Finning UK&I - Facebook Annual maintenance

PM Checklist

● 0 ● 3 ● 31 ● 56

Inspection Number	25720447	Customer Name	Nine X Power
Serial Number	WYB02027	Customer Email	pmckenna@finning.com
Make	CATERPILLAR	Work Order	8S27164
Model	C175-16	Completed On	20/11/2025 20:29:59
Equipment Family	ENGINE - GENERATOR SET	Inspector	Glenn Walsh
Asset ID	Nine X power - Standby Generator	PDF Generated On	20/11/2025
SMU	0 Hours	Location	Finning yard Dublin
Coordinates	0, 0, 0		
Technician	GW		

General Info & Comments

General info/Comments — *MONITOR*

Comments: Rust beginning to form around the inside of the enclosure due to being in storage

PRE-START CHECKS COOLING SYSTEM

1.1 Radiator(S) Cooling System visually inspect for Core leaks, Blockage and damage, loose bolts, overflow spills from Pressure caps, foreign materials. — *NORMAL*

Comments: No leaks from the radiators
All connections secure
No damage or blockages

1.2 Hoses – Visually Check condition and for signs of leakage. Check all clamp connections and torque marks are aligned. — *NORMAL*

Comments: All coolant pack hoses in good condition
No leaks or loose connections

1.3 4 x Electric Fan Motors – Check mounting bolts of motors, torque marks should be aligned. Live checks required. Run Generator and Measure the current draw at the Thermal overloads in the MCC panel (Record each value in Cat Inspect). (Note section). Verify that the trip points are sitting at 63amps on each Thermal Overload. Verify shutdown operation for each overload by turning to trip on each overload in the MCC panel. 4 starts required to verify each shutdown. — *NORMAL*

Comments: Electric fan motors in good condition
No damage
All bolts secure

1.4 Check all Earthing and Bonding at Fan Assembly is correctly rated and in place and all earth cables, lugs, bolts are correctly torqued and in good condition. *NORMAL*

Comments: Earthing cables in place
No loose connections or damage

1.5 Inspect output Breaker at alternator feeding Fan Assemble, Test Breaker, Check cables, Lugs, Terminations, Check that correctly rated earthing and bonding in place for this system. *NORMAL*

Comments: No loose connections on the breaker

1.6 Electric Motor Fan Assembly – Visually Inspect fan blades for damage, signs of contact. Visually check alignment. *NORMAL*

Comments: Fan blades are in good condition
No damage or signs of contact

1.7 Fan Guards - Inspect for missing or broken parts and inspect torque mark alignments on bolts. *NORMAL*

Comments: Fan guards are in good condition
No loose bolts or damaged guards

1.8 Coolant - Take coolant sample according to prescribed collection procedure and arrange for shipping to Facebook provided address before close of business (5pm IST) the day after collection of the coolant sample Take sample from Coolant SOS Point. *NORMAL*

Comments: Coolant sample taken

1.9 Filler Coolant Cap - Inspect filler cap gaskets and sealing surfaces. Check pressure ratings match. *NORMAL*

Comments: Filler caps in good condition
No leaks to report

1.10 Coolant level- inspect sight glass to confirm correct level *NORMAL*

Comments: Coolant level is ok

1.11 Water Pump - Visual inspection for leaks. Specifically check around weep hole. *NORMAL*

Comments: Water pumps in good condition
No leaks or damage to report

1.12 Inspect Jacket Water Heater/Pump - Check for proper operation, Verify Temperature on EMCP, Verify Contactor operating as normal. Verify JWH pump is circulating. Test current draw at Contactor. Make sure it is within normal range 52-54A (Max) JWH Contactor change out 100,000 cycles. (Preventative 3 years) recommended. *N/A*

1.13 Check Heather hoses for signs of cracks, heat damage [pipe not flexible] Correctly sized, Quote to replace hoses if any issues found — *MONITOR*

Comments: Minor surface cracks
No leaks
Hoses are stiff
Recommend replacement before returning to service

LUBRICATION SYSTEM

2.1 Oil Level - Inspect for proper level inspect for leaks. — *NORMAL*

Comments: Oil level is ok
No leaks to report

2.2 Pre-lube Pump - Inspect for proper operation. (Engine Distribution box Power down 24v MCB and Power on,) Check there is No leaks around fittings and hoses. — *N/A*

2.3 Oil Cooler - Visually inspect for leaks or damage. Verify Oil Temp during operation. Record values. — *NORMAL*

Comments: No leaks or damage to the oil cooler

2.4 Crankcase Breathers - Inspect Fumes disposal hoses, Check all hoses are tight, Inspect around breathers for leaks. (Annually Remove breathers, inspect and clean) — *NORMAL*

Comments: No loose connections or leaks to report

2.4.1 Filter Number

AIR SYSTEM

3.1 Air Filter - Inspect filter element and seals. With filters out, Check turbo compressor wheels, Signs of contact or damage. Report any concerns. — *NORMAL*

Comments: Air filters in good condition
No damage to the seals
No blockages
Turbochargers in good condition
Turbo shafts rotating freely
No contact with the turbo housing

3.2 Air Inlet System - Inspect piping for damage or loose connections. Check during confidence run for any Air leaks from manifolds and charge air pipe work. — *NORMAL*

Comments: Air inlet system components in good condition
No damage or loose connections

FUEL SYSTEM

●	**4.1 Fuel Tank - Visually inspect tank for leaks/Seal Damage between tank and enclosure and Paint damage/Rust staining. Inspect Desiccant breather for proper operation an advice Facebook if replacement needed.**	*N/A*
●	**4.2 Fuel Polisher -Test run for 15min. Confirm proper operation and visually inspect all fittings for leaks. Verify OLE panel is cleared of faults, Compare Ole panel fuel level to Manual dipstick level. (Record values) Test fuel polishing unit bund alarm by lifting in cabinet. Confirm Time clock settings are correct for polisher. Recommended global standard of 12 hours/day, 7 days/week.**	*N/A*
●	**4.3 Fuel Tank Heaters check they are operating, verify Temp from OLE panel. If not check thermostat setting on Heater in under floor cover on top of heater.**	*N/A*
●	**4.4 Fuel polisher service and filter change.**	*N/A*
●	**4.5 Perform a single-point calibration of the pneumercator to within +/- 0.2" per the tank charts and as measured using a fuel gauge stick.**	*N/A*

ENGINE FUEL SYSTEM

●	**5.1 Fuel Priming Pump -Operating the pre-prime system. Turn ON the fuel priming pump through the EMCP and record the fuel priming pump pressure. Inspect for leaks while functioning.**	*N/A*
●	**5.2 Fuel Filters - Primary/Secondary. Inspect for damage or leaks. (Quarterly's)**	*NORMAL*

Comments: No leaks from the fuel filters

●	**5.3 Fuel Lines - Check fuel lines and connections for leaks. Check overall condition of fuel lines/hoses condition and supports. Check Torque mark alignment on pipes.**	*NORMAL*

Comments: Fuel lines secure
No damage to report

●	**5.4 Change fuel filters.**	*N/A*

EXHAUST SYSTEM

●	**6.1 Inspect Exh-Bellows for cracks or splits, piping, and Silencer supports - Inspect for damage or leakage. Check for loose bolts at Manifolds.**	*NORMAL*

Comments: Exhaust bellows in good condition
No damage or loose connections
Rust forming on exhaust stacks due to being in storage

6.2 Exhaust Manifolds/Turbos - Inspect for damage, missing parts, or wet stacking. Download a PSR if signs of Wet stacking. *NORMAL*

Comments: No damage or loose connections to the exhaust manifolds

GENERATOR

7.1 Drive Coupling and Guards - Inspect for signs of coupling breakdown/Splits cracks. Loose or missing parts, Bolts. *NORMAL*

Comments: Drive coupling and guards in good condition
No loose parts or damage

7.2 Alternator Heaters. Touch the barrel of alternator for verification. Check operation of Thermostat and that it is set around 35 degrees. (Visually check drop out contactor in Interface panel for Alt heaters) *N/A*

7.3 Alternator – Remove guards and Inspect windings, connections, and wiring for dirt/debris/moisture/damage, foreign materials. *NORMAL*

Comments: Alternator internal components in good condition
No damage or loose connections

7.4 Alternator Bearings- Visually Inspect bearing casings for signs of heat discolouration. Grease bearings on Annual Inspections. Empty grease traps if required. *NORMAL*

Comments: No discolouration or excessive grease to the bearing

7.5 Rotating Rectifier Assembly - Inspect rotating rectifier wiring for loose connections. *NORMAL*

Comments: RFA in good condition
No loose cables or damage

7.6 Output Alternator Cable -Check phase cables torque mark alignment and visual inspection. *N/A*

7.7 Check Earthing and bonding is in place, correctly rated for this application, Check all earth cables, lugs, and termination. *NORMAL*

Comments: Earthing in place
No issues to report

7.8 Check CTs, Check for signs of heat or vibration, mounted correctly, Terminations are tight, CTs are correctly grounded. *N/A*

7.9 Grease alternator bearings per OEM procedure. *N/A*

7.10 Carryout Insulation Test on Alternator (Recommended) Take note of readings and Record.	*N/A*
7.11 Perform a generator full-load run for 90-minutes using Facebook provided equipment to confirm proper operation after completion of annual maintenance.	*N/A*

STARTING SYSTEM

8.1 Starting Motors - Inspect Cable connections, relays, and associated wiring. Inspect Isolator switch Connections and operation. Check the MCB is in the ON position within the Engine Distribution box.	*NORMAL*

Comments: Starting motors and associated components in good condition
No loose connections or damage

8.2 24v Battery Charger 1- Check for proper operation, record all values at charger and check they are in spec. Test, Drop out contactors in Interface panel for both Battery Chargers. Press in CR relay for this check.	*N/A*
8.3 24v Battery Charger 2- Check for proper operation and record battery charger float voltage, Verify that Both chargers 1&2 drop out during engine cranking at confidence run stage.	*N/A*
8.4 Main Batteries: - Test battery condition and Breather vents, Check cells with Hydrometer per manufacturer's published procedure. Ensure that the electrolyte level is 13 mm (0.5 inch) above the top of the separators. Warmer climates, check the electrolyte level more frequently, once per week. (Battery change out recommended every 3 years.) Record battery voltages and log.	*N/A*
8.5 Record battery top ups, volume and battery requiring top up.	*N/A*
8.6 Record battery voltage during cranking.	*N/A*
8.7 Battery backups- visually inspect and record battery voltages and log. (Fuel and PLC)	*N/A*
8.8 Battery Cables – Check for damage, Clean and tighten all battery cable connections per published torque specifications. Torque mark after checks.	*NORMAL*

Comments: No damage to the battery cables

8.9 Inspect positive and negative Terminals and Battery posts, Check none are split.	*NORMAL*

Comments: No issues with the battery terminals

BATTERY DIODE BOX

9.1 Open Diode Box and Inspect Battery cables, and Diodes and that charger MCB's are in the on position. Check Isolators for Damage and operation. Make sure Diode Box is clear before closing. (Verify functionality of isolators.) — *NORMAL*

Comments: All cables are secure
No damage or issues to report

START UP & RUNNING CHECKS

10.1 Engine Radiator (high temp and low temp) Check for cleanliness and monitor engine running temperatures. Verify High Coolant Temp shutdown Alarm, Verify Low coolant level shutdown. Confirm low coolant Temp alarm. — *N/A*

10.2 Start Controls - Manual/Auto check for proper operation and general start ability. Test and confirm Cool down period (5min cool down time) — *N/A*

10.3 E-Stop - Test Functionality of all 4x E-Stop's 2 container E-Stop's, Control Panel and Engine. Reset and confirm before completion. — *N/A*

10.4 Battery Voltage - Check battery voltage Reading on EMCP and ET in Standby and during Run time and record readings. Verify High and Low battery voltage alarms. — *N/A*

10.5 Generator operating Temperature: Record Engine readings from EMCP or ET. — *N/A*

10.6 Record Oil Pressure — *N/A*

10.6.1 Record Oil Pressure

10.7 Record Water Temp — *N/A*

10.7.1 Record Temperature

10.8 Record Oil Temp — *N/A*

10.8.1 Record Oil Temp

10.9 Record Engine Speed — *N/A*

10.9.1 Record Engine Speed

10.10 Record Fuel Pressure — *N/A*

10.10.1 Record Fuel Pressure

●	**10.11 Record Battery Voltage**	*N/A*
	10.11.1 Record Battery Voltage	
●	**10.12 Record Alternator Amps**	*N/A*
	10.12.1 Record Alternator Amps	
●	**10.13 Record AC Amps on all three phases.**	*N/A*
	10.13.1 Record AC Amp on phase 1 **10.13.2 Record AC Amp on phase 2** **10.13.3 Record AC Amp on phase 3**	
●	**10.14 Record AC Voltage on all three phases.**	*N/A*
	10.14.1 Record AC Voltage on phase 1 **10.14.2 Record AC Voltage on phase 2** **10.14.3 Record AC Voltage on phase 3**	
●	**10.15 Record Power**	*N/A*
	10.15.1 Record Power	
●	**10.16 Record Power Factor**	*N/A*
	10.16.1 Record Power Factor	
●	**10.17 Record Frequency**	*N/A*
	10.17.1 Record Frequency	
●	**10.18 DC Alternator - Check for unusual noise and for proper voltage output. Check belt for proper belt tension and wear.**	*N/A*
●	**10.19 Verify proper operation of all internal and external E-Stops.**	*N/A*

COOLING SYSTEM

●	**11.1 Electronic Thermostat - Verify for proper temperature modulation. Power down MCB in Engine Distribution Box and listen for functionality while it resets itself.**	*N/A*
●	**11.2 Water Pump - Check for leaks and unusual noise or vibration. Re-check Weep Hole**	*N/A*

GENERATOR - INSTALLATION/ENCLOSURE

12.1 Enclosure Condition - Check for leaks, security, etc. Report any Defects.	*N/A*
12.2 Enclosure-Inspect door hinges, handles and make adjustments if needed.	*N/A*
12.3 Enclosure-Inspect exterior lights, interior lights and exit signs.	*N/A*
12.4 Enclosure-Inspect condition of pad.	*N/A*
12.5 Enclosure - Inspection of steps, landing and handrails. Report any Defects	*N/A*
12.6 Enclosure - Visually inspect Exhaust Flue and smoke colour. Empty external Flue Drain from water trap each maintenance Interval. FACOPS approval required for waste water.	*N/A*
12.7 Visual Inspection - For overall condition of generator set. Insure cleanliness of unit, wipe down as necessary. Report any Paint Defects for follow up works	*MONITOR*
Comments: Minor rust build up throughout the enclosure due to being in storage	
12.8 Vibration Isolators - Inspect for broken springs or damaged cases. Check and make necessary adjustments of Vibration mounts, (Gap 6mm - 10mm)	*N/A*
12.9 Louvers - Check for proper operation of all Intake and Exhaust louvers. Lubricate linkages and bushings, adjust if needed. Spring load each linkage with Heel Bar. Exercise Louvers several times by powering down M12 MCB in the Interface panel. (To be Done every 3 months) Quarterlies.)	*N/A*
12.10 Check Operation of Container Space heater, check functionality of thermostat on wall. Pre-set at 15degrees. Check at each service interval.	*N/A*
12.11 Visually check for signs of loose wiring within the Interface Panel. (Caution live unit AC/DC)	*N/A*

AFTER SHUTDOWN

13.1 Engine Lock-Out Switch – Test where applicable	*N/A*
13.2 Take Oil Sample for analysis and trend results over time. Recheck for proper crankcase engine oil level and top up if required (subject additional cost). Document quantity of oil added and how this is trending over time.	*NORMAL*

Comments: Oil sample taken for lab analysis

13.3 FACOPS/FINNING - Reset all controls to Auto and close generator breaker.	*N/A*
13.4 Check the event log for any new or historical error codes and discuss with generator contact, clear any logged codes and take PSR Download for records.	*N/A*

ADDITIONAL WORK REQUIRED

14.1 Is there any additional work required?	*N/A*

GENERATOR RETURNED TO SERVICE

15.1 Generator Returned to Service	*YES*