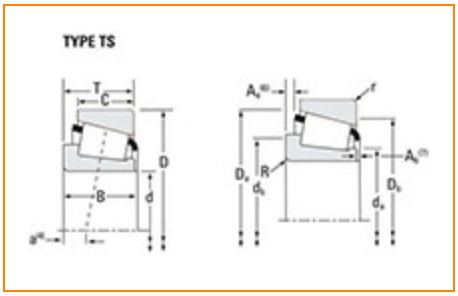
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number 36690 - 36620, 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.



Specifications | Dimensions | Abutment and Fillet Dimensions | Basic Load Ratings | Factors

Specifications

Series	36600
Cone Part Number	36690
Cup Part Number	36620
Design Units	Imperial
Bearing Weight	2.3 Kg 5 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	146.050 mm 5.7500 in

D - Cup Outer Diameter	193.675 mm 7.6250 in
B - Cone Width	28.575 mm 1.1250 in
C - Cup Width	23.020 mm 0.9063 in
T - Bearing Width	28.575 mm 1.1250 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	1.520 mm 0.06 in
r - Cup Backface "To Clear" Radius[2]	1.52 mm 0.06 in
da - Cone Frontface Backing Diameter	152.91 mm 6.89 in
db - Cone Backface Backing Diameter	154.94 mm 6.1 in
Da - Cup Frontface Backing Diameter	188.00 mm 7.41 in
Db - Cup Backface Backing Diameter	182.12 mm 7.17 in
Ab - Cage-Cone Frontface Clearance	3.3 mm 0.13 in
Aa - Cage-Cone Backface Clearance	1 mm 0.04 in
a - Effective Center Location[3]	4.8 mm 0.19 in

Basic Load Ratings

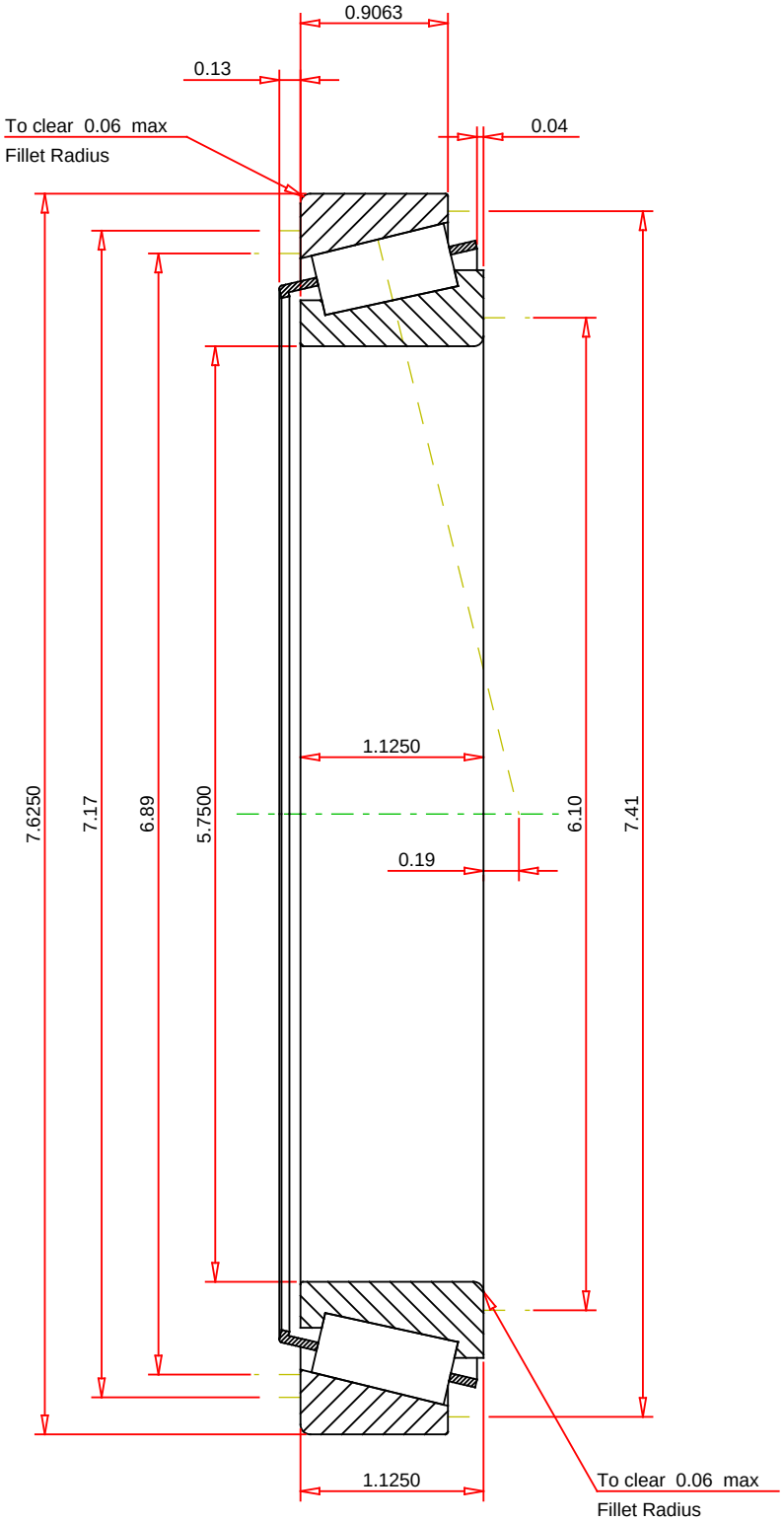
C90 - Dynamic Radial Rating (90 million revolutions)[4]	11400 lbf 50900 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	44200 lbf 196000 N
C0 - Static Radial Rating	88600 lbf 394000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	7220 lbf 32100 N

Factors

K - Factor[7]	1.59
e - ISO Factor[8]	0.37
Y - ISO Factor[9]	1.63
G1 - Heat Generation Factor (Roller-Raceway)	366
G2 - Heat Generation Factor (Rib-Roller End)	121
Cg - Geometry Factor[10]	0.177

[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 x 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 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[6] 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.
[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 on use.
[9] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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



IMPERIAL UNITS

ISO Factor - e	0.37	
ISO Factor - Y	1.63	
Bearing Weight	5	lb
Number of Rollers Per Row	43	
Effective Center Location	0.19	inch

TIMKEN

36690 - 36620

TS BEARING ASSEMBLY

K Factor	1.59	
Dynamic Radial Rating - C90	11400	lbf
Dynamic Thrust Rating - Ca90	7220	lbf
Static Radial Rating - C0	88600	lbf
Dynamic Radial Rating - C1	44200	lbf

THE TIMKEN COMPANY

NORTH CANTON, OHIO USA

FOR DISCUSSION ONLY