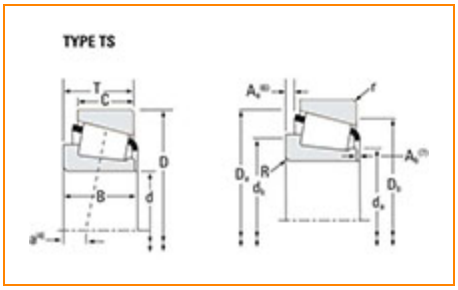
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Part Number JL724348 - JL724314, 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	L724300
Cone Part Number	JL724348
Cup Part Number	JL724314
Design Unit	Metric
Cage Material	Stamped Steel
Full Timken Part Number	L724300

Dimensions

- Bore	120 mm 4.7244 in

D - Cup Outer Diameter	170 mm 6.6929 in
B - Cone Width	25.4 mm 1 in
C - Cup Width	19.050 mm 0.7500 in
T - Bearing Width	25.400 mm 1.0000 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	3.3 mm 0.13 in
r - Cup Backface "To Clear" Radius[2]	3.3 mm 0.13 in
da - Cone Frontface Backing Diameter	127 mm 5 in
db - Cone Backface Backing Diameter	132.0 mm 5.20 in
Da - Cup Frontface Backing Diameter	163.10 mm 6.46 in
Db - Cup Backface Backing Diameter	155.96 mm 6.14 in
Ab - Cage-Cone Frontface Clearance	2 mm 0.08 in
Aa - Cage-Cone Backface Clearance	2 mm 0.08 in
a - Effective Center Location[3]	7.9 mm 0.31 in

Basic Load Ratings

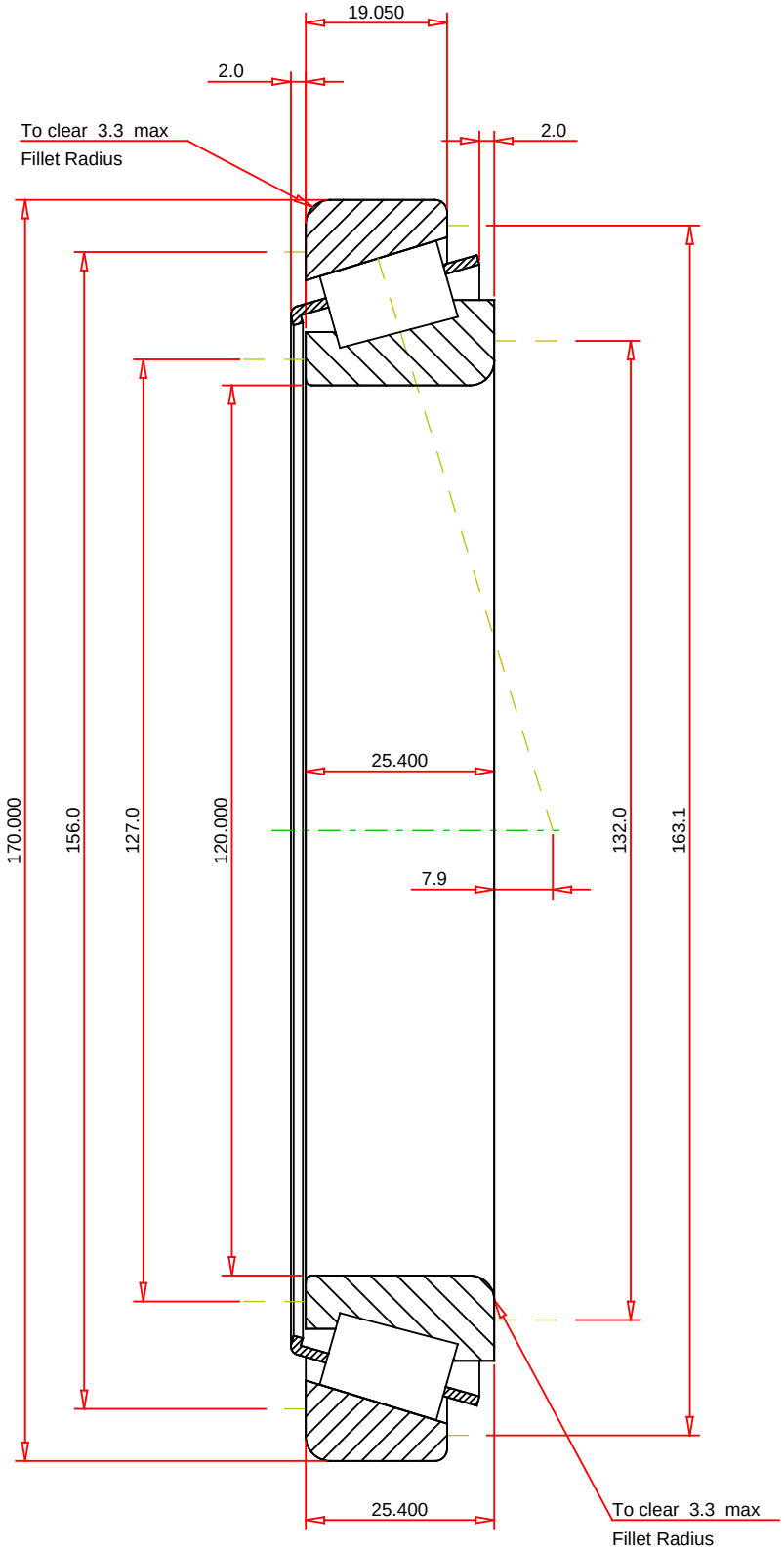
C90 - Dynamic Radial Rating (90 million revolutions)[4]	37600 N 8450 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	145000 N 32600 lbf
C0 - Static Radial Rating	231000 N 52000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	29500 N 6640 lbf

Factors

K - Factor[7]	1.27
e - ISO Factor[8]	0.46
Y - ISO Factor[9]	1.31
G1 - Heat Generation Factor (Roller-Raceway)	170
G2 - Heat Generation Factor (Rib-Roller End)	70.6
Cg - Geometry Factor[10]	0.147

[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.
[10] Geometry constant for Lubrication Life Adjustment Factor a3l.



METRIC UNITS

ISO Factor - e	0.46	
ISO Factor - Y	1.31	
Bearing Weight	1.6	kg
Number of Rollers Per Row	33	
Effective Center Location	7.9	mm

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

JL724348 - JL724314

Tapered Roller Bearings - TS (Tapered Single)
Metric

K Factor	1.27	
Dynamic Radial Rating - C90	37600	N
Dynamic Thrust Rating - Ca90	29500	N
Static Radial Rating - C0	231000	N
Dynamic Radial Rating - C1	145000	N

FOR DISCUSSION ONLY