



The Timken Company

4500 Mt Pleasant St. NW

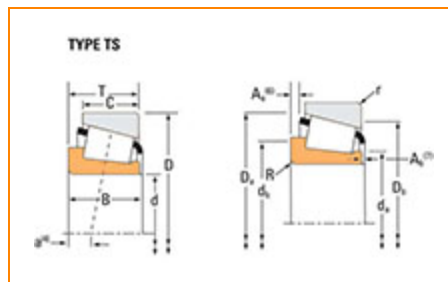
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Part Number 45284, Tapered Roller Bearings - Single Cones - Imperial

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	45200
Cone Part Number	45284
Design Units	Imperial
Cage Type	Stamped Steel
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)¹	60000 lbf 267000 N
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)²	15600 lbf 69200 N



Dimensions

d - Cone Bore	2 in 50.8 mm
B - Cone Width	1.2188 in 30.958 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius³	0.25 in 6.4 mm
da - Cone Frontface Backing Diameter	2.44 in 62 mm
db - Cone Backface Backing Diameter	2.87 in 73 mm
Ab - Cage-Cone Frontface Clearance	0.1 in 2.5 mm
Aa - Cage-Cone Backface Clearance	0.07 in 1.8 mm
a - Effective Center Location⁴	-0.32 in -8.1 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁵	8930 lbf 39700 N
C1 - Dynamic Radial Rating (1 million revolutions)⁶	34500 lbf 153000 N
C0 - Static Radial Rating	42600 lbf 189000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁷	5090 lbf 22600 N

Factors

K - Factor⁸

1.76

Cg - Geometry Factor⁹

0.0971

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.

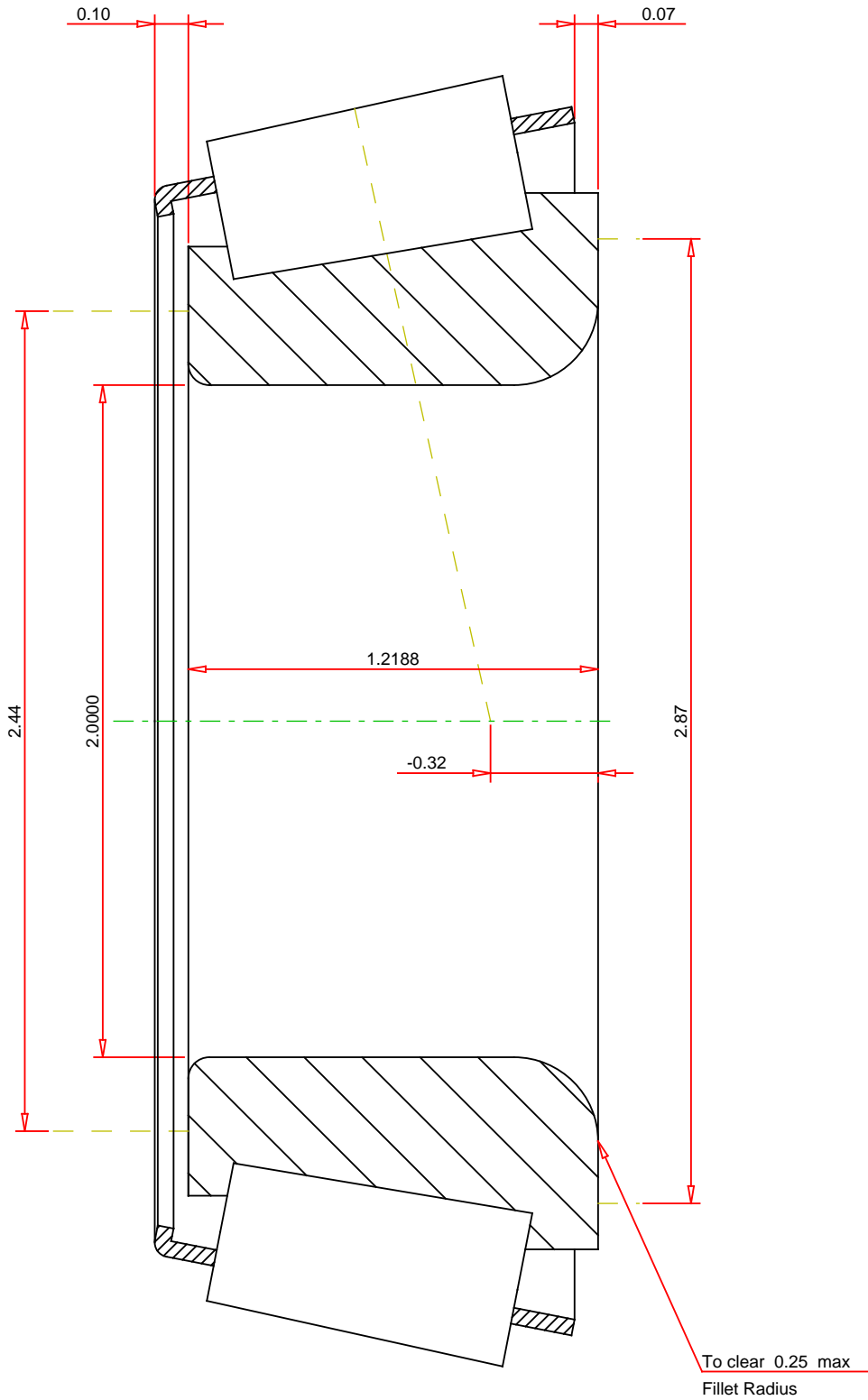
⁵ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

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 Row18</div>	<div><div>TIMKEN®</div><div>THE TIMKEN COMPANY</div><div>NORTH CANTON, OHIO USA</div></div>	<div><div>45284</div><div>Tapered Roller Bearings - Single Cones - Imperial</div></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>1.76</div><div>8930</div><div>5090</div><div>34500</div></div><div><div></div><div>lbf</div><div>lbf</div><div>lbf</div></div></div>
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