


The Timken Company

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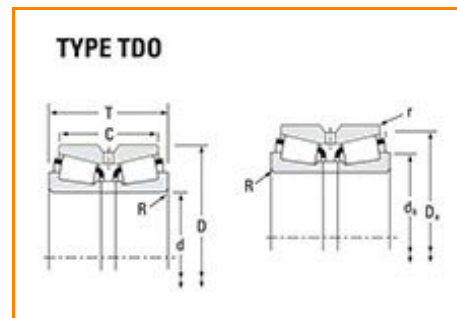
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number 14136A - 14276D, 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.

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Specifications

Series	14000
Cone Part Number	14136A
Cup Part Number	14276D
Design Units	Imperial
Bearing Weight	1.66 lb

Cage Type	Stamped Steel
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Ab - Cage-Cone Frontface Clearance	0.07 in
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Dimensions

d - Bore	1.3750 in
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D - Cup Outer Diameter	2.7170 in
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B - Cone Width	1.0520 in
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C - Double Cup Width	1.5000 in
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T - Bearing Width across Cones	2.3746 in
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Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.03 in
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r - Cup Frontface "To Clear" Radius²	0.03 in
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db - Cone Backface Backing Diameter	1.59 in
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Da - Cup Frontface Backing Diameter	2.52 in
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Aa - Cage-Cone Backface Clearance	0.31 in
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Basic Load Ratings

C90 - Dynamic Radial Rating (One-Row, 90 million revolutions)³	3180 lbf 14200 N
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C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)⁴	21400 lbf 95100 N
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C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)⁵	5540 lbf 24600 N
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C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	2080 lbf 9260 N
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Factors

K - Factor⁷	1.53
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e - ISO Factor⁸	0.82
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Y1 - ISO Factor⁹	0.83 1.23
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Y2 - ISO Factor¹⁰	1.23
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Cg - Geometry Factor¹¹	0.0668
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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.

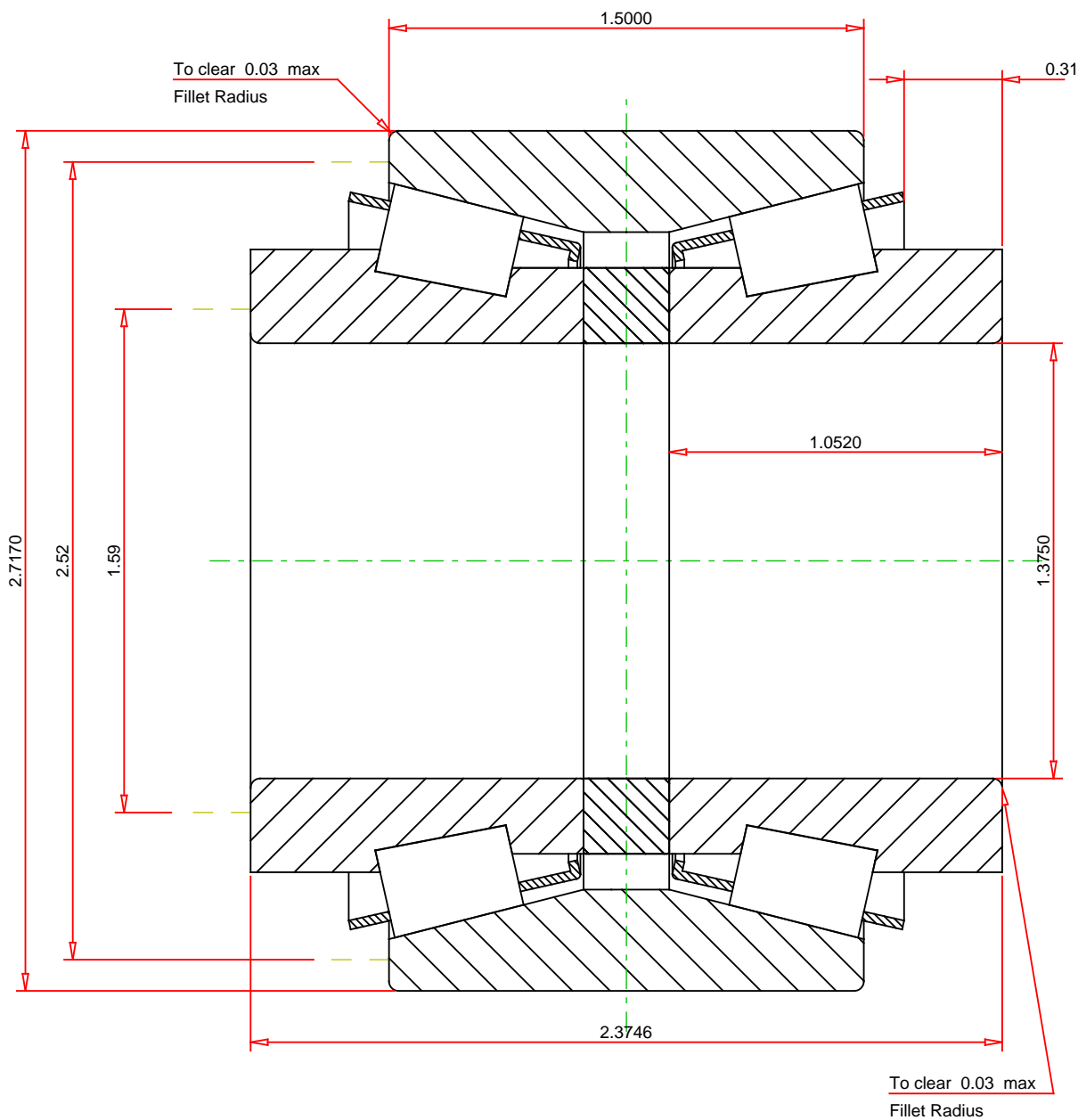
⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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		0.82	lb		14136A - 14276D				
ISO Factor - Y1		0.83			TDO BEARING ASSEMBLY				
ISO Factor - Y2		1.23							
Bearing Weight		1.66							
Number of Rollers Per Row		17							
									
					K Factor			1.53	
					Dynamic Radial Rating - C90			3180	lbf
					Dynamic Thrust Rating - Ca90			2080	lbf
					Dynamic Radial Rating - C90(2)			5540	lbf
				Radial Rating - C1			21400	lbf	