

V158TI MARINE ENGINE

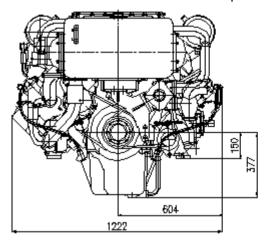


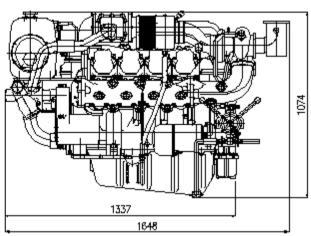
POWER RATING

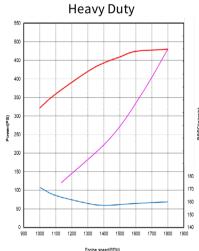
Production tolerance: ±3%

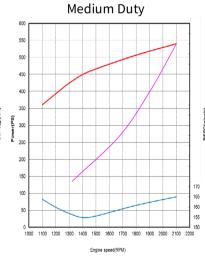
MODEL	CONDITIONS	POWER	rpm	Base Engine
V158TIH	HEAVY DUTY	480PS (353kW)	1,800	
V158TIM	MEDIUM DUTY	540PS (397kW)	2,100	D2848LB
V158TIL	LIGHT DUTY	680PS (500kW)	2,300	

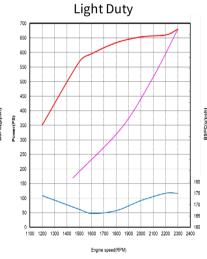
Note : 1) No reduction in rating for intake air temperature is up to 45 $^{\circ}$ C (318K) and sea water temperature is up to 32 $^{\circ}$ C (305K), relative humidity is up to 60 % all data are based on operation to ISO 3046.











- Heavy Duty: Operation hours are unlimited per year, at average load is up to 90 %, at full load is up to 80 %
 Typical gearbox ratio: 2.5 ~ 6
 - (Fishing trawler, Tug boat, Pushing vessel, Cargo boat, Freighter, Ferry)
- Medium Duty: Operation hours are up to 3,000 per year, at average load is up to 70 %
 At full load is (up to 30 % / 4hrs per 12 hour operation period).

 Typical gearbox ratio: 2 ~ 3.5
 - (Fishing boat, Pilot boat, Escort boat, Passenger boat, Ferry, Cruising vessel)
- ◆ Light Duty : Operation hours are up to 1,000 per year, at average load is up to 50 %
 At full load is (up to 20 % / 2hrs per 12 hour operation period)
 Typical gearbox ratio: 1 ~ 2.5
 (Light weight fishing boat, Yacht, Coastguard boat, Fast boat, Fire pump, Navy, Bow thruster)



V158TI MARINE ENGINE



Engine Specification

Model		Units	V158TIH	V158TIM	V158TIL	
Engine type			4 cycle, V type, direct- injection, water cooled with wet turbo charger & inter-cooler			
Rating output (B.H.P)		PS(kW)/rpm	480(353)/1,800	540(397)/2,100	680(500)/2,300	
Displacement		сс	14,618			
Cylinder number - bore(φ) x stroke		mm	8 - φ128 x 142			
Valve clearance at cold	In / Ex	mm	0.25 / 0.35			
Low idling rpm		rpm	725 ± 25			
No load max. rpm		rpm	below 2,070	below 2,415	below 2,645	
Mean effective pressure		kg/cm ²	16.4	15.8	18.2	
Mean piston speed		m/sec.	8.52	9.94	10.89	
Compression ratio			15.5 : 1	15.5:1	15.5:1	
Firing order			1-5-7-2-6-3-4-8			
Governor type of injection pump			Mechanical variable speed (R.Q.V)			
Fuel consumption		g / PS.h	160	165	175	
		Lit / h	93	107	143	
Injection timing (B.T.D.C)		deg	15 °± 1°	16 °± 1°	18 °± 1°	
Starting system			Electric Starting by starter motor			
Starter motor capacity		V – kW	24 - 6.6			
Alternator capacity		V – A	24 - 80			
Battery		V – Ah	24 - 200			
Cooling system			Indirect sea water cooling with heat exchanger			
Cooling water capacity	Max. / Min.	lit.	89 / 78			
Fresh water pump type			Centrifugal type, driven by belt			
Sea water pump type			Rubber impeller type driven by belt			
Lubricating oil (Engine)	pan capacity	lit.	Max: 31, Min: 25 (Engine total: 35)			
	pressure	kg/cm ²	Full: 3.5, Idle: 1.2			
Direction of revolution	crankshaft		Counter clockwise viewed from stern side			
Engine Size (L x W x H)		mm	1,337 x 1,222 x 1,074			
Engine dry weight		kg	1,350	1,350	1,435	

 $psi = kg/cm^2 \times 14.22$ $lb/ft. = N.m \times 0.737$ kW = 0.2388 kcal/s

 $lb = kg \times 2.205$ $lb/PS.h = g/kW.h \times 0.00162$ $cfm = m^3/min \times 35.3$

 $hp = PS \times 0.98635$ \hat{U} .S gal. = liter x 0.264

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***** Specifications are subject to change without prior notice.