TIMKEN

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Timken Part Number L68149P - L68111, 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.
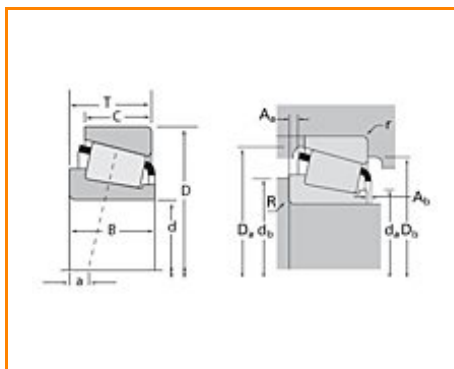
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Specifications —

Series	L68100
Cone Part Number	L68149P
Cup Part Number	L68111
Design Units	Imperial
Bearing Weight	0.200 Kg 0.4 lb
Cage Type	Stamped Steel

Dimensions —

d - Bore	34.989 mm 1.3775 in
D - Cup Outer Diameter	59.974 mm 2.3612 in
B - Cone Width	16.764 mm 0.6600 in
C - Cup Width	11.938 mm 0.4700 in
T - Bearing Width	15.875 mm 0.6250 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]	1.27 mm 0.050 in
da - Cone Frontface Backing Diameter	39.12 mm 1.54 in
db - Cone Backface Backing Diameter	45.47 mm 1.79 in
Da - Cup Frontface Backing Diameter	55.90 mm 2.24 in
Db - Cup Backface Backing Diameter	53.09 mm 2.09 in
Ab - Cage-Cone Frontface Clearance	1.5 mm 0.06 in
Aa - Cage-Cone Backface Clearance	0.3 mm 0.01 in
a - Effective Center Location[3]	-2.5 mm -0.1 in

Basic Load Ratings —

C90 - Dynamic Radial Rating (90 million revolutions)[4]	11800 N 2650 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	45500 N 10200 lbf
C0 - Static Radial Rating	48700 N 11000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	8400 N 1890 lbf

Factors —

K - Factor[7]	1.4
e - ISO Factor[8]	0.42
Y - ISO Factor[9]	1.44
G1 - Heat Generation Factor (Roller-Raceway)	15.7
G2 - Heat Generation Factor (Rib-Roller End)	14.7
Cg - Geometry Factor	0.0657

[1] These maximum fillet radii will be cleared by the bearing corners.

[2] These maximum fillet radii will be cleared by the bearing corners.

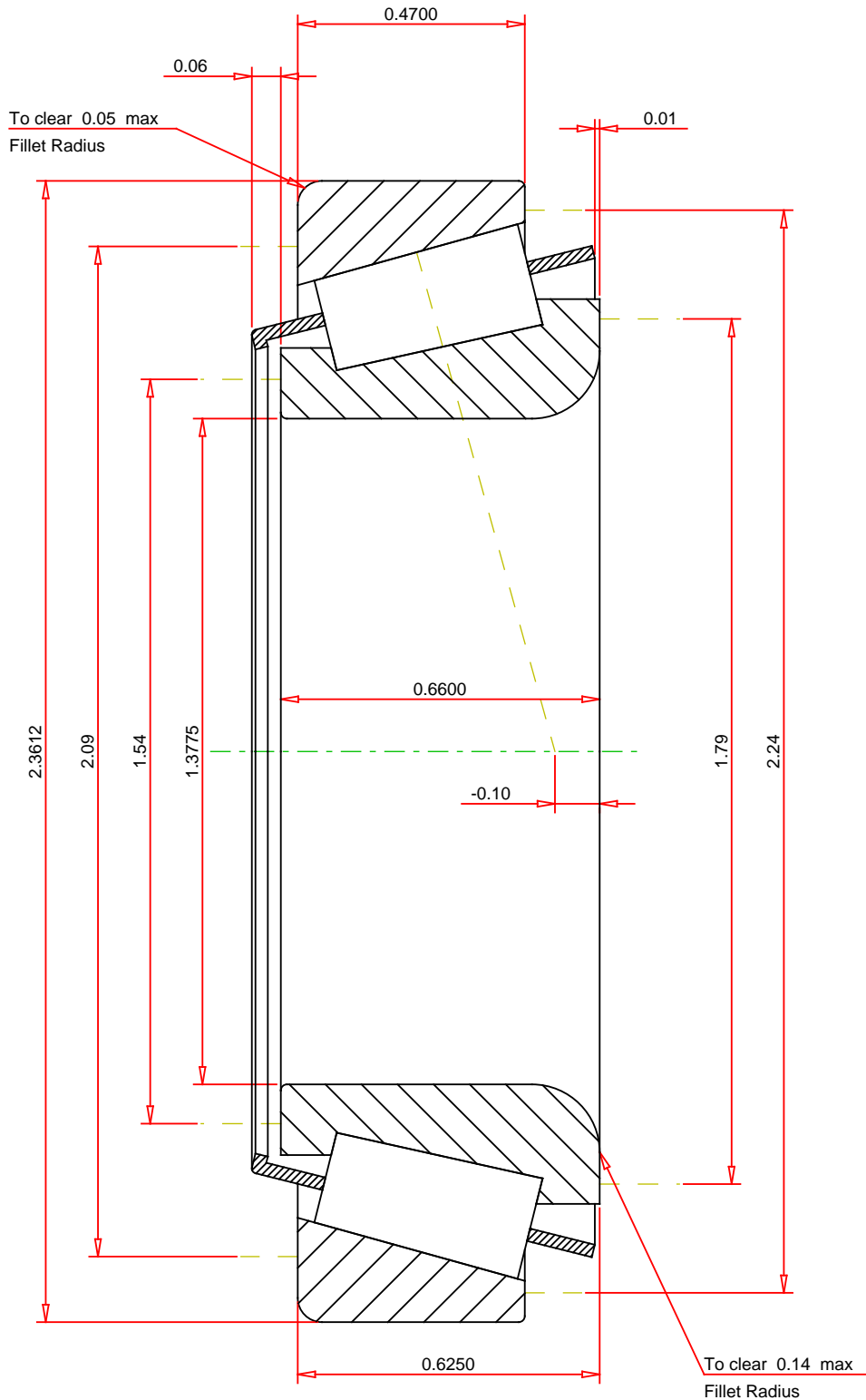[3] Negative value indicates effective center inside cone backface.

[4] Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

[5] Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

[6] Based on 90×10^6 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.

0.4700

0.06

To clear 0.05 max
Fillet Radius

0.01

2.3612

2.09

1.54

1.3775

0.6600

-0.10

1.79

2.24

0.6250

To clear 0.14 max
Fillet Radius

IMPERIAL UNITS

ISO Factor - e	0.42
ISO Factor - Y	1.44
Bearing Weight	0.4 lb
Number of Rollers Per Row	23
Effective Center Location	-0.1 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

L68149P - L68111
TS BEARING ASSEMBLY

K Factor	1.4	
Dynamic Radial Rating - C90	11800	lbf
Dynamic Thrust Rating - Ca90	8400	lbf
Static Radial Rating - C0	48700	lbf
Dynamic Radial Rating - C1	45500	lbf

FOR DISCUSSION ONLY