

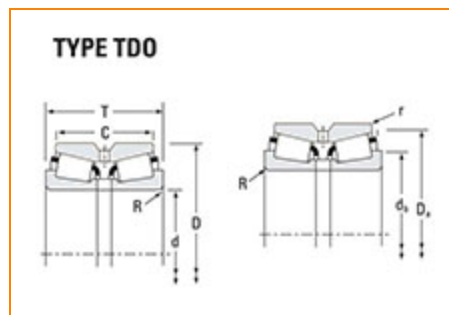


**The Timken Company**  
 4500 Mt Pleasant St. NW  
 N. Canton, OH 44720  
**Phone:** (234) 262-3000

**E-Mail:** [CustomerCAD@timken.com](mailto:CustomerCAD@timken.com) • **Web site:** [www.timken.com](http://www.timken.com)

## Part Number NA48685SW - 48620D, Tapered Roller Bearings - TDO (Tapered Double Outer) Imperial

The configuration of the TDO provides a wide effective bearing spread, making it ideal for applications in which overturning moments are a significant load component. TDO bearings can be used in fixed positions or allowed to float in the housing bore.



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### Specifications

Series	48600
Cone Part Number	NA48685SW
Cup Part Number	48620D
Design Units	Imperial
Bearing Weight	18.58 lb
Cage Type	Stamped Steel
Alternate Part Name	NA48685SW-48620D

### Dimensions

<b>d - Bore</b>	5.625 in 142.875 mm
<b>D - Cup Outer Diameter</b>	7.875 in 200.025 mm
<b>B - Cone Width</b>	1.8438 in 46.833 mm
<b>C - Double Cup Width</b>	2.875 in 73.025 mm
<b>T - Bearing Width across Cones</b>	3.6876 in 93.665 mm

### Abutment and Fillet Dimensions

<b>R - Cone Backface "To Clear" Radius<sup>1</sup></b>	0.14 in 3.556 mm
<b>r - Cup Frontface "To Clear" Radius<sup>2</sup></b>	0.03 in 0.762 mm
<b>db - Cone Backface Backing Diameter</b>	6.22 in 157.988 mm
<b>Da - Cup Frontface Backing Diameter</b>	7.6 in 193.04 mm
<b>Aa - Cage-Cone Backface Clearance</b>	0.22 in 5.588 mm

### Basic Load Ratings

<b>C90 - Dynamic Radial Rating (One-Row, 90 million revolutions)<sup>3</sup></b>	16700 lbf 74300 N
<b>C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)<sup>4</sup></b>	112000 lbf 499000 N

<b>C<sub>90(2)</sub> - Dynamic Radial Rating (Two-Row, 90 million revolutions)<sup>5</sup></b>	29100 lbf 129000 N
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<b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>6</sup></b>	9610 lbf 42800 N
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## Factors

<b>K - Factor<sup>7</sup></b>	1.74
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<b>e - ISO Factor<sup>8</sup></b>	0.34
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<b>Y1 - ISO Factor<sup>9</sup></b>	2.01
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<b>Y2 - ISO Factor<sup>10</sup></b>	2.99
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<b>G1 - Heat Generation Factor (Roller-Raceway)<sup>11</sup></b>	439.6
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<b>G2 - Heat Generation Factor (Rib-Roller End)</b>	130.5
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<sup>1</sup> These maximum fillet radii will be cleared by the bearing corners.

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

<sup>3</sup> Based on  $90 \times 10^6$  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>4</sup> Based on  $1 \times 10^6$  revolutions  $L_{10}$  life, for the ISO life calculation method.

<sup>5</sup> Based on  $90 \times 10^6$  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>6</sup> Based on  $90 \times 10^6$  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>7</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

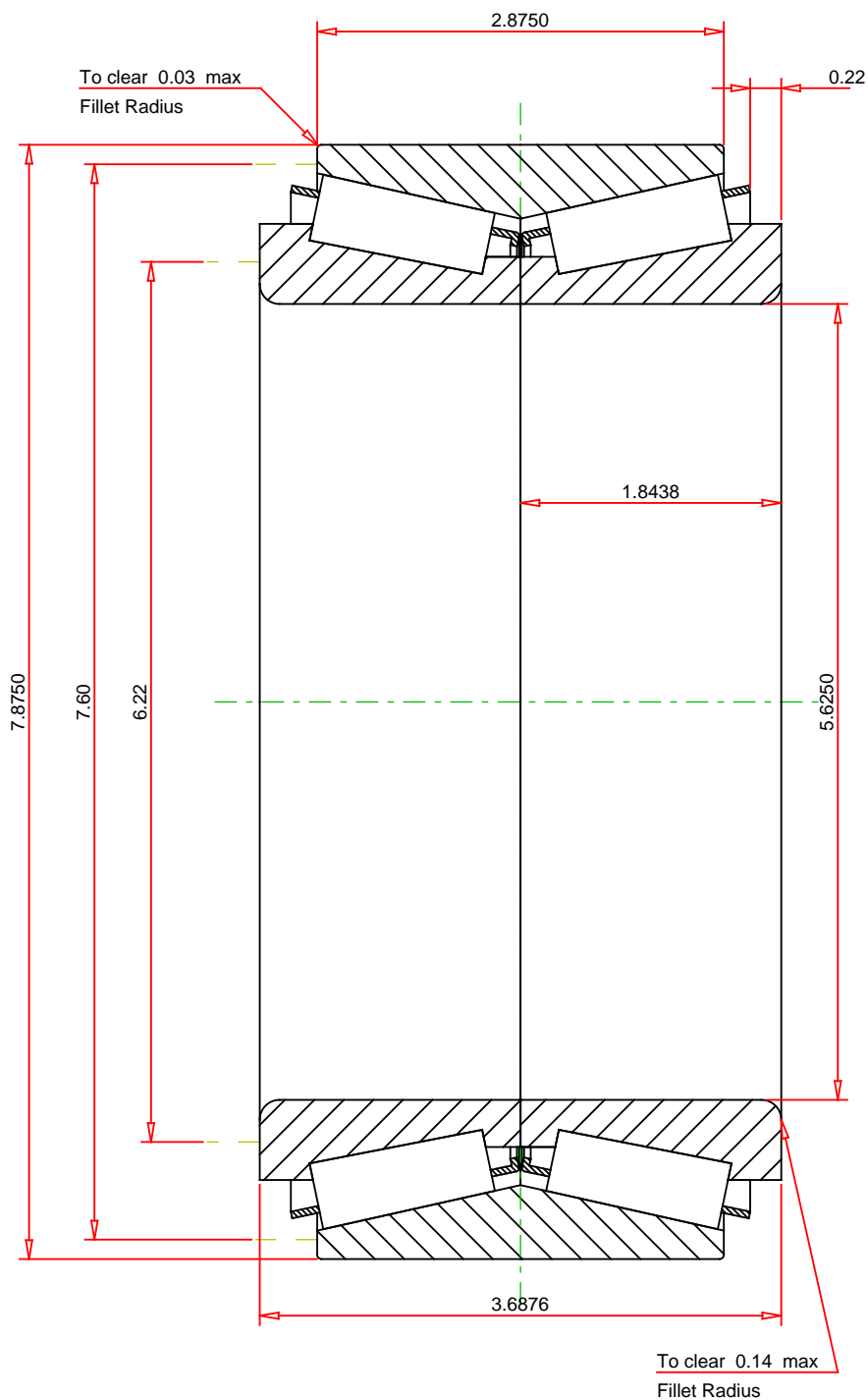
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<sup>9</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

<sup>10</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

<sup>11</sup> These factors apply for both inch and metric calculations. Consult your Timken representative for

instruction on use.



## IMPERIAL UNITS

ISO Factor - e	0.34
ISO Factor - Y1	2.01
ISO Factor - Y2	2.99
Bearing Weight	18.58 lb
Number of Rollers Per Row	37

**TIMKEN®**

**THE TIMKEN COMPANY**  
NORTH CANTON, OHIO USA

**NA48685SW - 48620D**  
TDO BEARING ASSEMBLY

K Factor	1.74	
Dynamic Radial Rating - C90	16700	lbf
Dynamic Thrust Rating - Ca90	9610	lbf
Dynamic Radial Rating - C90(2)	29100	lbf
Radial Rating - C1	112000	lbf

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**