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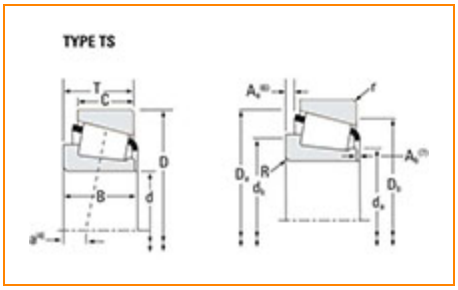
Part Number 32234, Tapered Roller Bearings - TS (Tapered Single) Metric

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	32234
Cone Part Number	X32234M
Cup Part Number	Y32234M
Design Unit	Metric
Cage Material	Stamped Steel
Full Timken Part Number	32234

Dimensions

d - Bore	170 mm 6.6929 in

D - Cup Outer Diameter	310 mm 12.2047 in
B - Cone Width	86 mm 3.3858 in
C - Cup Width	71 mm 2.7953 in
T - Bearing Width	91 mm 3.5827 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	5 mm 0.2 in
r - Cup Backface "To Clear" Radius[2]	4 mm 0.16 in
da - Cone Frontface Backing Diameter	198 mm 7.8 in
db - Cone Backface Backing Diameter	210 mm 8.27 in
Da - Cup Frontface Backing Diameter	293.5 mm 11.56 in
Db - Cup Backface Backing Diameter	279 mm 10.98 in
Ab - Cage-Cone Frontface Clearance	8.1 mm 0.32 in
Aa - Cage-Cone Backface Clearance	8.1 mm 0.32 in
a - Effective Center Location[3]	-14.5 mm -0.57 in

Basic Load Ratings

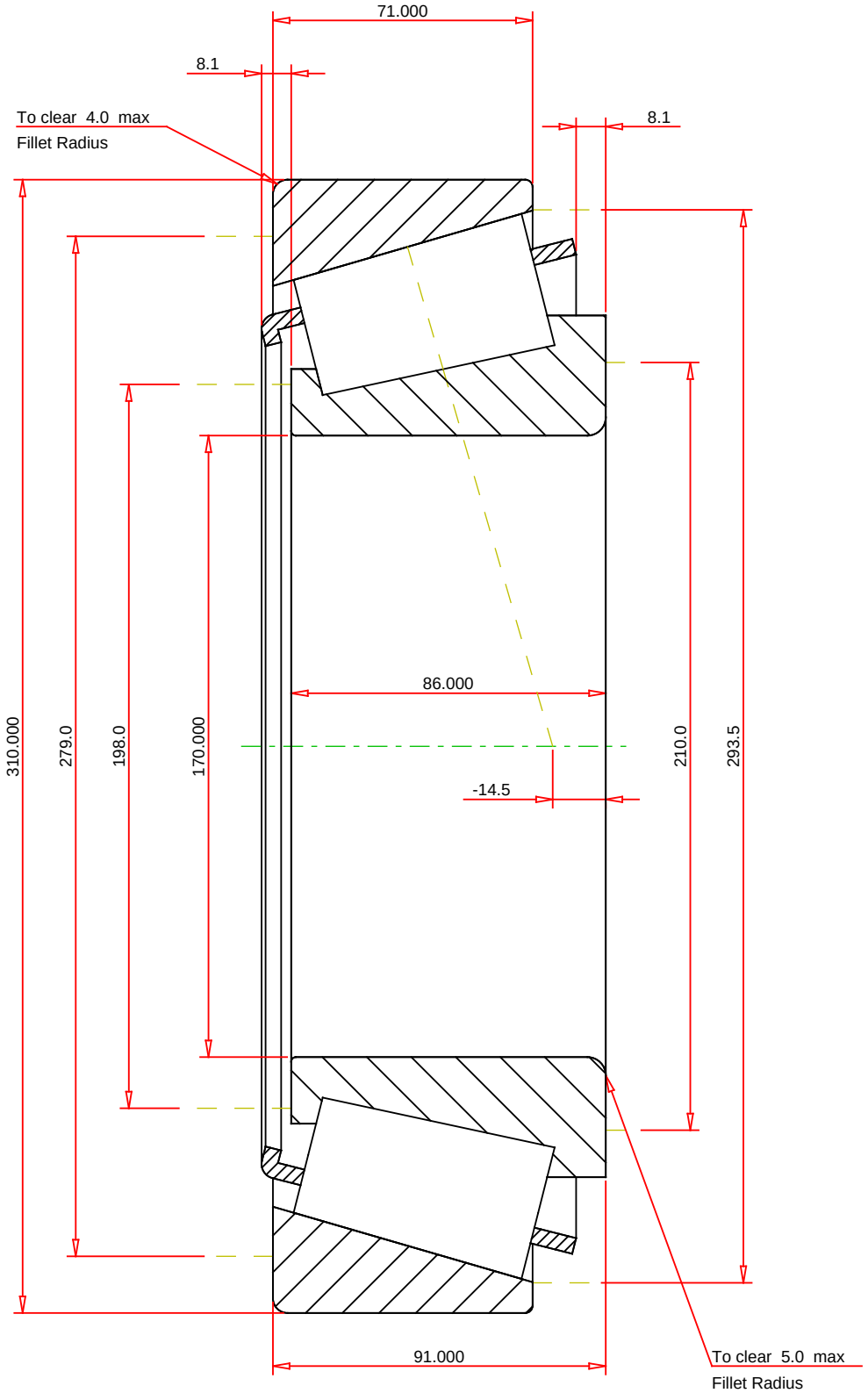
C90 - Dynamic Radial Rating (90 million revolutions)[4]	288000 N 64800 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	1110000 N 250000 lbf
C0 - Static Radial Rating	1750000 N 394000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	215000 N 48300 lbf

Factors

K - Factor[7]	1.34
e - ISO Factor[8]	0.44
Y - ISO Factor[9]	1.38
G1 - Heat Generation Factor (Roller-Raceway)	858.1
G2 - Heat Generation Factor (Rib-Roller End)	72.5
Cg - Geometry Factor[10]	0.136

[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	28.37	kg
Number of Rollers Per Row	20	
Effective Center Location	-14.5	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

X32234M - Y32234M

Tapered Roller Bearings - TS (Tapered Single)
Metric

K Factor	1.34	
Dynamic Radial Rating - C90	288000	N
Dynamic Thrust Rating - Ca90	215000	N
Static Radial Rating - C0	1750000	N
Dynamic Radial Rating - C1	1110000	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