

Type Approval Certificate Extension

This is to certify that Certificate No. 94/20036 (E2) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER

W. Lösing Filtertechnik

Am Walzwerk 2 45527 Hattingen

Germany

DESCRIPTION

Water separator and light diesel fuel oil filter. Filtering and water separation be achieved by a cartridge and a centrifugal system. Housing from aluminium alloy with metal bowl with water level indication

contacts. Flow capacity between 5 and 130 l/min.

TYPE

"Separ 2000"

APPLICATION

Filters for light diesel fuel oil installed in the suction side between fuel oil tank and delivery pump on ship and offshore installations classed or

intended for Classification with Lloyd's Register.

For installation and maintenance the producer's instructions and

recommendations to be adhered.

STANDARD

Lloyd's Register Rules and Regulations for Classifications of Ships, 2009

"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."

The attached Design Appraisal Document No. HPC/HMD 1355-99, Issue No. 3, dated 20.11.2009 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 94/20036 (E2) to which this extension should be attached.

Certificate No.

94/20036 (E3)

Issue Date

20 November 2009

Expiry Date

07 August 2014

Sheet

1 of 1

Olaf Schmidt Hænburg Design Support Centre Lloyd's Register EMEA

Lloyd's Register EMEA 71 Fenchurch Street, London EC3M 4BS

"Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract "



Marine Design Appraisal Document

Lloyd's Register EMEA Hamburg Design Support Centre Am Sandtorkai 41 20457 Hamburg, Germany Telephone +49 (0)40 328107 - 0 Fax +49 (0)40 328107 - 480 Email: hamburg-design-support@Ir.org

Date

20 November 2009

Quote this reference on all future communications

HPC 0910358/24652-09/OS/RJ

THE LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 2002 ISSUED TO: W. LÖSING FILTERTECHNIK FOR: WATER SEPARATOR AND LIGHT DIESEL OIL FILTER TYPE APPROVAL CERTIFICATE NO. 94/20036 (E3)

This Marine Design Appraisal Document supersedes and cancels document number HPC/HMD 1355-99, Issue No. 2, dated 04.11.2004

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register's Type Approval System, 2002, and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Form LR6606 06 2738 Rev. A	Lloyd's Register Approval Services - Request for Quotation SWK-2000/130 UMS	18.08.2009 07.07.2003
TEST REPORTS	g B c ga	
DTM 0921081/1 571656/01	Visit Report pressure loss curves, water separation capability and solid particle separation capability at filter Racor 1000 FG by RWTüV	27.10.2009 28.04.1994
478785/01	same tests as above 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	Vibration- and shock test by WTD Kiel	11.01.1994

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

Lloyd's Register EMEA is a member of the Lloyd's Register Group

Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Document No :

HPC/HMD 1355-99

Issue number

Page 2 of 2

20 November 2009

Quote this reference on all future communications

HPC 0910358/24652-09/OS/RJ

Lloyd's Register EMEA Hamburg Design Support Centre Am Sandtorkai 41 20457 Hamburg, Germany Telephone +49 (0)40 328107 - 0 Fax +49 (0)40 328107 - 480 Email: hamburg-design-support@lr.org

TEST REPORTS, continued

120371993 455288/01 - 03

Wet fire endurance test by MPA NRW

02.11.1993

20.11.1992

Pressure loss curves, water separation capability, solid particle separation capability and back flushing at filter SWK 2000/5, 2000/5-50 and

2000/10 by RWTüV

Olaf Schmidt

Senior Surveyor in Charge **Engineering Systems** Hamburg Design Support Centre Lloyd's Register EMEA T +49 (0)40 328107-460 E olaf.schmidt@lr.org

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 LR Type Approval System Procedure.

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

Lloyd's Register EMEA is a member of the Lloyd's Register Group