



PH Classic Series PH Engine

PH 1, PH 2

(Industrial & Agricultural)

Power ranges: 5.5 - 14.6 kW; 7.5 - 19.8 bhp
Variable or fixed speed; full load speed range: 1500 - 1800 r/min

Reliable, durable heavy duty air cooled diesel engines

Special Attributes

- variable and fixed-speed builds available
- designed for continuous operation in ambient temperatures up to 52 °C (122 °F)
- alternative arrangement of drive

Basic Engine Characteristics

- diesel fuelled
- direct injection
- 1,2 cylinders
- air cooled
- naturally aspirated
- handstart

Design Features and Equipment

- air cleaner
- inlet and exhaust manifolds
- individual fuel injection pumps
- fuel filter
- self-regulating gear type lubricating oil pump
- spin-on lubricating oil filter
- decompressor levers
- flywheel
- full power may be taken from the flywheel or gear end
- mechanical governing
- variable speed 1200 - 1800 r/min
- fixed speed 1500 r/min
- operators' handbook

Options

Alternative hand start options

- gear end - a. crankshaft or b. camshaft
- flywheel end - crankshaft only via stub shaft
- electric start



PH Classic Series: Variable or fixed Speed Engine Technical Data Sheet

Power Outputs ¹ to ISO 3046				
Variable Speed		r/min	1500*	1800*
PH 1	Continuous Power	kW	5.5	6.6
		bhp	7.5	9.0
	Fuel Stop (Intermittent)	kW	6.1	7.3
		bhp	8.2	9.9
PH 2	Continuous Power	kW	11.0	13.2
		bhp	15.0	18.0
	Fuel Stop (Intermittent)	kW	12.2	14.6
		bhp	16.4	19.8

*For fixed speed engines the powers at these speeds are the same.

Notes:

- Power ratings (measured at the flywheel) and fuel consumption, apply to a fully run-in, non derated engine without power absorbing accessories or transmission equipment.
- The overload capability applies to fully run-in engine. This is normally attained after a running period of about 50 hours.

Rating Definitions, to ISO 3046

ISO Standard Conditions

Barometric pressure 100 kPa
 Relative humidity..... 30%
 Ambient temperature at air inlet manifold..... 25°C

1. 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.

2. 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 in (1) above.

3. 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, under ISO standard conditions and with the provisions specified in (1) above, with the fuel limited so that the fuel stop power cannot be exceeded.

4. Variable speed: fuel-stop power, intermittent power (IOFN)

The maximum power in kW which an engine is capable of delivering intermittently at the stated crankshaft speed, for a period not exceeding 1 hour in any period of 12 hours continuous running, with the fuel limited so that the fuel stop power cannot be exceeded, immediately after running at the rating in (3) above, under ISO standard conditions and with the provisions specified in (1) above.

5. De-rating

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

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

Technical Data			PH 1	PH 2
Type of fuel injection			Direct	Direct
Number of cylinders			1	2
Aspiration			Natural	Natural
Direction of rotation looking on flywheel end			Clockwise	Clockwise
Nominal cylinder bore	mm		87.5	87.5
Stroke	mm		110	110
Total cylinder capacity	litre		0.662	1.32
Compression ratio			17.5:1	17.5:1
Minimum idling speed	r/min		1200	1200

Approximate Dimensions		
Dimensions	PH 1	PH 2
Length (A)	635	800
Width (B)	642	687
Height (C)	795	895
Hole's Centre (D)	139.7	295
Hole's Centre (D1)	292.1	292.1
Centre Height (E)	203.2	203.2
Net Weight	180	265



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Distributor's Address

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