The Timken Company
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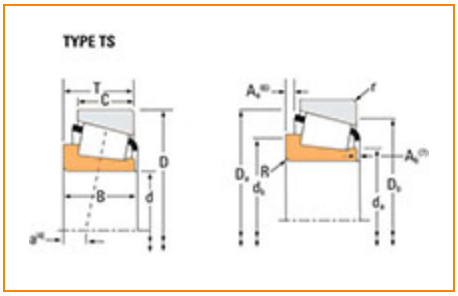
Part Number 48393, Tapered Roller Bearings - Single Cones - Imperial

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	48300
Cone Part Number	48393
Design Units	Imperial
Cage Type	Stamped Steel
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)[1]	111000 lbf 492000 N
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)[2]	28700 lbf 128000 N

Dimensions

d - Bore	5.3750 in 136.525 mm
B - Cone Width	1.5625 in 39.688 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[3]	0.14 in 3.600 mm
da - Cone Frontface Backing Diameter	5.67 in 144 mm
db - Cone Backface Backing Diameter	5.94 in 151 mm
Ab - Cage-Cone Frontface Clearance	0.08 in 2 mm
Aa - Cage-Cone Backface Clearance	0.09 in 2.3 mm
a - Effective Center Location[4]	-0.16 in -4.1 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[5]	16500 lbf 73300 N
C1 - Dynamic Radial Rating (1 million revolutions)[6]	63600 lbf 283000 N
C0 - Static Radial Rating	122000 lbf 542000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[7]	9060 lbf 40300 N

Factors

K - Factor[8]	1.82
G1 - Heat Generation Factor (Roller-Raceway)	404
G2 - Heat Generation Factor (Rib-Roller End)	95.6
Cg - Geometry Factor[9]	0.121

[1] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.

[2] 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.

[3] These maximum fillet radii will be cleared by the bearing corners.

[4] Negative value indicates effective center inside cone backface.

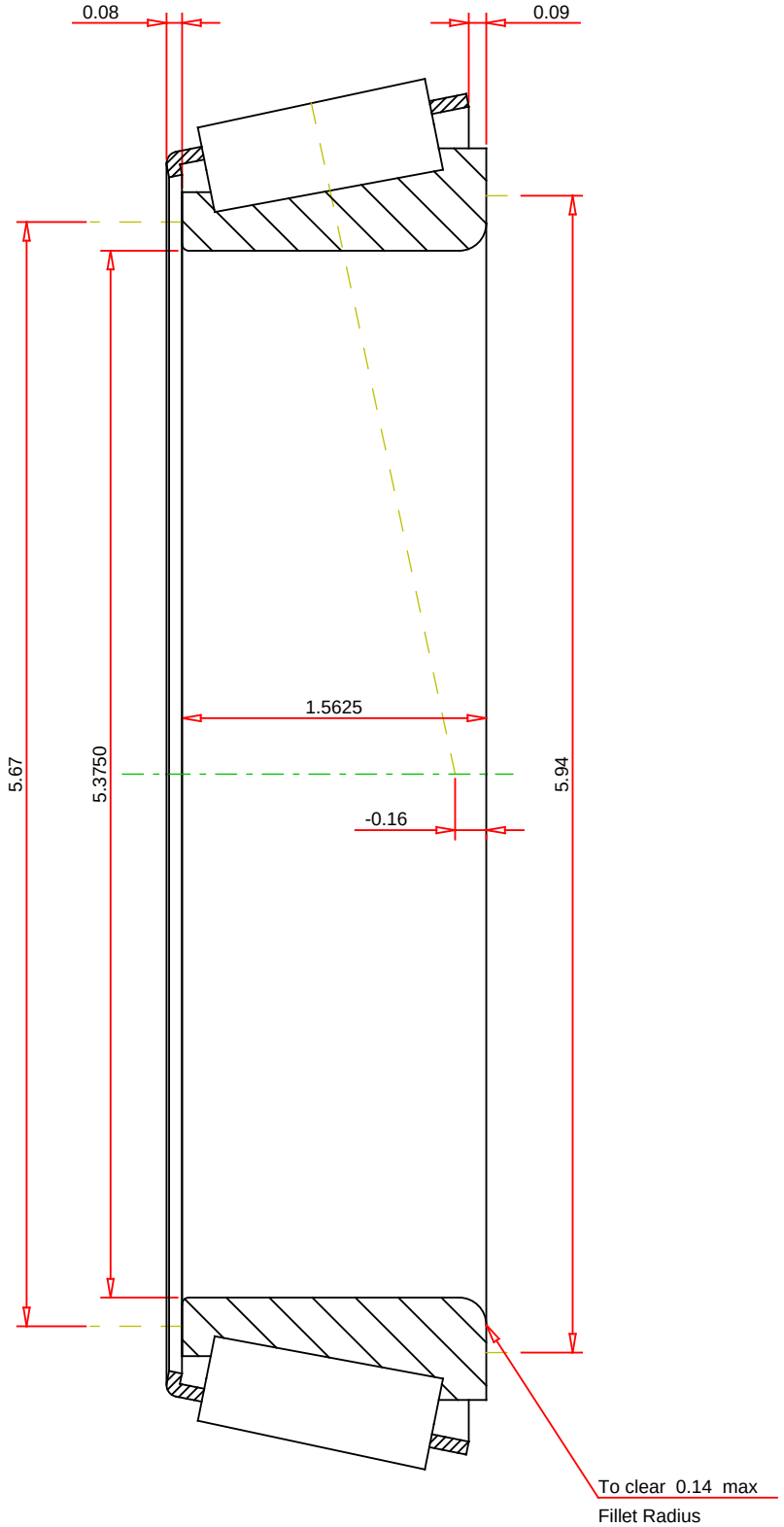
[5] Based on 90 x 10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

[6] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.

[7] 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.

[8] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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



IMPERIAL UNITS

Number of Rollers Per Row	36

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

48393
SINGLE TAPERED CONE

K Factor	1.82	
Dynamic Radial Rating - C90	16500	lbf
Dynamic Thrust Rating - Ca90	9060	lbf
Dynamic Radial Rating - C1	63600	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