


The Timken Company

4500 Mt Pleasant St. NW

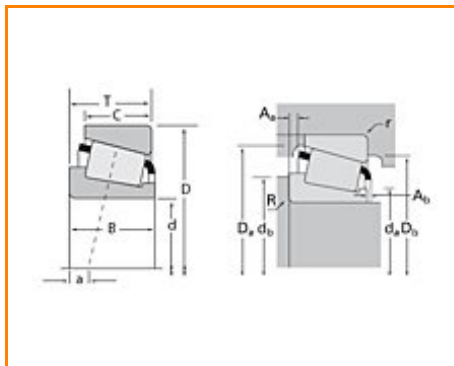
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Timken Part Number X30207 - Y30207, Tapered Roller Bearings - TS (Tapered Single) Metric

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](#) | [Dimensions](#) | [Abutment and Fillet Dimensions](#) | [Basic Load Ratings](#) | [Factors](#)

Specifications

Series	30207
Cone Part Number	X30207
Cup Part Number	Y30207
Design Units	METRIC
Bearing Weight	0.300 Kg 0.80 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	35.000 mm 1.3780 in
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D - Cup Outer Diameter	72.000 mm 2.8346 in
B - Cone Width	17.000 mm 0.6693 in
C - Cup Width	15.000 mm 0.5906 in
T - Bearing Width	18.255 mm 0.7187 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	1.520 mm 0.06 in
r - Cup Backface "To Clear" Radius²	1.52 mm 0.06 in
da - Cone Frontface Backing Diameter	42.42 mm 1.67 in
db - Cone Backface Backing Diameter	44.45 mm 1.75 in
Da - Cup Frontface Backing Diameter	67.10 mm 2.68 in
Db - Cup Backface Backing Diameter	64.01 mm 2.52 in
Ab - Cage-Cone Frontface Clearance	3.3 mm 0.13 in
Aa - Cage-Cone Backface Clearance	0 mm 0 in
a - Effective Center Location³	-3.3 mm -0.13 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	15700 N 3530 lbf
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C1 - Dynamic Radial Rating (1 million revolutions)⁵	60600 N 13600 lbf
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C0 - Static Radial Rating	63600 N 14300 lbf
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C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	10100 N 2270 lbf
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Factors

K - Factor⁷	1.56
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e - ISO Factor⁸	0.37
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Y - ISO Factor⁹	1.60
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G1 - Heat Generation Factor (Roller-Raceway)	18
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G2 - Heat Generation Factor (Rib-Roller End)	13.3
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Cg - Geometry Factor	0.0662
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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.

