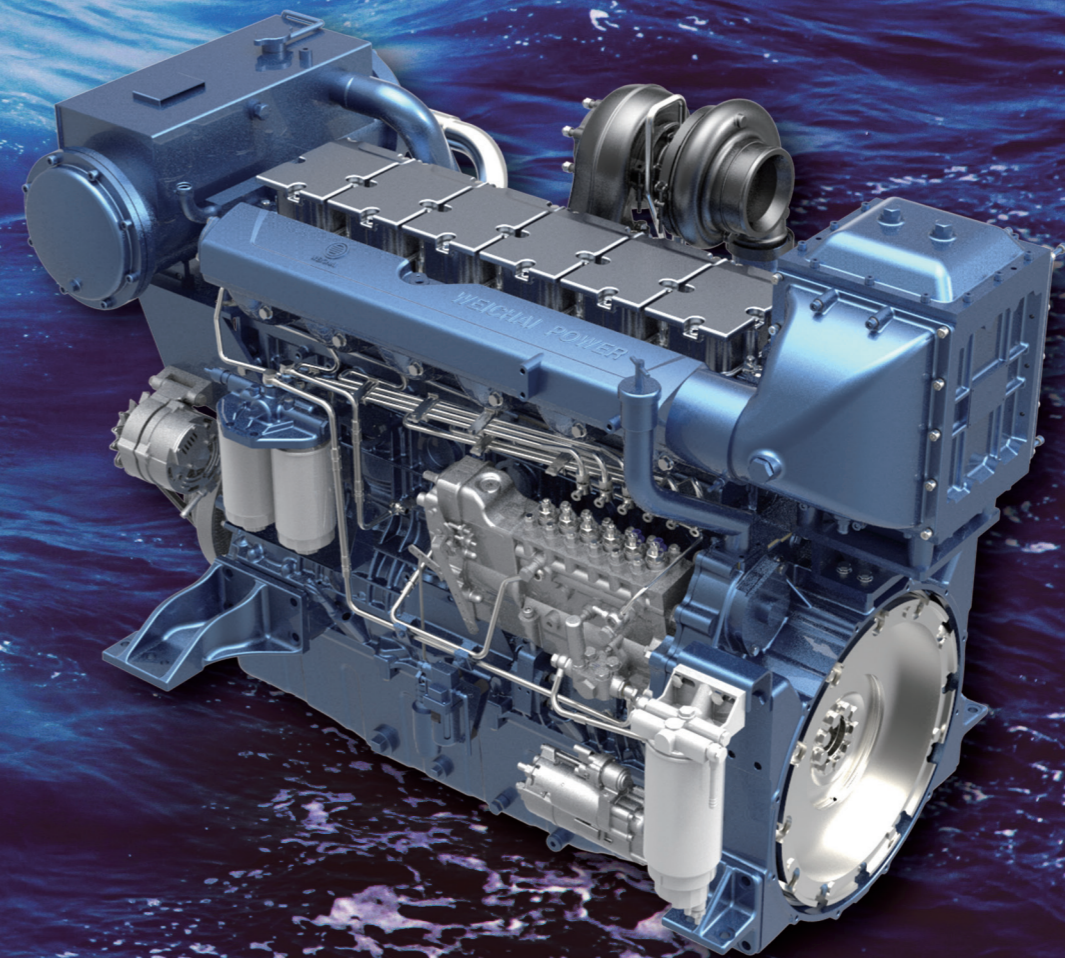


WEICHAI pursues an active policy of product development and improvement. For this reason the company reserves the right to change specifications without prior notice.

WP13

MARINE PROPULSION POWER

RELIABLE · DURABLE · POWERFUL



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Contact your local dealer for more information regarding WEICHAI engine and optional equipment/accessories

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WEICHAI

Technical Data

Engine model	WP13C450-18	WP13C482-18	WP13C500-18
Rated power, Ps(kW)	450(330)	482(354)	500 (368)
Rated speed, r/min	1800	1800	1800
Power rating		P1	
Min. fuel consumption, g/(kW·h)		215	
No. of cylinders and configuration		In-line 6	
Description	4-stroke,direct-injected,turbocharged diesel engine		
Bore x Stroke, mm (in)	127 x 165(5 x 6.5)		
Displacement, L (in ³)	12.54(765.2)		
Compression ratio	16:1		
Dry weight, kg (lb)	1200(2645.5)		
Emission	IMO Tier II		
Firing order	1-5-3-6-2-4		
Idle speed, r/min	650 ± 25		
Flywheel housing/Flywheel	SAE 1/14"		

Class Definition

Power Classification	Time at full load	Mean engine load factor	Annual working time	Typical applications
P1 Continuous Duty	Unlimited	70% ~ 100%	recommended but not limited to 5000h-8000h	Ocean vessel Engineering vessel
P2 Heavy Duty	8h per 12h	40% ~ 80%	recommended but not limited to 5000h	Ferries,High speed passengers boats,Trawlers,Inland waterway transport boats,Tugboat,offshore trade vessel,Purse seine vessel
P3 Intermittent Duty	4h per 12h	40% ~ 80%	recommended but not limited to 3000h	Offshore service boats,Seasonal cruise ship,Official vessels with high utilization rate
P4 Light Duty	2h per 8h	60%	recommended but not limited to 1000h	Fishery patrol ship,Maritime surveillance ship,Patrol boat,Life boat,Stormships used by local governments
P5 High Performance Duty	0.5h per 5h	60%	recommended but not limited to 500h	Leisure yachts

Power Definition

Standard ISO 3046 -1

Reference conditions

Ambient temperature 25 °C / 77 °F
 Barometric pressure 100 kPa
 Relative humidity 30%
 Raw water temperature 25 °C / 77 °F

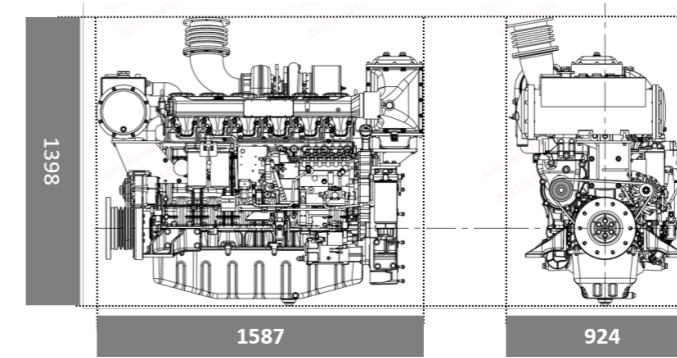
Fuel oil

Relative density 0,840 ± 0,005g/ml
 Lower calorific power 42,700 kJ/kg
 Consumption tolerance 0 ± 5%
 Inlet limit temperature 35 °C / 95 °F

Our ratings also comply with classification societies maximum temperature definition without power derating.

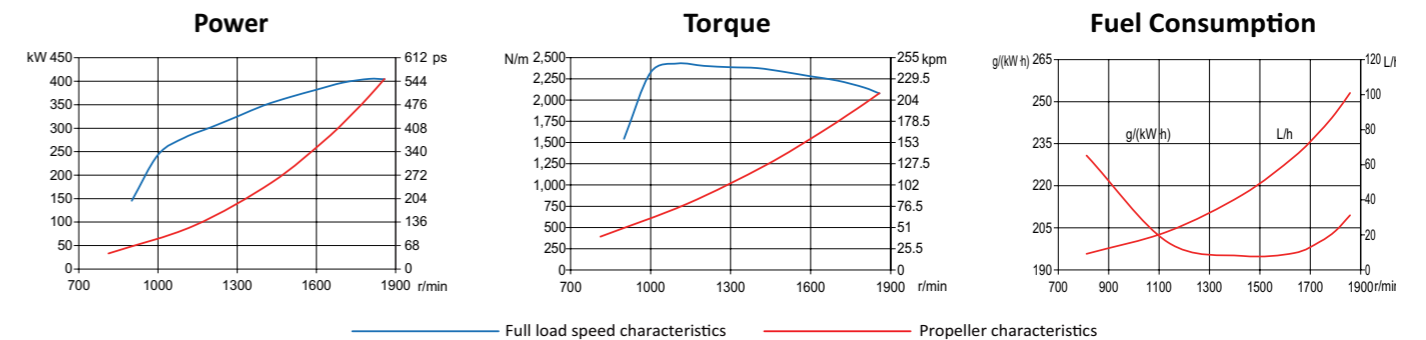
Ambient temperature 45 °C / 113 °F
 Raw water temperature 32 °C / 90 °F

Engine Dimensions



Dimensions may vary based on selected engine configuration

Performance Curves(WP13C500-18)



Technical Description

Engine and block

- Cylinder block made of cast iron
- 4 valves per cylinder
- Steel crankshaft
- Cylinder head of separated type
- Dry cylinder liner

Electrical system

- Starter motor 24V/7.5kW,double-wire system
- Alternator 28V/35A, double-wire system

Lubrication system

- Integrated oil cooler in cylinder block
- Fitted with a hand oil draining pump
- Duplex oil filter of spin-on type

Fuel system

- Anti-explosion high pressure fuel pipe with fuel leaking alarm
- 2 stop methods, electro magnet stop and electromagnetic valve
- Fuel fine filter can be changed without the engine shutdown

Air inlet and exhaust system

- Turbocharged and intercooled air intake system
- Engine coolant cooled exhaust pipe

Cooling system

- Heat exchanger and air cooler with corrosion-resistance tubes and anti-corrosion Zinc bar

Instruments/controls (option)

- Local control panel and remote panel equipped
- Connectors of plug-in type

