


The Timken Company

4500 Mt Pleasant St. NW

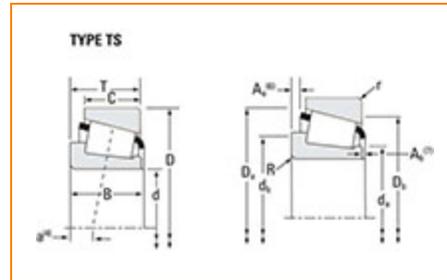
N. Canton, OH 44720

Phone: (234) 262-3000

E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Part Number 32215, Tapered Roller Bearings - TS (Tapered Single) Metric

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	32215M
Cone Part Number	X32215M
Cup Part Number	Y32215M
Design Unit	Metric
Cage Material	Stamped Steel
Full Timken Part Number	32215

Dimensions

d - Bore	75 mm
D - Cup Outer Diameter	130 mm



B - Cone Width	31.000 mm
C - Cup Width	27 mm
T - Bearing Width	33.250 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	2.030 mm
r - Cup Backface "To Clear" Radius²	1.52 mm
da - Cone Frontface Backing Diameter	84 mm
db - Cone Backface Backing Diameter	88 mm
Da - Cup Frontface Backing Diameter	125.00 mm
Db - Cup Backface Backing Diameter	117.09 mm
Ab - Cage-Cone Frontface Clearance	4.1 mm
Aa - Cage-Cone Backface Clearance	3 mm
a - Effective Center Location³	-3.6 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	51600 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	199000 N

C₀ - Static Radial Rating 227000 N

C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶ 38500 N

Factors

K - Factor⁷ 1.34

e - ISO Factor⁸ 0.44

Y - ISO Factor⁹ 1.38

G1 - Heat Generation Factor (Roller-Raceway) 87.5

G2 - Heat Generation Factor (Rib-Roller End) 26.9

C_g - Geometry Factor¹⁰ 0.0759

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.

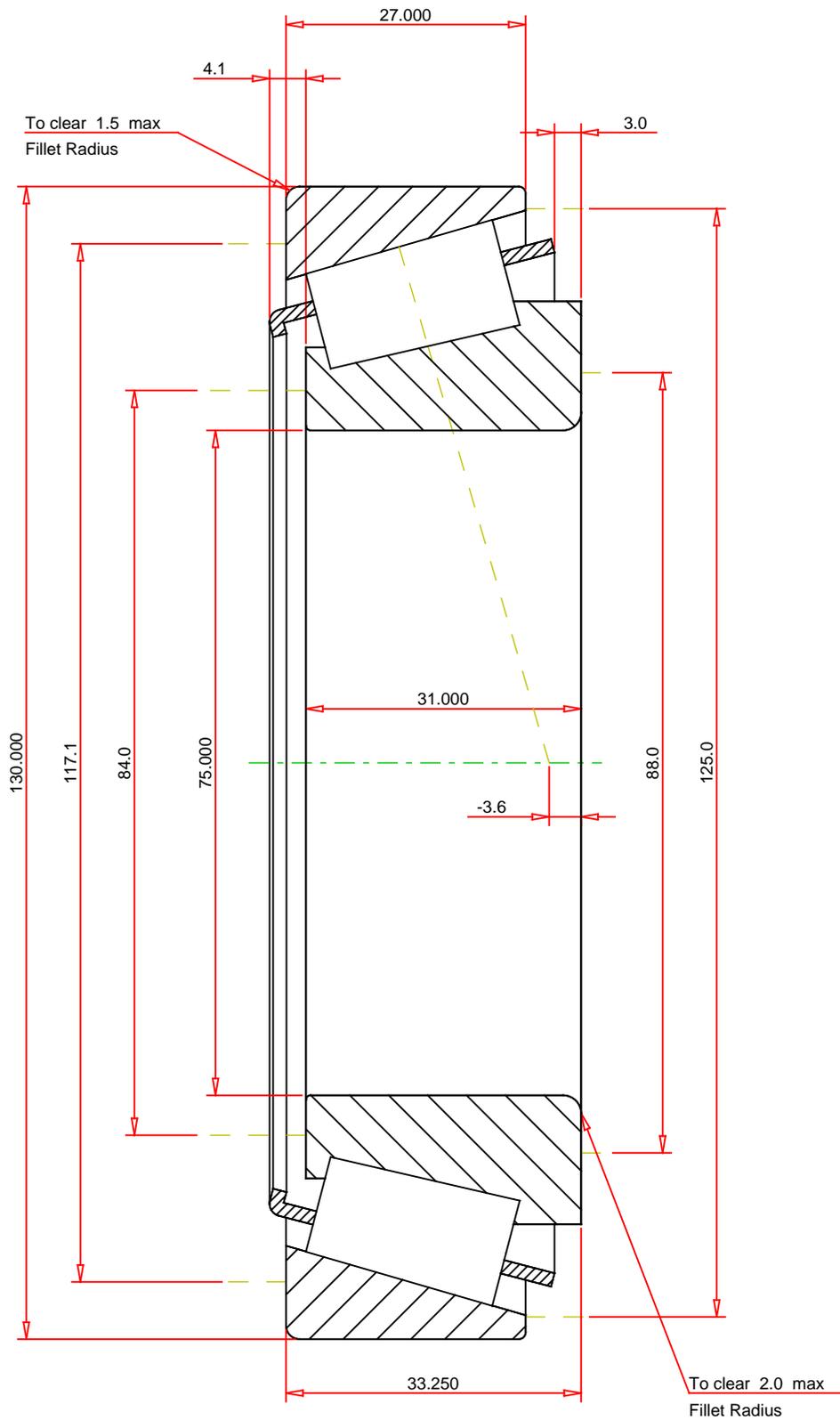
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 a3l.



METRIC UNITS

ISO Factor - e	0.44
ISO Factor - Y	1.38
Bearing Weight	1.7 kg
Number of Rollers Per Row	19
Effective Center Location	-3.6 mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

X32215M - Y32215M
Tapered Roller Bearings - TS (Tapered Single)
Metric

K Factor	1.34
Dynamic Radial Rating - C90	51600 N
Dynamic Thrust Rating - Ca90	38500 N
Static Radial Rating - C0	227000 N
Dynamic Radial Rating - C1	199000 N

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