



**The Timken Company**

4500 Mt Pleasant St. NW

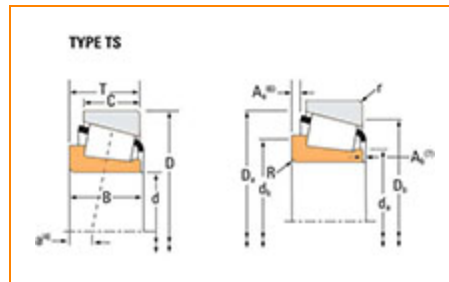
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## Part Number HM807044, Tapered Roller Bearings - Single Cones - Imperial

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.



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### Specifications

<b>Series</b>	HM807000
<b>Cone Part Number</b>	HM807044
<b>Design Units</b>	Imperial
<b>Cage Type</b>	Stamped Steel
<b>C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)<sup>1</sup></b>	354000 N
<b>C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)<sup>2</sup></b>	91800 N



Dimensions

d - Cone Bore	49.213 mm
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B - Cone Width	36.513 mm
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## Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius <sup>3</sup>	3.6 mm
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da - Cone Frontface Backing Diameter	63 mm
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db - Cone Backface Backing Diameter	69 mm
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Ab - Cage-Cone Frontface Clearance	2.5 mm
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Aa - Cage-Cone Backface Clearance	3 mm
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a - Effective Center Location <sup>4</sup>	-7.4 mm
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## Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions) <sup>5</sup>	52700 N
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C1 - Dynamic Radial Rating (1 million revolutions) <sup>6</sup>	203000 N
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C0 - Static Radial Rating	223000 N
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C <sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions) <sup>7</sup>	44000 N
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## Factors

<b>K - Factor<sup>8</sup></b>	1.2
<b>Cg - Geometry Factor<sup>9</sup></b>	0.0760

<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.

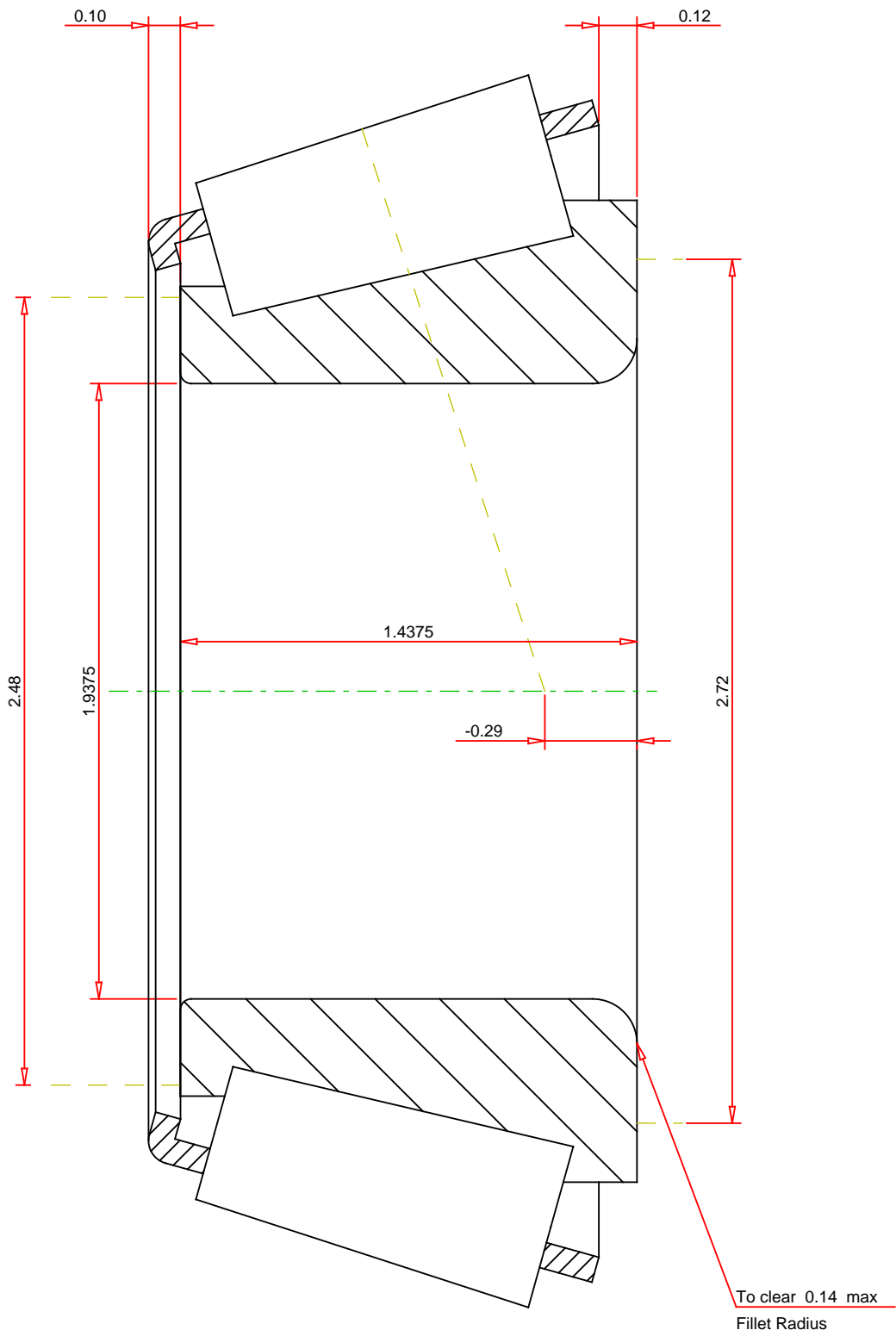
<sup>5</sup> Based on  $90 \times 10^6$  revolutions  $L_{10}$  life, for The Timken Company life calculation method.  $C_{90}$  and  $C_{a90}$  are radial and thrust values.

<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

<div>Number of Rollers Per Row18</div>	<div>TIMKEN®</div> <div>THE TIMKEN COMPANY</div> <div>NORTH CANTON, OHIO USA</div>	<div>HM807044</div> <div>Tapered Roller Bearings - Single Cones - Imperial</div> <div><div>K Factor1.2</div><div>Dynamic Radial Rating - C9011900 lbf</div><div>Dynamic Thrust Rating - Ca909890 lbf</div><div>Dynamic Radial Rating - C145700 lbf</div></div>
<div>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.</div>		<div>FOR DISCUSSION ONLY</div>