

LPWX3 G BUILD ENGINE

LPWX3

Power ranges: 12.5-17.0 kW; 16.7-22.7 bhp

Fixed speeds: 1500, 1800 r/min

DURABLE, RELIABLE, EASY TO MAINTAIN LIQUID COOLED, G BUILD DIESEL ENGINE

OVERVIEW

The LPWX Series has been developed to deliver a compact, high power density engine with improved fuel consumption. Through development and use of the Lister Petter Power Systems HRCS advanced combustion system additional attributes have also been achieved. These combine to give a smoother, quieter and more powerful engine coupled with our world famous reliability.

SPECIAL ATTRIBUTES

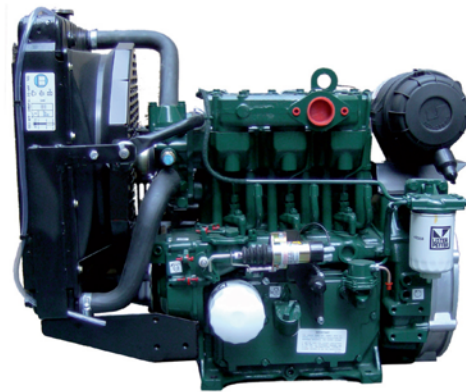
- LP-HRCS (High Re-Entrant Combustion System)
- multi-hole fuel injection system
- hydro-honed injector hole conditioning
- increased power density
- reduced fuel consumption and Noise
- 500-hour service intervals
- designed for continuous operation in ambient temperatures up to 52°C (122°F)
- cold start capability down to -32°C (-25.6°F)

BASIC ENGINE CHARACTERISTICS

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

DESIGN FEATURES AND EQUIPMENT

- heavy duty air cleaner*
- Polyvee fan/alternator drive belt*
- inlet and exhaust manifolds*
- inlet manifold heater plugs
- fuel lift pump
- self-vent fuel system with individual fuel injection pumps
- fuel filter / agglomerator
- gear driven positive displacement type lubricating oil pump



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- spin-on lubricating oil filter
- 12V starter motor*
- 12V battery charge alternator*
- safety switches*
- fuel control solenoid (energised to run)*
- mechanical governing
- radiator with fan and belt guard*
- flywheel with ring gear; 7.5" heavy flywheel for 1500/1800 r/min
- SAE 5 flywheel housing (SAE 4 optional)
- standard skid base packing
- operators' handbook

OPTIONAL ITEMS

- oil cooler
 - 24V electrics
 - increased oil sump capacity (deep sump)
- See also items with asterisk under Design Features and Equipment.

A range of options allows you to select a specification that matches your requirements; please consult your Lister Petter Power Systems distributor.

POWER OUTPUTS ¹			
Power	r/min	1500	1800
Continuous	kW	12.5	15.5
	bhp	16.7	20.7
Fuel Stop	kW	13.7	17.0
	bhp	18.4	22.7

- Power ratings measured at the flywheel and fuel consumptions, apply to a fully run-in, non derated engine without a radiator and fan fitted and other power absorbing accessories or transmission equipment.

- The overload (intermittent) capability applies to a fully run-in engine. This is normally attained after a running period of about 50 hours.

Key to Emissions Compliance

EU Stage 3A only	
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RATING DEFINITIONS TO ISO 3046

ISO Standard Conditions

Barometric pressure	100 kPa
Relative humidity	30%
Ambient air temperature at the inlet manifold	25oC

1. Fixed Speed - Continuous Power (ICN)

The power in kW which the engine is capable of delivering continuously at the stated crankshaft speed, under ISO 3046 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 Power Systems Limited are used.

2. Fixed Speed (Fuel Stop) - 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 of continuous running, immediately after working at the continuous power, under ISO 3046 standard conditions and with the provisions specified for continuous power in item (1) above, but with the fuel limited so that the fuel stop power cannot be exceeded.

3. Derating

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

TECHNICAL DATA		
Type of fuel injection	Direct	
Number of cylinders	3	
Aspiration	Natural	
Direction of rotation (flywheel end)	Anti clockwise	
Nominal cylinder bore	mm	86.0
	in	3.39
Stroke	mm	86.0
	in	3.39
Total cylinder capacity	litre	1.499
	in ³	91.47
Compression ratio	18.5:1	
Firing order (number 1 cylinder is at the gear end)	1 - 2 - 3	
Number of flywheel ring gear teeth	96	
Maximum continuous crankshaft end thrust	kgf	180
	lbf	400
Maximum permissible intake restriction at full rated speed and load	mbar	25
	in	10
Maximum permissible exhaust back pressure	mbar	75
	in	30
Lubricating oil pressure at 3000 r/min and with the oil at 110°C (230°F)	bar	2.0
	lbf/in ²	29

APPROXIMATE DIMENSIONS AND WEIGHT ¹

	Dry weight	kg	179
		lb	395
Length (A)	mm	809	
	in	31.9	
Width (B)	mm	512	
	in	20.2	
Height (C)	mm	685	
	in	27	

Note: These weights are for a fully dressed G build configured engine.



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Skontaktuj się z nami w celu uzyskania profesjonalnej wyceny wdrożenia projektu, instalacji silnika, lub wymiany podzespołów. Nasz profesjonalny zespół szybko i sprawnie przygotowuje kompleksową ofertę usługi którą zrealizujemy w przystępnym odstępie czasowym. Posiadamy pełną dokumentację techniczną i szybki dostęp do części oraz materiałów eksploatacyjnych.

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