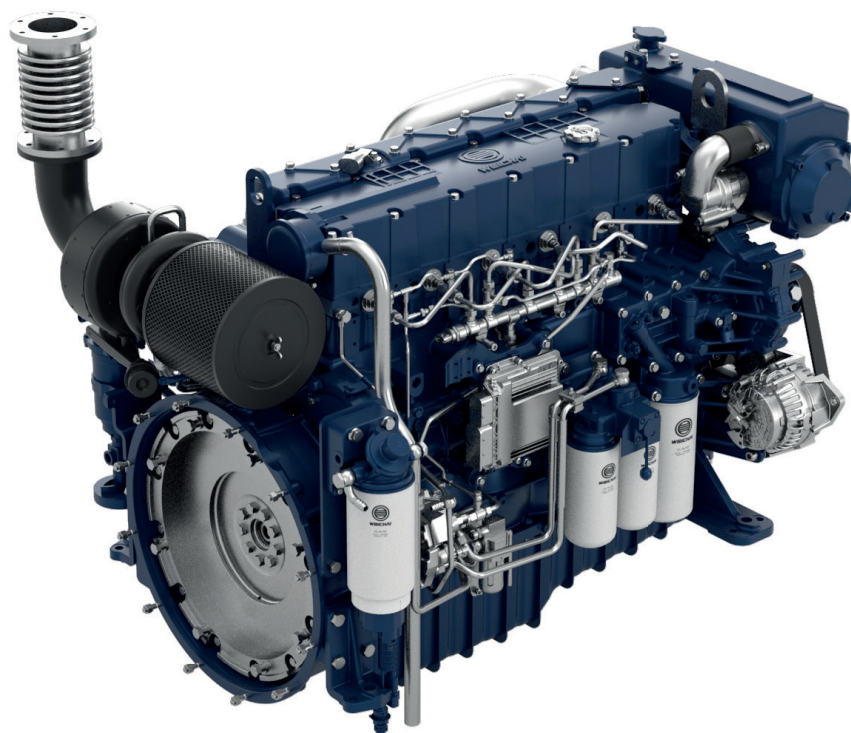


Marine Propulsion Engine

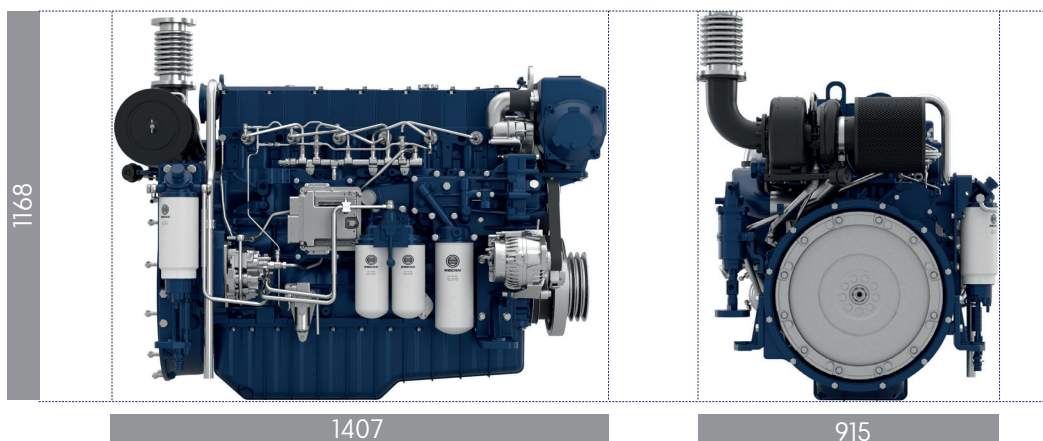


WP7

Technical Data

Engine Model	WP7C150 - 15E120	EP7C240-18E120	WP7C268-18E120	WP7C278-21E120	WP7C300-22.5E120
Rated power (HP/kW)	150 / 110	240 / 176	268 / 197	278 / 205	300 / 220
Rated speed (rpm)	1500	1800	1800	2100	2250
Power class	P1	P1	P1	P1	P2
Min. fuel consumption	195				
No. of cylinders	6 In line	6 In line	6 In line	6 In line	6 In line
Description	4 - stroke, direct injected, turbocharged diesel engine with air cooler				
Bore/Stroke mm (in)	108 x 136 (4.25 x 5.35)				
Displacement (L)	7.47				
Compression ratio	18:1				
Dry weight bobtail (kg)	900				
Emission compliance	IMO Tier II				
Firing order	1-5-3-6-2-4				
Idle speed (rpm)	650 ± 50				
Flywheel housing / Flywheel	SAE 1/14"				

Recommended fuel to conform to ASTM-D975: 1-D; 2-D; DIN51601; NATO CODES F54, F57, F76, GB252 0, -10, -20, -35, -50; BS2869: A1, A2; W-F800C:DF-A, DF-1, DF-2



Connections

Raw water inlet	Ø 51mm
Raw water outlet	Ø 51mm
Fuel inlet	Ø 16mm
Fuel outlet	Ø 10mm
Exhaust	Ø 110mm

Class Definition

Rating	Time at full load	Mean engine load factor	Annual working time	Typical applications
P1 Continuous Duty	unlimited	80%-70%	Recommended but not limited to 5000h - 8000h	Oceanvessel, Engineering vessel
P2 Heavy Duty	8h per 12h	30%-40%	Recommended but not limited to 5000h	Ferries, High speed passenger baots, Trawlers, Inland waterway transport boats, Tugboat, offshore trade vessel, Purse seine vessel
P3 Intermittent Duty	2h per 4h	40% ~ 80%	Recommended but not limited to 3000h	Offshore service boats, Seasonal cruise ship, Offical 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 - 1995 (F)

Reference Conditions

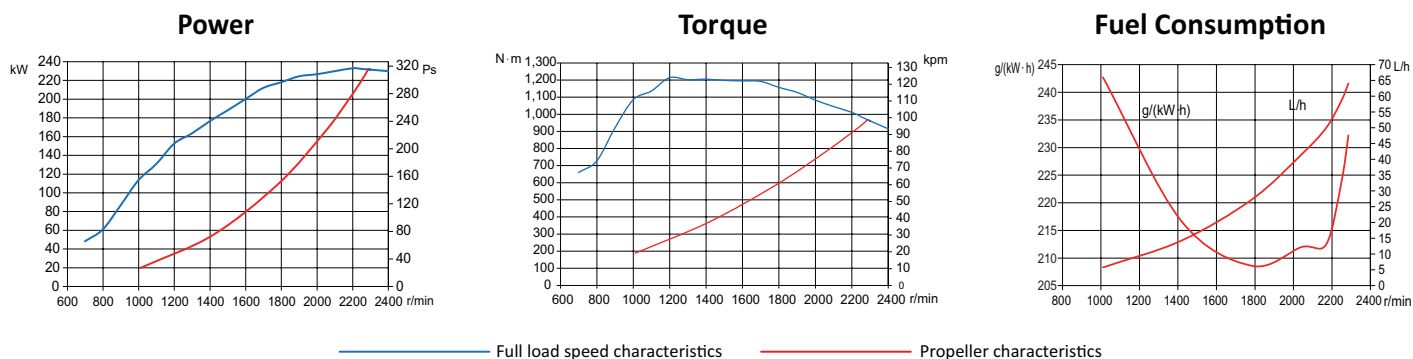
Ambient temperature	25°C / 77°F
Barometric pressure	100 kPa
Relative humidity	30%
Raw water temperature	25°C / 77°F

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



Technical Description

Engine and block

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

Electrical system

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

Lubrication system

- External oil filter element
- Oil draining pump

Fuel system

- Bosch high pressure common rail system
- The standard fuel line 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

Instruments/controls (options)

- Water jacket exhaust connecting pipe

