

M52

(1986)
(Rev.1
Jan 2019)
(Rev.2
Nov 2019)
(Rev.3
Nov 2024)

Length of aftmost propeller shaft stern bush bearing

Scope

Requirements of this UR are valid only for the aftmost propeller shaft bearing, next to and carrying the propeller, whether the bearing is in a stern tube or in a strut.

M52.1 Oil lubricated bearings of white metal

1.1 The length of white metal lined bearings is to be not less than 2.0 times the rule diameter of the shaft in way of the bearing.

1.2 The length of the bearing may be less provided the normal bearing pressure is not more than 8 bar as determined by static bearing reaction calculation taking into account shaft and propeller weight which is deemed to be exerted solely on the aft bearing divided by the projected area of the shaft. However, the minimum length is to be not less than 1.5 times the actual diameter.

M52.2 Oil lubricated bearings of synthetic rubber, reinforced resin or plastic materials

2.1 For bearings of synthetic rubber, reinforced resin or plastics materials which are approved for use as oil lubricated stern bush bearings, the length of the bearing is to be not less than 2.0 times the rule diameter of the shaft in way of the bearing.

2.2 The length of bearing may be less provided the nominal bearing pressure is not more than 6 bar as determined by static bearing reaction calculation taking into account shaft and propeller weight which is deemed to be exerted solely on the aft bearing divided by the projected area of the shaft. However, the minimum length is to be not less than 1.5 times the actual diameter.

Where the material has proven satisfactory testing and operating experience, consideration may be given to an increased bearing pressure.

2.3 ~~Synthetic materials for application as used for~~ Synthetic materials for application as used for oil lubricated stern tube aftmost propeller shaft bearings are to be Type Approved.
The type approval requirements in this clause apply to all aftmost propeller shaft bearings made of synthetic materials.

2.4 For type approval testing requirements of synthetic material for the aftmost propeller shaft bearing, refer to UR M85.

M52.3 Water lubricated bearings

3.1 The length of the bearing is to be not less than 4.0 times the rule diameter of the shaft in way of the bearing.

3.2 For a bearing of synthetic material, consideration may be given to a bearing length not less than 2.0 times the rule diameter of the shaft in way of the bearing, provided the bearing design and material is substantiated by experiments to the satisfaction of the Society.

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(cont)

3.3 ~~Synthetic materials for application as used for water lubricated stern tube~~
~~aftmost propeller shaft bearings~~ bearings are to be Type Approved. The type approval
requirements in this clause apply to all aftmost propeller shaft bearings made of
synthetic materials.

3.4 For type approval testing requirement of synthetic material for the aftmost
propeller shaft bearing, refer to UR M85.

M52.4 Grease lubricated bearings

4.1 The length of a grease lubricated bearing is to be not less than 4.0 times the
rule diameter of the shaft in way of the bearing.

Note:

1. The requirements of UR M52 Rev.1 are to be uniformly implemented by IACS
Societies on or after 1 January 2020.
2. The requirements of UR M52 Rev.2 are to be uniformly implemented by IACS
Societies on or after 1 January 2021.
3. The requirements of UR M52 Rev.3 are to be uniformly implemented by IACS
Societies on or after 01 January 2026.

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