


The Timken Company

4500 Mt Pleasant St. NW

N. Canton, OH 44720

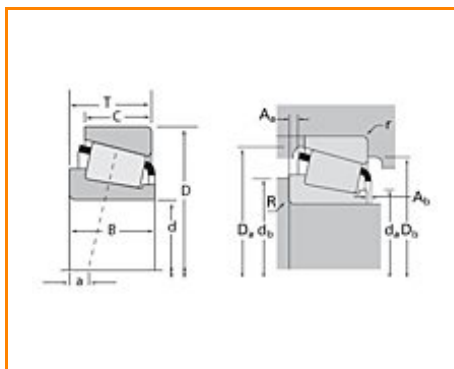
Phone: (234) 262-3000

E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number L44643 - L44610, Tapered Roller Bearings - TS (Tapered Single)

Imperial

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	L44600
Cone Part Number	L44643
Cup Part Number	L44610
Design Units	Imperial
Bearing Weight	0.100 Kg 0.30 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	25.400 mm 1.0000 in
D - Cup Outer Diameter	50.292 mm 1.9800 in
B - Cone Width	14.732 mm 0.5800 in
C - Cup Width	10.668 mm 0.4200 in
T - Bearing Width	14.224 mm 0.5600 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	1.270 mm 0.050 in
r - Cup Backface "To Clear" Radius²	1.27 mm 0.050 in
da - Cone Frontface Backing Diameter	29.97 mm 1.18 in
db - Cone Backface Backing Diameter	32.00 mm 1.26 in
Da - Cup Frontface Backing Diameter	47.50 mm 1.87 in
Db - Cup Backface Backing Diameter	44.45 mm 1.75 in
Ab - Cage-Cone Frontface Clearance	1.3 mm 0.05 in
Aa - Cage-Cone Backface Clearance	0.5 mm 0.02 in
a - Effective Center Location³	-3.3 mm -0.13 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	9230 N 2080 lbf
C1 - Dynamic Radial Rating (1 million revolutions)⁵	35600 N 8010 lbf
C0 - Static Radial Rating	32900 N 7400 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	5910 N 1330 lbf

Factors

K - Factor⁷	1.56
e - ISO Factor⁸	0.37
Y - ISO Factor⁹	1.60
G1 - Heat Generation Factor (Roller-Raceway)	8.9
G2 - Heat Generation Factor (Rib-Roller End)	8.93
Cg - Geometry Factor	0.0526

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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⁹ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

