

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00000RS**  
Revision No:  
**2**

**This is to certify:**

That

**Rubiera Special Steel S.p.A.**  
**Via XXV Aprile, 64**  
**42013 Casalgrande RE, Italy**

is an approved manufacturer of  
**Steelmaking**

in accordance with  
**DNV GL rules for classification – Ships**  
**DNVGL-OS-B101 – Metallic materials**

and the following particulars:

<b>Application area</b>	<b>Steelmaking</b>
<b>Products</b>	<b>Semi-finished products for rolling or forging stock (Ingots)</b> <b>Carbon and carbon-manganese,</b> <b>Alloy,</b>
<b>Steel type</b>	<b>Austenitic Stainless,</b> <b>Martensitic Stainless,</b> <b>Ferritic Stainless</b>
<b>Manufacturing method</b>	<b>Electric Arc Furnace/Ingot Casting</b>
<b>Deoxidation</b>	<b>Killed</b>
<b>Max. thickness/diameter</b>	<b>See page 2</b>
<b>Heat treatment condition</b>	<b>See page 2</b>
<b>Additional approval conditions</b>	<b>Including Clean Steel Ingots</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 **2020-10-31**

for **DNV GL**

This Certificate is valid until **2023-10-04**.

DNV GL local station: **Milan**

Approval Engineer: **Stefan Röhr**

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

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Job Id: **263.11-003396-5**  
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## Particulars of the approval

### Semi-finished products

Steel type <sup>3)</sup>	Product	Steel making <sup>1)</sup>	Max weight [kg]	Max. thickness [mm]	Heat treatment condition <sup>2)</sup>
C and C-Mn	Ingot	EAF, IC	130 000	2 300	AC
Alloy	Ingot	EAF, IC	130 000	2 300	AC
Austenitic stainless	Ingot	EAF, IC	130 000	2 300	AC
Martensitic stainless	Ingot	EAF, IC	130 000	2 300	AC
Ferritic stainless	Ingot	EAF, IC	130 000	2 300	AC
Clean steel in grades: 17NiCrMo14, 17NiCrMo6-4, 31CrMoV9 and 42CrMo4	Ingot	ESR, IC	100 000	2 300	AC
Clean steel in grades: 17NiCrMo14, 17NiCrMo6-4, 31CrMoV9 and 42CrMo4	Ingot	VAR, IC	27 000	2 300	AC

#### Remarks:

- 1) EAF: Electric Arc Furnace; VAR: Vacuum Arc Remelting; ESR: Electro Slag Remelting;  
IC: Ingot Casting
- 2) AC: As Cast
- 3) Clean Steel referring to DNVGL-RU-SHIP-Pt2-Ch2-Sec6.1.6.10