The Timken Company
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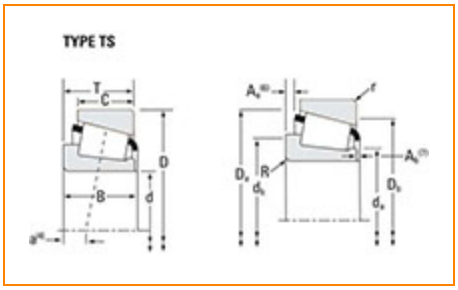
Part Number LM739749 - LM739719, Tapered Roller Bearings - TS (Tapered Single) Imperial

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.



Specifications | Dimensions | Abutment and Fillet Dimensions | Basic Load Ratings | Factors

Specifications

Series	LM739700
Cone Part Number	LM739749
Cup Part Number	LM739719
Design Unit	Inch
Bearing Weight	13.70 lb 6.2 Kg
Cage Material	Stamped Steel

Dimensions

- Bore	7.7500 in 196.850 mm

D - Cup Outer Diameter	10.5 in 266.7 mm
B - Cone Width	1.5625 in 39.688 mm
C - Cup Width	1.1875 in 30.163 mm
T - Bearing Width	1.5625 in 39.688 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.140 in 3.6 mm
r - Cup Backface "To Clear" Radius[2]	0.130 in 3.3 mm
da - Cone Frontface Backing Diameter	8.11 in 206 mm
db - Cone Backface Backing Diameter	8.39 in 213 mm
Da - Cup Frontface Backing Diameter	9.93 in 252.22 mm
Db - Cup Backface Backing Diameter	9.57 in 243.08 mm
Ab - Cage-Cone Frontface Clearance	0.12 in 3 mm
Aa - Cage-Cone Backface Clearance	0.12 in 3 mm
a - Effective Center Location[3]	0.45 in 11.4 mm

Basic Load Ratings

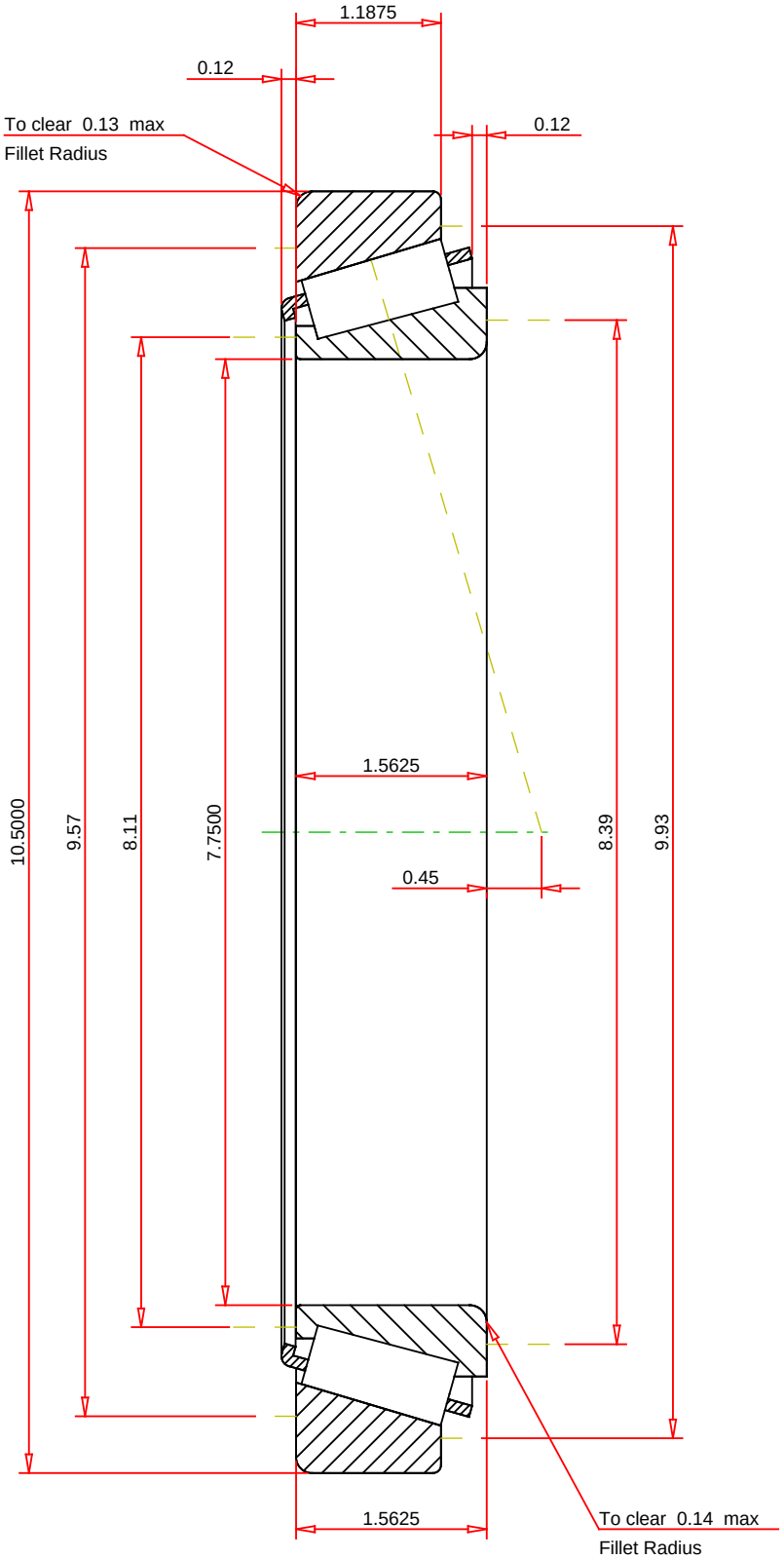
C90 - Dynamic Radial Rating (90 million revolutions)[4]	18600 lbf 82500 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	71600 lbf 318000 N
C0 - Static Radial Rating	161000 lbf 718000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	14200 lbf 63100 N

Factors

K - Factor[7]	1.31
e - ISO Factor[8]	0.45
Y - ISO Factor[9]	1.34
G1 - Heat Generation Factor (Roller-Raceway)	762
G2 - Heat Generation Factor (Rib-Roller End)	232
Cg - Geometry Factor[10]	0.13

[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 a3l.



IMPERIAL UNITS

ISO Factor - e	0.45	
ISO Factor - Y	1.34	
Bearing Weight	13.7	lb
Number of Rollers Per Row	48	
Effective Center Location	0.45	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

LM739749 - LM739719

Tapered Roller Bearings - TS (Tapered Single)
Imperial

K Factor	1.31	
Dynamic Radial Rating - C90	18600	lbf
Dynamic Thrust Rating - Ca90	14200	lbf
Static Radial Rating - C0	161000	lbf
Dynamic Radial Rating - C1	71600	lbf

FOR DISCUSSION ONLY