

# VOLVO PENTA INBOARD DIESEL KAMD44PEDC/HS1E

6-cylinder, 24-valve, direct-injected marine diesel engine with charge air compressor, turbocharger, aftercooler and HS1E reverse gear. 191 kW (260 hp)\*

\* Crankshaft power according to ISO 8665

## Hi-Tech marine engine

Volvo Penta's 6-cylinder KAMD44P EDC is a compressor- and turbocharged high performance engine with unique acceleration properties and excellent drivability.

## Innovative EDC

Equipped with EDC (Electronic Diesel Control) – an electronically controlled processing system which optimizes engine performance. The system determines the precise quantity of fuel required at any given moment, taking full account of variation in operating temperatures, air pressure and other contributing factors.

The EDC system includes electric control and wiring giving precise and smooth operation with no noise transmitted along the cables.

## High output, excellent power/weight ratio

KAMD44PEDC is a reliable and economic direct-injected marine engine with considerable power resources developed for modern yachts.

The engine is compact and has an advantageous weight to power ratio making it excellent for both single and multi-engine installation.

The 4-valve technology and the advanced combustion system minimize noxious exhaust emissions and enhance overall enjoyment of boating.

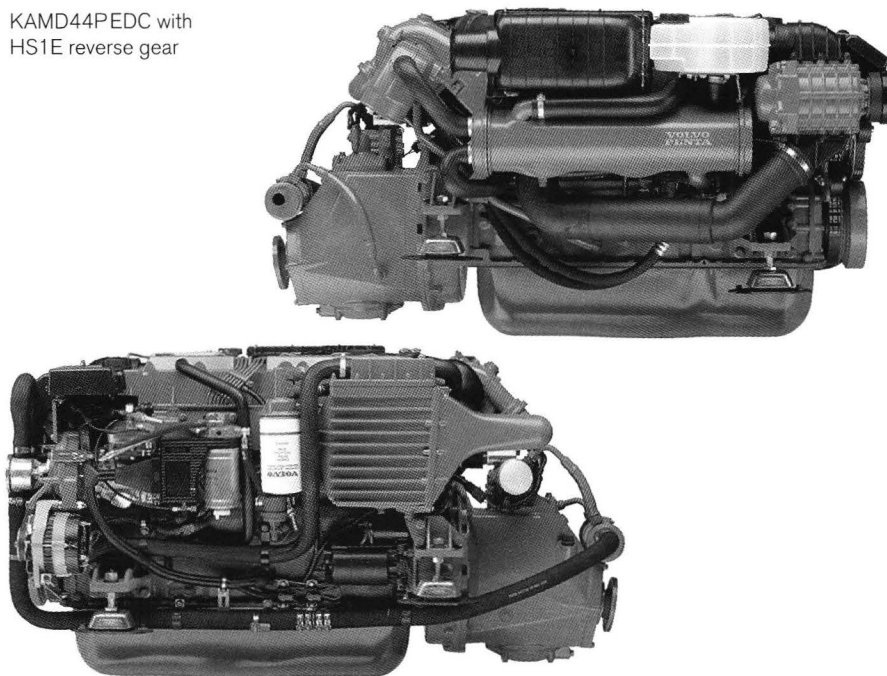
The compressor – fitted with silencers – is controlled by the EDC unit and acts as a "torque controller". It supplies compressed air at low engine speed and while accelerating when the extra torque is needed.

The interaction of compressor and turbo produces high torque over the whole speed range, and this contributes to cleaner exhaust gases and fuel economy giving excellent acceleration and driving characteristics.

## Total driveline fully matched and tested from a single supplier

The combination of power and total efficiency ensures maximum thrust at all speeds.

KAMD44PEDC with  
HS1E reverse gear



The hydraulically shifted reverse gear, HS1E, is developed to increase the standard of comfort in terms of quiet running, greater reliability and enhanced efficiency.

These benefits originate from a hydraulic shifting mechanism and advanced gear technology that uses spiral bevel gears throughout the gear train. Volvo Penta's reverse gear is unique in this respect, resulting in an overall efficiency as high as 96%.

In order to get full benefit of the EDC system the reverse gear is equipped with electromagnetic valves for electric gear shifting.

HS1E is ideal also for twin installation with ability to run left- and right-hand rotation with same ratio, efficiency and durability. Furthermore, the 8° down angle provides for a compact installation.

## Easy installation and maintenance

Plug-in electrical connectors instead of conventional cabling. The EDC system makes planning and performing multi-installations easy, allowing for up to eight control stations.

The EDC system includes a self-diagnostic facility. Easily accessible service and maintenance points contribute to the ease of service of the engine.

## Comprehensive service network

Volvo Penta has a well-established network of authorized service dealers in more than 100 countries throughout the world.

## Technical description:

### Engine and block

- Cylinder block and cylinder head made of cast iron for good corrosion resistance and long service life
- 4-valve technology
- Oil-cooled pistons with two compression rings and one oil scraper ring
- Replaceable wet cylinder liners
- Replaceable valve seats
- Seven-bearing crankshaft

# VOLVO PENTA

# KAMD44PEDC/HS1E

### Engine mounting

- Elastic suspension consisting of 4 rubber pads with adjustable anchorage plates for dampening of sound and vibration

### Lubrication system

- Pressure lubrication system with easily replaced full-flow oil filter
- Tubular oil cooler that can be cleaned

### Fuel system

- Rotor-type injection pump with electric actuator
- EDC unit for processing the input for precise engine governing
- Two-stage injectors
- Fine filter with water separator
- Feed pump with hand primer
- Electrically operated stopping device

### Inlet and exhaust system

- Inlet system designed to produce optimal air rotation which provides perfect combustion
- Inlet silencer with replaceable filter
- Crankcase gases vented into the air inlet
- Seawater-cooled exhaust elbow of cast iron with a stainless steel insert
- Exhaust-driven freshwater-cooled turbo-charger

- Mechanically driven compressor with silencer of absorption type on both inlet and outlet port

### Cooling system

- Thermostatically regulated freshwater cooling
- Tubular heat exchanger with separate transparent expansion tank
- Coolant system prepared for hot water outlet
- Easily accessible seawater impeller pump

### Electrical system

- 12V two-pole electrical system
- 14V/60A marine alternator with Zener-diodes to protect entire system from peak voltage
- Charging regulator with battery sensor for voltage drop compensation
- Automatic 8 A fuses with manual reset
- Starter motor power 3.0 kW

### Instruments/control

- Complete engine panel with key switch, instruments and alarm panel or separate instruments
- EDC monitoring panels and multistation units
- Electrical remote control for EDC
- Plug-in cables

### Reverse gear

- Spiral bevel gears which results in smooth running at all speeds
- Hydraulically operated clutch for smooth shifting
- Electrical shifting performed by electromagnetic valves
- Matched drop center and 8° down angle for compact installation and minimum propeller shaft angle
- Retrofit, fits into the same installation measurements as MS5 reverse gear and features integrated SAE4 adaptor flange
- When under sail propeller shaft can rotate 24 hours without engine start
- Seawater-cooled oilcooler

### Accessories

An extensive range of accessories are available. For detailed information, please see Accessory catalogs.

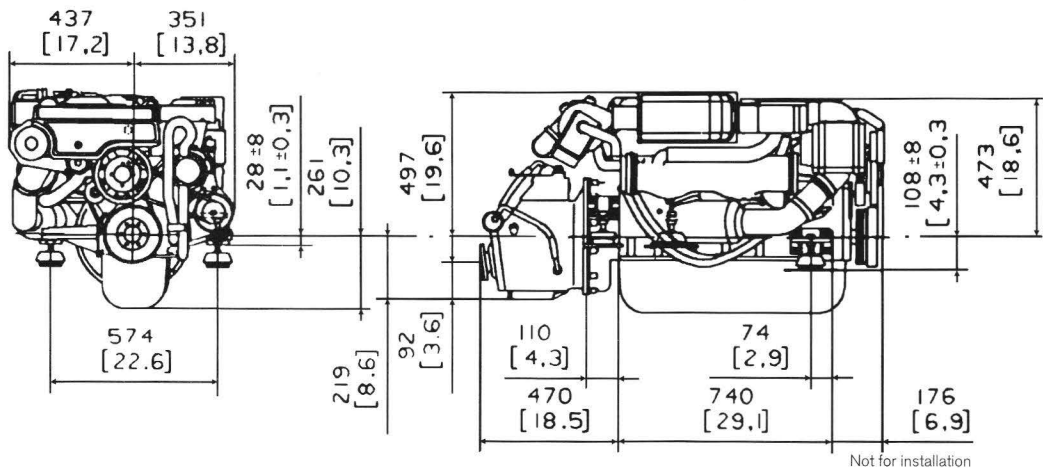
Contact your local Volvo Penta dealer for further information.  
Not all models, standard equipment and accessories are available in all countries. All specifications are subject to change without notice.  
The engine illustrated may not be entirely identical to production standard engines.

## Technical Data

Engine designation .....	KAMD44PEDC
Crankshaft power <sup>1)</sup> kW (hp)* .....	191 (260)
Propeller shaft power <sup>2)</sup> kW (hp)* .....	179 (243)
Engine speed range, rpm .....	3700–3900
Displacement, l (cu. in.) .....	3.6 (219)
Number of cylinders .....	6
Bore/stroke, mm (in.) .....	92/90 (3.62/3.54)
Compression ratio .....	16.5:1
Dry weight with HS1E, kg (lb) .....	538 (1186)
Gear ratio HS1E .....	1.96:1 and 2.62:1

1) Crankshaft power according to ISO 8665  
2) Prop. shaft power according to ISO 8665  
\* Duty rating: Pleasure

## Dimensions (from installation drawing No. 3590027)



# VOLVO PENTA

AB Volvo Penta  
SE-405 08 Göteborg, Sweden