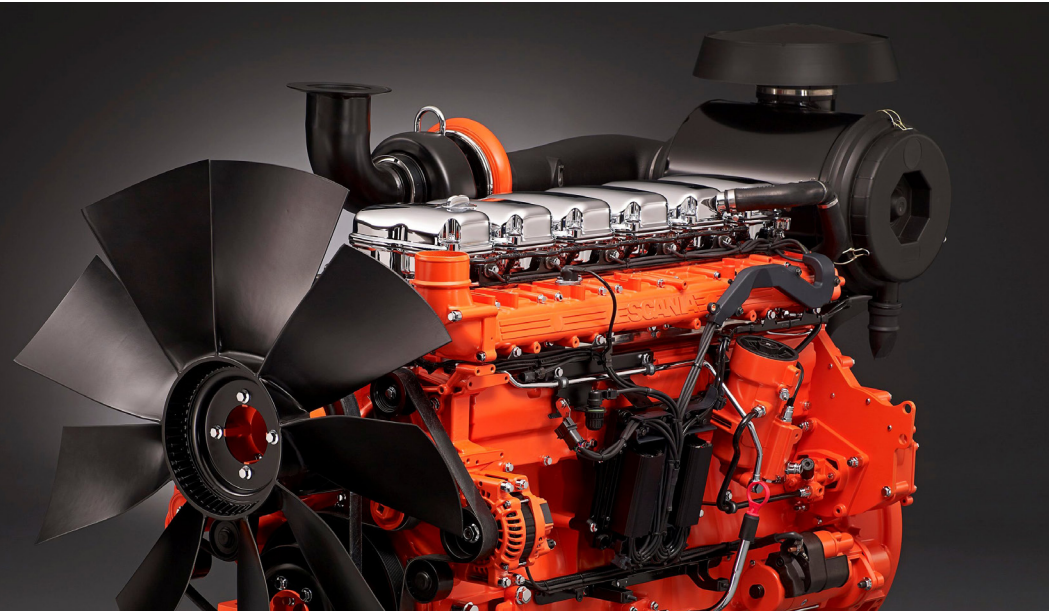


# DC13 076A. 331 kW (450 hp)

EU Stage IIIA, China Phase III, India Bharat Stage III and Brazil MAR-I



The industrial 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 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 give low exhaust emissions with good fuel economy and a high torque. The engine can be fitted with many accessories such as air cleaners, PTOs and flywheels in order to suit a variety of installations.

	Engine speed (rpm)			
	1200	1500	1800	2100
Gross power (kW)	229	307	331	331
Gross power (hp, metric)	311	418	450	450
Gross torque (Nm)	1822	1954	1756	1505
Spec fuel consumption. Full load (g/kWh)	183	203	213	225
Spec fuel consumption. 3/4 load (g/kWh)	193	211	221	240
Spec fuel consumption. 1/2 load (g/kWh)	199	217	237	264
Heat rejection to coolant (kW)	68	91	99	120

**Rating: IFN – Intermittent service:** Rated output available 1/6 h.  
Unlimited h/year service time at a load factor of 80%

### Standard equipment

- Scania Engine Management System, EMS
- Unit injectors, PDE
- Turbocharger
- 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, in cylinder block
- Magnetic drain plug for oil draining
- Starter motor, 1-pole 6.0 kW
- Alternator, 1-pole 100 A
- Flywheel, for use with friction clutch
- Silumin flywheel housing, SAE 1 flange
- Front mounted engine suspension
- Open crankcase ventilation

### Optional equipment

- Cooling package
- Puller and pusher fans
- Fan ring with sealing
- Hydraulic pump
- Air compressor
- AC compressor
- Side-mounted PTO
- Front-mounted PTO
- Exhaust connections
- Engine heater
- Flywheels SAE11.5", SAE14", DANA15/16", DANA17" flexplate, ZF WG260
- Stiff rubber engine suspension
- Air cleaner
- Closed crankcase ventilation
- Studs in flywheel housing
- External thermostat for extra oil cooler
- Coolant level sensor
- Oil level sensor
- Low oil sump

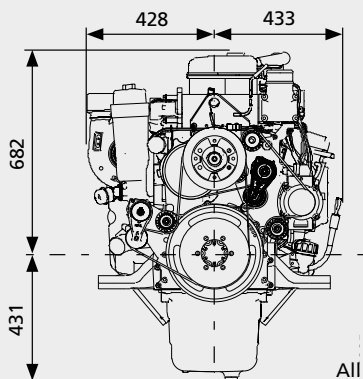
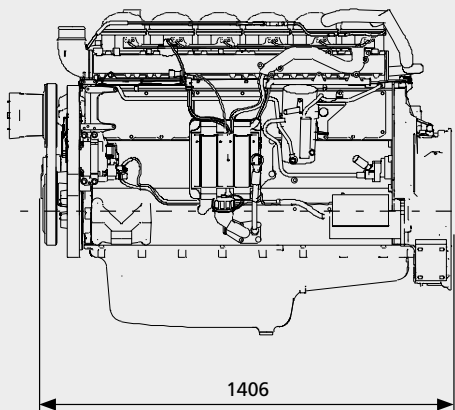
# DC13 076A. 331 kW (450 hp)

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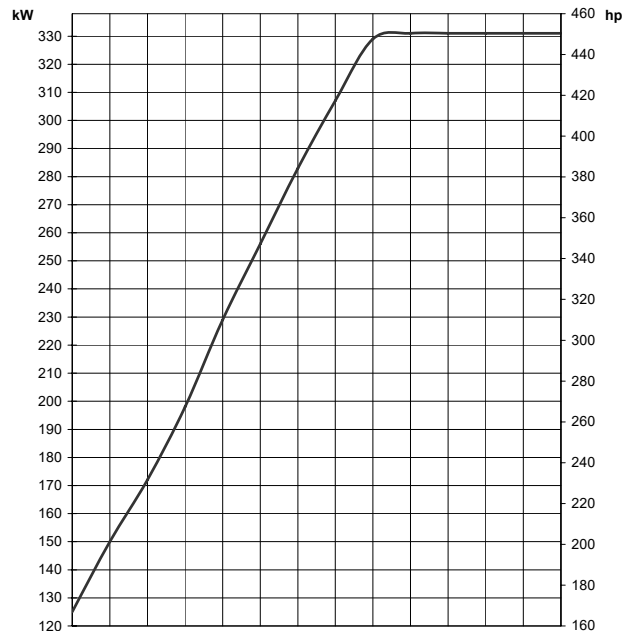
## Engine description

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	17.3:1
Weight	1050 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	34-45 dm <sup>3</sup>
Electrical system	1-pole 24V

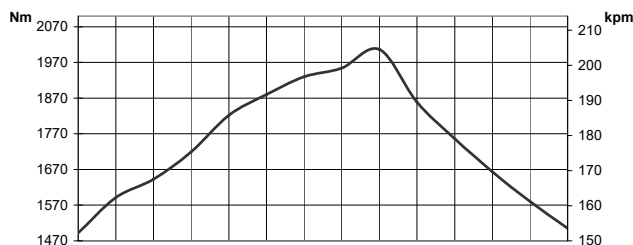


All dimensions in mm

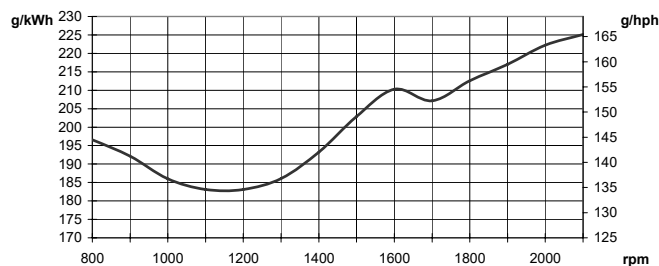
## Output



## 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/dm<sup>3</sup>. 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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