



The Timken Company

4500 Mt Pleasant St. NW

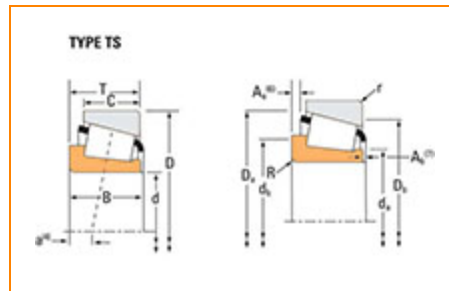
N. Canton, OH 44720

Phone: (234) 262-3000

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

Part Number M252349, Tapered Roller Bearings - Single Cones - 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.



[Specifications](#) | [Dimensions](#) | [Abutment and Fillet Dimensions](#) | [Basic Load Ratings](#) | [Factors](#)

Specifications

Series	M252300
Cone Part Number	M252349
Design Units	Imperial
Cage Type	Stamped Steel
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)¹	450000 lbf 2000000 N
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)²	117000 lbf 519000 N

Dimensions

d - Bore	10.6250 in 269.875 mm
-----------------	--------------------------

B - Cone Width	2.9375 in 74.613 mm
-----------------------	------------------------

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius³	0.25 in 6.400 mm
--	---------------------

da - Cone Frontface Backing Diameter	11.3 in 287 mm
---	-------------------

db - Cone Backface Backing Diameter	11.65 in 296 mm
--	--------------------

Ab - Cage-Cone Frontface Clearance	0.19 in 4.8 mm
---	-------------------

Aa - Cage-Cone Backface Clearance	0.3 in 7.6 mm
--	------------------

a - Effective Center Location⁴	-0.26 in -6.6 mm
--	---------------------

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁵	67000 lbf 298000 N
---	-----------------------

C1 - Dynamic Radial Rating (1 million revolutions)⁶	258000 lbf 1150000 N
---	-------------------------

C0 - Static Radial Rating	455000 lbf 2030000 N
----------------------------------	-------------------------

C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁷	38100 lbf 170000 N
---	-----------------------

Factors

K - Factor⁸	1.76
G1 - Heat Generation Factor (Roller-Raceway)	1839.2
G2 - Heat Generation Factor (Rib-Roller End)	226.1
Cg - Geometry Factor⁹	0.159

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

² 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.

³ These maximum fillet radii will be cleared by the bearing corners.

⁴ Negative value indicates effective center inside cone backface.

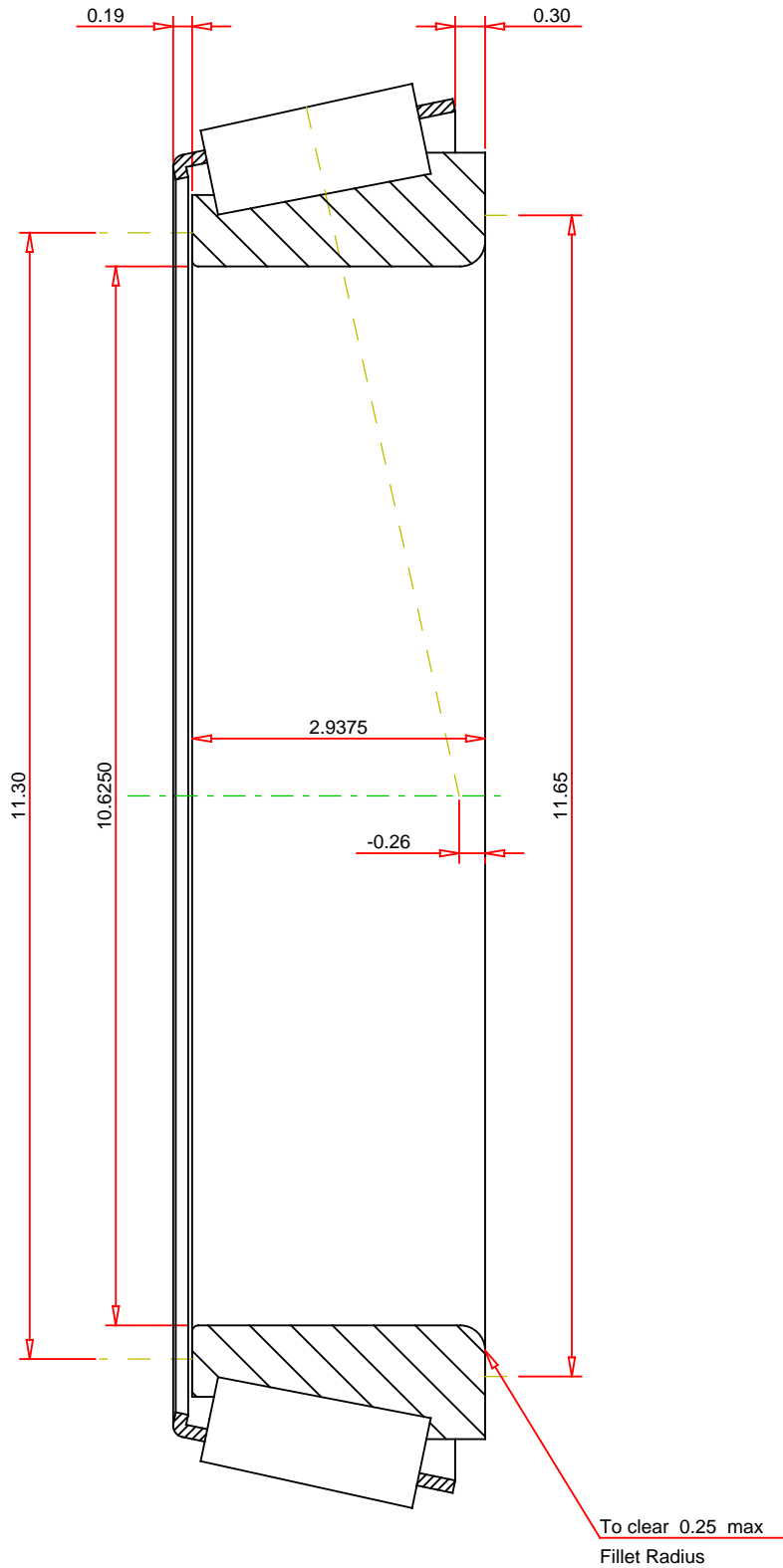
⁵ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

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

⁷ 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.

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

⁹ Geometry constant for Lubrication Life Adjustment Factor a_3 .



IMPERIAL UNITS

<div>Number of Rollers Per Row32</div>	<div>TIMKEN®</div> <div>THE TIMKEN COMPANY</div> <div>NORTH CANTON, OHIO USA</div>	<div>M252349</div> <div>SINGLE TAPERED CONE</div> <div><div>K Factor1.76</div><div>Dynamic Radial Rating - C9067000lbf</div><div>Dynamic Thrust Rating - Ca9038100lbf</div><div>Dynamic Radial Rating - C1258000lbf</div></div>
<div>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.</div>		<div>FOR DISCUSSION ONLY</div>