

DI09 072M. 294 kW (400 hp)

IMO Tier II, EU Stage IIIA



The marine engines from Scania are based on a robust design with a strength optimized 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 engines are 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 engines can be fitted with many accessories such as air cleaners, PTOs, transmissions and type-approved instrumentation, to suit a variety of installations.

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, 100 A
- Flywheel SAE 14
- Silumin flywheel housing, SAE 1 flange
- Front-mounted engine suspension
- Protection covers
- Closed crankcase ventilation

Engines with heat exchanger:

- Sea water pump
- Heat exchanger with expansion tank
- Sea water-cooled charge air cooler

	Engine speed (rpm)			
	1200	1500	1800	2100
Gross power, full load (kW)	205	256	294	294
Gross power, full load (hp, metric)	279	348	400	400
Gross power, propeller curve (kW)	73	127	200	294
Gross power, propeller curve (hp, metric)	99	172	272	400
Gross torque (Nm)	1631	1630	1560	1337
Fuel consumption at full load (g/kWh)	200	195	201	209
Fuel consumption at 3/4 load (g/kWh)	196	193	196	210
Fuel consumption at 1/2 load (g/kWh)	199	198	202	217
Fuel consumption, propeller curve (l/h)	18	30	47	73
Heat rejection to coolant (kW)	156	182	211	226

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.

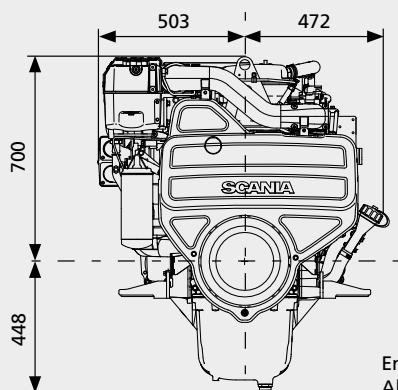
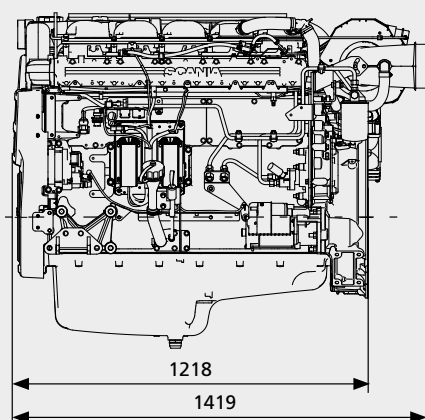
This specification may be revised without notice.

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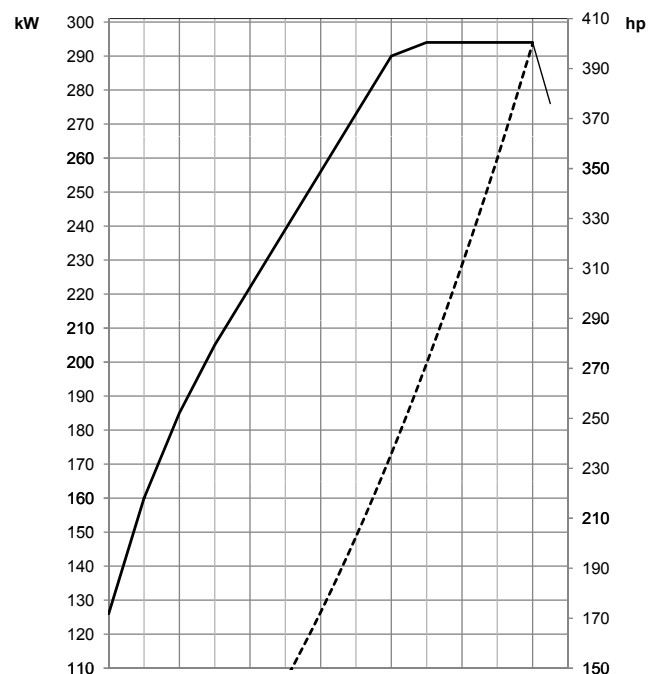
Engine description

No of cylinders	5 in-line
Working principle	4-stroke
Firing order	1 - 2 - 4 - 5 - 3
Displacement	9.3 litres
Bore x stroke	130 x 140 mm
Compression ratio	18:1
Weight	(excl oil and coolant)
with heat exchanger	1150 kg
with keel cooling	1044 kg
Piston speed at 1500 rpm	7.0 m/s
Piston speed at 1800 rpm	8.4 m/s
Camshaft	High position alloy steel
Pistons	Aluminum pistons
Connection rods	I-section press forgings of alloy steel
Crankshaft	Alloy steel with hardened and polished bearing surfaces
Oil capacity	32-38 dm ³ (standard oil sump)
Electrical system	2-pole 24V

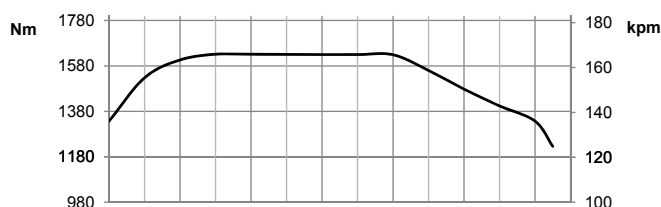


Engine with heat exchanger
All dimensions in mm

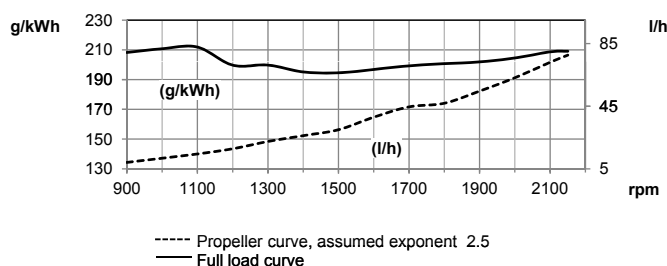
Output



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%.



SCANIA

SE 151 87 Södertälje, Sweden
Telephone +46 8 553 810 00
www.scania.com
powersolutions@scania.com