



Technical data sheet

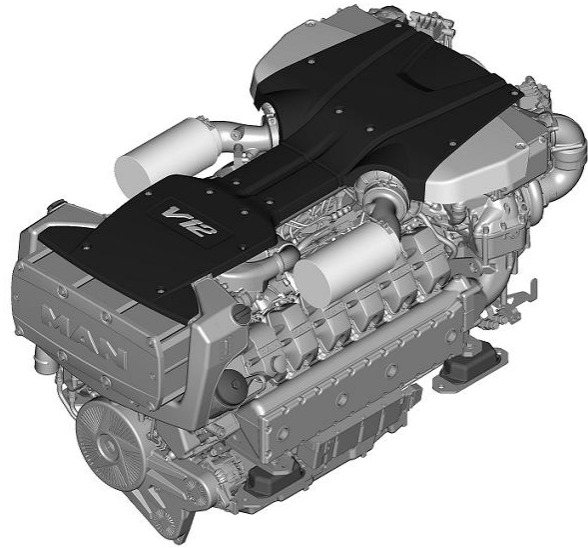
19.02.2015
(Version 2)

Marine diesel engine

D2862LE453 (V12-1650)

Performance data ¹

Rated power.....	1213 [kW]
Rated power.....	1650 [PS]
Speed.....	2300 [rpm]
Bore.....	128 [mm]
Stroke.....	157 [mm]
Displacement.....	24,24 [l]
Rated torque.....	5036 [Nm]
Maximum torque.....	5520 [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 ¹

Specific fuel consumption ² ...	218 [g/kWh]
Absolute fuel consumption ² ...	315 [l/h]
Lube oil consumption, max...	485 [g/h]

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

Engine description

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 high pressure pump and EDC control, fuel to DIN EN 590
Auxiliary PTO	PTO for hydraulic pump 16 cm ³ (180 Nm)
Alternator	three phase generator with rectifier and transistorized governor, 28 V, 120 A
Starting system	solenoid operated electric starter, 24 V, 7.0 kW
Service	oil change interval 400 operating hours, average TBO 5.000 operating hours
Classification	ABS, BV, CCS, CRS, DNV, GL, NK, RINA, RMRS,RRR

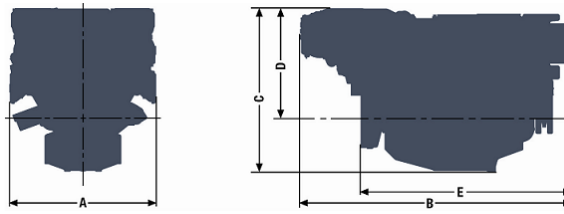
Exhaust status IMO Tier 2, RCD 94/25/EC, 97/68/EC

¹ values at rated power

² Tolerance +5% according ISO 3046, diesel fuel to DIN EN 590

D2862LE453 (V12-1650)

A - complete width.....	1150 [mm]
B - complete length.....	2255 [mm]
C - complete height.....	1350 [mm]
D - above crank shaft....	885 [mm]
E - length to flywheel.....	1667 [mm]
Engine weight (dry).....	2365 [kg]



Combustion parameters ¹

Intake air temperature, max.....	45 [°C]
Intake air vacuum (min/max).....	30/60 [mbar]
Intake air volume flow.....	5260 [m³/h]
Exhaust gas temperature.....	460 [°C]
Exhaust gas volume flow.....	13070 [m³/h]
Exhaust gas mass flow.....	6130 [kg/h]
Exhaust back pressure (min/max)..	20/80 [mbar]

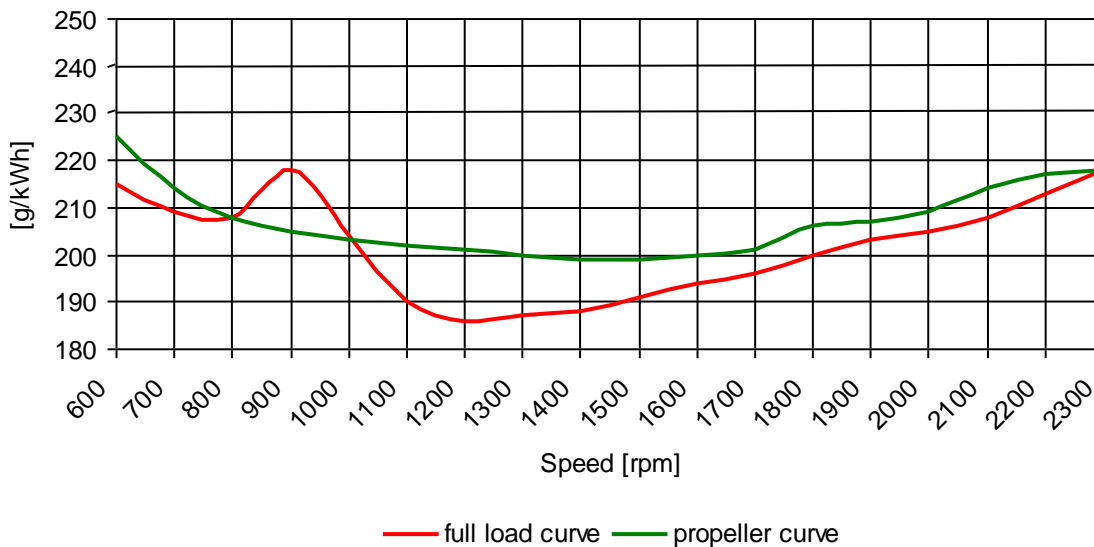
Heat balance ¹

Exhaust gas heat.....	788 [kW]
Cooling water heat.....	820 [kW]
Intercooler heat.....	300 [kW]
Radiation heat.....	39 [kW]

Noise emission ¹

engine surface noise (Lwa).	108,5 [dB(A)]
free exhaust noise (Lwa).....	113,0 [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 notice >

¹ values at rated power

² Tolerance +5% according ISO 3046, diesel fuel to DIN EN 590