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8WH25

MARINE PROPULSION POWER

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Technical Data

Engine model	8WH25LC2500-7.5 8WH25LC2720-7.5 8WH25LC3000-9 8WH25LC3300-9 8WH25LC3265-1 8WH25LC3645-1					
Rated power, Ps(kW)	2500(1838)	2720(2000)	3000(2207)	3300(2427)	3265(2400)	3645(2680)
Rated speed, r/min	750	750	900	900	1000	1000
Power rating	P1					
Min. fuel consumption, g/(kW·h)	185					
No. of cylinders	In-line 8					
Description	4-stroke, direct-injected, turbocharged diesel engine with air cooler					
Bore x Stroke, mm (in)	250 x 330 (9.8 x 13)					
Displacement, L (in ³)	97.2(5931.1)					
Compression ratio	15.7:1					
Dry weight, kg (lb)	16800(37037.7)					
Emission	IMO Tier II					
Firing order	1-3-7-4-8-6-2-5					
Idle speed, r/min	300	300	360	360	400	400
Flywheel size, mm	Φ870					
Other engine models	8WH20LC2200-6					

Class Definition

Power Classification	Typical Conditions of Usage	Typical applications
P1 Continuous Duty	1. Typical annual usage is recommended but not limited to 5000h~8000h; 2. Full power can be used without interrupt; 3. Average load: 70%~100% of rated power; 4. The operating state in common use: Uninterrupted continuous full load use.	Ocean vessel, Engineering vehicle
P2 Heavy Duty	1. Typical annual usage is recommended but not limited to 5000h; 2. Full power could be utilized max 8h per 12h; 3. Average load: 40%~80% of rated power; 4. The operating state in common use: Continuous variable load, common use operating state is high load in high speed and middle speed.	Ferries, High speed, Passengers boats, Trawlers, Inland waterway transport boats, Tugboat, Offshore trade vessel, Purse seine vessel
P3 Intermittent Duty	1. Typical annual usage is recommended but not limited to 3000h; 2. Full power could be utilized max 4h per 12h; 3. Average load: 40%~80% of rated power; 4. The operating state in common use: high load in high speed and variable load in low speed.	Offshore service boats, Seasonal cruise ship, Official vessels with high utilization rate
P4 Light Duty	1. Typical annual usage is recommended but not limited to 1000h; 2. Full power could be utilized max 2h per 8h; 3. Average load: 60% of rated power; 4. The operating state in common use: high load in high speed and low load in low speed, Have higher requirement to acceleration.	Fishery patrol ship, Maritime surveillance ship, Patrol boat, Life boat, Stormships used by local governments
P5 High Performance Duty	1. Typical annual usage is recommended but not limited to 500h; 2. Full power could be utilized max 0.5h per 5h; 3. Average load: 60% of rated power; 4. The operating state in common use: high load in high speed, Have higher requirement to acceleration.	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

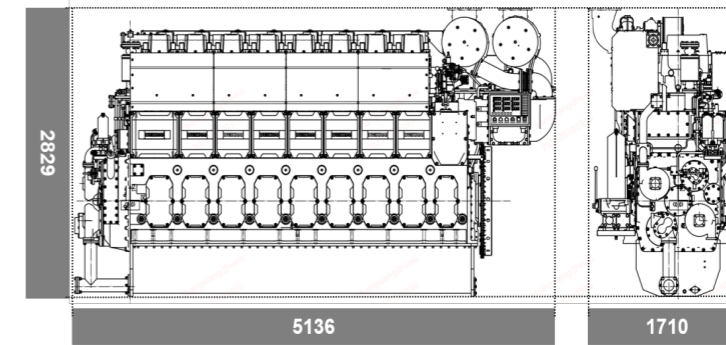
Fuel oil

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.

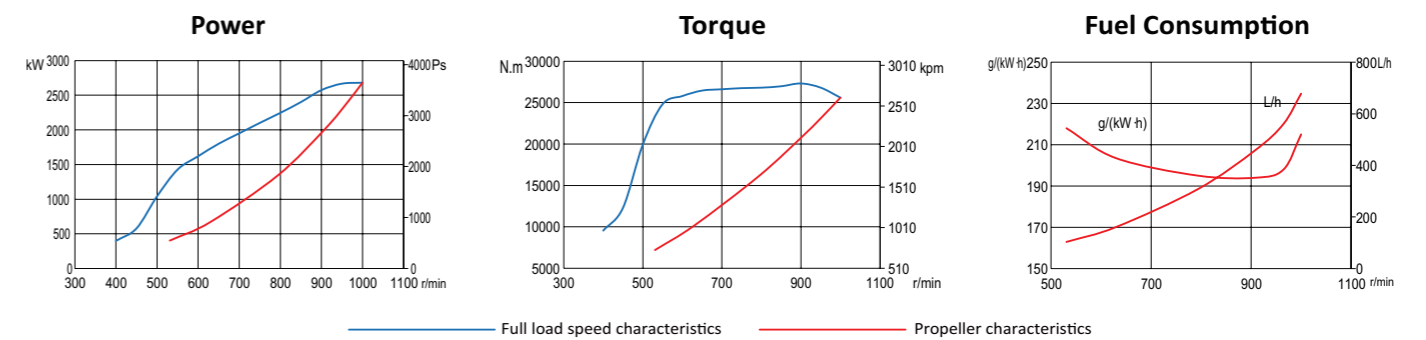
Ambient temperature 45 °C / 113 °F
Raw water temperature 32 °C / 90 °F

Engine Dimensions



Dimensions may vary based on selected engine configuration

Performance Curves(8WH25LC3645-1)



Technical Description

Engine and block

- Cylinder block made of Vermicular graphite cast iron
- 4 valves per cylinder
- Steel crankshaft
- Wet cylinder liner
- Three-section connecting rod for easy maintenanc

Starting system

- Air motor start

Lubrication system

- Switchable oil filter
- Centrifugal oil filter (option)
- Lube oil automatic filter (option)

Fuel system

- Unit fuel injection pump
- Anti-explosion high pressure fuel pipe and leak-off fuel monitoring
- Switchable fuel fine filter

Air inlet and exhaust system

- Turbocharged and intercooled air intake system
- High pressure ratio turbocharger
- Each cylinder is equipped with a thermocouple
- Ductile iron exhaust pipe

Cooling system

- Gear driven fresh water pump installed on engine
- Gear driven sea water pump installed on engine

