

# **SIGMA Series**

# **G-Build Engine**

**SW 25** 

Power range: 25 kW; 33.5 bhp Fixed speed: 1500 r/min

# Naturally aspirated heavy-duty G-Build diesel engine

## **Special Attributes**

- suitable for generating sets
- 250-hour service intervals
- continuous operation in ambient temperatures up to 50°C (122°F)
- unaided cold-start down to -2°C (28.4°F)

# **Basic Engine Characteristics**

- three cylinders
- diesel fuelled
- direct injection
- liquid cooled
- naturally aspirated

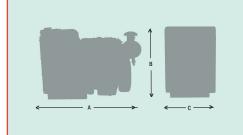
# **Design Features and Equipment**

- standard oil and fuel filters
- 12 V electric start
- anticlockwise rotation, looking on flywheel
- SAE 10" flywheel
- SAE 3 flywheel housing
- radiator with fan guard
- cast-iron crankcase
- self-vent fuel system
- inline fuel injection pump
- flywheel with ring gear
- air cleaner
- low oil-pressure switch
- spin-on lubricating-oil filter
- primary/secondary fuel filter
- inlet and exhaust manifolds
- operators' handbook
- instrumentation package



Technical Data				
Number of cylinders		3		
Firing order (number 1 cylinder is at gear end)		132		
Fuel injection		Direct injection		
Aspiration		Natural		
Direction of rotation, looking on flywheel		Anticlockwise		
Naminal adjudar bara	mm	105		
Nominal cylinder bore	in	4.13		
Stroke	mm	110		
	in	4.33		
Total cylinder capacity	litre	2.86		
	in <sup>3</sup>	174.3		
Compression ratio		19:1		
Rated maximum full-load speed	r/min	1500		
Mean piston speed	m/sec	5.5		
	f/sec	18.0		
Oil consumption		Maximum 0.3% of fuel consumption		

Dimensions and Weight				
Length (A)	mm	1065		
	in	41.9		
Height (B)	mm	978		
	in	38.5		
Width (C)	mm	730		
	in	28.74		
Dry Weight	kg	441		
	lb	971		



Fuel Consumption			
r/min	1500		
litres/hour			
@ 100% power	6.6		
(continuous power)			

A comprehensive range of options allows you to select a specification that matches your requirements. Please ask your Lister Petter distributor. (See panel below left.)

Distributor's Address	

Lister Petter have made efforts to ensure that the information in this data sheet is accurate but reserve the right to amend specifications and information without notice and without obligation or liability.

Power Outputs*			
	r/min	1500	
Continuous Power	kW	25	
	bhp	33.5	
Overload Power	kW	27.5	
	bhp	36.9	

## **Rating Definitions, to ISO 3046**

#### **ISO Standard Conditions**

Barometric pressure	100 kPa
Relative humidity	30%
Ambient temperature at air inlet manifold	25°€

#### Fixed speed power: continuous power (ICN)

The power in kW which the engine is capable of delivering continuously at the stated crankshaft speed, under ISO standard conditions, measured at the flywheel without power-absorbing accessories, provided that the engine is overhauled and maintained in good operating condition and that fuel to BS EN 590 Class A1 or A2, and lubricating oils to the correct performance specification and viscosity classification as recommended by Lister Petter Limited, are used.

#### Fixed speed power: overload power (ICXN)

The maximum power in kW which the engine is capable of delivering intermittently at the stated crankshaft speed for a period not exceeding one hour in any period of twelve hours' continuous running, immediately after working at the continuous power, under ISO standard conditions and with the provisions specified for continuous power above.

#### De-rating

For non-standard site conditions, reference should be made to relevant BS, ISO and DIN standards.

#### Notes

- 1. Power ratings are measured at the flywheel end.
- 2. Power ratings and fuel consumption figures apply to a fully run-in, non-derated engine without a radiator and fan fitted, and without power-absorbing accessories or transmission equipment.



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