

General

Number of cylinders	4
Displacement, total	4,76 liters [290,7 cu. in]
Firing order	1-3-4-2
Bore	108 mm [4,25 in]
Stroke mm	130 mm [5,12 in]
Compression ratio	19

Performance

		25% load	50% load	75% load	100% load	Overload 110% load
ISO Standard Power	92 kW [125 hp]	23	46	69	92	101,2
Torque	586 Nm [433 lbf ft]	141	286	434	586	647
Mean piston speed	6,5 m/s [21,3 ft/sec]					
Effective mean pressure	1,55 Mpa [225 psi]	0,37	0,75	1,14	1,54	1,71
Max combustion pressure	Mpa [psi]					

Engine noise emission

Measured sound power Lw at no load	85,5 dB(A)
Measured sound power Lw	dB(A)
	88,5

Unsilenced exhaust noise emission

Data calculated as sound pressure Lp. Assumed microphone distance 1m.	dB(A)
	108,5

Lubrication system

Lubricating oil consumption at ISO Standard Power	liter/h [US Gal/h]	0,05
Lubricating oil system capacity including filters	liters [US Gal]	13

Fuel system

Specific fuel consumption	g/kWh [lb/hph]	255	220	213	214	216
Total fuel flow	liter/h [US Gal/h]				375	
Maximum return flow	liter/h [US Gal/h]					
Feed pump pressure	kPa [in H2 O]				500	
Feed pump max suction head	m				1	
Max allowable back pressure in fuel return line	kPa [H2 O]				50	

Intake system

Air consumption, (at 27oC)	m3/min [cu.ft/min]	3,5	4,08	5,08	5,9	6,4
Max permissible air intake restriction	kPa [in H2 O]				2,5	

VOLVO PENTA

D5 version B Marine Genset
D5A-TA KC-1.5 1500

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Exhaust system

Heat rejection to exhaust	kW [BTU/min]	17	29	44	62	69
Exhaust gas temperature after turbine	oC [oF]	220	305	375	420	440
Max allowable back pressure in exhaust line	kPa [H2 O]				3	
Exhaust gas flow at Exhaust gas temperature after turbine	m3/min [cu.ft/min]	6,43	8,43	11,9	15	16,7

Heat rejection the surrounding

Heat rej. from engine to surrounding	kW [BTU/min]	1	3	4	5	5
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Cooling water circuit

Heat rejection to water	kW [BTU/min]	30	46	63	83	91
Maximum permissible water temp to engine	(36)38 oC [oF]					
Maximum temperature increase across circuit of engine	oC [oF]	5 (5,3)	6 (7,2)	8 (10)	10 (12,5)	11 (13,2)
Maximum permissible test pressure	100 kPa [in H2 O]					
Thermostat, start to open	83 oC [154 oF]					
Thermostat, fully open	95 oC [176 oF]					
Cooling water flow	6,6 m3/h [233 cu.ft/h]					
Maximum pressure head	50)100 kPa [402 in H2 O]					
Highest permissible suction head	20 kPa [80,4 in H2 O]					
Highest permissible pressure drop over external cooling water circuit	50 kPa [201 in H2 O]					
Cooling water capacity	22 liters [US gal]					

Power take off

Look in technical data for propulsion

Power Standards

The engine performance corresponds to ISO 3046, BS 5514, DIN 6271 and in general SAE J 1349. The technical data applies to an engine operation on a fuel with calorific value of 42,7 MJ/ kg (18360 BTU/ lb) and a density of 0,84 kg/ liters (7,01 lb/ US gal, 8,42 lb/lmp gal), also where this involves a deviation from the standards.

Engine speed governor in accordance with ISO 3046/IV, class A1 and ISO 8528-5 G2 (G3 with electronic speed governor).

Rating Guidelines

ISO Standard Power for continuous operation with 10% overload capability for 1 hour of 12.