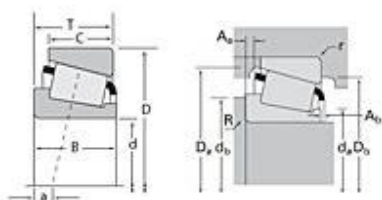


TIMKEN

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Timken Part Number 37431A - 37625, 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.



[Specifications](#) | [Dimensions](#) | [Abutment and Fillet Dimensions](#) | [Basic Load Ratings](#) | [Factors](#)

Specifications

Series	37000
Cone Part Number	37431A
Cup Part Number	37625
Design Units	Imperial
Bearing Weight	2.90 lb 1.300 Kg
Cage Type	Stamped Steel

Dimensions

d - Bore	4.3125 in 109.538 mm
D - Cup Outer Diameter	6.2500 in 158.750 mm

B - Cone Width	0.8440 in 21.438 mm
C - Cup Width	0.6250 in 15.875 mm
T - Bearing Width	0.9063 in 23.020 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.200 in 5.080 mm
r - Cup Backface "To Clear" Radius²	0.130 in 3.30 mm
da - Cone Frontface Backing Diameter	5.47 in 117.09 mm
db - Cone Backface Backing Diameter	4.96 in 125.98 mm
Da - Cup Frontface Backing Diameter	6.00 in 151.90 mm
Db - Cup Backface Backing Diameter	5.63 in 143.00 mm
Ab - Cage-Cone Frontface Clearance	0.15 in 3.8 mm
Aa - Cage-Cone Backface Clearance	0.08 in 2 mm
a - Effective Center Location³	0.54 in 13.70 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	7960 lbf 35400 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	30700 lbf 137000 N
C0 - Static Radial Rating	40100 lbf 179000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	8250 lbf 36700 N

Factors

K - Factor⁷	0.96
e - ISO Factor⁸	0.61
Y - ISO Factor⁹	0.99
G1 - Heat Generation Factor (Roller-Raceway)	124
G2 - Heat Generation Factor (Rib-Roller End)	57
Cg - Geometry Factor	0.144

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 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

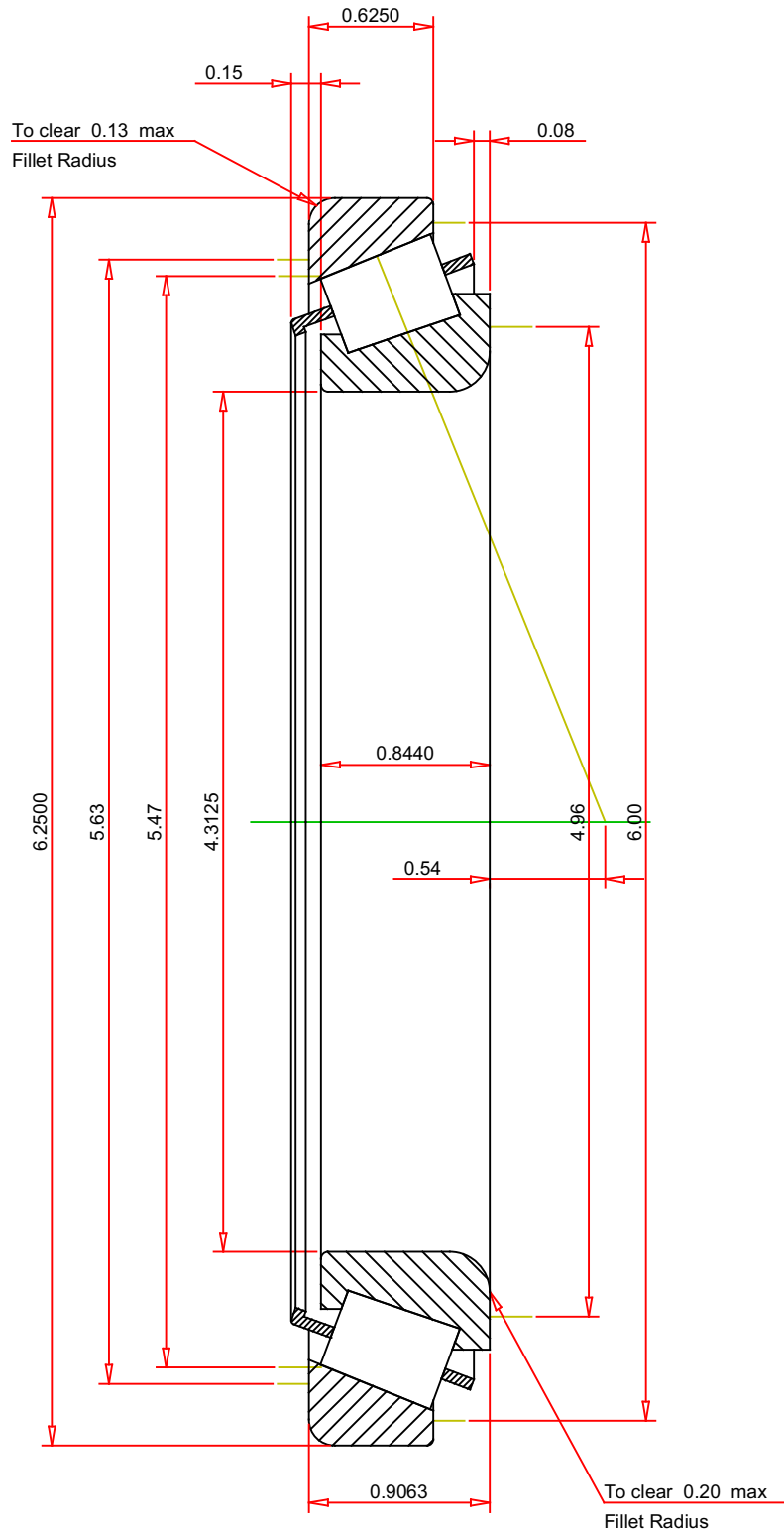
⁵ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

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.



IMPERIAL UNITS

ISO Factor - e	0.61
ISO Factor - Y	0.99
Bearing Weight	2.9 lb
Number of Rollers Per Row	32
Effective Center Location	0.54 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

37431A - 37625
TS BEARING ASSEMBLY

K Factor	0.96
Dynamic Radial Rating - C90	7960 lbf
Dynamic Thrust Rating - Ca90	8250 lbf
Static Radial Rating - C0	40100 lbf
Dynamic Radial Rating - C1	30700 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