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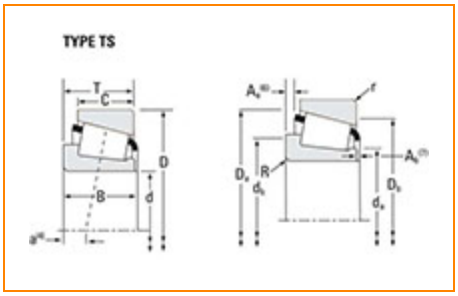
# Part Number L225842 - L225810, Tapered Roller Bearings - TS (Tapered Single) Imperial

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** | L225800 |
| **Cone Part Number** | L225842 |
| **Cup Part Number** | L225810 |
| **Design Units** | Imperial |
| **Bearing Weight** | 1.8 Kg<br>4 lb |
| **Cage Type** | Stamped Steel |

## Dimensions

| | |
|---|---|
| **d - Bore** | 120.650 mm<br>4.7500 in |

| | |
|---|---|
| **D - Cup Outer Diameter** | 169.863 mm<br>6.6875 in |
| **B - Cone Width** | 26.195 mm<br>1.0313 in |
| **C - Cup Width** | 20.638 mm<br>0.8125 in |
| **T - Bearing Width** | 25.400 mm<br>1.0000 in |

## Abutment and Fillet Dimensions

| | |
|---|---|
| **R - Cone Backface "To Clear" Radius[1]** | 1.520 mm<br>0.06 in |
| **r - Cup Backface "To Clear" Radius[2]** | 1.52 mm<br>0.06 in |
| **da - Cone Frontface Backing Diameter** | 129.03 mm<br>6.05 in |
| **db - Cone Backface Backing Diameter** | 131.06 mm<br>5.16 in |
| **Da - Cup Frontface Backing Diameter** | 164.10 mm<br>6.48 in |
| **Db - Cup Backface Backing Diameter** | 160.02 mm<br>6.3 in |
| **Ab - Cage-Cone Frontface Clearance** | 2.3 mm<br>0.09 in |
| **Aa - Cage-Cone Backface Clearance** | 0.5 mm<br>0.02 in |
| **a - Effective Center Location[3]** | 2.5 mm<br>0.1 in |

## Basic Load Ratings

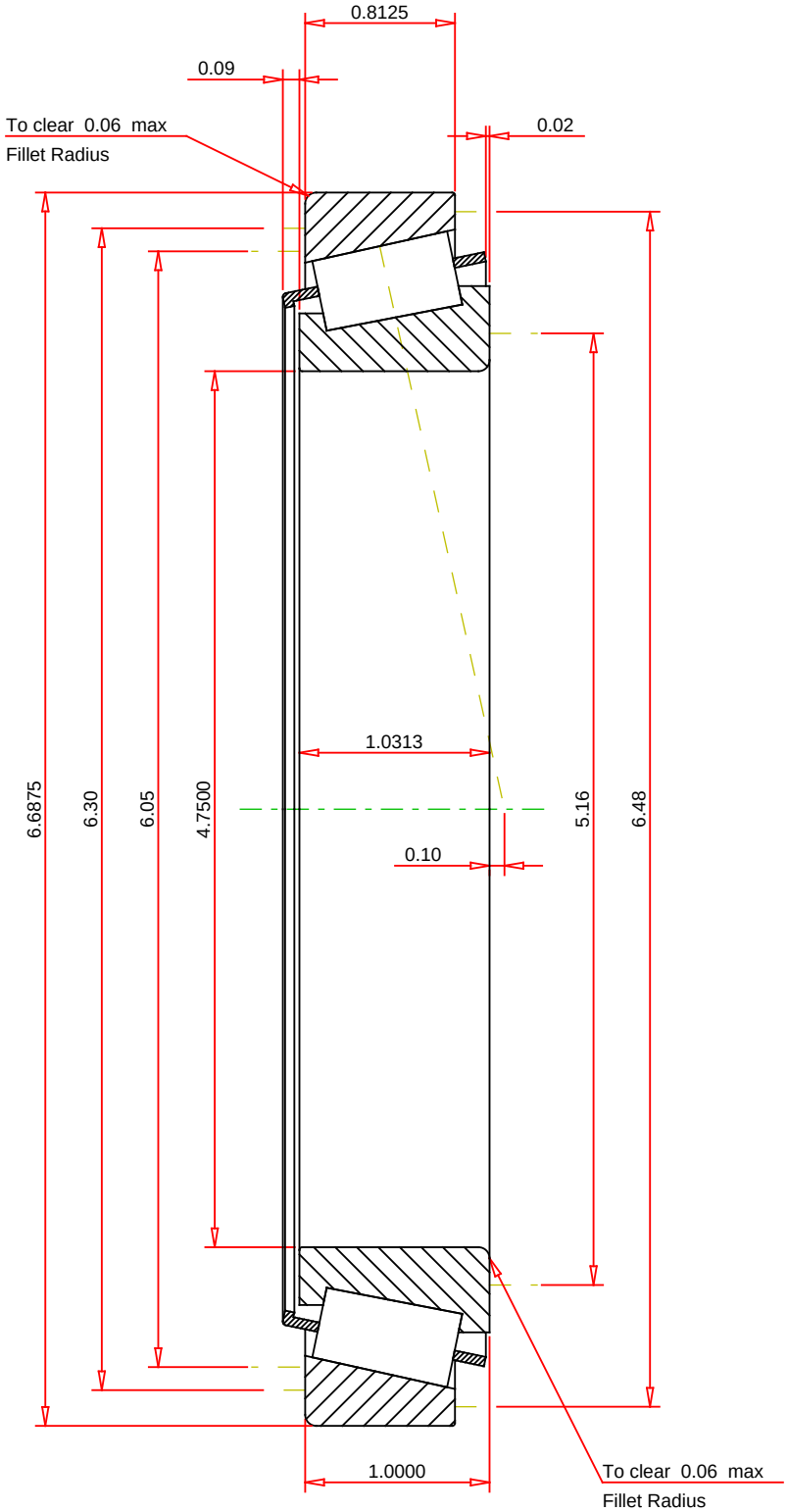
| | |
|---|---|
| **C90 - Dynamic Radial Rating (90 million revolutions)[4]** | 8320 lbf<br>37000 N |
| **C1 - Dynamic Radial Rating (1 million revolutions)[5]** | 32100 lbf<br>143000 N |
| **C0 - Static Radial Rating** | 61400 lbf<br>273000 N |
| **$C_{a90}$ - Dynamic Thrust Rating (90 million revolutions)[6]** | 4740 lbf<br>21100 N |

## Factors

| | |
|---|---|
| **K - Factor[7]** | 1.76 |
| **e - ISO Factor[8]** | 0.33 |
| **Y - ISO Factor[9]** | 1.8 |
| **G1 - Heat Generation Factor (Roller-Raceway)** | 253 |
| **G2 - Heat Generation Factor (Rib-Roller End)** | 134 |
| **Cg - Geometry Factor[10]** | 0.151 |

[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 x $10^6$ 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 x $10^6$ revolutions $L_{10}$ life, for the ISO life calculation method.
[6] Based on 90 x $10^6$ 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 a3l.




IMPERIAL UNITS

| | | |
|---|---|---|
| ISO Factor - e | 0.33 | |
| ISO Factor - Y | 1.8 | |
| Bearing Weight | 4 | lb |
| Number of Rollers Per Row | 40 | |
| Effective Center Location | 0.1 | inch |

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

L225842 - L225810
TS BEARING ASSEMBLY

| | | |
|---|---|---|
| K Factor | 1.76 | |
| Dynamic Radial Rating - C90 | 8320 | lbf |
| Dynamic Thrust Rating - Ca90 | 4740 | lbf |
| Static Radial Rating - C0 | 61400 | lbf |
| Dynamic Radial Rating - C1 | 32100 | lbf |



FOR DISCUSSION ONLY