



Marine & Offshore

Certificate number: 13886/C2 BV

File number: ACM 145/2516/001

Product code: 2223H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Victaulic Company

Easton - UNITED STATES OF AMERICA

for the type of product

CHECK VALVES, NON-RETURN VALVES

Series 751 FireLock Alarm Check Valve and Series 752 Retard Chamber

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore Units

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 20 Aug 2019

For Bureau Veritas Marine & Offshore,

At BV PORT EVERGLADES CENTRE, on 14 Aug 2017,

Flavio Rosas



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarnb.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=krcdi2skue>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

Series 751 FireLock® Alarm Check Valve and Series 752 Retard Chamber

1.1 Design

- The Series 751 Alarm check valve work by preventing the reverse flow of water from the system piping to the water supply.
- The Series 752 Retard chamber is a surge tank that reduces the possibility of false alarms due to water supply pressure surges.
- Pipe connections by grooved ends.

1.2 Technical data

ND (inch / mm)	Actual Outside Diameter (inch / mm)	Pressure (psi / bar)	Pressure (bar)
1-1/2 / 40	1.900 / 48,3	232 / 16	16
2 / 50	2.375 / 60,3	232 / 16	16
2-1/2 / 65	2.875 / 73,0	232 / 16	16
76,1 mm	3.000 / 76,1	232 / 16	16
3 / 80	3.500 / 88,9	232 / 16	16
4 / 100	4.500 / 114,3	232 / 16	16
6 / 150	6.625 / 168,3	232 / 16	16
165,1 mm	6.500 / 165,1	232 / 16	16
8 / 200	8.625 / 219,1	225 / 15,5	15,5

Temperature range : -34°C / 110°C

1.3 Materials

Part	Material
Body	Ductile iron, ASTM A-536
Clapper	Aluminum bronze UNS-C95500
Shaft	Stainless Steel 17-4
Clapper seal	EPDM, ASTM D2000
Seat O-rings	Nitrile

When other choices of materials are used per manufacturer's recommendations, the BV agreement is to be obtained.

2. DOCUMENTS AND DRAWINGS

2.1 Drawings for Series 751:

- N° C-V-014-751-001 Rev. R dated 19/04/2016 & N° C-V-020-751-001 Rev. R dated 19/04/2016.
- N° D-V-030-751-001 Rev. S dated 19/04/2016 & N° D-V-040-751-001 Rev. T dated 19/04/2016.
- N° D-V-060-751-001 Rev. AE dated 19/04/2016 & N° D-V-080-751-001 Rev. L dated 19/04/2016.
- N° D-V-761-751-001 Rev. K dated 19/04/2016 & N° V-030-751-034 Rev. L dated 19/04/2016.
- N° V-040-751-034 Rev. K dated 19/04/2016 & N° V-060-751-037 Rev. M dated 19/04/2016.
- N° V-080-751-033 Rev. J dated 19/04/2016 & N° V-165-751-037 Rev. F dated 19/04/2016.

2.2 Drawings for Series 752:

- N° C-T-014-752-007 Rev. C dated 27/05/2003 & N° C-T-040-752-001 Rev. A dated 04/06/1998.
- N° T-030-752-001 Rev. C dated 23/02/2012.

Technical data sheet N° 2218 Rev. M dated 06/2014.

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.

3. TEST REPORTS

Tests carried out per test report N° 2D4A2.AH : Hydraulic test on body and clapper / Friction loss test / Minimum flow test

4. APPLICATION / LIMITATION

4.1 May be used for the following services on board : Fire protection systems.

4.2 The valves have not been fire tested.

4.3 The valves belong to Class III according to the relevant requirements stated in Part C, Chapter 1, Sec 10 of Bureau Veritas Rules.

4.4 The check valves and options are to be installed according to manufacturer instructions.

4.5 The pipes must be suitably supported and anchored. The check valves and options must be at any time accessible.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 The products are to be supplied by **Victaulic Company** in compliance with the type described in this certificate and in compliance with the requirements stated on the front page of this certificate.

5.2 This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 **Victaulic Company** has to make the necessary arrangements to have its works recognised by BUREAU VERITAS in compliance with the requirements of NR 320 for HBV products.

For information, **Victaulic Company** has declared to Bureau Veritas the following production sites:

Victaulic Canada Facility

123 Newkirk Road Richmond Hill, ON, Canada

Victaulic Piping Products (Dalian) Co. Ltd.

N° 13 Tieshan East 2nd Road, Dongjiagou Town, Dalian Development Zone, Dalian 116630, China

6. MARKING OF PRODUCT

The check valves and options shall be marked with at least:

- Manufacturer's name or logo
- Type designation
- Size

7. OTHERS

It is **Victaulic Company's** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

This certificate supersedes the Type Approval Certificate No. 13886/C1 BV issued by the Society.

*** END OF CERTIFICATE ***