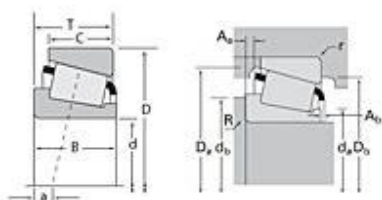


# TIMKEN

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## Timken Part Number 14131 - 14276, 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>	14000
<b>Cone Part Number</b>	14131
<b>Cup Part Number</b>	14276
<b>Design Units</b>	Imperial
<b>Bearing Weight</b>	0.70 lb 0.300 Kg
<b>Cage Type</b>	Stamped Steel

### Dimensions

<b>d - Bore</b>	1.3125 in 33.338 mm
<b>D - Cup Outer Diameter</b>	2.7170 in 69.012 mm

<b>B - Cone Width</b>	0.7710 in 19.583 mm
<b>C - Cup Width</b>	0.6250 in 15.875 mm
<b>T - Bearing Width</b>	0.7813 in 19.845 mm

#### Abutment and Fillet Dimensions

<b>R - Cone Backface "To Clear" Radius<sup>1</sup></b>	0.03 in 0.760 mm
<b>r - Cup Backface "To Clear" Radius<sup>2</sup></b>	0.050 in 1.27 mm
<b>da - Cone Frontface Backing Diameter</b>	1.56 in 39.62 mm
<b>db - Cone Backface Backing Diameter</b>	1.59 in 40.39 mm
<b>Da - Cup Frontface Backing Diameter</b>	2.52 in 63.00 mm
<b>Db - Cup Backface Backing Diameter</b>	2.36 in 59.94 mm
<b>Ab - Cage-Cone Frontface Clearance</b>	0.07 in 1.8 mm
<b>Aa - Cage-Cone Backface Clearance</b>	0.02 in 0.5 mm
<b>a - Effective Center Location<sup>3</sup></b>	-0.17 in -4.30 mm

#### Basic Load Ratings

<b>C90 - Dynamic Radial Rating (90 million revolutions)<sup>4</sup></b>	3180 lbf 14200 N
<b>C1 - Dynamic Radial Rating (1 million revolutions)<sup>5</sup></b>	12300 lbf 54600 N
<b>C0 - Static Radial Rating</b>	13900 lbf 61700 N
<b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>6</sup></b>	2080 lbf 9260 N

## Factors

<b>K - Factor<sup>7</sup></b>	1.53
<b>e - ISO Factor<sup>8</sup></b>	0.38
<b>Y - ISO Factor<sup>9</sup></b>	1.57
<b>G1 - Heat Generation Factor (Roller-Raceway)</b>	18
<b>G2 - Heat Generation Factor (Rib-Roller End)</b>	9.4
<b>Cg - Geometry Factor</b>	0.0668

<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.

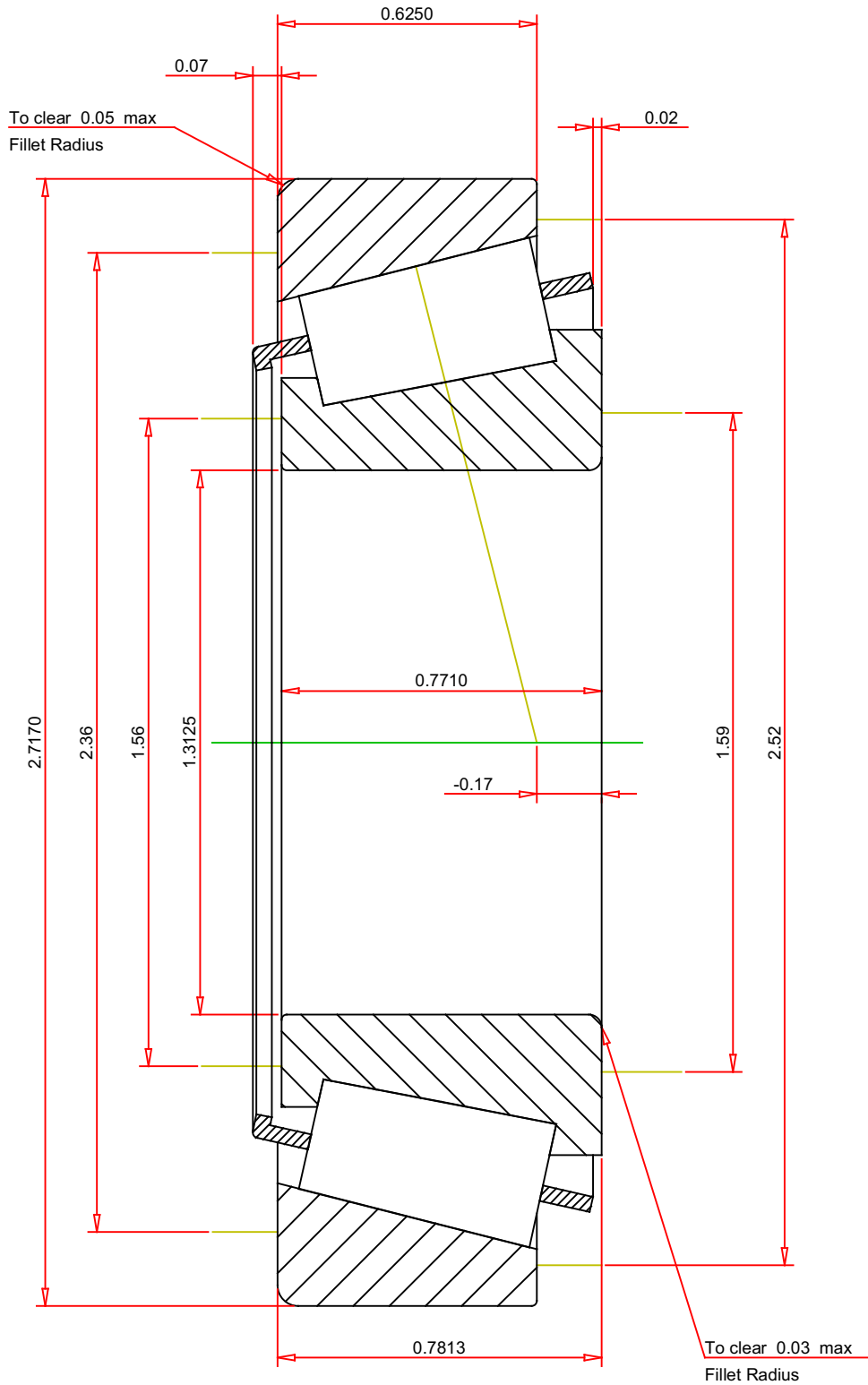
<sup>5</sup> Based on  $1 \times 10^6$  revolutions  $L_{10}$  life, for the ISO life calculation method.

<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	0.38
ISO Factor - Y	1.57
Bearing Weight	0.7 lb
Number of Rollers Per Row	17
Effective Center Location	-0.17 inch

**TIMKEN**®

**THE TIMKEN COMPANY**  
NORTH CANTON, OHIO USA

**14131 - 14276**  
TS BEARING ASSEMBLY

K Factor	1.53
Dynamic Radial Rating - C90	3180 lbf
Dynamic Thrust Rating - Ca90	2080 lbf
Static Radial Rating - C0	13900 lbf
Dynamic Radial Rating - C1	12300 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**