The Timken Company
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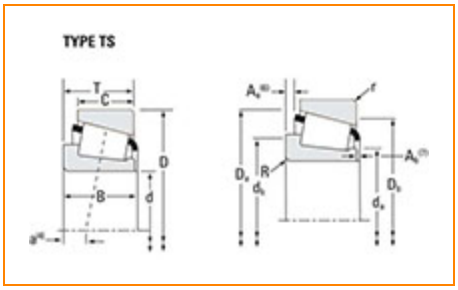
Part Number X32014X - Y32014X, Tapered Roller Bearings - TS (Tapered Single) Metric

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	32014X
Cone Part Number	X32014X
Cup Part Number	Y32014X
Design Unit	Metric
Bearing Weight	0.9 Kg 1.9 lb
Cage Material	Stamped Steel

Dimensions

- Bore	70 mm 2.7559 in

D - Cup Outer Diameter	110.000 mm 4.3307 in
B - Cone Width	25.000 mm 0.9843 in
C - Cup Width	19.000 mm 0.7480 in
T - Bearing Width	25.000 mm 0.9843 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	76 mm 2.99 in
db - Cone Backface Backing Diameter	78 mm 3.07 in
Da - Cup Frontface Backing Diameter	105.40 mm 4.15 in
Db - Cup Backface Backing Diameter	100.08 mm 3.94 in
Ab - Cage-Cone Frontface Clearance	2.5 mm 0.1 in
Aa - Cage-Cone Backface Clearance	1.8 mm 0.07 in
a - Effective Center Location[3]	-1 mm -0.04 in

Basic Load Ratings

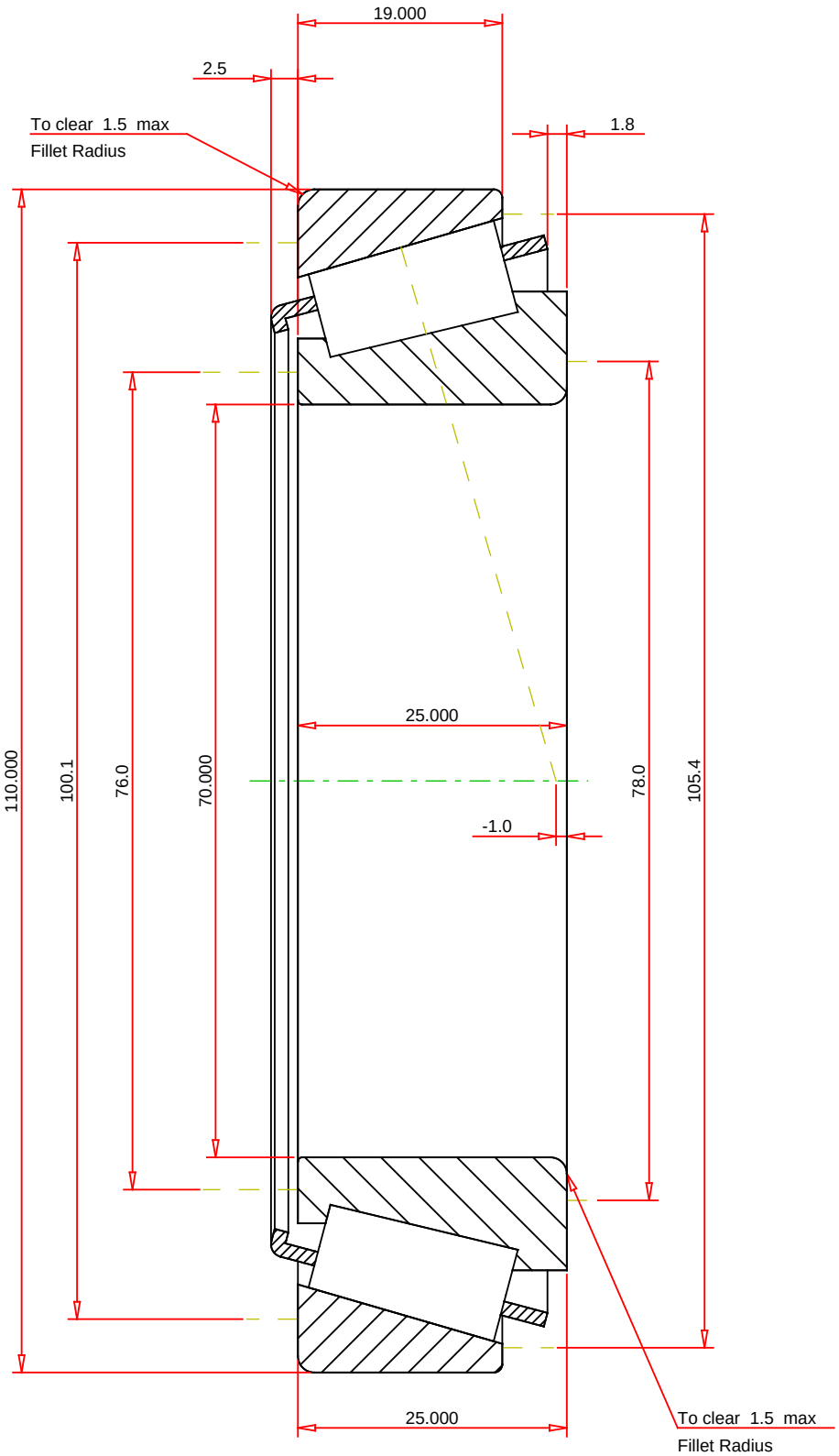
C90 - Dynamic Radial Rating (90 million revolutions)[4]	34500 N 7760 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	133000 N 29900 lbf
C0 - Static Radial Rating	163000 N 36700 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	25700 N 5780 lbf

Factors

K - Factor[7]	1.34
e - ISO Factor[8]	0.43
Y - ISO Factor[9]	1.38
G1 - Heat Generation Factor (Roller-Raceway)	74.1
G2 - Heat Generation Factor (Rib-Roller End)	44.8
Cg - Geometry Factor[10]	0.111

[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	0.43	
ISO Factor - Y	1.38	
Bearing Weight	0.9	kg
Number of Rollers Per Row	26	
Effective Center Location	-1	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

X32014X - Y32014X

Tapered Roller Bearings - TS (Tapered Single)
Metric

K Factor	1.34	
Dynamic Radial Rating - C90	34500	N
Dynamic Thrust Rating - Ca90	25700	N
Static Radial Rating - C0	163000	N
Dynamic Radial Rating - C1	133000	N

FOR DISCUSSION ONLY