


The Timken Company

4500 Mt Pleasant St. NW

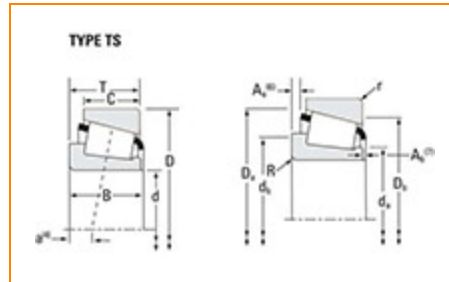
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Part Number 482 - 472, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	475
Cone Part Number	482
Cup Part Number	472
Design Unit	Inch
Bearing Weight	2.9 lb 1.3 Kg
Cage Material	Stamped Steel

Dimensions


- Bore

 2.7500 in
69.850 mm

D - Cup Outer Diameter	4.7244 in 120.000 mm
B - Cone Width	1.1420 in 29.007 mm
C - Cup Width	0.9542 in 24.237 mm
T - Bearing Width	1.1730 in 29.794 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.140 in 3.6 mm
r - Cup Backface "To Clear" Radius²	0.08 in 2.03 mm
da - Cone Frontface Backing Diameter	3.03 in 77 mm
db - Cone Backface Backing Diameter	3.27 in 83 mm
Da - Cup Frontface Backing Diameter	4.53 in 115.06 mm
Db - Cup Backface Backing Diameter	4.21 in 106.93 mm
Ab - Cage-Cone Frontface Clearance	0.12 in 3 mm
Aa - Cage-Cone Backface Clearance	0.04 in 1 mm
a - Effective Center Location³	-0.16 in -4.1 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	8360 lbf 37200 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	32200 lbf 143000 N
C0 - Static Radial Rating	41900 lbf 186000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	5500 lbf 24500 N

Factors

K - Factor⁷	1.52
e - ISO Factor⁸	0.38
Y - ISO Factor⁹	1.56
G1 - Heat Generation Factor (Roller-Raceway)	77.2
G2 - Heat Generation Factor (Rib-Roller End)	23
Cg - Geometry Factor¹⁰	0.108

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.

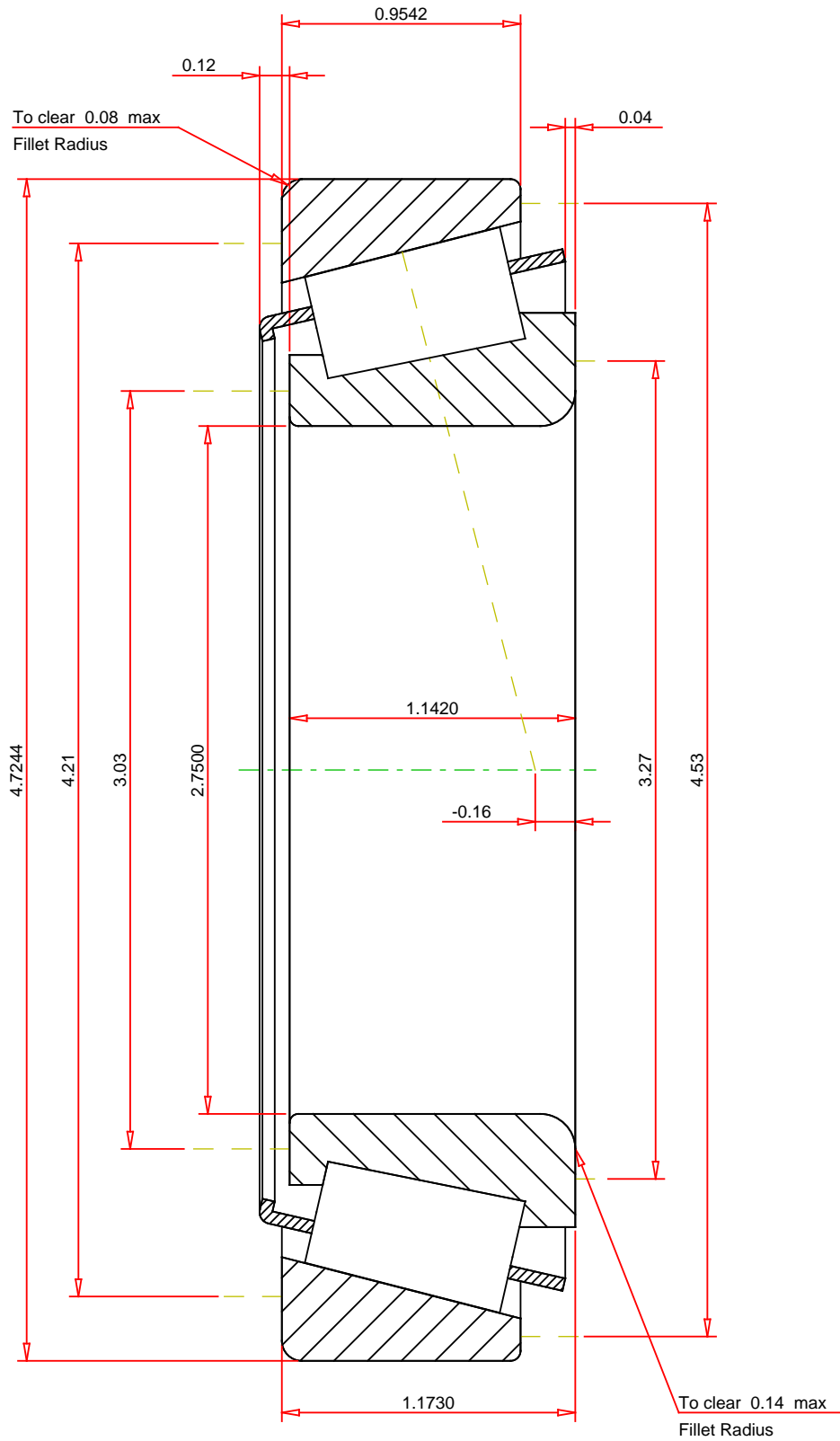
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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	0.38
ISO Factor - Y	1.56
Bearing Weight	2.9 lb
Number of Rollers Per Row	20
Effective Center Location	-0.16 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

482 - 472
Tapered Roller Bearings - TS (Tapered Single)
Imperial

K Factor	1.52	
Dynamic Radial Rating - C90	8360	lbf
Dynamic Thrust Rating - Ca90	5500	lbf
Static Radial Rating - C0	41900	lbf
Dynamic Radial Rating - C1	32200	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