



**The Timken Company**

4500 Mt Pleasant St. NW

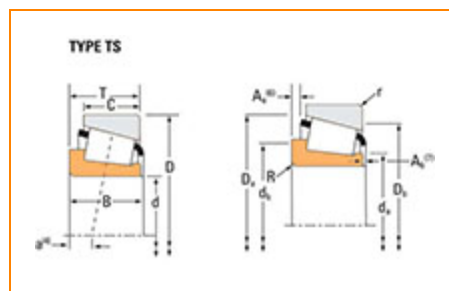
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## Part Number 570, Tapered Roller Bearings - Single Cones - Imperial

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

Series	565
Cone Part Number	570
Design Units	Imperial
Cage Type	Stamped Steel
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions) <sup>1</sup>	76900 lbf 342000 N
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions) <sup>2</sup>	19900 lbf 88600 N

### Dimensions

<b>d - Bore</b>	2.6875 in 68.263 mm
<b>B - Cone Width</b>	1.4240 in 36.170 mm

## Abutment and Fillet Dimensions

<b>R - Cone Backface "To Clear" Radius<sup>3</sup></b>	0.14 in 3.600 mm
<b>da - Cone Frontface Backing Diameter</b>	3.03 in 77 mm
<b>db - Cone Backface Backing Diameter</b>	3.27 in 83 mm
<b>Ab - Cage-Cone Frontface Clearance</b>	0.11 in 2.8 mm
<b>Aa - Cage-Cone Backface Clearance</b>	0.1 in 2.5 mm
<b>a - Effective Center Location<sup>4</sup></b>	-0.32 in -8.1 mm

## Basic Load Ratings

<b>C90 - Dynamic Radial Rating (90 million revolutions)<sup>5</sup></b>	11400 lbf 50900 N
<b>C1 - Dynamic Radial Rating (1 million revolutions)<sup>6</sup></b>	44100 lbf 196000 N
<b>C0 - Static Radial Rating</b>	58900 lbf 262000 N
<b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>7</sup></b>	7130 lbf 31700 N

## Factors

<b>K - Factor<sup>8</sup></b>	1.61
<b>G1 - Heat Generation Factor (Roller-Raceway)</b>	101.3
<b>G2 - Heat Generation Factor (Rib-Roller End)</b>	24
<b>Cg - Geometry Factor<sup>9</sup></b>	0.117

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

<sup>2</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>3</sup> These maximum fillet radii will be cleared by the bearing corners.

<sup>4</sup> Negative value indicates effective center inside cone backface.

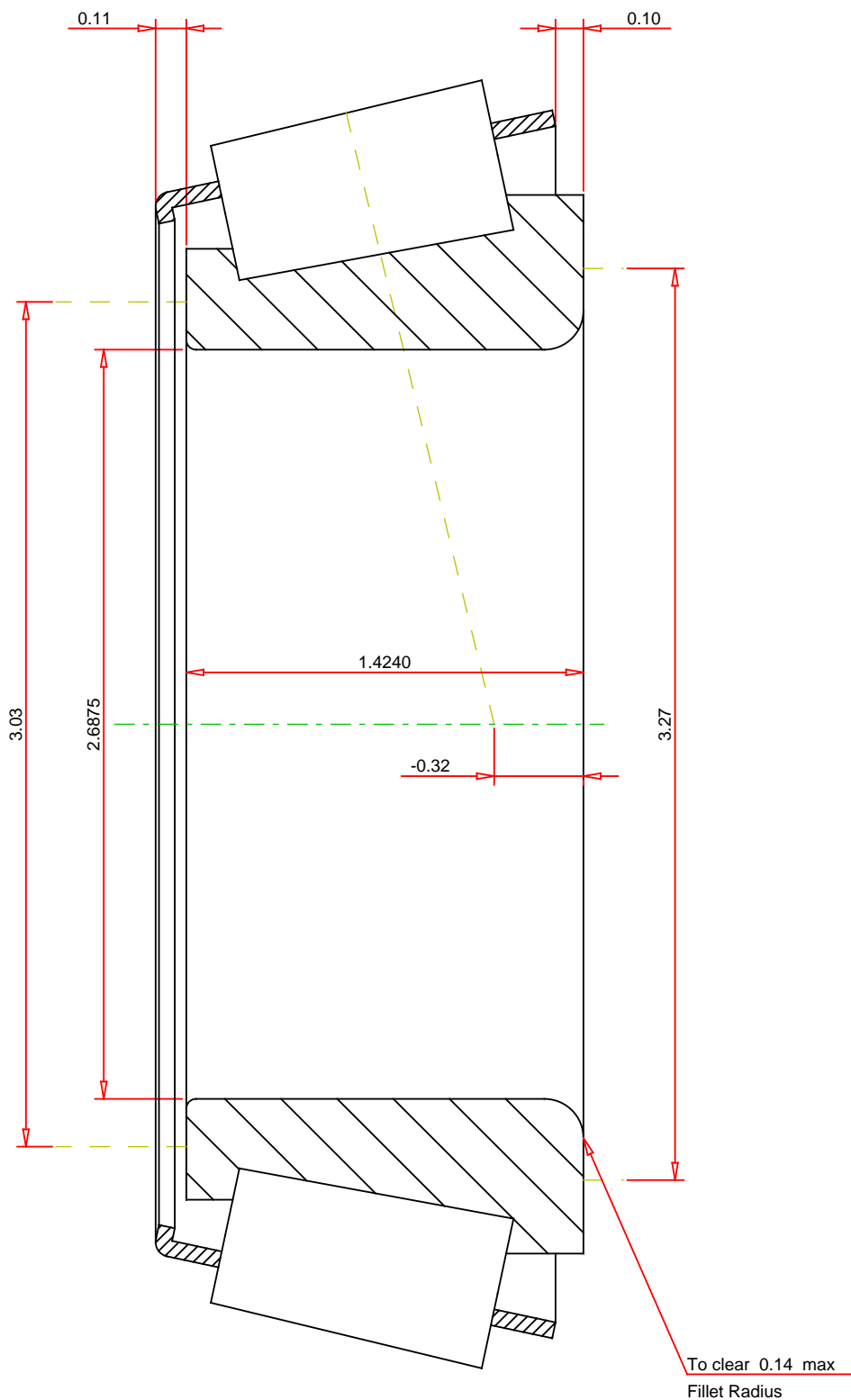
<sup>5</sup> Based on  $90 \times 10^6$  revolutions  $L_{10}$  life, for The Timken Company life calculation method.  $C_{90}$  and  $C_{a90}$  are radial and thrust values.

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

<sup>7</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>8</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

<sup>9</sup> Geometry constant for Lubrication Life Adjustment Factor  $a_3$ .



IMPERIAL UNITS

Number of Rollers Per Row   
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