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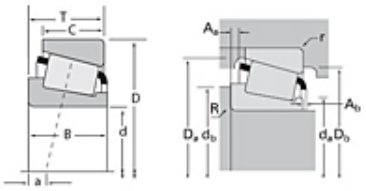
Timken Part Number 37431 - 37625, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	37000
Cone Part Number	37431
Cup Part Number	37625
Design Units	Imperial
Bearing Weight	2.9000 lb 1.3000 Kg
Cage Type	Stamped Steel

DIMENSIONS

D - Cup Outer Diameter	6.2500 in 158.750 mm
d - Cone Bore	4.3125 in 109.538 mm

B - Cone Width	0.8440 in 21.438 mm
C - Cup Width	0.6250 in 15.875 mm
T - Bearing Width	0.9063 in 23.020 mm
Z - Number of Rollers Per Row	32

ABUTMENT AND FILLET DIMENSIONS

R - Cone Backface "To Clear" Radius [1]	0.140 in 3.560 mm
r - Cup Backface "To Clear" Radius [2]	0.130 in 3.30 mm
da - Cone Frontface Backing Diameter	5.43 in 116.08 mm
db - Cone Backface Backing Diameter	4.84 in 122.94 mm
Da - Cup Frontface Backing Diameter	6.00 in 151.90 mm
Db - Cup Backface Backing Diameter	5.63 in 143.00 mm
Ab - Cage-Cone Frontface Clearance	0.12 in 3.05 mm
Aa - Cage-Cone Backface Clearance	0.10 in 2.54 mm
a - Effective Center Location [3]	0.54 in 13.70 mm

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.

BASIC LOAD RATINGS

C_{90} - Dynamic Radial Rating (90 million revolutions) [1]	6710 lbf 29900 N
C1 - Dynamic Radial Rating (1 million revolutions) [2]	25900 lbf 115000 N
C0 - Static Radial Rating	40100 lbf 179000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions) [3]	6960 lbf 31000 N

1 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.
2 Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
3 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.

FACTORS

K - Factor [1]	0.96
e - ISO Factor [2]	0.61
Y - ISO Factor [3]	0.99
G1 - Heat Generation Factor (Roller-Raceway)	124
G2 - Heat Generation Factor (Rib-Roller End)	48.7
Cg - Geometry Factor	0.144

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