When direct wiring is used, make sure the cables are correctly fitted and that they are secured by the cable clamp.

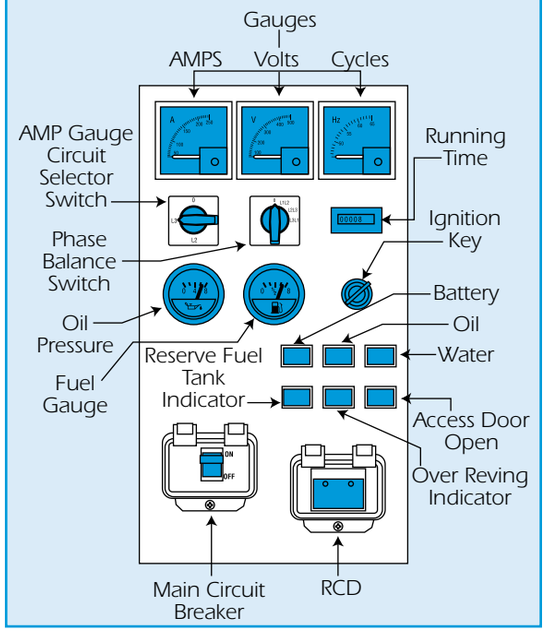
Note that the access door to the direct connection panel will stop the Generator if it is opened while running.

POWER & PROTECTION

Power Supply

All HSS Generator outputs are expressed in kVA units (Kilovolt Amperes). To obtain the true useable KW output, you need to multiply the kVA by a power factor of 0.8.

Control Panel



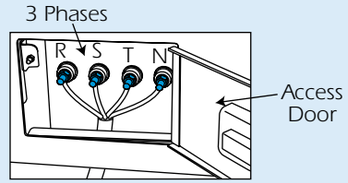
Power Output Capacity...

It is very important that you follow these calculations to ensure that you are not overloading the unit's windings.

Below is a list of the MAXIMUM that you can take from the Generator at any one time. Note though that the maximum has to be calculated combining both voltages used.

Power Output	kVA Continuous Supply
240v	33kVA
240v from 415v 3 phase	100kVA split 33/33/33
415v	100kVA

Direct Connection



If you draw 33kVA in 240V you cannot draw any 3 phase power.

If you wish to draw 3 phase and single phase at the same time, then it must be shared.

If you are unsure about making these calculations please contact your local HSS Hire Shop for help and advice.

There is phase balance switch on the control panel and it should be set to L1L2 for normal running. If during normal use you are unsure that the 3 phases are balanced (eg phase 1 is being over used), **turn the switch to each of the 3 positions L1L2, L2L3, L3L1 and observe the Voltmeter readings.** If the meter registers anything other than 415V the demand on the remaining phase is too great.

To rectify this, reduce the overall power consumption.

If you wish to check the amperage of each of the three phases, turn the circuit selector for amp gauge switch to the required circuit, L1, L2 or L3 and observe the amp meter for a reading.

There are a variety of sockets available on the power output panel and all may used at any one time **provided the that the maximum overall 100kVA is not exceeded.**

All 240V and 415V outlets are protected by micro circuit breakers (MCB's), if a MCB trips and cuts the power to an outlet unplug the circuit, check the circuit for a fault, rectify this and reset the MCB, turn OFF all the devices on the circuit. Reconnect the circuit.

The Generator has overall protection in a MCB on the main panel that protects all circuits. If this MCB is tripped, turn OFF the Generator, check all circuits for a fault, rectify the fault, turn OFF all devices on the circuit, reset the MCB and restart the Generator. **This same procedure applies if the RCD on the control panel is tripped.**

When all the connections have been made and checked and the correct power consumption calculations have been completed the Generator is ready to use.

EQUIPMENT CARE

Never push the equipment beyond its design limits. If it will not do what you want with reasonable ease and speed, assume you have the wrong tool for the job. Contact your local HSS Hire Shop for advice.

Keep the equipment clean – you will find this less of a chore if you clean it regularly, rather than wait until the end of the hire period.

Regularly check the fuel level using the fuel gauge and top up as necessary with diesel. If the Generator runs out of diesel the engine will stop automatically before the tank is totally empty, this saves the user from having to bleed the fuel system.

Regularly check the oil level – when the engine is cold and on level ground, lift the engine access panel. Withdraw the dipstick, wipe it clean, then replace it, remove it a second time and verify that the oil level is between the min and max lines, **top up as necessary.** Suitable oils are available on sale or return from your local HSS Hire Shop.

When not in use, **store the equipment somewhere clean, dry and safe** from thieves.

FINISHING OFF

Turn OFF all equipment being powered by the Generator, then turn OFF the Generator as described in GETTING STARTED, unplug or disconnect all circuits.

Give the unit a final clean and arrange for collection by your local HSS Hire Shop.

...any comments?

If you have any suggestions to enable us to improve the information within this guide please fax your comments or write to the Product Manager at the address below

Fax: 020 8687 5001

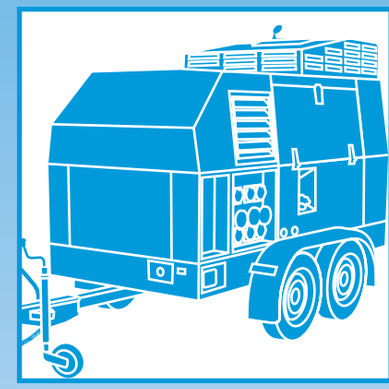
Group Office: 25 Willow Lane, Mitcham, Surrey CR4 4TS

Web Site: http://www.hss.com

Operating & Safety Guide 426

426/01

HSS Hire Shops



100kVA Silenced Diesel Generator

A powerful generator capable of providing 240v or 415 (3 phase) power.

Code 41390

GENERAL SAFETY

For advice on the safety and suitability of this equipment **contact your local HSS Hire Shop.**

There is a serious risk of personal injury if you do not follow all instructions laid down in this guide.

The hirer has a responsibility to ensure that all necessary risk assessments have been completed prior to the use of this equipment.

This equipment should only be used by an operator who has been deemed competent to do so by his/her employer.

This equipment should be used by an able bodied, competent adult who has read and understood these instructions. Anyone with either a temporary or permanent disability, should seek expert advice before using it.

Keep children, animals and bystanders away from the work area. Cordon off a NO GO area using cones and either barriers or tape, available for hire from your local HSS Hire Shop.

Never use this equipment if you are ill, feeling tired, or under the influence of alcohol or drugs.

Although these generators are silenced, the **equipment being powered may require the user to wear ear defenders.**

Wear practical, protective clothing, gloves and footwear. Avoid loose garments and jewellery that could catch in moving parts, tie back long hair.

Exhaust Danger

NEVER operate diesel engines indoors or in a confined space.

The exhaust contains gases that can kill.

Always use this generator in conjunction with health and safety and operational guides of equipment to be powered.

Ensure the work area is well lit and ventilated, if in doubt, ask about lighting and ventilation equipment at your local HSS Hire Shop.

Fuel Safety

NEVER refuel while the engine is hot or running.

Never smoke or allow naked lights into the area while refuelling.

Never inhale fuel vapour.

ALWAYS mop up any spillage as quickly as possible, and change your clothes if you get fuel on yourself.

ALWAYS store fuel in a purpose-made sealed container, in a cool, safe place well away from the work area.

Make sure you know how to switch this machine OFF before you switch it ON in case you get into difficulty.

Engines, especially the exhausts, get very hot so switch OFF and allow to cool before touching them.

Choose a location for the generator that keeps flammable materials well away from engine and exhaust.

Towing Safety

Before towing, ensure that the jockey wheel and stabilisers are raised and that the parking brake is OFF. Check that all lights and brakes work and that you have connected the breakaway cable.

Ensure that the tyres are in a roadworthy condition and inflated to 65psi (4.48 bar). When towing, DO NOT Exceed 55mph.

Check the condition of the equipment before use. If it shows signs of damage or excessive wear, contact your local HSS Hire Shop.

ELECTRICAL SAFETY

The power outlets on this unit are protected by an ELCB (Earth Leakage Circuit Breaker) however; **the ELCB will ONLY WORK if the earthing facility is correctly connected.**

If required, the generator has the facility to connect to an earthing ground stake to the earth attachment. However it should be noted that an impedance test should be carried out once the connections have been made by a qualified electrician.

You can wire a direct supply in 415V or 240V from this unit; you cannot however use the output sockets at the same time.

If direct wired, make sure that all connections are made and tested only by a suitably qualified electrician.

Using electrical equipment in very damp or wet conditions can be dangerous.

Always turn OFF the generator's engine when not in use and before servicing the engine itself.

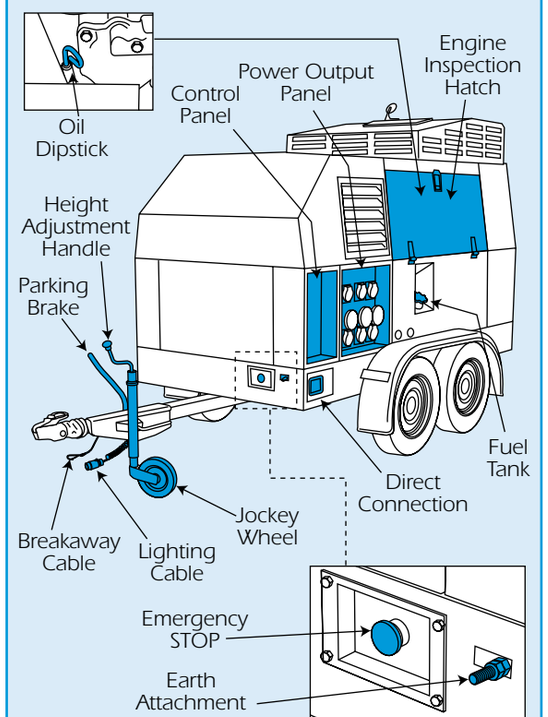
Never start or stop the generator 'on load'. Always switch OFF and unplug all equipment powered by it.

Seek advice from your local HSS Hire Shop before connecting computers or other sensitive equipment to the generator.

Keep flexes and extension leads out of harm's way. Extension leads should be fully unwound and loosely coiled away from the equipment. Never run them through water, over sharp edges, or where they could trip someone.

GETTING STARTED

100kVA Diesel Generator



It is essential to familiarise yourself with all the controls before starting.

Stand the generator on a firm, level surface strong enough to bear its weight. Use chocks on the wheels to prevent movement. Set the jockey wheel to the correct height and apply the hand brake.

Deploy the two rear stabilisers to prevent the unit from rocking.

Check fuel and oil levels (see EQUIPMENT CARE), and replenish as required.

To start **turn the ignition key quarter turn clockwise and hold, the engine should start after two or three turns of the starter motor.** When the engine has started release the ignition key and let the engine warm up for at least 10 minutes before applying load.

If the engine fails to start check the warning lamps on the control panel. **An illuminated lamp indicates a problem. Check oil, water, fuel or battery** (depending on which lamp is ON) **and rectify the problem before continuing. The engine will also not run if the access door to the direct wiring panel is open.**

If the generator stops during use check warning lamps, the generator is designed to cut out if any one of the warning lamps is illuminated.

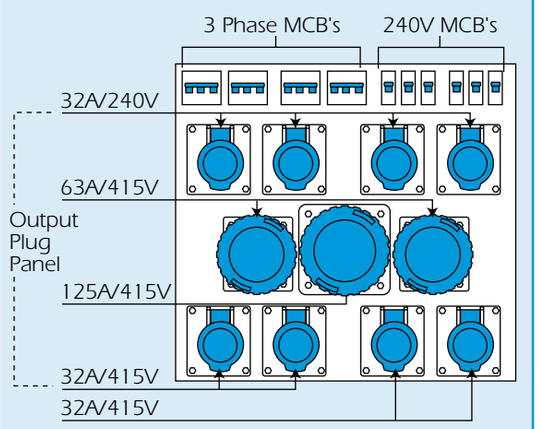
If the engine does not start or cannot be made to run again after performing these checks contact you local HSS Hire Shop for advice. DO NOT attempt to carry out any repairs yourself.

To STOP the Generator, turn the ignition key to the OFF position.

In an emergency, hit the Emergency stop button located at the front of the unit next to the earth attachment.

CONNECTIONS

Power Output panel



Before making any connections, ensure that the Generator and all devices on the circuit to be powered are switched OFF.

The Generator has two connections methods, either use suitable plugs to **attach power feeds to the sockets on the power output panel** or directly **connect a circuit to the direct connection panel. It is NOT possible to use both methods of connection at the same time.**

In either case ensure that you use cable that will be suitable for the proposed load.

To use the power output panel, ensure that the MCB's (circuit breakers) **are in the OFF position,** then plug the correct feed cable into the correct power socket.

The direct wiring facility offers either 415V 3 phase (connect the 3 phases to the 'R S T' terminals) **or 240V by connection to the 'N' terminal for neutral and one of the remaining terminals for Line.**