



■ L 1306 T2

Marine Diesel Engine

Engine with 4-stroke diesel cycle, direct fuel injection, surpercharged by one exhaust gas turbocharger type KKK with charge air cooling by sea water in tube type heat exchanger; engine cooling system complete with fresh-water / sea-water tube type heat exchanger incorporating header tank, thermostatic temperature control, exhaust gas manifold cooled by engine water.

	L1306T2 MSD		L1306T2 MLL	L1306T2 MLH
	HSC	SFC	CCL	CCH
PERFORMANCE:				
Maximum power [kW (HP) @ rpm]	485 (660) @ 2400	440 (600) @ 2400	320 (435) @ 2300	220 (300) @ 1800
Maximum torque [Nm]	2050	1850	1400	1250
B.M.E.P. [bar]	21,4	19,4	14,7	12,9
Mean piston speed [m/s]	11,36	11,36	10,89	8,52
Minimum idle speed [rpm]	700 - 750	700 - 750	700 - 750	700 - 750
Fuel consumption @ rated power [g/kWh]	235	230	221	210
Minimum fuel consumption [g/kWh]	205	205	207	207
TECHNICAL DATA:				
General specification	4-stroke diesel, water cooled, direct injection, turbocharged and intercooled.			
No. of cylinders & arrangement	6 in-line			
Bore x stroke [mm]	130 x 142			
Total displacement [litre]	11,309			
Compression ratio	HSC/SFC 15,4 : 1 CCL/CCH 17,0 : 1			
Valves per cylinder	1 inlet + 1 exhaust			
Turbo charging	1 TC sea water intercooled			
Engine cooling	double circuit sea water intercooled			
Injection system	mechanical electronically actuated			

HSC High performance special craft

Application group covering high speed planing hulls, such as pleasure crafts and special governmental vessels (customs, police, rescue services, special corps, etc.), where the primary boat design goal is to achieve the highest performance in terms of speed, acceleration and manoeuvrability.

SFC Special fast craft

Application group typically covering planing or semi-planing hulls for naval governmental service, such as in-shore patrol vessels, light off-shore patrol vessels, civil protection boats.

CCL Commercial craft, light duty

Application group typically covering light commercial crafts, such as short-range passenger and charter boats, taxi-boats, sport fishing, light coastal fishing vessels with high speed movements.

CCH Commercial craft, heavy duty

Application group covering displacement hulls vessels for continuous heavy duty operation, such as long-range passenger boats, tugs, fishing boats, heavy river navigation freighters.

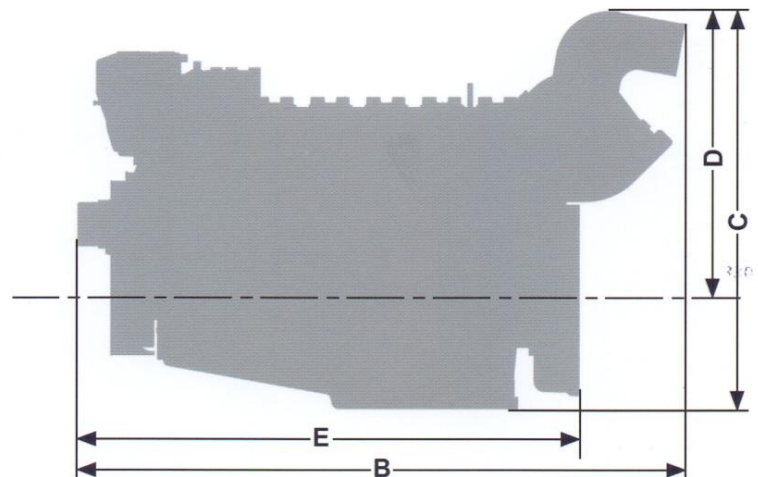
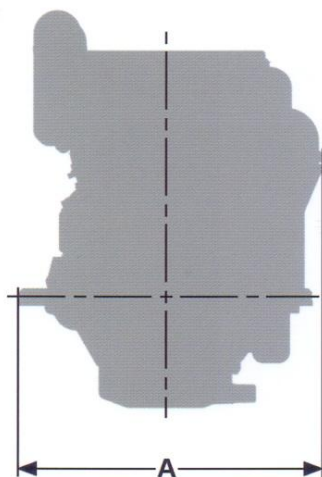
Notes:

Reference ambient conditions according to ISO 3046-1 Standard and Classification Societies' Rules (Intake air / Sea water Temp.: 45°C / 32°C).

DIMENSIONS & WEIGHTS:

Width (mm) (A)	823
Length (mm) (B)	1788
Height (mm) (C)	1135
Height at engine axis (mm) (D)	820
Length (mm) at flywheel (E)	1516
Dry mass (kg)	970
Flywheel and housing size	SAE 14 - SAE 1

All technical data are subject to variation without notice, to be confirmed with purchase order.



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Isotta Fraschini Motori
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Basic engine build standard

- Cooling circuits complete with engine-driven centrifugal pumps (sea-water pump of self-priming type)
- Forced engine lubrication by engine-driven gear type pump, plate type oil/fresh water cooler unit, cartridge type oil filter unit
- Fuel system complete with Bosch injection pump with feed pump and mechanical type speed governor
- Duplex fuel filter with change-over whilst running
- Duplex fuel filter WITHOUT change-over
- Pipework on engine and components in contact with sea-water made of copper alloy
- Electric cabling on engine complete with terminal box
- Electric starting motor (24 Volt, 6,6 kW)
- Alternator for battery charging (28 Volt, 45 A)
- Riser on gas exhaust
- Dry type exhaust, flange on turbocharger outlet
- Dry type filter at air inlet
- Flexible mountings with system of height adjustment
- Hand pump for emptying oil sump
- Accelerator on injection pump for remote control
- Solenoid for stopping engine (24 Volt)
- Flywheel and bell-housing for SAE No. 1 connection
- Torsional vibration damper

Sensors, of isolated-pole VDO type, fitted on engine:

- - engine fresh-water temperature transmitter, with alarm contact - TTA
- - engine oil pressure transmitter, with alarm contact - TPO
- - level switch on engine water make-up tank, with alarm contact-CLA
- Marine painting (Bronzit Beige BMW)
- Workshop tests
- Operating and maintenance manual (sales type)
- Spare parts catalogue (sales type)
- Bag of normal use tools

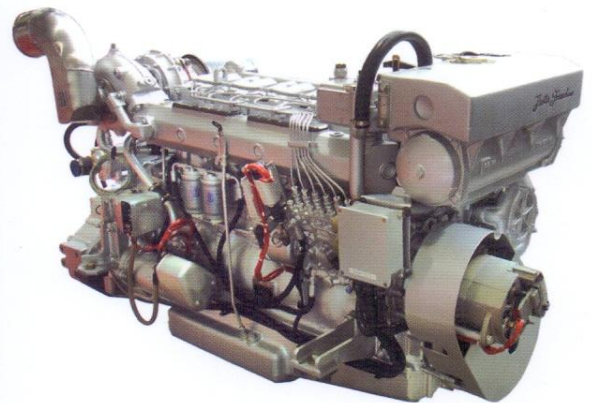
Optional items

- Oil filter unit for mounting of the engine
- Electric pump for emptying oil sump
- Dry type exhaust, 90° bend at turbocharger outlet
- Flexible exhaust pipe
- Free and PTO, pulley with 2 grooves Type "A"
- Auxiliary hydraulic pump for steering control
- Additional sensor on engine, of isolated-pole VDO type, for dual control panel:
 - - engine fresh-water temperature transmitter, with alarm contact - TTA1
 - - engine oil pressure transmitter, with alarm contact - TPO1
- Device for stopping engine on overspeed - MPU
- Sensors supplied loose:
 - - VDO transmitter for inverter oil pressure - TPI
 - - pressure switch for inverter oil pressure - CPI
- Electric pre-heating for oil
- Electric pre-heating for engine coolant
- Panel (for installation in bridge)
- Panel (for installation with secondary controls)
- Torsional flexible coupling - Vulkan EZR
- Inverter / reducing gear for hull-mounting
- Inverter / reducing gear flanged to engine
- Classification Society tests
- Torsional vibration analysis calculations for plant (TVC)
- Protective treatment of engine for long storage
- Alternator for battery (28 Volt, 100 A)
- Choked air filter indicator, with alarm contact - CIF

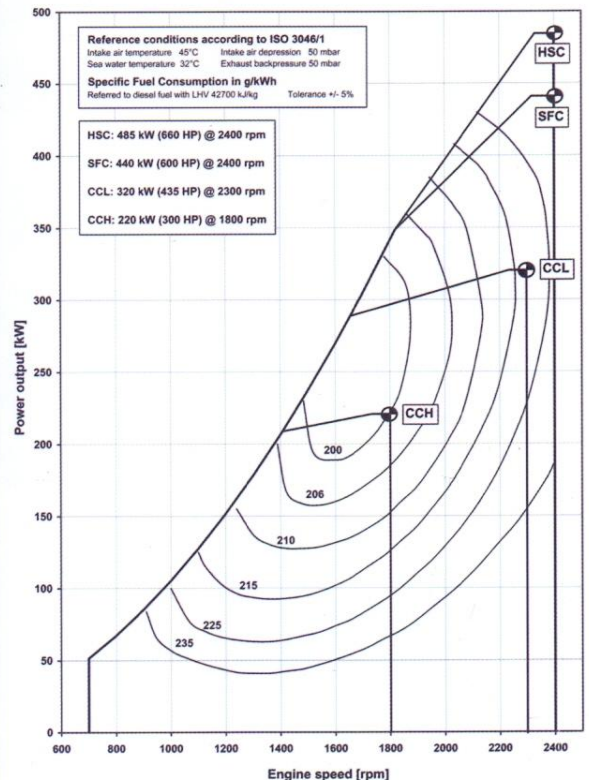
■ Standard supply

■ Optional supply

Note: - to be confirmed with purchase order,
- to be used only as indicative.



Performance diagram



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