



PP30 Engine Pre-Start Duties

For a list of all parts of the Power Pallet including a list of parts, definitions and all other useful information see the *PP30 Component Reference* document

Power Generation Supersystem

1. Check DC battery voltage is over 12V (DSE->Engine->Battery Voltage)
 - a. Turn the the Power Pallet on by flipping the power switch up (Image 1)



Image 1

- b. Starting from the **Status** screen press right arrow one time to get to the screen to **Engine** screen (Image Set 2)
 - c. Then press down arrow 4 times to get to **Engine Battery Voltage** screen
 - d. If voltage is under 12V, connect and power on-board or external battery charger



Image Set 2

2. Check radiator coolant level and refill if needed (see *PP30 Engine Check for fill instructions*)

WARNING: Do not open the radiator cap when the unit is hot

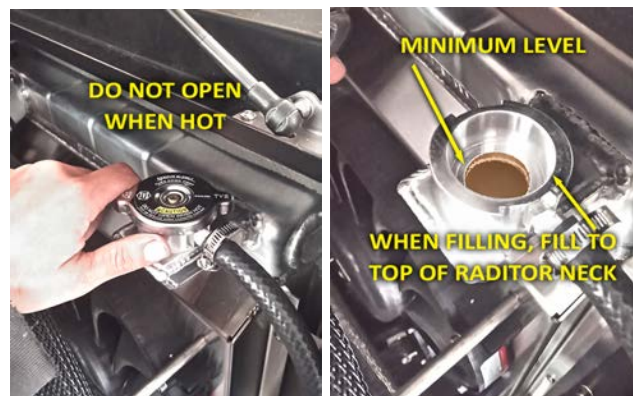


Image Set 3

3. Check expansion tank fluid and refill if necessary (Image Set 4)
 - a. Fluid should reach the **Normal line** indicated in the picture
 - i. if it is below this line, fill up to the line

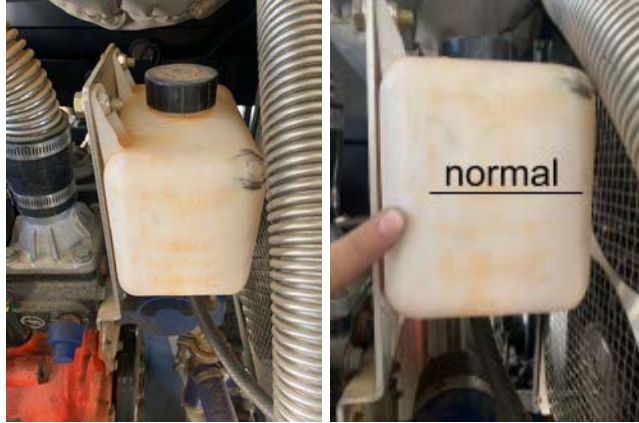


Image Set 4

4. Check engine oil level and refill if necessary (See *PP30 Engine Check for fill instructions*)
 - a. Pull the dipstick and clean it. Reinsert and pull it again and then check to see if the oil is between the marking on the dipstick
 - b. If the oil level is low, add oil according to SOP

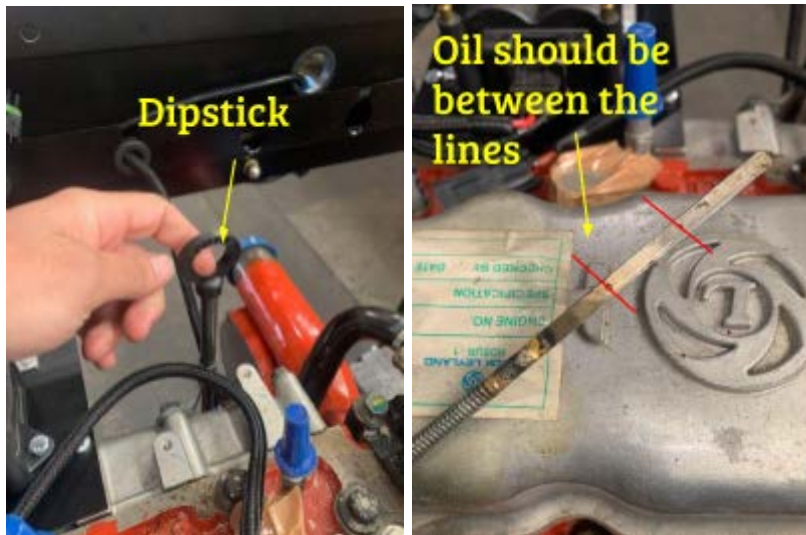


Image Set 5

5. Check Governor (Image Set 6)
 - a. Unplug the governor
 - b. Remove sanitary clamps and gaskets

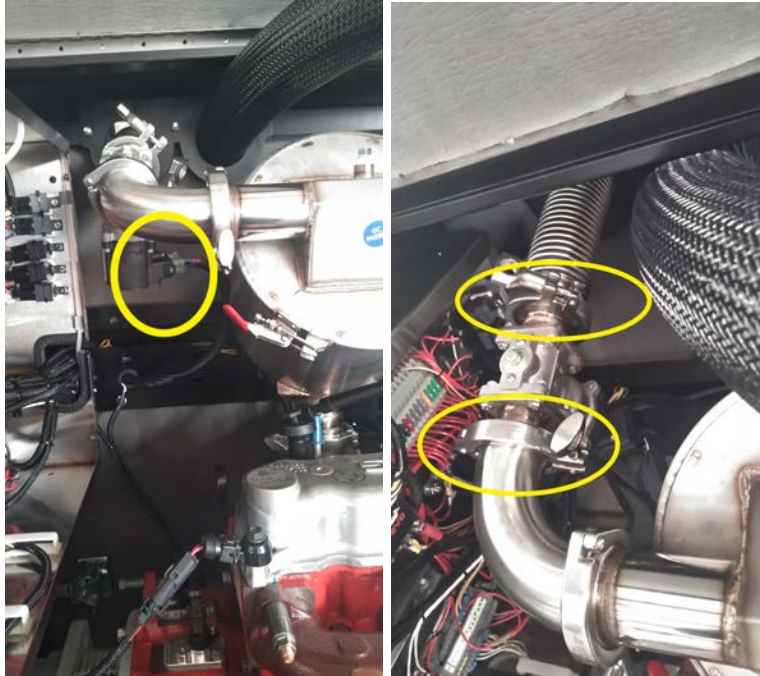


Image Set 6

- c. Physically check if the governor throttle plate moves freely (Image 7)
 - i. When pressed all the way open the throttle plate should close all the way on its own with a snappy motion



Image 7

- d. If check fails, clean governor (see *PP30 Engine Check for cleaning instructions*)
- e. Re-install governor using sanitary gaskets and clamps and plug back in
 - i. Make sure to clean gaskets of tar and dirt before installation by wiping them with a paper towel
 - ii. Ensure that the governor plug is facing downwards when you install it



Image Set 8

- 6. Check Polishing filter (Image 9)
 - a. Remove V-band clamp and sanitary clamp from lid and pull out the polishing filter
Pliers can help with the removal of the filter element



Image Set 9

- b. Remove and inspect filter element (Image Set 10)
 - i. **Inspection fails** if the polishing filter

1. Appears dark black with no yellow on the far said
2. Is noticeably wet
3. You can not see sunlight through the element when pointed at the sun



Image Set 10

- c. If inspection fails - Replace with new filter. Record in *Daily Operation Records*.
- d. Remove the metal mesh flame arrestor from the bottom of the filter canister and check to see if it is dirty - it is dirty if it is covered in tar or soot and if you cannot see through it (Image 11)



Image 11

- i. Clean if necessary with alcohol
 - e. Replace the flame arrester, filter, and lid. Secure with V-band and sanitary clamps
7. Check and tighten any additional engine gas connections, bolts and sanitary clamps that were removed during this process

ENGINE PRE-START PROCEDURE COMPLETE