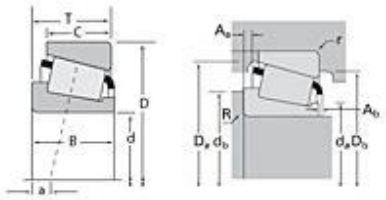
TIMKEN

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Timken Part Number JL68145 - JL68111-Z, 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.





Specifications | Dimensions | Abutment and Fillet Dimensions | Basic Load Ratings | Factors

Specifications

Series	L68100
Cone Part Number	JL68145
Cup Part Number	JL68111-Z
Design Units	Metric
Bearing Weight	0.200 Kg 0.4 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	35.000 mm 1.3780 in
D - Cup Outer Diameter	60.000 mm 2.3622 in

B - Cone Width	18.460 mm 0.7268 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]	2.030 mm 0.080 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	42.42 mm 1.67 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	-0.5 mm -0.02 in
Aa - Cage-Cone Backface Clearance	0.3 mm 0.01 in
a - Effective Center Location[3]	-2.50 mm -0.10 in

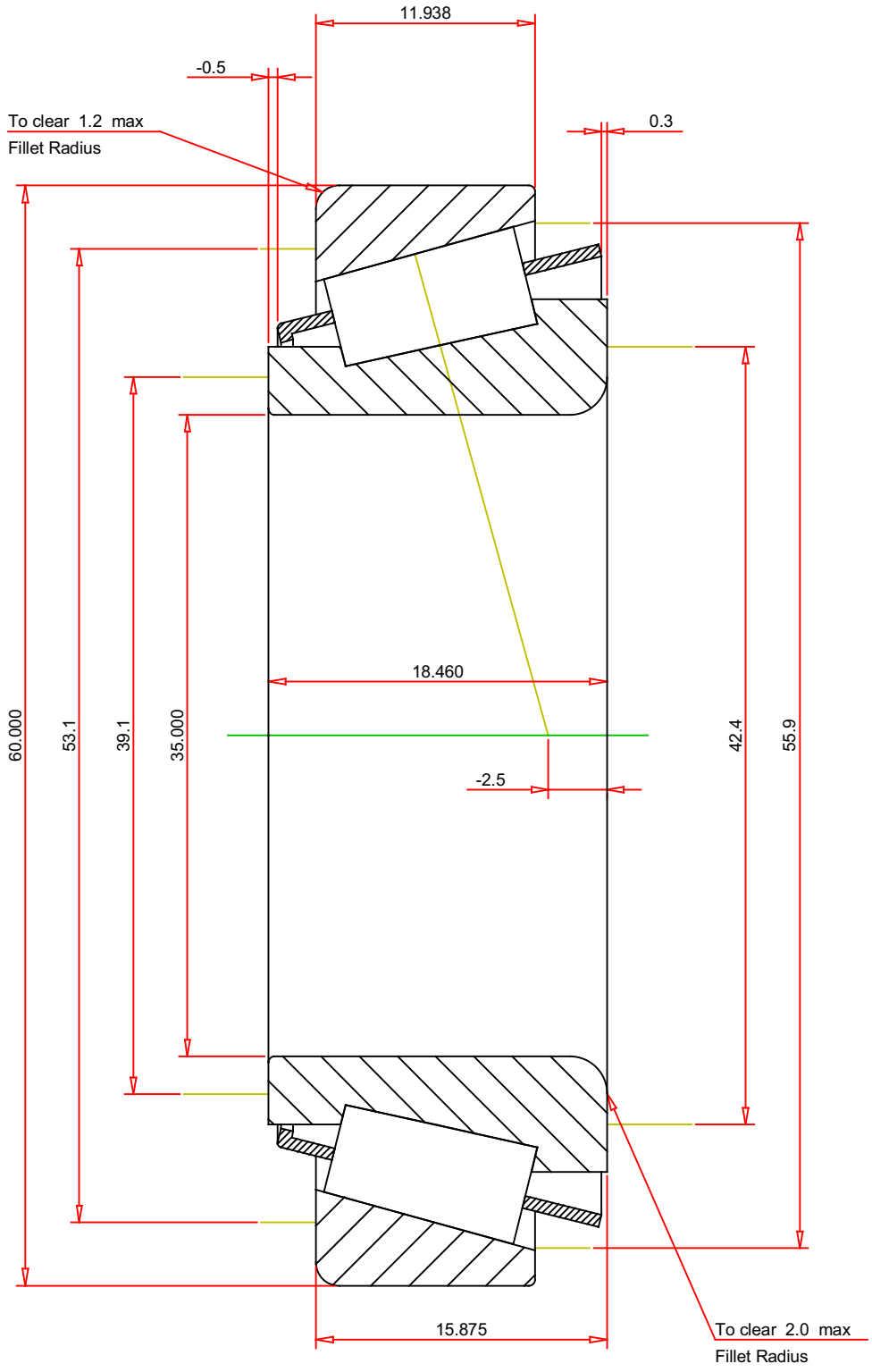
Basic Load Ratings

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 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.



METRIC UNITS

ISO Factor - e	0.42	
ISO Factor - Y	1.44	
Bearing Weight	0.2	kg
Number of Rollers Per Row	23	
Effective Center Location	-2.5	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

JL68145 - JL68111-Z
TS BEARING ASSEMBLY

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