




**CERTIFICATE OF APPROVAL OF MANUFACTURERS OF
MATERIALS**
No. FAB001417XY/001

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.

<i>Description</i>	Steel castings
<i>Type</i>	Carbon, Carbon-Manganese and Alloyed steels
<i>Manufacturer</i>	PJSC "ENERGOMASHSPECSTAL"
<i>Place of manufacture</i>	84306, KRAMATORSK DONETSK REGION UKRAINE
<i>Reference standards</i>	RINA Rules for the approval of manufacturers of materials

Issued in **ODESSA** on **July 10, 2017**. This Certificate is valid until **April 18, 2022**




RINA Services S.p.A.
Marius Fugaru

This certificate consists of this page and 1 enclosure

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Carbon, Carbon-Manganese and Alloyed steels

APPROVAL CONDITIONS

- **Steelmaking:** Electric arc furnace.
- **Steel type:** Carbon, Carbon-Manganese and Alloyed steels. - Maximum weight: 160t.
- **Heat treatment:** Normalizing and tempering, Quenched and tempering.
- **Application examples:** Stern frames, rudder hangings, stern bosses.

Survey conditions

All castings to be used for construction of ships and machinery classed with RINA shall meet the requirements of the RINA Rules and shall be tested accordingly.

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.

ODESSA July 10, 2017