The Timken Company
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Timken Part Number NA483SW - 472D, 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	475
Cone Part Number	NA483SW
Cup Part Number	472D
Design Units	Imperial
Bearing Weight	6.680 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	2.7559 in 70 mm

D - Cup Outer Diameter	4.7244 in 120.000 mm
B - Cone Width	1.4688 in 37.308 mm
C - Double Cup Width	2.125 in 53.975 mm
T - Bearing Width across Cones	2.9376 in 74.615 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.14 in 3.556 mm
r - Cup Frontface "To Clear" Radius[2]	0.03 in 0.762 mm
db - Cone Backface Backing Diameter	3.27 in 83.058 mm
Da - Cup Frontface Backing Diameter	4.49 in 114.046 mm
Aa - Cage-Cone Backface Clearance	0.22 in 5.588 mm

Basic Load Ratings

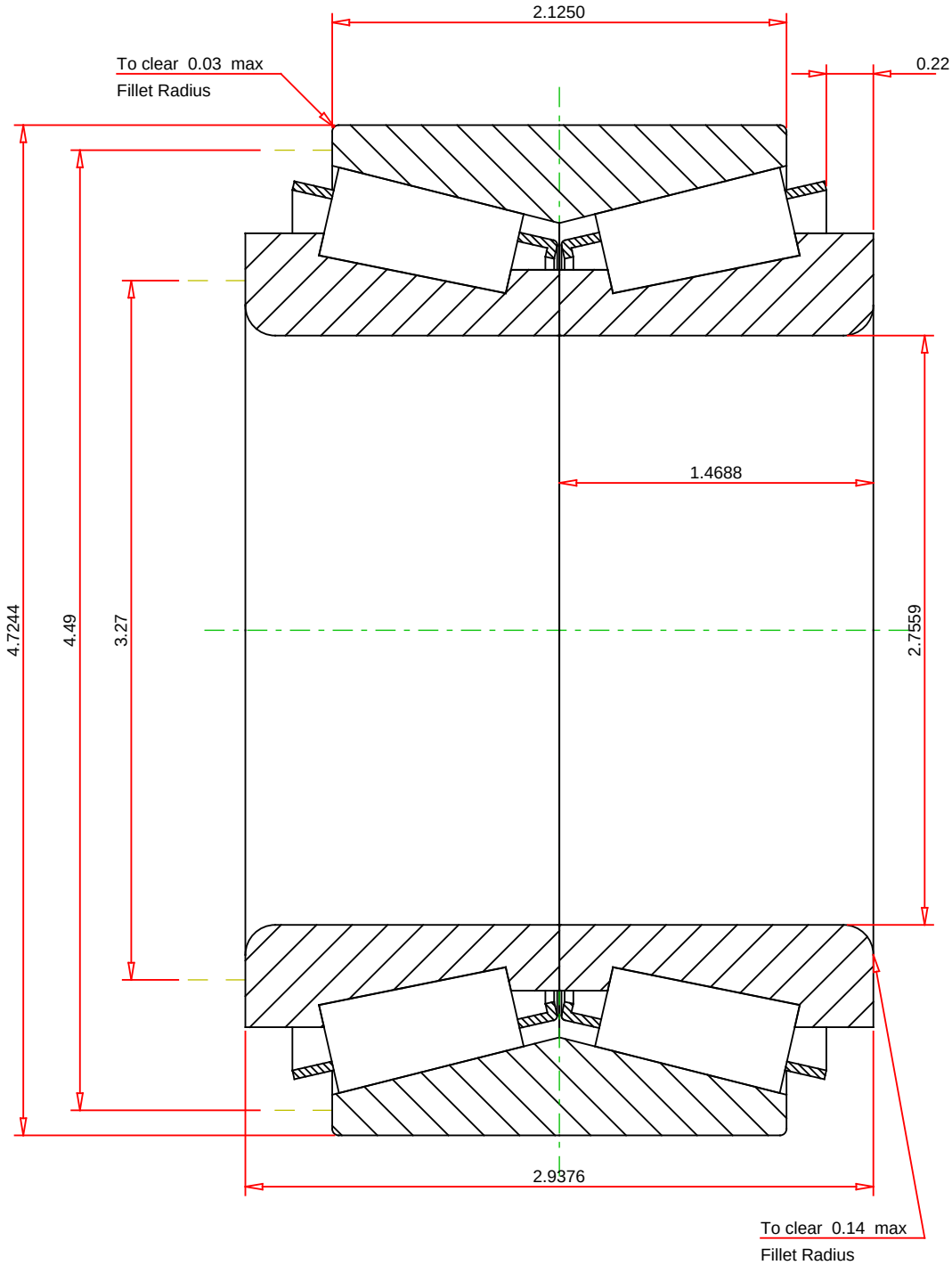
C90 - Dynamic Radial Rating (One-Row, 90 million revolutions)[3]	8360 lbf 37202 N
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)[4]	56100 lbf 249645 N
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)[5]	14600 lbf 64970 N

C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	5500 lbf 24475 N

Factors

K - Factor[7]	1.52
e - ISO Factor[8]	0.39
Y1 - ISO Factor[9]	1.75
Y2 - ISO Factor[10]	2.61
G1 - Heat Generation Factor (Roller-Raceway)[11]	77.2
G2 - Heat Generation Factor (Rib-Roller End)	23

[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.



IMPERIAL UNITS

ISO Factor - e	0.39	
ISO Factor - Y1	1.75	
ISO Factor - Y2	2.61	
Bearing Weight	6.68	lb
Number of Rollers Per Row	20	

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

NA483SW - 472D
TDO BEARING ASSEMBLY

K Factor	1.52	
Dynamic Radial Rating - C90	8360	lbf
Dynamic Thrust Rating - Ca90	5500	lbf
Dynamic Radial Rating - C90(2)	14600	lbf
Radial Rating - C1	56100	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