



Technical data sheet

17.01.2017
(Version 2)

Marine diesel engine D2868LE422 ()

Performance data ¹

Rated power	588	kW
Rated power	800	PS
Speed	2100	rpm
Bore	128	mm
Stroke	157	mm
Displacement	16,16	liter
Rated torque	2674	Nm
Maximum torque	2950	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



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

Consumption data ¹

Specific fuel consumption ²	212	g/kWh
Absolute fuel consumption ²	148	l/h
Lowest fuel consumption ³	198	g/kWh

Engine description

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	8 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 high pressure pump and EDC control, fuel to DIN EN 590
Auxiliary PTO	PTO for hydraulic pump 16 cm ³ (180Nm), front-PTO by crank shaft extension
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 500 operating hours, average TBO 12.000 operating hours
Classification	ABS, BV, DNV, GL, RINA

Exhaust status IMO Tier II, 97/68/EC

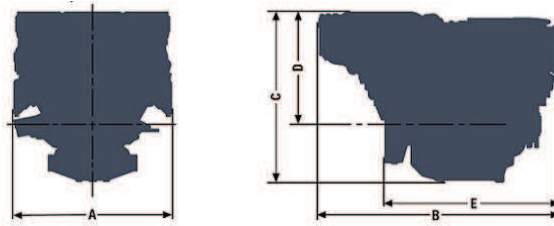
¹ values at rated power

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

³ values on propeller curve

D2868LE422 ()

A - overall width.....	1153 mm
B - overall length.....	1745 mm
C - overall height.....	1177 mm
D - above crank shaft....	765 mm
E - length to flywheel....	1243 mm
Engine weight (dry).....	1780 kg



Combustion parameters ¹

Intake air temperature (max.)	45 °C
Intake air vacuum (min/max)	30/60 mbar
Intake air volume flow	2460 m³/h

Exhaust gas temperature	425 °C
Exhaust gas volume flow	5920 m³/h
Exhaust gas mass flow	2920 kg/h
Exhaust back pressure (min/max)	20/80 mbar

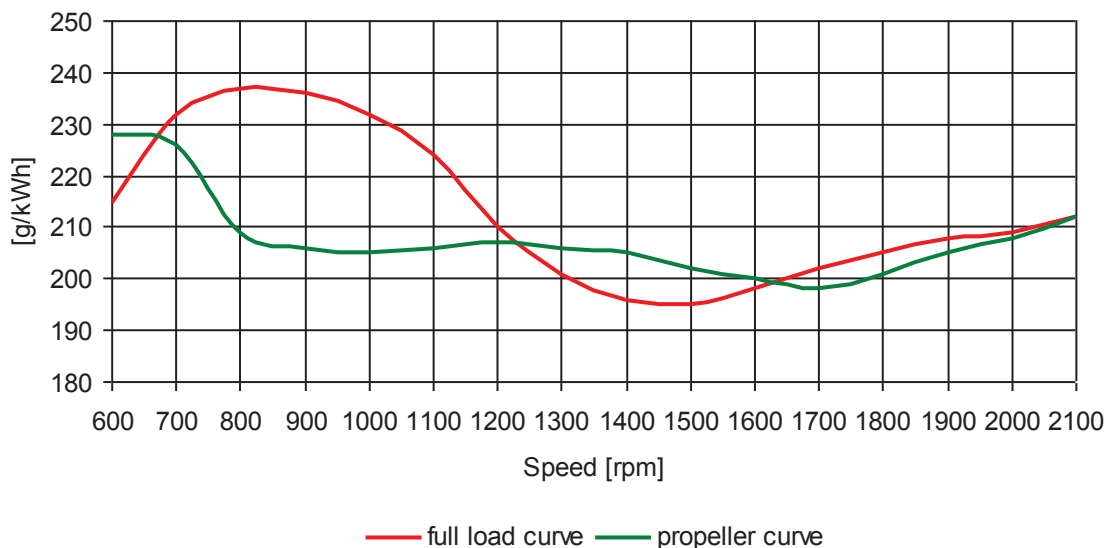
Heat balance ¹

Exhaust gas heat	342 kW
Cooling water heat	410 kW
Intercooler heat	120 kW
Radiation heat	30 kW

Noise emission ¹

Engine surface noise (Lwa)	102,1 dB(A)
Free exhaust noise (Lwa)	110,0 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 2,7 >

< 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

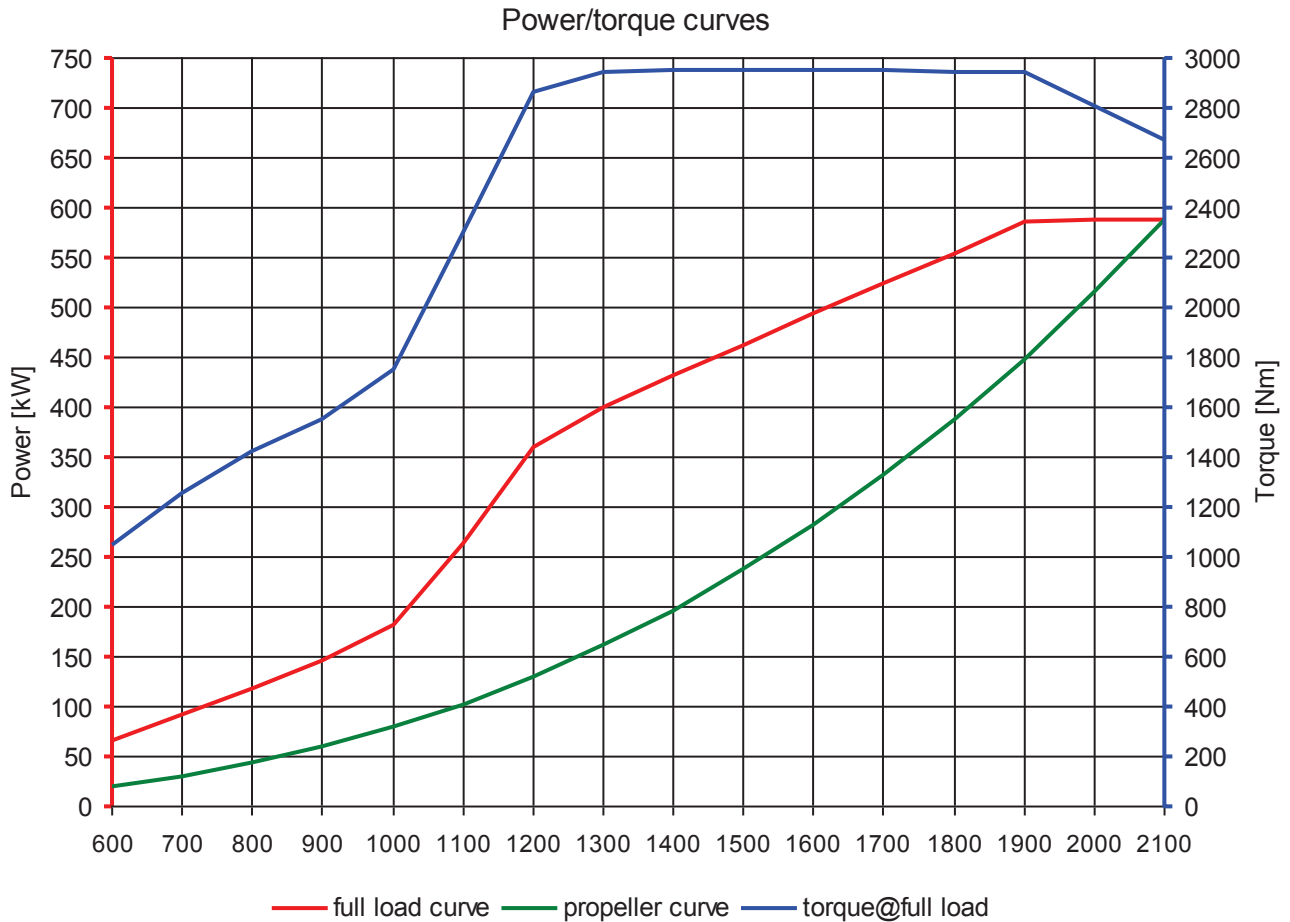
³ values on propeller curve



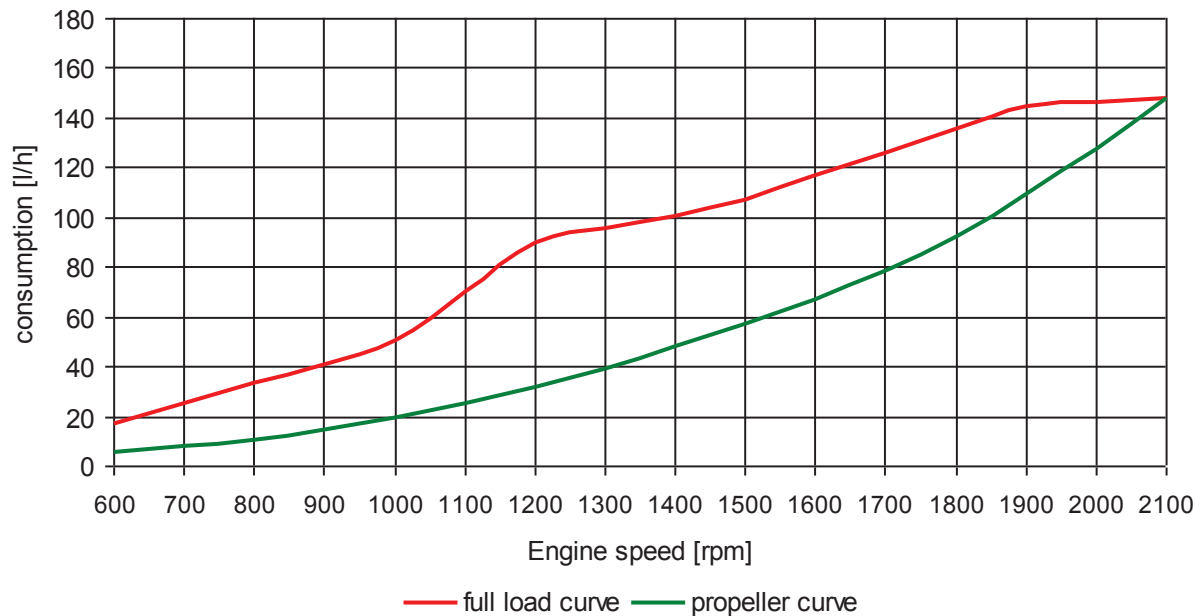
Engine curves

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D2868LE422 (588kW@2100rpm) ()



Absolute fuel consumption¹



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

< Exponent for propeller curve 2,7 >

< Engine specifications are subjected to change without notice >

¹ Tolerance +5% according ISO 3046, diesel fuel to DIN EN 590