

CERTIFICÄTE NUMBER FOR-T1711391

ISSUING OFFICE London Engineering Department

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CERTIFICATE OF FORGING FACILITY AND PROCESS APPROVAL

This is to certify that a representative of ABS did, at the request of

KARL DIEDERICHS KG

LUCKHAUSER STR. 1-5, D-42899 REMSCHEID, Germany

attend its facilities as indicated in the ABS Augsburg Station port office survey report number 3396072 dated 10 October 2017 in order to carry out a survey of the facilities and associated quality procedures. The facility is considered capable of manufacturing

Steel Forging and Stainless Steel Forging components for marine applications

in accordance with the ABS Approval letter (Reference T1711391), ABS Rules, designated standards and ABS approved drawings. The approval is valid till 09 October 2022 subject to adherence to relevant ABS Rules, Survey requirements and annual endorsement by an ABS representative.

CERTIFICATION

Marcus Cridland

Chief Metallurgist, ABS

ISSUE DATE: 10 October 2017 EXPIRY DATE: 09 October 2022

FIRST ANNUAL ENDORSEMENT:

SECOND ANNUAL ENDORSEMENT:

THIRD ANNUAL ENDORSEMENT:

FOURTH ANNUAL ENDORSEMENT:

NOTE. This certificals evidences compliance with one or more of the Rules, Caldes, standards or other criticis of Alfi or a statisticy, inclusived or manufactures a standards. It is issued evident for the use of Alfi, in certificity for the use of Alfi, in certificity for the classification of the formal from Alfi will result in this certificate becoming will and with. This certificate is governed by the terms and conditions as contained in Alfi Police 1-1-Alf SO Terms and Conditions of the Esquest for Product Type Approval and Agreement (ADA).

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KARL DIEDERICHS KG (105032)

Reference:

NV/RY T1711391

Project-Number: — Certificate no:

3964525 FOR-T1711391

LUCKHAUSER STR. 1-5, D-42899 REMSCHEID, GERMANY

ATTN: Dr. Jan Nebel

Renewal Steel and Stainless Steel Forging Facility and Process Approval ABS Approval of KARL DIEDERICHS KG, Remscheid, Germany

We have the ABS plant survey report HN3396072 dated 10 October 2017, along with your submittals together with enclosures relative to the subject. With regard thereto we advise that KARL DIEDERICHS KG, Remscheid, Germany is considered approved to produce hull and machinery forgings to the requirements of *ABS Materials* & *Welding Rules Part 2 (2017)* as outlined below, provided the Rules are adhered to in all respects and all production, testing and inspection are to the satisfaction of the attending ABS Surveyor.

Grade	Non ABS Grades:		
	Carbon, Carbon-Manganese & Alloy Steels		
	Stainless Steels (Austenitic & Duplex)		
Melting Practice	ABS Approved Sources		
Casting Practice	ABS Approved Sources		
Forging Practice	Open Die Forging/Rolled Ring Forging		
Maximum Weight	35,000 kg		
Maximum Thickness/Diameter	Seamless Rolled Rings - 3,500 mm Ø		
	Forged Bars - 850 mm (circular or square by 15m long)		
Heat treatment facility	In-house		
Product Examples	Bars, Semi-Finished & Hot Forged Products		

Weld repair is generally not permitted on forgings, unless specially approved by the ABS Engineering Office.

The approval is valid for five years subject to annual endorsement survey and will expire on 09 October 2022. Please note it is the responsibility of the facility to inform ABS of any changes to the manufacturing parameters and request annual endorsement survey or renewal of approval prior to the five year expiry date. Our invoice to cover the costs of the technical review is subject to separate correspondence.



An electronic copy of the drawings, appropriately stamped, is available through the ABS Eagle Construct Engineering Manager (O2E) Web portal...If you need to contact ABS regarding this review please email. Nikos Vrellos at nvrellos@eagle.org.

Very truly yours,

Wei-Biao (Bill) Shi Vice President, Global Engineering ABS

Satya Meruva

Managing Principal Engineer Global Engineering – Materials, Welding

And NDE

CC: ABS Haan

Electronically published by ABS London. Reference T1711391, dated 25-JAN-2018.



Drawing List

Engineering Office:	London Engineering Department		
Submitter:	KARL DIEDERICHS KG (105032)		
Drawing No	Revision No	Drawing Title	
Correspondence		Plan Approval Request Form - Renewal 2017	
ABS Mmdb approval request 015 Renewal Forging - KD		No changes confirmation	
PO 675070		PO no. 675070	
Correspondence		fee arrangements	
Reference cmbd		Reference cmb	
ABS material certificates		ABS material certs	
HN3396072_Remscheid PS		Plant Survey	
ISO 9001 KD englisch		ISO 9001	
Previous Approval-KARL DIEDERICHS KG Remscheid & Soennecken		Previous Approval	