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Census File Number

Item 17. CONSUMPTION OF SELECTED MATERIALS DURING 1997

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 18B. 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 \$25,000 of a listed material, include the value with "Cost of all other materials . . .," Census material code 970099 8.

Report materials, parts, and supplies purchased, transferred from other plants of your company, or withdrawn from inventory.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 10, line e, 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 10, line b, not in item 17 below. The value of these products shipped by this establishment should be reported in item 18B under Census product code 99989 00 6, "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 19. Note that the materials used to produce these items should be reported in item 17.

Line No.	Materials, parts, and supplies (A)	Census material code (B)	Consumption of purchased materials and of materials received from other establishments of your company		
			Cost, including delivery cost (freight-in) (E)		
			574 Millions	Thou- sands	Dollars
1	COMPONENTS FOR ELECTRONIC CIRCUITRY, EXCEPT TUBES				
	Printed circuit boards	367201 1	\$		
2	Printed circuit assemblies, loaded boards or modules (printed circuit boards with inserted electronic components)	367981 8			
3	Semiconductors, including transistors, diodes, rectifiers, and integrated circuits	367408 2			
4	Capacitors	367501 4			
5	Resistors	367601 2			
6	Other components and accessories, n.e.c.	367990 9			
7	Electronic communication equipment	366301 0			
8	Electrical instrument mechanisms and meter movements (including instrument relays)	382501 5			
9	Electronic computing equipment	357001 7			
10	Current-carrying wiring devices	364300 4			
11	Insulated wire and cable (including magnet wire)	335796 9			
12	Loud speakers, microphones, and tuners (all types)	365150 2			
13	Fractional horsepower electric motors (less than 1 hp)	362111 7			
14	Silicon, hyperpure	281995 1			
15	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and shapes	282104 9			
16	Fabricated plastics products (except gaskets, hoses, and belting)	308004 1			

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Item 17. CONSUMPTION OF SELECTED MATERIALS DURING 1997 – Continued						
Line No.	Materials, parts, and supplies (A)		Census material code (B)	Consumption of purchased materials and of materials received from other establishments of your company		
				Cost, including delivery cost (freight-in) (E)		
			571	574	Thou-	Dollars
				Millions	sands	
17	FABRICATED METAL PRODUCTS (Except forgings)	Sheet metal products (except stampings)	344401 5	\$		
18		Metal stampings	346901 2			
19		Bolts, nuts, screws, washers, rivets, and screw machine products	345001 2			
20		Other fabricated metal products	340063 7			
21	Forgings		346000 3			
22	Castings (rough and semifinished)		330091 0			
23	SHAPES AND FORMS (Except castings and forgings)	Steel	331002 6			
24		Aluminum and aluminum-base alloy	335001 4			
25		Other nonferrous shapes and forms	335091 5			
26	Paper and paperboard containers (including shipping sacks and other paper packaging products)		260091 4			
27	Cost of all other materials and components, parts, containers, and supplies consumed <i>Describe the principal materials, etc., included in this value.</i>		970099 8			
28	TOTAL Sum of lines 1–27 should equal item 10, line a			\$		

Item 18A – Not applicable to this report

Item 18B. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 1997

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 18B. 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" under Census product code 93000 00 8.

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 Census product code 99989 00 6, "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. The Current Industrial Reports related to this report are as follows:

- a. MA35R, Computers and Office and Accounting Machines
- b. MA36A, Switchgear, Switchboard Apparatus, Relays, and Industrial Controls
- c. MA36P, Communication Equipment, Including Telephone, Telegraph, and Other Electronic Systems and Equipment
- d. MA36Q, Semiconductors, Printed Circuit Boards, and Other Electronic Components
- e. MA38B, Selected Instruments and Related Products

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

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Item 18B. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 1997 – Continued

Line No.	Products and services *Item corresponds to products reported on Current Industrial Reports (A)	Census product code 581 (B-1)	Corresponds to the sum of products reported for 1997 on –		Products shipped and other receipts		
			CIR form (B-2)	Item code (B-3)	Value, f.o.b. plant (E)		
					584 Millions	Thousands	Dollars
1	Telephone switching and switchboard equipment (36611)*	36611 00 2	MA36P	For survey item codes, see paragraph 4, "Comparability," of CIR Instruction Manual	\$		
2	Carrier line equipment (office and line repeaters and line terminating carrier equipment)	36613 01 7					
3	External modems, except consumer	36613 03 3					
4	External modems, consumer	36613 05 9					
5	Telephone transformers	36614 01 5					
6	Other telephone and telegraph (wire) apparatus, including telephone sets, telephone answering machines, and facsimile communications equipment (36614)*	36614 03 1					
7	Communication systems and equipment, except broadcast, but including microwave equipment such as transmitters, receivers, and amplifiers, and space satellites (36631)*	36631 00 0					
8	Broadcast, studio and related electronic equipment (36632)*	36632 00 8					
9	Alarm systems, including electric sirens and horns (36691)*	36691 00 4					
10	Vehicular and pedestrian traffic control equipment, electric railway signals and attachments (36692)*	36692 00 2					
11	Intercommunications systems, including inductive paging systems (selective paging) (36693)*	36693 00 0					
12	Aeronautical, nautical, and navigational instruments, except aircraft engine instruments (38121)*	38121 00 0	MA38B	4420-4518			
13	Search and detection, navigation, and guidance systems and equipment (38122)*	38122 00 8		4202-4382			
14	Microwave components and devices (except antennae, tubes, and semiconductors) (36793)*	36793 00 8	MA36Q	See CIR Instruction Manual			
15	Integrated microcircuits (including semiconductor networks, microprocessors, and MOS memories) (36741)*	36741 00 7	MA36Q	For survey item codes, see paragraph 5, "Comparability," of CIR Instruction Manual			
16	PRINTED CIRCUIT BOARDS OR ASSEMBLIES (Report contract work receipts done by you for others on their own materials on lines 36 and 37) Printed circuit (wiring) boards (36720)*	36720 00 1					
17	Printed circuit assemblies, loaded boards or modules (printed circuit boards with inserted electronic components) (36798)*	36798 00 7					
18	Transducers, electrical/electronic, input or output (36795)*	36795 00 3					
19	Switches for electronic circuitry (mechanical) (36796)*	36796 00 1					
20	Electronic components, n.e.c. (including magnetic recording and reproducing heads, static power supply converters for electronic applications, sold separately, electronic cable harness assemblies, liquid crystal displays, and magnetic cores)*	36799 00 5					
21	Electronic teaching machines, teaching aids, trainers, and simulators, including kits (36991)*	36991 00 8	MA36P				
22	Electronic systems and equipment, n.e.c. (including automatic garage door openers; amplifiers, except audio; RF power; and video) (36999)*	36999 00 1					
23	Test equipment for testing electrical, radio, and communication circuits and motors	38252 20 1	MA38B	5701-5849			
24	Sighting, tracking, and fire-control instruments, optical-type (38271)*	38271 00 3		8379-8391			
25	Aircraft engine instruments (except flight) (38291)*	38291 00 1		6101-6119			
26	Meteorological and geophysical electronic equipment	38295 20 0		6601-6655			

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Item 18B. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 1997 – Continued

Line No.	Products and services *Item corresponds to products reported on Current Industrial Reports		Census product code 581	Corresponds to the sum of products reported for 1997 on –		Products shipped and other receipts		
				CIR form (B-2)	Item code (B-3)	Value, f.o.b. plant (E)		
						584	Thou-	Dollars
(A)	(B-1)	(B-2)	(B-3)	Millions	sands			
27	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. For all remaining products, write "Other" and report a single total value.</i>	18			\$			
28		26						
29		34						
30		42						
31		59						
32		67						
33		75						
34		83						
35		91						
36		CONTRACT WORK (Receipts for work done for others on their own materials)	Printed circuit (wiring) boards*	93000 31 3	MA36Q	See CIR Instructions		
37	Printed circuit assemblies, loaded boards or modules (printed circuit boards with inserted electronic components)		93000 32 1					
38	Receipts for work done for others on their own materials <i>Describe below products worked on and kind of work.</i>		93000 00 8					
39	MISCELLANEOUS RECEIPTS	Receipts for research and development work	99980 41 9					
40		Other miscellaneous receipts (including repair work, except computer maintenance and repair, installation, sales of scrap and refuse)	99980 98 9					
41	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 10, line b.	99989 00 6					
42	TOTAL value of shipments and other receipts Sum of lines 1–41, column (E)		77000 00 8			\$		

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

INSTRUCTIONS

1. Report below the quantity of each listed item produced in this establishment and used in manufacturing other products made in this establishment.
2. Purchases or receipts of the items specified below should be reported only in item 17.
3. Materials used to produce the items specified below should be reported in item 17.
4. Quantities produced for sale as such and not for incorporation in other products should be reported in item 18B.
5. 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 1997? 592 (C)		Unit of measure for quantities (D)	Quantities produced in this establishment and used in manufacturing other products made in this establishment 593 (E)	
			Yes	No			
			1	Ferrous foundries			1001 7
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.

Item 22. CERTIFICATION – This report is substantially accurate and has been prepared in accordance with instructions.

Name of person to contact regarding this report (<i>Print or type</i>)		Telephone	Area code	Number	Extension	
667	1	2				
Name of company			Address (<i>Number and street, city, State, ZIP Code</i>)			
Period covered	FROM: Month	Day	Year	TO: Month	Day	Year
	666	1		2		
Signature of authorized person		Title			Date	