



The Timken Company

4500 Mt Pleasant St. NW

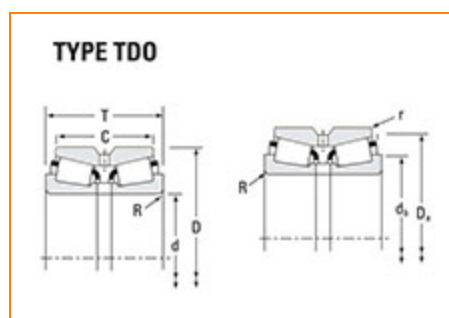
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Part Number 567 - 563D, Tapered Roller Bearings - TDO (Tapered Double Outer) Imperial

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	565
Cone Part Number	567
Cup Part Number	563D
Design Units	Imperial
Bearing Weight	8.46 lb 3.837 Kg
Cage Type	Stamped Steel
Ab - Cage-Cone Frontface Clearance	0.11 in 2.8 mm
Alternate Part Name	567-563D

Dimensions

d - Bore	2.8750 in 73.025 mm
D - Cup Outer Diameter	5 in 127 mm
B - Cone Width	1.4240 in 36.170 mm
C - Double Cup Width	2.5625 in 65.088 mm
T - Bearing Width across Cones	3.1874 in 80.960 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.14 in 3.600 mm
r - Cup Frontface "To Clear" Radius²	0.06 in 1.5 mm
db - Cone Backface Backing Diameter	3.46 in 87.90 mm
Da - Cup Frontface Backing Diameter	4.72 in 119.13 mm
Aa - Cage-Cone Backface Clearance	0.1 in 2.5 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (One-Row, 90 million revolutions)³	11400 lbf 50900 N
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)³	76900 lbf 342000 N

revolutions) ⁴	572000 N
C ₉₀₍₂₎ - Dynamic Radial Rating (Two-Row, 90 million revolutions) ⁵	19900 lbf 88600 N
C _{a90} - Dynamic Thrust Rating (90 million revolutions) ⁶	7130 lbf 31700 N

Factors

K - Factor ⁷	1.61
e - ISO Factor ⁸	0.36
Y1 - ISO Factor ⁹	1.86
Y2 - ISO Factor ¹⁰	2.76
C _g - Geometry Factor ¹¹	0.117

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.

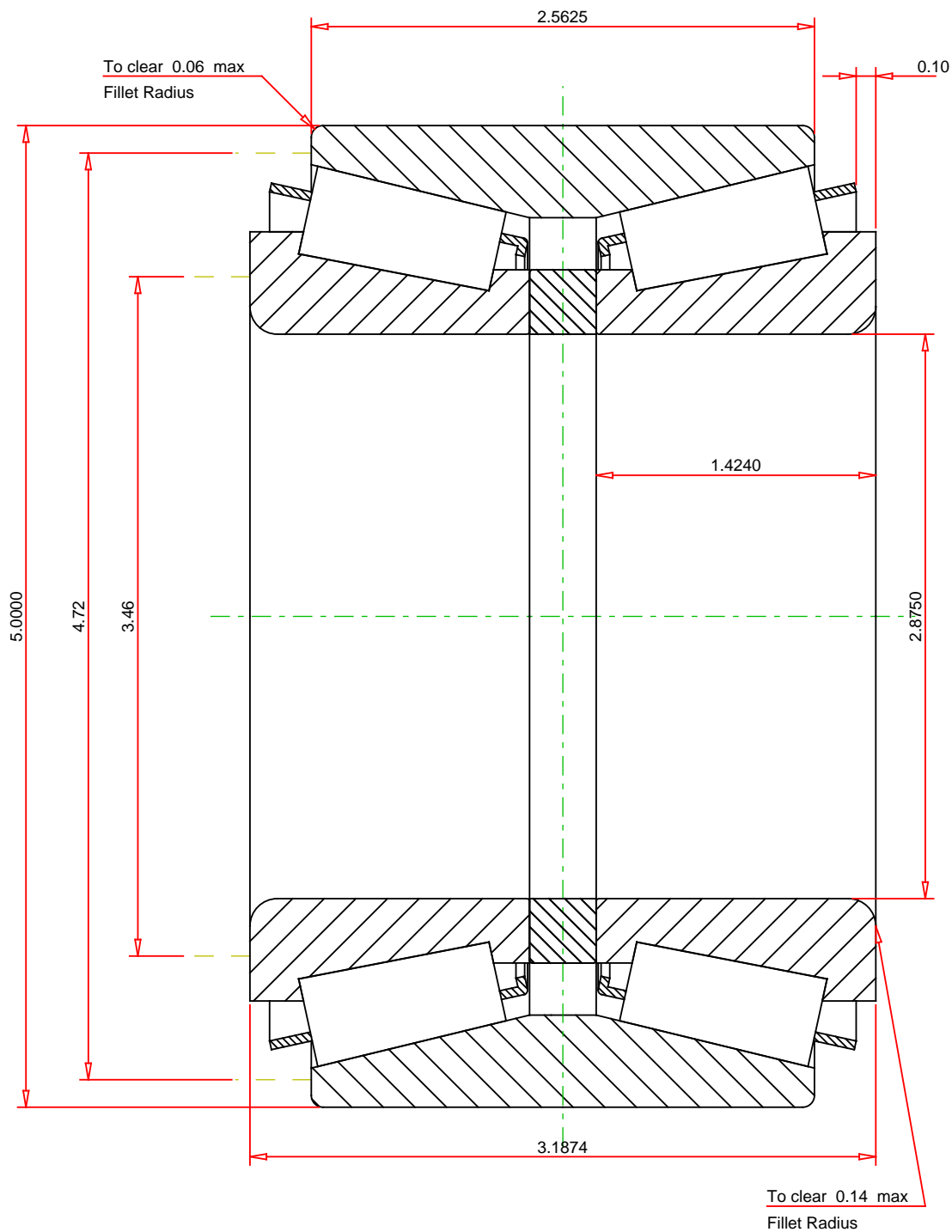
⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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	0.36
ISO Factor - Y1	1.86
ISO Factor - Y2	2.76
Bearing Weight	8.46
Number of Rollers Per Row	20

lb

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

567 - 563D TDO BEARING ASSEMBLY

K Factor	1.61	
Dynamic Radial Rating - C90	11400	lbf
Dynamic Thrust Rating - Ca90	7130	lbf
Dynamic Radial Rating - C90(2)	19900	lbf
Radial Rating - C1	76900	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