

L086TI MARINE ENGINE

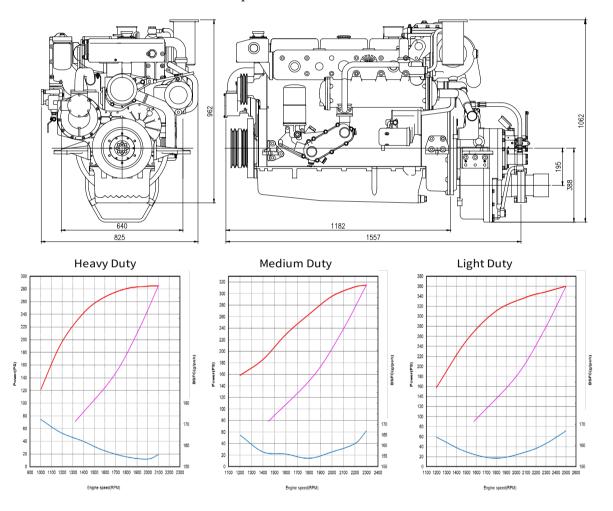


POWER RATING

Production tolerance : $\pm 3\%$

MODEL	CONDITIONS	POWER	rpm	Base Engine
L086TIH	HEAVY DUTY	285PS (210kW)	2,100	
L086TIM	MEDIUM DUTY	315PS (232kW)	2,300	D1146TIB
L086TIL	LIGHT DUTY	360PS (265kW)	2,500	

Note : 1) No reduction in rating for intake air temperature is up to $45 \,^{\circ}\text{C}$ (318K) and sea water temperature is up to $32 \,^{\circ}\text{C}$ (305K), relative humidity is up to $60 \,^{\circ}\text{M}$ 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)



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Typical gearbox ratio: $1 \sim 2.5$

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

Engine Specification								
Model		Units	L086TIH	L086TIM	L086TIL			
Engine type			4 cycle, In line, direct- injection, water cooled with wet turbo charger & inter-cooler					
Rating output (B.H.P)		PS(kW)/rpm	285(210)/2,100	315(232)/2,300	360(265)/2,500			
Displacement		cc	8,071					
Cylinder number - bore(\$\phi\$) x stroke		mm	6 - φ111 x 139					
Valve clearance at cold In / Ex		mm	0.3 / 0.3					
Low idling rpm		rpm	750 ± 25					
No load max. rpm		rpm	below 2,310	below 2,530	below 2,750			
Mean effective pressure		kg/cm ²	15.14	14.55	16.06			
Mean piston speed		m/sec.	9.73	10.66	11.58			
Compression ratio			16.7:1		15.3:1			
Firing order		kg/cm ²	1-5-3-6-2-4					
Compression pressure	Compression pressure at 200 rpm			28 (Initial condition)				
Governor type of injection		Mechanical all speed (R.S.V)						
Eval aggregation		g/PS.h	156	163	167			
Fuel consumption		lit / h	53	62	72			
Injection timing (B.T.D.C)		deg	15° ± 1°	15° ± 1°	15° ± 1°			
Fuel inj. Nozzle opening pressure		kg/cm ²	214					
Starting system			Electric Starting by starter motor					
Starter motor capacity		V- kW	24 - 4.5					
Alternator capacity		V- A	24 - 80					
Battery		V- Ah	24 - 100					
Cooling system			Indirect sea water cooling with heat exchanger					
Cooling water capacity	Max. / Min.	lit	27 / 25					
Fresh water pump type	•		Centrifugal type, driven by V- belt					
Sea water pump type			Rubber impeller type driven by gear					
Lubricating oil	lit	Max : 23, Min : 17 (Engine total : 25)						
(Engine)	pan capacity pressure	kg/cm ²	Full: 3.5, Idle: 1.2					
Marine gear	Model	<u> </u>	DMT 110A (Dong – I)					
	Gear ratio		1.77 2.09 2.42 2.82 3.19					
Direction of revolution	crankshaft		Counter clockwise viewed from stern side					
	propeller		Clockwise viewed from stern side					
Engine size	without M/G	mm	1,182 x 825 x 962					
(L x W x H)	with M. gear	mm	1,552 x 825 x 1,062					
	without M/G	kg	790					
Engine dry weight	with M. gear	kg	1,015					

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 x 0.98635 U.S gal. = liter x 0.264

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