

Hospital Generator (D Mech. service)

Last Issue Date: 17/01/2018		Type Of Service				
Activity		A	B	C	D	E
1	STATIC CHECKS (Activities 1-32)				Y	
2	INSPECT THE CONDITION OF THE BATTERIES, INCLUDING: a) Check that the batteries are the Vented Stationary Lead Acid type complying with AS4029.1; b) Check the electrolyte level in each cell & record the results. Electrolyte to be replenished only with water complying with AS 2668; c) Check the terminals & connections are tight, clean & corrosion free & apply approved preservative coating to the terminal posts & assemblies; d) Check the battery charger operation incl. the fail alarm & record; e) Check all cell containers for electrolyte leakage; f) Check & record the specific gravity of electrolyte in each cell; g) Before starting the generator, measure and record each battery's voltage; and h) Clean all cells, battery compartments and cabinets.				Y	
3	Check the engine instruments, controls panel and all indicators.				Y	
4	INSPECT THE EXHAUST SYSTEM, ESPECIALLY FOR: a) Condition and any leaks or obstructions; b) Integrity of the fittings and fixings; c) Any signs of overheating including checking adjacent components; d) Condition and operation of the rain flap; e) Condition of flashings and the lagging; f) Condition of flexible connections.				Y	
5	Check the air intake, especially for any restrictions.				Y	
6	Check the air filters.				Y	
7	Check the air intake hoses and pipes, especially for leaks.				Y	
8	Check the condition of the belts & pulleys especially for cracks & fraying.				Y	
9	Check the condition of the fan hub, idler and water pump.				Y	
10	Check the engine oil level and top-up if necessary. Record the level.				Y	
11	Check the operation of the block heater. Record the standby temperature.				Y	
12	Check the lubrication system for condition and leaks.				Y	
13	INSPECT THE FUEL SUPPLY SYSTEM: a) Check the lines for leaks; b) Clean the lift pump sediment chamber and gauze strainer; c) Check the quantity; d) Check the bulk tank fuel level and record; and e) Check the day tank fuel level and record.				Y	
14	Check the operation of the fuel solenoid.				Y	
15	Check the tank breather (for diesel fuelled generators).				Y	

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16	Check the engine coolant level and the radiator hoses/connections plus the coolant PH level/condition and record.				Y	
17	Check the cooling system, especially for any leaks.				Y	
18	Check the condition of all auxiliary items especially for correct fixing and for any damaged or stressed components.				Y	
19	Check and clean the generator inlet and outlet grille.				Y	
20	Record the engine hours at the end of the testing.				Y	
21	Check the resilient mounts, all nuts and bolts and clamps.				Y	
22	Clean the engine and remove all excess grease, oil, dirt, etc.				Y	
23	Analyse the engine oil quality and if required, replace and record.				Y	
24	Replace the air filters if necessary.				Y	
25	Replace the engine oil filters and the by-pass oil filter.				Y	
26	Replace the fuel filter.				Y	
27	Check the condensate trap drain (if applicable).				Y	
28	LUBRICATION OIL: a) Test & check for evidence of contamination &/or deterioration; & b) Provide a written report including the sample with the name of the installation, plant identification and date.				Y	
29	Check and service all generator drive equipment.				Y	
30	Check the bearing lubrication where possible.				Y	
31	Clean and flush the cooling system, including: a) Pressure test new coolant; and b) Flow test on radiator and engine block.				Y	
32	Test that the diesel fuel is to the specification of the generator manufacturer. If required, replace or clean the fuel and flush the fuel and pipes. Note: 1/ The total cost of the fuel replacement or cleaning and flushing of the tanks and pipes is an additional cost. 2/ The cleaning option is to be approved by the site and the cleaned diesel must meet the manufacturer's fuel specification.				Y	
33	DYNAMIC CHECKS (Activities 33-53):				Y	
34	Check for noise and vibration.				Y	
35	Check and record the actual water temperature against the motor gauge indication.				Y	
36	Check the air flow through the radiator.				Y	
37	Check the actual engine speed against the motor tachometer indication.				Y	

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38	Check the engine speed stability and record.				Y	
39	Check the condition and operation of the fuel pump, including calibration (for diesel fuelled).				Y	
40	Check the operation of the speed governor.				Y	
41	Check for leaks especially fuel, water and oil while the motor is operating.				Y	
42	Check the condition and operation of the fuel make up pump and valves (if installed).				Y	
43	Check the air intake, especially for restrictions.				Y	
44	Check the air flow and cooling through the generator.				Y	
45	Check the fuel supply and top up as required.				Y	
46	Check the actual oil pressure against the motor gauge indication.				Y	
47	Check the shutdown of the system by simulating operation of safety devices including: a) High water temperature; b) Low water temperature; c) Low oil temperature; d) Over voltage output of alternator; and e) Over-speed.				Y	
48	Check the exhaust smoke colour and density against the 'Ringleman' chart.				Y	
49	Check the condition and operation of the injectors including any adjustments.				Y	
50	Check the manifold, especially the gasket condition and torque of nuts and bolts.				Y	
51	Check the breathers.				Y	
52	Gas fuelled generator (if applicable): a) Check the gas mixing valve for correct operation; b) Check and clean the mixture intercooler; c) Check the condition and operation of the exhaust gas turbocharger; d) Replace the gas fitter on module; and e) Check the condition & operation of gas regulation & safety devices.				Y	
53	Check that all systems are back to their normal positions.				Y	
54	Provide a written report on the condition and operation of the generator including any costed remedial work.				Y	
55	Record all readings and results in the log book.				Y	

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Special Comments and Technical Data

D SERVICE ANNUAL - REFER TO E03BB FOR THE FULL D SERVICE
REFER TO E03BBY FOR THE ELECT. D SERVICE
REFER TO E03B FOR THE FULL SERVICE SCHEDULE
REFER TO E03BAA FOR THE A SERVICE
REFER TO E03BA FOR THE B SERVICE
REFER TO E03BC FOR THE C SERVICE
REFER TO E03BE FOR THE E SERVICE
REFER TO E03BBY FOR THE LOAD TEST
THIS SERVICE SPLIT ONLY TO BE UNDERTAKEN FOR APPROVED SITES.
THE ACTIVITIES AND FREQUENCIES DETAILED ABOVE ARE OF A
GENERIC NATURE AND MAY NEED TO BE VARIED TO SUIT THE
MANUFACTURER'S RECOMMENDATIONS AND SITE REQUIREMENTS.
FOR ADDITIONAL INFORMATION REFER TO AS3009.
SEALED BATTERIES THAT CANNOT BE TOPPED UP WITH WATER & ARE
ON CONSTANT CHARGE ARE NOT TO BE USED AS THEY MAY EXPLODE.
VENTED STATIONARY LEAD ACID TYPE BATTERIES COMPLYING WITH
AS4029.1 ARE TO BE USED. REPLACEMENT TIMEFRAME IS 70%
(DEFAULT) OF THE DESIGN LIFE NOMINATED BY THE MANUFACTURER,
EXAMPLES ARE:
DESIGN LIFE OF 10 YEARS = REPLACE AT 7 YEARS (DEFAULT)
DESIGN LIFE OF 5 YEARS = REPLACE AT 3.5 YEARS (DEFAULT)
SERVICE TECHNICIANS MUST WEAR CORRECT PPE DUE TO THE
POTENTIAL EXPOSURE TO BATTERY (SULPHURIC) ACID.

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