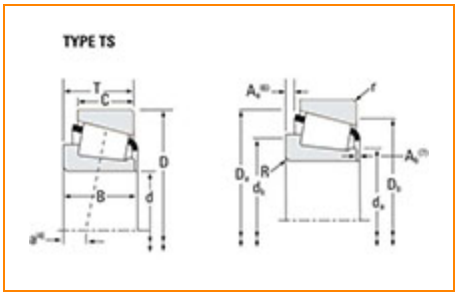
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number 07079 - 07196, 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	07000
Cone Part Number	07079
Cup Part Number	07196
Design Units	Imperial
Bearing Weight	0.10 Kg 0.3 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	20.000 mm 0.7874 in

D - Cup Outer Diameter	50.005 mm 1.9687 in
B - Cone Width	14.260 mm 0.5614 in
C - Cup Width	9.525 mm 0.3750 in
T - Bearing Width	13.495 mm 0.5313 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]	1.02 mm 0.04 in
da - Cone Frontface Backing Diameter	25.91 mm 1.02 in
db - Cone Backface Backing Diameter	27.43 mm 1.08 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	2 mm 0.08 in
Aa - Cage-Cone Backface Clearance	0 mm 0 in
a - Effective Center Location[3]	-2.8 mm -0.11 in

Basic Load Ratings

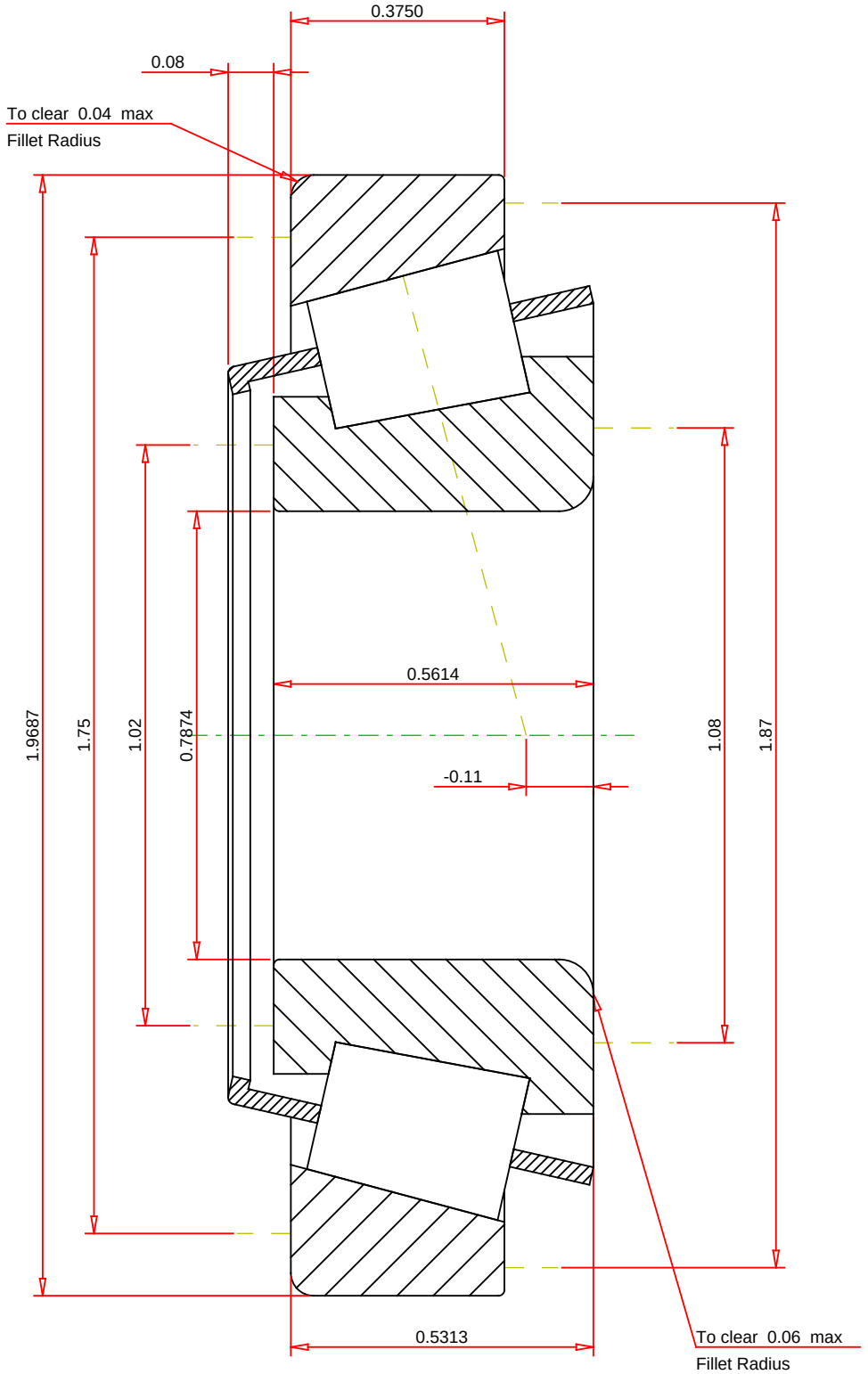
C90 - Dynamic Radial Rating (90 million revolutions)[4]	1700 lbf 7550 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	6540 lbf 29100 N
C0 - Static Radial Rating	6650 lbf 29600 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	1170 lbf 5190 N

Factors

K - Factor[7]	1.45
e - ISO Factor[8]	0.4
Y - ISO Factor[9]	1.49
G1 - Heat Generation Factor (Roller-Raceway)	7.6
G2 - Heat Generation Factor (Rib-Roller End)	7.1
Cg - Geometry Factor[10]	0.0509

[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	0.4	
ISO Factor - Y	1.49	
Bearing Weight	0.3	lb
Number of Rollers Per Row	16	
Effective Center Location	-0.11	inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

07079 - 07196
TS BEARING ASSEMBLY

K Factor	1.45	
Dynamic Radial Rating - C90	1700	lbf
Dynamic Thrust Rating - Ca90	1170	lbf
Static Radial Rating - C0	6650	lbf
Dynamic Radial Rating - C1	6540	lbf

FOR DISCUSSION ONLY