


The Timken Company

4500 Mt Pleasant St. NW

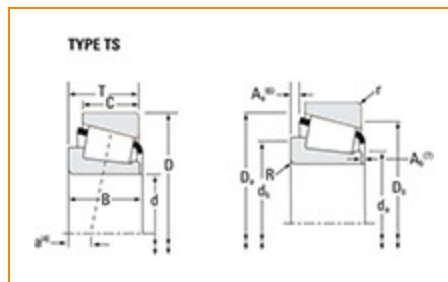
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Part Number L44649 - L44610, Tapered Roller Bearings - TS (Tapered Single) Imperial

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 | L44600 |
| Cone Part Number | KL44649 |
| Cup Part Number | KL44610 |
| Design Unit | Inch |
| Cage Material | Stamped Steel |
| Related Assembly Number(s) | KL44649-902M1 L44649-9X062 |

Dimensions



- Bore

 1.0625 in
26.988 mm

| | |
|-------------------------------|------------------------|
| D - Cup Outer Diameter | 1.9800 in 50.292 mm |
| B - Cone Width | 0.5800 in 14.732 mm |
| C - Cup Width | 0.4200 in 10.668 mm |
| T - Bearing Width | 0.5600 in 14.224 mm |

Abutment and Fillet Dimensions

| | |
|--|---------------------|
| R - Cone Backface "To Clear" Radius¹ | 0.14 in 3.560 mm |
| r - Cup Backface "To Clear" Radius² | 0.050 in 1.27 mm |
| da - Cone Frontface Backing Diameter | 1.22 in 31 mm |
| db - Cone Backface Backing Diameter | 1.48 in 37.5 mm |
| Da - Cup Frontface Backing Diameter | 1.87 in 47.50 mm |
| Db - Cup Backface Backing Diameter | 1.75 in 44.45 mm |
| Ab - Cage-Cone Frontface Clearance | 0.05 in 1.3 mm |
| Aa - Cage-Cone Backface Clearance | 0.02 in 0.5 mm |
| a - Effective Center Location³ | -0.13 in -3.3 mm |

Basic Load Ratings

| | |
|---|---------------------|
| C90 - Dynamic Radial Rating (90 million revolutions)⁴ | 1750 lbf 7790 N |
| C1 - Dynamic Radial Rating (1 million revolutions)⁵ | 6760 lbf 30100 N |
| C0 - Static Radial Rating | 7400 lbf 32900 N |
| C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶ | 1120 lbf 4990 N |

Factors

| | |
|---|--------|
| K - Factor⁷ | 1.56 |
| e - ISO Factor⁸ | 0.37 |
| Y - ISO Factor⁹ | 1.6 |
| G1 - Heat Generation Factor (Roller-Raceway) | 8.9 |
| G2 - Heat Generation Factor (Rib-Roller End) | 8.9 |
| Cg - Geometry Factor¹⁰ | 0.0526 |

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.

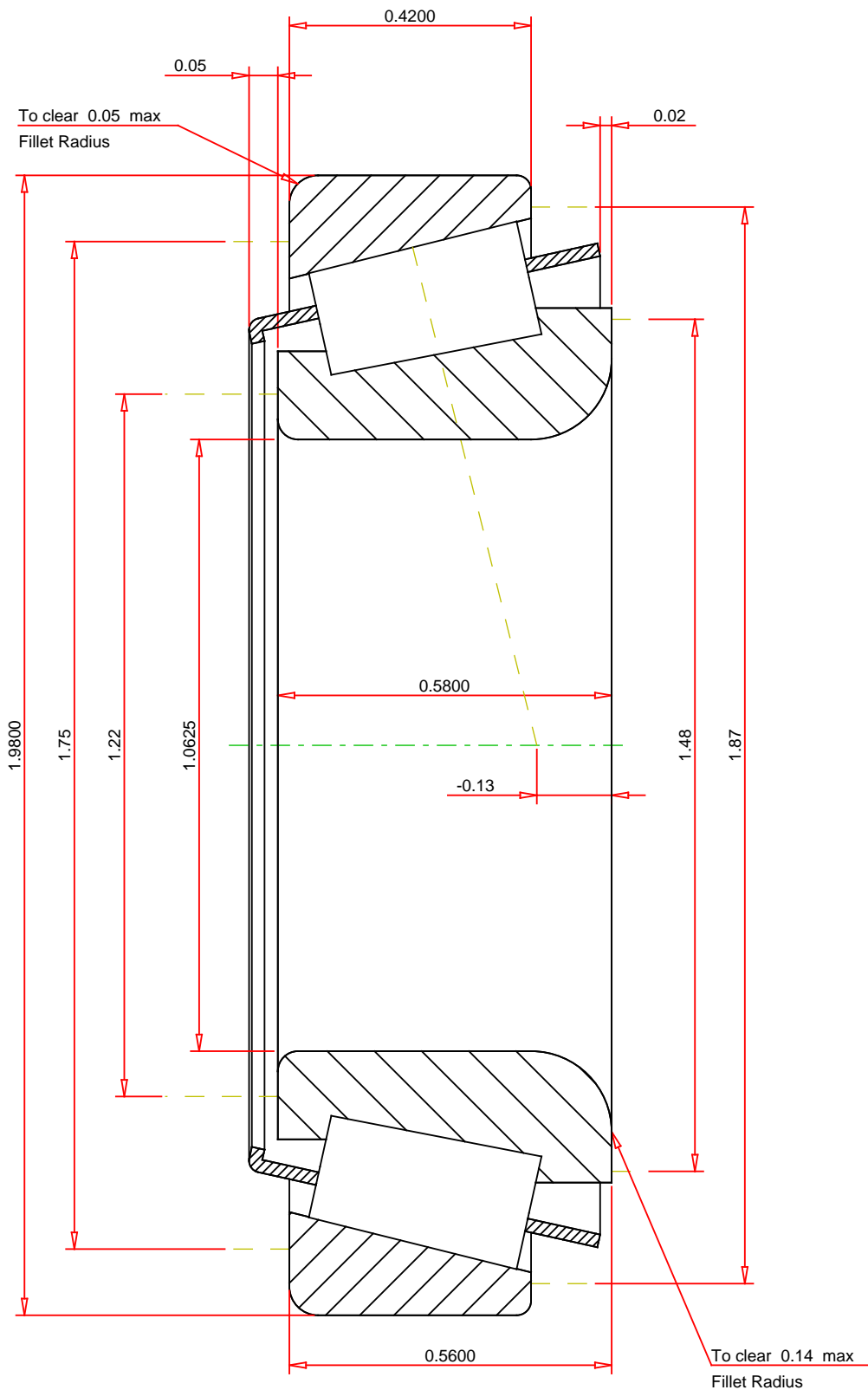
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 0.37
 ISO Factor - Y 1.6
 Bearing Weight 0.3 lb
 Number of Rollers Per Row 19
 Effective Center Location -0.13 inch

TIMKEN®

THE TIMKEN COMPANY
 NORTH CANTON, OHIO USA

KL44649 - KL44610
 Tapered Roller Bearings - TS (Tapered Single)
 Imperial

| | |
|------------------------------|----------|
| K Factor | 1.56 |
| Dynamic Radial Rating - C90 | 1750 lbf |
| Dynamic Thrust Rating - Ca90 | 1120 lbf |
| Static Radial Rating - C0 | 7400 lbf |
| Dynamic Radial Rating - C1 | 6760 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