



**The Timken Company**

4500 Mt Pleasant St. NW

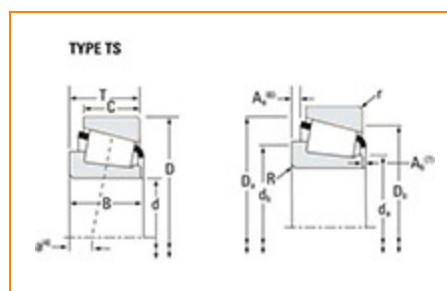
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## Timken Part Number 14130 - 14276, Tapered Roller Bearings - TS (Tapered Single) Imperial

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

|                  |                   |
|------------------|-------------------|
| Series           | 14000             |
| Cone Part Number | 14130             |
| Cup Part Number  | 14276             |
| Design Units     | Imperial          |
| Bearing Weight   | 0.30 Kg<br>0.7 lb |
| Cage Type        | Stamped Steel     |

### Dimensions

|          |                        |
|----------|------------------------|
| d - Bore | 33.338 mm<br>1.3125 in |
|----------|------------------------|

|                               |                        |
|-------------------------------|------------------------|
| <b>D - Cup Outer Diameter</b> | 69.012 mm<br>2.7170 in |
| <b>B - Cone Width</b>         | 19.583 mm<br>0.7710 in |
| <b>C - Cup Width</b>          | 15.875 mm<br>0.6250 in |
| <b>T - Bearing Width</b>      | 19.845 mm<br>0.7813 in |

## Abutment and Fillet Dimensions

|  |                     |
|--|---------------------|
| <b>R - Cone Backface "To Clear" Radius<sup>1</sup></b> | 3.560 mm<br>0.14 in |
| <b>r - Cup Backface "To Clear" Radius<sup>2</sup></b>  | 1.27 mm<br>0.050 in |
| <b>da - Cone Frontface Backing Diameter</b>            | 39.62 mm<br>1.56 in |
| <b>db - Cone Backface Backing Diameter</b>             | 45.97 mm<br>1.81 in |
| <b>Da - Cup Frontface Backing Diameter</b>             | 63.00 mm<br>2.52 in |
| <b>Db - Cup Backface Backing Diameter</b>              | 59.94 mm<br>2.36 in |
| <b>Ab - Cage-Cone Frontface Clearance</b>              | 1.8 mm<br>0.07 in   |
| <b>Aa - Cage-Cone Backface Clearance</b>               | 0.5 mm<br>0.02 in   |
| <b>a - Effective Center Location<sup>3</sup></b>       | -4.3 mm<br>-0.17 in |

## Basic Load Ratings

|   |                      |
|---|----------------------|
| <b>C90 - Dynamic Radial Rating (90 million revolutions)<sup>4</sup></b>             | 3180 lbf<br>14200 N  |
| <b>C1 - Dynamic Radial Rating (1 million revolutions)<sup>5</sup></b>               | 12300 lbf<br>54600 N |
| <b>C0 - Static Radial Rating</b>  | 13900 lbf<br>61700 N |
| <b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>6</sup></b> | 2080 lbf<br>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<sup>10</sup></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.

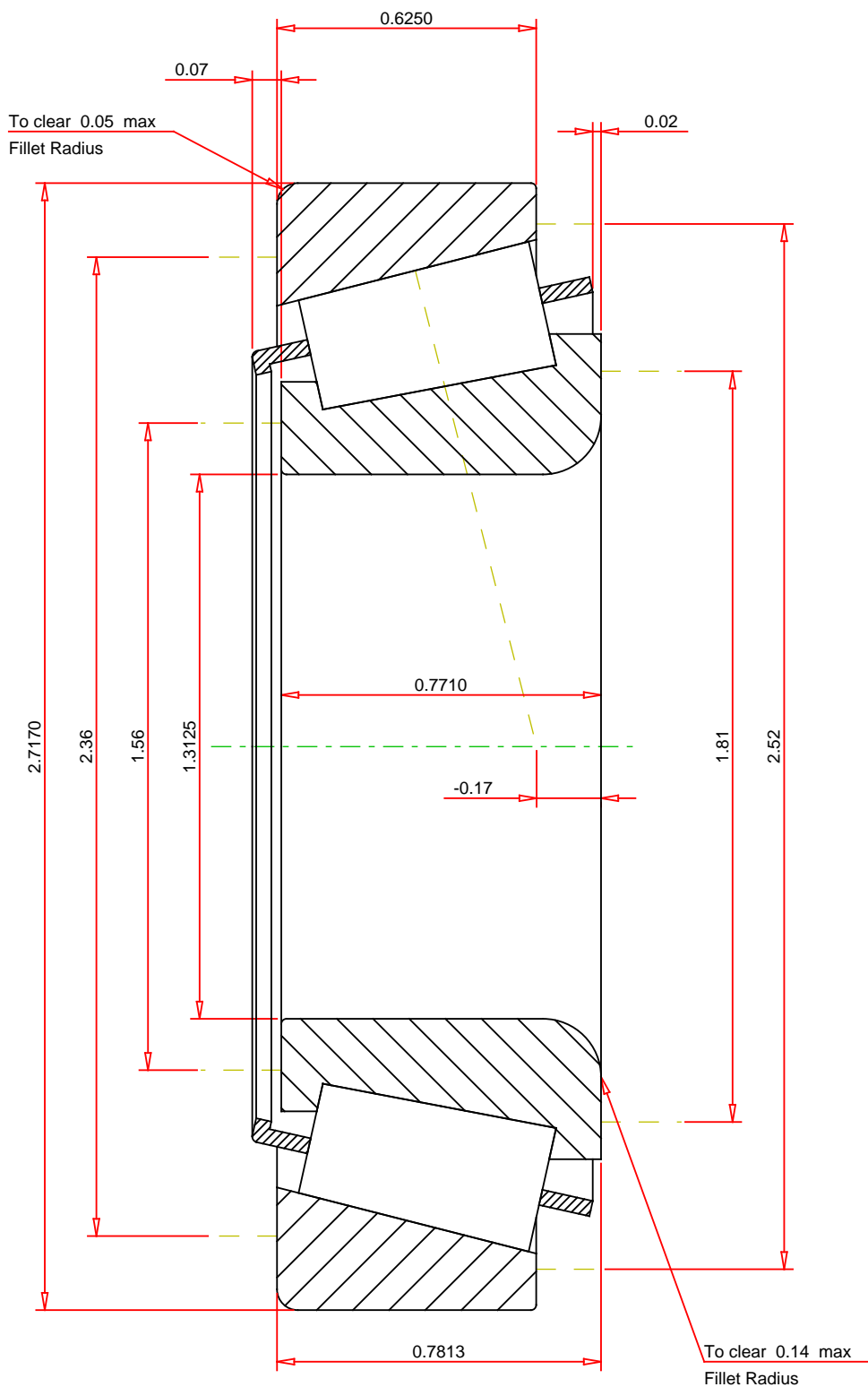
<sup>6</sup> Based on  $90 \times 10^6$  revolutions  $L_{10}$  life, for The Timken Company life calculation method.  $C_{90}$  and  $C_{a90}$  are radial and thrust values for a single-row,  $C_{90(2)}$  is the two-row radial value.

<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.

<sup>10</sup> Geometry constant for Lubrication Life Adjustment Factor  $a_3$ .



IMPERIAL UNITS

|   |  |  |  |   |  |
|---|--|--|--|---|--|
| <div>ISO Factor - e0.38</div> <div>ISO Factor - Y1.57</div> <div>Bearing Weight0.7 lb</div> <div>Number of Rollers Per Row17</div> <div>Effective Center Location-0.17 inch</div> |  | <div>TIMKEN®</div> <div>THE TIMKEN COMPANY</div> <div>NORTH CANTON, OHIO USA</div> |  | <div>14130 - 14276</div> <div>TS BEARING ASSEMBLY</div>   |  |
|   |  |  |  | <div>K Factor1.53</div> <div>Dynamic Radial Rating - C903180 lbf</div> <div>Dynamic Thrust Rating - Ca902080 lbf</div> <div>Static Radial Rating - C013900 lbf</div> <div>Dynamic Radial Rating - C112300 lbf</div> |  |