Section **6**

# Pre-Start Procedure

Walk around the machine:

1. Check condition of all tyres. Inspect for sidewall cuts, tread cuts and separation.
2. Look for damaged or missing wheel nuts and studs.
3. Check for loose wheel nuts.
4. Guards and covers are in place and secure.
5. Missing or loose bolts.
6. Oil leaks.
7. Hose damage.


**Never start or operate the machine if the diesel control system has been bypassed, report to service personnel.**


**Always ensure the machine is correctly isolated before undertaking any tasks.**

Check the hydraulic tank oil level:

1. Be sure the machine is on a level surface when checking oil level.
2. Ensure the lift arms are in the lower position, the engine is turned off and the machine is isolated as per Section 5 Pneumatic Isolation.
3. Check the level at normal operating temperature.
4. When the oil level has dropped below the mark shown below, add hydraulic oil to restore the correct operating level.
5. The tank fill cap is located on the off driver's side of the machine on the top of the hydraulic tank.


**Always use the specified lubricant for the application and the region's seasonal temperatures. (See Section 21).**


**Hydraulic Level Sight Gauge**


**Hydraulic Tank**

Check the engine oil level:

1. Stop the engine and allow the oil time to settle before checking via the dipstick. The dipstick has to be screwed in and out using the lock nut.
2. If required the engine should be filled to the full mark on the engine dipstick. The oil fill plug is a screw type fitted to the rocker cover of the engine.
3. Ensure the correct engine oil is used. Oil specifications are listed in the Section 21 - Fluid Specifications Table.
4. Do not over fill.


**Always ensure the machine is correctly isolated before undertaking any tasks.**


**Always use the specified lubricant for the application and the region's seasonal temperatures. (See Section 21).**


**The oil level should only be checked with the engine stopped, the engine should be allowed to sit for five minutes before checking.**


**Engine Oil Dipstick**

**Engine Oil Filler Cap**

Check the fuel level:

1. Gauge fitted to the fuel tank.
2. Check the filler cap is secure, not damaged and seal is in place.
3. Ensure the filler cap seal is in place.


**Always ensure the machine is correctly isolated before undertaking any tasks.**


**Do not operate the machine with the fuel level below empty level on the fuel tank. It is recommended procedure to fill the fuel tanks at the end of each shift**


**Always use the specified lubricant for the application and the region's seasonal temperatures. (See Section 21).**

Check the condition and tension of the water pump drive belt:

1. Located at the rear of the machine, through the rear hinged door.
2. Damaged or loose belts should be reported to service personnel.


**Running the machine with loose or damaged belts will cause the machine to overheat.**

**Fuel Sight Gauge**


**Fuel Filler Cap**

**Water Pump Drive Belt**

Check the condition of the fuel water separator:

1. Located at rear driver's side of machine.
2. Replace filter and drain if any sign of water or cloudy fuel.
3. Check fuel lines for leaks or damage.

Check the articulation lock (see Section 5):

1. For proper storage and loose fasteners.
2. For damage.

Check the lift arm lock (see Section 5):

1. For proper storage and loose fasteners.
2. For damage.

Check the expansion tank coolant level:

1. Ensure coolant is to correct level on sight gauge.
2. Check for coolant leaks.
3. Ensure the correct coolant mix is being added (if required).
4. Report to service personnel if coolant is low.

Check the radiator:

1. For coolant leaks.
2. For build up of dirt (Clean if radiator fins are blocked or dirty).

Check the headlights:

1. Are securely mounted and operational.
2. For cables and glands for damage.


**Always use the specified lubricant for the application and the region's seasonal temperatures. (See Section 21).**

**Fuel Water Trap**


**Coolant Expansion Tank**

Check the air cleaner (see Section 4):

1. Filter condition indicator.
2. Replace filter element if indicator is in the *red* area.
3. Check intake pipes and hoses for loose or damaged connections.

**Air Cleaner and Indicator**

WARNING

**Do not operate the machine with loose intake pipe connection, this will allow particles of dust into engine and cause serious damage.**

Check air receiver:

1. For damage.
2. Drain condensate from main air drain valve.

NOTICE

**It is important to drain the condensate from the air receiver on a daily basis to stop it contaminating the air circuit and the starter motor.**

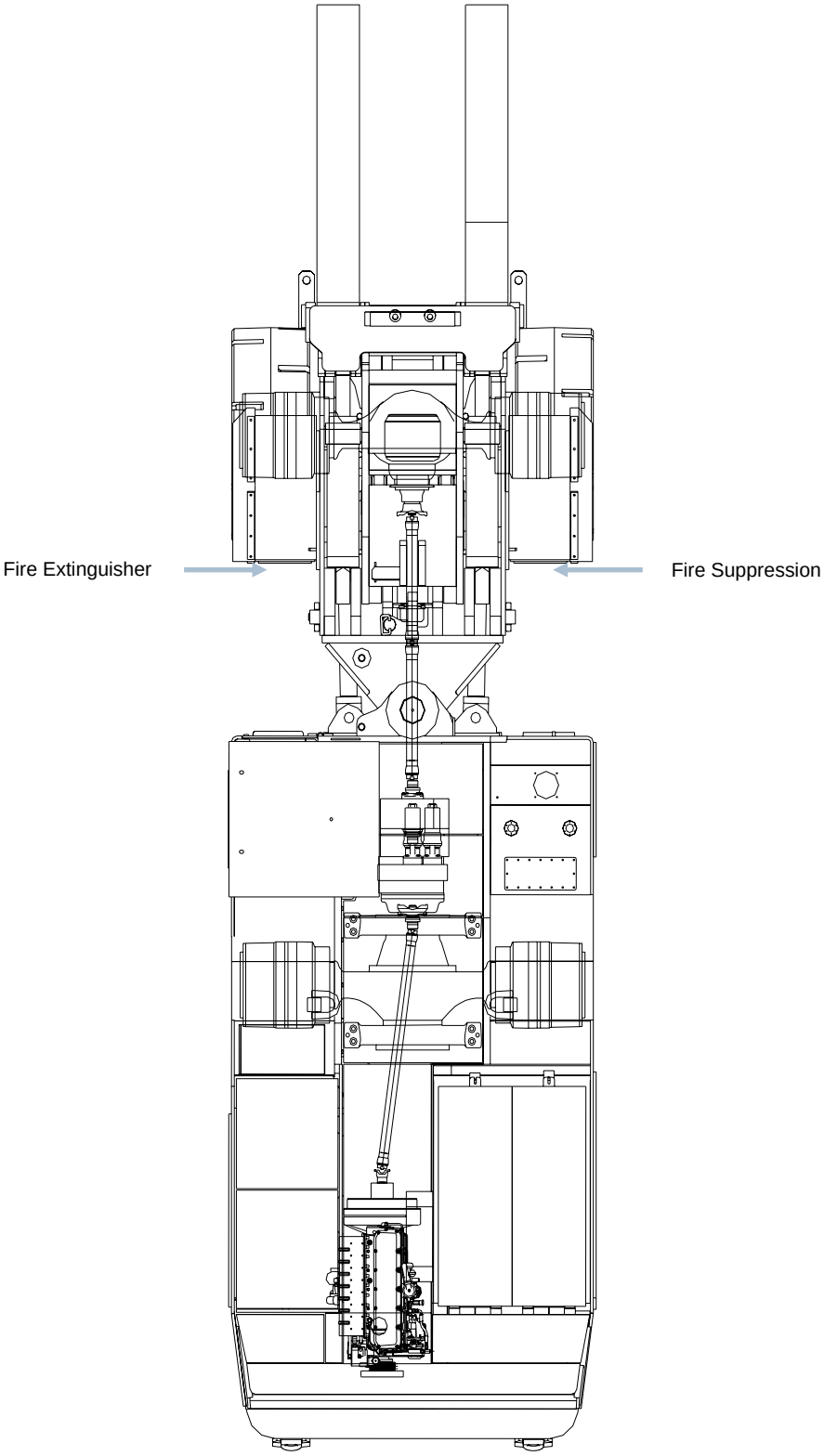
NOTICE

**Personal Protective Equipment must be worn when operating main air drain valve.**


**Main Air Manifold**

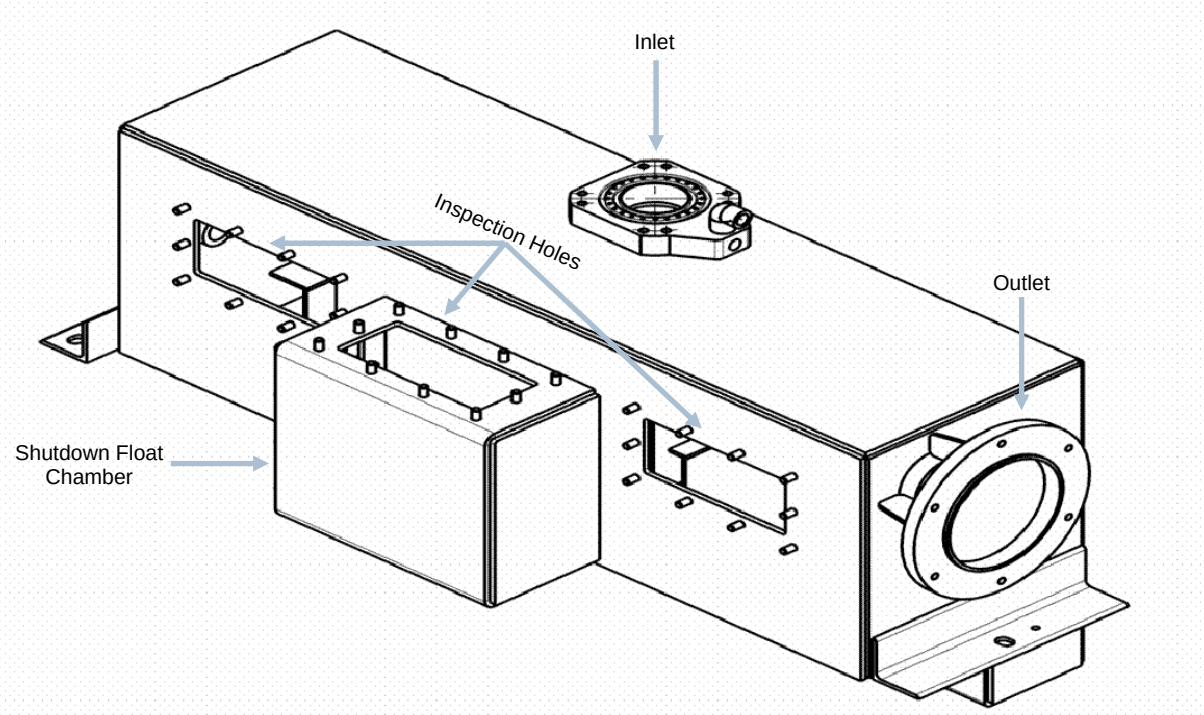
Check the fire extinguisher:

1. Located on front driver's side mudguard.
2. Check inspection date.
3. Check contents indicator is reading in the *green* area.
4. If fire suppression system fitted check actuation points.



The wet bath exhaust conditioning system on the FBL-55 carries out four major functions:

- To cool and dilute exhaust gases.
- To act as an approved flame trap.
- To prevent hot gases from entering the mine atmosphere.
- To reduce air borne exhaust particulates and hydrocarbons that enter the mine atmosphere.




**Wet Bath Exhaust Conditioner**

Check exhaust system:

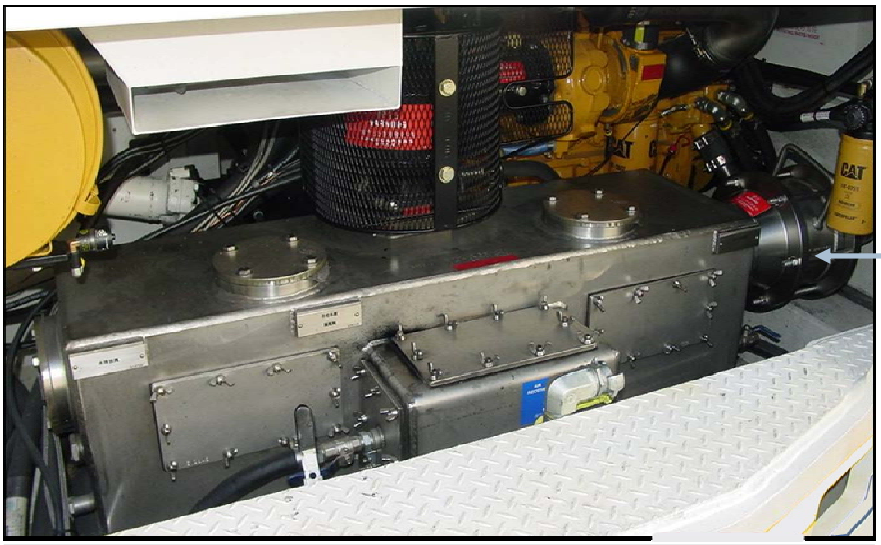
1. For damage.
2. Check joints for signs of leakage.
3. Check cooling hoses for security and condition.
4. Check and clean the exhaust flame trap.
5. Check the valves are in the correct position.
6. Check the make up tanks are full of water.

WARNING

**Do not operate the machine with loose or damaged exhaust components, report to service personnel immediately. Using the machine in an unsafe condition may cause serious damage or loss of life.**

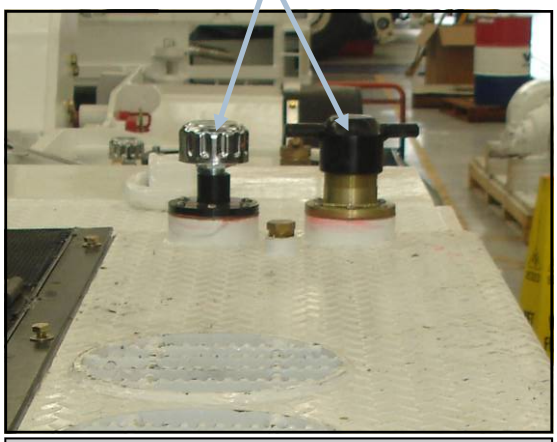
CAUTION

**Flameproof diesel engine maintenance must be carried out by a qualified and authorised person.**



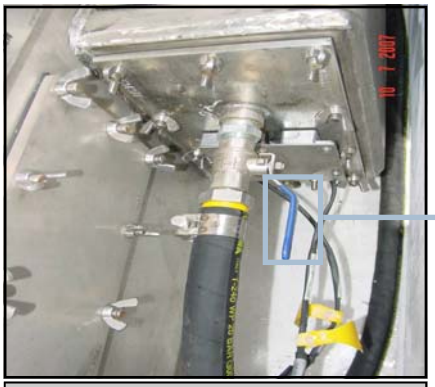

**Wet Bath Exhaust Conditioner**

**Make Up Tank Sight Glass**




**Make Up Tank**

The float chamber inlet valve should be in the open position as shown in the picture below.




**Inlet Valve**

WARNING

**Wear suitable eye protection, gloves and dust mask when performing maintenance tasks as particulate may be harmful to the respiratory system. Immediately wash any particulate matter from skin with warm, soapy water.**

Emergency Intake Shut Off Valve:

The emergency intake shutoff valve (strangler valve) should be inspected before attempting to start the engine. The stop button should be pulled out and the reset lever latch into the operating position (see Section 4).

CAUTION

**The engine will not start if the emergency shut off valve is activated, continued attempts to start the engine may result in damaged components.**

WARNING

**If the emergency intake shut off valve has been activated, the restarting of the engine should be done in compliance with the relevant regulations and Manager's Rules.**


**Emergency Intake Shut Off Valve Stop Button**

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