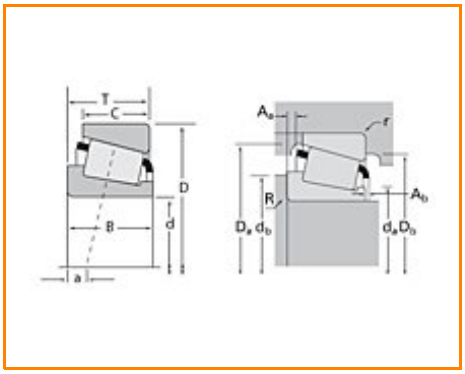
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number LM603049 - LM603014, 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	LM603000
Cone Part Number	LM603049
Cup Part Number	LM603014
Design Units	Imperial
Bearing Weight	0.400 Kg 0.90 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	45.242 mm 1.7812 in
D - Cup Outer Diameter	79.974 mm 3.1486 in
B - Cone Width	19.842 mm 0.7812 in
C - Cup Width	15.080 mm 0.5937 in
T - Bearing Width	19.842 mm 0.7812 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]	0.76 mm 0.030 in
da - Cone Frontface Backing Diameter	52.07 mm 2.05 in
db - Cone Backface Backing Diameter	57.91 mm 2.28 in
Da - Cup Frontface Backing Diameter	75.90 mm 2.99 in
Db - Cup Backface Backing Diameter	71.12 mm 2.8 in
Ab - Cage-Cone Frontface Clearance	2 mm 0.08 in
Aa - Cage-Cone Backface Clearance	0.8 mm 0.03 in
a - Effective Center Location[3]	-2.30 mm -0.09 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	19800 N 4450 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	76300 N 17200 lbf
C0 - Static Radial Rating	77900 N 17500 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	14500 N 3250 lbf

Factors

K - Factor[7]	1.37
e - ISO Factor[8]	0.43
Y - ISO Factor[9]	1.41
G1 - Heat Generation Factor (Roller-Raceway)	26.4
G2 - Heat Generation Factor (Rib-Roller End)	14.4
Cg - Geometry Factor	0.0785

[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

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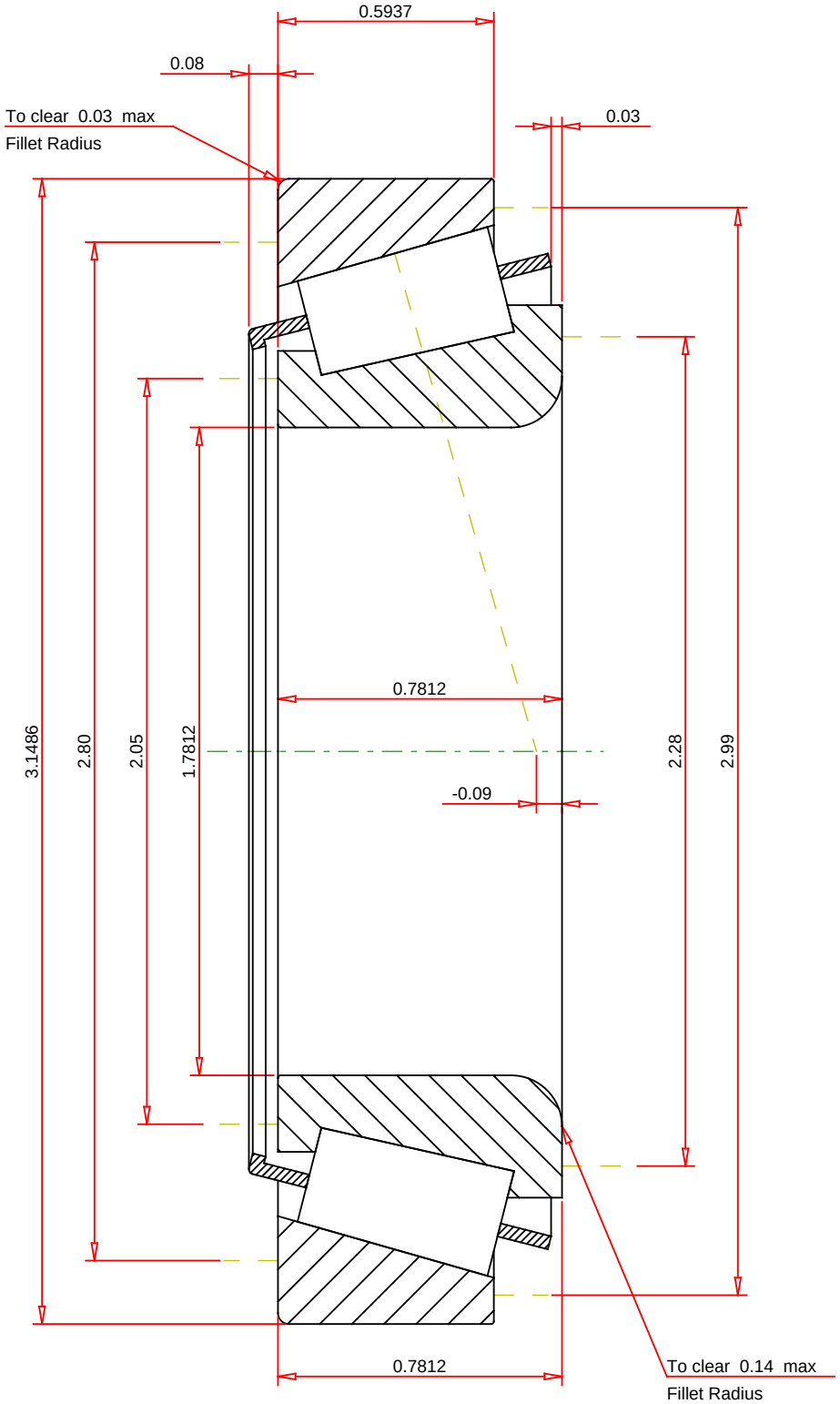

IMPERIAL UNITS

ISO Factor - e	0.43	
ISO Factor - Y	1.41	
Bearing Weight	0.9	lb
Number of Rollers Per Row	20	
Effective Center Location	-0.09	inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

LM603049 - LM603014
TS BEARING ASSEMBLY

K Factor	1.37	
Dynamic Radial Rating - C90	19800	lbf
Dynamic Thrust Rating - Ca90	14500	lbf
Static Radial Rating - C0	77900	lbf
Dynamic Radial Rating - C1	76300	lbf

FOR DISCUSSION ONLY