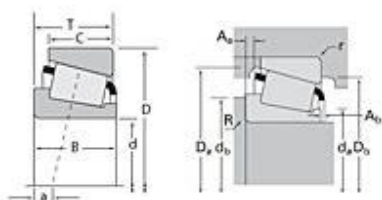


TIMKEN

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 LM11949 - LM11910, 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	LM11900
Cone Part Number	LM11949
Cup Part Number	LM11910
Design Units	Imperial
Bearing Weight	0.30 lb 0.100 Kg
Cage Type	Stamped Steel

Dimensions

d - Bore	0.7500 in 19.050 mm
D - Cup Outer Diameter	1.7810 in 45.237 mm

B - Cone Width	0.6550 in 16.637 mm
C - Cup Width	0.4750 in 12.065 mm
T - Bearing Width	0.6100 in 15.494 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.050 in 1.270 mm
r - Cup Backface "To Clear" Radius²	0.050 in 1.27 mm
da - Cone Frontface Backing Diameter	0.93 in 23.62 mm
db - Cone Backface Backing Diameter	0.98 in 24.89 mm
Da - Cup Frontface Backing Diameter	1.65 in 41.90 mm
Db - Cup Backface Backing Diameter	1.56 in 39.62 mm
Ab - Cage-Cone Frontface Clearance	0.05 in 1.3 mm
Aa - Cage-Cone Backface Clearance	-0.01 in -0.3 mm
a - Effective Center Location³	-0.22 in -5.60 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	2280 lbf 10100 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	8800 lbf 39100 N
C0 - Static Radial Rating	7200 lbf 32000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	1170 lbf 5220 N

Factors

K - Factor⁷	1.94
e - ISO Factor⁸	0.3
Y - ISO Factor⁹	2
G1 - Heat Generation Factor (Roller-Raceway)	6.6
G2 - Heat Generation Factor (Rib-Roller End)	5.49
Cg - Geometry Factor	0.0441

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.

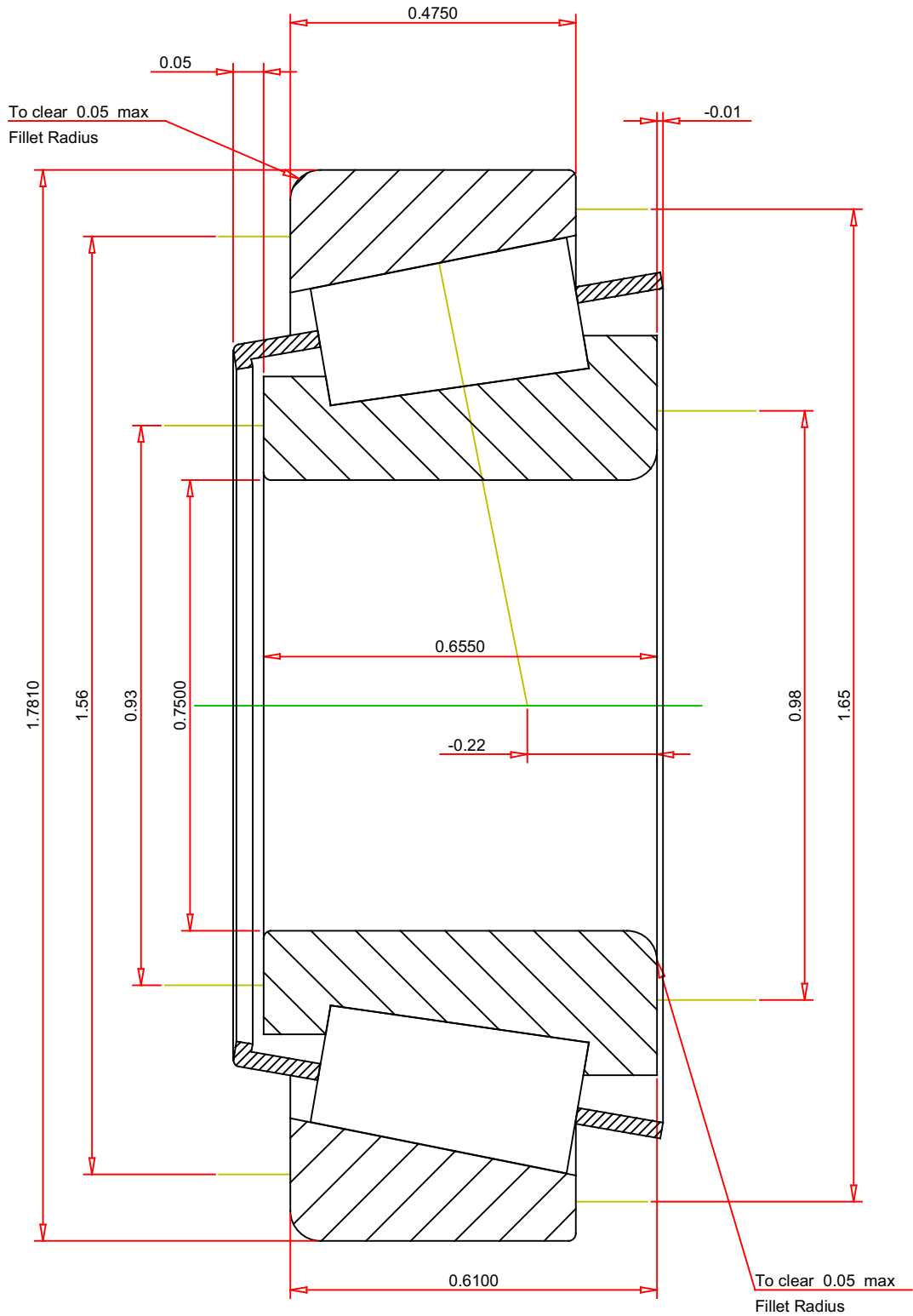
⁵ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

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	0.3
ISO Factor - Y	2
Bearing Weight	0.3 lb
Number of Rollers Per Row	14
Effective Center Location	-0.22 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

LM11949 - LM11910
TS BEARING ASSEMBLY

K Factor	1.94
Dynamic Radial Rating - C90	2280 lbf
Dynamic Thrust Rating - Ca90	1170 lbf
Static Radial Rating - C0	7200 lbf
Dynamic Radial Rating - C1	8800 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