Certificate No: LR2566251REP
Issue Date: 03/06/2025
Expiry Date: 02/06/2028

Repair Certificate

Manufacturer FinMetalock OU

Address Töökoja tn 8, Tallinn, 11313, Estonia

Approval In-Situ Heat Treatment

Scope of Approval **In-Situ Heat Treament Process**

In-Situ Annealing of Crankshafts to reduce the hardness of damaged/heat affected crankpins installed in marine diesel engines.

Applicability Marine diesel engine applications only.

Before any repair is undertaken, Lloyd's Register is to be informed and their agreement obtained. Each individual repair heat treatment must be undertaken to a formal procedure which should be submitted to Lloyd's Register.

Before in-situ heat treament is undertaken the material specification, including heat treatment, should be determined to ensure that the annealing temperature applied does not exceed the original tempering temperature, if applicable. After heat treatment the surface hardness of the annealed area must be within range advised by the original engine manufacture.

Lloyd's Register repair approval reference No. 086.

Limitations The approval is subject to the requirements of Lloyd's Register.

Application is limited to one piece forged crankshafts that have not been surface hardened by induction hardening or nitriding.

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APPROVED

Clive Arnold

Metallurgy Team - Lead Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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In-Situ Heat treatment process to be applied to components for marine repair purposes only.

In-Situ Heat Treament should not be used in primary manufacture of forging or casting components for marine applications.

This certificate is issued to the above manufacturer and is valid until the specified expiry date.

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