The Timken Company
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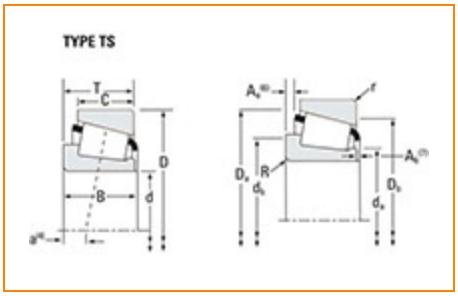
Part Number 598 - 592A, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	595
Cone Part Number	598
Cup Part Number	592A
Design Units	Imperial
Bearing Weight	2.6 Kg 5.7 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	92.075 mm 3.6250 in

D - Cup Outer Diameter	152.400 mm 6.0000 in
B - Cone Width	36.322 mm 1.4300 in
C - Cup Width	30.163 mm 1.1875 in
T - Bearing Width	39.688 mm 1.5625 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	101.09 mm 4.64 in
db - Cone Backface Backing Diameter	106.93 mm 4.21 in
Da - Cup Frontface Backing Diameter	145.03 mm 5.71 in
Db - Cup Backface Backing Diameter	134.87 mm 5.31 in
Ab - Cage-Cone Frontface Clearance	2.3 mm 0.09 in
Aa - Cage-Cone Backface Clearance	3.8 mm 0.15 in
a - Effective Center Location[3]	-2.5 mm -0.1 in

Basic Load Ratings

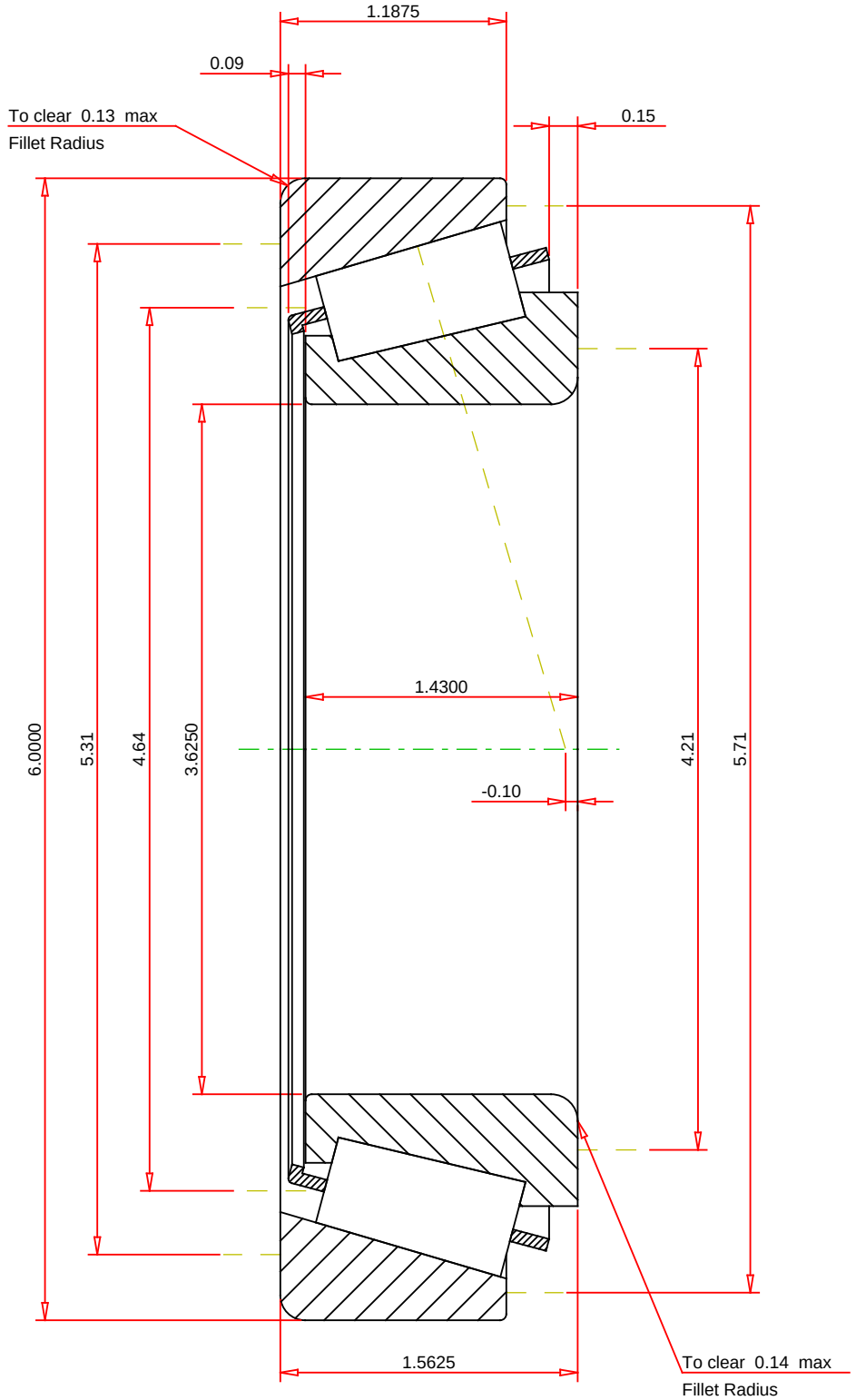
C90 - Dynamic Radial Rating (90 million revolutions)[4]	12600 lbf 56000 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	48600 lbf 216000 N
C0 - Static Radial Rating	71600 lbf 319000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	9530 lbf 42400 N

Factors

K - Factor[7]	1.32
e - ISO Factor[8]	0.44
Y - ISO Factor[9]	1.36
G1 - Heat Generation Factor (Roller-Raceway)	151
G2 - Heat Generation Factor (Rib-Roller End)	36.8
Cg - Geometry Factor[10]	0.142

[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	0.44	
ISO Factor - Y	1.36	
Bearing Weight	5.7	lb
Number of Rollers Per Row	24	
Effective Center Location	-0.1	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

598 - 592A
TS BEARING ASSEMBLY

K Factor	1.32	
Dynamic Radial Rating - C90	12600	lbf
Dynamic Thrust Rating - Ca90	9530	lbf
Static Radial Rating - C0	71600	lbf
Dynamic Radial Rating - C1	48600	lbf

FOR DISCUSSION ONLY