



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE

Certificate No. TA13529M

This is to certify that the undernoted product has been approved in accordance with the relevant requirements of "Rules for the Survey and Construction of Steel Ships" and "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use".

This certificate is issued to


Manufacturer: **Trelleborg Sealing Solutions Rotherham, United Kingdom**
Product description: **Water Lubricated Stern Tube Bearing**
Type designations: **Orkot TXM Marine**

Approval No.: **06FF001B**
Valid until: **16 November 2018**

This certificate is subject to the conditions specified in the attached sheet.

Issued at Tokyo on 17 November 2013.


Y. Shibata
General Manager
Machinery Department



This approval is conditional upon the followings:

1. The propeller shaft diameter in way of the bearing is to be 1000 mm or less.
2. The aftmost bearing length is not to be less than 2 times the required diameter of the propeller shaft calculated by the formula in 6.2.4, Chapter 6, Part D of the Rules or 1.5 times the actual diameter of the propeller shaft, whichever is the greater.
3. The maximum nominal surface pressure is to be 0.45N/mm^2 or less.
4. No bottom (6 o'clock position) groove is to be provided.
5. Forced water lubrication with flow indication is to be provided.
6. The bearings are to be fitted in accordance with the manufacturer's recommendations in compliance with all applicable Rules of the Society. Bonding installation by using adhesive is provisionally acceptable, provided that the ship owner's agreement is previously obtained when the bearings are bonded directly onto the sterntube. Chocking installation by using approved chock resin is acceptable, provided that the temperature rise is controlled within the suitable range and the ship owner's agreement is previously obtained when the bearings are bonded directly onto the sterntube.
7. The bearings are to be manufactured in accordance with the manufacturer's standards at their works covering production methods, testing and inspection, quality control and workmanship.

- The End -