



Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Willibrord Loesing Filtertechnik e.K.
Address	Am Walzwerk 2, Hattingen, 45527, Germany
Place of Production	Willibrord Lösing Filterproduktion GmbH Am Walzwerk 2, Hattingen, 45527, Germany
Type	Water separator and light diesel fuel oil filter
Description	Fuel pre-filter and water separator for diesel fuels. Filtering and water separation be achieved by a cartridge and a centrifugal system. Housing from aluminium alloy or cast iron with metal bowl with water level indication contacts. Flow capacity between 5 and 130 l/min.
Trade Name	Separ SWK
Application	Filters for light diesel fuel oil installed in the suction side between fuel oil tank and delivery pump on ships classed or intended for classification with Lloyd's Register. For installation and maintenance the producer's instructions and recommendations to be adhered.
Specified Standard	Lloyd's Register Rules and Regulations for Classifications of Ships, 2024
Other Conditions	Materials used in piping systems are subjected to restrictions as per LR Rules and Regulations for the Classification of Ships Pt. 5, Ch. 13 and LR Rules and

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Engineering - Machinery - Lead Specialist to
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Regulations for the Classification of Special Service Craft Pt. 15, Ch. 1.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR2001904TA

The Design Appraisal Document TSO/24-022572 (prev. HPC/HMD 1355-99, Issue No. 5) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Page: 1 of 2
Certificate No: LR2539772TA
Issue Date: 08 August 2024
Expiry Date: 07 August 2029
Reference: TSO/24-022572-M-00

LLOYD'S REGISTER TYPE APPROVAL – DESIGN APPRAISAL DOCUMENT

Issued by: HAMBURG TECHNICAL SUPPORT OFFICE (TSO/24-022572)

Issued to: W. Lösing Filtertechnik e.K.

For: Water Separator and Light Diesel Oil Filter

**This Design Appraisal Document supersedes and cancels
document number HPC/HMD 1355-99, Issue No.5, dated 20.03.2020**

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System Procedure TA14 Version 04 (September 2020) and this Design Appraisal Document forms part of the Certificate.

TEST REPORTS

PRJ11100460253/ TSO/24-022572 (TA) 478785/01	Production Quality Assessment	02.12.2024
478782/01	pressure loss curves, water separation capability and solid particle separation capability at SWK 2000/130 by RWTüV	08.04.1994
478782/01	pressure loss curves, water separation capability, solid particle separation capability and back flushing at filter SWK 2000/40 M by RWTüV	04.03.1994
WTD 71-213-003/94 120371993	Vibration- and shock test by WTD Kiel	11.01.1994
455288/01-03	Wet fire endurance test by MPA NRW	02.11.1993
	Pressure loss curves, water separation capability, solid particle separation capability and back flushing at filter SWK 2000/5, 2000/5-50, 2000/10 and 2000/18 by RWTüV	20.11.1992

APPROVAL DOCUMENTATION

Form2502TA	Application Checklist	30.09.2024
LR2001904TA	Previous LR TA Certificate	20.03.2020
Z30691-01-KI-EN- R02.02	SWK-130/U/M/W22/VAC/P30/C01	09.05.2025
Z30691-01-KI-DE- R02.02	SWK-130/U/M/W22/VAC/P30/C01	09.05.2025



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Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations. Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.