

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:**That****Bosch Rexroth AG
Zum Eisengiesser 1, 97816 Lohr am Main, Germany**is an approved manufacturer of
Iron Castingsin accordance with
DNV GL rules for classification – Ships

and the following particulars:

Iron type(s)	Grey, Nodular
Max. weight	8 000 kg
Remarks	See particulars of the approval

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 **2017-01-17**This Certificate is valid until **2019-09-30**.
DNV GL local station: **Augsburg**Approval Engineer: **Christian Wildhagen**for **DNV GL**

**Thorsten Lohmann
Head of Section**

Job Id: **263.11-003544-3**
Certificate No: **AMMM0000160**

Particulars of the approval

Cast iron:

Grade	Product	Supply Condition	Casting Method	Weight [kg], max.
VL NCI-2, VL NCI370, VL NCI400, VL NCI500, VL NCI600, VL NCI700	GGG	AC / F	SC / PMC	250 / 8 000
EN-GJS-400-18RT, EN-GJS-400-18LT, EN-GJS-400-18, EN-GJS-400-15, EN-GJS-450-10, EN-GJS-500-7, EN-GJS-600-3, EN-GJS-700-2	GGG	AC / F	SC / PMC	250 / 8 000
EN-GJL-200, EN-GJL-250, EN-GJL-300	GG	AC	SC / PMC	250 / 8 000

GG: grey cast iron
SC: sand casting

GGG: nodular cast iron
PMC: permanent mould casting

AC: as cast

F: ferritized