


The Timken Company

4500 Mt Pleasant St. NW

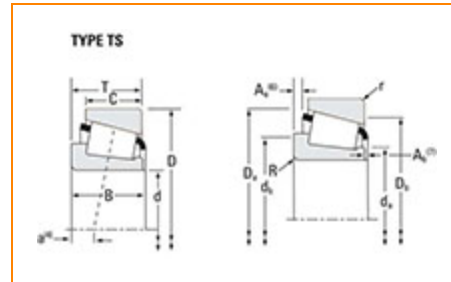
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Part Number 760 - 752, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	755
Cone Part Number	760
Cup Part Number	752
Design Unit	Inch
Bearing Weight	8.8 lb 4 Kg
Cage Material	Stamped Steel

Dimensions


- Bore

 3.5625 in
90.488 mm

D - Cup Outer Diameter	6.3750 in 161.925 mm
B - Cone Width	1.9000 in 48.260 mm
C - Cup Width	1.5000 in 38.100 mm
T - Bearing Width	1.8750 in 47.625 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.140 in 3.6 mm
r - Cup Backface "To Clear" Radius²	0.130 in 3.30 mm
da - Cone Frontface Backing Diameter	3.98 in 101 mm
db - Cone Backface Backing Diameter	4.33 in 110 mm
Da - Cup Frontface Backing Diameter	5.94 in 150.88 mm
Db - Cup Backface Backing Diameter	5.67 in 144.02 mm
Ab - Cage-Cone Frontface Clearance	0.07 in 1.8 mm
Aa - Cage-Cone Backface Clearance	0.11 in 2.8 mm
a - Effective Center Location³	-0.47 in -11.9 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	19100 lbf 84800 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	73600 lbf 327000 N
C0 - Static Radial Rating	99200 lbf 441000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	11100 lbf 49500 N

Factors

K - Factor⁷	1.71
e - ISO Factor⁸	0.34
Y - ISO Factor⁹	1.76
G1 - Heat Generation Factor (Roller-Raceway)	177.2
G2 - Heat Generation Factor (Rib-Roller End)	29.4
C_g - Geometry Factor¹⁰	0.0945

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.

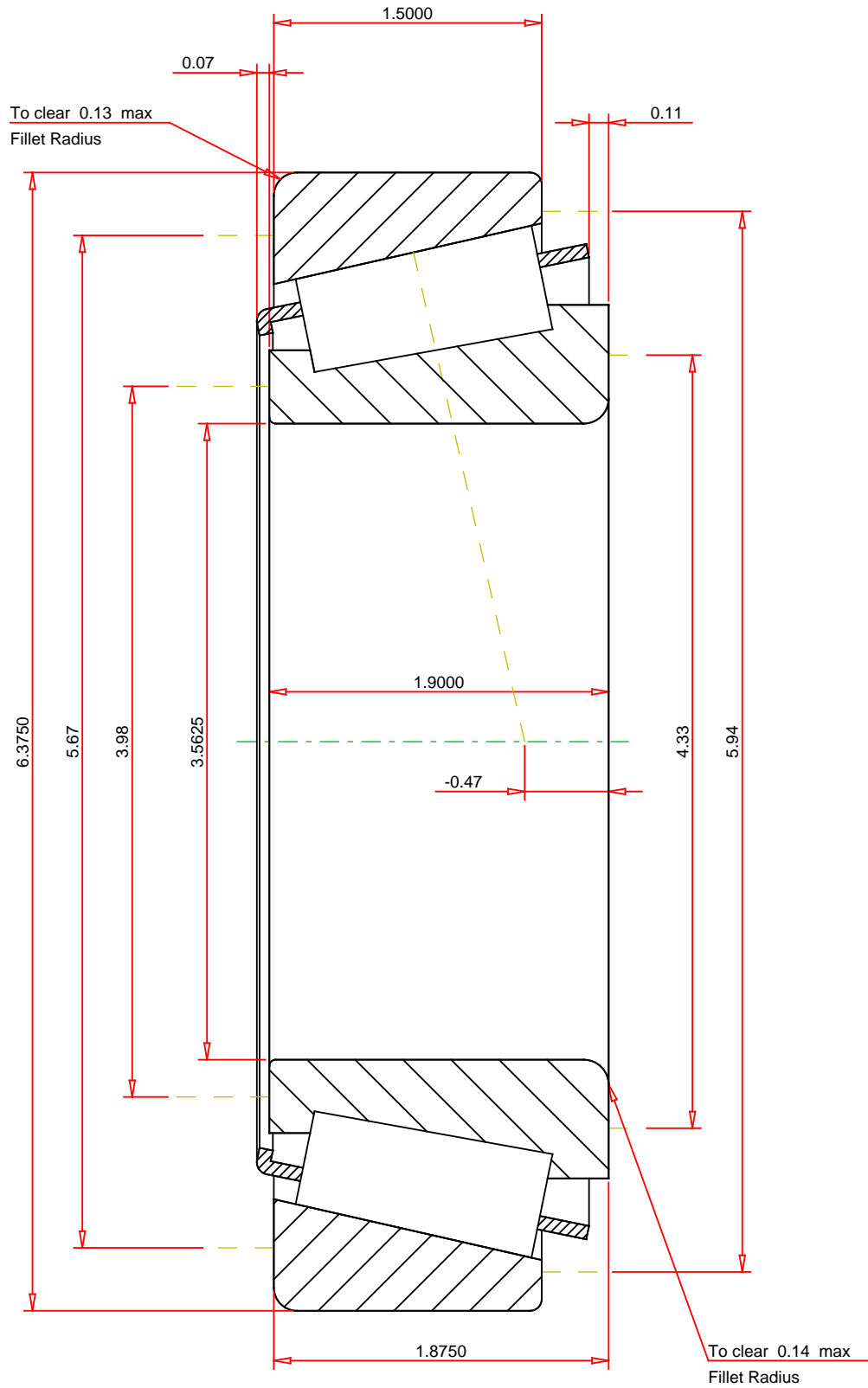
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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	0.34
ISO Factor - Y	1.76
Bearing Weight	8.8 lbf
Number of Rollers Per Row	19
Effective Center Location	-0.47 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

760 - 752
Tapered Roller Bearings - TS (Tapered Single)
Imperial

K Factor	1.71
Dynamic Radial Rating - C90	19100 lbf
Dynamic Thrust Rating - Ca90	11100 lbf
Static Radial Rating - C0	99200 lbf
Dynamic Radial Rating - C1	73600 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