TIMKEN

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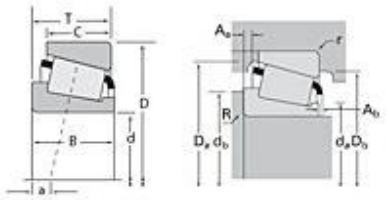
Timken Part Number JLM714149 - JLM714110, Tapered Roller Bearings - TS (Tapered Single) Metric

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	LM714100
Cone Part Number	JLM714149
Cup Part Number	JLM714110
Design Units	Metric
Bearing Weight	0.900 Kg 1.90 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	75.000 mm 2.9528 in
D - Cup Outer Diameter	115.000 mm 4.5276 in

B - Cone Width	25.000 mm 0.9843 in
C - Cup Width	19.000 mm 0.7480 in
T - Bearing Width	25.000 mm 0.9843 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	3.050 mm 0.120 in
r - Cup Backface "To Clear" Radius[2]	2.54 mm 0.100 in
da - Cone Frontface Backing Diameter	82.04 mm 3.23 in
db - Cone Backface Backing Diameter	87.88 mm 3.46 in
Da - Cup Frontface Backing Diameter	111.00 mm 4.37 in
Db - Cup Backface Backing Diameter	103.89 mm 4.09 in
Ab - Cage-Cone Frontface Clearance	2.8 mm 0.11 in
Aa - Cage-Cone Backface Clearance	1.5 mm 0.06 in
a - Effective Center Location[3]	0.50 mm 0.02 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	36400 N 8180 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	140000 N 31600 lbf
C0 - Static Radial Rating	167000 N 37500 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	28600 N 6420 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)	76.3
G2 - Heat Generation Factor (Rib-Roller End)	30.5
Cg - Geometry Factor	0.114

[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.
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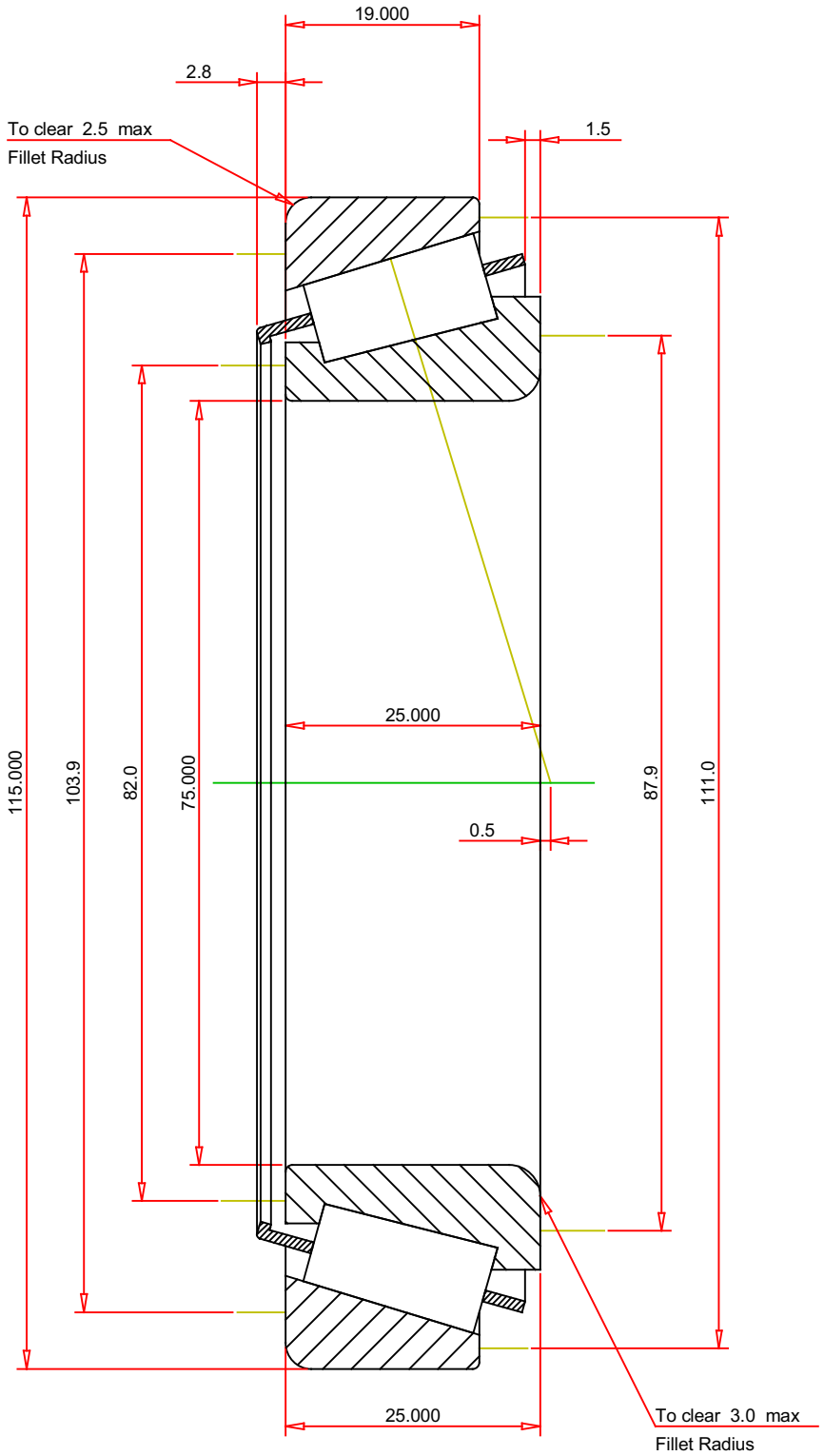

METRIC UNITS

ISO Factor - e	0.46	
ISO Factor - Y	1.31	
Bearing Weight	0.9	kg
Number of Rollers Per Row	24	
Effective Center Location	0.5	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

JLM714149 - JLM714110
TS BEARING ASSEMBLY

K Factor	1.27	
Dynamic Radial Rating - C90	36400	N
Dynamic Thrust Rating - Ca90	28600	N
Static Radial Rating - C0	167000	N
Dynamic Radial Rating - C1	140000	N

FOR DISCUSSION ONLY