

If not shown, please enter your 11-digit Census File Number from the address label on page 1

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Report materials, parts, and supplies purchased, transferred from other plants of your company, or withdrawn from inventory.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 f, not in item 17 below. The value of these products shipped by this establishment should be reported in item 10, line g, Census product code 99989 00 6, "Resales."

5. Production Consumed – Forgings, foundries, and other 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.

INFORMATION COPY
DO NOT USE TO REPORT

Line No.	Materials, parts, and supplies		Census material code	Consumption of purchased materials and of materials received from other establishments of your company							
				Cost, including delivery cost (freight-in)							
				(E)							
	(A)	(B)	574	Thou-	Dollars						
			Millions	sands							
1	FABRICATED METAL PRODUCTS (Except forgings)	Bolts, nuts, screws, washers, rivets, and screw machine products	345001 2	\$							
2		All other fabricated metal products	340098 3								
3		Forgings	346000 3								
4	CASTINGS (Rough and semifinished)	Iron and steel	332001 7								
5		Copper and copper-base alloy	336006 2								
6		Other nonferrous	336011 2								
7	Shapes and Forms (Except castings, forgings, and fabricated metal products)	STEEL									
8							Bars, bar shapes, and plates	331007 5			
9							Sheet and strip	331022 4			
10							Wire and wire products	331027 3			
11		Copper and copper-base alloy	335105 3								
12		Aluminum and aluminum-base alloy	335001 4								
13		All other nonferrous	335099 8								
14		Insulated copper wire and cable (except magnet wire)	335792 8								

CONTINUE WITH ITEM 17 ON PAGE 6

Item 17. CONSUMPTION OF SELECTED MATERIALS DURING 1997 – Continued								
Line No.	Materials, parts, and supplies			Census material code	Consumption of purchased materials and of materials received from other establishments of your company			
					Cost, including delivery cost (freight-in)			
	(A)			571	(E)			
				(B)	574	Millions	Thou- sands	Dollars
15	Electric Motors and Generators	FRACTIONAL HORSEPOWER ELECTRIC MOTORS (Less than 1 hp)	Timing motors, synchronous and subsynchronous	362110 9	\$			
16			Other (excluding timing motors)	362114 1				
17		Integral horsepower motors and generators (1 hp or more)	362120 8					
18	Electric transmission, distribution, and control equipment			360101 0				
19	Electrical industrial capacitors, resistors, rheostats, and coil windings			362001 0				
20	Pressure gauges			382301 0				
21	BEARINGS (Including mounted or unmounted)	Ball		356218 8				
22		Roller		356201 4				
23	Paperboard containers, boxes, and corrugated paperboard			265001 8				
24	Industrial robots purchased for fabrication with welding equipment			356971 2				
25	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				
26	TOTAL Sum of lines 1–25 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.

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

CONTINUE WITH ITEM 18B ON PAGE 7

If not shown, please enter your 11-digit Census File Number from the address label on page 1

Census File Number

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

Line No.	Products and services		Census product code 581	Unit of measure for quantities (C)	Products shipped and other receipts					
					Quantity 583	Value, f.o.b. plant (E)				
						584	Thou-	Dollars		
(A)	(B)	(D)	Millions	sands						
1	Arc Welding Machines, Components, and Accessories (Except electrodes; excluding stud welding equipment) (35481)	ARC WELDING MACHINES	Alternating current transformer arc welders	35481 14 2	Number					
2			Direct current arc welders	Rectifier-type direct current arc welder except stud welders, fully or partly automatic		35481 01 9				
3				Rectifier-type direct current arc welders except stud welders, not fully or partly automatic		35481 02 7				
4				Generators only		35481 03 5				
5				Complete units only		35481 15 9				
6				Transformers for arc welders		35481 05 0				
7		COMPONENTS AND ACCESSORIES FOR ARC WELDING MACHINES (Except electrode)	Automatic and semiautomatic wire drive apparatus and related accessories	35481 07 6						
8			Automatic and semiautomatic welding torches, guns and cables, and related accessories	35481 09 2						
9			Special purpose automatic welding apparatus	35481 08 4						
10			Circuit welding accessories (including electrode holders, ground clamps, cable connectors, cables sold separately, etc.)	35481 11 8						
11			Positioning and manipulating equipment (including turn rolls, head and tail stock, weld head manipulators, seamers, moving carriages, etc.)	35481 12 6						
12			All other components and accessories for arc welding machinery (excluding welding rods and electrodes) - Specify kind	35481 18 3						
13	Arc Welding Electrodes, Metal (35482)	STICK ELECTRODES (Including solid, cored, covered, and bare electrodes)	Hard facing	35482 09 0	Thousand pounds					
14			Other than hard facing	Mild steel		35482 03 3				
15				Low alloy steel		35482 04 1				
16				Stainless steel (chromium, 4% or more)		35482 05 8				
17				Nonferrous		35482 06 6				
18		COILED AND SPOOLED CONTINUOUS WIRE ELECTRODES FOR AUTOMATIC ARC WELDING AND INERT GAS SHIELDED ARC WELDING (Including electrodes for submerged arc welding, bare wire)		Hard facing		35482 17 3				
19			Other than hard facing	Solid wire: Mild steel		35482 11 6				
20				Low alloy steel		35482 12 4				
21				Stainless steel (chromium, 4% or more)		35482 13 2				
22				Nonferrous		35482 14 0				
23				Cored wire		35482 18 1				

Item 18B. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 1997 - Continued								
Line No.	Products and services		Census product code	Unit of measure for quantities	Products shipped and other receipts			
					Quantity	Value, f.o.b. plant (E)		
			(A)	(B)		(C)	(D)	584 Millions
24	RESISTANCE WELDERS, COMPONENTS, ACCESSORIES, AND ELECTRODES (35483)	Spot and projection welders - single electrode	35483 05 6	↑ Number ↓		\$		
25		Spot and projection welders - multielectrode	35483 06 4					
26		Seam welders	35483 07 2					
27		Other resistance welders (including flash, upset, and butt welders) - Specify kind	35483 08 0					
28		Resistance welder transformers (sold separately)	35483 09 8					
29		Resistance welder electrodes	35483 11 4	Thousand pounds				
30		Resistance welder components and accessories (including electrode holders, etc.) - Specify kind	35483 19 7					
31		Gas Welding and Cutting Equipment, Parts, Attachments, and Accessories (Except plasma) (35484)	Torches (including welding torches and gas air torches)	35484 01 3	↑ Number ↓			
32	Cutting machines and carriages, stationary and portable		35484 02 1					
33	Other gas welding and cutting equipment (excluding pressure containers) - Specify kind		35484 03 9					
34	SPARE PARTS, ACCESSORIES, ATTACHMENTS, ADAPTORS, ETC., SOLD SEPARATELY		Tips	35484 04 7				
35			Regulators, gas pressure	35484 05 4	Number			
36			Other	35484 09 6				
37	OTHER WELDING EQUIPMENT, COMPONENTS, AND ACCESSORIES (Excluding arc, resistance, and gas) (35485)	Stud welding equipment	35485 01 0	↑ Number ↓				
38		Electric (including heated gas) and magnetic pulse welding machines and apparatus, n.e.c.; electric machines and apparatus for hot spraying of metals or sintered metal carbides	35485 13 5					
39		Other welding equipment, n.e.c. (including friction)	35485 14 3					
40		Plasma welding and cutting equipment, fully or partly automatic	35485 15 0					
41		Plasma welding and cutting equipment, not fully or partly automatic	35485 16 8					
42		Soldering equipment (except hand and ultrasonic)	35485 07 7					
43		Components and accessories for all other welding equipment (excluding arc welders, resistance welders, and gas welding and cutting equipment)	35485 09 3					
44	GAS CYLINDERS (34434)	Seamless, ferrous and nonferrous	34434 14 2					
45		Welded, ferrous and nonferrous	34434 16 7					
46	ASSEMBLY MACHINES (35492)	Rotary transfer (dial or rotary, trunnion, center column)	35492 11 5	↑ Number ↓				
47		In-line transfer, synchronous	35492 15 6					
48		In-line transfer, nonsynchronous	35492 17 2					
49		Special-purpose and other types	35492 13 1					
50		Parts and attachments for assembly machines (sold separately)	35492 18 0					
51	Industrial robots, attachments, and parts		35699 09 9					

If not shown, please enter your 11-digit Census File Number from the address label on page 1

Census File Number

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	Unit of measure for quantities	Products shipped and other receipts		
					Quantity	Value, f.o.b. plant (E)	
						584	Thou- sands
(A)	(B)	(C)	(D)	584	Millions	584	
52	Integral horsepower motors and generators, other than for land transportation equipment (rated at 746 watts or more) (excluding hermetics) (Corresponds to the value reported on MA36H for 1997. For item codes, see paragraph 4 "Comparability," of CIR instruction manual.) (36212)*		36212 00 9			\$	
53	INDUSTRIAL LASER SYSTEMS AND EQUIPMENT (Except communication)	Welding	36992 91 5				
54		Boring and drilling equipment	36992 31 1				
55		Gear cutting machines	36992 33 7				
56		Textile printing equipment	36992 41 0				
57		Printing presses	36992 43 6				
58		Etching and engraving equipment	36992 45 1				
59	Ultrasonic equipment (except medical and dental) (corresponds to the value of shipments reported on CIR Form MA36P, Communication Equipment, for 1997. For corresponding survey item codes, see paragraph 4, "Comparability," of CIR instruction manual.)*		36995 00 9				
60	Receipts for machine shop job work and job order repair		35995 00 0				
61	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				
62			26				
63			34				
64			42				
65			59				
66	67						
67	CONTRACT WORK	Receipts for work done for others on their own materials <i>Describe below products worked on and kind of work.</i>	93000 00 8				
68	MISCELLANEOUS RECEIPTS	Receipts for repair work	99980 61 7				
69		Other miscellaneous receipts (including sale of scrap, etc.)	99980 98 9				
70	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				
71	TOTAL value of shipments and other receipts Sum of lines 1-70, column (E)		77000 00 8			\$	

CONTINUE WITH ITEM 19 ON PAGE 10

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 (B)	Was this operation performed at this establishment during 1997? (C)		Unit of measure for quantities (D)	Quantities produced in this establishment and used in manufacturing other products made in this establishment (E)
			592 Yes	No		
1	Ferrous foundries	1001 7	1 <input type="checkbox"/>	2 <input type="checkbox"/>	Short tons	
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	