PIERCE SABER

UNIT 48

UNIT 48

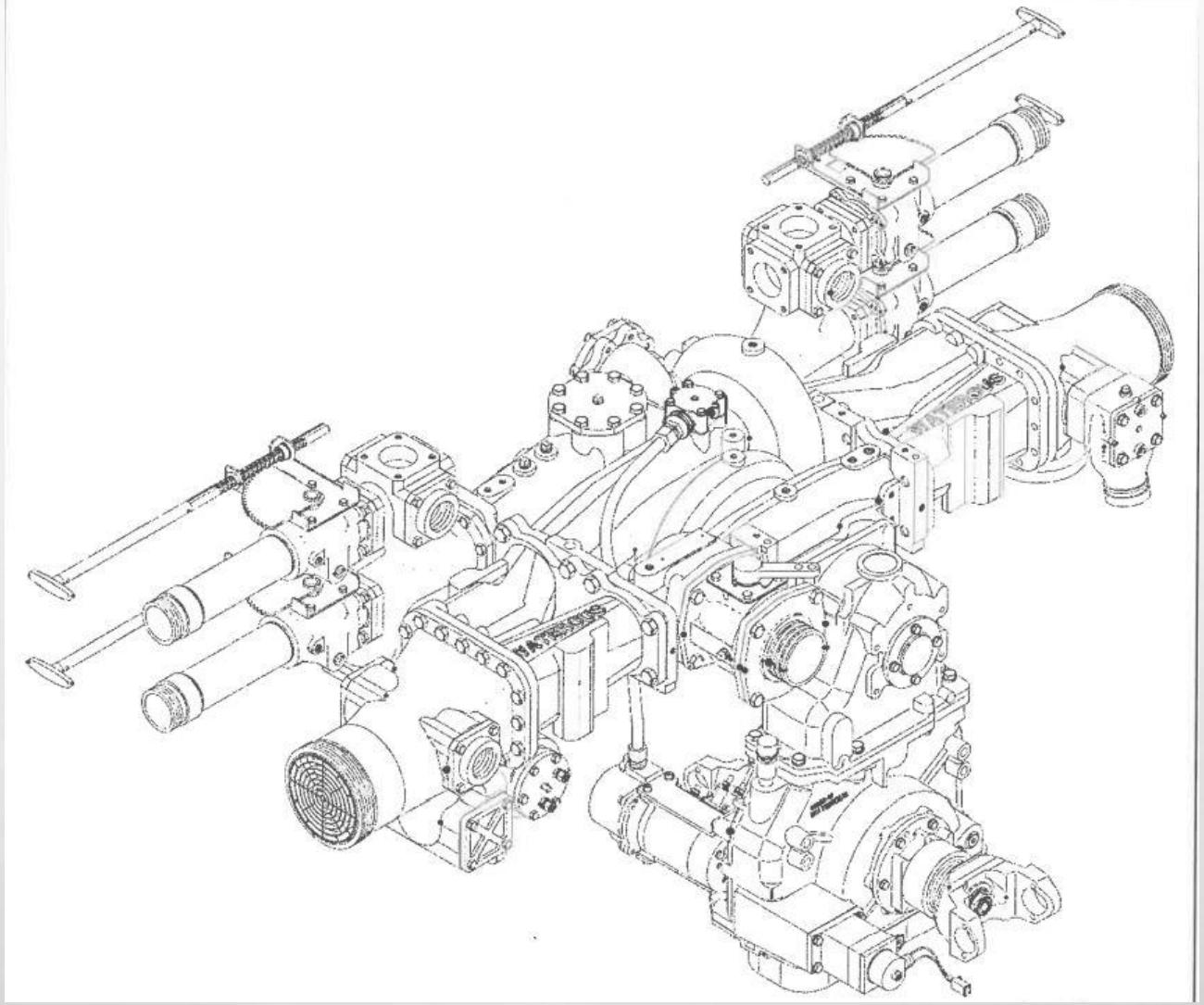
Manufactured – 5/8/1997

FOAM – Feecon APH 1.5
GVWR – 43,000 IBS
Tank – 1000 Gallon
TRANSMISSION – Allison 3000 Series
ENGINE – Detroit Diesel Series 40
PUMP – 1250 GPM
PUMP – CS Series Centrifugal Single Stage Pump
GENERATOR – Onan Cummins Model 6DJB

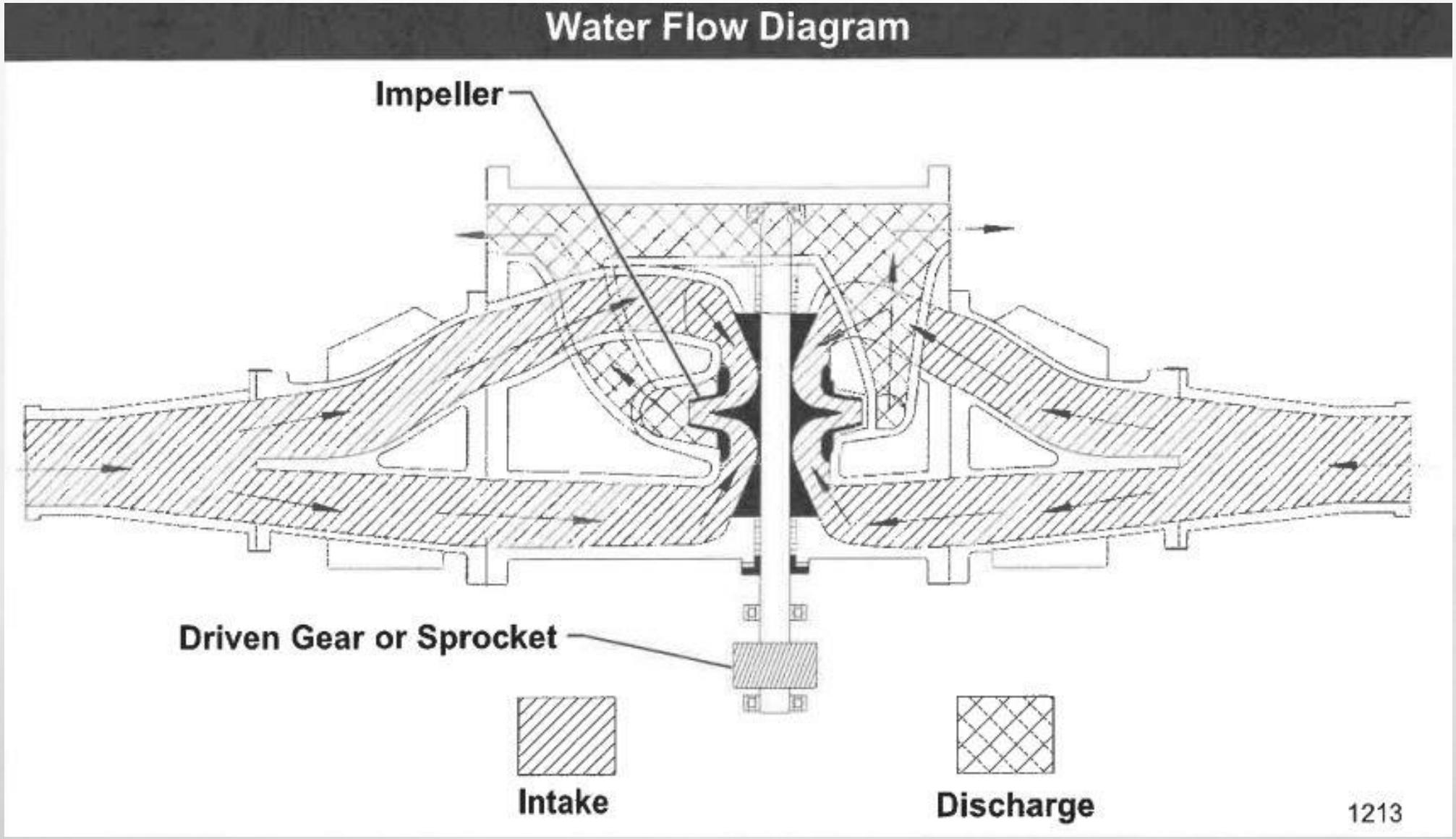
PLACING THE PUMP IN GEAR

- Stop Truck
- Shift Transmission to Neutral
- Set Airbrake
- Engage Pump Lever
- Engage Truck Transmission “Drive”

CS Pump with C20 Transmission



CS PUMP


Water Flow Diagram
Impeller
Driven Gear or Sprocket
Intake
Discharge
1213

CS PUMP

THROTTLE MODE VS. PRESSURE MODE

Pressure mode

Pressure mode (PSI) maintains a set pump pressure by monitoring the pressure transducer and modifying the pump speed by adjusting the engine RPM. The operator can modify the set pump pressure with the Governor's control switches. *(Proper interlocking is required for normal operation – refer to Required Interlocking section 4.5)*

Pressure mode (PSI) affords the most safety to the operator by not allowing potentially hazardous pressure spikes. The Governor will maintain the set pump pressure even when discharge lines are actively opened and closed as long as the water supply is sufficient. The Governor will automatically increase engine speed when pump pressure has decreased due to discharge lines being opened. The increase in engine speed will return the pump pressure to the desired set pressure (and vice-versa when discharge lines are closed).

Throttle mode

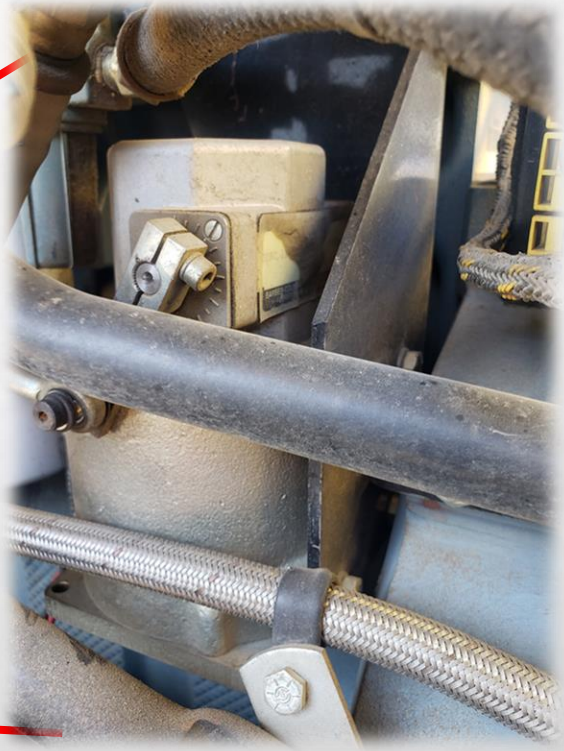
Throttle mode (RPM) maintains a set engine RPM and will not deviate until the operator changes the RPM with the Governor's control switches. *(Proper interlocking is required for normal operation – refer to Required Interlocking section 4.5)*

Throttle mode is typically used when…

- *priming the pump*
- *connected to a stand pipe*
- *the water supply pressure stability is questionable*
- *acting as a relay pumper*

Unless relay pumping, priming, Or connecting to a stand pipe The pump should be run in "Pressure Mode".

GOVERNOR LOCATION



MANUALLY ENGAGING PUMP

- BRING TRUCK TO COMPLETE STOP
- PLACE TRUCK IN NEUTRAL
- SET PARKING BRAKE
- MOVE IN-CAB PUMP SHIFT TO CENTER POSITION
- PUSH MANUAL SHIFT CONTROL
- RETURN TO THE IN-CAB PUMP SHIFT AND LOWER IT TO THE BOTTOM POSITION.
- THE “OK TO PUMP” LIGHT SHOULD BE ACTIVATED.

The most common reason that the pump Would need to be manually engaged is If there was a low air issue. The pump engage Valve is air actuated.

CAB TILT

CAB TILT PROCEDURE

READ INSTRUCTIONS BEFORE TILTING CAB

⚠CAUTION

CHECK FRONT BUMP AND OVERHEAD AREA FOR CLEARANCE BEFORE TILTING CAB

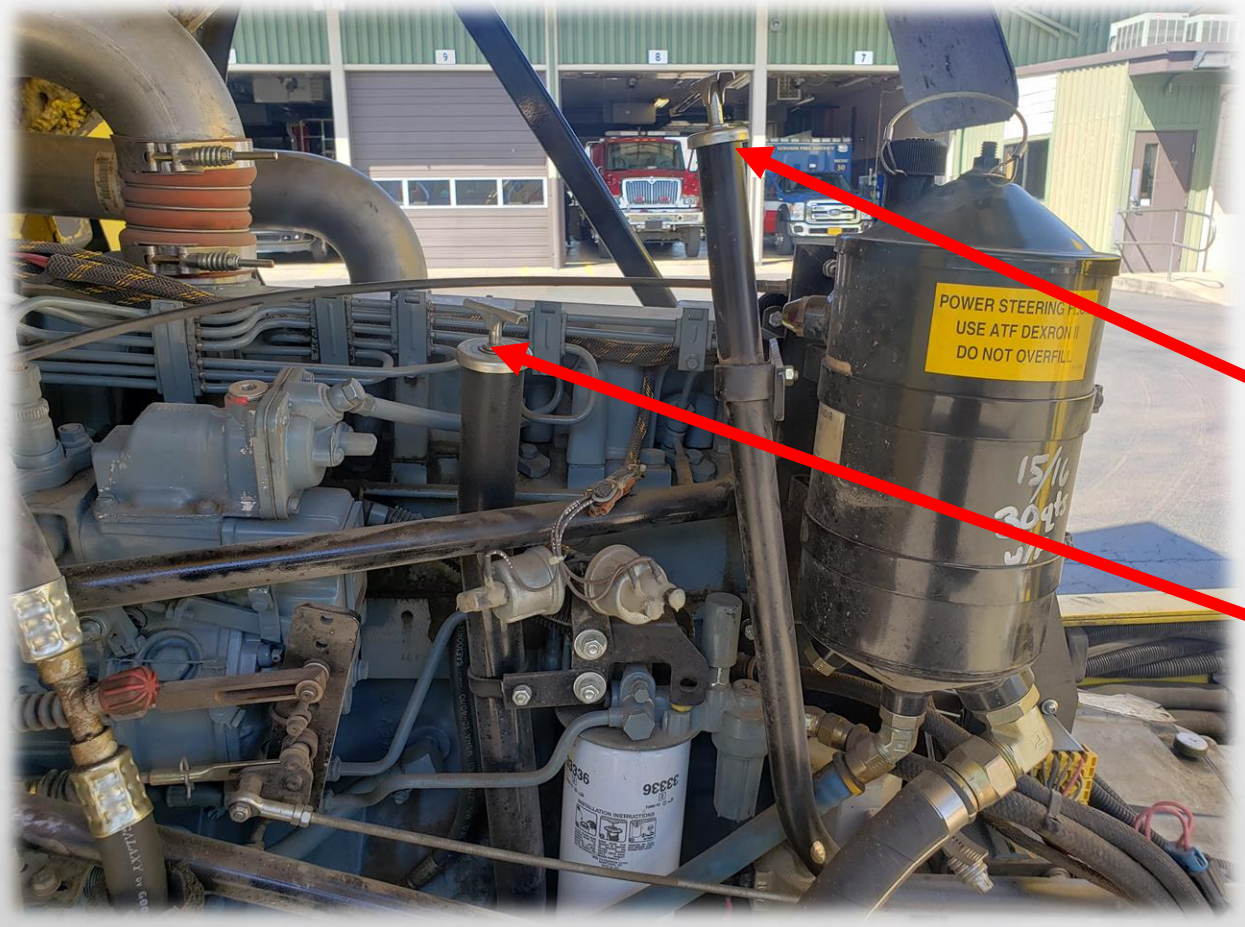
RAISE CAB:

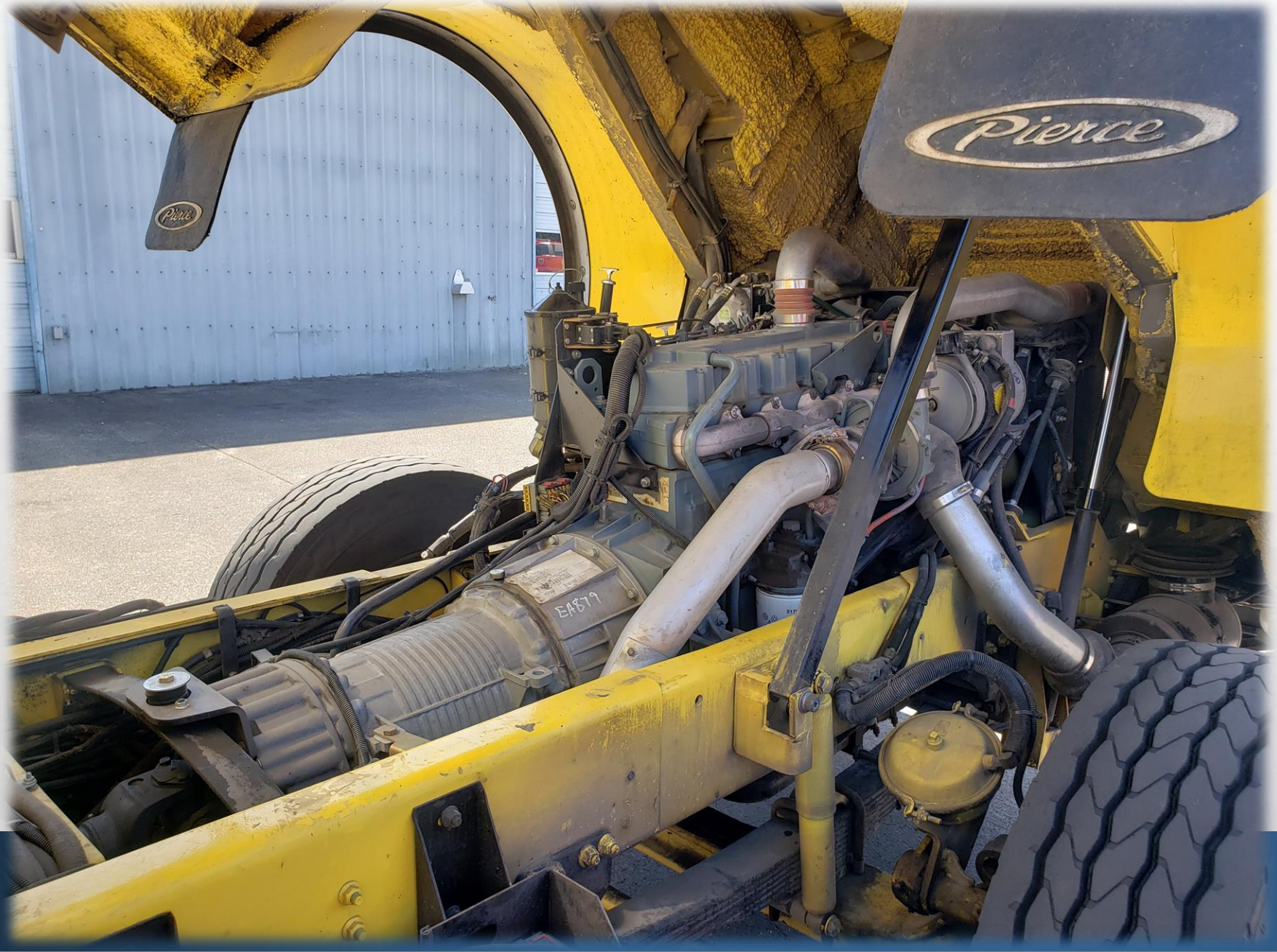
1. TURN BATTERY SWITCH AND IGNITION ON. SET PARKING BRAKE.
2. TURN PUMP CONTROL LEVER TO THE RAISE POSITION.
3. HOLD CAB TILT SWITCH ON UNTIL CAB REACHES ITS TRAVEL LIMIT.
4. LOWER CAB STAY ARM TO THE SUPPORT POSITION.
5. TURN PUMP CONTROL LEVER TO THE LOWER POSITION. CAB WILL LOWER TO REST ON THE STAY ARM.
6. TURN CONTROL LEVER BACK TO THE RAISE POSITION.
7. IGNITION SWITCH AND BATTERY SWITCH CAN BE TURNED OFF.

TO LOWER CAB:

1. BATTERY SWITCH AND IGNITION MUST BE ON. PARKING BRAKE MUST BE SET. CONTROL LEVER MUST BE IN RAISE POSITION.
2. HOLD CAB TILT SWITCH TO RAISE CAB OFF STAY ARM.
3. RETURN CAB STAY ARM TO THE REST POSITION.
4. TURN CONTROL LEVER TO THE LOWER POSITION. CAB WILL LOWER AUTOMATICALLY.
5. CAB LATCHES LOCK AUTOMATICALLY WITH CAB IN REST POSITION.
6. LEAVE CONTROL LEVER IN LOWER POSITION.

ENGINE – DETROIT DIESEL SERIES 40





Fluid Leaks and oil, coolant or fuel puddles under cab.

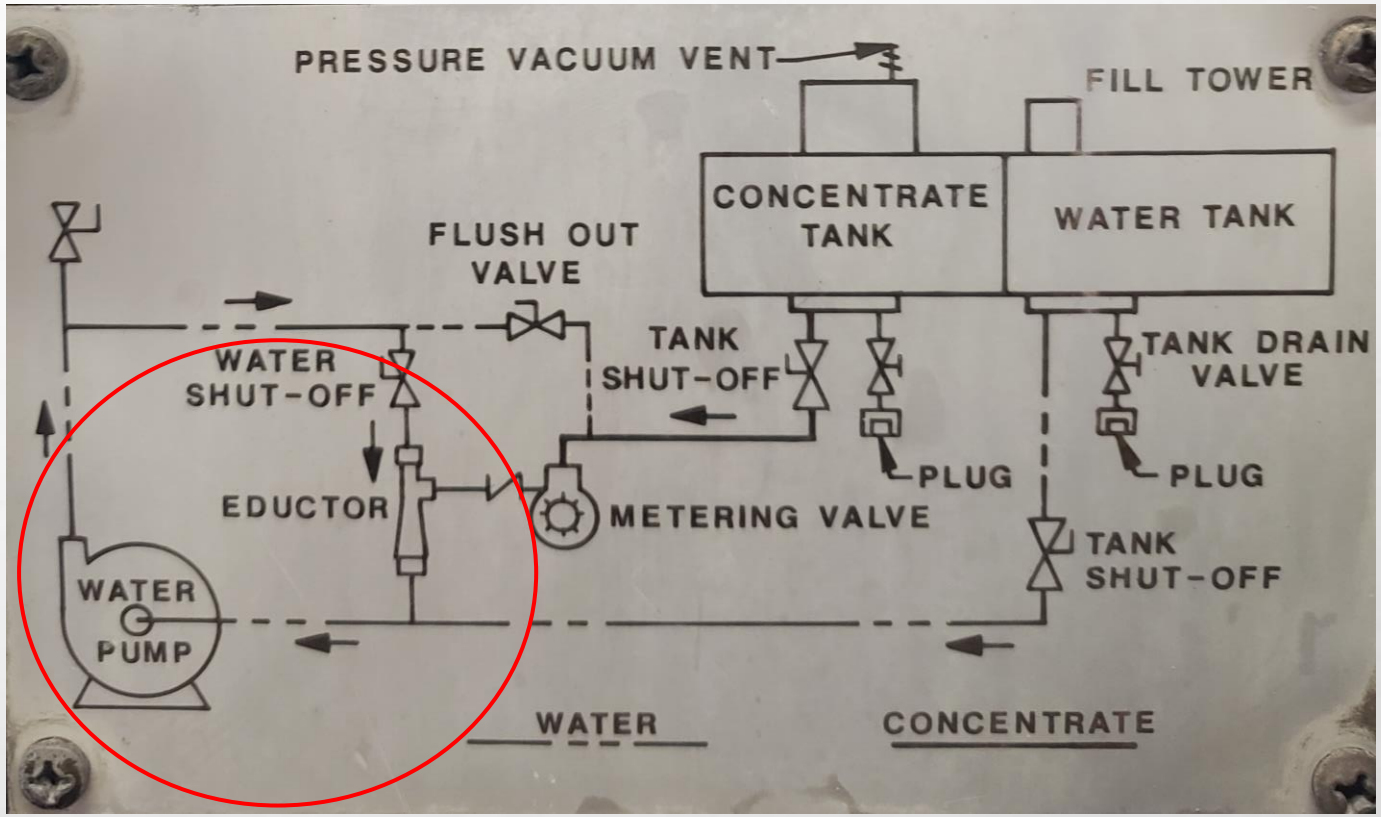
Dripping fluids on underside of Engine or transmission

Inspect hoses for condition or leaks

Check belts for snugness, condition (cracks, frays, loose fibers).

FOAM SYSTEM

APH. 1.5 Around-the-pump proportioning Kit

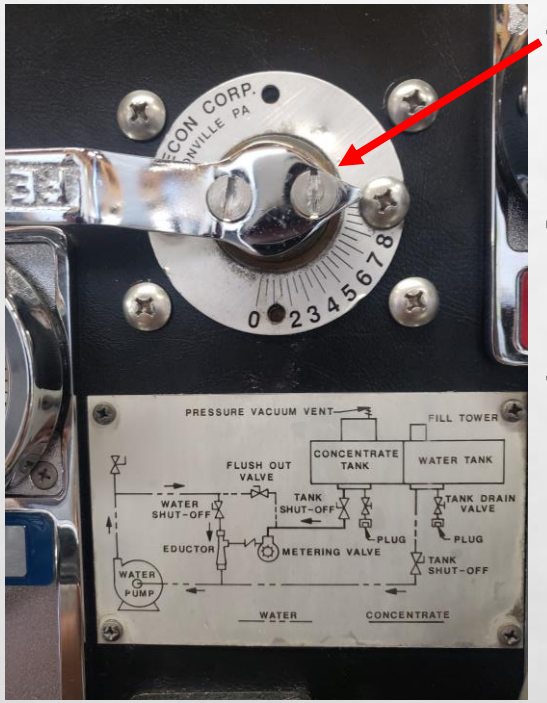


Foam is available at every port of Unit 48 once the system is turned on. Foam is introduced Into the pump through a foam eductor in front of the pump.

With foam being supplied prior to the pump any line that is Opened during firefighting operations must be flushed.

FOAM FILL – 25 GALLONS

FOAM



1. Set foam
2. Open foam valve
3. Open eductor
4. Open water discharge

Flushing the System

1. Flush lines by closing “FOAM”
2. Open “Foam Flush”
3. Flow water until foam is out of the system.

FOAM SYSTEM DRAIN

The system can be drained from this location. Keep In mind if the foam is drained to be able to collect The contents below.

EXHAUST CLEANING SYSTEM

WARD
FILTER SYSTEMS
NO SMOKE

The original NO SMOKE is designed for Trucks with 2006 model engines & before

NO SMOKE is an apparatus-mounted, direct source diesel exhaust particulate capture system that works automatically to protect you from the dangers of breathing diesel exhaust. The system captures the harmful particulate and gases that you shouldn't be exposed to.

The NO SMOKE System consists of a filter, a diverter unit, and an electronic control module.

How it works:

When you start the engine the electronic control module engages the diverter unit, directing vehicle exhaust into the filter– not into the station. The system has a timer to filter exhaust for a preset period, allowing time to leave the station before it automatically switches out of filter mode and back to straight exhaust.

When you return to the station the system automatically engages when you put the engine in reverse to back in. It continues to clean exhaust until the engine stops.

On-Scene Protection

Manual override keeps system in filter mode while engine idles, so no one at the scene has to breathe deadly exhaust.

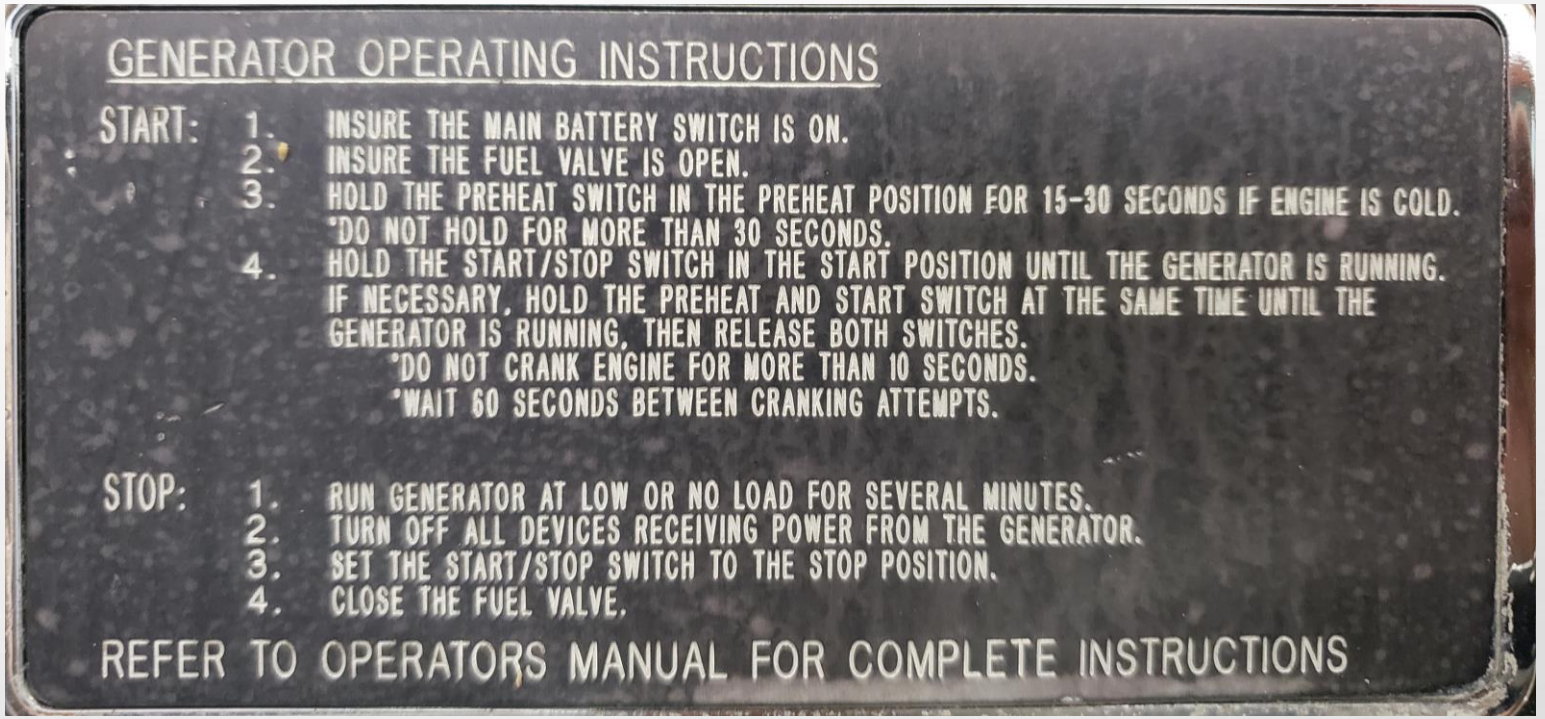
Manual override button is also used for Departments with drive-through stations. The dash-mounted button allows for easy system activation upon entry.

Ward System

The system runs when the vehicle is first started and runs on a timer that than switches to the regular Straight exhaust. That gives enough time to leave the Engine bay.

The system will also run whenever the vehicle is put in Reverse.

GENERATOR



The generator should be preheated for approximately 15 seconds. Once it is preheated hold the start to run the Generator. The generator is air cooled. The generator uses the engines diesel and does not need to be filled.

ONAN CUMMINS MODEL 6DJB

GENERATOR CONTINUED

REAR INLET

If the rear inlet is going to be used the valve should be opened prior to water reaching the Valve. This is due to the age of the valve.

The valve is open in the out position.

Emergency Master – Must be on for lights & slide lever over for lights