

ANTI-FRICTION BEARINGS



Boston Gear's line of unmounted, inch size ball bearings, rod ends, spherical and linear bearings, give the designer freedom to choose from a wide range of quality bearing products that will resolve numerous application problems.

Boston Gear's inch size ball bearings are offered in Precision Ground, Semi- and Unground Radial and Thrust bearings. Our rod end and linear bearings are offered in Precision and Commercial Series.

BALL BEARINGS



Boston Ball Bearings provide improved performance over a wide range of operating conditions.

Major features include: Honed raceways on precision ball bearings for maximum life and smoother, quieter operation. Superior, low friction (low torque) seals, to more effectively exclude foreign matter and retain lubricant over a longer period.

The line of Ball Bearings include close tolerance precision units and inexpensive steel assemblies of the semi-ground type. These anti-friction items, available quickly from stock, make it easier to use a superior bearing "exactly right" for the majority of applications.

ANTI-FRICTION BEARINGS

BALL BEARINGS (CONTINUED)



The bearings listed in this catalog are made from steel of various analyses. Carburizing grades are case hardened to the desired depths and hardness values, insuring high resistance to wear and breakdown. High carbon chrome alloy steels are through hardened. If you have a special material application, Boston Gear engineers will welcome the opportunity to help you make a proper bearing selection.

Bearings in this catalog may be selected according to finish or accuracy: ground bearings are available in the radial and thrust designs primarily. With boundary dimensions and internal fit-up held to exacting tolerances and with ground and polished ball grooves, ground bearings are recommended for applications requiring greater speeds and loads and where quiet accurate operation is essential. Normal tolerance level is .005"/.0010".

Unground bearings are designed for applications where speeds and loads are moderate and the requirements of running accuracy and noise level do not warrant the more expensive ground precision bearing. The three basic design types are available. Normal tolerance level is .005"/.010".

ROD END AND SPHERICAL BEARINGS

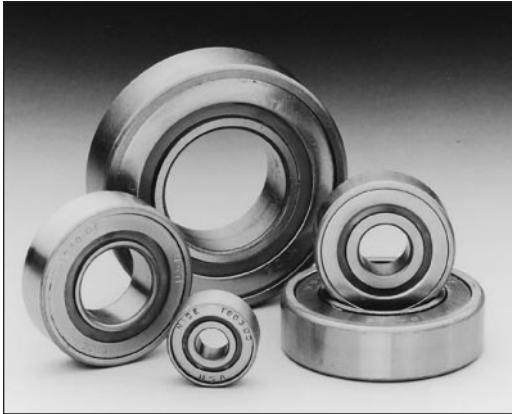


Boston Gear's broad line of rod end and spherical bearings serve many markets, which include textile, agriculture and off-highway vehicles along with military.

ANTI-FRICTION BEARINGS

RADIAL BALL BEARINGS

GROUND, SINGLE ROW 1600 SERIES



HIGH QUALITY INCH DIMENSIONAL BEARINGS for adaptation to many precision bearing applications. Suitable for speeds in the neighborhood of 5000 R.P.M.

IMPROVED BALL GROOVE FINISH for smoother, quieter operation.

GROUND BORES held to a tolerance of + .0000" to -.0005" on all sizes, 1/4" bore and over.

NYLON BALL RETAINERS (TN) furnished as standard. Steel retainers (J) available on special production order.

GREASE PACKED as standard on Types DC and DS. Types SC, SS and NS can be grease packed on special order.

NYLON SEALS more effectively retain lubricant and exclude foreign matter.






SPECIAL FEATURES including dimensions, tolerances, etc. available on special order.

ORDER BY CATALOG NUMBER OR ITEM CODE

Bore	Double Shield		Double Sealed	
	Catalog Number	Item Code	Catalog Number	Item Code
.2500	1602DS	50724	1602DC	50701
.3125	1603DS	50725	1603DC	50702
.3750	1604DS	50726	1604DC	50703
.3125	1605DS	50727	1605DC	50704
.3750	1606DS	50728	1606DC	50705
.4375	1607DS	50729	1607DC	50706
.3750	1614DS	50730	1614DC	50707
.4375	1615DS	50731	1615DC	50708
.5000	1616DS	50732	1616DC	50709
.4375	1620DS	50733	—	—
.5000	1621DS	50734	1621DC	50710
.6250	1623DS	50736	1623DC	50712
.6250	1628DS	50737	1628DC	50713
.7500	1630DS	50738	1630DC	50714
.6250	1633DS	50739	1633DC	50715
.7500	1635DS	50740	1635DC	50716
.7500	1638DS	50741	1638DC	50717
.8750	1640DS	50742	1640DC	50718
1.0000	1641DS	50743	1641DC	50719
1.1250	1652DS	50744	1652DC	50720
1.2500	1654DS	50745	1654DC	50721
1.2500	1657DS	50746	1657DC	50722

NOTE: Dimensions and load data on next page.

SEAL AND SHIELD ARRANGEMENTS

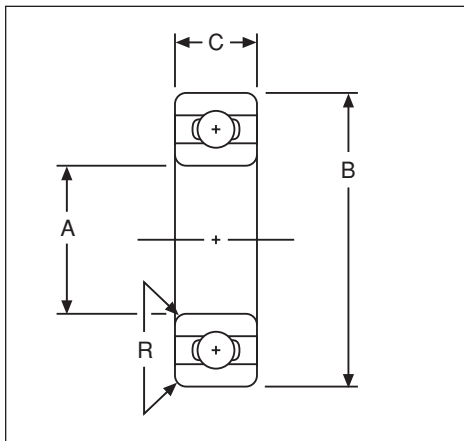
				
DOUBLE SEALED	DOUBLE SHIELD	SINGLE SEAL	SINGLE SHIELD	NO SHIELDS
DC	DS	SC	SS	NS

TYPES SC, SS and NS are available via special order only

ANTI-FRICTION BEARINGS

RADIAL BALL BEARINGS

GROUND, SINGLE ROW 1600 SERIES



STANDARD TOLERANCES

Dimensions	Tolerance	
A	2500–1.2500	+ .0000 to – .0005
B	.6875–1.7500 2.0000–2.5625	+ .0000 to – .0005 + .0000 to – .0006
C	All	+ .000 to – .005

For recommended shaft and housing fits, see engineering section, page 116.

ALL DIMENSIONS IN INCHES

Basic Bearing No.	A	B	C	R	Balls	
				Radius	No.	Dia.
1602	.2500	.6875	1/4+	.012	6	1/8
1603	.3125	.8750	9/32++	.012	7	5/32
1604	.3750			.015		
1605	.3125			.012	9	1/8
1606	.3750	.9063	5/16	.015		
1607	.4375			.015		
1614	.3750					
1615	.4375	1.1250	3/8	.025	7	3/16
1616	.5000					
1620	.4375					
1621	.5000	1.3750	7/16	.025	8	15/64
1623	.6250					
1628	.6250	1.6250	1/2	.025	8	1/4
1630	.7500					
1633	.6250	1.7500	1/2	.025	8	1/4
1635	.7500					
1638	.7500					
1640	.8750	2.0000	9/16	.035	10	1/4
1641	1.0000					
1652	1.1250	2.5000	5/8	.035	10	5/16
1654	1.2500					
1657	1.2500	2.5625	11/16	.035	9	3/8

*Maximum fillet on shaft or in housing which bearing corner will clear.

+ Width SC & DC = 5/16"

++ Width SC & DC = 11/32"

LOAD DATA

The indicated load ratings are based on 2500 hours average life. (L_{50}) to determine the load ratings at 3500 and 5000 hours, 90 percent and 80 percent respectively, of the above ratings should be used.

Basic Bearing Number	Radial Capacity (Lbs.)								Limiting Thrust (Lbs.)
	Revolutions Per Minute								
	50	100	300	500	1200	1800	2500	5000	
1602	230	185	130	110	80	70	65	50	42
1603	380	300	210	175	130	115	105	80	75
1604									
1605	305	245	170	140	105	95	85	65	65
1606									
1607									
1614	530	420	290	245	185	160	145	115	110
1615									
1616									
1620	860	690	475	400	300	260	235	185	200
1621									
1623									
1628	980	780	540	460	340	300	265	210	225
1630									
1633									
1635									
1638	1140	905	630	530	395	345	310	245	280
1640									
1641									
1652	1695	1345	935	790	590	515	460	365	440
1654									
1657	2200	1750	1215	1025	765	665	600	475	570

ANTI-FRICTION BEARINGS

RADIAL BALL BEARINGS

GROUND, SINGLE ROW 7500 SERIES



STANDARD TOLERANCES

Dimensions	Tolerance
A All	+0.0000 to -0.0005
B 1.7500 2.0000-2.5625	+0.0000 to -0.0005 +0.0000 to -0.0006
C All	+0.000 to -0.005
E All	+0.000 to -0.005
G All	±.005

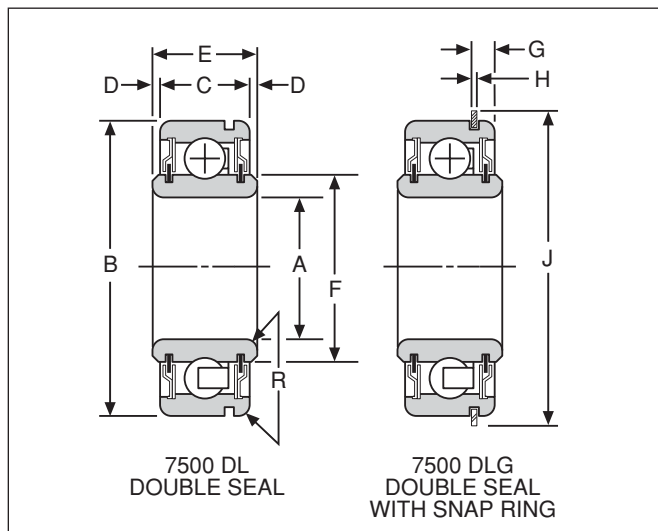
NYLON BALL RETAINERS (TN) standard on all sizes.

SINGLE LIP CONTACT SEALS effectively retain lubricant and exclude foreign material.

GREASE PACKED as standard on all "Double Sealed" Type DL and DLG.

SPECIAL FEATURES including dimensions, tolerances, single or without seals, steel retainers available on special order if quantity warrants.

SNAP RINGS included on all Type DLG sizes. Type DL sizes include snap ring groove but no snap rings furnished.



ALL DIMENSIONS IN INCHES ORDER BY CATALOG NUMBER OR ITEM CODE

A	B	C	D	E	F	G	H	J	R Radius *	Balls		DL Series		DLG Series	
										No.	Dia.	Catalog Number	Item Code	Catalog Number	Item Code
.5000	1.7500	5/8	1/16	3/4	.993	.136	.042	1-59/64	.035	8	1/4	7508DL	50587	7508DLG	50581
.6250												7510DL	50588	7510DLG	50582
.7500												7512DL	50589	7512DLG	50583
1.0000	2.0000	5/8	1/16	3/4	1.290	.136	.042	2-5/32	.035	10	1/4	7516DL	50591	7516DLG	50585
1.2500	2.5625	3/4	1/16	7/8	1.631	.190	.065	2-49/64	.035	9	3/8	7520DL	50592	7520DLG	50586

*Maximum fillet on shaft or housing which bearing will clear.
For recommended shaft and housing fits, see engineering section, page 116.

LOAD DATA

The indicated load ratings are based on 2500 hours average life (L_{50}). To determine the load ratings at 3500 and 5000 hours, 90 percent and 80 percent respectively, of the above ratings should be used.

Basic Bearing Number	Radial Capacity (Lbs.)										Max. Thrust Lbs.
	Revolutions Per Minute										
	50	100	300	500	1000	1200	1800	2500	3600	5000	
7508-7512	1180	940	650	550	435	410	360	320	285	255	340
7516	1365	1085	750	635	505	475	415	370	330	295	375
7520	2640	2100	1460	1230	975	915	805	715	635	570	740

ANTI-FRICTION BEARINGS

RADIAL BALL BEARINGS

GROUND, SINGLE ROW EXTENDED INNER RACE 7600 SERIES



STANDARD TOLERANCES

Dimensions	Tolerance
A	All +.0008 to -.0000
B	1.7500 2.0000-2.5625 +.0000 to -.0005 +.0000 to -.0006
C	All +.000 to -.005
E	All +.000 to -.005
G	All ±.005
K	All +.000 to -.005

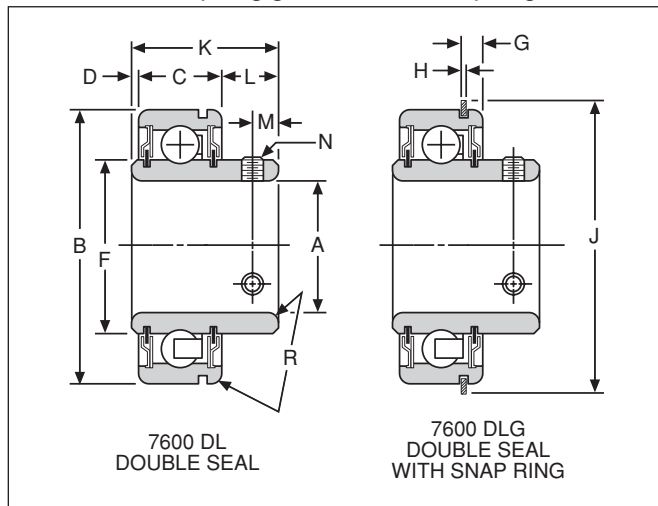
NYLON BALL RETAINERS (TN) standard on all sizes.

SINGLE LIP CONTACT SEALS effectively retain lubricant and exclude foreign material.

GREASE PACKED as standard on all "Double Sealed" Type DL and DLG.

SPECIAL FEATURES including dimensions, tolerances, single or without seals, steel retainers available on special order if quantity warrants.

SNAP RINGS included on all Type DLG sizes. Type DL sizes include snap ring groove but no snap rings furnished.



ALL DIMENSIONS IN INCHES ORDER BY CATALOG NUMBER OR ITEM CODE

A	B	C	D	F	G	H	J	K	L	M	N	R* Radius *	Balls		DL Series		DLG Series	
													No.	Dia.	Catalog Number	Item Code	Catalog Number	Item Code
.6250 .7500	1.7500	5/8	1/16	.993	.136	.042	1-59/64	1.092	.405	.233	10-32	.035	8	1/4	7610DL 7612DL	50600 50601	7610DLG 7612DLG	50594 50595
1.0000	2.0000	5/8	1/16	1.290	.136	.042	2-5/32	1.179	.492	.261	10-32	.035	10	1/4	7616DL	50603	7616DLG	50597
1.2500	2.5625	3/4	1/16	1.631	.190	.065	2-49/64	1.417	.605	.261	1/4-28	.035	9	3/8	7620DL	50604	7620DLG	50598

*Maximum fillet on shaft or housing which bearing will clear.
For recommended shaft and housing fits, see engineering section, page 116.

LOAD DATA

The indicated load ratings are based on 2500 hours average life (L50). To determine the load ratings at 3500 and 5000 hours, 90 percent and 80 percent respectively, of the above ratings should be used.

Basic Bearing Number	Radial Capacity (Lbs.)										Max. Thrust (Lbs.)
	Revolutions Per Minute										
	50	100	300	500	1000	1200	1800	2500	3600	5000	
7610-7612	1180	940	650	550	435	410	360	320	285	255	340
7616	1365	1085	750	635	505	475	415	370	330	295	375
7620	2640	2100	1460	1230	975	915	805	715	635	570	740

ANTI-FRICTION BEARINGS

RADIAL BALL BEARINGS

GROUND, SINGLE ROW FLANGE MOUNTED 6900 SERIES



AVAILABLE AS COMPLETE ASSEMBLY, BEARING only or HOUSING only.

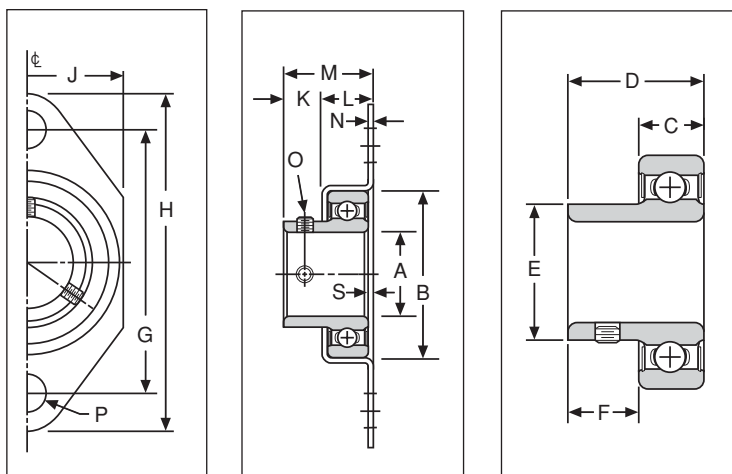
INNER RACE includes 2 setscrews.

GREASE PACKED, COMPOSITION SEALED.

NYLON RETAINERS (TN) furnished as standard.

STANDARD TOLERANCES

	Dimensions	Tolerance
A	All	+ .005 to - .000
B	.9062-1.6250 2.000	+ .0000 to - .0005 + .0000 to - .0006
C	All	+ .000 to - .005



ASSEMBLY

BEARING ONLY

ALL DIMENSIONS IN INCHES ORDER BY CATALOG NUMBER OR ITEM CODE

A	B	C	D	E	F	G Bolt Ctrs.	H	J ⁺	K	L	M	N	O	P	S	Assembly*		Bearing Only	
																Catalog Number	Item Code	Catalog Number	Item Code
.3750	.9062	5/16	11/16	.555	3/8	1-7/8	2-1/2	1-1/8	11/32	11/32	11/16	.035	8-32	5/16	.000	6906	50572	6906B	50571
.5000 .6250	1.6250	1/2	1	.995	1/2	2-7/8	3-3/4	1-7/8	7/16	11/16	1	.062	1/4-28	7/16	.010	6908 6910	50574 50576	6908B 6910B	50573 50575
.7500 1.0000	2.0000	9/16	1-1/16	1.293	1/2	3-1/4	4-1/8	2-1/4	7/16	11/16	1-1/8	.062	1/4-28 10-32	7/16	1/16	6912 6916	50578 50580	6912B 6916B	50577 50579

*Housings do not have Catalog Numbers. To order specify bearing size-housing. Example: 6906-Housing.

+ J dimension is the overall width.

LOAD DATA

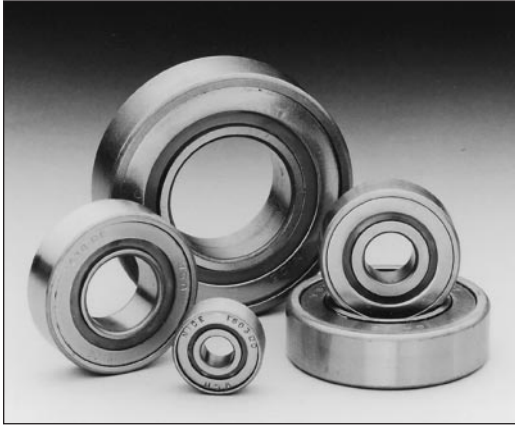
The indicated load ratings are based on 2500 hours average life (L50). To determine the load ratings at 3500 and 5000 hours, 90 percent and 80 percent respectively, of the above ratings should be used.

Basic Bearing Number	Radial Capacity (Lbs.) Revolutions Per Minute			
	50	100	500	1800
6906	305	245	140	95
6908-6910	735	585	340	225
6912	850	675	395	260
6916	1140	905	530	345

ANTI-FRICTION BEARINGS

RADIAL BALL BEARINGS

SEMI-GROUND, SINGLE ROW 3000 SERIES



LOW COST INCH DIMENSIONAL BEARINGS similar to 1600 Series in construction and dimensions and suitable for speeds up to 2500 R.P.M.

NYLON BALL RETAINERS (TN) furnished as standard. Steel retainers (J) available on special production order.

GREASE PACKED as standard on Types DC and DS. Types SC, SS and NS can be grease packed on special order.

NYLON SEALS more effectively retain lubricant and exclude foreign matter.

SPECIAL FEATURES including dimensions, tolerances, etc. available on special order.

ORDER BY CATALOG NUMBER OR ITEM CODE

Bore	Double Shield		Double Sealed	
	Catalog Number	Item Code	Catalog Number	Item Code
1/4	3002DS	50768	3002DC	50749
3/8	3004DS	50770	—	—
3/8	3014DS	50774	3014DC	50755
1/2	3016DS	50776	3016DC	50757
1/2	3021DS	50778	3021DC	50758
5/8	3023DS	50779	3023DC	50759
5/8	3028DS	50780	3028DC	50760
3/4	3030DS	50781	3030DC	50761
3/4	3035DS	50783	3035DC	50763
1	3041DS	50786	3041DC	50766

SEAL AND SHIELD ARRANGEMENTS

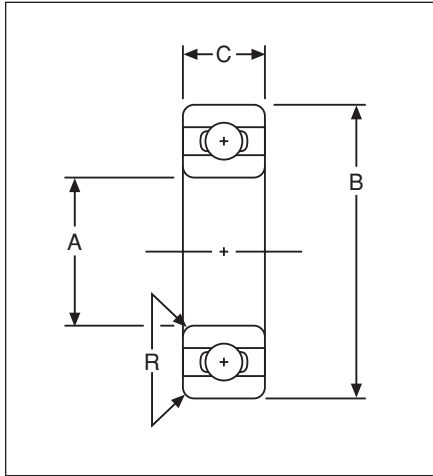
DOUBLE SEALED DC	DOUBLE SHIELD DS	SINGLE SEAL SC	SINGLE SHIELD SS	NO SHIELDS NS

TYPES SC, SS and NS are available via special order only.

ANTI-FRICTION BEARINGS

RADIAL BALL BEARINGS

SEMI-GROUND, SINGLE ROW 3000 SERIES



STANDARD TOLERANCES

Dimensions	Tolerance
A All	+0.005 to -0.000
B 11/16-1-3/4 2	+0.0000 to -0.0005 +0.0000 to -0.0006
C All	±0.005

For recommended shaft and housing fits, see engineering section, page 116.

LOAD DATA

Load ratings are provided only as a guide for bearing selection and are not to be used for life calculation.

ALL DIMENSIONS IN INCHES

Basic Bearing Number	A	B	C	R * Radius	Balls	
					No.	Dia.
3002	1/4	11/16	1/4+	.012	6	1/8
3004	3/8	7/8	9/32**	.012	7	5/32
3014	3/8	1-1/8	3/8	.025	7	3/16
3016	1/2					
3021	1/2	1-3/8	7/16	.025	8	15/64
3023	5/8					
3028	5/8	1-5/8	1/2	.025	8	1/4
3030	3/4					
3035	3/4	1-3/4	1/2	.025	8	1/4
3040	7/8	2	9/16	.035	10	1/4
3041	1					

*Maximum fillet on shaft or in housing which bearing corner will clear.

+ Width SC & DC = 5/16"

** Width SC = 11/32"

Basic Bearing Number	Radial Capacity (Lbs.)					Limiting Thrust (Lbs.)
	Revolutions Per Minute					
	50	100	500	1800	2500	
3002	150	120	70	45	40	30
3004	250	200	120	80	70	50
3014	350	280	165	105	95	75
3016						
3021	575	460	270	175	155	135
3023						
3028	650	520	305	200	180	150
3030						
3035						
3040	760	605	355	230	205	185
3041						

ANTI-FRICTION BEARINGS

RADIAL BALL BEARINGS

UNGROUND, SINGLE ROW FLANGED 400F SERIES



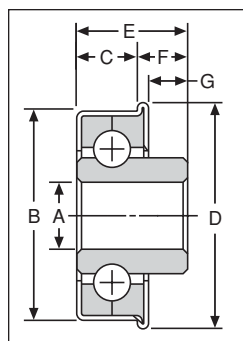
STANDARD TOLERANCES

Dimensions	Tolerance
A All	+0.005 to -0.000
B All	+0.005 to -0.000
C All	±0.010

FULL BALL TYPE (V) without retainer.

SUITABLE for SPEEDS up to 1200 RPM.

SOFT STEEL BAND on O.D. permits bearing to be pressed in a housing without the necessity of close housing tolerances.



ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

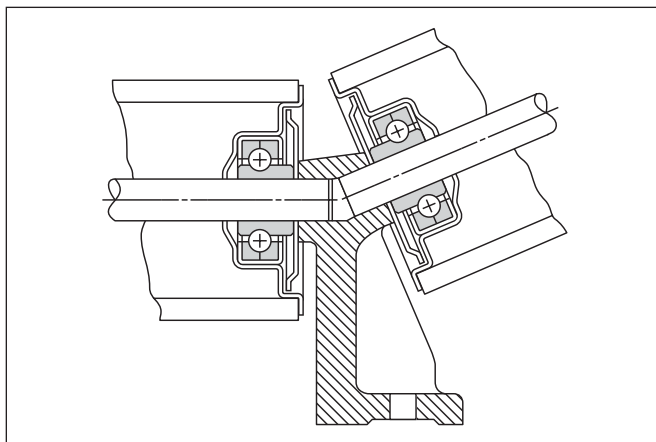
A	B	C	D	E	F	G	Balls		Catalog Number	Item Code
							Number	Dia.		
1/4	11/16	13/65	3/4	1/4	3/64	0	10	1/8	5561	50566
3/8	29/32	17/64	1	.350	.088	.048	15	1/8	5543	50565
1/2	1-1/8	.305	1-1/4	7/16	.132	1/16	18	1/8	5491	50564
1/2	1-3/8	11/32	1-1/2	.475	1/8	1/32	15	3/16	5881	50569
5/8	1-3/8	11/32	1-1/2	.475	1/8	1/32	15	3/16	5273	50559
1/2	1-1/2	3/8	1-21/32	11/16	.320	1/4	11	1/4	5327	50561
3/4	1-3/4	.462	1-15/16	37/64	1/8	1/64	14	1/4	5891	50570
3/4	2	13/32	2-1/8	9/16	5/32	1/16	17	1/4	5875	50568
1	2	13/32	2-1/8	5/8	7/32	1/8	17	1/4	5418	50563

LOAD DATA

Load ratings are provided only as a guide for bearing selection and are not to be used for life calculation.

Basic Bearing Number	Radial Capacity (Lbs.)			
	Revolutions Per Minute			
	50	200	600	1200
5561	110	53	30	21
5543	167	80	45	32
5368-5491	200	96	54	38
5881-5273	375	180	101	71
5327	492	236	132	92
5891	625	300	168	177
5875-5418	757	362	204	142

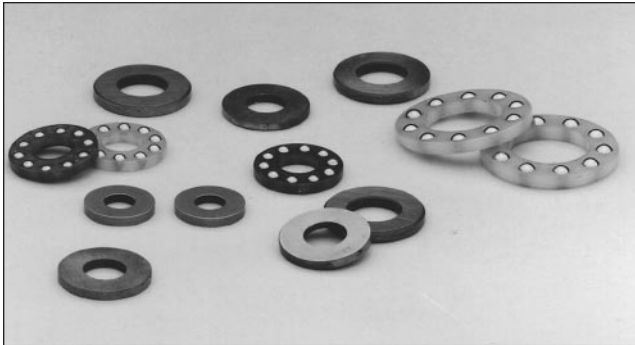
TYPICAL APPLICATION Flanged Series



ANTI-FRICTION BEARINGS

THRUST BALL BEARINGS

GROUND, UNBANDED



Hardened Alloy Steel — AO Series
Hardened Stainless Steel — SAO Series
FOR LIGHT LOADS

HIGH QUALITY HARDENED STEEL BALLS, retained in a nylon cage.

HARDENED THRUST WASHERS, are ground both sides to provide smooth, flat, parallel ball raceway surfaces.

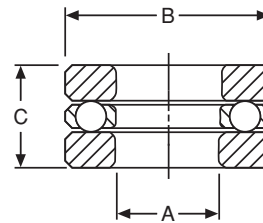
QUALITY and NUMBER OF BALLS assure high load carrying capacity.

NYLON RETAINER assures minimum frictional losses.

STANDARD TOLERANCES

Dimensions		Tolerance
A*	All	+0.002 to +0.007
B	All	+0.000 to -0.005
C	All	+0.000 to -0.010

*AO/SAO 16 +0.002 to +0.010



ALL DIMENSIONS IN INCHES
 ORDER BY ITEM CODE (2 WASHERS AND 1 NYLON CAGE)

A	B	C	Balls		Basic Bearing Number	AO Series Alloy		SAO Series Stainless Steel	
			Number	Diameter		Washer	Nylon Cage	Washer	Nylon Cage
3/16	7/16	3/16	9	1/16	AO/SAO1	06724	56807	06760	56813
1/4	9/16	7/32	10	3/32	AO/SAO5	06726	56808	06762	56814
5/16	5/8	1/4	10	3/32	AO/SAO8	06728	56809	06764	56815
3/8	11/16	9/32	12	3/32	AO/SAO10	06730	56810	06766	56816
1/2	7/8	3/8	10	1/8	AO/SAO16	06734	56812	06770	56818

LOAD DATA

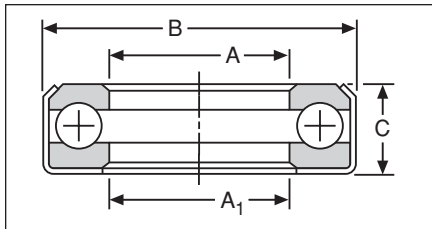
The indicated load ratings are based on 2500 hours average life (L_{50}). To determine the load ratings at 3500 and 5000 hours, 90 percent and 80 percent respectively, of the above ratings should be used.

Basic Bearing Number	Thrust Capacity (Lbs.)			
	Revolutions Per Minute			
	50	100	500	1000
AO/SAO1	30	25	14	11
AO/SAO5	64	56	31	25
AO/SAO8	68	60	34	27
AO/SAO10	85	72	42	32
AO/SAO16	250	125	70	58

ANTI-FRICTION BEARINGS

THRUST BALL BEARINGS

UNGROUND, BANDED 600 SERIES



STANDARD TOLERANCES

Dimensions		Tolerance
A	All	-.000 to +.010
A ₁	All	±.010
B	All	±.010
C	All	±.010

FULL BALL TYPE (V) without retainer.

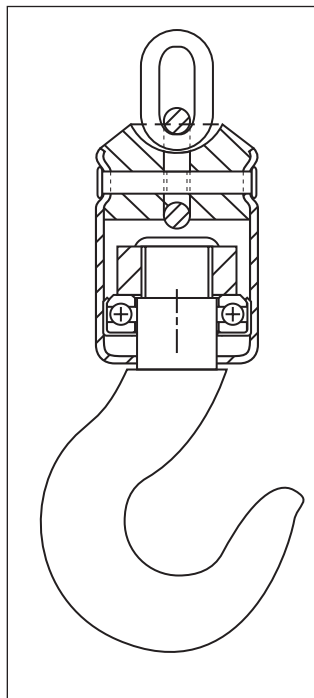
ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

A	A ₁	B	C	Balls		Catalog Number	Item Code
				No.	Dia.		
.250	.275	27/32	.333	10	5/32	601	50537
.375	.400	1-3/64	.359	14	5/32	602	50538
.453	.478	55/64	.281	15	1/8	602-3/4	50540
.500	.525	1-17/64	.437	10	1/4	603	50541
.500	.525	1	.344	12	3/16	603-1/4	50542
.625	.656	1-1/8	.344	16	5/32	605	50543
.625	.656	1-27/64	.456	12	1/4	606	50544
.750	.775	1-21/32	.545	15	1/4	607	50545
.875	.900	1-57/64	.594	17	1/4	608	50547
1.000	1.075	2	.640	12	3/8	609	50548
1.000	1.031	1-31/32	.625	18	1/4	610	50549
1.016	1.031	1-3/4	.625	16	1/4	610-1/4	50550
1.063	1.094	1-31/32	.625	18	1/4	611	50551
1.125	1.150	2-3/32	.625	19	1/4	613	50552
1.457	1.462	2-15/32	.625	23	1/4	619	50555
1.500	1.525	2-19/32	.625	25	1/4	621	50556

LOAD DATA

Load ratings are provided only as a guide for bearing selection and are not to be used for life calculation.

Bearing Number	Thrust Capacity (Lbs.)						Crane Hook
	Revolutions Per Minute						
	10	50	100	250	500	1000	
601	304	246	182	98	71	51	912
602	426	344	254	138	100	71	1277
602-3/4	292	236	174	94	68	48	873
603	780	630	465	252	182	129	2325
603-1/4	526	425	314	170	123	87	1570
605	487	394	291	158	114	81	1460
606	936	750	558	302	218	155	2790
607	1170	945	698	378	273	194	3490
608	1326	1071	791	428	309	220	3960
609	1706	1378	1017	551	398	284	5080
610	1404	1134	837	454	328	233	4190
610-1/4	1248	1008	744	403	291	207	3730
611	1404	1134	837	454	328	233	4190
613	1482	1197	883	479	346	246	4420
619	1794	1449	1069	579	419	298	5350
621	1950	1575	1162	630	455	324	5820



CRANE HOOK SWIVEL APPLICATION BEARING NO. 605

This standard product provided the exact bearing needed by this crane hoist manufacturer. An unground bearing provided the economy, while a full ball complement provided the required high thrust-load capacity. The bearing features a bonded non-separable assembly that provides easy installation and lubrication.

Special platings and stainless steel balls are readily available as a cost-effective way to fight corrosion and increase service life.

ANTI-FRICTION BEARINGS

BALL BEARINGS SHEAVES

UNGROUND 2000 SERIES

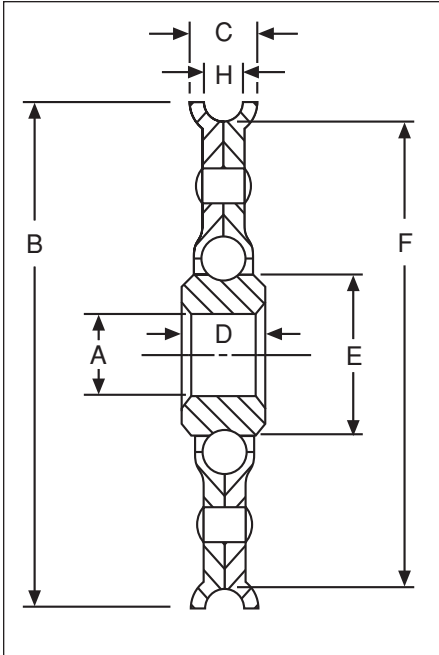


NR 2000 Series are unground, of pressed steel construction with hardened raceways. For rope, wire rope, etc. and special uses requiring a semi-circular tread.

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

A	B	C	D	E	F	H	Catalog Number	Item Code
.166	1-1/4	9/32	7/16	3/8	1	7/32	NR2000	67135
	1-21/32	5/16	7/16	3/8	1-11/32	7/32	NR2006	67136
1/4	2-7/8	17/32	1/2	1	2-9/16	13/32	NR2008	67137
	3-1/16	37/64	1/2	1	2-9/16	13/32	NR2010	67138
5/16	3	19/32	3/4	1	2-5/8	1/2	NR2011	67139
3/8	2-3/4	1/2	7/16	1	2-3/8	3/8	NR2012	67140
	2-3/4	1/2	9/16	1	2-3/8	3/8	NR2012-1	67141
	2-3/4	9/16	7/16	1	2-3/8	7/16	NR2013	67142
	2-7/8	17/32	1/2	1	2-9/16	13/32	NR2014	67143
	3	1/2	11/16	1	2-3/8	3/8	NR2015	67144
	3-1/16	37/64	1/2	1	2-9/16	13/32	NR2016	67145
1/2	2-7/8	11/16	13/16	13/16	2-1/4	17/32	NR5378	67267
	4-1/16	17/32	3/4	1	3-9/16	13/32	NR2025	67150
	2-3/4	7/16	9/16	13/16	2-3/16	5/16	NR2018	67147
5/8	3	19/32	3/4	1	2-5/8	1/2	NR2020*	67148
	7-1/8	13/16	5/8	1-3/8	6	17/32	NR5623	67275

* Inner race "D" dimension not centered.



LOAD DATA

Load ratings are provided only as a guide for bearing selection and are not to be used for life calculation.

STANDARD TOLERANCES

Dimensions	Tolerance
A	All
	+ .005 to -.000

Sheave Number	Radial Load Capacity (Lbs.)						Balls	
	Revolutions Per Minute						No.	Diam.
	50	100	200	300	600	900		
NR2000 NR2006	88	62	42	34	24	19	10	1/8
NR2008 NR2010	300	210	144	116	81	66	14	1/4
NR2011	293	208	146	121	82	70	14	1/4
NR2012 NR2012-1	300	210	144	116	81	66	14	1/4
NR2013	230	164	115	95	65	55	14	1/4
NR2014 NR2015 NR2016 NR2017	300	210	144	116	81	66	14	1/4
15							3/16	
14							1/4	
15							3/16	
NR2024 NR5378 NR2025	471	334	235	194	132	112	14	1/4
15							3/16	
14							1/4	
NR2018 NR2020	300	210	144	116	81	66	15	3/16
NR5623	293	208	146	121	82	70	19	1/4

ANTI-FRICTION BEARINGS

BALL BEARINGS SHEAVES

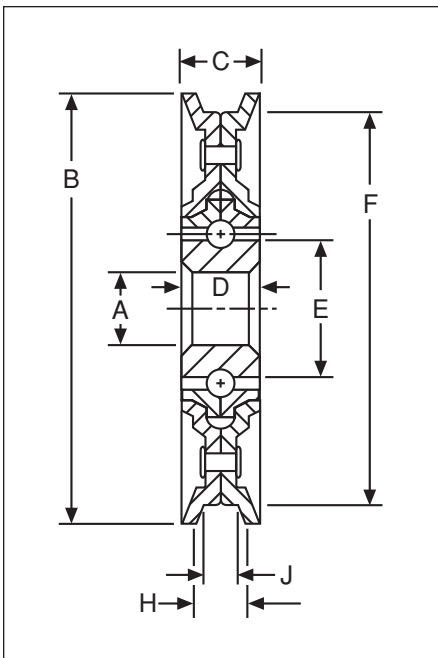
UNGROUND 2100 SERIES



NR 2100 Series are unground, of pressed steel construction with hardened raceways. For chain or belt application.

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

A	B	C	D	E	F	H	J	Catalog No.	Item Code
.372	2-1/4	19/32	7/8	9/16	1-5/8	15/32	15/32	NR2105	67151
	2-5/8	1/2	5/8	13/16	2	3/8	3/8	NR2106	67152
3/8	3-1/4	19/32	11/16	1	2-11/16	15/32	7/16	NR2111-1	67154
	3-3/8	19/32	11/16	1	2-11/16	15/32	7/16	NR2111	67153
	3-3/8	19/32	7/8	1	2-11/16	15/32	7/16	NR2112	67155
1/2	3	5/8	15/16	1	2-13/16	1/2	1/2	NR2113	67156
	4-15/16	3/4	7/8	1	4	5/8	9/16	NR2118	67157
5/8	4-7/16	5/8	3/4	1	3-7/8	27/64	27/64	NR2120	67158



LOAD DATA

Load ratings are provided only as a guide for bearing selection and are not to be used for life calculation.

Sheave Number	Radial Load Capacity in Pounds						Balls	
	Revolutions Per Minute						No.	Diam.
	50	100	200	300	600	900		
NR2105	220	153	119	85	59	48	11	3/16
NR2106	356	247	170	137	96	78	10	1/4
NR2111-1	327	232	163	135	92	78	10	5/16
NR2111								
NR2112								
NR2113	500	344	240	192	134	109	14	1/4
NR2118								
NR2120	293	208	146	121	82	70	14	1/4

STANDARD TOLERANCES

Dimensions	Tolerance
A	All +.005 to -.000

ANTI-FRICTION BEARINGS

BALL BEARINGS WHEELS

UNGROUND 2200 SERIES



The NR 2200 series pressed steel, ball bearing type wheels conform to the drawings showing their tread types. NR2201, 2204 and 2205 have ball races and outer housing carefully hardened. NR 2203 and 2206 have hardened races and unhardened outer housings.

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

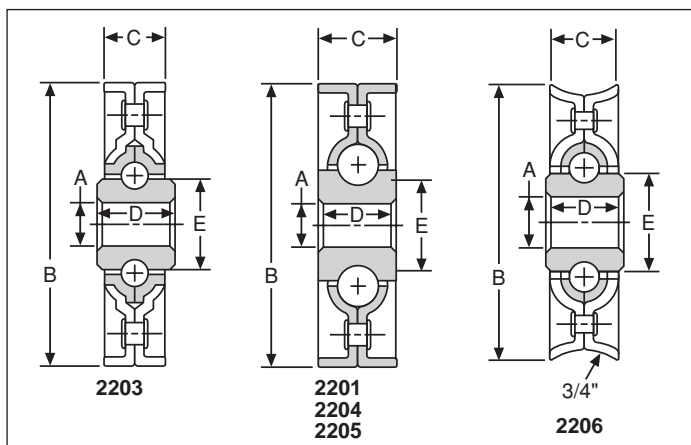
A	B	C	D	E	R	Catalog No.	Item Code
1/4	1.400	1/2	7/16	9/16	—	NR2201	67159
3/8	2-1/8	1/2	5/8	13/16	—	NR2203	67160
3/8	2-1/2	11/16	11/16	1	—	NR2204	67161
17/32	2-1/2	11/16	11/16	1	—	NR2205	67162
1/2	2-3/4	9/16	11/16	1	3/4	NR2206	67163

STANDARD TOLERANCES

Dimensions	Tolerance
A	All
	+0.005 to -0.000

LOAD DATA*

Wheel Number	Radial Load Capacity in Pounds						Balls	
	Revolutions Per Minute						No.	Diam.
NR2201	91	66	47	37	25	23	15	1/8
NR2203	230	164	115	95	65	55	15	3/16
NR2204 NR2205	136	100	71	56	38	34	14	1/4
NR2206	327	232	163	135	92	78	14	1/4



UNGROUND, FLANGED 2300 SERIES

The NR 2300 Series pressed steel, ball bearing type wheels are advantageous for application to wooden rollers or steel tubes, pipes, etc. The flange serves as an economical method of locating the roller in its nest. The ball races are carefully hardened while the outer housing is unhardened.

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

A	B	C	D	E	F	G	H	Catalog No.	Item Code
3/8	2	1/2	11/16	9/16	1.875	1.875	7/16	NR2308	67165
3/8	2-1/4	9/16	3/4	9/16	1.625	1.625	1/2	NR2312+	67166
1/2	3	9/16	15/16	1	2.781	2.810	1/2	NR2324	67167

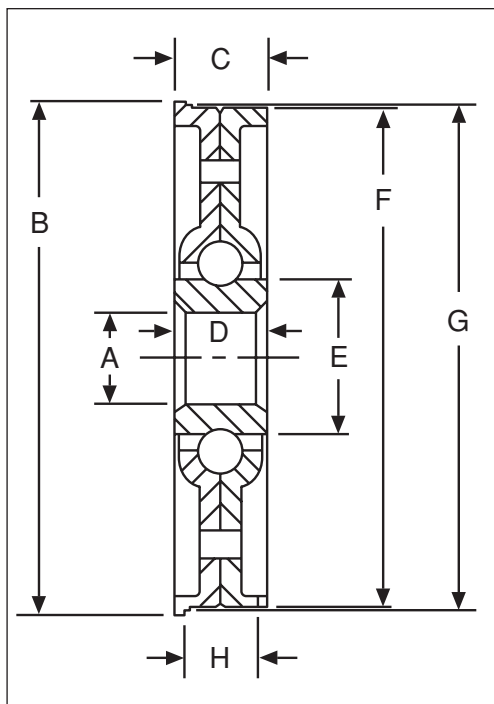
+Screw holes in Flange, for application to Wood Rollers.

STANDARD TOLERANCES

Dimensions	Tolerance
A	All
	+0.005 to -0.000

LOAD DATA*

Wheel Number	Radial Load Capacity in Pounds						Balls	
	Revolutions Per Minute						No.	Diam.
NR2308	77	56	40	32	21	19	15	1/8
NR2312	220	153	119	85	59	48	15	1/8
NR2324	327	232	163	135	92	78	14	1/4



*Load ratings are provided only as a guide for bearing selection and are not to be used for life calculation.