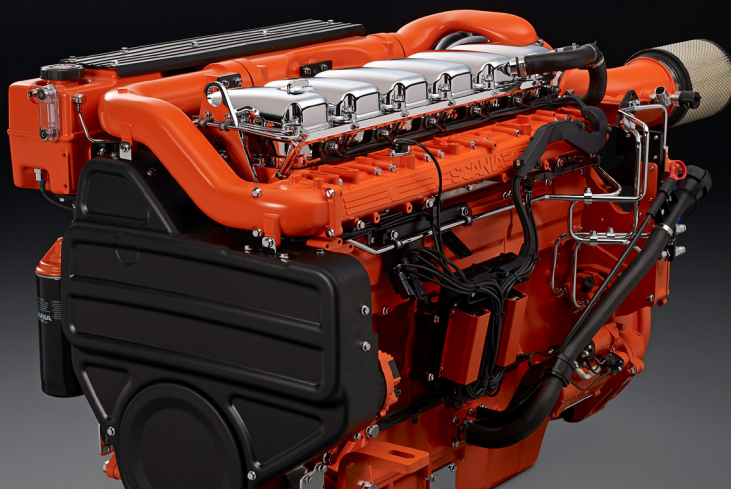




DI13 078M. 280 kW (380 hp)

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 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.

	Engine speed (rpm)			
	1200	1500	1800	2100
Gross power, full load (kW)	187	247	272	280
Gross power, full load (hp, metric)	254	336	369	380
Gross power, propeller curve (kW)	69	121	190	280
Gross power, propeller curve (hp, metric)	94	164	259	380
Gross torque (Nm)	1488	1572	1441	1273
Spec fuel consumption. Full load (g/kWh)	191	201	194	212
Spec fuel consumption. 3/4 load (g/kWh)	193	202	199	218
Spec fuel consumption. 1/2 load (g/kWh)	199	207	210	237
Spec fuel consumption. Propeller curve (l/h)	17	30	46	71
Optimum fuel consumption (g/kWh)	191			
Heat rejection to coolant (kW)	125	174	182	220

Rating: IFN – intermittent service: Intended for intermittent use where rated power is available 1 h/3 h. Accumulated load factor must not exceed 80% of rated power. Unlimited h/year service time.

Standard equipment

- Scania Engine Management System, EMS
- Unit injectors, PDE
- Turbocharger
- Fuel pre-filter with water separator
- Fuel filter
- Oil filter, full flow
- Centrifugal oil cleaner
- Oil cooler, integrated in cylinder block
- Oil filler, in cylinder block
- Oil dipstick, in cylinder block
- Starter motor, 2-pole 7.0 kW
- Alternator, 2-pole 100A
- Flywheel SAE 14
- Silumin flywheel housing, SAE 1 flange
- Front-mounted engine suspension
- Protection covers
- Sea water pump
- Heat exchanger with expansion tank
- Closed crankcase ventilation

Optional equipment

- Hydraulic pump
- Side-mounted PTO
- Front-mounted PTO
- Exhaust connections
- Engine heater
- Power pack engine bracket
- Stiff rubber suspension
- Air cleaner
- Studs in flywheel housing
- Reversible fuel filter
- Coolant level monitor
- Low and extra low oil sump
- Long oil dipstick
- Oil level sensor
- Bilge pump

This specification may be revised without notice.

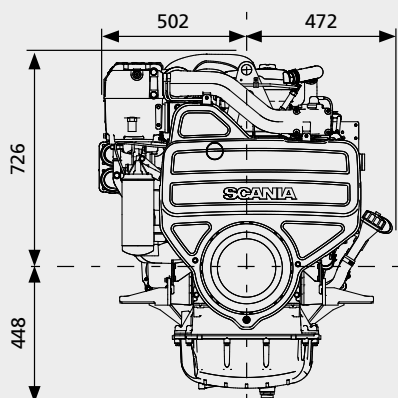
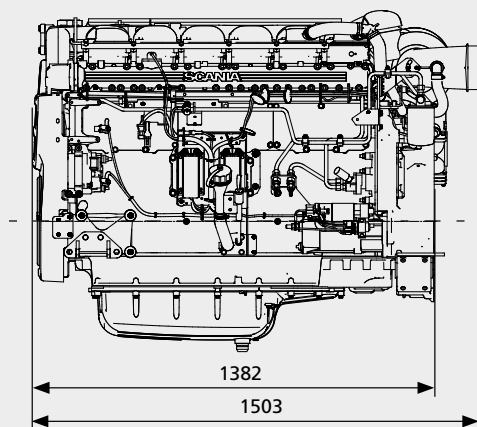


DI13 078M. 280 kW (380 hp)

IMO Tier II, US Tier 2, EU Stage IIIA

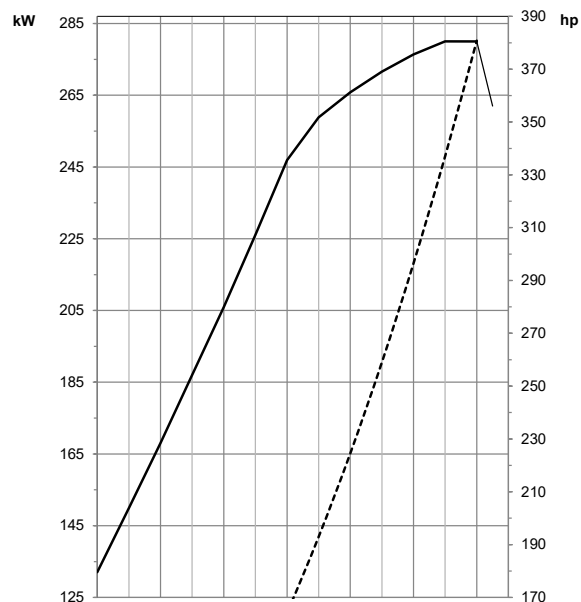
Engine description

No of cylinders	6 in-line
Working principle	4-stroke
Firing order	1 - 5 - 3 - 6 - 2 - 4
Displacement	12.7 litres
Bore x stroke	130 x 160 mm
Compression ratio	16.3:1
Weight	1180 kg (excl oil and coolant)
Piston speed at 1500 rpm	8.0 m/s
Piston speed at 1800 rpm	9.6 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	39-45 dm ³ (standard oil sump)
Electrical system	2-pole 24V

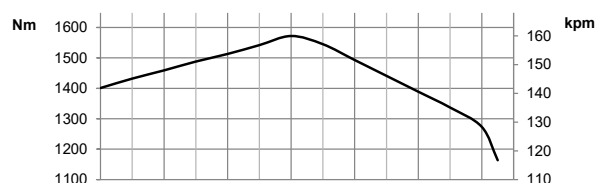


All dimensions in mm

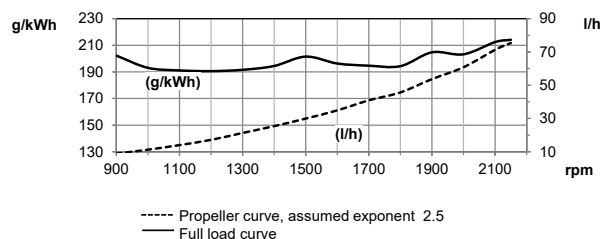
Output



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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