



Marine & Offshore
Division

Certificate number: 40873/A0 BV

File number: ACM135/2004/04

Product code: 2104I

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
RCMH INDUSTRIES
PONT L'ABBE - FRANCE

for the type of product
NON-METALLIC HOSES (FLEXIBLE PIPES) ASSEMBLIES

Flame resistant rubber hose assemblies #494 150 and #201 50

Requirements:

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

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: 17 Feb 2021

For BUREAU VERITAS,
At BV BREST, on 17 Feb 2016,
Marc Hannetel



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. 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

Flame resistant rubber hose assemblies

Technical characteristics as described by the manufacturer

Hose Assemblies	TAT0834	TAT0837
Ref. of hose	#494 150	#201 50
Nominal Size (inch)	6"	2"
Inner Diameter (mm)	152,4	50,8
Outer Diameter (mm)	176	69
Cover Thickness (mm)	12	9
Maximum Working Pressure (bar)	13	13
Burst Pressure (bar)	52	52
Temperature Range (°C)	- 40 to +70	- 40 to +70

The maximum working pressure is not to exceed one quarter of the burst pressure at the service temperature

Colour: Black with red lay line (494) & black (201)

End connections: **RCMH INDUSTRIES**

Material specification

Inner Tube	Black NBR synthetic rubber
Reinforcement	4 steel wire braids (#494 150) 2 steel wire spirals (#201 50)
Cover	CR synthetic rubber *
Fittings	Carbon steel / Stainless Steel 316L
Flanges	Carbon steel / Stainless Steel 316L

* oil, abrasion, ozone and weather resistant, and meets MSHA standard

2. DOCUMENTS AND DRAWINGS

- Technical specifications hoses ref. 494 & ref. 201
- Drawings TAT0834 rev. 00 dated 04/06/2013 & TAT0837 dated 18/06/2014
- User Installation Guidelines 2015 issue
- Doc. P0732 rev. 02 dated 28/08/2013 - Fire Testing procedure for hose assemblies acc. to ISO 15540/15541

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

- 3.1 Tests carried out: assembly test, dimension check, hydraulic pressure test, burst test and fire resistance test.
- 3.2 Pressure test report No. 33BRT15-1 dated 01/06/2015 issued by BV.
- 3.3 The fire resistance tests according to ISO 15540:1999 and ISO 15541:1999 were carried out at workshops facilities, conducted and witnessed by BV. Test reports No. 0009 dated 23/06/2014 (TAT 0834 - Hose 494 DN 150) & No. 0012 dated 05/11/2014 (TAT 0837 - Hose 201 DN 50)

4. APPLICATION / LIMITATION

- 4.1 May be used on the following services:
 - Sea water and fresh water, compressed air (TAT0837), fuel oil, lub oil, hydraulic oil
- 4.2 End fittings as per manufacturer's catalogue. The hoses are to be entirely assembled in the manufacturer's workshop.
- 4.3 The installation of hose assemblies is to be in accordance with the manufacturer's instructions to take into consideration forces due to vibration. The hoses are not to be used on services when vibration test is required in Bureau Veritas Rules.

4.4 The hoses are to be limited to a length necessary to provide for relative movement between fixed and flexibly mounted items of machine/equipment or systems and are only to be used in lengths up to 2 m. The hoses are to be installed in clearly visible and readily accessible locations at all times.

4.5 Taper threaded end connections are not to be used for oil circuits in engine rooms nor any place containing an ignition source unless otherwise suitably screened at the Society's Surveyor satisfaction.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 The products are to be supplied by **RCMH INDUSTRIES (FRANCE)** in compliance with the type and the requirements described in this certificate. This type of product is within the category IBV of Bureau Veritas Rule Note NR320. The hose bulks are manufactured by **SEL-EATON-CERKESKOI Factory, TEKIRDAG (TURKEY)** and the end connections are manufactured by **RCMH INDUSTRIES**.

5.2 This certificate may be also used by other companies authorised by **RCMH INDUSTRIES** that would fall under the **RCMH INDUSTRIES** products when same specifications, tolerances, equipment and quality control procedures are used. To this end, the concerned company shall have to apply for agreement by Bureau Veritas in writing.

5.3 Each hose with end fittings is to be hydraulically pressure tested to twice the maximum working pressure and provided with the manufacturer's pressure test report and conformity of production.

5.4 Bureau Veritas product certificate is required.

Production site

RCMH INDUSTRIES
Parc d'activité de KERMARIA
29120 PONT L'ABBE
FRANCE

6. MARKING OF PRODUCT

Each hose assembly is to be at least clearly and indelibly marked with:

- Manufacturer name or logo: **Tecalemit by Sel**
- Type designation
- Date of manufacture and lot #
- Society's brand as relevant

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 method of fitting and general maintenance of the products and of the conditions of this approval.

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

