

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:

That

CASTINOX, S.A.
Amurrio ALAVA, Spain

is an approved manufacturer of
Steel Castings

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Application area	Stainless steel castings
Steel type(s)	Austenitic Stainless
	See page 2
Casting method	Sand casting
Max. weight	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 **2017-12-19**

for **DNV GL**

This Certificate is valid until **2020-12-31**.

DNV GL local station: **Bilbao**

Approval Engineer: **Andreas Koch**

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Thorsten Lohmann
Head of Section



Job Id: **263.11-008384-1**
Certificate No: **AMMM00001VM**

Particulars of the approval

Stainless steel castings

Steel type	Grade	Casting method 1)	Max. weight [kg]	Delivery condition ²⁾
Austenitic	GX 2 CrNi 18 10 (304L)	SC	2800	SHT
	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)			
	acc. to DIN EN 10213 ³⁾			
	acc. to DIN EN 10213 ³⁾			
	acc. to ASTM A-351 ³⁾			
	acc. to ASTM A-743 ³⁾			

Remarks:

- 1) SC: Sand Casting
- 2) SHT: Solution Heat Treated (Solution Annealing)
- 3) Possible application and certification of any material to classed object is subject to case by case approval