

Approval of Material Manufacturers  
*Zulassung von Werkstoffherstellern*



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

**ASO SIDERURGICA S.R.L. UNIPERSONALE  
OSPITALETTO (BRESCIA)  
ITALY**

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

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

**Ingots  
in accordance with the GL-Rules for Metallic Materials,  
Chapter 2, Section 3**

**Forgings for Machine Construction and Shipbuilding  
in accordance with the GL-Rules for Metallic Materials,  
Chapter 2, Section 3, B.**

This approval is granted provided that all products intended to be used for the construction of ships or installations classed with Germanischer Lloyd comply in every respect with the Society's Rules and Requirements.

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

Certificate of approval No.  
*Zulassungsbescheinigung Nr.*

WZ 1577 HH 2

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

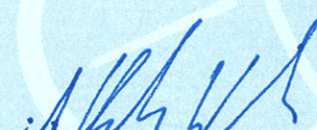
2012-08-17

Part of the approval is our letter of approval ref. no. 135464-10 of 2010-11-23.  
*Bestandteil der Zulassung ist das Zulassungsanschreiben, Tgb.-Nr. 135464-10 vom 2010-11-23.*

Hamburg, 2010-11-23

**Germanischer Lloyd**

  
Michael Kühnel

  
Christian Wildhagen

Ref. no.: 135464-10



Manufacturer: ASO SIDERURGICA s.r.l. Unipersonale

**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
Unalloyed and low alloyed steel max. 40t weight	HZ	AC				Al	

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

**List 3: Forgings**

Grade	Key	Supply Condition (1)	max. Thickness, mm	max. Weight	Remarks
C45 acc. to EN 10250-2	FF	N			max. Ø 500 mm x 15000 mm length
42CrMoS4 acc. to EN 10083-3	FF	Q+T			max. Ø 500 mm x 15000 mm length

Key: FA Fibre Flow Forging FF Hammer Forging GE Die Forging HZ Prematerial ST Forged Bars

(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 = thermochemically rolled

(2):

CC = continuous casting  
 IC = ingot casting