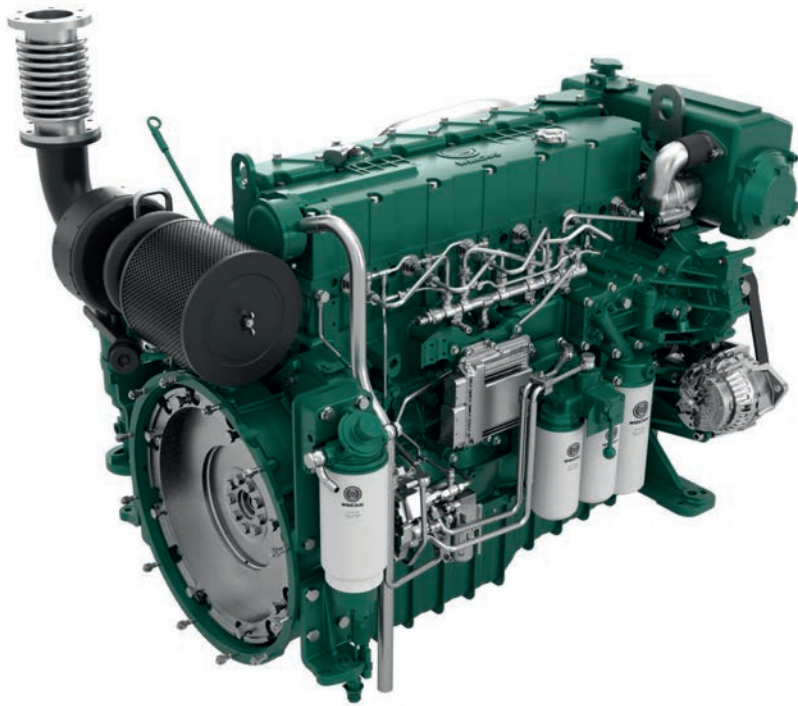


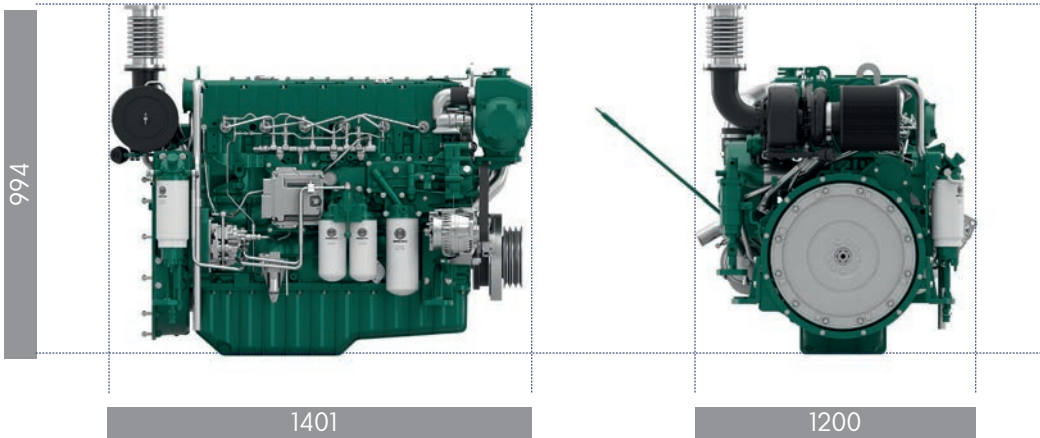
## Marine Propulsion Engine



# WP7

### Technical Data

<b>Engine designation</b>	<b>WP7C300-22</b>
Rated power (HP/kW)	300/220
Speed (rpm)	2200
Power class	P2
Min. fuel consumption	195
No. of cylinders	in-line 6
Description	4-stroke, direct injected, turbocharged diesel engine with charge air cooler
Bore/Stroke, mm (in)	108/136 (4.25/5.35)
Displacement, L (in <sup>3</sup> )	7.47 (455.8)
Compression ratio	17.5:1
Dry weight bobtail, kg (lb)	900 (1984)
Emission compliance	IMO Tier II
Firing order	1-5-3-6-2-4
Idle speed (r/min)	700±50
Flywheel housing/Flywheel	SAE 1 <sup>#</sup> /14 <sup>#</sup>
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	Cruising speed	Typical applications
P1 Continuous Duty	unlimited	80%-100%	5000h to 7000h	unlimited	Trawlers, Freighters, Dredgers, Ferries, Local carriers, Barges
P2 Heavy Duty	8h per 12h	30%-80%	3000h to 5000h	unlimited	Passenger boats, Harbour tug boats, Coasters, Tuna boats, Seiners, Oceanographic research vessels
P3 Intermittent Duty	2h per 12h	70%	1000h to 3000h	90%	Fishing crafts, Pilot boats, Commercial pleasure crafts, Fire fighting boats
P4 Light Duty	1hr per 12h	60%	<1000h	80%	Patrol boats, Life boats
P5 High Performance Duty	1hr per 12h	<30%	<500h	80%	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

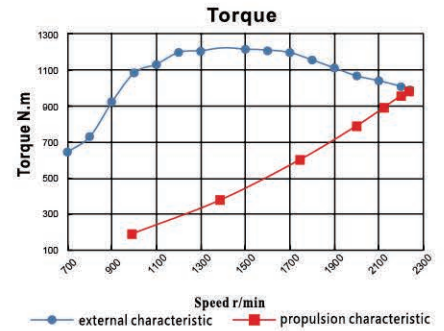
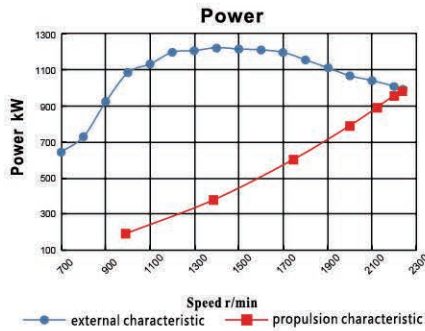
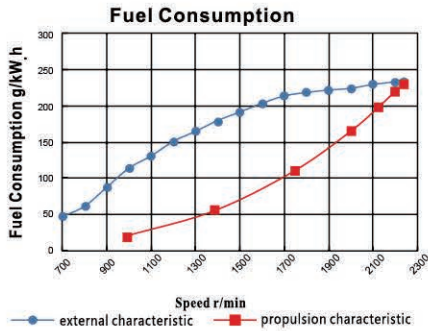
Fuel oil

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

## Performance Curves (WP6C 185-21)



## Technical Description

### Engine and block

- Cylinder block made of cast iron
- 4 valve per cylinder
- Steel crankshaft
- Cylinder head of integral type
- Wet cylinder liner

### Electrical system

- Start motor 24V/6kW, double-wire system
- Alternator 28V.120A, single-wire system

### Lubrication system

- Fitted with a hand oil draining pump
- Single oil filter of spin-on type

### Fuel system

- Anti-explosion high pressure fuel pipe with fuel leaking alarm
- Fuel line filter can be changed without the engine shut-down
- Common rail system with electronic controlled fuel pump

### Air inlet and exhaust system

- Turbocharged and inter-cooled air intake system
- Engine coolant cooled turbocharger and exhaust pipe
- Air filter with stainless shell

### Cooling system

- Heat exchanger and inter-cooler fitted compactly
- Copper sea-water pump with replaceable corrosion-resistant zinc bar
- Stainless steel water pipes

### Instruments/controls (options)

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

