

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00000A5**

This is to certify:

That

**Sperre Baltic SIA**  
**Riga, Latvia**

is an approved manufacturer of  
**Iron Castings**

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

and the following particulars:

|                     |   |
|---------------------|---|
| <b>Iron type(s)</b> | <b>Nodular Cast Iron</b><br><b>Grey Cast Iron</b> |
| <b>Max. weight</b>  | <b>150 kg</b>                                     |
| <b>Remarks</b>      | <b>Particulars of approval</b>                    |

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules.

This Certificate is valid until **2018-12-31**.

Issued at **Hamburg** on **2016-01-21**

DNV GL local station: **Riga**

Approval Engineer: **Christian Wildhagen**

for **DNV GL**

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**Marcus von Busch**  
**Head of Section**

Job Id: **263.11-002996-3**  
Certificate No: **AMMM00000A5**

## Particulars of the approval

### Cast Iron

| Grade                            | Product | Supply Condition | Casting Method | Thickness [mm], max. | Weight [kg], max. |
|----------------------------------|---------|------------------|----------------|----------------------|-------------------|
| VL NCI-2                         | GGG     | AC               | SC             | 100                  | 150 kg            |
| VL NCI400                        | GGG     | AC               | SC             | 100                  | 150 kg            |
| VL NCI500                        | GGG     | AC               | SC             | 100                  | 150 kg            |
| VL NCI600                        | GGG     | AC               | SC             | 100                  | 150 kg            |
| VL NCI600                        | GGG     | AC               | SC             | 100                  | 150 kg            |
| VL NCI700                        | GGG     | AC               | SC             | 100                  | 150 kg            |
| EN-GJS-400-18-LT acc. to EN 1563 | GGG     | AC               | SC             | 100                  | 150 kg            |
| EN-GJS-400-18 acc. to EN 1563    | GGG     | AC               | SC             | 100                  | 150 kg            |
| EN-GJS-400-15 acc. to EN 1563    | GGG     | AC               | SC             | 100                  | 150 kg            |
| EN-GJS-500-7 acc. to EN 1563     | GGG     | AC               | SC             | 100                  | 150 kg            |
| EN-GJS-600-3 acc. to EN 1563     | GGG     | AC               | SC             | 100                  | 150 kg            |
| EN-GJS-700-2 acc. to EN 1563     | GGG     | AC               | SC             | 100                  | 150 kg            |
| EN-GJL-150 acc. to EN 1561       | GG      | AC               | SC             | 100                  | 150 kg            |
| EN-GJL-200 acc. to EN 1561       | GG      | AC               | SC             | 100                  | 150 kg            |
| EN-GJL-250 acc. to EN 1561       | GG      | AC               | SC             | 100                  | 150 kg            |

GG: Grey Cast Iron

GGG: Nodular Cast Iron

AC: As Cast

SC: Sand Casting