The Timken Company
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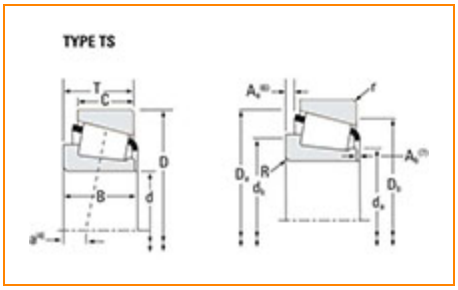
Part Number HH923649 - HH923610, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	HH923600
Cone Part Number	HH923649
Cup Part Number	HH923610
Design Unit	Inch
Cage Material	Stamped Steel

Dimensions

d - Bore	4 in 101.600 mm
D - Cup Outer Diameter	9.8750 in 250.825 mm
B - Cone Width	2.875 in 73.025 mm
C - Cup Width	2.0000 in 50.800 mm
T - Bearing Width	3.0000 in 76.200 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.25 in 6.35 mm
r - Cup Backface "To Clear" Radius[2]	0.250 in 6.35 mm
da - Cone Frontface Backing Diameter	5.15 in 130.8 mm
db - Cone Backface Backing Diameter	5.87 in 149 mm
Da - Cup Frontface Backing Diameter	9.02 in 229.10 mm
Db - Cup Backface Backing Diameter	8.15 in 207.01 mm
Ab - Cage-Cone Frontface Clearance	0.23 in 5.8 mm
Aa - Cage-Cone Backface Clearance	0.55 in 14 mm
a - Effective Center Location[3]	-0.13 in -3.3 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	48200 lbf 215000 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	186000 lbf 828000 N
C0 - Static Radial Rating	186000 lbf 827000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	57800 lbf 257000 N

Factors

K - Factor[7]	0.84
e - ISO Factor[8]	0.7
Y - ISO Factor[9]	0.86
G1 - Heat Generation Factor (Roller-Raceway)	282
G2 - Heat Generation Factor (Rib-Roller End)	35.2
Cg - Geometry Factor[10]	0.137

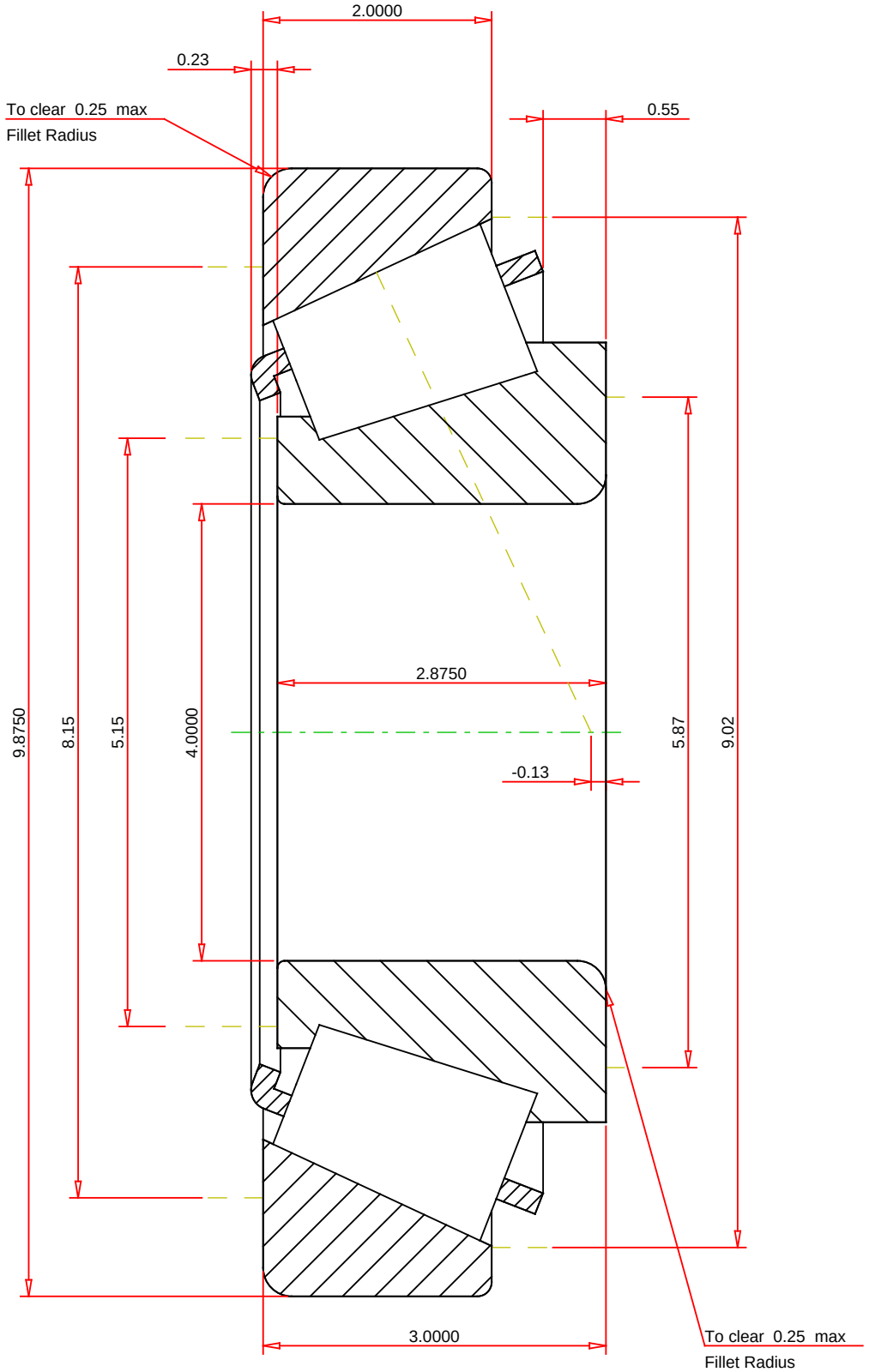
[1] These maximum fillet radii will be cleared by the bearing corners.
[2] These maximum fillet radii will be cleared by the bearing corners.
[3] Negative value indicates effective center inside cone backface.
[4] Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. 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	0.7	
ISO Factor - Y	0.86	
Bearing Weight	37.7	lb
Number of Rollers Per Row	14	
Effective Center Location	-0.13	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

HH923649 - HH923610

Tapered Roller Bearings - TS (Tapered Single)
Imperial

K Factor	0.84	
Dynamic Radial Rating - C90	48200	lbf
Dynamic Thrust Rating - Ca90	57800	lbf
Static Radial Rating - C0	186000	lbf
Dynamic Radial Rating - C1	186000	lbf

FOR DISCUSSION ONLY