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

Timken Part Number 567-S - 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-S
Cup Part Number	563D
Design Units	Imperial
Bearing Weight	8.57 lb 3.887 Kg
Cage Type	Stamped Steel
Ab - Cage-Cone Frontface Clearance	0.11 in 2.8 mm

Dimensions

d - Bore	2.8125 in 71.438 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" 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	3.62 in 91.90 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)[4]	76900 lbf 342000 N

C90(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]	0.77
Y1 - ISO Factor[9]	0.87 1.30
Y2 - ISO Factor[10]	1.3
G1 - Heat Generation Factor (Roller-Raceway)[11]	101
G2 - Heat Generation Factor (Rib-Roller End)	24
Cg - Geometry Factor[12]	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 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.

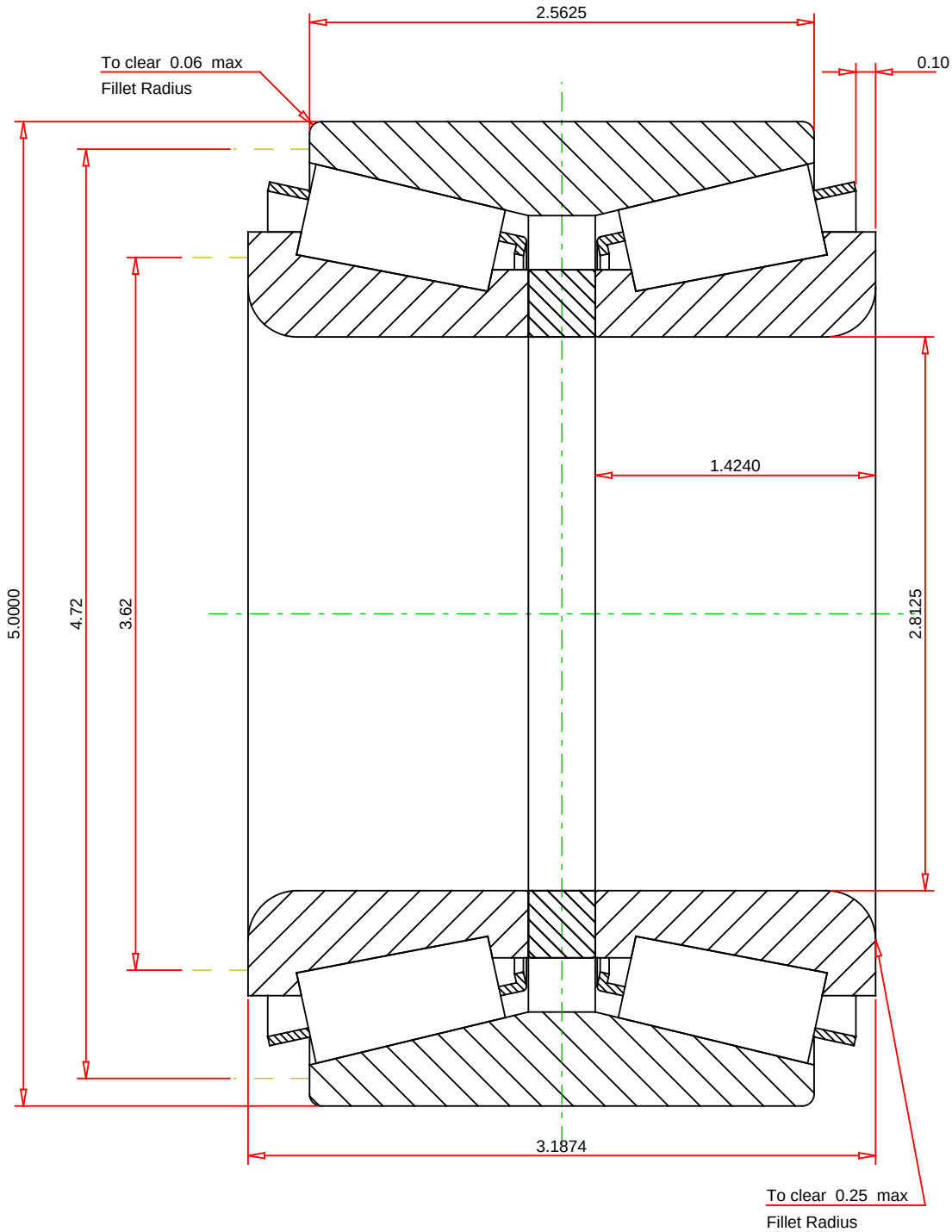
[9] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction

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	0.77	
ISO Factor - Y1	0.87	
ISO Factor - Y2	1.3	
Bearing Weight	8.57	lb
Number of Rollers Per Row	20	

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

567-S - 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

FOR DISCUSSION ONLY