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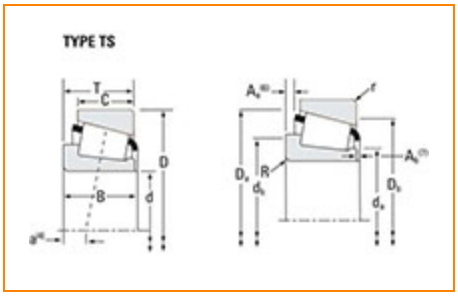
Part Number X30207 - Y30207, Tapered Roller Bearings - TS (Tapered Single) Metric

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	30207
Cone Part Number	X30207
Cup Part Number	Y30207
Design Unit	Metric
Bearing Weight	0.3 Kg 0.8 lb
Cage Material	Stamped Steel

Dimensions

- Bore	35 mm 1.3780 in

D - Cup Outer Diameter	72.0 mm 2.8346 in
B - Cone Width	17.000 mm 0.6693 in
C - Cup Width	15.000 mm 0.5906 in
T - Bearing Width	18.255 mm 0.7187 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	1.520 mm 0.06 in
r - Cup Backface "To Clear" Radius[2]	1.52 mm 0.06 in
da - Cone Frontface Backing Diameter	42.5 mm 1.67 in
db - Cone Backface Backing Diameter	44.5 mm 1.75 in
Da - Cup Frontface Backing Diameter	67.10 mm 2.68 in
Db - Cup Backface Backing Diameter	64.01 mm 2.52 in
Ab - Cage-Cone Frontface Clearance	3.3 mm 0.13 in
Aa - Cage-Cone Backface Clearance	0 mm 0 in
a - Effective Center Location[3]	-3.3 mm -0.13 in

Basic Load Ratings

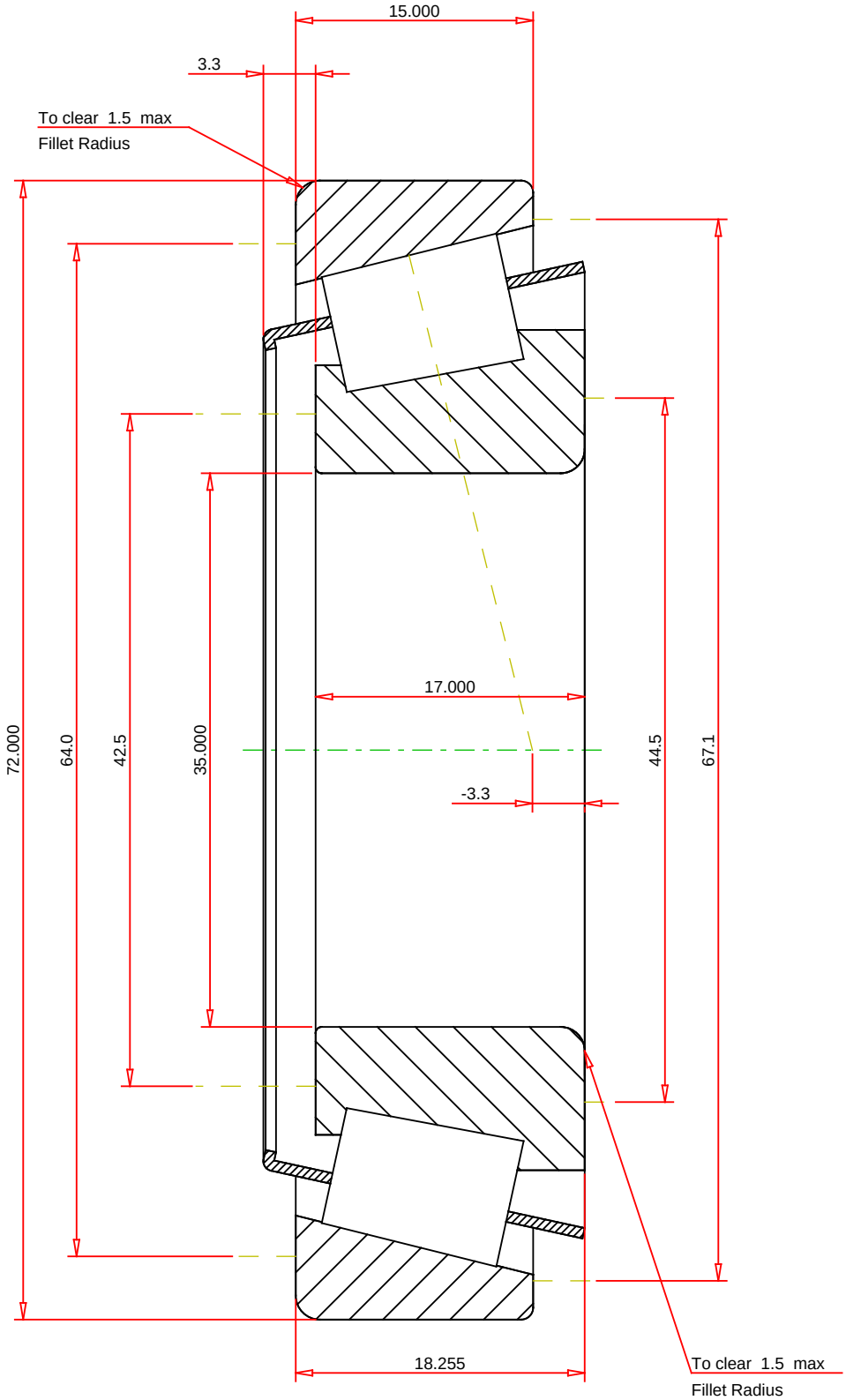
C90 - Dynamic Radial Rating (90 million revolutions)[4]	15700 N 3530 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	60600 N 13600 lbf
C0 - Static Radial Rating	63600 N 14300 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	10100 N 2270 lbf

Factors

K - Factor[7]	1.56
e - ISO Factor[8]	0.37
Y - ISO Factor[9]	1.6
G1 - Heat Generation Factor (Roller-Raceway)	18
G2 - Heat Generation Factor (Rib-Roller End)	13.3
Cg - Geometry Factor[10]	0.0662

[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	0.37	
ISO Factor - Y	1.6	
Bearing Weight	0.3	kg
Number of Rollers Per Row	17	
Effective Center Location	-3.3	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

X30207 - Y30207

Tapered Roller Bearings - TS (Tapered Single)
Metric

K Factor	1.56	
Dynamic Radial Rating - C90	15700	N
Dynamic Thrust Rating - Ca90	10100	N
Static Radial Rating - C0	63600	N
Dynamic Radial Rating - C1	60600	N

FOR DISCUSSION ONLY