

CERTIFICATE NUMBER 07-HG301235-1-PDA DATE 13 July 2012

ABS TECHNICAL OFFICE

Hamburg Engineering Services

CERTIFICATE OF

DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of

INTERMARCO A BRAND OF HOEHNE GMBH - D-25421 PINNEBERG

assess design plans and data for the below listed product. This assessment is a representation by the Burcau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

PRODUCT: Cable, Transit Systems

MODEL: KVM Sealing Compound

This Product Design Assessment (PDA) Certificate 07-HG301235-1-PDA, dated 13/Jul/2012 remains valid until 12/Jul/2017 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

Wulf-Peter Senebald

AMERICAN BUREAU OF SHIPPING

Engineer

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, scandards or other criteria of ASS or a granuley, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS, Rules 1-1-A3/5.9 Terms and Conditions of the Bequest for Product Type Approval and Agreement (2010).

INTERMARCO A BRAND OF HOEHNE GMBH

MUEHLENSTRASSE 76 D-25421 PINNEBERG

Germany

Telephone: -49-4101-5453-0 Fax: -49-4101-5453-33 Email: info@hoehne.de Web: www.intermarco.de

Product:

Cable, Transit Systems

Model:

KVM Sealing Compound

Intended Service:

Multi cable transit system for A-60 bulkhead and deck penetrations.

Description:

Cable transit system comprising of steel frames, maximum size 250 x 500 mm, minimum size 100 x 100 mm or 45 mm diameter (for decks only), minimum length 200 mm/ 250 mm for deck/ bulkhead penetrations, 180 mm sealing compound KVM and 30 mm/ 35 mm MANGANA retaining compound for deck/ bulkhead penetrations.

90 mm ISOFER, MD/S insulation mats.

Powder/ water mixing ratio: 2/1.

Maximum tested combination of transits: 3.

Maximum cable diameter: 51.5 mm.

Maximum tested degree of filling: 31.3% (bulkhaead penetrations), 36% (deck penetrations).

Minimum spacing between ducted cables: 6 mm. Minimum thickness of steel coamings: 5 mm.

Ratings:

Class A-60 steel bulkead and deck penetrations.

Tested for watertightness 2.5 bar and gastightness 30 mbar (MPA Dresden, 99-21-0265-01).

Service Restrictions:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

Application and use is to be in accordance with manufacturer's instructions. Each particular installation arrangement is to be specifically approved.

Notes / Drawings / Documentation:

This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

Term of Validity:

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This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

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STANDARDS

ABS Rules:

2012 Steel Vessel Rules, 1-1-4/7.7, 4-8-4/21.13.1

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NA

International:

IMO Resolution A.754(18) (TÜV Nord Test Reports GH 97.20.1, GV 98.11.1)

Government Authority:

NA

EUMED:

NA

Others:

NA