



TECHNICAL SPECIFICATION 9-LITRE ENGINE DC9 278 - 331 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 1.0m² 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 (278 - 331 kVA)			
		50 Hz		60 Hz	
		Prime Power	Stand-by Power	Prime Power	Stand-by Power
Engine output, gross	kW	247	269	272	294
Fan losses*	kW	5	5	9	9
kVA band**	KVA	278	307	306	331
Governor, type	Scania Engine Management System (EMS)				
Spec. fuel consumption:					
1/1 load	g/kWh	197	198	201	202
3/4 load	g/kWh	198	199	202	202
1/2 load	g/kWh	201	201	207	206
Spec. lube oil consumption:	g/kWh	< 0.3		< 0.3	
Compression ratio	18:1				
Heat rejection					
to cooling water	kW	93	101	105	113
to exhaust gas	kW	168	182	191	210
to charge air	kW	48	52	61	63
to surrounding air	kW	24	27	28	30
Air consumption	kg/min	21	22	24	25
Exhaust flow	kg/min	22	23	25	26
Exhaust temperature	°C	462	489	495	533

*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 ³
Viscosity of fuel	3.0 cSt at 40°C
Energy value	42700 kJ/kg

Environment:

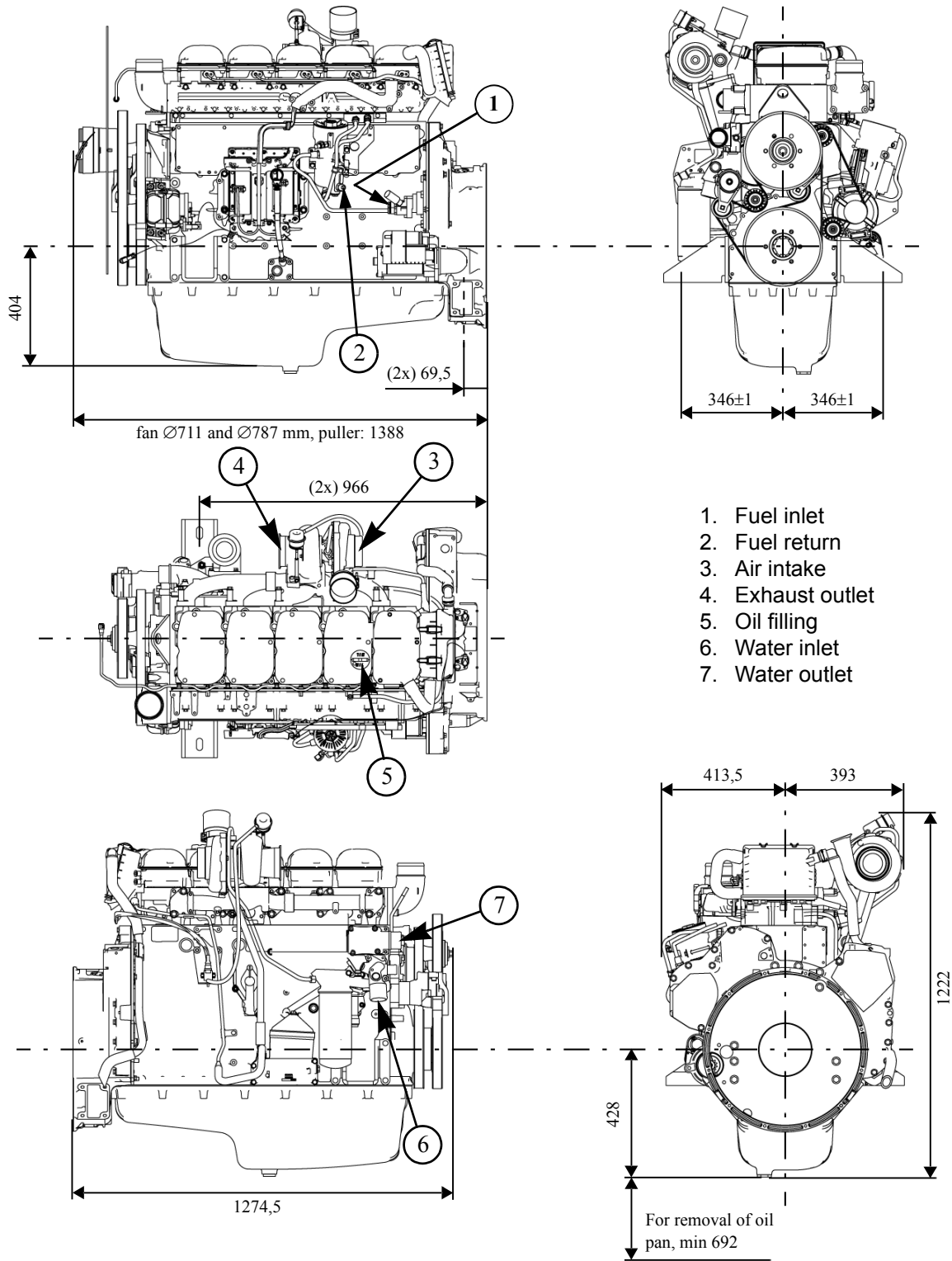
This engine complies with EU Stage II emission regulation levels.

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.