

Statement of Approval



Approval No. **KBZ 1040 HH 4**

The material described below complies with the applicable requirements as given in the Rules and Regulations of Germanischer Lloyd for the application as

Synthetic Rudder Bearing Material

Designation **L2 Marine**
Description **Fibre-reinforced plastic incorporating solid lubricants**
Company **ACM BearingsLtd.
Rotherham S63 6EX
United Kingdom**

Normative Reference Rules for Classification and Construction,
I – Ship Technology
Part 1 – Seagoing Ships, Chapter 1, Section 14,
II - Material and Welding Technology
Part 2 - Non-Metallic Materials

Remarks None

This approval is granted provided that all products intended to be used for the construction of ships or installations classed with Germanischer Lloyd comply in every respect with the Society's Rules and Requirements.

This document consists of this page and a one-page annex which is integral part of the approval.

This Statement of Approval is valid until 2017-03-31.

Hamburg, 2014-06-20

Germanischer Lloyd

A blue ink signature of Guido Michalek, written in a cursive style.

Guido Michalek

A blue ink signature of Joachim Rehbein, written in a cursive style.

Joachim Rehbein

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ANNEX

Date: 2014-06-20

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| Reference | Technical specifications deposited at Germanischer Lloyd Head Office. |
| Assessed Documents | <ul style="list-style-type: none">- Technical Data Sheets- Test Report (ref. no. 14-033698, 2014-06-16)- Workshop Inspection report, dated 2014-02-07 |
| Field of Application | <ul style="list-style-type: none">- Rudder Carrier Bearing- Rudder Carrier Disk Bearings- Rudder Neck Bearings- Rudder Pintle Bearings |
| Lubricants | <ul style="list-style-type: none">- Dry (not for carrier bearings)- Oil- Water |
| Operational Limits | Permissible surface pressure: 10 MPa 5.5 MPa for $1.1 \leq h/d \leq 1.2$ and 10.0MPa for $h/d \leq 1.0$ h/d: height to diameter ratio of bearing intermediate values to be determined by linear interpolation |
| Installation | <ul style="list-style-type: none">- Freeze Fitting- Press Fitting Method- Bonding Method Installation only in accordance with GL Rules and the Engineering Manual |
| Dimensions | According to GL approved drawings |
| Limitations | Any significant changes in design and/or quality of the material will render the approval invalid. |
| Remarks | none |

End of Annex

Germanischer Lloyd

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