The Timken Company
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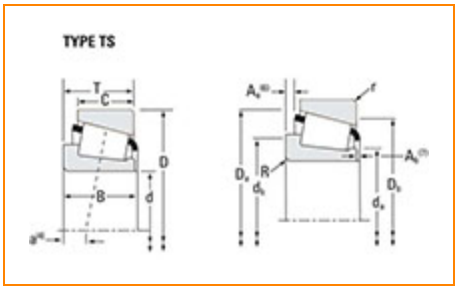
Part Number 399AS - 394AS, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	399AS
Cup Part Number	394AS
Design Unit	Inch
Cage Material	Stamped Steel

Dimensions

d - Bore	2 11/16 in 68.263 mm
D - Cup Outer Diameter	4.3307 in 110 mm

B - Cone Width	0.8660 in 21.996 mm
C - Cup Width	0.7411 in 18.824 mm
T - Bearing Width	0.8661 in 21.999 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.2 in 5.1 mm
r - Cup Backface "To Clear" Radius[2]	0.130 in 3.30 mm
da - Cone Frontface Backing Diameter	2.91 in 74 mm
db - Cone Backface Backing Diameter	3.27 in 83 mm
Da - Cup Frontface Backing Diameter	4.12 in 104.40 mm
Db - Cup Backface Backing Diameter	3.90 in 99.06 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	5760 lbf

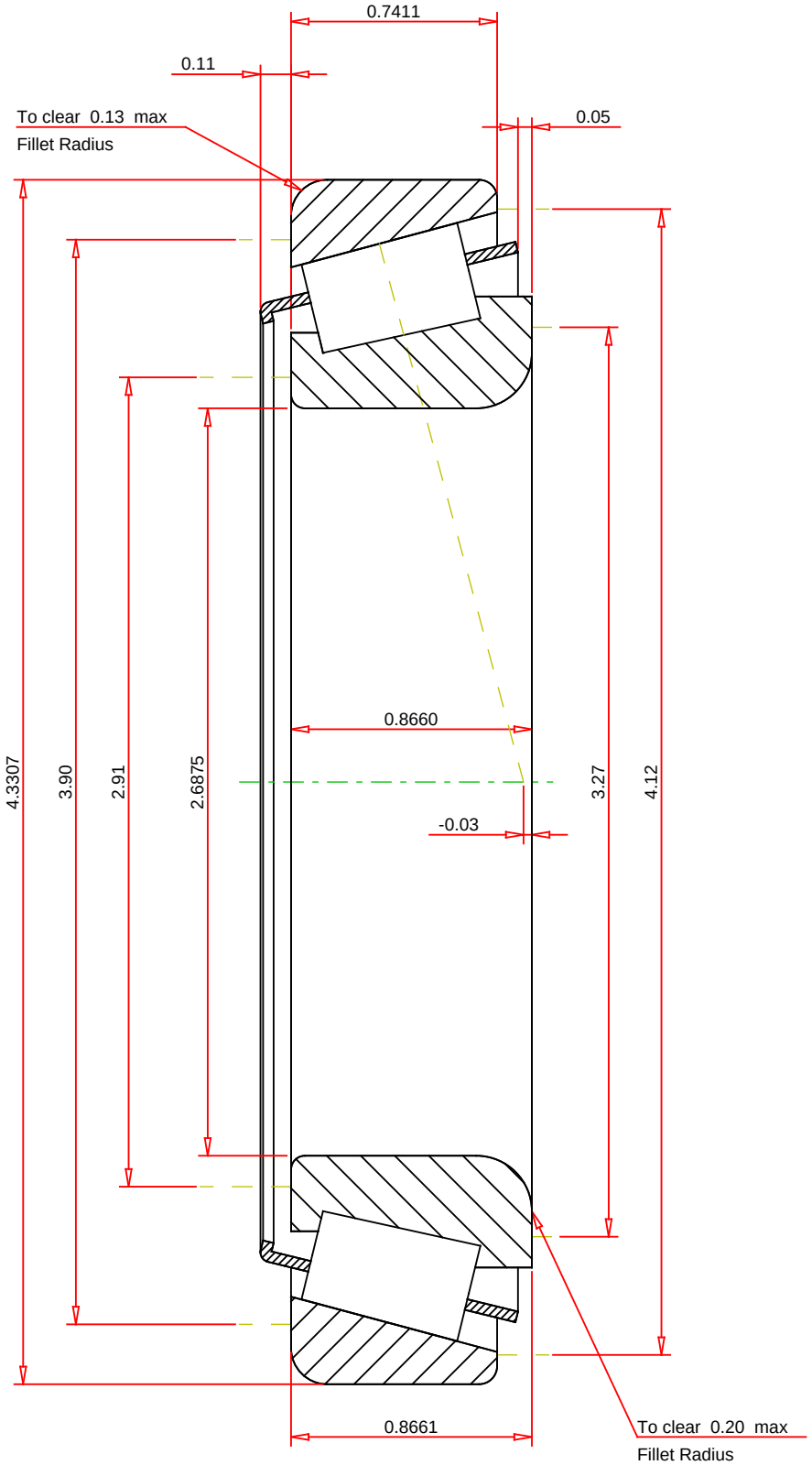
million revolutions)[4]	25600 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	22200 lbf 98900 N
C0 - Static Radial Rating	28100 lbf 125000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	3970 lbf 17600 N

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	1.6	lb
Number of Rollers Per Row	22	
Effective Center Location	-0.03	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

399AS - 394AS

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

FOR DISCUSSION ONLY