



The Timken Company

4500 Mt Pleasant St. NW

N. Canton, OH 44720

Phone: (234) 262-3000

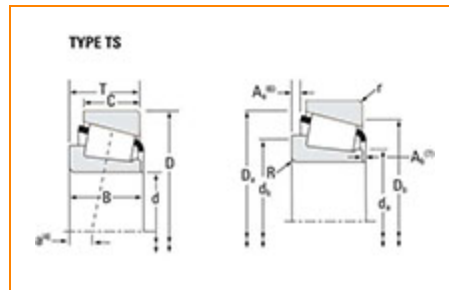
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number LM806649 - LM806610, Tapered Roller Bearings - TS (Tapered Single) Imperial

This is the most basic and most widely used type of tapered roller bearing. It consists of two main separable parts: the cone (inner ring) assembly and the cup (outer ring). It is typically mounted in opposing pairs on a shaft.

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RELATED PRODUCTS



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Specifications

| | |
|------------------|------------------|
| Series | LM806600 |
| Cone Part Number | LM806649 |
| Cup Part Number | LM806610 |
| Design Units | Imperial |
| Bearing Weight | 0.4 Kg 0.9 lb |
| Cage Type | Stamped Steel |

Dimensions

d - Bore 53.975 mm
2.1250 in

D - Cup Outer Diameter 88.900 mm
3.5000 in

B - Cone Width 19.050 mm
0.7500 in

C - Cup Width 13.492 mm
0.5312 in

T - Bearing Width 19.050 mm
0.7500 in

Abutment and Fillet Dimensions

**R - Cone Backface "To Clear"
Radius¹** 2.290 mm
0.09 in

**r - Cup Backface "To Clear"
Radius²** 2.03 mm
0.08 in

**da - Cone Frontface Backing
Diameter** 60.96 mm
2.4 in

**db - Cone Backface Backing
Diameter** 65.02 mm
2.56 in

**Da - Cup Frontface Backing
Diameter** 85.10 mm
3.39 in

**Db - Cup Backface Backing
Diameter** 80.01 mm
3.15 in

**Ab - Cage-Cone Frontface
Clearance** 2.3 mm
0.09 in

**Aa - Cage-Cone Backface
Clearance** 1 mm
0.04 in

| | |
|--|-------------------|
| a - Effective Center Location³ | 2.3 mm 0.09 in |
|--|-------------------|

Basic Load Ratings

| | |
|---|----------------------|
| C90 - Dynamic Radial Rating (90 million revolutions)⁴ | 3820 lbf 17000 N |
| C1 - Dynamic Radial Rating (1 million revolutions)⁵ | 14700 lbf 65500 N |
| C0 - Static Radial Rating | 18400 lbf 81800 N |
| C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶ | 3570 lbf 15900 N |

Factors

| | |
|---|------|
| K - Factor⁷ | 1.07 |
| e - ISO Factor⁸ | 0.55 |
| Y - ISO Factor⁹ | 1.1 |
| G1 - Heat Generation Factor (Roller-Raceway) | 31.8 |
| G2 - Heat Generation Factor (Rib-Roller End) | 22.1 |
| Cg - Geometry Factor | 0.09 |

¹ These maximum fillet radii will be cleared by the bearing corners.

² These maximum fillet radii will be cleared by the bearing corners.

³ Negative value indicates effective center inside cone backface.

⁴ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

⁵ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

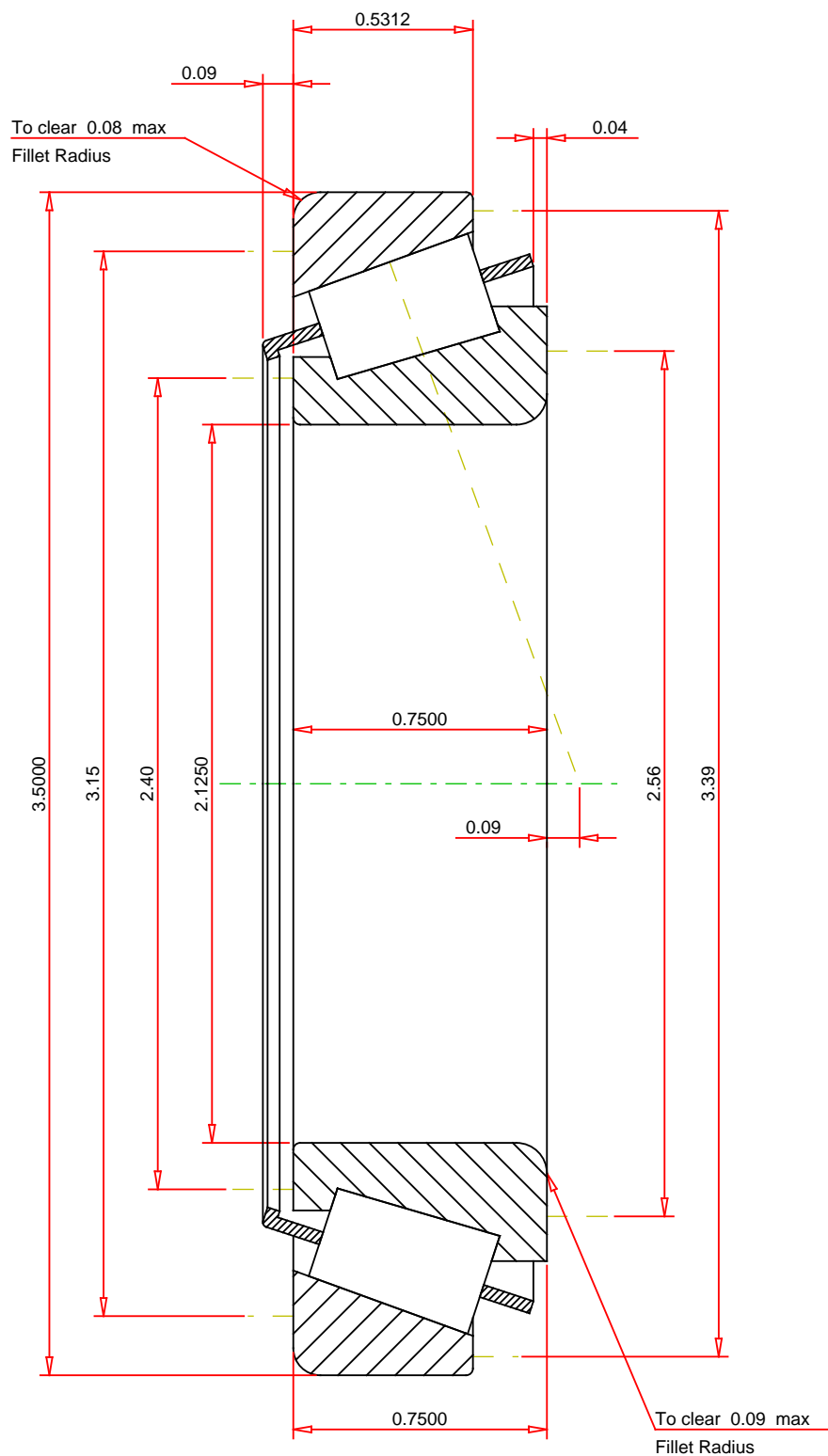
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are

radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁸ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁹ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.



IMPERIAL UNITS

ISO Factor - e 0.55
 ISO Factor - Y 1.1
 Bearing Weight 0.9 lb
 Number of Rollers Per Row 22
 Effective Center Location 0.09 inch

TIMKEN®

THE TIMKEN COMPANY
 NORTH CANTON, OHIO USA

LM806649 - LM806610
 TS BEARING ASSEMBLY

K Factor 1.07
 Dynamic Radial Rating - C90 3820 lbf
 Dynamic Thrust Rating - Ca90 3570 lbf
 Static Radial Rating - C0 18400 lbf
 Dynamic Radial Rating - C1 14700 lbf

Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

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