The Timken Company
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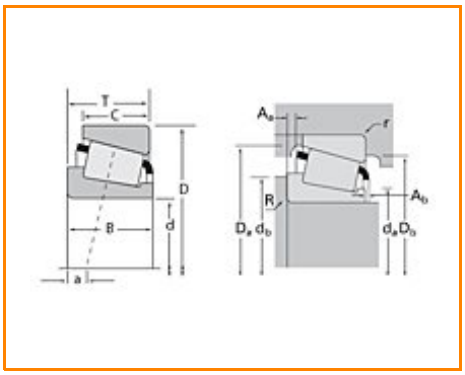
Timken Part Number 14118 - 14274A, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	14000
Cone Part Number	14118
Cup Part Number	14274A
Design Units	Imperial
Bearing Weight	0.400 Kg 0.80 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	30 mm 1.1811 in

D - Cup Outer Diameter	68.956 mm 2.7148 in
B - Cone Width	19.202 mm 0.7560 in
C - Cup Width	15.875 mm 0.6250 in
T - Bearing Width	19.845 mm 0.7813 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.760 mm 0.03 in
r - Cup Backface "To Clear" Radius[2]	3.30 mm 0.130 in
da - Cone Frontface Backing Diameter	36.58 mm 1.44 in
db - Cone Backface Backing Diameter	37.08 mm 1.46 in
Da - Cup Frontface Backing Diameter	63.00 mm 2.52 in
Db - Cup Backface Backing Diameter	58.93 mm 2.32 in
Ab - Cage-Cone Frontface Clearance	2.3 mm 0.09 in
Aa - Cage-Cone Backface Clearance	0.5 mm 0.02 in
a - Effective Center Location[3]	-4.30 mm -0.17 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	14200 N 3180 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	54600 N 12300 lbf
C0 - Static Radial Rating	61700 N 13900 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	9260 N 2080 lbf

Factors

K - Factor[7]	1.53
e - ISO Factor[8]	0.38
Y - ISO Factor[9]	1.57
G1 - Heat Generation Factor (Roller-Raceway)	18
G2 - Heat Generation Factor (Rib-Roller End)	13.3
Cg - Geometry Factor	0.0668

[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.
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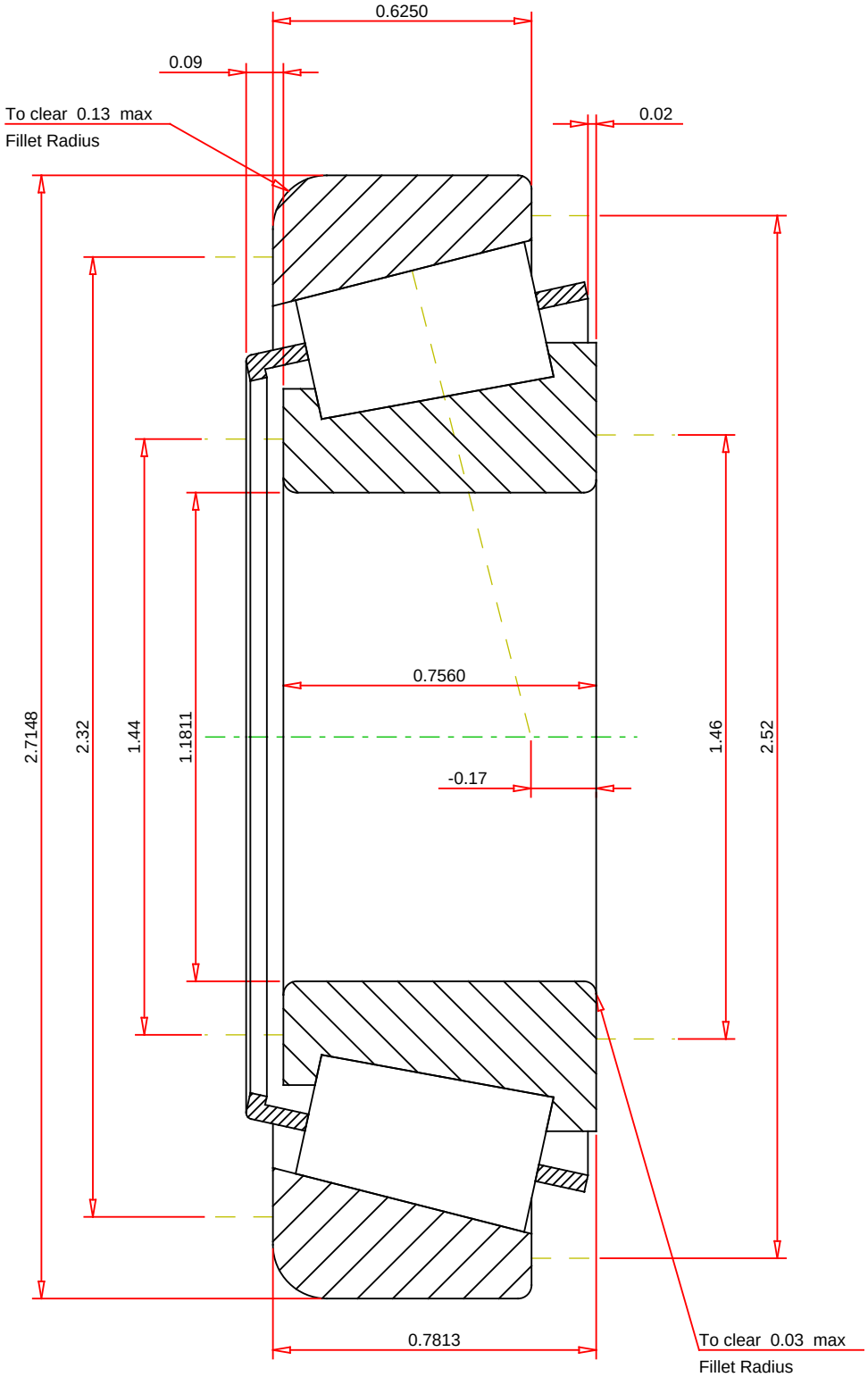

IMPERIAL UNITS

ISO Factor - e	0.38	
ISO Factor - Y	1.57	
Bearing Weight	0.8	lb
Number of Rollers Per Row	17	
Effective Center Location	-0.17	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

14118 - 14274A
TS BEARING ASSEMBLY

K Factor	1.53	
Dynamic Radial Rating - C90	14200	lbf
Dynamic Thrust Rating - Ca90	9260	lbf
Static Radial Rating - C0	61700	lbf
Dynamic Radial Rating - C1	54600	lbf

FOR DISCUSSION ONLY