

GENERATOR SET PRE-START CHECK LIST

Project Name	
Project Location	
Customer Rep:	
Generator Model	
Generator Serial	
Control Type	
Engine Make/Model	
Generator End Make/Model	
Engine Serial Number	

Cooling System

<input type="checkbox"/>	Coolant Level Checked
<input type="checkbox"/>	Perform a coolant strength test to ensure proper freeze protection and corrosion resistance
<input type="checkbox"/>	Radiator clean, free from obstruction, inspect the radiator fins for damage, bent fins, or excessive corrosion
<input type="checkbox"/>	Overflow clear and routed properly
<input type="checkbox"/>	Check the radiator, engine, and pipework for leaks or signs of coolant seepage, review this during first start and tighten hose clamps as required.
<input type="checkbox"/>	Examine belts for proper alignment, tension, and wear: Check for any cracks, fraying, or glazing on the belt surface
<input type="checkbox"/>	Guards in place and secure
<input type="checkbox"/>	Energise coolant heater and check function

Engine

<input type="checkbox"/>	Check the oil level and top off if necessary
<input type="checkbox"/>	Inspect for any signs of oil leaks or contamination
<input type="checkbox"/>	Ensure the oil make-up system is filled and functioning properly
<input type="checkbox"/>	Verify that level alarms are operational
<input type="checkbox"/>	Review the engine's service record to ensure maintenance is up to date
<input type="checkbox"/>	Confirm that the valve lash adjustment period is within the manufacturer's requirement
<input type="checkbox"/>	Examine the engine for signs of wear, damage, or leaks
<input type="checkbox"/>	Inspect belts, hoses, and connections for proper fit and condition
<input type="checkbox"/>	Check the air filter and intake system for cleanliness and obstructions
<input type="checkbox"/>	Perform a pull test on electrical connections to ensure they are secure
<input type="checkbox"/>	Inspect wiring for damage, corrosion, or loose connections
<input type="checkbox"/>	Verify key torque parameters are within the manufacturer's specifications

Gas Fuel System

<input type="checkbox"/>	Gas Train Leak Tested
<input type="checkbox"/>	Ensure the gas shutoff valve is accessible and operational
<input type="checkbox"/>	Inspect gas lines for leaks, damage, or corrosion
	Engine Inlet Pressure (Engine Running Load)
	Engine Inlet Pressure (Engine Off)
	Engine Inlet Pressure (Engine Running No Load)
<input type="checkbox"/>	Check for proper gas pressure and flow rate

Diesel Fuel System

<input type="checkbox"/>	Fuel Tank Filled
<input type="checkbox"/>	Electrical Bonding Complete
<input type="checkbox"/>	Analog Sender Installed and Tested
<input type="checkbox"/>	Isolating Valves correctly positioning
<input type="checkbox"/>	Vent and overflow pipes opened
<input type="checkbox"/>	Fuel leakages alarms installed and tested

General Safety Checks

<input type="checkbox"/>	Ensure that the generator starting system is inhibited during inspection and maintenance
<input type="checkbox"/>	Confirm that the generator set is clean and fully assembled, Remove any loose materials, tools, or debris near the generator set
<input type="checkbox"/>	Verify that air ducts are clear, clean, and free of obstructions
<input type="checkbox"/>	Check the air intake and exhaust systems for proper ventilation
<input type="checkbox"/>	Ensure access and egress routes are unobstructed and safe for personnel
<input type="checkbox"/>	Confirm the generator set is level and positioned securely
<input type="checkbox"/>	Check the stability of the generator set during operation
<input type="checkbox"/>	Verify that electrical bonding is complete and secure
<input type="checkbox"/>	Inspect wiring, connections, and cables for damage, wear, or corrosion
<input type="checkbox"/>	Inform personnel of impending startup and ensure they are at a safe distance
<input type="checkbox"/>	Post appropriate warning signs near the generator set
<input type="checkbox"/>	Test safety devices, such as shut-off valves, circuit breakers, and sensors, for proper operation
<input type="checkbox"/>	Verify that emergency shutdown procedures are understood and accessible to personnel
<input type="checkbox"/>	Inspect fuel lines, connections, and storage for leaks, damage, or corrosion
<input type="checkbox"/>	Ensure the fuel shutoff valve is operational and accessible
<input type="checkbox"/>	Check the generator set for excessive noise or vibration during operation
<input type="checkbox"/>	Inspect mounts, isolators, and fasteners for wear or damage
<input type="checkbox"/>	Verify the availability of appropriate fire extinguishers near the generator set
<input type="checkbox"/>	Ensure personnel are trained in fire safety procedures

Electrical System

<input type="checkbox"/>	Ensure all electrical connections and installations meet local code requirements
<input type="checkbox"/>	Obtain any necessary permits or inspections from local authorities
<input type="checkbox"/>	Perform a pull test on electrical connections to ensure they are secure
<input type="checkbox"/>	Inspect wiring, connectors, and terminals for damage, wear, or corrosion
<input type="checkbox"/>	Check key torque parameters are within the manufacturer's specifications
<input type="checkbox"/>	Verify proper grounding and bonding of the electrical system
<input type="checkbox"/>	Inspect all wiring from the generator to the end distribution point for damage, wear, or improper installation
<input type="checkbox"/>	Check that all cables are properly supported, routed, and labeled
<input type="checkbox"/>	Ensure cable conduits and junction boxes are securely fastened and weatherproof (if applicable)
<input type="checkbox"/>	Verify the correct sizing and rating of circuit breakers and fuses
<input type="checkbox"/>	Inspect circuit breakers and fuses for damage or wear
<input type="checkbox"/>	Test circuit breakers to ensure proper operation (shunt trip test)
<input type="checkbox"/>	Inspect the generator control panel for proper operation and indicator functionality
<input type="checkbox"/>	Verify that all control and protection settings are configured according to the manufacturer's recommendations
<input type="checkbox"/>	Transfer Switch (if applicable): Inspect the automatic transfer switch (ATS) for proper installation and operation
<input type="checkbox"/>	Test the ATS to ensure it switches between utility and generator power correctly
<input type="checkbox"/>	Perform load testing on the generator to confirm proper operation under various load conditions
<input type="checkbox"/>	Monitor generator performance, voltage, and frequency during load testing
<input type="checkbox"/>	Test protective devices, such as overcurrent, overvoltage, and ground fault relays, for proper operation
<input type="checkbox"/>	Verify the correct settings and calibration of protection devices
<input type="checkbox"/>	Review and verify system documentation, including schematics, wiring diagrams, and equipment manuals
<input type="checkbox"/>	Ensure all changes and modifications made during commissioning are documented
<input type="checkbox"/>	Train personnel on the operation and maintenance of the electrical system and generator
<input type="checkbox"/>	Establish a maintenance schedule based on the manufacturer's recommendations

No Load Start Up Values

Resting Battery Voltage
Resting Battery Voltage with External Charger (If equipped)
Running Battery Voltage
No Load Oil Pressure
No Load Coolant Temp (After 10 Min)
No Load Voltage
No Load Frequency
Fuel Level Indicated
Ambient Temp

System Values _____ % Load

Battery Voltage
Oil Pressure
Coolant Temp
Voltage (L1/L2/L3 to N)
Frequency
Fuel Level Indicated
Ambient Temp
<input type="checkbox"/> No Alarms Present
<input type="checkbox"/> No signs of vibration or operational issues

System Values _____ % Load-1

Battery Voltage
Oil Pressure
Coolant Temp
Voltage (L1/L2/L3 to N)
Frequency
Fuel Level Indicated
Ambient Temp
<input type="checkbox"/> No Alarms Present
<input type="checkbox"/> No signs of vibration or operational issues

System Values _____ % Load-2

Battery Voltage
Oil Pressure
Coolant Temp
Voltage (L1/L2/L3 to N)
Frequency
Fuel Level Indicated
Ambient Temp
<input type="checkbox"/> No Alarms Present
<input type="checkbox"/> No signs of vibration or operational issues