



# Indian Register of Shipping

Place : Mumbai  
Date : 13<sup>th</sup> November 2016  
Certificate No. : 2016WAC035

## *Works Approval Certificate for Repair of Propeller Blades*

*This is to certify that based on the existing repair facilities and satisfactory assessment of repair and quality control procedures by our Surveyors, the name of*

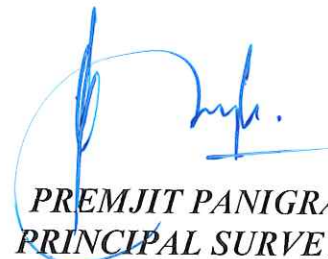
***M/s. Goltens India Private Limited***  
***A-183 TTC Industrial Area, MIDC Khairane, Thane Belapur Road***  
***Navi Mumbai – 400 705. India***

*is being included in the list of approved works for repair of propeller blades in accordance with the relevant requirements of Part 2, Chapter 8 of "Rules & Regulations for the Construction & Classification of Steel Ships".*

***MATERIAL*** : Cu Alloy (Grade Cu1 and Cu3)

***CONDITIONS OF APPROVAL*** : See Annexure I

***VALIDITY*** : This certificate is valid until 12<sup>th</sup> December 2021

  
**PREMJIT PANIGRAHI**  
**PRINCIPAL SURVEYOR**

*See Overleaf for Conditions of Issue of This Certificate*

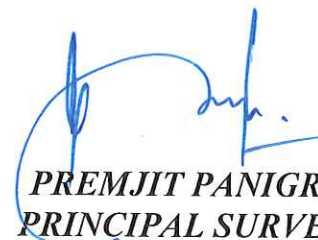
ANNEXURE - I

(TO CERT. NO. 2016WAC035 DATED 13<sup>TH</sup> DECEMBER 2016)

CONDITIONS OF APPROVAL

This approval is subject to the following:

1. Weld repair is to be carried out as per approved welding procedure specification WPS No. QW-482 and Procedure Qualification Record (PQR) QW-483 for joint welding of propeller blade of Grade Cu1 and Cu3 materials using qualified welders and to surveyor's satisfaction.
2. The weld repairs are to be carried out only in way of zone B & zone C as defined in Part 2, Chapter 8 of "Rules and Regulations for the Construction and Classification of Steel Ships" of Indian Register of Shipping.
3. The maximum weld deposition by overlay welding is not to exceed  $t/2$  where 't' is the thickness of the blade in zone B or C as applicable.
4. Any alteration being made to manufacturing facilities and procedures would require re-assessment of the works for continued approval.
5. Approval of works under this scheme will not eliminate normal inspection and testing.
6. The repair is to be carried out under supervision / instruction of IRS surveyor.
7. The validity of the approval would be extended for further period of 4 years upon completion of satisfactory assessment of the facility by our Surveyor at the end of first year and obtaining records of satisfactory performance of propellers supplied by the firm after carrying out repairs.

  
**PREMJIT PANIGRAHI**  
**PRINCIPAL SURVEYOR**