

# *The diesel program*



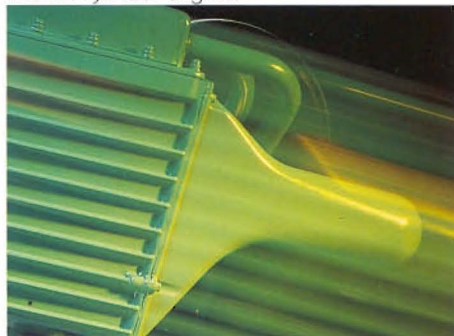
**VOLVO  
PENTA**



# State of the art of diesel technology



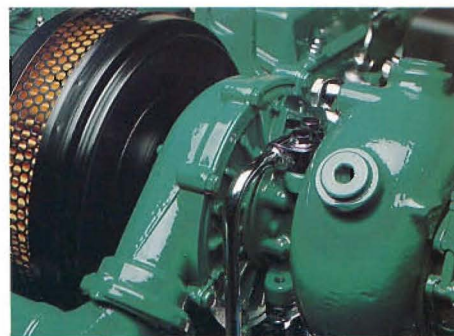
Volvo Penta diesel development is based on the concept of the tried and tested in-line six cylinder engine.



The aftercooler considerably reduces the air temperature from the turbocharger, resulting in more efficient combustion and higher power output.



Direct fuel injection provides an engine with a higher power output and more efficient combustion.



The turbocharger provides higher power output and lower specific fuel consumption.







The future of inboard marine diesel power has materialized in a remarkable new breed of diesel engines from Volvo Penta. These new diesels are the fastest, strongest, quietest, most economical we have ever produced. Direct injection, turbocharging and aftercooling techniques have been exploited and applied to their fullest potential, yielding among the best power-to-weight ratios in the industry.

Volvo Penta marine diesels are available from 100 to 612 horsepower with a complete selection of transmissions and sterndrives to accommodate a full range of pleasure boat applications.

Volvo Penta's ongoing research in the area of diesel technology has yielded many significant product advancements and important refinements in those areas which directly enhance engine performance. This level of dedication has resulted in extremely reliable, yet highly efficient power plants. All which feature direct fuel injection, aftercooling, replaceable wet cylinder liners, and a front mounted sea water pump for added durability and outstanding fuel economy.

Volvo Penta puts at your disposal an extensive worldwide network of carefully selected dealers to provide parts and service when you need them.

Whether you're buying a diesel powered boat or simply repowering the one you own, take a close look at Volvo Penta, the proven world leader in marine propulsion technology.



# ***The 31 marine diesels***







The Volvo Penta 31 Series of marine diesels for both powerboats and sailboats incorporates the very latest developments in diesel technology. These are engines that have been specifically designed for long service in marine conditions and maximum efficiency through the use of turbo-charging, aftercooling, direct fuel injection, replaceable wet cylinder liners and a gear driven seawater pump.

The use of these advanced techniques has enabled us to build power units that are more compact and more reliable, and that provide both the performance and the standards of comfort you are entitled to expect from a high quality product.

The engines in the 31 Series are based on the concept of the four cylinder 2.4 litre in-line marine diesel. A concept that features compact dimensions, outstanding power-to-weight ratio and the unique reliability of products from Volvo Penta. Add smooth running and operational dependability to long life, and you have a series of engines whose keynotes are comfort and economy. The 31 Series.

**MD 31** Four cylinder, four-stroke 2.4 liter (146 cu. in.) marine diesel with direct fuel injection and the Volvo Penta MS 4 transmission.

**TMD 31** Four cylinder, four-stroke 2.4 liter (146 cu. in.) marine diesel with direct fuel injection and turbocharging. Volvo Penta MS 4 transmission.

**TAMD 31** Four cylinder, four-stroke 2.4 liter (146 cu. in.) marine diesel with direct fuel injection, turbocharging and after-cooling. Volvo Penta MS 4 transmission.

**AD 31 DP** Four cylinder, four-stroke 2.4 liter (146 cu. in.) marine diesel with direct fuel injection, turbocharging and after-cooling. Volvo Penta Duoprop or single prop.



## ***The 41 marine diesels***







Volvo Penta marine diesel technology at its very best.

Featuring turbocharging, aftercooling and direct fuel injection on an in-line six cylinder concept that results in a series of engines with benefits that include extremely smooth running, high performance potential, excellent fuel economy and the reliability for which Volvo Penta is renowned.

In the 41 Series CAD techniques have been used to optimize the power-to-weight ratio. The result is an engine with compact dimensions.

The long life is attributable to features such as the precision machined, cast iron cylinder head, fresh water cooled turbocharger and exhaust manifolds, replaceable wet cylinder liners and a gear driven seawater pump. These are features that also guarantee high operational dependability.

Add to this a service network that covers more than 100 countries, and you have the best reason in the world for choosing a 41 from Volvo Penta.

Whether you have a powerboat or sailboat, we have the transmissions to match your needs.

**TMD 41** Six cylinder, four-stroke 3.6 liter (219 cu. in.) marine diesel with direct fuel injection and turbocharging. Volvo Penta MS 4 transmission.

**TAMD 41** Six cylinder, four-stroke 3.6 liter (219 cu. in.) marine diesel with direct fuel injection, turbocharging and aftercooling. Volvo Penta MS 4 transmission.

**D 41 DP** Six cylinder, four-stroke 3.6 liter (219 cu. in.) marine diesel with direct fuel injection and turbocharging. Volvo Penta Duoprop or single prop.

**AD 41 DP** Six cylinder, four-stroke 3.6 liter (219 cu. in.) marine diesel with direct fuel injection, turbocharging and aftercooling. Volvo Penta Duoprop or single prop.



# ***The TAMMD 61 marine diesel***







A step up in boat size also means a step up in the range of high performance diesels from Volvo Penta.

Our TAMD 61 is a powerful, reliable and economical marine diesel that offers a perfect match to your specific requirements, thanks to the comprehensive range of accessories and transmission options.

Volvo Penta's reputation for precision engineering also guarantees low operating costs. That's because fuel consumption is low and the components used are long lived.

The TAMD 61 features the latest achievements in clean exhaust emissions. An automatic pre-heater and a bypass valve between the turbo-charger and the aftercooler reduce smoke during start. They give you an engine that is both efficient and clean.

Turbocharged, aftercooled and with direct fuel injection, this engine provides all the power that's needed. And with Volvo Penta's extensive dealer network in more than 100 countries, you can enjoy the peace of mind you're entitled to expect when you choose an engine from the leader in the field of diesel technology.

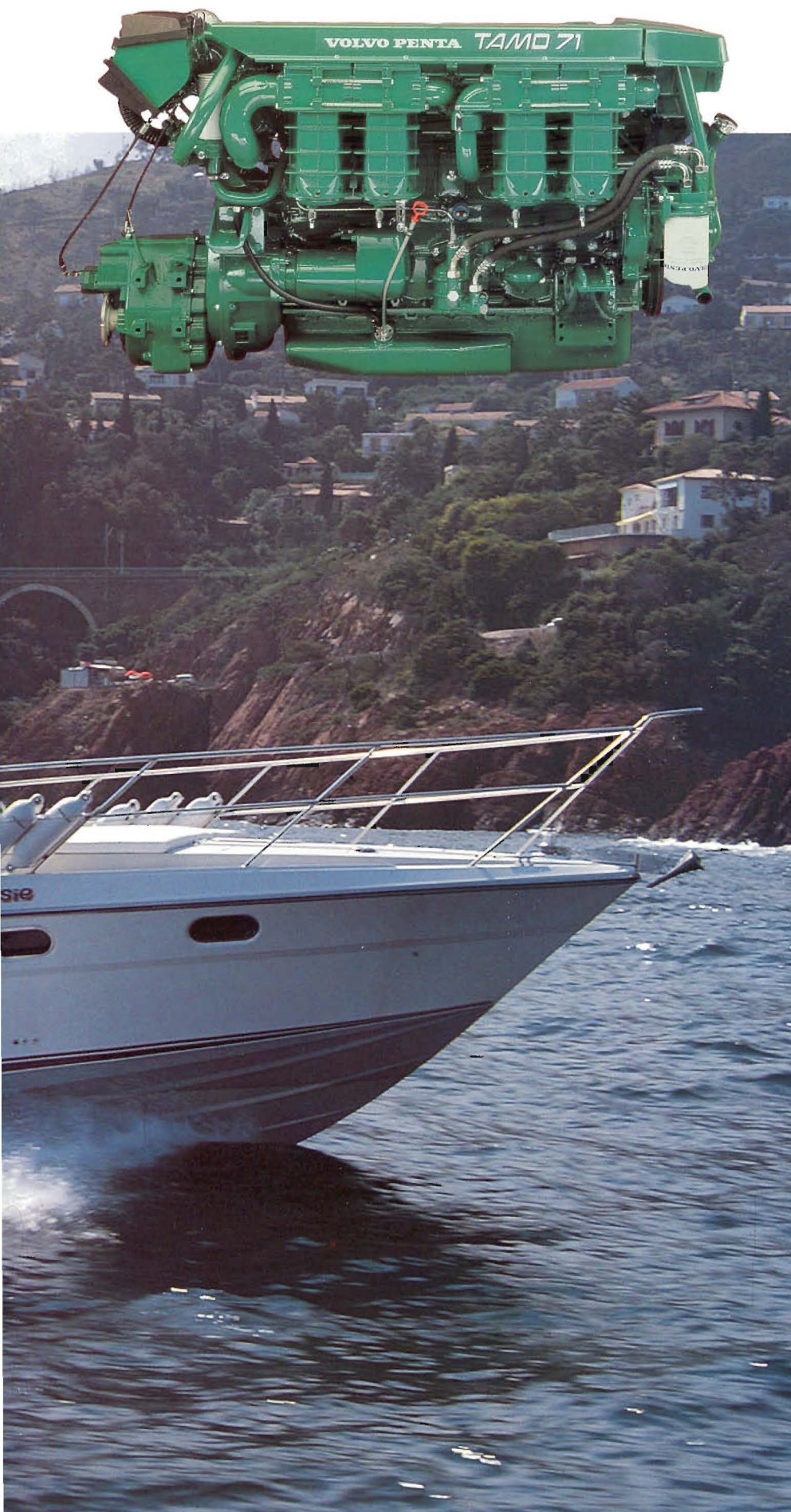
**TAMD 61** Six cylinder, four-stroke 5.5 liter (219 cu. in.) marine diesel with direct fuel injection, turbocharging and after-cooling, and with an extensive choice of transmission options.



# ***The TAMD 71 marine diesel***







The new TAMD 71 is a high performance diesel engine designed for turbocharging, aftercooling and direct fuel injection right from the start. The result is that the TAMD 71's power potential is put to optimum use to produce all the thrust you need for high performance and low fuel consumption.

As leaders in the field of marine diesel technology we offer a total propulsion system that is perfectly matched to your specific requirements where comfort and efficiency are concerned.

The Volvo Penta TAMD 71 features the latest achievements in exhaust limitation, making use of a unique bypass system and a fuel injection pump with smoke limiter. It also features unsurpassed smoothness of running, combined with extremely low sound and vibration levels.

Like all marine diesels from Volvo Penta, the TAMD 71 is backed up by a dealer network covering more than 100 countries.

**TAMD 71** Six cylinder, four-stroke 6.7 liter (411 cu. in.) marine diesel with direct fuel injection, turbocharging and twin aftercoolers, and with an extensive choice of transmission options.



# ***The TAMD 122 marine diesel***







Volvo Penta's new high performance TAMD 122 marine diesel has been specially designed for larger boats in the 45-55 foot range with twin installations. The tremendous power output provides all the thrust needed for a fast and comfortable cruise.

The extremely high torque at low rpm provides outstanding acceleration and makes the boat less sensitive to an increased load. The tried and tested concept of the in-line six cylinder engine forms the perfect starting point for turbocharging, aftercooling and direct fuel injection. And on a diesel engine from Volvo Penta that's already unbeatable when it comes to efficiency this ensures you have a power plant that is big on output but miserly on fuel consumption.

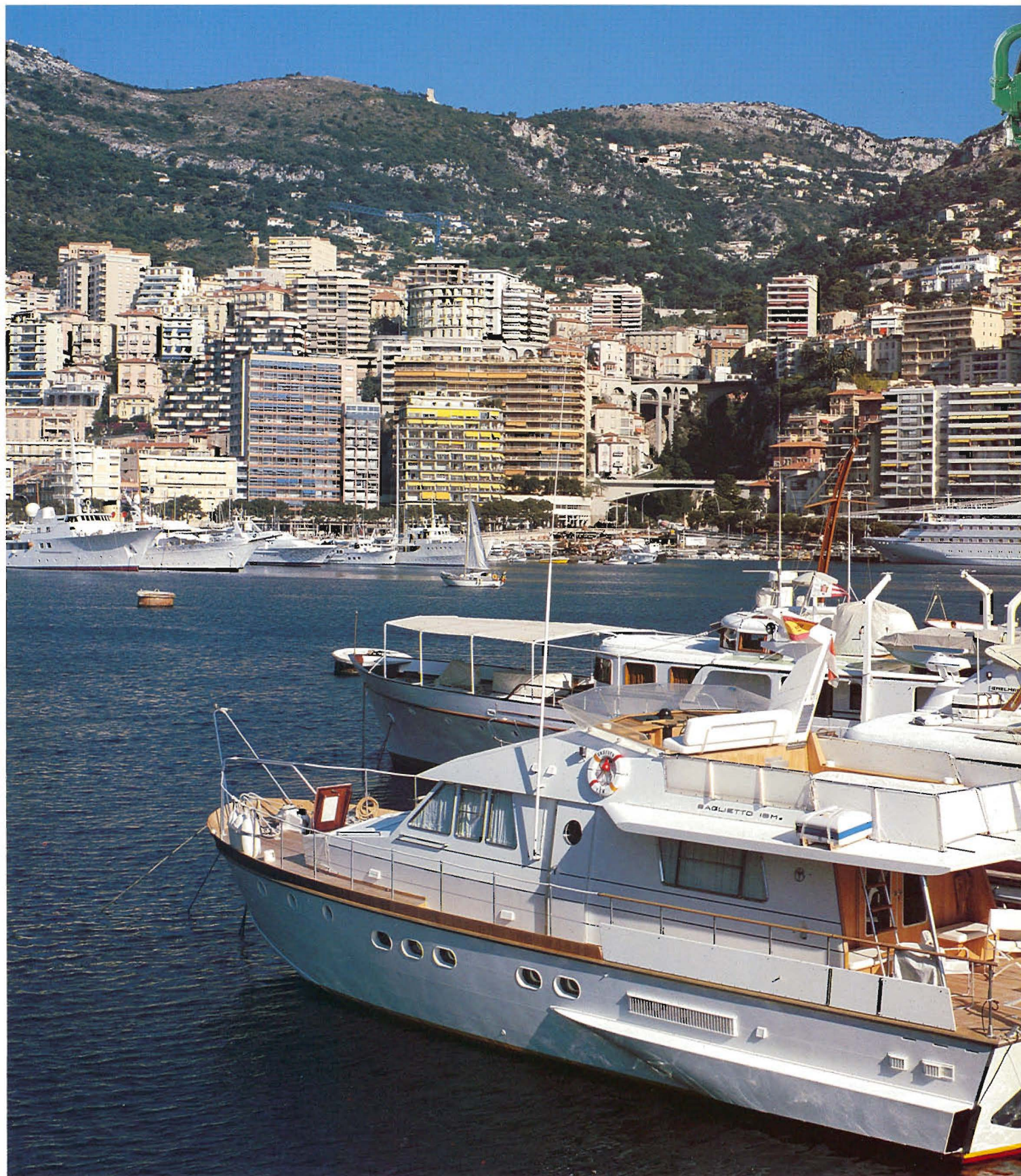
Our extensive research in the field of diesel technology assures you of a total propulsion system that features the very latest technical achievements, developed to offer you the standards of performance and reliability for which Volvo Penta is renowned.

A dealer network covering more than 100 countries is yet another point to be added to the list of benefits available when you choose a marine diesel from Volvo Penta.

**TAMD 122** Six cylinder, four-stroke 12 liter (731 cu. in.) marine diesel with direct fuel injection, turbocharging and aftercooling, and with an extensive choice of transmission options.



# *The TAMD 162 marine diesel*







The largest and most powerful marine diesel we've built – so far.

The TAMD 162 is a power plant that's been specially developed for planing and semi-planing craft of 53 foot and upwards. It produces massive torque, particularly at low engine speeds. This means that your boat will not be so sensitive to changes in load. It also produces impressive acceleration characteristics.

Smooth, quiet operation is obtained with the help of a well-balanced design, vibration dampers and rubber mountings.

The well-dimensioned air exchange and injection system, featuring four valves per cylinder, and the centrally mounted injection pump results in a swift, complete burn, not to mention low emission levels.

The TAMD 162 is a technically advanced engine with built-in Volvo Penta reliability in the shape of product dependability and a dealer network covering more than 100 countries.

**TAMD 162** Six cylinder, four-stroke 16 liter (984 cu. in.) marine diesel with direct fuel injection, turbocharging and after-cooling, and with an extensive choice of transmission systems.



# Technical Data

Designation	No of cyl.	Cylinder volume		Prop.shaft power		Crankshaft power		Weight	
		dm <sup>3</sup> (l)	cu. in.	kW	hp-r/min	kW	hp-r/min	kg	lb
MD 31	4	2.39	146	44	60-3500	46	62-3500	360	793
TMD 31	4	2.39	146	70	95-3800	74	100-3800	375	826
TAMD 31	4	2.39	146	92	125-3800	96	130-3800	385	848
AD 31/DP or SP	4	2.39	146	88	120-3800	96	130-3800	440	970
TMD 41	6	3.59	219	107	145-3800	110	150-3800	455	1002
D 41/DP or SP	6	3.59	209	103	140-3800	110	150-3800	510	1124
TAMD 41	6	3.59	219	144	195-3800	147	200-3800	465	1024
AD 41/DP or SP	6	3.59	209	136	185-3800	147	200-3800	520	1146
TAMD 61	6	5.48	335	217	295-2800	225	306-2800	760*	1674*
TAMD 71	6	6.73	411	271	367-2600	280	380-2600	880*	1938*
TAMD 122	6	11.98	731	340	462-2050	353	480-2050	1290*	2841*
TAMD 162	6	16.12	984	432	588-2050	450	612-2100	1705*	3759*

Prop.shaft power acc. to ISO 8665 or acc. to the technically identical standards SAE J1228 and ICOMIA 28-83.

Crankshaft power acc. to ISO 8665.

Power rated in accordance with NMMA procedure.

Usable power will be reduced by transmission or gearbox losses.

The power will be different for other optional configurations.

The Duoprop drive enables utilization of about 10% higher propeller thrust at full throttle when compared with a Single prop drive.

SP = Single prop.

DP = Duoprop

\*Excl. reverse gear.

Volvo Penta reserves the right, without prior notice, to revise prices, materials, standard equipment, specifications, models and to discontinue models. Not all models, standard equipment and accessories are available in all countries.

The performance and power data presented in this brochure is for boats, engines and conditions as tested and may vary within manufacturing tolerances.

Engines pictured in this brochure feature custom accessories which are not necessarily standard on production models.

# VOLVO PENTA

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