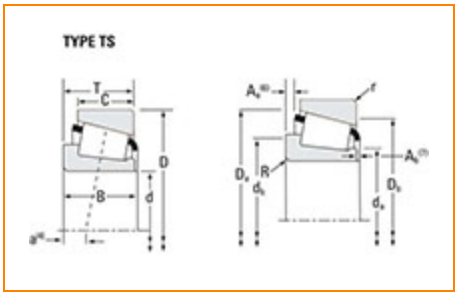
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Part Number 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.



Specifications | Dimensions | Abutment and Fillet Dimensions | Basic Load Ratings | Factors

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

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" Radius[1]	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius[2]	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 Location[3]	-8.6 mm -0.34 in

Basic Load Ratings

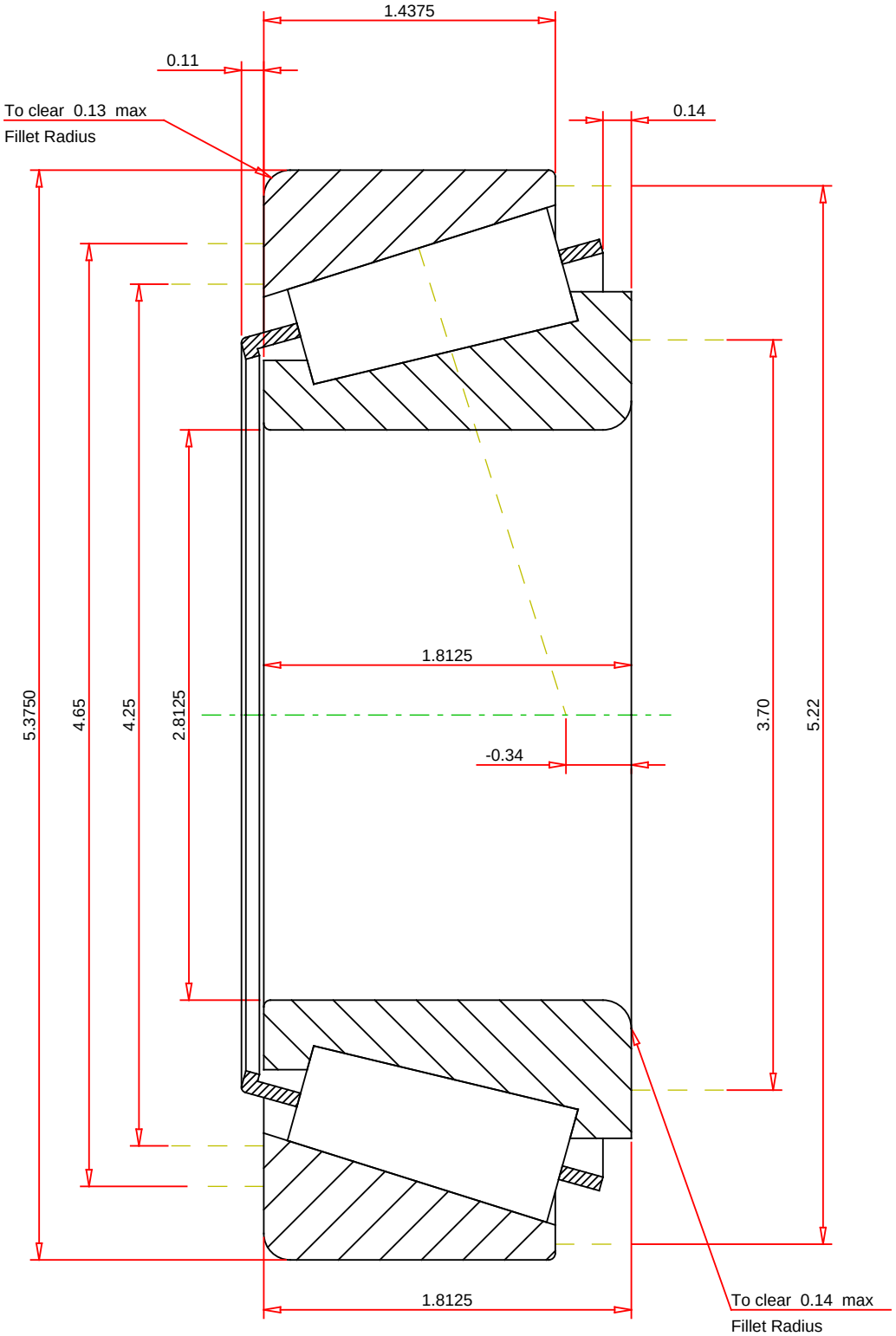
C90 - Dynamic Radial Rating (90 million revolutions)[4]	18600 lbf 82700 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	71700 lbf 319000 N
C0 - Static Radial Rating	91000 lbf 405000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	15100 lbf 67000 N

Factors

K - Factor[7]	1.24
e - ISO Factor[8]	0.47
Y - ISO Factor[9]	1.27
G1 - Heat Generation Factor (Roller-Raceway)	147
G2 - Heat Generation Factor (Rib-Roller End)	32.8
Cg - Geometry Factor[10]	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 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.

[10] Geometry constant for Lubrication Life Adjustment Factor a3l.



IMPERIAL UNITS

ISO Factor - e	0.47	
ISO Factor - Y	1.27	
Bearing Weight	6.9	lb
Number of Rollers Per Row	22	
Effective Center Location	-0.34	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

H715345 - H715311
TS BEARING ASSEMBLY

K Factor	1.24	
Dynamic Radial Rating - C90	18600	lbf
Dynamic Thrust Rating - Ca90	15100	lbf
Static Radial Rating - C0	91000	lbf
Dynamic Radial Rating - C1	71700	lbf

FOR DISCUSSION ONLY