



Confirmation of Product Type Approval

Company Name: ALFAGOMMA HYDRAULIC S.P.A.

Address: VIA E. MATTEI 6 I-64020 Italy

Product: Non-Metallic Flexible Hoses with End Fittings

Model(s): ALFAGOMMA 1SN EVOLUTION 150 HT

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	22-2314014-PDA	17-NOV-2022	16-NOV-2027
Manufacturing Assessment (MA)	20-4430198	08-SEP-2020	07-SEP-2025
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3 - Type Approved, unit certification not required

Intended Service

High Pressure Hydraulic lines, fuel oil, antifreeze solutions, air and water. Specially designed for high temperature applications.

Description

Oil resistant synthetic rubber with one high tensile steel braid and abrasion, ozone and hydrocarbon resistant synthetic MSHA rubber.

Ratings

From DN6 to DN51, pressure 450 bar to 80bar,

Temperature range from -40°C to +150°C (Tmax air +85°C up to 5/8", +110°C over 3/4").

Refer to the attachment for additional details.

Service Restrictions

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

1) Hoses are to be complete with factory assembled end fittings or factory supplied end fittings installed in accordance with manufacturer's specifications.

2) End connections are to comply with applicable requirements and limitation of Steel Vessel Rules (4-6-2/5.5.4, 4-6-2/5.5.5, 4-6-7/3.5.1, 4-6-7/5.3.2).

3) Hose assemblies are to be installed only where flexibility is required, in clearly visible and readily

accessible locations, and are not to be subject to torsional deflection under normal conditions; hose length is to be limited to that required by flexibility only.

4) Not to be used in high pressure fuel oil injection systems, steam systems or oil supply lines to boilers.

5) Not to be used for installations where repeated and/or frequent flexing is expected.

6) Flexible Hoses are to be permanently marked by the manufacturer with the following details: Hose manufacturer's name or trademark, date of manufacturer (month/year), designation type reference, nominal diameter, pressure and temperature rating in accordance with Steel Vessel Rules 4-6-2/5.7.6.

Comments

Only ALFAGOMMA's approved ferrules and inserts are to be used for end fittings, as per the manufacturer's recommendations.

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes, Drawings and Documentation

Hose-Fitting Combination Table, Revision: 0

H1200AD1_no skive fitting, Revision: 0

H1100SK1_skive fitting , Revision: 0

H1100104_skive Fitting, Revision: 0

Data Sheet 1SN HT EVOLUTION, Revision: 0

Test Report 2.2 at ALFAGOMMA dated 09 Apr 2021

Witness burst test at ALFAGOMMA dated 08 Apr 2021

Fire test ISO 15540 at RINA Lab dated 3 Dec 20202

Impulse test at ALFAGOMMA dated 27 Apr 2020

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 16/Nov/2027 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

ABS Rules

ABS Rules for Building and Classing Marine Vessel Rules (2022): 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-2/5.7.

ABS Rules for Building and Classing High-Speed Craft Rules (2022): 1-1-4/11.9, 1-1-A2, 1-1-A3, 4-4-1/9.19.

ABS Rules for Building and Classing Mobile Offshore Unit Rules (2022): 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-2-1/11.29.

International Standards

NA

EU-MED Standards

NA

National Standards

NA

Government Standards

NA

Other Standards

NA



Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 07-Dec-2022 9:29

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.