Technical data sheet

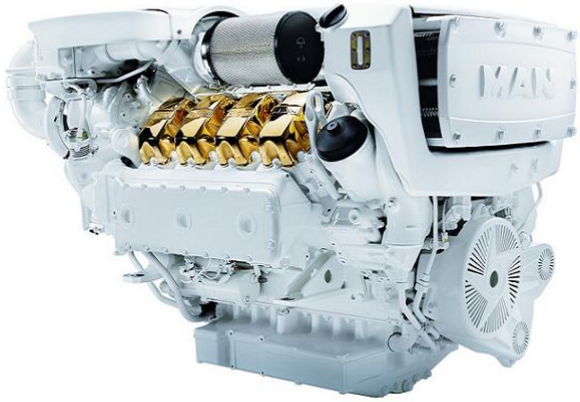
Marine diesel engine

D2868LE453 (V8-1120)

08.07.2022
(Version 2)

Performance data [1]

Rated power	824	kW
Rated power	1121	PS
Speed	2300	rpm
Bore/Stroke	128/157	mm
Displacement	16,16	liter
Rated torque	3421	Nm
Maximum torque	3745	Nm
at speed	1200-2100	rpm
Compression ratio [ε]	17,0	:1
Mean effective pressure	26,60	bar
Mean piston speed	12,04	m/s



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

Consumption data [2]

Specific fuel consumption [1]	219	g/kWh
Absolute fuel consumption [1]	215	l/h
Lowest fuel consumption [3]	202	g/kWh

Engine description

Application	Main propulsion diesel for ships with fixed pitch propeller
Operation profile	Up to 1000 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	Two-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 EDC17 control, fuel to DIN EN 590
Auxiliary PTO	PTO for hydraulic pump 16 cm³ (180Nm)
Alternator	Three-phase generator with rectifier and transistorized governor, 28 V, 120A
Starting system	Solenoid-operated electric starter, 24V, 7.0kW
Service	Oil change interval 400 operating hours, average TBO 5.000 operating hours*
Classification	Engine according to classification requirements available => see MAN Marine Configurator

Exhaust status	**IMO Tier II**

[1] Values at rated power

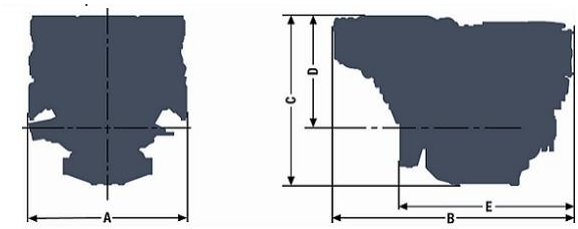
[2] Diesel fuel according to DIN EN 590 (tolerance +5% - ISO 3046)

[3] Values on propeller curve

*TBO 5.000 operating hours for non or low particulate matters (PM) regulated jurisdictions (IMO, Canada, EU Stage IIIA)

D2868LE453 (V8-1120)

A - overall width.....	1153	mm
B - overall length.....	1745	mm
C - overall height.....	1222	mm
D - above crank shaft....	811	mm
E - length to flywheel....	1262	mm
Engine weight (dry).....	1941	kg



Combustion parameters [1]

Intake air temperature (max.)	45	°C
Intake air vacuum (min/max)	30/60	mbar
Intake air volume flow	3600	m³/h
Exhaust gas temperature	434	°C
Exhaust gas volume flow	8650	m³/h
Exhaust gas mass flow	4200	kg/h
Exhaust back pressure (min/max)	20/80	mbar

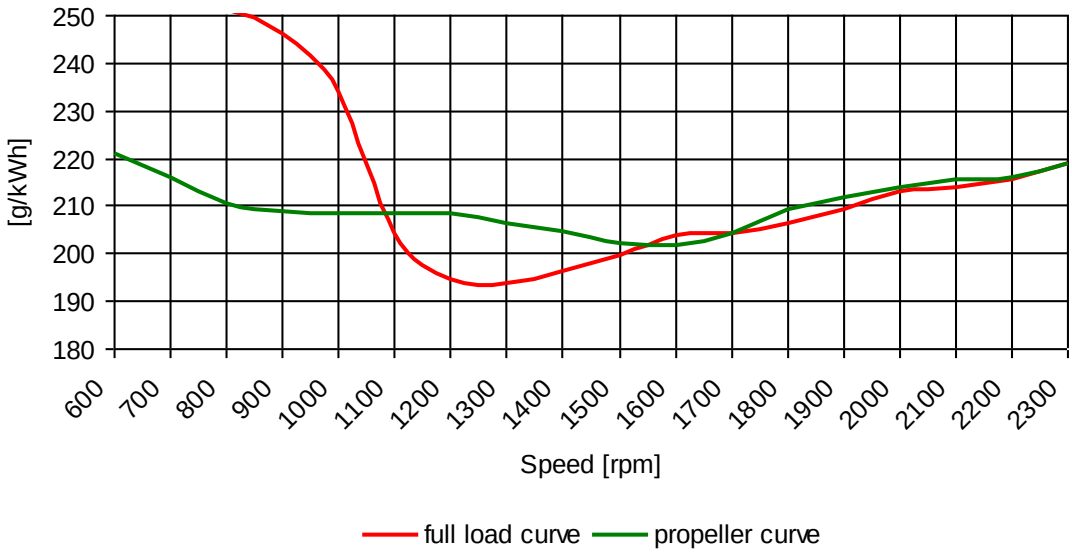
Heat balance [1]

Exhaust gas heat	540	kW
Cooling water heat	570	kW
Intercooler heat	190	kW
Radiation heat	33	kW

Noise emission (sound power) [1]

Engine surface noise (Lwa)	120,4	dB(A)
Free exhaust noise (Lwa)	123,4	dB(A)

Specific fuel consumption[2]



< 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 2,5 >

< Engine specifications are subjected to change without prior notice >

[1] Values at rated power

[2] Diesel fuel according to DIN EN 590 (tolerance +5% - ISO 3046)

[3] Values on propeller curve

*TBO 5.000 operating hours for non or low particulate matters (PM) regulated jurisdictions (IMO, Canada, EU Stage IIIA)