



The Timken Company

4500 Mt Pleasant St. NW

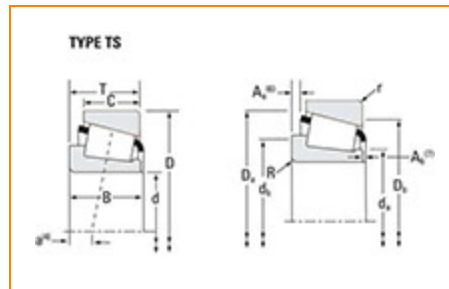
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Part Number H715345 - H715311, Tapered Roller Bearings - TS (Tapered Single) Imperial

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.



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Specifications

Series	H715300
Cone Part Number	H715345
Cup Part Number	H715311
Design Units	Imperial
Bearing Weight	3.1 Kg 6.9 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	71.438 mm 2.8125 in
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D - Cup Outer Diameter	136.525 mm 5.3750 in
B - Cone Width	46.038 mm 1.8125 in
C - Cup Width	36.513 mm 1.4375 in
T - Bearing Width	46.038 mm 1.8125 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	87.88 mm 4.25 in
db - Cone Backface Backing Diameter	93.98 mm 3.7 in
Da - Cup Frontface Backing Diameter	132.59 mm 5.22 in
Db - Cup Backface Backing Diameter	118.11 mm 4.65 in
Ab - Cage-Cone Frontface Clearance	2.8 mm 0.11 in
Aa - Cage-Cone Backface Clearance	3.6 mm 0.14 in
a - Effective Center Location³	-8.6 mm -0.34 in

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
G1 - Heat Generation Factor (Roller-Raceway)	147
G2 - Heat Generation Factor (Rib-Roller End)	32.8
Cg - 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.

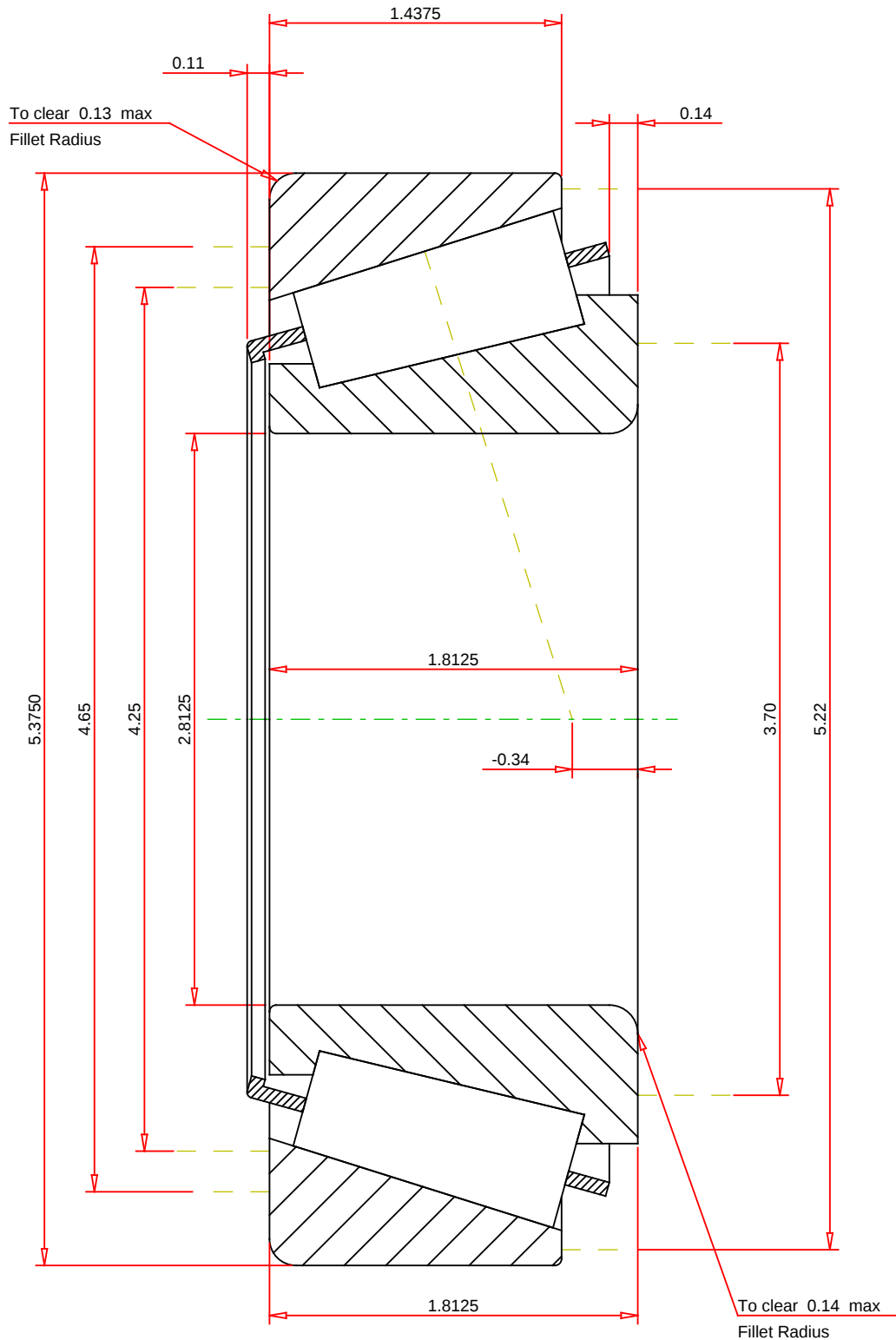
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 a_3 .



IMPERIAL UNITS

ISO Factor - e0.47 ISO Factor - Y1.27 Bearing Weight6.9 lb Number of Rollers Per Row22 Effective Center Location-0.34 inch		TIMKEN® THE TIMKEN COMPANY NORTH CANTON, OHIO USA		H715345 - H715311 TS BEARING ASSEMBLY	
				K Factor1.24 Dynamic Radial Rating - C9018600 lbf Dynamic Thrust Rating - Ca9015100 lbf Static Radial Rating - C091000 lbf Dynamic Radial Rating - C171700 lbf	