


The Timken Company

4500 Mt Pleasant St. NW

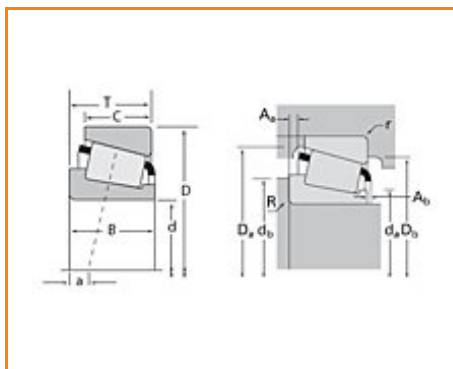
N. Canton, OH 44720

Phone: (234) 262-3000

E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number HM907635 - HM907614, 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	HM907600
Cone Part Number	HM907635
Cup Part Number	HM907614
Design Units	Imperial
Bearing Weight	1.500 Kg 3.200 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	44.450 mm 1.7500 in
D - Cup Outer Diameter	111.125 mm 4.3750 in
B - Cone Width	28.575 mm 1.1250 in
C - Cup Width	20.638 mm 0.8125 in
T - Bearing Width	30.163 mm 1.1875 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.760 mm 0.03 in
r - Cup Backface "To Clear" Radius²	3.30 mm 0.130 in
da - Cone Frontface Backing Diameter	65.02 mm 2.56 in
db - Cone Backface Backing Diameter	64.01 mm 2.52 in
Da - Cup Frontface Backing Diameter	105.40 mm 4.15 in
Db - Cup Backface Backing Diameter	90.93 mm 3.58 in
Ab - Cage-Cone Frontface Clearance	2.8 mm 0.11 in
Aa - Cage-Cone Backface Clearance	4.1 mm 0.16 in
a - Effective Center Location³	7.6 mm 0.3 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	31900 N 7170 lbf
C1 - Dynamic Radial Rating (1 million revolutions)⁵	123000 N 27700 lbf
C0 - Static Radial Rating	153000 N 34400 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	48200 N 10800 lbf

Factors

K - Factor⁷	0.66
e - ISO Factor⁸	0.88
Y - ISO Factor⁹	0.68
G1 - Heat Generation Factor (Roller-Raceway)	46.9
G2 - Heat Generation Factor (Rib-Roller End)	13.7
Cg - Geometry Factor	0.118

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.

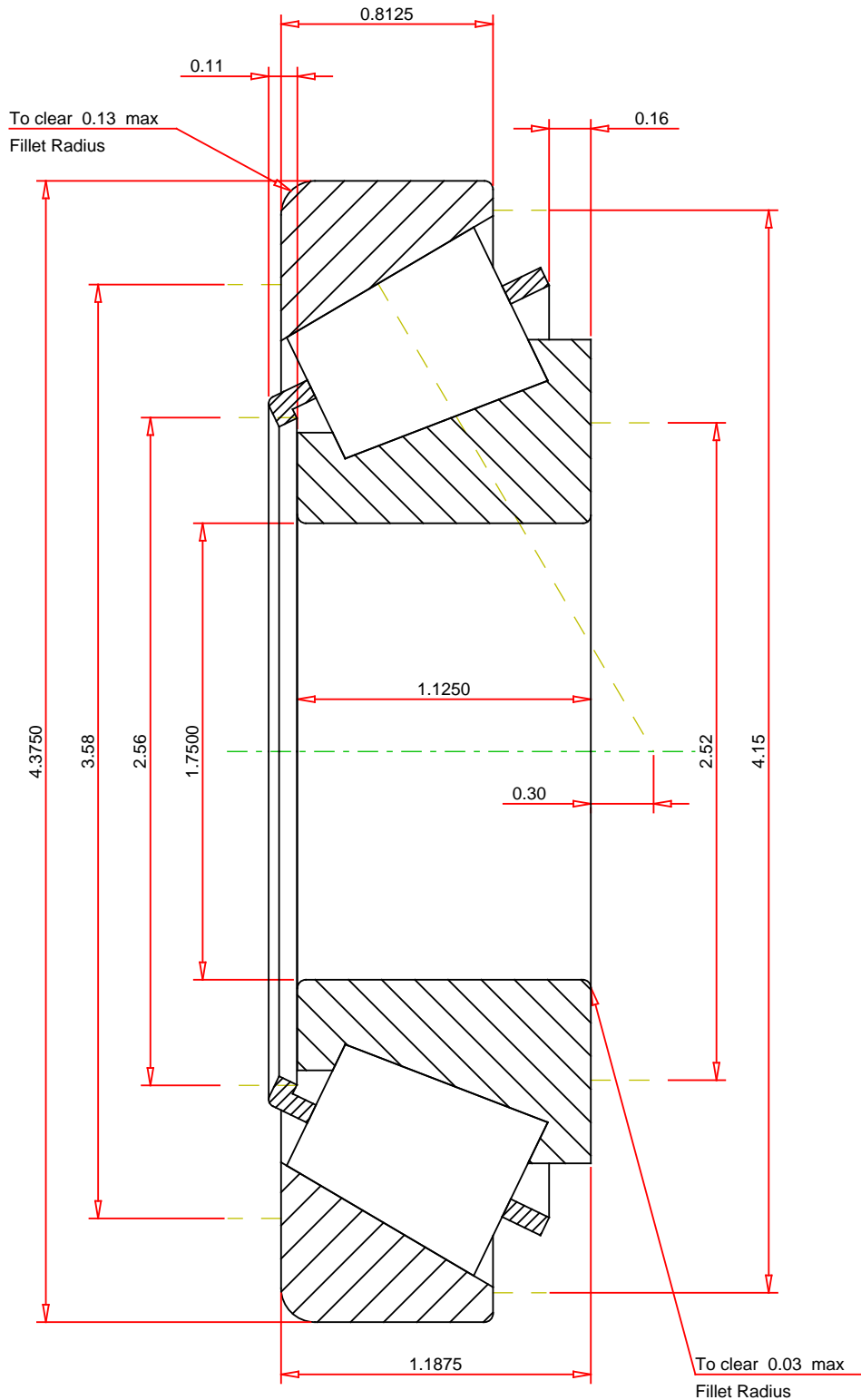
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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

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



IMPERIAL UNITS

ISO Factor - e 0.88
ISO Factor - Y 0.68
Bearing Weight 3.2 lb
Number of Rollers Per Row 19
Effective Center Location 0.3 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

HM907635 - HM907614
TS BEARING ASSEMBLY

K Factor	0.66
Dynamic Radial Rating - C90	31900 lbf
Dynamic Thrust Rating - Ca90	48200 lbf
Static Radial Rating - C0	153000 lbf
Dynamic Radial Rating - C1	123000 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