



**EC TYPE EXAMINATION (MODULE B)
CERTIFICATE No. MED069921CS/001**

This is to certify that RINA Services S.p.A. (Notified Body No. 0474) did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Fire Protection requirements of Marine Equipment Directive (MED) 2014/90/EU, including the requirements and testing standards of Regulation (EU) 2021/1158.

<i>MED Item N°</i>	MED/3.15c
<i>Description</i>	Materials other than steel for pipes conveying oil or fuel oil: (c) flexible pipes assemblies and compensators
<i>Type</i>	AG DogLeg
<i>Applicant</i>	ALFAGOMMA HYDRAULIC SPA VIA ENRICO MATTEI 6 64020 Castelnuovo Vomano (TE) ITALY
<i>Testing standards</i>	EN ISO 15540 (2001), EN ISO 15541 (2001)
<i>Reference standards</i>	Regulation II-2/4.2.2.5.1 of SOLAS 74 Convention, as amended

Issued in GENOVA on
November 5, 2021

This Certificate is valid until
October 23, 2026

This Certificate consists of this sheet plus an attachment

Marco Dardano

RINA Services S.p.A.



**ATTACHMENT TO
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Manufacturer

ALFAGOMMA HYDRAULIC SPA

Place of Manufacturer

Via dell'Industria 3-12
20882 Bellusco (MB)
ITALY

Reference Documentation

Documentation approved / filed with letter PPVT/2021/00812/CRLVA

- *Constructional drawings and specification approved with dwg PPVT36850*
- *Test Report: Filed with PPVT-36849*

Fire Test acc to ISO 15540:2016 (with insulation)

Burst test 2021/AN/01/666

Impulse pressure test

Pull out test

Shock and vibration test

Vibration with pressure pulsation

Technical characteristic

Flexible hoses with 90° mechanical joint

Materials:

TUBE: Black conductive NBR

REINFORCEMENT: High tensile textile cords with embedded steel helix wire – Antistatic wires

OUTER COVER: Black conductive CR -

JOINTS : Aisi 316, BR/Al CG333G

Diameter of pipes : DN 50 up to DN200

Design pressure : 16 bar

Working Temperature : -10°C up to +90°C

Application

Large bore hose assembly specifically designed for anti-shock and noise reduction features, used in maritime and navy industries to convey:

fuel oil , hydraulic oil, sea water, fresh water

Remarks

The installation on board is to be carried out in accordance with Manufacturer's instructions.

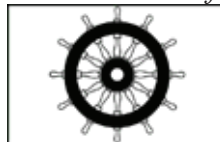
For application in conformity to ISO 15540 insulating cushion of flame retardant material is required, as alternative, type approved insulating cover can be used.

The products are to be permanently marked, for traceability, in compliance with para. 7.2 of RINA "Rules for the type approval of flexible hoses and expansion joints"



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The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production control phase module (D, E or F) of Annex II of the Directive is fully complied with a written inspection agreement with a Notified Body



XXXX/YYYY

"WHEELMARK FORMAT"

XXXX *Notified Body number undertaking surveillance module*

YYYY *The year in which the mark is affixed*

General conditions for the approval

- a) The initial conditions verified by RINA at the time of the approval are to be maintained
- b) Any changes to the initial conditions are to be promptly communicated to RINA, which reserves the right to repeat the relevant assessment
- c) This certificate will no be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with RINA
- d) RINA personnel are to be allowed to witness during the performances of activities, upon their request
- e) The activities are to be carried out in compliance with the RINA Rules and/or other applicable Rules
- f) Should the specified regulations or standards be amended during the validity of this certificate, the product is to be reapproved prior to it being placed on board vessels to which the amended regulations or standards apply.

Marco Dardano