



# Marine Diesel Engine

## V180TI

Daewoo Heavy Industries has made a fresh start as **Doosan Infracore**.

- *Compact Design*
- *Excellent Performance*
- *Super Low Fuel Consumption*
- *Easy Maintenance*

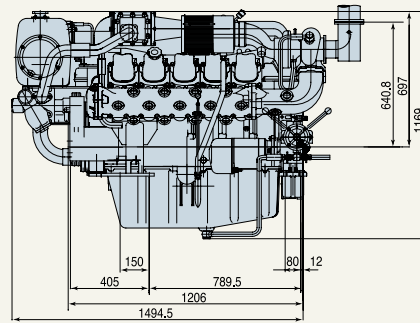
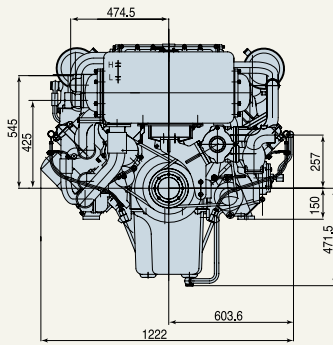


- Continuous Rating (BHP)  
· 603kW (820PS)
- Displacement  
· 18,273cc
- Dimension (L×W×H)  
· 1,495×1,222×1,169mm  
· Without Reduction Gear



Infracore

## Engine Dimension

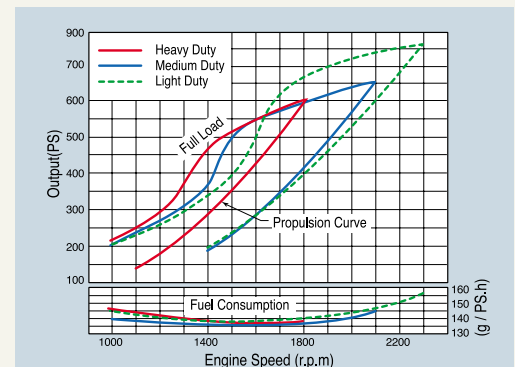


## Main Specification

Model	Units	V180TI (D2840LB)		
		V180TIH	V180TIM	V180TIL
Engine type		4cycle, V type, direct-injection, water cooled, with wet turbo charger & inter-cooler		
Rating output (B.H.P)	kW(PS)/ rpm	441(600)/1,800	478(650)/2,100	603(820)/2,300
Displacement	c c	18,273		
Cylinder number - bore (φ) × stroke	mm	10 - φ 128 × 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
Compression ratio		15 : 1		14.6 : 1
Firing order		1 - 6 - 5 - 10 - 2 - 7 - 3 - 8 - 4 - 9		
Governor type of injection pump		Mechanical variable speed (R.Q.V)		
Fuel inj. nozzle opening pressure	kg / cm <sup>2</sup>	286		
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 92 / 81		
Fresh water pump type		Centrifugal type, driven V-belt		
Sea water pump type		Bronze impeller type driven by gear		
Lubricating oil (Engine)	Pan capacity	lit Max : 35, Min : 28 (Engine total : 38)		
	Pressure	kg / cm <sup>2</sup> Full : 3.5, Idle : 1.2		
Marine gear	Gear ratio	2.06, 2.50, 2.92, 3.26, 3.53, 4.08, 4.52		
Direction of revolution	Crankshaft	Counter clockwise viewed from stern side		
	Propeller	Clockwise viewed from stern side		
Engine Size (L×W×H)	Without M/G	mm 1,495×1,222×1,169		
	With M/G	mm 2,016×1,222×1,192		
Engine dry weight	Without M/G	kg 1,550		
	With M/G	kg 2,065		

## Performance Curve

- Heavy duty : 441kW(600PS)@1,800rpm
- Medium duty : 478kW(650PS)@2,100rpm
- Light duty : 603kW(820PS)@2,300rpm



### Marine rating to ISO 3046

#### (1) Heavy Duty

- Operation hours : unlimited per year, unlimited per day
- Average load application : up to 85%
- Percentages of time at full load : up to 50%
- \* Application : Fishing trawler, Tug boat, Pushing vessel, Cargo boat, Freighter, Ferry

#### (2) Medium Duty

- Operation hours : up to 2,000hr per year, up to 10hrs per day
- Average load application : up to 70%
- Percentages of time at full load : up to 30%
- \* Application : Fishing trawler, Pilot boat, Escort boat, Passenger boat, Freighter, Ferry, Cruising vessel

#### (3) Light Duty

- Operation hours : up to 1,000hr per year, up to 5hrs per day
- Average load application : up to 50%
- Percentages of time at full load : up to 20%
- \* Application : Fishing trawler, Pilot boat, Escort boat, Passenger boat, Freighter, Ferry, Cruising vessel

V180TI(July/05)



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AUTHORIZED DEALER

\* Specifications are subject to change without prior notice.