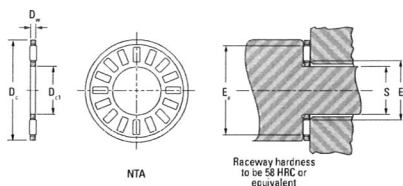


# NEEDLE ROLLER BEARINGS

## THRUST NEEDLE ROLLER AND CAGE ASSEMBLIES, THRUST WASHERS

### INCH SERIES

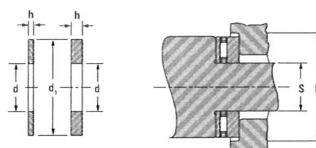
- Dimensions for bore and O.D. of thrust assemblies and washers are nominal.
- See page B-6-36 for details on plating and backup surfaces.
- Thrust washers burnished at least one-quarter of bore area (remainder is rough breakaway finish).
- O.D. finish of washers will be as blanked.



Shaft Dia.	Assembly Dimensions						Assembly Designation	Load Ratings		Fatigue Load Limit $C_u$	Speed Rating <sup>1</sup>
	$D_1$	$D_2$	$D_3$	$E_1$	$E_2$	$E_3$		Dynamic $C$	Static $C_0$		
in	mm	mm	mm	mm	mm	mm		lbf	kg	kN	min <sup>-1</sup>
1/4	19.05 0.750	31.75 1.250	1.984 0.0781	21.34 0.840	28.956 1.140		NTA-1225	18.90 2450	36.48 8200	3.40	18000
1/2	22.23 0.875	36.50 1.437	1.984 0.0781	24.28 0.955	33.782 1.330		NTA-1423	13.43 3025	49.82 11200	4.65	12000
3/4	22.23 0.875	42.85 1.687	1.984 0.0781	25.91 1.020	38.818 1.530		NTC-1427	18.46 4150	78.29 17500	8.05	9800
1	25.40 1.000	39.675 1.562	1.984 0.0781	27.69 1.090	36.83 1.450		NTA-1625	13.83 3110	53.82 12000	5.00	11000
1 1/4	28.58 1.125	44.45 1.75	1.984 0.0781	30.73 1.210	41.606 1.640		NTA-1829	16.68 3750	71.17 16000	7.30	9600

<sup>1</sup> Speed ratings listed are based on adequate lubrication. See page B-6-37 for lubrication information. Suggestions for an application requiring O.D. plating should be determined in consultation with your representative.

# Needle Roller Thrust Bearings, Assemblies, Washers



Approx. Wt.	Thrust Washer Designation	Washer Dimensions						Plating Dimensions		Dia. To Clear O.D.	Washer Wt.	Shaft Dia.
		$d$	$d_1$	$d_2$	$d_3$	$d_4$	$d_5$	$S$	$H$		lb	
kg		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	in
0.004 0.009	TRA-1225	19.05 0.750	31.75 1.250	0.81 0.032	0.76 0.030	19.05 0.750	18.97 0.747	32.54 1.281	0.003 0.013	1/4	0.003	
	TRB-1225	19.05 0.750	31.75 1.250	1.60 0.063	1.52 0.060	19.05 0.750	18.97 0.747	32.54 1.281	0.006 0.033			
	TRC-1225	19.05 0.750	31.75 1.250	2.41 0.095	2.34 0.092	19.05 0.750	18.97 0.747	32.54 1.281	0.010 0.021			
	TRD-1225	19.05 0.750	31.75 1.250	3.20 0.126	3.12 0.123	19.05 0.750	18.97 0.747	32.54 1.281	0.012 0.036			
	TRE-1225	19.05 0.750	31.75 1.250	3.99 0.177	3.91 0.154	19.05 0.750	18.97 0.747	32.54 1.281	0.015 0.033			
0.005 0.011	TRA-1423	22.23 0.875	36.50 1.437	0.81 0.032	0.76 0.030	22.23 0.875	22.15 0.872	37.31 1.469	0.004 0.019	1/4	0.004	
	TRB-1423	22.23 0.875	36.50 1.437	1.60 0.063	1.52 0.060	22.23 0.875	22.15 0.872	37.31 1.469	0.008 0.034			
	TRC-1423	22.23 0.875	36.50 1.437	2.41 0.095	2.34 0.092	22.23 0.875	22.15 0.872	37.31 1.469	0.012 0.024			
	TRD-1423	22.23 0.875	36.50 1.437	3.20 0.126	3.12 0.123	22.23 0.875	22.15 0.872	37.31 1.469	0.015 0.034			
0.008 0.017	TRA-1427	22.23 0.875	42.85 1.688	1.60 0.063	1.52 0.060	22.23 0.875	22.15 0.872	43.66 1.719	0.013 0.029	1/2	0.013	
	TRB-1427	22.23 0.875	42.85 1.688	2.41 0.095	2.34 0.092	22.23 0.875	22.15 0.872	43.66 1.719	0.009 0.044			
	TRC-1427	22.23 0.875	42.85 1.688	3.20 0.126	3.12 0.123	22.23 0.875	22.15 0.872	43.66 1.719	0.026 0.067			
0.006 0.013	TRA-1625	25.40 1.000	39.675 1.562	0.81 0.032	0.76 0.030	25.40 1.000	25.32 0.997	46.49 1.830	0.005 0.010	1	0.005	
	TRB-1625	25.40 1.000	39.675 1.562	1.60 0.063	1.52 0.060	25.40 1.000	25.32 0.997	46.49 1.830	0.009 0.038			
	TRC-1625	25.40 1.000	39.675 1.562	2.41 0.095	2.34 0.092	25.40 1.000	25.32 0.997	46.49 1.830	0.017 0.047			
	TRE-1625	25.40 1.000	39.675 1.562	3.20 0.126	3.12 0.123	25.40 1.000	25.32 0.997	46.49 1.830	0.021 0.053			
0.009 0.019	TRA-1829	28.58 1.125	44.45 1.750	0.81 0.032	0.76 0.030	28.58 1.125	28.50 1.122	49.24 1.981	0.005 0.024	1 1/4	0.005	
	TRB-1829	28.58 1.125	44.45 1.750	1.60 0.063	1.52 0.060	28.58 1.125	28.50 1.122	49.24 1.981	0.011 0.033			
	TRC-1829	28.58 1.125	44.45 1.750	2.41 0.095	2.34 0.092	28.58 1.125	28.50 1.122	49.24 1.981	0.017 0.033			

<sup>2</sup> If the shaft and the housing adjacent to the bearing O.D. are not concentric, the T.I.R. between the shaft and housing should be added to this dimension.

Continued on next page