## **TIMKEN**



# TIMKEN® SPHERICAL ROLLER BEARINGS

## HIGHER EFFICIENCY. BETTER PERFORMANCE. MORE PROFITABILITY.

Designed to meet the toughest application conditions, Timken® spherical roller bearings can increase productivity and uptime in your equipment due to optimized internal geometry resulting in high capacity and longer bearing life. Timken spherical roller bearings also run cooler resulting in extended lubrication life and reduced lubricant usage.

#### A SMART SOLUTION FOR:

- Continuous casters
- Jaw crushers
- Pulp and paper mills
- Shaker screens
- Gearboxes
- Conveyors
- Fans and blowers

#### **Product Advantages**

- Minimized wear. Improved profiles reduce internal stresses and optimize load distribution.
- Higher loads. Improved internal geometry allows you to do more and operate with higher loads. They also result in 4% to 8% higher load ratings – or 14% to 29% longer predicted bearing life.
- Improved lube film. Enhanced surface finishes improve lubrication film to avoid metal-to-metal contact, reduce friction and improve bearing life.
- Tougher protection\*. Hardened steel cages deliver greater fatigue strength, increased wear resistance and can help protect against shock and acceleration.
- Optimized efficiency. Eliminating the center guide ring reduces running torque up to 4%, creating less friction.
- Lower operating temperatures\*. In head-to-head testing, our spherical roller bearings required 4% to 10% less running torque and ran 5° C cooler than the competition.
- Better contaminant purging for enhanced uptime. Unique slots in the cage face improve oil flow and purge more contaminants to help extend bearing life.

 $\ensuremath{^{*}}\xspace All$  results are from head-to-head testing against multiple competitors.

#### **Gain Solutions That Give You:**

## Customized resources, services and support.

As a Timken customer, you are connected to a team of application, sales and on-site service engineers who help solve unique equipment challenges resulting in extended uptime, productivity and efficiency.

## A wide range of sizes and modifications.

Manage your spherical roller bearing needs from a single source. Timken's spherical roller bearings are offered up to 1500 mm bore. Both brass and steel cage designs are available in most sizes up to 400 mm bore (600 mm 0.D.). Modifications are available to meet the demanding requirements of many applications.

#### Best-in-class performance.

Choose the product that lasts. Our spherical roller bearings provide increased load and speed capacity to help extend equipment life. Our performance exceeds leading competitors in side-by-side life tests, and we have direct interchangeability with main spherical roller bearing manufacturers.

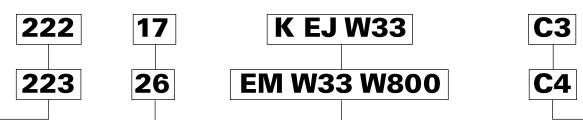
#### Regional availability.

Get shorter lead times and improved availability with the backing of our international network of distribution centers and authorized distributors operating from thousands of branch locations.

## Quality you can count on.

With one global quality system across all manufacturing plants, we deliver consistent performance and reliability anywhere in the world.

#### **NOMENCLATURE**



#### Bore:

(5  $x_{--}$  = bore in millimeters when 2 digits)

 $5 \times 07 = 35 \text{ mm}$  $5 \times 76 = 380 \text{ mm}$ 

(/### = bore in millimeters when >2 digits)

/530 = 530 mm /1060 = 1060 mm

#### Note:

EJ bearings supersede CJ and VCSJ bearings.

EM bearings supersede YM bearings.

EMB bearings supersede YMB bearings.

#### Common modification and style codes:

 $\mathbf{K}$  = tapered bore

**EJ** = 2-piece steel cage - window type<sup>(1)</sup>

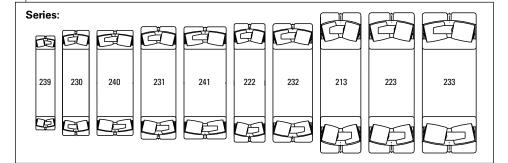
EM/YM = 1-piece brass cage - finger type, roller piloted EMB/YMB = 1-piece brass, finger type, land piloted

YMD = 2-piece brass, finger type, land piloted

W33 = 3 holes and groove in O.D. W800 = shaker screen modification:

- tighter bore diameter and O.D. tolerances
  - brass cage
  - RIC in upper 3/3 of clearance specified

(1)See complete modification list in the spherical roller bearing catalog (order no. 10446).



#### Radial Internal Clearances (RIC):

C2 < C0

C0 = normal

**C3** > C0 **C4** > C3

**C5** > C4

C6 = special clearance

Fig. 1. Timken spherical roller bearing nomenclature.



### TIMKEN

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets bearings, gear drives, automated lubrication systems, belts, brakes, clutches, chain, couplings, linear motion products and related industrial motion rebuild and repair services.

Stronger. By Design.