



SIGMA Series G-Build Engine

SIGMA 25, SIGMA 30

Power range: 25–30.9 kW; 33.5–41.4 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 and four 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

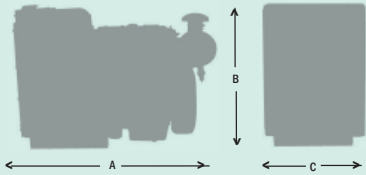
Warranty

- standard: one year



Technical Data			
		SIGMA 25	SIGMA 30
Number of cylinders		3	4
Firing order (number 1 cylinder is at gear end)		1 2 3	1 3 4 2
Fuel injection		Direct injection	
Aspiration		Natural	
Direction of rotation, looking on flywheel		Anticlockwise	
Nominal cylinder bore	mm	105	
	in	4.13	
Stroke	mm	110	
	in	4.33	
Total cylinder capacity	litre	2.86	3.81
	in ³	174.3	232.3
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			
		SIGMA 25	SIGMA 30
Length (A)	mm	1025	1160
	in	40.35	45.67
Height (B)	mm	810	970
	in	31.89	38.19
Width (C)	mm	730	730
	in	28.74	28.74
Dry Weight	kg	415	450
	lb	914.92	992.08



Power Outputs*			
		SIGMA 25	SIGMA 30
	r/min	1500	1500
Continuous Power	kW	25	30.9
	bhp	33.5	41.4
Overload Power	kW	27.5	34
	bhp	36.9	45.6

Rating Definitions, to ISO 3046

ISO Standard Conditions

Barometric pressure 100 kPa
 Relative humidity..... 30%
 Ambient temperature at air inlet manifold25°C

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.

Fuel Consumption		
	SIGMA 25	SIGMA 30
r/min	1500	1500
litres/hour @ 100% power (continuous power)	6.6	8.2

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.)

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 transmis-

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