

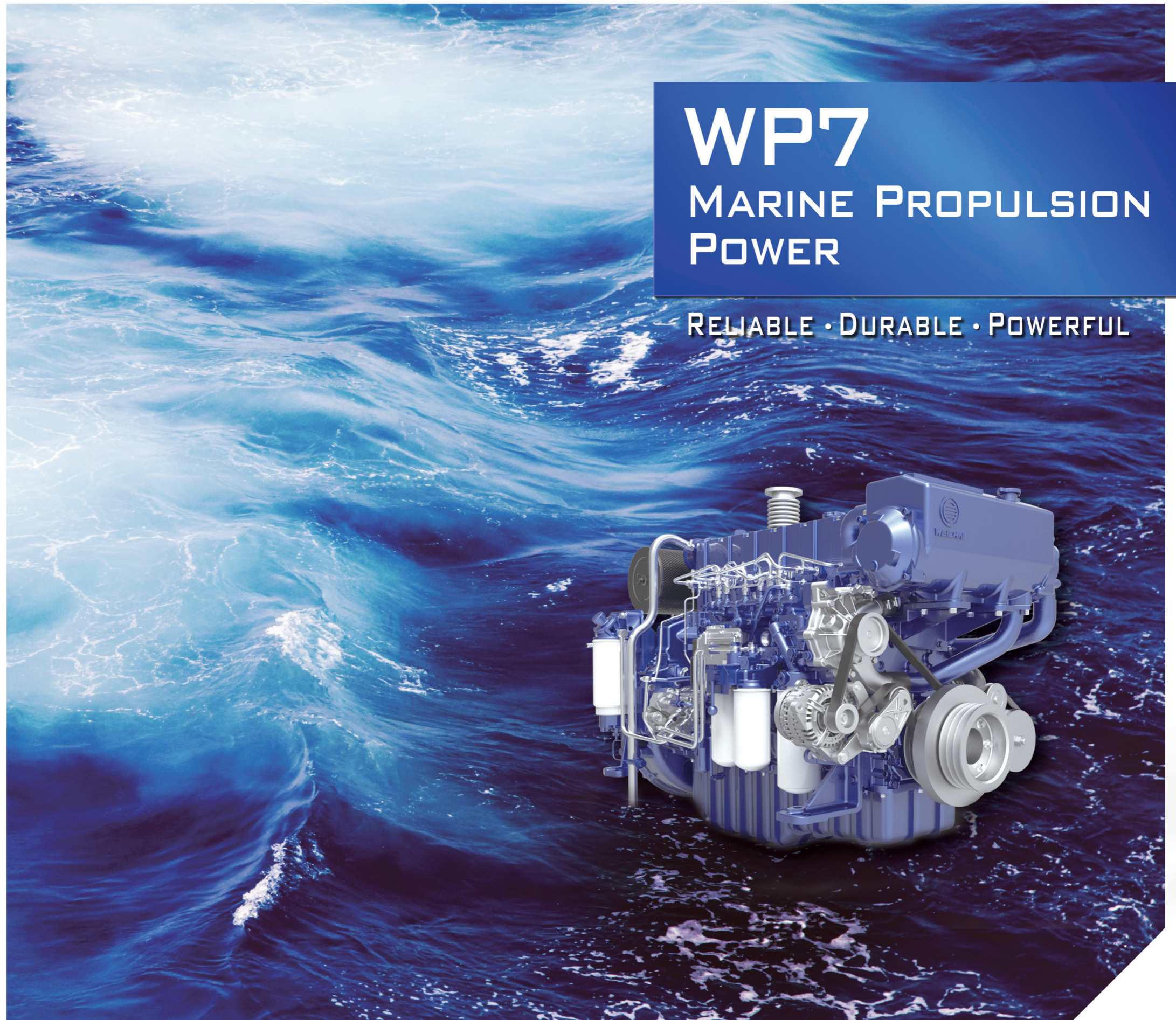
WEICHAI pursues an active policy of product development and improvement. For this reason the company reserves the right to change specifications without prior notice.

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



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# WP7

## MARINE PROPULSION POWER

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**WEICHAI**

Technical Data

Engine model	WP7C150-15E120	WP7C240-18E120	WP7C268-18E120	WP7C278-21E120	WP7C300-22.5E120
Rated power, Ps(kW)	150(110)	240(176)	268(197)	278(205)	300(220)
Rated speed, r/min	1500	1800	1800	2100	2250
Power rating		P1		P2	
Min. fuel consumption, g/(kW·h)	195				
No. of cylinders and configuration	in-line 6				
Description	4-stroke, direct-injected, turbocharged diesel engine with air cooler				
Bore x Stroke, mm (in)	108 x 136(4.25 x 5.35)				
Displacement, L (in <sup>3</sup> )	7.47 (455.8)				
Compression ratio	18:1				
Dry weight, kg (lb)	900 (1984)				
Emission	IMO Tier II				
Firing order	1-5-3-6-2-4				
Idle speed, r/min	650±50				
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

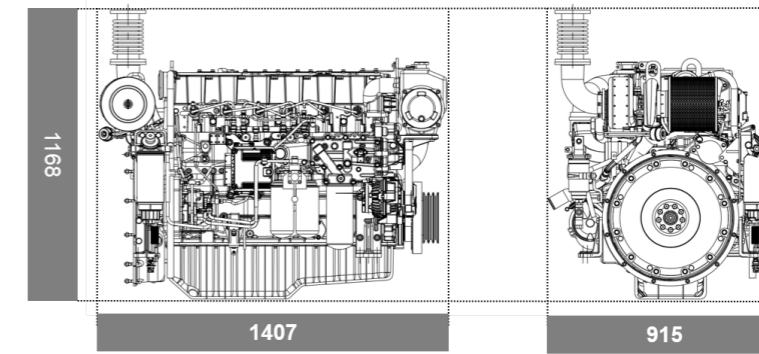
Fuel oil

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.

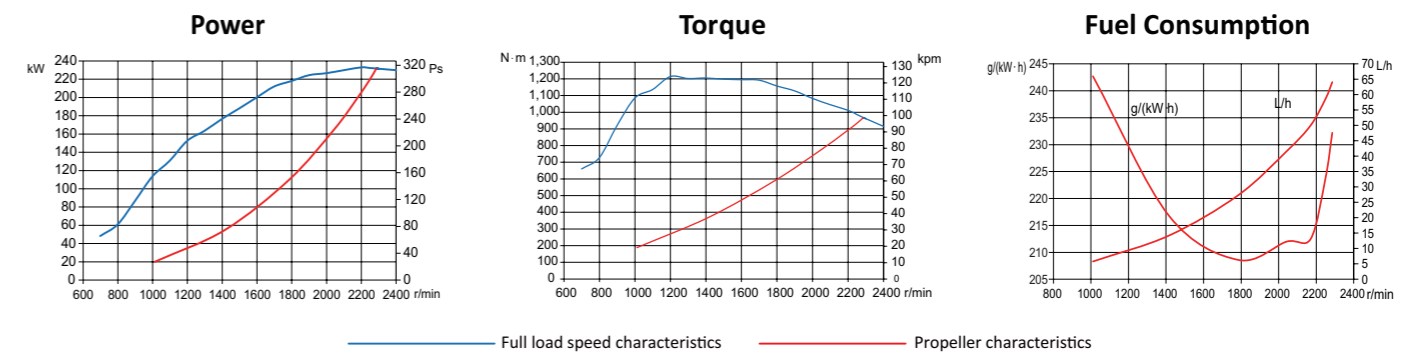
Ambient temperature 45 °C / 113 °F  
 Raw water temperature 32 °C / 90 °F

Engine Dimensions



Dimensions may vary based on selected engine configuration

Performance Curves(WP7C300-22.5E120)



Technical Description

Cylinder block

- Engine block casted by HT280
- 4 valves per cylinder
- Steel crankshaft
- Wet cylinder liner

Electrical system

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

Lubrication system

- External oil filter element
- Oil draining pump

Fuel system

- Bosch high pressure common rail system
- The standard fuel fine filter and fuel coarse filter
- Double layer high pressure pipe
- Fuel leak alarm

Air inlet and exhaust system

- Holset turbocharger
- Turbocharged and intercooled air intake system
- Water jacket exhaust pipe

Cooling system

- Installed fresh water pump and sea water pump
- The standard heat exchanger
- Modular designed oil cooler

Optional

- Water jacket exhaust connecting pipe

