

## M52 Length of aft stern bush bearing

(1986)

### 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.

### M52.3 Water lubricated bearings of lignum vitae

Where the bearing comprises staves of wood (known as lignum vitae), 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.

**NOTE:**

Lignum vitae is the generic name for several dense, resinous hardwoods with good lubricating properties. The original high quality Lignum Vitae is almost unobtainable and other types of wood such as Bulnesia Sarmiento (or Palo Santo or Bulnesia Arabia) are commonly used now.

### M52.4 Water lubricated bearings of synthetic material

- 4.1 Where the bearing is constructed of synthetic materials which are approved for use as water lubricated stern bush bearings such as rubber or plastics 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.
- 4.2 For a bearing design substantiated by experiments to the satisfaction of the Society 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.

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