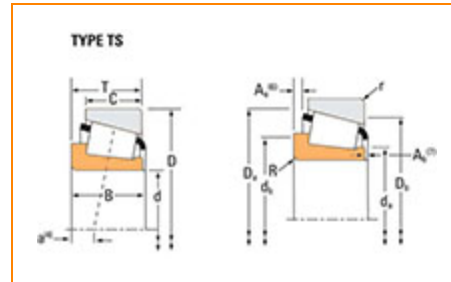


Part Number 355X, Tapered Roller Bearings - Single Cones - Imperial

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.



Specifications

Series	355
Cone Part Number	355X
Design Units	Imperial
Cage Type	Stamped Steel
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions) ¹	38000 lbf 169000 N
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions) ²	9840 lbf 43800 N



d - Cone Bore	1 3/4 in 44.450 mm
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B - Cone Width	0.8540 in 21.692 mm
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Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius³	0.140 in 3.6 mm
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da - Cone Frontface Backing Diameter	1.97 in 50 mm
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db - Cone Backface Backing Diameter	2.2 in 56 mm
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Ab - Cage-Cone Frontface Clearance	0.09 in 2.3 mm
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Aa - Cage-Cone Backface Clearance	0 in 0 mm
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a - Effective Center Location⁴	-0.19 in -4.8 mm
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Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁵	5650 lbf 25100 N
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C1 - Dynamic Radial Rating (1 million revolutions)⁶	21800 lbf 97000 N
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C0 - Static Radial Rating	20000 lbf 88800 N
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C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁷	2960 lbf 13200 N
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Factors

K - Factor⁸	1.91
G1 - Heat Generation Factor (Roller-Raceway)	30
G2 - Heat Generation Factor (Rib-Roller End)	12.2
Cg - Geometry Factor⁹	0.0732

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.

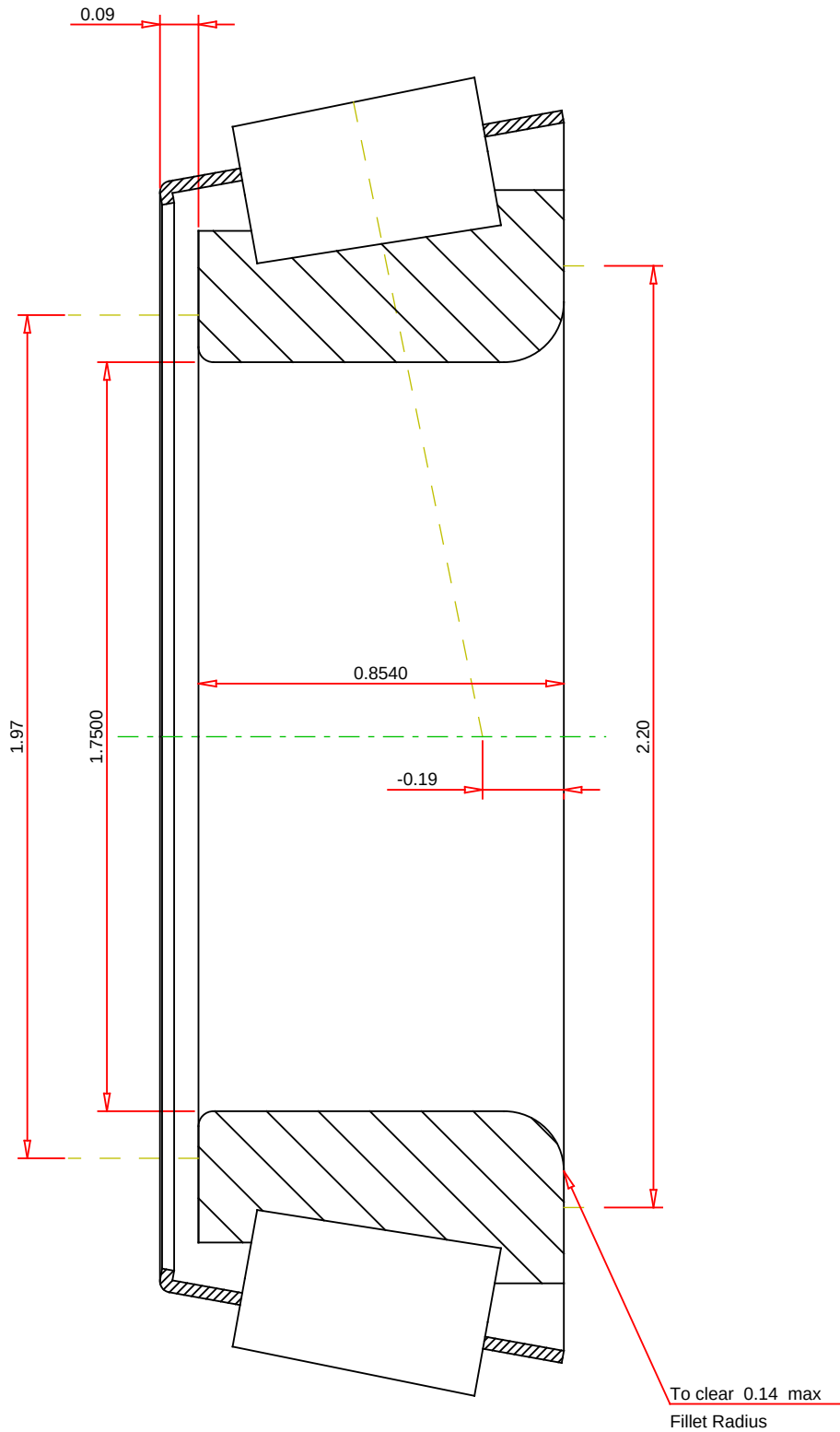
⁵ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

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 Row16	TIMKEN®	355X Tapered Roller Bearings - Single Cones - Imperial	
	THE TIMKEN COMPANY NORTH CANTON, OHIO USA	K Factor1.91 Dynamic Radial Rating - C905650 lbf Dynamic Thrust Rating - Ca902960 lbf Dynamic Radial Rating - C121800 lbf	
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	