

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM000012U**

**This is to certify:**

**That**

**Haitima China Corporation**

**Nanlang Ind.Park Nanlang Town, Zhongshan, Guangdong Province, China**

is an approved manufacturer of  
**Steel Castings**

in accordance with  
**DNV GL rules for classification – Ships**

and the following particulars:

<b>Steel types</b>	<b>Carbon and carbon-manganese, Austenitic stainless</b>
<b>Max. weight</b>	<b>300 kg</b>
<b>Remarks</b>	<b>1. Including low temperature service for austenitic stainless steel 2. Including particulars of the approval on page 2</b>

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 **2016-12-05**

for **DNV GL**

This Certificate is valid until **2019-11-30**.

DNV GL local station: **China South CMC/ SIO**

Approval Engineer: **Dechun Lou**

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**Hanne Anita Hjerpetjønn**  
**Head of Section**

Job Id: **263.11-003362-3**  
Certificate No: **AMMM000012U**

## Particulars of the approval

### Steel castings for machine construction and shipbuilding, steels for low temperature service:

<i>Grade</i>	<i>Key</i>	<i>Casting Method<sup>1)</sup></i>	<i>Supply Condition<sup>2)</sup></i>	<i>Max. Wall thickness, mm</i>	<i>Max. weight, kg</i>
GX2CrNiMo 19-11(1.4409) acc. to EN 10213	NR-A, KZ	Wax mould	S+Q	50	150
GX5CrNiMo 19-11(1.4408) acc. to EN 10213	NR-A, KA	Wax mould	S+Q	50	150
GX2CrNiMo 19-11-2(1.4309) acc. to EN 10213	NR-A, KA	Wax mould	S+Q	50	150
GX5CrNiMo 19-11-2(1.4308) acc. to EN 10213	NR-A, KA	Wax mould	S+Q	50	150
GP240GH(1.0619) acc. to EN 10213	SA	Wax mould	N	50	150
GP280GH(1.0625) acc. to EN 10213	SA	Wax mould	N	50	150

Key: NR Stainless cast alloy; -A Austenitic cast steel; KZ Cast steel for low temperature;  
SA Cast steel for common use

Remarks:

<sup>1)</sup> S+Q = solution annealed + quenched; N = normalized