DNV·GL

Certificate No:
TAP00001TR

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Flexible Hoses of Non-Metallic Material with Permanently Fitted Couplings

with type designation(s)
1096-01-20

Issued to
Hydroscand Automotive AB
GÖTEBORG, Sweden

is found to comply with
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems
DNVGL-OS-D101 – Marine and machinery systems and equipment, Edition January 2018
DNV GL class programme DNVGL-CP-0183 – Type approval – Flexible hoses

Application :

Product(s) approved by this certificate is/are accepted for installation on vessels classed by DNV GL.

Temperature range:	**0°C to +205°C**
Max. working press.:	**15 bar**
Sizes:	**DN 32 (1 1/4")**

Issued at **Høvik** on **2019-06-26**
This Certificate is valid until **2024-06-25**.
DNV GL local station: **Gothenburg FIS**

Approval Engineer: **Adel Samiei**

for **DNV GL**

Zeinab Sharifi
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Product description
Flexible hose type 1096-01-20 (TX.M.8850.50 – one braid, white PTFE)
Couplings:Hydroscand series 42
Material of couplings: 1.0718 (11SMnPb30)
Manufacturer of hoses: Tubiflex S.P.A.
Manufacturer of couplings: Polyhose, India

Application/Limitation
This certificate is valid for the specific assembly of hose and coupling type as specified, assembled and delivered by the holder (named as manufacturer) of this certificate.

Application: hydraulic and lubricating oil, compressed air, fresh water, and sanitary systems.
Hose assemblies covered by this certificate shall not be used in LNG/LPG systems or seawater applications.

Flexible hoses are only to be used where it is necessary due to vibrations or flexible mounting of the machinery. The hoses shall not replace/be used where permanent piping is possible/required. The hoses must only be fitted on places where they are always accessible for inspection.

The hoses are not to be used in systems where pressure pulsations may occur.

It must be possible to shut off from the system all hoses used in the fuel oil, lubricating oil and compressed air systems.

The hoses are to be mounted according to the manufacturer's instructions.

The outer end of the pipe coupling (performing the connection to the fixed piping) are not covered by this certificate and shall follow the below requirements:
- Flanged ends shall be according to a recognized standard.
- Slip-on threaded joints having pipe threads where pressure-tight joints are made on the threads with parallel or tapered threads, shall comply with requirements of a recognized standard. Limitations stated in DNVGL-RU-SHIP Pt.4 Ch.6 Sec.9 [5.2.6] to be followed.
- If these outer ends are going to be part of a mechanical joint as covered by Table 10 DNVGLRU-SHIP Pt.4 Ch.6 Sec.9, then they shall be separately type approved.

Production testing
Each hose assembly shall be hydrostatically tested at a hydrostatic pressure of 1.5 times the maximum working pressure shall be delivered with the pressure test report with reference to the type approval certificate. (No product certificate is required).

Type Approval documentation

Tests carried out
Dimensional check, change in length, leakage test, vacuum, fire test, burst pressure test

Marking of product
For traceability to this Type Approval, the products are at least to be marked with:
- hose manufacturer's name or trademark;
- date of manufacture (month/year);
- designation type reference;
- nominal diameter;
- pressure rating;
- temperature rating.

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.