TIMKEN

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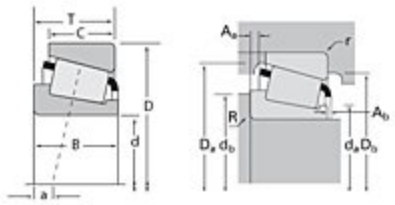
Timken Part Number JLM710949C - JLM710910, Tapered Roller Bearings - TS (Tapered Single) Metric

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	LM710900
Cone Part Number	JLM710949C
Cup Part Number	JLM710910
Design Units	METRIC
Bearing Weight	0.800 Kg 1.70 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	65.000 mm 2.5591 in
D - Cup Outer Diameter	105.000 mm 4.1339 in

B - Cone Width	23.000 mm 0.9055 in
C - Cup Width	18.500 mm 0.7283 in
T - Bearing Width	24.000 mm 0.9449 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	3.050 mm 0.12 in
r - Cup Backface "To Clear" Radius[2]	1.02 mm 0.04 in
da - Cone Frontface Backing Diameter	71.88 mm 2.83 in
db - Cone Backface Backing Diameter	77.98 mm 3.07 in
Da - Cup Frontface Backing Diameter	101.09 mm 3.98 in
Db - Cup Backface Backing Diameter	96.01 mm 3.78 in
Ab - Cage-Cone Frontface Clearance	3.6 mm 0.14 in
Aa - Cage-Cone Backface Clearance	1 mm 0.04 in
a - Effective Center Location[3]	-0.30 mm -0.01 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	28000 N 6310 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	108000 N 24300 lbf
C0 - Static Radial Rating	139000 N 31300 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	21800 N 4900 lbf

Factors

K - Factor[7]	1.29
e - ISO Factor[8]	0.45
Y - ISO Factor[9]	1.32
G1 - Heat Generation Factor (Roller-Raceway)	55.5
G2 - Heat Generation Factor (Rib-Roller End)	22.4
Cg - Geometry Factor	0.102

[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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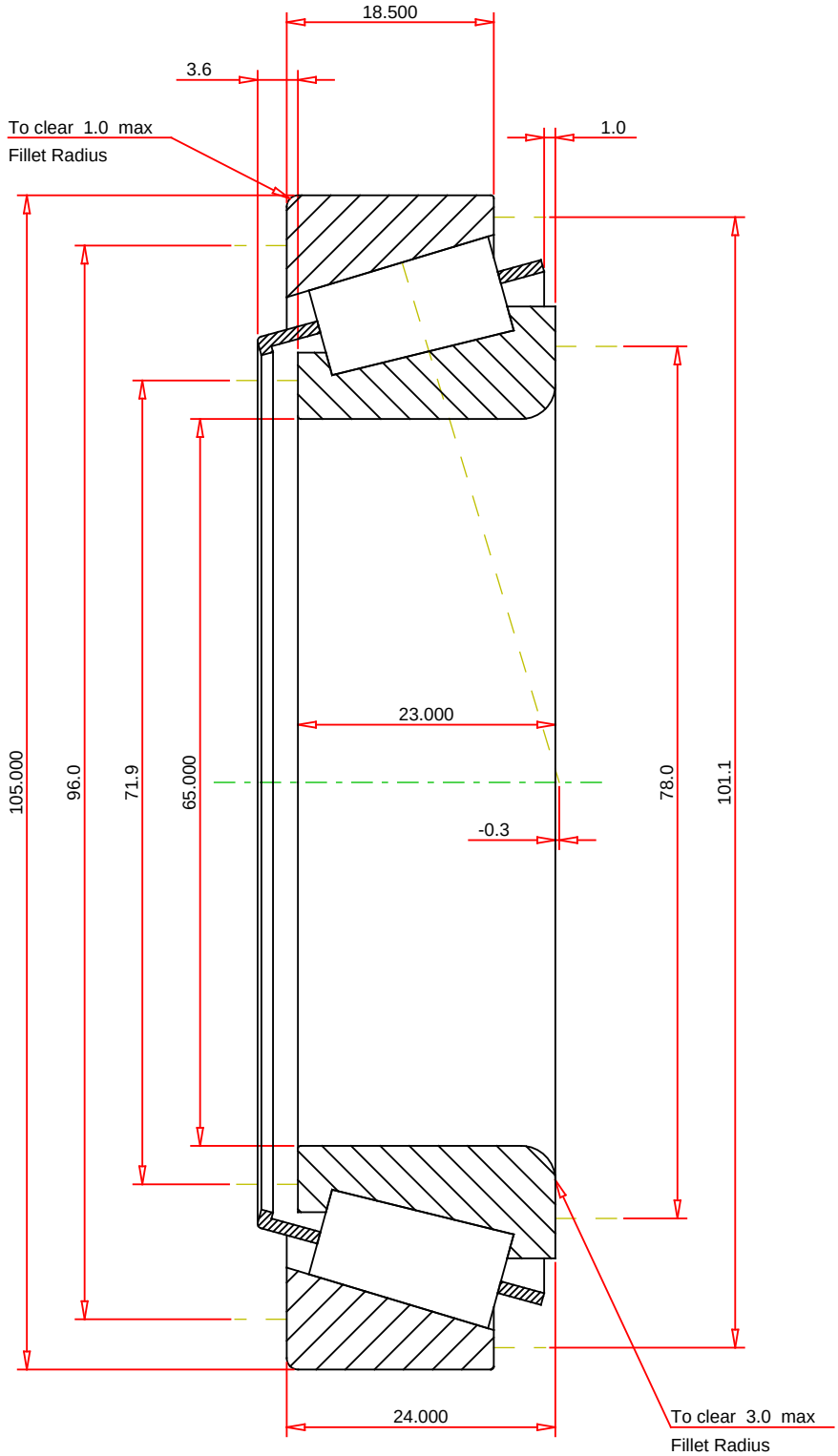

METRIC UNITS

ISO Factor - e	0.45	
ISO Factor - Y	1.32	
Bearing Weight	0.8	kg
Number of Rollers Per Row	21	
Effective Center Location	-0.3	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

JLM710949C - JLM710910
TS BEARING ASSEMBLY

K Factor	1.29	
Dynamic Radial Rating - C90	28000	N
Dynamic Thrust Rating - Ca90	21800	N
Static Radial Rating - C0	139000	N
Dynamic Radial Rating - C1	108000	N

FOR DISCUSSION ONLY