



The Timken Company

4500 Mt Pleasant St. NW

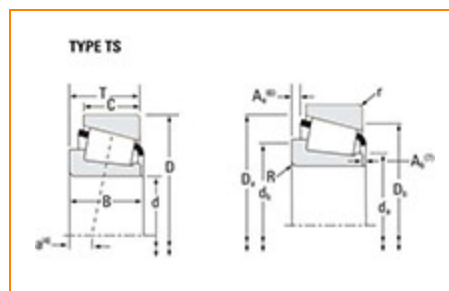
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Part Number 3479 - 3420, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	3400
Cone Part Number	3479
Cup Part Number	3420
Design Units	Imperial
Bearing Weight	0.70 Kg 1.500 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	36.513 mm 1.4375 in
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D - Cup Outer Diameter	79.375 mm 3.1250 in
B - Cone Width	29.771 mm 1.1721 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	0.760 mm 0.03 in
r - Cup Backface "To Clear" Radius²	3.3 mm 0.130 in
da - Cone Frontface Backing Diameter	44.45 mm 1.75 in
db - Cone Backface Backing Diameter	45.47 mm 1.79 in
Da - Cup Frontface Backing Diameter	74.68 mm 2.94 in
Db - Cup Backface Backing Diameter	67.06 mm 2.64 in
Ab - Cage-Cone Frontface Clearance	1.3 mm 0.05 in
Aa - Cage-Cone Backface Clearance	1 mm 0.04 in
a - Effective Center Location³	-8.6 mm -0.34 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	6100 lbf 27100 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	23500 lbf 105000 N
C0 - Static Radial Rating	26800 lbf 119000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	3820 lbf 17000 N

Factors

K - Factor⁷	1.6
e - ISO Factor⁸	0.37
Y - ISO Factor⁹	1.64
G1 - Heat Generation Factor (Roller-Raceway)	29.9
G2 - Heat Generation Factor (Rib-Roller End)	11.2
Cg - Geometry Factor¹⁰	0.0781

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.

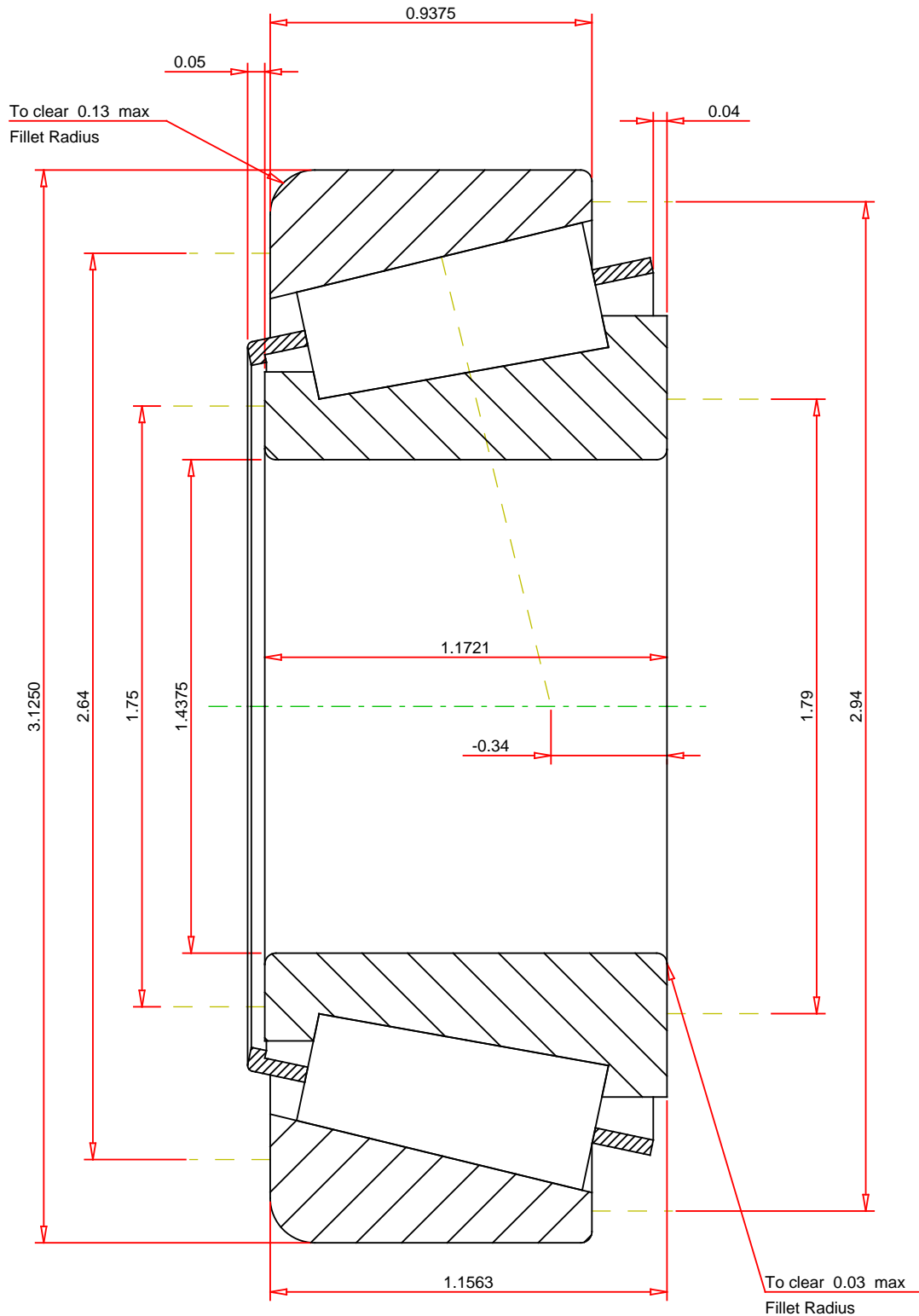
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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

ISO Factor - e 0.37
 ISO Factor - Y 1.64
 Bearing Weight 1.5 lb
 Number of Rollers Per Row 15
 Effective Center Location -0.34 inch

TIMKEN®

THE TIMKEN COMPANY
 NORTH CANTON, OHIO USA

3479 - 3420
TS BEARING ASSEMBLY

K Factor 1.6
 Dynamic Radial Rating - C90 6100 lbf
 Dynamic Thrust Rating - Ca90 3820 lbf
 Static Radial Rating - C0 26800 lbf
 Dynamic Radial Rating - C1 23500 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.

FOR DISCUSSION ONLY