



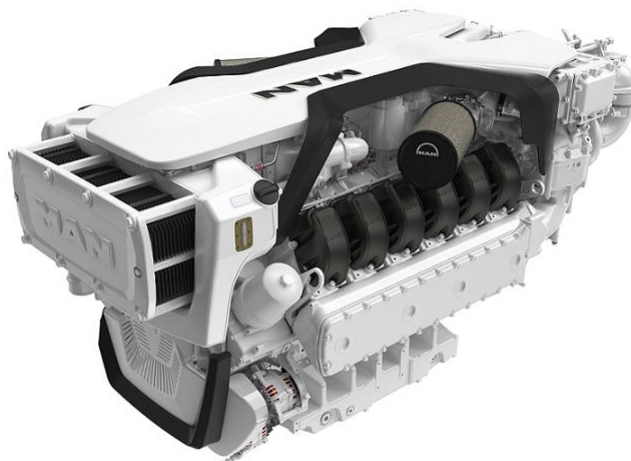
# Technical data sheet

Marine diesel engine  
D3872LE443 (V12X-2000)

15.05.2024  
(Version 1)

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

Rated power	1471	kW
Rated power	2000	PS
Speed	2300	rpm
Bore/Stroke	138/165	mm
Displacement	29,62	liter
Rated torque	6107	Nm
Maximum torque	6689	Nm
at speed	1200-2100	rpm
Compression ratio [ε]	17,0	:1
Mean effective pressure	25,91	bar
Mean piston speed	12,65	m/s



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

Specific fuel consumption <sup>1</sup>	211	g/kWh
Absolute fuel consumption <sup>1</sup>	370	l/h
Lowest fuel consumption <sup>3</sup>	196	g/kWh

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

VORLÄUFIGE ERGEBNISSE

## Engine description

Application	Main propulsion diesel for ships with fixed pitch propeller
Operation profile	Up to 1000 hours per year at a maximum of 20 % of time at full load   average load < 50 %
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 400 operating hours
Classification	Engine according to classification requirements available => see MAN Marine Configurator

**Exhaust status** IMO Tier II, RCD 2013/53/EC, EPA Tier 3 recreational

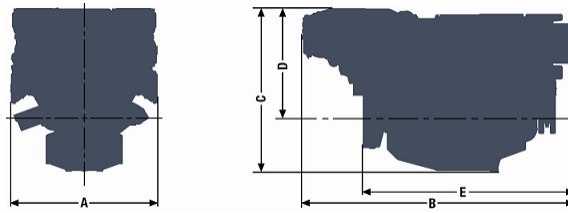
<sup>1</sup> Values at rated power

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

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

## D3872LE443 (V12X-2000)

A - overall width.....	1157 mm
B - overall length.....	2374 mm
C - overall height.....	1328 mm
D - above crank shaft....	863 mm
E - length to flywheel.....	1792 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	5780 m³/h

Exhaust gas temperature	484 °C
Exhaust gas volume flow	15100 m³/h
Exhaust gas mass flow	6850 kg/h
Exhaust back pressure (min/max)	20/80 mbar

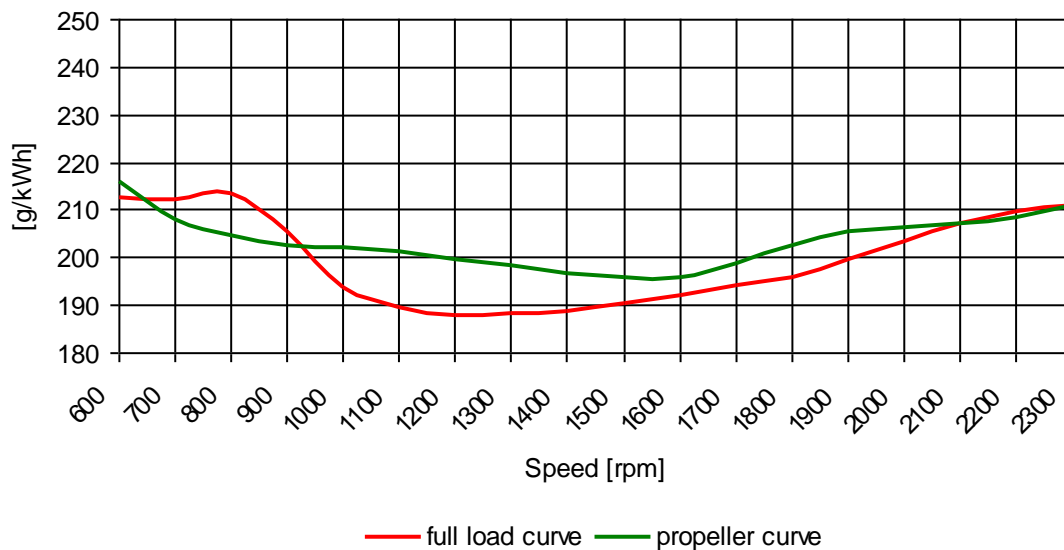
### Heat balance <sup>1</sup>

Exhaust gas heat	970 kW
Cooling water heat	900 kW
Intercooler heat	330 kW
Radiation heat	45 kW

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

Engine surface noise (Lwa)	dB(A)
Free exhaust noise (Lwa)	dB(A)

## VORLÄUFIGE ERGEBNISSE



< 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 2,5 >

< 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