



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 <sup>2</sup>
- short period under extreme conditions	95° C	- flywheel for variable speed	
- before start of full load (min.)	40° C	marine propulsion engine	1,975 kgm <sup>2</sup>
Filling capacities :		Speed droop variable speed	max. 15%
- coolant for engine with integrated cooling system and piping approx	96,0 l		



Diesel engine D 2842 LE413  
 Technical data for marine diesel engine

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Mode of operation		<b>2</b>
Speed	rpm	<b>2100</b>
Maximum rating	kW	735
	HP	1000
Exhaust status		see list Exhaust Guidelines
Mean effective pressure	bar	19,2
Torque	Nm	3342
Mean piston velocity	m/s	9,9
Fuel consumption ( +5% tolerance )		
Mode of operation 1	g/kWh	---
Mode of operation 2	g/kWh	227
Mode of operation 3	g/kWh	---
Lube oil consumption max.	g/h	830
Air for combustion	m <sup>3</sup> /h	3490
Negative pressure at air filter outlet, max. permissible	hPa	50/90
Exhaust gas heat	kW	500
Exhaust gas temperature	°C	464
Exhaust gas mass flow	kg/h	4220
Exhaust gas volume flow	m <sup>3</sup> /h	8930
Exhaust gas back pressure max. permissible	hPa	80
Jacket water heat incl. water-cooled exhaust manifold	kW	516
Minimum cooling water circulation	l/h	50400
Intercooler heat rate	kW	160
delivery quantity of fuel supply pump	l/h	500
Power input for raw water pump	kW	3,5
delivery quantity of raw water pump at a back pressure of 0,6 bars	l/h	34000
Radiation heat	kW	90



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Mode of operation		<b>2</b>
Speed	rpm	<b>2100</b>
Noise pressure level at 1m distance	dB(A)	101
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 )

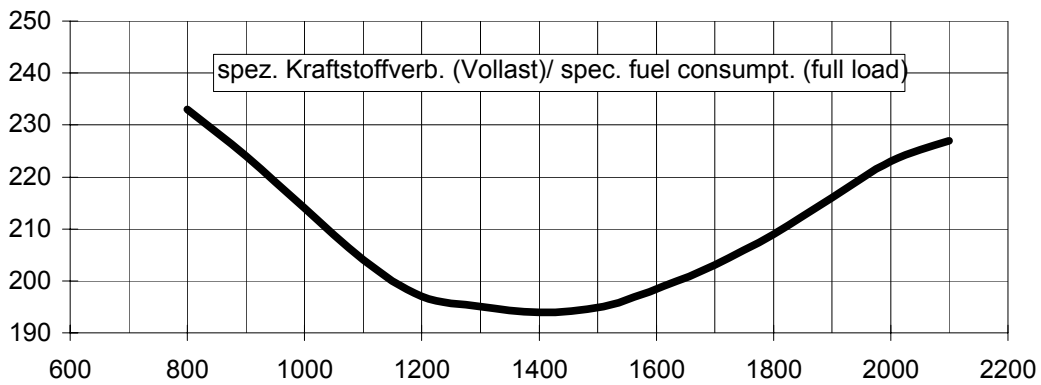
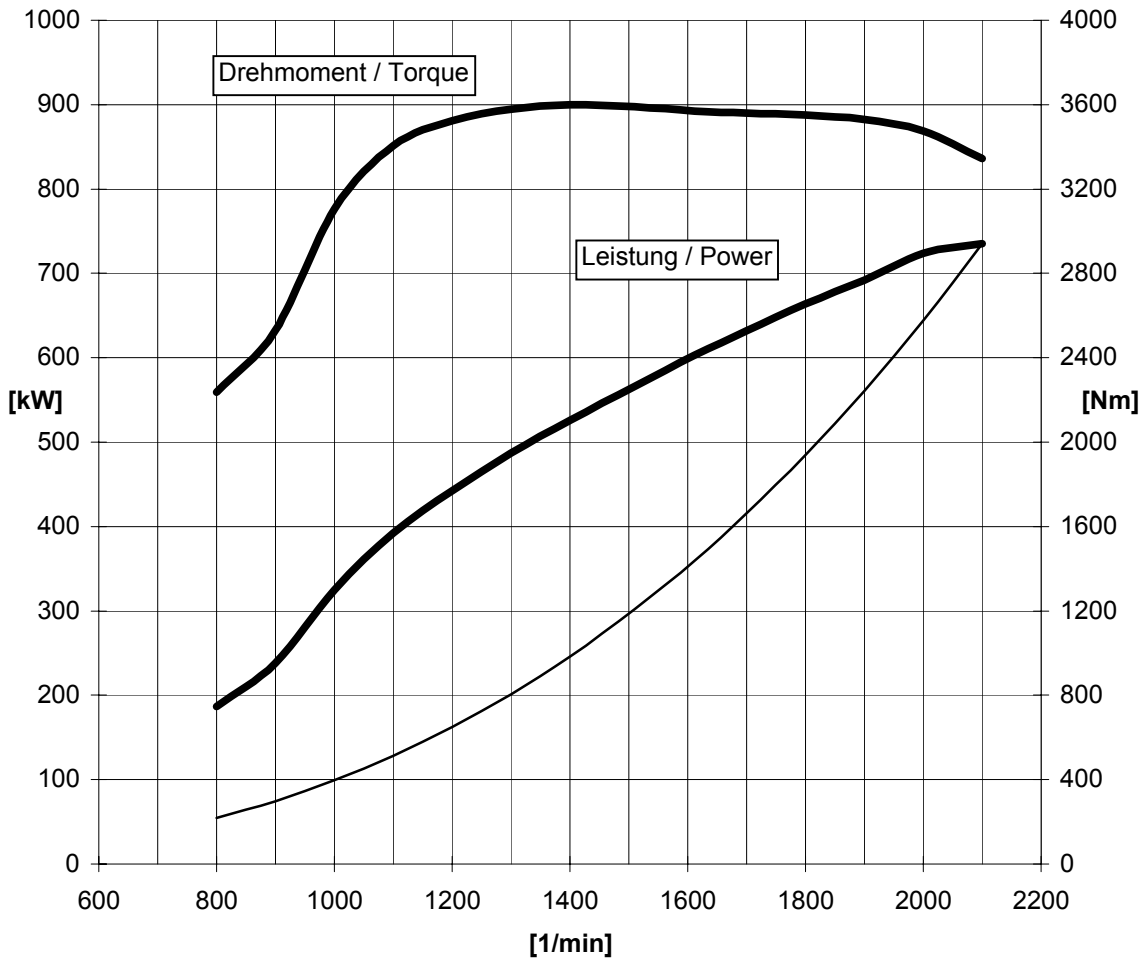
Output-related data are referred to the maximum rating specified for each speed.



# Leistungsdiagramm und Kraftstoffverbrauch Performance Curve and Fuel Consumption

Motortyp

D2842LE413



Nennleistung / Nenndrehzahl: 735 kW bei 2100 1/min  
 Nominal power rating / nominal rpm: 735 kW at 2100 rpm

Leistungsangaben gemäß Bezugszustand DIN 6271 / ISO 3046/1  
 The ratings are based on reference conditions according to DIN 6271 / ISO 3046/1

Propellerkurve basiert auf Exponent 2,70  
 Propeller curve calculated at 2,70 exponent

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