MITSUBISHI HEAVY INDUSTRIES

HVO

MITSUBISHI MARINE ENGINE

S16R-MPTAW

1120–1690 kW | Marine Generator
IMO-T2, IMO-T3 (SCR option)*
and EU-5 (SCR option)*

Reliable mechanical engine



ENGINE DATA			
Engine model	S16R-MPTAW	**Method of operation**	16-cylinder, 4-stroke, water-cooled diesel engine, with direct-injection, turbocharger and air-cooler
Cylinder configuration	16/60°V		
Bore × stroke (mm)	170 x 180		
Total displacement (l)	65.37		
Compression ratio	14.5:1	**Cooling method**	separate high and low temperature cooling circuit; charge air cooler by closed freshwater system controlled by thermostat (intercooler)
Flywheel and housing	SAE 21 / SAE 00		
Dry weight (kg)	6780		
Aspiration	Turbocharged and after-cooled		

RATING [1,2]			
Application	Generator		
Duty Class	Prime	Prime	Prime
Output (kW)	1120	1500	1690
Output (bhp)	1501	2010	2265
Engine speed (rpm)	1200	1500	1800
Gross torque (Nm)	—	9549	8966
Fuel consumption 100% load (g/kWh)[3]	—	211	216
Fuel consumption 75% load (g/kWh)[3]	—	210	216
Fuel consumption 50% load (g/kWh)[3]	—	214	223
Emissions	IMO-T2, IMO-T3 (SCR option)* and EU-5 (SCR option)*		

1 For rating definitions, please see our website.

2 Atmospheric condition: barometric pressure: 100 kPa, ambient temperature: 298 K, relative humidity: 30%.

3 Fuel consumption is based on ISO3046/1 with +5% tolerance at rated power, weighing 836 g/liter and a LHV of 42,780 kJ/kg, excluding pump. Average fuel consumption recommended by ISO8178 (E3 standard test cycle for propulsion application FPP).

* The SCR after treatment can be provided through our partners. Please contact MTEE for more information.

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STANDARD EQUIPMENT

FUEL SYSTEM
- Flexible fuel supply - and return hoses
- Fuel feed pump
- Fuel fine filters, change-over type
- Fuel injection pump
- Dual walled high-pressure fuel lines
- Fuel injectors

LUBRICATING OIL SYSTEM
- Wet type oil pan with inspection covers
- Oil pressure pump, gear driven
- Lubricating oil filters, change-over type
- By-pass filter
- Oil cooler with thermostat

STARTING AND ELECTRICAL SYSTEM
- Electric starter (Earth floated 24V)
- Alternator, 30 Amps.
- Stop solenoid (ETS)

COOLING SYSTEM
- Fresh water pump including piping and thermostat (HT)
- Front pulley PTO standard
- Cooling water pipe on thermostat housing (HT)

AIR INLET SYSTEM
- Mitsubishi turbocharger
- Air inlet silencer with pre-cleaner
- Inlet air aftercooler or intercooler
- Inlet manifolds or ducts

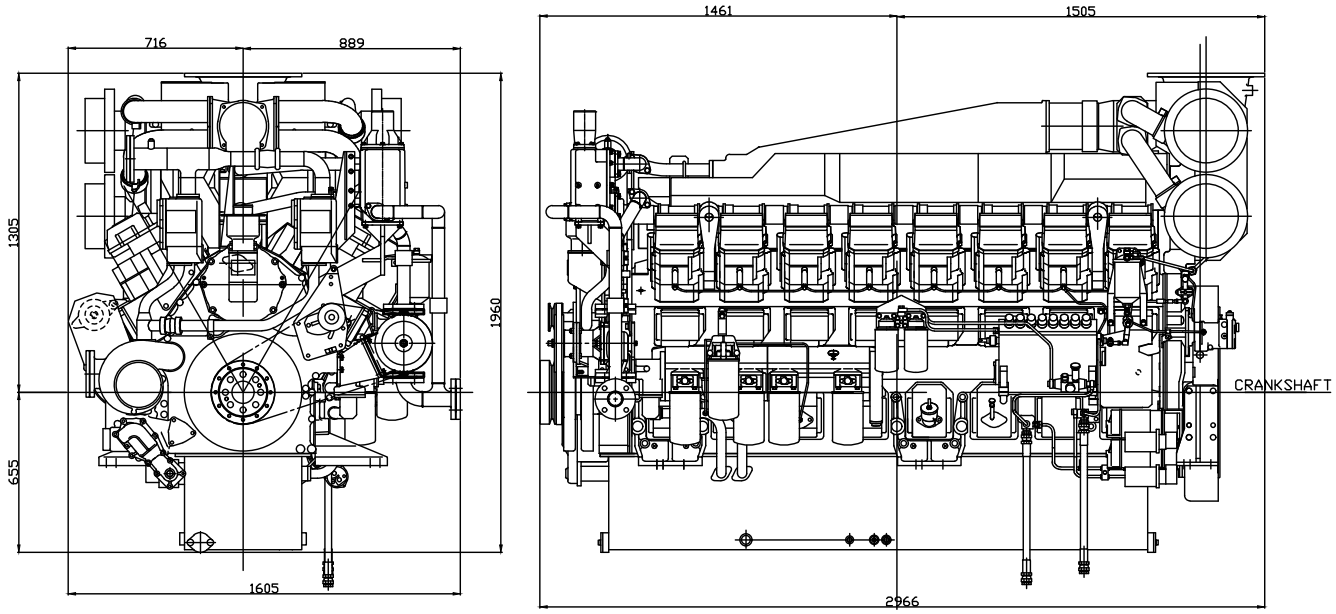
EXHAUST SYSTEM
- Stainless steel insulation (SOLAS)

OTHER
- Mounting brackets for rigid mounting
- Flywheel and housing, SAE standard
- Torsional vibration damper

OPTIONAL EQUIPMENT

SCR Aftertreatment
For more details, please see page 3

DIMENSIONS



More information

Contact your local dealer for more information regarding Mitsubishi Marine Engines and optional equipment or, visit **engine-genset.mhi.com**

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OPTIONAL EQUIPMENT

CERTIFICATION / CLASSIFICATION
- Available in cooperation with major classification societies.

GOVERNOR (MANDATORY)
- Hydraulic governor
- Electronic governor, with speed control box

FUEL SYSTEM
- Drip tray fuel filters

LUBRICATING OIL SYSTEM
- Drip tray oil filters
- Pre-lubrication oil system

MONITORING SYSTEM
- Complete digital monitoring system
- Sensor package; sensors mounted on engine with terminal box

STARTING AND ELECTRICAL SYSTEM
- Air starter motor (30 bar)

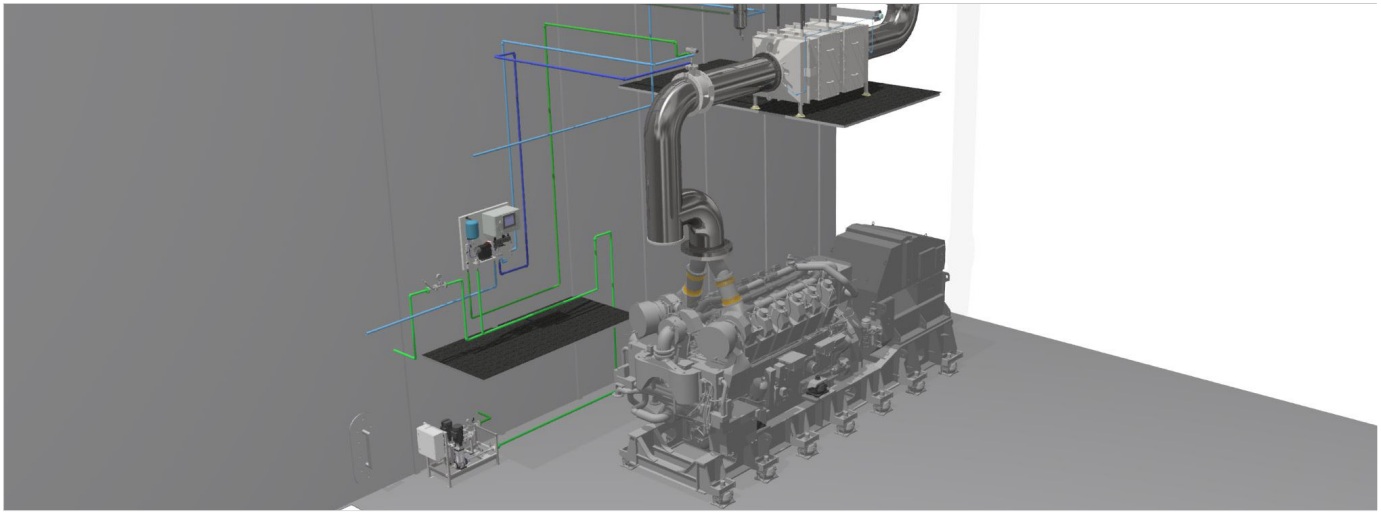
COOLING SYSTEM
- Cooling system with fresh water pump, V-belt including piping and thermostat (LT)
- Cooling water heater with circulation pump
- Big capacity front PTO

EXHAUST SYSTEM
- Flexible expansion joint
- Horizontal exhaust instead of vertical

SCR AFTER TREATMENT SYSTEM

- SCR reactor
- Injection unit
- Dosing unit
- Shoot blower system
- Control system
- Urea pump unit

DIMENSIONS



Dimensions

Engine L x W x H (mm)	2971 x 1585 x 1960
SCR25	
SCR unit (SCR25) size (excl. insulation) L x W x H (mm)	893 x 882 x 2349
Mixing pipe requirements diameter (DN)*	400
Mixing pipe length (mm)*	2700
SCR49	
SCR unit (SCR49) size (excl. insulation) L x W x H (mm)	1195 x 1190 x 2658
Mixing pipe requirements diameter (DN)*	600
Mixing pipe length (mm)*	2800

* Insulation of the SCR system is not included in the scope of supply, to be supplied and installed by the shipyard.

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