


The Timken Company

4500 Mt Pleasant St. NW

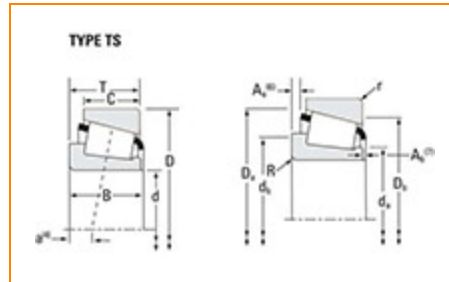
N. Canton, OH 44720

Phone: (234) 262-3000

E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Part Number H715332 - H715311, 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	H715300
Cone Part Number	H715332
Cup Part Number	H715311
Design Unit	Inch
Bearing Weight	7.8 lb 3.5 Kg
Cage Material	Stamped Steel

Dimensions


Bore

 2 3/8 in
60.325 mm

D - Cup Outer Diameter	5.3750 in 136.525 mm
B - Cone Width	1.8125 in 46.038 mm
C - Cup Width	1.4375 in 36.513 mm
T - Bearing Width	1.8125 in 46.038 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.14 in 3.6 mm
r - Cup Backface "To Clear" Radius²	0.130 in 3.3 mm
da - Cone Frontface Backing Diameter	3.15 in 80 mm
db - Cone Backface Backing Diameter	3.39 in 86 mm
Da - Cup Frontface Backing Diameter	5.22 in 132.59 mm
Db - Cup Backface Backing Diameter	4.65 in 118.11 mm
Ab - Cage-Cone Frontface Clearance	0.11 in 2.8 mm
Aa - Cage-Cone Backface Clearance	0.14 in 3.6 mm
a - Effective Center Location³	-0.34 in -8.6 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	18600 lbf 82700 N
---	----------------------

C1 - Dynamic Radial Rating (1 million revolutions)⁵	71700 lbf 319000 N
---	-----------------------

C0 - Static Radial Rating	91000 lbf 405000 N
----------------------------------	-----------------------

C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	15100 lbf 67000 N
---	----------------------

Factors

K - Factor⁷	1.24
-------------------------------	------

e - ISO Factor⁸	0.47
-----------------------------------	------

Y - ISO Factor⁹	1.27
-----------------------------------	------

C_g - Geometry Factor¹⁰	0.0993
---	--------

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.

