

Antifriction Bearings: 2005

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Current Industrial Reports

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These data are also available on Internet through the U.S. Department of Commerce and STAT-USA by subscription. The Internet address is: www.stat-usa.gov/. Follow the prompts to register. Also, you may call 202-482-1986 or 1-800-STAT-USA, for further information.

SUMMARY OF FINDINGS. The value of shipments of antifriction bearings, components, and parts was \$6,309.1 million in 2005, an increase of

9 percent, from \$5,777.8 million in 2004. The 2005 total which includes complete unmounted ball bearings was \$1,940.9 million, an increase of 6 percent from \$1,822.7 million in 2004. Tapered roller bearings, including cups and cones, unmounted, increased 15 percent to \$1,995.7 million, from \$1,727.9 million in 2004. Roller bearings (except tapered), unmounted was \$1,132.8 million in 2005, an increase of 8 percent, from \$1,053.3 million in 2004. Mounted bearings (except plain) increased 5 percent to \$578.0 million, from \$551.5 million in 2004; and parts and components for ball and roller bearings (except cups and cones), including balls and rollers sold separately was \$661.7 million, an increase of 6 percent, from \$622.5 million in 2004.

For general CIR information, explanation of general terms and historical note, see the appendix.

Address inquiries concerning these data to Primary Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Gloria Peebles-Butler, 301-763-4732. For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-763-4673.

U S C E N S U S B U R E A U

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Table 1. Value of Shipments of Antifriction Ball and Roller Bearings, Components, and Parts by Product Class: 2001 to 2005
[Millions of dollars]

Product code	Product description	2005	2004	2003	2002	2001
332991	Ball and roller bearings.....	6,309.1	5,777.8	5,349.8	5,412.0	5,391.1
3329911	Ball bearings, complete, unmounted.....	1,940.9	1,822.7	1,848.8	1,945.9	1,989.8
3329913	Tapered roller bearings, including cups and cones, unmounted.....	1,995.7	1,727.9	1,456.5	1,376.0	1,296.7
3329915	Roller bearings (except tapered), unmounted.....	1,132.8	1,053.3	1,006.4	1,039.9	1,176.5
3329917	Mounted bearings (except plain).....	578.0	r/ 551.5	476.6	453.0	383.9
3329919	Parts and components for ball and roller bearings (except cups and cones), including balls and rollers sold separately.....	661.7	622.5	561.5	597.2	544.3

r/Revised by 5 percent or more from previously published data.

Table 2. Domestic Quantity and Value of Shipments of Antifriction Ball and Roller Bearings, Components, and Parts: 2005 and 2004
[Quantity in thousands of units. Value in thousands of dollars]

Product code	Product description	No. of cos.	2005		2004	
			Quantity	Value	Quantity	Value
332991	Ball and roller bearings.....	(X)	(X)	6,309,113	(X)	5,777,843
3329911	Ball bearings, complete, unmounted.....	63 a/	343,300 a/	1,940,920 a/	373,991 a/	1,822,678
	Annular, including self-aligning:					
	Ground or precision:					
	Single-row conrad:					
	Miniature (below 9 mm outside diameter):					
3329911101	Regular (ABEC 1 and 3).....	4	(D)	(D)	(D)	(D)
3329911102	Precision (ABEC 5 and up).....	4 a/	3,958	20,031 a/	3,318	16,294
	Other regular (ABEC 1 and 3):					
3329911103	9 mm outside diameter through 30 mm outside diameter.....	7	(D)	18,475	(D)	23,078
3329911104	Over 30 mm outside diameter through 52 mm outside diameter.....	15	61,582	101,133	73,563	106,666
3329911105	Over 52 mm outside diameter through 100 mm outside diameter.....	15	25,577	153,084	27,053	151,535
3329911107	Over 100 mm outside diameter.....	16	3,039 a/	99,865	3,053 a/r/	90,745
	Other precision (ABEC 5 and up):					
3329911109	9 mm outside diameter through 30 mm outside diameter.....	8	3,891	56,085	3,692	50,496
3329911111	Over 30 mm outside diameter through 52 mm outside diameter.....	8	453	37,385	418	33,512
3329911112	Over 52 mm outside diameter through 100 mm outside diameter.....	7	188	27,833	183	27,549
3329911113	Over 100 mm outside diameter.....	7	85 a/	38,792	70 a/r/	33,801
3329911114	Single-row maximum capacity type.....	8	1,163	19,093	980	17,137
3329911118	Integral shaft and integral spindle ball bearings.....	5 a/	20,482 a/	287,918 a/	19,338 a/	262,478
3329911120	Double-row.....	13	32,681	634,123	31,983	616,344
	Angular contact:					
3329911119	Regular.....	11	773	98,352	675	75,235
3329911123	Precision.....	9	2,069	116,104	1,930	81,340
3329911124	All other ground or precision bearings (ABEC 1 and up).....	3	(D)	(D)	(D)	(D)
3329911127	Ground bearings of less than ABEC 1 precision.....	8 c/	4,714 b/	29,979 c/	4,432 b/	27,647
3329911129	Unground (less than ABEC 1).....	14 b/	140,511 b/	84,481 b/	151,810 b/	92,345
	Thrust ball bearings:					
3329911133	Ground.....	10	(D) a/	23,809	(D) a/r/	23,078
3329911135	Unground.....	4	7,659	13,057	7,973	14,435
3329911155	Other ball bearings.....	15	18,206 b/	67,343	17,721 b/	66,273
3329913	Tapered roller bearings, including cups and cones, unmounted.....	19	(D)	1,995,699	(D)	1,727,856
3329913132	Cup and cone assemblies shipped as a set	17	(D)	(D)	(D)	801,868
3329913133	Cups shipped separately.....	13	110,080	334,061	113,460	306,457
3329913134	Cone assemblies shipped separately.....	14	(D)	(D)	(D)	619,531
3329915	Roller bearings (except tapered), unmounted.....	39	914,615	1,132,824	1,353,892	1,053,298
	Cylindrical roller bearings:					
3329915111	Regular (ABEC 1 and 3).....	25	(D)	341,185	(D)	312,526
3329915112	Precision (ABEC 5 and up).....	6	209	87,916	198	81,503
	Spherical roller bearings, including hourglass and barrel:					
3329915124	Single-row.....	5	(D)	28,277	(D)	24,103
3329915125	Double-row.....	7	(D)	207,916	(D)	170,123
3329915141	Needle roller bearings.....	15	(D)	442,513	(D) r/	443,033
3329915193	Other roller bearings, n.e.c.	13	(D) a/	25,017	22,021 a/	22,010
3329917	Mounted bearings (except plain).....	18 a/	8,668 a/	577,988 a/r/	8,715 r/	551,494
3329917117	Ball bearings, unit and/or split-mounted.....	11 a/	7,641 b/	339,884 a/r/	7,663 r/	330,702
	Roller:					
3329917153	Unit mounted.....	9	792	171,147	r/	835 r/
3329917155	Split-mounted.....	5	235	66,957	r/	218 r/
3329919	Parts and components for ball and roller bearings (except cups and cones), including balls and rollers sold separately.....	67	(X)	661,682	(X)	622,517
3329919111	Balls (millions of units) 1/.....	23 b/	12,119 a/	219,582 a/	12,167	214,944

Table 2. Domestic Quantity and Value of Shipments of Antifriction Ball and Roller Bearings, Components, and Parts: 2005 and 2004
[Quantity in thousands of units. Value in thousands of dollars]

Product code	Product description	No. of cos.	2005		2004	
			Quantity	Value	Quantity	Value
3329919121	Other antifriction ball bearing components and parts, including unassembled ball bearings, cages, races, seals, shields, etc. (except balls).....	18	(X)	86,821	(X)	74,246
3329919131	Rollers (millions of units) 2/.....	23	12,481	135,420	r/ 12,880	r/ 131,287
	Other roller bearing parts and components (except rollers):					
3329919135	For tapered roller bearings (except cup cone assemblies).....	7	(X)	115,745	(X)	100,069
3329919136	For cylindrical roller bearings.....	6	(X)	(D)	(X)	(D)
3329919137	For spherical roller bearings.....	1	(X)	(D)	(X)	(D)
3329919149	For other roller bearings.....	13	(X)	(D)	(X)	35,147
3329919159	Housings and parts and components for housings, including housing closures, collars, spacers, sleeves, adapters, and other miscellaneous items.....	7	(X)	47,569	(X)	43,460

D Withheld to avoid disclosing data for individual companies. n.e.c. Not elsewhere classified. r/Revised by 5 percent or more from previously published data. X Not applicable.

1/Production for all purposes of balls for 2005 and 2004 is 12.1 millions of units and 12.2 millions of units, respectively.

2/Production for all purposes of rollers for 2005 and 2004 is 12.5 millions of units and 12.9 millions of units, respectively.

Note: Percent of estimation of each item is indicated as follows: a/10 to 25 percent of this item is estimated. b/26 to 50 percent of this item is estimated. c/Over 50 percent of this item is estimated.

Table 3. Shipments, Exports, Imports, and Apparent Consumption of Antifriction Ball and Roller Bearings, Components, and Parts: 2005
[Quantity in thousands of units. Value and duty in thousands of dollars]

Product code	Product description	Manufacturers' shipments		Exports of domestic merchandise 1/		Imports for consumption 2/		consumption 3/	
		Quantity	Value f.o.b. plant	Quantity	Value at port	Quantity	C.i.f. and calculated duty	Quantity	Apparent Value
	Total	(X)	6,309,113	(X)	1,332,993	(X)	1,998,322	(X)	6,974,442
	Ball bearings, complete, unmounted:								
	Annular, including self-aligning:								
	Ground or precision:								
	Single-row conrad:								
3329911101, 102	Miniature (below 9 mm outside diameter), regular (ABEC 1 and 3) and precision (ABEC 5 and up).....	(D)	(D)	1,132	9,866	18,074	10,148	(D)	(D)
3329911103, 109	Other regular and other precision (ABEC 5 and up): 9 mm outside diameter through 30 mm outside diameter.....	(D)	74,560	844	15,199	245,420	102,793	(D)	162,154
3329911104, 111	Over 30 mm outside diameter through 52 mm outside diameter.....	62,034	138,518	1,586	24,164	215,133	159,398	275,581	273,752
3329911105, 112	Over 52 mm outside diameter through 100 mm outside diameter.....	25,765	180,917	704	15,795	54,413	154,433	79,474	319,555
3329911107, 113	Over 100 mm outside diameter.....	3,124	138,657	187	16,366	4,365	57,392	7,302	179,683
3329911114	Single-row maximum capacity type.....	1,163	19,093	139	6,331	14,290	28,947	15,315	41,709
3329911118	Integral shaft and integral spindle.....	20,482	287,918	1,691	26,967	23,791	54,376	42,582	315,327
3329911120	Double-row.....	32,681	634,123	121	8,685	5,831	37,569	38,391	663,007
3329911119, 123	Angular contact, regular and precision.....	2,842	214,456	(S)	88,170	10,501	100,261	(S)	226,547
3329911124, 127, 129, 135	All other ground or precision (ABEC 1 and up) and ground bearings of less than ABEC 1 precision; annular ball bearings including self-aligning, unground (less than ABEC 1); and unground thrust ball bearings.....	(D)	(D)	1,068	11,754	19,025	18,371	(D)	(D)
3329911133	Ground thrust ball bearings.....	(D)	23,809	3,644	18,165	7,885	16,593	(D)	22,237
3329911155	Other ball bearings.....	18,206	67,343	29,969	(S)	13,301	86,928	1,539	(S)
	Tapered roller bearings, including cups and cones, unmounted:								
3329913132	Cup and cone assemblies shipped as a set.....	(D)	(D)	5,243	170,748	39,079	152,119	(D)	(D)
3329913133	Cups shipped separately.....	110,080	334,061	7,312	35,161	52,448	120,179	155,217	419,079
3329913134	Cone assemblies shipped separately.....	(D)	(D)	13,524	168,848	46,509	158,745	(D)	(D)
3329915111, 112	Cylindrical roller bearings, regular (ABEC 1 and 3) and precision (ABEC 5 and up).....	(D)	429,101	5,340	82,096	25,303	153,778	(D)	500,783
	Spherical roller bearings, including hourglass and barrel:								
3329915124	Single-row.....	(D)	28,277	106	9,723	902	10,055	(D)	28,609
3329915125	Double-row.....	(D)	207,916	4,583	31,754	1,079	65,440	(D)	241,602
3329915141	Needle rolling bearings.....	(D)	442,513	21,312	65,774	64,349	46,344	(D)	423,083
3329915193	Other roller bearings, n.e.c.....	(D)	25,017	517	11,035	1,543	6,705	(D)	20,687
	Mounted bearings (except plain):								
3329917117	Ball bearings, unit and/or split-mounted.....	7,641	339,884	490	29,887	15,476	44,435	22,627	354,432
3329917153, 155	Roller bearings, unit and split-mounted.....	1,027	238,104	433	36,922	3,075	6,795	3,668	207,977
	Parts and components for ball and roller bearings (except cups and cones), including balls and rollers sold separately:								
3329919111	Balls (millions of units).....	12,119	219,582	(X)	37,979	6,867	24,470	(X)	206,073
3329919121	Other antifriction ball bearings components and parts, including unassembled ball bearings, cages, races, seals, shields, etc. (except balls).....	(X)	86,821	(X)	51,548	253,607	137,573	(X)	172,846
3329919131	Rollers (millions of units).....	12,481	135,420	(X)	68,885	4,659	40,582	(X)	107,117
	Other roller bearing parts and components (except rollers):								
3329919135	For tapered roller bearings (except cup and cone assemblies).....	(X)	115,745	(X)	45,071	(X)	112,062	(X)	182,736
3329919136	For cylindrical roller bearings.....	(X)	(D)	(X)	2,966	(X)	22,579	(X)	(D)
3329919137	For spherical roller bearings.....	(X)	(D)	(X)	1,880	(X)	15,205	(X)	(D)
3329919149	For other roller bearings.....	(X)	(D)	(X)	42,767	(X)	17,086	(X)	(D)
3329919159	Housings and parts and components for housing, including housing closures, collars, spacers, sleeves, adapters, and other miscellaneous items.....	(X)	47,569	(X)	40,739	(X)	36,961	(X)	43,791

D Withheld to avoid disclosing data for individual companies. n.e.c. Not elsewhere classified. S Does not meet publication standards. X Not applicable.

1/Source: Census Bureau report EM 545, U.S. Exports.

2/Source: Census Bureau report IM 145, U.S. Imports for Consumption.

3/Apparent consumption is derived by subtracting exports from manufacturer's shipments plus imports.

Note: For comparison of the North American Industry Classification System (NAICS)-based product codes with Schedule B export codes and HTSUSA import codes, see Table 4.

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes and HTSUSA Import Codes: 2005

Product code	Product description	Export code 1/	Import code 2/
	Ball bearings, complete, unmounted: Annular, including self-aligning: Ground or precision: Single-row conrad:		
3329911101, 102	Miniature (below 9 mm outside diameter), regular (ABEC 1 and 3) and precision (ABEC 5 and up).....	8482.10.5036	8482.10.5036
3329911103, 109	Other regular and other precision (ABEC 5 and up): 9 mm outside diameter through 30 mm outside diameter.....	8482.10.5044	8482.10.5044
3329911104, 111	Over 30 mm outside diameter through 52 mm outside diameter.....	8482.10.5048	8482.10.5048
3329911105, 112	Over 52 mm outside diameter through 100 mm outside diameter.....	8482.10.5052	8482.10.5052
3329911107, 113	Over 100 mm outside diameter.....	8482.10.5056	8482.10.5056
3329911114	Single-row maximum capacity type.....	8482.10.5032	8482.10.5032
3329911118	Integral shaft and integral spindle.....	8482.10.1000	8482.10.1040 8482.10.1080
3329911120	Double-row.....	8482.10.5060	8482.10.5060
3329911119, 123	Angular contact, regular and precision.....	8482.10.5016 8482.10.5024 8482.10.5028	8482.10.5016 8482.10.5024 8482.10.5028
3329911124, 127, 129, 135	All other ground or precision bearings (ABEC 1 and up) and ground bearings of less than ABEC 1 precision; annular ball bearings, including self-aligning, unground (less than ABEC 1); and unground thrust ball bearings.....	8482.10.5004 8482.10.5064	8482.10.5004 8482.10.5064
3329911133	Ground thrust ball bearings.....	8482.10.5008	8482.10.5008
3329911155	Other ball bearings.....	8482.10.5012 8482.10.5068	8482.10.5012 8482.10.5068
3329913132	Tapered roller bearings, including cups and cones, unmounted: Cup and cone assemblies shipped as a set.....	8482.20.0020 8482.20.0030 8482.20.0040 8482.20.0060	8482.20.0020 8482.20.0030 8482.20.0040 8482.20.0060
3329913133	Cups shipped separately.....	8482.99.3010	8482.99.1540
3329913134	Cone assemblies shipped separately.....	8482.20.0070 8482.20.0080	8482.20.0070 8482.20.0080
3329915111, 112	Cylindrical roller bearings, regular (ABEC 1 and 3) and precision (ABEC 5 and up).....	8482.50.0000	8482.50.0000
3329915124	Spherical roller bearings, including hourglass and barrel: Single-row.....	8482.30.0040	8482.30.0040
3329915125	Double-row.....	8482.30.0080	8482.30.0080
3329915141	Needle roller bearings.....	8482.40.0000	8482.40.0000
3329915193	Other roller bearings, n.e.c.	8482.80.0020 8482.80.0040 8482.80.0060	8482.80.0020 8482.80.0040 8482.80.0060
3329917117	Mounted ball bearings (except plain): Ball bearings, unit- and/or split-mounted.....	8483.20.0010	8483.20.4040 8483.20.8040
3329917153, 155	Roller bearings, unit- and split-mounted.....	8483.20.0050	8483.20.4080 8483.20.8080
3329919111	Parts and components for ball and roller bearings (except cups and cones), including balls and rollers sold separately: Balls (millions of units).....	8482.91.0010 8482.91.0020	8482.91.0010 8482.91.0020
3329919121	Other antifriction ball bearings components and parts, including unassembled ball bearings, cages, races, seals, shields, etc. (except balls).....	8482.99.1010 8482.99.1050	8482.99.0500 8482.99.3500
3329919131	Rollers (millions of units).....	8482.91.0040 8482.91.0050 8482.91.0070 8482.91.0080 8482.91.0090	8482.91.0040 8482.91.0050 8482.91.0070 8482.91.0080 8482.91.0090

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes and HTSUSA Import Codes: 2005

Product code	Product description	Export code 1/	Import code 2/
3329919135	Other roller bearing and components (except rollers): For tapered roller bearings (except cup and cone assemblies).....	8482.99.3050	8482.99.1580 8482.99.4500
3329919136	For cylindrical roller bearings.....	8482.99.7060	8482.99.2560 8482.99.6560
3329919137	For spherical roller bearings.....	8482.99.5000	8482.99.2520 8482.99.6510
3329919149	For other roller bearings.....	8482.99.7030 8482.99.7090	8482.99.2540 8482.99.6530
3329919159	Housings and parts and components for housings, including housing closures, collars, spacers, sleeves, adapters, and other miscellaneous items.....	8483.30.5020	8483.30.4040 8483.30.8020
n.e.c. Not elsewhere classified.			

1/Source: 2005 edition, Harmonized System-based Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

2/Source: Harmonized Tariff Schedule of the United States, Annotated (2005).