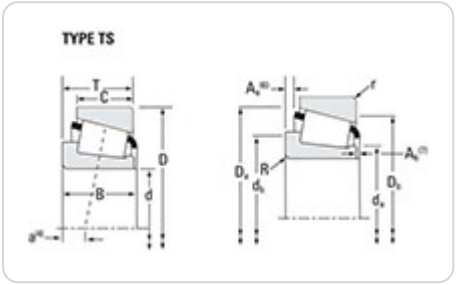
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Part Number 31318, Tapered Roller Bearings - TS (Tapered Single) Metric





Key Features

- Available in single, double and multi-row configurations, as well as proprietary sizes
- Designed in collaboration with OE engineers to design, engineer and test bearings for premium performance in many applications
- Power dense designs allow for heavier loads and can help extend bearing life
- Optimized internal geometry lowers torque and operating temperatures to extend lubrication system life

- Can be designed to withstand high-corrosive, high-temperature and vacuum or low-lubrication environments with proprietary enhancements

Key Dimensions

Cone Part Number	X31318M
Cup Part Number	Y31318M
Bore (d)	90 mm 3.5433 in
O.D. (D)	190 mm 7.4803 in
Width (T)	46.5 mm 1.8307 in
Dynamic Radial Load Rating - 1M Revs (C1) [1]	324000 N 72800 lbf
Dynamic Radial Load Rating - 90M Revs (C90) [2]	84000 N 18900 lbf
e Factor [3]	0.83
K Factor [4]	0.71
Series	31318M
Y Factor [5]	0.73

Other Dimensions

Inner Ring Width (B)	43 mm 1.6929 in
Outer Ring Width (C)	30.000 mm 1.1811 in
Effective Center Location[6]	13.2 mm 0.52 in
Max Shaft Fillet Radius[7]	4.060 mm 0.16 in
Max Housing Fillet Radius[8]	3.05 mm 0.12 in
Shaft Backing Shoulder Diameter - Frontface (da)	117 mm 4.61 in
Shaft Backing Shoulder Diameter - Backface (db)	128 mm 5.04 in
Housing Backing Shoulder Diameter - Frontface (Da)	182.12 mm 7.17 in
Housing Backing Shoulder Diameter - Backface (Db)	164.08 mm 6.46 in
Cage Location Relative to Backface (Aa)	6.9 mm 0.27 in
Cage Location Relative to Frontface (Ab)	6.6 mm 0.26 in
Weight	5.9 Kg 13.1 lb

Ratings

Dynamic Axial Rating - 90M Revs (Ca90)[9]	119000 N 26700 lbf
Static Radial Load Rating (C0)	421000 N 94600 lbf

Factors

G1 Factor	169.3
G2 Factor	37.1
Geometry Factor (Cg)[10]	0.114

[1] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.

[2] 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.

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

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

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

[6] Negative value indicates effective center inside cone backface.

[7] These maximum fillet radii will be cleared by the bearing corners.

[8] These maximum fillet radii will be cleared by the bearing corners.

[9] 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.

[10] Geometry constant for Lubrication Life Adjustment Factor a3l.