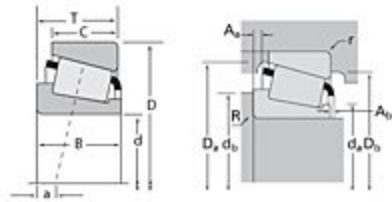




The Timken Company
 4500 Mt Pleasant St. NW
 N. Canton, OH 44720
 Phone: (234) 262-3000
 E-Mail: CustomerCAD@timken.com • Web site: www.timken.com

Timken Part Number LM78349 - LM78310A, 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.



[Specifications](#) | [Dimensions](#) | [Abutment and Fillet Dimensions](#) | [Basic Load Ratings](#) | [Factors](#)

Specifications

Series	LM78300
Cone Part Number	LM78349
Cup Part Number	LM78310A
Design Units	Imperial
Bearing Weight	0.200 Kg 0.4 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	34.989 mm 1.3775 in
D - Cup Outer Diameter	61.973 mm 2.4399 in

B - Cone Width	17.000 mm 0.6693 in
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C - Cup Width	13.599 mm 0.5354 in
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T - Bearing Width	16.701 mm 0.6575 in
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Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	3.560 mm 0.14 in
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r - Cup Backface "To Clear" Radius²	1.52 mm 0.06 in
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da - Cone Frontface Backing Diameter	39.88 mm 1.57 in
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db - Cone Backface Backing Diameter	45.97 mm 1.81 in
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Da - Cup Frontface Backing Diameter	59.44 mm 2.34 in
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Db - Cup Backface Backing Diameter	54.10 mm 2.13 in
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Ab - Cage-Cone Frontface Clearance	1.8 mm 0.07 in
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Aa - Cage-Cone Backface Clearance	0.3 mm 0.01 in
--	-------------------

a - Effective Center Location³	-2.50 mm -0.10 in
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Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	11000 N 2480 lbf
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C1 - Dynamic Radial Rating (1 million revolutions)⁵	42500 N 9560 lbf
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C0 - Static Radial Rating	52400 N 11800 lbf
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C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	8380 N 1880 lbf
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Factors

K - Factor⁷	1.31
e - ISO Factor⁸	0.44
Y - ISO Factor⁹	1.35
G1 - Heat Generation Factor (Roller-Raceway)	16.1
G2 - Heat Generation Factor (Rib-Roller End)	16.2
Cg - Geometry Factor	0.0678

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.

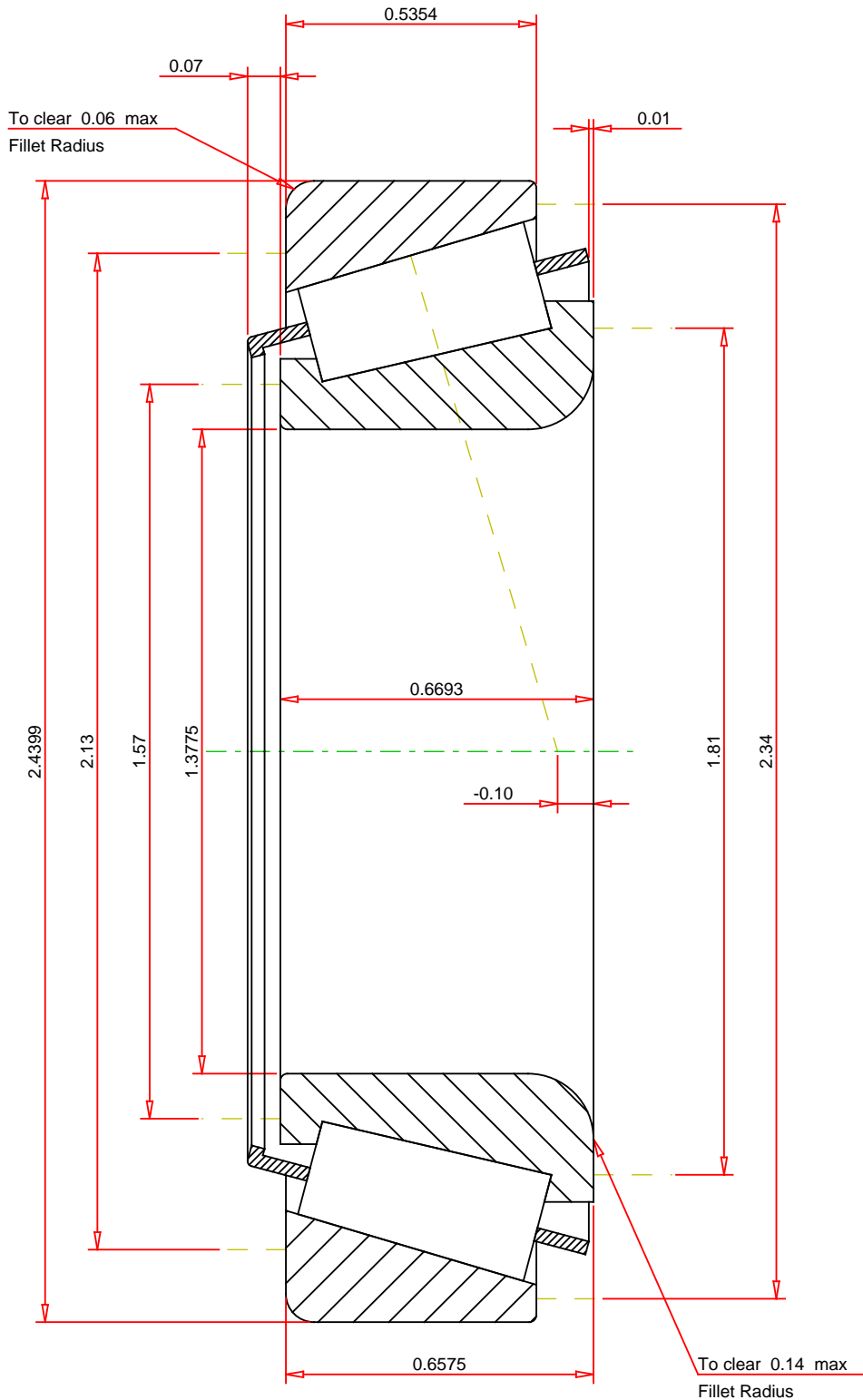
⁵ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

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.



IMPERIAL UNITS

ISO Factor - e 0.44
ISO Factor - Y 1.35
Bearing Weight 0.4 lb
Number of Rollers Per Row 21
Effective Center Location -0.1 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

LM78349 - LM78310A
TS BEARING ASSEMBLY

K Factor	1.31
Dynamic Radial Rating - C90	11000 lbf
Dynamic Thrust Rating - Ca90	8380 lbf
Static Radial Rating - C0	52400 lbf
Dynamic Radial Rating - C1	42500 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