

# APPROVAL OF MANUFACTURER CERTIFICATE

## This is to certify:

That  
**TS Verbindungsteile GmbH**  
**Menteroda, 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>

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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2018-03-27**

for **DNV GL**

This Certificate is valid until **2021-03-30**.

DNV GL local station: **Essen**

Approval Engineer: **Stefan Röhr**

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



## Particulars of the approval

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### 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	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