

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Lifeboat/rescue boat propulsion engine

with type designation(s)
D4/D6 SOLAS

Issued to

**AB Volvo Penta
Göteborg, Sweden**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
item No. MED/1.36. SOLAS 74 as amended, Regulation III/4 & X/3 and LSA Code

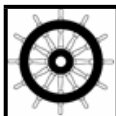
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-04-22**.

Issued at **Høvik** on **2019-04-23**

DNV GL local station:
Gothenburg

Approval Engineer:
Dag Harald Williksen



Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Job Id: **344.1-009150-1**
Certificate No: **MEDB000054D**

Product description

four stroke, 4 or 6 cylinder, in-line engine, non-reversible, trunk-piston, with charge air cooling, direct injection, injection operation electronically controlled, valve operation by cams, liquid fuel

Application/Limitation

The inboard engines are approved for use as propulsion engine for life/rescue boats.

- engines can be used for inboard, waterjet or stern drive propulsion.
- Aquamatic stern drives type DPI only allowed with 24 V system.
- minimum battery requirements for cold start are for 12 V 2300 CCA and for 24 V 1150 CCA.
- engine heater equal to or bigger than 2 kW to be installed for cold starts below -15°C and -30°C.
- only gearboxes HS45AE, HS68A, HS68IV, HS85AE, HS85IVE to be used

Engine model	D4-150	D4-175	D4-230	D4-270	D4-300	D4-320
Cylinder bore, [mm]	103					
Piston stroke, [mm]	110					
Max. rating, [kW]	110	129	169	199	221	235
Engine speed, [rpm]	3400	2800	3400	3500	3500	3600

Engine model	D6-300	D6-340	D6-380	D6-400	D6-440 /WJ	D6-480 /WJ
Cylinder bore, [mm]	103					
Piston stroke, [mm]	110					
Max. rating, [kW]	221	250	280	294	324	353
Engine speed, [rpm]	3300	3400	3500	3500	3700	3700

Tests carried out

Test according to and carried out on 2019-04-20, witnessed by DNV GL.

LSA Code 4.4.6.2; MSC 81(70) 1/6.10.2 – 6.10.4

LSA Code 4.4.6.3; MSC 81(70) 1/6.10.5

LSA Code 4.4.6.4; MSC 81(70) 1/6.10.6

LSA Code 4.6.4.2; MSC 81(70) 1/6.14.6 – 6.14.8

Marking of product

The product is to be indelibly marked with name, address of manufacturer and type designation. The Mark of Conformity (wheel-mark) can be affixed when the conditions on page 1 have been met.

END OF CERTIFICATE