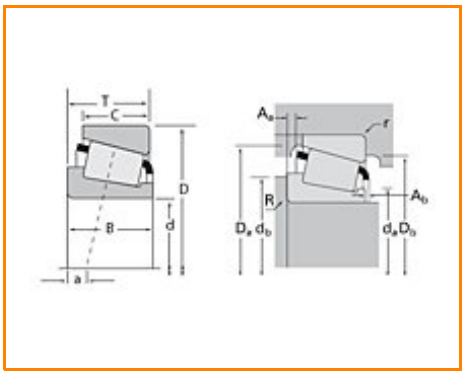
The Timken Company
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N. Canton, OH 44720
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E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number 67786 - 67720, 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	67700
Cone Part Number	67786
Cup Part Number	67720
Design Units	Imperial
Bearing Weight	7.00 Kg 15.400 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	174.625 mm 6.8750 in

D - Cup Outer Diameter	247.650 mm 9.7500 in
B - Cone Width	47.625 mm 1.875 in
C - Cup Width	38.100 mm 1.5000 in
T - Bearing Width	47.625 mm 1.8750 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	184.91 mm 8.31 in
db - Cone Backface Backing Diameter	199.90 mm 7.87 in
Da - Cup Frontface Backing Diameter	240.80 mm 9.48 in
Db - Cup Backface Backing Diameter	229.11 mm 9.02 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 Location[3]	4.8 mm 0.19 in

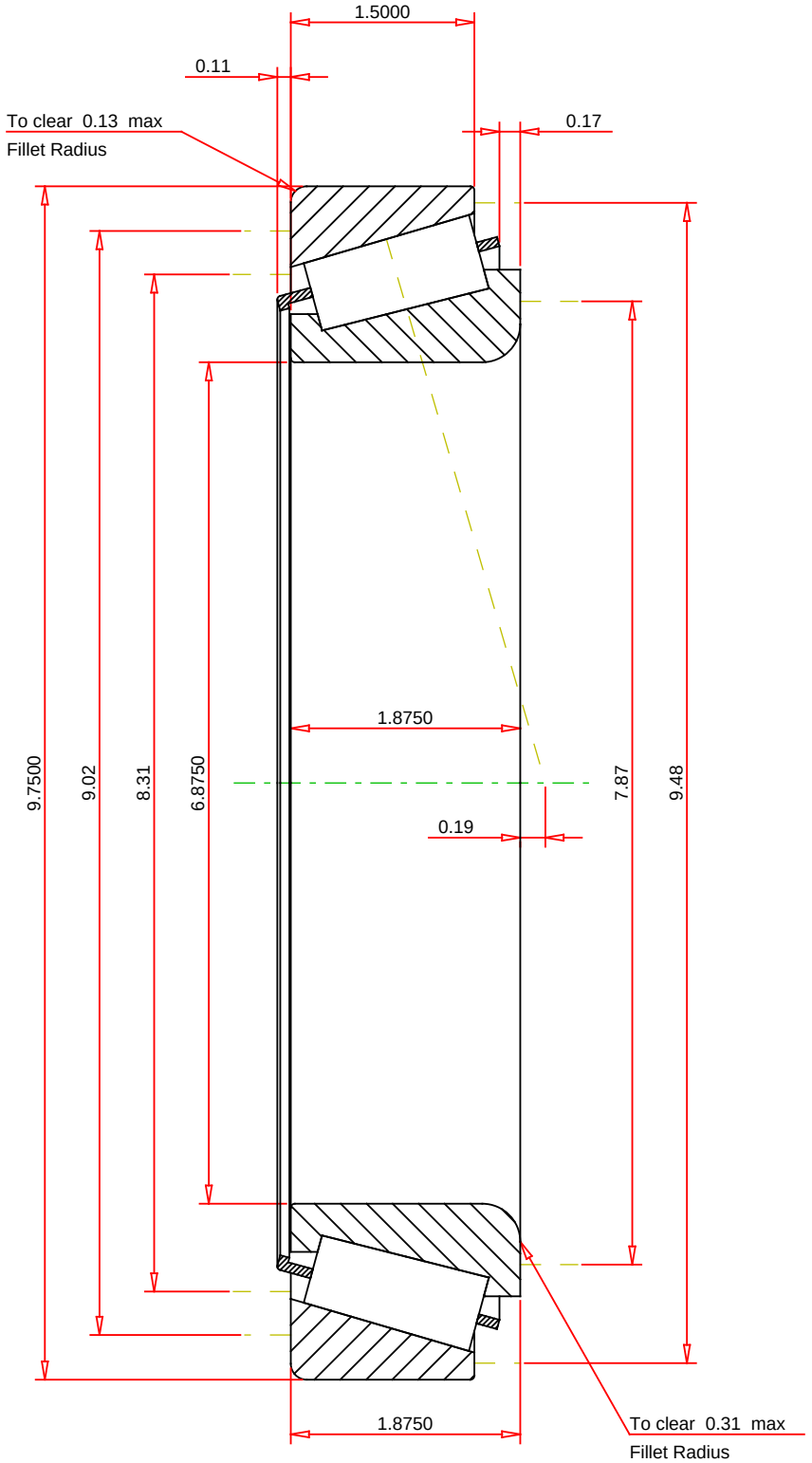
Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	105000 N 23600 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	405000 N 91100 lbf
C0 - Static Radial Rating	779000 N 175000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	79000 N 17800 lbf

Factors

K - Factor[7]	1.33
e - ISO Factor[8]	0.44
Y - ISO Factor[9]	1.36
G1 - Heat Generation Factor (Roller-Raceway)	622
G2 - Heat Generation Factor (Rib-Roller End)	122
Cg - Geometry Factor	0.121

[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.
[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	0.44	
ISO Factor - Y	1.36	
Bearing Weight	15.4	lb
Number of Rollers Per Row	36	
Effective Center Location	0.19	inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

67786 - 67720
TS BEARING ASSEMBLY

K Factor	1.33	
Dynamic Radial Rating - C90	105000	lbf
Dynamic Thrust Rating - Ca90	79000	lbf
Static Radial Rating - C0	779000	lbf
Dynamic Radial Rating - C1	405000	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