



The Timken Company

4500 Mt Pleasant St. NW

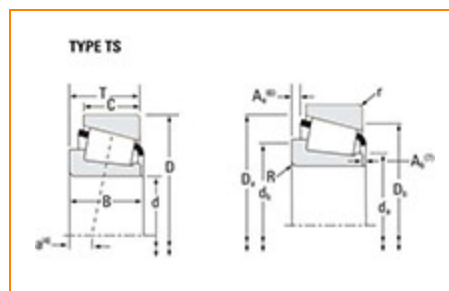
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Part Number 3382 - 3320, Tapered Roller Bearings - TS (Tapered Single) Imperial

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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Specifications

Series	3300
Cone Part Number	3382
Cup Part Number	3320
Design Units	Imperial
Bearing Weight	0.6 Kg 1.400 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	39.688 mm 1.5625 in
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D - Cup Outer Diameter	80.167 mm 3.1562 in
B - Cone Width	30.391 mm 1.1965 in
C - Cup Width	23.813 mm 0.9375 in
T - Bearing Width	29.370 mm 1.1563 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius²	3.3 mm 0.130 in
da - Cone Frontface Backing Diameter	45.47 mm 1.79 in
db - Cone Backface Backing Diameter	52.07 mm 2.05 in
Da - Cup Frontface Backing Diameter	75.90 mm 2.99 in
Db - Cup Backface Backing Diameter	70.10 mm 2.76 in
Ab - Cage-Cone Frontface Clearance	1.8 mm 0.07 in
Aa - Cage-Cone Backface Clearance	1.5 mm 0.06 in
a - Effective Center Location³	-10.9 mm -0.43 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	6700 lbf 29800 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	25800 lbf 115000 N
C0 - Static Radial Rating	29100 lbf 129000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	3130 lbf 13900 N

Factors

K - Factor⁷	2.14
e - ISO Factor⁸	0.27
Y - ISO Factor⁹	2.2
G1 - Heat Generation Factor (Roller-Raceway)	34.6
G2 - Heat Generation Factor (Rib-Roller End)	12.1
Cg - Geometry Factor¹⁰	0.0744

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.

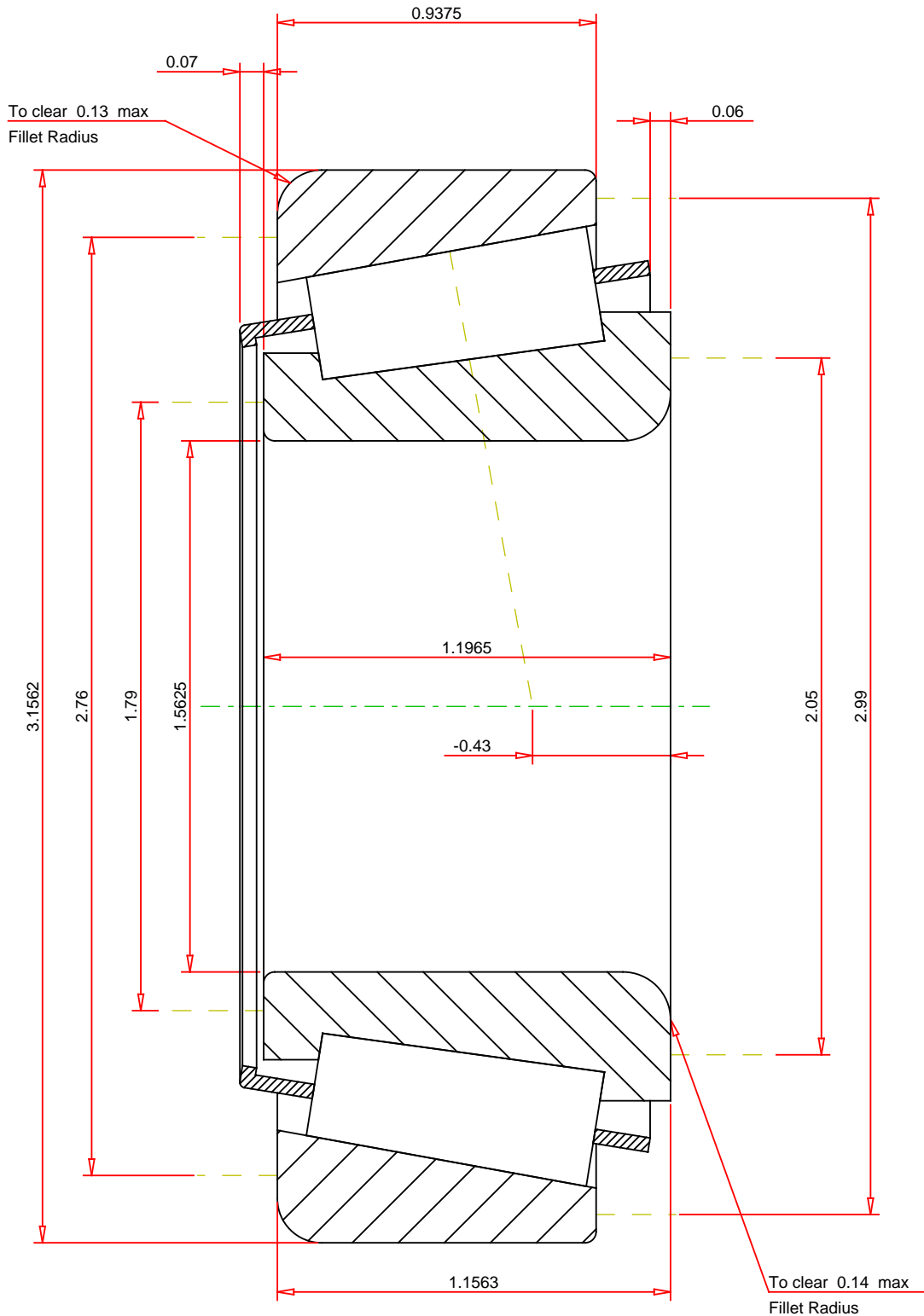
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 a_3 .



IMPERIAL UNITS

<div>ISO Factor - e0.27</div> <div>ISO Factor - Y2.2</div> <div>Bearing Weight1.4 lb</div> <div>Number of Rollers Per Row15</div> <div>Effective Center Location-0.43 inch</div>		<div>TIMIKEN®</div> <div>THE TIMKEN COMPANY</div> <div>NORTH CANTON, OHIO USA</div>		<div>3382 - 3320</div> <div>TS BEARING ASSEMBLY</div>	
				<div>K Factor2.14</div> <div>Dynamic Radial Rating - C906700 lbf</div> <div>Dynamic Thrust Rating - Ca903130 lbf</div> <div>Static Radial Rating - C029100 lbf</div> <div>Dynamic Radial Rating - C125800 lbf</div>	