



MARINE DIVISION

Certificate number: 07553/D0 BV

File number: AP 3061

Product code: 4431H

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

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

Böning Automationstechnologie GmbH & Co. KG
Ganderkesee - GERMANY

for the type of product

INTERNAL COMBUSTION ENGINE CONTROL UNITS

Type: AHD 414A.

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships.

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: 30 Nov 2011

For BUREAU VERITAS,

At BV HAMBURG, on 19 Jan 2010,

Dirk Hoepfner



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 :

Alarm or Safety System Type: AHD 414A

- Power supply: 24 or 12V DC \pm 25%
- Degree of protection: IP 44 (front)
- Inputs: 10 binary inputs n/o or n/c with wire break monitoring facility
1 serial interface (TTY)
- Outputs: 1 serial interface (TTY)
3 relay-outputs programmable.

Installation in metal cubicals with Schaffner-filter FN-2080-6-06.

2. DOCUMENTS AND DRAWINGS :

According to drawings filed in AP 3061.

3. TEST REPORTS :

Aqua-Signal test report N° QTR F12 dated 04.08.93.
 RMS test report N° 1-04/96.
 EMV-Labor MAZ test report N° 96/6030-1-4 and 1-4a.
 EMV Laboratory: EMC Test Report No. 07/7100-5-1 dated 30.08.07.

4. APPLICATION / LIMITATION :

- 4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships.
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - Configuration of the system should be submitted to BV for each case of application.
- 4.4 - The fitting aboard to be the same as used for the test.
- 4.5 - Only Hardware and Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer are covered by this certificate.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The above products are to be manufactured, examined and tested by **Böning Automationstechnologie GmbH & Co. KG** in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

5.2 - Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end **Böning Automationstechnologie GmbH & Co. KG** has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

5.3 - **Böning Automationstechnologie GmbH & Co. KG** has declared to Bureau Veritas that the type of product described in this certificate may be manufactured at the following production site:

Böning Automationstechnologie GmbH & Co. KG
 Am Steenöver 4, 27777 Ganderkesee,
 GERMANY

6. MARKING OF PRODUCT :

- Maker's name or trade mark,
- Serial number of the units,
- Equipment type number or model identification under which it was type-tested.

7. OTHERS :

7.1 - This approval is given with the understanding that the Society reserves the right to require check tests to be carried out on the above mentioned equipment in Clause 1 at any time, and that **Böning Automationstechnologie GmbH & Co. KG, 27777 Ganderkesee - GERMANY** will accept the responsibility for informing shipbuilders, ship-owners or their sub-contractors of the proper methods of use and general maintenance of the Equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate n° 07553/C0 BV issued on 28/11/2007 by the Society.

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