

**General data**

<b>Validity:</b>	Current	<b>Base engine manufacturer:</b>	Mitsubishi
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**Specifications**

<b>No. Of Strokes:</b>	4	<b>Number of cylinders:</b>	4
<b>Layout of cylinders:</b>	In line	<b>Cylinder diameter (mm):</b>	88
<b>Stroke (mm):</b>	103	<b>Total displacement (cc):</b>	2505
<b>Compression ratio:</b>	22:1	<b>Continuous power (kW):</b>	19,6
<b>Intermittent Power (kW):</b>	21,5	<b>Max RPM:</b>	1500
<b>Rotation (viewed from flywheel side):</b>	Counterclockwise	<b>Piston speed at maximum RPM (m/s):</b>	5,1
<b>No-load RPM:</b>	1575 (±50)	<b>Effective pressure (MPa):</b>	0,63

**Electrical system**

<b>Voltage (V):</b>	12	<b>Alternator (A):</b>	50
<b>Starter Motor Power (kW):</b>	2	<b>Engine shut off system:</b>	ETR
<b>Minimum Battery Capacity (Ah):</b>	95		

**Fuel system**

<b>Fuel type:</b>	Diesel	<b>Injection system:</b>	Mechanical and direct
<b>Fuel standards:</b>	Fueloil diesel ASTM	<b>Injection pump type:</b>	In line
<b>Maximum suction head (m):</b>	0,6	<b>Governor type:</b>	Mechanical
<b>Injection Pressure (bar):</b>	140	<b>Maximum static head of return pipe (bar):</b>	0,26
<b>Firing order:</b>	1-3-4-2	<b>Injection timing (°):</b>	20 Before TDC
<b>Fuel Consumption 25 % Load (l/h):</b>	2,4	<b>Fuel consumption 50 % load (l/h):</b>	3,5
<b>Fuel Consumption 75 % Load (l/h):</b>	4,75	<b>Fuel consumption 100 % load (l/h):</b>	6,4

**Air intake system**

<b>Intake system:</b>	Naturally aspirated	<b>Air flow at maximum RPM (m3/m):</b>	1,65
<b>Maximum Restriction (kPa):</b>	1,96	<b>Min. intake restriction (kPa):</b>	0,98

**Exhaust system**

<b>100 % load flow rate (m3/h):</b>	270	<b>Maximum exhaust backpressure (kPa):</b>	6,67
<b>Wet exhaust elbow (mm):</b>	60	<b>interior Ø of water jetting tube (mm):</b>	32
<b>Maximum temperature of exhaust gas (°C):</b>	550	<b>Clamp inner Ø connected to the dry exhaust (mm):</b>	50

**Lubrication system**

<b>Lubrication type:</b>	Forced circulation	<b>Oil consumption at full load (g/kWh):</b>	2,7
<b>Minimum pressure at maximum RPM (kg/cm2):</b>	1	<b>Maximum pressure at maximum RPM (kg/cm2):</b>	4
<b>Minimum pressure at idle (kg/cm2):</b>	1	<b>Oil:</b>	SAE 15W40
<b>Maximum oil temperature (°C):</b>	79	<b>Oil pan capacity (l):</b>	5,5
<b>Total circuit capacity (l):</b>	6,5	<b>Oil pressure switch (kg/cm2):</b>	0,5

TECHNICAL DATA

# 20 GS/GSC PARALLEL

## Cooling system

<b>Coolant type:</b>	Organic 50%, -38°C	<b>Volume capacity of coolant circuit (l):</b>	9,5
<b>Coolant pump flow at maximum RPM (l/min):</b>	52	<b>Sea water pump flow at maximum RPM (l/min):</b>	38 *
<b>Maximum suction head of sea water (m):</b>	3	<b>Thermostat valve starts opening (°C):</b>	76,5
<b>Thermostat valve completely opened (°C):</b>	90	<b>Maximum sea water temperature (°C):</b>	32
<b>Heat to be extracted at 100 % load (kcal/h):</b>	20997,54	<b>Engine ratio/sea water pump RPM:</b>	2
<b>Engine ratio/coolant pump RPM:</b>	0,75		

## Installation data / Dimensions

<b>Sea water hose inner diameter (mm):</b>	32	<b>Fuel feeding hose inner diameter (mm):</b>	8
<b>Fuel return hose inner diameter (mm):</b>	-	<b>Exhaust hose inner diameter (mm):</b>	60**
<b>SAE Flywheel housing:</b>	SAE 4	<b>SAE flywheel:</b>	SAE 7 1/2
<b>Max. Intermittent inclination in operation (°):</b>	20	<b>Total width (mm):</b>	493
<b>Total length without canopy (mm):</b>	1140	<b>Total length with canopy (mm):</b>	1310
<b>Total width without canopy (mm):</b>	610	<b>Total width with canopy (mm):</b>	610
<b>Total height without canopy (mm):</b>	662	<b>Total height with canopy (mm):</b>	698
<b>Weight without sound enclosure (Kg):</b>	402	<b>Weight with sound enclosure (Kg):</b>	426

\* The sea water pump flow has been obtained under zero aspiration height conditions. Besides, depending on the arrangement of the complete system (hoses, elbows, suction heads, etc. ) this value can be lower.

\*\* The diameter system will be calculated depending on each installation in case of a dry exhaust