



Technical data sheet

Marine diesel engine

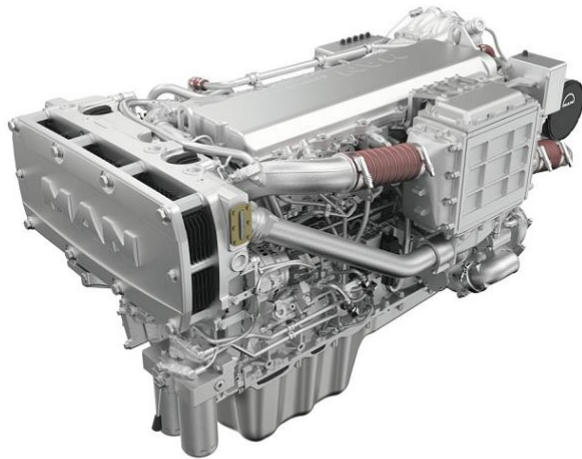
D2676LE491

04.07.2022

(Version 1)

Performance data ¹

Rated power	331	kW
Rated power	450	PS
Speed	1800	rpm
Bore/Stroke	126/166	mm
Displacement	12,42	liter
Rated torque	1756	Nm
Maximum torque	1975	Nm
at speed	1200-1600	rpm
Compression ratio [ε]	18,0	:1
Mean effective pressure	17,77	bar
Mean piston speed	9,96	m/s



Consumption data ²

Specific fuel consumption ¹	198	g/kWh
Absolute fuel consumption ¹	78	l/h
Lowest fuel consumption ³	198	g/kWh

The engine illustrated may not entirely be identical to production standard engine

Engine description

Application	Main propulsion diesel for ships with fixed pitch propeller or variable pitch propeller
Operation profile	Unlimited operating hours per year at a maximum of 100 % of time at full load
Construction	Four-stroke marine diesel engine, direct injection, SAE 1 flywheel housing
Cylinders	6 cylinders in line, wet replaceable cylinder liners
Air system	Single-stage turbocharger with charge air intercooler and wastegate
Cooling system	Seawater cooled charge air cooler and plate heat exchanger by rubber impeller pump
Oil system	Force-feed lubrication by gear pump, lubricating oil cooler in cooling water circuit of the engine
Fuel system	Common Rail injection system with EDC17 control, fuel to DIN EN 590, GTL/HVO
Auxiliary PTO	PTO for hydraulic pump 16 cm ²
Alternator	Three-phase generator with rectifier and transistorized governor, 28V, 120A
Starting system	Solenoid-operated electric starter, 24V, 5.5kW
Service	Oil change interval 600 operating hours, average TBO 18.000 operating hours*
Classification	Engine according to classification requirements available => see MAN Marine Configurator

Exhaust status	IMO Tier II
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¹ Values at rated power

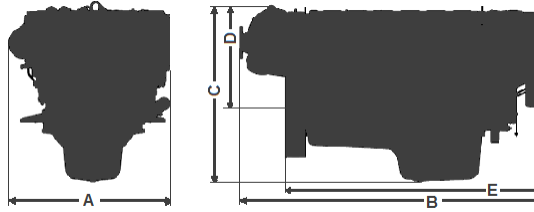
² Diesel fuel according to DIN EN 590 (tolerance +5% - ISO 3046)

³ Values on propeller curve

*TBO 18.000 operating hours for non or low particulate matters (PM) regulated jurisdictions (IMO, Canada, EU Stage IIIA)

D2676LE491

A - overall width.....	986 mm
B - overall length.....	1795 mm
C - overall height.....	1096 mm
D - above crank shaft....	674 mm
E - length to flywheel....	1527 mm
Engine weight (dry).....	1251 kg



Combustion parameters ¹

Intake air temperature (max.)	45 °C
Intake air vacuum (min/max)	30/60 mbar
Intake air volume flow	1420 m ³ /h

Exhaust gas temperature	450 °C
Exhaust gas volume flow	3520 m ³ /h
Exhaust gas mass flow	1670 kg/h
Exhaust back pressure (min/max)	20/80 mbar

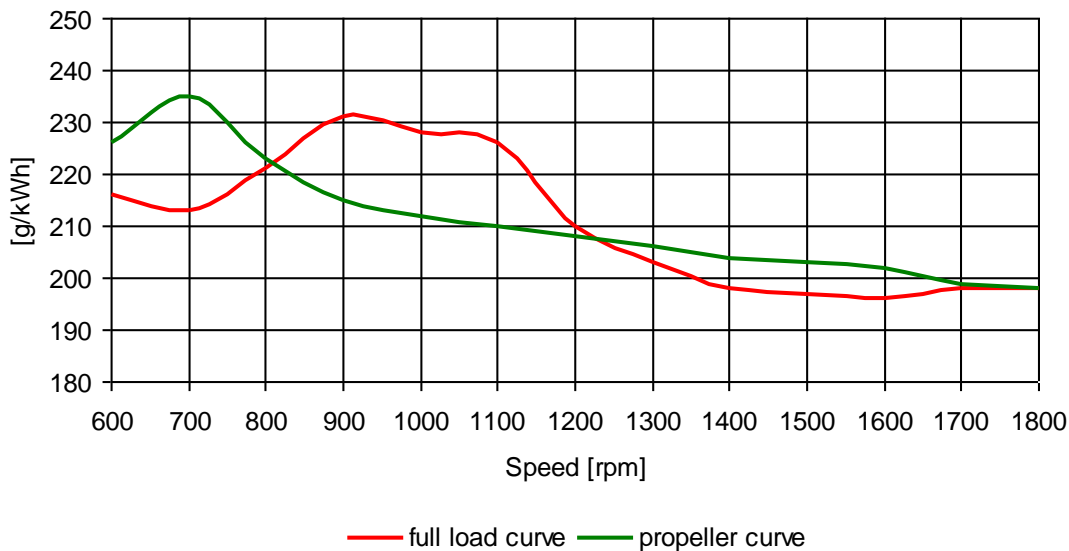
Heat balance ¹

Exhaust gas heat	210 kW
Cooling water heat	140 kW
Intercooler heat	75 kW
Radiation heat	26 kW

Noise emission (sound power) ¹

Engine surface noise (Lwa)	112,0 dB(A)
Free exhaust noise (Lwa)	105,0 dB(A)

Specific fuel consumption²



< The rated power is based on reference conditions according to ISO 3046-1 (2002) >

< Intake air temperature, max. 45°C | sea water temperature, max. 32°C >

< Barometric pressure 1000 mbar | air humidity 60% >

< Exponent for propeller curve 3 >

< **Engine specifications are subjected to change without prior notice** >

¹ Values at rated power

² Diesel fuel according to DIN EN 590 (tolerance +5% - ISO 3046)

³ Values on propeller curve

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