DNV·GL

Certificate No:
TAP000006A

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Lubricating Oil Filter

with type designation(s)
Protector series T,X and L (see. cert.)

Issued to
ALFA LAVAL MOATTI SAS
ELANCOURT, France

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

Application :

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

Max. working temp.:	**100°C**
Max. working press.:	**12 barg**
Sizes:	**140, 150, 152, 160, 280 and 350 mm (Filter diameter)**

This Certificate is valid until **2019-06-30**.

Issued at **Høvik** on **2015-11-25**
DNV GL local station: **Paris CMC / VMC** for **DNV GL**

Approval Engineer: **Zeinab Sharifi**

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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Job Id:
Certificate No: **TAP000006A**

Product description

Lubricating oil filters in different type- and size combinations as listed in the tables below.

The filters are made out of different combinations of standard parts, shown on the drawings listed under "Type approval documentation". The filters may be delivered as single or duplex automatic filter with- or without diversion chamber, or as single or duplex manual filters.

Materials: The filters consist of the following main pressurised parts: Filter body, raising block, filter head, upper shell and valve body. All the parts are made of ductile cast iron EN-GJS-400-15, EN 1563.

Type designation 140, 150, 152 and 160 series

T150 12 to 30	T150 48 to 60	TT150	TL150
T150D 12/6 to 30/12	T150D 48/24 to 60/24	TT150D	TL150D
L140 34 to 59	LL140	T152DE 12/6 & 16/8	T152DE 24/12
T152DE 30/12	TL152DE 8/4	TL152DE 12/6 & 16/8	TL152DE 24/12
TL152 DE 30/12	T160 5 to 30		

Type designation 280 series

T280 12 to 20	T280 25 to 50	T280 60 to 100	T280 120 to 150
T280 180	T280-S 12 to 180	X280 12 to 20	X280 25 to 40
X280 50 to 80	X280 90 to 120	T280D 12/3 to 20/4	T280D 25/4 to 50/8
T280D 60/12 to 100/16	T280D 120/24 to 150/24	TL280 20	TL280 25 to 50
TL280 60 to 100	TL280D 12/3 to 20/4	TL280D 25/4 to 50/8	TL280D 60/12 to 100/16
X280D 12/3	X280D 20/4	X280D 25/4 to 40/4	X280D 50/8 to 80/8
X280D 90/12 to 120/12	X280D 160/16	TT280D 20/4	TT280D25/4 to 50/8
XL280-20	XL280- 25 to 40	XL280D 12/3	XL280D 20/4
XL280D 25/4 to 40/4	XL280D 50/8 to 80/8	XL280D 90/12 to 120/12	XX280D 25/4 to 40/4
L280 210	L280 500	L280 690	L280 1500
T-280-S-20 to 30	T-280-S-40 to 60	T-280-S-80 to 120	T-280-S-150 to 180
LL280 210	LL280 345 to 500	LL280 - 690 to 1000	

Type designation 350 series

Application/Limitation

The pressurized parts of the filters are approved with following main design data:
- Design code: ASME VIII Div.1/2
- Design pressure: 12 barg
- Hydrostatic test pressure: 24 barg
- Design temperature: 0/100°C
- Corrosion allowance: 0 mm
- Operating fluid: Oil
- Material: FGS400-15/ EN-GJS-400-15, EN 1563

Each filter unit shall be:
- Certified by DNV GL`s surveyor when required by DNV GL's Rules or the Purchaser.
- Hydrostatic pressure tested to at least 18 barg.
- The approval only covers the strength of the parts subjected to pressure and not the filter function.

Type Approval documentation

Marking of product

For traceability to this type approval, each filter is at least to be marked with:

- Manufacturer's name
- Type designation
- Size

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform a survey - every second year and before the expiry date of this certificate - to verify that the conditions for the type approval are complied with.