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Timken Part Number M268749 - M268710CD, 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	M268700
Cone Part Number	M268749
Cup Part Number	M268710CD
Design Units	Imperial
Bearing Weight	448.48 lb 203.426 Kg
Cage Type	Pin-Type
Ab - Cage-Cone Frontface Clearance	0.33 in 8.4 mm

Dimensions

d - Bore	16.3750 in 415.925 mm
D - Cup Outer Diameter	23.2500 in 590.550 mm
B - Cone Width	4.5000 in 114.300 mm
C - Double Cup Width	7.6250 in 193.675 mm
T - Bearing Width across Cones	9.6249 in 244.472 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.25 in 6.400 mm
r - Cup Frontface "To Clear" Radius[2]	0.06 in 1.5 mm
db - Cone Backface Backing Diameter	17.76 in 451.10 mm
Da - Cup Frontface Backing Diameter	22.14 in 562.36 mm
Aa - Cage-Cone Backface Clearance	0.34 in 8.6 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (One-Row, 90 million revolutions)[3]	166000 lbf 740000 N
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)[4]	1120000 lbf 4970000 N

C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)[5]	290000 lbf 1290000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	94800 lbf 421000 N

Factors

K - Factor[7]	1.76
e - ISO Factor[8]	0.7
Y1 - ISO Factor[9]	0.97 1.44
Y2 - ISO Factor[10]	1.44
Cg - Geometry Factor[11]	0.232

[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.

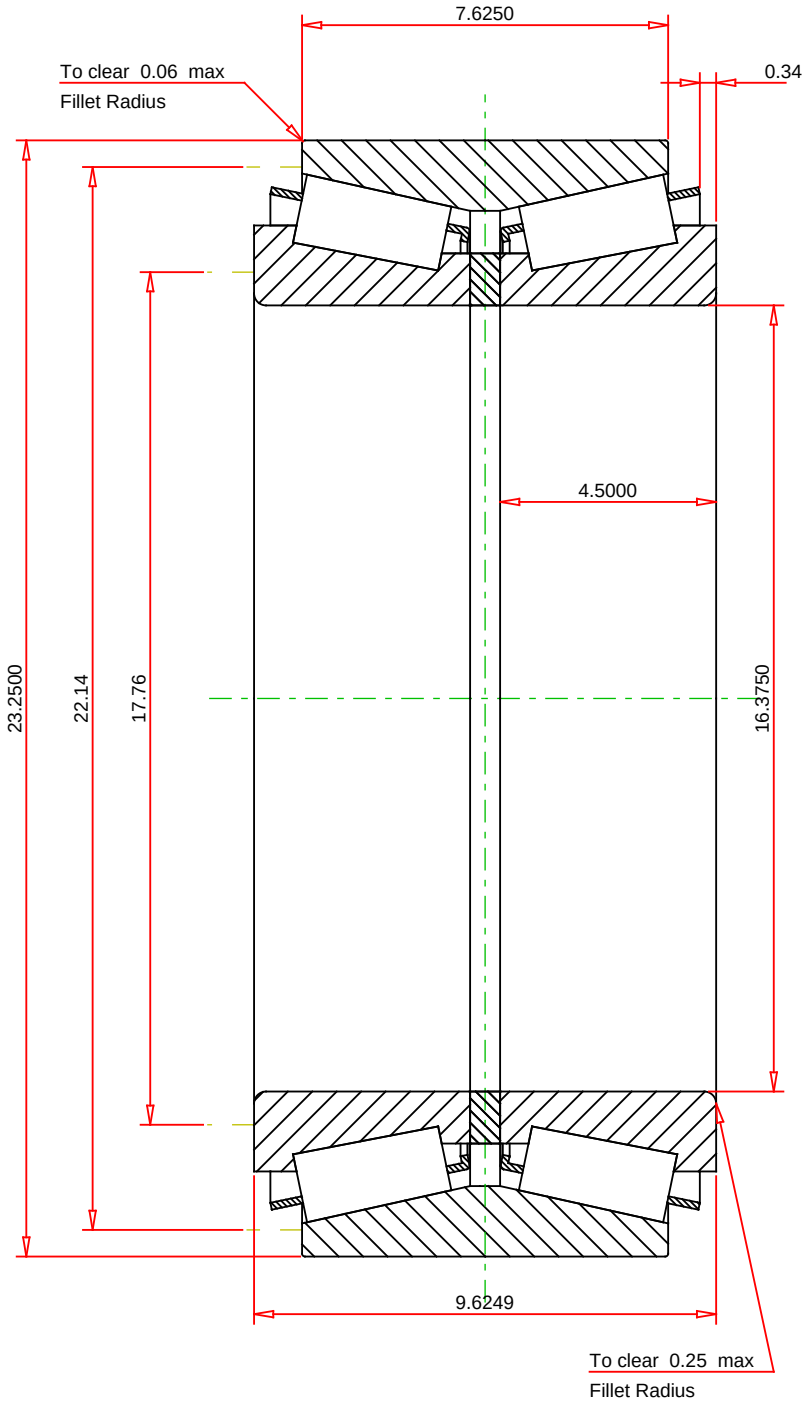
[7] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

[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 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 a3l.



IMPERIAL UNITS

ISO Factor - e	0.7	
ISO Factor - Y1	0.97	
ISO Factor - Y2	1.44	
Bearing Weight	448.48	lb
Number of Rollers Per Row	36	

TIMKEN®

M268749 - M268710CD

TDO BEARING ASSEMBLY

K Factor	1.76	
Dynamic Radial Rating - C90	166000	lbf
Dynamic Thrust Rating - Ca90	94800	lbf
Dynamic Radial Rating - C90(2)	290000	lbf
Radial Rating - C1	1120000	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