



# Technical data sheet

Marine diesel engine

D2862LE489

07.07.2022

(Version 2)

## Performance data

Rated power	1066	kW
Rated power	1450	PS
Speed	2100	rpm
Bore/Stroke	128/157	mm
Displacement	24,24	liter
Rated torque	4847	Nm
Maximum torque	5345	Nm
at speed	1200-1900	rpm
Compression ratio [ε]	17,0	:1
Mean effective pressure	25,13	bar
Mean piston speed	10,99	m/s



## Consumption data <sup>2</sup>

Specific fuel consumption <sup>1</sup>	207	g/kWh
Absolute fuel consumption <sup>1</sup>	263	l/h
Lowest fuel consumption <sup>3</sup>	196	g/kWh
Absolute urea consumption <sup>1</sup>	14	l/h

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 (only IMO)
Operation profile	Up to 3000 hours per year at a maximum of 20 % of time at full load   average load < 50 %
Construction	Four-stroke diesel with exhaust after-treatment system (SCR), SAE 1 flywheel housing
Cylinders	12 cylinders in V-arrangement, single cylinder heads with wet replaceable cylinder liners
Air system	Two-stage turbocharger with charge air intercooler and wastegate
Cooling system	Seawater cooled charge air cooler and plate heat exchanger by 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
Auxiliary PTO	PTO for hydraulic pump 16 cm <sup>3</sup> (180 Nm), front-PTO by crank shaft extension
Alternator	Three-phase generator with rectifier and transistorized governor, 28V, 120A
Starting system	Solenoid-operated electric starter, 24V, 7.0kW
Service	Oil change interval 500 operating hours
Classification	Engine according to classification requirements available => see MAN Marine Configurator

**Exhaust status** IMO Tier III, EPA Tier 4

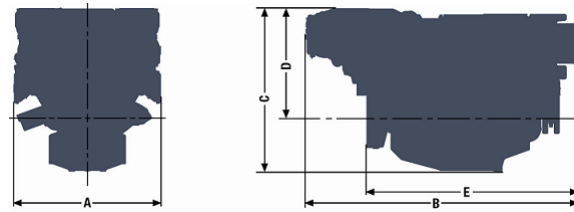
<sup>1</sup> Values at rated power

<sup>2</sup> Diesel fuel according to DIN EN 590 (tolerance +5% - ISO 3046), urea solution 32,5% according to ISO 22241 (tolerance +3%)

<sup>3</sup> Values on propeller curve

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A - overall width.....	1153 mm
B - overall length.....	2139 mm
C - overall height.....	1272 mm
D - above crank shaft.....	808 mm
E - length to flywheel.....	1658 mm
Engine weight, dry.....	2420 kg
(depending on the scope of supply)	



### Combustion parameters <sup>1</sup>

Intake air temperature (max)	45 °C
Intake air vacuum (min/max)	30/60 mbar
Intake air volume flow	4530 m <sup>3</sup> /h
Exhaust gas temperature	432 °C
Exhaust gas volume flow	10730 m <sup>3</sup> /h
Exhaust gas mass flow	5200 kg/h
Exhaust back pressure (min/max) downstream of SCR catalyst	20/80 mbar

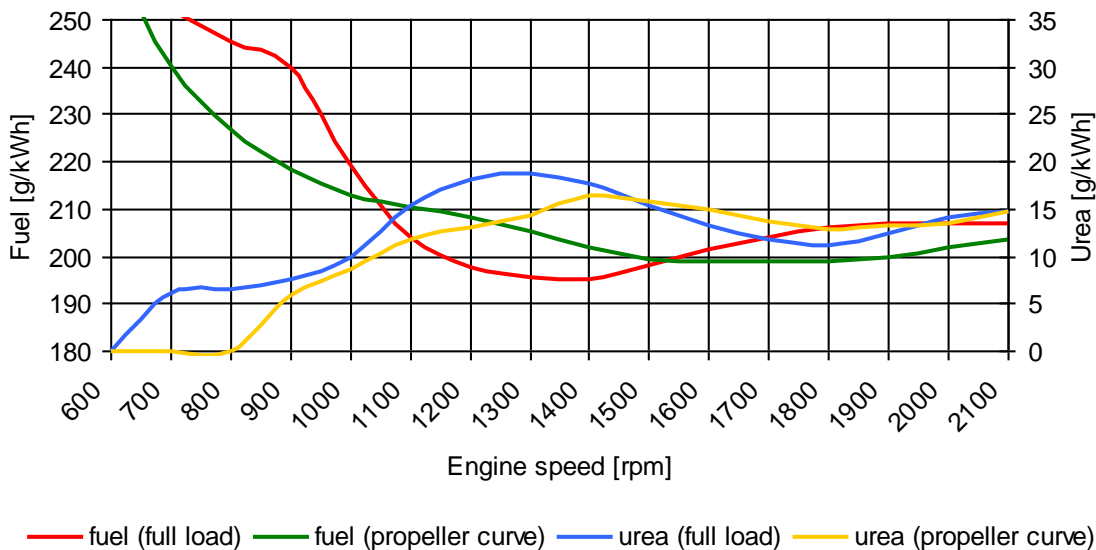
### Heat balance <sup>1</sup>

Exhaust gas heat	640 kW
Cooling water heat	690 kW
Intercooler heat	200 kW
Radiation heat	39 kW

### Noise emission (sound power) <sup>1</sup>

Engine surface noise (Lwa)	126,8 dB(A)
Free exhaust noise (Lwa)	106,9 dB(A)

### Specific consumption<sup>2</sup>



< 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 2,7 >

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

<sup>1</sup> Values at rated power

<sup>2</sup> Diesel fuel according to DIN EN 590 (tolerance +5% - ISO 3046), urea solution 32,5% according to ISO 22241 (tolerance +3%)

<sup>3</sup> Values on propeller curve