



MARINE DIVISION

Certificate number: 10352/B0 BV

File number: ACM 135/2004/01

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

Rubber Hose Assembly Type 499

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 is a renewal of certificate N° 10352/A1 BV, which expires on 22/09/2005

This certificate will expire on: 18 Apr 2019

For BUREAU VERITAS,

At BV BREST, on 18 Apr 2014,

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 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

Rubber Hose Assembly Type 499

1.1 Technical Characteristics as described by the manufacturer

Nominal Size (inch)	2"	4"
Inner Diameter (mm)	50.8	101.6
Outer Diameter (mm)	69	129
Cover Thickness (mm)	2.8	2
Max. Working Pressure (bar)	13	13
Burst Pressure (bar)	70	70

Temperature range (°C): - 37 to +80

Electrical continuity: antistatic copper wire embedded between the 4-layers

End connections: **RCMH INDUSTRIES**

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

1.2 Material Specification

Inner tube	Black synthetic nitrile rubber
Reinforcement	4 layers of synthetic textile fabric
Outer tube	Black abrasion, weather, heat and oil resistant neopren rubber
Fittings	Stainless steel

2. DOCUMENTS AND DRAWINGS

- Data sheet Fuel Delivery Hose 499
- Users Installation Guidelines

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

- Tests carried out: assembly test, hydraulic pressure test, burst test and tensile test to 50 kN during 15mn on test bench
- Test reports N° 029/051/060/064BRT12 issued by BV.
- Fire resistance test acc. to ISO 15540/15541:1999 not carried out.

4. APPLICATION / LIMITATION

4.1 May be used on the following services: Diesel oil*, methanol*, sewage water and sludge. * *When required by the Society's rules, approved fire resistant type in accordance with ISO 15540/15541:1999 is to be provided for.*

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. For specific application such as ship-to-ship transfer, a case-by-case review is to be done by BV.

4.5 Taper threaded end connections are not to be used for liquid fuel or 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** 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.

5.2 The hoses detailed in this certificate are completely assembled at the following production site:

RCMH INDUSTRIES

Parc d'activité de KERMARIA

29120 PONT L'ABBE

FRANCE

The hose bulks are manufactured by **SEL-EATON-CERKESKOI Factory, TEKIRDAG (TURKEY)** and the end connections are manufactured by **RCMH INDUSTRIES (FRANCE)**.

5.3 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.

5.4 Bureau Veritas product certificate is required.

5.5 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.

6. MARKING OF PRODUCT

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

- Manufacturer name or logo (**SEL TECALEMIT**)
- 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 *****