


The Timken Company

4500 Mt Pleasant St. NW

N. Canton, OH 44720

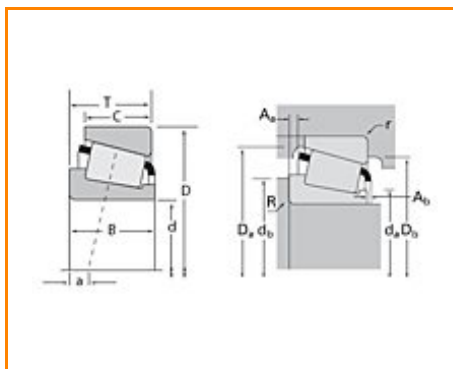
Phone: (234) 262-3000

E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number LM11749 - LM11710, 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	LM11700
Cone Part Number	LM11749
Cup Part Number	LM11710
Design Units	Imperial
Bearing Weight	0.100 Kg 0.20 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	17.463 mm 0.6875 in
D - Cup Outer Diameter	39.878 mm 1.5700 in
B - Cone Width	14.605 mm 0.5750 in
C - Cup Width	10.668 mm 0.4200 in
T - Bearing Width	13.843 mm 0.5450 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	1.270 mm 0.050 in
r - Cup Backface "To Clear" Radius²	1.27 mm 0.050 in
da - Cone Frontface Backing Diameter	22.10 mm 0.87 in
db - Cone Backface Backing Diameter	23.88 mm 0.94 in
Da - Cup Frontface Backing Diameter	37.59 mm 1.48 in
Db - Cup Backface Backing Diameter	34.04 mm 1.34 in
Ab - Cage-Cone Frontface Clearance	1.3 mm 0.05 in
Aa - Cage-Cone Backface Clearance	0 mm 0 in
a - Effective Center Location³	-5.1 mm -0.2 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	7610 N 1710 lbf
---	--------------------

C1 - Dynamic Radial Rating (1 million revolutions)⁵	29400 N 6600 lbf
---	---------------------

C0 - Static Radial Rating	23400 N 5260 lbf
----------------------------------	---------------------

C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	3730 N 838 lbf
---	-------------------

Factors

K - Factor⁷	2.04
-------------------------------	------

e - ISO Factor⁸	0.29
-----------------------------------	------

Y - ISO Factor⁹	2.1
-----------------------------------	-----

G1 - Heat Generation Factor (Roller-Raceway)	4.8
---	-----

G2 - Heat Generation Factor (Rib-Roller End)	4.74
---	------

Cg - Geometry Factor	0.0392
-----------------------------	--------

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.

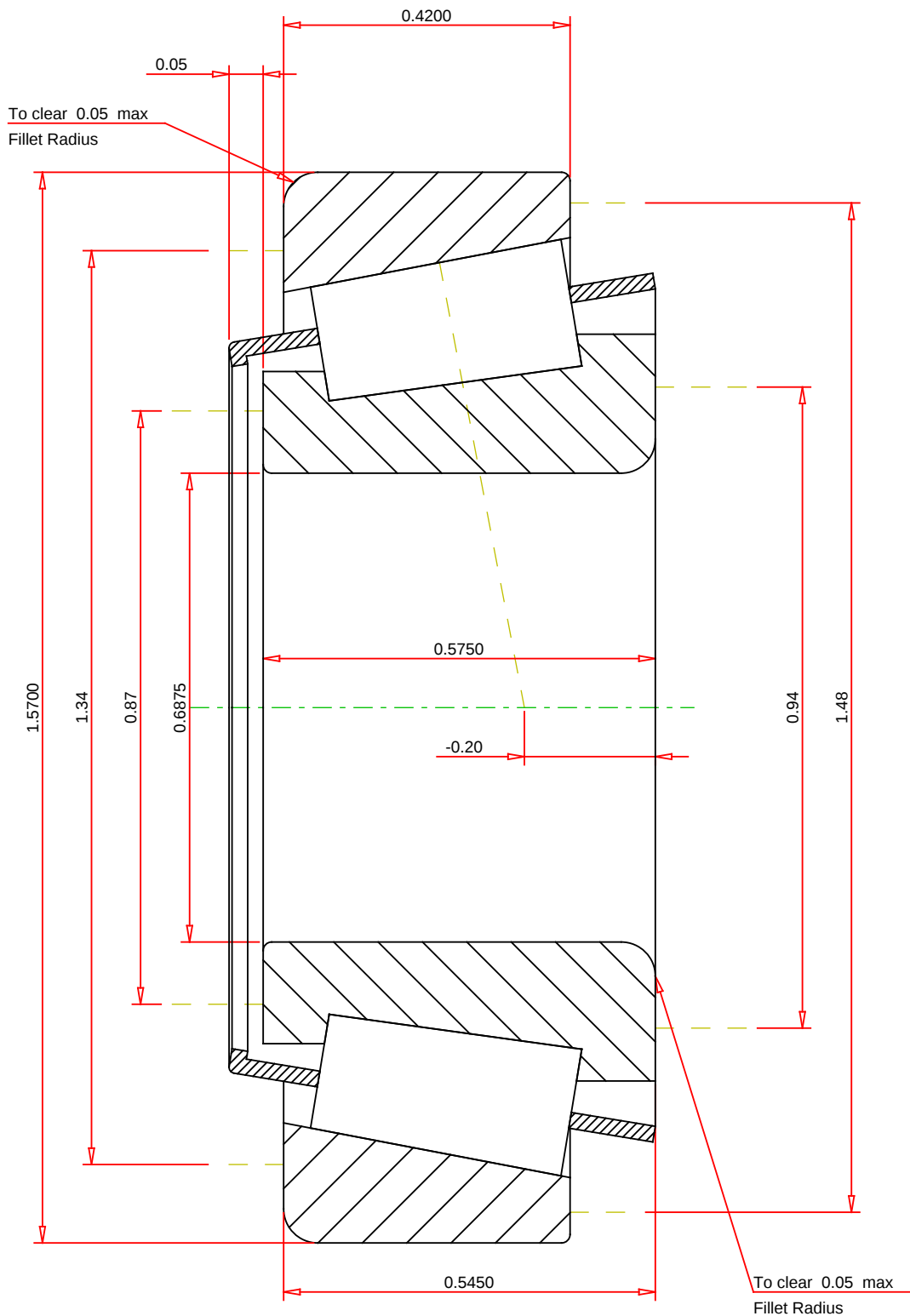
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 0.29
 ISO Factor - Y 2.1
 Bearing Weight 0.2 lb
 Number of Rollers Per Row 14
 Effective Center Location -0.2 inch

TIMKEN®

THE TIMKEN COMPANY
 NORTH CANTON, OHIO USA

LM11749 - LM11710 TS BEARING ASSEMBLY

K Factor	2.04	
Dynamic Radial Rating - C90	7610	lbf
Dynamic Thrust Rating - Ca90	3730	lbf
Static Radial Rating - C0	23400	lbf
Dynamic Radial Rating - C1	29400	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