


The Timken Company

4500 Mt Pleasant St. NW

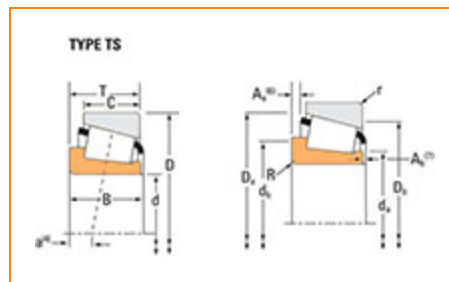
N. Canton, OH 44720

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Part Number 18587, 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

Cone Part Number	18587
Design Units	Imperial
Cage Type	Stamped Steel
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)¹	88400 N
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)²	22900 N

Dimensions


d - Cone Bore

39.688 mm

B - Cone Width

17.463 mm

Abutment and Fillet Dimensions**R - Cone Backface "To Clear"
Radius³**

0.760 mm

**da - Cone Frontface Backing
Diameter**

45 mm

**db - Cone Backface Backing
Diameter**

45.5 mm

**Ab - Cage-Cone Frontface
Clearance**

2 mm

**Aa - Cage-Cone Backface
Clearance**

-0.3 mm

a - Effective Center Location⁴

-2.8 mm

Basic Load Ratings**C90 - Dynamic Radial Rating (90
million revolutions)⁵**

13200 N

**C1 - Dynamic Radial Rating (1
million revolutions)⁶**

50800 N

C0 - Static Radial Rating

58100 N

**C_{a90} - Dynamic Thrust Rating (90
million revolutions)⁷**

7890 N

Factors**K - Factor⁸**

1.67

G1 - Heat Generation Factor (Roller-Raceway)	21
G2 - Heat Generation Factor (Rib-Roller End)	15.4
Cg - Geometry Factor⁹	0.0681

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.

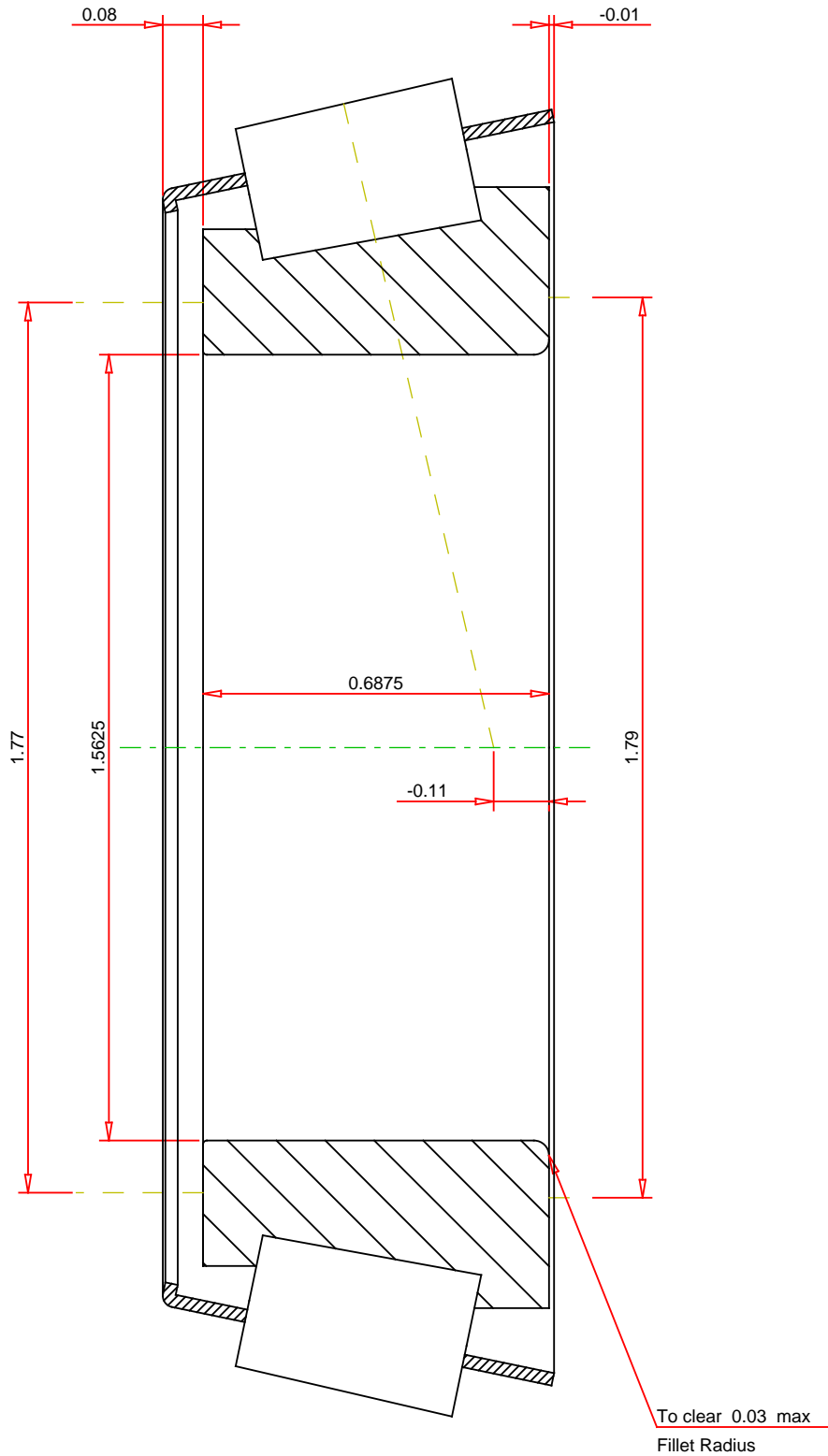
⁵ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

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

19

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

18587

Tapered Roller Bearings - Single Cones - Imperial

K Factor	1.67	
Dynamic Radial Rating - C90	2960	lbf
Dynamic Thrust Rating - Ca90	1770	lbf
Dynamic Radial Rating - C1	11400	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.

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