



# SIGMA Series

## SW 20 - 20 Engine

Power ranges: 16 - 28.7 kW; 21.4 - 38.5 bhp  
Variable speed: 1000 - 2000 r/min

*Naturally aspirated heavy-duty variable speed diesel engine*

### Special Attributes

- designed for 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

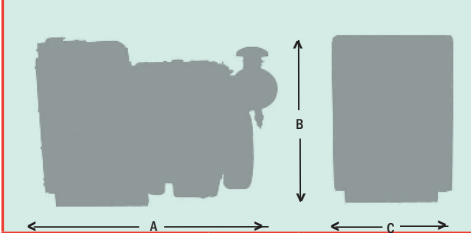
- standard oil and fuel filters
- 12 V electric start
- anticlockwise rotation, looking on flywheel
- SAE 10" flywheel
- SAE3 flywheel housing
- radiator with fan guard
- cast-iron crankcase
- self-vent fuel system
- inline fuel injection pump
- flywheel with ring gear
- air cleaner
- low oil-pressure switch
- spin-on lubricating-oil filter
- primary/secondary fuel filter
- inlet and exhaust manifolds
- 250 - hour service intervals
- operators' handbook
- instrumentation package



Technical Data		
Engine family	SW 20	
Number of cylinders	3	
Firing order (number 1 cylinder is at gear end)	1 2 3	
Fuel injection	Direct injection	
Aspiration	Natural	
Direction of rotation, looking on flywheel	Anticlockwise	
Nominal cylinder bore	mm	91.44
	in	3.60
Stroke	mm	127
	in	5
Total cylinder capacity	litre	2.50
	in <sup>3</sup>	152.4
Compression ratio	18.5:1	
Rated maximum full-load speed	r/min	2000
Idling speed (minimum)	r/min	750
Oil consumption	Maximum 0.3% of fuel consumption	

## SIGMA Series: Variable Speed Engine Technical Data Sheet

Dimensions and Weight		
Length (A)	mm	947
	in	37.28
Height (B)	mm	785
	in	30.90
Width (C)	mm	730
	in	28.74
Dry Weight	kg	340
	lb	750



Power Outputs to ISO3046						
		r/min	1000	1500	1800	2000
Variable speed	Fuel Stop Power	kW	16	24	27.7	28.7
		bhp	21.4	32.2	37.1	38.5

Torque to ISO3046						
		r/min	1000	1500	1800	2000
Variable speed	Fuel Stop Torque	Nm	152.4	152.8	146.8	137
		lbf ft	112.4	112.7	108.2	101.1

Fuel Consumption					
Fuel Stop power	r/min	1000	1500	1800	2000
	litre/hr	4.3	6	7	7.6

### 1. Variable speed: fuel-stop power, continuous power (IFN)

The maximum power in kW which an engine is capable of delivering continuously at stated crankshaft speed, with the fuel limited so that the fuel stop power cannot be exceeded. The output ratings apply only to fully run - in engines without radiator, fan or other power absorbing accessories.

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.



UK

Lister Petter Limited, Dursley, Gloucestershire  
GL11 4HS England

Tel: +44 (0)1453 544141; fax: +44 (0)1453 546732

E-mail: sales@lister-petter.co.uk <http://www.lister-petter.co.uk>