TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No.

13 866 - 99 HH

Company

ilta inox S.p.A.

Strada Statale 45 bis

26010 Robecco d'Oglio, ITALY

Product Description

Pipe penetrations through A Class divisions and watertight bulkheads and decks

Type

Hermetic

Environmental Category

None

Technical Data / Range of Application The penetration Hermetic consists of nodular cast iron casing screwed to stainless steel flanges fitted with one EPDM gasket and one layer of intumescent material. The pipe penetration is insulated with mineral wool (density 100kg/m3) according to the installation drawings listed below.

Pipe O.D.:

6mm up to 273mm

Pipe materials:

stainless steel

Flanges:

stainless steel AISI 304

Body/casing:

nodular cast iron 400/15+2%Ni EPDM

Gasket and O-ring:

Thermo expanding packing (intumescent sealing): Type INFS0811 (INCA)

RANGE OF APPLICATION:

The Hermetic pipe penetration is type approved for installation at A-Class watertight divisions as follows:

A0/A60 for deck applications with pipe diameter from 6 mm to 273 mm;

- A0/A60 for bulkhead applications with pipe diameter from 6 mm to 14 mm;

- A60 for bulkhead applications with pipe diameter from 15 mm to 219 mm;

- A30 for bulkhead applications with pipe diameter 267 mm and 273 mm.

The insulation of each penetration is to be carried out in accordance with

drawings 2.39.189.650, 2.39.189.658, 2.39.189.659.

For installation the manufacturer's instruction "Hermetic catalog - Assembling" has to be observed.

has to be observed.

Production place: ilta inox S.p.A. - Production Unit CHIBRO - Via Valtellina, 15,

22070 - Montano Lucino (CO) - Italy.

Test Standard

Guidelines for the Performance of Type Approvals, Test Requirements for Sealing Systems of Bulkhead and Deck Penetrations (Legacy GL Rules: VI-7-4,

Edition 2014)

Documents

refer to page 2

Remarks

The Hermetic penetration is not approved for installation at boundary of tanks.

Valid until

2019-06-21

Page

1 of 2

File No.

II.J.01

Hamburg, 2014-11-18

Type Approval Symbol

(GL)

DNV GL

Olaf Drews

Plamen Dinkov

DNV-GL

TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No.

13 866 - 99 HH

DOCUMENTS:

Drawings: 2.39.191-Rev.Q dd. 2014-11-06; 2.39.189.650 -Rev.D dd. 2014-11-06, 2.39.189.658 - Rev.C dd. 2014-11-06, 2.39.189.659 - Rev. C dd. 2014-11-06.

Pressure test report 98-DG-TO 428/IV;
Fire test certificates with reports:
LAPI 0987/MED-B/239 Rev.1 dd. 2013-10-31 with Test Report 1073.4IM0150/09 dd.2009-10-02;
RINA /MED 307913CS/002 dd. 2013-10-14 with Test Reports:
2008CS012001 dd. 2008-07-22,
2008CS014752 dd. 2009-03-30,
2009CS011893 dd. 2009-06-04,
2009CS012436 dd. 2009-09-17,
2009CS013911 dd. 2009-10-19,

Audit Report dd. 2014-10-08; GL Approval ref.no. 14-047329, 13-100440.

Valid until 2019-06-21

Page

2 of 2

File No.

II.J.01

Hamburg, 2014-11-18

Type Approval Symbol

GL

DNV GL

Olaf Drews

Plamen Dinkov