

#### The Timken Company

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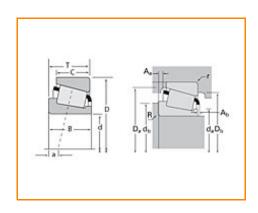
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Timken Part Number LM67048 - LM67010, Tapered Roller Bearings - TS (Tapered Single)

### 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.





## <u>Specifications</u> | <u>Dimensions</u> | <u>Abutment and Fillet Dimensions</u> | <u>Basic Load Ratings</u> | <u>Factors</u>

Specifications -			
Series	LM67000		
Cone Part Number	LM67048		
Cup Part Number	LM67010		
<b>Design Units</b>	Imperial		
Bearing Weight	0.200 Kg 0.4 lb		
Cage Type	Stamped Steel		

Dimensions	-

d - Bore	31.750 mm 1.2500 in
D - Cup Outer Diameter	59.131 mm 2.3280 in
B - Cone Width	16.764 mm 0.6600 in
C - Cup Width	11.811 mm 0.4650 in
T - Bearing Width	15.875 mm 0.6250 in

# Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius <sup>1</sup>	3.560 mm 0.14 in
r - Cup Backface "To Clear"	1.27 mm
Radius <sup>2</sup>	0.050 in
da - Cone Frontface Backing	36.07 mm
Diameter	1.42 in
db - Cone Backface Backing	42.42 mm
Diameter	1.67 in
Da - Cup Frontface Backing	55.90 mm
Diameter	2.24 in
<b>Db - Cup Backface Backing Diameter</b>	52.07 mm 2.05 in
Ab - Cage-Cone Frontface	1.3 mm
Clearance	0.05 in
Aa - Cage-Cone Backface	0.3 mm
Clearance	0.01 in
a - Effective Center Location <sup>3</sup>	-3 mm -0.12 in

Basic Load Ratings		-
C90 - Dynamic Radial Rating (90 million revolutions) <sup>4</sup>	12100 N 2720 lbf	
C1 - Dynamic Radial Rating (1 million revolutions) <sup>5</sup>	46700 N 10500 lbf	
C0 - Static Radial Rating	44600 N 10000 lbf	
C <sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions) <sup>6</sup>	8550 N 1920 lbf	

Fact	ors		-
	K - Factor <sup>7</sup>	1.42	
	e - ISO Factor <sup>8</sup>	0.41	
	Y - ISO Factor <sup>9</sup>	1.46	
	G1 - Heat Generation Factor (Roller-Raceway)	12.8	
	G2 - Heat Generation Factor (Rib-Roller End)	9.93	
	Cg - Geometry Factor	0.0612	

<sup>&</sup>lt;sup>1</sup> These maximum fillet radii will be cleared by the bearing corners.

<sup>&</sup>lt;sup>2</sup> These maximum fillet radii will be cleared by the bearing corners.

<sup>&</sup>lt;sup>3</sup> Negative value indicates effective center inside cone backface.

 $<sup>^4</sup>$  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.

 $<sup>^{5}</sup>$  Based on 1 x  $10^{6}$  revolutions  $L_{10}$  life, for the ISO life calculation method.

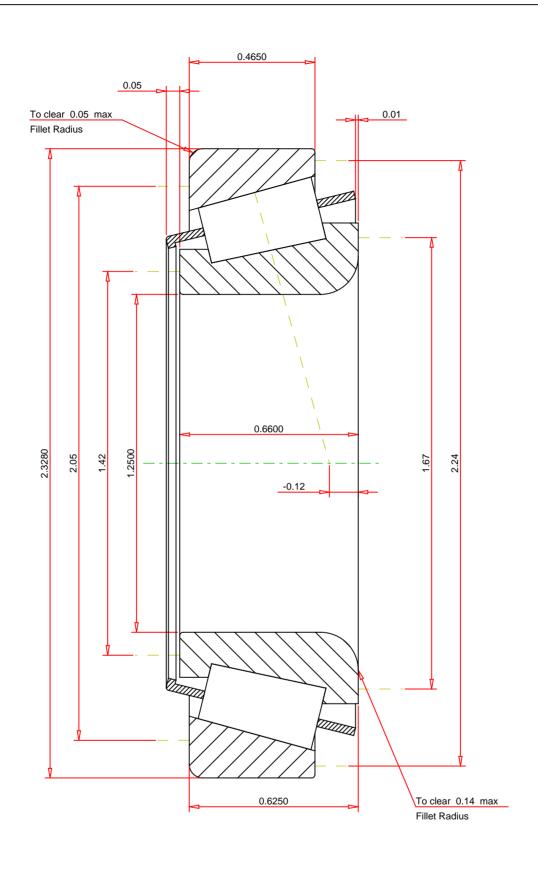
 $<sup>^6</sup>$  Based on 90 x  $10^6$  revolutions  $L_{10}$  life, for The Timken Company life calculation method.  $C_{90}$  and  $C_{a90}$  are radial and thrust values for a single-row,  $C_{90(2)}$  is the two-row radial value.

<sup>&</sup>lt;sup>7</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

<sup>&</sup>lt;sup>8</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction

on use.

<sup>9</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use



#### **IMPERIAL UNITS**

ISO Factor - e 0.41 ISO Factor - Y 1.46 Bearing Weight 0.4 Ib Number of Rollers Per Row 19 Effective Center Location -0.12 inch		LM67048 - LM67010 TS BEARING ASSEMBLY		
	THE TIMKEN COMPANY NORTH CANTON, OHIO USA	Dynamic Radial Rating - C90 12  Dynamic Thrust Rating - Ca90  Static Radial Rating - C0 4	1.42 2100 8550 4600 6700	lbf lbf lbf lbf
Every recently effort has been made to ensure the	accuracy of the information contained in this writing but no			

Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

FOR DISCUSSION ONLY