TIMKEN

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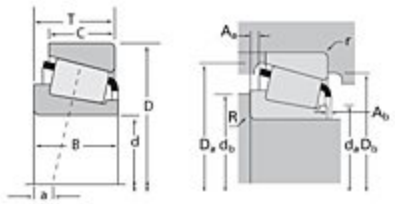
Timken Part Number JHM807045 - JHM807012, Tapered Roller Bearings - TS (Tapered Single) Metric

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	HM807000
Cone Part Number	JHM807045
Cup Part Number	JHM807012
Design Units	METRIC
Bearing Weight	1.500 Kg 3.30 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	50.000 mm 1.9685 in
D - Cup Outer Diameter	105.000 mm 4.1339 in

B - Cone Width	36 mm 1.4173 in
C - Cup Width	29.000 mm 1.1417 in
T - Bearing Width	37.000 mm 1.4567 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	62.99 mm 2.48 in
db - Cone Backface Backing Diameter	69.09 mm 2.72 in
Da - Cup Frontface Backing Diameter	100.10 mm 3.96 in
Db - Cup Backface Backing Diameter	89.92 mm 3.54 in
Ab - Cage-Cone Frontface Clearance	3 mm 0.12 in
Aa - Cage-Cone Backface Clearance	3 mm 0.12 in
a - Effective Center Location[3]	-7.60 mm -0.30 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	44500 N 10000 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	172000 N 38600 lbf
C0 - Static Radial Rating	223000 N 50200 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	37100 N 8350 lbf

Factors

K - Factor[7]	1.2
e - ISO Factor[8]	0.49
Y - ISO Factor[9]	1.23
G1 - Heat Generation Factor (Roller-Raceway)	63.9
G2 - Heat Generation Factor (Rib-Roller End)	17.1
Cg - Geometry Factor	0.076

[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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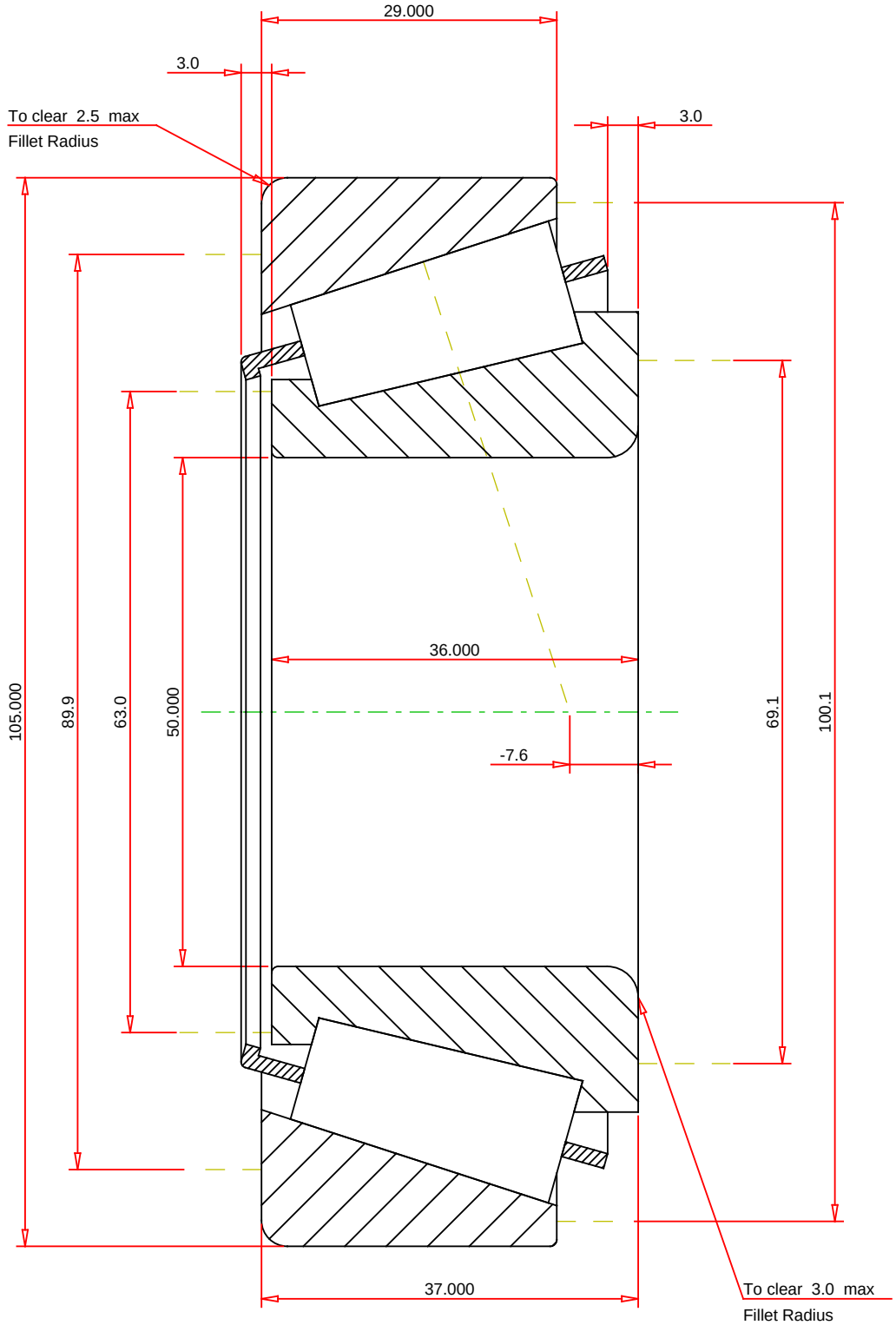

METRIC UNITS

ISO Factor - e	0.49	
ISO Factor - Y	1.23	
Bearing Weight	1.5	kg
Number of Rollers Per Row	18	
Effective Center Location	-7.6	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

JHM807045 - JHM807012
TS BEARING ASSEMBLY

K Factor	1.2	
Dynamic Radial Rating - C90	44500	N
Dynamic Thrust Rating - Ca90	37100	N
Static Radial Rating - C0	223000	N
Dynamic Radial Rating - C1	172000	N

FOR DISCUSSION ONLY