The Timken Company
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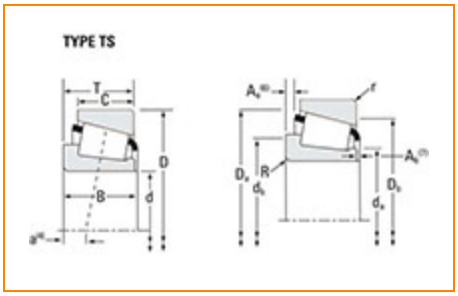
Part Number HH421246CV - HH421210, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	HH421200
Cone Part Number	HH421246CV
Cup Part Number	HH421210
Design Units	Imperial
Bearing Weight	7.3 Kg 16.1 lb
Cage Type	Stamped Steel

Dimensions

98.425 mm

d - Bore	98.425 mm 3.8750 in
D - Cup Outer Diameter	184.150 mm 7.2500 in
B - Cone Width	63.5 mm 2.5 in
C - Cup Width	52.388 mm 2.0625 in
T - Bearing Width	63.503 mm 2.5001 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	6.35 mm 0.25 in
r - Cup Backface "To Clear" Radius[2]	3.3 mm 0.130 in
da - Cone Frontface Backing Diameter	115.06 mm 5.32 in
db - Cone Backface Backing Diameter	127 mm 5 in
Da - Cup Frontface Backing Diameter	176.53 mm 6.95 in
Db - Cup Backface Backing Diameter	163.07 mm 6.42 in
Ab - Cage-Cone Frontface Clearance	3.8 mm 0.15 in
Aa - Cage-Cone Backface Clearance	2.5 mm 0.1 in
a - Effective Center Location[3]	-16.8 mm -0.66 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	36600 lbf 163000 N
C1 - Dynamic Radial Rating (1 million revolutions)[5]	141000 lbf 628000 N
C0 - Static Radial Rating	174000 lbf 772000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	23500 lbf 104000 N

Factors

K - Factor[7]	1.56
e - ISO Factor[8]	0.37
Y - ISO Factor[9]	1.6
G1 - Heat Generation Factor (Roller-Raceway)	298.2
G2 - Heat Generation Factor (Rib-Roller End)	40.9
Cg - Geometry Factor[10]	0.116

[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

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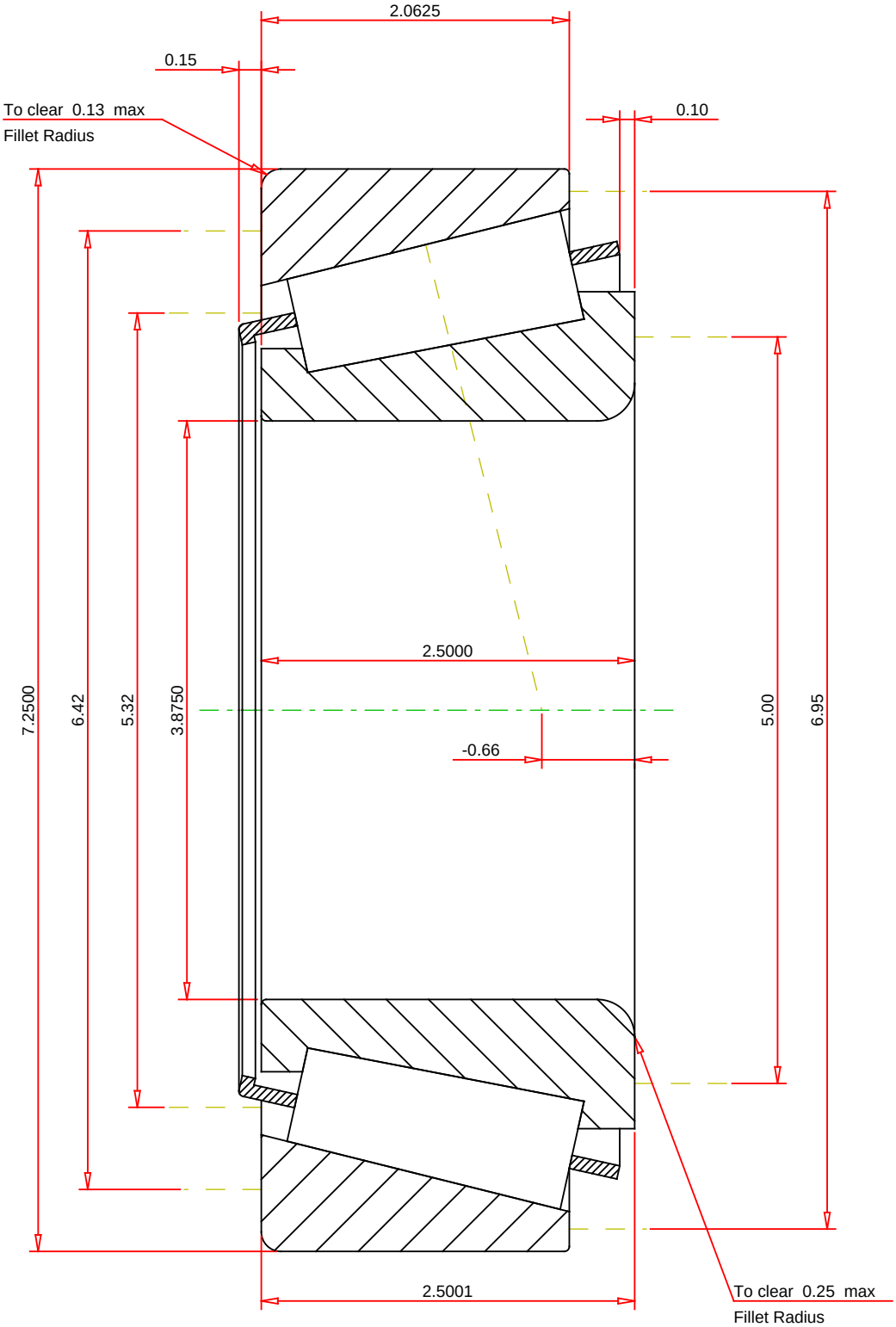
[9] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

[10] Geometry constant for Lubrication Life Adjustment Factor a3l.



IMPERIAL UNITS

ISO Factor - e	0.37	
ISO Factor - Y	1.6	
Bearing Weight	16.1	lb
Number of Rollers Per Row	19	
Effective Center Location	-0.66	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

HH421246CV - HH421210
TS BEARING ASSEMBLY

K Factor	1.56	
Dynamic Radial Rating - C90	36600	lbf
Dynamic Thrust Rating - Ca90	23500	lbf
Static Radial Rating - C0	174000	lbf
Dynamic Radial Rating - C1	141000	lbf

FOR DISCUSSION ONLY