



**CERTIFICATE OF APPROVAL OF MANUFACTURERS OF
MATERIALS**
No. FAB061114XG

This is to certify that the manufacture of the product identified below is in compliance with the applicable requirements of the RINA Rules for the Approval of Manufacturers of Materials.

Description	Castings
Type	Grey Iron and Spheroidal Graphite Iron Casting.
Manufacturer	HEGERGUSS GMBH
Place of manufacture	DONNERSBERGSTR. 48 67677 ENKENBACH-ALSENBORN GERMANY
Reference standards	RINA Rules for the approval of manufacturers of materials

Issued in **Hamburg** on **September 22, 2014**. *This Certificate is valid until* **May 3, 2019**



RINA
A. Sankar

RINA Services S.p.A.

This certificate consists of this page and 1 enclosure

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Enclosure - Page 1 of 1

Grey Iron and Spheroidal Graphite Iron Casting.

APPROVAL CONDITIONS

The Approval is valid for the following parts of the HEGER Group:

HegerGuss GmbH

HegerFerrit GmbH

HegerPro GmbH

- The chemical condition and the mechanical properties are to be in accordance with the RINA requirements or equivalent recognized standards.
- Iron types : Grey Iron Casting, tensile strength between 200 and 350 N/mm²
Ductile Iron Casting, tensile strength between 400 and 700 N/mm²
- Products max. weight : 20,000 kg
- Survey conditions: all casting to be used for construction of machinery components classed with RINA shall meet the requirements of the RINA Rules and shall be tested accordingly.
- Heat treatment: tempering or stress relieving heat treatment, if requested for elevated temperature service applications. They are to be carried out after any refining heat treatment and before machining.

General conditions for the approval

- The approval is granted on condition that the RINA Rules for the approval, manufacture, testing and certification of materials are complied with in all respects.
- RINA is to be notified of any change of materials, manufacturing process, quality control routines that may affect the validity of this certificate.

Hamburg 22.09.2014



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