TIMKEN

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Timken Part Number 386A - 382A, 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	385
Cone Part Number	386A
Cup Part Number	382A
Design Units	Imperial
Bearing Weight	0.700 Kg 1.60 lb
Cage Type	Stamped Steel

Dimensions −

d – Bore	47.625 mm 1.8750 in
D – Cup Outer Diameter	96.838 mm 3.8125 in

B - Cone Width	21.946 mm 0.8640 in
C - Cup Width	15.875 mm 0.6250 in
T - Bearing Width	21.001 mm 0.8268 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]	0.76 mm 0.030 in
da - Cone Frontface Backing Diameter	55.12 mm 2.17 in
db - Cone Backface Backing Diameter	55.88 mm 2.20 in
Da - Cup Frontface Backing Diameter	92.96 mm 3.66 in
Db - Cup Backface Backing Diameter	88.90 mm 3.50 in
Ab - Cage-Cone Frontface Clearance	2.8 mm 0.11 in
Aa - Cage-Cone Backface Clearance	0.8 mm 0.03 in
a - Effective Center Location[3]	-3 mm -0.12 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	28000 N 6280 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	108000 N 24200 lbf
C0 - Static Radial Rating	107000 N 24100 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	16900 N 3810 lbf

Factors −

K - Factor[7]	1.65
e - ISO Factor[8]	0.35
Y - ISO Factor[9]	1.69
G1 - Heat Generation Factor (Roller–Raceway)	42
G2 - Heat Generation Factor (Rib–Roller End)	15.7
Cg - Geometry Factor	0.0859

[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.
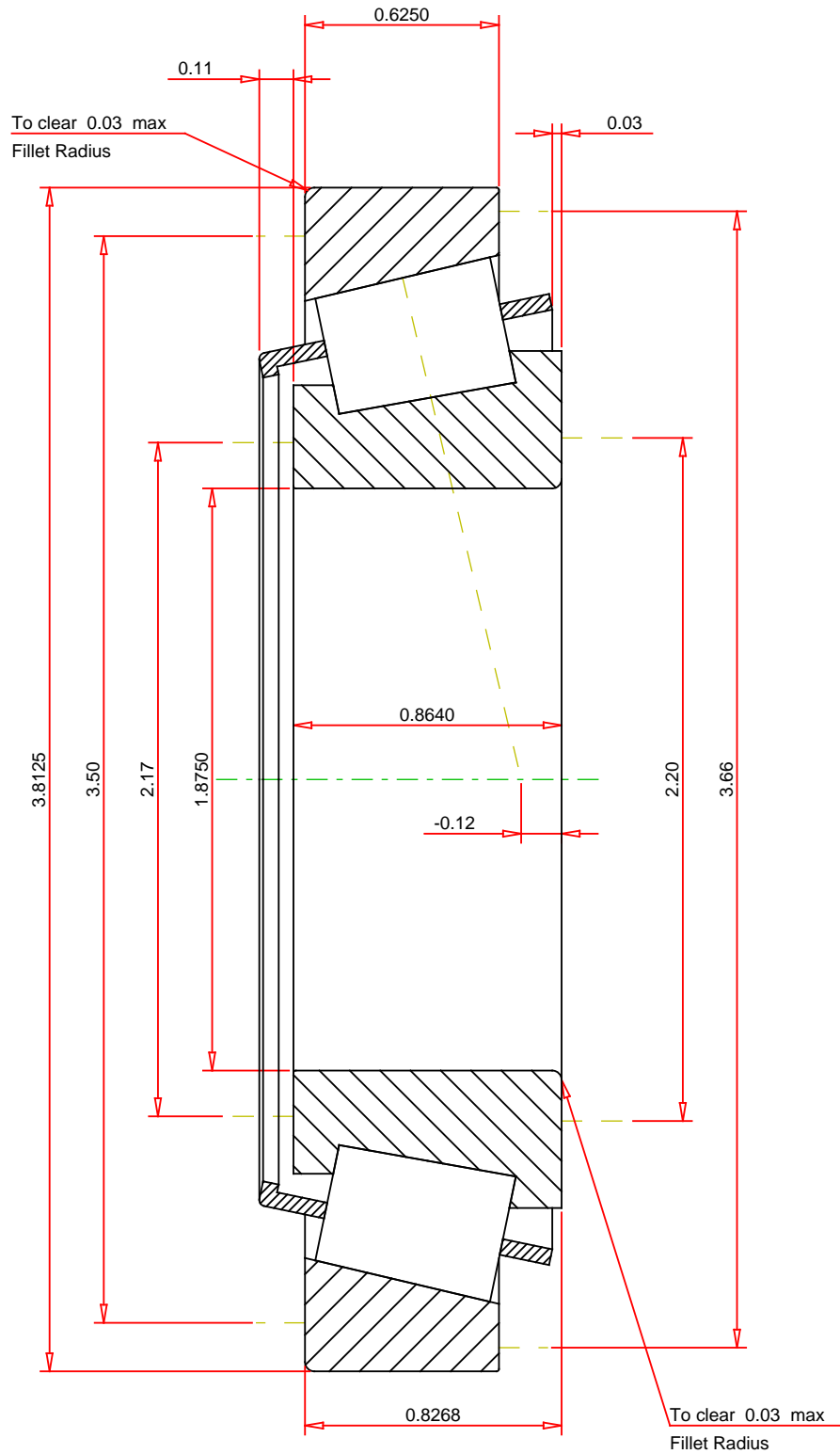
[5] Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

[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.

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

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

386A - 382A

TS BEARING ASSEMBLY

Dimensions (imperial units) shown on the bearing assembly drawing:

- 0.6250
- 0.11
- To clear 0.03 max Fillet Radius
- 0.03
- 3.8125
- 3.50
- 2.17
- 1.8750
- 0.8640
- -0.12
- 2.20
- 3.66
- 0.8268
- To clear 0.03 max Fillet Radius

IMPERIAL UNITS

ISO Factor - e	0.35
ISO Factor - Y	1.69
Bearing Weight	1.6 lb
Number of Rollers Per Row	19
Effective Center Location	-0.12 inch

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NORTH CANTON, OHIO USA

K Factor	1.65	
Dynamic Radial Rating - C90	28000	lbf
Dynamic Thrust Rating - Ca90	16900	lbf
Static Radial Rating - C0	107000	lbf
Dynamic Radial Rating - C1	108000	lbf

FOR DISCUSSION ONLY