TIMKEN

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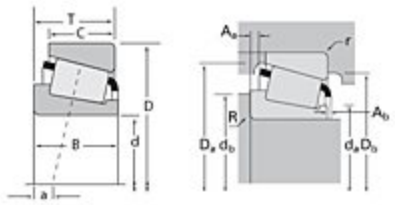
Timken Part Number 56426 - 56650, Tapered Roller Bearings - TS (Tapered Single) Imperial

This is the most basic and most widely used type of tapered roller bearing. It consists of two main separable parts: the cone (inner ring) assembly and the cup (outer ring). It is typically mounted in opposing pairs on a shaft.





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Specifications

Series	56000
Cone Part Number	56426
Cup Part Number	56650
Design Units	Imperial
Bearing Weight	2.600 Kg 5.70 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	107.95 mm 4.25 in
D - Cup Outer Diameter	165.1 mm 6.5 in

B - Cone Width	36.513 mm 1.4375 in
C - Cup Width	26.988 mm 1.0625 in
T - Bearing Width	36.513 mm 1.4375 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	7.870 mm 0.310 in
r - Cup Backface "To Clear" Radius[2]	3.30 mm 0.130 in
da - Cone Frontface Backing Diameter	117.09 mm 5.47 in
db - Cone Backface Backing Diameter	132.08 mm 5.20 in
Da - Cup Frontface Backing Diameter	160.00 mm 6.30 in
Db - Cup Backface Backing Diameter	149.10 mm 5.87 in
Ab - Cage-Cone Frontface Clearance	2 mm 0.08 in
Aa - Cage-Cone Backface Clearance	3.6 mm 0.14 in
a - Effective Center Location[3]	2.00 mm 0.08 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	58700 N 13200 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	226000 N 50900 lbf
C0 - Static Radial Rating	355000 N 79700 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	50000 N 11200 lbf

Factors

K - Factor[7]	1.18
e - ISO Factor[8]	0.5
Y - ISO Factor[9]	1.21
G1 - Heat Generation Factor (Roller-Raceway)	191
G2 - Heat Generation Factor (Rib-Roller End)	47.7
Cg - Geometry Factor	0.158

[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] Negative value indicates effective center inside cone backface.
[4] 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.
[5] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[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.
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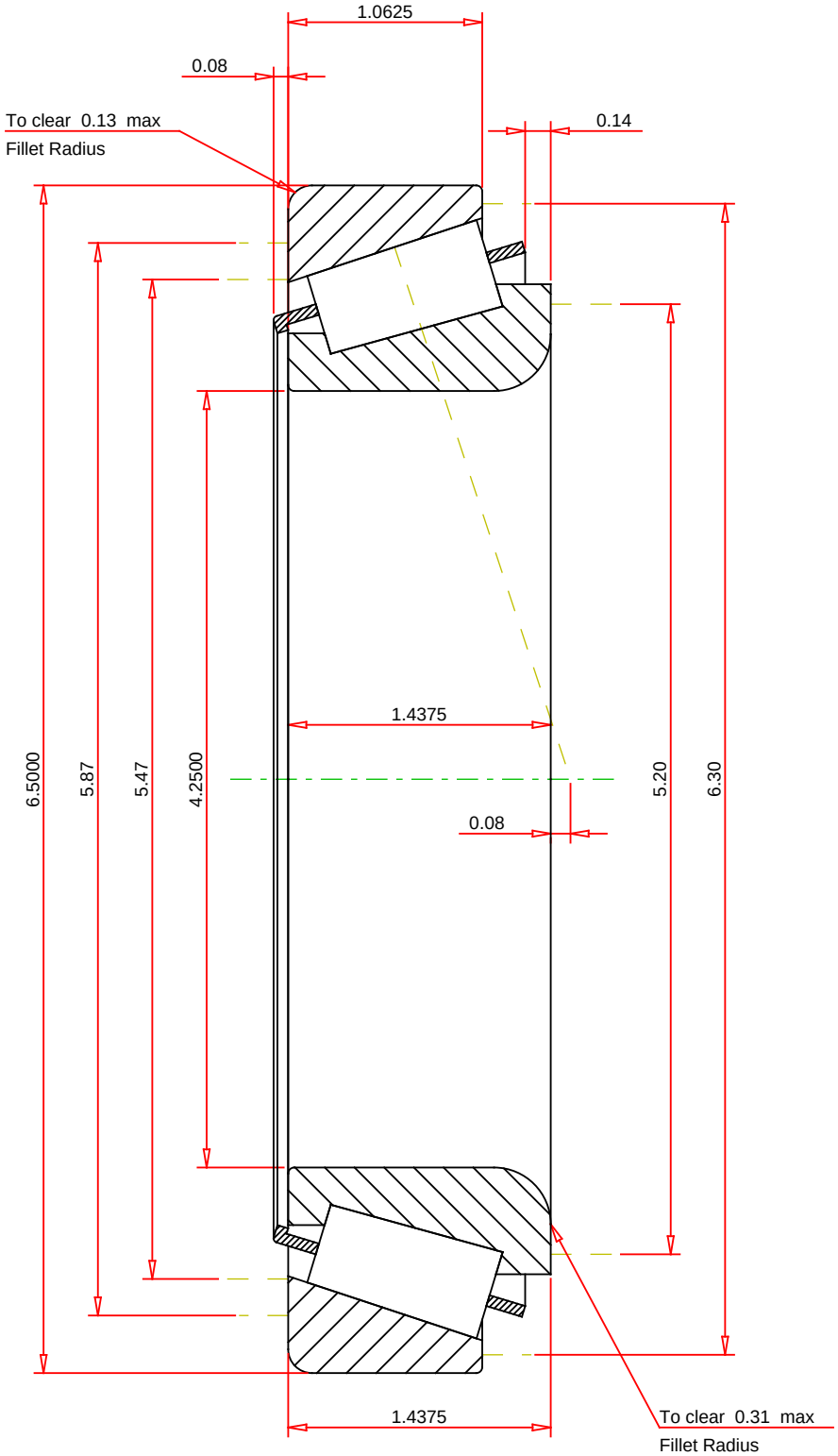

IMPERIAL UNITS

ISO Factor - e	0.5	
ISO Factor - Y	1.21	
Bearing Weight	5.7	lb
Number of Rollers Per Row	27	
Effective Center Location	0.08	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

56426 - 56650
TS BEARING ASSEMBLY

K Factor	1.18	
Dynamic Radial Rating - C90	58700	lbf
Dynamic Thrust Rating - Ca90	50000	lbf
Static Radial Rating - C0	355000	lbf
Dynamic Radial Rating - C1	226000	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