


The Timken Company

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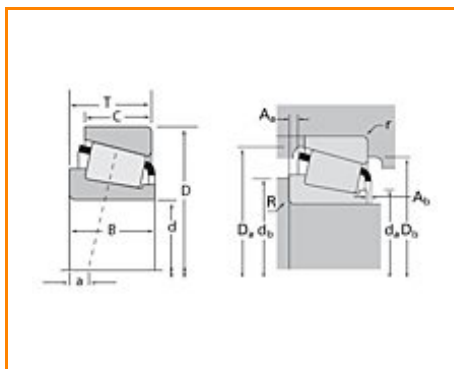
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Timken Part Number LM29749 - LM29710, Tapered Roller Bearings - TS (Tapered Single)

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	LM29700
Cone Part Number	LM29749
Cup Part Number	LM29710
Design Units	Imperial
Bearing Weight	0.200 Kg 0.50 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	38.1 mm 1.5 in
D - Cup Outer Diameter	65.088 mm 2.5625 in
B - Cone Width	18.288 mm 0.7200 in
C - Cup Width	13.970 mm 0.5500 in
T - Bearing Width	18.034 mm 0.7100 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	2.290 mm 0.090 in
r - Cup Backface "To Clear" Radius²	1.27 mm 0.050 in
da - Cone Frontface Backing Diameter	42.42 mm 1.67 in
db - Cone Backface Backing Diameter	46.48 mm 1.83 in
Da - Cup Frontface Backing Diameter	62.00 mm 2.46 in
Db - Cup Backface Backing Diameter	58.93 mm 2.32 in
Ab - Cage-Cone Frontface Clearance	1.8 mm 0.07 in
Aa - Cage-Cone Backface Clearance	0.3 mm 0.01 in
a - Effective Center Location³	-4.10 mm -0.16 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	12600 N 2830 lbf
C1 - Dynamic Radial Rating (1 million revolutions)⁵	48600 N 10900 lbf
C0 - Static Radial Rating	60300 N 13600 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	7170 N 1610 lbf

Factors

K - Factor⁷	1.76
e - ISO Factor⁸	0.33
Y - ISO Factor⁹	1.8
G1 - Heat Generation Factor (Roller-Raceway)	20.4
G2 - Heat Generation Factor (Rib-Roller End)	15
Cg - Geometry Factor	0.0666

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.

