



The Timken Company

4500 Mt Pleasant St. NW

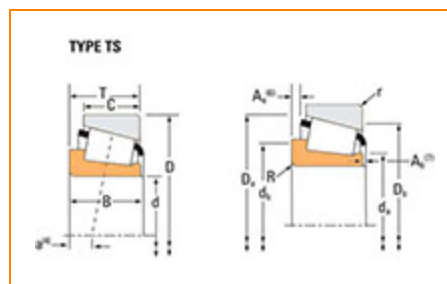
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Part Number 65390, Tapered Roller Bearings - Single Cones - Imperial

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

Cone Part Number	65390
Design Units	Imperial
Cage Type	Stamped Steel
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)¹	87500 lbf 389000 N
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)²	22700 lbf 101000 N

Dimensions



d - Cone Bore	1 15/16 in 49.213 mm
B - Cone Width	1.75 in 44.45 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius³	0.140 in 3.56 mm
da - Cone Frontface Backing Diameter	2.36 in 60 mm
db - Cone Backface Backing Diameter	2.76 in 70 mm
Ab - Cage-Cone Frontface Clearance	0.08 in 2 mm
Aa - Cage-Cone Backface Clearance	0.12 in 3 mm
a - Effective Center Location⁴	-0.49 in -12.4 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁵	13000 lbf 58000 N
C1 - Dynamic Radial Rating (1 million revolutions)⁶	50300 lbf 224000 N
C0 - Static Radial Rating	57500 lbf 256000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁷	9600 lbf 42700 N

Factors

K - Factor⁸	1.36
G1 - Heat Generation Factor (Roller-Raceway)	63.1
G2 - Heat Generation Factor (Rib-Roller End)	13
Cg - Geometry Factor⁹	0.105

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.

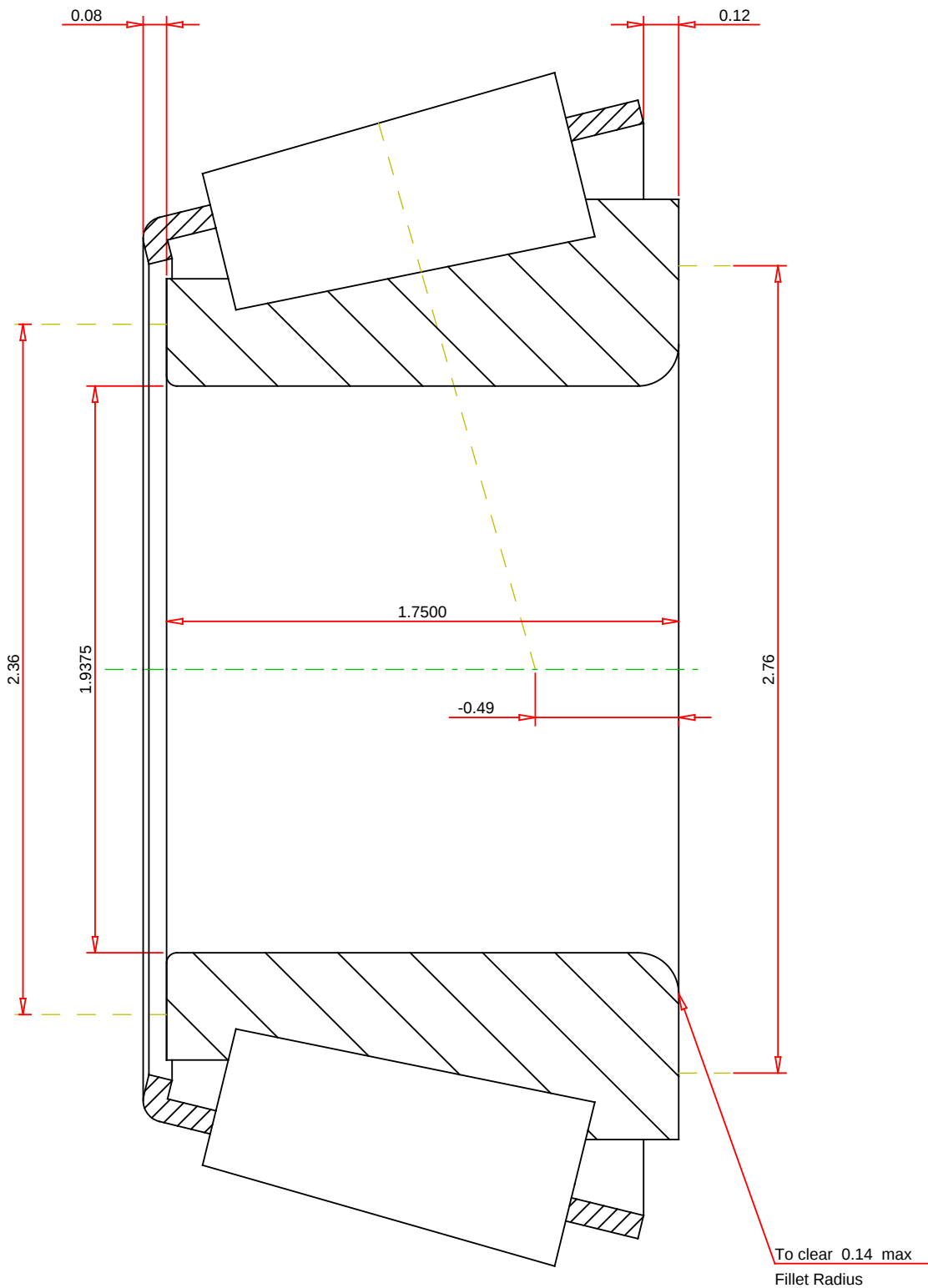
⁵ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

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

Number of Rollers Per Row14	TIMKEN® THE TIMKEN COMPANY NORTH CANTON, OHIO USA	65390 Tapered Roller Bearings - Single Cones - Imperial K Factor Dynamic Radial Rating - C90 Dynamic Thrust Rating - Ca90 Dynamic Radial Rating - C1 1.36 13000 9600 50300 lbf lbf lbf
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