


The Timken Company

4500 Mt Pleasant St. NW

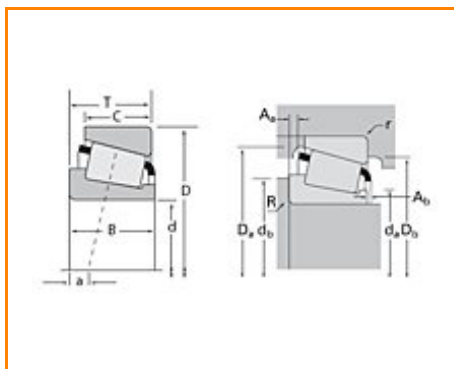
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Timken Part Number LM501349A - LM501310, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	LM501349A
Cup Part Number	LM501310
Design Units	Imperial
Bearing Weight	0.300 Kg 0.70 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	41.275 mm 1.6250 in
D - Cup Outer Diameter	73.431 mm 2.8910 in
B - Cone Width	19.812 mm 0.7800 in
C - Cup Width	14.732 mm 0.5800 in
T - Bearing Width	19.558 mm 0.7700 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.760 mm 0.03 in
r - Cup Backface "To Clear" Radius²	0.76 mm 0.030 in
da - Cone Frontface Backing Diameter	46.48 mm 1.83 in
db - Cone Backface Backing Diameter	46.99 mm 1.85 in
Da - Cup Frontface Backing Diameter	71.10 mm 2.80 in
Db - Cup Backface Backing Diameter	67.06 mm 2.64 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	19400 N 4360 lbf
C1 - Dynamic Radial Rating (1 million revolutions)⁵	74800 N 16800 lbf
C0 - Static Radial Rating	74200 N 16700 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	13300 N 2980 lbf

Factors

K - Factor⁷	1.46
e - ISO Factor⁸	0.40
Y - ISO Factor⁹	1.5
G1 - Heat Generation Factor (Roller-Raceway)	23.3
G2 - Heat Generation Factor (Rib-Roller End)	13.3
Cg - Geometry Factor	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.

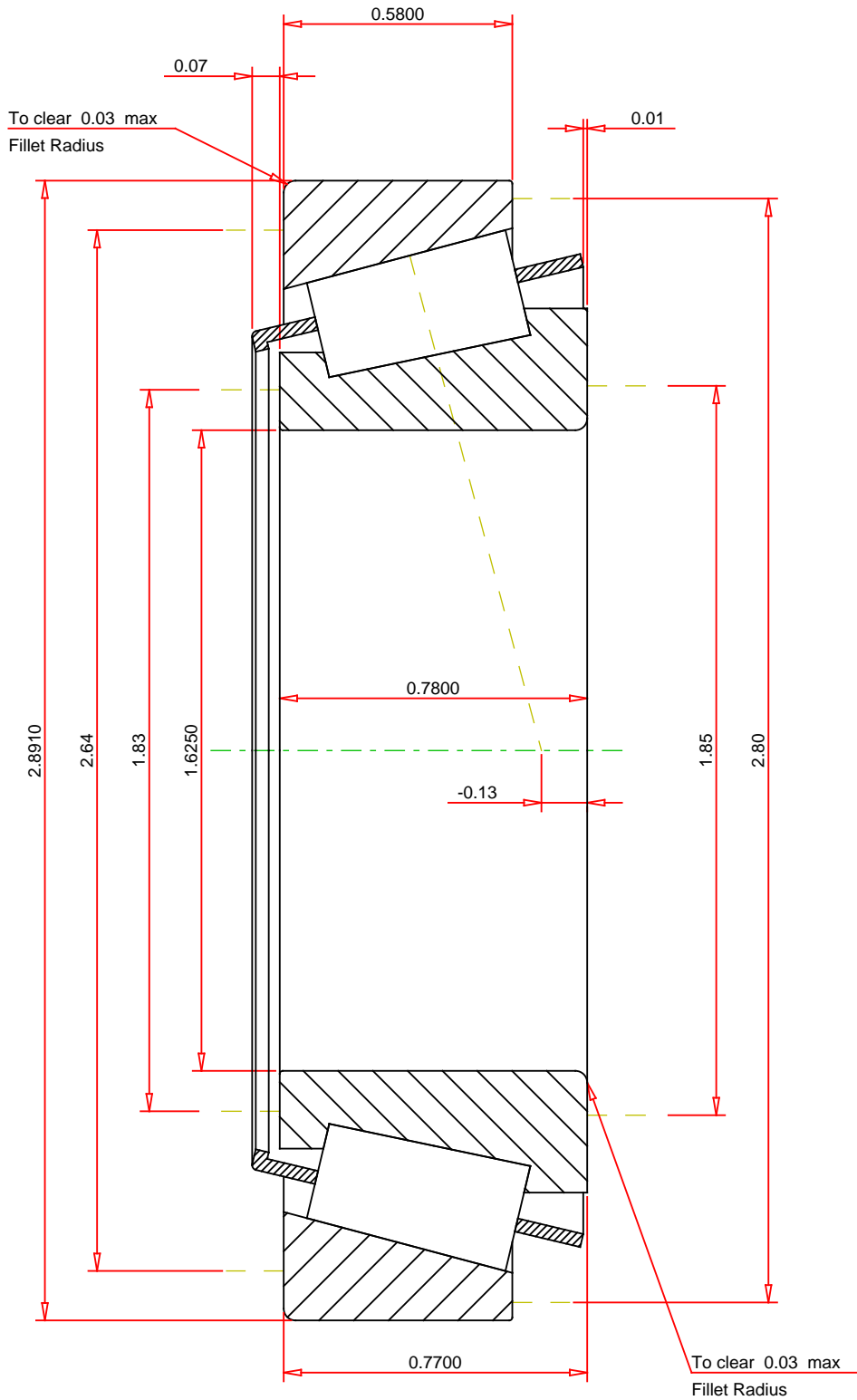
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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

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



IMPERIAL UNITS

ISO Factor - e 0.4
ISO Factor - Y 1.5
Bearing Weight 0.7 lb
Number of Rollers Per Row 19
Effective Center Location -0.13 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

LM501349A - LM501310
TS BEARING ASSEMBLY

K Factor	1.46
Dynamic Radial Rating - C90	19400 lbf
Dynamic Thrust Rating - Ca90	13300 lbf
Static Radial Rating - C0	74200 lbf
Dynamic Radial Rating - C1	74800 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