TIMKEN

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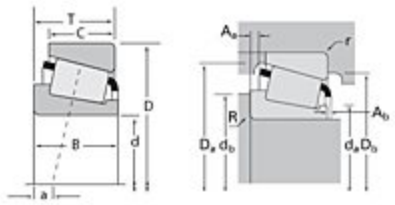
Timken Part Number 350 - 352, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	355
Cone Part Number	350
Cup Part Number	352
Design Units	Imperial
Bearing Weight	0.700 Kg 1.60 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	40 mm 1.5748 in
D - Cup Outer Diameter	90.119 mm 3.5480 in

B - Cone Width	21.692 mm 0.8540 in
C - Cup Width	21.808 mm 0.8586 in
T - Bearing Width	23.000 mm 0.9055 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	4.060 mm 0.16 in
r - Cup Backface "To Clear" Radius[2]	2.29 mm 0.090 in
da - Cone Frontface Backing Diameter	46.48 mm 1.83 in
db - Cone Backface Backing Diameter	54.10 mm 2.13 in
Da - Cup Frontface Backing Diameter	83.06 mm 3.27 in
Db - Cup Backface Backing Diameter	77.98 mm 3.07 in
Ab - Cage-Cone Frontface Clearance	2.3 mm 0.09 in
Aa - Cage-Cone Backface Clearance	0 mm 0 in
a - Effective Center Location[3]	-4.80 mm -0.19 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	21200 N 4770 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	81800 N 18400 lbf
C0 - Static Radial Rating	88800 N 20000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	11100 N 2500 lbf

Factors

K - Factor[7]	1.91
e - ISO Factor[8]	0.31
Y - ISO Factor[9]	1.96
G1 - Heat Generation Factor (Roller-Raceway)	30
G2 - Heat Generation Factor (Rib-Roller End)	12.2
Cg - Geometry Factor	0.0732

[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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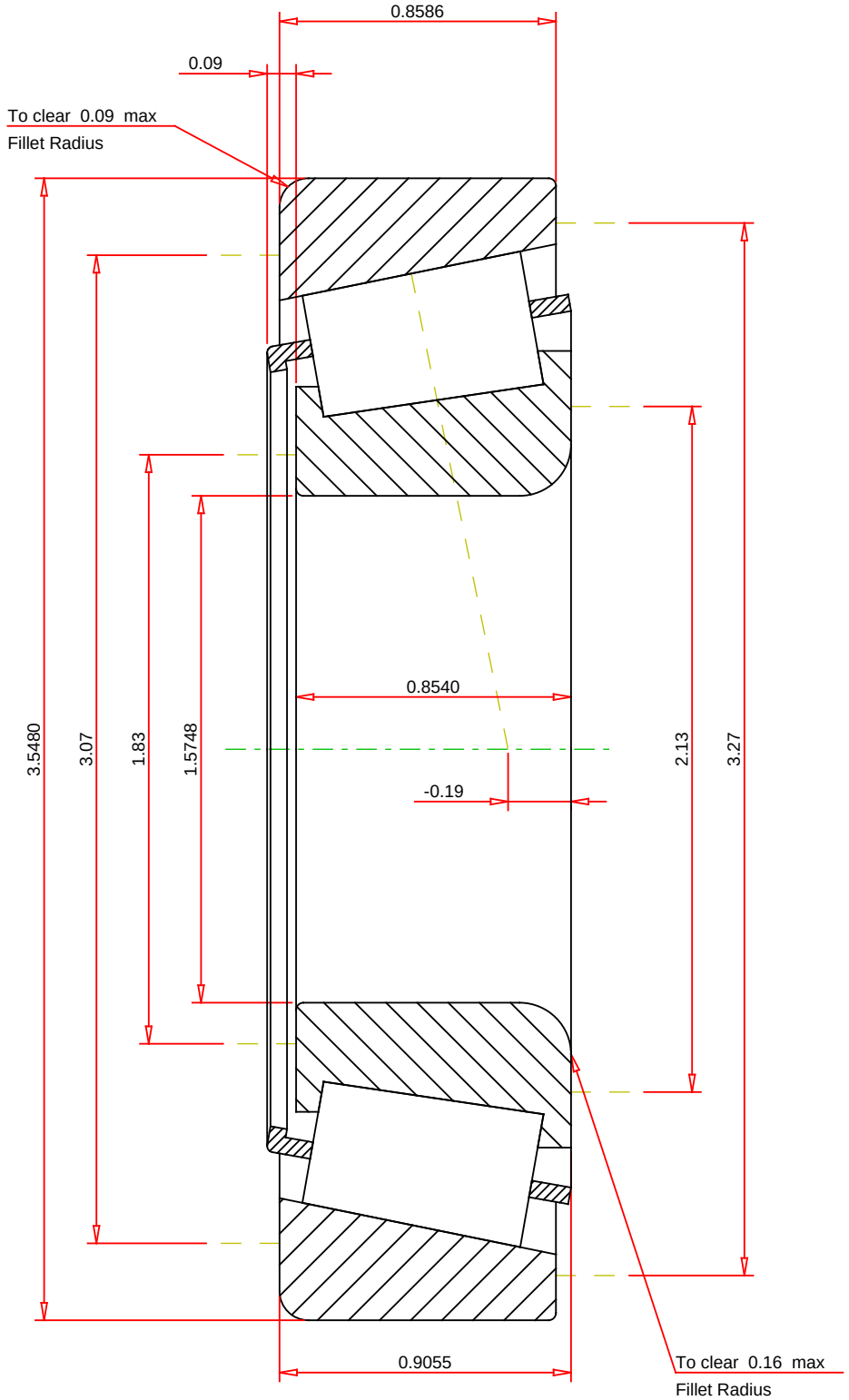

IMPERIAL UNITS

ISO Factor - e	0.31	
ISO Factor - Y	1.96	
Bearing Weight	1.6	lb
Number of Rollers Per Row	16	
Effective Center Location	-0.19	inch

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THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

350 - 352
TS BEARING ASSEMBLY

K Factor	1.91	
Dynamic Radial Rating - C90	21200	lbf
Dynamic Thrust Rating - Ca90	11100	lbf
Static Radial Rating - C0	88800	lbf
Dynamic Radial Rating - C1	81800	lbf

FOR DISCUSSION ONLY