



The New Marine Power Reference

4 stroke diesel engine, direct injection, common-rail

Bore and stroke
Number of cylinders
Total displacement
Compression ratio
Engine rotation (ISO 1204 standard)
Idle speed
Flywheel housing
Flywheel

150 x 150 mm 12 in V @ 90° 31.8 litres 15/1 counterclockwise 600 rpm SAE 0

SAE 18"

Customer benefits

Genuine marine design with simple solutions, routine maintenace front area, engine block inspection hatches

Continuous compact power with reference performances in its category

Global environment care with low exhaust emissions, noise reduction and controlled fuel consumption at any running cycle

Latest safe technology including electronic injection dynamic redundancy, high efficient ball bearing turbocharger, integrated circuits with 0 flexible hoses, and more...

Life cycle cost efficiency with extended MTBO, modular concept reducing number of components and interfaces

Rated power - Fuel consumption

Duty	kW	hp	rpm	BFSC g/kWh*	IMO	EPA	CCNR	CE 97/68
P1	808	1100	1600	206	II	-	II	IIIA
P1	883	1200	1800	197	II	III	II	IIIA
P2	970	1320	1800	201	II	-	II	IIIA
P2	1030	1400	2100	204	II	III	II	IIIA
P2	1104	1500	2200	209	II	III	II	IIIA
P3	1214	1650	2300	215	II	Ш	-	-

^{*} Declared BFSC at IMO II ratings

	P1	P2	P3	
Application	unrestricted continuous	continuous	intermittent	
Engine load variations	very little or none	numerous	important	
Mean engine load factor Annual working time	80 to 100%	30 to 80%	50%	
	more than 5000 h	3000 to 5000 h	1000 to 3000 h	
Time at full load	unlimited	8 h each 12 h	2 h each 12 h	

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 25 °C / 77 °F

Fuel oil

 $\begin{array}{ll} \mbox{Relative density} & 0.840 \pm 0.005 \\ \mbox{Lower calorific power} & 42 \ 700 \ \mbox{kJ/kg} \\ \mbox{Consumption tolerances} & 0 \pm 5\% \\ \mbox{Inlet limit temperature} & 35 \ ^{\circ}\mbox{C} \ / \ 95 \ ^{\circ}\mbox{F} \end{array}$

Our ratings also comply with classification societies maximum temperature definition without power derating.

Ambient temperature 45 $^{\circ}$ C / 113 $^{\circ}$ F Raw water temperature 32 $^{\circ}$ C / 90 $^{\circ}$ F





Standard equipment

Cooling system	Two stages cooling circuit with built in HT thermostatic valves Integrated fresh water expansion tank with port/starboard filling provision High efficiency tubular heat exhangers module Gear driven centrifugal fresh water pump Self priming raw water pump with bronze impeller
Lubrication system	Full flow lube oil filters duplex type - Centrifugal lube oil purifier Fresh water cooled lube oil heat exchanger module Port or starboard lube oil filling cap and dipstick Manual priming and draining pump
Fuel system	Common-rail injection with «Take Me Home» electronic redundancy Two high pressure pumps (one per bench) with shielded high pressure injection rails and pipes Fuel oil filter duplex type Water separator
Intake air and exhaust system	Double flow raw water cooled intake air heat exchanger module Fresh water cooled exhaust gas manifolds High efficiency dry turbochargers with ball bearing technology
Electrical system	Voltage: 24VDC insulated Electrical starter 190A battery charger

Optional solutions (extract)

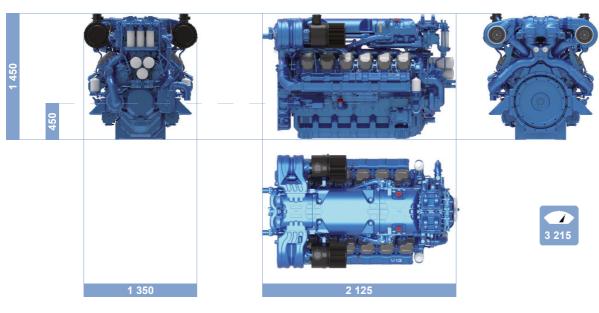
Cooling circuit configuration for box/keel cooling Application injection map (Eco mode - Comfort - High performance)

4000 Nm high torque free end PTO

High efficiency air filter with blow-by recycler

Equipment and factory trial according to Classification societies

Dimensions and dry weight (mm / kg)



Connections

Raw water inlet	Raw water outlet	Fuel inlet	Fuel outlet	Exhaust
Ø 76.1 mm	Ø 2 x 60 mm	Ø 22 mm	Ø 22 mm	Ø 2 x 116 mm