


The Timken Company

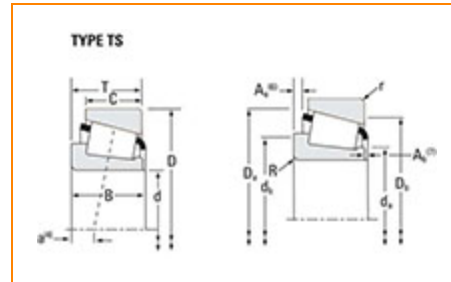
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Part Number 32952, Tapered Roller Bearings - TS (Tapered Single) Metric

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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Specifications

Series	32952
Cone Part Number	X32952M
Cup Part Number	Y32952M
Design Unit	Metric
Cage Material	Stamped Steel

Dimensions

d - Bore	260 mm 10.2362 in
 - Cup Outer Diameter	360 mm 14.1732 in

B - Cone Width	63.5 mm 2.5 in
C - Cup Width	48 mm 1.8898 in
T - Bearing Width	63.500 mm 2.5000 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	3 mm 0.12 in
r - Cup Backface "To Clear" Radius²	2.5 mm 0.1 in
da - Cone Frontface Backing Diameter	275 mm 10.83 in
db - Cone Backface Backing Diameter	280 mm 11.02 in
Da - Cup Frontface Backing Diameter	347.5 mm 13.68 in
Db - Cup Backface Backing Diameter	337 mm 13.27 in
Ab - Cage-Cone Frontface Clearance	4.6 mm 0.18 in
Aa - Cage-Cone Backface Clearance	6.1 mm 0.24 in
a - Effective Center Location³	6.1 mm 0.24 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90	215000 N
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million revolutions) ⁴	48300 lbf
C1 - Dynamic Radial Rating (1 million revolutions)⁵	829000 N 186000 lbf
C0 - Static Radial Rating	1690000 N 379000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	150000 N 33600 lbf

Factors

K - Factor⁷	1.44
e - ISO Factor⁸	0.41
Y - ISO Factor⁹	1.48
G1 - Heat Generation Factor (Roller-Raceway)	1503.1
G2 - Heat Generation Factor (Rib-Roller End)	206.8
C_g - Geometry Factor¹⁰	0.158

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.

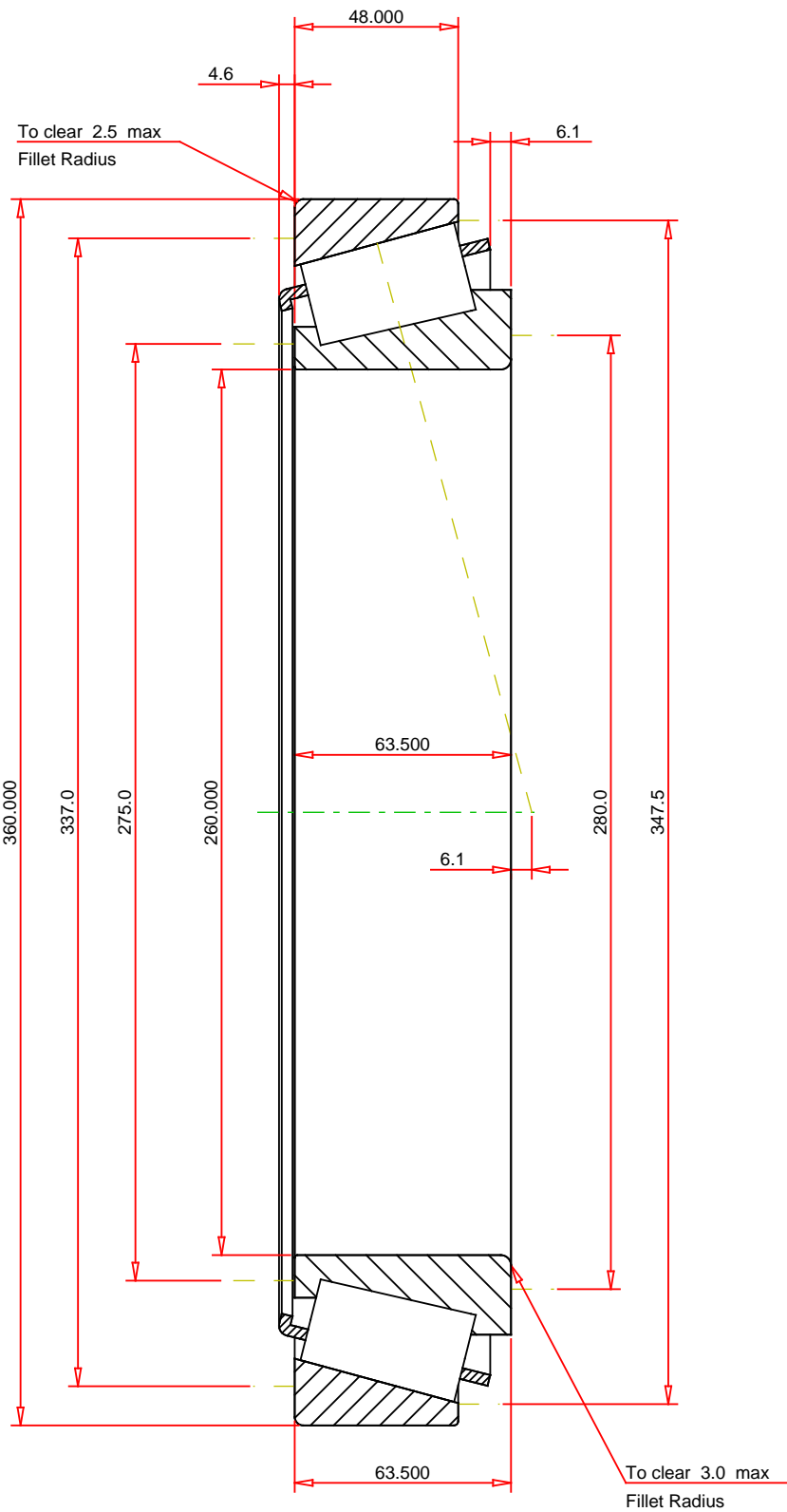
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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.

¹⁰ Geometry constant for Lubrication Life Adjustment Factor a3l.



METRIC UNITS

ISO Factor - e	0.41
ISO Factor - Y	1.48
Bearing Weight	18.6 kg
Number of Rollers Per Row	35
Effective Center Location	6.1 mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

X32952M - Y32952M
Tapered Roller Bearings - TS (Tapered Single)
Metric

K Factor	1.44
Dynamic Radial Rating - C90	215000 N
Dynamic Thrust Rating - Ca90	150000 N
Static Radial Rating - C0	1690000 N
Dynamic Radial Rating - C1	829000 N

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.

FOR DISCUSSION ONLY