

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:**That****Gieterij Borcherts B.V.
Noorderstraat 370, 9611AV, Sappemeer, Netherlands**is an approved manufacturer of
Steel Castingsin accordance with
DNV GL rules for classification – Ships

and the following particulars:

Steel types	Carbon and carbon-manganese, Austenitic stainless, 22Cr duplex stainless
Max. weight	See page 2
Delivery Condition	See page 2
Remarks	See Particular approval

Manufacturer approved by this certificate is 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 **Høvik** on **2016-11-03**for **DNV GL**This Certificate is valid until **2019-11-02**.DNV GL local station: **Rotterdam, Product
Certification /Verification**Approval Engineer: **Dechun Lou**

**Hanne Anita Hjerpetjønn
Head of Section**

Job Id: **263.11-005940-1**
Certificate No: **AMMM000010K**

Particulars of the approval

Steel castings for boilers, pressure vessels and piping systems

Steel type	Grade	Casting method ¹⁾	Max. weight (kg)	Max. section /wall thickness (mm)	Delivery condition ²⁾
C and C-Mn steel	C450H	SC	1000	170	N
	C490H	SC	1000	170	

Remarks:

¹⁾ SC: Sand Casting; ²⁾ N: Normalised

Stainless steel castings

Steel type	Grade	Casting method ¹⁾	Max. weight (kg)	Max. section /wall thickness (mm)	Delivery condition ²⁾
Austenitic stainless	GX 2 CrNi 18 10 (304L)	SC	700	130	SHT
	GX 5 CrNi 19 9 (304)	SC	700	130	
	GX 2 CrNiMo19 11 2 (316L)	SC	700	130	
	GX 5 CrNiMo19 11 2 (316)	SC	700	130	
	GX 5 CrNiMo19 11 3 (317)	SC	700	130	
Duplex stainless	22Cr duplex stainless	SC	900	170	SHT

Remarks:

¹⁾ SC: Sand Casting; ²⁾ SHT: Solution Heat Treated (Solution Annealing)