



The Timken Company

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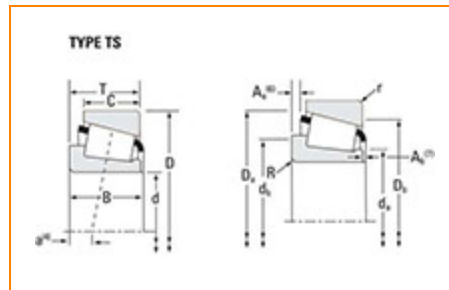
Timken Part Number L45449 - L45410, Tapered Roller Bearings - TS (Tapered Single)

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	L45400
Cone Part Number	L45449
Cup Part Number	L45410
Design Units	Imperial
Bearing Weight	0.100 Kg 0.20 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	28.999 mm 1.1417 in
D - Cup Outer Diameter	50.292 mm 1.9800 in
B - Cone Width	14.732 mm 0.5800 in
C - Cup Width	10.668 mm 0.4200 in
T - Bearing Width	14.224 mm 0.5600 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius²	1.27 mm 0.050 in
da - Cone Frontface Backing Diameter	33.53 mm 1.32 in
db - Cone Backface Backing Diameter	39.88 mm 1.57 in
Da - Cup Frontface Backing Diameter	48.51 mm 1.91 in
Db - Cup Backface Backing Diameter	44.45 mm 1.75 in
Ab - Cage-Cone Frontface Clearance	1.5 mm 0.06 in
Aa - Cage-Cone Backface Clearance	0 mm 0 in

a - Effective Center Location ³	-3.3 mm -0.13 in
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Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions) ⁴	9200 N 2070 lbf
C1 - Dynamic Radial Rating (1 million revolutions) ⁵	35500 N 7980 lbf
C0 - Static Radial Rating	36200 N 8130 lbf
C _{a90} - Dynamic Thrust Rating (90 million revolutions) ⁶	5820 N 1310 lbf

Factors

K - Factor ⁷	1.58
e - ISO Factor ⁸	0.37
Y - ISO Factor ⁹	1.62
G1 - Heat Generation Factor (Roller-Raceway)	10.8
G2 - Heat Generation Factor (Rib-Roller End)	12.4
C _g - Geometry Factor	0.0559

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 L₁₀ life, for The Timken Company life calculation method. C₉₀ and C_{a90} are radial and thrust values.

⁵ Based on 1×10^6 revolutions L₁₀ life, for the ISO life calculation method.

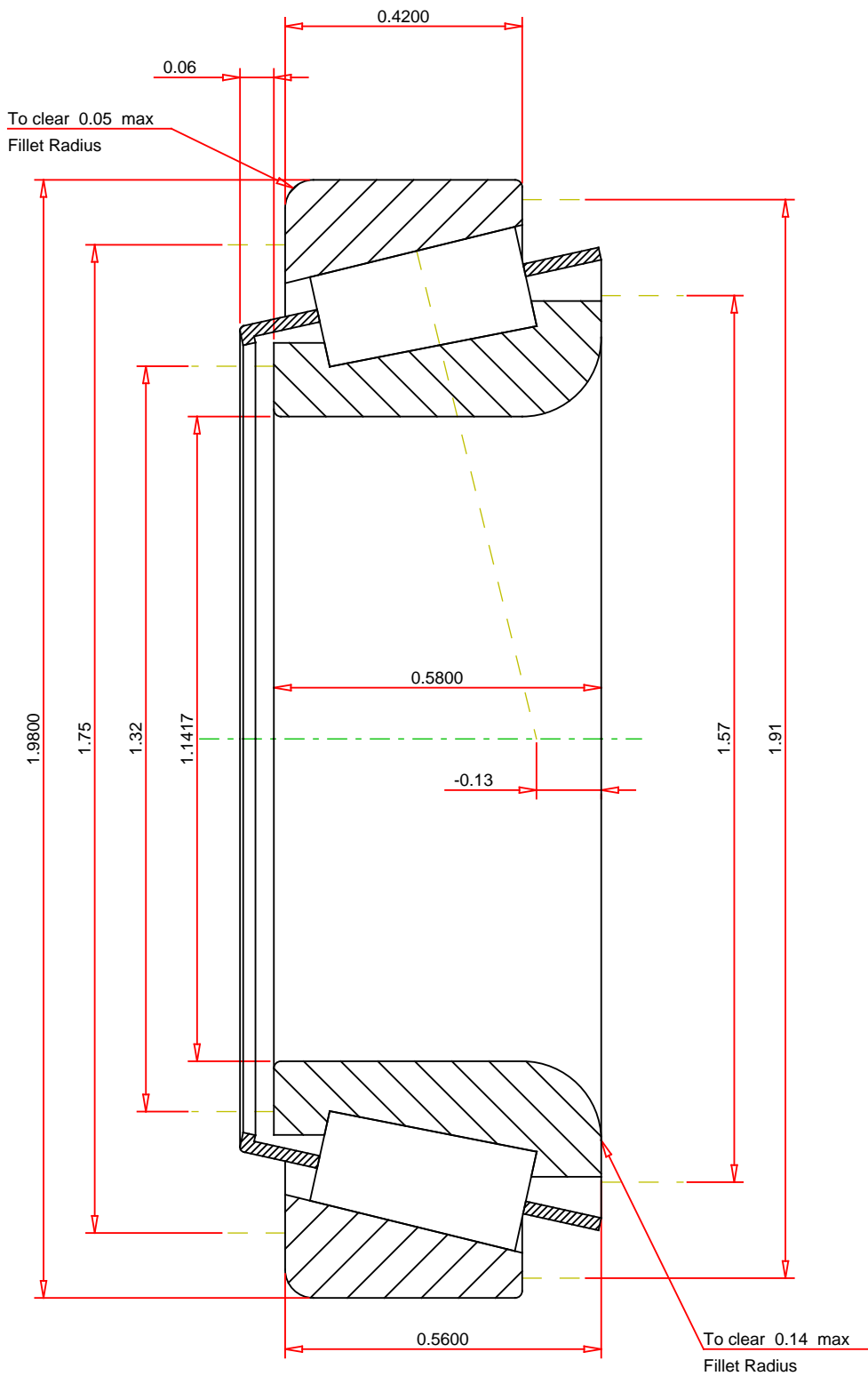
⁶ Based on 90×10^6 revolutions L₁₀ life, for The Timken Company life calculation method. C₉₀ and C_{a90} are

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.

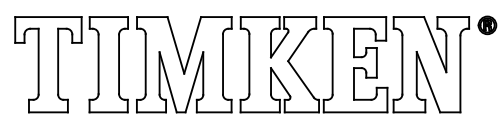
⁸ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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



IMPERIAL UNITS

ISO Factor - e	0.37
ISO Factor - Y	1.62
Bearing Weight	0.2 lb
Number of Rollers Per Row	21
Effective Center Location	-0.13 inch



**L45449 - L45410
TS BEARING ASSEMBLY**

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

K Factor	1.58
Dynamic Radial Rating - C90	9200 lbf
Dynamic Thrust Rating - Ca90	5820 lbf
Static Radial Rating - C0	36200 lbf
Dynamic Radial Rating - C1	35500 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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