



MARINE DIVISION

Certificate number: 36894/A0 BV

File number: ACM 167/701/6

Product code: 2237H

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

JOHN GJERDE A/S
GJERDSVIKA - NORWAY

for the type of product

AUTOMATIC OPEN TANK VENTING SYSTEMS

HIDE Type DN 40~DN 300

Requirements:

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

This certificate is issued to attest that BUREAU VERITAS 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: 08 Apr 2019

For BUREAU VERITAS,

At BV OSLO, on 08 Apr 2014,

Rune MARSTEIN

Rune Marstein



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. 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 Division 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 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 SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

Hide Type AIR VENT HEAD - DN 40, 50, 65, 80, 100, 125, 150, 200, 250 and 300

- The float disc is intended to be used as components of automatic closing of air vents

1.1 Technical characteristics

DN	Wall thickness (mm)	Mass (kg)	80% of Max Vacuum Flow Velocity (m/s)	
			No Screen	Screen
40	6	2	22	23
50	6	3	18	21
65	6	3.5	16	16
80	6	4	21	25
100	6	6	17	17
125	6	11	19	20
150	6	18	17	17
200	6	30	17	18
250	8	44	18	17
300	10	77	17	17

Temperature range: -25 °C to +85 °C

1.2 Material specification

Body	Aluminium / SS316 / Galv. and cast. carbon steel
Float Disc	Plastic ABS

2. DOCUMENTS AND DRAWINGS

- Drawing dated 24/02/2012

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

- Float Tightness test report N° 72290-13004 dated 19/06/2013 carried out at Alesund University

- Tightness test carried out at manufacturer workshop and witnessed by Classification Society from 07/01/2014 to 10/01/2014 as required by IACS UR P3 Rev3 (2012).

- Flow Characteristic test carried out at manufacturer workshop and witnessed by Classification Society on 24/05/2013.

- Reverse flow test carried out at manufacturer workshop and witnessed by Classification Society on 24/05/2013 as required by IACS UR P3 Rev3 (2012) .

4. APPLICATION / LIMITATION

4.1 May be used on air pipes from tanks intended for ballast water, fresh water and oil fuel fluids.

4.2 Not approved for ballast water management by flushing the ballast water through an air vent.

4.3 As automatic closing devices on air and overflow pipes which terminate above the open deck.

4.4 These air pipes are not to be used for cargo tanks of tankers.

4.5 The air pipe head characteristic curves as stated in the test reports are to be taken into consideration.

4.6 The height of air pipes above deck is to be in accordance with the BUREAU VERITAS Rules.

4.7 The additional strength requirements to resist green sea forces shall be considered for ships having to comply with BUREAU VERITAS Rules Pt C, Ch 1, Sec 10 [9.1.9].

5. PRODUCTION SURVEY REQUIREMENTS

5.1 The products are to be supplied by **JOHN GJERDE A/S** in compliance with the type described in this certificate and in compliance with the requirements stated on the front page of this certificate. This type of product is within the category HBV of Bureau Veritas Rule Note NR 320.

5.2 **JOHN GJERDE A/S** 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.

5.3 No BUREAU VERITAS certificate is required.

Place of Production

**JOHN GJERDE A/S
N-6077 GJERDSVIKA
NORWAY**

6. MARKING OF PRODUCT

Air Vent Head shall be marked with at least:

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

7. OTHERS

This approval is given on the understanding that the manufacturer will accept full responsibility for informing shipbuilders or their sub-contractors of the proper methods of fitting and general maintenance of the products and of the conditions of this approval.

***** END OF CERTIFICATE *****