DNV·GL

Certificate No:
TAP000016X

TYPE APPROVAL CERTIFICATE

This is to certify:

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

with type designation(s)
372/372TC

Issued to
Parker Hannifin Manufacturing S.r.l.
Veniano CO, Italy

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 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:	**-40ºC to +100ºC (dependent on the medium)**
Max. working press.:	**210 bar to 445 bar (dependent on size)**
Sizes:	**DN10, 12, 16, 19, 25, 31**

Issued at **Høvik** on **2017-12-28**
This Certificate is valid until **2022-12-27**.
DNV GL local station: **Milan**

Approval Engineer: **Adel Samiei**

for **DNV GL**

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 assemblies made of rubber hoses with synthetic rubber inner tube, three braids of high tensile steel wire reinforcement separated by a synthetic rubber layer. Oil, weather, fire and abrasion resistant synthetic black rubber cover. (constructed according to EN856-4SP)

Couplings: Parker coupling series 70 made of carbon Steel or 316 stainless steel
Hoses made by: Parker Hannifin, Italy
Couplings made by: Parker Hannifin, Germany

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.

The hose may be used for the following application: Petroleum base hydraulic fluids, water glycol and water oil emulsion hydraulic fluids, compressed air & fresh water.

Maximum working pressure:

Type		Hose size (DN)	Max working pressure (bar)
372-6	372TC-6	10	445
372-8	372TC-8	12	415
372-10	372TC-10	16	350
372-12	372TC-12	19	350
372-16	372TC-16	25	280
372-20	372TC-20	31	210

Temperature range:

Medium	Temperature range
Petroleum base hydraulic fluids	- 40 °C to +100°C
Water and water based hydraulic fluids	- 40 °C to +85°C
Compressed air	- 40 °C to +70°C

Each hose assembly is before delivery to be hydraulic pressure tested to 1.5 times the maximum working pressure and to be delivered with the pressure test report with reference to this type approval 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 and must only be fitted in places where they are always accessible.

Flexible hoses of these types are not to be used in boiler fronts.

Hoses covered by this certificate shall not be installed in systems with pressure below atmospheric or vacuum conditions.

The hoses are to be mounted in accordance with the manufacturer's instructions.

The cover of hoses for gaseous applications shall be pin-pricked.

Type Approval documentation

Tests carried out

Fire, Burst, Impulse, Change in length, Abrasion, Adhesion, Oil resistance, Cold flexibility, Ozone resistance, Dimensional check

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, 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.