



DET NORSKE VERITAS

EC TYPE-EXAMINATION CERTIFICATE

CERTIFICATE NO. RCD-B-344

This Certificate consists of 3 pages

This is to certify that the product

Portlights
274.20

with type designation(s)

**Round, Oval and Elliptical Economy Opening Portlights,
Type ER, EO & EE**

Manufactured by

Man Ship Machinery & Hardware Co. Ltd.
KAOHSIUNG 81245, Taiwan

has been assessed with respect to

the conformity assessment procedure described in Annex VII (Module B) of
Council Directive 94/25/EC on Recreational Craft as amended by Directive 2003/44/EC,
and found to comply with the applicable requirements

Further details are given overleaf.

Place and date

Høvik, 2008-05-05
for DET NORSKE VERITAS AS




Marianne Strand Valderhaug
Head of Section

Notified Body No.: 0575

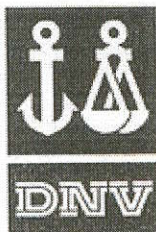


Hallgeir B. Eilertsen
Surveyor



Notice: The certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product may render this certificate invalid.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: RCD-B-344
Case No.: 4193-520.10
File No.: 274.20

Jurisdiction

DNV is appointed by the Norwegian Ministry of Trade and Industry as a "Notified Body" under the terms of the Norwegian regulation - FOR 2004-12-20 nr. 1820 "Forskrift om produksjon og omsetning av fritidsfartøy m.v.", and - Article 9 of Council Directive 94/25/EC as amended.

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

May be used on Recreational Craft subject to CE-marking under the Directive 94/25/EC, as amended, in the following, as listed, *Application Location Areas* as defined in ISO12216 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 & IV</i>
	ER-0600	Ø = 133	12	<i>I, IIb, III & IV</i>
	ER-0700	Ø = 159	12	<i>I, IIb, III & IV</i>
	ER-0800	Ø = 184	12	<i>I, IIb, III & IV</i>
	ER-1000	Ø = 216	12	<i>I, IIb, III & IV</i>
EO	EO-0512	108 x 286	12	<i>I, IIb, III & IV</i>
	EO-0614	134 x 337	12	<i>I, IIb, III & IV</i>
	EO-0714	159 x 337	12	<i>I, IIb, III & IV</i>
	EO-0716	159 x 388	12	<i>I, IIb, III & IV</i>
	EO-0718	159 x 438	12	<i>I, IIb, III & IV</i>
	EO-0816	184 x 388	12	<i>I, IIb, III & IV</i>
	EO-0818	184 x 438	12	<i>I, IIb, III & IV</i>
EE	EE-0718	165 x 432	13	<i>I, IIb, III & 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.



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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

Standard:

- ISO12216:2002 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 product liability rests with the manufacturer, his representative or, in the absence of a representative, the importer, in accordance with the General Product Safety Directive 2001/95/EC.

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 must also 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:

- Conformity to type (Annex VIII/Module C)
- Production quality assurance (Annex IX/Module D)
- Product quality assurance (Annex XVI/Module E)
- Product verification (Annex X/Module F)

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

END OF CERTIFICATE