The Timken Company
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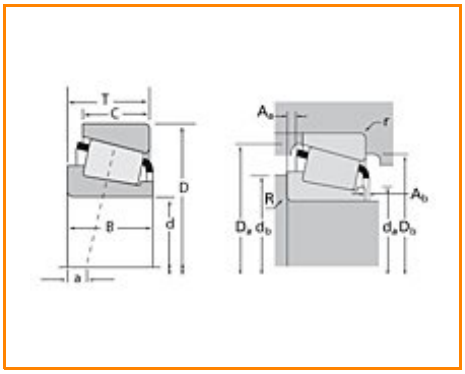
Timken Part Number HM804840 - HM804810, Tapered Roller Bearings - TS (Tapered Single) Imperial

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.



Specifications | Dimensions | Abutment and Fillet Dimensions | Basic Load Ratings | Factors

Specifications

Series	HM804800
Cone Part Number	HM804840
Cup Part Number	HM804810
Design Units	Imperial
Bearing Weight	1.100 Kg 2.40 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	41.275 mm 1.6250 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" Radius[1]	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius[2]	3.30 mm 0.130 in
da - Cone Frontface Backing Diameter	54.10 mm 2.13 in
db - Cone Backface Backing Diameter	60.96 mm 2.40 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 Location[3]	-3.80 mm -0.15 in

Basic Load Ratings

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

Factors

K - Factor[7]	1.07
e - ISO Factor[8]	0.55
Y - ISO Factor[9]	1.1
G1 - Heat Generation Factor (Roller-Raceway)	44.8
G2 - Heat Generation Factor (Rib-Roller End)	13.8
Cg - Geometry Factor	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 x 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 x 10^6 revolutions L_{10} life, for the ISO life calculation method.

[6] Based on 90 x 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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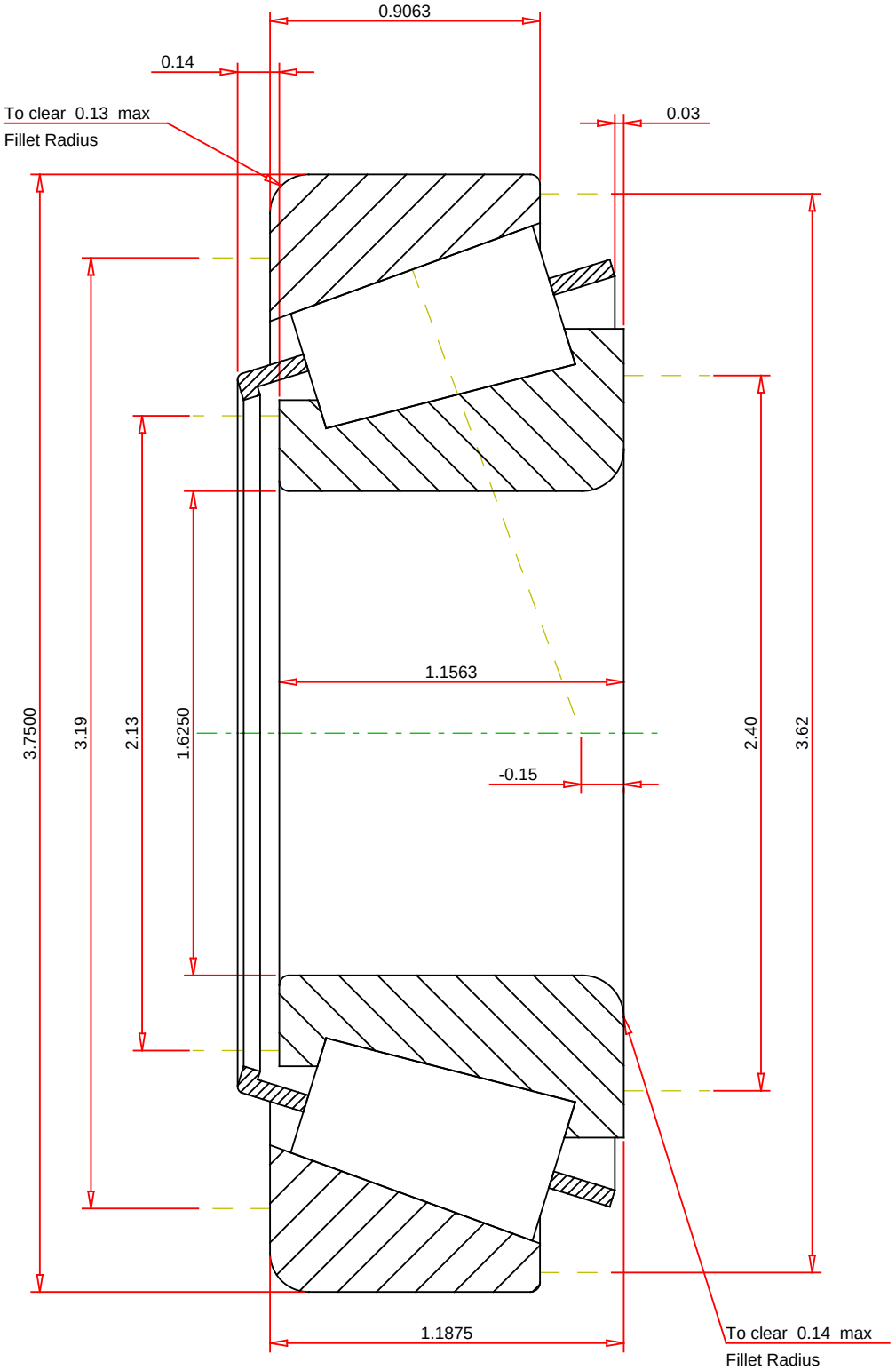
[9] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.



IMPERIAL UNITS

ISO Factor - e	0.55	
ISO Factor - Y	1.1	
Bearing Weight	2.4	lb
Number of Rollers Per Row	18	
Effective Center Location	-0.15	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

HM804840 - HM804810
TS BEARING ASSEMBLY

K Factor	1.07	
Dynamic Radial Rating - C90	38200	lbf
Dynamic Thrust Rating - Ca90	35700	lbf
Static Radial Rating - C0	157000	lbf
Dynamic Radial Rating - C1	147000	lbf

FOR DISCUSSION ONLY