


The Timken Company

4500 Mt Pleasant St. NW

N. Canton, OH 44720

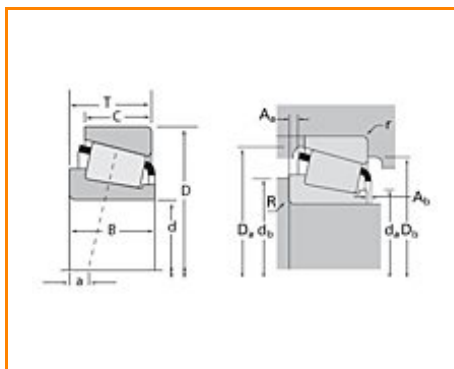
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Timken Part Number JH415647 - JH415610, Tapered Roller Bearings - TS (Tapered Single)

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	H415600
Cone Part Number	JH415647
Cup Part Number	JH415610
Design Units	METRIC
Bearing Weight	3.800 Kg 8.40 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	75.000 mm 2.9528 in
D - Cup Outer Diameter	145.000 mm 5.7087 in
B - Cone Width	51 mm 2.0079 in
C - Cup Width	42 mm 1.6535 in
T - Bearing Width	51 mm 2.0079 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	3.050 mm 0.12 in
r - Cup Backface "To Clear" Radius²	2.54 mm 0.1 in
da - Cone Frontface Backing Diameter	88.90 mm 3.50 in
db - Cone Backface Backing Diameter	93.98 mm 3.7 in
Da - Cup Frontface Backing Diameter	139.95 mm 5.51 in
Db - Cup Backface Backing Diameter	129.03 mm 5.08 in
Ab - Cage-Cone Frontface Clearance	3.8 mm 0.15 in
Aa - Cage-Cone Backface Clearance	1.5 mm 0.06 in
a - Effective Center Location³	-14.20 mm -0.56 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	89900 N 20200 lbf
C1 - Dynamic Radial Rating (1 million revolutions)⁵	347000 N 78000 lbf
C0 - Static Radial Rating	463000 N 104000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	55700 N 12500 lbf

Factors

K - Factor⁷	1.61
e - ISO Factor⁸	0.36
Y - ISO Factor⁹	1.66
G1 - Heat Generation Factor (Roller-Raceway)	158
G2 - Heat Generation Factor (Rib-Roller End)	26.4
Cg - Geometry Factor	0.0931

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.

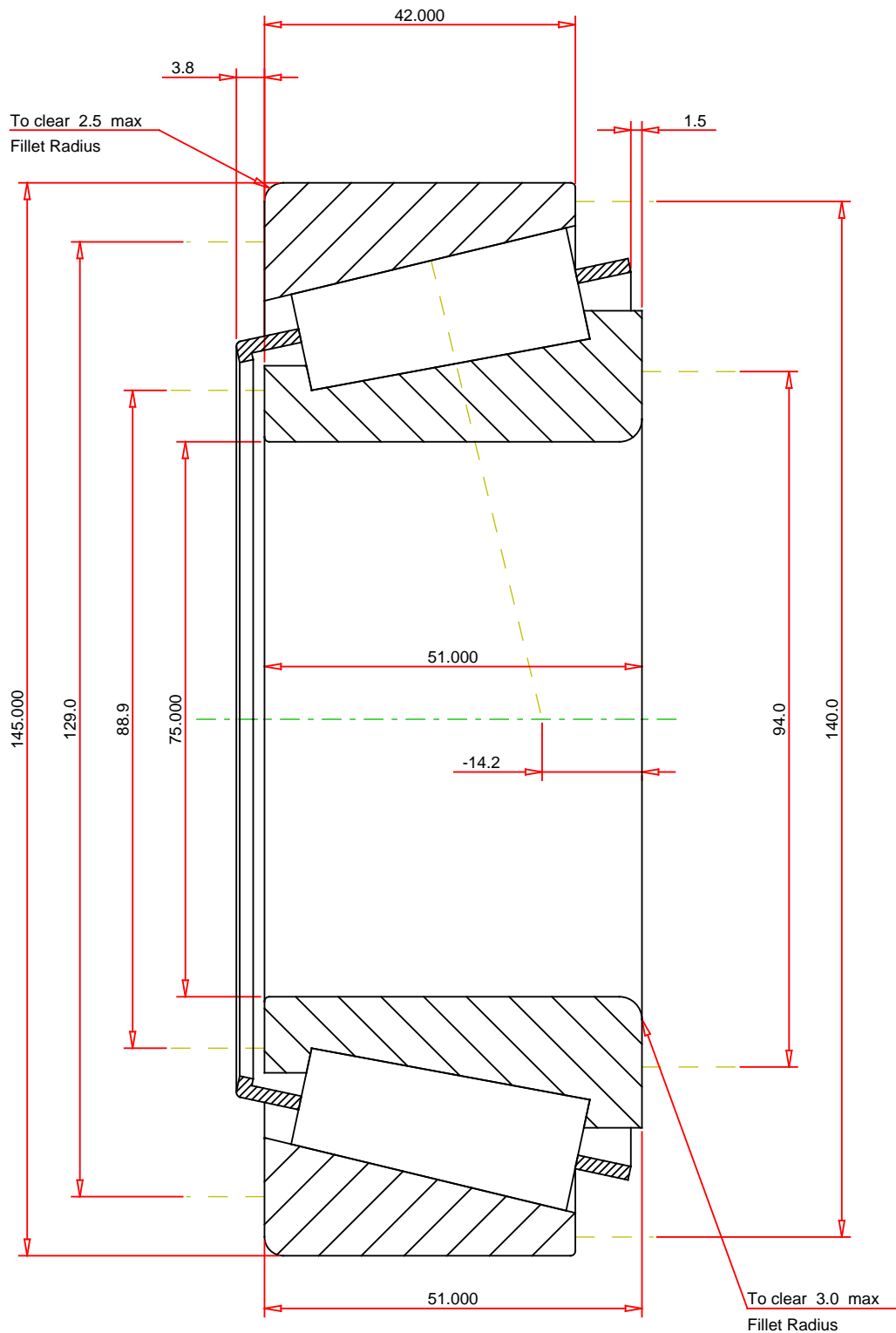
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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

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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	0.36
ISO Factor - Y	1.66
Bearing Weight	3.8 kg
Number of Rollers Per Row	17
Effective Center Location	-14.2 mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

JH415647 - JH415610
TS BEARING ASSEMBLY

K Factor	1.61	
Dynamic Radial Rating - C90	89900	N
Dynamic Thrust Rating - Ca90	55700	N
Static Radial Rating - C0	463000	N
Dynamic Radial Rating - C1	347000	N

Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

FOR DISCUSSION ONLY