TIMKEN

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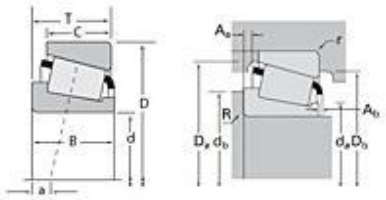
Timken Part Number LM12749 - LM12710, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	LM12700
Cone Part Number	LM12749
Cup Part Number	LM12710
Design Units	Imperial
Bearing Weight	0.30 lb 0.100 Kg
Cage Type	Stamped Steel

Dimensions

d - Bore	0.8656 in 21.986 mm
D - Cup Outer Diameter	1.7810 in 45.237 mm

B - Cone Width	0.6550 in 16.637 mm
C - Cup Width	0.4750 in 12.065 mm
T - Bearing Width	0.6100 in 15.494 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.050 in 1.270 mm
r - Cup Backface "To Clear" Radius[2]	0.050 in 1.27 mm
da - Cone Frontface Backing Diameter	1.02 in 25.91 mm
db - Cone Backface Backing Diameter	1.08 in 27.43 mm
Da - Cup Frontface Backing Diameter	1.67 in 42.40 mm
Db - Cup Backface Backing Diameter	1.56 in 39.62 mm
Ab - Cage-Cone Frontface Clearance	0.04 in 1 mm
Aa - Cage-Cone Backface Clearance	0.01 in 0.3 mm
a - Effective Center Location[3]	-0.21 in -5.30 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	2250 lbf 10000 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	8680 lbf 38600 N
C0 - Static Radial Rating	7930 lbf 35300 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	1180 lbf 5250 N

Factors

K - Factor[7]	1.91
e - ISO Factor[8]	0.31
Y - ISO Factor[9]	1.96
G1 - Heat Generation Factor (Roller-Raceway)	8.2
G2 - Heat Generation Factor (Rib-Roller End)	6.98
Cg - Geometry Factor	0.048

[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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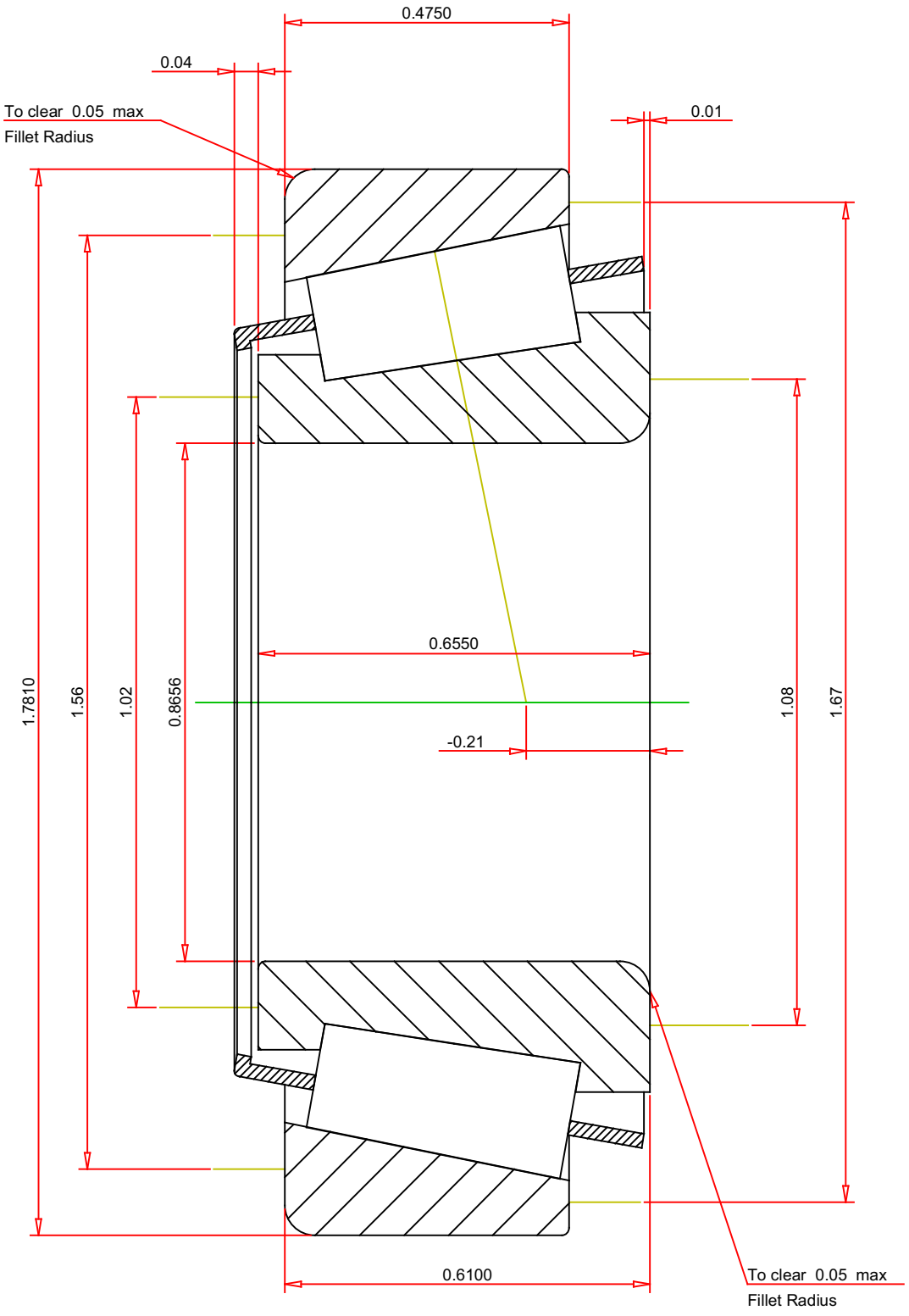

IMPERIAL UNITS

ISO Factor - e	0.31	
ISO Factor - Y	1.96	
Bearing Weight	0.3	lb
Number of Rollers Per Row	17	
Effective Center Location	-0.21	inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

LM12749 - LM12710
TS BEARING ASSEMBLY

K Factor	1.91	
Dynamic Radial Rating - C90	2250	lbf
Dynamic Thrust Rating - Ca90	1180	lbf
Static Radial Rating - C0	7930	lbf
Dynamic Radial Rating - C1	8680	lbf

FOR DISCUSSION ONLY