

# Construction Machinery: 2002

Issued August 2003

MA333D(02)-1(RV)

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### SUMMARY OF FINDINGS

For 2002, value of shipments of the types of construction machinery included in this report, except motor graders, and light maintainers, construction machinery for mounting on trucks, tractors, etc., and scraper bowls decreased by 12.5 percent, to \$12,438.2 million from \$14,219.0 million in 2001.

Shipments of power cranes, draglines, and excavators, including surface mining equipment, and attachments totaled \$2,533.0 million for 2002, a decrease of 7.0 percent from the 2001 total of \$2,724.4 million.

Value of shipments of mixers, pavers, and related equipment decreased from \$1,431.2 million in

2001 to \$1,222.7 million in 2002, a decrease of 14.6 percent. Off-highway trucks, truck-type tractor chassis, trailers, coal haulers, or wagons decreased by 13.6 percent \$818.3 million in 2002 from \$947.3 million in 2001.

Shipments of tractor shovel loaders decreased from \$3,751.7 million in 2001 to \$3,413.1 million in 2002, a decrease of 9.0 percent. Crawler tractors, contractors' off-highway-type wheel tractors, dozers, and self-propelled wheeled log skidders decreased by 2.8 percent, from \$1,322.9 million in 2001 to \$1,286.3 million in 2002. Rollers and compactors decreased from \$474.7 million in 2001 to \$422.7 million in 2002.

Shipments of rough terrain forklifts (integral units only) decreased by 15.8 percent to \$525.0 million in 2002, from \$623.2 million in 2001. Ditchers and trenchers, self-propelled (integral units only) decreased from \$305.1 million in 2001 to \$284.0 million for 2002. Construction machinery for mounting on trucks, tractors, and other prime movers, except winches, hoists, and other materials-handling equipment, decreased from \$267.7 million in 2001 to \$242.2 million in 2002. Aerial work platforms decreased 29.7 percent, from \$2,257.3 million in 2001 to \$1,586.2 million in 2002.

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

Address inquiries concerning these data to Investment Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Marvella Jones, 301-763-4743.

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 for Selected Construction Machinery: 1998 to 2002  
[Value in millions of dollars]

Product description	2002	2001	2000	1999	1998
Power cranes, draglines, and excavators, including surface mining equipment, and attachments.....	r/ 2,533.0	r/ 2,724.4	3,255.3	3,124.7	2,645.1
Mixers, pavers, and related equipment.....	1,222.7	1,431.2	1,894.5	1,608.2	1,246.4
Off-highway trucks, truck-type tractor chassis, trailers, coal haulers, wagons.....	818.3	947.3	1,062.9	834.6	1,425.6
Tractor shovel loaders.....	3,413.1	3,751.7	4,148.7	4,049.2	4,157.4
Crawler tractors, contractors' off-highway-type wheel tractors, dozers, and self-propelled wheeled log skidders.....	1,286.3	1,322.9	1,427.5	1,382.2	1,985.6
Motor graders and light maintainers.....	(D)	(D)	557.5	(D)	(D)
Rollers and compactors.....	422.7	r/ 474.7	676.5	590.2	358.9
Rough-terrain forklifts.....	525.0	r/ 623.2	600	616.8	668.1
Scraper bowls.....	(D)	(D)	(D)	343.4	(D)
Self-propelled ditchers and trenchers (integral units).....	284.0	305.1	566.4	287.4	266.7
Construction machinery for mounting on trucks, tractors, etc. ....	(X)	(X)	(X)	(X)	(X)
Construction machinery (except winches and other materials-handling equipment) for mounting on trucks, tractors, etc. ....	r/ 242.2	267.7	312.1	274.8	278.3
Winches and other materials-handling equipment, for mounting.....	104.7	113.5	114.3	(D)	(D)
Aerial work platforms.....	r/ 1,586.2	2,257.3	3,055.3	2,491.8	1,571.0

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

Table 2. Quantity and Value of Shipments of Selected Construction Machinery: 2002 and 2001  
[Quantity in units. Value in millions of dollars]

Product code	Product description	No. of cos.	2002		2001	
			Quantity	Value	Quantity	Value
33312011	Power cranes, draglines, and excavators, including surface mining equipment, and attachments.....	(NA)	(X) r/	2,532,958	(X) r/	2,724,416
	Excavators, hydraulic operated:					
	Crawler mounted, rated size in metric tons:					
333120111	Not more than 24 metric tons.....	8	9,971	429,635	9,734 r/	392,644
3331201114	More than 24 but not more than 40 metric tons.....	5	4,486	577,788	5,959	624,742
3331201117	More than 40 metric tons.....	4	1,159	278,773	1,076	264,211
3331201129	Wheel (rubber) mounted, all sizes.....	2	(D)	(D)	(D)	(D)
	Cranes, lattice boom:					
	Crawler mounted, maximum working load:					
3331201132	Not more than 110 metric tons.....	5	321	168,097	(D)	(D)
3331201134	More than 110 metric tons.....	3	(D)	(D)	366	205,658
3331201145	Wheel (rubber) mounted.....	1	(D)	(D)	(D)	(D)
3331201146	Cranes, hydraulic operated, telescopic boom:					
	Wheel cranes (integral), multiple control stations (rubber mounted), maximum working load of:					
3331201152	Not more than 18 metric tons.....	3	89	9,601	(D)	(D)
3331201153	More than 18 but not more than 27 metric tons.....	1	(D)	(D)	(D)	(D)
3331201156	More than 27 but not more than 50 metric tons.....	3	2,575	33,891	r/ 2,675	40,581
3331201158	More than 50 metric tons.....	3	220	74,594	309	106,981
3331201167	Pinned on type, telescopic and articulated.....	6	2,300	109,617	2,569 r/	121,319
	Wheel cranes, one control station (self-propelled, rubber mounted), maximum working load of:					
3331201171	Not more than 16 metric tons.....	6	490	30,656	578	39,448
3331201174	More than 16 metric tons but not more than 22.7 metric tons.....	1	(D)	(D)	(D)	(D)
3331201177	More than 22.7 metric tons.....	2	(D)	(D)	(D)	(D)
	All-terrain cranes, maximum working loads of:					
3331201182	Not more than 20 metric tons.....	3	(D)	(D)	(D)	(D)
3331201184	More than 20 metric tons but not more than 35 metric tons.....	-	-	-	-	-
3331201186	More than 35 metric tons but not more than 110 metric tons.....	3	(D)	(D)	(D)	(D)
3331201188	More than 110 metric tons.....	1	(D)	(D)	(D)	(D)
	Other cranes and excavators:					
3331201194	Pedestal or shipmounted marine cranes.....	4	163	74,851	c/ 91 c/	38,128
3331201199	All other cranes, excavators, and draglines, n.e.c. ....	5	777	116,017	717 r/	110,972
	Attachments for power cranes, draglines, and excavators, sold separately:					
33312011A	Hoe.....	5	r/ 20,027	r/ 32,016	r/ 19,124	r/ 30,451
33312011A5	Dragline buckets, all sizes.....	7	955	74,286	a/ 1,065	100,372
33312011A7	Clamshell/grapple.....	10	r/ 1,442	r/ 18,308	r/ 1,548	r/ 21,324
33312011AA	All other attachments, n.e.c. ....	20	132,418	131,861	r/ 129,827	a/ 160,003

Table 2. Quantity and Value of Shipments of Selected Construction Machinery: 2002 and 2001  
[Quantity in units. Value in millions of dollars]

Product code	Product description	No. of cos.	2002		2001		
			Quantity	Value	Quantity	Value	
33312012	Mixers, pavers, and related equipment.....	(NA)	(X)	1,222,656	(X)	1,431,154	
	For concrete, plaster, or mortar applications:						
3331201222	Concrete mixers (except plaster and mortar), portable, including truck or other mixer or agitator, all sizes.....	10	(D)	(D)	(D)	(D)	
3331201231	Plaster and mortar mixers, all sizes.....	3	(D)	(D)	28,871	50,867	
3331201233	Slipform concrete paving machines, including multipurpose, automated curb and gutter and concrete slip-form pavers, up to and including 34-foot wide.....	10	563	72,560	639	84,918	
3331201239	Concrete trowels.....	6	9,446	17,602	r/ 11,252	r/ 25,523	
3331201241	Concrete vibrators (electric motor, gasoline engine, structural high-cycle, pneumatic, etc.).....	9	29,526	18,848	30,593	19,357	
3331201244	Concrete screeds (hand-propelled or winch type).....	8	(D)	(D)	(D)	(D)	
3331201247	Concrete batching plants, bin and batch, for concrete aggregate only and bulk cement.....	11	591	67,885	488	97,005	
3331201251	Concrete pumps, mobile.....	3	(D)	(D)	(D)	(D)	
3331201256	Other concrete, plaster, and mortar mixing and paving machinery.....	4	770	9,855	941	11,404	
	For asphalt or bituminous applications:						
3331201266	Bituminous distributors.....	8	638	20,814	a/ 578	21,076	
	Bituminous pavers, self-propelled:						
3331201271	21,999 lb gross weight and under (basic unit).....	4	1,091	50,984	1,170	53,663	
3331201275	22,000 lb gross weight and over (basic unit).....	5	534	101,339	552	108,454	
	Asphalt plants, including cold mix central plants:						
3331201282	Less than 7,500 lb (239 tph).....	2	(D)	(D)	67	22,842	
3331201284	7,500 lb and over (240 tph and over).....	4	93	178,686	b/ 93	195,631	
3331201286	Bituminous stabilization mixing equipment, including central mixing plants and mix-in-place.....	5	154	47,235	r/ 173	r/ 51,826	
3331201289	Bituminous cold planers/milling machines (self-propelled).....	3	77	31,777	(D)	(D)	
3331201291	Other asphalt and bituminous mixing and paving machinery.....	7	357	28,686	a/ 359	r/ 17,316	
3331201295	Other products, for use in either concrete or bituminous applications.....	11	2,798	40,342	r/ 3,724	41,048	
33312013	Off-highway trucks, truck-type tractor chassis, trailers, coal haulers, or wagons.....	(NA)	(X)	818,341	(X)	947,298	
3331201371	Off-highway rear dump haulers.....	6	(D)	(D)	(D)	(D)	
3331201376	Other.....	6	(D)	(D)	(D)	(D)	
33312014	Tractor shovel loaders.....	(NA)	(X)	3,413,075	(X)	3,751,670	
3331201460	Skid steer loaders, 4-wheel drive skid steer, all sizes.....	5	60,616	1,120,639	64,174	1,093,252	

Table 2. Quantity and Value of Shipments of Selected Construction Machinery: 2002 and 2001  
[Quantity in units. Value in millions of dollars]

Product code	Product description	No. of cos.	2002		2001	
			Quantity	Value	Quantity	Value
	Wheel loaders, rear engine mount, integral design, 4-wheel drive, nonskid steer:					
3331201471	Under 79 nehp.....	3	228	6,298	146	4,525
3331201475	80 through 149 nehp.....	8	5,368	467,455	5,946	506,720
3331201479	150 through 249 nehp.....	6	3,022	397,584	3,444	443,958
3331201483	250 nehp and over.....	5	(D)	(D)	(D)	(D)
3331201488	Crawler loaders.....	2	(D)	(D)	(D)	(D)
3331201495	Integral design tractor shovel loader/backhoes (wheel tractor-chassis shipped as part of front engine mount contractor tractor).....	6	22,911	824,187	27,443	944,792
33312015	Crawler tractors, contractors' off-highway-type wheel tractors, dozers, and self-propelled wheeled log skidders.....	(NA)	(X)	1,286,325	(X)	1,322,914
3331201577	Wheeled log skidders, self-propelled.....	7	(D)	(D)	(D)	(D)
3331201599	Crawler tractors (except crawler loaders) and tracklaying and other contractors' off-highway-type wheel tractors and dozers.....	10	(D)	(D)	(D)	(D)
33312016 pt.	Motor graders and light maintainers.....	(NA)	(X)	(D)	(X)	(D)
3331201661	Under 144 nehp.....	6	(D)	(D)	(D)	(D)
3331201667	145 nehp and over.....	3	(D)	(D)	(D)	(D)
33312016 pt.	Rollers and compactors.....	(NA)	(X)	422,724	(X) r/	474,690
	Static smooth steel wheel rollers, tandem:					
3331201671	Under 3 metric tons.....	4	(D)	(D)	340	2,602
3331201673	At least 3 but less than 5.5 metric tons.....	2	(D)	(D)	(D)	(D)
3331201676	5.5 metric tons and over.....	2	(D)	(D)	(D)	(D)
3331201682	Pneumatic tire rollers.....	5	370	16,399	r/ 431	20,703
	Vibratory single drum with one or two drive wheels:					
3331201687	Under 5 metric tons.....	8	511	13,974	781	21,665
3331201689	At least 5 but less than 8 metric tons.....	4	(D)	(D)	(D)	(D)
3331201692	8 metric tons and over.....	4	(D)	(D)	(D)	(D)
	Vibratory double drum, two drums vibrating:					
3331201696	Under 5 metric tons.....	5	2,231	27,258	r/ 2,190	r/ 32,048
3331201699	At least 5 but less than 8 metric tons.....	3	389	23,440	(D)	(D)
33312016A2	8 metric tons and over.....	3	568	46,068	550	44,533
33312016A6	All other compaction equipment (except hand-held); including embankment and landfill compactors, towed roller and double drum compactors with one drum vibrating.....	8	38,648	169,527	41,642 r/	196,522
33312016 pt.	Rough terrain forklifts (integral units only).....	(NA)	(X)	525,025	(X) r/	623,235
33312016D1	Vertical mast, 2-wheel drive.....	10	1,982	139,771	b/ 1,920	b/r/ 172,200
33312016D3	Vertical mast, 4-wheel drive.....	10	1,081	21,184	607	23,027
33312016D5	Telescopic handlers, 2- and 4-wheel drive.....	8	6,381	364,070	r/ 6,517	r/ 428,008
33312016E5	Scraper bowls.....	4	(D)	(D)	(D)	(D)

Continued

Table 2. Quantity and Value of Shipments of Selected Construction Machinery: 2002 and 2001  
[Quantity in units. Value in millions of dollars]

Product code	Product description	No. of cos.	2002		2001	
			Quantity	Value	Quantity	Value
33312016 pt.	Ditchers and trenchers, self-propelled (integral units only).....	(NA)	(X)	284,016	(X)	305,058
	Ladder-type digging element:					
33312016J3	Under 2,000 lb gross weight.....	5	(D)	(D)	(D)	(D)
33312016J5	2,000 to 4,999 lb gross weight.....	4	1,571	48,216	1,825	50,327
33312016J7	5,000 lb gross weight and over.....	4	1,695	196,710	r/ 2,073	r/ 218,241
33312016JJ	Wheel-type digging element.....	3	(D)	(D)	(D)	(D)
33312017	Construction machinery for mounting on trucks, tractors, and other prime movers (except winches, hoists, and other materials-handling equipment).....	(NA)	(X)	r/ 242,176	(X)	r/ 267,729
3331201782	Backhoes, either shipped for mounting separately or already mounted on an integral unit.....	8	14,217	77,866	15,657	89,559
3331201799	All other, including sidebooms, pipe-handlers, dozers, front-end loaders, shovel loaders, logging arches, rippers, rooters, continuous ditching and trenching attachments, forklift attachments, cranes, cable power control units, hydraulic power control units, etc. ....	26	33,847	r/ 164,310	a/r/ 34,621	r/ 178,170
33392372 pt.	Winches and materials-handling equipment mounting.....	(NA)	(X)	104,673	(X)	113,458
3339237231	Winches (towing, logging, and oil field types).....	8	(D)	(D)	(D)	(D)
3339237239	Other equipment.....	2	(D)	(D)	(D)	(D)
33392371 pt.	Aerial work platforms.....	(NA)	(X)	r/ 1,586,159	(X)	2,257,310
3339237111	Boom type, self-propelled.....	8	13,279	723,397	r/ 25,861	969,009
3339237113	Scissors type, self-propelled.....	6	23,148	297,685	22,628	440,559
3339237115	Not self-propelled, boom and scissors type.....	5	(D)	(D)	(D)	(D)
3339237117	Truck mounted.....	12	(D)	(D)	(D)	(D)

- Represents zero. D Withheld to avoid disclosing data for individual companies. NA Not available. n.e.c. Not elsewhere classified. nehp Net engine horsepower. pt. Partial. r/Revised by 5 percent or more from previously published data. X Not applicable.

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, and Imports of Selected Construction Machinery: 2002 and 2001  
[Quantity in number of units. Value in millions of dollars]

Product description	Manufacturers' shipments 1/		Export shipments 3/		Imports for consumption 4/	
	Quantity	Value 2/	Quantity	Value as reported	Quantity	Value 5/
<b>2002</b>						
Wheel tractors, contractors' off-highway type, 2- and 4- wheel for use on natural terrain.....	(D)	(D)	2,244	44,049	1,772	20,484
Rubber-tired dozers.....	(D)	(D)	244	13,995	32	1,593
Wheeled log skidders, self-propelled.....	(D)	(D)	715	41,124	160	19,899
Crawler tractors (except crawler loaders).....	(D)	(D)	920	226,808	3,986	232,956
Wheel loaders, rear engine mount, integral design 4-wheel drive, nonskid steer.....	(D)	(D)	16,062	557,671	7,250	356,177
Skid steer loaders.....	60,616	1,120,639	712	37,218	2,311	65,057
Crawler loaders.....	(D)	(D)	94	4,401	1,178	135,187
Excavators, hydraulic operated, crawler mounted.....	15,616	1,286,196	2,503	276,169	12,446	799,802
Excavators, hydraulic operated, wheel (rubber) mounted.....	(D)	(D)	56	6,579	492	39,008
Cranes, lattice boom, wheel (rubber) mounted.....	(D)	(D)	253	44,949	34	15,410
Cranes, wheel (integral), hydraulic operated, telescopic boom, multiple control stations (rubber mounted), including pinned on type, telescopic and articulated.....	(D)	(D)	392	29,600	272	118,591
Cranes, wheel, hydraulic operated, telescopic boom, one control station (self-propelled, rubber mounted).....	(D)	(D)	347	34,691	88	14,240
Cranes, pedestal or ship mounted.....	163	74,851	2,153	24,883	9,900	176,151
Cranes, other.....	777	116,017	408	82,559	995	138,342
Clamshell/grapple attachments.....	(D)	(D)	1,084	1,646	6,764	7,553
Dragline buckets (attachments).....	955	74,286	-	-	12,111	9,667
Concrete mixers.....	(D)	(D)	2,366	24,663	70,165	42,452
Concrete pavers, finishers, and spreaders.....	(D)	(D)	856	31,555	329	1,398
Concrete pumps.....	(D)	(D)	2,450	19,733	1,419	23,439
Bituminous pavers, finishers, and spreaders.....	2,340	204,914	593	29,920	204	2,383
Asphalt plants and bituminous stabilization mixing equipment.....	(D)	(D)	384	20,037	38	2,123
Scrapper bowls.....	(D)	(D)	138	180	254	15,882
Motor graders and light maintainers.....	(D)	(D)	2,342	216,847	761	87,546
Self-propelled vibratory compaction equipment.....	44,085	399,465	1,729	39,466	4,076	79,395
Self-propelled static compaction equipment.....	(D)	(D)	847	27,413	2,449	19,162
Off-highway rear dump haulers, trucks, and truck trailers, including ridged and articulated.....	(D)	(D)	1,682	544,592	2,728	346,099
Off-highway trucks, truck-type tractor chassis, trailers, and wagons.....	(D)	(D)	320	15,606	182	15,901
Winches for mounting (towing, logging, and oil field types).....	(D)	(D)	457,554	81,326	3,456,695	114,916
Backhoes for mounting.....	14,217	77,866	10,774	40,307	5,658	5,896
Other construction machinery for mounting.....	(D)	(D)	13,758	36,100	56,228	73,779
Self-propelled continuous ditchers and trenchers (integral units), ladder-type digging element.....	(D)	(D)	1,141	12,792	3	91
Self-propelled continuous ditchers and trenchers integral units), wheel-type digging element.....	(D)	(D)	365	15,317	115	2,180
<b>2001</b>						
Wheel tractors, contractors' off-highway type, 2- and 4- wheel for use on natural terrain.....	(D)	(D)	3,237	72,417	1,392	20,015
Rubber-tired dozers.....	(D)	(D)	209	15,386	39	1,620
Wheeled log skidders, self-propelled.....	(D)	(D)	800	37,440	180	23,653
Crawler tractors (except crawler loaders).....	(D)	(D)	855	224,071	3,852	228,197

Continued

Table 3. Shipments, Exports, and Imports of Selected Construction Machinery: 2002 and 2001  
[Quantity in number of units. Value in millions of dollars]

Product description	Manufacturers' shipments 1/		Export shipments 3/		Imports for consumption 4/	
	Quantity	Value 2/	Quantity	Value as reported	Quantity	Value 5/
Wheel loaders, rear engine mount, integral design						
4-wheel drive, nonskid steer.....	(D)	(D)	13,803	547,140	5,640	381,417
Skid steer loaders.....	64,174	1,093,252	2,269	53,282	1,592	69,321
Crawler loaders.....	(D)	(D)	80	4,470	1,191	154,560
Excavators, hydraulic operated, crawler mounted.....	16,769	1,281,597	2,512	262,127	12,385	798,878
Excavators, hydraulic operated, wheel (rubber) mounted.....	(D)	(D)	97	8,262	441	35,743
Cranes, lattice boom, wheel (rubber) mounted.....	(D)	(D)	248	38,467	121	36,784
Cranes, wheel (integral), hydraulic operated, telescopic boom, multiple control stations (rubber mounted), including pinned on type, telescopic and articulated.....	(D)	(D)	290	40,408	506	113,327
Cranes, wheel, hydraulic operated, telescopic boom, one control station (self-propelled, rubber mounted).....	(D)	(D)	491	39,901	140	20,017
Cranes, pedestal or ship mounted.....	91	38,128	1,006	15,694	1,133	25,819
Cranes, other.....	717	110,972	408	91,508	1,708	197,465
Clamshell/grapple attachments.....	(D)	(D)	1,044	2,325	3,046	5,297
Dragline buckets (attachments).....	1,065	100,372	-	-	3,450	5,127
Concrete mixers.....	(D)	(D)	2,203	22,655	67,921	42,605
Concrete pavers, finishers, and spreaders.....	(D)	(D)	1,073	34,730	668	1,124
Concrete pumps.....	(D)	(D)	2,383	18,356	4,295	40,396
Bituminous pavers, finishers, and spreaders.....	(D)	(D)	658	30,624	154	1,578
Asphalt plants and bituminous stabilization mixing equipment.....	333	270,299	424	18,854	74	1,268
Scraper bowls.....	(D)	(D)	463	192	527	25,856
Motor graders and light maintainers.....	(D)	(D)	1,913	187,946	695	68,605
Self-propelled vibratory compaction equipment.....	(D)	(D)	2,650	49,997	3,928	69,745
Self-propelled static compaction equipment.....	(D)	(D)	928	42,328	1,029	18,443
Off-highway rear dump haulers, trucks, and truck trailers, including ridged and articulated.....	2,009	773,047	2,410	659,801	1,862	319,708
Off-highway trucks, truck-type tractor chassis, trailers, and wagons.....	(D)	(D)	824	78,082	274	28,034
Winches for mounting (towing, logging, and oil field types).....	(D)	(D)	474,285	81,341	3,352,795	85,202
Backhoes for mounting.....	15,657	89,559	10,606	33,167	16,740	3,481
Other construction machinery for mounting.....	(D)	(D)	13,472	37,395	57,850	77,116
Self-propelled continuous ditchers and trenchers (integral units), ladder-type digging element.....	(D)	(D)	1,195	18,345	13	16
Self-propelled continuous ditchers and trenchers (integral units), wheel-type digging element.....	(D)	(D)	368	12,034	120	3,567

- Represents zero. D Withheld to avoid disclosing data for individual companies.

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

2/Value f.o.b. plant.

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

4/Source: Census Bureau report IM 145, General Imports, and IM 146, U.S. Imports for Consumption.

5/Represents c.i.f. (cost, insurance, and freight) value at the first port of entry in the United States plus import duties.



Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2002

Product code	Product description	Export code 1/	Import code 2/
3331201599 pt.	Wheel tractors, contractors' off-highway type, 2- and 4-wheel for use on natural terrain.....	8701.90.5015 8701.90.5020 8701.90.5025	8701.90.5015 8701.90.5020 8701.90.5025
3331201599 pt.	Rubber-tired dozers.....	8429.19.0010	8429.19.0010
3331201577	Wheeled log skidders, self-propelled.....	8701.90.1001	8701.90.1001
3331201599 pt.	Crawler tractors (except crawler loaders).....	8701.30.0015 8701.30.0030 8701.30.0045 8701.30.0060 8701.30.0075	8701.30.1015 8701.30.1030 8701.30.1045 8701.30.1060 8701.30.1075 8701.30.5015 8701.30.5030 8701.30.5045 8701.30.5060 8701.30.5075
3331201471, 475, 479, 483	Wheel loaders, rear engine mount, integral design 4-wheel drive, nonskid steer.....	8429.51.1015 8429.51.1025 8429.51.1030 8429.51.1035 8429.51.1040 8429.51.1045 8429.51.1050 8429.51.1055	8429.51.1015 8429.51.1025 8429.51.1030 8429.51.1035 8429.51.1040 8429.51.1045 8429.51.1050 8429.51.1055
3331201460	Skid steer loaders.....	8429.51.1060	8429.51.1060
3331201488	Crawler loaders.....	8429.51.5010 8429.51.5020 8429.51.5030 8429.51.5040 8429.51.5050	8429.51.5010 8429.51.5020 8429.51.5030 8429.51.5040 8429.51.5050
3331201111, 114, 117	Excavators, hydraulic operated, crawler mounted.....	8429.52.1010	8429.52.1010
3331201129	Excavators, hydraulic operated, wheel (rubber) mounted.....	8429.52.1030	8429.52.1030
3331201145	Cranes, lattice boom, wheel (rubber) mounted.....	8426.41.0010 8705.10.0010	8426.41.0010 8705.10.0010

Continued

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2002

Product code	Product description	Export code 1/	Import code 2/
3331201152, 154, 156, 158, 167	Cranes, wheel (integral), hydraulic operated telescopic boom, multiple control stations (rubber mounted) stations, including pinned on type, telescopic and articulated.....	8705.10.0050	8705.10.0050
3331201171, 174, 177	Cranes, wheel, hydraulic operated, telescopic boom, one control station (self-propelled, rubber mounted).....	8426.41.0090	8426.41.0090
3331201194	Cranes, pedestal or ship mounted.....	8426.30.0000	8426.30.0000
3331201132, 134, 182, 184, 186, 188, 199	Cranes, other.....	8426.49.0010 8426.49.0090 8429.52.1020	8426.49.0010 8426.49.0090 8429.52.1020
33312011A7	Clamshell/grapple attachments for power cranes, draglines, and excavators, sold separately.....	8431.41.0040	8431.41.0040
33312011A5	Dragline bucket attachments for power cranes, draglines, and excavators, sold separately.....	8431.41.0060	8431.41.0060
3331201222, 231, 247	Concrete mixers.....	8474.31.0000	8474.31.0000
3331201233, 239, 239, 244	Concrete pavers, finishers, and spreaders.....	8479.10.0040	8479.10.0040
3331201251	Concrete pumps.....	8413.40.0000	8413.40.0000
3331201266, 271, 275, 289	Bituminous pavers, finishers, and spreaders.....	8479.10.0060	8479.10.0060
3331201282, 284, 286	Asphalt plants and bituminous stabilization mixing equipment.....	8474.32.0000	8474.32.0000
33312016E5	Scraper bowls.....	8431.49.9045	8431.49.9045
3331201661, 667	Motor graders and light maintainers.....	8429.20.0000	8429.20.0000
3331201687, 689, 692, 696, 699, 6A2, 6A6	Self-propelled vibratory compaction equipment.....	8429.40.0020	8429.40.0020

Continued

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2002

Product code	Product description	Export code 1/	Import code 2/
3331201671, 673, 676, 682	Self-propelled static compaction equipment.....	8429.40.0040	8429.40.0040
3331201371	Off-highway rear dump haulers, trucks and truck trailers, including ridged and articulated.....	8704.10.5020 8704.10.5030 8704.10.5040 8704.10.5050	8704.10.5020 8704.10.5030 8704.10.5040 8704.10.5050
3331201376	Off-highway trucks, truck-type tractor chassis, trailers, and wagons.....	8704.10.5060 8704.10.1000	8704.10.5060 8704.10.1000
3339237231	Winches for mounting (towing, logging, and oil field types).....	8425.31.0000 8425.39.0000	8425.31.0000 8425.39.0000
3331201782	Backhoes for mounting (whether or not mounted on an integral unit).....	8431.49.9005	8431.49.9005
3331201799, 3339237239	Other construction machinery for mounting, including sidebooms, pipehandlers, dozers, front-end loaders, rippers, and rooters.....	8428.90.0030 8428.90.8030 8431.42.0000 8431.49.9010 8431.49.9015	8428.90.0030 8428.90.8030 8431.42.0000 8431.49.9010 8431.49.9015
33312016J3, 6J5, 6J7	Self-propelled continuous ditchers and trenchers (integral units), ladder-type digging element.....	8429.59.5020	8429.59.5020
33312016JJ	Self-propelled continuous ditchers and trenchers (integral units), wheel-type digging element.....	8429.59.5040	8429.59.5040

pt. Part.

1/Source: 2002 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 (2002).

# Appendix.

## General CIR Survey Information, Explanation of General Terms and Historical Note

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### GENERAL

The CIR program has been providing monthly, quarterly, and annual measures of industrial activity for many years. Since 1904, with its cotton and fats and oils surveys, the CIR program has formed an essential part of an integrated statistical system involving the quinquennial economic census, manufacturing sector, and the annual survey of manufactures. The CIR surveys, however, provide current statistics at a more detailed product level than either of the other two statistical programs.

The primary objective of the CIR program is to produce timely, accurate data on production and shipments of selected products. The data are used to satisfy economic policy needs and for market analysis, forecasting, and decision making in the private sector. The product-level data generated by these surveys are used extensively by individual firms, trade associations, and market analysts in planning or recommending marketing and legislative strategies, particularly if their industry is significantly affected by foreign trade. Although production and shipments information are the two most common data items collected, the CIR program collects other measures also such as inventories, orders, and consumption. These surveys measure manufacturing activity in important commodity areas such as textiles and apparel, chemicals, primary metals, computer and electronic components, industrial equipment, aerospace equipment, and consumer goods.

The CIR program uses a unified data collection, processing, and publication system. The U.S. Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic census, manufacturing sector. The manufacturing sector provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is too large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. The CIR program includes a group of mandatory and voluntary surveys. Typically the monthly and quarterly surveys are conducted on a voluntary basis. Those companies that choose not to respond to the voluntary surveys are required to submit a mandatory annual counterpart corresponding to the more frequent survey.

### NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS), 1997

The adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census has had a major impact on the comparability of current and historic data. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an SIC basis, it would be approximately 3 percent higher.

Listed below are the NAICS sectors:

- 21 Mining
- 22 Utilities
- 23 Construction
- 31-33 Manufacturing
- 42 Wholesale Trade
- 44-45 Retail Trade
- 48-49 Transportation and Warehousing
- 51 Information
- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing
- 54 Professional, Scientific, and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services
- 61 Educational Services
- 62 Health Care and Social Assistance
- 71 Arts, Entertainment, and Recreation
- 72 Accommodation and Food Services
- 81 Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

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The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

## FUNDING

The Census Bureau funds most of the surveys. However, a number of surveys are paid for either fully or partially by other Federal Government agencies or private trade associations. A few surveys are mandated, but all are authorized by Title 13 of the United States Code.

## RELIABILITY OF DATA

Survey error may result from several sources including the inability to obtain information about all cases in the survey, response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding the reported data, and other errors of collection, response, coverage, and estimation. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to these nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is the imputing of data for nonrespondents, for late reporters, and for data that fail logic edits. Missing figures are imputed based on period-to-period movements shown by reporting firms. A figure is considered to be an impute if the value was not directly reported on the questionnaire, directly derived from other reported items, directly available from supplemental sources, or obtained from the respondent during the analytical review phase. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are suppressed or footnoted. The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

## DATA REVISIONS

Statistics for previous years may be revised as the result of corrected figures from respondents, late reports for which imputations were originally made, or other corrections. Data that have been revised by more than 5 percent from previously published data are indicated by footnotes.

## DISCLOSURE

The Census Bureau collects the CIR data under the authority of Title 13, United States Code, which specifies that the information can only be used for statistical purposes and cannot be published or released in any manner that would identify a person, household, or establishment. "D" indicates that data in the cell have been suppressed to avoid disclosure of information pertaining to individual companies.

## EXPLANATION OF GENERAL TERMS

**Capacity.** The maximum quantity of a product that can be produced in a plant in 1 day if operating for 24 hours. Includes the capacity of idle plants until the plant is reported to be destroyed, dismantled, or abandoned.

**Consumption.** Materials used in producing or processing a product or otherwise removing the product from the inventory.

**Exports.** Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries.

**Gross shipments.** The quantity or value of physical shipments from domestic establishments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale or use. Shipments of products purchased for resale are omitted. Shipments of products made under toll arrangements are included.

**Interplant transfers.** Shipments to other domestic plants within a company for further assembly, fabrication, or manufacture.

**Inventories.** The quantity or value of finished goods, work in progress, and materials on hand.

**Machinery in place.** The number of machines of a particular type in place as of a particular date whether the machinery was used for production, prototype, or sampling, or was idle. Machinery in place includes all machinery set up in operating positions.

**Net receipts.** Derived by subtracting the materials held at the end of the previous month from the sum of materials used during the current month.

**Production.** The total volume of products produced, including: products sold; products transferred or added to inventory after adjustments for breakage, shrinkage, and obsolescence, plus any other inventory adjustment; and products that undergo further manufacture at the same establishment.

**Quantities produced and consumed.** Quantities of each type of product produced by a company for internal consumption within that same company.

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**Quantity and value of new orders.** The sales value of orders received during the current reporting period for products and services to be delivered immediately or at some future date. Also represents the net sales value of contract change documents that increase or decrease the sales value of the orders to which they are related, when the parties concerned are in substantial agreement as to the amount involved. Included as orders are only those that are supported by binding legal documents such as signed contracts or letter contracts.

**Quantity and value of shipments.** The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and

returns. Shipments to a company's own branches are assigned the same value as comparable appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

**Stocks.** Total quantity of ending finished inventory.

**Unfilled orders (backlog).** Calculated by adding net new orders and subtracting net sales from the backlog at the end of the preceding year.

#### **HISTORICAL NOTE**

Data on construction machinery have been collected by the Census Bureau since 1942. Historical data may be obtained from Current Industrial Reports (called Facts for Industry before 1959) available at your local Federal Depository Library.