



The Timken Company

4500 Mt Pleasant St. NW

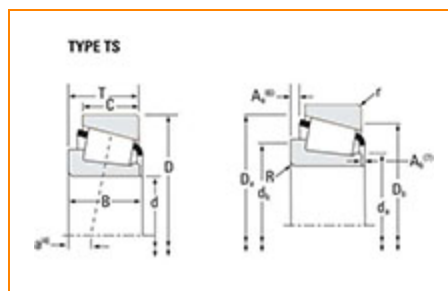
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Part Number L713049 - L713010, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	L713000
Cone Part Number	L713049
Cup Part Number	L713010
Design Units	Imperial
Bearing Weight	0.5 Kg 1.1 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	69.850 mm 2.7500 in
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D - Cup Outer Diameter	101.600 mm 4.0000 in
B - Cone Width	19.050 mm 0.7500 in
C - Cup Width	15.083 mm 0.5938 in
T - Bearing Width	19.050 mm 0.7500 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	1.520 mm 0.06 in
r - Cup Backface "To Clear" Radius²	1.52 mm 0.06 in
da - Cone Frontface Backing Diameter	74.93 mm 3.57 in
db - Cone Backface Backing Diameter	77.98 mm 3.07 in
Da - Cup Frontface Backing Diameter	99.06 mm 3.90 in
Db - Cup Backface Backing Diameter	92.96 mm 3.66 in
Ab - Cage-Cone Frontface Clearance	2 mm 0.08 in
Aa - Cage-Cone Backface Clearance	0.5 mm 0.02 in
a - Effective Center Location³	2.5 mm 0.1 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	3890 lbf 17300 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	15000 lbf 66800 N
C0 - Static Radial Rating	25000 lbf 111000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	3070 lbf 13700 N

Factors

K - Factor⁷	1.27
e - ISO Factor⁸	0.46
Y - ISO Factor⁹	1.3
G1 - Heat Generation Factor (Roller-Raceway)	64.3
G2 - Heat Generation Factor (Rib-Roller End)	52.5
Cg - Geometry Factor¹⁰	0.107

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.

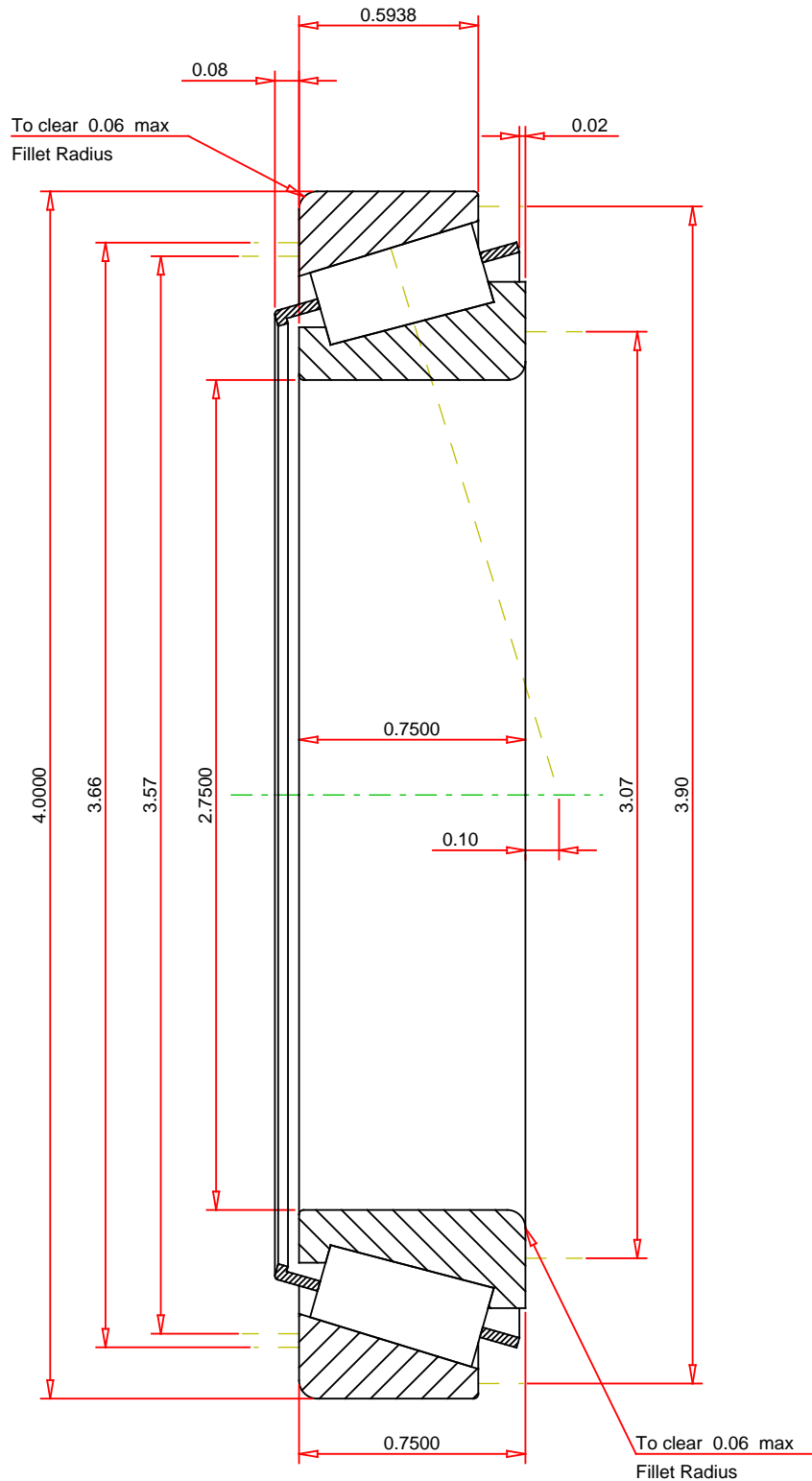
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 on use.

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

¹⁰ Geometry constant for Lubrication Life Adjustment Factor a_3 .



IMPERIAL UNITS

ISO Factor - e 0.46
ISO Factor - Y 1.3
Bearing Weight 1.1 lb
Number of Rollers Per Row 34
Effective Center Location 0.1 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

L713049 - L713010
TS BEARING ASSEMBLY

K Factor	1.27
Dynamic Radial Rating - C90	3890 lbf
Dynamic Thrust Rating - Ca90	3070 lbf
Static Radial Rating - C0	25000 lbf
Dynamic Radial Rating - C1	15000 lbf

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