



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM000020D**  
Revision No:  
**1**

This is to certify:

That

**TS Verbindungsteile GmbH**

**Dieselstraße 1,  
54634 Bitburg,  
Germany**

is an approved manufacturer of  
**Bolt and Nuts**

in accordance with  
**DNV GL rules for classification – Ships**

and the following particulars:

<b>Application area</b>	<b>Bolts and nuts</b>
<b>Products</b>	<b>Fasteners (bolts, screws, nuts, washers, etc.)</b>
<b>Steel type</b>	<b>Carbon, carbon-manganese, Austenitic stainless, Martensitic stainless, Ferritic stainless, Nickel alloy, Non-magnetizable steels</b>
<b>Manufacturing method</b>	<b>Alloy</b>
<b>Dimensions</b>	<b>Hot forming / machining / heat treatment</b>
<b>Heat treatment condition</b>	<b>See page 2</b>
<b>Additional approval conditions</b>	<b>See page 2</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 **2021-04-14**

for **DNV**

This Certificate is valid until **2024-03-30**.

DNV local station: **Essen**

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

Revision: 2021-03

www.dnv.com

Page 1 of 2

## Particulars of the approval

---

### Fasteners (bolts, screws, nuts, washers, etc.)

Steel type / grade	Max. diameter [mm]	Delivery condition
EN 10083-1, -2	140	acc. to standard
EN 10269	140	acc. to standard
EN 10272	140	acc. to standard
EN 10088-1, -3	140	acc. to standard
EN 10025	140	acc. to standard
DIN 17200	140	acc. to standard
DIN 17240	140	acc. to standard
DIN 17280	140	acc. to standard
DIN 17440	140	acc. to standard
DIN 267, Part 13	140	acc. to standard
ISO 3506-1, -2, -3, -5, -6	140	acc. to standard
ISO 898-1, -2	140	acc. to standard
VG 85539	140	acc. to standard
SEW 390	140	acc. to standard
SEW 400	140	acc. to standard

### Special conditions:

Heat treatment subcontracted to approved heat treatment workshop