The Timken Company
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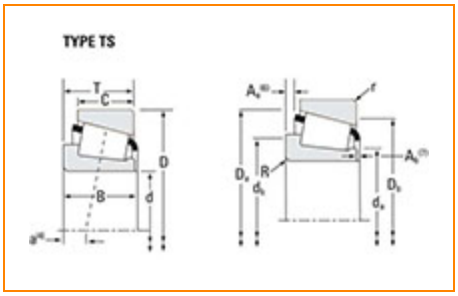
Part Number 55206 - 55437, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	55000
Cone Part Number	55206
Cup Part Number	55437
Design Units	Imperial
Bearing Weight	1.2 Kg 2.700 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	52.388 mm 2.0625 in

D - Cup Outer Diameter	111.125 mm 4.3750 in
B - Cone Width	26.909 mm 1.0594 in
C - Cup Width	20.638 mm 0.8125 in
T - Bearing Width	30.163 mm 1.1875 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]	3.3 mm 0.130 in
da - Cone Frontface Backing Diameter	63.75 mm 2.51 in
db - Cone Backface Backing Diameter	71.88 mm 2.83 in
Da - Cup Frontface Backing Diameter	105.40 mm 4.15 in
Db - Cup Backface Backing Diameter	91.95 mm 3.62 in
Ab - Cage-Cone Frontface Clearance	4.1 mm 0.16 in
Aa - Cage-Cone Backface Clearance	4.1 mm 0.16 in
a - Effective Center Location[3]	7.1 mm 0.28 in

Basic Load Ratings

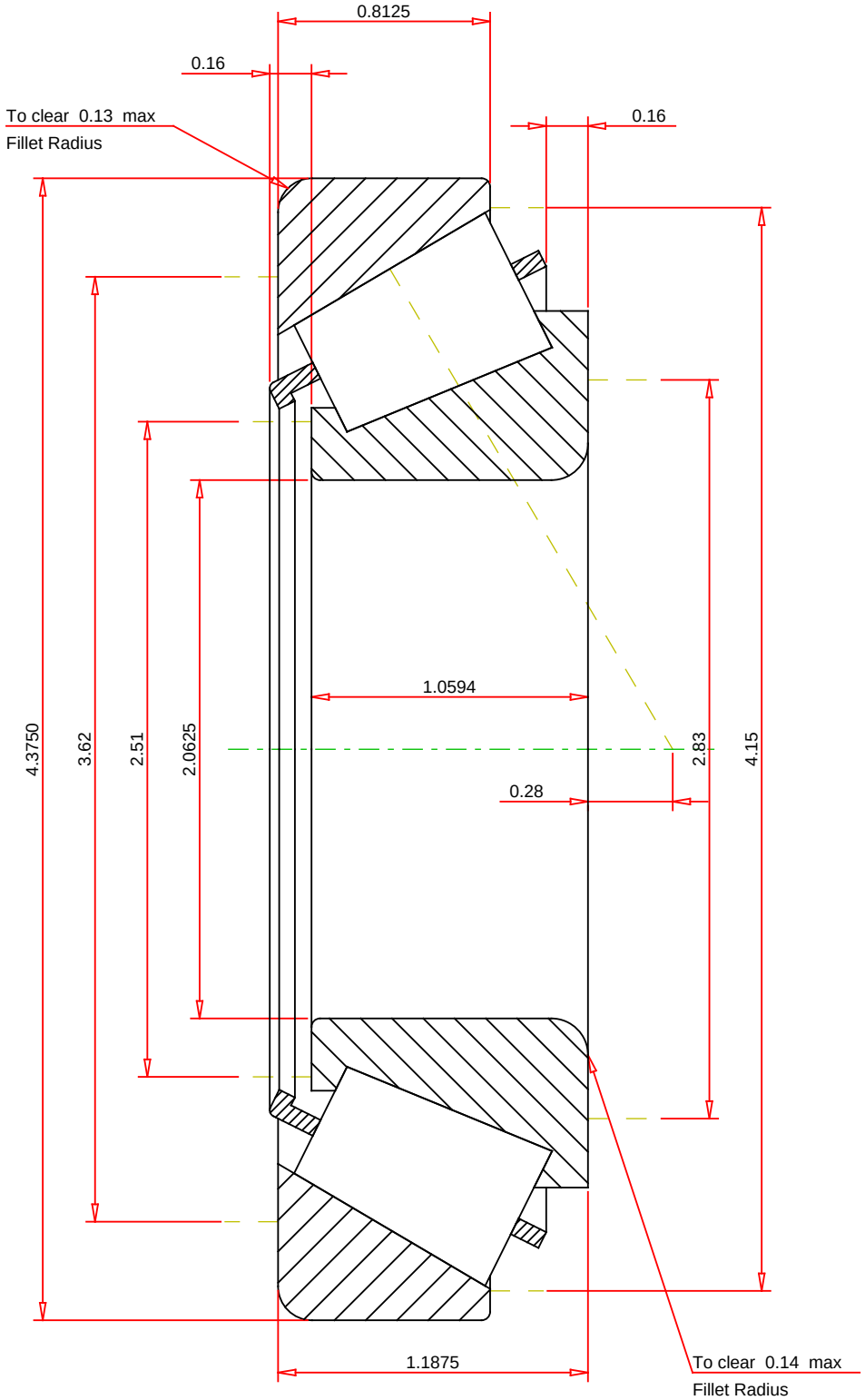
C90 - Dynamic Radial Rating (90 million revolutions)[4]	7350 lbf 32700 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	28300 lbf 126000 N
C0 - Static Radial Rating	26700 lbf 119000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	11100 lbf 49500 N

Factors

K - Factor[7]	0.66
e - ISO Factor[8]	0.88
Y - ISO Factor[9]	0.68
G1 - Heat Generation Factor (Roller-Raceway)	36.8
G2 - Heat Generation Factor (Rib-Roller End)	13.2
Cg - Geometry Factor[10]	0.109

[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	0.88	
ISO Factor - Y	0.68	
Bearing Weight	2.7	lb
Number of Rollers Per Row	16	
Effective Center Location	0.28	inch

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

55206 - 55437
TS BEARING ASSEMBLY

K Factor	0.66	
Dynamic Radial Rating - C90	7350	lbf
Dynamic Thrust Rating - Ca90	11100	lbf
Static Radial Rating - C0	26700	lbf
Dynamic Radial Rating - C1	28300	lbf

FOR DISCUSSION ONLY