


The Timken Company

4500 Mt Pleasant St. NW

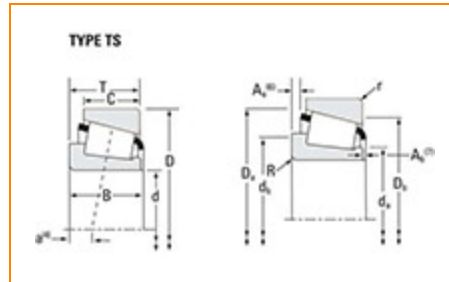
N. Canton, OH 44720

Phone: (234) 262-3000

E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Part Number 1380 - 1329, 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	1300
Cone Part Number	1380
Cup Part Number	1329
Design Unit	Inch
Bearing Weight	0.5 lb 0.2 Kg
Cage Material	Stamped Steel

Dimensions


Bore

 7/8 in
22.225 mm

D - Cup Outer Diameter	2.125 in 53.975 mm
B - Cone Width	0.7940 in 20.168 mm
C - Cup Width	0.5625 in 14.288 mm
T - Bearing Width	0.7625 in 19.368 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.06 in 1.5 mm
r - Cup Backface "To Clear" Radius²	0.06 in 1.52 mm
da - Cone Frontface Backing Diameter	1.06 in 27 mm
db - Cone Backface Backing Diameter	1.16 in 29.5 mm
Da - Cup Frontface Backing Diameter	1.95 in 49.53 mm
Db - Cup Backface Backing Diameter	1.81 in 45.97 mm
Ab - Cage-Cone Frontface Clearance	0.07 in 1.8 mm
Aa - Cage-Cone Backface Clearance	0.03 in 0.8 mm
a - Effective Center Location³	-0.3 in -7.6 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴ 2790 lbf
12400 N

C1 - Dynamic Radial Rating (1 million revolutions)⁵ 10800 lbf
47900 N

C0 - Static Radial Rating 10900 lbf
48300 N

C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶ 1390 lbf
6200 N

Factors

K - Factor⁷ 2

e - ISO Factor⁸ 0.29

Y - ISO Factor⁹ 2.05

G1 - Heat Generation Factor (Roller-Raceway) 10.3

G2 - Heat Generation Factor (Rib-Roller End) 5.21

C_g - Geometry Factor¹⁰ 0.0508

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.

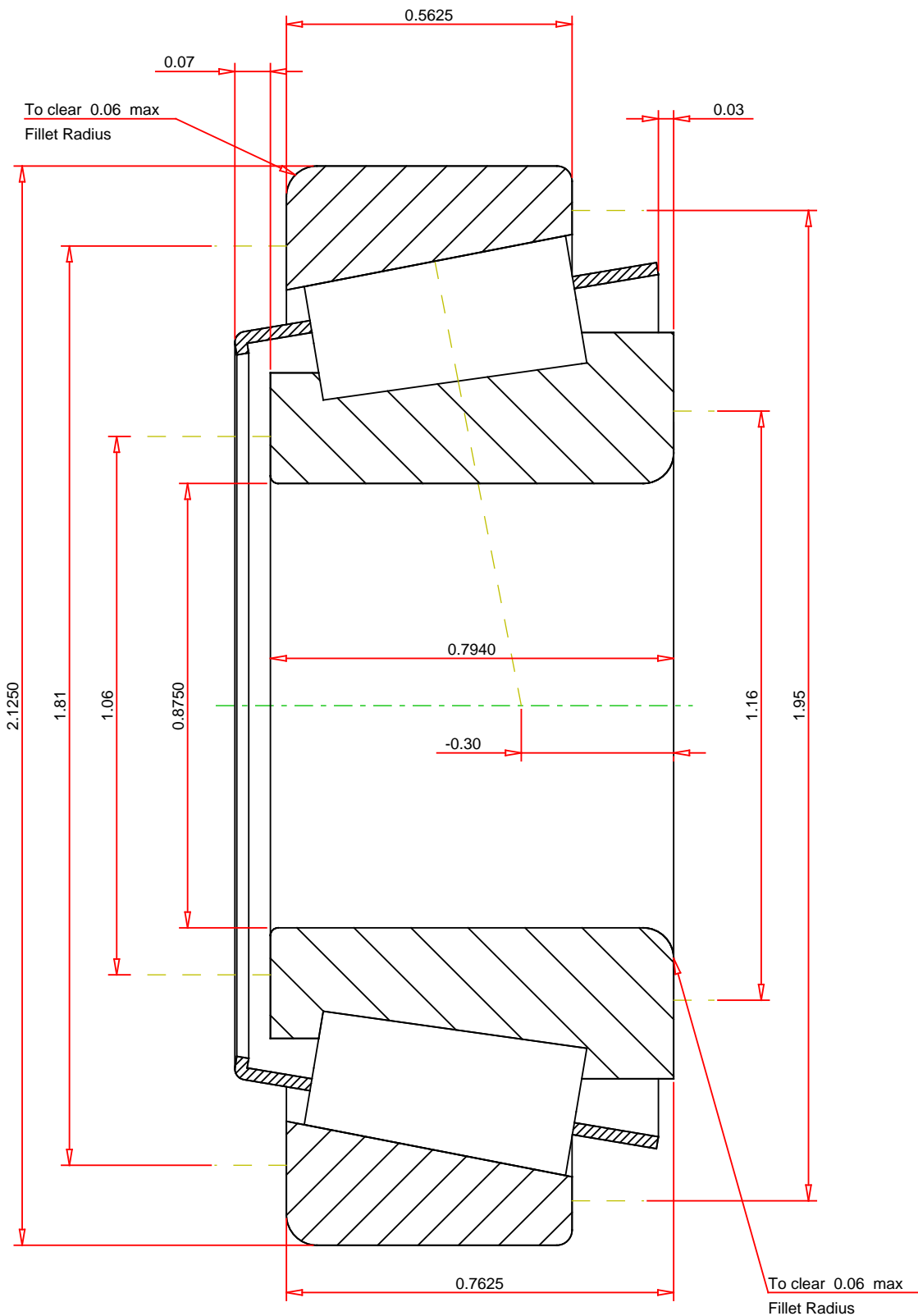
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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.

¹⁰ Geometry constant for Lubrication Life Adjustment Factor a3l.



IMPERIAL UNITS

ISO Factor - e 0.29
ISO Factor - Y 2.05
Bearing Weight 0.5 lb
Number of Rollers Per Row 14
Effective Center Location -0.3 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

1380 - 1329
Tapered Roller Bearings - TS (Tapered Single)
Imperial

K Factor	2
Dynamic Radial Rating - C90	2790 lbf
Dynamic Thrust Rating - Ca90	1390 lbf
Static Radial Rating - C0	10900 lbf
Dynamic Radial Rating - C1	10800 lbf

Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

FOR DISCUSSION ONLY