DG
Portable Diesel Generators

DG3600D/DG6000D/ DG8000D/DG8000DT

DG 6000DS/DG8000DSM

DGW200D

DG 12000DS

Installation & Operating Manual

INDEX

Congratulations on selecting a Dayliff DG Diesel Generator. They are manufactured to the highest standards and if installed and operated correctly will give many years of efficient and trouble free service. Careful reading of this Installation Manual is therefore important, though should there be any queries they should be referred to the equipment supplier.

1. GENERATOR SPECIFICATIONS

DG3600D/DG6000D DG8000D/DG8000DT

DGW200D

DG 6000DS/ DG8000DSM

DG 12000DS

The Dayliff Range of portable diesel generators are dependable, quality products specially designed for mains standby and remote site power supply applications. Particular features include:

- Reliable and economical air cooled diesel engines equipped with large size exhausts for low noise levels available in both open and canopied configurations.
- High efficiency square core alternators providing reliable power output.
- DC output for charging.
- Integrated control panel with voltmeter for operational convenience.
- Fuseless type over current protection.
- Oil alert system to stop engine in the event of low oil level.
- High capacity fuel tank for extended operation.
- Fitted with AMF auto start facility which when combined with an optional ATS power change over panel enables fully automatic power failure operation (not open sets).
- Strong tubular frame for protection and ease of handling(open sets)
- Acoustic models further strengthened canopy on castors limits noise to min 70dBA @ 7m

For DGW200D

- AC auxiliary current and DC welding current can be used simultaneously.
- Supplied complete with electrode holder and 4m cable, welding clamp and 4m cable, output plugs and separate castor wheels for movable applications.

Dayliff generators are of compact design and their advanced features make them suitable for all small scale power supply applications.

Specifications

Model	Voltage (V)	Output		Engine			Fuel Tank Capacity (litres)	Opera-ting Period (Hrs)	Start Type
		Rated (KVA)	Max (KVA)	Model	Capacity (cc)	Max Power (HP)			
DG3600D	1x240	2.7	3.0	LA178FG	306	5.5	12.5	18	Recoil
DG6000D	1x240	4.5	5.0	LA186FAFG	418	8.5	12.5	4	Recoil/Electric
DG6000DS*	1x240	4.5	5.0	LA186FAFG	418	8.5	16	5	Recoil/Electric
DG8000D	1x240	6.0	6.5	LA192F	499	10	12.5	5	Recoil/Electric
DG8000DSM	1x240	6.0	6.5	LA192FAG	499	10	25	8	Electric
DG8000DT	3x415	7.5	8.1	LA192F	499	10	12.5	8	Recoil/Electric
DG12000DSM*	1x240	10	11	LA290	954	20	50	12	Electric
DG12000DST*	3x415	12.5	13.7	LA290	954	20	50	12	Electric
DGW200D	1x240	4.2	4.6	LA186	418	7.7	12.5	6	Electric

***Acoustic Set with AMF noise level: 70dBA@7m**

Welding Data

Model	Welding Performance				Welding Rod Currents (A)		
	No Load Voltage (V)	Operation Voltage (V)	Operating Current (A)	Max. Arching Current (A)	2.5mmØ	3.2mmØ	4mmØ
DGW200D	65	28-35	50-120	180	50-100	100-160	160-180

NOTE: Given outputs are sea level ratings. Sets should be rated at 1% for every 100m higher than 100m above sea level, and 2% for every 5°C temperature above 20°C.

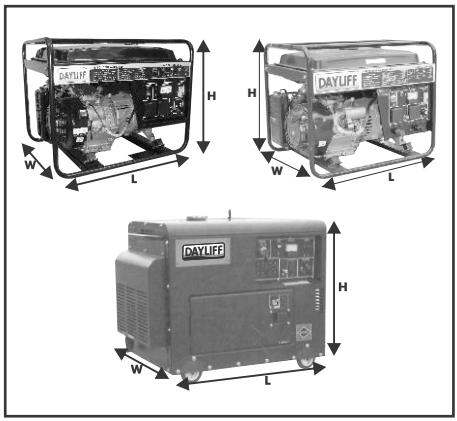
Electrical Data

Alternator: Brushless, self exciting, 2 pole
Voltage Regulator: AVR
Direct Current: DG-D -12V/6A
DGW-D -12V/8.3A

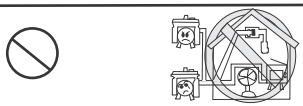
Pole Output: 50Hz, 240V single phase
Power Factor: 1ph - 1,3ph - 0.8
Speed: 3000rpm

Dimensions & Weights

Model	L (mm)	W (mm)	H (mm)	Weight (kg)
DG3600D	680	455	545	80
DG6000D	740	475	590	95
DG6000DS	900	520	700	150
DG8000D/ DG8000DT	740	475	600	120
DG8000DS	960	560	710	164
DG12000DSM	1150	670	940	295
DG12000DST				
DGW200D	740	475	590	125



2. SAFETY WARNINGS

	Read and carefully understand the Instruction Manual before use.
	Avoid proximity to fire when refueling highly inflammable!
	Ensure good ventilation around the generator and do not operate indoors. Exhaust gases are very poisonous
	Do not use generator on a slope. Fuel spillage may occur and cause a fire.
	Do not restrict the exhaust silencer. There is a danger of overheating and fire.
	Do not connect generators together. Generator damage will occur.
	Ensure a competent trained person is used in case of overhaul.

3. CONTROLS

All generators are fitted with the following:-

- 2no. 3 pin AC outlets, +ve and -ve DC connections.
- Engine on/off switch.
- Magnetic circuit breaker electric cutout.
- Voltmeter

4. ELECTRICAL CONECTIONS

If the generator is to be connected for standby power use ensure a qualified electrician is employed. The generator must be isolated from the utility power when connected or serious damage will result to the generator and house power circuits.

- Ensure total load does not exceed the generator rating. Maximum power output must only be used briefly or generator damage will occur.

- DC output to be used for charging automotive and solar 12V batteries only. Ensure correct polarity when connecting cables, i.e +ve to +ve and -ve to -ve generator to battery terminals.
- Ensure the generator is properly earthed. Consult a qualified electrician if in doubt.

5. GENERATOR OPERATION

Always start generator before applying load by switching the circuit breaker and stop the generator after disconnecting load. Starting and stopping under load will damage the generator and powered accessories.

- CHECK ENGINE OIL. Operating without oil will cause severe engine damage and invalidate the warranty.
- To start ensure ignition 'ON', fuel valve 'ON' and choke 'ON'. Then either pull starter cord (manual start) or turn key (electric start). For electric start do not turn the engine on for more than 5 seconds. If it fails to start release the switch and wait 15 seconds before re-trying. Switch off choke when engine has started.
- Check output voltage is 240V on the voltmeter. If not adjust engine speed. If the speed setting is correct and the voltage is low then the generator is overloaded and load must be reduced.
- If more than an appliance is connected apply load progressively with greatest load first.
- Close fuel valve whenever generator is not operating.

6. ROUTINE MAINTENANCE

For comprehensive diesel engine operation, see separate engine manual.

ENGINE OIL: Check engine oil every time you use the generator. If low refill it. Change engine oil after first month or after 20hrs operation and thereafter every 3 months or 100 hours of operation, in both cases whichever is sooner.

FUEL FILTER: Every 3 months check the fuel filter under the fuel cock for debris and clean. Use a spanner to remove.

AIR CLEANER: Check the air cleaner every time you use it and clean it every 3 months or after 100 hours operations, whichever is sooner. Clean by blowing away accumulated dust and soaking in kerosene.

7. TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Engine does not start	Carburettor is blocked	Clean carburettor
	Spark plug is wet / dirty	Clean and adjust plug
	Air cleaner dirty	Clean air cleaner
	Too much engine oil	Reduce oil to suitable level
	Insufficient engine oil	Oil sensor is activated. Add oil (Oil sensor prevents engine from running if oil level is low)
	No fuel	Check fuel cock open
		Clean if fuel filter blocked
	Battery flat (Electric start)	Charge/replace battery
Oil leakage from muffler or air cleaner	Engine has tipped over	Right engine oil to drain
No Electrical output	Circuit breaker tripped	Reduce generator load
		Check for short circuit in load
		Loose connection in output cable
Low Electrical output	Low output voltage	Check engine speed
	Excessive electrical load	Reduce generator load

8. TERMS OF WARRANTY

i) General Liability

- In lieu of any warranty, condition or liability implied by law, the liability of Dayliff (hereafter called the Distributor) in respect of any defect or failure of equipment supplied **is limited to making good by replacement or repair** (at the Distributor's discretion) defects which under proper use appear therein and arise solely from faulty design, materials or workmanship within a specified period. This period commences **immediately after the equipment has been delivered to the customer** and at its termination all liability ceases. Also the warranty period will be assessed **on the basis of the date that the Distributor is informed of the failure.**

- This warranty applies solely to equipment supplied and **no claim for consequential damages,** however arising, will be entertained. Also the warranty specifically excludes defects caused by fair wear and tear, the effects of careless handling, lack of maintenance, faulty installation, incompetence on the part of the equipment user, Acts of God or any other cause beyond the Distributors's reasonable control. Also, any repair or attempt at repair carried out by any other party **invalidates all warranties.**

ii) Standard Warranty

If equipment failure occurs in the normal course of service having been competently installed and when operating within its specified duty limits warranty will be provided as follows:-

- **Up to three months - The item will be replaced or repaired at no charge.**
- **Over three months, less than six months - The item will be replaced or repaired at a cost to the customer of 50% of the Davis & Shirtliff market price.**

The warranty on equipment supplied or installed by others is conditional upon the defective unit **being promptly returned free to a Davis & Shirtliff office** and collected thereafter when repaired. No element of site repair is included in the warranty and any site attendance costs will be payable in full at standard charegeout rates. Also proof of purchase including the purchase invoice must be provided for a warranty claim to be

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INS182G-03/20