Technical data sheet

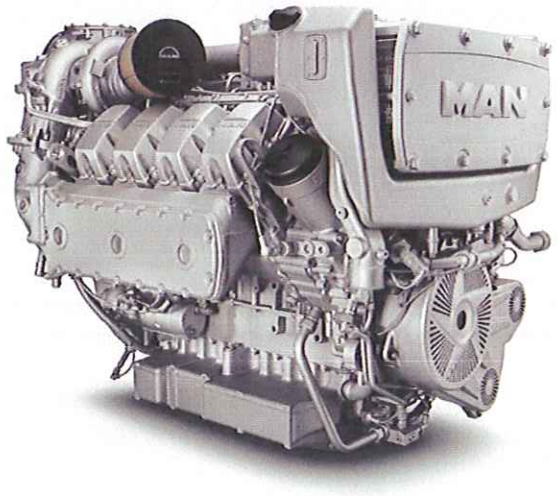
Marine diesel engine

D2868LE443 ()

24.01.2017
(Version 1)

Performance data [1]

Rated power	662	kW
Rated power	900	PS
Speed	2100	rpm
Bore	128	mm
Stroke	157	mm
Displacement	16,16	liter
Rated torque	3010	Nm
Maximum torque	3325	Nm
at speed	1400-1900	rpm
Compression ratio [ε]	17,0	:1
Mean effective pressure	23,41	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]	215	g/kWh
Absolute fuel consumption [2]	169	l/h
Lowest fuel consumption [3]	206	g/kWh

Engine description

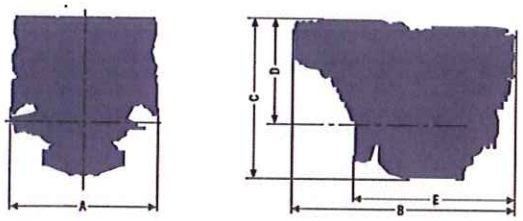
Operation profile	up to 3000 hours per year at a maximum of 20 % of time at full load | average load < 50 %
Construction	four-stroke marine diesel engine, direct injection, SAE 1 flywheel housing
Cylinders	8 cylinders in V-arrangement, single cylinder heads with wet replaceable cylinder liners
Air system	single step 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 cm³ (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	----

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

D2868LE443 ()

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]

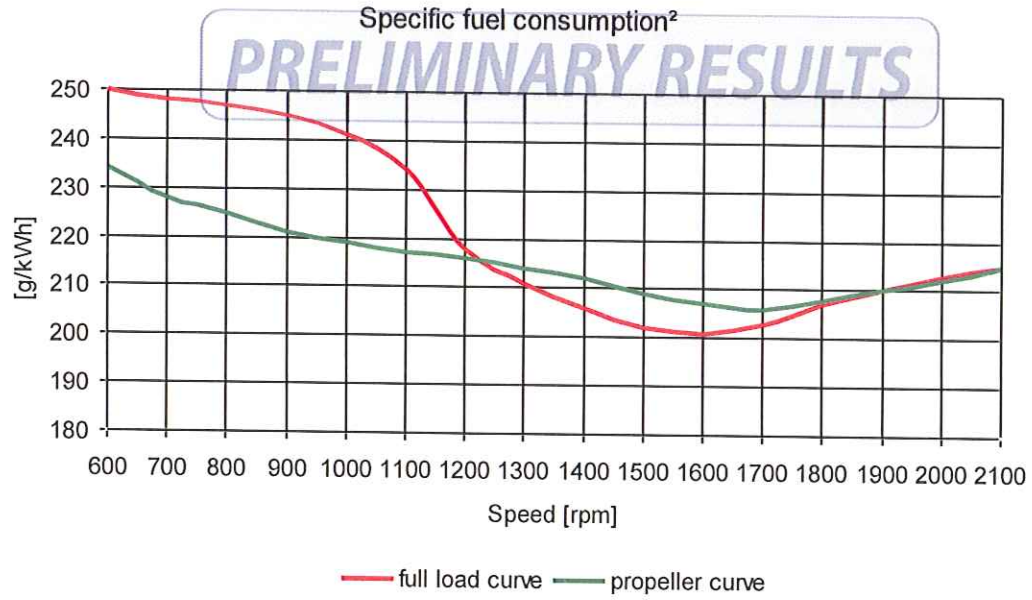
Intake air temperature (max.)	45	°C
Intake air vacuum (min/max)	30/60	mbar
Intake air volume flow	2640	m³/h
Exhaust gas temperature	470	°C
Exhaust gas volume flow	6740	m³/h
Exhaust gas mass flow	3130	kg/h
Exhaust back pressure (min/max)	20/80	mbar

Heat balance [1]

Exhaust gas heat	425	kW
Cooling water heat	450	kW
Intercooler heat	135	kW
Radiation heat	30	kW

Noise emission [1]

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



< 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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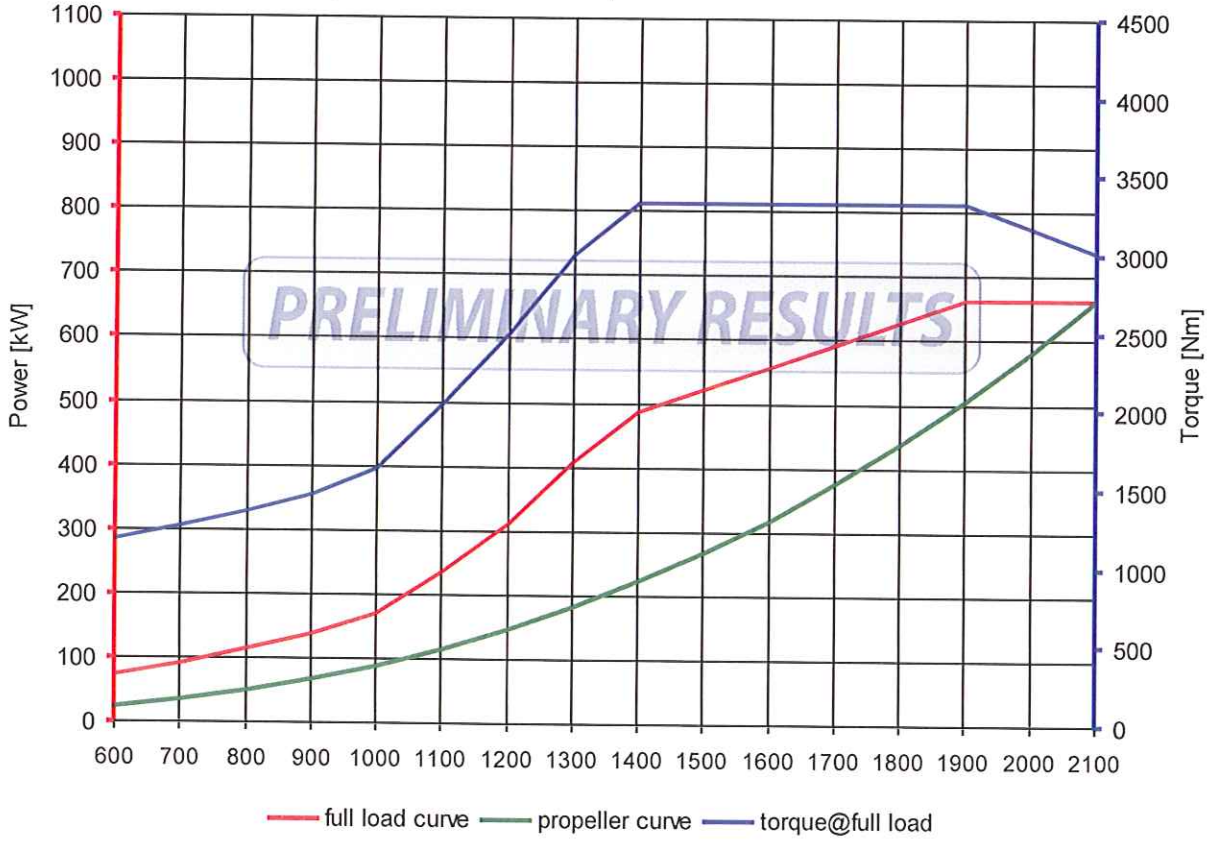
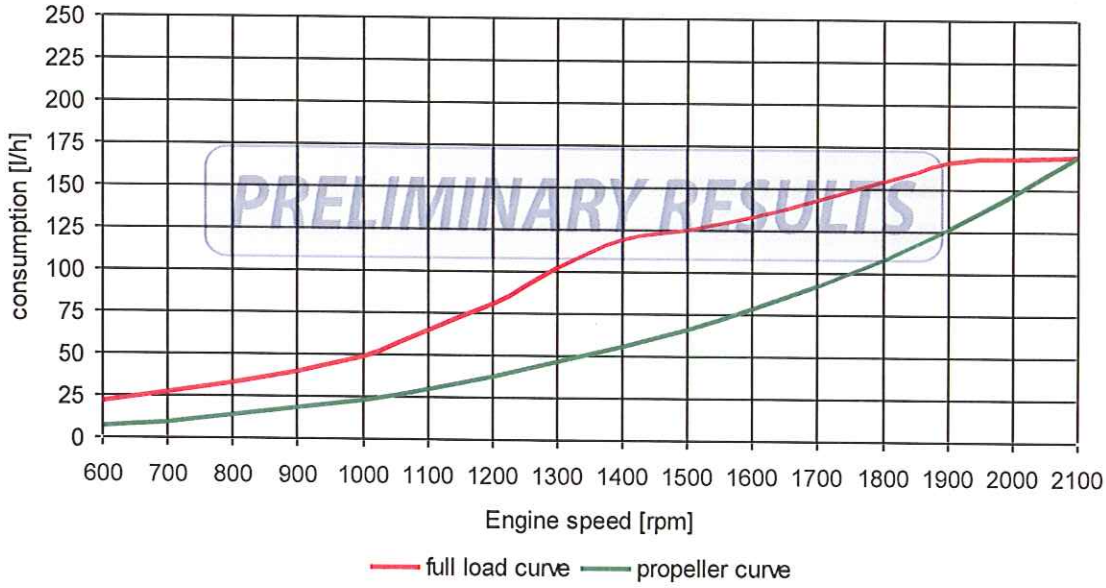
D2868LE443 (662kW@2100rpm) ()

Power/torque curves



Absolute fuel consumption[1]



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

< Exponent for propeller curve 2,7 >

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