



# Technical data sheet

Marine diesel engine

D2862LE435

04.07.2022

(Version 3)

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

|                         |           |       |
|-------------------------|-----------|-------|
| Rated power             | 882       | kW    |
| Rated power             | 1200      | PS    |
| Speed                   | 2100      | rpm   |
| Bore/Stroke             | 128/157   | mm    |
| Displacement            | 24,24     | liter |
| Rated torque            | 4010      | Nm    |
| Maximum torque          | 4435      | Nm    |
| at speed                | 1300-1900 | rpm   |
| Compression ratio [ε]   | 19,0      | :1    |
| Mean effective pressure | 20,79     | bar   |
| Mean piston speed       | 10,99     | m/s   |



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

|                                        |     |       |
|----------------------------------------|-----|-------|
| Specific fuel consumption <sup>1</sup> | 212 | g/kWh |
| Absolute fuel consumption <sup>1</sup> | 223 | l/h   |
| Lowest fuel consumption <sup>3</sup>   | 200 | 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 (only IMO) |
| Operation profile     | Up to 4000 operating hours per year   average load < 60 %                                          |
| 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            | Single-stage turbocharger with charge air intercooler and wastegate                                |
| Cooling system        | Seawater cooled by rubber impeller pump or two-circuit-cooling system for hull cooling             |
| 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> (180Nm), 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, average TBO 12.000 operating hours*                       |
| Classification        | Engine according to classification requirements available => see MAN Marine Configurator           |
| <b>Exhaust status</b> | <b>IMO Tier II, RCD 2013/53/EC, China 2 commercial</b>                                             |

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

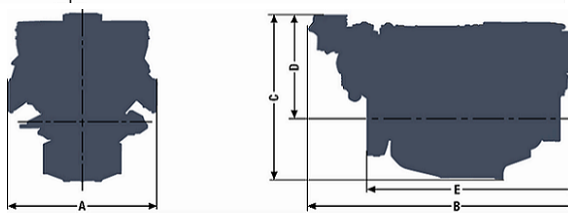
<sup>2</sup> Diesel fuel according to DIN EN 590 (tolerance +5% - ISO 3046)

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

\*TBO 12.000 operating hours for non or low particulate matters (PM) regulated jurisdictions (IMO, Canada, EU Stage IIIA)

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|                            |         |
|----------------------------|---------|
| A - overall width.....     | 1153 mm |
| B - overall length.....    | 2130 mm |
| C - overall height.....    | 1230 mm |
| D - above crank shaft....  | 765 mm  |
| E - length to flywheel.... | 1630 mm |
| Engine weight (dry).....   | 2270 kg |



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

|                               |                        |
|-------------------------------|------------------------|
| Intake air temperature (max.) | 45 °C                  |
| Intake air vacuum (min/max)   | 30/60 mbar             |
| Intake air volume flow        | 4085 m <sup>3</sup> /h |

|                                 |                         |
|---------------------------------|-------------------------|
| Exhaust gas temperature         | 474 °C                  |
| Exhaust gas volume flow         | 10390 m <sup>3</sup> /h |
| Exhaust gas mass flow           | 4780 kg/h               |
| Exhaust back pressure (min/max) | 20/80 mbar              |

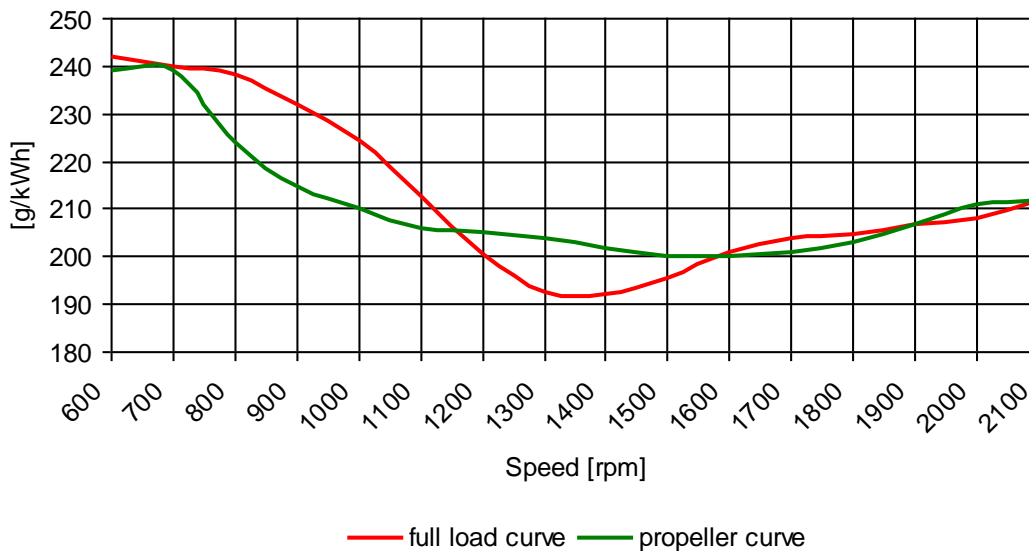
## Heat balance <sup>1</sup>

|                    |        |
|--------------------|--------|
| Exhaust gas heat   | 570 kW |
| Cooling water heat | 580 kW |
| Intercooler heat   | 170 kW |
| Radiation heat     | 36 kW  |

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

|                            |             |
|----------------------------|-------------|
| Engine surface noise (Lwa) | 124,3 dB(A) |
| Free exhaust noise (Lwa)   | 119,8 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 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)

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

\*TBO 12.000 operating hours for non or low particulate matters (PM) regulated jurisdictions (IMO, Canada, EU Stage IIIA)