



**The Timken Company**

4500 Mt Pleasant St. NW

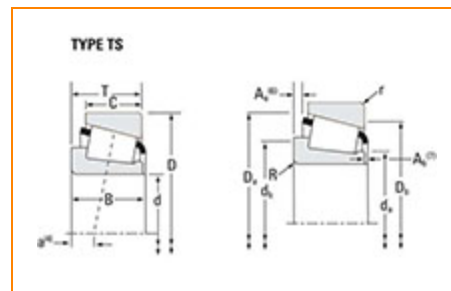
N. Canton, OH 44720

Phone: (234) 262-3000

E-Mail: [CustomerCAD@timken.com](mailto:CustomerCAD@timken.com) • Web site: [www.timken.com](http://www.timken.com)

## Part Number LM67049A - LM67010, 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           | LM67000           |
| Cone Part Number | LM67049A          |
| Cup Part Number  | LM67010           |
| Design Units     | Imperial          |
| Bearing Weight   | 0.20 Kg<br>0.4 lb |
| Cage Type        | Stamped Steel     |

### Dimensions

|          |                        |
|----------|------------------------|
| d - Bore | 31.750 mm<br>1.2500 in |
|----------|------------------------|

|                               |                        |
|-------------------------------|------------------------|
| <b>D - Cup Outer Diameter</b> | 59.131 mm<br>2.3280 in |
| <b>B - Cone Width</b>         | 16.764 mm<br>0.6600 in |
| <b>C - Cup Width</b>          | 11.811 mm<br>0.4650 in |
| <b>T - Bearing Width</b>      | 15.875 mm<br>0.6250 in |

## Abutment and Fillet Dimensions

|  |                     |
|--|---------------------|
| <b>R - Cone Backface "To Clear" Radius<sup>1</sup></b> | 0.760 mm<br>0.03 in |
| <b>r - Cup Backface "To Clear" Radius<sup>2</sup></b>  | 1.27 mm<br>0.050 in |
| <b>da - Cone Frontface Backing Diameter</b>            | 36.07 mm<br>1.42 in |
| <b>db - Cone Backface Backing Diameter</b>             | 37.08 mm<br>1.46 in |
| <b>Da - Cup Frontface Backing Diameter</b>             | 55.90 mm<br>2.24 in |
| <b>Db - Cup Backface Backing Diameter</b>              | 52.07 mm<br>2.05 in |
| <b>Ab - Cage-Cone Frontface Clearance</b>              | 1.3 mm<br>0.05 in   |
| <b>Aa - Cage-Cone Backface Clearance</b>               | 0.3 mm<br>0.01 in   |
| <b>a - Effective Center Location<sup>3</sup></b>       | -3 mm<br>-0.12 in   |

## Basic Load Ratings

|   |                      |
|---|----------------------|
| <b>C90 - Dynamic Radial Rating (90 million revolutions)<sup>4</sup></b>             | 2720 lbf<br>12100 N  |
| <b>C1 - Dynamic Radial Rating (1 million revolutions)<sup>5</sup></b>               | 10500 lbf<br>46700 N |
| <b>C0 - Static Radial Rating</b>  | 10000 lbf<br>44600 N |
| <b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>6</sup></b> | 1920 lbf<br>8550 N   |

## Factors

|   |        |
|---|--------|
| <b>K - Factor<sup>7</sup></b>                       | 1.42   |
| <b>e - ISO Factor<sup>8</sup></b>                   | 0.41   |
| <b>Y - ISO Factor<sup>9</sup></b>                   | 1.46   |
| <b>G1 - Heat Generation Factor (Roller-Raceway)</b> | 12.8   |
| <b>G2 - Heat Generation Factor (Rib-Roller End)</b> | 9.93   |
| <b>C<sub>g</sub> - Geometry Factor<sup>10</sup></b> | 0.0612 |

<sup>1</sup> These maximum fillet radii will be cleared by the bearing corners.

<sup>2</sup> These maximum fillet radii will be cleared by the bearing corners.

<sup>3</sup> Negative value indicates effective center inside cone backface.

<sup>4</sup> Based on  $90 \times 10^6$  revolutions  $L_{10}$  life, for The Timken Company life calculation method.  $C_{90}$  and  $C_{a90}$  are radial and thrust values.

<sup>5</sup> Based on  $1 \times 10^6$  revolutions  $L_{10}$  life, for the ISO life calculation method.

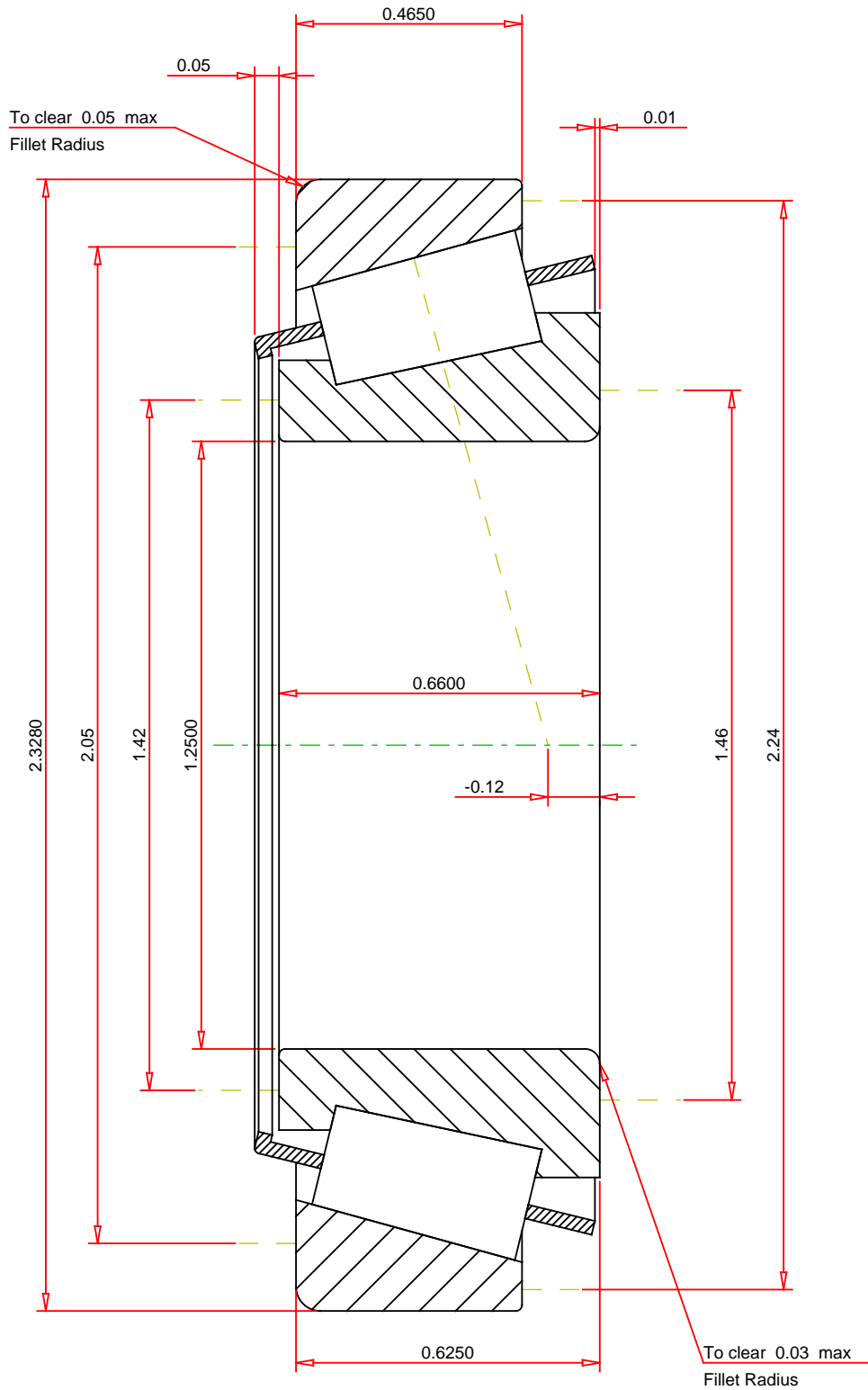
<sup>6</sup> Based on  $90 \times 10^6$  revolutions  $L_{10}$  life, for The Timken Company life calculation method.  $C_{90}$  and  $C_{a90}$  are radial and thrust values for a single-row,  $C_{90(2)}$  is the two-row radial value.

<sup>7</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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

<sup>9</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

<sup>10</sup> Geometry constant for Lubrication Life Adjustment Factor a3l.



**IMPERIAL UNITS**

|                           |            |
|---------------------------|------------|
| ISO Factor - e            | 0.41       |
| ISO Factor - Y            | 1.46       |
| Bearing Weight            | 0.4 lb     |
| Number of Rollers Per Row | 19         |
| Effective Center Location | -0.12 inch |

**TIMKEN**®

**LM67049A - LM67010  
TS BEARING ASSEMBLY**

**THE TIMKEN COMPANY**  
NORTH CANTON, OHIO USA

|                              |           |
|------------------------------|-----------|
| K Factor                     | 1.42      |
| Dynamic Radial Rating - C90  | 2720 lbf  |
| Dynamic Thrust Rating - Ca90 | 1920 lbf  |
| Static Radial Rating - C0    | 10000 lbf |
| Dynamic Radial Rating - C1   | 10500 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**