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Timken Part Number 395 - 394D, 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	395
Cone Part Number	395
Cup Part Number	394D
Design Units	Imperial
Bearing Weight	3.99 lb 1.808 Kg
Cage Type	Stamped Steel
Ab - Cage-Cone Frontface Clearance	0.11 in 2.8 mm

Dimensions

d - Bore	2.5000 in 63.500 mm
D - Cup Outer Diameter	4.3307 in 110.000 mm
B - Cone Width	0.8660 in 21.996 mm
C - Double Cup Width	1.8125 in 46.038 mm
T - Bearing Width across Cones	2.0624 in 52.385 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.14 in 3.600 mm
r - Cup Frontface "To Clear" Radius[2]	0.03 in 0.8 mm
db - Cone Backface Backing Diameter	3.03 in 77.00 mm
Da - Cup Frontface Backing Diameter	4.12 in 104.65 mm
Aa - Cage-Cone Backface Clearance	0.05 in 1.3 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (One-Row, 90 million revolutions)[3]	5760 lbf 25600 N
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)[4]	38700 lbf 172000 N

C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)[5]	10000 lbf 44600 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	3970 lbf 17600 N

Factors

K - Factor[7]	1.45
e - ISO Factor[8]	0.87
Y1 - ISO Factor[9]	0.78 1.16
Y2 - ISO Factor[10]	1.16
G1 - Heat Generation Factor (Roller-Raceway)[11]	56
G2 - Heat Generation Factor (Rib-Roller End)	21.4
Cg - Geometry Factor[12]	0.0984

[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 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.

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

[5] 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.

[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.

[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

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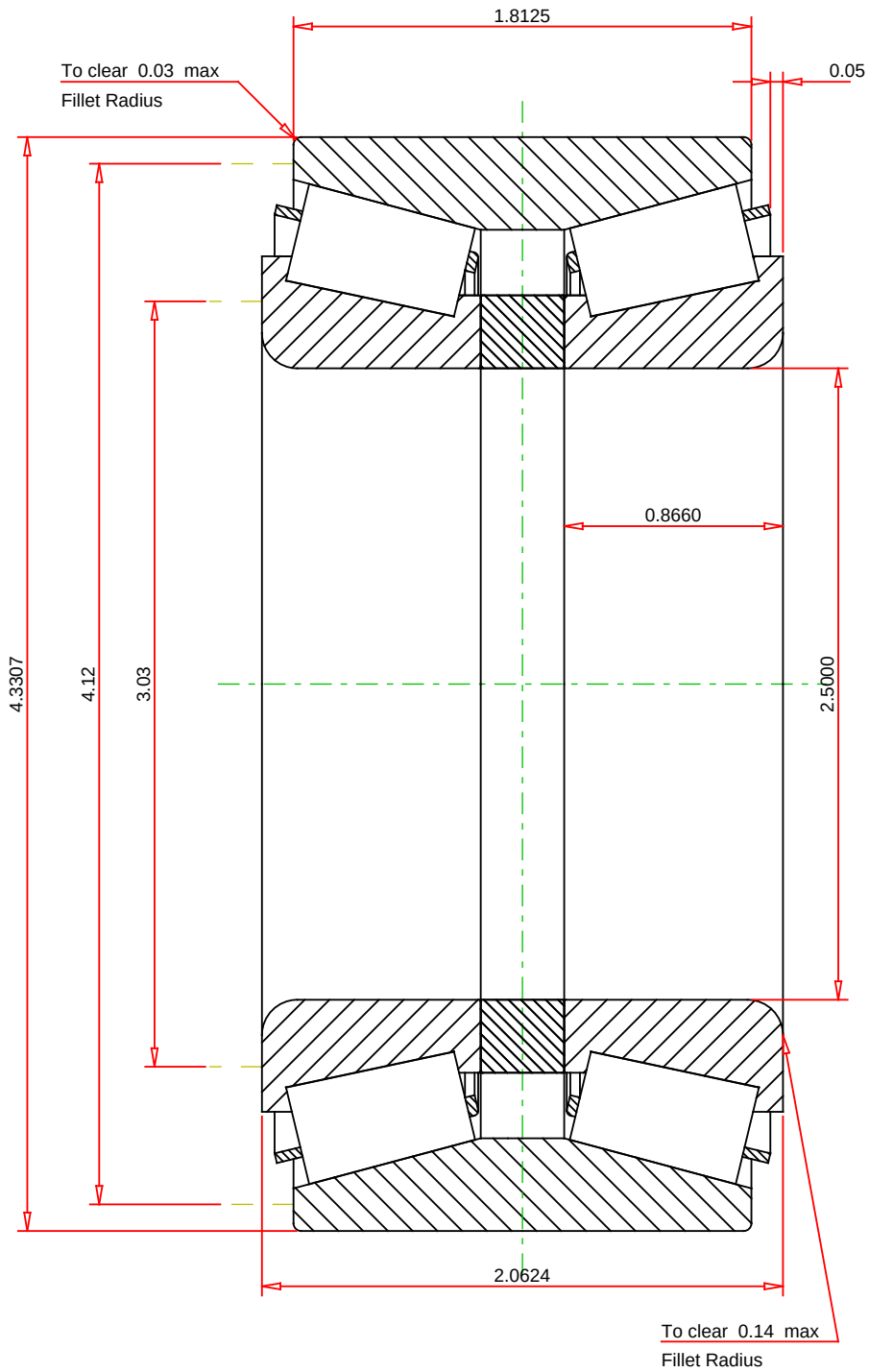
[10] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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

[12] Geometry constant for Lubrication Life Adjustment Factor a3l.



IMPERIAL UNITS

ISO Factor - e	0.87	
ISO Factor - Y1	0.78	
ISO Factor - Y2	1.16	
Bearing Weight	3.99	lb
Number of Rollers Per Row	22	

TIMKEN®

395 - 394D

TDO BEARING ASSEMBLY

K Factor	1.45	
Dynamic Radial Rating - C90	5760	lbf
Dynamic Thrust Rating - Ca90	3970	lbf
Dynamic Radial Rating - C90(2)	10000	lbf
Radial Rating - C1	38700	lbf

THE TIMKEN COMPANY

NORTH CANTON, OHIO USA

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