

4V158TI MARINE ENGINE

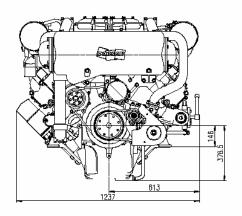


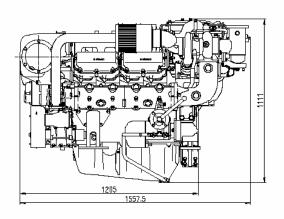
POWER RATING

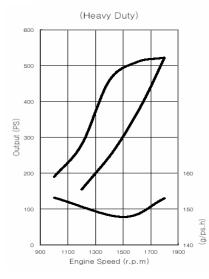
Production tolerance: ± 3%

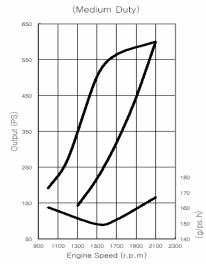
MODEL	CONDITIONS	POWER	rpm	Base Engine
4V158TIH	HEAVY DUTY	390kW (530PS)	1,800	
4V158TIM	MEDIUM DUTY	441kW (600PS)	2,100	D2848LB
4V158TIL	LIGHT DUTY	588kW (800PS)	2,300	

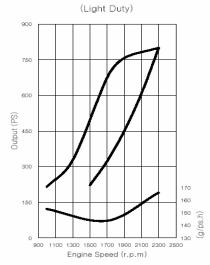
Note : 1) No reduction in rating for intake air temperature is up to 45 $^{\circ}$ C (318K) and sea water temperature is up to 32 $^{\circ}$ C (305K) , relative humidity is up to 60 % all data are based on operation to ISO 3046.











- **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: $1 \sim 2.5$

(Light weight fishing boat, Yacht, Coastguard boat, Fast boat, Fire pump, Navy, Bow thruster)



4V158TI MARINE ENGINE



Engine Specification

Model		Units	4V158TIH	4V158TIM	4V158TIL			
Engine type			4 valve, 4 cycle, V type, direct- injection, water cooled with wet turbo charger & inter-cooler					
Rating output (B.H.P)		kW(PS)/rpm	390(530)/1,800	441(600)/2,100	588(800)/2,300			
Displacement		сс	14,618					
Cylinder number - bore(ф) x stroke		mm	8 - \$\phi128 x 142					
Valve clearance at cold	In / Ex	mm	mm 0.4 / 0.5					
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	18.1	17.6	21.4			
Mean piston speed		m/sec.	8.52	9.94	10.89			
Compression ratio			14.3 : 1	14.3:1	14.3:1			
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	153	167	166			
		Lit / h	97	120	159			
Starting system			Electric Starting by starter motor					
Starter motor capacity		V-kW	24 - 6.6					
Alternator capacity		V-A	24 - 50					
Battery		V-Ah	24 - 200					
Cooling system			Indirect sea water cooling with heat exchanger					
Cooling water capacity	Max. / Min.	lit.	94 / 83					
Fresh water pump type			Centrifugal type, driven by belt					
Sea water pump type			Bronze 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, Hle: 1.2					
Direction of revolution	crankshaft		Counter clockwise viewed from stern side					
Engine Size (L x W x H)		mm	1,205 x 1,237 x 1,111					
Engine dry weight		kg	1,540	1,540	1,540			

psi = kg/cm² x 14.22 lb/ft. = N.m x 0.737 kW = 0.2388 kcal/s lb= kg x 2.205 lb/PS.h = g/kW.h x 0.00162 cfm = m^3 /min x 35.3 $hp = PS \times 0.98635$ U.S gal. = liter x 0.264

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Specifications are subject to change without prior notice.