

TIMKEN**The Timken Company**

4500 Mt Pleasant St. NW

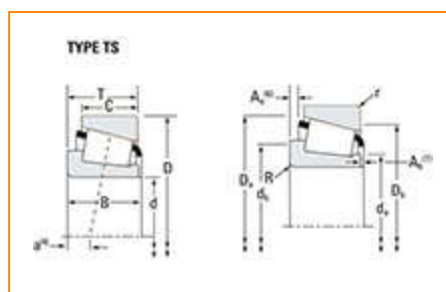
N. Canton, OH 44720

Phone: (234) 262-3000**E-Mail:** CustomerCAD@timken.com • **Web site:** www.timken.com

Part Number HM804848 - HM804810, 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	HM804800
Cone Part Number	HM804848
Cup Part Number	HM804810
Design Units	Imperial
Bearing Weight	1.00 Kg 2.1 lb
Cage Type	Stamped Steel

Dimensions

49.412 mm

d - Bore	40.412 mm 1.9060 in
D - Cup Outer Diameter	95.250 mm 3.7500 in
B - Cone Width	29.370 mm 1.1563 in
C - Cup Width	23.020 mm 0.9063 in
T - Bearing Width	30.163 mm 1.1875 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	2.290 mm 0.09 in
r - Cup Backface "To Clear" Radius²	3.3 mm 0.130 in
da - Cone Frontface Backing Diameter	57.40 mm 2.26 in
db - Cone Backface Backing Diameter	62.99 mm 2.48 in
Da - Cup Frontface Backing Diameter	91.90 mm 3.62 in
Db - Cup Backface Backing Diameter	81.03 mm 3.19 in
Ab - Cage-Cone Frontface Clearance	3.6 mm 0.14 in
Aa - Cage-Cone Backface Clearance	0.8 mm 0.03 in
a - Effective Center Location³	-3.8 mm -0.15 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	8590 lbf 38200 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	33100 lbf 147000 N
C0 - Static Radial Rating	35400 lbf 157000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	8030 lbf 35700 N

Factors

K - Factor⁷	1.07
e - ISO Factor⁸	0.55
Y - ISO Factor⁹	1.1
G1 - Heat Generation Factor (Roller-Raceway)	44.8
G2 - Heat Generation Factor (Rib-Roller End)	13.8
C_g - Geometry Factor¹⁰	0.102

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.

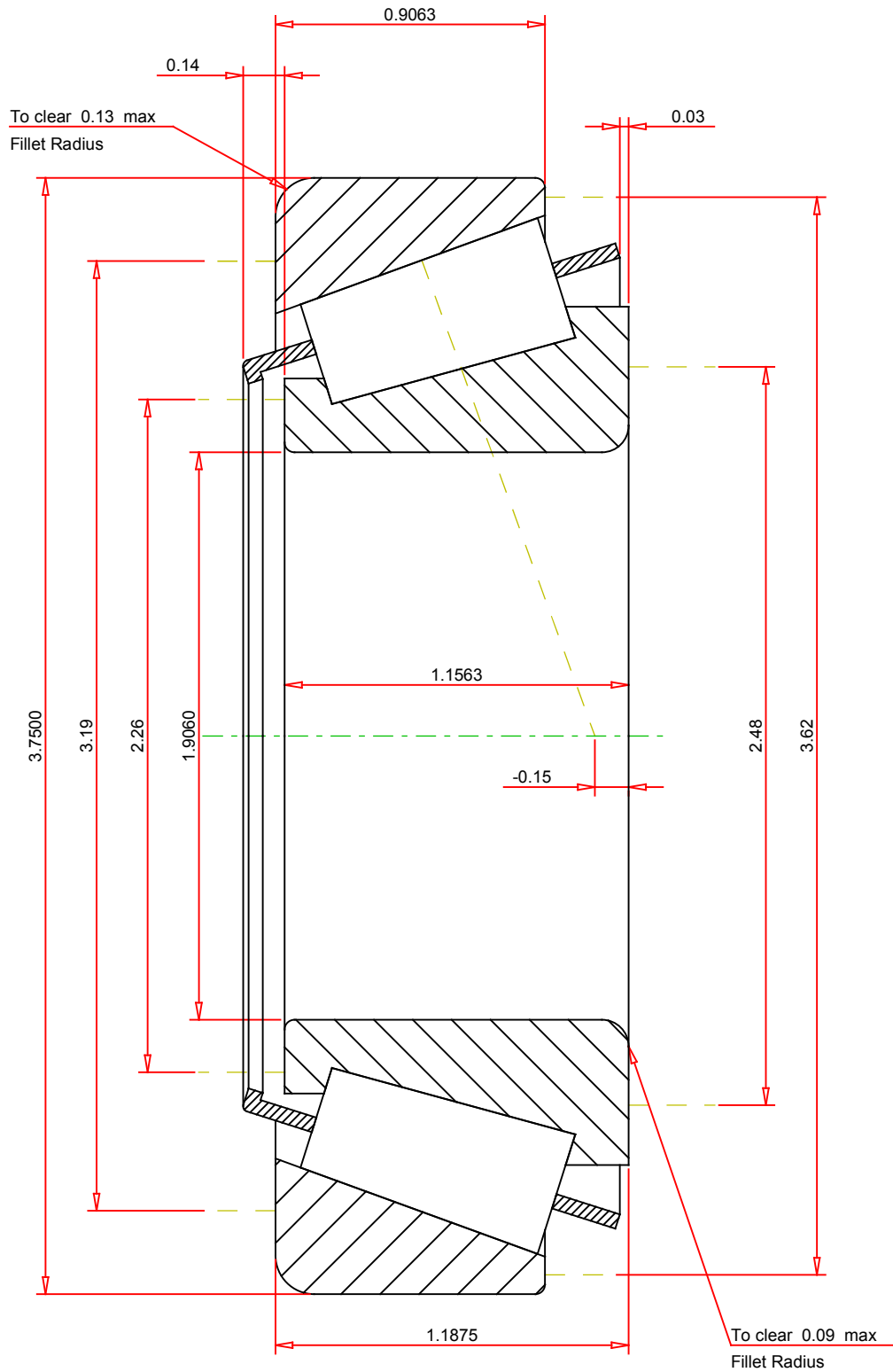
⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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instruction on use.

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¹⁰ Geometry constant for Lubrication Life Adjustment Factor a_3 .



IMPERIAL UNITS

ISO Factor - e	0.55
ISO Factor - Y	1.1
Bearing Weight	2.1 lb
Number of Rollers Per Row	18
Effective Center Location	-0.15 inch

TIMIKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

HM804848 - HM804810
TS BEARING ASSEMBLY

K Factor	1.07
Dynamic Radial Rating - C90	8590 lbf
Dynamic Thrust Rating - Ca90	8030 lbf
Static Radial Rating - C0	35400 lbf
Dynamic Radial Rating - C1	33100 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