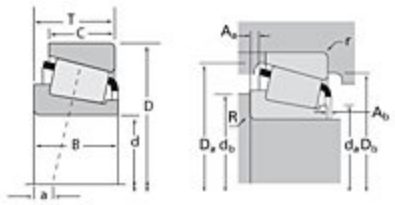
TIMKEN

The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number LM72849 - LM72810, 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	LM72800
Cone Part Number	LM72849
Cup Part Number	LM72810
Design Units	Imperial
Bearing Weight	0.100 Kg 0.30 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	22.606 mm 0.8900 in
D - Cup Outer Diameter	47.000 mm 1.8504 in

B - Cone Width	15.499 mm 0.6102 in
C - Cup Width	11.999 mm 0.4724 in
T - Bearing Width	15.499 mm 0.6102 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	1.520 mm 0.06 in
r - Cup Backface "To Clear" Radius[2]	1.02 mm 0.04 in
da - Cone Frontface Backing Diameter	27.94 mm 1.10 in
db - Cone Backface Backing Diameter	29.97 mm 1.18 in
Da - Cup Frontface Backing Diameter	44.45 mm 1.75 in
Db - Cup Backface Backing Diameter	40.39 mm 1.59 in
Ab - Cage-Cone Frontface Clearance	1.8 mm 0.07 in
Aa - Cage-Cone Backface Clearance	0 mm 0 in
a - Effective Center Location[3]	-3 mm -0.12 in

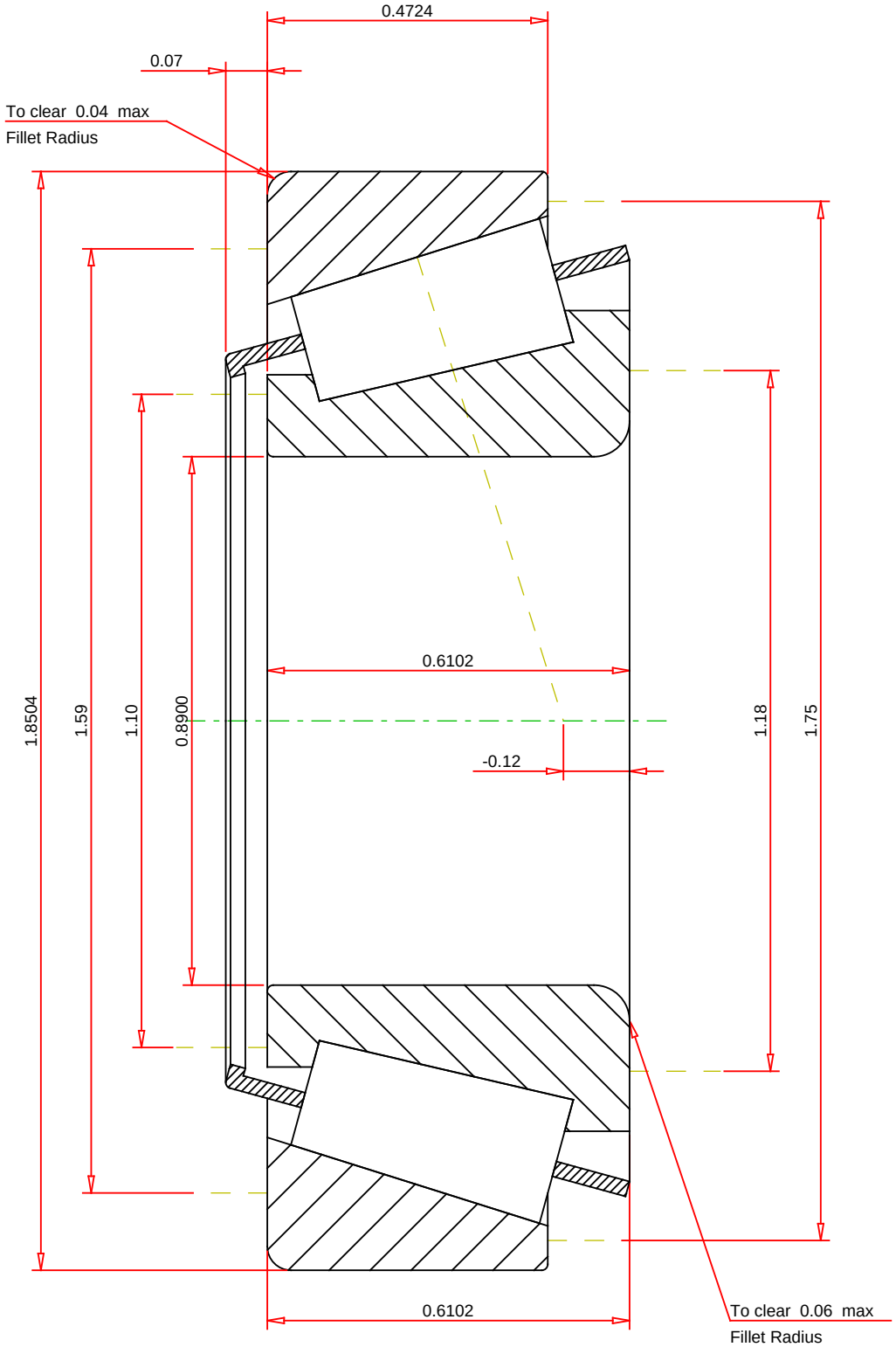
Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	9110 N 2050 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	35100 N 7900 lbf
C0 - Static Radial Rating	33000 N 7420 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	7380 N 1660 lbf

Factors

K - Factor[7]	1.24
e - ISO Factor[8]	0.47
Y - ISO Factor[9]	1.27
G1 - Heat Generation Factor (Roller-Raceway)	7.5
G2 - Heat Generation Factor (Rib-Roller End)	8.95
Cg - Geometry Factor	0.0538

[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.
[8] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.
[9] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.



IMPERIAL UNITS

ISO Factor - e	0.47	
ISO Factor - Y	1.27	
Bearing Weight	0.3	lb
Number of Rollers Per Row	18	
Effective Center Location	-0.12	inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

LM72849 - LM72810
TS BEARING ASSEMBLY

K Factor	1.24	
Dynamic Radial Rating - C90	9110	lbf
Dynamic Thrust Rating - Ca90	7380	lbf
Static Radial Rating - C0	33000	lbf
Dynamic Radial Rating - C1	35100	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