



The Timken Company

4500 Mt Pleasant St. NW

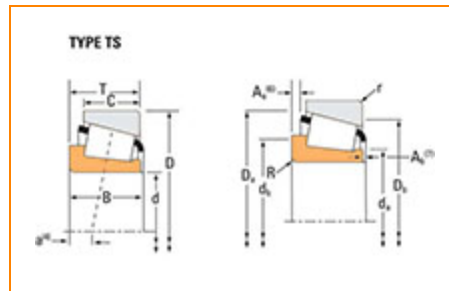
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Part Number 495, Tapered Roller Bearings - Single Cones - Imperial

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

| | |
|---|-----------------------|
| Series | 495 |
| Cone Part Number | 495 |
| Design Units | Imperial |
| Cage Type | Stamped Steel |
| C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)¹ | 60500 lbf 269000 N |
| C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)² | 15700 lbf 69700 N |

Dimensions

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|-----------------|------------------------|
| d - Bore | 3.2500 in 82.550 mm |
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|-----------------------|------------------------|
| B - Cone Width | 1.1720 in 29.769 mm |
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Abutment and Fillet Dimensions

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| R - Cone Backface "To Clear" Radius³ | 0.14 in 3.600 mm |
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| da - Cone Frontface Backing Diameter | 3.58 in 91 mm |
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|--|------------------|
| db - Cone Backface Backing Diameter | 3.86 in 98 mm |
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| Ab - Cage-Cone Frontface Clearance | 0.12 in 3 mm |
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|--|-------------------|
| Aa - Cage-Cone Backface Clearance | 0.07 in 1.8 mm |
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|--|---------------------|
| a - Effective Center Location⁴ | -0.03 in -0.8 mm |
|--|---------------------|

Basic Load Ratings

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|---|---------------------|
| C90 - Dynamic Radial Rating (90 million revolutions)⁵ | 9000 lbf 40000 N |
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|---|-----------------------|
| C1 - Dynamic Radial Rating (1 million revolutions)⁶ | 34700 lbf 154000 N |
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|----------------------------------|-----------------------|
| C0 - Static Radial Rating | 48600 lbf 216000 N |
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|---|---------------------|
| C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁷ | 6850 lbf 30500 N |
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Factors

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|---|-------|
| K - Factor⁸ | 1.31 |
| G1 - Heat Generation Factor (Roller-Raceway) | 104.6 |
| G2 - Heat Generation Factor (Rib-Roller End) | 29.3 |
| Cg - Geometry Factor⁹ | 0.125 |

¹ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

² Based on 90×10^6 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.

³ These maximum fillet radii will be cleared by the bearing corners.

⁴ Negative value indicates effective center inside cone backface.

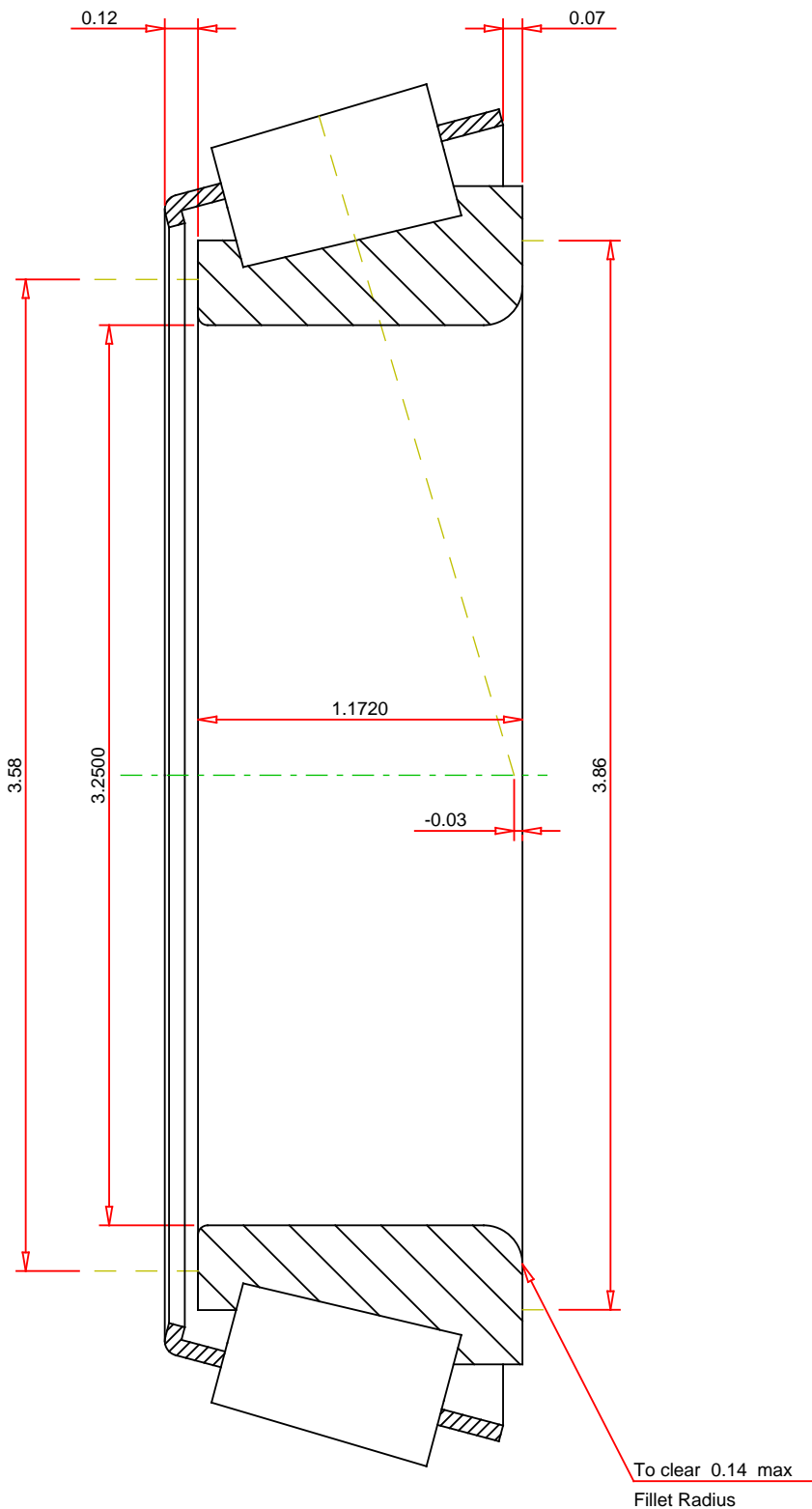
⁵ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

⁶ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

⁷ Based on 90×10^6 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.

⁸ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁹ Geometry constant for Lubrication Life Adjustment Factor a_3 .



IMPERIAL UNITS

| | | |
|--|---|--|
| <div>Number of Rollers Per Row23</div> | <div>TIMKEN®</div> <div>THE TIMKEN COMPANY NORTH CANTON, OHIO USA</div> | <div>495 SINGLE TAPERED CONE</div> <div><div><div>K Factor</div><div>Dynamic Radial Rating - C90</div><div>Dynamic Thrust Rating - Ca90</div><div>Dynamic Radial Rating - C1</div></div><div><div>1.31</div><div>9000</div><div>6850</div><div>34700</div></div><div><div>lbf</div><div>lbf</div><div>lbf</div><div></div></div></div> |
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