



**The Timken Company**

4500 Mt Pleasant St. NW

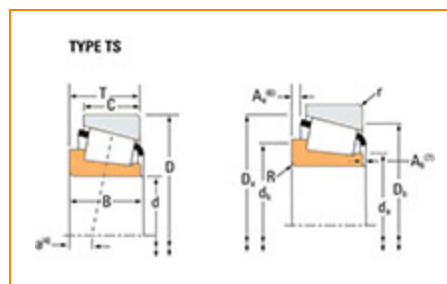
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## Part Number XBA32308-B, Tapered Roller Bearings - Single Cones - Metric

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>	32308-B
<b>Cone Part Number</b>	XBA32308-B
<b>Design Units</b>	METRIC
<b>Cage Type</b>	Stamped Steel
<b>C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)<sup>1</sup></b>	273000 N 61400 lbf
<b>C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)<sup>2</sup></b>	70800 N 15900 lbf
<b>Full Timken Part Number</b>	32308



## Dimensions

<b>d - Cone Bore</b>	40 mm 1.5748 in
<b>B - Cone Width</b>	33.500 mm 1.3189 in

## Abutment and Fillet Dimensions

<b>R - Cone Backface "To Clear" Radius<sup>3</sup></b>	2.030 mm 0.080 in
<b>da - Cone Frontface Backing Diameter</b>	49 mm 1.93 in
<b>db - Cone Backface Backing Diameter</b>	58 mm 2.28 in
<b>Ab - Cage-Cone Frontface Clearance</b>	3.3 mm 0.13 in
<b>Aa - Cage-Cone Backface Clearance</b>	2.8 mm 0.11 in
<b>a - Effective Center Location<sup>4</sup></b>	-7.4 mm -0.29 in

## Basic Load Ratings

<b>C90 - Dynamic Radial Rating (90 million revolutions)<sup>5</sup></b>	40700 N 9140 lbf
<b>C1 - Dynamic Radial Rating (1 million revolutions)<sup>6</sup></b>	157000 N 35300 lbf
<b>C0 - Static Radial Rating</b>	160000 N 36100 lbf
<b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>7</sup></b>	38000 N 8540 lbf

## Factors

<b>K - Factor<sup>8</sup></b>	1.07
<b>G1 - Heat Generation Factor (Roller-Raceway)</b>	38.1
<b>G2 - Heat Generation Factor (Rib-Roller End)</b>	14
<b>Cg - Geometry Factor<sup>9</sup></b>	0.0966

<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.

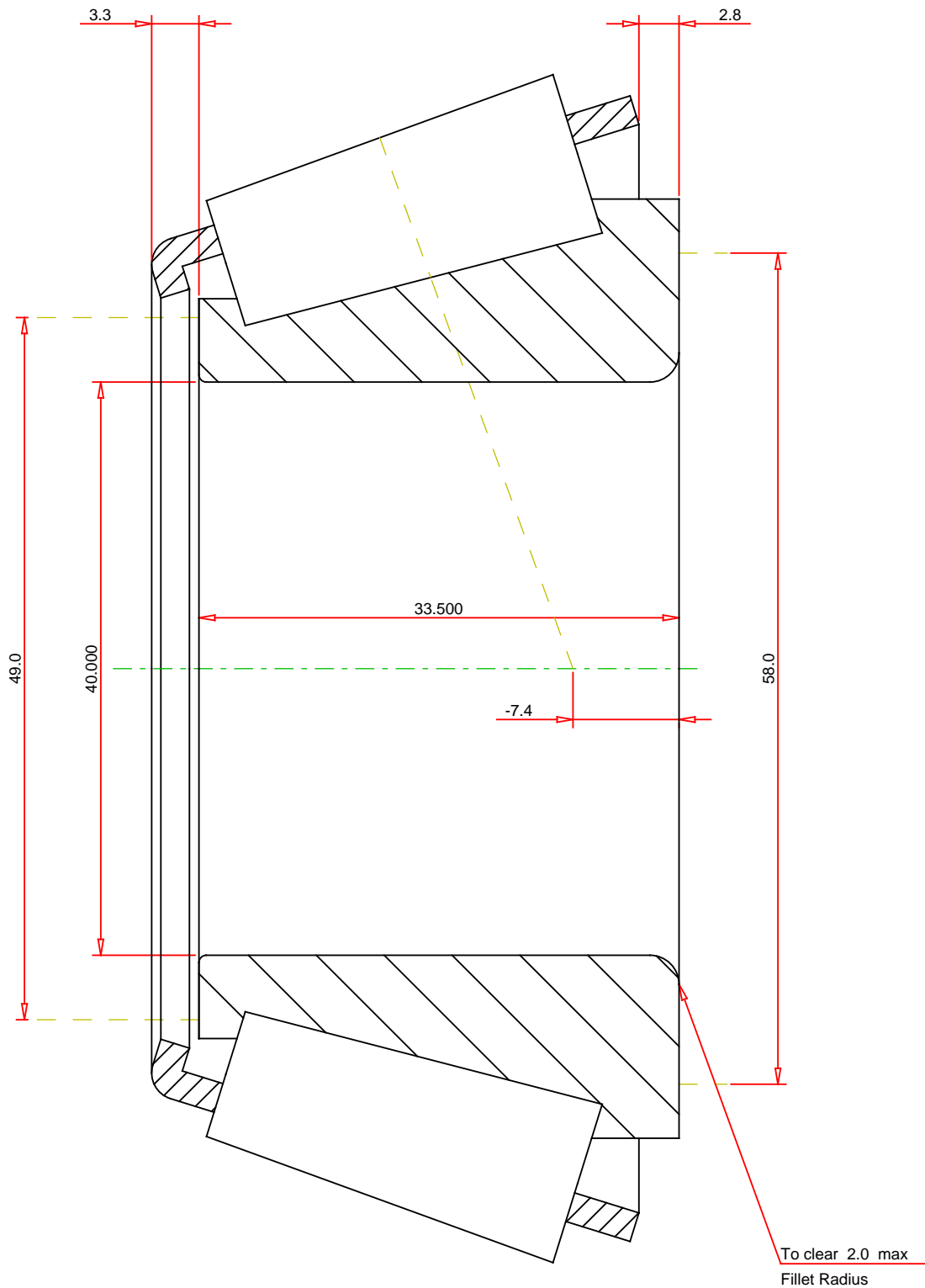
<sup>5</sup> Based on  $90 \times 10^6$  revolutions  $L_{10}$  life, for The Timken Company life calculation method.  $C_{90}$  and  $C_{a90}$  are radial and thrust values.

<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  $a_3$ .



METRIC UNITS

Number of Rollers Per Row 16

**TIMKEN®**

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

**XBA32308-B**  
Tapered Roller Bearings - Single Cones - Metric

K Factor	1.07	
Dynamic Radial Rating - C90	40700	N
Dynamic Thrust Rating - Ca90	38000	N
Dynamic Radial Rating - C1	157000	N

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