TIMKEN

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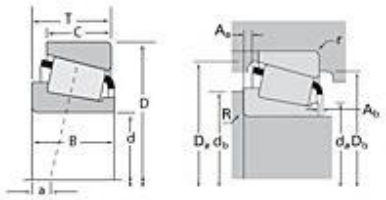
Timken Part Number LM29749 - LM29710, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	LM29700
Cone Part Number	LM29749
Cup Part Number	LM29710
Design Units	Imperial
Bearing Weight	0.50 lb 0.200 Kg
Cage Type	Stamped Steel

Dimensions

d - Bore	1.5 in 38.1 mm
D - Cup Outer Diameter	2.5625 in 65.088 mm

B - Cone Width	0.7200 in 18.288 mm
C - Cup Width	0.5500 in 13.970 mm
T - Bearing Width	0.7100 in 18.034 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.090 in 2.290 mm
r - Cup Backface "To Clear" Radius[2]	0.050 in 1.27 mm
da - Cone Frontface Backing Diameter	1.67 in 42.42 mm
db - Cone Backface Backing Diameter	1.83 in 46.48 mm
Da - Cup Frontface Backing Diameter	2.46 in 62.00 mm
Db - Cup Backface Backing Diameter	2.32 in 58.93 mm
Ab - Cage-Cone Frontface Clearance	0.07 in 1.8 mm
Aa - Cage-Cone Backface Clearance	0.01 in 0.3 mm
a - Effective Center Location[3]	-0.16 in -4.10 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	2830 lbf 12600 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	10900 lbf 48600 N
C0 - Static Radial Rating	13600 lbf 60300 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	1610 lbf 7170 N

Factors

K - Factor[7]	1.76
e - ISO Factor[8]	0.33
Y - ISO Factor[9]	1.8
G1 - Heat Generation Factor (Roller-Raceway)	20.4
G2 - Heat Generation Factor (Rib-Roller End)	15
Cg - Geometry Factor	0.0666

[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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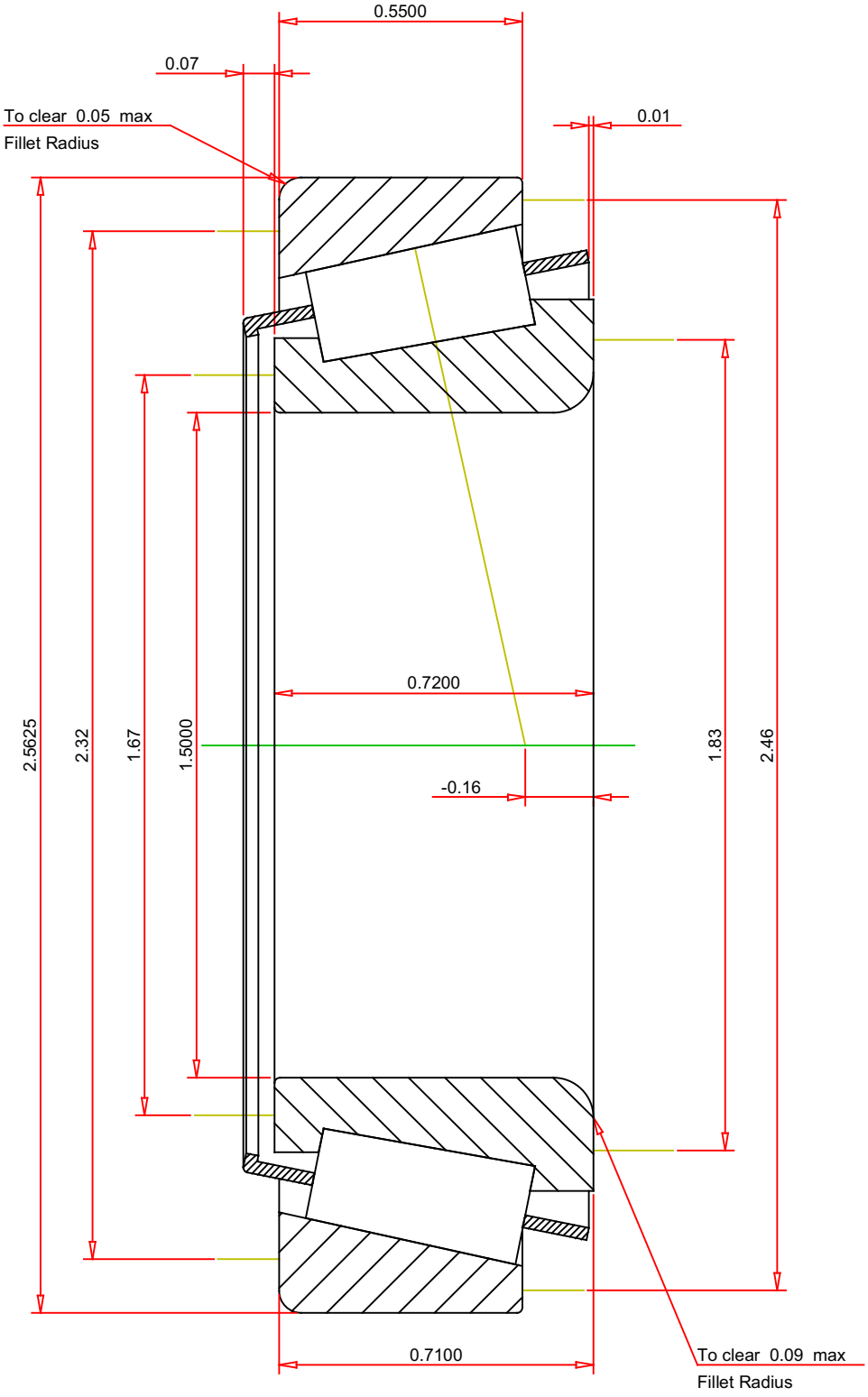

IMPERIAL UNITS

ISO Factor - e	0.33	
ISO Factor - Y	1.8	
Bearing Weight	0.5	lb
Number of Rollers Per Row	21	
Effective Center Location	-0.16	inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

LM29749 - LM29710
TS BEARING ASSEMBLY

K Factor	1.76	
Dynamic Radial Rating - C90	2830	lbf
Dynamic Thrust Rating - Ca90	1610	lbf
Static Radial Rating - C0	13600	lbf
Dynamic Radial Rating - C1	10900	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