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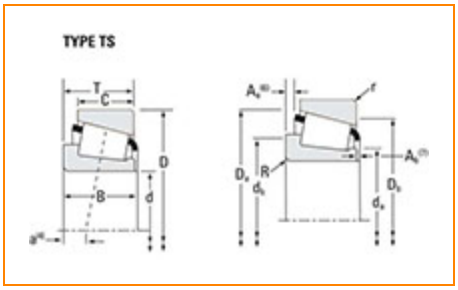
Part Number 93825A - 93125V, Tapered Roller Bearings - TS (Tapered Single) Imperial

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.



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Specifications

Series	93000
Cone Part Number	93825A
Cup Part Number	93125V
Design Unit	Inch
Bearing Weight	36.6 lb 16.6 Kg
Cage Material	Stamped Steel

Dimensions

- Bore	8.2500 in 209.550 mm

D - Cup Outer Diameter	12.5 in 317.5 mm
B - Cone Width	2.5 in 63.5 mm
C - Cup Width	1.8125 in 46.038 mm
T - Bearing Width	2.5000 in 63.5 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.5 in 12.7 mm
r - Cup Backface "To Clear" Radius[2]	0.130 in 3.3 mm
da - Cone Frontface Backing Diameter	8.93 in 226.9 mm
db - Cone Backface Backing Diameter	9.84 in 250 mm
Da - Cup Frontface Backing Diameter	11.84 in 300.00 mm
Db - Cup Backface Backing Diameter	11.26 in 286.00 mm
Ab - Cage-Cone Frontface Clearance	0.21 in 5.3 mm
Aa - Cage-Cone Backface Clearance	0.32 in 8.1 mm
a - Effective Center Location[3]	0.31 in 7.9 mm

Basic Load Ratings

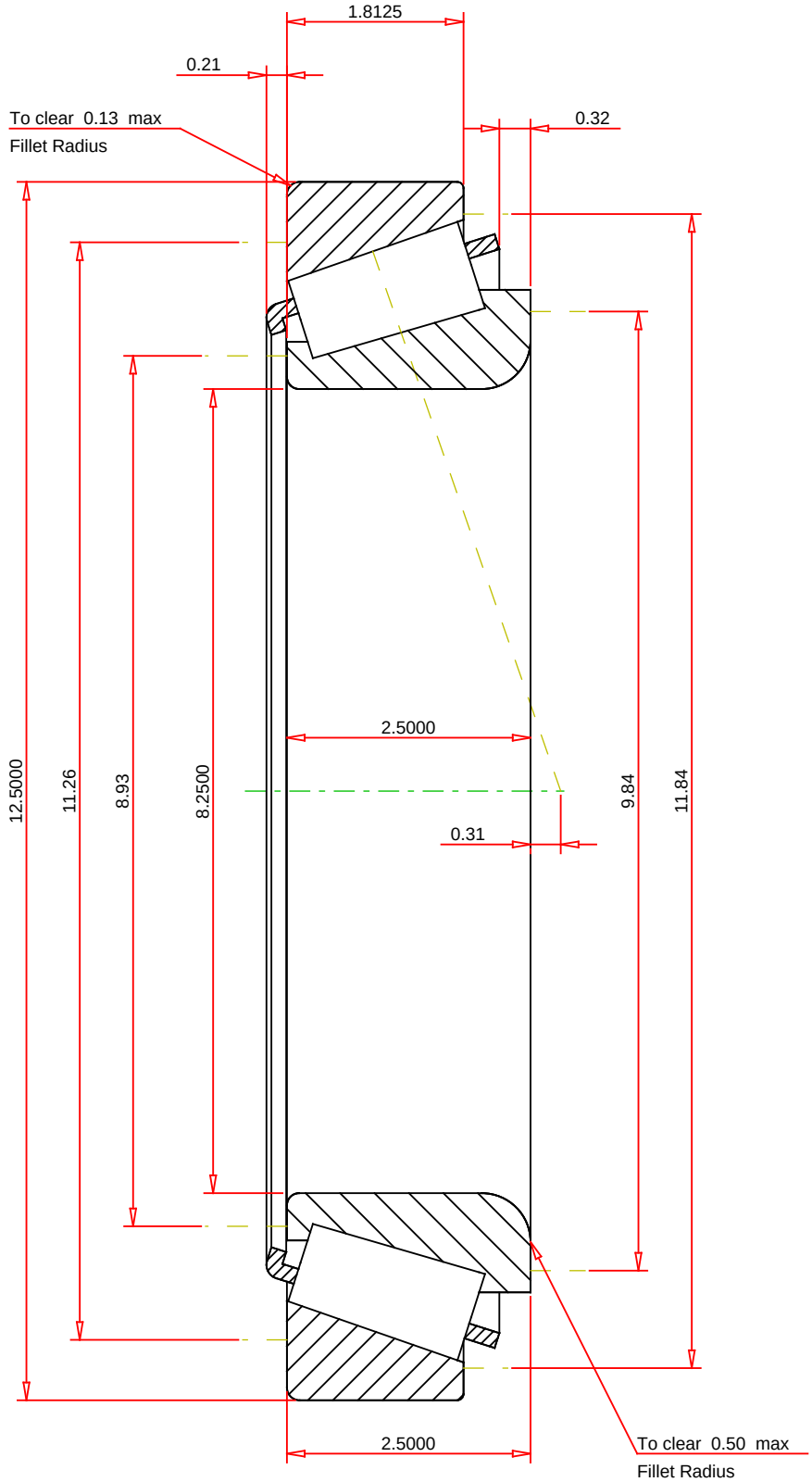
C90 - Dynamic Radial Rating (90 million revolutions)[4]	42600 lbf 190000 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	164000 lbf 731000 N
C0 - Static Radial Rating	290000 lbf 1290000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	38200 lbf 170000 N

Factors

K - Factor[7]	1.12
e - ISO Factor[8]	0.52
Y - ISO Factor[9]	1.15
G1 - Heat Generation Factor (Roller-Raceway)	912.5
G2 - Heat Generation Factor (Rib-Roller End)	126.1
Cg - Geometry Factor[10]	0.146

[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	0.52	
ISO Factor - Y	1.15	
Bearing Weight	36.6	lb
Number of Rollers Per Row	29	
Effective Center Location	0.31	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

93825A - 93125V

Tapered Roller Bearings - TS (Tapered Single)
Imperial

K Factor	1.12	
Dynamic Radial Rating - C90	42600	lbf
Dynamic Thrust Rating - Ca90	38200	lbf
Static Radial Rating - C0	290000	lbf
Dynamic Radial Rating - C1	164000	lbf

FOR DISCUSSION ONLY