

Basic data

General

Configuration and number of cylinders	6 in-line
Working principle.....	4-stroke
Bore x stroke	130 x 160 mm
Displacement	12.7 dm ³
Compression ratio	
DC13 320A.....	21.3:1
DC13 072/073/093A.....	16.3:1
DC13 071A.....	17.3:1
Firing order.....	1 - 5 - 3 - 6 - 2 - 4
Piston speed	
at 1500 rpm	8.0 m/s
at 1800 rpm	9.6 m/s
Pistons	Steel pistons
Camshaft.....	High position alloy steel
Connection rods	I-section press forgings of alloy steel
Crankshaft.....	Alloy steel with hardened and polished bearing surfaces
Rotation, seen from flywheel end.....	Counter clockwise
Total moment of inertia with flywheel	
SAE 14	3.11 kgm ²
Number of teeth on flywheel ring gear	158
Weight approx. (excl. oil and coolant)	1050 kg

Lubrication system

Oil capacity (standard oil sump)	
min.....	30 dm ³
max.....	36 dm ³
Oil consumption	<0.3 g/kWh
Oil change intervals.....	500 h
Oil grade	
engines with particulate filter	ACEA E6, ACEA E9, API CJ-4
other engines run on low-sulphur fuel	ACEA E5, ACEA E7, API CI-4, API CI-4+, CK-4
engines not run on low-sulphur fuel	Total Base Number (TBN) at least 12 (ASTM 2896)
Oil pressure	
normal	3-6 bar
minimum permitted at idle speed	0.7 bar
Oil temperature, normal	90-110 °C
Oil cleaner: centrifugal filtration.....	5-7 microns
Oil filter.....	Paper/full flow
Oil cooler	Coolant-cooled/full flow

Injection system

Type

DC13 320A.....Extra high pressure, XPI

DC13 071/072/073/093A.....Unit injectors, PDE

Governor Scania Engine Management System, EMS

Fuel filter

XPI engines Cartridge filter, 4-5 microns

PDE engines Cartridge filter, 7 microns

Fuel pre-filter with water separator

XPI engines Cartridge filter, 8-10 microns

PDE engines Spin-on filter, 10 microns

Cooling system

Coolant volume excl. radiator

DC13 320/072/073/093A..... 16 dm³

DC13 071A..... 17 dm³

Coolant volume incl. 1.1 m² radiator

DC13 320/072/073/093A..... 38 dm³

DC13 071A..... 39 dm³

Coolant volume incl. 1.3 m² radiator

..... 45 dm³

Coolant temperature 90-95 °C

Number of thermostats..... 1

Opening temperature 80/87 °C

Intake system

Permissible pressure drop in intake system

with cleaned or new filter..... 30 mbar

with blocked (dirty) filter..... 65 mbar

Electrical system, optional equipment

Type 1-pole, 24 V, DC

Starter motor, standard equipment..... 1-pole, 24 V, 6.0 kW

Alternator, standard equipment..... 1-pole, 28 V, 100 A