

General Engine Data		IF07ATIH-N	IF07BTIH-N	IF07CTIH-N
Type		4 cycle, 6 Cylinder In Line, Water cooled		
Aspiration		Turbo charged, Intercooled		
Cylinder Type		Replaceable dry liner		
Bore x Stroke	mm	104 x 132		
Displacement	litre	6.728		
Compression Ratio		17.5 : 1		
Valves per Cylinder	- Intake	1		
	- Exhaust	1		
Valve Timing	- Intake	Opening: 15° BTDC - Close: 35° ABDC		
	- Exhaust	Opening: 69° BBDC - Close: ATDC		
Valves lashes at cold	- Intake mm	0.25 ±0.5		
	- Exhaust mm	0.50 ±0.5		
Combustion Type		Direct Injection		
Firing Order		1 – 5 – 3 – 6 – 2 – 4		
Rotation		Counter Clockwise, viewed from flywheel		
Dimension IF07A-B-C TIH-N (L x W x H)	± mm	1,210 x 824 x 1,554		
Dry Weight	Approx. kg	730		

Engine Rating		1,470	1,760	2,100	2,200	2,350	2,600	2,800	2,940
IF07ATIH-N	kW	127	159	180	184	189	197	197	197
IF07BTIH-N	kW	127	182	206	210	215	218	220	222
IF07CTIH-N	kW	-	-	-	-	-	238	244	246

Power : At flywheel according to 97/68 EC, after 50 hours running, 3% tolerance, fuel Diesel EN 590

Test conditions : ISO 3046/1, 25 ° Celsius air temperature, 100 kPa atmospheric pressure, 30 % relative humidity – Applicable also to DIN 6271, BS 5514, SAE J1349 Standards.

Fuel System		IF07ATIH-N	IF07BTIH-N	IF07CTIH-N
Injection Pump		StanaDyne Rotary Pump type		
Governor		Fixed speed control		
Fuel Lift Pump		Exclusive (Electric version as an Option)		
Fuel Filter		Full flow, cartridge type		
Used Fuel		Diesel fuel according EN 590		
Fuel consumption at Full Load Approx.	at 2,940 rpm	230	235	229
Fuel consumption information at other Revs.		See table no. 03.400.06FCEN.03		
Standard Fuel Pump Supply Connection	mm	M 16x1.5		
Standard Fuel Pump Return Connection	mm	M 16x1.5		

Electrical System		24 Volts (Nominal)	
Starter motor	kW	4	
Battery Min. capacity recommended	Ah	180 (12 Volts)	
Quantity per battery bank		2	
Battery Cold Cranking Amperes	@ -18°C	800	
Charging Alternator Output	Amp.	90	
Engine stop device build in fuel pump		Energized to Stop	

Air Induction System		IF07ATIH-N	IF07BTIH-N	IF07CTIH-N
Air Cleaner Type		Dry		
Engine Air Flow	m³/min	19.0	20.0	20.3
Air Inlet Restriction Dirty	kPa	6.5		
Air Inlet Restriction Clean	kPa	2.0	2.0	3.0
Turbo charging pressure at full load/rated speed	kPa	140	160	170
Turbo charging air inlet maximum temperature	°C	55		

Cooling system with DE MAAS std heat exchanger		IF07ATIH-N	IF07BTIH-N	IF07CTIH-N
Heat Exchanger Minimum Flow	<i>l/min / kW installed</i>	0.7	0.7	0.8
Water Pump		Centrifugal type driven by belt		
Engine Radiated Heat	<i>kW</i>	See table no. 03.400.06VLEN.03		
Water Pump Capacity	<i>litre/min.</i>	158.3		
Heat Exchanger Raw water system				
Maximum Pressure	<i>kPa</i>	2,000	2,000	2,000
Flow (maximum)	<i>litre/min.</i>	138	156	197
Maximum Temperature	<i>°C (°F)</i>	37.8 (100)	37.8 (100)	37.8 (100)
Thermostat, Start to Open	<i>°C</i>	83		
Fully Opened	<i>°C</i>	95		
Coolant Capacity <i>Approximately</i>	<i>litre</i>	23		
Coolant Pressure Cap	<i>kPa</i>	95		
Maximum Raw Water Supply pipe				
Std Connection Heat Exchanger IN	<i>inch</i>	1 ½" BSP		
Maximum Raw Water Discharge pipe				
Std Connection Heat Exchanger OUT	<i>inch</i>	1 ½" BSP		
Maximum Engine H ₂ O Temperature	<i>°C</i>	103		
Pressure loss Engine Cooling Circuit	<i>kPa</i>	10		
Header tank capacity (Fresh water system)	<i>litre</i>	6.5		

Lubrication System	
Lubrication Method	Fully Forced pressure feed type
Oil Pump	Gear type driven by crankshaft
Oil Filter	Full Flow, Cartridge type
Oil pressure Range, normal	<i>kPa</i> 70 at idle 350 at maximum speed
Maximum Oil Temperature	<i>°C</i> 120 @ 2,940 rpm
Total Capacity	<i>litre</i> 12.8
Oil consumption at max. rating	% 0.1 (Of fuel consumption)

Exhaust System	IF07ATIH-N	IF07BTIH-N	IF07CTIH-N
Exhaust Gas Flow at max output	<i>kg/h</i> 1,375	1,460	1,485
Exhaust Gas Temperature at max rating/power	<i>°C</i> 550	600	620
Max. Allowable Back Pressure	<i>kPa</i> 7		
Minimum Exhaust Pipe Diameter	<i>mm(inch) *</i> 101.6 (4")		
Exhaust compensator with counter flange	Included		

*Based on Nominal System. Flow analysis must be done to assure adherence to system limitations!

(Minimum exhaust pipe diameter is based on 6 metre (15 ft.) of pipe, one elbow, and a silencer. Pressure drop no greater than one half the max. allowable back pressure)

Heater System	
Wattage (Nominal)	<i>W</i> 1,500
Voltage AC	<i>V</i> 230

Miscellaneous	
Flywheel housing	<i>SAE</i> 3
Flywheel	<i>SAE</i> 11 ½
Number of teeth starter ring	125

Engine Performance Data	
All data is based on the engine operating with fuel system, lubricating oil pump, air cleaner, and alternator; not included are compressor, fan, optional equipment, and driven components. Data is based on operation at SAE standard J1394 conditions of 300ft (91.4m) altitude, 29.61 in.(752mm) Hg dry barometer, and 77°F (25°C) intake air temperature, using No.2 diesel or a fuel corresponding to ASTM-D2.	
Altitude above which output should be Limited	<i>m</i> 91.4
Correction Factor per 305m. above Altitude Limit	% 3
Temperature above which output should be Limited	<i>°C</i> 25