



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00002Z8**

This is to certify:

That

**Saarschmiede GmbH Freiformschmiede**  
**Bismarckstraße 57-59,**  
**66333 Völklingen,**  
**Germany**

is an approved manufacturer of  
**Steelmaking**

in accordance with  
**DNV rules for classification – Ships**  
**DNV-OS-B101 – Metallic materials**

and the following particulars:

<b>Application area</b>	<b>Steelmaking</b>
<b>Products</b>	<b>Semi-finished products for rolling stock, See page 2</b>
<b>Steel type</b>	<b>Hull structural steel, see page 2</b>
<b>Manufacturing method</b>	<b>Electric arc furnace / ingot casting</b>
<b>Deoxidation</b>	<b>Killed</b>
<b>Max weight [kg]</b>	<b>See page 2</b>
<b>Heat treatment condition</b>	<b>As cast</b>

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 **2022-06-24**

for **DNV**

This Certificate is valid until **2025-06-23**.

DNV local station: **Augsburg**

Approval Engineer: **Christian Wildhagen**

**Thorsten Lohmann**  
**Head of Section**

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: AM 311

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## Particulars of the approval

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### Semi-finished products for rolling stock

Steel grade <sup>3)</sup>	Product	Steel making <sup>1)</sup>	Max. weight [kg]	Heat treatment condition <sup>2)</sup>
Hull structural steel	Ingots	EAF, IC	120 000	AC
	Billet, Slab, Bloom	EAF, IC	65 000	AC

Remarks:

- <sup>1)</sup> EAF: Electric Arc Furnace  
IC: Ingot Casting
- <sup>2)</sup> AC: As cast
- <sup>3)</sup> Including normal, high and extra high strength steel and equivalent structural steel grades to other standards