

# SIGMA G BUILD ENGINE

SW 40 - 18

Power range: 45.0 kW; 60.3 bhp Fixed speed: 1800 r/min

# **TURBOCHARGED 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**

- four cylinders
- diesel fuelled
- direct injection
- liquid cooled
- turbocharged

## **DESIGN FEATURES AND EQUIPMENT**

- standard oil and fuel filters
- 12V electric start
- anti clockwise 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
- operators' handbook
- instrumentation package



## SIGMA G BUILD ENGINE

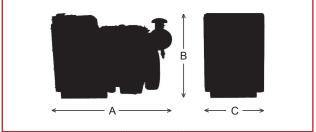
POWER OUTPUTS TO ISO 3046				
		SW 40 - 18		
r/min		1800		
Continuous Power	kW	45.0		
Continuous Fower	bhp	60.3		
Overload Power	kW	49.5		
	bhp	66.4		

FUEL CONSUMPTION				
	SW 40 - 18			
r/min	1800			
litre/hr @ 100% power (continuous power)	12.6			

**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.

#### SIGMA SERIES: SIGMA 40-18 G BUILD ENGINE TECHNICAL DATA SHEET

APPROXIMATE DIMENSIONS AND WEIGHT				
Longth (A)	mm	1160		
Length (A)	in	45.67		
Height (B)	mm	982		
	in	38.6		
Width (C)	mm	730		
	in	28.74		
Dry Weight	kg	460		
	lb	1013		



## **RATING DEFINITIONS, TO ISO 3046**

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

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TECHNICAL DATA				
Model		SW 40 - 18		
Number of cylinders		4		
Firing order (number 1 cylinder is at gear end)		1342		
Type of fuel injection		Direct		
Aspiration		Turbocharged		
Direction of rotation, looking on flywheel		Anti clockwise		
Cylinder bore	mm	105		
	in	4.13		
Stroke	mm	110		
	in	4.33		
Total cylinder capacity	litre	3.81		
	in <sup>3</sup>	232.3		
Compression ratio		19:1		
Rated maximum full-load speed (r/min)		1800		
Mean piston speed	m/sec	6.6		
	f/sec	21.6		
Oil consumption		Maximum 0.3% of fuel consumption		

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.

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

## **DISTRIBUTOR'S ADDRESS**

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