



The Timken Company

4500 Mt Pleasant St. NW

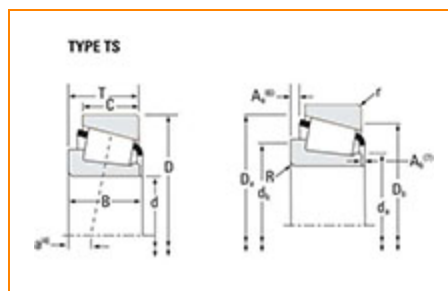
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Part Number 66225 - 66462, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	66000
Cone Part Number	66225
Cup Part Number	66462
Design Units	Imperial
Bearing Weight	1.5 Kg 3.3 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	57.150 mm 2.2500 in
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D - Cup Outer Diameter	117.475 mm 4.6250 in
B - Cone Width	31.750 mm 1.2500 in
C - Cup Width	23.813 mm 0.9375 in
T - Bearing Width	33.338 mm 1.3125 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius²	3.3 mm 0.130 in
da - Cone Frontface Backing Diameter	68.83 mm 2.71 in
db - Cone Backface Backing Diameter	75.95 mm 2.99 in
Da - Cup Frontface Backing Diameter	112.00 mm 4.41 in
Db - Cup Backface Backing Diameter	100.08 mm 3.94 in
Ab - Cage-Cone Frontface Clearance	2.8 mm 0.11 in
Aa - Cage-Cone Backface Clearance	4.3 mm 0.17 in
a - Effective Center Location³	-0.3 mm -0.01 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	10300 lbf 45800 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	39700 lbf 177000 N
C0 - Static Radial Rating	37300 lbf 166000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	11000 lbf 49100 N

Factors

K - Factor⁷	0.93
e - ISO Factor⁸	0.63
Y - ISO Factor⁹	0.96
G1 - Heat Generation Factor (Roller-Raceway)	50.2
G2 - Heat Generation Factor (Rib-Roller End)	16.4
Cg - Geometry Factor¹⁰	0.0751

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.

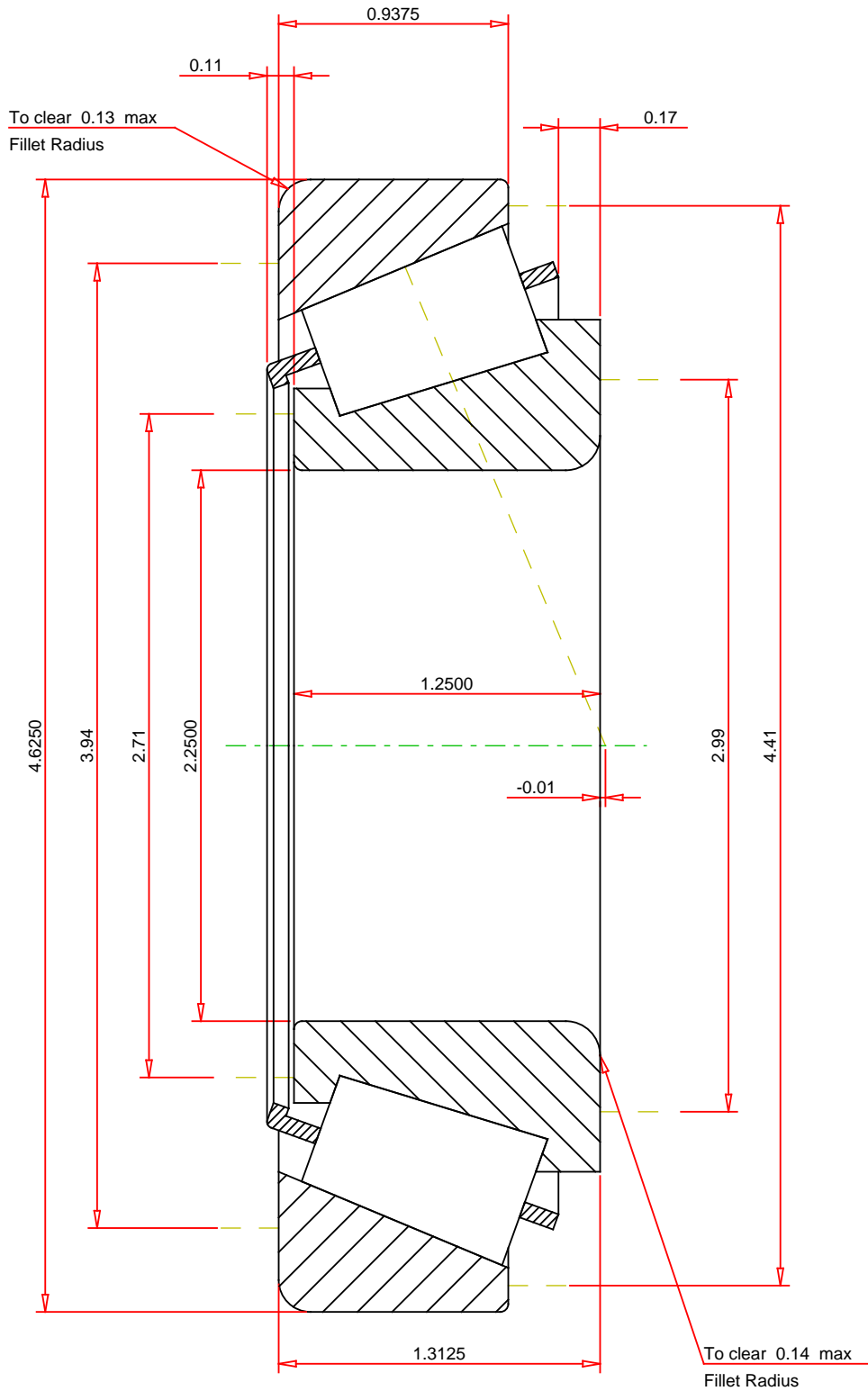
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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.

¹⁰ Geometry constant for Lubrication Life Adjustment Factor a_3 .



IMPERIAL UNITS

ISO Factor - e 0.63
ISO Factor - Y 0.96
Bearing Weight 3.3 lb
Number of Rollers Per Row 16
Effective Center Location -0.01 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

66225 - 66462
TS BEARING ASSEMBLY

K Factor 0.93
Dynamic Radial Rating - C90 10300 lbf
Dynamic Thrust Rating - Ca90 11000 lbf
Static Radial Rating - C0 37300 lbf
Dynamic Radial Rating - C1 39700 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