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Timken Part Number H242649 - H242610CD, 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	H242600
Cone Part Number	H242649
Cup Part Number	H242610CD
Design Units	Imperial
Bearing Weight	150.02 lb 68.050 Kg
Cage Type	Stamped Steel
Ab - Cage-Cone Frontface Clearance	0.12 in 3 mm

Dimensions

d - Bore	8.1250 in 206.375 mm
D - Cup Outer Diameter	13.2500 in 336.550 mm
B - Cone Width	3.9375 in 100.013 mm
C - Double Cup Width	6.6875 in 169.863 mm
T - Bearing Width across Cones	8.3125 in 211.138 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.130 in 3.300 mm
r - Cup Frontface "To Clear" Radius[2]	0.06 in 1.5 mm
db - Cone Backface Backing Diameter	9.09 in 230.90 mm
Da - Cup Frontface Backing Diameter	12.52 in 318.00 mm
Aa - Cage-Cone Backface Clearance	0.41 in 10.4 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (One-Row, 90 million revolutions)[3]	79000 lbf 351000 N
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)[4]	530000 lbf 2360000 N

C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)[5]	137000 lbf 612000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	45000 lbf 200000 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
G1 - Heat Generation Factor (Roller-Raceway)[11]	1400
G2 - Heat Generation Factor (Rib-Roller End)	135
Cg - Geometry Factor[12]	0.147

[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.

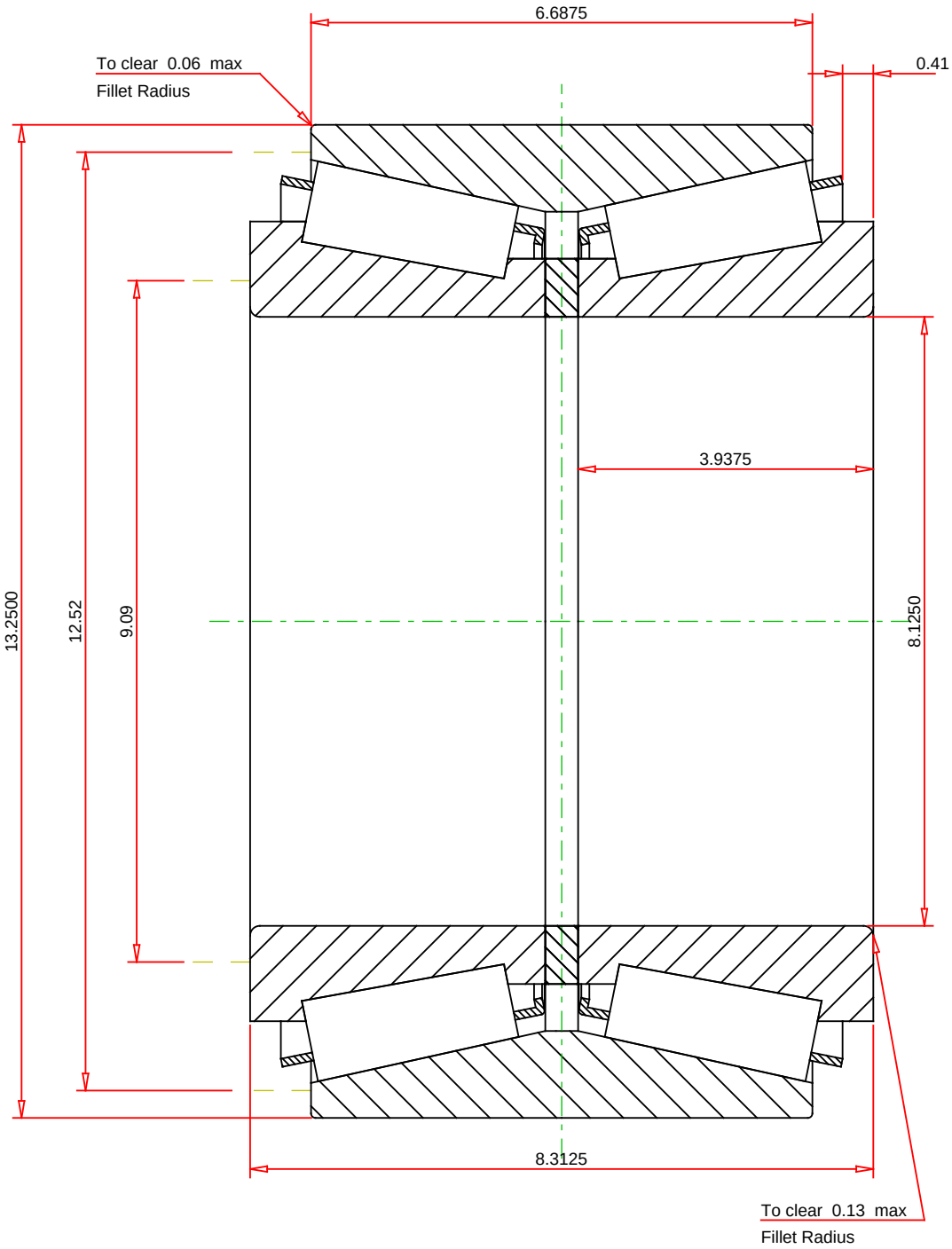
[9] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction

on use.

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

[11] 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	0.7	
ISO Factor - Y1	0.97	
ISO Factor - Y2	1.44	
Bearing Weight	150.02	lb
Number of Rollers Per Row	24	

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

H242649 - H242610CD
TDO BEARING ASSEMBLY

K Factor	1.76	
Dynamic Radial Rating - C90	79000	lbf
Dynamic Thrust Rating - Ca90	45000	lbf
Dynamic Radial Rating - C90(2)	137000	lbf
Radial Rating - C1	530000	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