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8WH28

MARINE PROPULSION POWER

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WEICHAI

Technical Data

Engine model	8WH28C3808-6.5	8WH28C4000-7.2	8WH28C4080-7.5	8WH28C4352-7.5	8WH28C4352-8
Rated power, Ps(kW)	3808(2800)	4000(2942)	4080(3000)	4352(3200)	4352(3200)
Rated speed, r/min	650	720	750	750	800
Power rating	P1				
Min. fuel consumption, g/(kW·h)	192				
No. of cylinders	In-line 8				
Description	4-stroke, direct-injected, turbocharged diesel engine with air cooler				
Bore x Stroke, mm (in)	280 x 410 (11.02 x 16.14)				
Displacement, L (in ³)	202(12326.8)				
Compression ratio	16.8:1				
Dry weight, kg (lb)	29000(63934)				
Emission	IMO Tier II				
Firing order	Clockwise: 1-3-2-5-8-6-7-4 Counter clockwise: 1-4-7-6-8-5-2-3				
Idle speed, r/min	380				
Flywheel size, mm	Φ790				

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

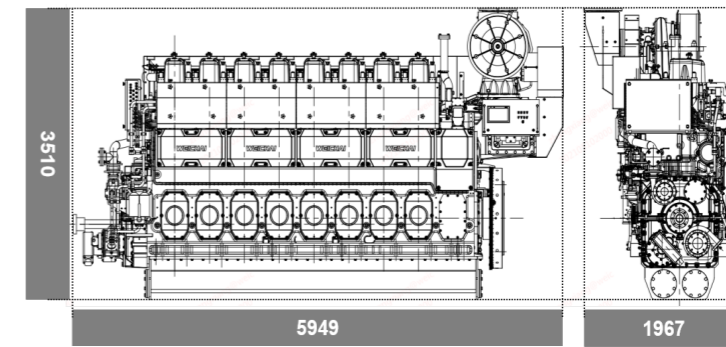
Fuel oil

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.

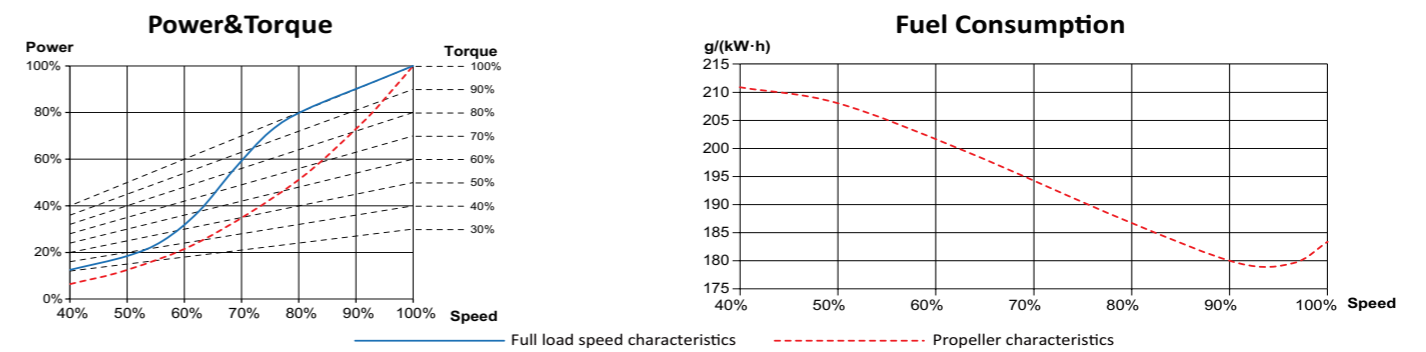
Ambient temperature 45 °C / 113 °F
Raw water temperature 32 °C / 90 °F

Engine Dimensions



Dimensions may vary based on selected engine configuration

Performance Curves(8WH28C4352-8)



Technical Description

Engine and block

- Cylinder block made of gray cast iron
- 4 valves per cylinder
- Alloy steel crankshaft
- Cylinder head made of vermicular cast iron
- Wet cylinder liner

Start system

- Air motor /Air distributor
- Turning gear convenient for turning

Lubrication system

- Oil automatic backwash filter for free maintenance
- Centrifugal filter with self-cleaning for lubrication

Fuel system

- 1500bar high pressure pump
- The fuel system is suitable for MDO, MGO, HFO
- Energy accumulator for restrain pressure fluctuation in fuel tube

Air inlet and exhaust system

- High boost ratio, strong miller intake system
- Air intake cavity is integrated in the body, saving space
- Pure pulse exhaust pipe for better air intake response and starting performance

Cooling system

- Double circulation system with high and low temperature cooling water
- Low temperature cooling water with zinc bar can resistant to corrosion
- Low temperature with tempering valve can control air intake temperature after intercooler

