DNV·GL

Certificate No:
TAP000007R

TYPE APPROVAL CERTIFICATE

This is to certify:

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

with type designation(s)
PTFE hose Hydraline SB

Issued to
Tofle Co., Inc.
Hagi Yamaguchi Pref., Japan

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 July 2015
DNV GL class programme CP-0183 – Type Approval of flexible hoses of non-metallic material

Application :

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

Temperature range:	**0°C to +150°C**
Max. working press.:	**28 bar**
Sizes:	**3/8"**

This Certificate is valid until **2020-06-30**.

Issued at **Høvik** on **2016-01-13**

for **DNV GL**

DNV GL local station: **Hiroshima**

Approval Engineer: **Adel Samiei**

Marianne Spæren Marveng
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

Hose made of PTFE with external single wire braid (made of SUS304) as reinforcement.
Hose manufacturer: Tofle Co. Ltd, Japan

Couplings are permanently fitted and are made of SUS304.
Coupling manufacturer: Tofle Co. Ltd, Japan

Application/Limitation

Hose assemblies are approved to be used in boiler fuel lines.

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.

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.

All hoses delivered under the DNV type approval scheme shall be subject to a pressure test at 1.5 times the maximum working pressure and shall be delivered with the pressure test report with reference to the type approval certificate.

Hose assemblies shall not be subject to pressure below atmospheric.

Type Approval documentation

Tests carried out

Fire test, burst test, Dimensional check test, Change in length test, Pressure pulsation test.

Marking of product

For traceability to this Type Approval, the products are at least to be marked with:

- Manufacturer's name or trade mark
- Type designation
- Maximum working pressure
- Size

Periodical assessment

For retention of the Type Approval, DNV GL Surveyor shall perform a periodical assessment every second year, to verify that the conditions for the type approval are complied with and to witness the following tests on every 3rd sizes:

- Dimensional check
- Change in length
- Burst test

The tests are to be performed with the type of couplings fitted that are Type Approved with the hoses.