



EC Type Examination Certificate

Notified Body 0729

This is to certify that ABS Europe Ltd., as a Notified Body under the authorization of UK MCA by Merchant Shipping Regulations 2016, S.I. 2016 Number 1025 and MSN 1874 (M+F), as amended, did undertake the relevant type approval procedures for the equipment identified below and same was found to be in compliance with the provisions of these Regulations and EU Marine Equipment Directive 2014/90/EU of 18th September 2016.

ITEM NUMBER: MED/3.26(a), MED/3.26(b)

IMPLEMENTING REGULATIONS (EU) 2018/773

USCG CATEGORY NUMBER: 164.138

CERTIFICATE NUMBER: 11-HG742760-2-EC

USCG MODULE B NUMBER: 164.138/EC0729

APPLICANT: HILTI AKTIENGESELLSCHAFT

APPLICANT'S LOCATION: Feldkircherstr 100, 9494 Schaan, Liechtenstein

PORT OFFICE: Hamburg, Germany

PRODUCT DESIGNATION: Penetrations through 'A' Class Divisions – electric cable transits, pipe, duct, trunk, etc.
Fire Stop, 'CFS-T SS', 'CFS-T SSF', 'CFS-T RR', 'CFS-T SSR', 'CFS-T SSR/R30', 'CFS-T SSRF/R30', 'CFS-T RRS'

STANDARDS AND REGULATIONS: Regulation II-2/9 of SOLAS 74 as Amended
IMO Resolution MSC.307(88) – 2010 FTP Code as amended
IMO MSC.1/Circ. 1488

THIS CERTIFICATE IS ISSUED IN COMPLIANCE WITH CONFORMITY ASSESSMENT **MODULE B** OF THE REGULATIONS AND DIRECTIVES LISTED ABOVE.

ISSUE DATE: 30 August 2019

EXPIRATION DATE: 17 February 2024

SIGNATURE: N. Tvaer

Should the specified regulations or standards be amended during the validity of this certificate, the products are to be re-approved prior to being placed on board vessels to which the amended regulations or standards apply.

This "Mark of Conformity" may only be affixed to the above equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase Module (D, E or F) of Annex II of the Directive is fully complied with and controlled by a written agreement with a Notified Body.

The attached document list forms part of this Certificate.

Certificate No.: 11-HG742760-2-EC

Entry Date: 30 August 2019

**Name of Equipment/
Manufacturer:** HILTI AKTIENGESELLSCHAFT
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Equipment/Component: Multi cable transit systems for A-60 steel deck and bulkhead penetrations

Model: Fire stop "CFS-T SS", "CFS-T SSF", "CFS-T RR", "CFS-T SSR", "CFS-T SSR/R30", "CFS-T SSRF/R30", "CFS-T RRS"

Description: Modular cable transit system consisting of steel frames or plugs in combination with insert blocks, made of halogen-free elastomeric rubber, as well as compression units and anchor plates.

1. Steel deck and bulkhead penetration

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| Maximum aperture size of the penetration | 297x660 mm, 270x584 mm | "SS" and "SSF" |
| | 205 mm diameter | "RR" |
| | 103 mm diameter | "RRS" |
| Maximum combination of transit | Multiple | |
| Maximum cable size | 80 mm diameter | |
| Degree of filling | Maximum 100% | SS, SSF, SSR, SSR/R30, RR, RRS |
| Spacing between ducted cables | Min. 4 mm | |
| Insulation | Paroc Marine Fire Slab 100 | |
| In addition to A-60 Bulkhead insulation | 100 mm | RR-50-200, RRS 50-100, SS, SSF, SSR, SSR/R30 |
| In addition to A-60 Deck insulation | 60/100 mm | SS, SSF, SSR, SSR/R30, RRS 50-100, RR 50-200 |

Installation are to be in accordance with the test arrangement drawings and as follows: No insulation material between cables is required for installations in accordance with test arrangement drawings contained in test report ZAG P0474/17-530-2 and ZAG P1139/17-530-1 and ZAG P1139/17-530-3 and ZAG P1139/17-530-2 for steel bulkhead and drawings contained in test report ZAG P0605/08/530-2 for steel deck. For deck penetrations of pipes DN50 and copper pipes DN30, additional pipe insulation of 30/60 mm thickness and 300/400 mm length is to be applied on the fire exposed side and the installation is to be in accordance with test arrangement drawing ZAG 0474/17-530-1.

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| Intended Service: | Sealing of multi cable penetrations in A-60 class steel decks and bulkheads. |
| Ratings: | Class "A60" bulkhead and deck penetrations. Model SS/SSF 8x1 tested water-tight at a pressure of 4.5 bar and gastight at a pressure of 3 bar. Model SS-2x1 tested water-tight at a pressure of 11 bar and gas tight at a pressure of 7 bar. Filler module 60/0 tested for short term chemical resistance to natural gasoline, acc. to ISO 37 and for air tightness (0.5 bar, 10 min) after storage at -60°C for four days. |
| Standards: | <p>European Union Marine Equipment Directive 2014/90/EU referencing testing requirement of implementing regulations (EU) 2018/773</p> <p>Regulation II-2/9 of SOLAS 74 as Amended IMO Resolution MSC.307(88) – 2010 FTP Code as amended IMO MSC.1/Circ. 1488</p> |
| Service Restrictions/Limitations: | <p>Only to be used in tested configuration as under "Description" above.</p> <p>Not to be used for penetrations of tank boundaries.</p> <p>Bundling of cables is not permitted in watertight bulkheads.</p> |
| Comments: | <p>the specified regulations or standards be amended during the validity of this certificate, the products are to be re-approved prior to being placed on board vessels to which the amended regulations or standards apply.</p> <p>This certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with the Notified Body named on this certificate.</p> <p>A Manufacturer's Declaration of Conformity shall be compiled and distributed in line with the requirements of Directive 2014/90/EU Article 16.</p> <p>The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E, or F) of ANNEX B of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.</p> <p>This product has been assigned a U.S. Coast Guard Module B number 164.138/EC0729 to note type approval to Module B only as it pertains to obtaining US Coast Guard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed on February 27th, 2004, as amended on Feb 18th, 2019.</p> |

Revisions:

Certificate N°. 11-HG742760-2-EC dated 30 August 2019
replaces Certificate N°. 11-HG742760-1-EC

Drawing Schedule:

| Drawing No | Description |
|--------------------------|--|
| 19-HG1826648-PDA | ABS Product Design Assessment Certificate |
| 71342881 | Atex Certificate |
| P474-17-530-2 | Test report ZAG 09/05/2017 |
| P1139-17-530-1 | Test Report ZAG 21/11/2017 |
| P1139-17-530-3 | Test report ZAG 21/11/2017 |
| P1139-17-530-2 | Test Report ZAG 21/11/2017 |
| 19039A | Warrington Test Report 21/06/2018 |
| 19040A | Warrington Test Report 21/06/2018 |
| 19210A | Warrington Test Report 07/08/2018 |
| CFS-T_RR-D_P | Drawings Bulkhead Pipe |
| CFS-T_RR_RRS-D | Drawings Deck |
| CFS-T_SS_SSF_SSR_SSR-R30 | Drawings Bulkhead |
| CFS-T_SS_SSF_SSR_SSR-R30 | Drawings Deck |
| CFS-T_SS_SSF_SSR_SSR-R30 | Drawings Deck Pipe |
| CFS-T_SS_SSF_SSR_SSR-R30 | Drawings Bulkhead Pipe |
| P474-17-530-1 | Test Report ZAG 09/05/2017 |
| P1139-17-530-4 | Test Report ZAG 21/11/2017 |
| 19041A | Warrington Test Report 28/06/2018 |
| CFS-T-291018-01 | Test Report Water/Gas Tightness 29/10/2018 |
| CFS-T 8x1_070219 | Test Report Water/Gas Tightness 07/02/2019 |