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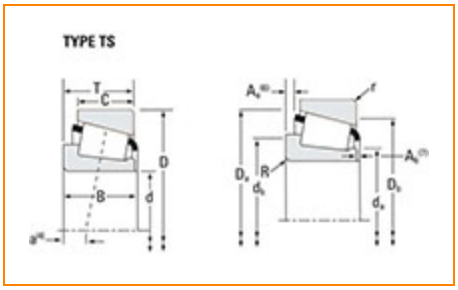
Part Number 32230, Tapered Roller Bearings - TS (Tapered Single) Metric

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	32230M
Cone Part Number	X32230M
Cup Part Number	Y32230M
Design Unit	Metric
Cage Material	Stamped Steel
Related Assembly Number(s)	32230M-90KM1

Dimensions

d - Bore	150 mm 5.9055 in

D - Cup Outer Diameter	270 mm 10.6299 in
B - Cone Width	73.000 mm 2.8740 in
C - Cup Width	60.000 mm 2.3622 in
T - Bearing Width	77 mm 3.0315 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	4.060 mm 0.16 in
r - Cup Backface "To Clear" Radius[2]	3.05 mm 0.12 in
da - Cone Frontface Backing Diameter	170 mm 6.69 in
db - Cone Backface Backing Diameter	183 mm 7.2 in
Da - Cup Frontface Backing Diameter	255.00 mm 10.04 in
Db - Cup Backface Backing Diameter	244.09 mm 9.61 in
Ab - Cage-Cone Frontface Clearance	5.6 mm 0.22 in
Aa - Cage-Cone Backface Clearance	9.1 mm 0.36 in
a - Effective Center Location[3]	-11.7 mm -0.46 in

Basic Load Ratings

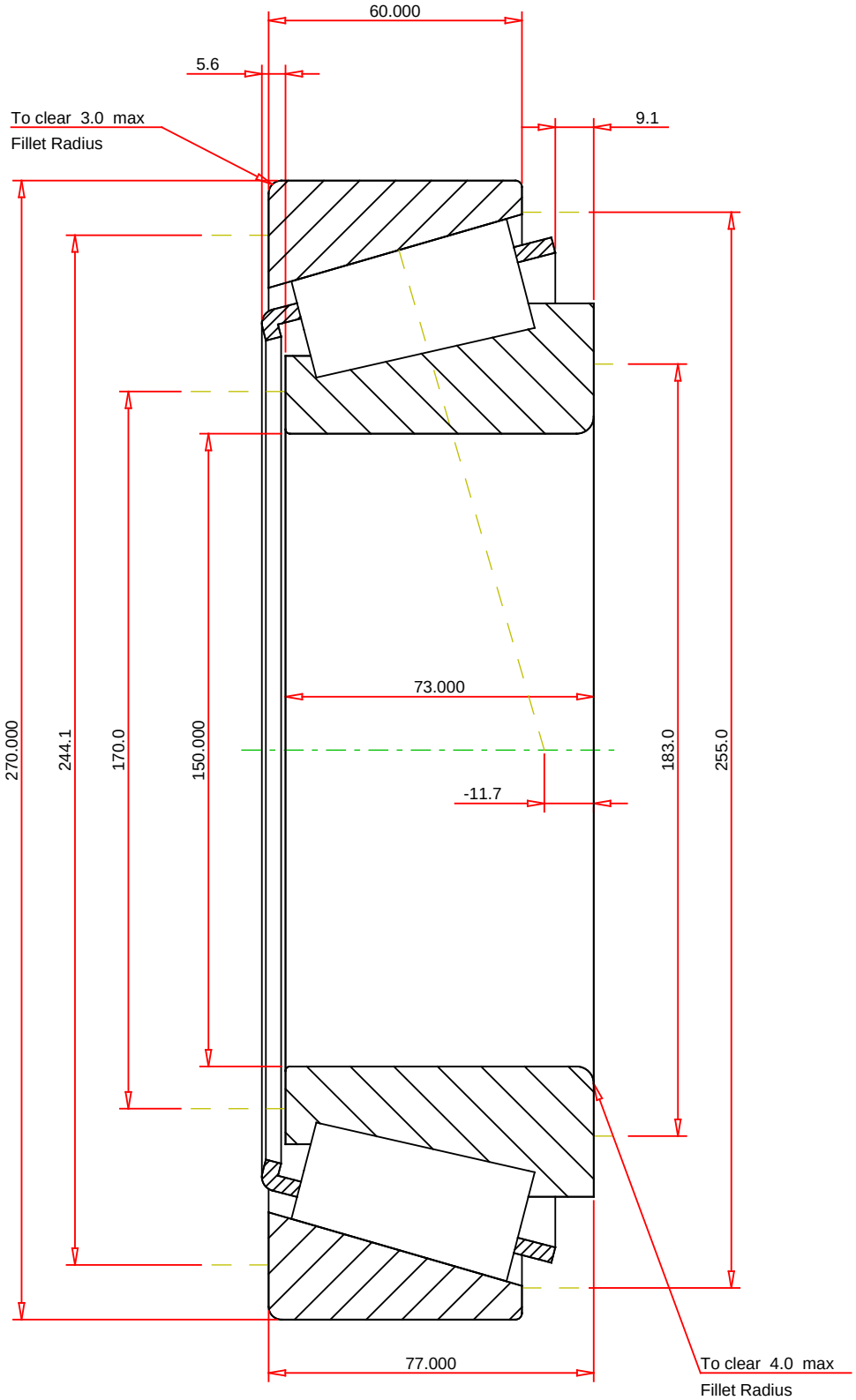
C90 - Dynamic Radial Rating (90 million revolutions)[4]	221000 N 49600 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	851000 N 191000 lbf
C0 - Static Radial Rating	1230000 N 276000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	164000 N 36900 lbf

Factors

K - Factor[7]	1.34
e - ISO Factor[8]	0.44
Y - ISO Factor[9]	1.38
G1 - Heat Generation Factor (Roller-Raceway)	579.4
G2 - Heat Generation Factor (Rib-Roller End)	64.2
Cg - Geometry Factor[10]	0.119

[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	17.7	kg
Number of Rollers Per Row	20	
Effective Center Location	-11.7	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

X32230M - Y32230M

Tapered Roller Bearings - TS (Tapered Single)
Metric

K Factor	1.34	
Dynamic Radial Rating - C90	221000	N
Dynamic Thrust Rating - Ca90	164000	N
Static Radial Rating - C0	1230000	N
Dynamic Radial Rating - C1	851000	N

FOR DISCUSSION ONLY