


**The Timken Company**

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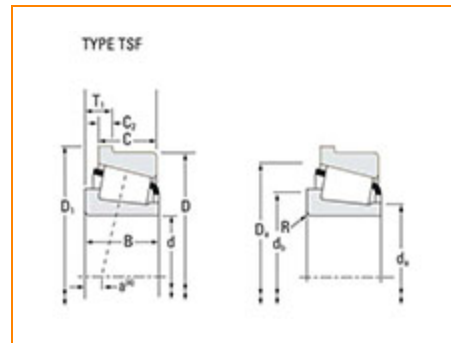
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## Part Number 759 - 752-B, Tapered Roller Bearings - TSF (Tapered Single with Flange)

### Imperial

Like the TS bearing design, the TSF design 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. TSF bearings have flanged cups to facilitate axial location and accurately align seals in through-bored housings.



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#### Specifications

<b>Series</b>	755
<b>Cone Part Number</b>	759
<b>Cup Part Number</b>	752-B
<b>Design Unit</b>	Inch
<b>Bearing Weight</b>	9.3 lb 4.2 Kg
<b>Cage Material</b>	Stamped Steel



<b>d - Bore</b>	3 1/2 in 88.9 mm
<b>D - Cup Outer Diameter</b>	6.375 in 161.925 mm
<b>D1 - Flange Outer Diameter</b>	6.6830 in 169.748 mm
<b>B - Cone Width</b>	1.9000 in 48.260 mm
<b>C - Cup Width</b>	1.5000 in 38.100 mm
<b>C1 - Cup Flange Width</b>	0.3120 in 7.925 mm
<b>T1 - Bearing Width to Flange</b>	0.6875 in 17.463 mm

## Abutment and Fillet Dimensions

<b>R - Cone Backface "To Clear" Radius<sup>1</sup></b>	0.14 in 3.6 mm
<b>r - Cup Backface "To Clear" Radius<sup>2</sup></b>	0.130 in 3.3 mm
<b>da - Cone Frontface Backing Diameter</b>	3.98 in 101 mm
<b>db - Cone Backface Backing Diameter</b>	4.25 in 108 mm
<b>Da - Cup Frontface Backing Diameter</b>	5.94 in 150.11 mm
<b>Ab - Cage-Cone Frontface Clearance</b>	0.07 in 1.8 mm
<b>Aa - Cage-Cone Backface Clearance</b>	0.11 in 2.8 mm
<b>a - Effective Center Location<sup>3</sup></b>	-0.47 in 11.9 mm

## Basic Load Ratings

<b>C90 - Dynamic Radial Rating (90 million revolutions)<sup>4</sup></b>	19100 lbf 84800 N
<b>C1 - Dynamic Radial Rating (1 million revolutions)<sup>5</sup></b>	73600 lbf 327000 N
<b>C0 - Static Radial Rating</b>	99200 lbf 441000 N
<b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>6</sup></b>	11100 lbf 49500 N

## Factors

<b>K - Factor<sup>7</sup></b>	1.71
<b>e - ISO Factor<sup>8</sup></b>	0.34
<b>Y - ISO Factor<sup>9</sup></b>	1.76
<b>G1 - Heat Generation Factor (Roller-Raceway)</b>	177.2
<b>G2 - Heat Generation Factor (Rib-Roller End)</b>	29.4
<b>Cg - Geometry Factor<sup>10</sup></b>	0.0945

<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.

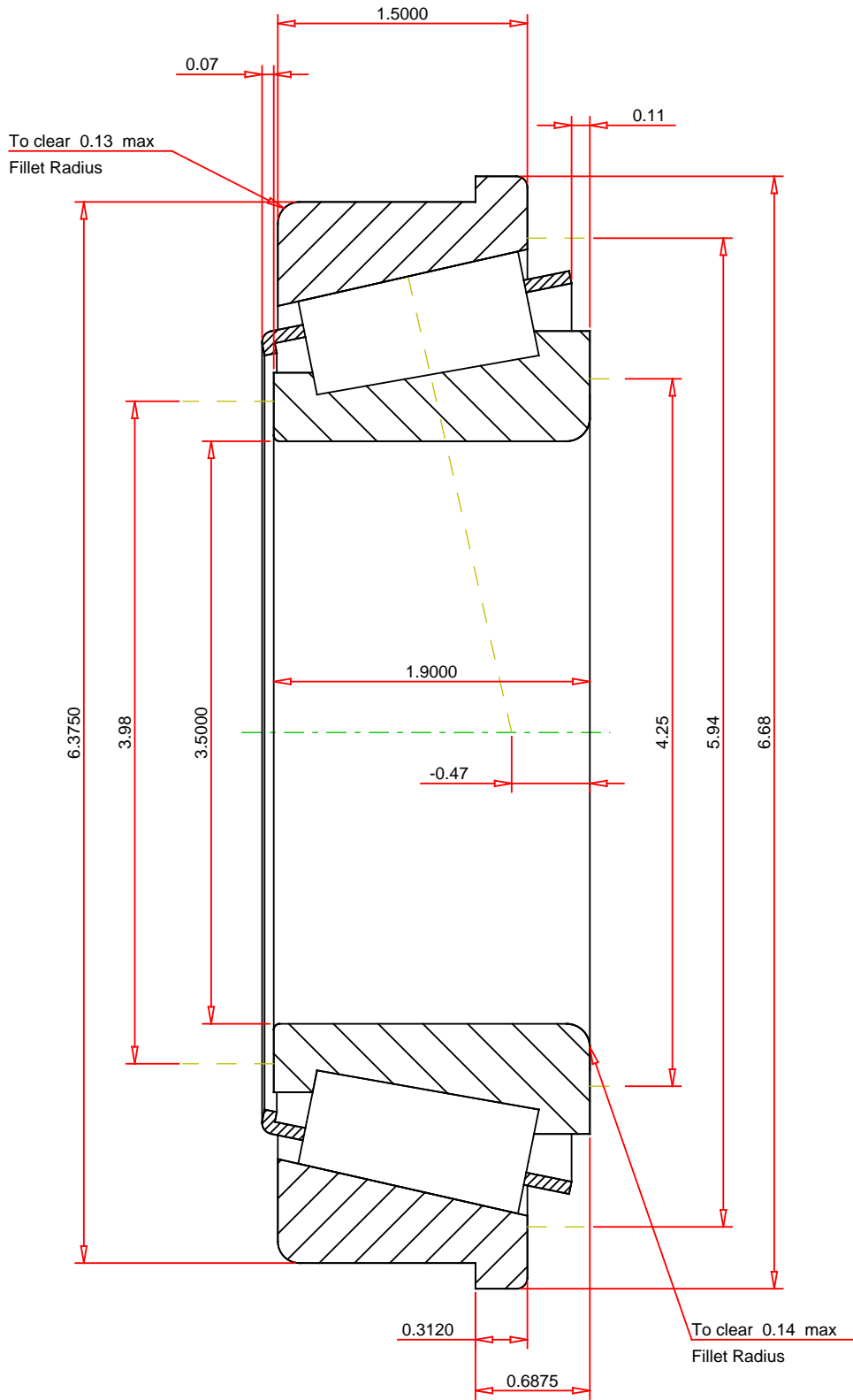
<sup>7</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction.

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<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 a3l.



IMPERIAL UNITS

<div>ISO Factor - e0.34</div> <div>ISO Factor - Y1.76</div> <div>Bearing Weight9.3 lb</div> <div>Number of Rollers Per Row19</div> <div>Effective Center Location-0.47 inch</div>		<div>TIMKEN®</div> <div>THE TIMKEN COMPANY</div> <div>NORTH CANTON, OHIO USA</div>		<div>759 - 752-B</div> <div>Tapered Roller Bearings - TSF (Tapered Single with Flange) Imperial</div>	
				<div>K Factor1.71</div> <div>Dynamic Radial Rating - C9019100 lbf</div> <div>Dynamic Thrust Rating - Ca9011100 lbf</div> <div>Static Radial Rating - C099200 lbf</div> <div>Dynamic Radial Rating - C173600 lbf</div>	