



DET NORSKE VERITAS TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. S-4490

This Certificate consists of 3 pages

This is to certify that the

Watertight Doors & Hatches

441.22

with type designation(s)

Aluminium, steel and stainless steel

Manufactured by

Pacific Coast Marine

Everett, WA 98203, United States

is found to comply with

Det Norske Veritas' Rules for Classification of Ships and Mobile Offshore Units

Application

See page 2

Place and date
Høvik, 2006-03-03
for Det Norske Veritas AS

This Certificate is valid until
2010-06-30

Anne V. Hartmann

Local Office

Øystein Erland

Head of Section

Seattle

*Surveyor***Holder of certificate**

Pacific Coast Marine

Everett, WA 98203, United States

Product description

Watertight hinged doors in aluminium, steel and stainless steel, with port light option.

Max. opening 81x47 (inch)

Max. pressure height 3,5m.

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The portlight glass is 0,75 inch (19mm), Maximum diameter 10 inches (254mm)

Type: tempered clear glass.

Multiple handle & hinge details submitted as interchangeable parts.

The max. spacing between dogs is 20 inches (500mm)

Application/LimitationThe door may be used in positions where the waterpressure is 35 kN/m², or less.**Type Approval documentation**

Aluminium , Steel & Stainless steel construction details

Door panel assemblies

Roller dog assemblies as shown in each detail

Framing details in Aluminium, Steel & Stainless

Linkage details

Bill of materials in Aluminium, Steel & Stainless

Port Light & dead light details

Interior & exterior skins detail using Aluminium, Steel & Stainless

Port light & dead light details

Tests carried out

Test report dated Everett, Washington USA dated 2005-11-03, and 2006-02-16, with DNV surveyor P.M. Read present.

All watertight doors are to be hydraulically tested from the side which is most prone to leakage, at the manufacturer, with a DNV surveyor present.

Marking of product

Manufacturers name and brand.

DNV Type approval Certificate S-4490 and max. allowable pressure, 3,5m

Certificate retention survey

Det Norske Veritas's surveyor is to be given permission to perform Certification Retention Survey at any time during the validity period of this certificate. The arrangement is to be in accordance with procedure described in item 4.3, Certification Note No. 1,2.

END OF CERTIFICATE

Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction 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.

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