

**VOLVO PENTA Life- and Rescue Boat Propulsion Engines****D3 SOLAS (LSA)**

2.4 liter, in-line 5 cylinder



Volvo Penta has a powerful range of products certified for use in fast rescue boats: the D3-110 to D3-220 common rail marine diesel engines with rating 5 power settings. The engines are approved for both inboard, waterjet and sterndrive propulsion installations.

**Designed to withstand the Life- and Rescue boat environment**

The D3 Life- and Rescue boat engines are designed to comply with the requirements in the following regulations and standards:

- EU Marine Equipment Directive (MED) 2014/90/EU
- SOLAS 74 Convention, as amended, Reg. III/4 and Reg. III/34
- International Life-Saving Appliances (LSA) Code
- IMO Res. MSC.81 (70), Part 1, paras. 6.10.2 to 6.10.6 and 6.14.6 to 6.14.8
- U.S.C.G.

**SOLAS specifications for life- and rescue boat engines**

- Withstand free fall of the lifeboat from 3 meters
- Withstand a lateral impact of 3.5 m/s of the lifeboat
- Stop automatically on capsizing and easily restart
- Fuel and lubricating systems shall prevent the loss of fuel and oil during capsizing
- Operable while submerged in water up to the crankshaft centerline
- Operable for not less than 5 minutes after starting cold with the lifeboat out of the water
- Run properly at an angle of up to 10° trim and an angle of up to 22.5° list, either way
- The lifeboat engine is designed to limit electromagnetic emissions
- The engine can be started without heater down to -15°C (-30°C with heater)
- For gear and sterndrives, see note on next page.

**Engine specifics**

All life- and rescue boat engines are based on standard engine designs, equipped and tested to comply with LSA requirements before delivery to boat builders.

The life- and rescue boat engines also includes a tilt switch, mounted on the engine bulkhead. The base engine mounts are originally designed for high G-forces. Thus, there is no need for extra reinforcement for fast rescue boats and lifeboat applications to comply with the LSA code.

**A propulsion package fully matched, tested and supported by one company**

The engines and the drives are developed and produced by Volvo Penta, and the service of the engines will be well taken care of by more than 5,000 Volvo Penta commercial and leisure dealers around the world.

**Meeting emission standards**

The common rail injection system in combination with electronics and an advanced combustion system are designed for minimizing noxious emissions and particulates. The engines comply with IMO NOx limits, EU RCD2 and EPA Tier 3 Marine Leisure (Rating 5).

**Certificate**

The engines will be marked with the MED wheel mark (see above) and be delivered with a MED Declaration of Conformity. For the installation, see note on next page.

# D3 SOLAS (LSA)

2.4 liter, in-line 5 cylinder

## Technical description

For full technical information and performance data for the D3 engines, please see the product leaflets and technical data sheets for the selected power setting and model of D3.

## Technical Data

Crankshaft power + dry weight

**D3-110:**  
@ 3000 rpm, kW (hp) ..... 81 (110)  
kg (lb)..... 260 (573)

**D3-140:**  
@ 4000 rpm, kW (hp) ..... 103 (140)  
kg (lb)..... 260 (573)

**D3-150:**  
@ 4000 rpm, kW (hp) ..... 110 (150)  
kg (lb)..... 260 (573)

**D3-170:**  
@ 4000 rpm, kW (hp) ..... 125 (170)  
kg (lb)..... 260 (573)

**D3-200:**  
@ 4000 rpm, kW (hp) ..... 147 (200)  
kg (lb)..... 260 (573)

**D3-220:**  
@ 4000 rpm, kW (hp) ..... 162 (220)  
kg (lb)..... 260 (573)

## Battery

Minimum requirements for cold start:  
2 x 760 CCA.

## Cold starting device

2 kW engine coolant heater to be installed for coldstarts below -15°C (down to -30°C)

## Reverse gear

- Reverse gear with matched drop center and 8° down angle for compact installation and minimum propeller shaft angle.
- Bevel gears which results in smooth running at all speeds
- Hydraulically operated clutch for smooth shifting
- Electrical shifting performed by electro-magnetic valves
- Seawater-cooled oilcooler

## Waterjet

- For selection of waterjet please contact your waterjet dealer.

## Sterndrive SX/DPS

- Single propeller drive which can be run with both right- or left-hand propellers (SX, 140-170 hp)
- A variety of Duoprop propellers are available (DPS, 140-220 hp)
- Cone clutch
- Pattern-matched spiral bevel gears
- Integrated seawater coolant pick-up through drive
- Overload protection sleeve (break-away coupling)
- Max tilt angle 52°
- The drive can be turned 28° in each direction
- Built-in kick-up function to reduce possible damage, in the event the drive strikes an underwater object

- Active corrosion protection as accessory
- Easy to access drive anode placed on the back of the cavitation plate

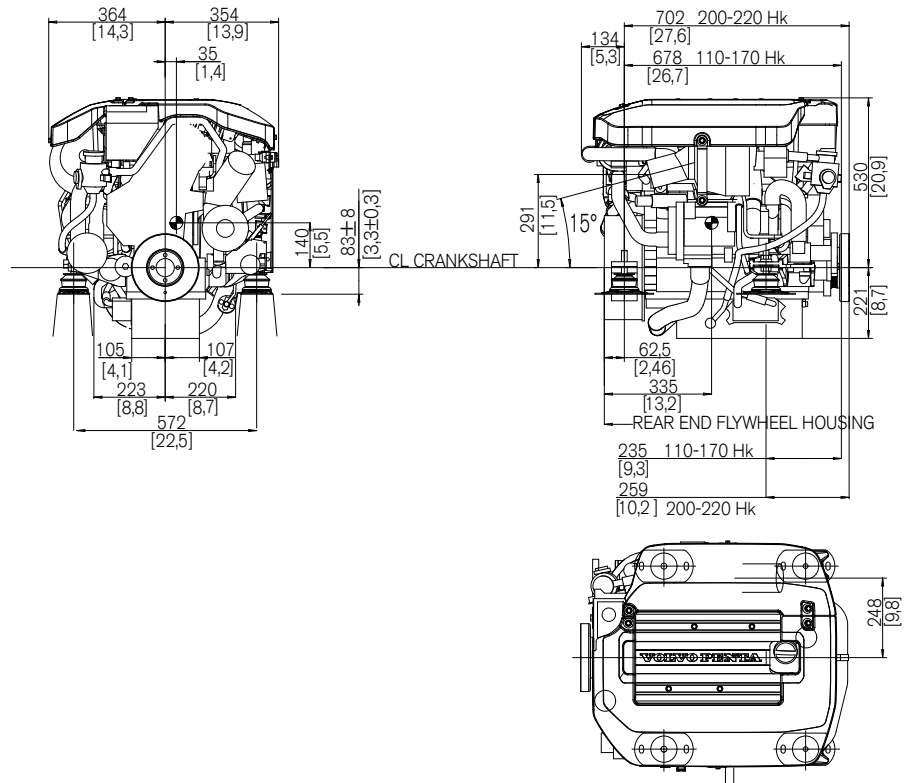
## Note

The SOLAS kit only covers certification of the engine, not the installation.  
For self righting boats following needs must be arranged by the yard:

- Sea water safe controls and display
- Exhaust system designed to avoid water ingress when capsizing
- Propeller protection
- Heating of sterndrive and gear in cold temperatures below -15°C

## Dimensions

Dimensions shown are dimensions for SOLAS version of D3. Not for installation.  
For detail dimensions, see D3 installation drawing and assembly instructions.



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.

Contact your local Volvo Penta dealer for more information regarding Volvo Penta engines and optional equipment/ accessories or visit [www.volvopenta.com](http://www.volvopenta.com)

# VOLVO PENTA

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