



DELTA Series

DWS4 G-Build Engine

DWS4

Power ranges: 28.7–36.5 kW; 38.5–48.9 bhp
Fixed speeds: 1500, 1800 r/min

Heavy-duty, indirect-injection emission compliant G-Build diesel engine

Special Attributes

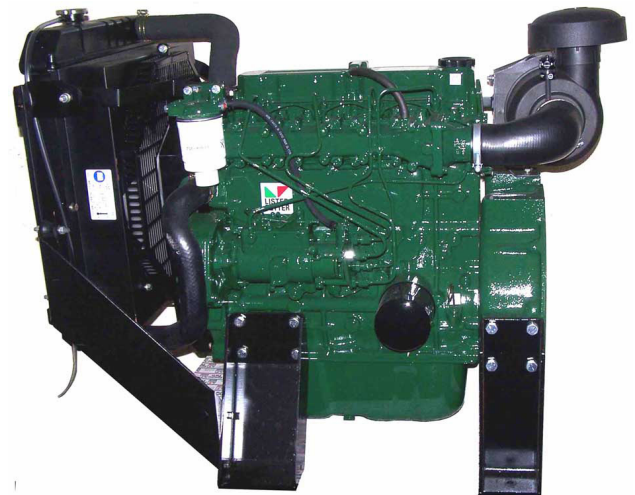
- ✓ designed for continuous operation in ambient temperatures up to 52°C (122°F)
- ✓ tropical radiator with pusher fan and full guarding

Engine Characteristics

- four cylinders
- diesel-fuelled
- liquid-cooled
- indirect injection
- naturally aspirated

Design Features and Equipment

- heavy-duty air cleaner
- inlet and exhaust manifolds
- combustion chamber glow plugs
- fuel lift pump
- self-vent fuel system with rotary fuel injection pump and integrated fuel control solenoid
- gear-driven positive displacement type lubricating oil pump
- standard oil and fuel filters
- 12V electric starting with a 55 Amp alternator
- 12V starter motor
- radiator with fan and belt guard
- flywheel with ring gear
- SAE 3 flywheel housing
- safety switches
- standard skid base packing
- 250-hour service intervals
- operators' handbook



Emissions Compliance

- compliant to EU Stage 2 at 1500 r/min

Optional Items

A range of options enables you to select a specification that matches your requirements. Please consult your Lister Petter distributor.

DELTA Series: DWS4 G-Build Engine Technical Data Sheet

Power Outputs			
		1500	1800
Continuous Power	kW	28.7	33.2
	bhp	38.5	44.5
Overload Power ¹	kW	31.6	36.5
	bhp	42.3	48.9

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 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 measured at the flywheel apply to a fully run-in, non derated engine without power absorbing accessories or transmission equipment. 2. The overload capability applies to a fully run-in engine. This is normally attained after a running period of about 50 hours. 3. Excluding radiator.

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.

Dimensions and Weight			
Dry weight	kg	285	
	lb	628	
Length (A)	mm	1060	C
	in	41.7	
Width (B)	mm	635	A
	in	25.0	
Height (C)	mm	872	B
	in	34.3	

Technical Data			
Number of cylinders		4	
Type of fuel injection		Indirect	
Aspiration		Natural	
Direction of rotation (flywheel end)		Anticlockwise	
Nominal cylinder bore	mm	94.00	
	in	3.7	
Stroke	mm	120.00	
	in	4.7	
Total cylinder capacity	litre	3.33	
	in ³	203.3	
Compression ratio		22:1	
Firing order (1 is at gear end)		1-3-4-2	
Number of flywheel ring gear teeth		122	
No. of starter motor pinion gear teeth		10	
Intermittent end thrust (maximum)	Towards flywheel	N	2160
		lbf	485.0
	Away from flywheel	N	1080
		lbf	242.5
Continuous end thrust (maximum)	Towards flywheel	N	1080
		lbf	242.5
	Away from flywheel	N	540
		lbf	121.3
Intake restriction at full rated speed and load (max. permissible)		mbar	63.5
		in H ₂ O	25.0
Exhaust back pressure (max. permissible)		mbar	68.0
		in H ₂ O	27.2
Fuel consumption at full load, continuous	1500 r/min	g/kWh	235
	1800 r/min	g/kWh	242



UK

Lister Petter Ltd, Dursley, Gloucestershire GL11 4HS, UK
 Tel: +44 (0)1453 544141; fax: +44 (0)1453 546732
 E-mail: sales@lister-petter.co.uk <http://www.lister-petter.co.uk>