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TANGON®
REPRODUCTIVE RANGE

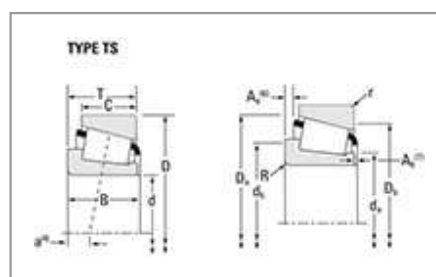


TABLE 1
REPRESENTATIVE DATA

Specifications

Series	33018
Cone Part Number	X33018
Cup Part Number	Y33018
Design Unit	Metric
Bearing Weight	2.2 Kg 4.8 lb
Cage Material	Stamped Steel
Full Timken Part Number	33018

Dimensions



22 mm

d - Bore	70 mm 3.5433 in
D - Cup Outer Diameter	140 mm 5.5118 in
B - Cone Width	39 mm 1.5354 in
C - Cup Width	32.500 mm 1.2795 in
T - Bearing Width	39.000 mm 1.5354 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	2.030 mm 0.08 in
r - Cup Backface "To Clear" Radius²	1.52 mm 0.06 in
da - Cone Frontface Backing Diameter	98 mm 3.86 in
db - Cone Backface Backing Diameter	101 mm 3.98 in
Da - Cup Frontface Backing Diameter	134.90 mm 5.35 in
Db - Cup Backface Backing Diameter	131.06 mm 5.16 in
Ab - Cage-Cone Frontface Clearance	3 mm 0.12 in
Aa - Cage-Cone Backface Clearance	1.3 mm 0.05 in
a - Effective Center Location³	-10.9 mm -0.43 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	76000 N 17100 lbf
C1 - Dynamic Radial Rating (1 million revolutions)⁵	293000 N 65900 lbf
C0 - Static Radial Rating	377000 N 84700 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	35000 N 7860 lbf

Factors

K - Factor⁷	2.17
e - ISO Factor⁸	0.27
Y - ISO Factor⁹	2.23
G1 - Heat Generation Factor (Roller-Raceway)	183.4
G2 - Heat Generation Factor (Rib-Roller End)	56
C_g - Geometry Factor¹⁰	0.0884

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.

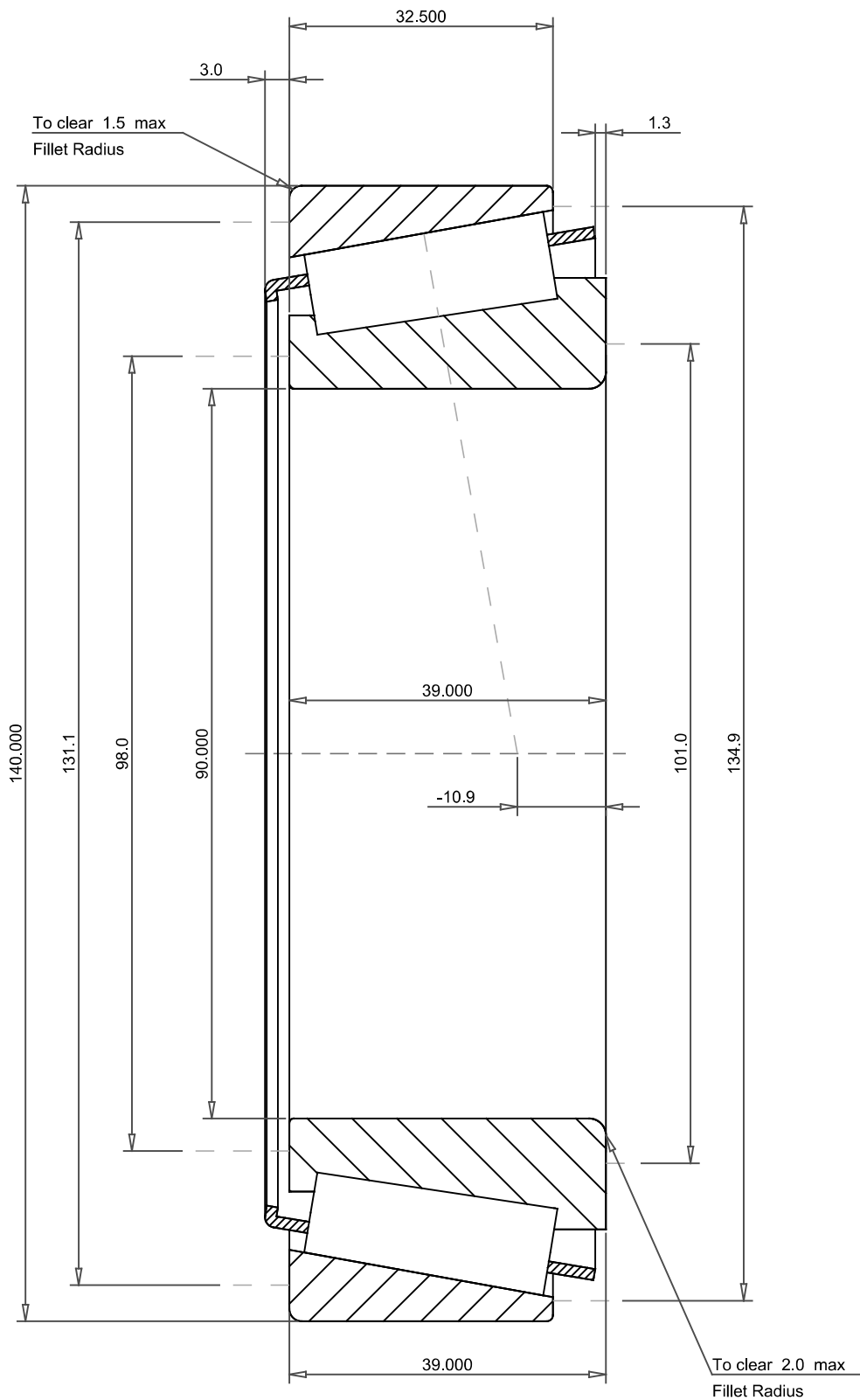
⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁸ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction

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¹⁰ Geometry constant for Lubrication Life Adjustment Factor a_3 .



METRIC UNITS

ISO Factor - e	0.27
ISO Factor - Y	2.23
Bearing Weight	2.2 kg
Number of Rollers Per Row	24
Effective Center Location	-10.9 mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

X33018 - Y33018
Tapered Roller Bearings - TS (Tapered Single)
Metric

K Factor	2.17	
Dynamic Radial Rating - C90	76000	N
Dynamic Thrust Rating - Ca90	35000	N
Static Radial Rating - C0	377000	N
Dynamic Radial Rating - C1	293000	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.

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