

DC13 091A. 294 kW (400 hp)

Fuel optimized



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, which provide 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)	271	294	294	294
Gross power (hp)	369	400	400	400
Gross torque (Nm)	2157	1872	1560	1337
Spec fuel consumption. Full load (g/kWh)	185	183	191	204
Spec fuel consumption. 3/4 load (g/kWh)	183	185	194	211
Spec fuel consumption. 1/2 load (g/kWh)	188	191	206	228
Heat rejection to coolant (kW)	95	89	98	108

Rating: ICFN – Continuous service: Rated output available 1/1 h. Unlimited h/year service time at a load factor of 100%

Note: Only available in the SLA market

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

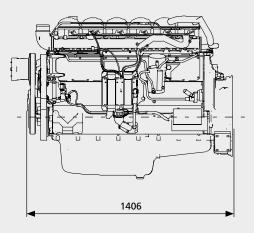


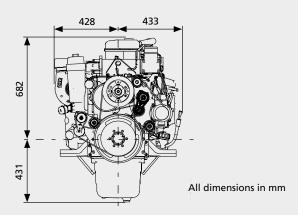
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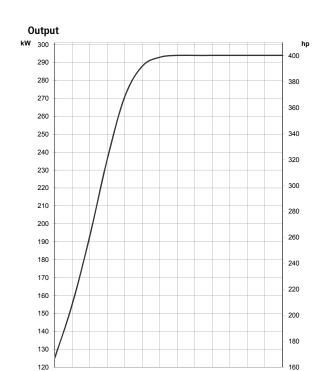
Engine description

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	18:1		
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 dm³		
Electrical system	1-pole 24V		

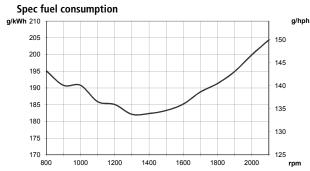




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Test conditions Air temperature +25°C. Barometric pressure 100 kPa (750 mmHg). Humidity 30 %. Diesel fuel acc. to ECE R 24 Annex 6. Density of fuel 0.840 kg/dm³. Viscosity of fuel 3.0 cSt at 40°C. Energy value 42700 kJ/kg. Power test code ISO 3046. Power and fuel values +/-3%.

