

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:

That
ROUCKA SLÉVÁRNA, a.s.
Lutin, Czech Republic

is an approved manufacturer of
Steel Castings

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Application area	Castings for hull structures and equipment Castings for machinery Castings for boilers, pressure vessels and piping systems Ferritic steel castings for low temperature service Stainless steel castings
Steel type	Carbon and carbon-manganese, Alloy, Austenitic stainless, Austenitic-ferritic (Duplex) stainless, See page 2
Casting method	Sand casting
Max. weight	8 000 kg
Heat treatment condition	See page 2
Additional approval conditions	See page 2

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 **2018-07-05**

for **DNV GL**

This Certificate is valid until **2021-06-30**.
DNV GL local station: **Prague**

Approval Engineer: **Christian Wildhagen**

Thorsten Lohmann
Head of Section



Particulars of the approval

Castings for hull structure and equipment

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
C and C-Mn	VL C400UW, VL C440UW, VL C480UW	SC	8 000	N, NT, QT
Alloy	VL C550AW, VL C620AW	SC	8 000	QT

Castings for machinery

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
C and C-Mn	VL C400U, VL C440U, VL C480U, VL C520U	SC	8 000	N, NT, QT
Alloy	VL C550A, VL C600A, VL C690A	SC	8 000	QT

Stainless steel castings

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
Austenitic	GX 2 CrNi 18 10 (304L) GX 5 CrNi 19 9 (304) GX 6 CrNiNb 19 10 (347) GX 2 CrNiMo 19 11 2 (316L) GX 5 CrNiMo 19 11 2 (316) GX 5 CrNiMo 19 11 3 (317)	SC	8 000	SHT
22 Cr Duplex	GX 2 CrNiMoN 22 5 3	SC	8 000	SHT

Job Id: **263.11-004630-2**
Certificate No: **AMMM0000242**

Castings for boilers, pressure vessels and piping systems

Steel type	Grade ³⁾⁵⁾	Casting method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
C and C-Mn	C450H, C490H	SC	8 000	N, NT, QT
Alloy	VL C1Cr0.5Mo	SC	8 000	N
	C2.25Cr1Mo	SC	8 000	N

Ferritic steel castings for low temperature service

Steel type	Grade ³⁾⁵⁾	Casting method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
C and C-Mn	C450L, C490L	SC	8 000	N, NT, QT

Remarks:

- 1) SC: Sand Casting
 - 2) SHT: Solution Heat Treated (Solution Annealing)
N: Normalised
QT: Quenched and tempered
NT: Normalised and tempered
- Certification of any material applied to classed object shall fulfill the applicable material requirements in the DNV GL class rules