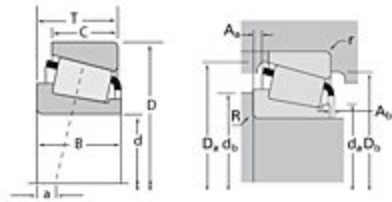




The Timken Company  
 4500 Mt Pleasant St. NW  
 N. Canton, OH 44720  
 Phone: (234) 262-3000  
 E-Mail: [CustomerCAD@timken.com](mailto:CustomerCAD@timken.com) • Web site: [www.timken.com](http://www.timken.com)

## 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.



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### Specifications

<b>Series</b>	LM11900
<b>Cone Part Number</b>	LM11949
<b>Cup Part Number</b>	LM11910
<b>Design Units</b>	Imperial
<b>Bearing Weight</b>	0.100 Kg 0.30 lb
<b>Cage Type</b>	Stamped Steel

### Dimensions

<b>d - Bore</b>	19.050 mm 0.7500 in
<b>D - Cup Outer Diameter</b>	45.237 mm 1.7810 in

<b>B - Cone Width</b>	16.637 mm 0.6550 in
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<b>C - Cup Width</b>	12.065 mm 0.4750 in
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<b>T - Bearing Width</b>	15.494 mm 0.6100 in
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## Abutment and Fillet Dimensions

<b>R - Cone Backface "To Clear" Radius<sup>1</sup></b>	1.270 mm 0.050 in
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<b>r - Cup Backface "To Clear" Radius<sup>2</sup></b>	1.27 mm 0.050 in
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<b>da - Cone Frontface Backing Diameter</b>	23.62 mm 0.93 in
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<b>db - Cone Backface Backing Diameter</b>	24.89 mm 0.98 in
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<b>Da - Cup Frontface Backing Diameter</b>	41.90 mm 1.65 in
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<b>Db - Cup Backface Backing Diameter</b>	39.62 mm 1.56 in
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<b>Ab - Cage-Cone Frontface Clearance</b>	1.3 mm 0.05 in
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<b>Aa - Cage-Cone Backface Clearance</b>	-0.3 mm -0.01 in
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<b>a - Effective Center Location<sup>3</sup></b>	-5.60 mm -0.22 in
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## Basic Load Ratings

<b>C90 - Dynamic Radial Rating (90 million revolutions)<sup>4</sup></b>	10100 N 2280 lbf
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<b>C1 - Dynamic Radial Rating (1 million revolutions)<sup>5</sup></b>	39100 N 8800 lbf
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<b>C0 - Static Radial Rating</b>	32000 N 7200 lbf
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<b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>6</sup></b>	5220 N 1170 lbf
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## Factors

<b>K - Factor<sup>7</sup></b>	1.94
<b>e - ISO Factor<sup>8</sup></b>	0.3
<b>Y - ISO Factor<sup>9</sup></b>	2
<b>G1 - Heat Generation Factor (Roller-Raceway)</b>	6.6
<b>G2 - Heat Generation Factor (Rib-Roller End)</b>	5.49
<b>Cg - Geometry Factor</b>	0.0441

<sup>1</sup> These maximum fillet radii will be cleared by the bearing corners.

<sup>2</sup> These maximum fillet radii will be cleared by the bearing corners.

<sup>3</sup> Negative value indicates effective center inside cone backface.

<sup>4</sup> Based on  $90 \times 10^6$  revolutions  $L_{10}$  life, for The Timken Company life calculation method.  $C_{90}$  and  $C_{a90}$  are radial and thrust values.

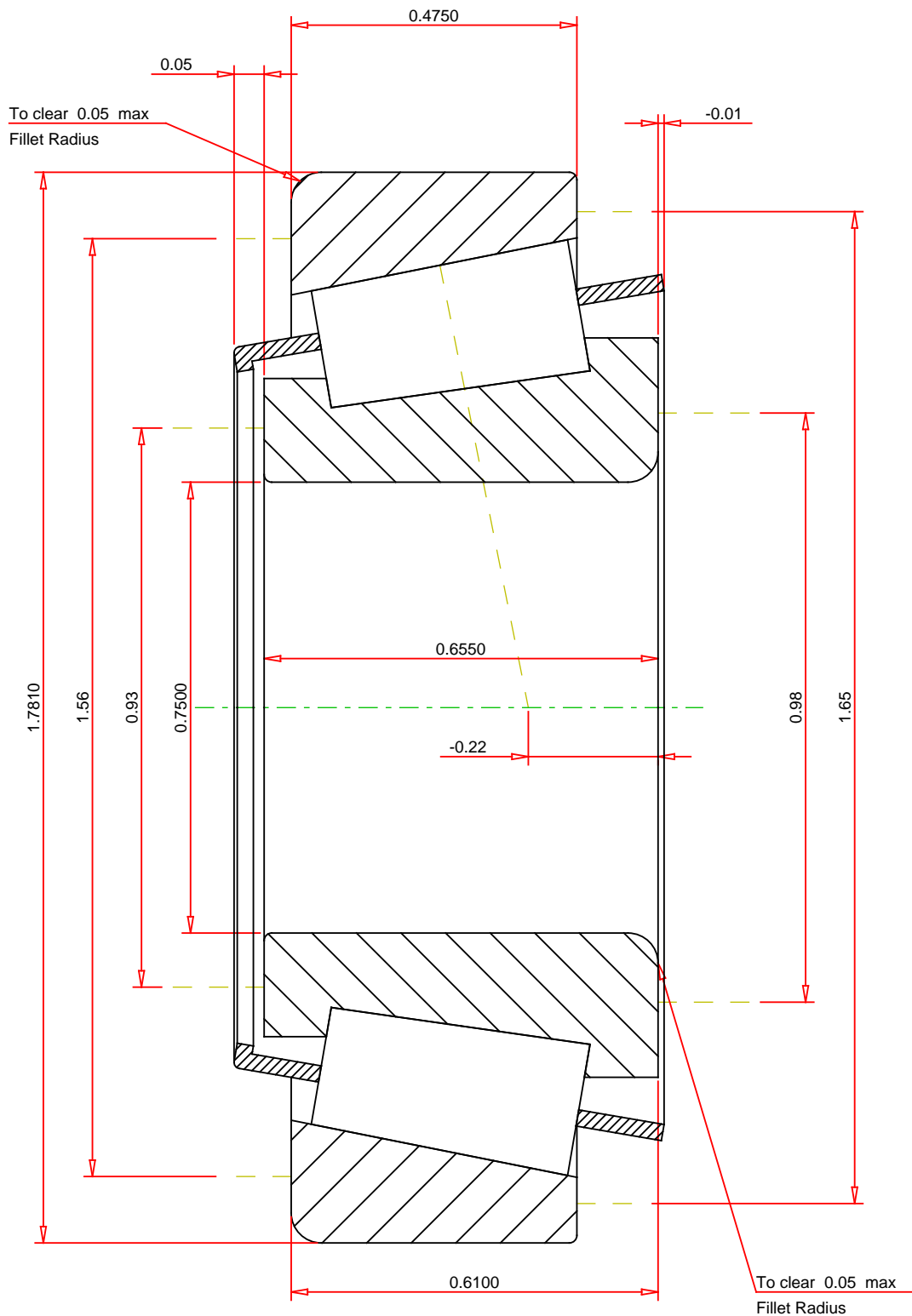
<sup>5</sup> Based on  $1 \times 10^6$  revolutions  $L_{10}$  life, for the ISO life calculation method.

<sup>6</sup> Based on  $90 \times 10^6$  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.

<sup>7</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

<sup>8</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

<sup>9</sup> 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	10100	lbf
Dynamic Thrust Rating - Ca90	5220	lbf
Static Radial Rating - C0	32000	lbf
Dynamic Radial Rating - C1	39100	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**