



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMT00000TC

This is to certify:

That the Manufacturer

Jambo Ltd.

Varna, Bulgaria

is approved for the

Assembling of type approved hoses and couplings

The approval is granted on condition that

DNV class programme DNV-CP-0183 – Type approval – Flexible non-metallic hoses

are complied with in all respect

Hose Non-metallic flexible hose assembly

Manufacturers approved by this certificate are accepted to deliver according to DNV GL, DNV and GL rules.

Issued at **Hamburg** on **2023-10-30**

This Certificate is valid until **2026-10-29**.

DNV local unit: **VARNA**

Approval Engineer: **Christian Kaemmer**



for **DNV**

Digitally Signed By: Klinger, Sven
Location: DNV GL SE Hamburg, Germany
Signing Date: 01.11.2023

Sven Klinger
Head of Section

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

This Certificate is subject to terms and conditions overleaf. Any significant change in production facilities and methods may render this Certificate invalid.



Form code: AM 301

Revision: 2022-12

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Approval basis

The below listed hose assemblies are type approved according to the specifications/technical data mentioned in Type Approval Certificates:

Manufacturer	Flexible hose	Type Approval No.
Alfagomma Hydraulic S.p.A.	Flexor 1SN/1AT-HF (Dunlop Hiflex: Greenline plus 122) Flexor 2SN/2AT-HF (Dunlop Hiflex: Greenline plus 222) 1SN MINETUFF (Dunlop Hiflex: 1SN HI-TUFF) 2SN MINETUFF (Dunlop Hiflex: 2SN HI-TUFF)	TAP000002W
HANSA-FLEX AG	HD 200, CO ₂ Hose assemblies HD100-1SN, HD200-2SN, HD200T-2SN, KP100-1SC, KP200-2SC, KP200S-2SC KP600; KP700	TAP00000FS TAP00000N3 TAP0000235
Semperit Technische produkte Gesellschaft m.b.H.	1SN; 1SC; 1SN-K Semperpac; 2SN; 2SC; 2SN-K Semperpac; 4SP; 4SH	TAP00001V6
Manuli Hydraulics Co., Ltd.	Rockmaster/13 Rockmaster/4SH Rockmaster/4SP Rockmaster/2SC Rockmaster/1SN Rockmaster/2SN Astro/3	TAP000002E
Transfer Oil S.p.A.	050(X)	TAP000010X
Vitillo S.p.A.	Tekno/2SN; Teknospir/4SP; Teknospir/4SH	TAP0000281

The selection of the hose assemblies for the corresponding application and the right installation are to be in accordance with the specifications of the manufacturer.

Production place

JAMBO LTD.
West Industrial Zone
20 Atanas Moskov Blvd.
9009 Varna, Bulgaria

Documents

- List of Hose-types to be approved
- Draft Test Plan 2023 dated 2023-10-16
- Burst Pressure Test Protocol No : 00246 dated 2023-10-24
- Type Approval Assessment Report & Site Visit Report dated 2023-10-26

Marking

For identification and traceability purposes, each hose assembly permanently is to be marked as required by the respective Type Approval Certificate.

Production testing

Each manufactured hose assembly is subject to a pressure testing as required by the relevant regulation and as marked on the hose assembly Type Approval Certificate, but at least in accordance with the respective DNV Rules, with 1.5 times the maximum working pressure.

Remark

For determination of the maximum working pressure of the hose assembly both, the maximum operating pressures of the hose end fitting and hose type, as specified in the latest manufacturer product catalogues, are to be considered.

Product certification

In case of orders according to GL Rules, a DNV product certificate of the manufactured and pressure tested hose assemblies issued by DNV is mandatory.
Otherwise, a 3.1 customer Work Certificate is required and sufficient.

Certificate Retention Survey

The approval is valid for three years. To maintain the approved status, the manufacturer must be reinspected every three years. Application for renewal should be made not later than three months before the expiry date of the certificate.

Any alteration to the approved condition during the period of validity, e.g. method of manufacture, maximum dimensions or conditions of supply, is to be reported to the Society.

A re-inspection and/or re-testing may be required when deemed necessary by the Society.