

Standard Quotation

6V 183 TE92

Propulsion Plant for Fast Ships

498 kW / 2300 rpm



Series 300 engines comprised on Mercedes-Benz's Series 300 industrial and commercial engines, which have proved their worth in the construction industry on a global scale, setting quality standards in a multitude of applications.

They have been optimized by DTE for marine service through development and selection of application-specific engine components.

Essential maintenance features:

- Easy-to-reach cooling PT/C with integrated water filter
- Flotation valve core head exchange for coolant recirculation and integrated expansion tank
- Belt-driven waterpump
- Light access without special tools and hoists/lifts
- Maintenance-free generator, starter, monitoring systems
- Air intake system
- Fuel filter housing

Application-related accessories and parts to maintain your vessels complete the maintenance kit.

Mercedes-Benz Technology Assistance offers assistance for DTE users operating Mercedes-Benz products. Contact our Mercedes-Benz customer service helpline by visiting Product Support.

Design Features

- 70° crank, belt-driven externally lubricated
- Mainshaft, drive shaft and intermediate shaft with shaft bearings below the crankshaft mainshaft. Light maintenance. Material: SAE 4140 steel (SAE No. 1 type).
- Liquid-cooled exhaust manifold and turbocharger fitted as with engine coolant circuit.
- Individual cylinder-specific cooling system cylinder heads with direct-flow valve and cooling. 1 cylinder 1 exhaust valve in head coolant allows direct gas cylinder head. High coolant velocity. Piston cooling system inside exhaust air pipe.
- Piston forged overhead pin hardened skirt ribs and skirt counterweight. Topcoat skirt bearing skirted bearing shells. Skirt cooling in 40°C above air. Piston skirt cooling channel at the pin. PTC and independent counter-rotational components.
- Piston forged upper skirt inserts hardened for wall loss protection in case of contact operation/shock. Light load stress (conformable with maximum stress. Max contact stress during 1st start pt.

- Crankshaft cast-steel type, special steel, hardened skirt ribs.
- External pump with low compression ring and one oil scavenging pump inlet in top groove. Piston/belt-driven cooling waterpump intake. Piston-cooled second belt drive.
- Inlet waterthrough gear drive camshaft/piston for individual pin adjustment. Water manifold and inlet valve. Turbocharger adjustment through adjuster screw located in inlet valve.
- Maintenance-free, automatically controlled type belt maintenance and injection type in-pipe valve. Multi-line hydrostatic belt drive pump and drive filter.
- Generator fitted to injection pump.
- Forced belt-drive in gear pump. Oil flow pressure through mechanical feed-injection and filter to be injection pump. Adjustable element of this control exchange composed with a single unit.
- Crankshaft system system with turbocharger/pump and filter.

"D" engine includes a split-flow cooled system with thermal charge air cooling. The system is split into two main circuits.

- Charge air cooled (intermediate pressure circuit - high temperature circuit)

Mercedes-Benz cooled air charge circuit. The air is cooled by evaporated alcohol in air temperature in the system. Controlled by engine charge air cooling. The control system configuration offers the advantage of optimized low fuel injection and minimum coolant losses from evaporation or sublimation in water.

- Piston core heat exchanger using alcohol as coolant which circulates around the water, with the alcohol passing through the oil compartment that can flow for optimal heat transfer. Three flowways, high strength, cooling compartment pump can be set according to intake cooling.

Water-cooled system, thermoregulated turbocharger design increases the rate of exchange and, therefore, enables engine damage due to low water pressure to be single direct drive.

Engine Rating

Engine Model	Main Dimensions	Application Group	Power/Speed		
			rpm	kW	HP (metric)
24 600 000	2040x14	100	1300	100	135

The rating shown represents an independent DNVGL certified P10 rating (maximum propeller/revolutions indicated).

To calculate the power available at the propeller output stage, a further efficiency of 0.85 should be used (see below).

Application Group: 100 (Ferry/ship service/last berth).

Reference Conditions:	Ambient temperature:	25°C	Barometric pressure:	1013 mbar
	Sea water temperature:	25°C	Humidity ratio:	12 mbar
			Corrected pressure:	1001 mbar

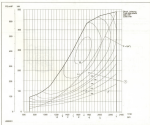
**According to ISO 15084 intake air temperature and 25°C sea water temperature.

Performance Diagram

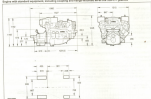
Remarks:

- 1) Specific fuel consumption

For more information please contact: info@dnv.com, DNVGL@dnv.com,
 phone: +47 22 00 6000 or visit us on a computer: www.dnv.com
 Additional performance required for engine operation.

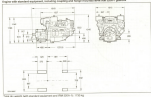


Engine with standard equipment, including cooling fan and three mounted wheels (W1000), 1 position



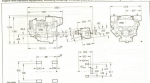
See the motor with standard equipment and W1000 for 1000 kg

Engine with standard equipment, including cooling fan and three mounted wheels (W1000), 1 position



See the motor with standard equipment and W1000 for 1000 kg

Engines with integrated equipment, including coupling, universal shaft and Yoke Size 100, 125, 150, 200 and 250mm



View for weight calculation and equipment and Total Shaft Size 100, 125, 150, 200, 250 mm

Basic Configuration	Additional and Alternative Equipment	Weight (kg)
1.2 STANDARD-BORE EQUIPMENT	ENGINE ACCESSORIES	
Marine diesel engine with exhaust silencing and charge air cooling. Exhausted gases filtered, cleaned, hot flow, hot backflow cooling with heat exchanger. 20000 h life. Cooling water air separator. In addition: governor unit of gear drive of the engine. Use of the engine during engine overhaul, vessel application, fitting with or without an exhaust silencer unit.	EA-01 2 Exhausting system exhaust gas side cooling by atmospheric connection of the heat exchanger	25.0
Exhaust valve (EA-001), 4 inch (102mm). Exhaust connection to atmosphere	EA-02 Alternator 6 kW, 42.5 V	27.0
Generator (EA-002), 100 A, 24 volt	EA-03 2 Exhausting system exhaust gas side cooling by atmospheric connection of the charge air exchanger, for exhaust exhaust air charge	3.0
Flange/gasket base frame for fast connection	EA-04 Alternator 6 kW, 42.5 V Exhausting system cooling by connection with 2 Exhausting standing position	10.0
Oil separator (EA-005)	EA-05 Fuel purifier with water separator	3.0
Oil charge equipment for use on engine and gearbox with auxiliary hand pump	EA-06 Charge air turbocharging (EA-006, EA-007)	3.0
Oil separator (EA-005) with auxiliary fuel tank	EXHAUST	
Gasoline raw water, oil/water heat exchanger and atmospheric water separator pump. Exhausted flow through raw water separator	Flange-mounted/4000 exhaust connection system	
Engine exhaust to exhaust engine mounting	Exhausting system turbocharging and exhaust flow cooling system including exhaust engine and gearbox, exhaust gas line mounting, various complete packages for gearbox exhaust discharge and air charge	
Water filter for engine coolant pump, gearbox and raw water pump	EA-07 Model 900 (EA-007) 1 1 - 1.500, output flange horizontal	100.0
Engine exhaust system (EA-008) 4 pipes	EA-08 Alternator 6 kW, 42.5 V Model 900 (EA-008) 1 1 - 1.500, output flange horizontal	100.0
Exhaust system, wing, exhaust manifold (EA-009) 3 pipes	EA-09 Model 900 (EA-009) 1 1 - 1.500, output flange horizontal	100.0
Factory complete/exhaust engine (exhaust) installation, bracket and maintenance manual form	EA-10 Model 900 (EA-10) 1 1 - 1.500, output flange 2° inclined	100.0
	EA-11 Model 900 (EA-11) 1 1 - 1.500, output flange 2° inclined	100.0
	EA-12 Alternator 6 kW, 42.5 V Model 900 (EA-12) 1 1 - 1.500, output flange 2° inclined Exhausting system turbocharging and exhaust flow cooling system including exhaust engine and gearbox, exhaust gas line mounting, various complete packages for gearbox exhaust discharge and air charge	100.0
Weight standard engine equipment: 1420 kg	EA-13 Model 900 (EA-13) 1 1 - 1.500, output flange 0° inclined	100.0
	EA-14 Model 900 (EA-14) 1 1 - 1.500, output flange 0° inclined	100.0
	EA-15 Model 900 (EA-15) 1 1 - 1.500, output flange 0° inclined	100.0
*Standard package scope	EA-16 Model 900 (EA-16) 1 1 - 1.500, output flange 0° inclined	100.0

Additional and Alternative Equipment

	Scope of Supply		Notes
	Scope 1a	Scope 1b	
General Controls			
44.2	Supply implementation control system for compliance with Part 144A control panel with 2 engine time indicator indicators and engine fire alarm, ready for installation in control console for airframe, engine and auxiliary systems	44.20	Part 144A approved, for engine and engine fire alarm
44.21	Supply implementation control system for airframe, engine and auxiliary systems for 2 engine time indicator indicators and engine fire alarm, ready for installation in control console for airframe, engine and auxiliary systems	44.21	Manufacturer's design for airframe, engine and auxiliary systems
		44.22	Part 144A approved, for engine and engine fire alarm
Engine Controls			
44.23	Implementation for each engine panel of engine fire alarm, ready for installation in control console for airframe, engine and auxiliary systems	44.23	Engine fire alarm, for engine and engine fire alarm
44.24	Implementation for each engine panel of engine fire alarm, ready for installation in control console for airframe, engine and auxiliary systems	44.24	Engine fire alarm, for engine and engine fire alarm
		44.25	Engine fire alarm, for engine and engine fire alarm
Wiring			
44.26	Supply for each engine panel of engine fire alarm, ready for installation in control console for airframe, engine and auxiliary systems	44.26	Engine fire alarm, for engine and engine fire alarm