# Generator set pre-start-up checklist

## *Open & enclosed generator sets*

This checklist should be used to validate the completion of generator set pre-commissioning. A check-list should be completed for each generator set of a multiple installation.

## *Project Details*

Project Name ..……

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Customer (End User)……..……...

……..……..

Address……..……

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……..……..

Customer representative……

Tel. No ……..……

Email……..

## *Generator set details*

Generator set model……

Generator set serial number……Set no……

Control type……...

Control serial number……..

System control type (if applicable)……

## *Generator set environment and services*

Installation work & checklist complete ☐

Surroundings clean & clear from obstruction ☐

Services to generator set complete ☐

Observations……....

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## *Safety Checks*

Ensure starting is inhibited ☐

Set clean and fully assembled ☐

No loose materials near generator set ☐

Air ducts clear and clean ☐

Access & egress routes unobstructed & labelled ☐

Control & maintenance positions unobstructed ☐

Room secure – no unauthorised access ☐

Generator set is level – holding down bolts secure ☐

Pipework and cables are secure with no trip hazards ☐

Overhead obstructions clearly marked and labelled ☐

Electrical bonding complete ☐

Warn personnel of impending equipment start-up ☐

## *Cooling System*

Coolant type……

Mix ratio……..…or factory installed ☐

### Set mounted radiator

Radiator clean, free from obstruction ☐

Overflow clear and routed to avoid pollution ☐

Radiator filled with correct coolant & cap replaced ☐

Radiator, engine & pipework checked for leaks ☐

Belts checked for alignment, tension and damage ☐

Guards in place & secure ☐

Energise coolant heater supplies & check function ☐

### Remote mounted radiator systems

Radiator clean, free from obstruction ☐

Overflow clear and routed to avoid pollution ☐

Header tank filled with coolant & cap replaced ☐

System & auxiliary tank (if fitted) filled ☐

Radiator, engine & pipework checked for leaks ☐

Air bled from system ☐

Energise coolant heater supplies ☐

Auxiliary supply to fans, pumps correctly installed ☐

Auxiliary supplies phase rotation / voltage check ☐

### Heat exchanger & cooling tower systems

Header tank filled with coolant & cap replaced ☐

Auxiliary tank (if fitted) commissioned ☐

System, engine & pipework checked for leaks ☐

Air bled from system ☐

Energise coolant heater supplies ☐

Secondary cooling system is complete & filled ☐

Secondary cooling systems pumps commissioned ☐

Cooling tower make up supply commissioned ☐

Auxiliary supply to fans, pumps correctly installed ☐

Auxiliary supply to fans etc., phase / voltage check ☐

Record coolant concentration used……

## *Fuel System*

### Bulk storage facility

Bulk storage tank filled ☐

Isolating valves correctly positioned ☐

Tank contents gauge and alarm contacts checked ☐

Transfer pump & controls tested ☐

Electrical bonding complete ☐

Pipeline/tank heating system tested & commissioned ☐

Fill point installed & alarm tested & commissioned ☐

Bulk system checked for leaks ☐

Vent and overflow pipes open ☐

Storage facility secure ☐

Day tank

- Isolating and solenoid valves checked for operation ☐
- Engine fuel return open ☐
- Day tank filled ☐
- Air purged from system ☐
- Tank contents gauge and alarm contacts checked ☐
- Spillage containment alarms checked ☐
- Transfer pump functions checked ☐
- Fire valves & contacts installed & wired ☐

## *Gas fuel System*

- Visual check completed & test certificates present ☐
- Gas present at shut off valves ☐

## *Fire alarm / suppression system*

- Fire alarm / suppression system commissioned ☐
- Fire wire & solenoid quick release commissioned ☐
- Suppression system lock off commissioned ☐

## *Lubrication system*

- Engine oil pan filled to correct level ☐
- Level alarms checked ☐
- Pre-lubrication system commissioned ☐
- Oil make up system filled & commissioned ☐

## *Starting system*

Battery starting

- Batteries filled, installed and connected ☐
- Battery charger commissioned ☐
- Boost / float controls & instruments checked ☐

Compressed air / hydraulic starting

- Isolating valves correctly positioned & labelled ☐
- Pressure regulator & LP safety valve checked ☐
- Compressor commissioned ☐
- HP & LP air / hydraulic pressures checked ☐
- Condensate drained ☐

## *Exhaust system*

- Check security of bellows, pipework & muffler ☐
- Check all flanges, joints & welds ☐
- Check stack/tail pipe and rain cap are clear ☐
- Drain water from system ☐
- Pre-lubricate turbo charger if required ☐

## *Ventilation & attenuation*

- Check louvers are clear and free to operate ☐
- Louver mechanisms checked and supply energised ☐
- Commission forced ventilation system if applicable ☐

## *Electrical system*

Control systems

- Visual check completed ☐
- Energise set control and check functionality ☐
- Energise system controls and check functionality ☐
- Check software versions and upload as required ☐
- Select set parameters on set/system control ☐
- Check remote control signals to set control ☐
- Check set control signals to remote control ☐
- Check signals to system control and switchgear ☐
- Check emergency stop controls ☐
- Enter / verify engine & alternator protection settings ☐

Set / Switchgear / Changeover / Transfer

- Visual check completed ☐
- Check cables installed correctly & torque marked ☐
- Verify cable flexibility at generator set ☐
- Energise auxiliary supplies and check functionality ☐
- Enter switchgear protection settings and record ☐
- Utility sensing commissioned ☐

Electrical general

- Test certificates available for all cables ☐
- Check auxiliary supply protection settings ☐
- Check auxiliary electrical supplies voltage & phase ☐
- Commission auxiliary supplies ☐
- Check utility supply protection settings ☐
- Check utility supply for voltage & phase ☐
- Commission utility supplies ☐
- Small power & lighting circuits test & commissioned ☐

Comments on any item that may affect commissioning

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Checklist completed by ……

Date……...

Print Name……

Company……..

Note: Completion of this checklist does not relieve the installer of contract obligations.