Ref. no. 7733287-2 Eng

TAMD 122D

6-cylinder, 4-stroke, direct-injected, turbocharged marine diesel with aftercooler — crankshaft output* 353 kW (480 hp)

The TAMD 122D is a powerful, reliable and economical marine diesel engine which has been specially developed for use in fast planing boats. Using Volvo Penta's extensive equipment programme, this engine can be adapted to suit specific customer and marine requirements.

Smooth, vibration-free operation as a result of an extremely well-balanced design with powerfully dimensioned crankshaft bearings. Optimized injection system to obtain top-class efficiency throughout the practical operating range.

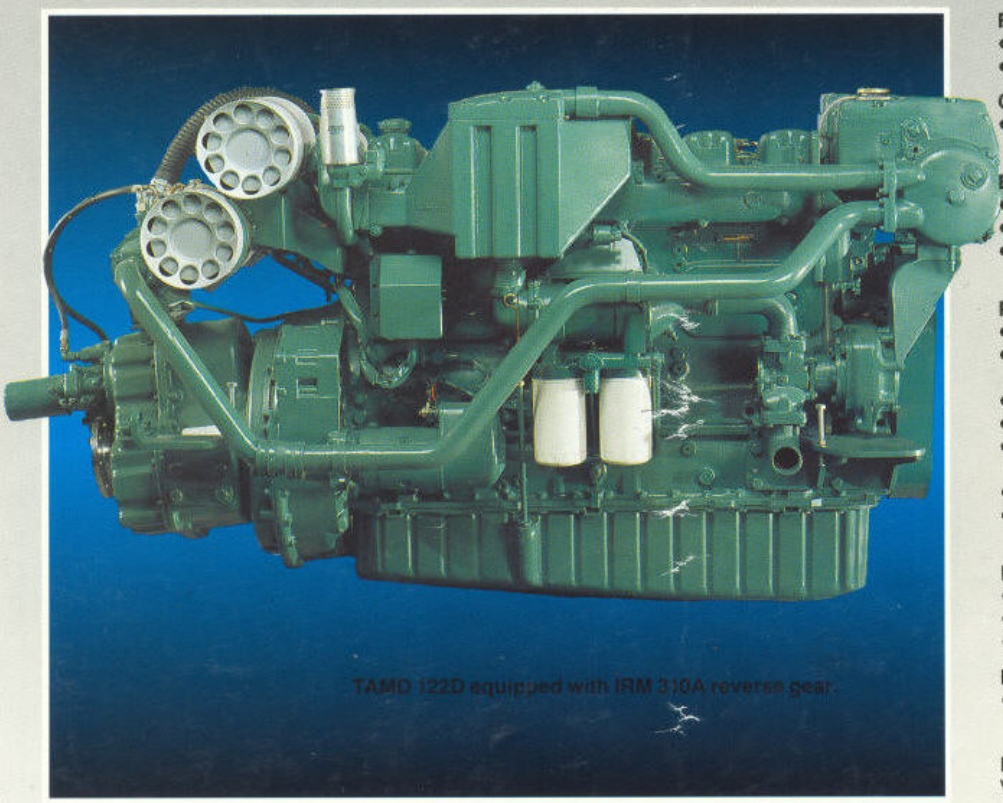
The compact construction also makes this an excellent engine for twin installations.

The electrical system is of the plug-in type and all the cables are already in place.

Many details have been designed to facilitate service work. They include replaceable paper filters for the intake air, spin-on oil and fuel filters.

Volvo Penta has a well-established service network in more than 100 countries. Authorized workshops with Genuine Parts and staffed by qualified personnel make sure that you get the best service.

***Crankshaft power according to ISO 8665 and NMMA procedure.**



TAMD 122D equipped with IRM 310A reverse gear

Technical description of engine:

- Cylinder block and cylinder liner made of a special alloy cast iron
- Replaceable cylinder liner and valve seats
- Shallow oil sump
- Seven-bearing crankshaft
- Separate cylinder heads
- Aluminium flywheel housing with SAE1 connector
- Freshwater-cooled turbocharger
- Freshwater-cooled exhaust manifold
- Injection pump with centrifugal governor and smoke limiter
- Pump coupling protection
- Twin fuel filters
- Twin oil filters
- Water-cooled aftercooler
- Air filter with paper insert
- 24V, twin-pole starter motor
- Oil separation filter for crankcase ventilation

Extra equipment

Engine:
- Flexible mountings for engine and reverse gear
- Deep oil sump with inspection hatches
- Oil filler point, right-hand side
- Oil bilge pump for removal of lubricating oil

Cooling system:
- Heat exchanger cooling with salt water pump
- Keel-cooling
- "Perry" fresh water filter
- Salt water filter

Fuel system:
- Single fuel filter/water separator
- Twin fuel filter/water separator

Control system:
- Stop solenoid and speed control panel for control cables

Electrical system:
- 24-volt electrical system
- AC alternator 24 V/60 A or 24 V/100 A
- Instrument panels and extension cables between engine and instrument panel

Power transmission:
- Crankshaft pulley
- 10" Power take-off at front end (with straight outgoing shaft)
- Side-mounted power take-off
- Drive output with pulley
- Twin Disc MG5111A reverse gear, ratios 1.48:1–2.44:1
- IRM 310A reverse gear, ratios 1.52:1–2.00:1
- Hydraulic pump for steering or other purposes

Exhaust system:
- Flexible exhaust hose, dry
- Silencer, dry
- Exhaust bend, wet or dry

Miscellaneous:
- Tool kit

For additional information, please contact your Volvo Penta dealer

VOLVO PENTA

TAMD 122D

Technical data for the TAMD 122D Marine Propulsion Engine

ENGINE:

Type designation	TAMD 122D
Number of cylinders and configuration	6 cylinders, in line
Operation	4-stroke direct-injected and turbocharged diesel engine with aftercooler
Fuel grade ASTM	1D or 2D
Bore, mm (in)	130.2 (5.1)
Stroke, mm (in)	150 (5.9)
Displacement, litres (in³)	11.98 (731)
Compression ratio	14:1
Weight without water and oil, kg (lb)	1290 (2844)

	TYPE OF OPERATION			
	PD		LD	
Crankshaft power**, kW (hp)	353 (480)		331 (450)	
at crankshaft speed, rpm	2050		2000	
Torque***, Nm (ft.lb)	1644 (1213)		1581 (1166)	
Spec. fuel cons.***, g/kWh (lb/hph)	224 (0.36)		220 (0.36)	
REVERSE GEAR				
Designation	IRM310A	MG5111A	IRM310A	MG5111A
Ratios	1.52:1	1.48:1	1.52:1	1.48:1
	1.78:1	1.92:1	1.78:1	1.92:1
	2.00:1	2.44:1	2.00:1	2.44:1
ENGINE WITH REVERSE GEAR****				
Propeller shaft power**, kW (hp)	340 (462)	340 (462)	318 (432)	318 (432)
at crankshaft speed, rpm	2050	2050	2000	2000
Weight without water and oil, kg (lb)	1500 (3307)	1580 (3483)	1500 (3307)	1580 (3483)

Definition of types of operation

PD: Pleasure Craft Duty
Engines with this power setting are intended exclusively for use in pleasure craft. Normal pleasure craft operation means that the boat is used by the owner for recreation purposes.

LD: Light Duty Commercial
Engines with this power setting are intended for applications in which load and speed vary and full power is used for a maximum of 1 hour for every 12 hours of operation.
Principally intended for planing boats.
Examples: fire tugs, some patrol boats and charter boats.

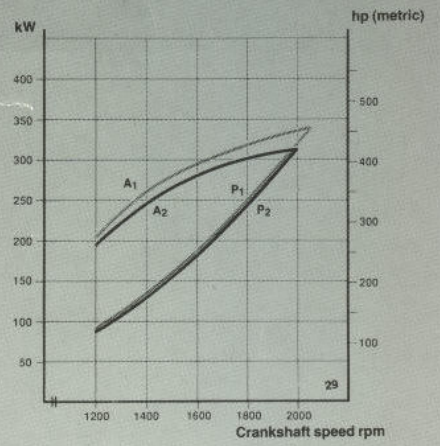
**ISO 8665 (= SAE J1228 = ICOMIA 28–83)

***Torque and specific fuel consumption apply at the specified crankshaft output.

****Ratings apply at the first reverse gear specified under "reverse gear" and the first specified ratio. Propeller shaft power and weight can differ for other reverse gears and ratios.

The power, torque and fuel consumption ratings are based on an engine that has been run in according to the ISO standard atmospheric conditions, 25°, 100 kPa and 30% relative humidity. For practical purposes this data also applies to DIN 6271 and BS 5514, but the lower heat value of the fuel is 42,700 kJ/kg and its density is 840 g/litre.

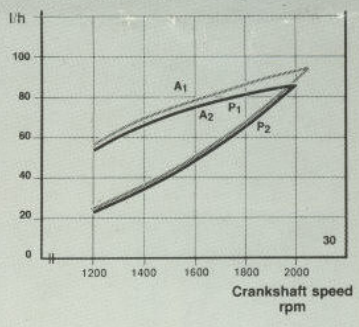
Propeller shaft power according to ISO 8665



Propeller shaft power curves according to ISO 8665.
A_1 = type of operation PD
A_2 = type of operation LD

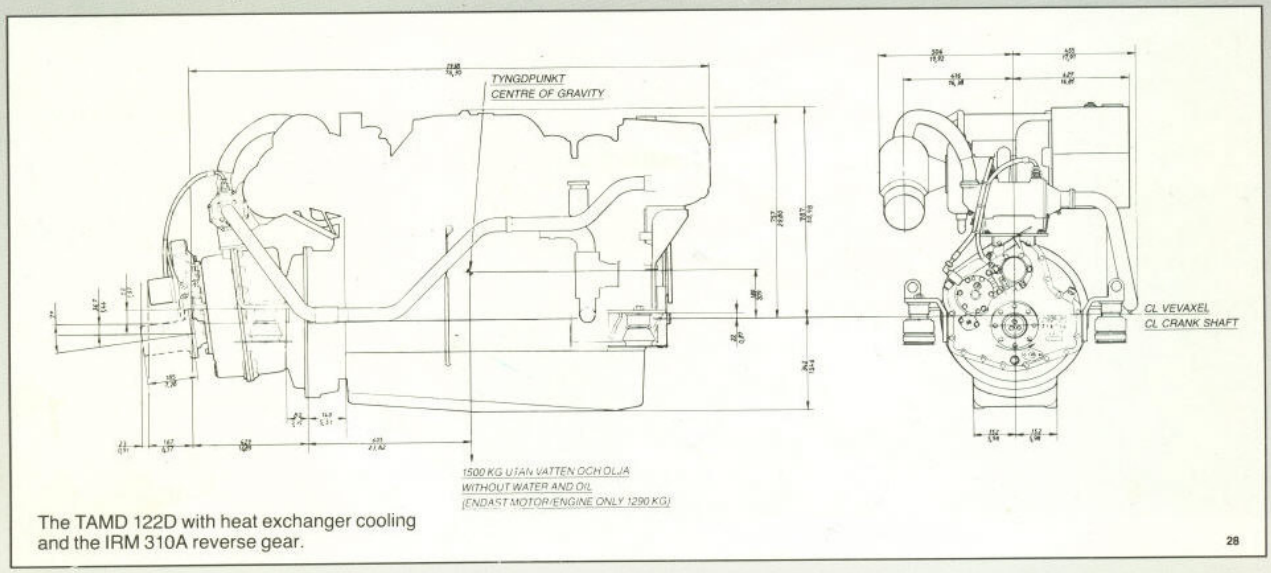
Calculated propeller load curves for fixed propeller.
P_1 = exponent 2.5 (planing vessels)
P_2 = exponent 2.5 (planing vessels)

Fuel consumption diagram



The curves on the fuel consumption diagram correspond to the curves on the power diagram.

Dimension drawing



The TAMD 122D with heat exchanger cooling and the IRM 310A reverse gear.

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Printed in Sweden Sep. 1989. Falkenbergs Tryckeri AB 89 749

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