


**The Timken Company**

4500 Mt Pleasant St. NW

N. Canton, OH 44720

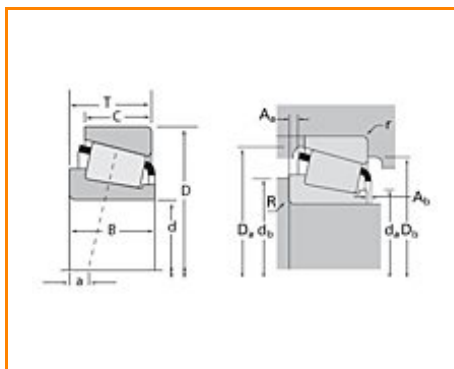
**Phone:** (234) 262-3000

**E-Mail:** [CustomerCAD@timken.com](mailto:CustomerCAD@timken.com) • **Web site:** [www.timken.com](http://www.timken.com)

## Timken Part Number L44640 - L44610, 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

<b>Series</b>	L44600
<b>Cone Part Number</b>	L44640
<b>Cup Part Number</b>	L44610
<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>	23.813 mm 0.9375 in
<b>D - Cup Outer Diameter</b>	50.292 mm 1.9800 in
<b>B - Cone Width</b>	14.732 mm 0.5800 in
<b>C - Cup Width</b>	10.668 mm 0.4200 in
<b>T - Bearing Width</b>	14.224 mm 0.5600 in

## Abutment and Fillet Dimensions

<b>R - Cone Backface "To Clear" Radius<sup>1</sup></b>	1.520 mm 0.06 in
<b>r - Cup Backface "To Clear" Radius<sup>2</sup></b>	1.27 mm 0.050 in
<b>da - Cone Frontface Backing Diameter</b>	28.45 mm 1.12 in
<b>db - Cone Backface Backing Diameter</b>	30.48 mm 1.20 in
<b>Da - Cup Frontface Backing Diameter</b>	47.50 mm 1.87 in
<b>Db - Cup Backface Backing Diameter</b>	44.45 mm 1.75 in
<b>Ab - Cage-Cone Frontface Clearance</b>	1.3 mm 0.05 in
<b>Aa - Cage-Cone Backface Clearance</b>	0.5 mm 0.02 in
<b>a - Effective Center Location<sup>3</sup></b>	-3.3 mm -0.13 in

## Basic Load Ratings

<b>C90 - Dynamic Radial Rating (90 million revolutions)<sup>4</sup></b>	9230 N 2080 lbf
<b>C1 - Dynamic Radial Rating (1 million revolutions)<sup>5</sup></b>	35600 N 8010 lbf
<b>C0 - Static Radial Rating</b>	32900 N 7400 lbf
<b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>6</sup></b>	5910 N 1330 lbf

## Factors

<b>K - Factor<sup>7</sup></b>	1.56
<b>e - ISO Factor<sup>8</sup></b>	0.37
<b>Y - ISO Factor<sup>9</sup></b>	1.60
<b>G1 - Heat Generation Factor (Roller-Raceway)</b>	8.9
<b>G2 - Heat Generation Factor (Rib-Roller End)</b>	8.93
<b>Cg - Geometry Factor</b>	0.0526

<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.

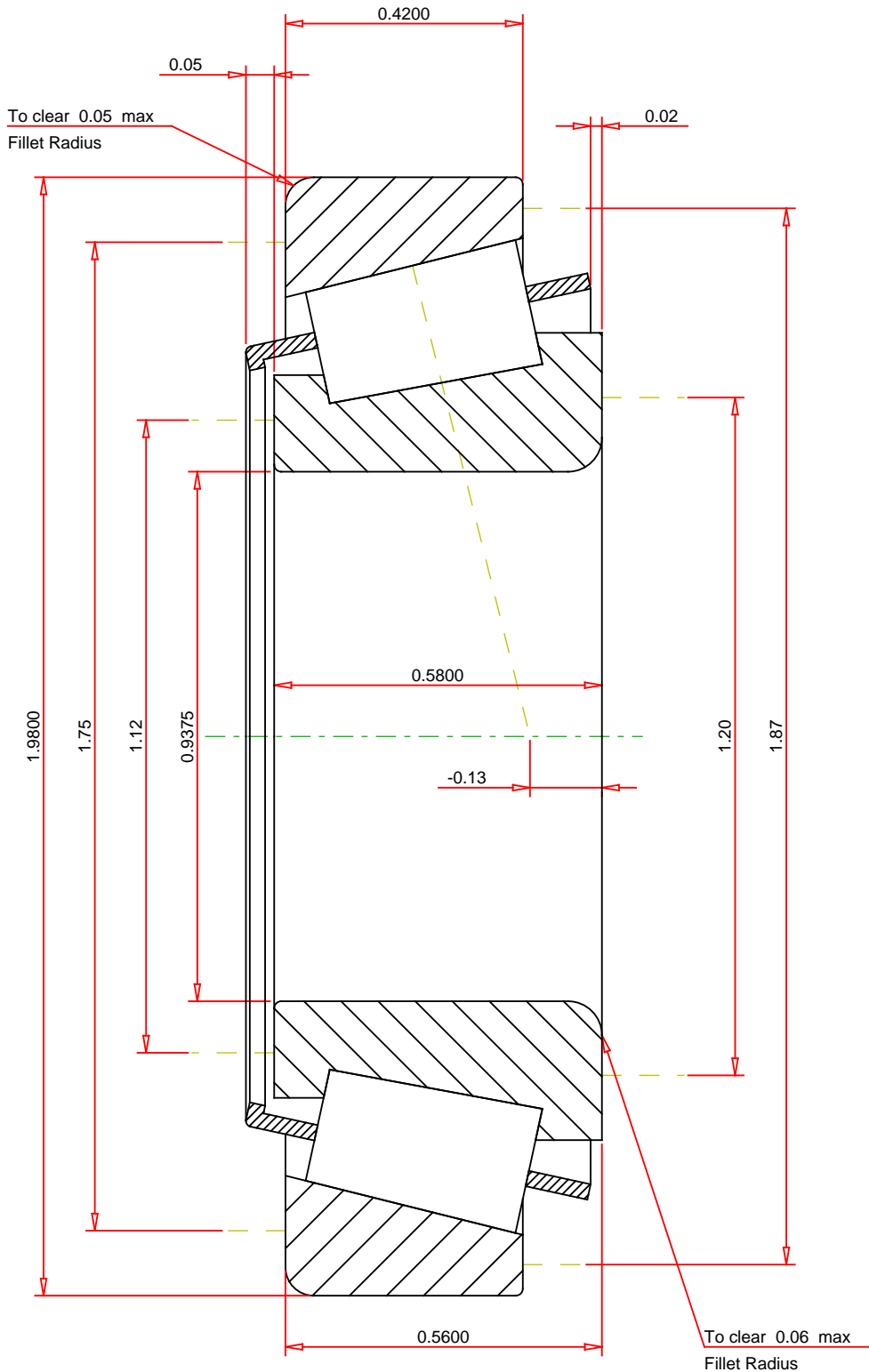
<sup>6</sup> Based on  $90 \times 10^6$  revolutions  $L_{10}$  life, for The Timken Company life calculation method.  $C_{90}$  and  $C_{a90}$  are radial and thrust values for a single-row,  $C_{90(2)}$  is the two-row radial value.

<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		0.37	<div>TIMKEN®</div> <div>THE TIMKEN COMPANY</div> <div>NORTH CANTON, OHIO USA</div>	L44640 - L44610	
ISO Factor - Y		1.6		TS BEARING ASSEMBLY	
Bearing Weight		0.3 lb			
Number of Rollers Per Row		19			
Effective Center Location		-0.13 inch			
				K Factor	1.56
				Dynamic Radial Rating - C90	9230 lbf
				Dynamic Thrust Rating - Ca90	5910 lbf
				Static Radial Rating - C0	32900 lbf
				Dynamic Radial Rating - C1	35600 lbf