

TYPE APPROVAL CERTIFICATE

Certificate No:
TAP0000158
Revision No:
1

This is to certify:

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

with type designation(s)
811/811S

Issued to

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

is found to comply with

DNV class programme DNV-CP-0183 – Type approval – Flexible non-metallic hoses
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV-OS-D101 – Marine and machinery systems and equipment, Edition July 2021

Application :

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

Temperature range: -40°C to +100°C (see page 2)
Max. working press.: 4 bar to 21 bar (see page 2)
Sizes: 3/4",1",1 1/4",1 1/2",2",2 1/2",3",4",5"

Issued at **Høvik** on **2022-10-14**

for **DNV**

This Certificate is valid until **2027-06-30**.

DNV local station: **Italy/Malta CMC**

Approval Engineer: **Jane Lozanov**

Sinisa Sedlan
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.

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.



Product description

Hose assemblies for suction lines.

Construction:

- Inner Tube: synthetic rubber
- Reinforcement: two fiber spiral, one helical wire
- Cover: Oil and weather resistant synthetic rubber
- fire sleeve: Type FS-F

Couplings (carbon Steel):

- Parker type 48: for sizes -12,-16,-20,-24,-32
- Parker type IF: for sizes -40,-48,-64,-80

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.

Hose assemblies covered by this certificate are suitable for:

- petroleum base hydraulic fluids within a temperature range of -40°C to +100°C (*)
- water base hydraulic fluids within a temperature range of -40°C to +70°C
- fresh water and compressed air within a temperature range of 0°C to +70°C

(*) Hoses shall be used with fire sleeve.

Maximum working pressure:

Type	Hose size		Maximum working pressure (bar)
	inch	DN	bar
811-12	¾	19	21
811-16	1	25	17
811-20	1 ¼	31	14
811-24	1 ½	38	10
811-32	2	51	7
811-40	2 ½	63	4
811-48	3	76	4
811S-64	4	100	10
811S-80	5	125	10

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.

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

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

It must be possible to shut off from the system all flexible hoses used in systems for lube oil, fuel oil and petroleum base hydraulic oil.

Type Approval documentation

Parker catalogue 4400/UK (Hydraulic hoses, Fittings & equipment) April 2017 pages Cab37, Cab38, Eb-17

Burst pressure & change in length test reports N°2439, 2440, 2441 dated 2012-07-26 (witnessed by DNV surveyor)

Burst pressure test report N°2840 dated 2014-04-22 (witnessed by DNV surveyor)

Crimping spec. with code no. PRM003 Rev.02 dated 2012-09-12

Fire test reports: 871.OIS0110/12, 1154.OIS0110/12, 1155.OIS0110/12, 364.OIS0110/14 done by LAPI

Test reports on rubber hoses (signed by Parker QA manager) dated 26-07-2012 and 2014-04-22



Job Id: **262.1-017480-10**
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Burst pressure & change in length test reports N°3316 and 3317 dated 2017-07-25 (witnessed by DNV surveyor)
Renewal burst pressure tests, reports no. 3551, 3552, 3553, 3554

Tests carried out

Fire, Burst, Impulse, Change in length, Abrasion, Adhesion, Oil resistance, Cold flexibility, Ozone resistance, Dimensional check, Vacuum 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, a DNV 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 DNV-CP-0338.