

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)

SeasAll Bukh SOLAS 4 and 6 Cylinder Marine Engines

Issued to

BUKH A/S

Kruså, Denmark

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 **2023-11-11.**

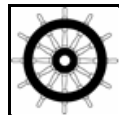
Issued at **Høvik** on **2018-11-12**

DNV GL local station:

Fredericia

Approval Engineer:

Tin Nguyen



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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: **344.1-002328-6**
Certificate No: **MEDB00004MJ**

Product description

Four stroke diesel engine with reduction gear .

The engines are manufactured by Hyundai - SeasAll Co., Ltd. but SOLAS certified and equipped with accessories by Bukh A/S.

Cylinder bore:	77.2	87	84
Piston stroke:	84.5	92	89
No. of cylinders:	4 in line	4 in line	6 in V

Engine model	Rating (kW)	Engine speed (RPM)	Gearbox
4 cylinder marine engine Bukh SeasAll SOLAS U125	93	4000	ZF25-25A ZF45-45A-45C ZF63-53A-63IV-ZG63C
4 cylinder marine engine Bukh SeasAll SOLAS D170	125	3800	ZF25-25A ZF45-45A-45C ZF63-53A-63IV-ZG63C
6 cylinder marine engine Bukh SeasAll SOLAS S250	184	3800	ZF25-25A ZF45-45A-45C ZF63-53A-63IV-ZG63C

Application/Limitation

The engine models are approved for use in life/rescueboats.

Type Examination documentation

Presentation of Hyundai Seasall S250 received with e-mail from DNV Fredericia dated 10-01-06.

Operation manual for Hyundai Seasall U125 received with e-mail from DNV Fredericia dated 14-03-12

Operation manual for Hyundai Seasall D170 received May 2010

Operation manual for Hyundai Seasall S250 received with e-mail from DNV Fredericia dated 10-01-06

Drawing 008E9707 - Krægningsafbr. arrangement . (Inclination stop arrangement).

Partslist for 008E9707 dated 2010-02-05.

Tests carried out

Tests carried out according to IMO Resolution A.689 (17) as amended by IMO Resolution MSC.81(70).

S250 test report dated 2009-09-02

D170 test report dated 2010-05-11


U125 test report dated 2014-03-04

Marking of product

The product is to be indelibly marked with name and address of manufacturer, type designation, and date of manufacture. In addition, the manufacturer shall affix the Mark of Conformity followed by the DNV GL Notified Body No. 0575 and the production year (4 digits).

Mark of Conformity

Job Id: **344.1-002328-6**
Certificate No: **MEDB00004MJ**

The manufacturer is allowed to affix the Mark of Conformity  according to Directive 2014/90/EU on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.

END OF CERTIFICATE