

EC-TYPE EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2013/52/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Winches for survival craft and rescue boats: davit launched lifeboats

with type designation(s)
Winch BW-HL/R31S

Issued to

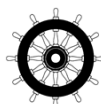
**Boatbuilding Yard, Qingdao Beihai Shipbuilding Heavy
Industry Co., Ltd.
Qingdao Shandong, China**

is found to comply with the requirements in the following Regulations/Standards:

**Annex A.1, item No. A.1/1.41a and Annex B, Module B in the Directive. SOLAS 74 as amended,
Regulation III/4, III/16, III/17, III/23, III/24, III/34, X/3, LSA Code and 2000 HSC Code
Annex A.1, item No. A.1/1.41d and Annex B, Module B in the Directive. SOLAS 74 as amended,
Regulation III/4, III/16, III/17, III/23, III/24, III/34, X/3, LSA Code and 2000 HSC Code**

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

**Høvik, 2015-07-31
for DNV GL AS**



This Certificate is valid until
2020-07-30

Notified Body No.: **0575**

**Petter Langnes
Head of Department**

DNV GL local office:
Qingdao

**Paulo Correia
Surveyor**

Product description

Lifeboat boat Winch with;

- Maximum Working Load, MWL = 31 kN (3 layers)
- Maximum hoisting load BW-HL31S: 31kN.
- Maximum hoisting load BW-HR31S: 31/22 kN.

Application/Limitation

- Grades of materials as stated on drawings are to be delivered with makers product certificates (3.1).
- The various components transferring the load like wires, shackles, hooks, etc. are to comply with international standards or codes and are to be delivered with manufacturer's certificate, confirming a safety factor minimum 6 compared to the sustained load.
- Falls to be used with the launching appliance shall be of rotation-resistant and corrosion-resistant steel wire rope.
- Installation, onboard testing (MSC.81(70) part.2), support to the deck structure, and connection to power supply are not included in this examination and shall be accepted by attending surveyor in each case.

Type Examination documentation

HL31S—00	A	BW-HL31 Winch (Right)
HL31S/1		Case (Right)
HL31S/2		Driving gear I
HL31/4	A	Driven gear I
HL31/6	A	Driven gear II
HL31/7	A	Driving gear III
HL31/9	A	Drum
HL31/13	A	Driven gear III
HL31/14	A	Main shaft
HL31—1	A	Turning unit
HL31—2	A	Hand lifting unit
HL31—3	A	Brake unit
HL31—3/10	A	Brake shaft unit
HL31—3/11	A	Shaft
HL31—3.1	A	Free wheel unit
HL31---3.2	A	Inner cone clutch
HL31---3.3	A	Outer cone clutch
BW-HL31S-EE-01		Electric diagram
W-HL31S-EE-02		Dimension of control box
BW-HL31S-EE-03		Diagram of box layout
BW-HL31S-EE-04		Electric equipment arr. plan
BW-HL31S-EE-05		Diagram of remote control unit
HR31S—00	A	BW-HR31 Winch (Left)
HR31S/1		Case (Right)
HR31S/2		Driving gear I
HR31/3	A	Driven gear I
BW-HR31S-EE-01	00	Electric diagram
BW-HR31S-EE-02	00	Dimension of control box
BW-HR31S-EE-03	00	Diagram of box layout
BW-HR31S-EE-04	00	Electric equipment arr. plan
BW-HR31S-EE-05	00	Diagram of remote control unit

Job Id: **344.1-002664-2**
Certificate No: **MEDB000004R**

Tests carried out

Prototype testing according to IMO Resolution MSC 81(70) carried out 2005-05-10 and witnessed by DNV GL Qingdao.

Marking of product

Marking shall be implemented in accordance with the LSA Code, item 1.2.2.9:

- Type designation, manufacturer name and serial number
- Maximum Working Load, MWL

Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC 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