

## **L136TI MARINE ENGINE**

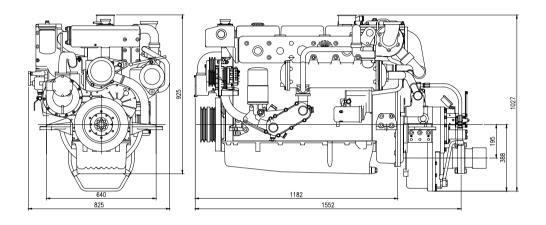


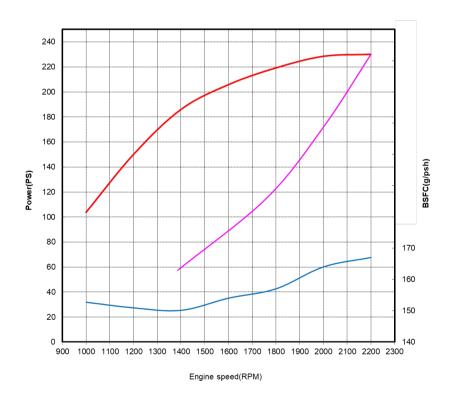
## **POWER RATING**

Production tolerance: ± 3%

MODEL	CONDITIONS	POWER	rpm	Base Engine
L136TI	HEAVY DUTY	230PS (169kW)	2200	D1146TI

**Note : 1)** No reduction in rating for intake air temperature is up to 45 °C (318K) and sea water temperature is up to 32 °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:  $2.5 \sim 6$ 

(Fishing trawler, Tug boat, Pushing vessel, Cargo boat, Freighter, Ferry)



## **L136TI MARINE ENGINE**



Engine Specification					
Model		Units	L136TI		
Engine type			4 cycle, In line, direct- injection, water cooled with turbo charger & inter-cooler		
Rating output (B.H.P)		PS(kW)/rpm	230(169)/2200		
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	$725 \pm 25$		
No load max. rpm		rpm	below 2,400		
Mean effective pressure		kg/cm <sup>2</sup>	11.66		
Mean piston speed		m/sec.	10.19		
Compression ratio			16.7:1		
Firing order			1-5-3-6-2-4		
Compression pressure at 200 rpm		kg/cm <sup>2</sup>	28 (Initial Condition)		
Governor type of injection pump			Mechanical all speed (R.S.V)		
E 1		g/ps.h	167		
Fuel consumption		lit / h	46		
Injection timing (B.T.D.C)		deg	14° ± 1°		
Fuel inj. nozzle opening pr	essure	kg/cm <sup>2</sup>	214 + 8		
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	ı		Centrifugal type, driven by V- belt		
Sea water pump type			Rubber impeller type driven by gear		
1 1 71	pan capacity	lit	Max: 23 , Min: 17 (Engine total: 25)		
Lubricating Oil (Engine)	pressure	kg/cm <sup>2</sup>	Full: 3.5 , Idle: 1.2		
	Model	Ü	DMT110A (Dong-I)		
Marine Gear	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 925		
(L x W x H)	with M. gear	mm	1,552 x 825 x 1,027		
	without M/G	kg	773		
Engine dry weight	with M. gear	kg	994		

 $psi = kg/cm^2 \times 14.22$  $1b/ft. = N.m \times 0.737$ kW = 0.2388 kcal/s

 $1b = kg \times 2.205$  $lb/PS.h = g/kW.h \times 0.00162$  $cfm = m^3/min \times 35.3$ 

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

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