


The Timken Company

4500 Mt Pleasant St. NW

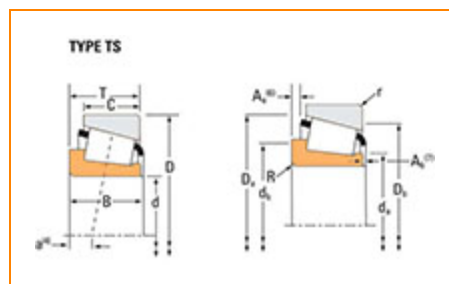
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Part Number 2688, Tapered Roller Bearings - Single Cones - Imperial

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	2600
Cone Part Number	2688
Design Units	Imperial
Cage Type	Stamped Steel
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)¹	30000 lbf 133000 N
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)²	7780 lbf 34600 N



Dimensions

d - Cone Bore	1 1/16 in 26.988 mm
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B - Cone Width	1.0013 in 25.433 mm
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Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius³	0.060 in 1.5 mm
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da - Cone Frontface Backing Diameter	1.3 in 33 mm
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db - Cone Backface Backing Diameter	1.38 in 35 mm
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Ab - Cage-Cone Frontface Clearance	0.06 in 1.5 mm
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Aa - Cage-Cone Backface Clearance	0.01 in 0.3 mm
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a - Effective Center Location⁴	-0.37 in -9.4 mm
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Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁵	4470 lbf 19900 N
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C1 - Dynamic Radial Rating (1 million revolutions)⁶	17200 lbf 76600 N
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C0 - Static Radial Rating	18400 lbf 81700 N
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C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁷	1940 lbf 8640 N
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Factors

K - Factor⁸	2.3
G1 - Heat Generation Factor (Roller-Raceway)	19.3
G2 - Heat Generation Factor (Rib-Roller End)	8
Cg - Geometry Factor⁹	0.0598

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.

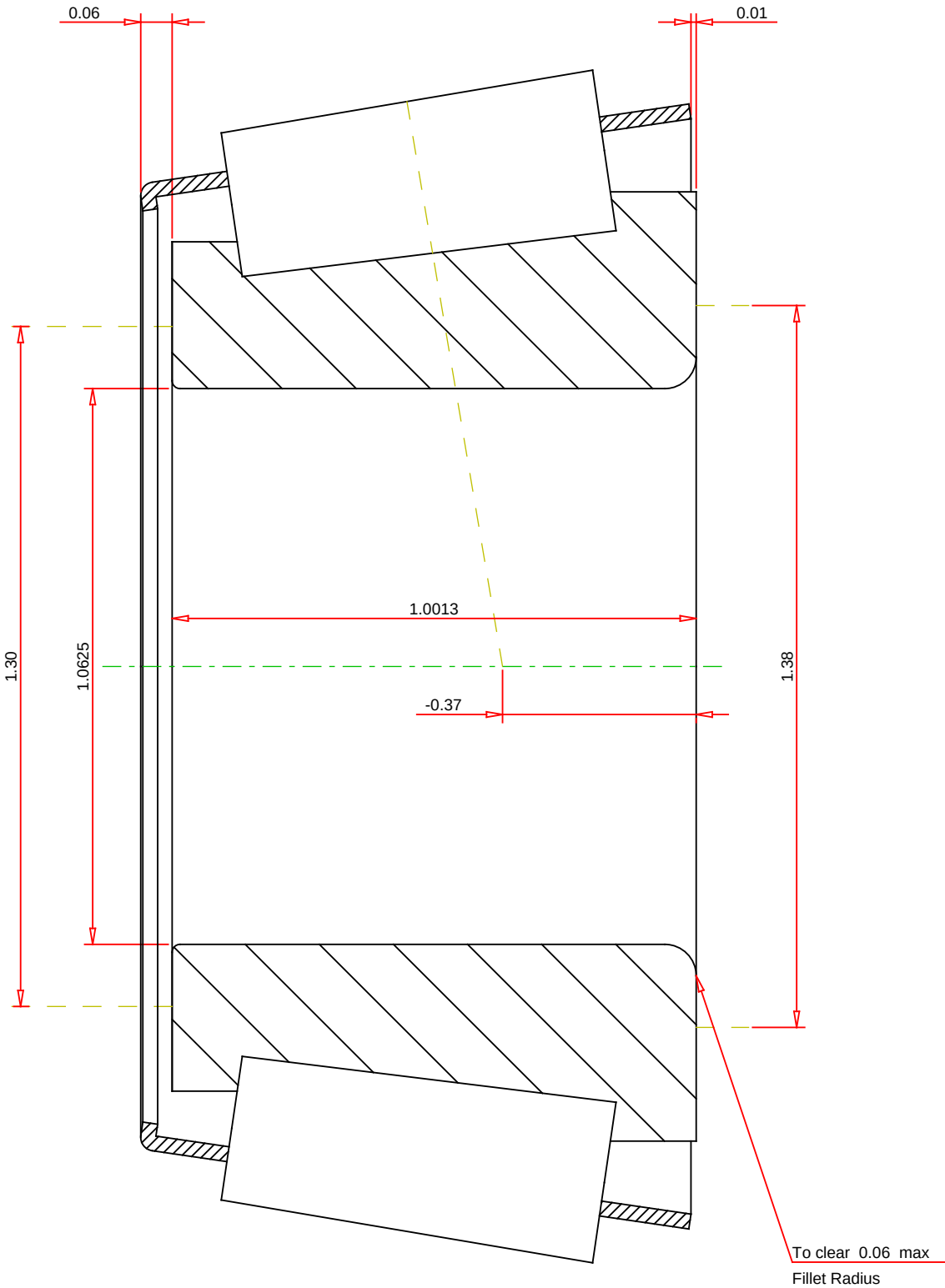
⁵ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

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	TIMIKEN® THE TIMKEN COMPANY NORTH CANTON, OHIO USA	2688 Tapered Roller Bearings - Single Cones - Imperial K Factor2.3 Dynamic Radial Rating - C904470 lbf Dynamic Thrust Rating - Ca901940 lbf Dynamic Radial Rating - C117200 lbf
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