TIMKEN

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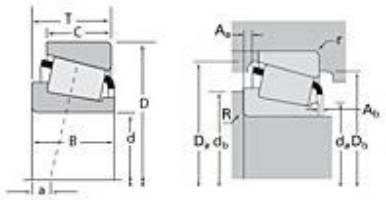
Timken Part Number JL69349 - JL69310, Tapered Roller Bearings - TS (Tapered Single) Metric

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	L69300
Cone Part Number	JL69349
Cup Part Number	JL69310
Design Units	Metric
Bearing Weight	0.200 Kg 0.4 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	38.000 mm 1.4961 in
D - Cup Outer Diameter	63.000 mm 2.4803 in

B - Cone Width	17.000 mm 0.6693 in
C - Cup Width	13.500 mm 0.5315 in
T - Bearing Width	17.000 mm 0.6693 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.000 mm 0.000 in
r - Cup Backface "To Clear" Radius[2]	1.27 mm 0.050 in
da - Cone Frontface Backing Diameter	42.42 mm 1.67 in
db - Cone Backface Backing Diameter	46.48 mm 1.83 in
Da - Cup Frontface Backing Diameter	60.96 mm 2.40 in
Db - Cup Backface Backing Diameter	55.88 mm 2.20 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]	-2.30 mm -0.09 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	13200 N 2970 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	51000 N 11500 lbf
C0 - Static Radial Rating	55000 N 12400 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	9410 N 2120 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)	18.4
G2 - Heat Generation Factor (Rib-Roller End)	14.5
Cg - Geometry Factor	0.0692

[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.
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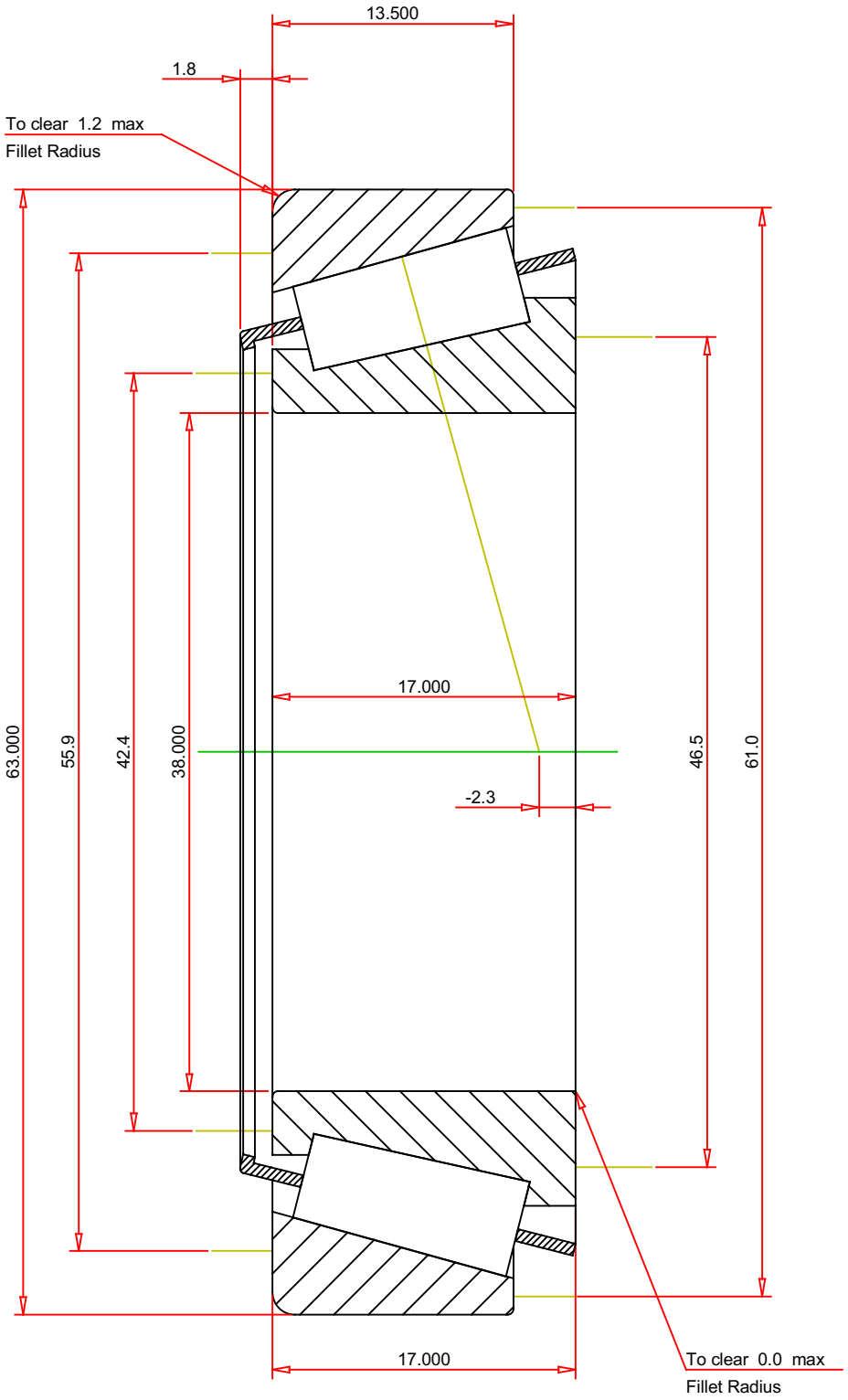

METRIC UNITS

ISO Factor - e	0.42	
ISO Factor - Y	1.44	
Bearing Weight	0.2	kg
Number of Rollers Per Row	22	
Effective Center Location	-2.3	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

JL69349 - JL69310
TS BEARING ASSEMBLY

K Factor	1.4	
Dynamic Radial Rating - C90	13200	N
Dynamic Thrust Rating - Ca90	9410	N
Static Radial Rating - C0	55000	N
Dynamic Radial Rating - C1	51000	N

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