



# Technical data sheet

Marine diesel engine

D3872LE432

17.09.2025

(Version 1)

## Performance data <sup>1</sup>

Rated power	1213	kW
Rated power	1650	PS
Speed	2100	rpm
Bore/Stroke	138/165	mm
Displacement	29,62	liter
Rated torque	5516	Nm
Maximum torque	6096	Nm
at speed	1100-1900	rpm
Compression ratio [ε]	17,0	:1
Mean effective pressure	23,40	bar
Mean piston speed	11,55	m/s



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

Specific fuel consumption <sup>1</sup>	201	g/kWh
Absolute fuel consumption <sup>1</sup>	290	l/h
Lowest fuel consumption <sup>3</sup>	193	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	Up to 3000 hours per year at a maximum of 50 % of time at full load   average load < 70 %
Construction	Four-stroke marine diesel engine, direct injection, 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 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 MD1 control, fuel to DIN EN 590
Auxiliary PTO	PTO for hydraulic pump 16 cm <sup>3</sup> (180Nm)
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

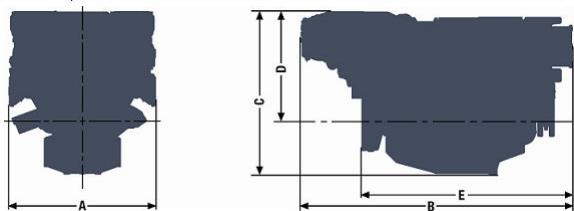
Exhaust status	IMO Tier II
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<sup>1</sup> Values at rated power

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

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

A - overall width.....	1157 mm
B - overall length.....	2129 mm
C - overall height.....	1294 mm
D - above crank shaft....	845 mm
E - length to flywheel.....	1601 mm
Engine weight (dry).....	2700 kg



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

Intake air temperature (max.)	45 °C
Intake air vacuum (min/max)	30/60 mbar
Intake air volume flow	4810 m³/h

Exhaust gas temperature	420 °C
Exhaust gas volume flow	11480 m³/h
Exhaust gas mass flow	5680 kg/h
Exhaust back pressure (min/max)	20/80 mbar

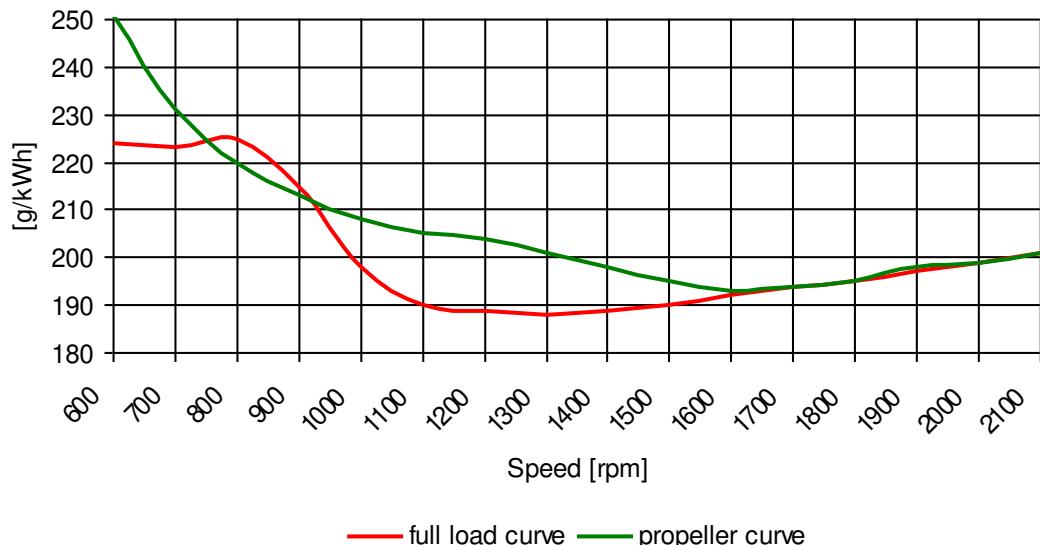
### Heat balance <sup>1</sup>

Exhaust gas heat	720 kW
Cooling water heat	660 kW
Intercooler heat	280 kW
Radiation heat	40 kW

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

Engine surface noise (Lwa)	128,0 dB(A)
Free exhaust noise (Lwa)	130,0 dB(A)

### Specific fuel 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 3 >

< **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)

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