



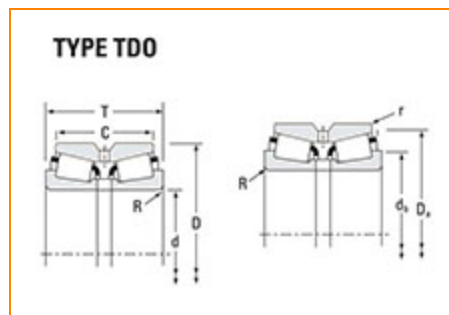
The Timken Company
 4500 Mt Pleasant St. NW
 N. Canton, OH 44720
Phone: (234) 262-3000

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

Part Number 93812 - 93128XD, Tapered Roller Bearings - TDO (Tapered Double Outer)

Imperial

The configuration of the TDO provides a wide effective bearing spread, making it ideal for applications in which overturning moments are a significant load component. TDO bearings can be used in fixed positions or allowed to float in the housing bore.



[Specifications](#) | [Dimensions](#) | [Abutment and Fillet Dimensions](#) | [Basic Load Ratings](#) | [Factors](#)

Specifications

Series	93000
Cone Part Number	93812
Cup Part Number	93128XD
Design Units	Imperial
Bearing Weight	84.23 lb 38.208 Kg
Cage Type	Stamped Steel
Ab - Cage-Cone Frontface Clearance	0.21 in 5.3 mm
Alternate Part Name	93812-93128XD

Dimensions

d - Bore	8.1250 in 206.375 mm
D - Cup Outer Diameter	12.5975 in 319.977 mm
B - Cone Width	2.5 in 63.5 mm
C - Double Cup Width	4.375 in 111.125 mm
T - Bearing Width across Cones	5.7499 in 146.047 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.170 in 4.300 mm
r - Cup Frontface "To Clear" Radius²	0.06 in 1.5 mm
db - Cone Backface Backing Diameter	9.06 in 230.1 mm
Da - Cup Frontface Backing Diameter	11.84 in 300.70 mm
Aa - Cage-Cone Backface Clearance	0.32 in 8.1 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (One-Row, 90 million revolutions)³	42600 lbf 190000 N
--	-----------------------

C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions) ⁴	286000 lbf 1270000 N
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions) ⁵	74200 lbf 330000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions) ⁶	38200 lbf 170000 N

Factors

K - Factor⁷	1.12
e - ISO Factor⁸	0.52
Y1 - ISO Factor⁹	1.29
Y2 - ISO Factor¹⁰	1.92
C_g - Geometry Factor¹¹	0.146

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 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.

⁴ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

⁵ 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.

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.

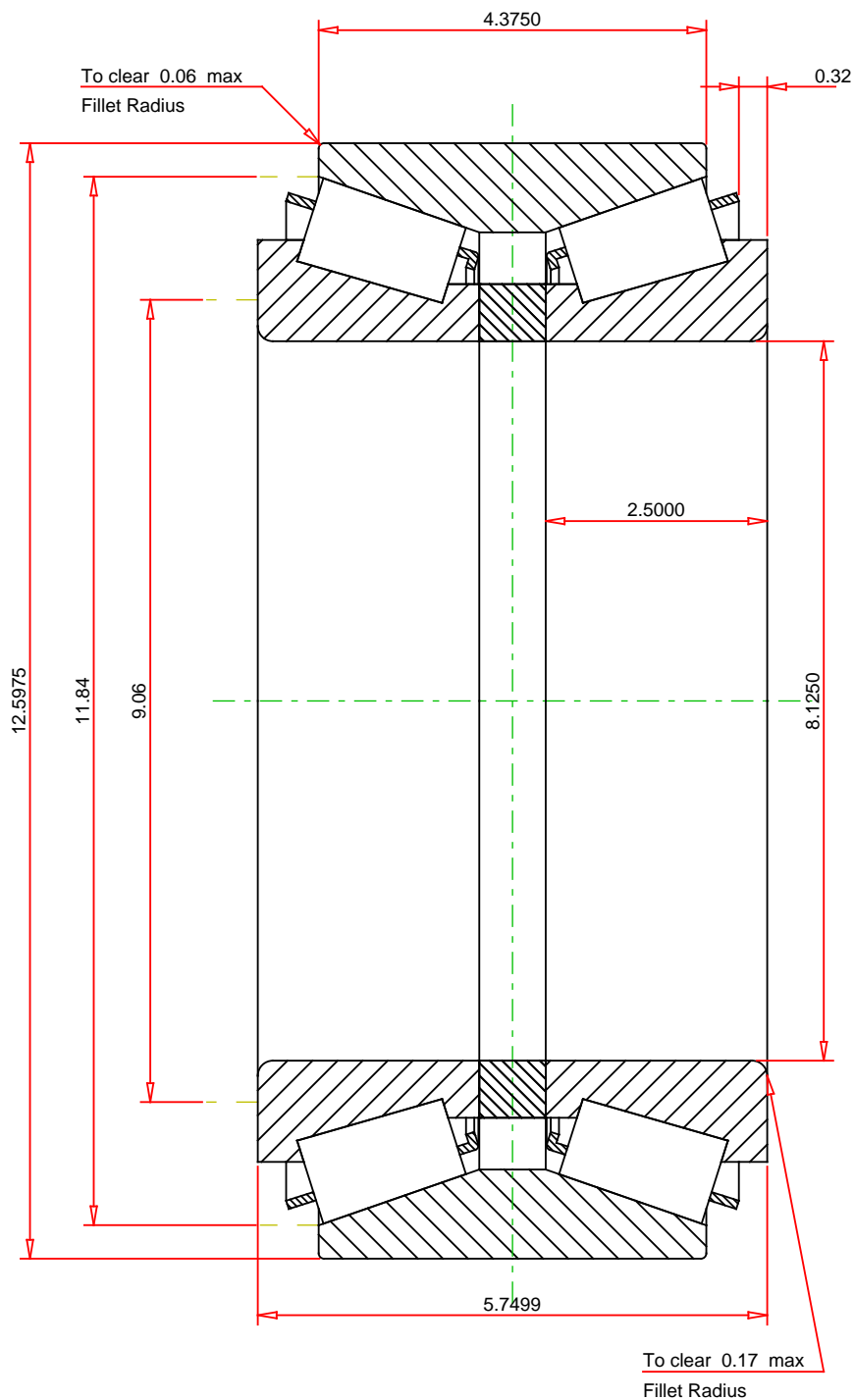
⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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

¹¹ Geometry constant for Lubrication Life Adjustment Factor a_3 .



IMPERIAL UNITS

ISO Factor - e	0.52
ISO Factor - Y1	1.29
ISO Factor - Y2	1.92
Bearing Weight	84.23 lb
Number of Rollers Per Row	29

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

93812 - 93128XD
TDO BEARING ASSEMBLY

K Factor	1.12
Dynamic Radial Rating - C90	42600 lbf
Dynamic Thrust Rating - Ca90	38200 lbf
Dynamic Radial Rating - C90(2)	74200 lbf
Radial Rating - C1	286000 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