



The Timken Company

4500 Mt Pleasant St. NW

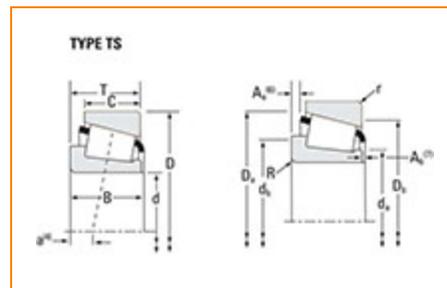
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Timken Part Number 17118 - 17244, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	17000
Cone Part Number	17118
Cup Part Number	17244
Design Units	Imperial
Bearing Weight	0.20 Kg 0.5 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	29.987 mm 1.1806 in
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D - Cup Outer Diameter	61.999 mm 2.4409 in
B - Cone Width	16.566 mm 0.6522 in
C - Cup Width	14.288 mm 0.5625 in
T - Bearing Width	16.002 mm 0.6300 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	1.520 mm 0.06 in
r - Cup Backface "To Clear" Radius²	1.52 mm 0.06 in
da - Cone Frontface Backing Diameter	34.54 mm 1.36 in
db - Cone Backface Backing Diameter	38.5 mm 1.52 in
Da - Cup Frontface Backing Diameter	57.40 mm 2.26 in
Db - Cup Backface Backing Diameter	54.10 mm 2.13 in
Ab - Cage-Cone Frontface Clearance	2.5 mm 0.1 in
Aa - Cage-Cone Backface Clearance	-0.5 mm -0.02 in
a - Effective Center Location³	-3.6 mm -0.14 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	2520 lbf 11200 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	9720 lbf 43200 N
C0 - Static Radial Rating	9910 lbf 44100 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	1650 lbf 7340 N

Factors

K - Factor⁷	1.53
e - ISO Factor⁸	0.38
Y - ISO Factor⁹	1.57
G1 - Heat Generation Factor (Roller-Raceway)	11.8
G2 - Heat Generation Factor (Rib-Roller End)	7.49
C_g - Geometry Factor¹⁰	0.0579

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.

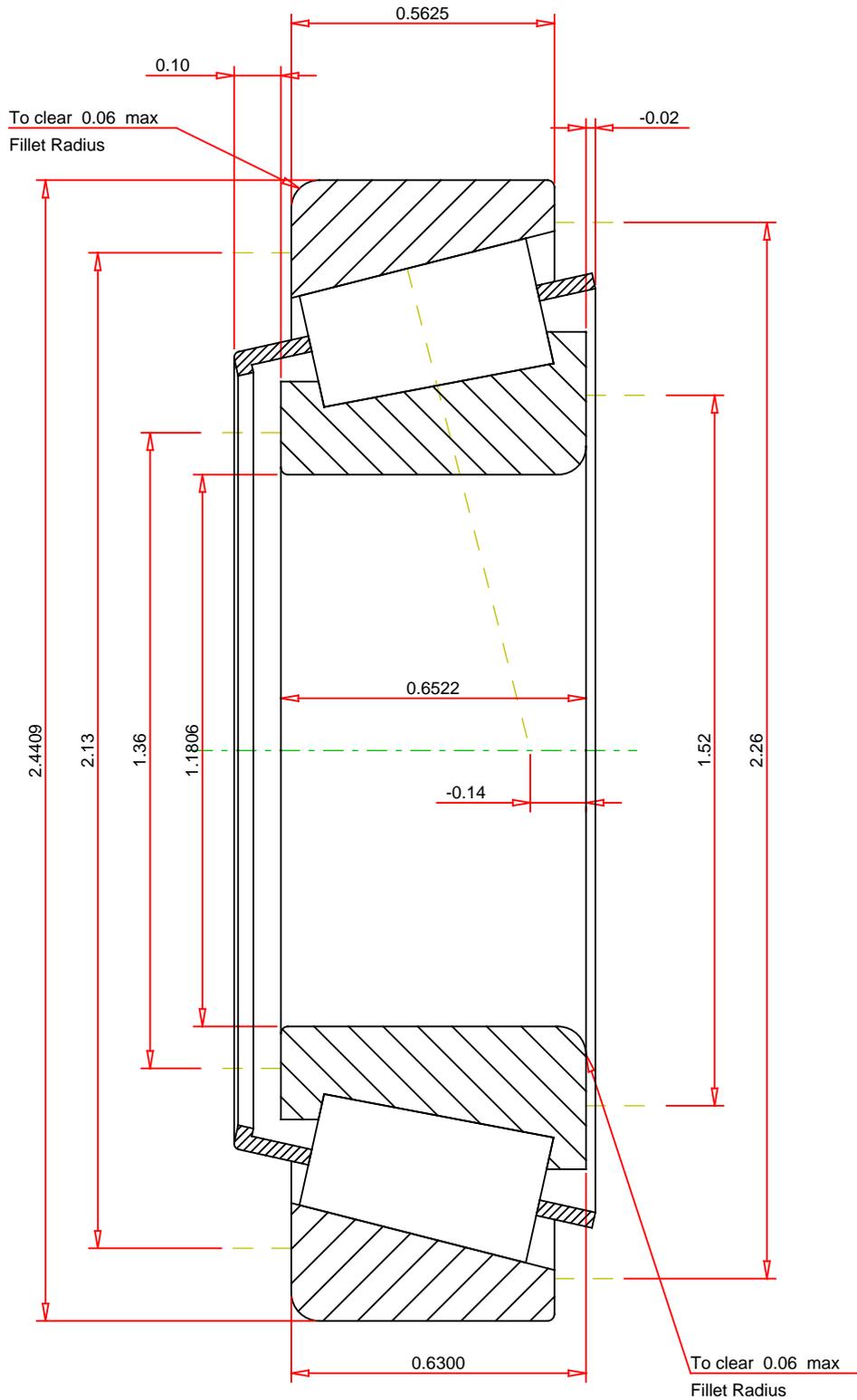
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 a3l.



IMPERIAL UNITS

ISO Factor - e	0.38
ISO Factor - Y	1.57
Bearing Weight	0.5 lb
Number of Rollers Per Row	15
Effective Center Location	-0.14 inch

TIMKEN®

17118 - 17244
TS BEARING ASSEMBLY

THE TIMKEN COMPANY
 NORTH CANTON, OHIO USA

K Factor	1.53
Dynamic Radial Rating - C90	2520 lbf
Dynamic Thrust Rating - Ca90	1650 lbf
Static Radial Rating - C0	9910 lbf
Dynamic Radial Rating - C1	9720 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