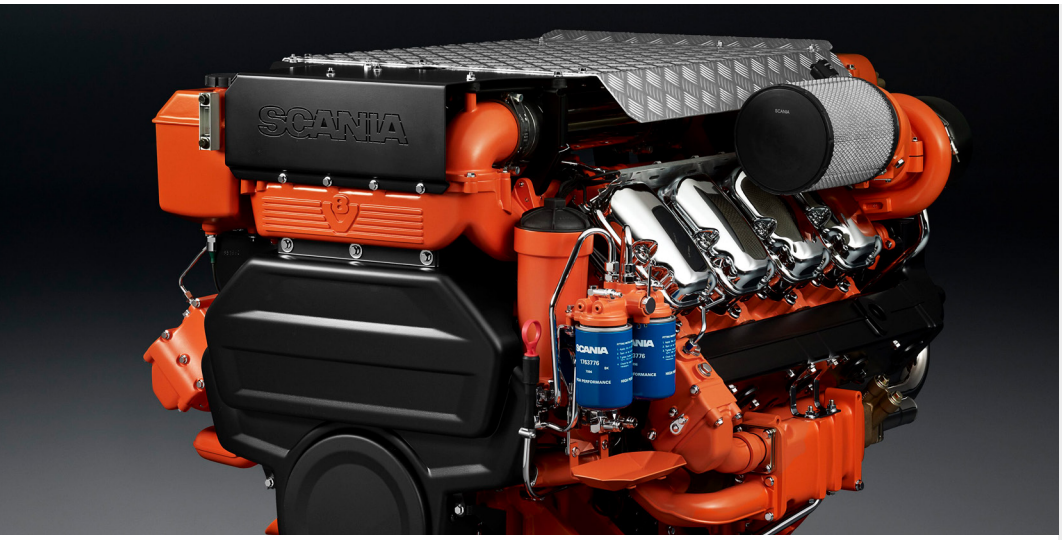
DI16 077M. 736 kW (1000 hp)

IMO Tier II, US Tier 2, EU Stage IIIA



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 repairability 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, which 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. This engine is optimized for water jet applications and not intended for conventional propeller use.

	Engine speed (rpm)			
	1200	**1500**	**1800**	**2300**
Gross power, full load (kW)	305	449	610	736
Gross power, full load (hp, metric)	415	610	830	1000
Gross power, propeller curve (kW)	105	204	353	736
Gross power, propeller curve (hp, metric)	142	278	480	1000
Gross torque (Nm)	2427	2857	3236	3056
Spec fuel consumption. Full load (g/kWh)	204	200	200	228
Spec fuel consumption. 3/4 load (g/kWh)	199	199	203	218
Spec fuel consumption. 1/2 load (g/kWh)	200	207	208	220
Spec fuel consumption. Propeller curve (l/h)	25	52	90	200
Heat rejection to coolant (kW)	242	325	440	598

Rating: Patrol craft short: Intended for intermittent use where rated power is available 1 hour/12 hours period. 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 filter and extra pre-filter with water separator
- Oil filter, full flow
- Centrifugal oil cleaner
- Oil cooler, integrated in cylinder block
- Oil filler, in valve cover
- Deep front oil sump
- Oil dipstick, front
- Starter motor, 2-pole, 7.0 kW
- Alternator, 2-pole, 100 A
- Flywheel SAE 14
- Silumin flywheel housing, SAE 1 flange
- Front-mounted engine suspension
- Catwalk and cover for belt transmission
- Closed crankcase ventilation
- Sea water-cooled charge air cooler
- Sea water pump
- Dual heat exchangers with expansion tank

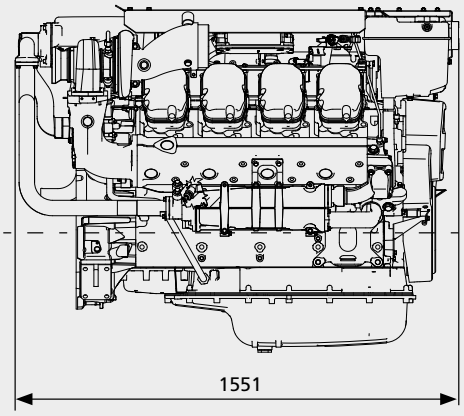
This specification may be revised without notice.

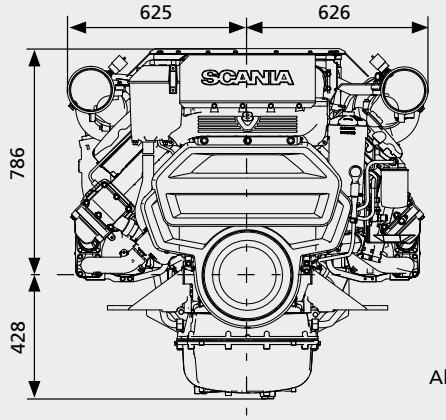
DI16 077M. 736 kW (1000 hp)

IMO Tier II, US Tier 2, EU Stage IIIA

Engine description

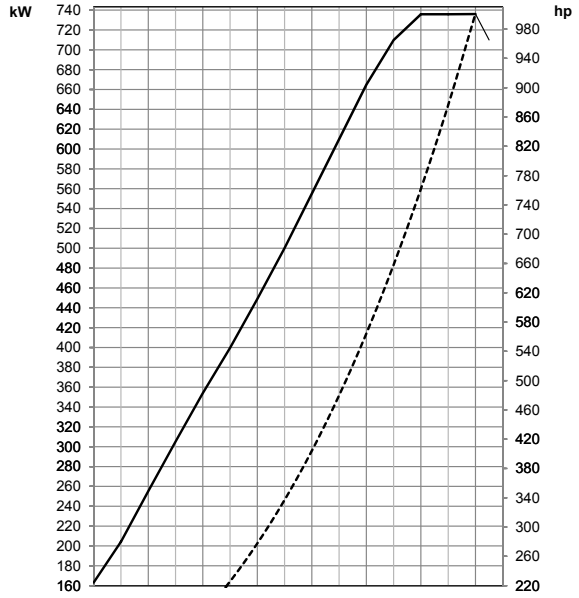
No of cylinders	V 8
Working principle	4-stroke
Firing order	1 - 5 - 4 - 2 - 6 - 3 - 7 - 8
Displacement	16.4 litres
Bore x stroke	130 x 154 mm
Compression ratio	16.7:1
Weight	1670 kg (excl oil and coolant)
Piston speed at 1500 rpm	7.7 m/s
Piston speed at 1800 rpm	9.24 m/s
Camshaft	High position alloy 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 dm³ (standard oil sump)
Electrical system	2-pole 24V



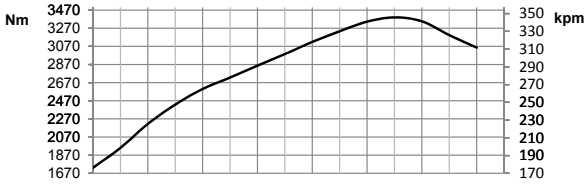


All dimensions in mm

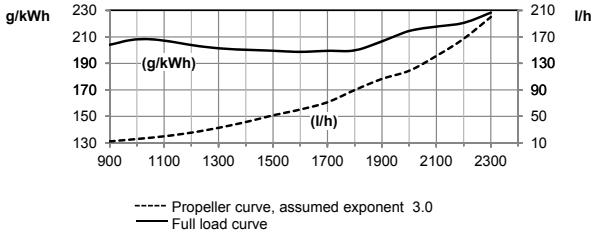
Output



Torque



Spec fuel consumption



Test conditions Air temperature 25°C. Barometric pressure 100 kPa (750 mmHg). Humidity 30 %. Diesel fuel according 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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