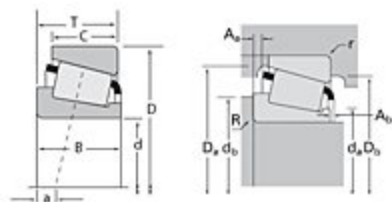




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## Timken Part Number L319249 - L319210, Tapered Roller Bearings - TS (Tapered Single) Imperial

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>	L319200
<b>Cone Part Number</b>	L319249
<b>Cup Part Number</b>	L319210
<b>Design Units</b>	Imperial
<b>Bearing Weight</b>	0.800 Kg 1.70 lb
<b>Cage Type</b>	Stamped Steel

### Dimensions

<b>d - Bore</b>	95.250 mm 3.7500 in
<b>D - Cup Outer Diameter</b>	130.175 mm 5.1250 in

<b>B - Cone Width</b>	21.433 mm 0.8438 in
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<b>C - Cup Width</b>	16.670 mm 0.6563 in
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<b>T - Bearing Width</b>	20.638 mm 0.8125 in
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## Abutment and Fillet Dimensions

<b>R - Cone Backface "To Clear" Radius<sup>1</sup></b>	1.520 mm 0.06 in
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<b>r - Cup Backface "To Clear" Radius<sup>2</sup></b>	1.52 mm 0.06 in
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<b>da - Cone Frontface Backing Diameter</b>	101.09 mm 4.64 in
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<b>db - Cone Backface Backing Diameter</b>	103.12 mm 4.06 in
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<b>Da - Cup Frontface Backing Diameter</b>	125.00 mm 4.96 in
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<b>Db - Cup Backface Backing Diameter</b>	121.92 mm 4.80 in
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<b>Ab - Cage-Cone Frontface Clearance</b>	2 mm 0.08 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>	1.30 mm 0.05 in
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## Basic Load Ratings

<b>C90 - Dynamic Radial Rating (90 million revolutions)<sup>4</sup></b>	24700 N 5560 lbf
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<b>C1 - Dynamic Radial Rating (1 million revolutions)<sup>5</sup></b>	95400 N 21400 lbf
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<b>C0 - Static Radial Rating</b>	166000 N 37400 lbf
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<b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>6</sup></b>	14800 N 3320 lbf
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## Factors

<b>K - Factor<sup>7</sup></b>	1.67
<b>e - ISO Factor<sup>8</sup></b>	0.35
<b>Y - ISO Factor<sup>9</sup></b>	1.72
<b>G1 - Heat Generation Factor (Roller-Raceway)</b>	125
<b>G2 - Heat Generation Factor (Rib-Roller End)</b>	90.7
<b>Cg - Geometry Factor</b>	0.122

<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.

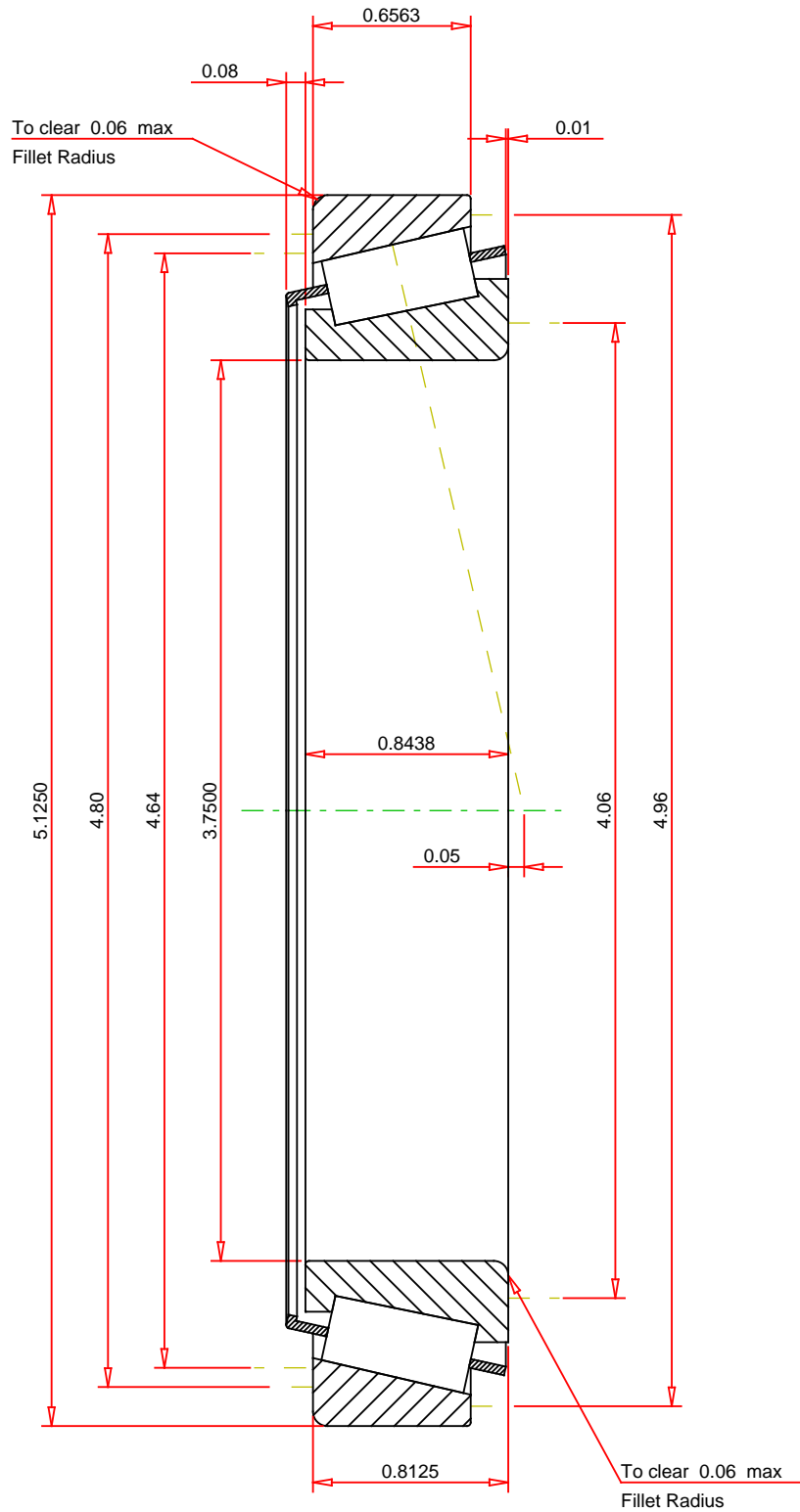
<sup>5</sup> Based on  $1 \times 10^6$  revolutions  $L_{10}$  life, for the ISO life calculation method.

<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	0.35
ISO Factor - Y	1.72
Bearing Weight	1.7 lb
Number of Rollers Per Row	36
Effective Center Location	0.05 inch

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NORTH CANTON, OHIO USA

## L319249 - L319210 TS BEARING ASSEMBLY

K Factor	1.67
Dynamic Radial Rating - C90	24700 lbf
Dynamic Thrust Rating - Ca90	14800 lbf
Static Radial Rating - C0	166000 lbf
Dynamic Radial Rating - C1	95400 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**