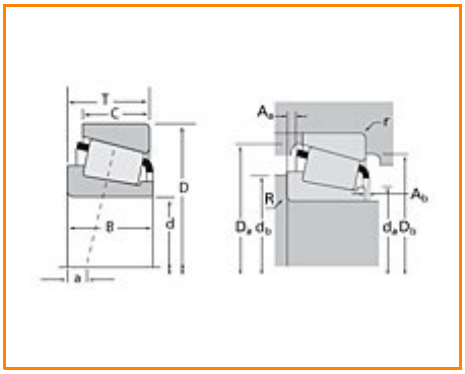
The Timken Company
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Timken Part Number LL483448 - LL483418, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	LL483400
Cone Part Number	LL483448
Cup Part Number	LL483418
Design Units	Imperial
Bearing Weight	68.800 Kg 151.70 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	759.925 mm 29.9183 in
D - Cup Outer Diameter	889.000 mm 35.0000 in
B - Cone Width	69.850 mm 2.7500 in
C - Cup Width	50.800 mm 2.0000 in
T - Bearing Width	69.850 mm 2.7500 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	3.300 mm 0.130 in
r - Cup Backface "To Clear" Radius[2]	3.30 mm 0.130 in
da - Cone Frontface Backing Diameter	776.99 mm 38.98 in
db - Cone Backface Backing Diameter	783.08 mm 30.83 in
Da - Cup Frontface Backing Diameter	858.27 mm 33.79 in
Db - Cup Backface Backing Diameter	854.96 mm 33.66 in
Ab - Cage-Cone Frontface Clearance	7.4 mm 0.29 in
Aa - Cage-Cone Backface Clearance	5.1 mm 0.2 in
a - Effective Center Location[3]	62.20 mm 2.45 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	406000 N 91400 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	1570000 N 352000 lbf
C0 - Static Radial Rating	4270000 N 960000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	263000 N 59200 lbf

Factors

K - Factor[7]	1.54
e - ISO Factor[8]	0.38
Y - ISO Factor[9]	1.58
G1 - Heat Generation Factor (Roller-Raceway)	12900
G2 - Heat Generation Factor (Rib-Roller End)	1729.9
Cg - Geometry Factor	0.307

[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.

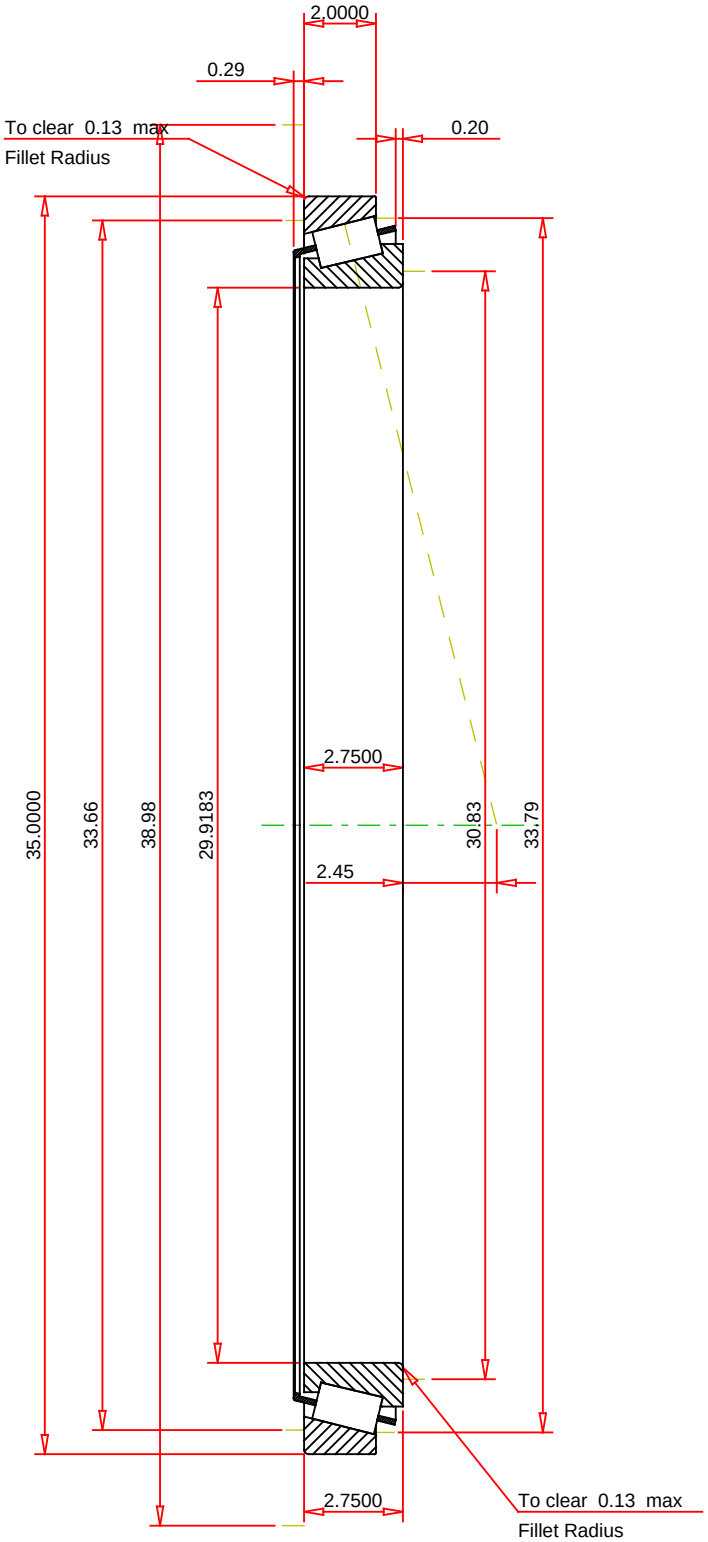
[6] Based on 90 x 10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

[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

on use.

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



IMPERIAL UNITS

ISO Factor - e	0.38	
ISO Factor - Y	1.58	
Bearing Weight	151.7	lb
Number of Rollers Per Row	73	
Effective Center Location	2.45	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

LL483448 - LL483418
TS BEARING ASSEMBLY

K Factor	1.54	
Dynamic Radial Rating - C90	406000	lbf
Dynamic Thrust Rating - Ca90	263000	lbf
Static Radial Rating - C0	4270000	lbf
Dynamic Radial Rating - C1	1570000	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