


The Timken Company

4500 Mt Pleasant St. NW

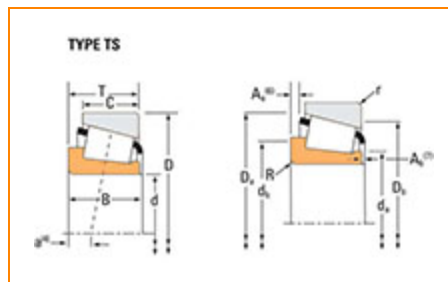
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Part Number NA24776SW, Tapered Roller Bearings - Single Cones - Imperial

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



Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹ 0.030 in
0.762 mm

da - Cone Frontface Backing Diameter 0 in
0 mm

db - Cone Backface Backing Diameter 1.77 in
45 mm

Ab - Cage-Cone Frontface Clearance 0.01 in
0.3 mm

Aa - Cage-Cone Backface Clearance 0.22 in
5.6 mm

a - Effective Center Location² -0.38 in
-9.7 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)³ 4400 lbf
19600 N

C1 - Dynamic Radial Rating (1 million revolutions)⁴ 17000 lbf
75500 N

C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁵ 2960 lbf
13200 N

Factors

K - Factor⁶ 1.49

G1 - Heat Generation Factor (Roller-Raceway) 26.4

G2 - Heat Generation Factor (Rib-Roller End) 16.5

¹ These maximum fillet radii will be cleared by the bearing corners.

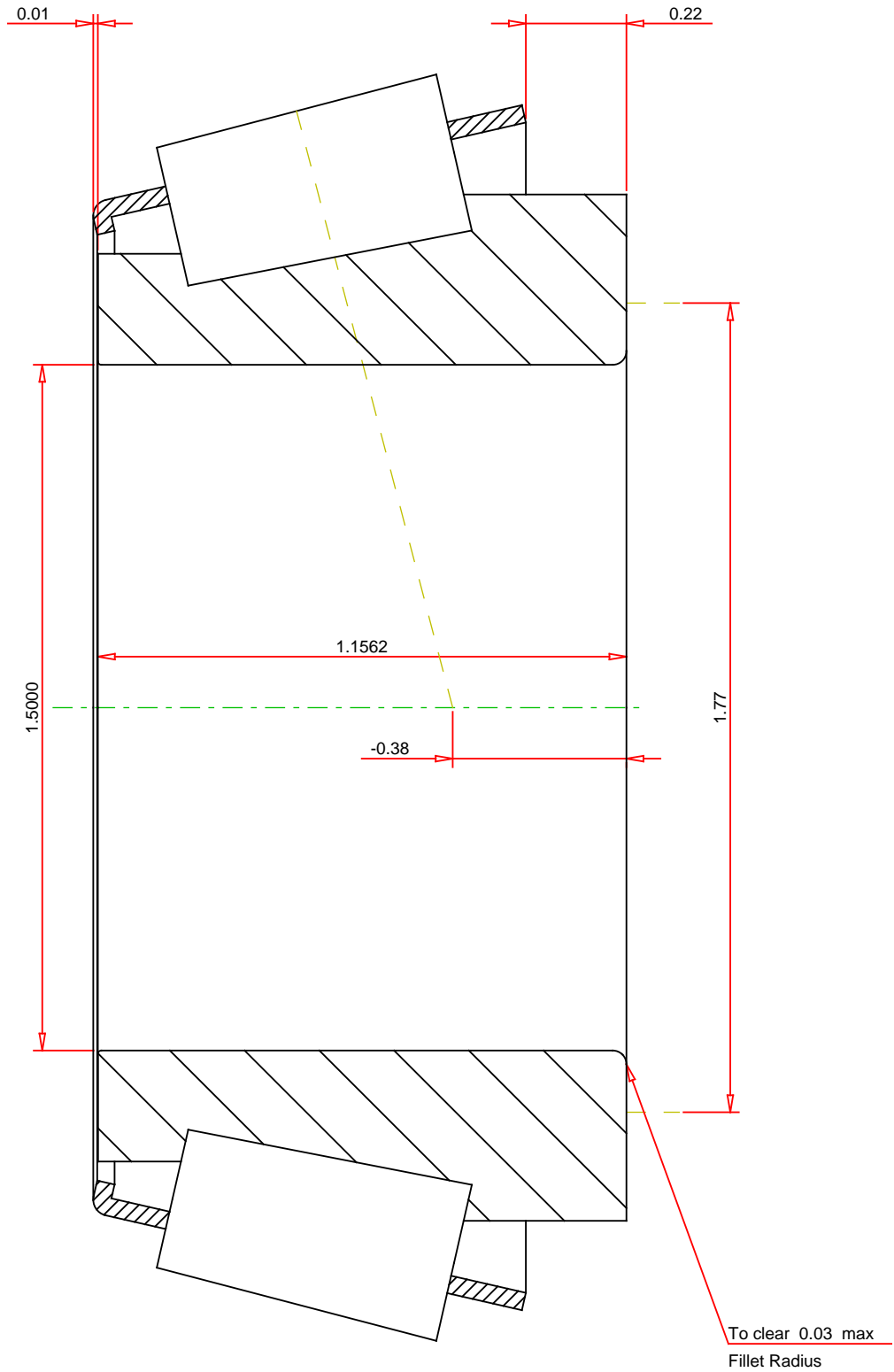
² Negative value indicates effective center inside cone backface.

³ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

⁴ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

⁵ Based on 90×10^6 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.

⁶ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.



IMPERIAL UNITS

<div>Number of Rollers Per Row18</div>	<div><div>TIMKEN®</div><div>THE TIMKEN COMPANY</div><div>NORTH CANTON, OHIO USA</div></div>	<div><div>NA24776SW</div><div>Tapered Roller Bearings - Single Cones - Imperial</div></div> <div><div><div>K Factor</div><div>Dynamic Radial Rating - C90</div><div>Dynamic Thrust Rating - Ca90</div><div>Dynamic Radial Rating - C1</div></div><div><div>1.49</div><div>19600 lbf</div><div>13200 lbf</div><div>75500 lbf</div></div></div>
<div>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.</div>		<div>FOR DISCUSSION ONLY</div>