

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: **AMMM00002N9**Revision No:

This is to certify:

That

thyssenkrupp rothe erde Germany GmbH Beckumer Str. 87, 59555 Lippstadt, Germany

is an approved manufacturer of **Heat treatment**

in accordance with

DNV rules for classification - Ships

DNV class programme - DNV-CP-0351 Manufacture of heat treated products - heat treatment workshop

and the following particulars:

Application area Heat treatment workshop

Heat treatment process Quenching,

Tempering, Stress reliving, Induction hardening

Product type Forging, Gearing, etc.

Steel type Carbon and carbon-manganese,

Alloy

Max. Weight See page 2
Max. wall thickness See page 2

Remarks Approved as Independent Heat Treatment Company

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules. Materials to be applied to DNV classed object shall fulfill the material requirements in the applicable DNV class rules.

Issued at Hamburg on 2023-03-23

for DNV

This Certificate is valid until 2026-01-22.

DNV local unit: Essen

Approval Engineer: Christian Wildhagen

Thorsten Lohmann
Head of Section

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Job Id: 263.11-010162-3
Certificate No: AMMM00002N9

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Particulars of the approval

Approval scope for Independent Heat Treatment Company

Item	Description
Product type	Forging, Gearing, etc.
Steel type	Carbon and carbon-manganese, Alloy
Heat treatment process	Quenching, Tempering, Stress reliving, Induction hardening
Max. thickness	Carbon and carbon-manganese: 800 mm Alloy: 800 mm
Furnace details	Working zone: max. Ø 8000 mm Max. Loading weight: max. 30 t

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