



Work Order: 4437260-A.R1
First Visit Date: 09-Sep-2020
Last Visit Date: 26-Feb-2021
Vendor PO Number: 9443009948-9443010777
Survey Location: Sant'Atto, TE, Italy

Equipment Certification Report

Asset Type Pipe
Customer Name ALFAGOMMA INDUSTRIAL S.P.A.
WCN of Customer 527012
Location Sant'Atto, TE, Italy

This is to certify that the undersigned Surveyors to this Bureau did at the request of ALFAGOMMA INDUSTRIAL S.P.A., from 09-Sep-2020 to 26-Feb-2021, carry out the following survey and report as follows:

Client Asset Name	Quantity
LPG SUCTION & DELIVERY BUILT-IN TYPE HOSE	1

Name Plate Data

ABS Label	Manufacturer	Purchaser	Destination Vessel
LPG SUCTION & DELIVERY BUILT-IN TYPE HOSE	ALFAGOMMA INDUSTRIAL S.P.A.	-	-

Basic Identification Data

Serial Number	Owner Tag Number	Supplier Ref. Number
1920	-	-

Statement of Work - Classification Service - Certification -

- The principal data has been verified in accordance with the applicable Rules/specifications and applicable approved plans, and confirmed to be within acceptable tolerances.
- All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.
- Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.
- Traceability of materials used on this project has been verified.

Report Findings

Statement/Observation

Finding No	Asset	Survey Task	Date Created
20.0	LPG SUCTION & DELIVERY BUILT-IN TYPE HOSE	Certification - LPG SUCTION & DELIVERY BUILT-IN TYPE HOSE	26-Feb-2021

Found

Prototype of "LPG SUCTION & DELIVERY BUILT-IN TYPE HOSE" - 25 bar (375 psi)" for Dock Operation, as per below details:

Manufacturer: Alfagomma Industrial S.p.A., Italy

Hose Type: 60J

Dimension: 300 mm x 6 m

1 of 3

NOTE: This Report evidences that the survey reported herein was carried out in compliance with one or more of the Rules, guides, standards or other criteria of the American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Report is a representation only that the vessel, structure, item of material equipment, machinery or any other item covered by this Report has been examined for compliance with, or has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping. The validity, applicability and interpretation of this Report is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Report or in any notation made in contemplation of this Report shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.

Hose Ref. S. No.: 1920

Maximum Working Pressure: 25 Bar

built according to Manufacturer Specification No. 60JAA300000000, was tested, as far as applicable, in accordance with the requirements of EN 1762: 2018 Specification for a Maximum Working Pressure of 25 Bar

Following Tests were carried:

1. Mechanical Properties Tests: Lining and Cover (EN 1762:2018 para. 7.1 ISO 37)
2. Abrasion Resistance Test (EN 1762:2018 para. 7.1 ISO 4649 Method A)
3. Ageing in Air Tests: Lining and Cover (EN 1762:2018 para. 7.1 ISO 188)
4. Ageing in n-pentane Test (EN 1762:2018 para. 7.1 ISO 1817)
5. Ozone Resistance (EN 1762:2018 para. 7.1 EN ISO 7326)
6. Adhesion Test (EN 1762:2018 para. 7.2 EN ISO 8033)
7. Dimensional Test and Minimum Bend Radius (EN 1762:2018 para. 6.1)
8. Proof Test with Elongation and Twist (EN 1762:2018 para. 7.2 - EN ISO 1402)
9. Vacuum Test (EN 1762:2018 para. 7.2 - EN ISO 7233)
10. Flammability Test (EN 1762:2018 para. 7.2 - Annex A)
11. Electrical Resistance Test (EN 1762:2018 para. 7.2 - EN ISO 8031)
12. Low Temperature Flexibility (EN 1762:2018 para. 7.2 - EN ISO 10619-2 Met.C)
13. Burst Test (EN 1762:2018 para. 7.2 - EN ISO 1402)

Based on satisfactory results of above Tests the Hose was found fully in compliance with EN 1762: 2018.

Manufacturer Test Reports duly signed for witnessing, reference has to be made to them for details.

In addition to the Tests as per EN 1762: 2018, at Specific request of Manufacturer, the Hose was also partially subjected to some Tests in accordance to the requirements of GMPHOM: 2009 Specification, as detailed below:

1. Nipple Adhesion Test (GMPHOM 2009 para. 3.4.2)
2. Adhesion Test (GMPHOM 2009 para. 3.4.3)
3. Weight Test (GMPHOM 2009 para.3.4.6 and 1.6.3)
4. Bending Stiffness Test (GMPHOM 2009 para. 3.4.12)

Manufacturer Test Reports duly signed for witnessing, reference has to be made to them for details.

Closing Paragraph:

The component/equipment was surveyed in accordance with the Rules, specifications, and approved drawings, as applicable, and is eligible for installation on board an ABS classed vessel subject to satisfactory installation and testing, as necessary.

Attending Surveyor(s):

Cappiello, Carmine
Signed-off Date: 29-Jul-2021



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Reviewing Surveyor(s)

Work Order Reviewer: Beltratti, Diego R.G.
Work Order Credit Date: 29-Jul-2021