



Diesel engine D 2842 LE403
Technical data

Part A
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Engine type :	four-stroke, direct-injection		
Cylinders :	12 cylinder V-arrangement, wet replaceable cylinder liners		
Aspiration :	turbocharger, intercooler, wastegate		
Cooling :	water circulation by centrifugal pump on engine		
Lubrication :	force-feed lubrication by gear pump, lubricating oil cooler in cooling water circuit of engine		
Injection :	Bosch in-line pump with mechanical speed governor		
Generator :	Bosch three-phase generator with rectifier and transistorized governor, 28 V, 55 A		
Starter motor :	Bosch solenoid-operated starter, typ KB, 24 V, 6,6 kW		
Bore :	128 mm	Starter battery capacity :	180 Ah (24V)
Stroke :	142 mm	Filling capacities :	
Volume :	21,93 l	-Engine lube oil for	
		standard oil sump (min.) :	24 l
		standard oil sump (max.) :	32 l
Compression ratio :	15,5:1		
Cooling water temperature:		Inertia moments (SI-Unit) :	
- under normal conditions	90° C	- engine and vibration damper	1,365 kgm ²
- short period under extreme conditions	95° C	- flywheel for	
- before start of full load (min.)	40° C	variable speed	
		marine propulsion engine	1,975 kgm ²
Filling capacities :		Speed droop variable speed	max. 15%
- coolant for engine with integrated cooling system and piping approx	96,0 l		



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Mode of operation		1
Speed	rpm	1800
Maximum rating	kW HP	529 720
Exhaust status		IMO,ZKR11,97/68/EC
Mean effective pressure	bar	16,1
Torque	Nm	2806
Mean piston velocity	m/s	8,5
Fuel consumption (+5% tolerance)		
Mode of operation 1	g/kWh	221
Mode of operation 2	g/kWh	---
Mode of operation 3	g/kWh	---
Lube oil consumption max.	g/h	585
Air for combustion	m³/h	2730
Negative pressure at air filter outlet, max. permissible	hPa	80/120
Exhaust gas heat	kW	340
Exhaust gas temperature	°C	386
Exhaust gas mass flow	kg/h	3280
Exhaust gas volume flow	m³/h	6200
Exhaust gas back pressure max. permissible	hPa	80
Jacket water heat incl. water-cooled exhaust manifold	kW	373
Minimum cooling water circulation	l/h	43200
Intercooler heat rate	kW	109
delivery quantity of fuel supply pump	l/h	600
Power input for raw water pump	kW	3
delivery quantity of raw water pump at a back pressure of 0,6 bars and 0 bars inlet pressure	l/h	29000
Radiation heat	kW	45



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Mode of operation		1
Speed	rpm	1800
Noise at 1m distance	dB(A)	98
Dry weight of engine ...	kg	1790

Examples of application for mode of operation see Part E :

" Definition of application for MAN marine engines "

The nominal ratings are based on reference conditions according to
DIN / ISO 3046/1: 298 K (25° Celsius) air temperature, 100 kPa (1000 mbar)
air pressure, 60 % air humidity.

Maximum permissible seawater temperature : 305 K (32° Celsius)

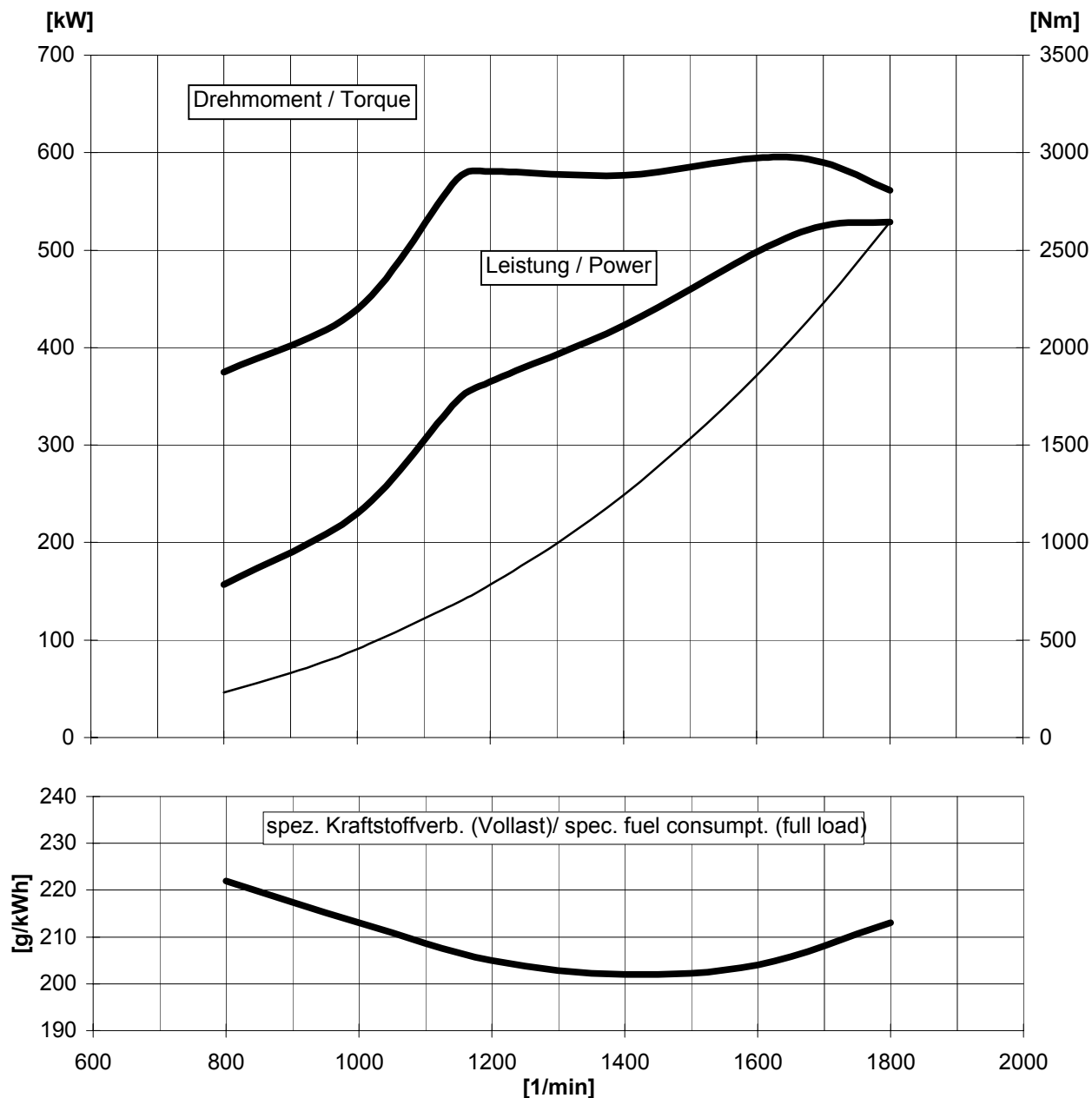
Output-related data are referred to the maximum rating specified for each speed.



Leistungsdiagramm und Kraftstoffverbrauch Performance Curve and Fuel Consumption

Motortyp

D2842LE403



Nennleistung / Nenndrehzahl: 529 kW bei 1800 1/min
Nominal power rating / nominal rpm 529 kW at 1800 rpm

Leistungsangaben gemäß Bezugzustand DIN 6271 / ISO 3046/
The ratings are based on reference conditions according to DIN 6271 / ISO 3046.

Propellerkurve basiert auf Exponent 3,00
Propeller curve calculated a 3,00 exponent

Änderungen im Sinne des techn. Fortschrittes vorbehalten

Abteilung :
MVMT

Datum :
25.10.2007