



The Timken Company

4500 Mt Pleasant St. NW

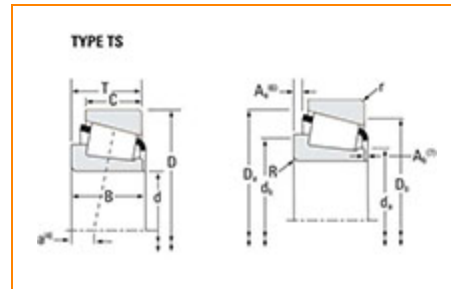
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Timken Part Number HM807040 - HM807010, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	HM807000
Cone Part Number	HM807040
Cup Part Number	HM807010
Design Units	Imperial
Bearing Weight	1.6 Kg 3.5 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	44.450 mm 1.7500 in
D - Cup Outer Diameter	104.775 mm 4.1250 in
B - Cone Width	36.513 mm 1.4375 in
C - Cup Width	28.575 mm 1.1250 in
T - Bearing Width	36.513 mm 1.4375 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius²	3.30 mm 0.130 in
da - Cone Frontface Backing Diameter	58.93 mm 2.32 in
db - Cone Backface Backing Diameter	66.04 mm 2.6 in
Da - Cup Frontface Backing Diameter	100.10 mm 3.96 in
Db - Cup Backface Backing Diameter	88.90 mm 3.50 in
Ab - Cage-Cone Frontface Clearance	2.5 mm 0.1 in
Aa - Cage-Cone Backface Clearance	3 mm 0.12 in
a - Effective Center Location³	-7.4 mm -0.29 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	11900 lbf 52700 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	45700 lbf 203000 N
C0 - Static Radial Rating	50200 lbf 223000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	9890 lbf 44000 N

Factors

K - Factor⁷	1.2
e - ISO Factor⁸	0.49
Y - ISO Factor⁹	1.23
G1 - Heat Generation Factor (Roller-Raceway)	63.9
G2 - Heat Generation Factor (Rib-Roller End)	17.1
C_g - Geometry Factor	0.076

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.

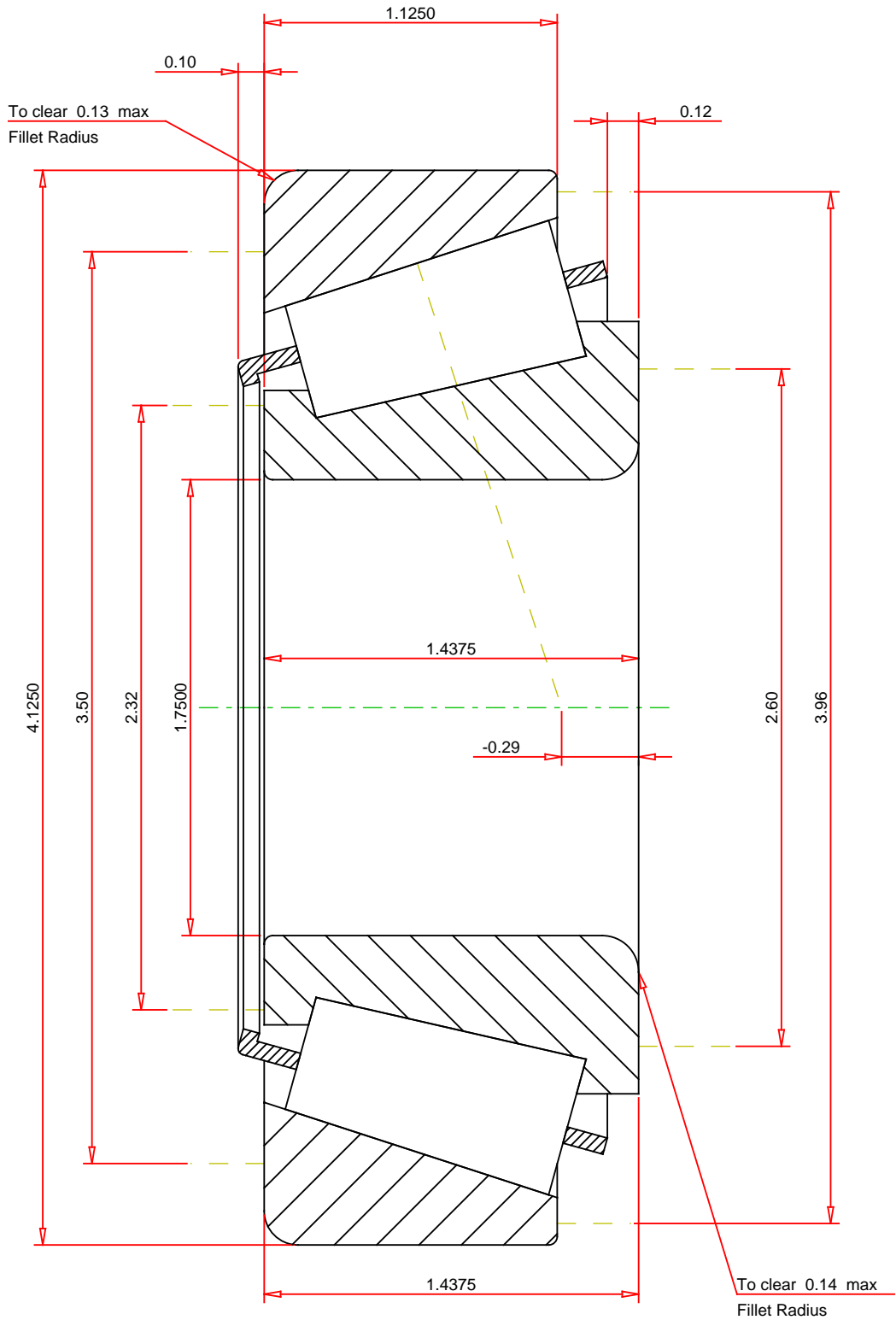
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 - e	0.49
ISO Factor - Y	1.23
Bearing Weight	3.5 lb
Number of Rollers Per Row	18
Effective Center Location	-0.29 inch

TIMKEN®

**HM807040 - HM807010
TS BEARING ASSEMBLY**

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

K Factor	1.2
Dynamic Radial Rating - C90	11900 lbf
Dynamic Thrust Rating - Ca90	9890 lbf
Static Radial Rating - C0	50200 lbf
Dynamic Radial Rating - C1	45700 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