Generator 12 kW - operation and service manual

Demo document for SY Northwind

1 Safety and general information

Read this manual before operating the generator set. Always close the raw-water seacock before working on the cooling system. Never run the generator with the sound shield removed for longer than necessary.

2 Daily checks

Check engine oil level on the dipstick before starting. Check coolant level in the expansion tank. Check the raw-water strainer is clear. Check drive belt tension and condition. Drain water from the fuel water separator bowl if present.

3 Maintenance schedule

Every 250 hours or 12 months: change engine oil and oil filter. Every 500 hours: replace fuel filters and air filter element, check valve clearance. Every 1000 hours: replace raw-water pump impeller, clean heat exchanger. Every 2 years: replace coolant.

4 Raw-water pump impeller

Close the seacock. Remove the pump cover plate screws and cover. Pull the impeller with impeller pliers. Inspect for missing vanes: any missing vanes must be found in the heat exchanger. Lubricate the new impeller with glycerine, fit with vanes trailing in the direction of rotation, fit a new gasket and refit the cover.

5 Valve clearance

Valve clearance, engine cold: intake 0.25 mm, exhaust 0.25 mm. Rotate the crankshaft to top dead centre of the compression stroke for each cylinder and check with a feeler gauge. Adjust and lock the locknut to 14 Nm.

6 Fault finding

High coolant temperature shutdown: check raw-water flow, seacock open, strainer clear, impeller intact, heat exchanger clean. Low oil pressure shutdown: check oil level and oil pressure sender. Generator will not start: check start battery voltage, emergency stop, fuel supply and air in the fuel system; bleed the fuel system as described in section 7.

7 Bleeding the fuel system

Open the bleed screw on the secondary fuel filter. Operate the electric lift pump until fuel free of air flows from the bleed screw. Close the bleed screw. Crank the engine; if it does not start, loosen injector lines one at a time while cranking.