TIMKEN

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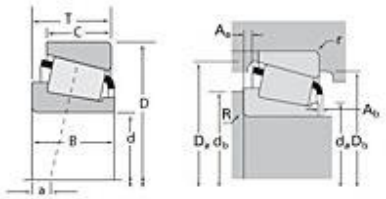
Timken Part Number L45449 - L45410, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	L45400
Cone Part Number	L45449
Cup Part Number	L45410
Design Units	Imperial
Bearing Weight	0.20 lb 0.100 Kg
Cage Type	Stamped Steel

Dimensions

d - Bore	1.1417 in 28.999 mm
D - Cup Outer Diameter	1.9800 in 50.292 mm

B - Cone Width	0.5800 in 14.732 mm
C - Cup Width	0.4200 in 10.668 mm
T - Bearing Width	0.5600 in 14.224 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]	0.050 in 1.27 mm
da - Cone Frontface Backing Diameter	1.32 in 33.53 mm
db - Cone Backface Backing Diameter	1.57 in 39.88 mm
Da - Cup Frontface Backing Diameter	1.91 in 48.51 mm
Db - Cup Backface Backing Diameter	1.75 in 44.45 mm
Ab - Cage-Cone Frontface Clearance	0.06 in 1.5 mm
Aa - Cage-Cone Backface Clearance	0 in 0 mm
a - Effective Center Location[3]	-0.13 in -3.30 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	2070 lbf 9200 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	7980 lbf 35500 N
C0 - Static Radial Rating	8130 lbf 36200 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	1310 lbf 5820 N

Factors

K - Factor[7]	1.58
e - ISO Factor[8]	0.37
Y - ISO Factor[9]	1.62
G1 - Heat Generation Factor (Roller-Raceway)	10.8
G2 - Heat Generation Factor (Rib-Roller End)	12.4
Cg - Geometry Factor	0.0559

[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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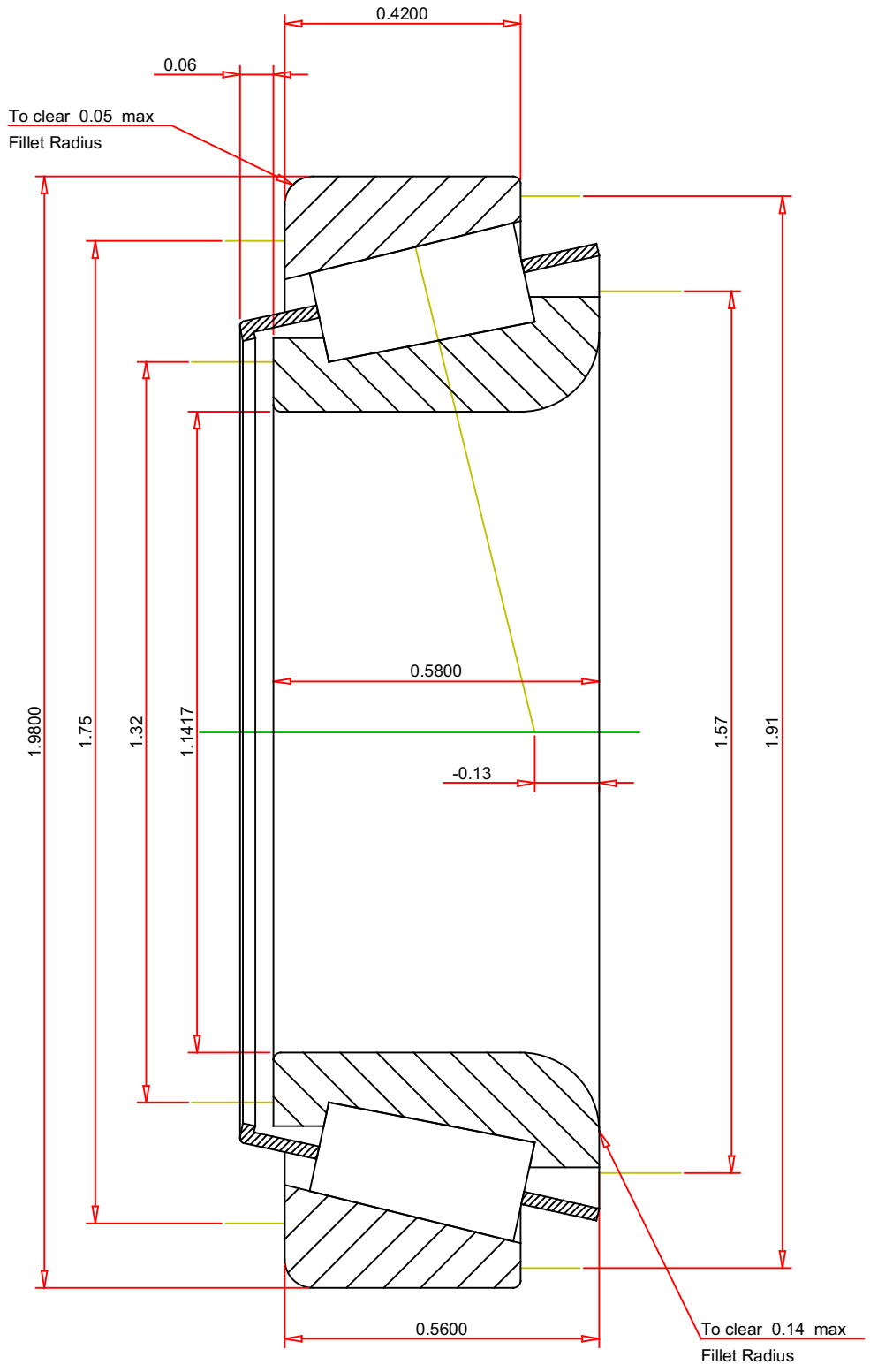

IMPERIAL UNITS

ISO Factor - e	0.37	
ISO Factor - Y	1.62	
Bearing Weight	0.2	lb
Number of Rollers Per Row	21	
Effective Center Location	-0.13	inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

L45449 - L45410
TS BEARING ASSEMBLY

K Factor	1.58	
Dynamic Radial Rating - C90	2070	lbf
Dynamic Thrust Rating - Ca90	1310	lbf
Static Radial Rating - C0	8130	lbf
Dynamic Radial Rating - C1	7980	lbf

FOR DISCUSSION ONLY