TIMKEN

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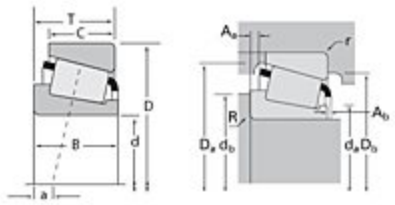
Timken Part Number 72200C - 72487, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	72000C
Cone Part Number	72200C
Cup Part Number	72487
Design Units	Imperial
Bearing Weight	2.100 Kg 4.70 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	50.8 mm 2 in
D - Cup Outer Diameter	123.825 mm 4.8750 in

B - Cone Width	32.791 mm 1.2910 in
C - Cup Width	25.400 mm 1.0000 in
T - Bearing Width	36.513 mm 1.4375 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius[2]	3.30 mm 0.130 in
da - Cone Frontface Backing Diameter	67.06 mm 2.64 in
db - Cone Backface Backing Diameter	76.96 mm 3.03 in
Da - Cup Frontface Backing Diameter	116.10 mm 4.60 in
Db - Cup Backface Backing Diameter	102.11 mm 4.02 in
Ab - Cage-Cone Frontface Clearance	5.1 mm 0.2 in
Aa - Cage-Cone Backface Clearance	3.8 mm 0.15 in
a - Effective Center Location[3]	2.00 mm 0.08 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	55500 N 12500 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	214000 N 48200 lbf
C0 - Static Radial Rating	208000 N 46800 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	70100 N 15800 lbf

Factors

K - Factor[7]	0.79
e - ISO Factor[8]	0.74
Y - ISO Factor[9]	0.81
G1 - Heat Generation Factor (Roller-Raceway)	57.4
G2 - Heat Generation Factor (Rib-Roller End)	13.5
Cg - Geometry Factor	0.0825

[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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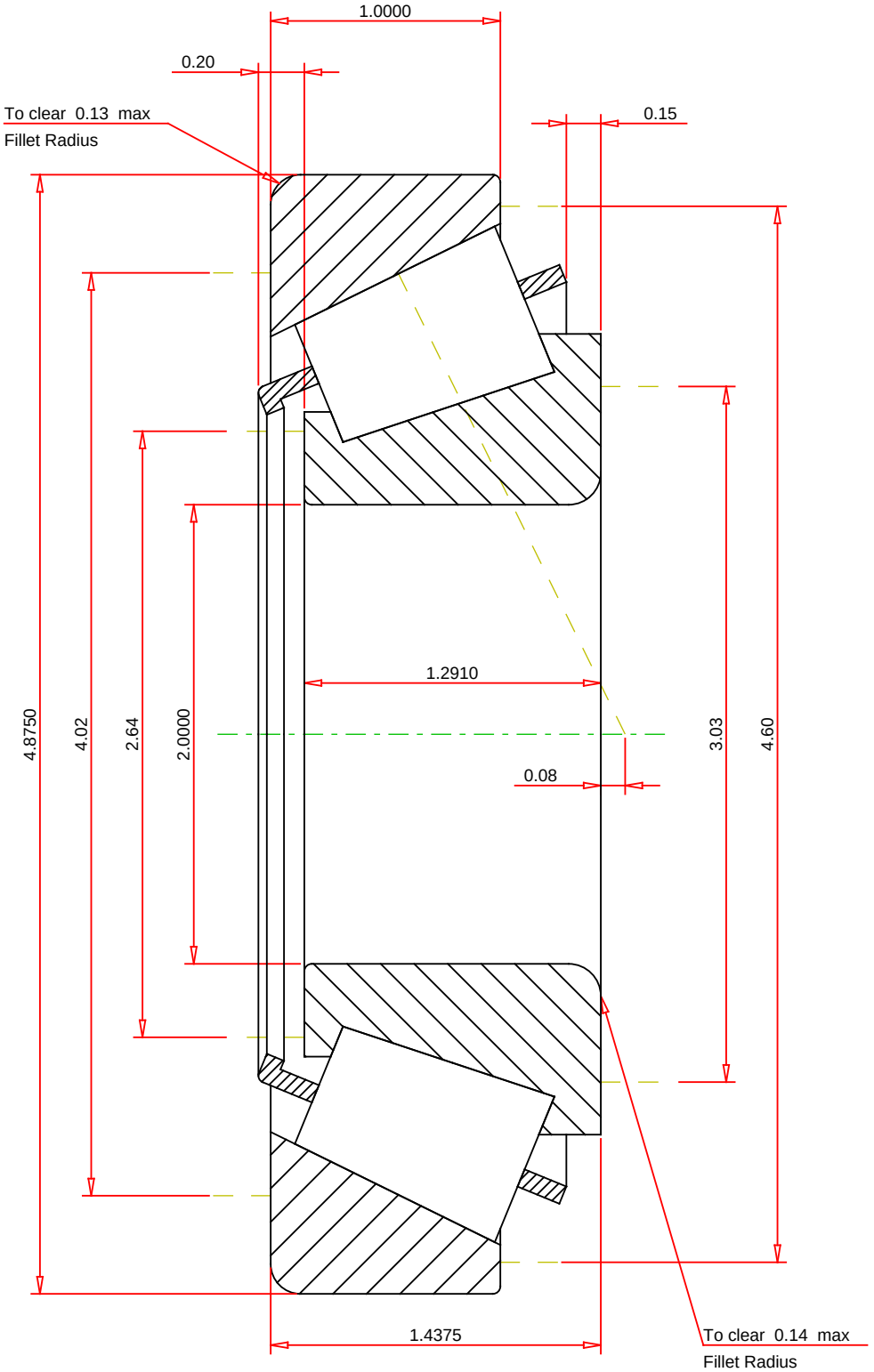

IMPERIAL UNITS

ISO Factor - e	0.74	
ISO Factor - Y	0.81	
Bearing Weight	4.7	lb
Number of Rollers Per Row	16	
Effective Center Location	0.08	inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

72200C - 72487
TS BEARING ASSEMBLY

K Factor	0.79	
Dynamic Radial Rating - C90	55500	lbf
Dynamic Thrust Rating - Ca90	70100	lbf
Static Radial Rating - C0	208000	lbf
Dynamic Radial Rating - C1	214000	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