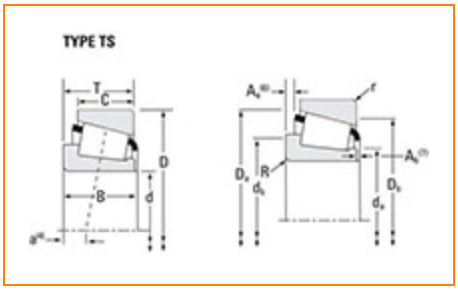
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Part Number 45280 - 45220, 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	45200
Cone Part Number	45280
Cup Part Number	45220
Design Unit	Inch
Cage Material	Stamped Steel

Dimensions

d - Bore	44.450 mm
D - Cup Outer Diameter	104.775 mm
B - Cone Width	30.958 mm

C - Cup Width	23.813 mm
T - Bearing Width	30.163 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	0.8 mm
r - Cup Backface "To Clear" Radius[2]	3.3 mm
da - Cone Frontface Backing Diameter	57 mm
db - Cone Backface Backing Diameter	57.0 mm
Da - Cup Frontface Backing Diameter	99.10 mm
Db - Cup Backface Backing Diameter	92.96 mm
Ab - Cage-Cone Frontface Clearance	2.5 mm
Aa - Cage-Cone Backface Clearance	1.8 mm
a - Effective Center Location[3]	-8.1 mm

Basic Load Ratings

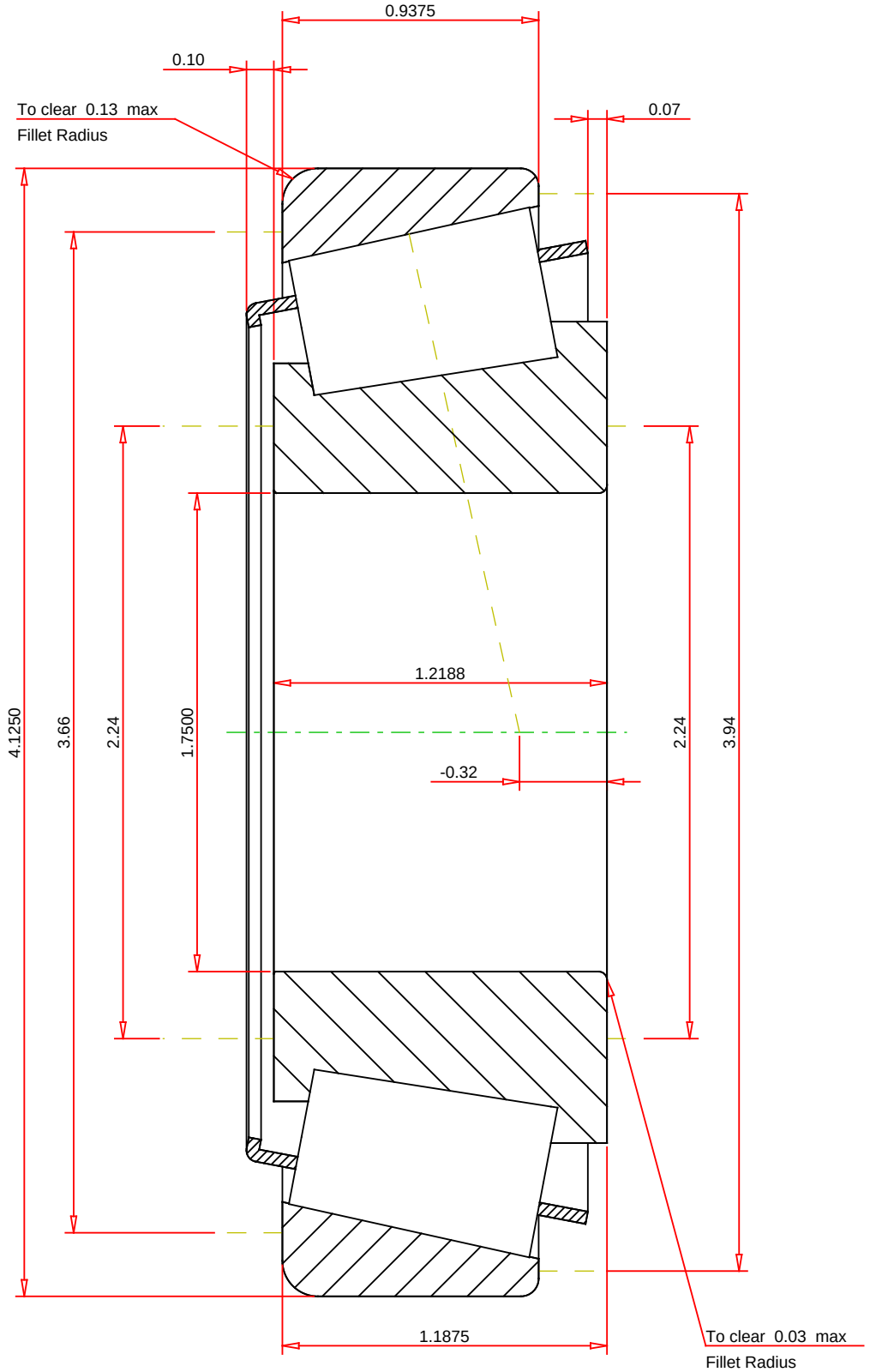
C90 - Dynamic Radial Rating (90 million revolutions)[4]	39700 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	153000 N
C0 - Static Radial Rating	189000 N

C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	22600 N

Factors

K - Factor[7]	1.76
e - ISO Factor[8]	0.33
Y - ISO Factor[9]	1.8
Cg - Geometry Factor[10]	0.0971

[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	0.33	
ISO Factor - Y	1.8	
Bearing Weight	2.9	lb
Number of Rollers Per Row	18	
Effective Center Location	-0.32	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

45280 - 45220

Tapered Roller Bearings - TS (Tapered Single)
Imperial

K Factor	1.76	
Dynamic Radial Rating - C90	8930	lbf
Dynamic Thrust Rating - Ca90	5090	lbf
Static Radial Rating - C0	42600	lbf
Dynamic Radial Rating - C1	34500	lbf

FOR DISCUSSION ONLY