

SLFPD APPARATUS

5501/02



**1998 HME/Darley Pumper
1250 GPM Darley single stage pump
250 CFM Compressor
1,200 gal water tank
20 gallon foam tank**

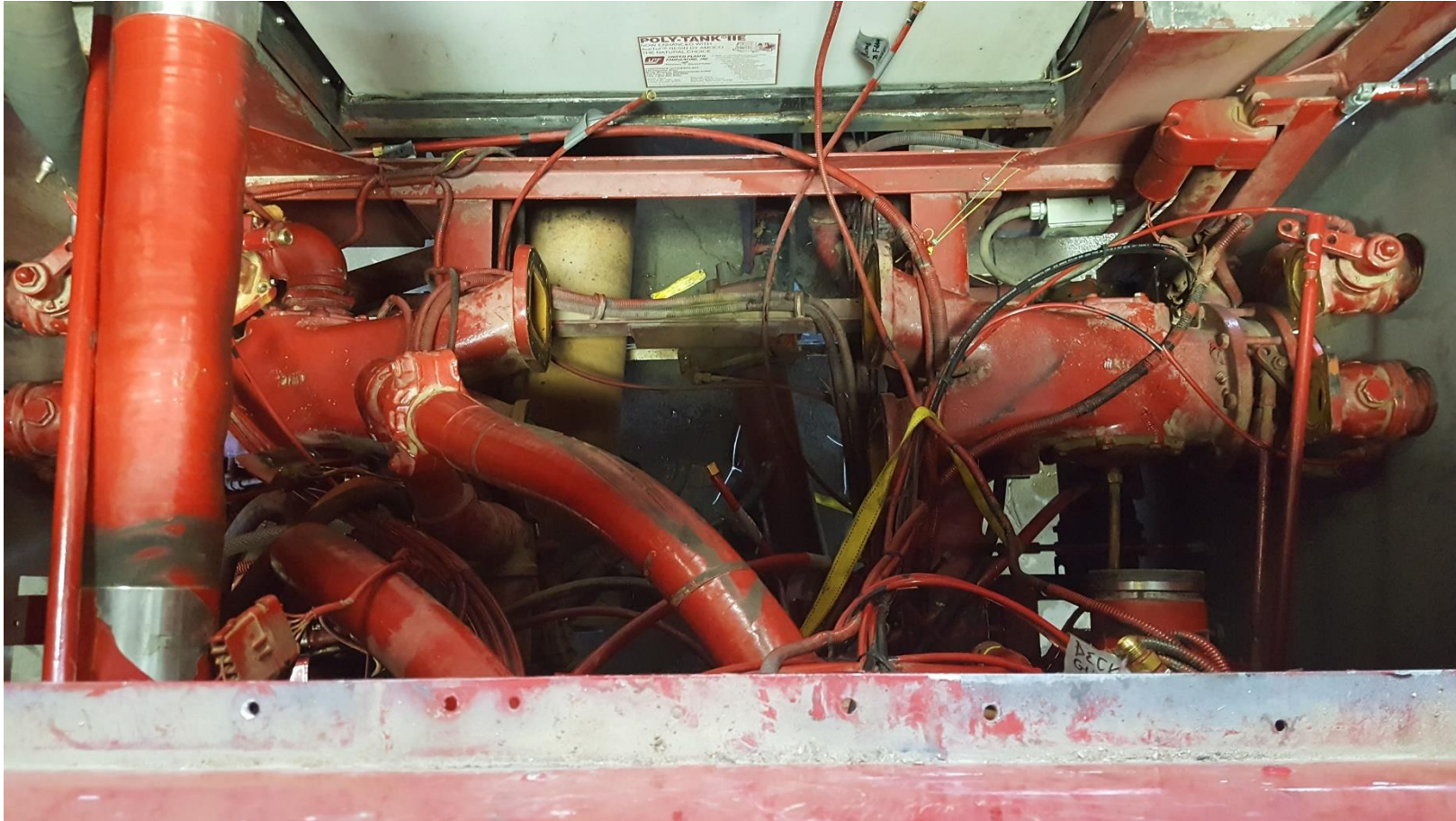


Porta-Pond

5501 Pump rebuild in 2018



Pump compartment with pump removed



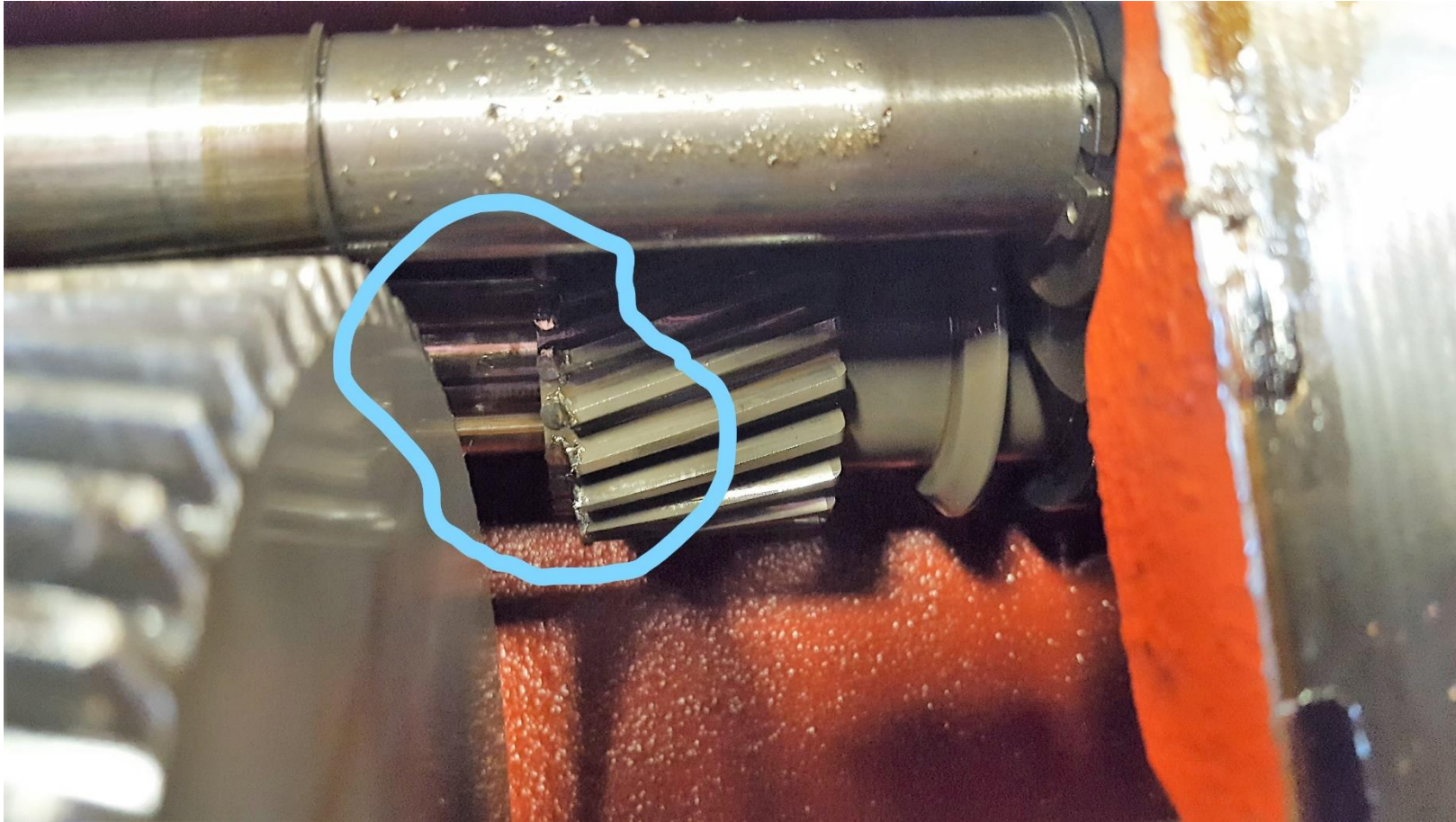
Centrifugal 1250 GPM Impeller



Pump housing has been worn by water. We have some hard water on Sugarloaf.



Damage from engaging compressor when pump is engaged



Note ; the switch is wired “ON” to prevent it from being selected when the pump is engaged. If the pump is switched on, the compressor is also selected.

Compressor control switch

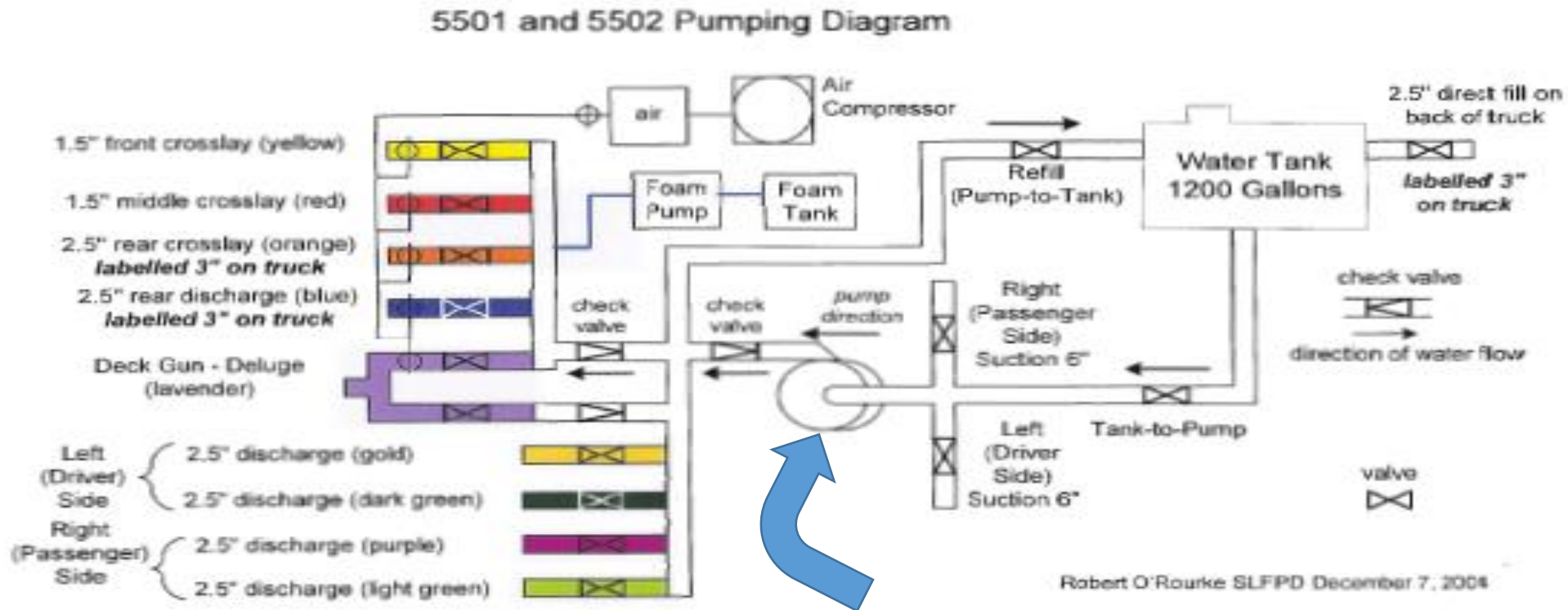


Pump control switch

Three inputs into pump, Passenger side suction, Driver side suction, and from Tank.

Note, the deck gun has two inputs, one is water only and the second has foam capabilities..

Note, the check valves out of the pump, between the manifolds and between the two inputs to the deck gun. These check valves prevent the foam from getting into the pump and the tank.



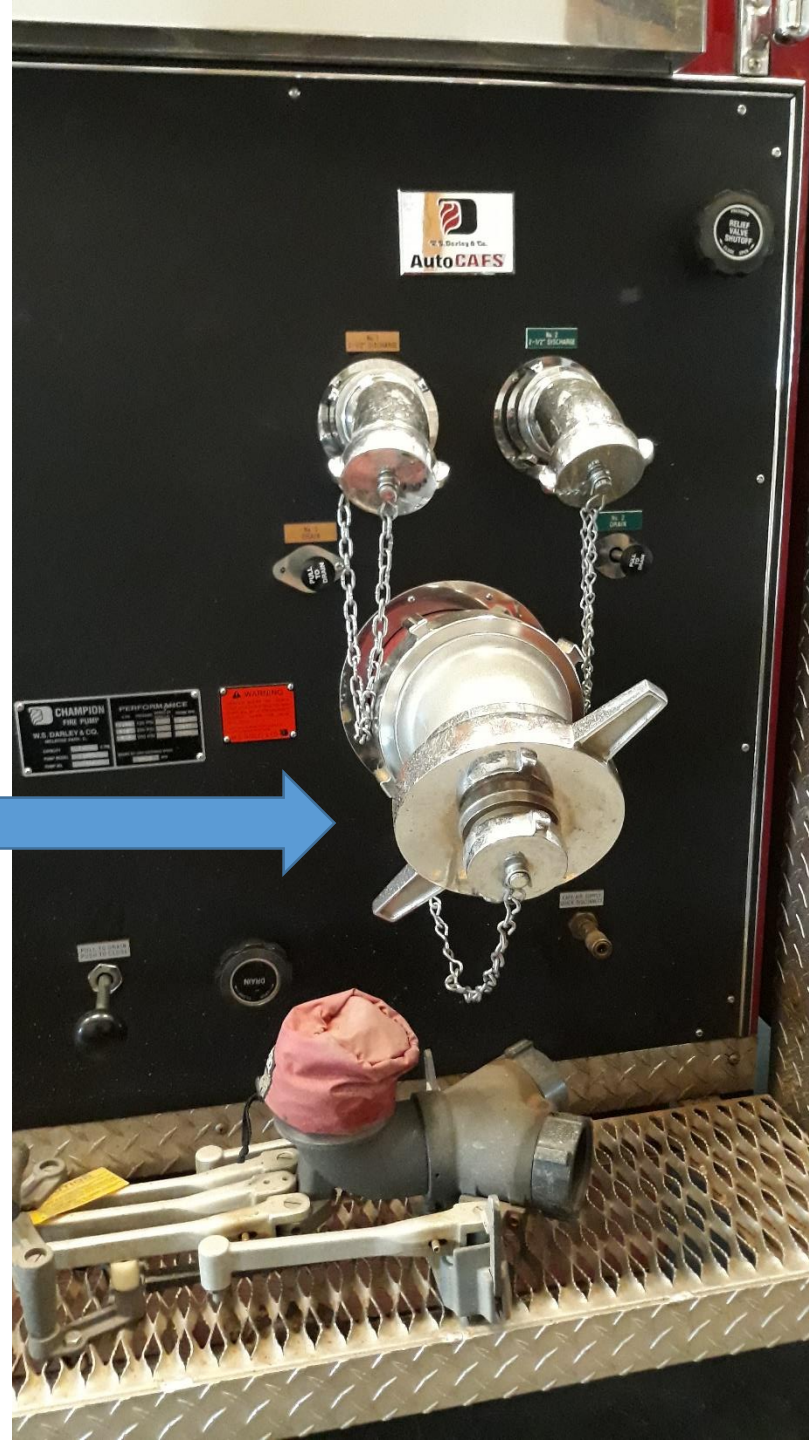
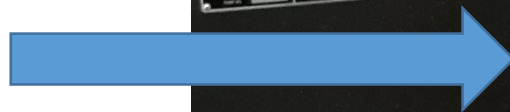
Tank-to-Pump Valve



Driver side suction input control



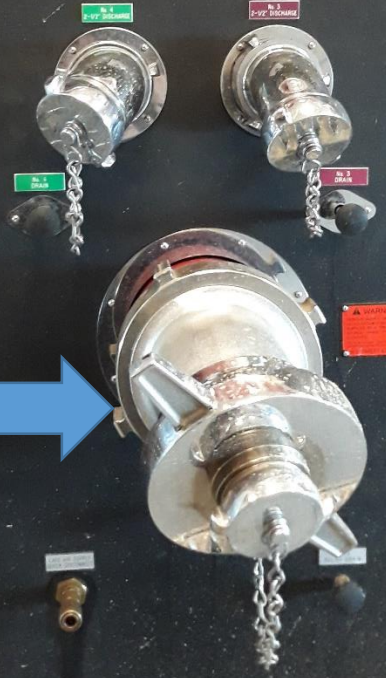
Driver side suction
input



Passenger side suction input control



ENGINE



Passenger side suction
input



Three 10' 6" hard
suction hose



Porta-pond control switch on passenger side panel



Port-Pond lowered

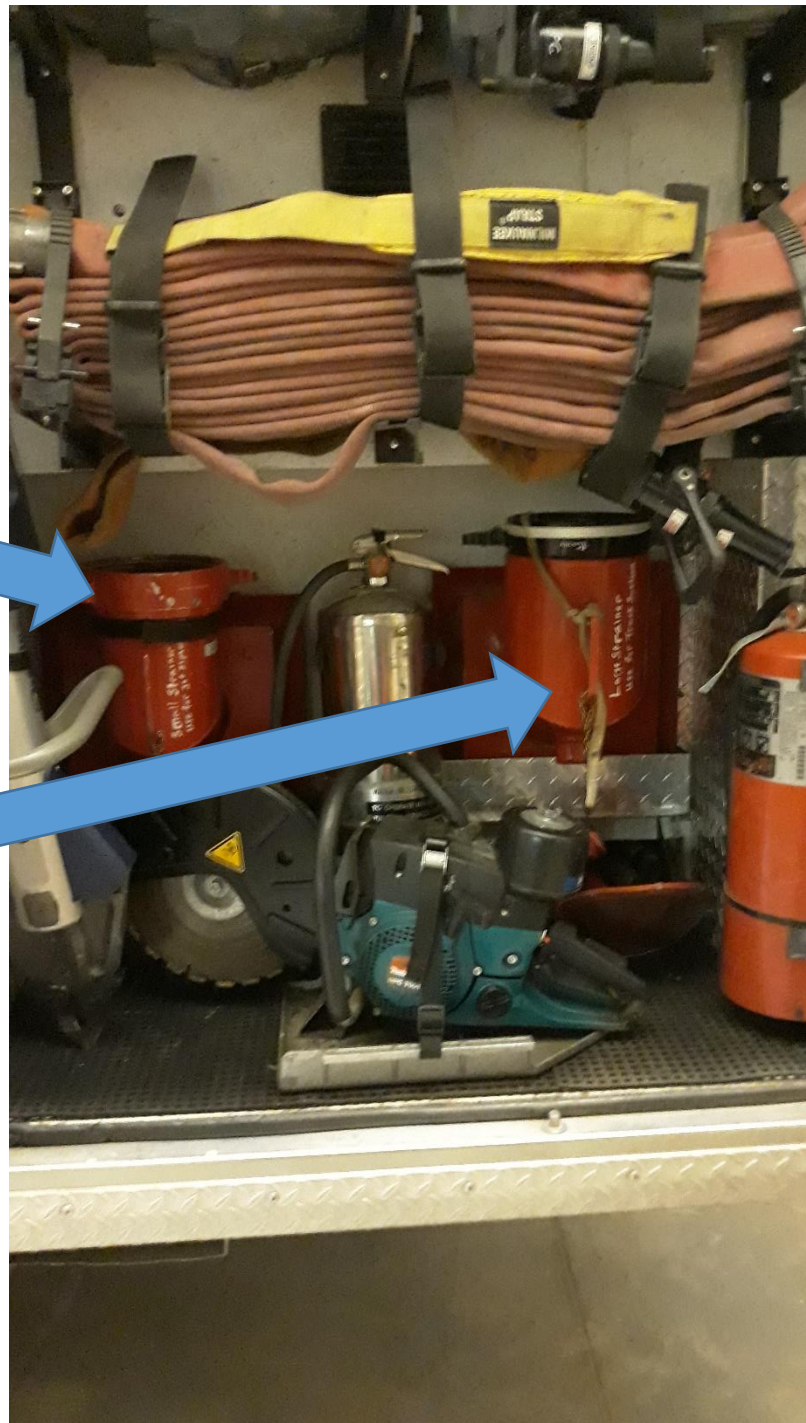


With the porta-pond lowered, the ropes should be in the down position to prevent wear on the ropes



6" hard suction
strainer used for jet
siphon applications

6" hard suction
strainer used on the
hard suction to the
pump
Use this one for the
pump input as it has
a higher flow rate

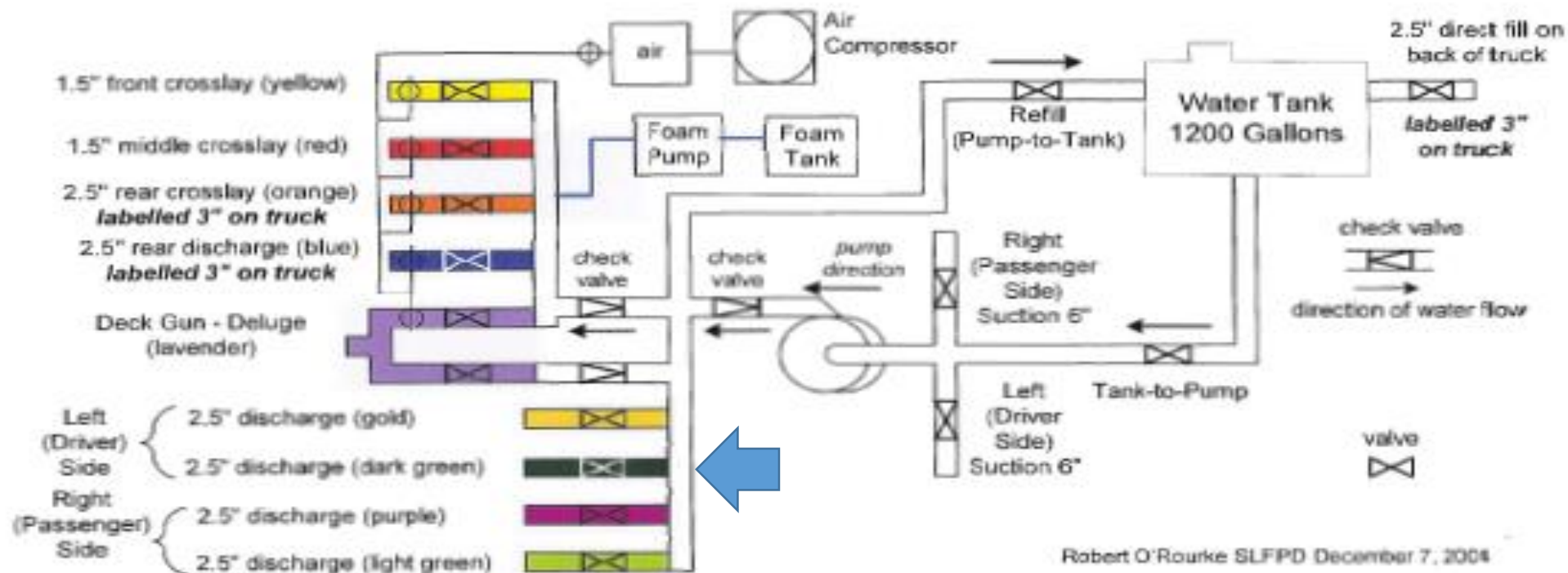


Jet siphon is used to move water
from one porta-pond to another
when multi porta-ponds are set
up.

Output of pump goes to two manifolds. The first is a “Water Only” manifold that feeds both driver side and passenger side 2½” outputs, to one of the inputs for the deck gun, and to the tank refill line.

The second manifold has the capabilities to have foam and air added. This manifold feeds the 3 cross lays, the rear 2 ½” discharge and to the second input to the deck gun.

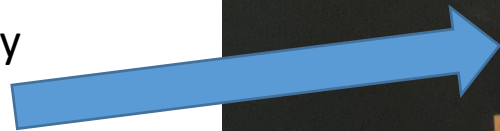
5501 and 5502 Pumping Diagram



Driver side water only controls



Driver side water only outlets



Passenger side water only controls

Pump -to-Tank Valve



ENGINE



PORTS, FORD
OFF

PORTS, FORD
ON

N.1
1-1/2" 200psi

N.2
1-1/2" 200psi

N.3
1-1/2" 200psi

N.4
1-1/2" 200psi

WARNING

Passenger side
panel
Water Only



Deluge/Deck gun Water Only

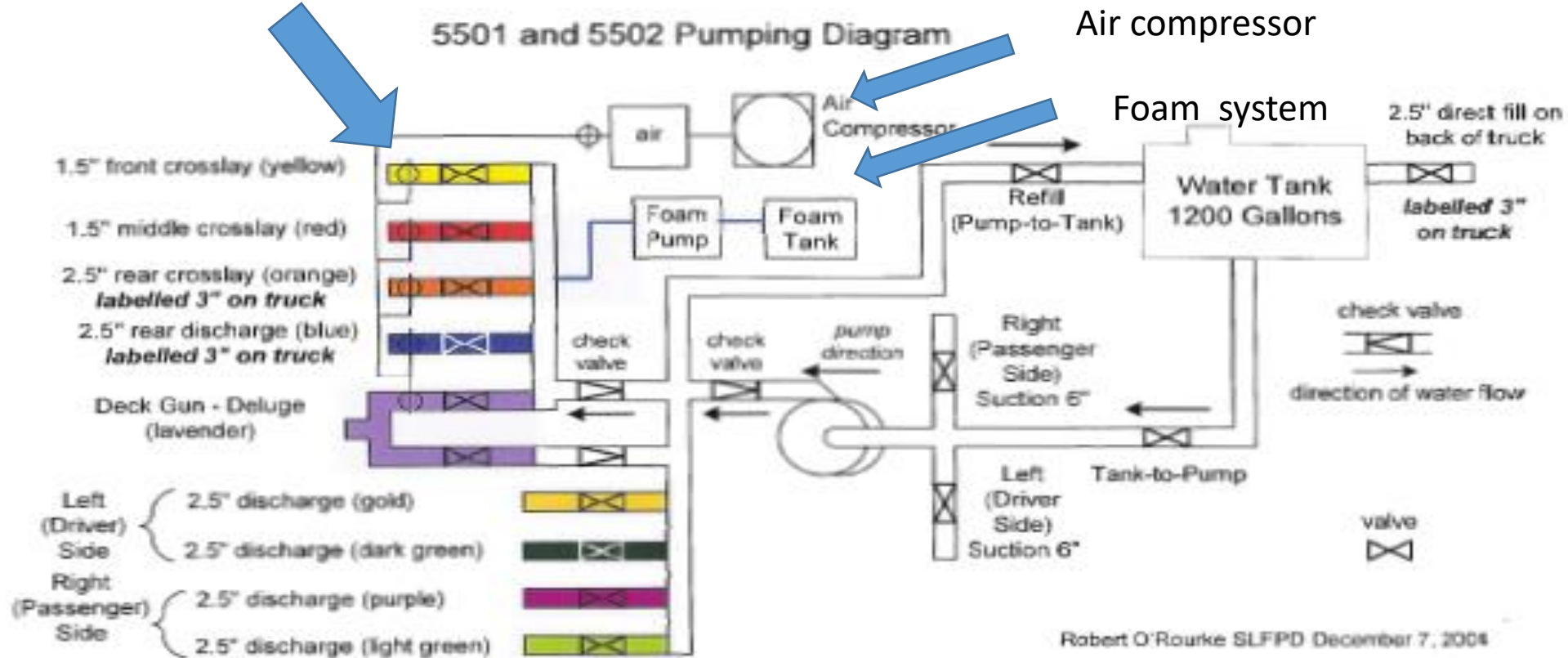


Deluge Gun



The second manifold has the capabilities to have foam and air added. This manifold *feeds* the 3 cross lays, the rear 2 ½” discharge and to the second input to the deck gun.

Foam Manifold



Foam Control

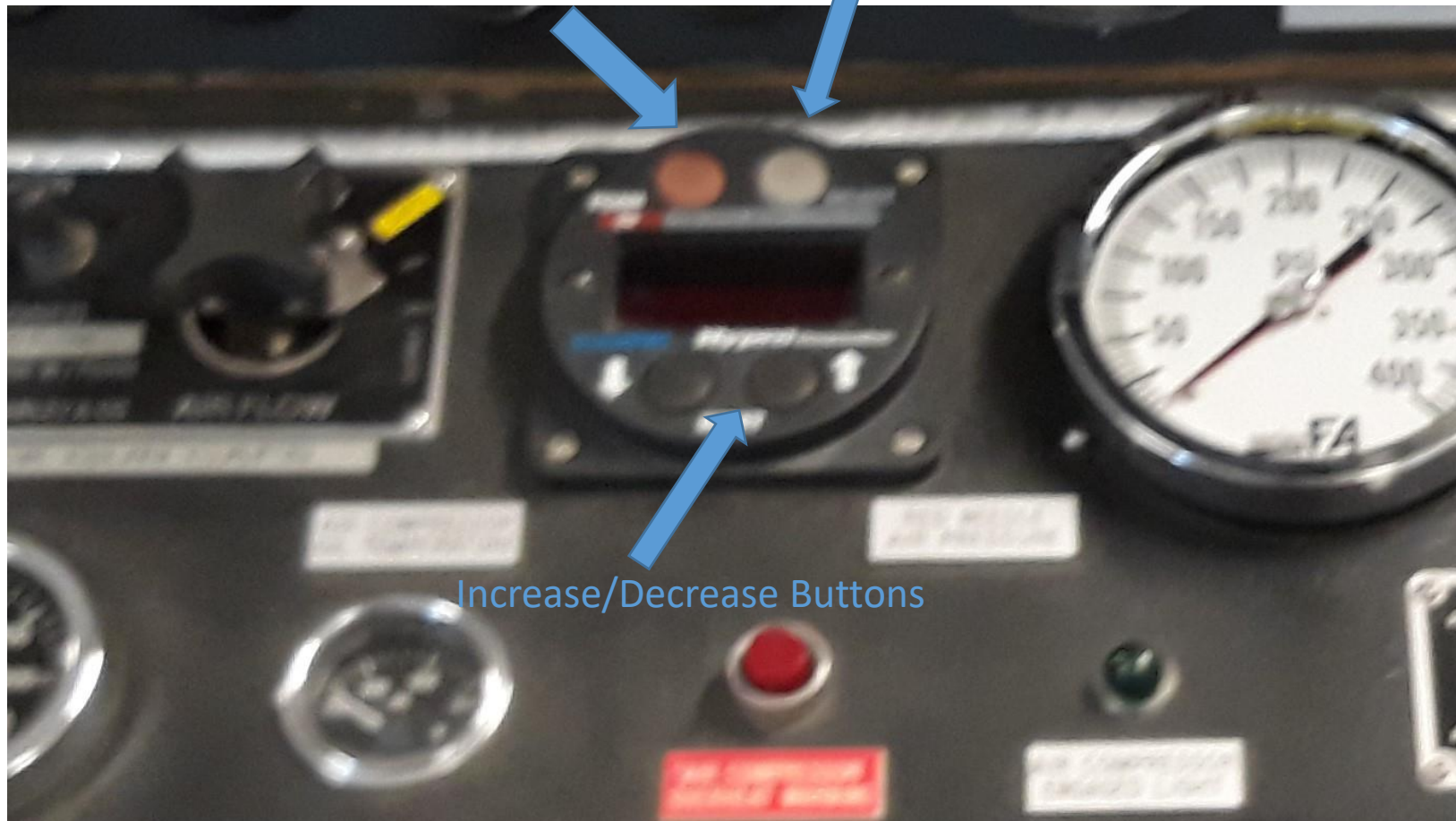
Foam Tank Level



Foam concentration typically 0.3%

ON/OFF Button

Display select button



Increase/Decrease Buttons



Foam Pump

Foam system
Control valve



Rear 3" Pre-connect Foam





3" pre-connect 300'



Gated wye

Pre-connected cross lays

For CAFS set both Air and Water to the half way mark

Air Control

Water Control





Cross lays can be pulled from either side



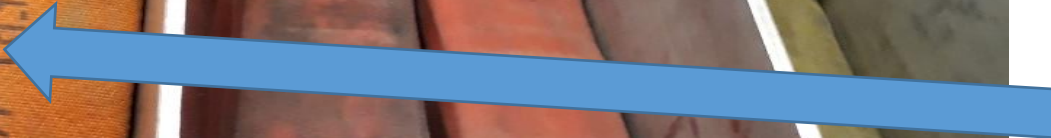
100' pre-connected 1 3/4" hose



200' pre-connected 1 3/4" hose



250' pre-connected 3" hose



Straight Bore nozzles for Compressed Foam use

5501 -02 Hose Layout

Driver's side

F/F adapter -- M (top of flake)

100' Flat flake -- top
400' Horseshoe flake -- middle
400' Horseshoe flake -- bottom

3" fill hose
2 1/2" fittings 900' --
18 x 50'

F (bottom of flake)
M (top of flake)

100' Flat flake -- top
400' Horseshoe flake -- middle
400' Horseshoe flake -- bottom

3" fill hose
2 1/2" fittings
900' -- 18 x 50'

Back

F (bottom of flake) ***

Discharge -- F (bottom of flake)

300' Flat flake

2 1/2" discharge hose
2 1/2" fittings
300' -- 6 x 50'

Gated wye -- M (top of flake)

Well & pump panel

2 1/2" hose, 250' -- 5 x 50'
1 1/2" hose, 200' -- 4 x 50'
1 1/2" hose, 100' -- 2 x 50'

Front

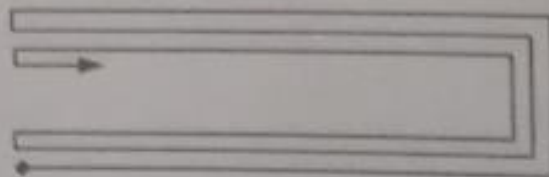
Nozzle --
Nozzle --
Nozzle --

Passenger's side

Hosebed loading notes:

- 1) When loading fill hose, start with "F (bottom of flake) ****" in the middle bed
- 2) The middle bed is slightly larger so it will hold more than the side bed
- 3) Leave good access to the water & foam openings/handles at the front
- 4) When doing a horseshoe flake the hose can be occasionally doubled back over itself so fittings don't line up next to each other but fittings should never have to turn when hose is pulled out of the bed.

Horseshoe flake diagram:



To operate the pump and compressor;

- 1. In the cab, depress the Pump control switch to engage pump and compressor

Compressor control switch



Pump control switch

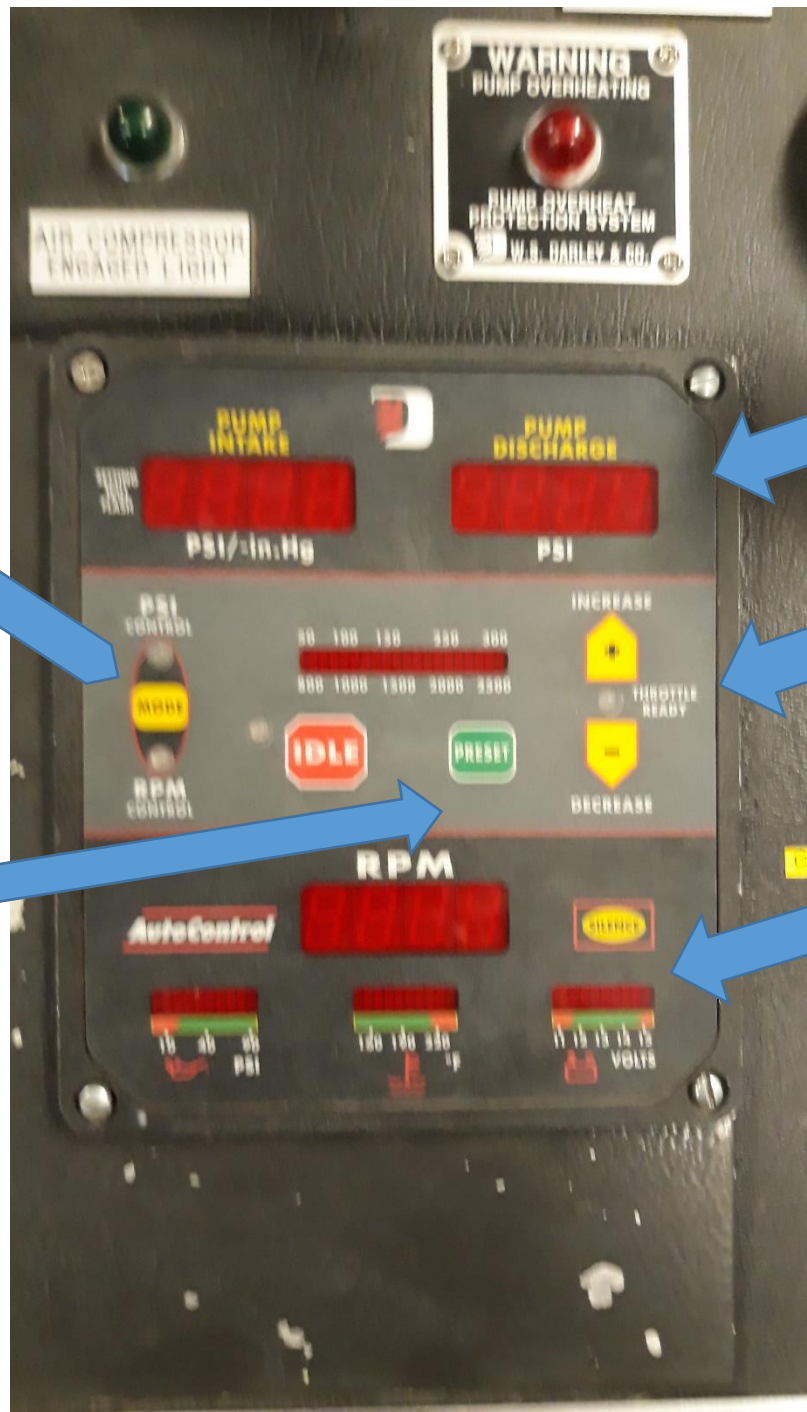
This electronic control panel is an upgrade from the original build. As a result, there is redundancy of many gauges and lights on the panel but all information needed shows on this electronic panel. Once the pump is engaged, this panel is activated and takes control of the engine.

Electronic Control Panel



The pump operates in two modes,
1. PSI Mode that allows the pump to maintain constant pressure.
2. RPM Mode that allows the engine to maintain a constant RPM .
Mode is selected by depressing the MODE button.

Preset is set to approximately 95 PSI in the PSI mode and approximately 1,200 RPM in the RPM mode.
PSI or RPM can be increased or decreased by depressing the INCREASE or DECREASE buttons. IDLE shuts everything down and the engine goes to idle.



Pump information

Pump controls

Engine information, Water Temperature, Oil Pressure, Battery condition and Engine RPM

PRIMER PUMP LEVER

Air must be removed from the pump and the pump must be filled with water before it can pump.

Before priming, CLOSE all valves except the suction line that will provide water.

By PULLING the PRIMER lever some valves are opened and the PRIMER pump is started. The Primer pump creates a vacuum and atmospheric pressure forces water through the suction line into the pump.

Once the suction line and the pump are full of water, push in the Primer Lever and engage the pump by pushing the INCREASE button while in the RPM mode.

Slowly open the pump-to-tank valve a little way to allow some water flow. Once the pressure increases, open the desired outlet valve.

Switch from the RPM mode to PSI mode.

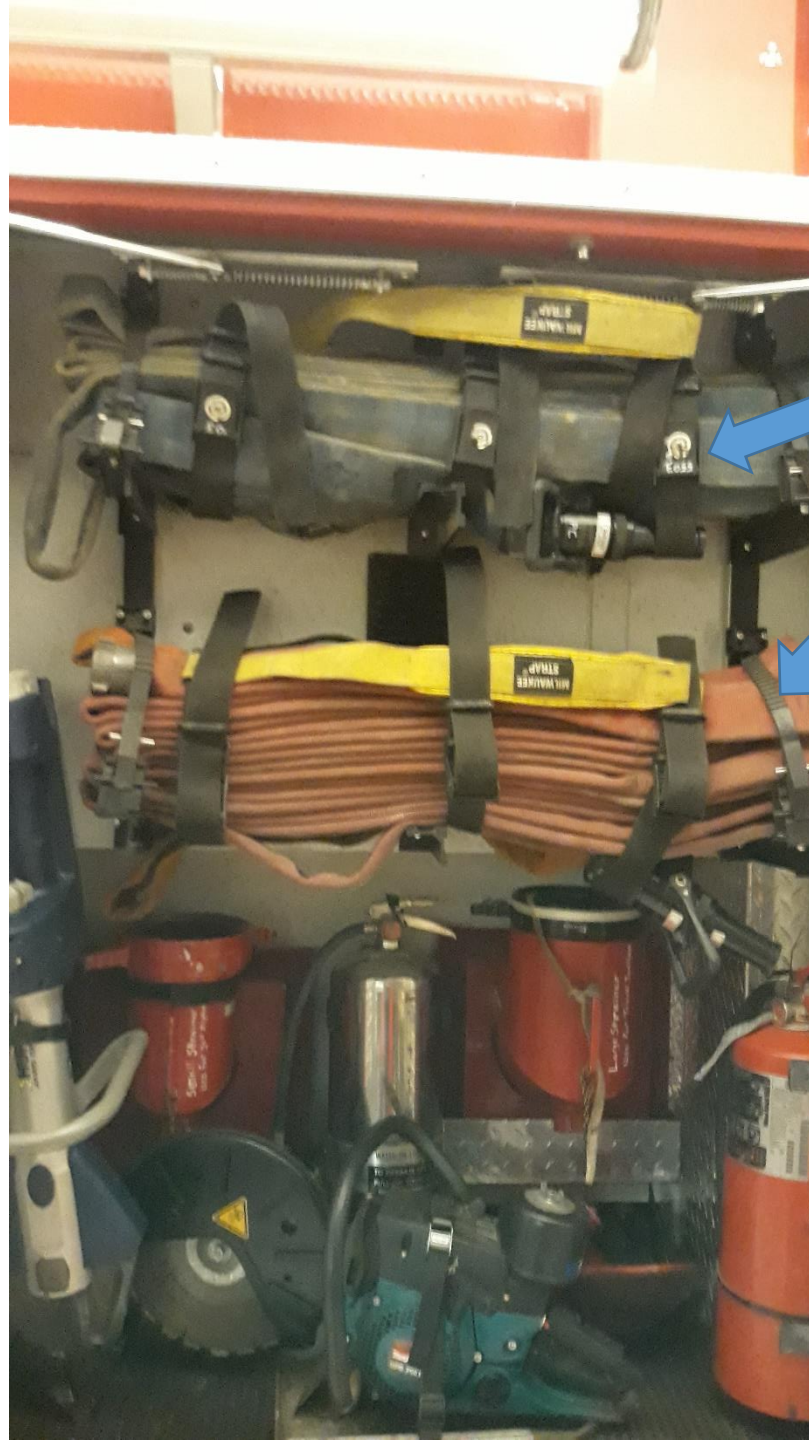
If all outlets are closed, crack open the Pump-to-Tank/ Tank Refill line to keep some water flowing through the pump to avoid overheating.

DO NOT ALLOW THE PUMP TO OVERHEAT



Driver Side Engineer Compartment



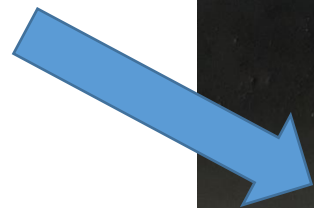


High Rise Packs
100' 1 1/2" Structure Hose



Wheel Chocks Storage
One on each side

Wheel Chocks
Deployed



AED

Gas Detector

Suction

Hot Stick

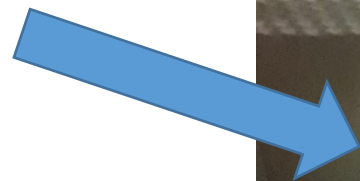
Use with caution!!

Stream Lights

**Driver Side 1st
Compartment Upper**



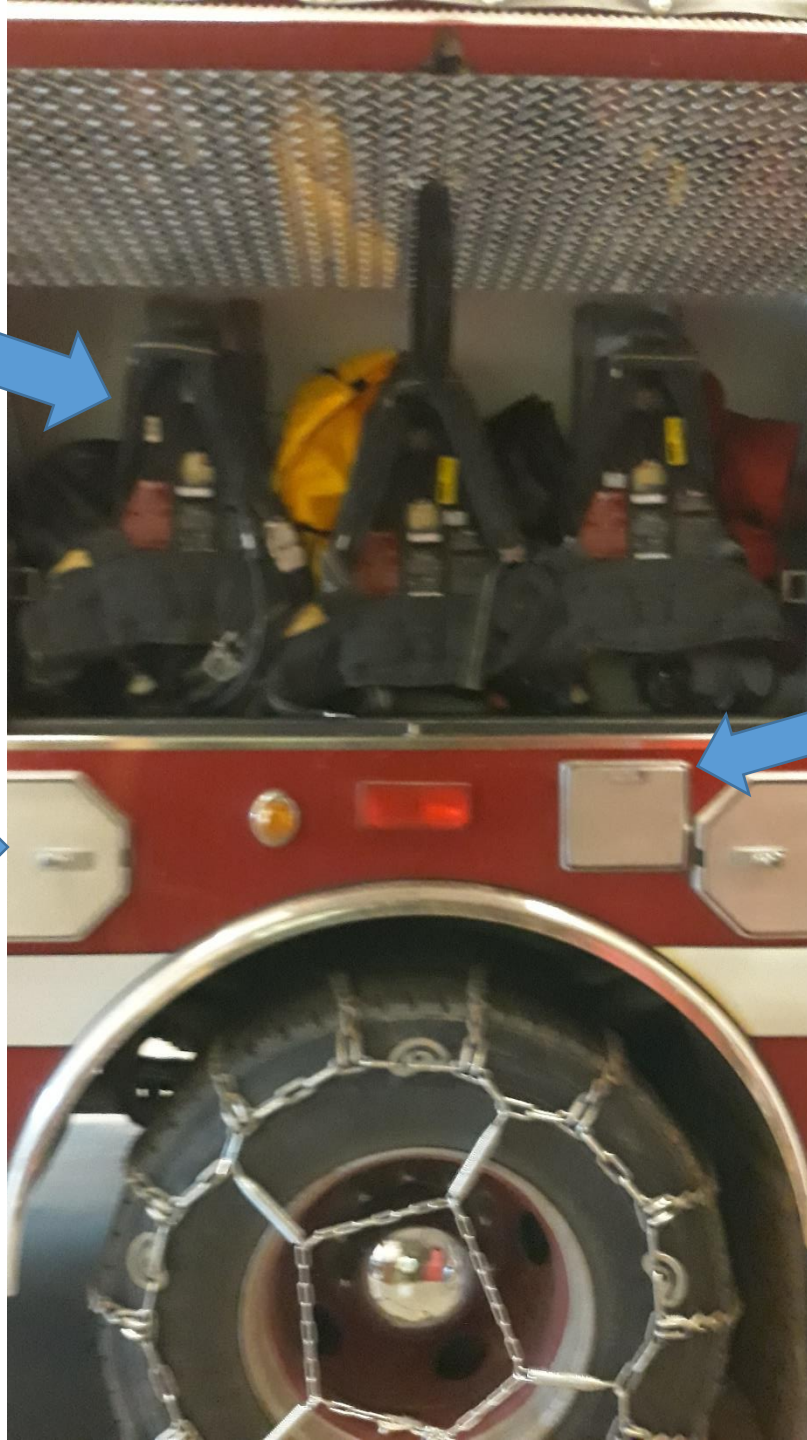
**SCBA 2nd Compartment
Driver's Side**



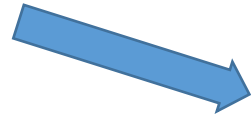
Spare SCBA Bottles
Both Sides



Diesel Fuel Tank Fill



Misc. hose, tools,
wildland water packs, etc.



**Rear Compartment
Passenger Side**



Front Compartment Passenger Side

120/240 Volt AC Generator

Powers extended scene lights on
both sides plus other outlets



