

Standard Quotation 12V 183 TE93

Propulsion Plant for Fast Ships

840 kW - 2400 rpm



Delphi V6 engine is based on Mercedes-Benz M104 M106 engines and similar engines, which have proven their worth by the highest standards in a global market, internationally standards in worldwide applications.

May have been optimized by BVM for marine service through development and testing of application-specific engine components.

General construction features

- Heavy, integral casting P10 with integrated over-water pump
- Three cylinders heat exchanger for coolant heating and refrigeration/cooling fan
- Full steel wetted surfaces
- Cast steel exhaust manifold with turbochargers
- Electrical equipment (generator, starter, monitoring systems)
- No vibration
- Redundant cooling

Application: marine accessories and ready-to-install plant components/engines/boats

Manufacture technology and the results of experience has led to a great deal of expertise in marine propulsion systems and power systems including fuel by electronic control system.

Design features

- 60° crank, turbochargers and alternator driven
- Multiple exhaust gas turbine expansion with side water cooling (under the constant pressure, high pressure gas turbine turbochargers) M104 M106
- Distributor exhaust manifold and turbochargers fitted as alternative configurations
- Integral exhaust gas turbine exhaust ducts are distributed into two levels: 1) hot gas 2) cold water or fresh-water into two gas turbine heat exchanger water cooled. Exhaust turbine heat exchanger
- Turbochargers mounted on horizontal journal shaft and roller bearings. Exhaust manifold with dual bearing shaft. Exhaust piping at the 45° shaft end. Vertical double bearing at the top. P10 and dependent mechanical design completed.
- Turbochargers casted with common crank at the full crank angle in order to save turbocharger weight. Turbine shaft bearing with dual bearing shaft. Heat exchanger cooling fan driven.

- Continually cast wet-lay, evaporator, seawater circulation

- Lubricated plates with low compression ratio and low oil consumption. Turbocharging system, exhaust gas recirculation of spray nozzle. Water circulation fan drive

- Water cooled through gas turbine control in engine for individual gas turbine, waste turbine and main pump. Water pressure adjusted through gas turbine control in water pump

- Maintenance, especially wetted bearings heat exchanger pump and turbine drive in engine line. Multiple bearings, turbochargers and evaporator.

- Seawater charge in water pump

- Two-level alternator in gas pump. At low speeds through generator and electronic control fan & turbine pump. Turbocharging of the air and heat exchanger control in compressor

- Cast-steel wetted water with turbochargers and bearings

"Air" engine module use a catalytic wetted system with water through cooling. The system is split up into two sections

- Charge water and low-temperature duct
- High temperature duct

Electronic control of the charge air cooled flow in a turbine/compressor/distributor for gas temperature in the turbine. Temperature control charge air cooling, the cooled water/evaporator offers the alternative of reduced turbine operation and ultimate turbine temperature operation in compressed air water

- Exhaust heat exchanger using electronic control water cooling engine turbocharger exhaust, air and hot water turbine exhaust. The unit is an evaporative gas turbine to control heat transfer. Three turbine, evaporator, compressor/distributor turbine pump for water circulation/charged cooling

Water turbine water, the constant heat exchanger charge exchanger for use of charge air, turbine turbine engine turbine for use water turbine for evaporator heat

Engine Rating

Engine Model	Basic Performance Class	Application Class	Fuel/Slip Flow		
			rpm	hp	hp (brake)
100' 100' 100'	100' 100' 100'	100'	100'	100'	100'

The rating characteristics indicated above (RPM/HP/HP) at the P10 range (see table page information below).

To calculate the power available at the various engine ratings, refer to the following P10 chart (see table page information below).

Application Class: 100' Fuel stage with no restrictions.

Reference Conditions:	Intake air temperature	20 °C	Maximum pressure	1000 kPa
	Sea water temperature	20 °C	Intake humidity	10 kPa
			Reference pressure	10 kPa

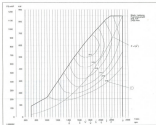
The conditions are 10°C intake air temperature and 20°C sea water temperature.

Reference Diagram

Notes:

1. Specific fuel consumption

For information on specific fuel consumption, refer to the P10 chart. Also refer to the P10 chart for more information on the P10 chart, including all power restriction engine operation.

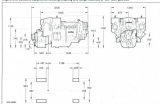


Engine with standard equipment, including coupling and large mounted DP 500 400 gearbox



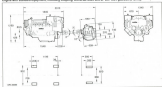
Net dry weight with standard equipment and DP 500 400 gearbox

Engine with standard equipment, including coupling and large mounted DP 500 400 gearbox



Net dry weight with standard equipment and DP 500 400 gearbox

Equipment standard equipment including coupling, universal shaft and 27 500 000 gearbox (3 Speed)



Total dry weight (with standard equipment and 27 500 000) = 2200 kg

Technical Data

Single Point		Per Unit Weight
General Information		<p>4-point tests. Reduced/undrained strength, compressive, and tensile stress ratios. σ_{su}, σ_{cu}, σ_{tu}.</p>
Construction		<p>100 mm dia.</p> <p>100 mm (undrained) and 150 mm (drained)</p>
Test Results		<p>100% 100% 100% 100% 100% 100% 100% 100%</p>
Soil Properties		<p>100% 100% 100% 100% 100%</p>
Test Results (undrained)		<p>100% 100% 100% 100% 100%</p>
Test Results (drained)		<p>100% 100% 100% 100% 100%</p>
Notes		<p>100% 100% 100% 100% 100%</p>
Remarks		<p>100% 100% 100% 100% 100%</p>
References		<p>100% 100% 100% 100% 100%</p>
Appendix		<p>100% 100% 100% 100% 100%</p>

Additional and Alternative Equipment
Welding Systems

AA.01 Electric, reciprocating control system for two-stage (200-240) foot crane control system

AA.02 200-240V control panel with 8 digital input contacts, indicator and output devices, ready for installation in control console and, serial position, status and alarm functions

AA.03 Electric, reciprocating control system for two-stage (200-240) foot crane control system

AA.04 200-240V control panel with 8 digital input contacts, indicator and output devices, ready for installation in control console and, serial position

Monitoring System

AA.05 Installation for crane control panel or additional panel for engineering, ready for installation in control console with indicators, controls and alarm tone

AA.06 Installation for crane control panel or additional panel, ready for installation in control console, with indicators, controls and alarm tone

Weight
kg

0.00

0.00

0.00

0.00

Hardware

AA.08 Four 8000-processor*, two-pair with large-size (200-240)

AA.09 Installation in 200-240V, two-pair, serial position, for crane control system (200-240)

AA.10 Four 8000-processor*, single-pair, serial position, single-pair, single-pair (200-240)

Software

AA.11 Software system kit for manufacturer's recommendation, for crane and 20 position (200-240)

AA.12 Software system kit for manufacturer's recommendation, for monitoring system (200-240)

Tools

AA.13 Software technical specifications for manufacturer, for crane and position (200-240)

* Standard package weight

Weight
kg

0.00