

TYPE APPROVAL CERTIFICATE
No. MAC482004CS/001



This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	AIR PIPE AUTOMATIC CLOSING DEVICES
<i>Type</i>	WIN2000 AND WIKO5000
<i>Applicant</i>	WINTEB V.O.F. PARALLELWEG 1 9672 AW WINSCHOTEN NETHERLANDS
<i>Manufacturer</i>	WINTEB V.O.F.
<i>Place of manufacture</i>	PARALLELWEG 1 9672 AW WINSCHOTEN NETHERLANDS
<i>Reference standards</i>	2002 RINA RULES FOR THE TYPE APPROVAL AND TESTING OF AIR PIPE AUTOMATIC CLOSING DEVICES AND 2007 RINA RULES FOR THE CLASSIFICATION OF SHIPS, PARA. 9.1 OF PART C, CHAPTER 1, SECTION 10.
<i>Reference documents</i>	RINA TYPE APPROVAL SYSTEM

Issued in **Genoa** on **May 11, 2007**. This Certificate is valid until **May 10, 2012**

Francesco Sciacca

This certificate consists of this page and 1 enclosure



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Reference documents

Manufacturer's brochure and WIN2000 technical data sheet.

Manufacturer's drawings:

- No. WIN2000-01 Rev. 04 "WIN200 general drawing" DN50-DN250 approved with no. MAC-24165 on 11 May 2007;
- No. 200-400-01-A Rev. 00 "WIKO5000 Type 1-A DN 50-400 and WIKO5000 Type 1 DN300-DN400 approved with no. MAC-24166 on 11 May 2007;
- No. 50-150-01-A Rev. 00 "WIKO5000 Type 1-A DN 50-150" approved with no. MAC-24167 on 11 May 2007.

Test reports:

- Hochschule Bremen-Test report no. WINTeB 2005/1, Tests on tightness and flow characteristics of Winteb air pipe automatic closing devices, dated 31.05.2005 [stamped "Filed for information" with RINA no. MAC-24690 on 11 May 2007];
- Annex 1 to Test report no. Winteb 2005/1, Results of pressure drop test: Plots, dated 31.05.2005 [stamped "Filed for information" with RINA no. MAC-24691 on 11 May 2007];
- Annex 2 to Test report no. Winteb 2005/1, Results of tightness tests, dated 31.05.2005 [stamped "Filed for information" with RINA no. MAC-24692 on 11 May 2007];
- Annex 3 to Test report no. Winteb 2005/1, Results of pressure drop tests: Tables, dated 31.05.2005 [stamped "Filed for information" with RINA no. MAC-24693 on 11 May 2007];
- MPA NRW test report nos. 22 0440 5 96-01, -02 and -03 dated 26 April 1996 (Impact and compression test on ball floats) [stamped "Filed for information" with RINA no. MAC-24694 on 11 May 2007];
- RINA Test certificate N. 06/XN/1452 issued on 15/11/2006 for air vent heads installed on NB 818 RI 82338 of WIN2000 type1: Sizes: DN50/DN65/DN100/DN125 (screen) and DN80/DN150/DN200.

Materials/Components

- As per the above mentioned approved drawings.

Technical characteristics

- Air vent heads with Polyethylene (PE) ball floats.
- WIN2000 size ranges:
Type 1 : DN50, 65, 80, 100, 125, 150, 175, 200, 250 and 450
Type 1-B : DN50, 65, 80, 100 and 125



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- WIKO5000 size ranges:

Type 1-A : DN50, 65, 80, 100, 125, 150, 200, 250, 300, 350 and 400

Type 1 : DN300, 350 and 400

Fields of application

- The Air Pipe Closing Devices may be used on air and overflows pipes which terminate above the open deck.

Limitations of use

- The air pipe closing devices are not to be used for ventilation of tanker cargo tanks.

- The air pipe closing devices are to be fitted with manufacturer's specified flame screens when used in air pipes for fuel oil and flammable oil tanks.

- For WIN2000 type 1: the size DN450 can be ONLY used without screen.

- The requirements regarding the actual arrangements on board as stated in Para.9.1.9 and 9.1.10, including Table 24, of Part C Chapter 1, Section 10 of the RINA Rules are to be fully complied with.

These requirements apply to strength checks of air pipes and their closing devices located within the forward quarter length of the ship, for ships of length L 80 m or greater, where the height of the exposed deck in way of the item is less than 0.1L or 22 m above the summer load waterline, whichever is the lesser.

The requirements in 9.1.10 are additional to those specified in 9.1.6 a), in 20.2.2 and 9.1.8 a) of the a.m. RINA Rules.

Remarks

-For mass produced closing devices, dimensional checks and tightness tests (according to 4.2 and 4.3.2 of the current Rules in reference) are to be performed on sample of closing devices selected from batch which is to be homogeneous as regard material and dimensions.

-Verification of marking for identification and proper installation on board are to be to the satisfaction of the RINA Surveyor.

Genoa 11/05/2007

