DNV·GL

Certificate No:
TAP000021W

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Filter

with type designation(s)
SEPAR Fuel filter types: SWK-18; SWK-40; SWK-2000

Issued to
Willibrord Lösing Filtertechnik e.K.
Hattingen, Nordrhein-Westfalen, Germany

is found to comply with
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Max. working temp.:	**-20°C to +80°C**
Working media:	**Diesel fuel**
Design pressure:	**-1 bar to +0,5 bar**

Issued at **Hamburg** on **2020-03-11**
This Certificate is valid until **2025-03-10**.
DNV GL local station: **Essen**

Approval Engineer: **Guido Friederich**

for **DNV GL**

Olaf Drews
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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Job Id: **262.1-031360-1**
Certificate No: **TAP000021W**

Product description

Fuel filter type series scheduled for installation on diesel engines in the fuel supply line.
Depending on fuel quality optional fuel prefilter designs with different filter mesh sizes are available.

Filter types:	SWK-18, SWK-40 and SWK-2000
Design pressure:	-1 bar to +0,5 bar
Maximum test pressure:	2 bar
Design temperature:	-20°C to +80°C
Materials filter casing:	Ductile cast iron, EN-GJS-400-15 acc. DIN EN 1563

Application/Limitation

Pre fuelfilter for installation on diesel engines on board of DNV GL classed ships.
Diesel-fuel types: DIN EN 590; DIN V 51603-6; DIN EN 16709:2019 (B20 and B30)
Marine Destillate ISO-F DMX; ISO-F DMA

Tests carried out

Test Standards:

DNV GL Pt.4 Ch.6 SEPAR Test Standards	Type of filter test
	Optical filter examination Plugging of In-and Outlet Opening Leak test with 2,0 bar (Medium Air) Pressure test in water Test pressure 2 bar, test fluid air / Test time one (1) minute

Type Approval documentation

Marking of product

For traceability to this type approval the filter is to be marked with:
- Manufacturers name or trade mark
- Filter type designation
- Size
- Maximum design pressure and temperature

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 Type Approval are complied with. Refer to DNVGL-CP-0338, Sec.4.

The main scope of the periodical assessment will normally include:
- Verification of the TA applicant's production and quality system w.r.t ensuring continued consistent production of the type approved products at the TA applicant's own premises and at other companies that are given the responsibility for manufacturing of the products.
- Review of the TA documentation and that this is still used as a basis for the production
- Review of possible changes to the design, the material and the performance of the product
- Verification of the product marking

END OF CERTIFICATE