

The Timken Company

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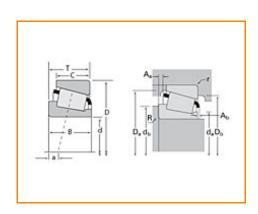
E-Mail: <u>CustomerCAD@timken.com</u> • Web site: <u>www.timken.com</u>

Timken Part Number LM48549 - LM48510, 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.





<u>Specifications</u> | <u>Dimensions</u> | <u>Abutment and Fillet Dimensions</u> | <u>Basic Load Ratings</u> | <u>Factors</u>

Specifications		-
Series	LM48500	
Cone Part Number	LM48549	
Cup Part Number	LM48510	
Design Units	Imperial	
Bearing Weight	0.300 Kg 0.60 lb	
Cage Type	Stamped Steel	

Dimensions	-

d - Bore	34.925 mm 1.3750 in
D - Cup Outer Diameter	65.088 mm 2.5625 in
B - Cone Width	18.288 mm 0.7200 in
C - Cup Width	13.970 mm 0.5500 in
T - Bearing Width	18.034 mm 0.7100 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius ¹	1.520 mm 0.06 in
r - Cup Backface "To Clear"	1.27 mm
Radius ²	0.050 in
da - Cone Frontface Backing	39.88 mm
Diameter	1.57 in
db - Cone Backface Backing	41.91 mm
Diameter	1.65 in
Da - Cup Frontface Backing	61.00 mm
Diameter	2.44 in
Db - Cup Backface Backing Diameter	57.91 mm 2.28 in
Ab - Cage-Cone Frontface	2 mm
Clearance	0.08 in
Aa - Cage-Cone Backface	0.3 mm
Clearance	0.01 in
a - Effective Center Location ³	-3.6 mm -0.14 in

Basic Load Ratings	
C90 - Dynamic Radial Rating (90 million revolutions) ⁴	16700 N 3760 lbf
C1 - Dynamic Radial Rating (1 million revolutions) ⁵	64600 N 14500 lbf
C0 - Static Radial Rating	63100 N 14200 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions) ⁶	10800 N 2430 lbf

Factors	
K - Factor ⁷	1.55
e - ISO Factor ⁸	0.38
Y - ISO Factor ⁹	1.59
G1 - Heat Generation Factor (Roller-Raceway)	18
G2 - Heat Generation Factor (Rib-Roller End)	10.6
Cg - Geometry Factor	0.0666

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 x 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 x 10^{6} revolutions L_{10} life, for the ISO life calculation method.

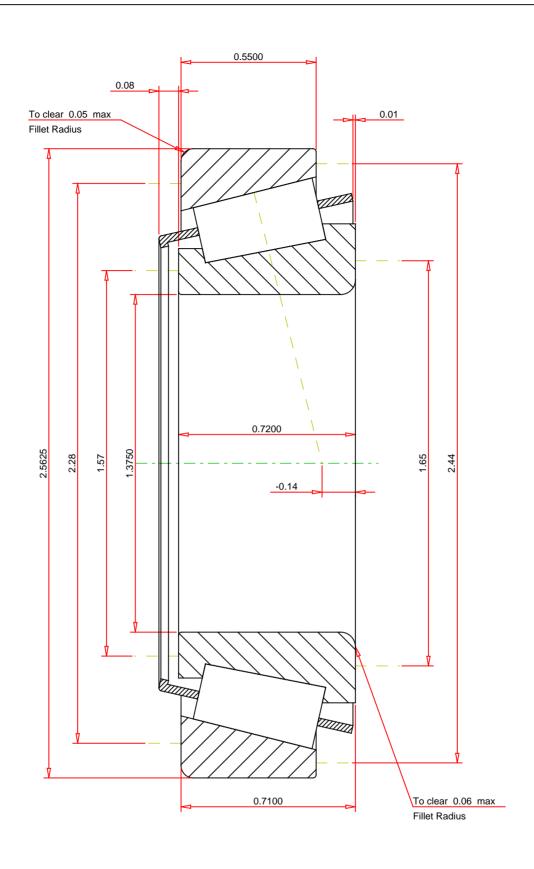
 $^{^6}$ Based on 90 x 10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 ISO Factor - Y Bearing Weight Number of Rollers Per Row Effective Center Location	0.38 1.59 0.6 lb 19 -0.14 inch		LM48549 - LM48510 TS BEARING ASSEMBLY		
		THE TIMKEN COMPANY NORTH CANTON, OHIO USA	K Factor Dynamic Radial Rating - C90 Dynamic Thrust Rating - Ca90 Static Radial Rating - C0 Dynamic Radial Rating - C1	1.55 16700 10800 63100 64600	lbf lbf lbf lbf
Every reasonable effort has been made	e to ensure the	accuracy of the information contained in this writing, but no	EOD DIOOLIOOLONI ONII V		

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