The Timken Company
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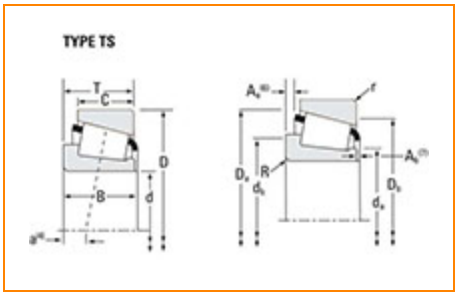
Part Number JM231646 - JM231613, Tapered Roller Bearings - TS (Tapered Single) Metric

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	M231600
Cone Part Number	JM231646
Cup Part Number	JM231613
Design Units	METRIC
Bearing Weight	6.2 Kg 13.70 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	150 mm 5.9055 in

D - Cup Outer Diameter	225 mm 8.8583 in
B - Cone Width	46.83 mm 1.8437 in
C - Cup Width	34.925 mm 1.3750 in
T - Bearing Width	47.000 mm 1.8504 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]	1.52 mm 0.06 in
da - Cone Frontface Backing Diameter	161.04 mm 6.34 in
db - Cone Backface Backing Diameter	166.88 mm 6.57 in
Da - Cup Frontface Backing Diameter	214.10 mm 8.43 in
Db - Cup Backface Backing Diameter	208.03 mm 8.19 in
Ab - Cage-Cone Frontface Clearance	2.3 mm 0.09 in
Aa - Cage-Cone Backface Clearance	5.3 mm 0.21 in
a - Effective Center Location[3]	-6.1 mm -0.24 in

Basic Load Ratings

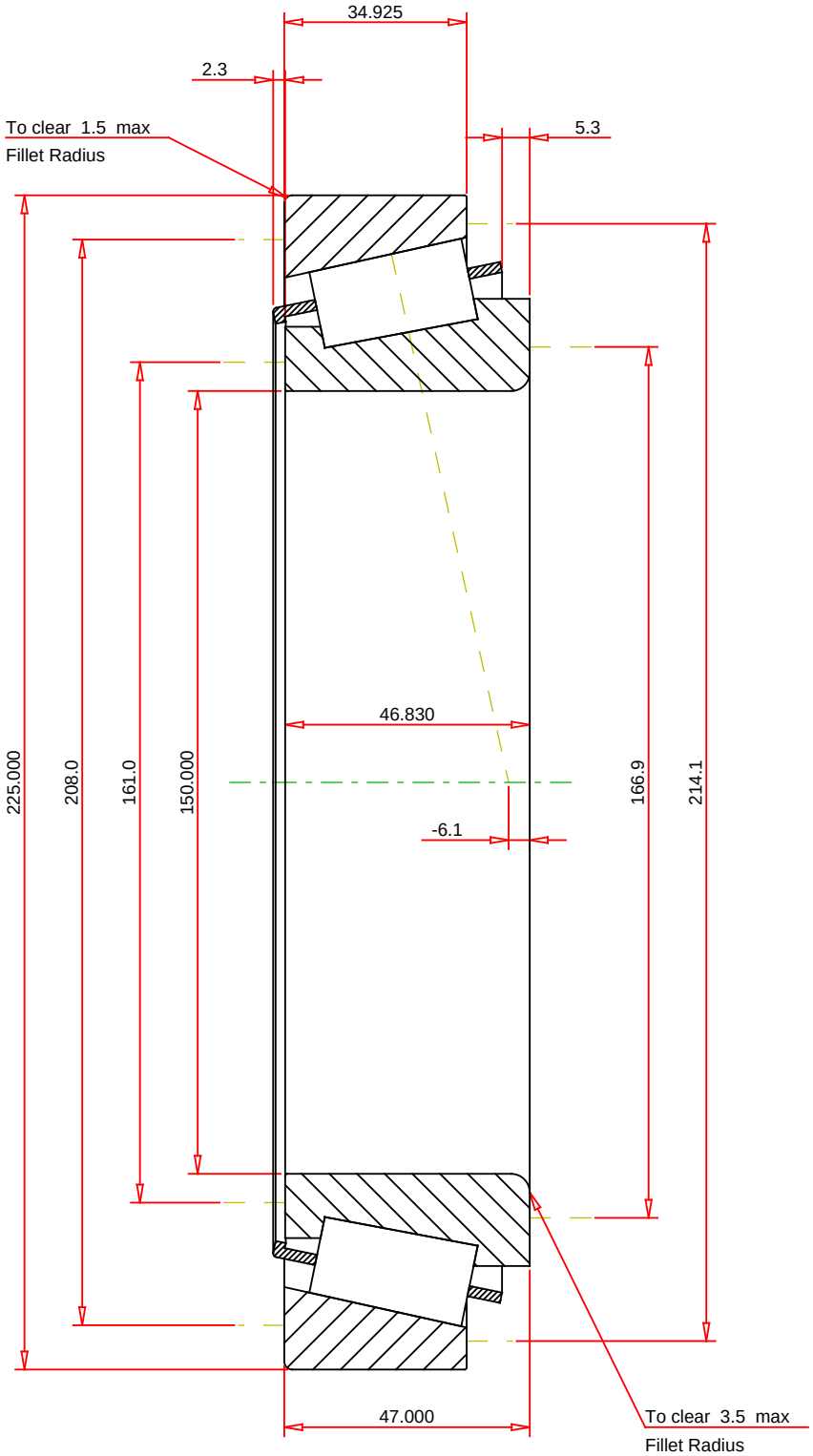
C90 - Dynamic Radial Rating (90 million revolutions)[4]	97600 N 21900 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	377000 N 84600 lbf
C0 - Static Radial Rating	668000 N 150000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	55600 N 12500 lbf

Factors

K - Factor[7]	1.76
e - ISO Factor[8]	0.33
Y - ISO Factor[9]	1.8
G1 - Heat Generation Factor (Roller-Raceway)	486.5
G2 - Heat Generation Factor (Rib-Roller End)	120.1
Cg - Geometry Factor[10]	0.13

[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	6.2	kg
Number of Rollers Per Row	32	
Effective Center Location	-6.1	mm

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

JM231646 - JM231613
TS BEARING ASSEMBLY

K Factor	1.76	
Dynamic Radial Rating - C90	97600	N
Dynamic Thrust Rating - Ca90	55600	N
Static Radial Rating - C0	668000	N
Dynamic Radial Rating - C1	377000	N

FOR DISCUSSION ONLY