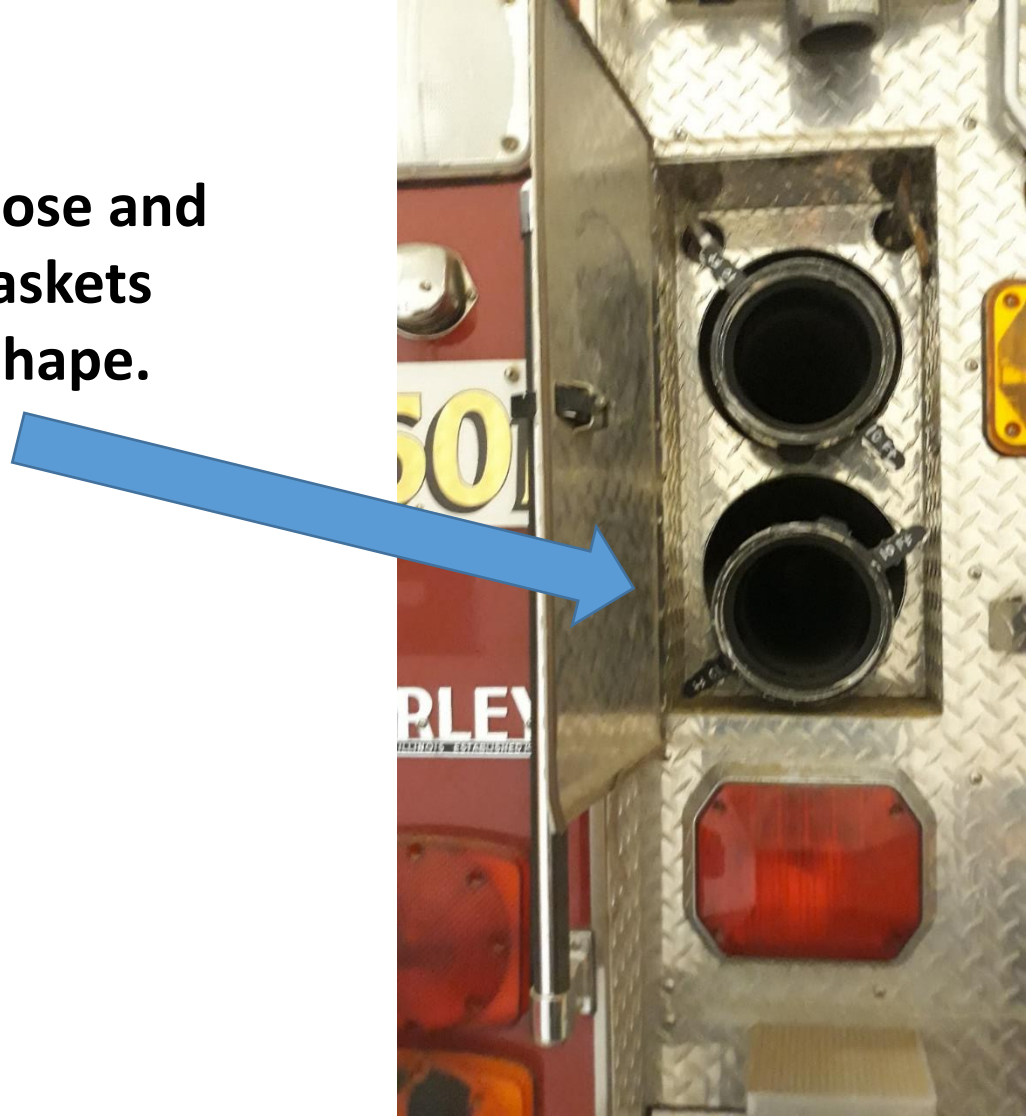
When the Attack Engine is ready, OPEN the appropriate valve to the Water Only outlet.

You now have the 1200 gallons of water from the Supply Engine available to the Attack Engine for a total of 2,400 gallons available to fight the fire

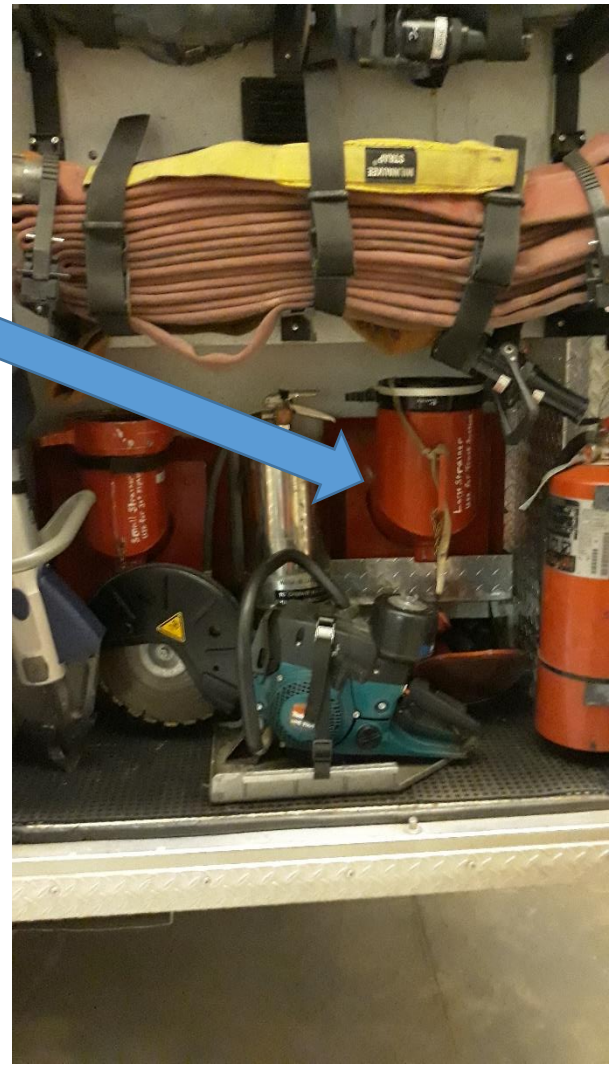
Set up the Porta Pond from the Supply Engine



Pull the 6” hard suction hose and check to make sure the gaskets are in place and in good shape.



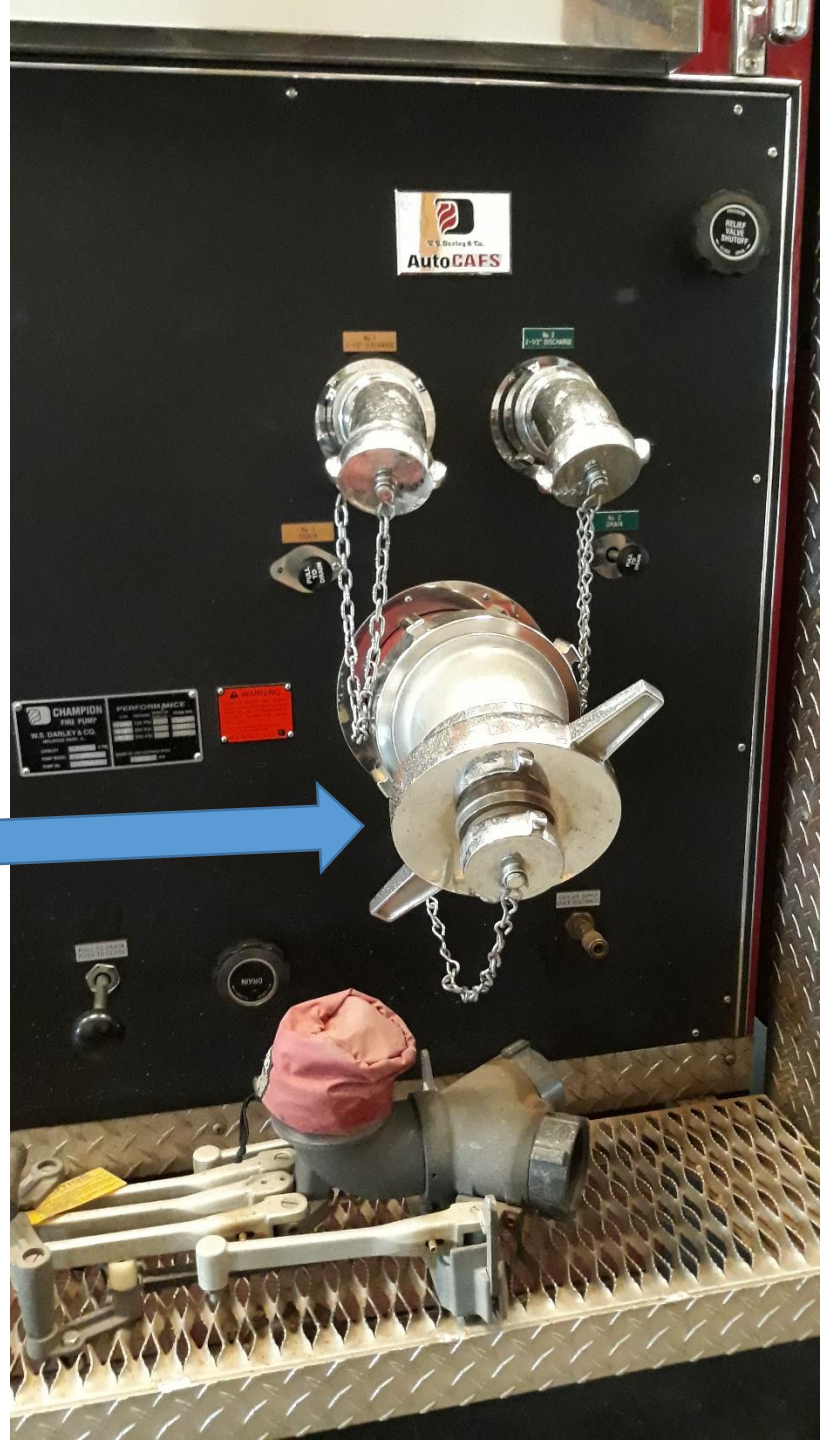
Pull the Low Level Strainer and connect it to the hard suction line. You may need 1 or 2 hard suctions to reach from the Porta-Pond to the pump input.



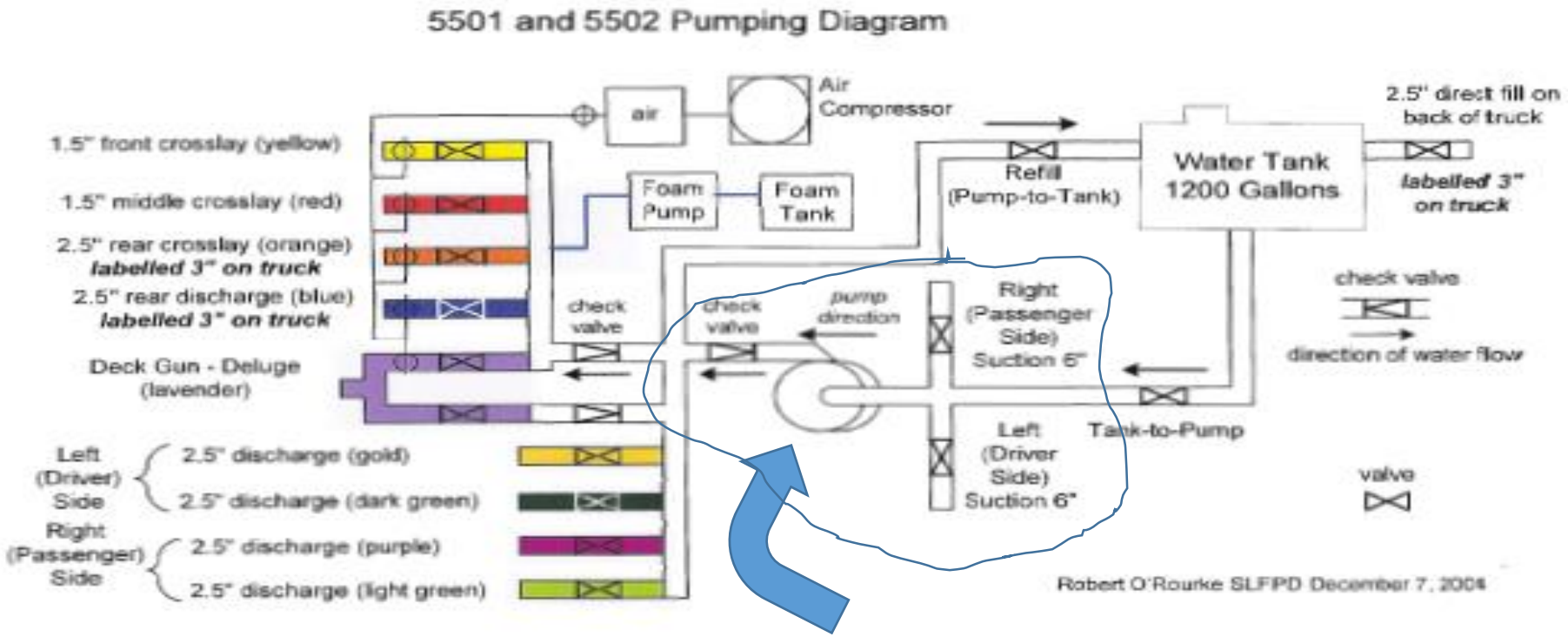
Use the hose wrenches to tighten the connections after assuring the gaskets are in place.

Connect the Hard Suction to one of the pump inputs.

Driver side pump input



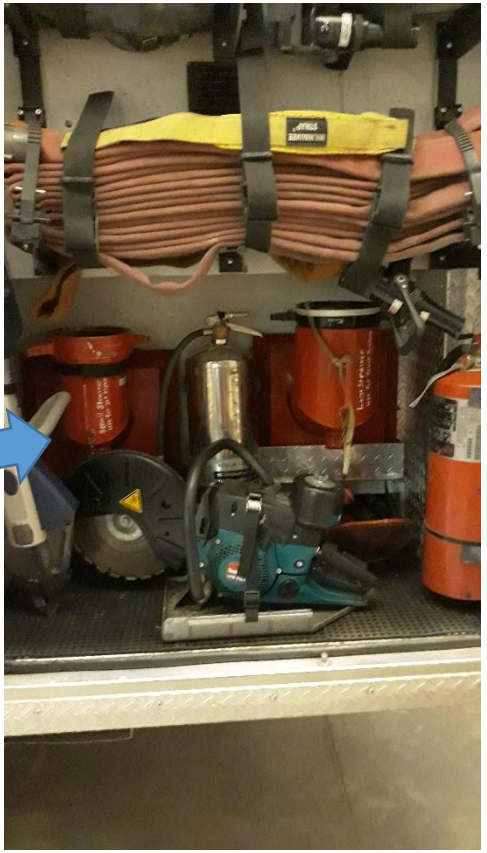
1. The first Tender in should dump its water into the porta-pond from the engine and drop its porta-pond beside the engine's porta-pond.



1. If you still have tank water and are pumping to the Attack Engine, you can slowly open the Driver's Side Pump Input Valve, that the hard suction is attached, a little way. This will create a vacuum (Bernoulli Effect) in the hard suction line and water will be forced up into the hard suction line and the pump. Once the line is full, slowly open the hard suction line and slowly close the valve from the tank. You are now supplying water from the Porta-Pond instead of the engine tank to the Attack Engine.

As additional Tenders come in, they can dump into either porta-pond. The supply engine will need to set up the Jet-Siphon to move water from the second porta-pond to the porta-pond that is supplying water to the supply engine.

This will require the second low level strainer be connected to a hard suction hose.
It will also require a 1 1/2" hose be connected to the strainer from a water only pump output.
The strainer with the 1 ½" hose is placed in the 2nd porta-pond with the other end of the hard suction in the 1st porta-pond. It will need to be secured in place.
When the output valve for the Water Only output is opened, a vacuum is created within the low level strainer (Bernoulli Effect) and water is moved from the 2nd porta-pond to the 1st.

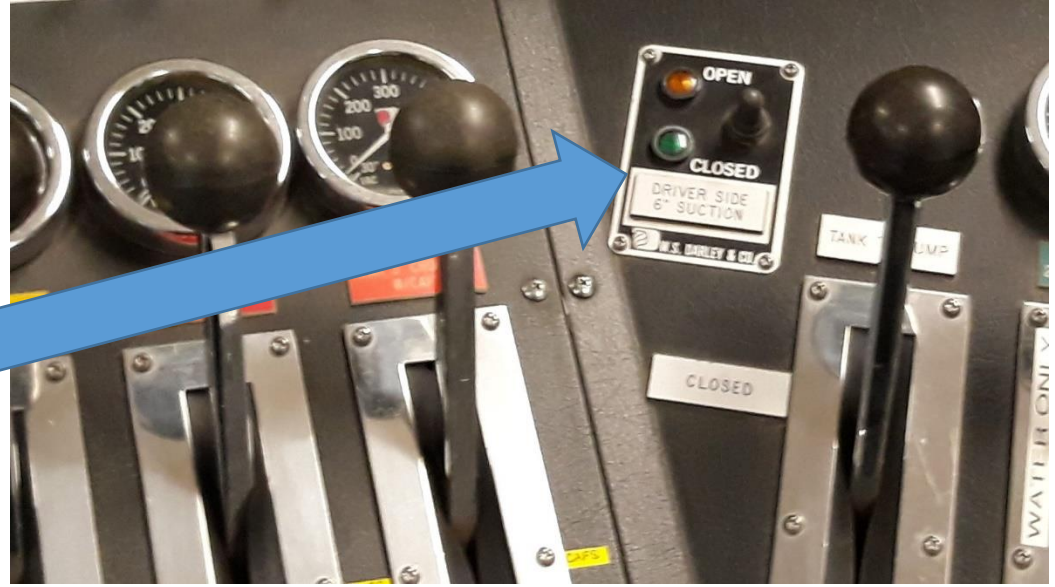


The Engineer on the attack engine needs to be able to control its output pressure. If the pressure into the pump from the supply engine is too high, this high pressure goes through the attack engine pump to the output lines. The Engineer no longer has control.

This presents a problem to the supply engine as it is supplying water to the attack engine at approx. 50-60 psi and it is operating a jet siphon moving water from one porta-pond to the other. This jet siphon operation requires 90-100 psi to operate effectively. A compromise is required with a PSI of 70-80 psi.

Or if you are out of water, you will need to use the primer. The Primer evacuates the air out of the pump and allows water to be forced up into the suction line and pump.

1. Close all the inputs and outputs to the pump **except** the one input line that you want to draw water up through.
2. Pull and hold the primer pump handle until the water has filled the suction hose and the pump. You will be able to see the water coming up the suction hose and you can see it droop down as it fills with water. Depress the primer pump handle to shut off the primer.
3. When the pump is full of water, while in the RPM Mode, slowly increase the pump RPMs until you see pressure building on the output pressure gauge
4. Slowly open the valve for the supply line and pump water to the Attack engine.



Both engines have now used some or all their tank water to fight the fire. As soon as you have sufficient water and can divert some from the fire scene, start refilling the engine's tanks. This provides a reserve that can be drawn upon if the tenders are slow in keeping the porta-ponds full. You don't want to run out of water fighting the fire as it will flare back up if water is not kept on it.