

CERTIFICATE NUMBER EFFECTIVE DATE EXPIRY DATE ABS TECHNICAL OFFICE 22-2260038-PDA
23-Jun-2022
22-Jun-2027
London Engineering Department

### **CERTIFICATE OF**

## **Product Design Assessment**

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

## HAWKE INTERNATIONAL

located at

# OXFORD STREET WEST, ASHTON-UNDER-LYNE, , LANCASHIRE, United Kingdom, OL7 0NA

assess design plans and data for the below listed product. This assessment is a representation by the Bureau 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, Glands and Accessories

Model: Accessory Types Hawke International 375, 383, 389, 390, 475, 476, 477, 487, 489, 490, 491, 492,

493.

**Endorsements:** 

Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 22/Jun/2027 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

\$\sigma Balakan\$

Serkan Balakan, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, 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 ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

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Tier: 2 - PDA Issued

**Product:** Cable, Glands and Accessories

Model: Accessory Types Hawke International 375, 383, 389, 390, 475, 476, 477, 487, 489, 490, 491,

492, 493.

#### **Endorsements:**

#### **Intended Service:**

For used on ABS classed vessels and offshore facilities in accordance with the listed ABS Rules and International standards.

#### **Description:**

Plugs, Adaptors, Accessories as listed on accompanying product listing

Use with Certified Terminal Boxes installed in IEC Zone 1 and 2 Hazardous locations on ships and offshore units.

#### **Rating:**

(1) 375 Stopping Plugs Range:

Sizes; M16, M20, M25, M32, M40, M50, M63 and M75, all with 1.5 pitch, Ex Certificate: IECEx BAS12.0065X

Type of Protection: Increased Safety and Dust protection by Enclosure

Marking: Ex eb IIC Gb/ Ex tb III C Db IP66/IP67

(2) 383 Earth Lead Adaptor

Sizes; M20 to M75 plus PG, BSPP, ET, NPT, NSPM threaded options

Ex Certificate: IECEx 11.0074X

Type of Protection: Ex e Increased safety protection, Ex tb Protection by enclosure

Marking: Ex eb IIC Gb (Service temp. =  $-60^{\circ}$ C to  $+80^{\circ}$ C)/ Ex tb IIIC Db

(3) 389 Increased Safety Breather:

Sizes; M16, M20, M25, M32, M40, M50, M63 and M75, all with 1.5 pitch.

Ex Certificate: IECEx BAS 11.0079X

Type of Protection: Increased Safety and Dust Ignition Protection by Enclosure

Marking: Ex eb I Mb/ Ex eb IIC Gb/ Ex tb IIIC Db Service Temperature: -60°C to +80°C with nitrile o-ring, -60°C to

+160°C with silicone o-ring

(4) 390 Increased Safety Stopping Plug

Sizes: M20 and M25

Ex Certificate: IECEx BAS 11.0075X

Type of Protection: Ex e I, Ex e IIC Increased safety, Ex t III C protection by enclosure

Marking: Ex eb I Mb/ Ex eb IIC Gb/ Ex tb III C Db Service temp – (-60°C to +80°C or 160°C or 200°C)

(5) 475 & 477 Stopping Plugs Sizes; M16 to M130 plus PG, BSPP, ET, NPT, NSPM threaded options

Ex Certificate: IECEx BAS 10.0120X

Type of Protection: Flameproof and Dust Protected Marking: Ex db I Mb/ Ex db IIC Gb/ Ex tb III C Db IP66

(6) 476 Adaptors & Reducers

Sizes; M12 to M130 plus PG, BSPP, ET, NPT, NSPM threaded options

Ex Certificate: IECEx BAS 11.0037X

Type of Protection: Flameproof, Increased Safety and Dust

Marking: Ex db I Mb/ Ex eb I Mb/ Ex db IIC Gb/ Ex eb IIC Gb/ Ex tb III C Db

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(7) 487 Domed Head Stopping Plug

Sizes; M16 to M130 plus PG, BSPP, ET, NPT, NSPM threaded options

Ex Certificate: IECEx BAS 11.0071X

Type of Protection: Flameproof, Increased safety, Dust Protection by Enclosure

Marking: Ex db I/ Ex eb I Mb/ Ex db IIC/ Ex eb IIC Gb/ Ex tb III C Db (-60°C to +80°C, -60°C to +160°C or -60°C

to 200°C)

(8) 489 Breather Drain Size: M20 to M25

Ex Certificate: IECEx BAS 11.0076X Type of Protection: Flameproof, Dust

Marking: Ex db I Mb/ Ex db IIC T6 Gb Tab -60°C to +60°C)/ Ex tb III C T85°C Db Service temp (-60°C to  $+60^{\circ}$ C)/Ex db IIB + H2 T6 Gb Tamb ( $-60^{\circ}$ C to  $+60^{\circ}$ C) – for units fitted with the phosphor bronze sinter

(9) 490 - 491 - 492 - 493 Swivel Couplings

Sizes; M16 to M75 plus PG, BSPP, ET, NPT, NSPM threaded options

Ex Certificate: IECEx SIR 11.0152U

Type of Protection: Flameproof, Increased Safety and Dust

Marking: Ex db I Mb/ Ex eb I Mb/ Ex db IIC Gb/ Ex eb IIC Gb/ Ex tb IIIC Db IP66

#### **Service Restriction:**

- 1. 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.
- 2. All electrical equipment intended for installation in hazardous areas is to be Ex rated based on the class of the hazardous area at its location of installation. Certificates in this regard are to be presented to the ABS Surveyor for verification on a case basis.
- 3. ATEX certified equipment is not to be installed in hazardous areas on US vessels unless it can be prove to have been tested to the applicable IEC 60079 series standards by an independent laboratory accepted by the U.S Coast Guard. USCG notice 01-12 (February 7, 2012)
- 4. Compliance with the IMO MODU Code 2009 section 6.6, Reg. II-2/19 /3.2of SOLAS, SOLAS II1/45/10 is to be
- verified by the ABS attending surveyor.

  5. More restrictions are to be observed "Special Conditions for Safe Use" all applicable IECEx certificates; IECEx BAS12.0065X, IECEx BAS 11.0079X, IECEx 11.0074X, IECEx BAS 11.0075X, IECEx BAS 10.0120X, IECEx BAS 11.0075X, IECEx BAS 10.0120X, IECEx BAS 11.0075X, IECEx BAS 10.0120X, I BAS 11.0037X, IECEX BAS 11.0071X, IECEX BAS 11.0076X and IECEX SIR 11.0152U.

- 1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- 2. Glands/connectors to be installed in accordance with 4-8-3/9.1 of the Rules for Building and Classing Marine
- 3. Installation in hazardous areas is to comply with 4-8-4/27.5.1 of the ABS Rules for Building and Classing Marine Vessels 2022.
- 4. Please refer to manufacturer instruction manual for equipment installation and maintenance, to prevent static charge build up.
- 5. Installation requirements as these are detailed on all applicable IECEx certificates (IECEx BAS12.0065X, IECEx BAS 11.0079X, IECEx BAS 11.0075X, IECEx BAS 11.0037X, IECEX BAS 11.003X, IECEX BAS 11.003X BAS 11.0071X, IECEX BAS 11.0076X and IECEX SIR 11.0152U) are to be complied with.

#### **Notes/Drawing/Documentation:**

Drawing No. GB/BAS/ExTR07.0106/00, IECEx Test Report - 476 Adaptors and Reducers (22.02.2008), Revision: -, Pages: 10

Drawing No. GB/BAS/ExTR10.0288/00, IECEx Test Report - 475 & 477 Stopping Plugs (07.03.2011), Revision: -,

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#### Tier: 2 - PDA Issued

Pages: 16 Drawing No. GB/BAS/ExTR11.0056/00, IECEx Ex Test Report - 476 Adaptors & Reducers (09.03.2011), Revision: -Pages: 3 Drawing No. GB/BAS/ExTR11/0063/00, IECEX Ex Test Report - 476 Adaptors and Reducers (03.01.2013), Revision: -, Pages: 15 Drawing No. GB/BAS/ExTR11/0164/00, IECEX Ex Test Report - 390 Increased Safety Stopping Plugs (18.08.2011), Revision: -, Pages: 9 Drawing No. GB/BAS/ExTR11/0165/00, IECEx Test Report - 487 Stopping Plug (26.08.2011), Revision: -, Pages: 13 Drawing No. GB/BAS/ExTR11/0166/00, IECEx Ex Test Report - 383 Earth Lead Adaptor (18.08.2011), Revision: -, Pages: 12 Drawing No. GB/BAS/ExTR11/0168/00, IECEX Ex Test Report - 389 Breather Drain (18.08.2011), Revision: -, Pages: 9 Drawing No. GB/BAS/ExTR11/0169/00, IECEx Test Report - 489 Breather Drain (20.09.2011), Revision: -, Pages: Drawing No. GB/BAS/ExTR11/0170/00, IECEx Test Report - 476 Adaptors & Reducers (24.01.2012), Revision: -, Pages: 4 Drawing No. GB/BAS/ExTR11/0287/00, IECEx Ex Test Report - 475 & 477 Stopping Plugs (14.11.2011), Revision: -, Pages: 3 Drawing No. GB/BAS/ExTR12.0114/00, IECEx Test Report - 375 Stopping Plugs (18.02.2013), Revision: -, Pages: Drawing No. GB/BAS/ExTR12/0095/00, IECEx Test Report - 389 Breather Drain (12.04.2012), Revision: -, Pages: 3 Drawing No. GB/BAS/ExTR12/0096/00, IECEx Test Report - 489 Breather Drain (12.04.2012), Revision: -, Pages: 3 Drawing No. GB/BAS/ExTR12/0205/00, IECEx Test Report - 475 & 477 Stopping Plugs (13.08.2012), Revision: -, Pages: 3 Drawing No. GB/BAS/ExTR13.0032/00, IECEx Test Report - 489 & 389 Breather Drain (04.03.2013), Revision: -, Pages: 8 Drawing No. GB/BAS/ExTR13.0164/00, IECEx Test Report - 487 Stopping Plug (30.07.2013), Revision: -, Pages: 3 Drawing No. GB/BAS/ExTR14.0004/00, IECEX Ex Test Report - 390 Increased Safety Stopping Plugs (06.03.2014), Revision: -, Pages: 6 Drawing No. GB/BAS/ExTR14.0223/00, IECEx Test Report - 487 Stopping Plug (31.07.2014), Revision: -, Pages: 3 Drawing No. GB/BAS/ExTR15.0032/00, IECEx Test Report - 487 Stopping Plug (06.02.2015), Revision: -, Pages: 6 Drawing No. GB/BAS/ExTR15.0134/00, IECEx Test Report - 390 Increased Safety Stopping Plugs (18.05.2015), Revision: -, Pages: 3 Drawing No. GB/BAS/ExTR15.0145/00, IECEx Test Report - 389 Breather Drain (23.06.2015), Revision: -, Pages: 3 Drawing No. GB/BAS/ExTR15.0281/00, IECEx Test Report - 475 & 477 Stopping Plugs (31.01.2017), Revision: -, Pages: 8 Drawing No. GB/BAS/ExTR16.0188/00, IECEx Test Report - 375 Stopping Plugs (20.07.2016), Revision: -, Pages: 3 Drawing No. GB/BAS/ExTR16.0322/00, IECEx Test Report - 494 495 496 489 389 478 478LT 375 390 487 Misc Accessories (31.01.2017), Revision: -, Pages: 9 Drawing No. GB/SIR/ExTR12.0001/00 R25571A/00, Assessment Report - 490 - 491 - 492 - 493 Swivel Couplings (Issue 17 - 01/2012), Revision: -, Pages: 24 Drawing No. GB/SIR/ExTR12.0215/00 R28633A/00, Assessment Report - 490 - 491 - 492 - 493 Swivel Couplings (Issue 11 - 08/2012), Revision: -, Pages: 8 Drawing No. GB/SIR/ExTR12.0314/00 R29552A/00, Assessment Report - 490-491-492-493 Swivels (Issue 11 -12/2012), Revision: -, Pages: 8 Drawing No. GB/SIR/ExTR13.0161/00 R31050A/00, Assessment Report - 490 - 491 - 492 - 493 Swivel Couplings

Drawing No. IECEx BAS 07.0057X, IECEx Certificate of Conformity - 476 Adaptors & Reducers (09.03.2011),

Drawing No. IECEx BAS 10.0120X, IECEx Certificate of Conformity - 475 & 477 Stopping Plugs (21.03.2016),

Drawing No. IECEx BAS 11.0037X, IECEx Certificate of Conformity - 476 Adaptors & Reducers (31.01.2012),

Revision: 1, Pages: 4

Revision: 3, Pages: 4

(Issue 12 - 05/2013), Revision: -, Pages: 7

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Revision: 1, Pages: 4 Drawing No. IECEx BAS 11.0071X, IECEx Certificate of Conformity - 487 Stopping Plug (05.01.2017), Revision: 4, Pages: 4 Drawing No. IECEx BAS 11.0074X, IECEx Certificate of Conformity - 383 Earth Lead Adaptor (19.08.2011), Revision: 0, Pages: 3 Drawing No. IECEx BAS 11.0075X, IECEx Certificate of Conformity - 389 Increased Safety Breather (05.01.2017), Revision: 4, Pages: 4 Drawing No. IECEx BAS 11.0076X, IECEx Certificate of Conformity - 489 Breather Drain (05.01.2017), Revision: 3, Pages: 4 Drawing No. IECEx BAS 11.0079X, IECEx Certificate of Conformity - 390 Increased Safety Stopping Plug (05.01.2017), Revision: 4, Pages: 4 Drawing No. IECEx BAS 12.0065X, IECEx Certificate of Conformity - 375 Stopping Plug (05.01.2017), Revision: 2, Pages: 4 Drawing No. IECEx SIR 11.0152U, IECEx Certificate of Conformity - 490 - 491 - 492 - 493 Swivel Couplings (08.07.2013), Revision: 3, Pages: 5 Drawing No. LRQ 0964946, ISO 9001:2008 Certificate, Revision: -, Pages: 1 Drawing No. 383, Data Sheet, Revision: B, Pages: 1 Drawing No. 390, Data Sheet, Revision: F, Pages: 1 Drawing No. 475, Data Sheet, Revision: E, Pages: 1 Drawing No. 476, Data Sheet, Revision: D, Pages: 1 Drawing No. 477, Data Sheet, Revision: E, Pages: 1 Drawing No. 489, Data Sheet, Revision: E, Pages: 2 Drawing No. 490, Data Sheet, Revision: D, Pages: 1 Drawing No. 491, Data Sheet, Revision: D, Pages: 1 Drawing No. 492, Data Sheet, Revision: D, Pages: 1 Drawing No. 493, Data Sheet, Revision: D, Pages: 1 Drawing No. D2555, 375 Data Sheet, Revision: F, Pages: 1 Drawing No. GB-BAS-ExTR21.0056/00, SGS test report for 375 Plastic Stopping Plugs, SGS Baseefa Ltd, UK, Date 18.05.2021, Revision: -, Pages: 28 Drawing No. GB-BAS-ExTR15.0026/00, SGS test report for 383 Earth Lead Adaptor, SGS Baseefa Ltd, UK, Date 07.04.2017, Revision: -, Pages: 5 Drawing No. GB-BAS-ExTR15.0026/00, SGS test report for 389 Metallic Breather Drain, SGS Baseefa Ltd, UK, Date 03.02.2020, Revision: -, Pages: 5 Drawing No. GB-BAS-ExTR19.0284-00, SGS test report for 390, 475, 476, 477, 487, SGS Baseefa Ltd, UK, Date 06.02.2020, Revision: -, Pages: 10 Drawing No. GB-BAS-ExTR17.0211/00, Sira test report for 490, 491, 492, 493, Sira Certification, UK, Date 18.11.2017, Revision: 15, Pages: 23 Drawing No. GB-BAS-ExTR17.0252/00, SGS test report for 489 Breather Drain, SGS Baseefa Ltd, UK, Date 22.08.2017, Revision: 15, Pages: 4 Drawing No. IECEx BAS 12.0065X, 375 Plastic Stopping Plugs, Date: 19.05.2021, Revision: 03, Pages: 4 Drawing No. IECEx BAS 11.0074X, 383 Earth Lead Adaptor: Date: 07.04.2017, Revision: 01, Pages: 4 Drawing No. IECEX BAS 11.0075X, 389 Breather Drain Plug, Date: 03.02.2020, Revision: 07, Pages: 7
Drawing No. IECEX BAS 11.0075X, 389 Breather Drain Plug, Date: 03.02.2020, Revision: 07, Pages: 7
Drawing No. IECEX BAS 11.0079X, 390 Increased Safety Stopping Plug, Date: 06.02.2020, Revision: 05, Pages: 4
Drawing No. IECEX BAS 10.0120X, Type 475 and Type 477 Stopping Plug, Date: 06.02.2020, Revision: 04, Pages: 4

#### **Terms of Validity:**

This Product Design Assessment (PDA) Certificate remains valid until 22/Jun/2027 or until the Rules and/or

Drawing No. IECEx BAS 11.0037X, 476 Range of Adaptors and Reducers, Date: 06.02.2020, Revision: 03, Pages: 4 Drawing No. IECEx BAS 11.0071X, 487 Domed Head Stopping Plug, Date: 03.02.2021, Revision: 07, Pages: 4 Drawing No. IECEx BAS 11.0076X, 489 Breather Drain, Date: 31.08.2017, Revision: 03, Pages: 4 Drawing No. IECEx SIR 11.0152U, 490, 491, 492, 493 Swivel Couplings, Date: 21.11.2017, Revision: 04, Pages: 5

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Tier: 2 - PDA Issued

Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

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#### **STANDARDS**

#### **ABS Rules:**

- Marine Vessel Rules (2022): 1-1-4/7.7, 1-1-A3, 1-1-A4; 4-1-1/7.15; 4-8-3/1.7, 4-8-3/1.11, 4-8-3/9.1, 4-8-3/13, 4-8-4-27.5.1:
- Facilities on Offshore Installations (2022): 1-1-4/9.7, 1-1-A2, 1-1-A3;
- Mobile Offshore Units (2022): 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-1-1/7.9, 4-3-3/9.1.2, 4-3-3/9.1.3; 6-1-1/9, 6-1-1/13;
- Steel Vessels for Service on Rivers and Intracoastal Waterways (2022): 1-1-4/7.7, 1-1-A3, 1-1-A4; 4-1-1/21, 4-5-3/11.1.1:
- High Speed Crafts (2022): 1-1-4/11.9, 1-1-A2, 1-1-A3, 4-1-1/37, 4-6-3/9.1.1;
- Steel Barge Rules (2022): 1-1-4/7.9, 1-1-A3, 1-1-A4;

#### **National:**

NA

#### **International:**

IEC 60079-0 Ed. 7.0 b:2017, IEC 60079-7 Ed. 5.1 b:2017; Type 375 Range of Plastic Stopping Plugs

IEC 60079-7 Ed. 5.1 b:2017; 383 Earth Lead Adaptor IEC 60079-0 Ed. 7.0 b:2017, IEC 60079-7 Ed. 5.1 b:2017; 389 Breather Drain Plug

IEC 60079-7 Ed. 5.1 b:2017; 390 Increased Safety Stopping Plug
IEC 60079-1 Ed. 7.0 b:2014, Type 475 and Type 477 Stopping Plug
IEC 60079-1 Ed. 7.0 b:2014, IEC 60079-7 Ed. 5.1 b:2017; Type 476 Range of Adaptors and Reducers

IEC 60079-1 Ed. 7.0 b:2014, IEC 60079-7 Ed. 5.1 b:2017; 487 Domed Head Stopping Plug

IEC 60079-1 Ed. 7.0 b:2014; 489 Breather Drain

IEC 60079-1 Ed. 7.0 b:2014, IEC 60079-7 Ed. 5.1 b:2017; 490 - 491 - 492 - 493 Swivel Couplings

#### **Government:**

NA

#### **EUMED:**

NA

#### **OTHERS:**

NA