



The Timken Company

4500 Mt Pleasant St. NW

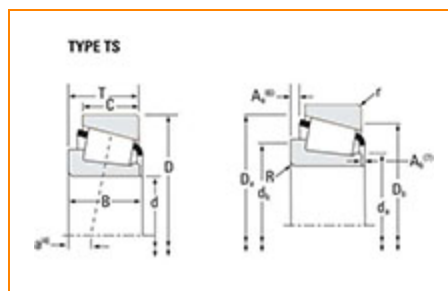
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Part Number M804048 - M804010, Tapered Roller Bearings - TS (Tapered Single) Imperial

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 | M804000 |
| Cone Part Number | M804048 |
| Cup Part Number | M804010 |
| Design Units | Imperial |
| Bearing Weight | 0.70 Kg 1.500 lb |
| Cage Type | Stamped Steel |

Dimensions

| | |
|----------|------------------------|
| d - Bore | 47.625 mm 1.8750 in |
|----------|------------------------|

| | |
|-------------------------------|------------------------|
| D - Cup Outer Diameter | 88.900 mm 3.5000 in |
| B - Cone Width | 25.400 mm 1.0000 in |
| C - Cup Width | 19.050 mm 0.7500 in |
| T - Bearing Width | 25.400 mm 1.0000 in |

Abutment and Fillet Dimensions

| | |
|--|---------------------|
| R - Cone Backface "To Clear" Radius¹ | 0.760 mm 0.03 in |
| r - Cup Backface "To Clear" Radius² | 3.3 mm 0.130 in |
| da - Cone Frontface Backing Diameter | 55.88 mm 2.2 in |
| db - Cone Backface Backing Diameter | 58.93 mm 2.32 in |
| Da - Cup Frontface Backing Diameter | 85.10 mm 3.39 in |
| Db - Cup Backface Backing Diameter | 76.96 mm 3.03 in |
| Ab - Cage-Cone Frontface Clearance | 2.5 mm 0.1 in |
| Aa - Cage-Cone Backface Clearance | 1.3 mm 0.05 in |
| a - Effective Center Location³ | -1.8 mm -0.07 in |

Basic Load Ratings

| | |
|---|-----------------------|
| C90 - Dynamic Radial Rating (90 million revolutions)⁴ | 5740 lbf 25600 N |
| C1 - Dynamic Radial Rating (1 million revolutions)⁵ | 22200 lbf 98600 N |
| C0 - Static Radial Rating | 26100 lbf 116000 N |
| C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶ | 5370 lbf 23900 N |

Factors

| | |
|---|--------|
| K - Factor⁷ | 1.07 |
| e - ISO Factor⁸ | 0.55 |
| Y - ISO Factor⁹ | 1.1 |
| G1 - Heat Generation Factor (Roller-Raceway) | 33.9 |
| G2 - Heat Generation Factor (Rib-Roller End) | 12.5 |
| Cg - Geometry Factor¹⁰ | 0.0924 |

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.

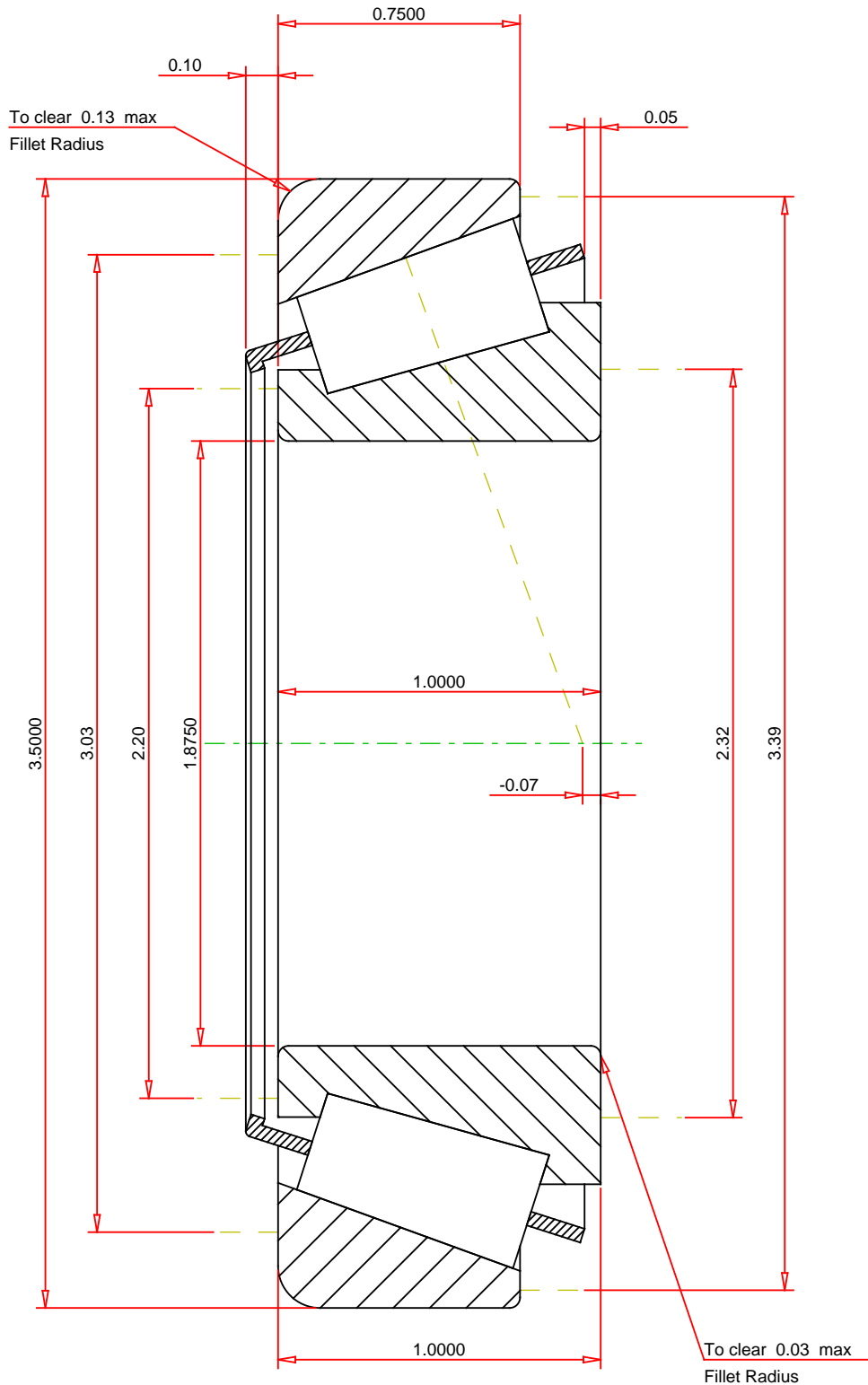
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 0.55
ISO Factor - Y 1.1
Bearing Weight 1.5 lb
Number of Rollers Per Row 17
Effective Center Location -0.07 inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

M804048 - M804010
TS BEARING ASSEMBLY

| | | |
|------------------------------|-------|-----|
| K Factor | 1.07 | |
| Dynamic Radial Rating - C90 | 5740 | lbf |
| Dynamic Thrust Rating - Ca90 | 5370 | lbf |
| Static Radial Rating - C0 | 26100 | lbf |
| Dynamic Radial Rating - C1 | 22200 | 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