



Technical data sheet

17.01.2017
(Version 1)

Marine diesel engine D2676LE422 ()

Performance data ¹

Rated power	478	kW
Rated power	650	PS
Speed	2100	rpm
Bore	126	mm
Stroke	166	mm
Displacement	12,42	liter
Rated torque	2174	Nm
Maximum torque	2402	Nm
at speed	1200-1900	rpm
Compression ratio [ε]	16,5	:1
Mean effective pressure	21,99	bar
Mean piston speed	11,62	m/s



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

Consumption data ¹

Specific fuel consumption ²	213	g/kWh
Absolute fuel consumption ²	121	l/h
Lowest fuel consumption ³	197	g/kWh

Engine description

Operation profile	up to 3000 hours per year at a maximum of 50 % of time at full load average load < 70 %
Construction	four-stroke marine diesel engine, direct injection, SAE 1 flywheel housing
Cylinders	6 cylinders in line, single cylinder heads with wet replaceable cylinder liners
Air system	single-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 ²
Alternator	three-phase generator with rectifier and transistorized governor, 28 V, 110 A
Starting system	solenoid operated electric starter, 24 V, 5.5 kW
Service	oil change interval 500 operating hours, average TBO 12.000 operating hours
Classification	DNV-GL, RINA, LRS, BV, ABS, CCS

Exhaust status IMO Tier II, 97/68/EC

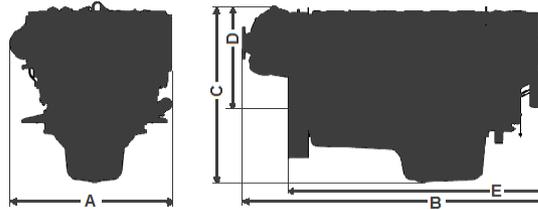
¹ values at rated power

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

³ values on propeller curve

D2676LE422 ()

A - overall width.....	986 mm
B - overall length.....	1795 mm
C - overall height.....	1096 mm
D - above crank shaft....	674 mm
E - length to flywheel....	1527 mm
Engine weight (dry).....	1215 kg



Combustion parameters ¹

Intake air temperature (max.)	45 °C
Intake air vacuum (min/max)	30/60 mbar
Intake air volume flow	2140 m³/h

Exhaust gas temperature	545 °C
Exhaust gas volume flow	5930 m³/h
Exhaust gas mass flow	2490 kg/h
Exhaust back pressure (min/max)	20/80 mbar

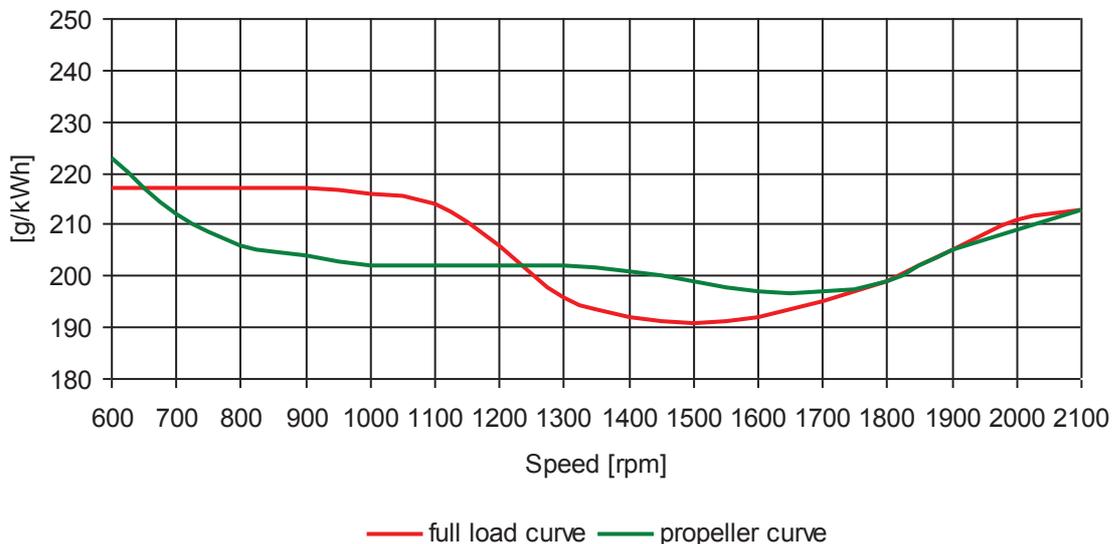
Heat balance ¹

Exhaust gas heat	372 kW
Cooling water heat	245 kW
Intercooler heat	95 kW
Radiation heat	27 kW

Noise emission ¹

Engine surface noise (Lwa)	dB(A)
Free exhaust noise (Lwa)	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

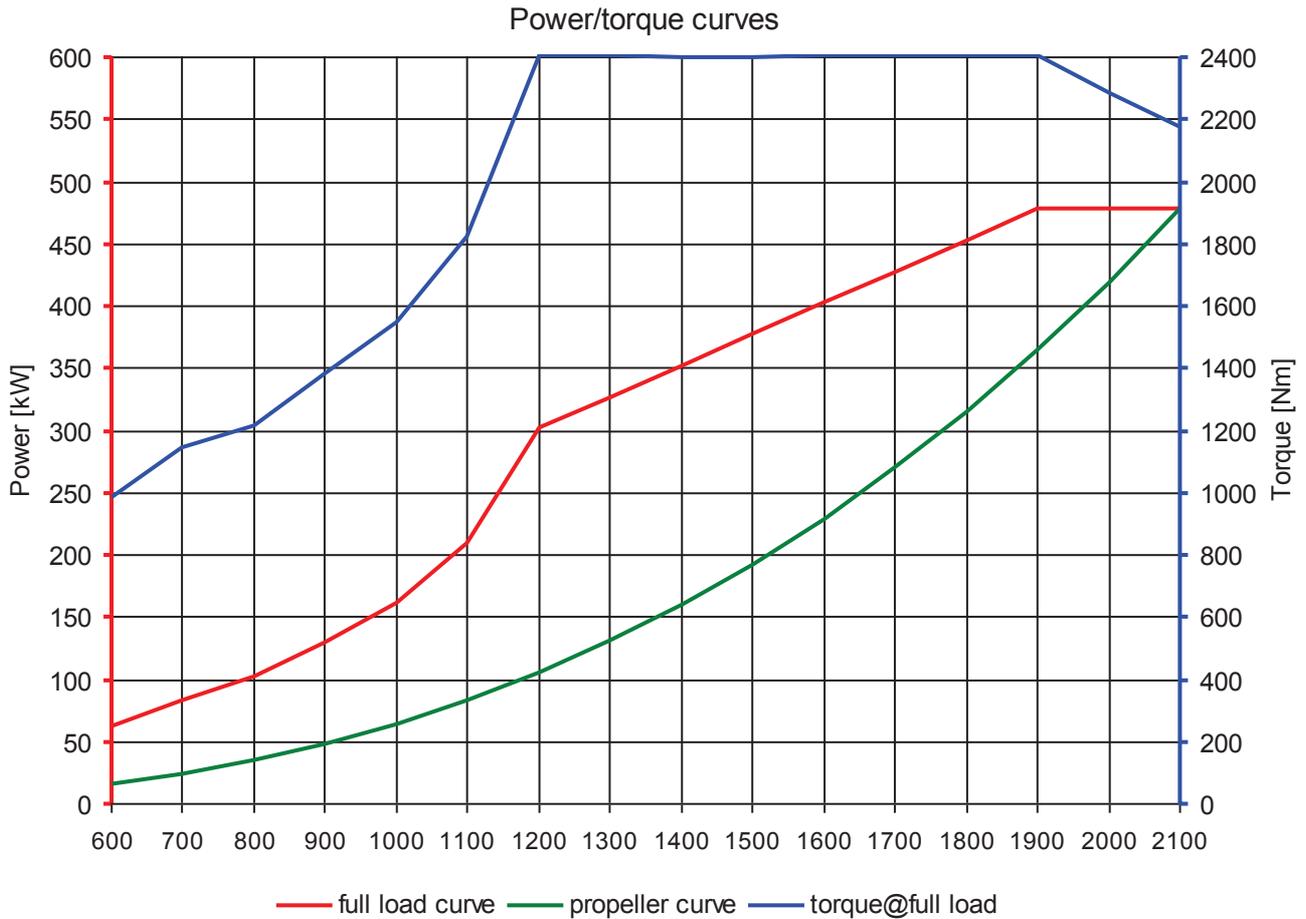
³ values on propeller curve



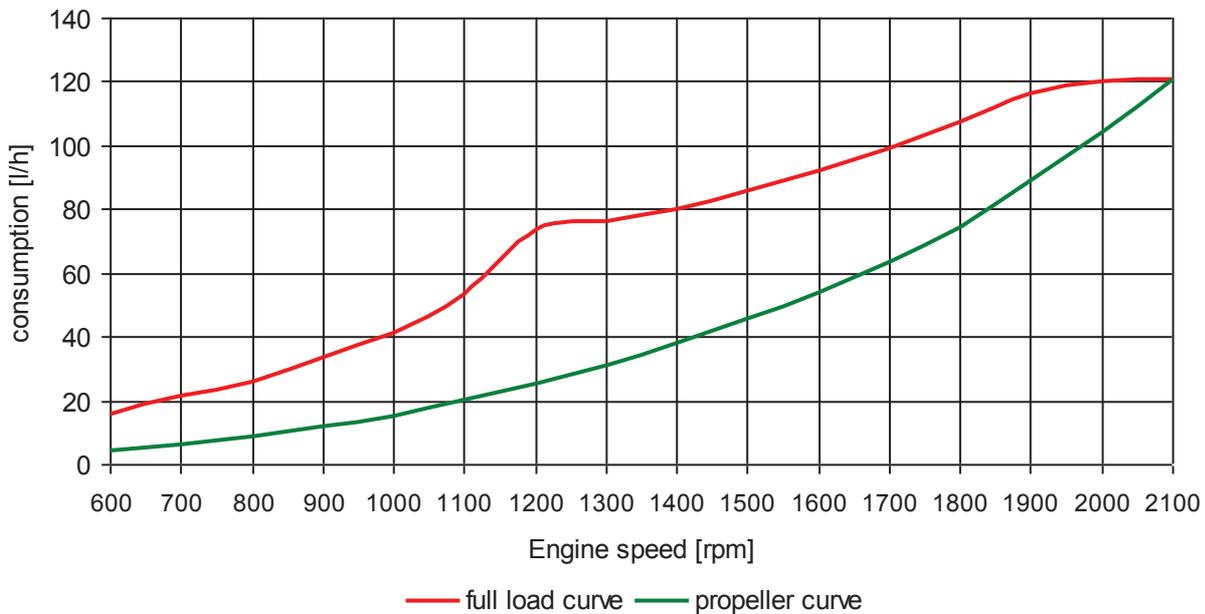
Engine curves

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D2676LE422 (478kW@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