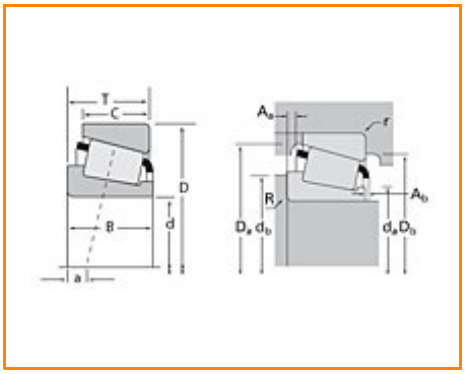
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number JM822049H - JM822010, 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	M822000
Cone Part Number	JM822049H
Cup Part Number	JM822010
Design Units	METRIC
Bearing Weight	2.500 Kg 5.40 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	110 mm 4.3307 in
D - Cup Outer Diameter	165.000 mm 6.4961 in
B - Cone Width	35.000 mm 1.3780 in
C - Cup Width	26.500 mm 1.0433 in
T - Bearing Width	35.000 mm 1.3780 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]	2.54 mm 0.1 in
da - Cone Frontface Backing Diameter	119.13 mm 4.69 in
db - Cone Backface Backing Diameter	124.97 mm 4.92 in
Da - Cup Frontface Backing Diameter	160.00 mm 6.30 in
Db - Cup Backface Backing Diameter	149.10 mm 5.87 in
Ab - Cage-Cone Frontface Clearance	3.3 mm 0.13 in
Aa - Cage-Cone Backface Clearance	2 mm 0.08 in
a - Effective Center Location[3]	3 mm 0.12 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	55800 N 12500 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	215000 N 48400 lbf
C0 - Static Radial Rating	330000 N 74100 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	47500 N 10700 lbf

Factors

K - Factor[7]	1.18
e - ISO Factor[8]	0.5
Y - ISO Factor[9]	1.21
G1 - Heat Generation Factor (Roller-Raceway)	181.5
G2 - Heat Generation Factor (Rib-Roller End)	43.5
Cg - Geometry Factor	0.156

[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

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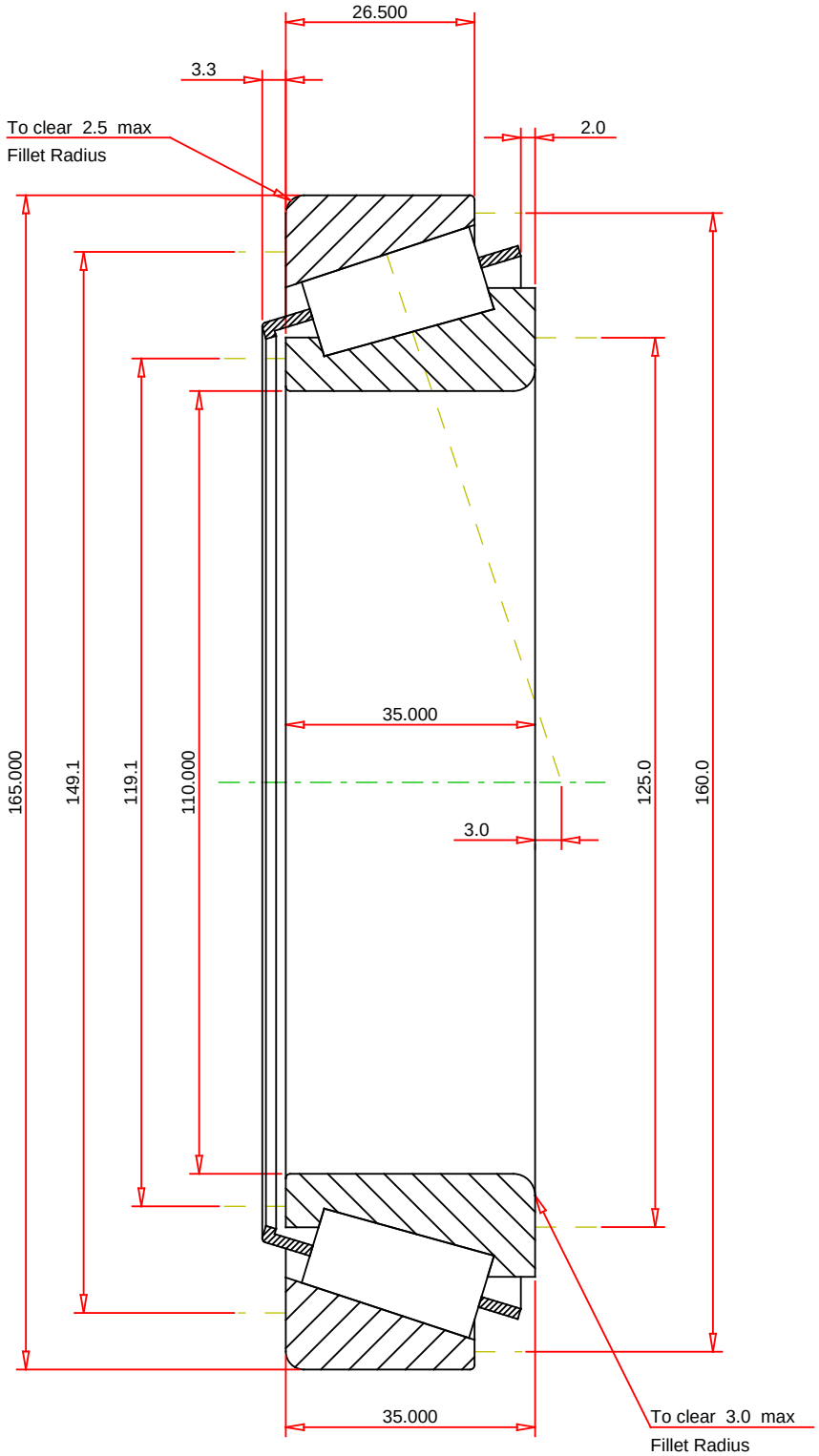
[9] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.



METRIC UNITS

ISO Factor - e	0.5	
ISO Factor - Y	1.21	
Bearing Weight	2.5	kg
Number of Rollers Per Row	25	
Effective Center Location	3	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

JM822049H - JM822010
TS BEARING ASSEMBLY

K Factor	1.18	
Dynamic Radial Rating - C90	55800	N
Dynamic Thrust Rating - Ca90	47500	N
Static Radial Rating - C0	330000	N
Dynamic Radial Rating - C1	215000	N

FOR DISCUSSION ONLY