

**DNV-GL**Certificate No:  
**RCDB000006K****EC-TYPE EXAMINATION  
CERTIFICATE (MODULE B)****This is to certify:****That the Portlights**with type designation(s)  
**ER, EO & EE**

Manufacturer

**Man Ship Machinery & Hardware Co. Ltd.  
KAOHSIUNG, Taiwan**

Has been assessed with respect to Directive 2013/53/EU of the European Parliament and of the Council according to conformity assessment procedure "Module B" described in Annex II of the Decision No 768/2008/EC of the European Parliament and of the Council, and found to comply with the applicable requirements.

Further details are given overleaf.

Issued at **Stockholm** on **2017-05-16**DNV GL local station:  
**Kaohsiung**Approval Engineer:  
**Kristoffer Uulas**Notified Body  
No.: **0098**for **DNV GL SE**  
Digitally Signed By:  
Höglund, Ville  
Location: Stockholm, Sweden  
Signing Date: den 17 maj 2017**Ville Höglund**  
**Deputy Head of Certification Body**

The certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product, or amendments to the Directive or the applied standards may render this certificate invalid. The product liability rest with the manufacturer or his representative in accordance with Directive 2013/53/EU of the European Parliament and of the Council.



Form code: RCD.Ba

Revision: 2016-12

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## Jurisdiction

DNV GL is appointed by the Central Authority of the German Federal States for Safety (ZLS) as a "Notified Body" in accordance with § 15(1) of the Product Safety Act (ProdSG) to carry out conformity assessment procedures on Recreational Crafts in the scope of ProdSG and Directive 2013/53/EU according to the administrative decision No. ZLS-Z1471-2015/1-1.

## Certificate history

This is the original Certificate.

## Product description

Opening type of Portlights. Type designations are listed below.

- Frame of stainless steel (SS) 316
- Glazing of polycarbonate (PC) or polymethylmethacrylate (PMMA)
- Hinges of SS 316
- Glazing attaches to hinges by 5 mm screws through glazing into hinges
- Handles of SS 316
- Seal of PVC-elastomer

## Applications/Limitations

May be used on Recreational Craft subject to CE-marking under the Directive 2013/53/EU, in the following, as listed, *Application Location Areas* as defined in EN ISO 12216:2002 on *Any Craft Type* of *Any Design Category*.

Type	Model No.	Glazing dimension (mm)	Glazing thickness (mm)	Application location Area
ER	ER-0500	Ø = 108	12	<i>I, IIb, III &amp; IV</i>
	ER-0600	Ø = 133	12	<i>I, IIb, III &amp; IV</i>
	ER-0700	Ø = 159	12	<i>I, IIb, III &amp; IV</i>
	ER-0800	Ø = 184	12	<i>I, IIb, III &amp; IV</i>
	ER-1000	Ø = 216	12	<i>I, IIb, III &amp; IV</i>
EO	EO-0512	108 x 286	12	<i>I, IIb, III &amp; IV</i>
	EO-0614	134 x 337	12	<i>I, IIb, III &amp; IV</i>
	EO-0714	159 x 337	12	<i>I, IIb, III &amp; IV</i>
	EO-0716	159 x 388	12	<i>I, IIb, III &amp; IV</i>
	EO-0718	159 x 438	12	<i>I, IIb, III &amp; IV</i>
	EO-0816	184 x 388	12	<i>I, IIb, III &amp; IV</i>
	EO-0818	184 x 438	12	<i>I, IIb, III &amp; IV</i>
EE	EE-0718	165 x 432	13	<i>I, IIb, III &amp; IV</i>

The certificate covers products with varying dimensions within the smallest and largest dimensions listed for each type of the following type designations ER and EO.

## Technical documentation

Drawings:

- Round Economy Opening Ports, ER, dated 96.12.20 rev.3
- Oval Economy Opening Ports, EO, dated 96.12.20 rev.3
- Elliptical Economy Opening Ports, EE, dated 96.12.20 rev.3

## Applied Standards/Tests carried out

Job Id: **341.3-000362-1**  
Certificate No: **RCDB000006K**

**Standard:**

- EN ISO 12216:2002 Small Craft – Windows, Portlights, Hatches, Deadlights and Doors - Strength and Tightness requirements

**Tests:**

- Test Report for CE certification of Hatch and Portlight, dated 2002-09-10
- Glue Product test report, dated February 18, 1987

**Terms and conditions**

The following conditions may render this certificate invalid:

- Changes in the design or construction of the product
- Changes or amendments to the Directive
- Changes or amendments in the standards which form the basis for documenting compliance with the essential requirements of the Directive

**Marking of product**

This Certificate is concerned with the design of the product, only. In order to fully meet with the requirements of the Directive and legally affix the CE mark, the manufacturer shall have the final product and/or production assessed according to one of the procedures listed below and finally draw up an EC declaration of conformity.

Conformity assessment procedures for production as described in Annex II of the Decision No 768/2008/EC of the European Parliament and of the Council:

- Conformity to type based on internal production control (Module C)
- Conformity to type based on internal production control plus supervised product testing (Module C1)
- Conformity to type based on quality assurance of the production process (Module D)
- Conformity to type based on product quality assurance (Module E)
- Conformity to type based on product verification (Module F)

Other directives, covering other phenomena, and also having requirements related to CE marking, might also apply.