



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00000K3
Revision No:
2

This is to certify:

That

TRINECKE ZELEZARNY, a.s.
Prumyslova 1000, Stare Mesto, 739 61 Trinec, Czech Republic

is an approved manufacturer of
Steelmaking and Rolled Steel Products

in accordance with

DNV rules for classification – Ships
DNV-OS-E304 – Offshore mooring steel wire ropes, Edition July 2020 (Amended August 2021)
DNV class programme – DNV-CP-0242 Semi-finished steel products
DNV class programme – DNV-CP-0243 Rolled steel products – non stainless steel
DNV class programme – DNV-CP-0256 Offshore mooring steel wire ropes and sockets

and the following particulars:

Application area	Rolled steel products, Steelmaking
Products	Offshore mooring steel wire ropes Sections, Wide flats, Bars Semi-finished products for rolling or forging stock Steel wire rods (ingots, slabs)
Steel type	Carbon and carbon-manganese Alloy
Manufacturing method	Basic Oxygen Converter, Continuous Casting or Ingot Casting
Deoxidation	Killed
Max. thickness / diameter	See page 2
Heat treatment condition	See page 2

Manufacturer approved by this certificate is 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 **2023-06-02**

for **DNV**

This Certificate is valid until **2025-03-31**.

DNV local unit: **Prague CMC**

Approval Engineer: **Shylate Mahachi**

Thorsten Lohmann
Head of Section

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Form code: AM 311

Revision: 2022-12

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Page 1 of 3

Particulars of the approval

Semi-finished products

Steel type ³⁾	Product	Steel making ¹⁾	Max weight [kg]	Max. thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	Ingots	BOC, IC	5 200	650	AC
C and C-Mn	Slabs	BOC, CC	-	525	AC
Alloy	Ingots	BOC, IC	5 200	650	AC
Alloy	Slabs	BOC, CC	-	525	AC

Normal strength steel

Grade	Product	Steel making ¹⁾	Fine grain elements	Max. thickness [mm]	Heat treatment condition ²⁾
VL A	Wide flats	BOC, CC	Al	50	AR
VL A	Sections	BOC, CC	Al	19.5	AR

Non-alloy structural steels according to EN 10025-2

Grade	Product	Steel making ¹⁾	Fine grain elements	Max. thickness [mm]	Heat treatment condition ²⁾
S235JR, S235J0, S235J2	Wide flats	BOC, CC	acc. to standard	50	AR
S235JR, S235J0, S235J2	Sections	BOC, CC	acc. to standard	19.5	AR

Steels for quenching and tempering according to EN 10083-3

Grade	Product	Steel making ¹⁾	Fine grain elements	Max. diameter [mm]	Heat treatment condition ²⁾
42CrMo4 42CrMoS4	Rolled Bars	BOC, CC	acc. to standard	80	QT

Steel wire rods according to DNV-OS-E304

Steel type	Product	Steel making ¹⁾	Diameter range [mm]	Heat treatment condition ²⁾
High carbon	Wire rod	BOC, CC	5.5 - 16	AR
High carbon +Cr	Wire rod	BOC, CC	5.5 - 16	AR
Medium carbon alloy	Wire rod	BOC, CC	5.5 - 16	AR

Remarks:



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- 1) BOC: Basic oxygen converter; CC: Continuous casting; IC: Ingot casting
- 2) AC: As cast; QT: Quenched and tempered; AR: As rolled
- 3) Semi-finished products in carbon, carbon-manganese and alloy steel grades for the subsequent manufacturing of rolled steel products for structural application as well as for boilers, pressure vessels and special applications