

## Generator set start-up checklist

### Open & enclosed generator sets

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

#### Project Details

Project Name .....

.....

Customer (End User).....

.....

Address.....

.....

.....

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

Precommissioning work & checklist complete ...

Surroundings clean & clear from obstruction ...

Lighting / heating, etc., systems operational ...

Observations.....

.....

#### Safety Checks

Ensure starting is inhibited until start-up is required ...

Set clean and fully assembled ...

No loose materials near set ...

Air ducts clear and clean ...

Access & egress routes unobstructed & labelled ...

Control & maintenance positions unobstructed ...

Room secure – no unauthorised access ...

Personnel warned of start-up process ...

#### Cooling System

##### Set mounted radiator

Radiator, engine & pipework checked for leaks ...

Belts & guards checked for security / slipping ...

Coolant heater operational ...

Leak check ...

DCA dosing cartridges fitted & valves open ...

Remote mounted radiator systems

Radiator, engine & pipework checked for leaks ...

Coolant heater operational ...

Fans, pumps and controls checked ...

Leak check ...

DCA dosing cartridges fitted & valves open ...

Heat exchanger & cooling tower systems

System, engine & pipework checked for leaks ...

Coolant heater operational ...

Secondary cooling system checked ...

Fans, pumps and controls checked ...

DCA dosing cartridges fitted & valves open ...

Legionella dosing checked where applicable ...

Record dosing chemical & concentration.....

#### Diesel Fuel System

##### Bulk storage facility

Isolating valves correctly positioned ...

Transfer pump & controls operational ...

Pipeline / tank heating system operational ...

Fill point alarm operational ...

Leaks check ...

Storage facility secure ...

Day tank

Isolating and solenoid valves checked ...

Tank filled ...

Spillage containment & alarms operational ...

Transfer pump operational ...

Leak check ...

Fire valves & release tested and operational ...

#### Gas Fuel System

Isolating valves correctly positioned ...

Regulator set to correct pressure ...

Gas leak detection equipment operational ...

Double shut-off device operational ...

Leak test complete ...

Purging complete ...

#### Fire alarm / suppression system

Fire alarm / suppression system operational ...

Suppression system lock-off operational ...

Operator instructed in fire system operation ...



**Lubrication system**

- Engine oil pan filled to correct level ...
- Oil make up system operational ...

**Starting system**

Battery starting

- Batteries installed, filled and connected ...
- Battery charger commissioned ...

Compressed air / hydraulic starting

- Isolating valves correctly positioned ...
- Compressor operational ...
- HP & LP air / hydraulic pressures checked ...
- Condensate drained ...

**Exhaust system**

- Check security of pipework & muffler ...
- Check cowl and/or rain cap are operational ...
- Check water drain pipework and valves correct ...
- Leak check ...
- Check for exhaust gas recirculation ...

**Ventilation & attenuation**

- Check louvers are clear and operational ...
- Forced ventilation system operational if applicable ...
- Check for hot air recirculation ...

**Electrical system**

Control systems

- Auxiliary supplies energised ...
- Generator set local controls checked ...
- Generator set remote controls checked ...
- Generator set system controls checked ...
- Customer remote indication / controls checked ...

Changeover switchgear / transfer switch

- Auxiliary supplies energised ...
- Utility supply energised ...
- Voltage / phase rotation checked ...
- Indications correct ...
- All covers in position ...

Paralleling switchgear

- Auxiliary supplies energised ...
- Indications correct ...
- All covers in position ...

**Initial start-up**

- Manual start-up, idle & full speed checks complete ...

- Generator set voltage & frequency correct to order ...
- Control system calibrations checked ...
- Phase rotation checked ...
- Paralleling sets phase coincidence check ...
- Generator set switchgear manual operation correct ...
- Local stop / emergency stop control checked ...
- Remote start / stop / emergency stop checked ...

**Generator set load test**

Note: Load test is carried out on customer's site load unless agreed in writing prior to start-up. Artificial load bank test will be performed using resistive load unless otherwise specified.

- Load test completed using customer's load ...
- Record load achieved.....kW

Load bank test (if applicable)

- Check load bank voltage & power capability ...
- Check cables installed correctly & tightened ...
- Energise auxiliary supplies and check functionality ...
- Load test completed ...
- Result sheet completed ...
- Record load achieved.....kW
- Record power factor.....

**System start-up completion**

- Generator set operational ...
- Changeover / transfer switch operational ...
- Paralleling switchgear operational ...
- Automatic operations checked ...
- Master control operational ...
- All safety shutdowns and warnings operational ...
- Electrical HV/MV/LV rules and procedures in place ...
- Comments on any item that may affect acceptance: .....
- .....
- .....
- .....
- .....

- Checklist completed by .....
- Date.....
- Print Name.....
- Company.....

Note: Completion of this checklist does not relieve the installer of contract obligations. By signing this document you agree to the terms and conditions of our warranty. Failure to sign and send this document to the manufacture does not relieve the installer of the terms and conditions of the warranty.