The Timken Company
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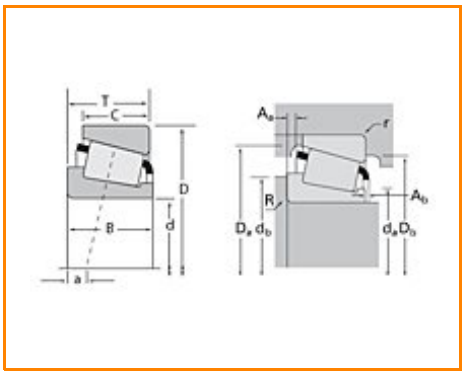
Timken Part Number 52375 - 52618, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	52000
Cone Part Number	52375
Cup Part Number	52618
Design Units	Imperial
Bearing Weight	2.700 Kg 5.900 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	95.250 mm 3.7500 in

D - Cup Outer Diameter	157.163 mm 6.1875 in
B - Cone Width	36.116 mm 1.4219 in
C - Cup Width	26.195 mm 1.0313 in
T - Bearing Width	36.513 mm 1.4375 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	104.90 mm 4.80 in
db - Cone Backface Backing Diameter	112.01 mm 4.41 in
Da - Cup Frontface Backing Diameter	151.90 mm 6.00 in
Db - Cup Backface Backing Diameter	141.99 mm 5.59 in
Ab - Cage-Cone Frontface Clearance	3 mm 0.12 in
Aa - Cage-Cone Backface Clearance	4.1 mm 0.16 in
a - Effective Center Location[3]	-0.50 mm -0.02 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	57900 N 13000 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	223000 N 50200 lbf
C0 - Static Radial Rating	343000 N 77000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	47100 N 10600 lbf

Factors

K - Factor[7]	1.23
e - ISO Factor[8]	0.47
Y - ISO Factor[9]	1.26
G1 - Heat Generation Factor (Roller-Raceway)	175
G2 - Heat Generation Factor (Rib-Roller End)	41.7
Cg - Geometry Factor	0.152

[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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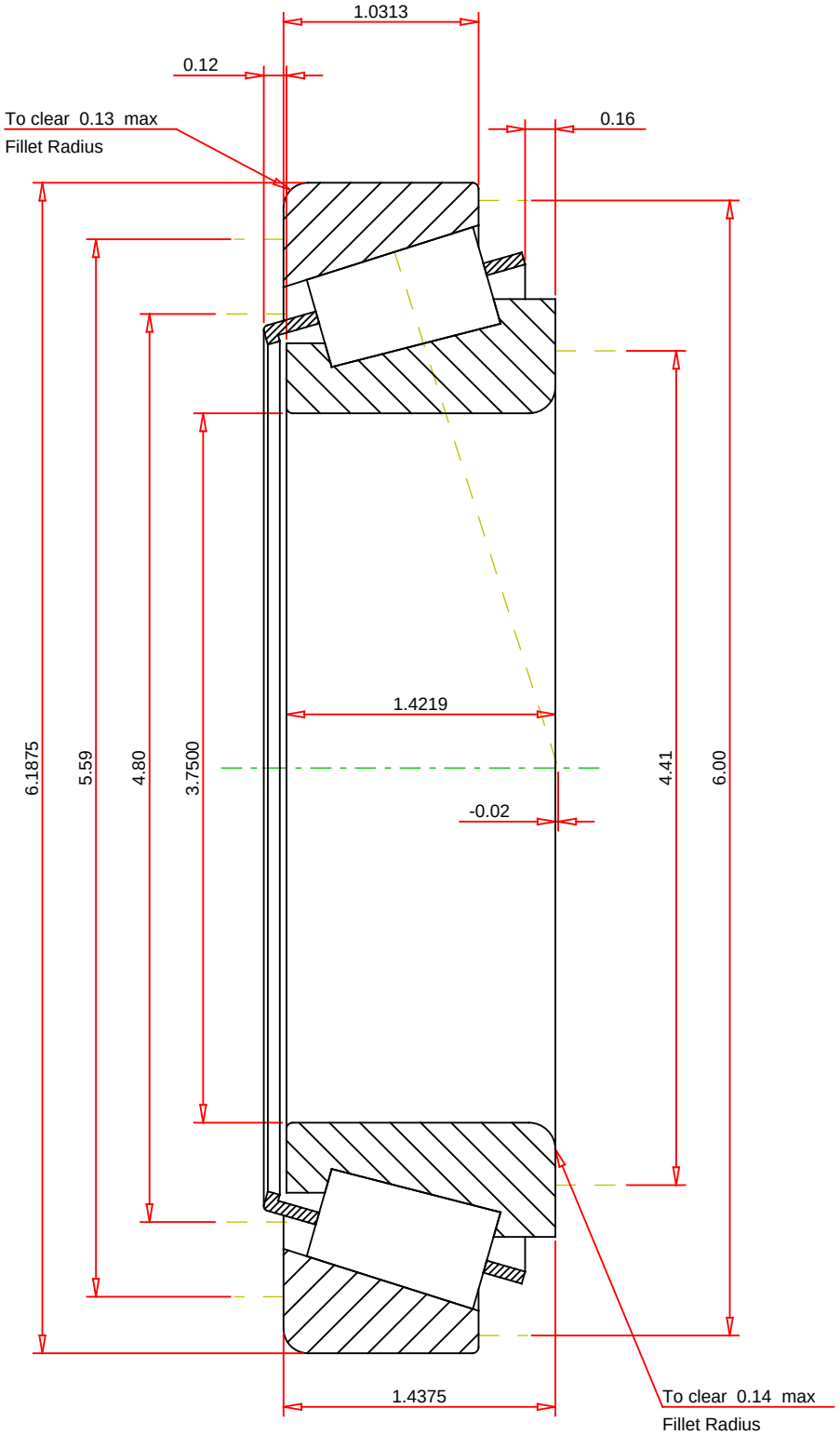

IMPERIAL UNITS

ISO Factor - e	0.47	
ISO Factor - Y	1.26	
Bearing Weight	5.9	lb
Number of Rollers Per Row	26	
Effective Center Location	-0.02	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

52375 - 52618
TS BEARING ASSEMBLY

K Factor	1.23	
Dynamic Radial Rating - C90	57900	lbf
Dynamic Thrust Rating - Ca90	47100	lbf
Static Radial Rating - C0	343000	lbf
Dynamic Radial Rating - C1	223000	lbf

FOR DISCUSSION ONLY