TIMKEN

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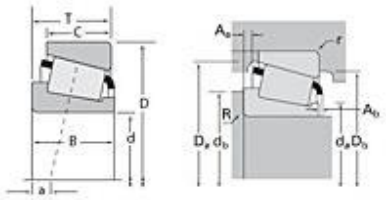
Timken Part Number 33275 - 33462, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	33000
Cone Part Number	33275
Cup Part Number	33462
Design Units	Imperial
Bearing Weight	2.80 lb 1.300 Kg
Cage Type	Stamped Steel

Dimensions

d - Bore	2.7500 in 69.850 mm
D - Cup Outer Diameter	4.6250 in 117.475 mm

B - Cone Width	1.1875 in 30.163 mm
C - Cup Width	0.9375 in 23.813 mm
T - Bearing Width	1.1875 in 30.163 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.14 in 3.560 mm
r - Cup Backface "To Clear" Radius[2]	0.130 in 3.30 mm
da - Cone Frontface Backing Diameter	3.78 in 78.99 mm
db - Cone Backface Backing Diameter	3.35 in 85.09 mm
Da - Cup Frontface Backing Diameter	4.45 in 113.00 mm
Db - Cup Backface Backing Diameter	4.09 in 103.89 mm
Ab - Cage-Cone Frontface Clearance	0.07 in 1.8 mm
Aa - Cage-Cone Backface Clearance	0.07 in 1.8 mm
a - Effective Center Location[3]	-0.11 in -2.80 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	8060 lbf 35900 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	31100 lbf 138000 N
C0 - Static Radial Rating	44300 lbf 197000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	6020 lbf 26800 N

Factors

K - Factor[7]	1.34
e - ISO Factor[8]	0.44
Y - ISO Factor[9]	1.38
G1 - Heat Generation Factor (Roller-Raceway)	84.2
G2 - Heat Generation Factor (Rib-Roller End)	25.9
Cg - Geometry Factor	0.116

[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.
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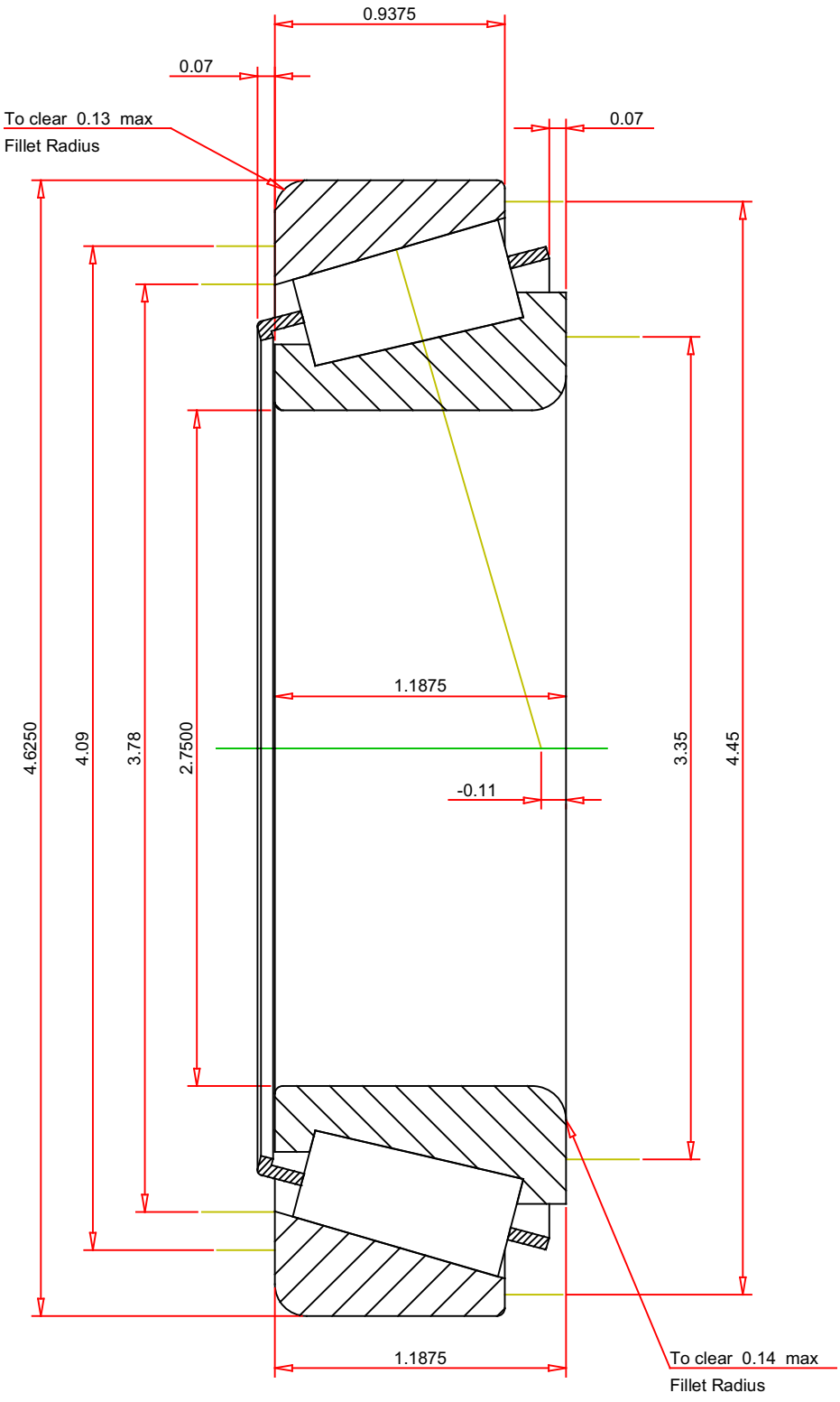

IMPERIAL UNITS

ISO Factor - e	0.44	
ISO Factor - Y	1.38	
Bearing Weight	2.8	lb
Number of Rollers Per Row	23	
Effective Center Location	-0.11	inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

33275 - 33462
TS BEARING ASSEMBLY

K Factor	1.34	
Dynamic Radial Rating - C90	8060	lbf
Dynamic Thrust Rating - Ca90	6020	lbf
Static Radial Rating - C0	44300	lbf
Dynamic Radial Rating - C1	31100	lbf

FOR DISCUSSION ONLY