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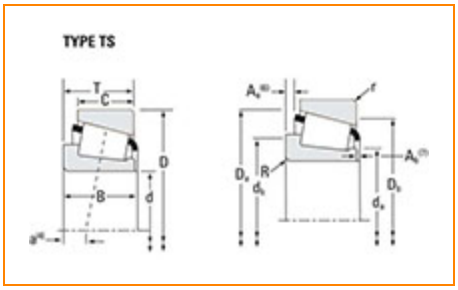
Part Number 32238, Tapered Roller Bearings - TS (Tapered Single) Metric

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	32238
Cone Part Number	X32238
Cup Part Number	Y32238
Design Unit	Metric
Cage Material	Stamped Steel

Dimensions

d - Bore	190 mm 7.4803 in
D - Cup Outer Diameter	340 mm 13.3858 in

B - Cone Width	92 mm 3.622 in
C - Cup Width	75 mm 2.9528 in
T - Bearing Width	97.000 mm 3.8189 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	5 mm 0.200 in
r - Cup Backface "To Clear" Radius[2]	4 mm 0.16 in
da - Cone Frontface Backing Diameter	219 mm 8.62 in
db - Cone Backface Backing Diameter	230 mm 9.05 in
Da - Cup Frontface Backing Diameter	323 mm 12.72 in
Db - Cup Backface Backing Diameter	305 mm 12.01 in
Ab - Cage-Cone Frontface Clearance	9.9 mm 0.39 in
Aa - Cage-Cone Backface Clearance	11.2 mm 0.44 in
a - Effective Center Location[3]	-15.7 mm -0.62 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90	442000 N

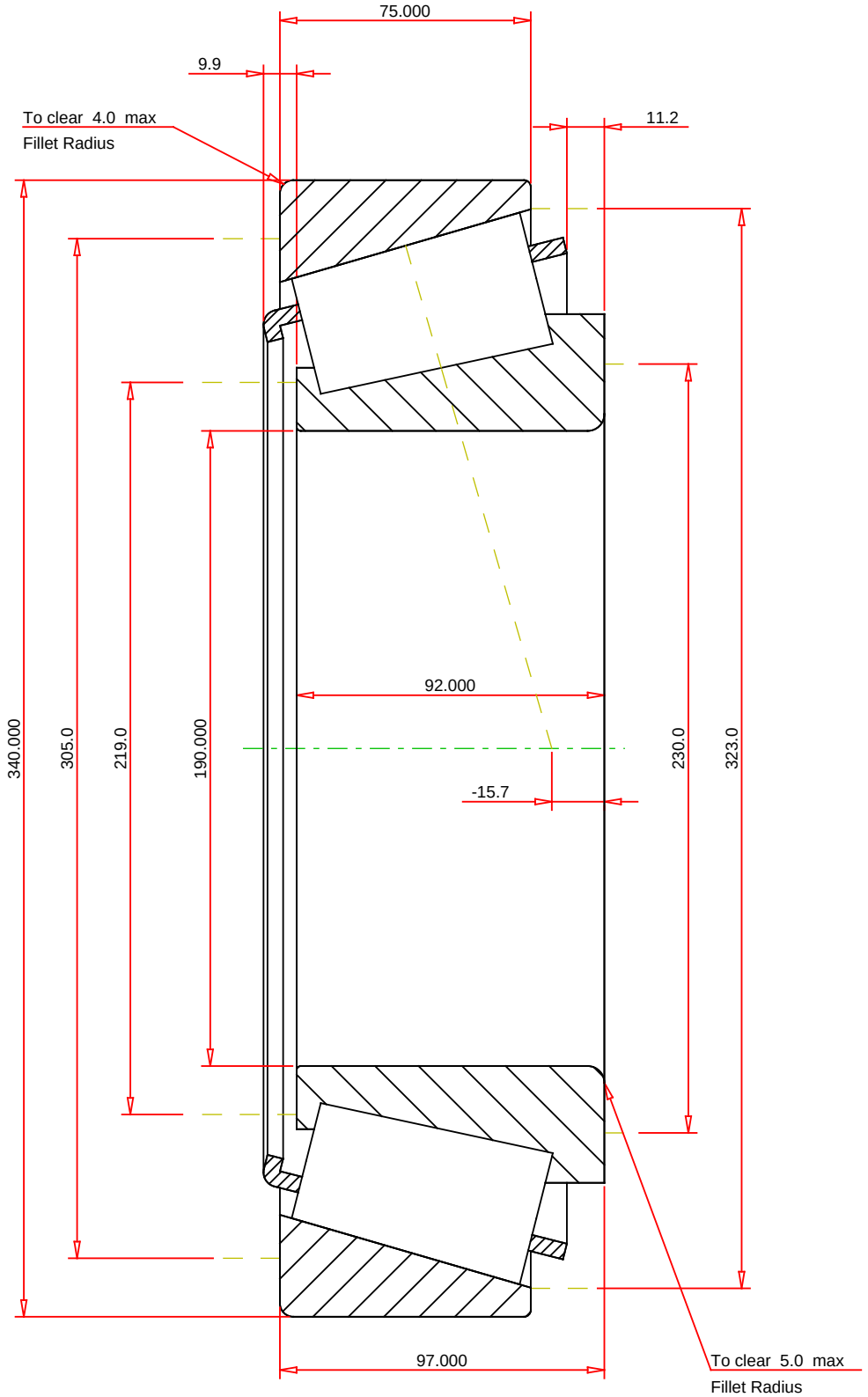
million revolutions)[4]	99400 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	1700000 N 383000 lbf
C0 - Static Radial Rating	2210000 N 496000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	329000 N 74000 lbf

Factors

K - Factor[7]	1.34
e - ISO Factor[8]	0.44
Y - ISO Factor[9]	1.38
G1 - Heat Generation Factor (Roller-Raceway)	1114.6
G2 - Heat Generation Factor (Rib-Roller End)	89.9
Cg - Geometry Factor[10]	0.148

[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 x 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 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[6] Based on 90 x 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	36.36	kg
Number of Rollers Per Row	21	
Effective Center Location	-15.7	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

X32238 - Y32238

Tapered Roller Bearings - TS (Tapered Single)
Metric

K Factor	1.34	
Dynamic Radial Rating - C90	442000	N
Dynamic Thrust Rating - Ca90	329000	N
Static Radial Rating - C0	2210000	N
Dynamic Radial Rating - C1	1700000	N

FOR DISCUSSION ONLY