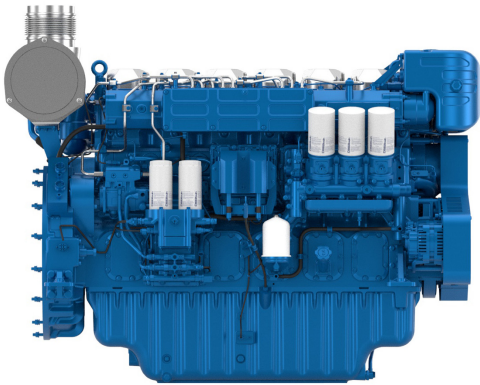


# 6M33.3

Common rail diesel engine, 2-stage turbocharging

Common rail diesel engine,  
2-stage turbocharging



Number of cylinders	6
Bore and stroke (mm)	150 x 185
Total displacement (L)	19.6
Engine rotation	counter clockwise
Idle speed	650
Flywheel	18"
Flywheel housing	SAE 0

### Customer benefits

**Adheres to strict emission regulations** and competitive performance as it is equipped with Most advanced common rail technology and high end injection system (2200 bar)

**Efficient fuel consumption**, thanks to the highly efficient turbochargers

**Easy maintenance** due to individual cylinder heads

**Highly reliable** key components ensuring longevity

**Life cycle cost efficiency** with extended mean time between overhauls

### Rated power - Fuel consumption

Duty	kW	HP	RPM	Fuel consumption			IMO	EPA
				Optimum value	Rated power			
				g/kWh	g/kWh	l/h		
P1	552	750	1600	198	200	135	II - III	NO
	552	750	1800	201	203	136	II - III	NO
P2	574	780	1600	198	199	139	II - III	NO
	574	780	1800	200	201	141	II - III	NO
P3	670	911	1900	205	219	179	II - III	NO
P4	750	1020	2000	201	222	203	II - III	NO

	P1	P2	P3	P4
Application	Unrestricted	Heavy	Intermittent	Light
Engine load variations	Not important	Important	Important	Very important
Average Engine load factor	80-100%	30-80%	60%	60%
Annual working time	5000 - 7000h	3000-5000h	1000-3000h	Less than 1500h
Time at full load	12h each 12h	8h each 12h	2h each 12h	1h each 12h

#### P1 Continuous Duty

- Deep sea trawlers
- Shrimps trawlers
- Sea going tug boats
- River tug boats
- Push boats
- Freighters
- Dredges
- LCT
- Ferries

#### P2 Heavy Duty

- Deep sea trawlers
- Shrimps trawlers
- Sea going tug boats
- River tug boats
- Push boats
- Freighters
- Dredges
- LCT
- Ferries

#### P3 Intermittent Duty

- Seasonal passenger vessels
- Fishing boats
- Pilot boats
- Commercial pleasure boats
- Pump boats
- Displacement sailboats
- Trawlers
- Bow thrusters

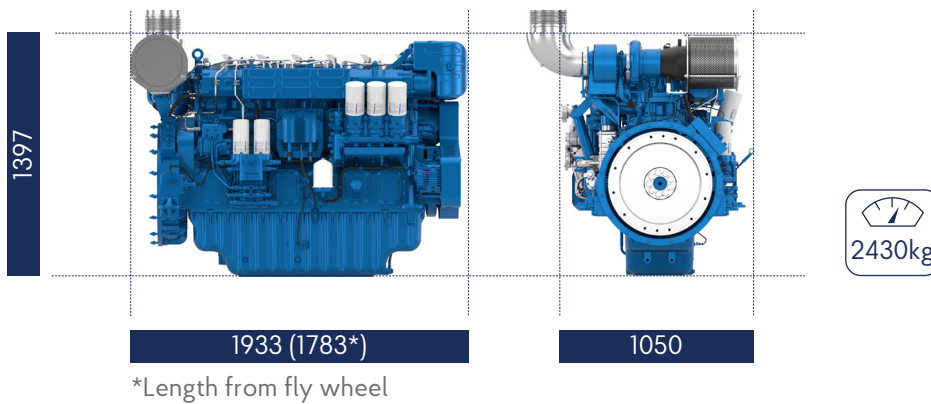
#### P4 Light Duty

- Private pleasure boats
- Multi-hull pleasure boats
- Survey or rescue fast vessels
- Military fast vessels.

#### P5 High performance Duty

- Private pleasure boats
- Multi-hull pleasure boats

## Dimensions and dry weight (mm/kg)



## Standard equipment

### Cooling System

- Two - stage cooling circuit with built - in HT thermostatic valve
- Integrated fresh water expansion tank
- High efficiency tubular heat exchanger
- Belt driven centrifugal fresh water pump
- Self priming raw water pump with bronze impeller

### Lubrication System

- Full flow lube oil filters duplex type
- Fresh water cooled lube oil heat exchanger
- Electrical draining and pre-lub pump

### Fuel System

- Common-rail injection
- High pressure pump with shielded high pressure injection rail and pipes
- Fuel oil filter duplex type
- External fuel pre-filter with water separator

### Intake Air and Exhaust System

- Double flow raw water cooled intake air heat exchanger module
- High efficiency dry turbocharger with ball bearing technology

### Electrical System

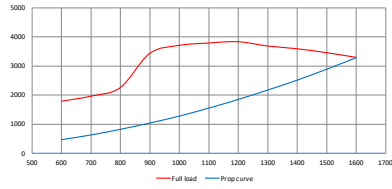
- Voltage: 24V DC insulated
- Electrical starter
- 200A battery alternator
- ECO BMS with IV12 display

### Optional Equipment

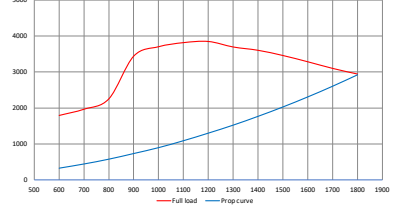
- Thermostatic valve on raw water circuit
- Keel cooling
- Raw water connections PN standard
- Fresh water pre-heater
- Cabin heating connections
- 1400N.m Front PTO with elastic coupling
- Additional pulley
- Elastic mounting
- Closed circuit blow by filtration
- Air starter
- Master BMS for full class engines
- Additional displays

## Performance

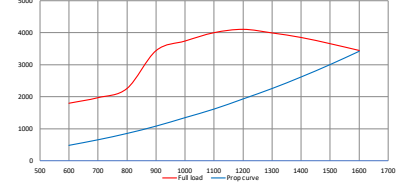
6M33.3 P1 552@1600rpm - Torque



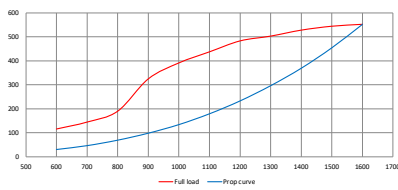
6M33.3 P1 552@1800rpm - Torque



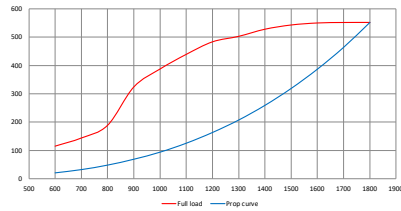
6M33.3 P2 574@1600rpm - Torque



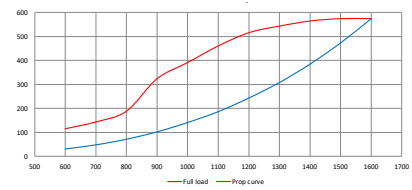
6M33.3 P1 552@1600 - Power



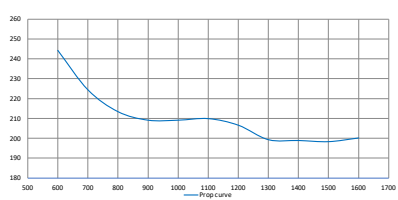
6M33.3 P1 552@1800rpm - Power



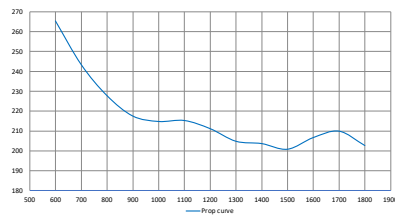
6M33.3 P2 574@1600rpm - Power



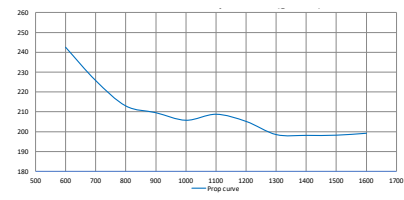
6M33.3 P1 552@1600 - BSFC (g/kWh)



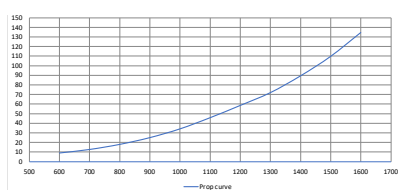
6M33.3 P1 552@1800rpm - BSFC (g/kWh)



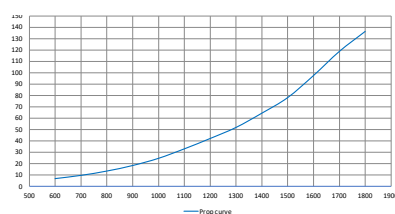
6M33.3 P2 574@1600rpm - BSFC (g/kWh)



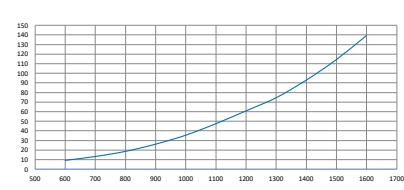
6M33.3 P1 552@1600 - BSFC (L/h)



6M33.3 P1 552@1800rpm - BSFC (L/h)

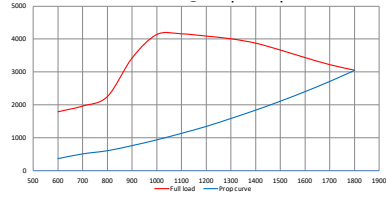


6M33.3 P2 574@1600rpm - BSFC (L/h)

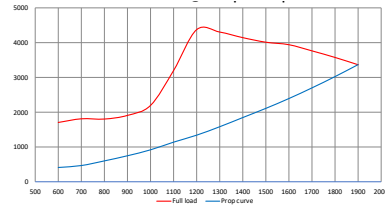


## Performance

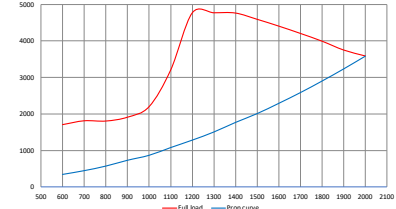
6M33.3 P2 574@1800rpm - Torque



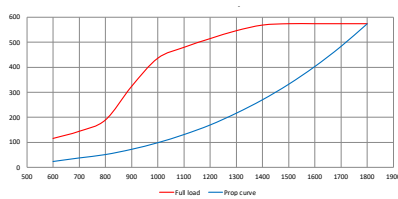
6M33.3 P3 670@1900rpm - Torque



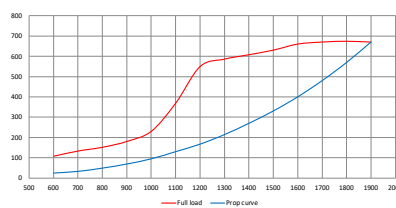
6M33.3 P4 750@2000rpm - Torque



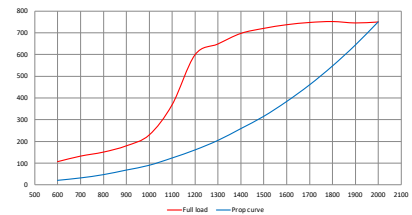
6M33.3 P2 574@1800rpm - Power



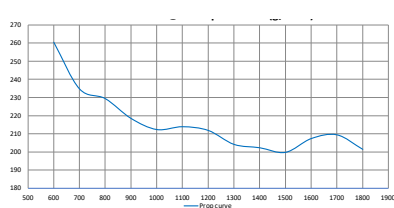
6M33.3 P3 670@1900rpm - Power



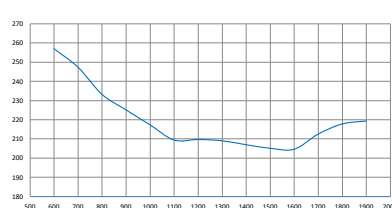
6M33.3 P4 750@2000rpm - Power



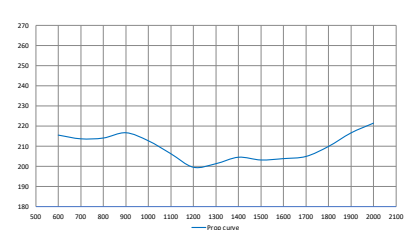
6M33.3 P2 574@1800rpm - BSFC (g/kWh)



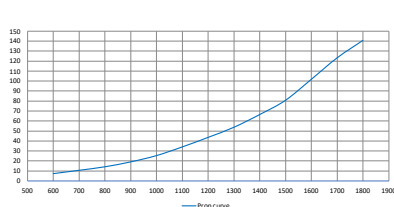
6M33.3 P3 670@1900rpm - BSFC (g/kWh)



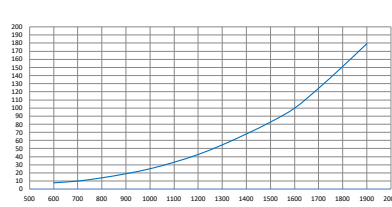
6M33.3 P4 750@2000rpm - BSFC (g/kWh)



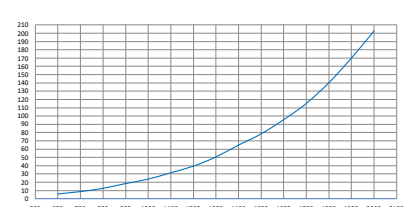
6M33.3 P2 574@1800rpm - BSFC (L/h)



6M33.3 P3 670@1900rpm - BSFC (L/h)



6M33.3 P4 750@2000rpm - BSFC (L/h)



## Power definition

(Standard ISO 3046/1 - 1995 (F))

### Reference conditions

Ambient temperature	25°C / 77°F
Barometric pressure	100 kPa
Relative humidity	30%R
Raw water temperature	25°C / 77°F

### Fuel oil

Relative density	0,840 ± 0,005
Lower calorific power	42 700 kJ/kg
Consumption tolerances	+ 5%
	(DIN ISO 3046-1)
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