

## Approval of Material Manufacturers *Zulassung von Werkstoffherstellern*

This is to certify that the works of  
*Hiermit wird bescheinigt, dass die Firma*

**TRINECKE ZELEZARNY, A. S.  
TRINEC-STARE MESTO, CZECH REPUBLIC**

**PRODUCTION SITE:  
OPERATION VHFB - UNIVERSAL TRACK BOHUMIN  
BOHUMIN, CZECH REPUBLIC**

has been subjected to an approval test in accordance with GL Rules with satisfactory results and is approved for the manufacture of the following products:

*einer Zulassungsprüfung nach den Vorschriften des GL unterzogen wurde und für die Herstellung folgender Erzeugnisse zugelassen ist:*

**Normal and Higher Strength Hull Structural steels  
in accordance with the GL-Rules for Metallic Materials,  
Chapter 2, Section 1.B**

**Unalloyed Steels for Welded Structures  
in accordance with the GL-Rules for Metallic Materials,  
Chapter 2, Section 1.C**

This approval is granted provided that all products intended to be used for the construction of ships or installations classed with DNV GL SE comply in every respect with GL Rules and Requirements.

*Die Zulassung erfolgt unter der Voraussetzung, dass alle Erzeugnisse, die zum Bau von Schiffen und Anlagen mit Klasse der DNV GL SE bestimmt sind, die Vorschriften des GL in jeder Hinsicht erfüllen.*

Certificate of approval No.  
*Zulassungsbescheinigung Nr.*

WZ 826 HH 8

This Certificate is valid until:  
*Diese Bescheinigung ist gültig bis:*

2018-03-31

Part of the approval is our letter of approval ref. no. 021508-15 of 2015-03-17.  
*Bestandteil der Zulassung ist das Zulassungsansprechen, Tgb.-Nr. 021508-15 vom 2015-03-17.*

Hamburg, 2015-03-17

**DNV GL SE**

  
Stefan Röhr

  
i.A. Oliver Krömer

Ref. no.: 021508-15

Manufacturer: Trinecké Zelezářny, a.s.

operation VHfb - Universal track Bohumin

List 1: Plates, Strips, Sections and Bars, Prematerial

Grade Remarks	Key	Supply Condition (1)	min. Thick- ness, mm	max. Thick- ness, mm	Casting Method (2)	Deoxidation	Microalloy
GL-A	BF	AR	5	40	CC	killed	Al
GL-B	BF	AR	5	40	CC	killed	Al
GL-D	BF	CR	5	40	CC	killed	Al
GL-A32	BF	CR	5	40	CC	killed	Al+Nb
GL-A36	BF	CR	5	40	CC	killed	Al+Nb
GL-D32	BF	CR	5	40	CC	killed	Al+Nb
GL-D36	BF	CR	5	40	CC	killed	Al+Nb
S235J0 acc. to EN 10025-2	BF	acc. to standard	5	40	CC	killed	acc. to standard
S235J2 acc. to EN 10025-2	BF	acc. to standard	5	40	CC	killed	acc. to standard
S235JR acc. to EN 10025-2	BF	acc. to standard	5	40	CC	killed	acc. to standard
S275J0 acc. to EN 10025-2	BF	acc. to standard	5	40	CC	killed	acc. to standard
S275J2 acc. to EN 10025-2	BF	acc. to standard	5	40	CC	killed	acc. to standard
S275JR acc. to EN 10025-2	BF	acc. to standard	5	40	CC	killed	acc. to standard
S355J0 acc. to EN 10025-2	BF	acc. to standard	5	40	CC	killed	acc. to standard
S355J2 acc. to EN 10025-2	BF	acc. to standard	5	40	CC	killed	acc. to standard
S355JR acc. to EN 10025-2	BF	acc. to standard	5	40	CC	killed	acc. to standard
S355K2 acc. to EN 10025-2	BF	acc. to standard	5	40	CC	killed	acc. to standard

Key: BD Strip BF Wide Flats BL Plate FO Sections HZ Prematerial (Ingots, Slabs, Billets) ST Bars WFS Bulbflatbars

(1):

AC, AF, AR = as cast, as forged, as rolled  
 CR = controlled rolled  
 F = ferritized  
 HF = hot formed  
 N = normalized

N+T = normalized + tempered  
 Q+T = quenched + tempered  
 SH = surface hardened  
 S+Q = solution annealed + quenched  
 TM = thermomechanically rolled

(2):

CC = continuous casting  
 IC = ingot casting

DNV GL SE • P.O. Box 11 16 06 • 20416 Hamburg • Germany

Trinecke Zelezarny, a. s.  
Prumyslova 1000  
739 70 Trinec-Stare Mesto

výrobní závod:  
operation VHfb - Universal track Bohumin  
Bezrucova 300  
735 81 Bohumin  
Czech Republic

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Brooktorkai 18  
20457 Hamburg/Germany

Phone +49 40 36149-0  
Fax +49 40 36149-200  
headoffice@dnvgl.com  
www.dnvgl.com

Your reference	Your Letter of	Our reference	Extension	Date
		021508-15/OKoe	+49 40 3 61 49-4561	2015-03-17

**Approval of your works for the manufacture of rolled steel products (prolongation + re-issue of approval due to change of company's name)**

Dear Mr. Raszka,

Thank you for your company's commitment to manufacture products with GL certification.

We refer to our Surveyor's report on the inspection of your works performed on 2015-02-11 and to his confirmation that the results of continuous delivery tests witnessed by him are in full compliance with our Rules for Materials.

Therefore the preconditions for prolongation of approval of your works granted by our letter ref. no. 029866-12 dated 2012-03-13 are complied with.

The material grades, supply conditions and dimensions / weights covered by the approval are indicated in the approval annex.

The manufacturing details covered by the approval are as follows:

**1. Products**

Hot rolled wide flats made of hull structural steels designed for shipbuilding use and unalloyed steels with minimum nominal yield strengths up to and including 355 N/mm<sup>2</sup> which are to be used for welded structures, e.g. in machinery manufacture or in shipbuilding

**2. Manufacturing process**

Universal Mill Bohumin

Inspection and preparation of raw material, reheating of con-cast products by pusher-type furnace, descaling by high water pressure, hot rolling process by Universal Mill incl. 3-high reversible universal rolling stand with one pair of separately driven vertical rolls, hot sawing, straightening by roll leveller, cooling by cooling bed, surface checking and clearance, non-destructive inspection (NDT) by ultrasonic testing (UT) and / or visual inspection (VT), shearing by crop shear, trimming by rotary side trimmer, shearing by dividing shear, marking, stamping, final inspection, despatch

**3. Prematerial suppliers**

Trinecke Zelezarny, a. s. (WZ 466 HH) or other material manufacturers which are approved for the relevant products





4. Fabrication welding

Not permitted

5. Particulars

Mechanical and Technological Tests in accordance with the GL-Rules for Metallic Materials, Chapter 1, Section 2 and / or Non-Destructive Testings in accordance with the GL-Rules for Metallic Materials, Chapter 1, Section 3 are performed by external service provider ENVIFORM a.s. with certificate of accreditation no. 810/2014.

Our approval is granted under provision that all wide flats intended to be used for the construction of ships classed with our Society will comply with our Rules in all respects and will be tested in the presence of our Surveyor.

Your company has been added to the list of approved manufacturers, which is regularly published on the Internet. In order to view the appropriate data start the DNV GL website <http://www.dnvgl.com>, choose "Maritime", "Exchange & Tools", menu "GL Tools", select "Approval Finder", and then "Manufacturers of Materials".

Enclosed please find our certificate of approval no. **WZ 826 HH 8**, valid until 2018-03-31, as well as the corresponding annex.

We thank you for your cooperation and wish your company every success.

Yours faithfully,

for DNV GL SE

  
Stefan Röhr

  
i.A.  
Oliver Krömer