The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number HM266449DW - HM266410, Tapered Roller Bearings - TDI (Tapered Double Inner) Imperial

TDI bearings have a one-piece double inner race and two single outer races and are typically supplied complete with an outer race spacer as a pre-set assembly. The bearing can be used at fixed positions on rotation shaft applications. For rotating housing application it can be used to float on the stationary shaft.



Specifications | Dimensions | Abutment and Fillet Dimensions | Basic Load Ratings | Factors

Specifications

Series	HM266400
Cone Part Number	HM266449DW
Cup Part Number	HM266410
Design Units	Imperial
Bearing Weight	326.50 lb 148.100 Kg
Cage Type	Pin-Type
Aa - Cage-Cone Backface Clearance	0 in 0 mm

Dimensions

d - Bore	15.1250 in 384.175 mm
D - Cup Outer Diameter	21.5000 in 546.100 mm
B - Double Cone Width	7.6250 in 193.675 mm
C - Cup Width	3.2500 in 82.550 mm
T - Bearing Width across Cups	7.6249 in 193.672 mm

Abutment and Fillet Dimensions

R - Cone Frontface "To Clear" Radius[1]	0.130 in 3.30 mm
r - Cup Backface "To Clear" Radius[2]	0.250 in 6.40 mm
da - Cone Frontface Backing Diameter	16.18 in 411.00 mm
Db - Cup Backface Backing Diameter	19.96 in 507.00 mm
Ab - Cage-Cone Frontface Clearance	0.26 in 6.6 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (One-Row, 90 million revolutions)[3]	143000 lbf 638000 N
C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)[4]	963000 lbf 4290000 N

C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)[5]	250000 lbf 1110000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	81700 lbf 363000 N

Factors

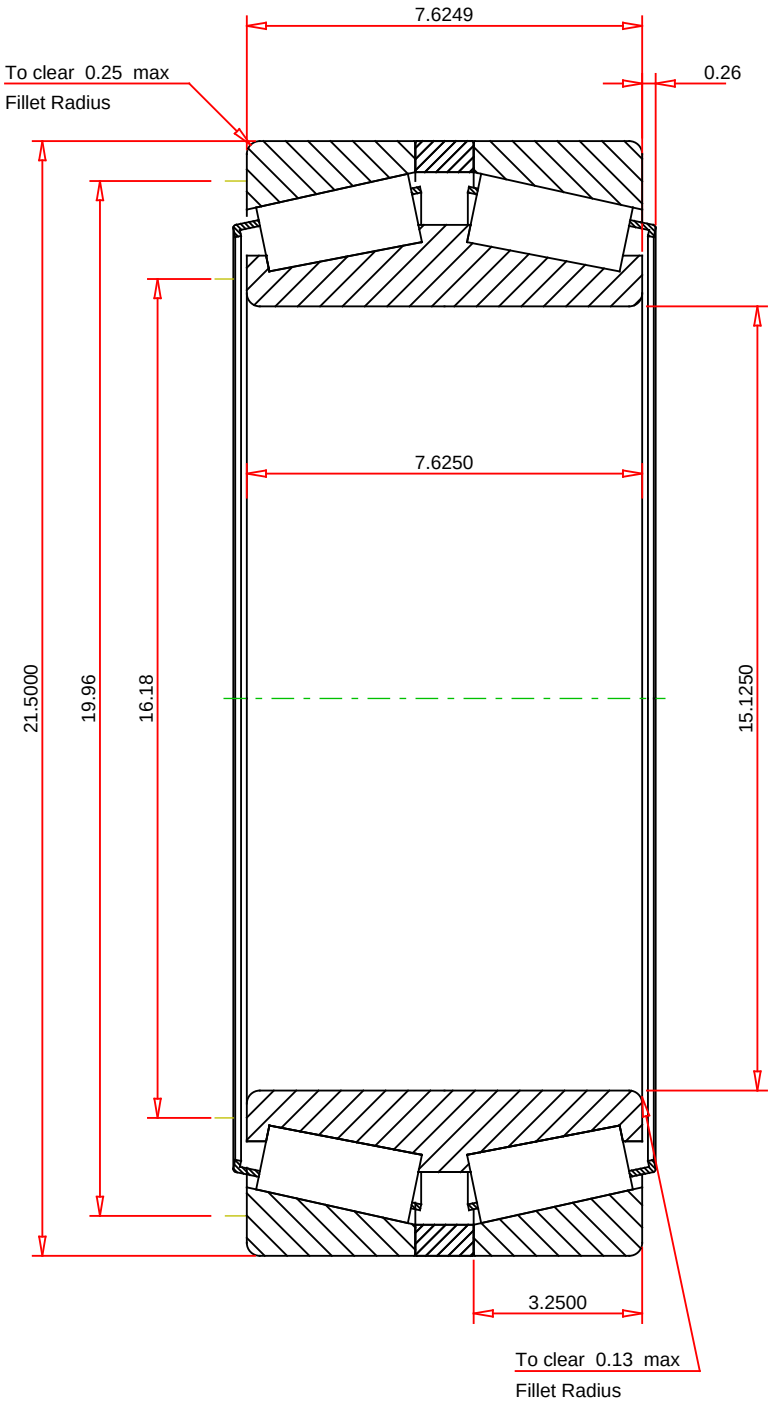
K - Factor[7]	1.76
e - ISO Factor[8]	0.7
Y1 - ISO Factor[9]	0.97
Y2 - ISO Factor[10]	1.44
G1 - Heat Generation Factor (Roller-Raceway)[11]	4760
G2 - Heat Generation Factor (Rib-Roller End)	301
Cg - Geometry Factor[12]	0.218

[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] 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.
[4] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[5] 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.
[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] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

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

[12] Geometry constant for Lubrication Life Adjustment Factor a3l.



IMPERIAL UNITS

ISO Factor - e	0.7	
ISO Factor - Y1	0.97	
ISO Factor - Y2	1.44	
Bearing Weight	326.5	lb
Number of Rollers Per Row	36	

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

HM266449DW - HM266410
TDI BEARING ASSEMBLY

K Factor	1.76	
Dynamic Radial Rating - C90	143000	lbf
Dynamic Thrust Rating - Ca90	81700	lbf
Dynamic Radial Rating - C90(2)	250000	lbf
Radial Rating - C1	963000	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