



Technical data sheet

16.03.2021
(Version 3)

Marine diesel engine
D2862LE456 (V12-1650)

Performance data ¹

| | | |
|-------------------------|-----------|-------|
| Rated power | 1213 | kW |
| Rated power | 1650 | PS |
| Speed | 2300 | rpm |
| Bore/Stroke | 128/157 | mm |
| Displacement | 24,24 | liter |
| Rated torque | 5036 | Nm |
| Maximum torque | 5510 | Nm |
| at speed | 1200-2100 | rpm |
| Compression ratio [ε] | 17,0 | :1 |
| Mean effective pressure | 26,11 | bar |
| Mean piston speed | 12,04 | m/s |



Consumption data ²

| | | |
|--|-----|-------|
| Specific fuel consumption ¹ | 221 | g/kWh |
| Absolute fuel consumption ¹ | 319 | l/h |
| Lowest fuel consumption ³ | 201 | 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 |
| 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 EDC17 control, fuel to DIN EN 590 |
| Auxiliary PTO | PTO for hydraulic pump 16 cm ³ (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, China 2 |

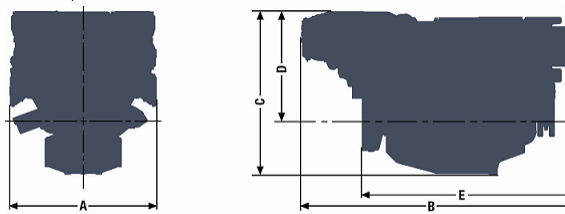
¹ Values at rated power

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

³ Values on propeller curve

D2862LE456 (V12-1650)

| | |
|----------------------------|---------|
| 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 |



Combustion parameters ¹

| | |
|-------------------------------|------------------------|
| Intake air temperature (max.) | 45 °C |
| Intake air vacuum (min/max) | 30/60 mbar |
| Intake air volume flow | 5840 m ³ /h |

| | |
|---------------------------------|-------------------------|
| Exhaust gas temperature | 447 °C |
| Exhaust gas volume flow | 14100 m ³ /h |
| Exhaust gas mass flow | 6670 kg/h |
| Exhaust back pressure (min/max) | 20/80 mbar |

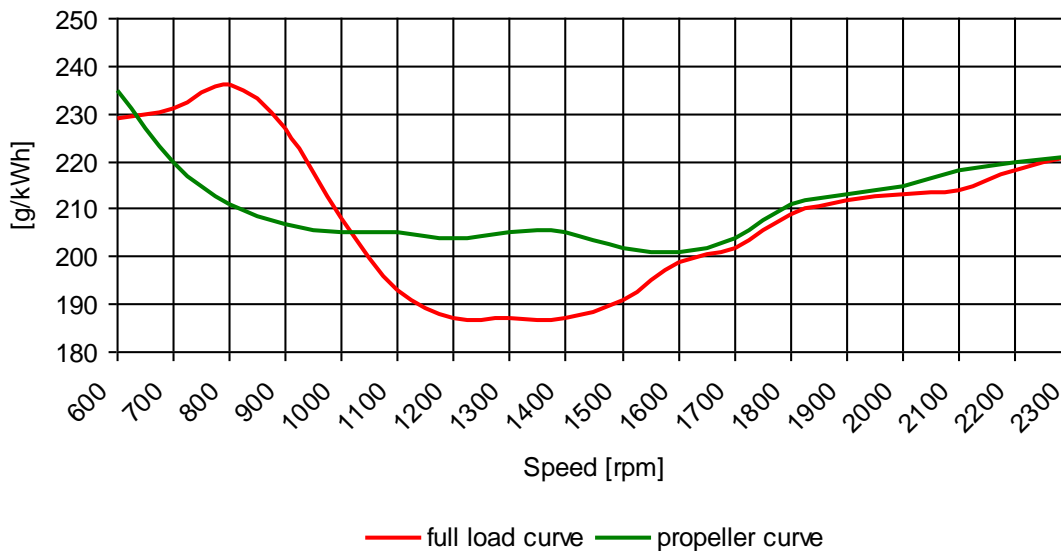
Heat balance ¹

| | |
|--------------------|--------|
| Exhaust gas heat | 820 kW |
| Cooling water heat | 830 kW |
| Intercooler heat | 300 kW |
| Radiation heat | 39 kW |

Noise emission (sound power) ¹

| | |
|----------------------------|-------------|
| Engine surface noise (Lwa) | 120,2 dB(A) |
| Free exhaust noise (Lwa) | 118,5 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 2,5 >

< 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