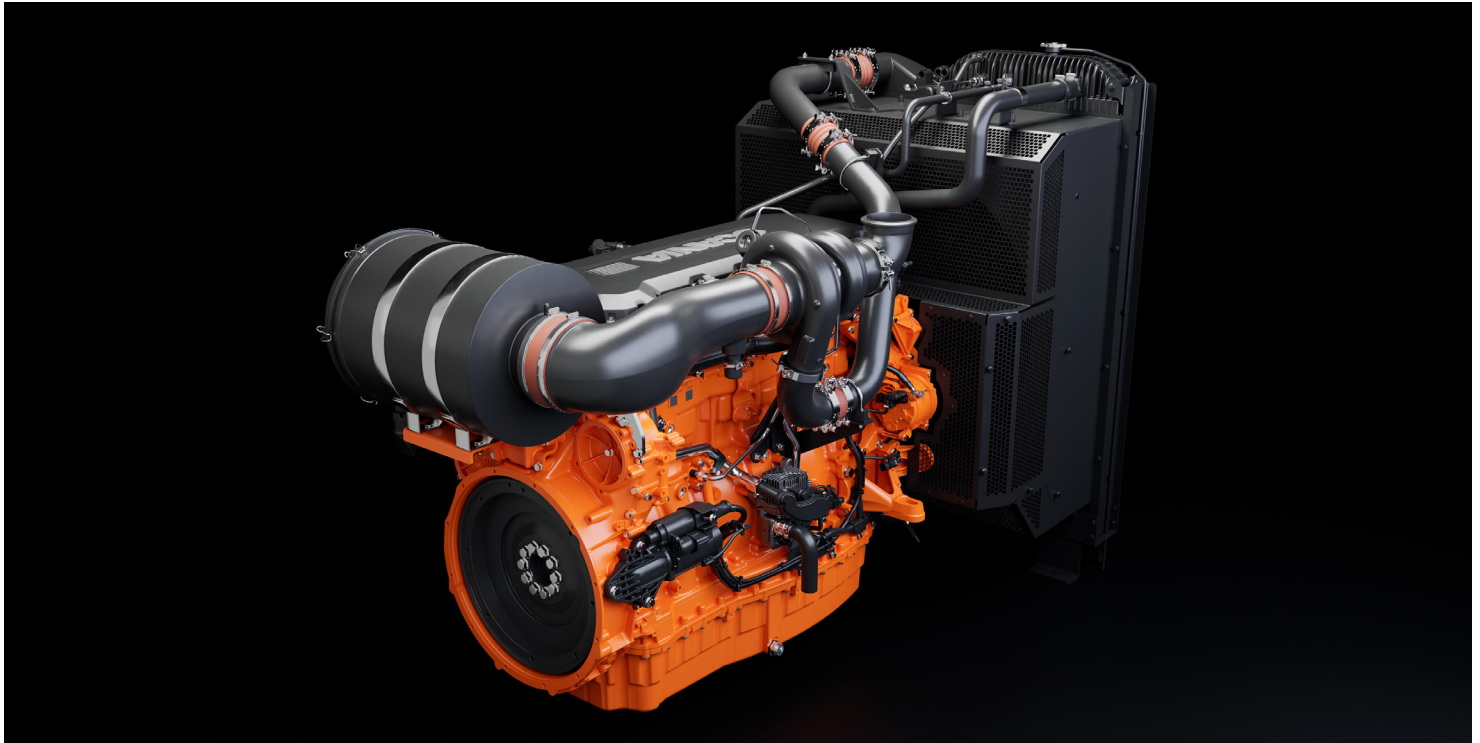


SCANIA POWER GENERATION ENGINE: CO₂ OPTIMISED

13-LITRE ENGINE



Engine description

DC13 507A. 450-495 kVA (398-443 kW)

Engine speed	1,500/1,800 rpm
Emission compliance	CO ₂ optimised, unregulated
Rating	PRP, ESP
No of cylinders	6 in-line
Working principle	4-stroke
Displacement	12.7 litres
Weight	1,074 kg (excluding oil and coolant)
Oil capacity	28-38 litres (standard oil sump)
Electrical system	1-pole, 24 V DC

Scania's CO₂ optimised power generation engines are based on the next generation engine platform, which provides superior economy and reliability. The engines offer easy installation for the producer of the equipment as well as easy access to daily checks and service for the operator. The engines can be fitted with many accessories such as cooling package, air cleaners and exhaust fittings, to suit a variety of installations.

Scania's next generation inline engines are equipped with a Scania-developed extra high pressure fuel injection system based on common rail technology, which provides good fuel economy and a high torque. Together with Scania's Engine Management System, the result is an engine that delivers high power and low fuel consumption.

Standard equipment

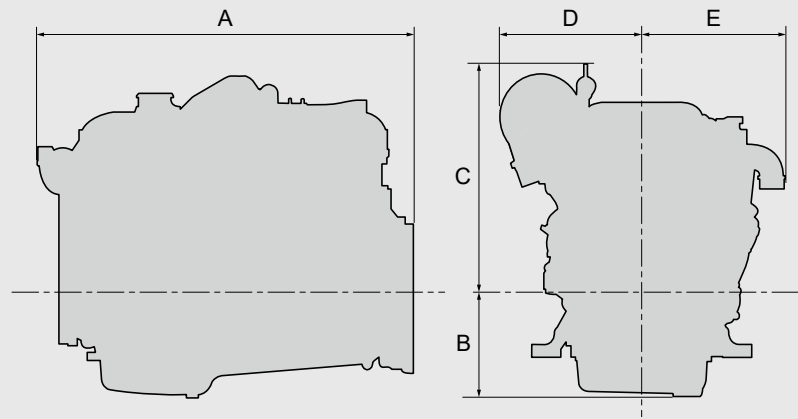
- Scania Engine Management System, EMS
- Extra high pressure fuel injection system, XPI
- Wastegate control turbocharger
- Dual overhead camshaft (DOHC)
- Saver ring in cylinder liner
- Engine-mounted fuel filter and extra pre-filter with water separator, for separate mounting
- Deep front oil sump
- Oil filter, full flow
- Oil cooler, integrated in cylinder block
- Oil filler and dipstick, short, left-hand side
- Magnetic drain plug for oil draining
- Starter motor, 1-pole, 5.5 kW (EMS-controlled)
- Alternator, 1-pole 100 A (EMS-controlled)
- Flywheel SAE 14
- Aluminum flywheel housing, SAE 1 flange
- Front-mounted engine brackets
- Open crankcase ventilation
- Front- and rear-mounted lifting eyes

This specification may be revised without notice.

Dimensions

A Overall length	1,400
B Centre of crankshaft to bottom	370
C Centre of crankshaft to top	815
D Centre of crankshaft to right-hand side	508
E Centre of crankshaft to left-hand side	513

All dimensions indicated in mm.



Technical data

	1,500 rpm (50 Hz)		1,800 rpm (60 Hz)		Unit
	PRP	ESP	PRP	ESP	
Gross power	450	495	450	495	kVA
	398	437	404	443	kW
Gross torque	2,534	2,782	2,143	2,350	Nm
Fuel consumption					
at full load	181	183	183	185	g/kWh
at 3/4 load	178	178	183	182	g/kWh
at 1/2 load	182	181	189	187	g/kWh
Heat rejection					
to coolant	118	128	123	133	kW
to exhaust gas	231	263	239	270	kW
to charge air	74	86	80	89	kW
to surrounding air	34	38	35	39	kW
Air consumption	31	33	35	37	kg/min
Air temperature					
upstream of charge air cooler	182	197	178	190	°C
downstream of charge air cooler	40	44	43	47	°C
Pressure in intake manifold	2.03	2.32	1.98	2.19	bar
Pressure drop in charge air cooler	0.10	0.11	0.13	0.14	bar
Exhaust gas flow	32	35	36	38	kg/min
Exhaust gas temperature	426	443	394	417	°C

PRP - Prime power: For continuous operation and unlimited yearly operating time at varying load. Max mean load factor of 70% of rated power over 24 h of operation. 1 hour/12-hour period of overload to 110% load. Max 25 h accumulated service time above 100% load per year.

ESP - Stand-by power: For operation under normal varying load during a power outage. Not overloadable. Max mean load factor of 70% of rated power over 24 hours of operation. Not for applications intended for more than 200 hours/year.