

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00000K5
Revision No:
1

This is to certify:

That
Acieries Hachette et Driout
Saint-Dizier, France

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 Stainless steel castings
Steel type	Carbon and carbon-manganese, Alloy, Austenitic stainless, Austenitic-ferritic (Duplex) stainless, Martensitic stainless
Casting method	Sand casting
Max. weight	See page 2 ff.
Heat treatment condition	See page 2 ff.

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 **2019-04-03**

for **DNV GL**

This Certificate is valid until **2022-04-02**.

DNV GL local station: **Le Havre**

Approval Engineer: **Stefan Röhr**

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Thorsten Lohmann
Head of Section



Job Id: **263.11-005783-2**
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Particulars of the approval

Castings for hull structure and equipment

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Heat treatment condition ²⁾
C and C-Mn	VL C400UW, VL C440UW, VL C480UW, VL C520UW, VL C560UW, VL C600UW	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]	Heat treatment condition ²⁾
C and C-Mn	VL C400U, VL C440U, VL C480U, VL C520U, VL C560U, VL C600U	SC	8 000	N, NT, QT
Alloy	VL C550A, VL C600A, VL C690A	SC	8 000	QT

Castings for boilers, pressure vessels and piping systems

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Heat treatment condition ²⁾
C and C-Mn	VL C450H, VL C490H	SC	8 000	N, NT, QT
Alloy	VL C0.5Mo, VL C1Cr0.5Mo, VL C2.25Cr1Mo	SC	8 000	QT

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Stainless steel castings

Steel type / grade	Casting method ¹⁾	Max. weight [kg]	Heat treatment condition ²⁾
Martensitic	SC	8 000	QT
Austenitic	SC	8 000	SHT
22 Cr Duplex	SC	1 500	SHT
25 Cr Duplex	SC	1 500	SHT

Remarks:

- 1) SC: Sand Casting
- 2) SHT: Solution Heat Treated (Solution Annealing)
N: Normalized;
NT: Normalized and tempered
QT: Quenched and tempered
- 3) Incl. equivalent grades in acc. to other standards