

TIMKEN® SPHERICAL ROLLER BEARINGS FOR RUDDER STOCK APPLICATIONS IN NAVAL VESSELS AND COMMERCIAL SHIPS

Rudder stock bearings are components of a vessel's steering system that support and guide the rudder stock, allowing it to rotate smoothly while reducing friction. They are installed in the rudder tube.

The rudder support typically consists of two bearings. The upper bearing handles the axial location of the shaft and the axial load from the rudder weight while the lower bearing handles the primary radial loads from the water pressure and turning conditions.

Common causes of rudder stock bearing damage include shock loads, poor lubrication, material fatigue, lack of maintenance, and water ingress.

SPHERICAL ROLLER BEARINGS

Timken® rudder stock bearings derive from our spherical roller bearing portfolio, one of the broadest in the industry. They are designed to manage high radial loads and perform consistently, even when misalignment and critical application stresses are present.

Our spherical roller bearings are available with precision-machined brass cages up to 1500 mm bore. Furthermore, targeted modifications for rudder stock applications like special C6 clearance, W33 lubrication groove and holes, and engineered surfaces are available for the complete product line.

Timken applies premium materials and state-of-the art designs to meet your application requirements. Our bearings can reduce the risk of sudden steering failure and extend the service life of the rudder stock.

Timken® spherical roller bearings: excellence in performance and design

TIMKEN ADVANTAGES:

- Brass cage for shock resistance and durability under heavy load conditions
- Special C6 clearance available to help ensure proper target mounted setting
- W45A tapped lifting holes in face of outer ring to facilitate lifting and handling
- W33 lubrication groove on the outer ring with 3 lubrication holes to facilitate bearing lubrication
- Application and service engineering support
- Globally available direct from Timken and authorized distributors

TIMKEN SPHERICAL ROLLER BEARINGS

From **25mm to 1500mm bore**, Timken offers a comprehensive range of spherical roller bearings in both steel and **brass cages** to meet the demanding requirements of the **marine industry**.

Find the right part faster and perfect your spec with **30,000+ available modifications**.

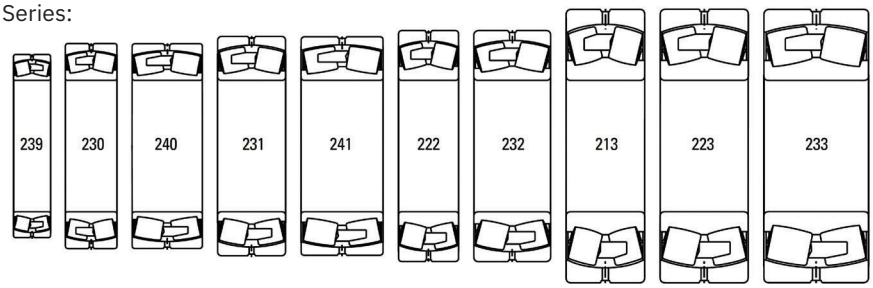
Series 230, 231, and 232 with brass cages are often preferred for rudder stock applications. Common modifications are **C6 clearance, enhanced material or heat treatment process, and W33 lubrication holes and groove in outer ring**.

Example for a rudder stock bearing part number: **231/560YMBW33W45AC6**.

Source from regional Timken warehouses across the world and authorized distribution partners.

NOMENCLATURE

Series:



Bore:

(5 x _ _	=	bore in millimeters when 2 digits)
5 x 07	=	35 mm
5 x 76	=	380 mm
(/ # # #	=	bore in millimeters when >2 digits)
/530	=	530 mm
/1060	=	1060 mm

222	**17**	**K EJ W33**	**C3**
223	**26**	**EM W33 W800**	**C4**

Note:

EJ bearings supersede **CJ** and **VCSJ** bearings.

EM bearings supersede **YM** bearings.

EMB bearings supersede **YMB** bearings.

Common modification and style codes:*

K	=	tapered bore
EJ	=	2-piece steel cage - window type
EM/YM	=	1-piece brass cage - finger type, roller piloted
EMB/YMB	=	1-piece brass, finger type, land piloted
YMD	=	2-piece brass, finger type, land piloted
W33	=	3 holes and groove in O.D.
W45A	=	tapped lifting holes in face of outer ring to facilitate lifting and handling

** An extensive array of modifications are available*

Radial Internal Clearances (RIC):

C2 < C0

C0 = normal

C3 > C0

C4 > C3

C5 > C4

C6 = special clearance

TIMKEN

The Timken Company partners with customers to design and manufacture advanced motion technology systems and components for critical end markets including aerospace and defense, power and electrification, and automation and industrial solutions. With more than 125 years of specialized engineering expertise, we power performance across the application lifecycle.

www.timken.com/marine

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