

6 M_{19.3}

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 Weight (without water & oil) Flywheel housing Flywheel

11.6 litres 17/1 CCW * 600 rpm 1200 kg SAE 1 **SAE 14"**

126 x 155 mm

6 in line

* counter-clockwise

RATED POWER

Duty	rpm	kW	hp	Full load fuel consumption (g / kW.h)	IMO
P1	1800	331	450	199	II
P2	2100	368	500	205	II
P3	2100	404	550	209	II
P4	2200	425	578	218	II

STANDARD EQUIPMENTS

Engine and block

Separate cast iron cylinder heads equipped with 4 valves Replaceable valves guides and seats Steel forged crankshaft with 7 bearings

Cast iron cylinder block, with replaceable cylinder liners

Lube oil cooled light alloy piston with 3 high performance piston rings

Cooling system

Fresh / raw water heat exchanger with integrated thermostatic valves and expansion tank

Cast iron centrifugal fresh water pump, mechanically driven Bronze self-priming raw water pump, mechanically driven

Lubrification system

Full flow duplex type oil filters Fresh water cooled lube oil cooler plate type

OPTIONAL EQUIPMENTS (extracts) *

Cooling system adapted for box / keel cooling Connection for emergency raw water circuit Bilge pump Air starter Promachined free end PTO

Fuel system

Electronic common-rail injection Double wall injection bundle with alarm and leakage collector Duplex fuel filters replaceable engine running

Water separator

Intake air and exhaust system

Exhaust gas manifold cooled by the engine fresh water Dry turbo blower insulated Low water temperature cooled intake air cooler

Electrical system

Voltage: 24Vcc Electrical starter on flywheel crown 35A battery charger Wheelhouse control panel

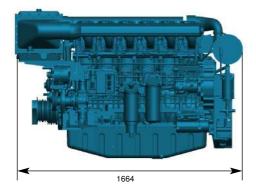
Resilient mounts under engine Exhaust water injection after turbocharger Fresh water electrically heated Cabin heating

* contact us for further information regarding our options.

	P1 duty	P2 duty	P3 duty	P4 duty
Application	unrestricted continuous	continuous	intermittent	high performance
Engine load variations	very little or none	continuous	important	very important
Mean engine load factor	80 to 100 %	30 to 80 %	50 %	30 %
Annual working time	more than 5000 h	3000 to 5000 h	1000 to 3000 h	less than 1000 h
Time at full load	unlimited	8 h each 12 h	2 h each 12 h	1 h each 12 h



DIMENSIONS



Power definition

Standard ISO 3046/1 - 1995 (F)

Reference conditions

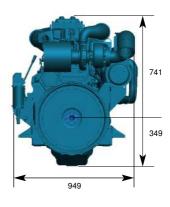
Ambiant temperature	25 °C / 77 °F
Barometric pressure	100 kPa
Relative humidity	30 %
Raw water temperature	25 °C / 77 °F
Limit conditions	ISO 3046

Fuel oil

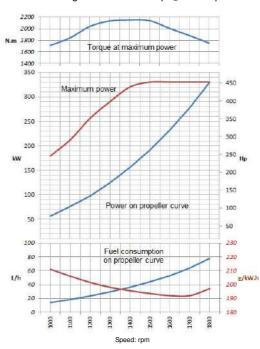
Relative density	$0,840 \pm 0,005$
Lower calorific power	42 700 kJ/kg
Consumption tolerances	0 ± 5 %
Inlet limit temperature	35 °C / 95 °F

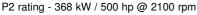
Our ratings also comply with classification societies maximum temperature definition without power derating.

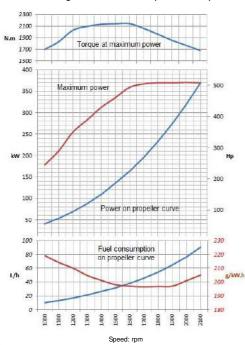
45 °C / 113 °F Ambiante temperature 32 °C / 90 °F Raw water temperature



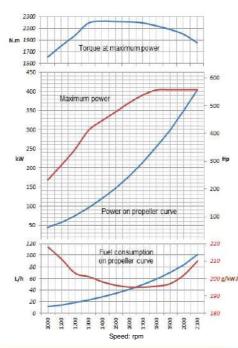
P1 rating - 331 kW / 450 hp @ 1800 rpm







P3 rating - 404 kW / 550 hp @ 2100 rpm



P4 rating - 425 kW / 578 hp @ 2200 rpm

