



## TECHNICAL SPECIFICATION 9-LITRE ENGINE DC9 253 - 309 KVA

The DC9 is a turbo charged 4-stroke diesel engine equipped with Engine Management System (EMS) and Electronically controlled unit injectors (EUI).

No. of cylinders	5 in line
Displacement	8.87 litres
Bore	127 mm
Stroke	140 mm
Weight excl. oil and water	887 kg

### Standard equipment

Unit injectors and control unit (Scania EMS). Side mounted turbo charger with high position, centrifugal lube oil cleaner, and full flow oil filter, fuel filter, fuel pre-filter with water separator, oil cooler, alternator 1-pole 100A 28V, starting motor 1-pole 5.5 kW 24V (EMS controlled). Flywheel SAE 14" for friction clutch, flywheel housing SAE1 of silumin, front mounted engine brackets. Operator's manual.

### Optional equipment

Optional (low type) oil sump, optional oil filling, flywheel 11.5" SAE1.

### Extra equipment

Pre-assembled radiator 1.0m<sup>2</sup> with charge-air cooler, fan cover, fan ring, expansion tank and protection covers, suction and pressure fans Ø711 and Ø787mm, soft or fixed engine suspension. Hydraulic pump, air compressor, ac compressor. Side mounted power take-off with a maximum continuous torque of 400 Nm (41 kpm). Crankshaft belt pulley with two extra grooves, various exhaust connections, silencer and air cleaner, engine heater, hand pump for oil draining, closed crankcase ventilation. Torsional vibration calculations for industrial applications.

### Engine description

**Cylinder block** Made of alloy cast iron. **Cylinder heads** Five individual cylinder heads. Unit injector technology with engine mounted electronic control unit. **Valves** Four valves per cylinder head. **Camshaft** Mounted in high position and of alloy steel. **Pistons and cylinder liners** Aluminium pistons. Cylinder liners of exchangeable wet type. **Connection rods** I-section pressforgings of alloy steel. **Crankshaft** Made of alloy steel with hardened and polished bearing surfaces. **Oil sump** Made of cast aluminium. **Flywheel** Made of cast iron. Direction of rotation seen from flywheel end – counter clockwise. **Electrical system** 1-pole 24V.

Engine type		DC9 65A (253 - 309 kVA)			
		50 Hz		60 Hz	
		Prime Power	Stand-by Power	Prime Power	Stand-by Power
Engine output, gross	kW	225	247	253	275
Fan losses*	kW	5	5	9	9
kVA band**	KVA	253	278	281	309
Governor, type	Scania Engine Management System (EMS)				
<b>Spec. fuel consumption:</b>					
1/1 load	g/kWh	197	198	202	202
3/4 load	g/kWh	198	199	203	203
1/2 load	g/kWh	203	202	208	206
<b>Spec. lube oil consumption:</b>	g/kWh	< 0.3		< 0.3	
Compression ratio	18:1				
<b>Heat rejection</b>					
to cooling water	kW	85	93	98	106
to exhaust gas	kW	152	167	175	194
to charge air	kW	46	49	58	62
to surrounding air	kW	22	24	26	28
Air consumption	kg/min	21	22	24	25
Exhaust flow	kg/min	21	22	25	26
Exhaust temperature	°C	442	462	468	500

\*Fan losses: With recommended fan for +35 °C air-on temperature to cooling system.

\*\*Range, kVA: As per above note \*fan losses and with generator efficiency common on the market.

Speed variations according to ISO 3046/IV, Class A1, and ISO 8528-1, Class G2.

Output values: 0 to +3%. Fuel values: +/-3%.

### Prime power

**Prime power, ISO 8528:** For continuous operation and unlimited yearly operation time at varying load and with a max. mean load factor of 70% of rated power, 10% overload capacity 1h/12h.

**Rated codes:** ISO 3046, ISO 8528.

### 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

### Environment:

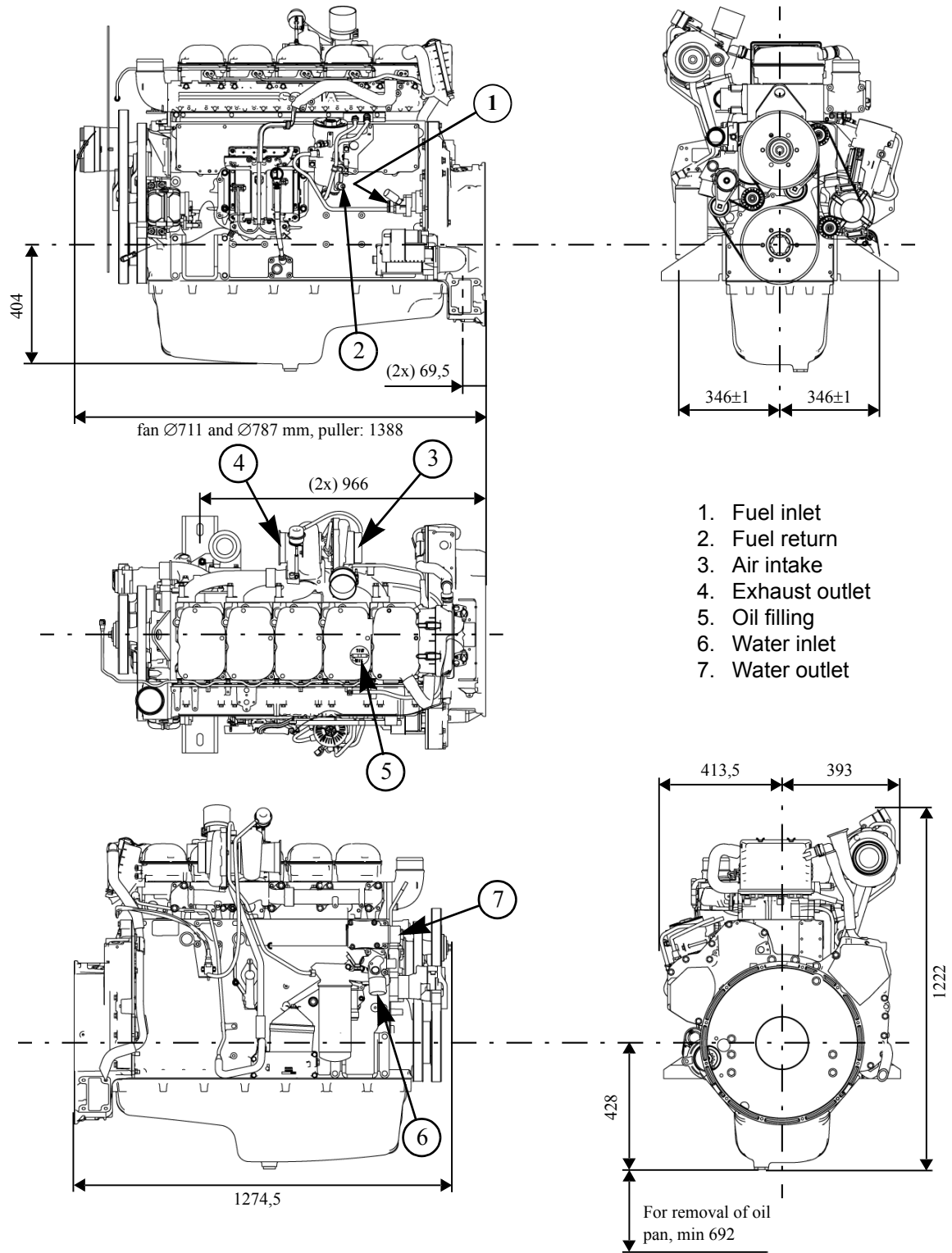
This engine complies with EU Stage II emission regulation levels.

### Stand-by Power

**Maximum Stand-by Power:** For operation under normal varying load during a power outage.

Not overloadable. Not for applications intended for more than 500 h/year service time. **Rating codes:** ISO 3046.

# DC9



This specification may be revised without notice.