



Marine & Offshore

Certificate number: 12194/D0 BV

File number: ACE 13/801/01

Product code: 4209H

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

Den Norske Hoyttalerfabrikk
Kragero - NORWAY

for the type of product

EMERGENCY LOUDSPEAKER SYSTEMS

Loudspeakers: Safe-10pT, CAS series, CP series, BLC-550T, DP series, DPD series.

Requirements:

BV Rules for the Classification of Steel Ships.

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: 04 May 2023

For Bureau Veritas Marine & Offshore,

At BV OSLO, on 04 May 2018,

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 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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

| Loudspeakers Type | IP rating | SPL 1W / 1m (db) | Effective Freq. range (Hz) |
|-------------------|-----------|------------------|----------------------------|
| Safe- 10pT | 56 | 85 | 150-20000 |
| CAS-6T | 54 | 88 | 110-20000 |
| CAS-15T | 54 | 91 | 100-20000 |
| CAS-30T | 54 | 92 | 95-20000 |
| CAS-50T | 54 | 92 | 95-20000 |
| CP-66T | N/A | 88 | 180-18000 |
| CP-6T | N/A | 88 | 180-18000 |
| DP-10T | 55 | 96 | 150-20000 |
| DP-30T | 55 | 88 | 70-20000 |
| DPD-10T | 55 | 94 | 150-20000 |
| DPD-30T | 55 | 88 | 70-20000 |
| BLC-550T | N/A | 90 | 160-14000 |

2. DOCUMENTS AND DRAWINGS:

Drawings specification filed in the DNH catalogue dated 11/2001.

3. TEST REPORTS:

Safe 10pT:

Test report issued by Nemko, dated 18/05/2001, referenced 200112105
 Test report issued by Nemko, dated 09/08/2001, referenced 200112106/S1/03
 Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C1/03
 Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C2/03
 Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C3/03
 Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C5/03.

CAS series:

Test report issued by Nemko, dated 03/07/2001, referenced 200112105
 Test report issued by Nemko, dated 09/08/2001, referenced 200112106/S1/06.

BLC 550T:

Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C1/09
 Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C2/09
 Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C3/09
 Test report issued by Nemko, dated 09/08/2001, referenced 200112106/S1/09
 Test report issued by Nemko, dated 14/05/2001, referenced 200112105.

CP series:

Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C1/08
 Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C2/08
 Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C3/08
 Test report issued by Nemko, dated 10/05/2001, referenced 200112105
 Test report issued by Nemko, dated 09/08/2001, referenced 200112106/S1/08.

DP / DPD series:

Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C1/04
 Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C2/04
 Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C3/04
 Test report issued by Nemko, dated 13/07/2001, referenced 200112102/C5/04
 Test report issued by Nemko, dated 20/08/2001, referenced 200112105
 Test report issued by Nemko, dated 09/08/2001, referenced 200112106/S1/04.

4. APPLICATION / LIMITATION:

- 4.1 - When used for a public address or general system, loops and loudspeakers lay out are to be submitted for approval.
4.2 - To be installed in compliance with Regulations and Rules stated on front page of the Certificate.
4.3 - When used for an emergency alarm system the cables shall be of a fire-resistant type.
4.4 - Satisfactory performance tests shall be witnessed on each installation by the Society's Surveyor after installation on board.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The Loudspeakers: Safe-10pT, CAS series, CP series, BLC-550T, DP series, DPD series are to be supplied by **Den Norske Hoyttalerfabrikk** 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 - **Den Norske Hoyttalerfabrikk** 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 - For information, **Den Norske Hoyttalerfabrikk** has declared to Bureau Veritas the following production site(s):

**Den Norske Hoyttalerfabrikk
GRUVEVN 2-4
3770 Kragero
NORWAY**

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 - It is **Den Norske Hoyttalerfabrikk'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.
7.2 - This certificate supersedes the Type Approval Certificate N° 12194/C0 BV issued on 05/02/2013 by the Society.

*** END OF CERTIFICATE ***