NANNI
QLS10T

> 7.5 KW (10.2 HP)

Engine characteristics

Engine base	Kubota D1105BG
Number of cylinders	3 in line
Displacement (cm³)	1123
Bore & Stroke (mm)	78 x 78.4
Combustion system	Indirect (E-TVCS)
Rated rpm (rpm)	1500
Max power at rated rpm (kW/hp)	7.5 / 10.2
Intake	Natural
Compression ratio	24:1
Injection order	1-2-3
Max pressure difference between cyl.	10 %
Rotation	Counter clockwise (flywheel)

Injection

Injection pump	In line, Bosch MD mini type
Fuel feed pump	Spherical type
Injection pressure (MPa)	13.7
Governor	Mechanical
Injection Timing before TDC (°)	18

Lubrication

Oil type	API-CD mini 15W40
Capacity (l)	4.5
Pressure at rated rpm (bar)	2 to 4.5
Lubrication system	Forced
Oil pump type	Trochoid
Relief valves - Opening pressure (bar)	9.8 ±1.5
Oil filter type	Full flow - cartridge

Cooling system

Seawater pump	Bronze, Neoprene rotor
Seawater pump flow (l/h)	38
Fresh water pump type	Coaxial alternator driven
Fresh water capacity (l)	5
Exhaust manifold	Fresh water cooled
Max allowable back pressure (bar)	0.127
Max exhaust gas temperature (°C)	550

Valve train

Cold - Valve clearance intake (mm)	0.15 to 0.18
Cold - Valve clearance exhaust (mm)	0.15 to 0.18
Valve retraction (mm)	-0.05 to +0.15 mm

Piston rings

Firing piston ring (mm)	0.15 to 0.30
Compression Ring (mm)	0.30 to 0.45
Oil ring (mm)	0.25 to 0.40

Cylinder head

Surface flatness (mm)	< 0.05

Installation

Exhaust connexion (mm-in)	50 - 2
Fuel connexion (mm-in)	8 - 0.31
Fuel pump - Max suction height (m)	0.5 (standard pump) 1.8 (with add. electrical pump)
Sea Water connexion (mm-in)	25
Engine Operating Angle	15° continuous (30° maxi)

Air requirements

Combustion air at 25°C (m³/h)	50
Flow for the evacuation of radiant heat (m³/h)	70

Engine Electrical System

Engine alternator (V-A)	12 - 40
Battery recommended (Ah)	75
Starter motor (V-kW)	12 - 1

Generator characteristics

Brand	Leroy Somer
Model	LSAM 40VS1
Insulation class	H
Phase	3
Winding pitch	2/3 (wdg 6)
Protection	IP 23
Cos Ø	0.8
Rated voltage (V)	400
Frequency (Hz)	50
Max power (kW)	7.9
Continuous power (kW)	7
Maximum current per phase (A)	14.3
Continuous current per phase(A)	12.6
Air flow (m³/h)	3.6
Excitation system	AREP
AVR typ	R438
Voltage regulation	± 0.5%
Weight of the generator (kg)	82