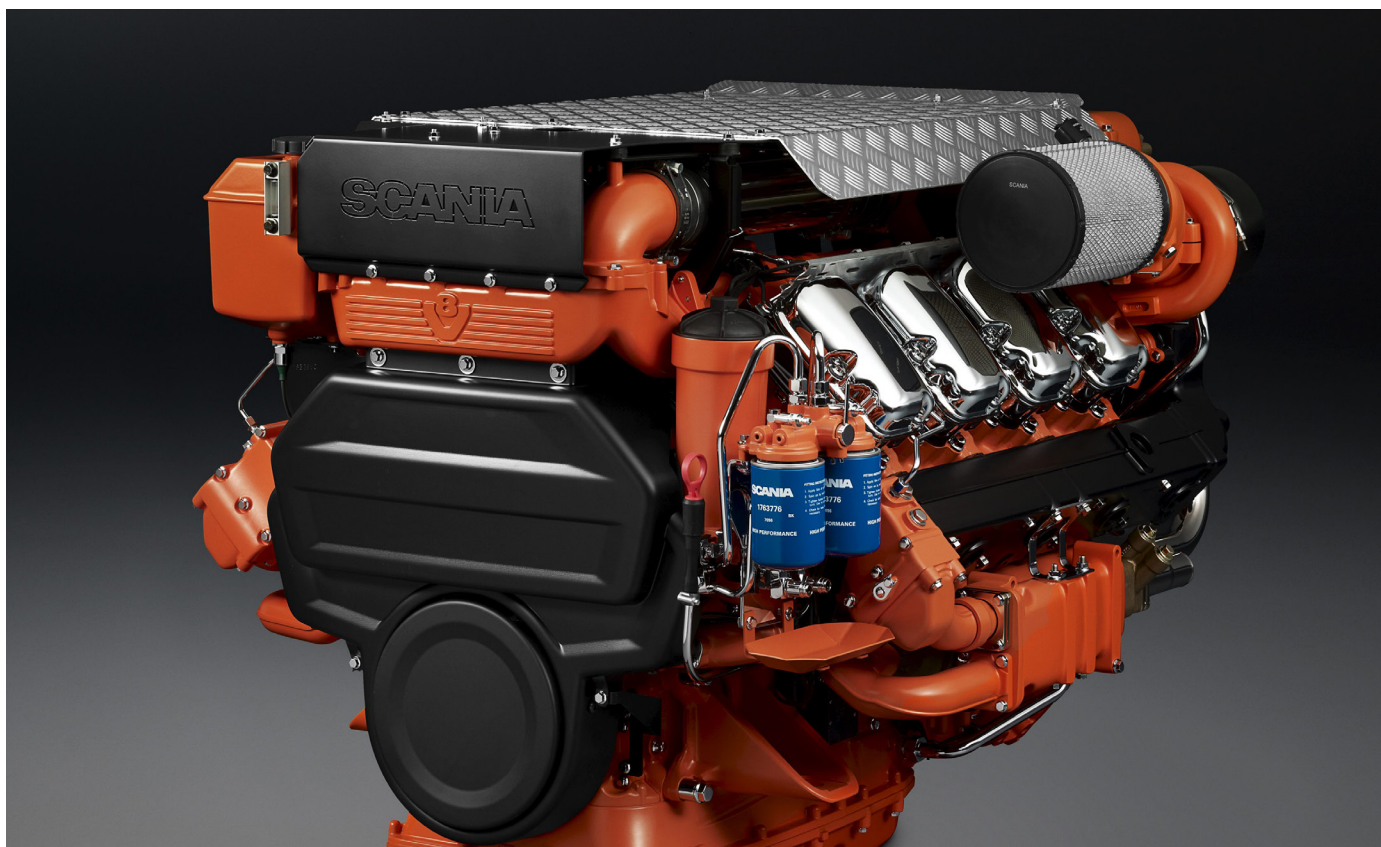


SCANIA MARINE ENGINE: IMO TIER II, IMO TIER III\*, US TIER 2, EU STAGE IIIA

# 16-LITRE ENGINE



## Engine description

DI16 072M. 662 kW (900 hp)

|                     |                                                      |
|---------------------|------------------------------------------------------|
| Engine speed        | 2,300 rpm                                            |
| Emission compliance | IMO Tier II, IMO Tier III*, US Tier 2, EU Stage IIIA |
| Rating              | Patrol craft short, Patrol craft long                |
| No of cylinders     | V8                                                   |
| Working principle   | 4-stroke                                             |
| Displacement        | 16.4 litres                                          |
| Weight              | 1,670 kg (excluding oil and coolant)                 |
| Oil capacity        | 40-48 litres (standard oil sump)                     |
| Electric system     | 2-pole, 24 V DC                                      |

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 engine is equipped with a Scania developed Engine Management System, EMS, 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 equipped with many accessories such as air cleaners, PTOs, transmissions and instrumentation, to suit a variety of installations.

\* IMO Tier III compliant when using aftertreatment system from external supplier.

## Standard equipment

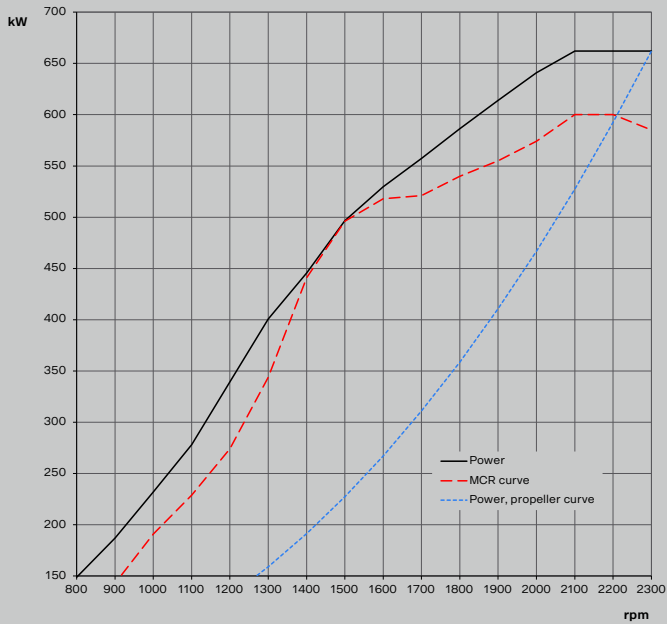
- Scania Engine Management System, EMS
- Unit injectors, PDE
- Dual turbochargers, heat insulated
- Saver ring in cylinder liner
- Fuel filter and extra pre-filter with water separator
- Oil filter, full flow
- Centrifugal oil cleaner
- Oil cooler, integrated in cylinder block
- Oil filler, in valve 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 pump
- Sea water-cooled charge air cooler
- Dual heat exchangers with expansion tanks

**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. 1,200 h/year.

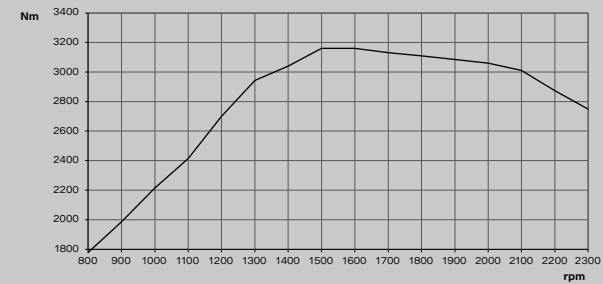
**Patrol craft long:** Intended for intermittent use where rated power is available 1 h/6 h. Between full load operations, engine rpm must be reduced at least 10% from max. obtained rpm. Accumulated total service time max. 2,000 h/year.

# Power charts

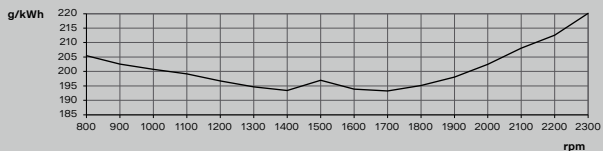
Power



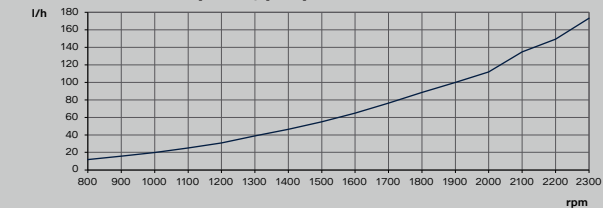
Torque



Fuel consumption



Fuel consumption, propeller curve

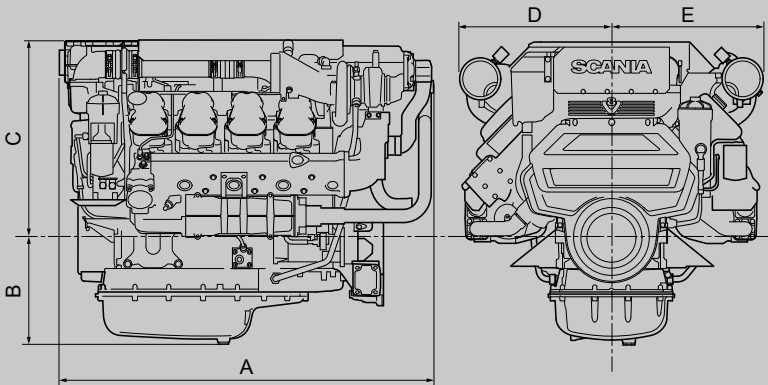


**Test conditions.** Air temperature 25°C. Barometric pressure 100 kPa (750 mmHg). Humidity 30%. Diesel fuel acc.to ECE R 24 Annex 6. Density of fuel 0.84 kg/dm<sup>3</sup>. Viscosity of fuel 3.0 cSt at 40°C. Energy value 42,700 kJ/kg. **Power test code** ISO 3046. Power and fuel values ±3%.

## Dimensions

|                                           |       |
|-------------------------------------------|-------|
| A Overall length                          | 1,550 |
| B Centre of crankshaft to bottom          | 428   |
| C Centre of crankshaft to top             | 786   |
| D Centre of crankshaft to right-hand side | 625   |
| E Centre of crankshaft to left-hand side  | 625   |

All dimensions indicated in mm.



## Technical data

|                                               | Engine speed (rpm) |       |       |       |       |
|-----------------------------------------------|--------------------|-------|-------|-------|-------|
|                                               | 1,200              | 1,500 | 1,800 | 2,100 | 2,300 |
| Gross power (kW)                              | 339                | 497   | 586   | 662   | 662   |
| Gross power (hp, metric)                      | 461                | 675   | 797   | 900   | 900   |
| Gross power, propeller curve (kW)             | 130                | 227   | 359   | 527   | 662   |
| Gross power, propeller curve (hp, metric)     | 177                | 309   | 488   | 717   | 900   |
| Gross torque (Nm)                             | 2,700              | 3,161 | 3,110 | 3,010 | 2,749 |
| Spec. fuel consumption at full load (g/kWh)   | 197                | 197   | 195   | 208   | 220   |
| Spec. fuel consumption, propeller curve (l/h) | 30.8               | 54.9  | 88.6  | 134.8 | 173.5 |
| Heat rejection to coolant (kW)                | 254                | 356   | 418   | 531   | 588   |