



The Timken Company
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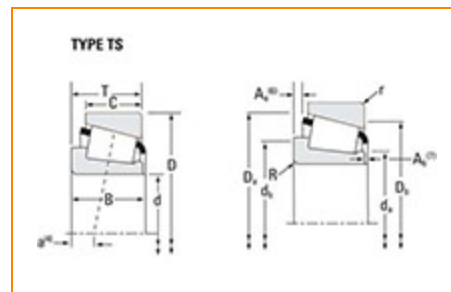
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Timken Part Number X32217M - Y32217M, Tapered Roller Bearings - TS (Tapered Single) Metric

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	32217M
Cone Part Number	X32217M
Cup Part Number	Y32217M
Design Units	METRIC
Bearing Weight	2.6 Kg 5.8 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	85 mm 3.3465 in
D - Cup Outer Diameter	150 mm 5.9055 in
B - Cone Width	36 mm 1.4173 in
C - Cup Width	30.000 mm 1.1811 in
T - Bearing Width	38.500 mm 1.5157 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	2.540 mm 0.1 in
r - Cup Backface "To Clear" Radius²	2.03 mm 0.08 in
da - Cone Frontface Backing Diameter	93.98 mm 3.7 in
db - Cone Backface Backing Diameter	100.08 mm 3.94 in
Da - Cup Frontface Backing Diameter	142.00 mm 5.63 in
Db - Cup Backface Backing Diameter	134.11 mm 5.28 in
Ab - Cage-Cone Frontface Clearance	4.1 mm 0.16 in
Aa - Cage-Cone Backface Clearance	3.3 mm 0.13 in

a - Effective Center Location³	-4.6 mm -0.18 in
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Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	63600 N 14300 lbf
C1 - Dynamic Radial Rating (1 million revolutions)⁵	245000 N 55100 lbf
C0 - Static Radial Rating	305000 N 68700 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	45700 N 10300 lbf

Factors

K - Factor⁷	1.39
e - ISO Factor⁸	0.42
Y - ISO Factor⁹	1.43
G1 - Heat Generation Factor (Roller-Raceway)	121.4
G2 - Heat Generation Factor (Rib-Roller End)	32.6
C_g - Geometry Factor	0.0836

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.

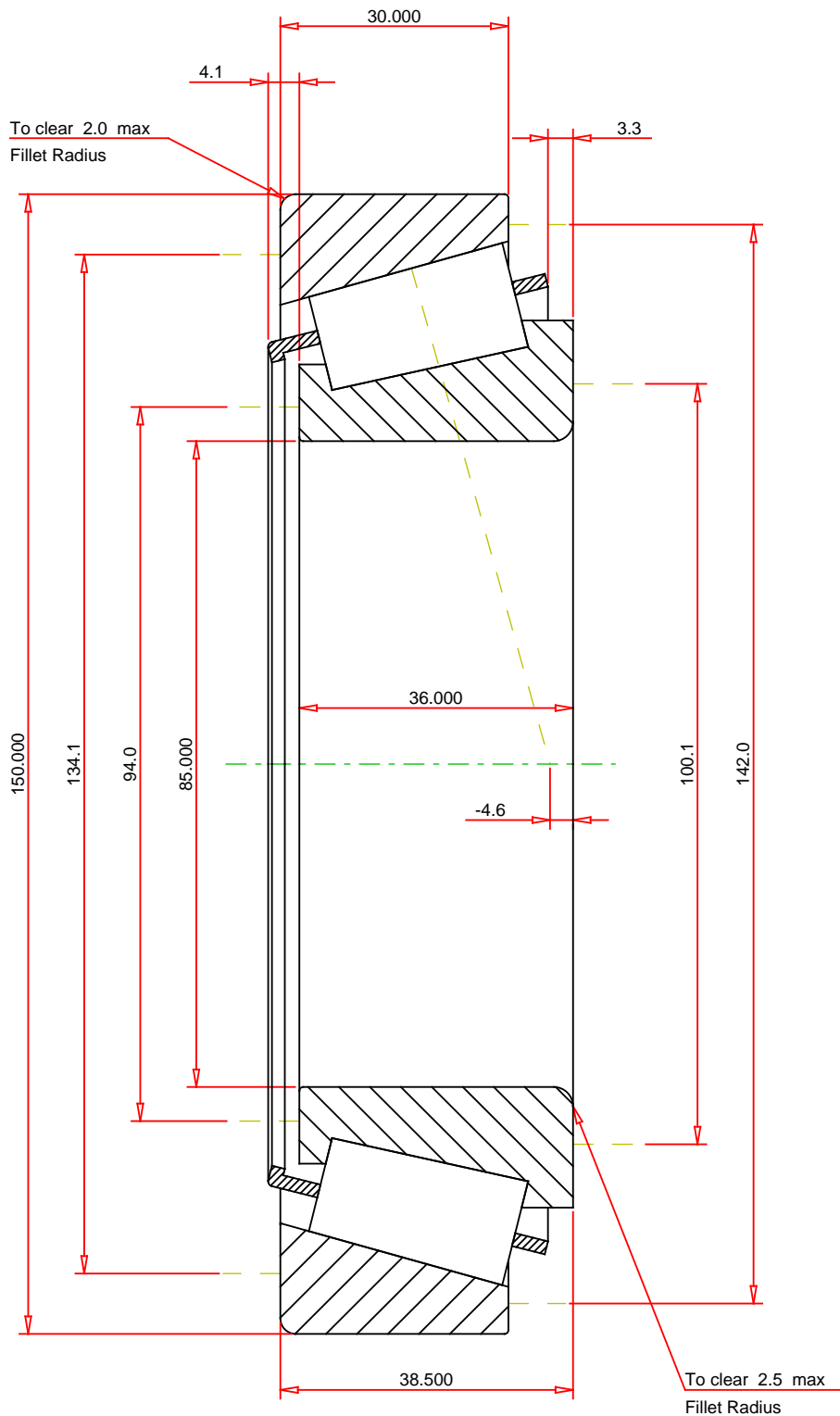
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are

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.



METRIC UNITS

ISO Factor - e	0.42
ISO Factor - Y	1.43
Bearing Weight	2.6 kg
Number of Rollers Per Row	19
Effective Center Location	-4.6 mm

TIMKEN®

X32217M - Y32217M
TS BEARING ASSEMBLY

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

K Factor	1.39	
Dynamic Radial Rating - C90	63600	N
Dynamic Thrust Rating - Ca90	45700	N
Static Radial Rating - C0	305000	N
Dynamic Radial Rating - C1	245000	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