

## APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: **AMMM00000RS**Revision No:

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 rules for classification – Ships DNV-OS-B101 – Metallic materials DNV class programme – DNV-CP-0242 Semi-finished steel products

and the following particulars:

Application area Steelmaking

Products Semi-finished products for rolling or forging stock (Ingots)

Carbon and carbon-manganese,

Alloy,

Steel type Austenitic Stainless,

Martensitic Stainless, Ferritic Stainless

Manufacturing method See page 2
Deoxidation Killed
Max. thickness/diameter See page 2
Heat treatment condition See page 2

Additional approval conditions Including Clean Steel Ingots

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

Issued at Hamburg on 2023-07-31

for DNV

This Certificate is valid until 2026-10-04.

DNV local unit: Italy/Malta CMC

Approval Engineer: Stefan Röhr

Thorsten Lohmann
Head of Section

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## Particulars of the approval

## Semi-finished products

Steel type 3)	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	145 000	2 300	AC
Alloy	Ingot	EAF, IC	145 000	2 300	AC
Austenitic stainless	Ingot	EAF, IC	145 000	2 300	AC
Martensitic stainless	Ingot	EAF, IC	145 000	2 300	AC
Ferritic stainless	Ingot	EAF, IC	145 000	2 300	AC
Clean steel in grades: 17NiCrMo14, 17NiCrMo6-4, 31CrMoV9 and 42CrMo4	Ingot	ESR, IC	100 000	1 815	AC
Clean steel in grades: 17NiCrMo14, 17NiCrMo6-4, 31CrMoV9 and 42CrMo4	Ingot	VAR, IC	27 000	1 815	AC

## Remarks:

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

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