



The Timken Company

4500 Mt Pleasant St. NW

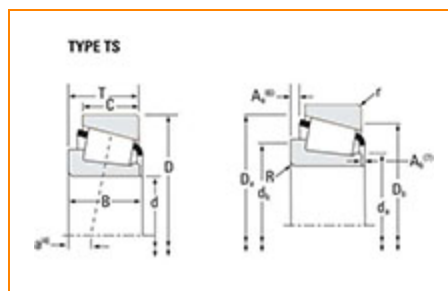
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Part Number LM501349 - LM501314, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	LM501300
Cone Part Number	LM501349
Cup Part Number	LM501314
Design Units	Imperial
Bearing Weight	0.4 Kg 0.8 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	41.275 mm 1.6250 in
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D - Cup Outer Diameter	73.431 mm 2.8910 in
B - Cone Width	19.812 mm 0.7800 in
C - Cup Width	16.604 mm 0.6537 in
T - Bearing Width	21.430 mm 0.8437 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius²	0.76 mm 0.03 in
da - Cone Frontface Backing Diameter	48.01 mm 1.89 in
db - Cone Backface Backing Diameter	54.10 mm 2.13 in
Da - Cup Frontface Backing Diameter	71.10 mm 2.80 in
Db - Cup Backface Backing Diameter	65.02 mm 2.56 in
Ab - Cage-Cone Frontface Clearance	1.8 mm 0.07 in
Aa - Cage-Cone Backface Clearance	0.3 mm 0.01 in
a - Effective Center Location³	-3.3 mm -0.13 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	4360 lbf 19400 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	16800 lbf 74800 N
C0 - Static Radial Rating	16700 lbf 74200 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	2980 lbf 13300 N

Factors

K - Factor⁷	1.46
e - ISO Factor⁸	0.4
Y - ISO Factor⁹	1.5
G1 - Heat Generation Factor (Roller-Raceway)	23.3
G2 - Heat Generation Factor (Rib-Roller End)	13.3
Cg - Geometry Factor¹⁰	0.0739

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.

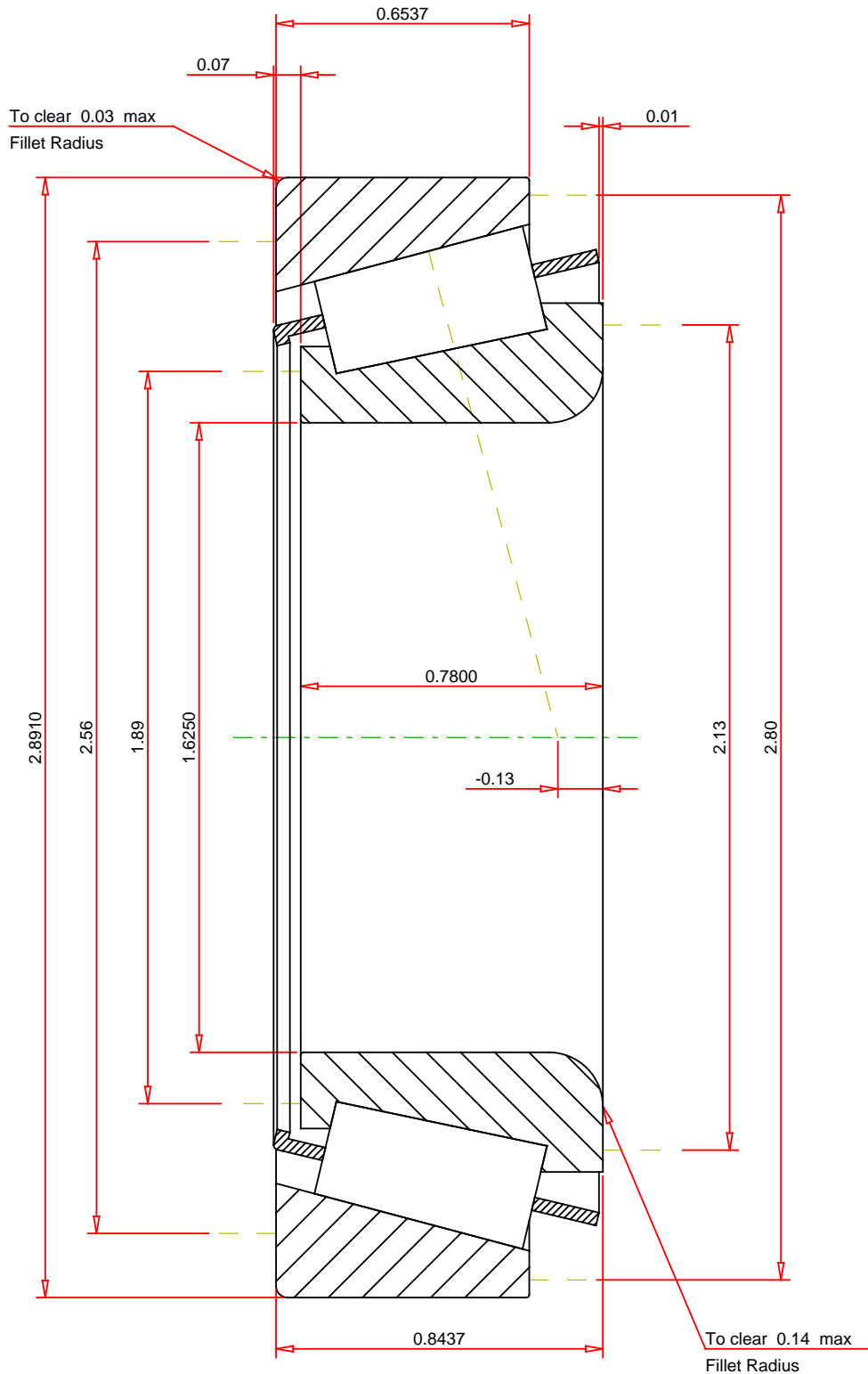
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 0.4
 ISO Factor - Y 1.5
 Bearing Weight 0.8 lb
 Number of Rollers Per Row 19
 Effective Center Location -0.13 inch

TIMKEN®

THE TIMKEN COMPANY
 NORTH CANTON, OHIO USA

LM501349 - LM501314
 TS BEARING ASSEMBLY

K Factor 1.46
 Dynamic Radial Rating - C90 4360 lbf
 Dynamic Thrust Rating - Ca90 2980 lbf
 Static Radial Rating - C0 16700 lbf
 Dynamic Radial Rating - C1 16800 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