



## GAMMA SERIES

fixed speeds  
1500 | 1800 r/min

40-48 kW | 53.6-64.3 bhp

# GW4 15 | GW4 18 G Build Engines

GW4 Engine



### SPECIAL ATTRIBUTES

- suitable for generating sets
- 250-hour service intervals
- continuous operation in ambient temperatures up to 45°C (113°F)
- cold start down to -20°C (-4°F)

### BASIC ENGINE CHARACTERISTICS

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

### DESIGN FEATURES AND EQUIPMENT

- standard oil and fuel filters
- 12V electric start (optional 24V)
- anti clockwise rotation, looking on flywheel end
- SAE 10" and 11.5" 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
- oil pressure sender/switch combination
- water temperature sender / switch combination
- spin-on lubricating-oil filter
- fuel filter / agglomerator
- inlet and exhaust manifolds
- operators' handbook

**POWER OUTPUTS TO ISO 3046**

	r/min	1500	1800
Continuous Power	kW	40.0	44.0
	bhp	53.6	59.0
Overload Power	kW	44.0	48.4
	bhp	59.0	64.9

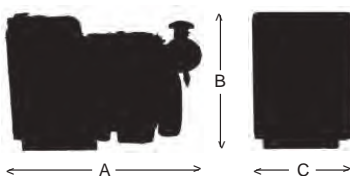
**APPROXIMATE FUEL CONSUMPTION**

r/min	1500	1800
litre/hr at 100% power (continuous power)	10.8	11.9

**TECHNICAL DATA**

Model		GW4 15	GW4 18
Number of cylinders		4	
Firing order (number 1 cylinder is at the gear end)		1 - 3 - 4 - 2	
Type of fuel injection		Direct	
Aspiration		Natural	
Direction of rotation, looking on flywheel		Anti clockwise	Anti clockwise
Cylinder bore	mm	100	100
	in	3.94	3.94
Stroke	mm	127	127
	in	5	5
Total cylinder capacity	litre	3.99	3.99
	in <sup>3</sup>	243.3	243.3
Compression ratio		16.5:1	16.5:1
Rated maximum full-load speed	r/min	1500	1800
Mean piston speed	m/sec	6.35	7.62
	f/sec	20.8	25.0
Oil consumption		Maximum 0.2% of fuel consumption	

**APPROXIMATE DIMENSIONS AND WEIGHT**



Length (A)	mm	1260
	in	49.6
Width (B)	mm	950
	in	37.4
Height (C)	mm	706
	in	27.8
Dry weight	kg	540
	lb	1190

**RATING DEFINITIONS TO ISO 3046**

**ISO Standard Conditions**

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

**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 powerabsorbing 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.

**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.

**Derating**

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

**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.



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