



**The Timken Company**

4500 Mt Pleasant St. NW

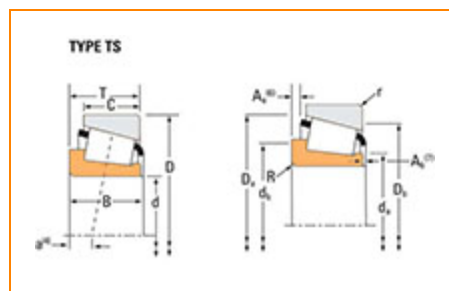
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## Part Number NA24776SW, Tapered Roller Bearings - Single Cones - Imperial

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	24700
Cone Part Number	NA24776SW
Design Units	Imperial
Cage Type	Stamped Steel

### Dimensions

d - Bore	1.5 in 38.1 mm
B - Cone Width	1.1562 in 29.367 mm

## Abutment and Fillet Dimensions

<b>R - Cone Backface "To Clear" Radius<sup>1</sup></b>	0.03 in 0.762 mm
<b>da - Cone Frontface Backing Diameter</b>	0 in 0 mm
<b>db - Cone Backface Backing Diameter</b>	1.77 in 45 mm
<b>Ab - Cage-Cone Frontface Clearance</b>	0.01 in 0.3 mm
<b>Aa - Cage-Cone Backface Clearance</b>	0.22 in 5.6 mm
<b>a - Effective Center Location<sup>2</sup></b>	-0.38 in -9.7 mm

## Basic Load Ratings

<b>C90 - Dynamic Radial Rating (90 million revolutions)<sup>3</sup></b>	4400 lbf 19600 N
<b>C1 - Dynamic Radial Rating (1 million revolutions)<sup>4</sup></b>	17000 lbf 75500 N
<b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>5</sup></b>	2960 lbf 13200 N

## Factors

<b>K - Factor<sup>6</sup></b>	1.49
<b>G1 - Heat Generation Factor (Roller-Raceway)</b>	26.4
<b>G2 - Heat Generation Factor (Rib-Roller End)</b>	16.5

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

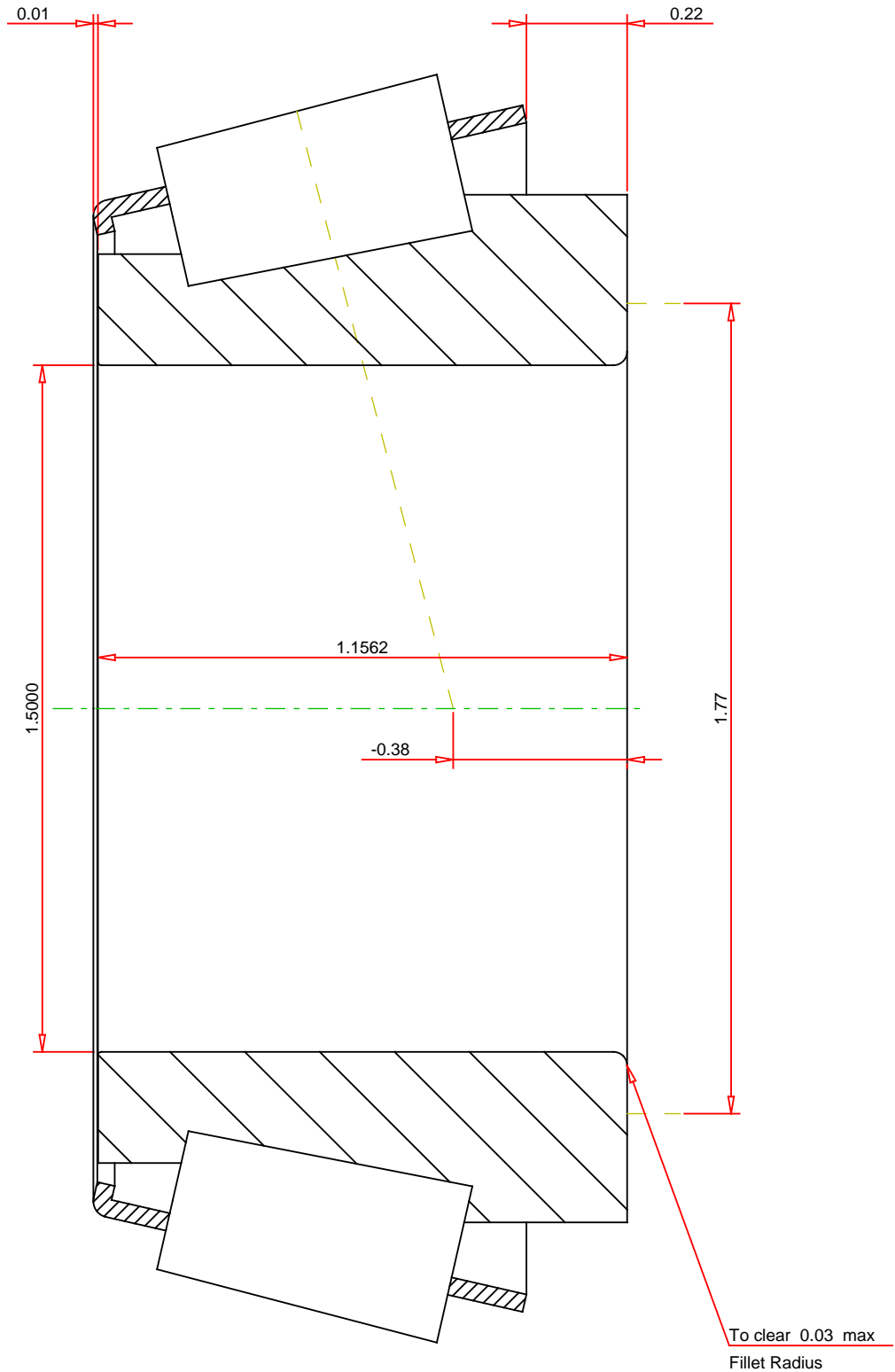
<sup>2</sup> Negative value indicates effective center inside cone backface.

<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.

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



IMPERIAL UNITS

Number of Rollers Per Row	18	TIMKEN®		NA24776SW SINGLE TAPERED CONE	
		THE TIMKEN COMPANY NORTH CANTON, OHIO USA		<div>K Factor1.49</div> <div>Dynamic Radial Rating - C904400lbf</div> <div>Dynamic Thrust Rating - Ca902960lbf</div> <div>Dynamic Radial Rating - C117000lbf</div>	
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