



Marine & Offshore  
Division

Certificate number: 46989/A0 BV

File number: AP 4704

Product code: 4209H

*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*

**Den Norske Hoyttalerfabrikk**

Kragero - NORWAY

*for the type of product*

**EMERGENCY LOUDSPEAKER SYSTEMS**

Horn , cabinet and ceiling loudspeakers II:

DUP-40 & Tunnel-500, MC-50, BPF-660(T), B-406(T), TRIC-6(T), CP66(T), CP-6T,  
BA-56EExmN(T), DSP-I5EExmN(T).

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships  
IEC 60945 (Ed. 4) (2002)

EC Code: 41B

*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: 16 Sep 2021**

**For BUREAU VERITAS,**  
At BV OSLO, on 16 Sep 2016,  
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 & Offshore Division available on the internet site [www.veristar.com](http://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 electronic version is available at: <http://www.veristamb.com/veristarnb/jsp/viewPublicPdfTypec.jsp?id=4hizhmro6o>  
BV Mod. Ad.E 530 October 2014

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

- Product model or type designation :

**DUP-40 & Tunnel-500, MC-50, BPF-660(T), B-406(T), TRIC-6(T), CP66(T), BA-56EExmN(T), DSP-15EExmN(T), CP-6T**

- Product description:

Horn, cabinet and ceiling loudspeakers.

Model	Type	SPL 1W / 1m (dB)	IP Rating	Remarks
TUNNEL-500 / DUP-40(T)	Alarm Horn Speaker	113	IP 54	2 brackets mounting Threaded UNEF 1 3/8" - 18
MC-50(T)	Cabinet Loudspeaker	98	IP 54	Bracket mounting
BPF-660T	Ceiling / wall loudspeaker	93	IP 54	Hook mounting
B-406T	Ceiling / wall loudspeaker	92		Screws mounting
TRIC-6T	Cabinet Loudspeaker	88		Screws mounting
CP-66T, CP-6T	Cabinet Loudspeaker	86		Screws mounting
BA-56EExeN(T)	Explosion Proof Speaker	88	IP 54	Ex d e IIB + H2 T6 Gb
DSP-15EExmN(T)	Explosion Proof Speaker	106	IP 67	Ex d e mb IIB+H2 T4 Gb Ex d e mb IIC T4 Gb Ex tb IIIC T127°C (for DSP-15EExmNs(T) & DSP-15EExm NMs(T)) Ex tb IIIC T105°C (for DSP-15EExmN(T) & DSP-15EExmN M(T))

### 2. DOCUMENTS AND DRAWINGS:

**DNH:**

- General technical description TUNNEL-500 / DUP-40(T), Rev. 22.12.2015
- General technical description DUP-40(T), Rev. 08.02.2016
- General technical description BPF-660(T), Rev. 03.10.2014
- General technical description B-406(T), Rev. 15.03.2013
- General technical description TRIC-6(T), Rev. 27.11.2013
- General technical description MC-50(T), Rev. 13.12.2013
- General technical description CP-6T, Rev. 10.09.2012
- General technical description CP-66T, Rev. 10.09.2012
- General technical description BA-56EExeN(T), Rev. 03.10.2014
- General technical description DSP-15EExmN(T), Rev. 26.07.2016

### 3. TEST REPORTS:

**LABTEST:**

- Test report DUP-40 with Tunnel-500 No.: 13356-1S, dated August 15, 2016
- Test report MC-50 No.: 13356-2S, dated August 15, 2016
- Test report BPF-660T No.: 13356-3S, dated August 15, 2016
- Test report B-406T No.: 13356-4S, dated August 15, 2016
- Test report TRIC-6T No.: 13356-5S, dated August 15, 2016
- Test report CP-66T, CP-6T No.: 13356-6S, dated August 15, 2016
- Test report BA-56EExeNT No.: 13356-7S, dated August 15, 2016
- Test report BA-15EExeNT No.: 13356-8S, dated August 15, 2016

**IECEX:**

- Test report BA-56EExeN(T) No.: NO/NEM/ExTR11.0007/00, dated Jun 21, 2011
- Test report DSP-15EExmN(T) No.: NO/NEM/ExTR11.0028/00, dated Jun 21, 2011

**Element:**

- Test report Ingress Protection BPF-660T No.: TRA029926CC01 Issue B, dated Sep 8, 2016

**4. APPLICATION / LIMITATION:**

- 4.1 - BUREAU VERITAS Rules and Regulations 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 - BUREAU VERITAS Environmental Category, **EC Code: 41B**
- 4.4 - Ex-certification is not covered by this certificate, Applications in hazardous areas are to be approved in each case according to the Rules and Conditions for Safe Use specified in a valid Ex-Certificate issued by a Notified or Recognised Certification Body.
- 4.5 - When used for a public address or general system, loops and loudspeakers lay out are to be submitted for approval.
- 4.6 - To be installed in compliance with Regulations and Rules stated on front page of the Certificate.
- 4.7 - When used for an emergency alarm system the cables shall be of a fire-resistant type, if they pass through high fire risk areas.
- 4.8 - Satisfactory performance tests shall be witnessed on each installation by the Society's Surveyor after installation on board.
- 4.9 - The minimum safe distance at which the equipment may be mounted from a standard or a steering magnetic compass is not to be less than 160 cm.

**5. PRODUCTION SURVEY REQUIREMENTS:**

- 5.1 - The above products are to be supplied by **DNH AS (Den Norske Høytalerfabrikk AS)** in compliance with the type described in 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 - **DNH AS (Den Norske Høytalerfabrikk AS)** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.
- 5.4 - **DNH AS (Den Norske Høytalerfabrikk AS)** has declared to Bureau Veritas the following production site(s):

**DNH AS (Den Norske Høytalerfabrikk AS)**  
**Gruveveien 2-4**  
**3770 Kragere**

**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.
- Ex marking, as relevant.

**7. OTHERS:**

It is **DNH AS (Den Norske Høytalerfabrikk AS)** - Norway'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.

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