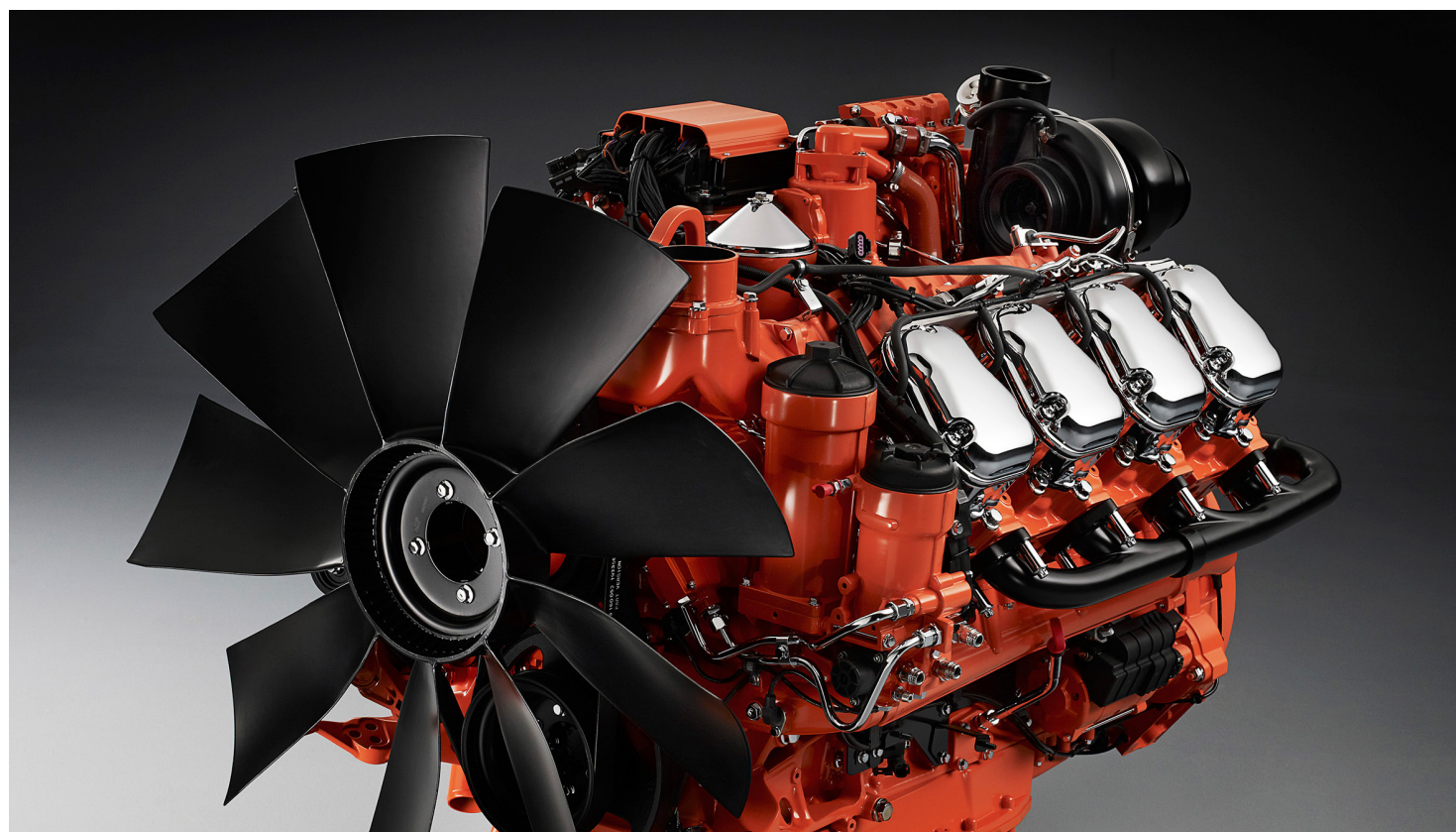


SCANIA POWER GENERATION ENGINE: FUEL OPTIMIZED

16-LITRE ENGINE



Engine description

DC16 078A. 725-800 kVA (640-706 kW)

Engine speed	1,500/1,800 rpm
Emission compliance	Fuel optimized
Rating	PRP/ESP
No of cylinders	90° V8
Working principle	4-stroke
Displacement	16.4 litres
Weight	1,340 kg (excluding oil and coolant)
Oil capacity	40-48 litres (standard oil sump)
Electrical system	1-pole 24 V DC

The power generation engines from Scania are based on a robust design with a strength optimized cylinder block containing wet cylinder liners, which can easily be exchanged. Individual cylinder heads with 4 valves per cylinder promotes reparability and fuel economy.

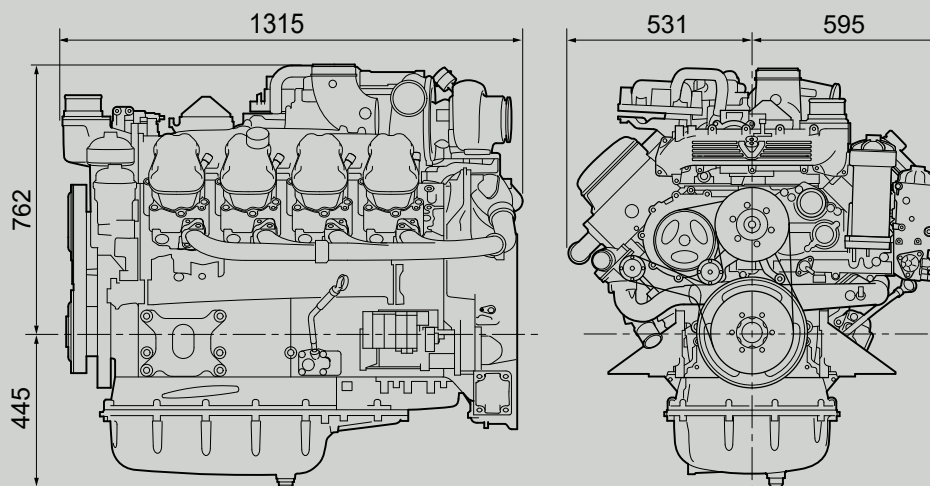
The engines are equipped with a Scania developed Engine Management System, EMS, to ensure control of all aspects related to engine performance.

The injection system is Scania's extra high pressure fuel injection system, a common rail system which provides good fuel economy and a high torque. The engines can be fitted with many options such as air cleaners, PTOs and cooling package, to suit a variety of installations.

Standard equipment

- Scania Engine Management System, EMS
- Extra high pressure fuel injection system, XPI
- Turbocharger
- Saver ring in cylinder liner
- Fuel filter and extra pre-filter with water separator
- Fuel heater
- 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 7.0 kW
- Alternator, 1-pole 100 A
- Flywheel SAE 14
- Cast iron flywheel housing, SAE 1 flange
- Front-mounted engine suspension
- Open crankcase ventilation

Dimensions



All dimensions indicated in mm.

Technical data

	Engine speed				Unit
	1500 rpm (50 Hz)		1800 rpm (60 Hz)		
	PRP	ESP	PRP	ESP	
Gross power	725	800	725	800	kVA
	644	706	640	702	kW
Gross torque	4,100	4,495	3,395	3,724	Nm
Fuel consumption					
full load	195	199	200	203	g/kWh
3/4 load	190	192	196	196	g/kWh
1/2 load	188	187	197	196	g/kWh
Heat rejection					
to coolant	228	269	232	268	kW
to exhaust gas	438	500	464	525	kW
to charge air	136	139	135	141	kW
to surrounding air	60	67	61	68	kW
Air consumption	43	44	46	47	kg/min
Air temperature					
upstream of charge air cooler	217	219	201	206	°C
downstream of charge air cooler	47	48	42	44	°C
Pressure in intake manifold	2.7	2.8	2.3	2.4	bar
Pressure drop in charge air cooler	0.10	0.10	0.15	0.15	bar
Exhaust gas flow	45	46	48	49	kg/min
Exhaust gas temperature	544	603	545	594	°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 h of operation. Not for applications intended for more than 200 h/year.