


The Timken Company

4500 Mt Pleasant St. NW

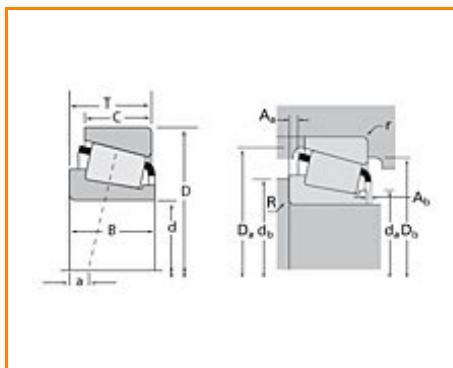
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Timken Part Number 25877 - 25820, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	25800
Cone Part Number	25877
Cup Part Number	25820
Design Units	Imperial
Bearing Weight	0.500 Kg 1.00 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	34.925 mm 1.3750 in
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D - Cup Outer Diameter	73.025 mm 2.8750 in
B - Cone Width	24.608 mm 0.9688 in
C - Cup Width	19.050 mm 0.7500 in
T - Bearing Width	23.813 mm 0.9375 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	1.520 mm 0.06 in
r - Cup Backface "To Clear" Radius²	2.29 mm 0.090 in
da - Cone Frontface Backing Diameter	40.39 mm 1.59 in
db - Cone Backface Backing Diameter	42.93 mm 1.69 in
Da - Cup Frontface Backing Diameter	68.10 mm 2.72 in
Db - Cup Backface Backing Diameter	64.01 mm 2.52 in
Ab - Cage-Cone Frontface Clearance	2.3 mm 0.09 in
Aa - Cage-Cone Backface Clearance	0.5 mm 0.02 in
a - Effective Center Location³	-8.1 mm -0.32 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	22100 N 4960 lbf
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C1 - Dynamic Radial Rating (1 million revolutions)⁵	85100 N 19100 lbf
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C0 - Static Radial Rating	97400 N 21900 lbf
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C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	11000 N 2460 lbf
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Factors

K - Factor⁷	2.01
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e - ISO Factor⁸	0.29
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Y - ISO Factor⁹	2.07
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G1 - Heat Generation Factor (Roller-Raceway)	26.4
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G2 - Heat Generation Factor (Rib-Roller End)	10.9
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Cg - Geometry Factor	0.0695
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¹ These maximum fillet radii will be cleared by the bearing corners.

² These maximum fillet radii will be cleared by the bearing corners.

³ Negative value indicates effective center inside cone backface.

⁴ 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.

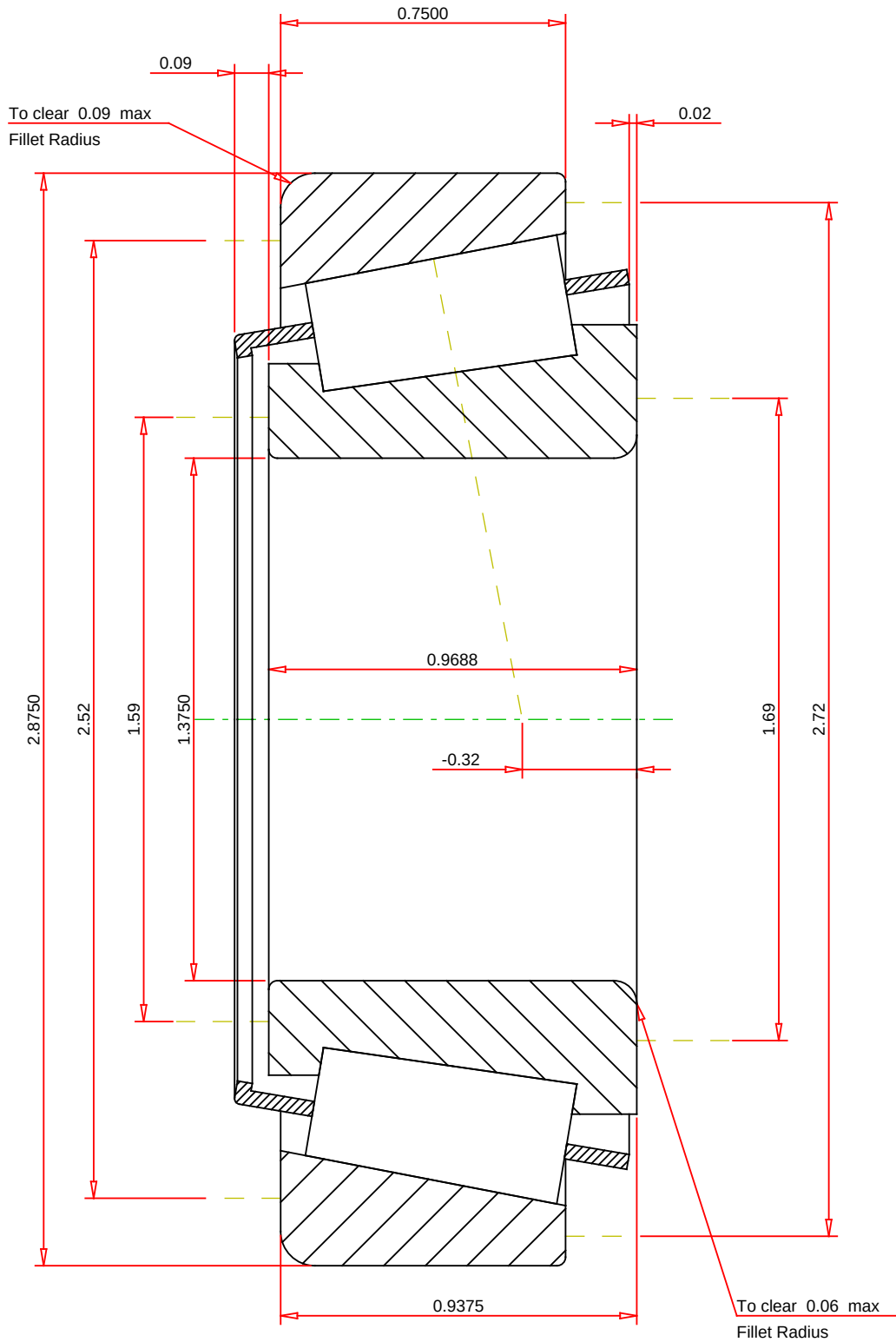
⁵ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

⁶ 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.

⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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

⁹ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.



IMPERIAL UNITS

ISO Factor - e0.29 ISO Factor - Y2.07 Bearing Weight1 lb Number of Rollers Per Row16 Effective Center Location-0.32 inch		TIMKEN® THE TIMKEN COMPANY NORTH CANTON, OHIO USA		25877 - 25820 TS BEARING ASSEMBLY	
				K Factor2.01 Dynamic Radial Rating - C9022100 lbf Dynamic Thrust Rating - Ca9011000 lbf Static Radial Rating - C097400 lbf Dynamic Radial Rating - C185100 lbf	