

DI16 083M. 625 kW (850 hp)

US Tier 3



The marine engines from Scania are based on a robust design with a strength optimised cylinder block containing wet cylinder liners that can easily be exchanged. Individual cylinder heads with 4 valves per cylinder promotes reparability and fuel economy. The engines are type approved in all major classification societies.

The engine is equipped with a Scania developed Engine Management System, EMS, in order to ensure the control of all aspects related to engine performance. The injection system is based on electronically controlled unit injectors that gives low exhaust emissions with good fuel economy and a high torque already at low revs. The engine can be fitted with many accessories such as air cleaners, PTOs, transmissions and type approved instrumentation in order to suit a variety of installations.

	Rating	Engine speed (rpm)			
		1200	1500	1900	2300
Gross power, full load (kW)	Patrol craft short	328	469	577	625
Gross power, full load (hp, metric)		446	637	784	850
Gross power, propeller curve (kW)		123	215	388	625
Gross power, propeller curve (hp, metric)		167	292	527	850
Gross torque (Nm)		2462	2807	2760	2441
Spec fuel consumption. Full load (g/kWh)		197	193	198	227
Spec fuel consumption. 3/4 load (g/kWh)		194	194	202	224
Spec fuel consumption. 1/2 load (g/kWh)		196	198	207	226
Spec fuel consumption. Propeller curve (l/h)		29	51	94	169
Optimum fuel consumption (g/kWh)		194			
Heat rejection to coolant (kW)		252	337	438	598

Patrol craft short: Intended for intermittent use where rated power is available 1 h/12 h. Between full load operations engine rpm must be reduced at least 10% from max. obtained rpm. Accumulated total service time max. 1200 h/year.

Standard equipment

- Scania Engine Management System, EMS
- Unit injectors, PDE
- Twin turbochargers, heat insulated
- Fuel pre-filter with water separator
- Fuel filter
- Oil filter, full flow
- Centrifugal oil cleaner
- Oil cooler, integrated in block
- Oil filler, in valve cover
- Deep front oil sump
- Oil dipstick, front
- Starter, 2-pole 7.0 kW
- Alternator, 2-pole 100A
- Flywheel SAE 14
- Silumin flywheel housing, SAE 1 flange
- Front-mounted engine brackets
- Catwalk and cover for belt transmission
- Sea water pump
- Sea water charge air cooler
- Dual heat exchangers with expansion tanks
- Closed crankcase ventilation
- Operator's manual

Optional equipment

- Electrical base system
- Accelerator position sensor
- Control panel
- Instrument panel
- Scania EMS display
- Hydraulic pump
- Side-mounted PTO
- Front-mounted PTO
- Exhaust connections
- Engine heater
- Power pack engine brackets
- Stiff rubber suspension
- Air cleaner
- Studs in flywheel housing
- Reversible fuel filter
- Low coolant level reaction
- Variable idle speed setting
- Low oil sump
- Oil draining with pump
- Oil level sensor
- Bilge pump

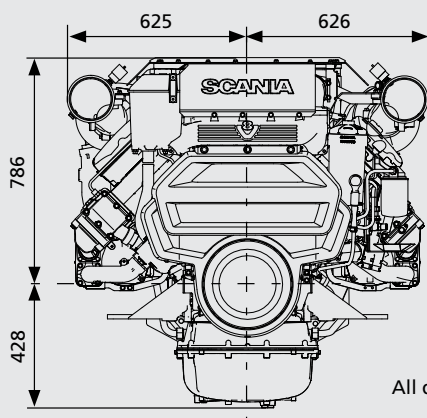
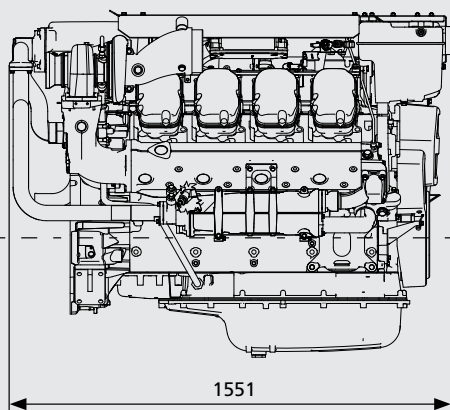
This specification may be revised without notice.

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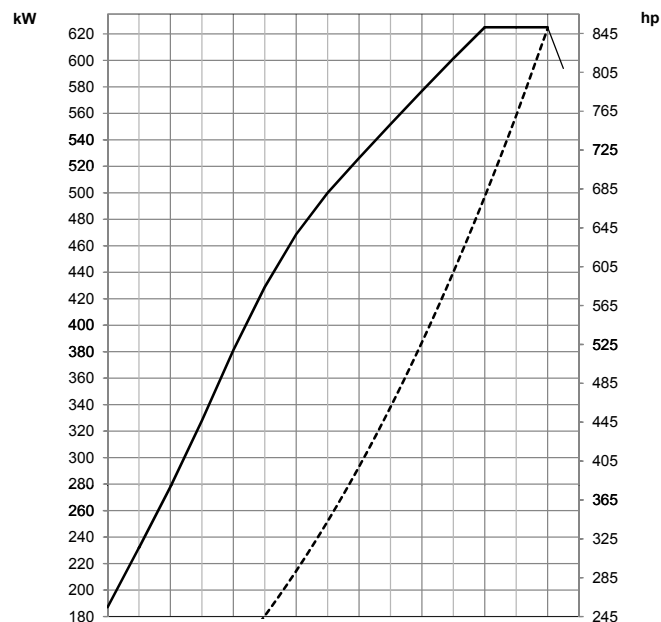
Engine description

No of cylinders	V 8
Working principle	4-stroke
Firing order	1 - 5 - 4 - 2 - 6 - 3 - 7 - 8
Displacement	16.4 litres
Bore x stroke	130 x 154 mm
Compression ratio	16.7:1
Weight	1670 kg (excl oil and coolant)
Piston speed at 1500 rpm	7.7 m/s
Piston speed at 1800 rpm	9.24 m/s
Camshaft	High position alloy steel
Pistons	Steel pistons
Connection rods	I-section press forgings of alloy steel
Crankshaft	Alloy steel with hardened and polished bearing surfaces
Oil capacity	40-48 dm ³ (standard oil sump)
Electrical system	2-pole 24V

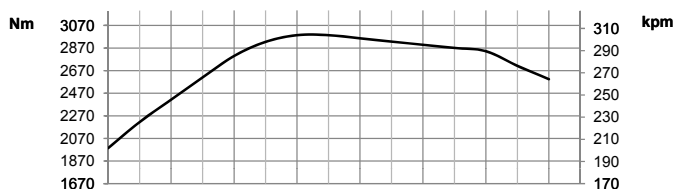


All dimensions in mm

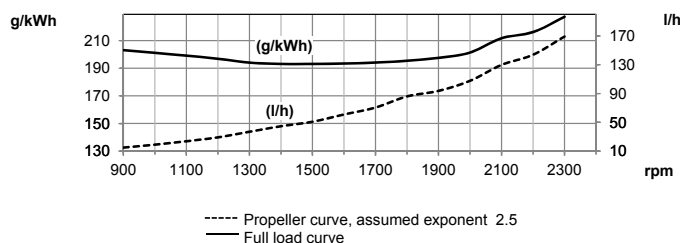
Output



Torque



Spec fuel consumption



Test conditions Air temperature +25°C. Barometric pressure 100 kPa (750 mmHg). Humidity 30%. Diesel fuel acc. to ECE R 24 Annex 6. Density of fuel 0.840 kg/dm³. Viscosity of fuel 3.0 cSt at 40°C. Energy value 42700 kJ/kg. Power test code ISO 3046. Power and fuel values +/-3%.



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