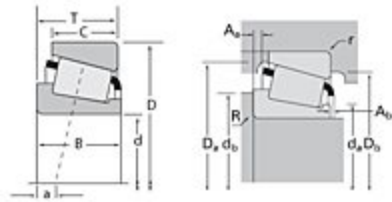


TIMKEN

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Timken Part Number 29685 - 29620, 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	29600
Cone Part Number	29685
Cup Part Number	29620
Design Units	Imperial
Bearing Weight	0.900 Kg 1.90 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	73.025 mm 2.8750 in
D - Cup Outer Diameter	112.713 mm 4.4375 in

B - Cone Width	25.400 mm 1.0000 in
C - Cup Width	19.050 mm 0.7500 in
T - Bearing Width	25.400 mm 1.0000 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius²	3.30 mm 0.130 in
da - Cone Frontface Backing Diameter	80.01 mm 3.82 in
db - Cone Backface Backing Diameter	86.11 mm 3.39 in
Da - Cup Frontface Backing Diameter	109.00 mm 4.33 in
Db - Cup Backface Backing Diameter	101.09 mm 3.98 in
Ab - Cage-Cone Frontface Clearance	2 mm 0.08 in
Aa - Cage-Cone Backface Clearance	2 mm 0.08 in
a - Effective Center Location³	1.00 mm 0.04 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	28600 N 6440 lbf
C1 - Dynamic Radial Rating (1 million revolutions)⁵	111000 N 24800 lbf
C0 - Static Radial Rating	166000 N 37200 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	23900 N 5370 lbf

Factors

K - Factor⁷	1.2
e - ISO Factor⁸	0.49
Y - ISO Factor⁹	1.23
G1 - Heat Generation Factor (Roller-Raceway)	77.7
G2 - Heat Generation Factor (Rib-Roller End)	43.3
Cg - Geometry Factor	0.117

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.

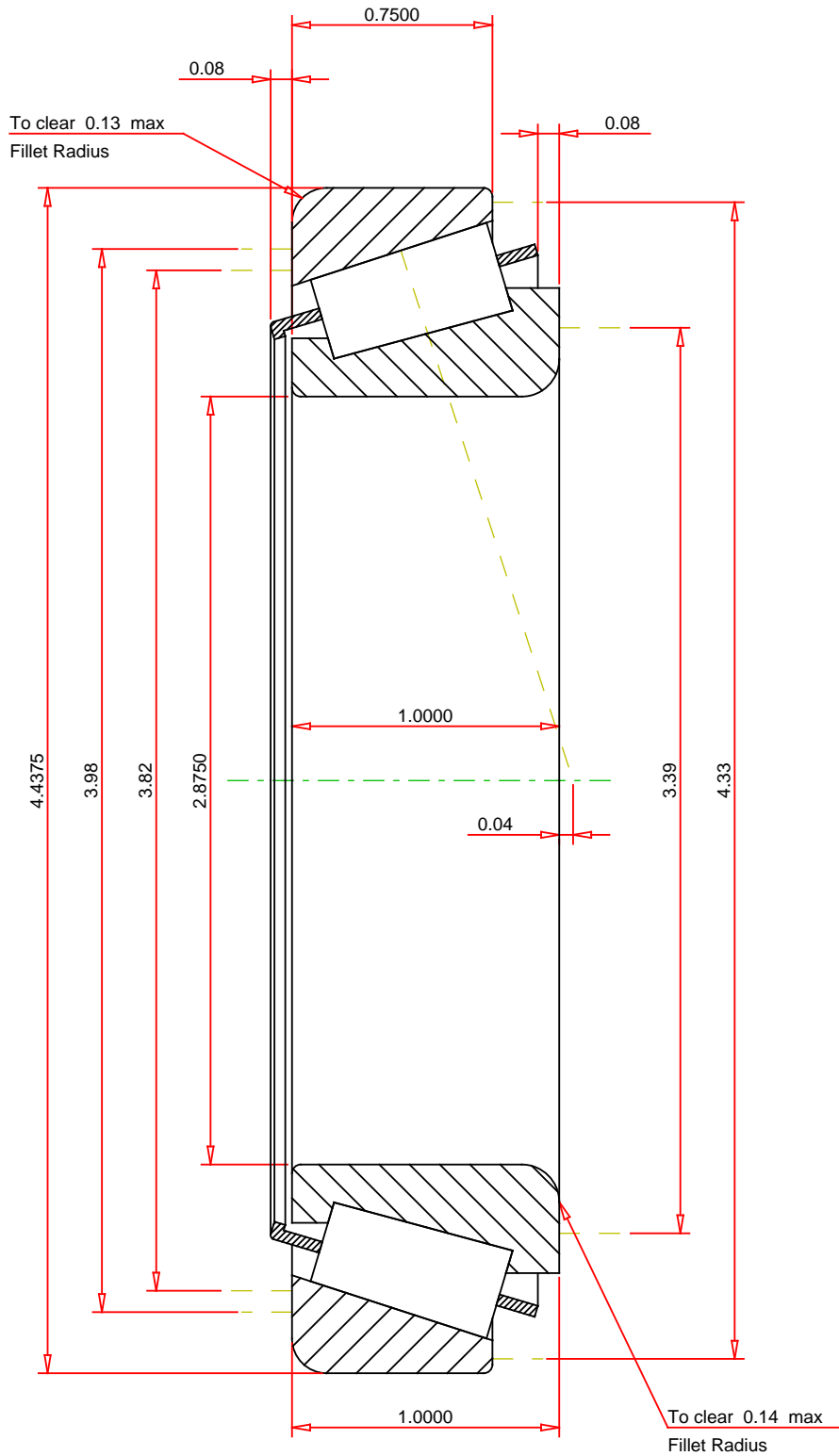
⁵ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

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	0.49
ISO Factor - Y	1.23
Bearing Weight	1.9 lb
Number of Rollers Per Row	27
Effective Center Location	0.04 inch

TIMKEN®

**29685 - 29620
TS BEARING ASSEMBLY**

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

K Factor	1.2
Dynamic Radial Rating - C90	28600 lbf
Dynamic Thrust Rating - Ca90	23900 lbf
Static Radial Rating - C0	166000 lbf
Dynamic Radial Rating - C1	111000 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