The Timken Company
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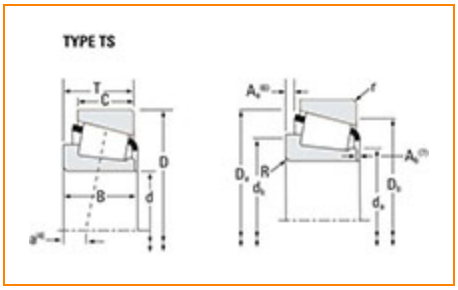
Part Number 555-S - 552A, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	555
Cone Part Number	555-S
Cup Part Number	552A
Design Unit	Inch
Cage Material	Stamped Steel

Dimensions

d - Bore	57.150 mm
D - Cup Outer Diameter	123.825 mm
B - Cone Width	36.678 mm

C - Cup Width	30.163 mm
T - Bearing Width	38.100 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	3.600 mm
r - Cup Backface "To Clear" Radius[2]	3.3 mm
da - Cone Frontface Backing Diameter	70 mm
db - Cone Backface Backing Diameter	76.0 mm
Da - Cup Frontface Backing Diameter	116.10 mm
Db - Cup Backface Backing Diameter	108.97 mm
Ab - Cage-Cone Frontface Clearance	2 mm
Aa - Cage-Cone Backface Clearance	1.8 mm
a - Effective Center Location[3]	-9.4 mm

Basic Load Ratings

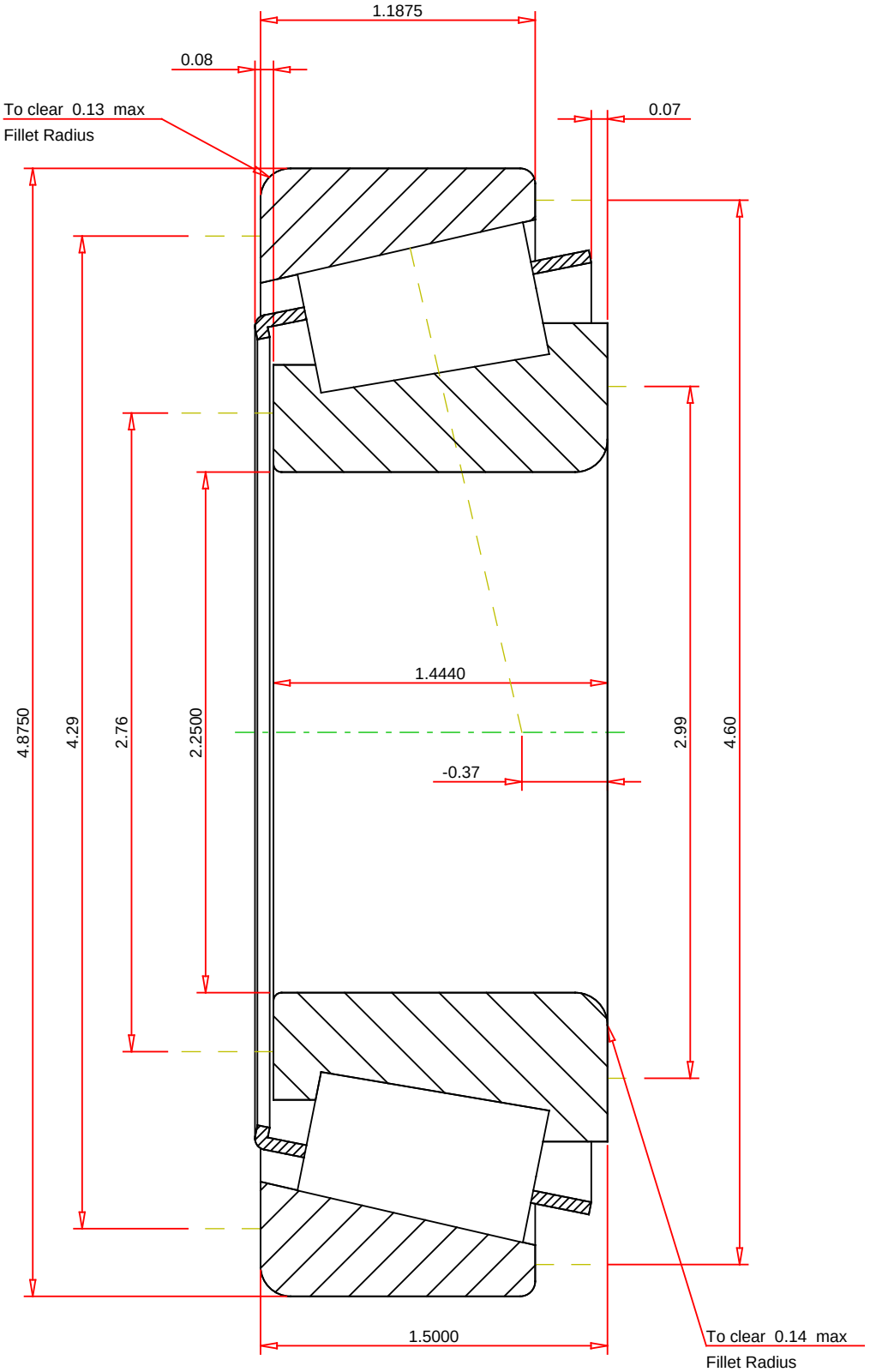
C90 - Dynamic Radial Rating (90 million revolutions)[4]	58600 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	226000 N
C0 - Static Radial Rating	248000 N

C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	34700 N

Factors

K - Factor[7]	1.69
e - ISO Factor[8]	0.35
Y - ISO Factor[9]	1.73
G1 - Heat Generation Factor (Roller-Raceway)	91
G2 - Heat Generation Factor (Rib-Roller End)	21.1
Cg - Geometry Factor[10]	0.111

[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 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.
[5] Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.
[6] Based on 90×10^6 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	0.35	
ISO Factor - Y	1.73	
Bearing Weight	4.8	lb
Number of Rollers Per Row	19	
Effective Center Location	-0.37	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

555-S - 552A

Tapered Roller Bearings - TS (Tapered Single)
Imperial

K Factor	1.69	
Dynamic Radial Rating - C90	13200	lbf
Dynamic Thrust Rating - Ca90	7810	lbf
Static Radial Rating - C0	55700	lbf
Dynamic Radial Rating - C1	50800	lbf

FOR DISCUSSION ONLY