


The Timken Company

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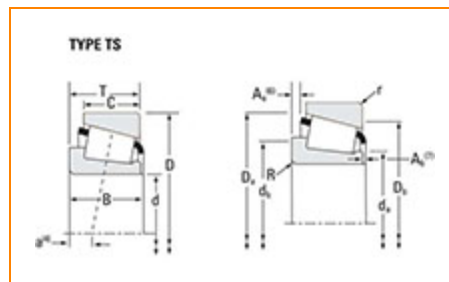
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Part Number M88048 - M88010, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	M88000
Cone Part Number	M88048
Cup Part Number	M88010
Design Unit	Inch
Cage Material	Stamped Steel

Dimensions

d - Bore	1.3125 in 33.338 mm
 - Cup Outer Diameter	2.6875 in 68.263 mm

B - Cone Width	0.875 in 22.225 mm
C - Cup Width	0.6875 in 17.463 mm
T - Bearing Width	0.8750 in 22.225 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.03 in 0.8 mm
r - Cup Backface "To Clear" Radius²	0.06 in 1.52 mm
da - Cone Frontface Backing Diameter	1.62 in 41.2 mm
db - Cone Backface Backing Diameter	1.67 in 42.5 mm
Da - Cup Frontface Backing Diameter	2.60 in 66.00 mm
Db - Cup Backface Backing Diameter	2.28 in 57.91 mm
Ab - Cage-Cone Frontface Clearance	0.06 in 1.5 mm
Aa - Cage-Cone Backface Clearance	0.05 in 1.3 mm
a - Effective Center Location³	-0.11 in -2.8 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90	4450 lbf
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million revolutions)⁴	19800 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	17100 lbf 76300 N
C0 - Static Radial Rating	17400 lbf 77400 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	4160 lbf 18500 N

Factors

K - Factor⁷	1.07
e - ISO Factor⁸	0.55
Y - ISO Factor⁹	1.1
C_g - Geometry Factor¹⁰	0.0771

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.

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¹⁰ Geometry constant for Lubrication Life Adjustment Factor a_3 .

