



The Timken Company

4500 Mt Pleasant St. NW

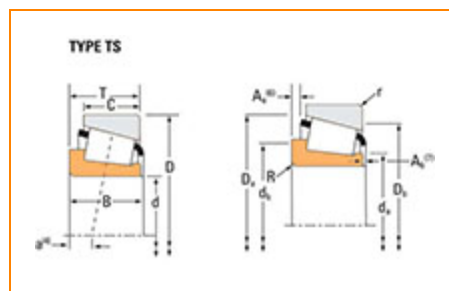
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Part Number 1988, Tapered Roller Bearings - Single Cones - Imperial

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 | 1900 |
| Cone Part Number | 1988 |
| Design Units | Imperial |
| Cage Type | Stamped Steel |
| C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)¹ | 18900 lbf 84200 N |
| C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)² | 4910 lbf 21800 N |

Dimensions

| | |
|-----------------------|------------------------|
| d - Bore | 1.1250 in 28.575 mm |
| B - Cone Width | 0.7620 in 19.355 mm |

Abutment and Fillet Dimensions

| | |
|--|---------------------|
| R - Cone Backface "To Clear" Radius³ | 0.14 in 3.600 mm |
| da - Cone Frontface Backing Diameter | 1.32 in 33.5 mm |
| db - Cone Backface Backing Diameter | 1.56 in 39.5 mm |
| Ab - Cage-Cone Frontface Clearance | 0.08 in 2 mm |
| Aa - Cage-Cone Backface Clearance | 0 in 0 mm |
| a - Effective Center Location⁴ | -0.23 in -5.8 mm |

Basic Load Ratings

| | |
|---|----------------------|
| C90 - Dynamic Radial Rating (90 million revolutions)⁵ | 2820 lbf 12500 N |
| C1 - Dynamic Radial Rating (1 million revolutions)⁶ | 10900 lbf 48400 N |
| C0 - Static Radial Rating | 11300 lbf 50200 N |
| C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁷ | 1590 lbf 7080 N |

Factors

| | |
|-----------------------------------|--------|
| K - Factor ⁸ | 1.77 |
| Cg - Geometry Factor ⁹ | 0.0565 |

¹ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

² 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.

³ These maximum fillet radii will be cleared by the bearing corners.

⁴ Negative value indicates effective center inside cone backface.

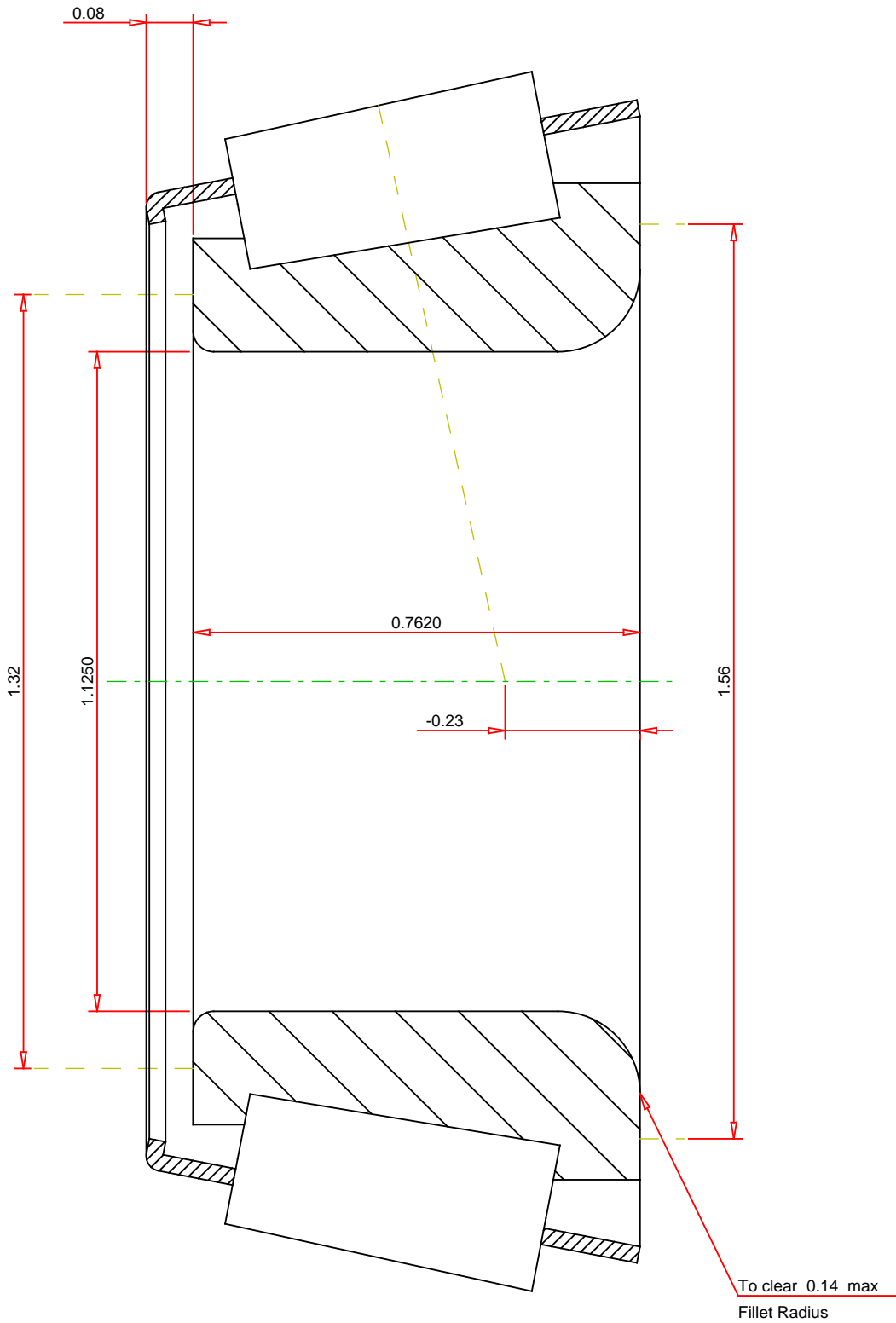
⁵ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

⁶ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

⁷ 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.

⁸ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁹ Geometry constant for Lubrication Life Adjustment Factor a_3 .



IMPERIAL UNITS

| |
|---|
| Number of Rollers Per Row |
|---|