The Timken Company
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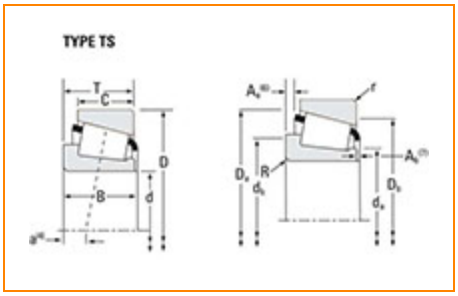
Part Number JH217249 - JH217210, Tapered Roller Bearings - TS (Tapered Single) Metric

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	H217200
Cone Part Number	JH217249
Cup Part Number	JH217210
Design Units	METRIC
Bearing Weight	3.3 Kg 7.400 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	85 mm 3.3465 in

D - Cup Outer Diameter	150 mm 5.9055 in
B - Cone Width	46.000 mm 1.8110 in
C - Cup Width	38 mm 1.4961 in
T - Bearing Width	46.000 mm 1.8110 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	3.050 mm 0.12 in
r - Cup Backface "To Clear" Radius[2]	2.54 mm 0.1 in
da - Cone Frontface Backing Diameter	95 mm 3.74 in
db - Cone Backface Backing Diameter	101.09 mm 3.98 in
Da - Cup Frontface Backing Diameter	142.00 mm 5.63 in
Db - Cup Backface Backing Diameter	134.11 mm 5.28 in
Ab - Cage-Cone Frontface Clearance	4.1 mm 0.16 in
Aa - Cage-Cone Backface Clearance	0.5 mm 0.02 in
a - Effective Center Location[3]	-11.9 mm -0.47 in

Basic Load Ratings

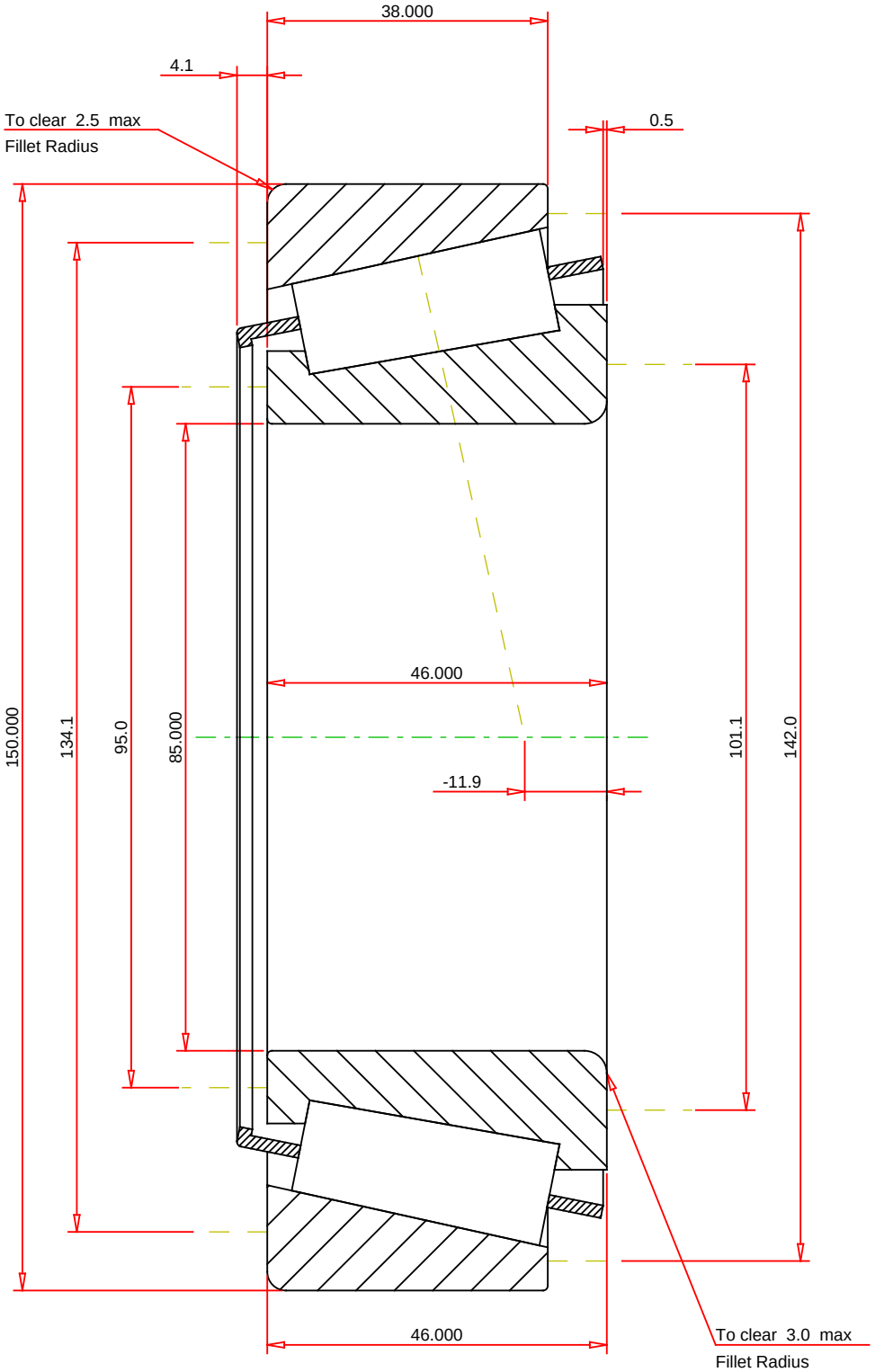
C90 - Dynamic Radial Rating (90 million revolutions)[4]	102000 N 22900 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	393000 N 88400 lbf
C0 - Static Radial Rating	446000 N 100000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	58100 N 13100 lbf

Factors

K - Factor[7]	1.76
e - ISO Factor[8]	0.33
Y - ISO Factor[9]	1.8
G1 - Heat Generation Factor (Roller-Raceway)	169
G2 - Heat Generation Factor (Rib-Roller End)	33.3
Cg - Geometry Factor[10]	0.0924

[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.



METRIC UNITS

ISO Factor - e	0.33	
ISO Factor - Y	1.8	
Bearing Weight	3.3	kg
Number of Rollers Per Row	18	
Effective Center Location	-11.9	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

JH217249 - JH217210
TS BEARING ASSEMBLY

K Factor	1.76	
Dynamic Radial Rating - C90	102000	N
Dynamic Thrust Rating - Ca90	58100	N
Static Radial Rating - C0	446000	N
Dynamic Radial Rating - C1	393000	N

FOR DISCUSSION ONLY