

# 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)  
**Bukh Marine Diesel D4 and D6**

Issued to  
**BUKH A/S**  
**Kruså, Denmark**

is found to comply with the requirements in the following Regulations/Standards:  
Regulation **(EU) 2019/1397,**  
**item No. MED/1.36. SOLAS 74 as amended, Regulation III/4, III/34 & X/3 and LSA Code**

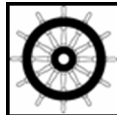
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-12-09.**

Issued at **Høvik** on **2019-12-10**

DNV GL local station:  
**Denmark CMC**

Approval Engineer:  
**Dag Harald Williksen**



Notified Body  
No.: **0575**

for **DNV GL AS**

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**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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



## Product description

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

## Application/Limitation

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

Engine family Model D4 D6	Rating (kW)	Engine Speed (rpm)	Gearbox
D4-150	110	3400	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D4-175	129	2800	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D4-230	169	3400	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D4-270	199	3500	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D4-300	221	3500	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D4-320	235	3600	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D6-300	221	3300	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D6-340	250	3400	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D6-380	280	3500	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D6-400	294	3500	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D6-440	324	3700	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D6-480	353	3700	Jet adaptor, ZF, PRM, Twin Disc or Aquamatic
D6-IPS400	212	3300	IPS
D6-IPS450	240	3400	IPS
D6-IPS500	265	3500	IPS

## Type Examination documentation

Drawing No	Rev	Title
		Volvo Penta statement to Bukh
47710481	05-2019	Operator's Manual - D4/D6
009U3421-R01	08-03-2017	Installation Manual
23592924	01	Engine Dimensions D4 SOLAS
47711766	05-2019	Design and Function, Marine diesel engine - D4-G, D6-G
23353384	02	Engine dimensions D4-175, 230, 270, 300, 320
A474704	2016-04-08	Test Report for Bukh Diesel Engines
05833-2002-AQ-DEN-DANAK		27. November, 2018 Management system certificate - ISO 9001:2015
A474704	2016-04-01	Test Report for Bukh Diesel Engines
	2019-05-20	Product Description D4 D6 engine family
A1069014	2019-05-20	Test Report for Bukh Diesel Engines
-	2019-05-20	Appendix 01 Test Sequence
A1069014	2019-05-20	Test report for Bukh Diesel Engines, front page
A1069014	2019-05-21	Test report for Bukh Diesel Engines, front page signed

## Tests carried out

Test according to and carried out on 2019-05-20/21, 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