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Census File Number

**Item 16. CONSUMPTION OF SELECTED MATERIALS DURING 2002**

**INSTRUCTIONS**

**1. General** – The materials, parts, and supplies listed below are those commonly consumed in the manufacture, processing, or assembly of the products listed in item 22. Please review the entire list and report separately each item consumed. Leave blank if you do not consume the item. If you use materials, parts, and supplies which are not listed, describe and report them in the "Cost of all other materials . . ." line at the end of this section. If you consumed less than \$30,000 of a listed material, include the value with "Cost of all other materials . . ."

Report materials, parts, and supplies purchased, transferred from other plants of your company, or withdrawn from inventory.

If quantities are requested, please use the unit of measure specified.

If the information as requested cannot be taken directly from your book records, REASONABLE ESTIMATES ARE ACCEPTABLE.

**2. Valuation of Materials Consumed** – The value of the materials, etc., consumed should be based on the delivered cost; i.e., the amount paid or payable after discounts and including freight and other direct charges incurred in acquiring the materials.

Materials received from other plants within your company should be reported at their full economic value (the value assigned by the shipping plant, plus the cost of freight and other handling charges).

If purchases or transfers do not differ significantly from the amounts actually put into production, you may report the cost of purchases or transfers. However, if consumption differs significantly from the amounts purchased or transferred, these amounts should be adjusted for changes in the materials and supplies inventories by adding the beginning inventory to the amount purchased or transferred and subtracting ending inventory.

**3. Contract Work** – Include as materials consumed those you purchased for use by others making products for you under contract. Amounts paid to the companies doing the contract work should be reported in item 15, line 5, and should include freight in and out. On the other hand, materials owned by others but used at this establishment in making products for others under contract or on commission should be excluded.

**4. Resales** – Cost for products bought and sold or transferred from other establishments of your company and sold without further manufacture, processing, or assembly should be reported in item 15, line 2, not in item 16 below. The value of these products shipped by this establishment should be reported in item 22 under "Resales."

**5. Produced and Consumed** – Forgings, foundries, and screw machine products – Report the quantities produced and used in manufacturing other products made in this establishment in item 26. Note that the materials used to produce these items should be reported in item 16.

Line No.	Materials, parts, and supplies  <b>(A)</b>		Census material code  <b>(B)</b>	Consumption of purchased materials and of materials received from other establishments of your company			
				Cost, including delivery cost (freight-in) <b>(E)</b>			
				574	Thou-	Dollars	
			Millions	sands			
<b>1</b>	FLUID POWER PRODUCTS (Hydraulic and pneumatic)	Pumps, motors, and hydrostatic transmissions		\$			
<b>2</b>		Cylinders and rotary actuators					
<b>3</b>		Filters					
<b>4</b>		Hose or tube fittings and assemblies					
<b>5</b>		Valves					
<b>6</b>	Fabricated metal products, except forgings						
<b>7</b>	FORGINGS	Iron and steel					
<b>8</b>		Nonferrous					
<b>9</b>	CASTINGS (Rough and semifinished)	Iron and steel					
<b>10</b>		Nonferrous					
<b>11</b>	Shapes and Forms (Except Castings, Forgings, and Fabricated Metal Products)	STEEL					
							Bars, bar shapes, and plates
<b>12</b>							Sheet and strip
<b>13</b>							Structural shapes and sheet piling
<b>14</b>		All other					
<b>15</b>	Copper and copper-base alloy						
<b>16</b>	Aluminum and aluminum-base alloy						
<b>17</b>	Other nonferrous						

**FOR COMMENT**

**FOR COMMENT**

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**Item 16. CONSUMPTION OF SELECTED MATERIALS DURING 2002 – Continued**

Line No.	(A) Materials, parts, and supplies	Census material code 571 (B)	Consumption of purchased materials and of materials received from other establishments of your company		
			Cost, including delivery cost (freight-in) (E)		
			574 Millions	Thousands	Dollars
18	Gasoline and other carburetor engines		\$		
19	ELECTRIC MOTORS AND GENERATORS Fractional horsepower electric motors (less than 1 hp) (excluding timing motors)				
20	Integral horsepower motors and generators (1 hp or more)				
21	Electric transmission, distribution, and control equipment				
22	Storage batteries				
23	BEARINGS (Mounted or unmounted) Ball				
24	Roller				
25	Speed changers, gears, and industrial high-speed drives				
26	Pneumatic tires and inner tubes				
27	Rubber and plastics hose and belting				
28	Cost of all other materials and components, parts, containers, and supplies consumed . . . . . <i>Describe the principal materials, etc., included in this value.</i>				
29	<b>TOTAL</b> Sum of lines 1–28 should equal item 15, line 1		\$		

FOR COMMENT

**Item 18. INSTRUCTIONS AND INQUIRY FOR COMPANIES ENGAGED IN INSTALLATION (OR ERECTION) OF PRODUCTS OF THEIR OWN MANUFACTURE**

It is preferable that you report the value of shipments for individual products, excluding the amounts received for installation and erection. The installation and erection receipts (if any) should be reported on line 121, item 22. In order to evaluate the reporting for this item, please answer the following questions:

		Key		Mark (X) in appropriate boxes		
1a. Do the value of shipments figures for individual products include the cost of installation or erection of the product? . . . . .	591	5512				
	592	1 <input type="checkbox"/> Yes    2 <input type="checkbox"/> No    3 <input type="checkbox"/> Don't know				
b. If "Yes," please estimate the total amount received for installation or erection. . . . .	593	1 <input type="checkbox"/> Under \$50,000    3 <input type="checkbox"/> \$500,000–\$999,999				
		2 <input type="checkbox"/> \$50,000–\$499,999    4 <input type="checkbox"/> \$1 million or more				
2. Do the employees of this manufacturing establishment install or erect the products of your company? . . . . . <i>If "Yes," include these employees in item 2 and their wages in item 3A.</i>	594	1 <input type="checkbox"/> Yes    2 <input type="checkbox"/> No    3 <input type="checkbox"/> Don't know				
3. Does a distinct outside labor force (not attached to this manufacturing plant) erect or install the products for your establishment? . . . . . <i>If "Yes," do not include this labor force in item 2 or their wages in item 3A. Payments made by this establishment for any work done by others should be reported as a cost of contract work in item 15 line 5. The payroll of this outside labor force should be reported by the establishment that maintains the records for them.</i>	595	1 <input type="checkbox"/> Yes    2 <input type="checkbox"/> No    3 <input type="checkbox"/> Don't know				

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**Item 22. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 2002**

**INSTRUCTIONS**

**1. General** – The manufactured products and services listed below are generally made in your industry. If you make products that are not listed, describe and report them in the "All other products made in this establishment" section at the end of item 22. PLEASE DO NOT COMBINE PRODUCT LINES.

If quantities are requested, please use the unit of measure specified.

If the information as requested cannot be taken directly from your book records, REASONABLE ESTIMATES ARE ACCEPTABLE.

**2. Valuation of Products** – Report the value of the products shipped and services performed at the net selling value, f.o.b. plant to the customer; i.e., after discounts and allowances, and exclusive of freight charges and excise taxes.

If you transfer products to other establishments within your company, you should assign the full economic value to the transferred products; i.e., include all direct costs of production and a reasonable proportion of all other costs and profits.

**3. Contract Work** – Report PRODUCTS MADE BY OTHERS FOR YOU FROM YOUR MATERIALS on the specific lines as if they were made in this establishment. On the other hand, do not report on the specific product lines PRODUCTS THAT YOU MADE FROM MATERIALS OWNED BY OTHERS. Report only the amount that you received for "commission or contract receipts"

**4. Resales** – Do not report on the specific product lines those PRODUCTS BOUGHT AND SOLD OR TRANSFERRED FROM OTHER ESTABLISHMENTS OF YOUR COMPANY AND SOLD WITHOUT FURTHER MANUFACTURE. Report only a value under "Resales."

**5. Detailed Data Reported Elsewhere** – Items denoted by an asterisk (\*) require totals for groups of products covered in the more frequent Current Industrial Reports (CIR). If you report on the CIR forms, the sum of the detailed CIR products should equal the total reported on this census form.

**NOTE:** Only CIR totals are requested; do not duplicate detail reported on the CIR.

Line No.	Products and services			Census product code 581	Products shipped and other receipts					
					Quantity (Number) 583	Value, f.o.b. plant (E) 584				
						Millions	Thou- sands	Dollars		
<b>1</b>	<b>Elevators and Moving Stairways</b>	ELEVATORS, EXCEPT FARM AND PORTABLE	Electric Passenger (Except Residence Lifts)	Geared						
<b>2</b>				Gearless						
<b>3</b>			Hydraulic passenger							
<b>4</b>			Electric freight							
<b>5</b>			Hydraulic freight							
<b>6</b>			Automobile lifts (service station and garage type)							
<b>7</b>			Moving stairways, escalators, and moving walkways							
<b>8</b>			Other nonfarm elevators (including sidewalk elevators, dumb waiters, man lifts, hand-operated freight elevators, residence lifts, etc.) (excluding portable elevators/stackers) – <i>Specify kind</i>							
<b>9</b>	Parts for automobile lifts (service station and garage type)									
<b>10</b>	Parts for passenger or freight elevators or escalators									
<b>11</b>	<b>Unit Handling Conveyors and Conveying Systems (Except Hoists and Farm Elevators)</b>	Gravity conveyors (skate wheel and roller)								
<b>12</b>		TROLLEY CONVEYORS (Overhead systems)	Light-to-medium-duty							
<b>13</b>			Heavy-duty							
<b>14</b>		Tow conveyors (underfloor systems)								
<b>15</b>		Light-to-medium-duty unit handling powered conveyors and conveying systems, belt								
<b>16</b>		Light-to-medium-duty unit handling powered conveyors and conveying systems, roller								
<b>17</b>		Heavy-duty unit handling powered conveyors and conveying systems, belt								
<b>18</b>		Heavy-duty unit handling powered conveyors and conveying systems, roller								
<b>19</b>		Pneumatic tube conveyors								
<b>20</b>		(Continued on next page)	Portable conveyors (except farm)							

**FOR COMMENT**

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Item 22. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 2002 – Continued

Line No.	Products and services  <b>(A)</b>				Census product code  <b>(B)</b>	Products shipped and other receipts			
						Quantity (Number) <b>(D)</b>	Value, f.o.b. plant <b>(E)</b>		
							584 Millions	Thou- sands	Dollars
21	Unit Handling Conveyors and Conveying Systems (Except Hoists and Farm Elevators) - Carrouseles						\$		
22	All other unit handling conveyors and conveying systems, belt								
23	Continued - All other unit handling conveyors and conveying systems, except belt								
24	Parts, attachments, and accessories for unit handling conveyors and conveying systems (sold separately)								
25	Bulk Material Handling Conveyors and Conveying Systems (Except Hoists and Farm Elevators)	CONVEYORS AND ELEVATORS		Belt conveyors and systems					
26				Screw conveyors					
27				Bucket elevators					
28				Pneumatic conveyors					
29				Portable conveyors (except farm)					
30				En masse conveyors					
31				Vibrating conveyors					
32				Bulk handling conveyors and conveying systems specially designed for underground use					
33				Other bulk handling conveyors and conveying systems					
34		UNLOADING AND RECLAIMING SYSTEMS			Bucket wheel reclaimers				
35					Vibrating feeders				
36					All other, such as bins, apron feeders, gates, etc. - Specify kind				
37		LOADING AND STORING SYSTEMS			Traveling stackers				
38			Other, such as trippers, centrifugal throwers, etc. - Specify kind						
39	PARTS, ATTACHMENTS, AND ACCESSORIES FOR BULK MATERIAL HANDLING CONVEYORS AND CONVEYING SYSTEMS, SOLD SEPARATELY			Belt conveyor idlers					
40				Belt conveyor pulleys					
41				All other parts, attachments, and accessories, sold separately					
42	Industrial Trucks and Tractors	FORK LIFT TRUCKS AND OTHER WORK TRUCKS FITTED WITH LIFTING OR HANDLING EQUIPMENT	Self-Propelled	Electric motor powered	Operator riding:				
43									
44									
	(Continued on next page)	(Continued on next page)	(Continued on next page)		Nonriding				

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Item 22. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 2002 – Continued

Line No.	Products and services  (A)					Census product code  581 (B)	Products shipped and other receipts						
							Quantity (Number)  583 (D)	Value, f.o.b. plant (E)					
								584 Millions	Thou-sands	Dollars			
45	Industrial Trucks and Tractors – Continued	FORK LIFT TRUCKS AND OTHER WORK TRUCKS FITTED WITH LIFTING OR HANDLING EQUIPMENT—Continued	Self-Propelled – Continued	Internal combustion engine or other nonelectric powered	Operator riding: Fork lift: • Gasoline								
46										• Diesel			
47										• LPG (liquid petroleum gas)			
48										• Other, including CNG (compressed natural gas)			
49										Other than fork lift			
50										Nonriding			
51	Not self-propelled (hand lift, etc.)												
52	WORK TRUCKS AND TRACTORS NOT FITTED WITH LIFTING OR HANDLING EQUIPMENT		Self-Propelled	Electric motor powered:	• Operator riding								
53					• Other								
54					Internal combustion engine or other nonelectric powered:	• Operator riding							
55						• Other							
56	Not self-propelled												
57	Mobile straddle carriers and cranes												
58	Portable elevators/stackers (except farm-type)												
59	Palletizers and depalletizers (pallet loaders and unloaders) which can be described as industrial trucks and related equipment used on smooth surfaces in and around depots, terminals, warehouses, etc.; report conveying equipment on lines 11–41, and report palletizers and depalletizers used in packaging or bottling applications on line 113)												
60	HYDRAULIC LIFT TABLES (ELECTRO-HYDRAULIC LIFT PLATFORMS)				Scissors type								
61					Other types								
62	Metal pallets and skids (excluding wood and metal combination)												
63	Dock boards (industrial loading ramps, hinged loading ramps)												
64	Air cargo containers, metal												
65	Automatic stacking machines												
66	Trailers and semitrailers for use with work tractors												
67	Other hand carts and vehicles												
68	Other related articles												
69	PARTS AND ATTACHMENTS FOR INDUSTRIAL TRUCKS AND TRACTORS	Parts and attachments for industrial work trucks fitted with lifting or handling equipment											
70		Parts and attachments for other vehicles											
71		Parts and attachments for machinery other than vehicles											

FOR COMMENT

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Item 22. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 2002 – Continued								
Line No.	Products and services *Item corresponds to products reported on Current Industrial Reports  (A)		581 Census product code (B)	Products shipped and other receipts				
				583 Quantity (Number) (D)	Value, f.o.b. plant (E)			
					584 Millions	Thousands	Dollars	
72	PALLETS AND SKIDS, WOOD	Pallets, wood, except skids			\$			
73		Pallet containers, wood and metal combination and wood						
74		Skids, wood						
75		Pallets, wood and metal combination						
76	Corrugated and solid fiber pallets, pads, and partitions							
77	Plastics pallets							
78	STORAGE RACKS AND ACCESSORIES, METAL	Drive-in/drive-thru and gravity conveyor pallet storage racks						
79		Cantilever storage racks						
80		Portable stacking racks and frames						
81		Stacker racks (pallet support, beams perpendicular to storage aisle)						
82		Other racks (including conventional pallet racks and accessories)						
83	Casters and wheels for dollies and industrial handtrucks (hardware) (sold separately)							
84	WINCHES, INCLUDING WINCHES FOR MARINE USE (Excluding winches for mounting on wheel or crawler tractors)	Electric						
85		Other						
86	<b>Hoists</b>	HAND HOISTS	Chain					
87			Ratchet lever					
88			Wire rope pullers					
89		CHAIN HOISTS, EXCEPT HAND	Electric (roller and link)					
90			Air or other nonelectric					
91		WIRE ROPE HOISTS, EXCEPT HAND	Other hoists, powered by electric motor					
92			Electric (excluding mine shaft and slope wire rope hoists)					
93			Air or other nonelectric (excluding mine shaft and slope wire rope hoists)					
94		Other hoists, not powered by electric motor						
95		Parts and attachments for hoists (sold separately)						
96		ASSEMBLY MACHINES	Rotary transfer (dial or rotary, trunnion, center column)					
97			In-line transfer, synchronous					
98			In-line transfer, nonsynchronous					
99			Special purpose and other types					
100			Parts and attachments for assembly machines (sold separately)					
101	Industrial robots, parts, and attachments							
102	Specific purpose industrial controls (corresponds to the sum of survey item codes 6101-6355 as reported on CIR Form MA335A, Switchgear, Switchboard Apparatus, Relays, and Industrial Controls, for 2002) *							

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Item 22. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 2002 – Continued

Line No.	Products and services *Item corresponds to products reported on Current Industrial Reports  (A)		Census product code 581 (B)	Products shipped and other receipts			
				Quantity (Number) 583 (D)	Value, f.o.b. plant (E)		
					584 Millions	Thou- sands	Dollars
103	Personnel aerial work platforms (corresponds to the sum of survey item codes 9131-9137 as reported on CIR Form MA333D, Construction Machinery, for 2002)*				\$		
104	Underground mining machinery (except parts sold separately)(corresponds to the sum of survey item codes 1085-1185 as reported on CIR Form MA333F, Mining Machinery and Mineral Processing Equipment, for 2002) *						
105	Mineral processing and beneficiation equipment						
106	Crushing, pulverizing, and screening machinery (except parts sold separately)(exclude portable crushing, screening, washing, and combination plants)(corresponds to the sum of survey item codes 2415-2490 as reported on CIR Form MA333F, Mining Machinery and Mineral Processing Equipment, for 2002) *						
107	Drills and other mining machinery, not elsewhere classified (except parts sold separately) (corresponds to the sum of survey item codes 4004-4075 as reported on CIR Form MA333F, Mining Machinery and Mineral Processing Equipment, for 2002) *						
108	PARTS AND ATTACHMENTS FOR MINING MACHINERY AND EQUIPMENT, EXCEPT DRILL BITS	For underground mining vehicles					
109		For minerals crushing, grinding, sorting, separating, or washing machines					
110		For lifting, handling, loading, or unloading machinery for underground mines					
111		For boring or sinking machinery other than coal or rock cutters and funneling machinery					
112		For other mining machinery, not elsewhere classified					
113	Packaging and bottling machinery – <i>Specify kind</i>						
114	SEWAGE TREATMENT EQUIPMENT	Distilling or rectifying equipment					
115		Filtering or purifying apparatus					
116		Centrifuges					
117		Other sewerage treatment equipment					
118	ALL OTHER PRODUCTS MADE IN THIS ESTABLISHMENT	<i>Describe and report separately each product with a sales value of \$50,000 or more which cannot be assigned to one of the lines above. Specify unit of measure for quantity.</i>	18				
119			26				
120			34				
121	CONTRACT WORK	Receipts for work done for others on their own materials. . . . . <i>Describe below products worked on and kind of work.</i>					
122	MISCELLANEOUS RECEIPTS	Sales of scrap and refuse					
123		Receipts for repair work					
124		Receipts for installation (or construction) of products of this establishment					
125		Other miscellaneous receipts					

**FOR COMMENT**

**FOR COMMENT**

Item 22. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 2002 – Continued							
Line No.	Products and services  (A)		Census product code  581 (B)	Products shipped and other receipts			
				Quantity (Number)  583 (D)	Value, f.o.b. plant (E)		
					584 Millions	Thou-sands	Dollars
126	RESALES	Sales of products bought and sold without further manufacture, processing, or assembly in this establishment. The cost of such items should be reported in item 15, line 2.					
127	<b>TOTAL value of shipments and other receipts</b> Sum of lines 1–126, column (E)						



**Item 19. SELECTED PRODUCTS PRODUCED IN THIS ESTABLISHMENT AND USED IN MANUFACTURING OTHER PRODUCTS MADE IN THIS ESTABLISHMENT**

**INSTRUCTIONS**

- Report below the quantity of each listed item produced in this establishment and used in manufacturing other products made in this establishment.
- Purchases or receipts of the items specified below should be reported only in item 16.
- Materials used to produce the items specified below should be reported in item 16.
- Quantities produced for sale as such and not for incorporation in other products should be reported in item 22.
- Report quantities in the unit of measure specified in column (D).

Line No.	Item  (A)	Census code  591 (B)	Was this operation performed at this establishment during 2002?  (C)		Unit of measure for quantities  (D)	Quantities produced in this establishment and used in manufacturing other products made in this establishment	
			592 Yes	No		593 (E)	
			1	Ferrous foundries		1001 7	1 <input type="checkbox"/>
2	NONFERROUS FOUNDRIES (Except die-casting)	Aluminum	1002 5	1 <input type="checkbox"/>	2 <input type="checkbox"/>	Thousand pounds	
3		Copper	1003 3	1 <input type="checkbox"/>	2 <input type="checkbox"/>		
4		Zinc	1004 1	1 <input type="checkbox"/>	2 <input type="checkbox"/>		
5		Other	1005 8	1 <input type="checkbox"/>	2 <input type="checkbox"/>		
6	Nonferrous die-casting foundries	1006 6	1 <input type="checkbox"/>	2 <input type="checkbox"/>			
7	Precision turned products (on screw machines, turning centers, and CNC equipment)	1007 4	1 <input type="checkbox"/>	2 <input type="checkbox"/>			

**Items 20 and 21 – Not applicable to this report**

**REMARKS** – Please use this space for any explanations that may be essential in understanding your reported data.


