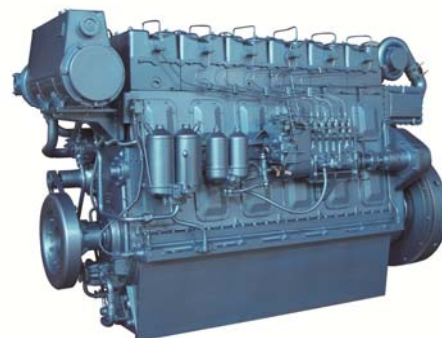


## Marine Engine- 6160 Series

### General Specifications

Bore & Stroke	160x255 mm
Displacement	27.1 L
Cylinder Number	6
Compression ratio	14.5:1
Fuel System	Mechanical Pump
Aspiration	T/TA
Emission Standard	IMO Tier II



Duty	Model	HP	kW	RPM
P1	R6160ZC223-1	223	164	1000
P1	R6160ZC250-1	250	184	1000
P1	R6160ZC275-1	275	202	1000
P1	R6160ZC300-1	300	220	1000
P1	R6160ZC350-1	350	255	1000

Duty	Model	HP	kW	RPM
P1	R6160ZC380-1	380	280	1000
P1	R6160ZC408-1	408	300	1000
P1	R6160ZC450-1	450	330	1000
P1	R6160ZC490-2	490	360	1200

### Standard Equipments

#### Engine and block

Cast iron gantry type structure block  
One-piece casting crankshaft  
Separate cast iron cylinder heads and wet liners  
Aluminium alloy pistons with gallery oil cooling

#### Cooling system

Fresh / raw water heat exchanger with integrated thermostatic valves and expansion tank  
Cast iron centrifugal fresh water pump, mechanically driven  
Self-priming raw water pump, mechanically driven

#### Lubrication system

Filter with metal element, washable  
Fresh water cooled lube oil cooler

#### Fuel system

P-type in-line injection pump  
Dual-skinned fuel pipe with alarm and leakage collector  
Duplex fuel filters replaceable engine running

#### Intake air and exhaust system

Washable air filter  
Turbocharger optimized for marine application  
Water jacket exhaust manifold and exhaust expansion joint

#### Electrical system

24V electric starter motor and battery charging alternator  
Voyage safeguard monitor and 5m harness

#### Certification

CCS and EIAPP

### Optional Equipments

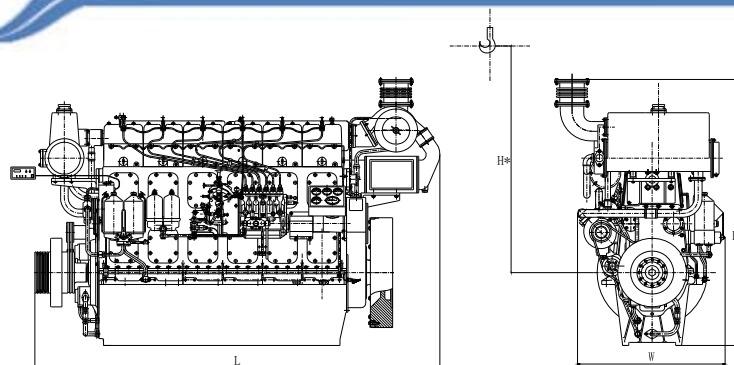
Air starter with storage bottles  
Different harness length of remote monitor  
Free end PTO

Equipment and factory trial according to Major Classification Societies rules

	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 3000h	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 and Weight

Length	2644 mm
Width	1134 mm
Height	1768 mm
Dry Weight	3400 kg



### Power definition

Standard ISO 3046/1 -1995(F)

### Reference conditions

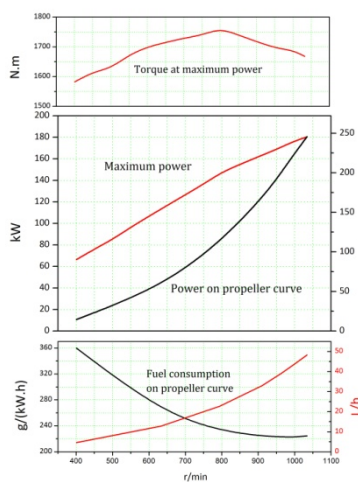
Ambiant temperature	25 °C
Barometric pressure	100 kPa
Relative humidity	30%
Raw water temperature	25 °C

### Fuel

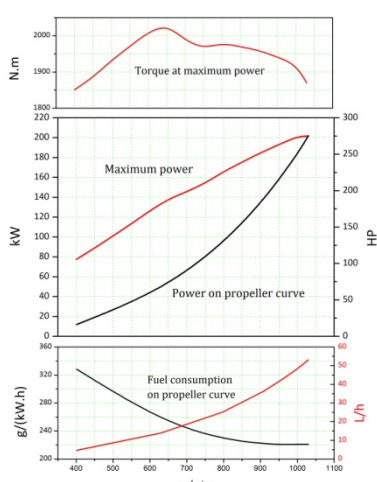
Relative density	0,840 ± 0,005
Lower calorific power	42 700 kJ/kg
Consumption tolerances	± 5 %

### Lube oil

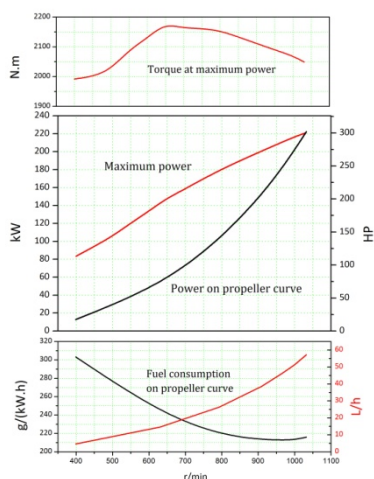
Recommend grade	CD 15W/40
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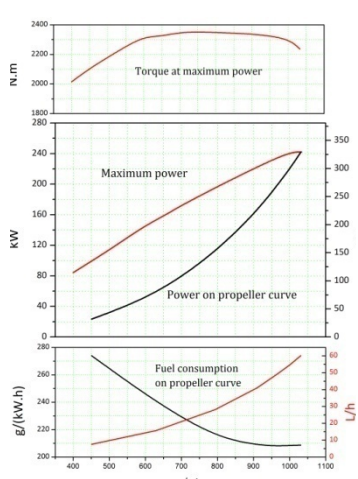
R6160ZC223-1



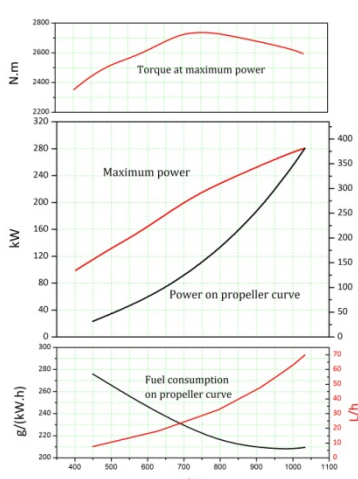
R6160ZC250-1



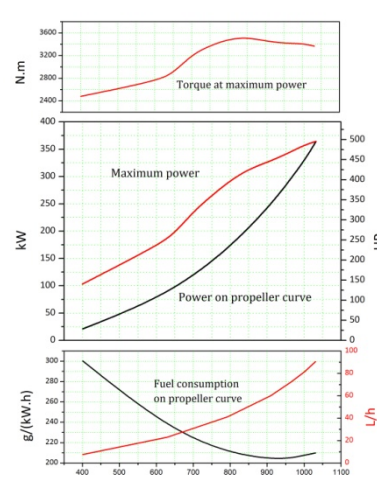
R6160ZC275-1



R6160ZC300-1



R6160ZC350-1



R6160ZC450-1

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