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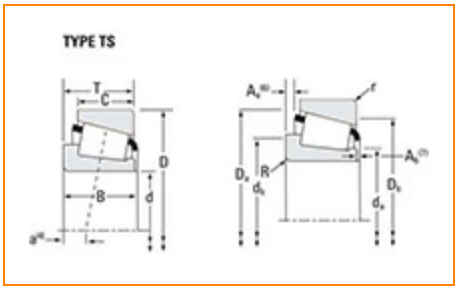
Part Number 395 - 394, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	395
Cone Part Number	395
Cup Part Number	394
Design Unit	Inch
Bearing Weight	1.9 lb 0.9 Kg
Cage Material	Stamped Steel

Dimensions

- Bore	2 1/2 in 63.5 mm

D - Cup Outer Diameter	4.3307 in 110.0 mm
B - Cone Width	0.8660 in 21.996 mm
C - Cup Width	0.8661 in 21.999 mm
T - Bearing Width	0.8661 in 21.999 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.140 in 3.6 mm
r - Cup Backface "To Clear" Radius[2]	0.03 in 0.76 mm
da - Cone Frontface Backing Diameter	2.76 in 70 mm
db - Cone Backface Backing Diameter	3.03 in 77 mm
Da - Cup Frontface Backing Diameter	4.21 in 106.90 mm
Db - Cup Backface Backing Diameter	3.98 in 101.09 mm
Ab - Cage-Cone Frontface Clearance	0.11 in 2.8 mm
Aa - Cage-Cone Backface Clearance	0.05 in 1.3 mm
a - Effective Center Location[3]	-0.03 in -0.8 mm

Basic Load Ratings

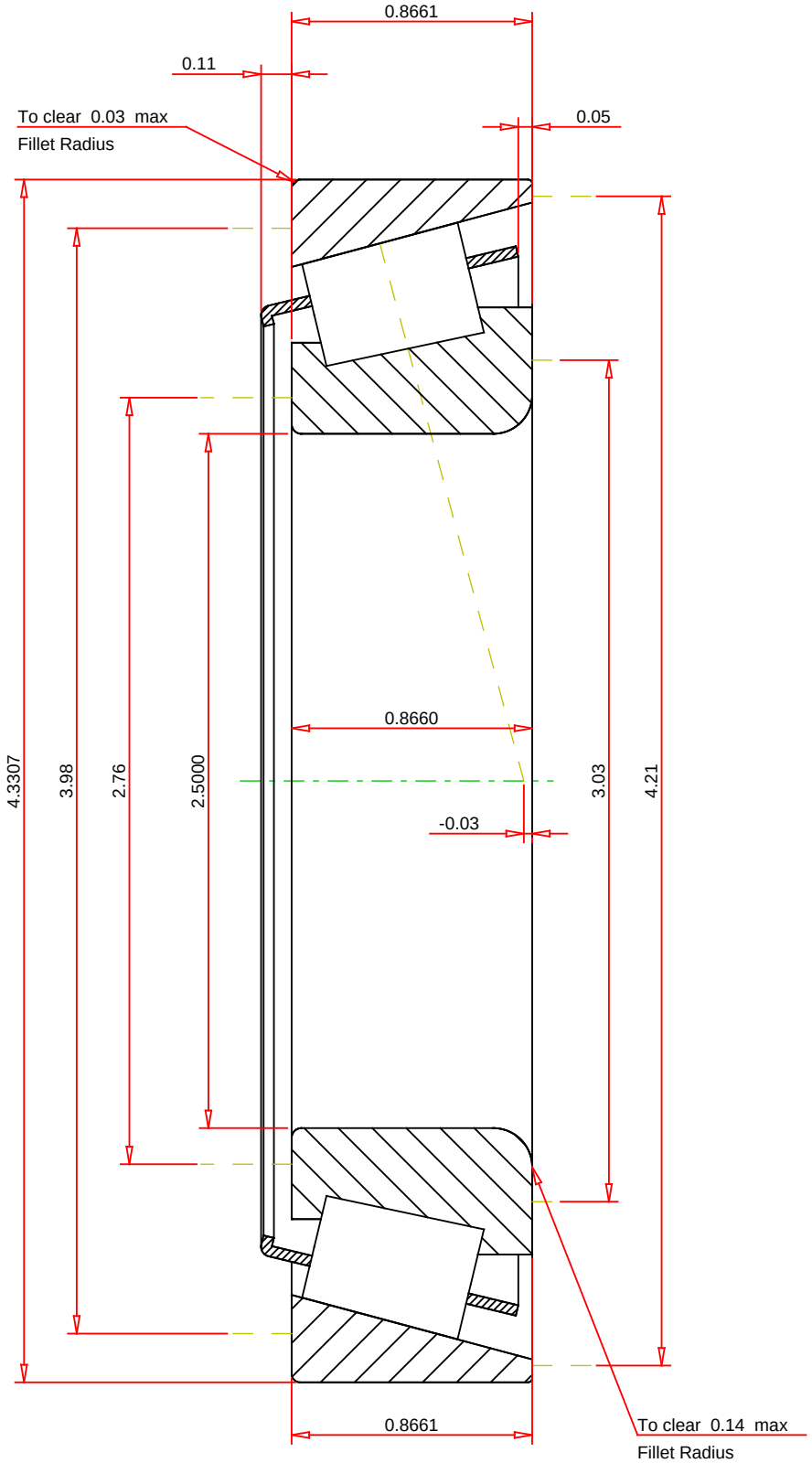
C90 - Dynamic Radial Rating (90 million revolutions)[4]	5760 lbf 25600 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	22200 lbf 98900 N
C0 - Static Radial Rating	28100 lbf 125000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	3970 lbf 17600 N

Factors

K - Factor[7]	1.45
e - ISO Factor[8]	0.4
Y - ISO Factor[9]	1.49
G1 - Heat Generation Factor (Roller-Raceway)	56
G2 - Heat Generation Factor (Rib-Roller End)	21.4
Cg - Geometry Factor[10]	0.0984

[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.



IMPERIAL UNITS

ISO Factor - e	0.4	
ISO Factor - Y	1.49	
Bearing Weight	1.9	lb
Number of Rollers Per Row	22	
Effective Center Location	-0.03	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

395 - 394
Tapered Roller Bearings - TS (Tapered Single)
Imperial

K Factor	1.45	
Dynamic Radial Rating - C90	5760	lbf
Dynamic Thrust Rating - Ca90	3970	lbf
Static Radial Rating - C0	28100	lbf
Dynamic Radial Rating - C1	22200	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