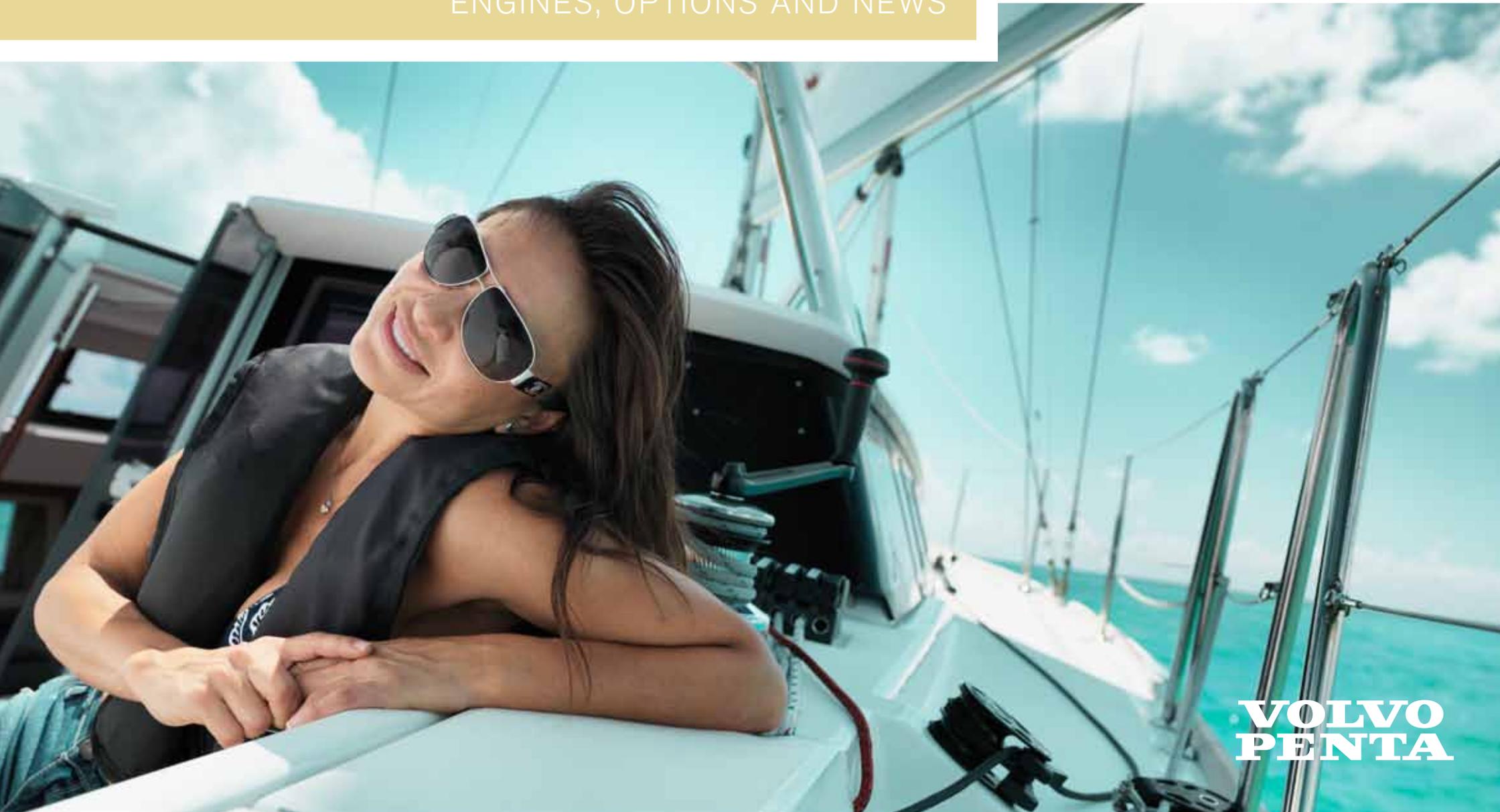




SAILBOAT 2013

ENGINES, OPTIONS AND NEWS



**VOLVO
PENTA**



SAILING YOUR WAY

To us, sailing is what you make of it. That can mean testing the limits of your skills or making every trip a purely relaxing experience. At Volvo Penta we continue to focus on making your sailing trips as safe and enjoyable as possible. That's why reliability is key in our work.

We are continuously testing all Volvo Penta products at our marine test centers. Our engines also prove their reliability in the Volvo Ocean Race, where every participating yacht is equipped with Volvo Penta standard engines.

So, whatever type of sailor you are, you can always turn to us. Wherever you go.



GLOBAL SUPPORT

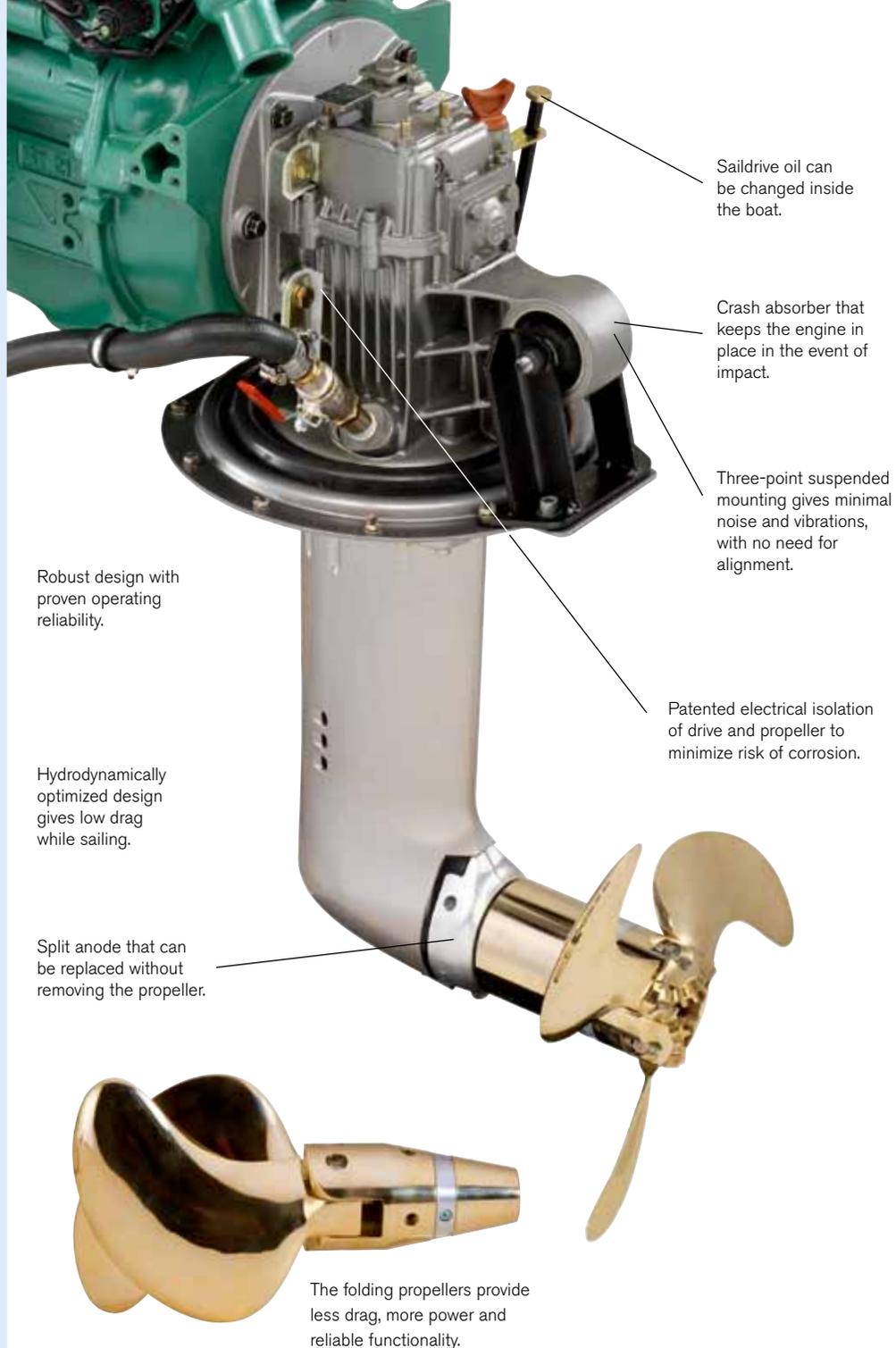
With every Volvo Penta product comes the support of a worldwide service dealer network – present in more than 130 countries. These service dealers are continuously updated in the maintenance and repair of your Volvo Penta products.



Volvo Penta Action Service is a unique service for Volvo Penta owners in Europe and North America. With this telephone service for fast support, we offer 24/7 availability, 365 days a year.



Find your nearest Volvo Penta dealer –
or go to volvopenta.com/dealerlocator



Saildrive oil can be changed inside the boat.

Crash absorber that keeps the engine in place in the event of impact.

Three-point suspended mounting gives minimal noise and vibrations, with no need for alignment.

Patented electrical isolation of drive and propeller to minimize risk of corrosion.

Robust design with proven operating reliability.

Hydrodynamically optimized design gives low drag while sailing.

Split anode that can be replaced without removing the propeller.

The folding propellers provide less drag, more power and reliable functionality.

THE COMFORTABLE SAILDRIVE

With this highly efficient engine, drive and propeller package, you will experience responsive and powerful maneuvering. This Volvo Penta innovation also provides excellent onboard comfort thanks to its quiet and smooth operation. Low underwater resistance, high efficiency and tight shaft seals give safe and effective propulsion. Volvo Penta Saildrive offers many unique features. In the picture to the left you can see the details.

FOLDING PROPELLERS

LESS DRAG A Volvo Penta folding propeller gives you up to 1.5 knots higher speed under sail compared with a fixed propeller. That will add greatly to your sailing pleasure.

MORE POWER In close-quarter maneuvering, the high thrust makes our propellers stand out from the competition. The patented elliptical blades give efficient thrust, even in reverse. The unique blade profile also provides safe opening when reversing.

PATENTED PROFILE The patented elliptical profile (high skew) of the propeller blades ensures effective, low-noise operation with minimal vibrations and no cavitation.

SPECIAL ALLOY Since 2003, all Volvo Penta folding propellers are made of a specially developed, nickel-bronze-aluminum alloy (Nibral) to minimize corrosion and marine growth.



2-blade. For 13-40 hp.



3-blade. For 20-75 hp.



4-blade. For 55-75 hp.

SAILDRIVE PROPELLERS	D1-13	D1-20	D1-30	D2-40	D2-55	D2-75
Folding propellers, 2-blade	○	○	○	○		
Folding propellers, 3-blade		○	○	○	○	○
Folding propellers, 4-blade					○	○
Fixed propellers	○	○	○	○	○	○

Folding propellers for shaft drives are also available.

SAILBOAT OPTIONS

In addition to our range of high-performing engines, drives and propellers, our offer to sailors also includes a wide range of options for increased comfort, safety and control. Below is a selection that will help make your sailing experience even more enjoyable. See www.volvopentashop.com for more parts and accessories.

EXTRA ALTERNATOR Volvo Penta engines have alternators that are perfectly matched to the torque of the engine to provide extra charging without losing maneuvering power. Upgrading with an extra alternator will give high-capacity charging for 12 and 24 V systems.

CHART PLOTTER INTERFACE The optional NMEA 2000 interface lets you have engine data displayed in a compatible chart plotter.



EVC OPTIONS FOR D3 AND D4 EVC is Volvo Penta's electronic platform with radically reduced wiring and heavy-duty marine connectors. EVC gives greatly improved reliability and new functionalities:

- Continuous monitoring and protection of engine and transmission.
- Greatly improved reliability and service life compared with traditional electrical systems.
- Optional NMEA 2000 interface enables engine data in a plotter.

DISPLAYS For the D3 and D4 engines, the 4" and the 7" color displays can show various data in one view. The compact 2.5" b/w display shows one reading at a time. The easy-to-read 4" b/w display for D1 and D2 shows a number of different data elements, depending on sensors connected. All menus can be customized.



CONTROLS One of the available controls: the side-mounted control with ergonomic design and solid feel.



BATTERY MANAGEMENT

Makes your electrical system more reliable. The Battery Management display, which gives full monitoring of the battery status – also at the helm – can show: state of charge, battery condition, time to empty, time to full, voltage and current.

The new battery control unit for increased reliability. Its robust, marine design with no moving parts uses solid-state technology.



See the complete range. Or go to www.volvopenta.com/productguide

VOLVO PENTA SHOP - JUST A CLICK AWAY In the Volvo Penta web shop more than 100,000 parts and accessories are available to you. It's easy – just go to volvopentashop.com, select a dealer and start shopping.



Europe only

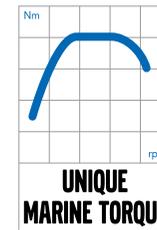


SAILBOAT ENGINES

Whether installed in a Volvo Ocean Race yacht or in a private sailboat, Volvo Penta diesel engines have proved their reliability and efficiency. These engines are well-known by sailors all over the world for their remarkable power and quiet operation.

TORQUE FOR SAILBOATS

Volvo Penta engines deliver high torque at low rpm. That means plenty of power and quick response when maneuvering in a marina and close quarters.



LOW RPM – HIGH COMFORT

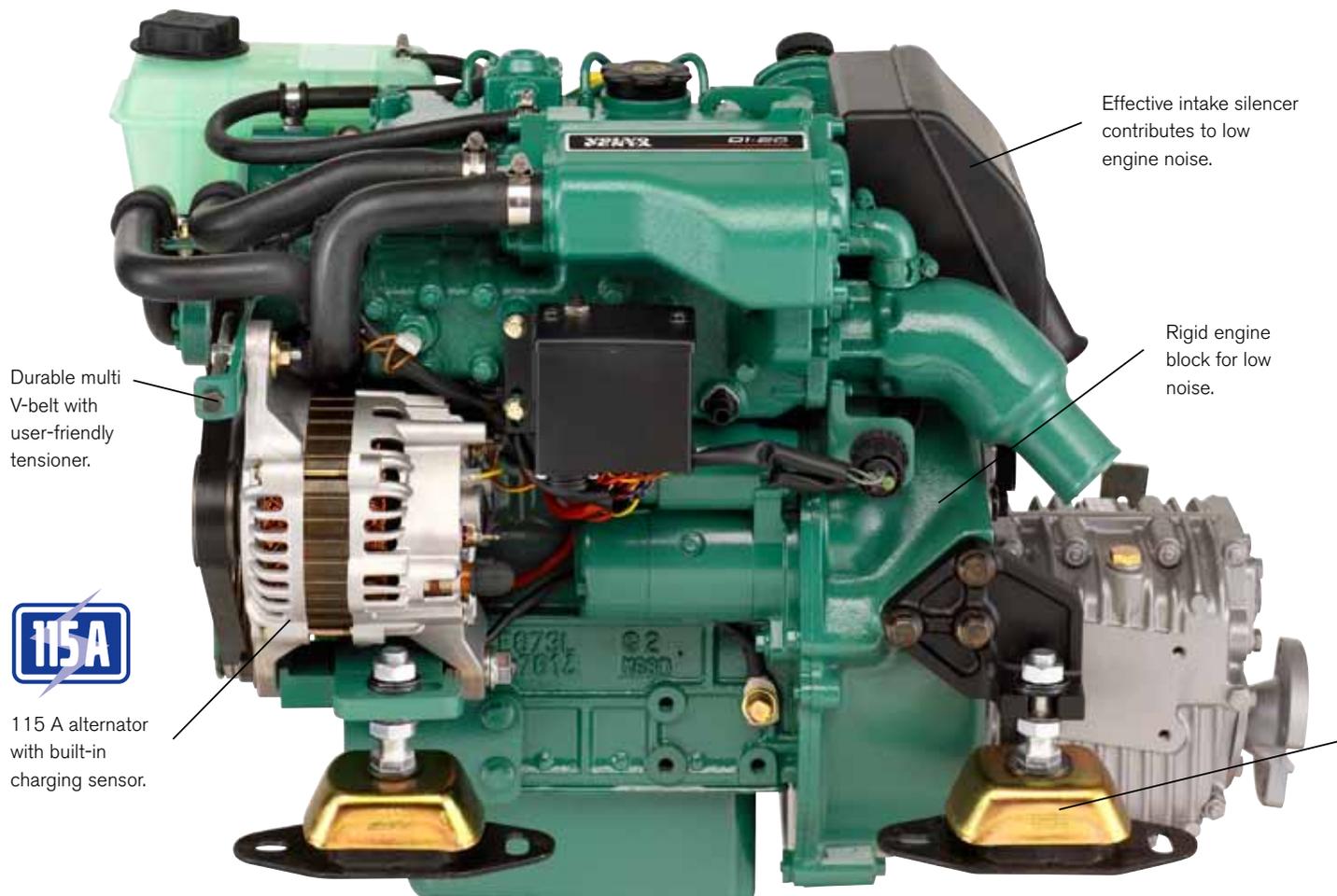
All engines are rated at low rpm, which means only 1,800–2,300 rpm at cruising speed. This results in minimal vibrations and low noise levels – which are further reduced with the Saildrive.

EFFICIENT CHARGING

Today's sailboats depend on electricity. All engines have high-capacity charging as standard. The 115 A alternator has a built-in charging sensor that gives correct battery charging voltage. The D3 has a 180 A alternator. All models can have an extra engine-mounted alternator.

RELIABLE STARTS

With automatic pre-heating and the relay-activated starter solenoid, starts are reliable and fast. Electric stop is standard.



Durable multi V-belt with user-friendly tensioner.

Effective intake silencer contributes to low engine noise.

Rigid engine block for low noise.

115A

115 A alternator with built-in charging sensor.

Engine suspension with large damping volume boosts comfort.

D1 / D2

Extremely reliable, clean, quiet and with minimal vibrations. High torque at low revs gives easy maneuvering. Freshwater cooling is standard. Adapted for high-capacity hot water supply.



D3 / D4

Reliable common-rail marine diesels with impressive torque over the whole speed range. Very powerful and quiet, highly fuel efficient with very low emissions and exceptional cruising range.



D1 SERIES

The most compact engines in the range are 2- and 3-cylinder marine diesels available with Saildrive or gearbox with straight or down-angled shaft.



D2 SERIES

4-cylinder marine diesels. Saildrive or gearbox with straight or down-angled shaft.



D3 SERIES

5-cylinder diesel engines with 2.4 liter displacement. Extremely lightweight with turbo and aftercooler. Gearbox with down-angled shaft or V-drive.



D4 SERIES

4-cylinder diesel engines with full 3.7 liter displacement. Turbo and aftercooler. Gearbox with down-angled shaft or V-drive.

	Crankshaft kW/hp	Propeller shaft kW/hp	Rated rpm	No. of cyl.	Displacement, liters	Alternator 12 V
D1-13	9.0/12.2	8.6/11.8	3,200	2	0.5	115 A
D1-20	14/19	13/18	3,200	3	0.8	115 A
D1-30	● 21/28	20/27	3,200	3	1.1	115 A
D2-40	29/40	28/38	3,200	4	1.5	115 A
D2-55	41/55	39/53	3,000	4	2.2	115 A
D2-75	● 55/75	53/72	3,000	4	2.2	115 A

■ With built-in charging sensor. ● Chosen for Volvo Ocean Race.

	Crankshaft kW/hp	Propeller shaft kW/hp	Rated rpm	No. of cyl.	Displacement, liters	Alternator 12 V
D3-110	81/110	78/107	3,000	5	2.4	180 A
D3-150	110/150	107/146	3,000	5	2.4	180 A
D4-180	132/180	128/174	2,800	4	3.7	115 A

■ With built-in charging sensor.

For larger yachts, Volvo Penta offers marine diesels all the way up to 900 hp.

EXTREME CONDITIONS. STANDARD ENGINES.

The Volvo Ocean Race is the world's longest and most demanding yacht race. Here, every yacht relies on standard Volvo Penta engines – identical to the engines available to you – to supply electricity, fresh water, heating and propulsion.



**VOLVO
OCEAN
RACE**

ROUND THE WORLD

**VOLVO
PENTA**

www.volvopenta.com