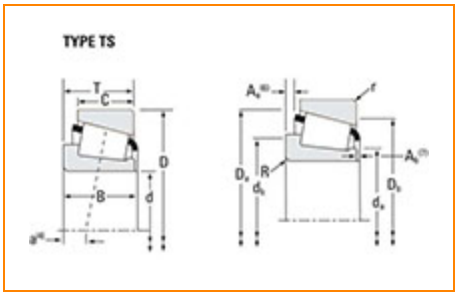
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Part Number 26881 - 26822, 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	26800
Cone Part Number	26881
Cup Part Number	26822
Design Units	Imperial
Bearing Weight	0.5 Kg 1.2 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	39.688 mm 1.5625 in

D - Cup Outer Diameter	79.375 mm 3.1250 in
B - Cone Width	25.400 mm 1.0000 in
C - Cup Width	19.050 mm 0.7500 in
T - Bearing Width	23.813 mm 0.9375 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius[2]	0.76 mm 0.03 in
da - Cone Frontface Backing Diameter	45.47 mm 1.79 in
db - Cone Backface Backing Diameter	52.07 mm 2.05 in
Da - Cup Frontface Backing Diameter	74.68 mm 2.94 in
Db - Cup Backface Backing Diameter	71.12 mm 2.8 in
Ab - Cage-Cone Frontface Clearance	1.8 mm 0.07 in
Aa - Cage-Cone Backface Clearance	1 mm 0.04 in
a - Effective Center Location[3]	-7.4 mm -0.29 in

Basic Load Ratings

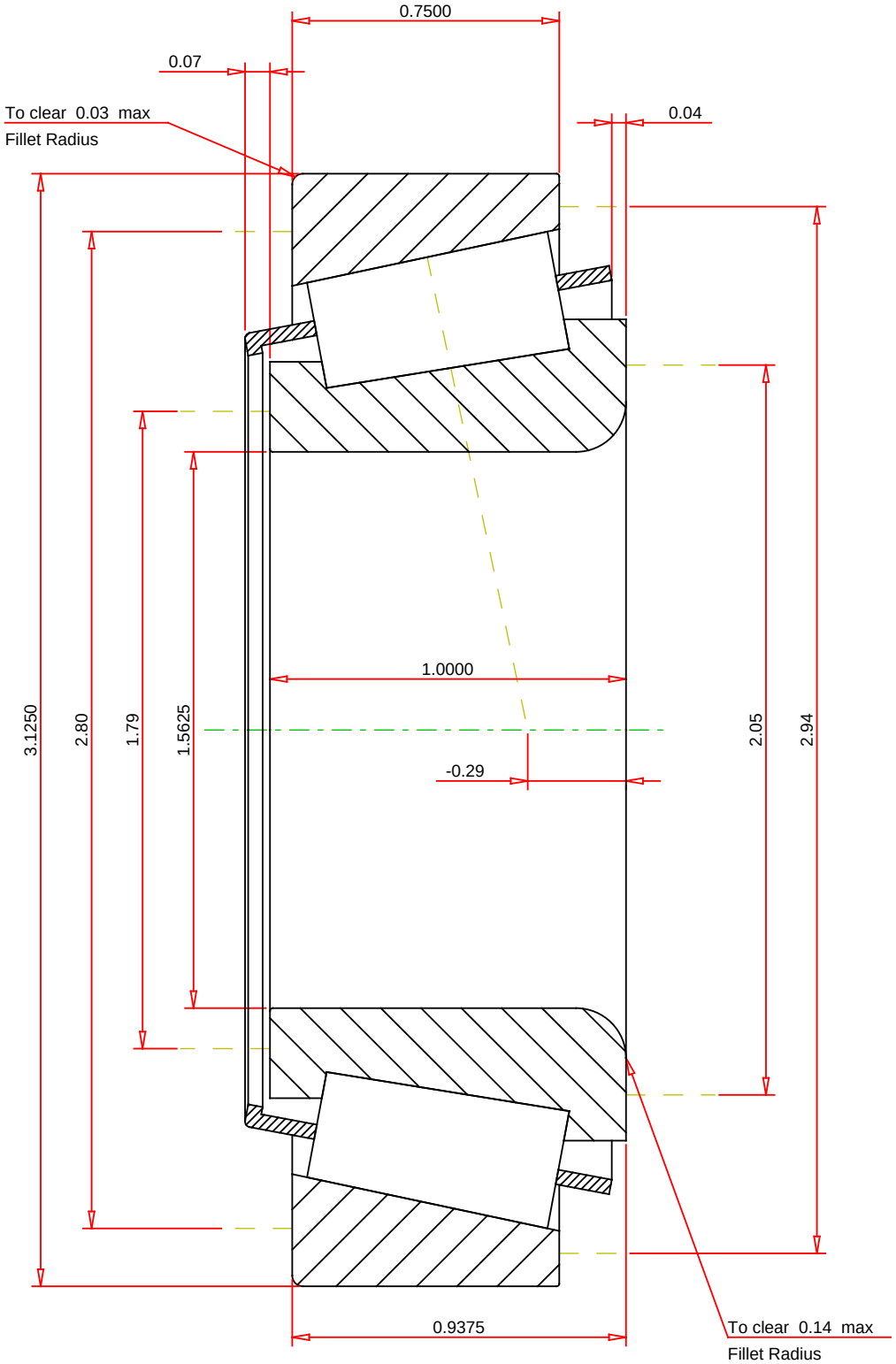
C90 - Dynamic Radial Rating (90 million revolutions)[4]	5310 lbf 23600 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	20500 lbf 91100 N
C0 - Static Radial Rating	24800 lbf 110000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	2900 lbf 12900 N

Factors

K - Factor[7]	1.83
e - ISO Factor[8]	0.32
Y - ISO Factor[9]	1.88
G1 - Heat Generation Factor (Roller-Raceway)	32.8
G2 - Heat Generation Factor (Rib-Roller End)	13.3
Cg - Geometry Factor[10]	0.077

[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	0.32	
ISO Factor - Y	1.88	
Bearing Weight	1.2	lb
Number of Rollers Per Row	18	
Effective Center Location	-0.29	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

26881 - 26822
TS BEARING ASSEMBLY

K Factor	1.83	
Dynamic Radial Rating - C90	5310	lbf
Dynamic Thrust Rating - Ca90	2900	lbf
Static Radial Rating - C0	24800	lbf
Dynamic Radial Rating - C1	20500	lbf

FOR DISCUSSION ONLY