



Technical data sheet

27.04.2016
(Version 2)

Marine diesel engine
D2862LE456 (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	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 ¹

Specific fuel consumption ²	223	g/kWh
Absolute fuel consumption ²	323	l/h
Lowest fuel consumption ³	195	g/kWh

The engine illustrated may not entirely be 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 (180Nm)
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	BV, RINA

Exhaust status IMO Tier II, RCD 2013/53/EC, EPA Tier 3 commercial (2016) / recreational (>2017), 97/68/EC

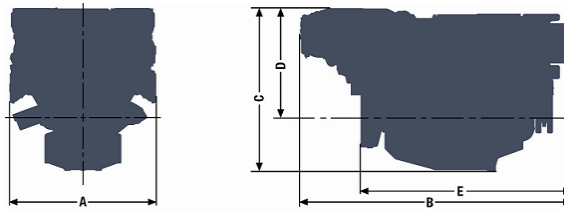
¹ values at rated power

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

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).....	2380 kg



Combustion parameters ¹

Intake air temperature (max.)	45 °C
Intake air vacuum (min/max)	30/60 mbar
Intake air volume flow	5210 m ³ /h
Exhaust gas temperature	470 °C
Exhaust gas volume flow	12900 m ³ /h
Exhaust gas mass flow	5970 kg/h
Exhaust back pressure (min/max)	20/80 mbar

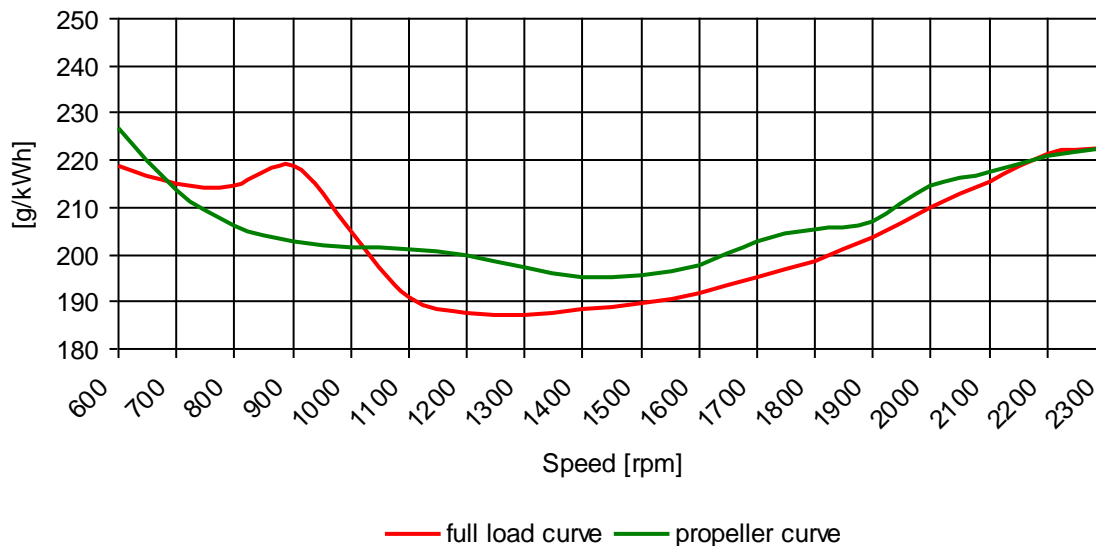
Heat balance ¹

Exhaust gas heat	825 kW
Cooling water heat	845 kW
Intercooler heat	310 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 prior notice >

¹ values at rated power

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

³ values on propeller curve

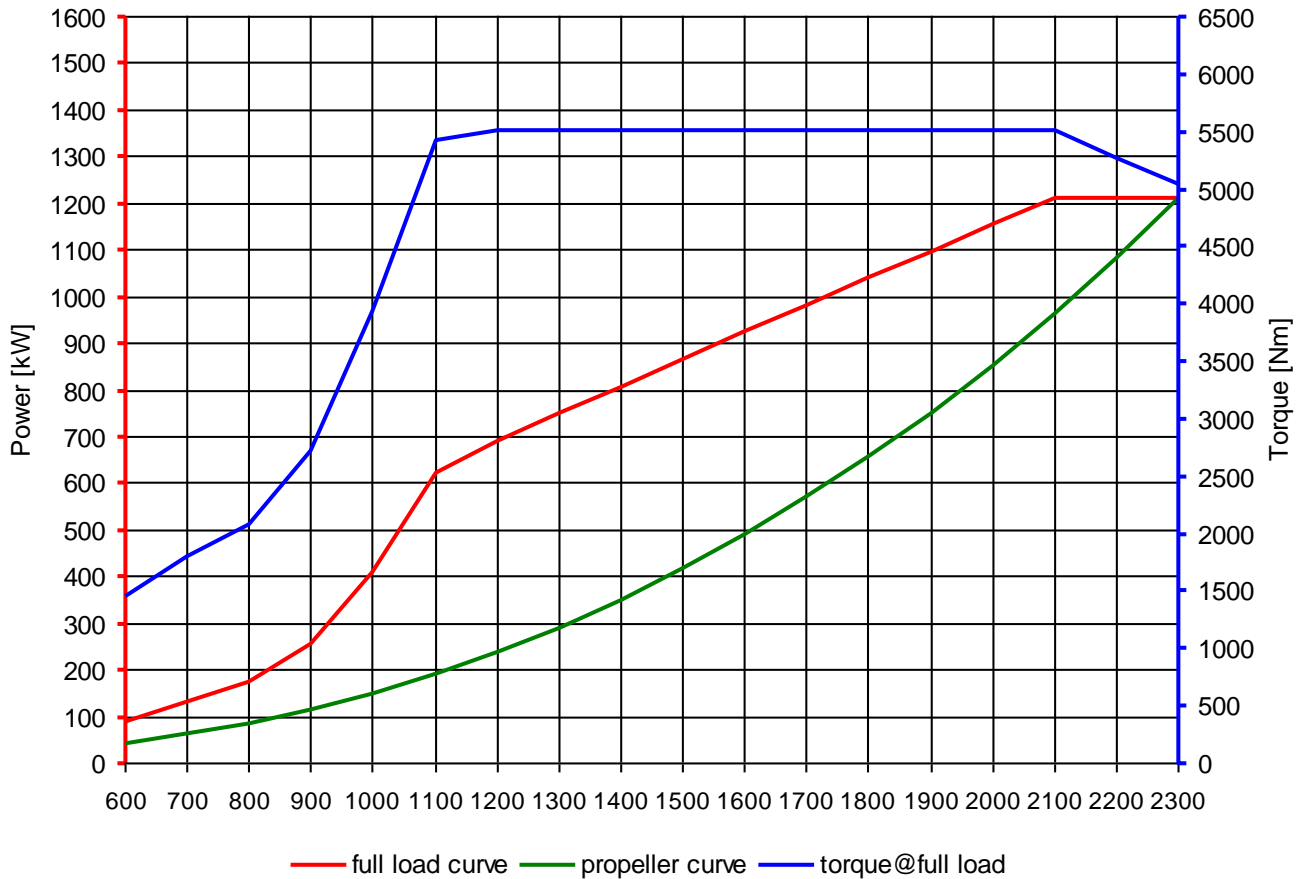


Engine curves

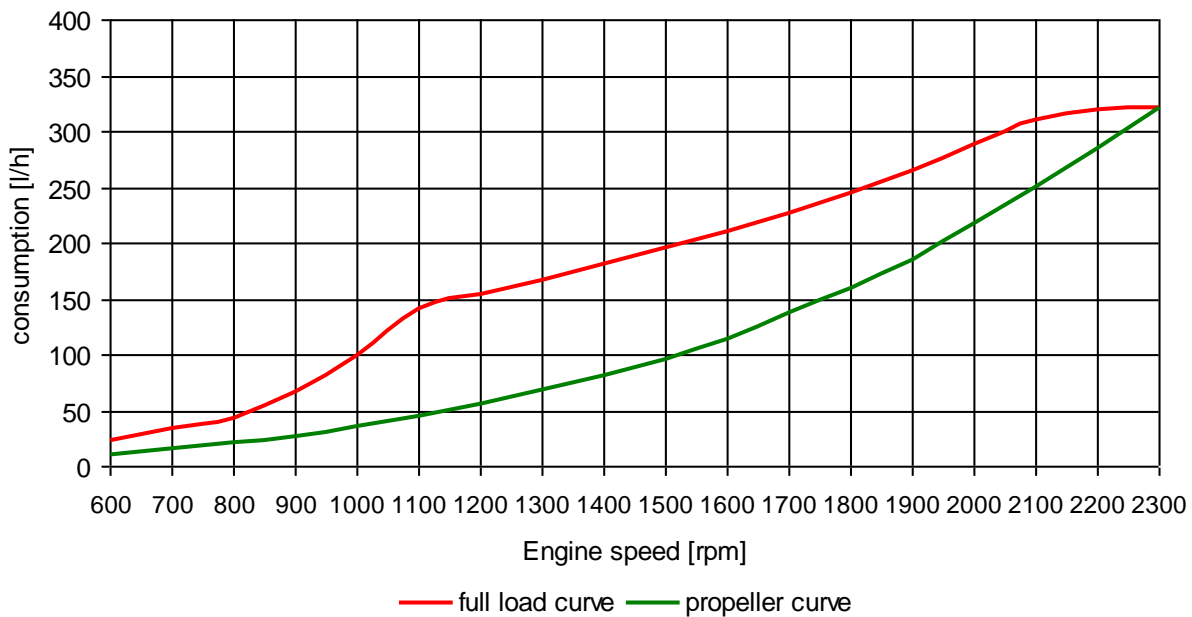
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Power/torque curves



Absolute fuel consumption¹



< The rated power is based on reference conditions according to DIN ISO 3046-1 (2002) >

< Exponent for propeller curve 2,5 >

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