

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Report materials, parts, and supplies purchased, transferred from other plants of your company, or withdrawn from inventory.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 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	VALVES	Fluid power (hydraulic and pneumatic) valves	349270 9	\$		
2		All other valves	349404 4			
3	PUMPS (Complete assemblies)	Hydraulic and pneumatic fluid power pumps, motors, and hydrostatic transmissions	359412 4			
4		Other pumps	356102 4			
5	FLUID POWER PRODUCTS (Hydraulic and pneumatic), EXCEPT VALVES AND PUMPS AND MOTORS	Cylinders and rotary actuators	359301 9			
6		Filters	356921 7			
7		Hose or tube fittings and assemblies	349261 8			
8	Fabricated metal products, except forgings and fluid power products		340075 1			
9	Forgings		346000 3			
10	CASTINGS (Rough and semifinished)	Iron and steel	332001 7			
11		Nonferrous	336010 4			
12	Shapes and Forms (Except castings, forgings, and fabricated metal products)	STEEL	Bars, bar shapes, and plates	331007 5		
13			Structural shapes	331071 1		
14			All other	331089 3		
15	Nonferrous		336002 1			
16	Metal powders		339915 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)		
			574 Millions	Thou- sands	Dollars
17	Diesel and semidiesel engines	351920 4	\$		
18	Integral horsepower electric motors and generators (1 hp or larger)	362120 8			
19	Ball and roller bearings, mounted and unmounted	356200 6			
20	Fabricated rubber products (except tires, tubes, hose, belting, and gaskets)	306902 8			
21	Fabricated plastics products (except gaskets)	308006 6			
22	Industrial diamonds	329903 9			
23	Cutting tools for machine tools	354501 9			
24	Cost of all other materials and components, parts, containers, and supplies consumed . . . <i>Describe the three principal materials, etc., included in this value.</i>	970099 8			
25	TOTAL Sum of lines 1–24 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.

Line No.	Products and services (A)			Census product code (B)	Unit of measure for quantities (C)	Products shipped and other receipts		
						Quantity (D)	Value, f.o.b. plant (E)	
							583	584 Millions
1	Rotary Oil and Gas Field Drilling Machinery and Equipment (35337) (Continued on next page)	ROTARY DRILLING SURFACE EQUIPMENT	Blocks, crown, traveling, draw works and accessories, and rotary tables	35337 10 4	Number		\$	
2		(Continued on next page)	Elevators, spiders, slips, hooks, links, and connectors	35337 15 3				
3			Swivels and accessories	35337 16 1				

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

Line No.	Products and services (A)		Census product code (B)	Unit of measure for quantities (C)	Products shipped and other receipts					
					Quantity (D)	Value, f.o.b. plant (E)				
						584 Millions	Thou- sands	Dollars		
4	Rotary Oil and Gas Field Drilling Machinery and Equipment (35337) - Continued	ROTARY DRILLING SURFACE EQUIPMENT - Continued	Well control equipment (blow-out preventers, etc.)	35337 17 9			\$			
5			Other rotary drilling surface machinery and equipment (including kelly joints) - Specify kind							
6		ROTARY DRILLING SUBSURFACE EQUIPMENT	Bits	With working parts of sintered metal carbide or cermets	35337 22 9	Number				
7				With working parts of other material (including diamond)	35337 23 7					
8				Reamers, stablizers, and coring equipment	35337 30 2					
9				Drill collars	35337 45 0					
10				Fishing and cutting tools	35337 47 6					
11				Subsea drilling risers	35337 48 4	Number				
12				Other subsurface rotary drilling equipment - Specify kind						
13				Parts for rotary drilling equipment sold separately (except for portable drilling rigs)	35337 61 7					
14		Other Oil and Gas Field Drilling Machinery and Equipment (35338)	Cable tool drilling machinery and equipment (including both surface and subsurface equipment)		35338 31 8					
15			CEMENTING, FLOATING, GUIDING, AND SHOE EQUIPMENT	Guide shoes, float collars, and combination guide and float shoes	35338 51 6					
16				Other cementing equipment	35338 55 7					
17	Other oil and gas field drilling equipment (except rotary drilling equipment and portable drilling rigs) - Specify kind									
18	Parts for other oil and gas field drilling equipment sold separately (except parts for rotary drilling equipment and portable drilling rigs)		35338 99 5							
19	Oil and Gas Field Production Machinery and Equipment (Except pumps) (35339) (Continued on next page)	PRODUCTION WELL EQUIPMENT, SURFACE, SUBSURFACE, AND SUBSEA (Continued on next page)	Christmas tree assemblies (excluding subsea)	35339 12 6						
20			Casing and tubing heads and supports	35339 13 4						
21			Chokes, manifolds, and other assessories (excluding subsea manifolds and templates)	35339 14 2						

CONTINUE WITH ITEM 18B ON PAGE 8

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	Unit of measure for quantities (C)	Products shipped and other receipts				
					Quantity 583 (D)	Value, f.o.b. plant (E)			
						584 Millions	Thou- sands	Dollars	
22	Oil and Gas Field Production Machinery and Equipment (Except pumps) (35339) – Continued	PRODUCTION WELL EQUIPMENT, SURFACE, SUBSURFACE, AND SUBSEA – Continued	Rodless oil lifting machinery and equipment (other than pumps)	35339 19 1					
23			Subsea Christmas tree assemblies, manifolds, and templates	35339 21 7					
24			ROD LIFTING MACHINERY AND EQUIPMENT, SURFACE (Including pumps when they are components of a complete assembly)	Pumping units and accessories (including back crank equipment)	35339 53 0				
25				Other surface rod lifting machinery and equipment	35339 55 5				
26				Subsurface rod lifting equipment (sucker rods), except pumps	35339 57 1	Number of sucker rods			
27				Packers	35339 61 3				
28				Screens, tubing, catchers, etc.	35339 65 4				
29				Oil and gas separating, metering, and treating equipment for use at the wellhead	35339 71 2				
30				Other oil and gas field production machinery and tools – <i>Specify kind</i>	35339 98 5				
31				Parts for oil and gas field production machinery and tools, sold separately (excluding parts for portable drilling rigs and other drilling equipment)	35339 82 9				
32			PORTABLE DRILLING RIGS AND PARTS (3533A)	Portable drilling rigs (mounted) used on the surface (above ground) (corresponds to the sum of survey item codes 6005 – 6495 as reported on CIR Form MA35F, Mining Machinery and Mineral Processing Equipment, for 1997)*	3533A 10 7				
33				Parts for portable drilling rigs used on the surface (above ground) (corresponds to survey item code 6500 as reported on CIR Form MA35F, Mining Machinery and Mineral Processing Equipment, for 1997)*	3533A 78 4				
34		OIL AND GAS FIELD DERRICKS AND WELL SURVEYING MACHINERY (3533B)		Derricks, oil and gas field, substructures, and accessories – regular and portable (including equipment shipped "knocked down" and assembled on the site) (<i>Report number of derricks shipped in column (D)</i>)	3533B 21 2	Number			
35			Well surveying machinery and equipment (excluding well logging equipment) – <i>Specify kind</i>	3533B 32 9					
36			Well logging equipment – <i>Specify kind</i>	3533B 34 5					
37			Oil well and oil field pumps, except boiler feed (corresponds to sum of survey item codes 1701 – 1721 as reported on CIR Form MA35P, Pumps and Compressors, for 1997)*	35617 00 0					
38			Parts and attachments for pumps and pumping equipment (except for hydraulic fluid power pumps and air and gas compressors) (35616)	35619 00 6					
39			Air and gas compressors, except compressors for ice making equipment, refrigeration equipment, pneumatic air motors, and air-conditioning equipment (corresponds to the sum of survey item codes 3298 – 3388 as reported on CIR Form MA35P, Pumps and Compressors, for 1997)*	35633 00 1					
40			Parts and attachments for air and gas compressors (except refrigeration compressors) (35632)	35636 00 0					

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

Line No.	Products and services (A)		Census product code (B)	Unit of measure for quantities (C)	Products shipped and other receipts				
					Quantity (D)	Value, f.o.b. plant (E)			
						Millions	Thousands	Dollars	
41	Pipe couplings		34945 85 7				\$		
42	Gates, Globes, Angles, Straightway (Y-type) Checks, Stop and Check, Cross, 3- and 4-way, etc. (Including manual and power-operated on-off valves; excluding automatic valves and water works)	CARBON STEEL Cast	34911 21 4						
43		Forged	34911 23 0						
44		Alloy steel and other metals	34911 34 7						
45	Iron and steel fabricated pipe and pipe fittings made from purchased pipe		34980 13 6						
46	WINCHES, INCLUDING WINCHES FOR MARINE USE (Excluding winches for mounting on wheel or crawler tractors)	Electric	3531W 53 5						
47		Other	3531W 55 0						
48	Mining Drill Bits	MINING/ROCK DRILL BITS	Percussion rock mining drill bits, with working part of sintered metal carbide or cermets, and base metal parts thereof	35329 23 4					
49			Rock mining drill bits other than percussion, with working part of sintered metal carbide or cermets, and base metal thereof	35329 25 9					
50			Other mining drill bits with working part of sintered metal carbide or cermets, and base metal thereof	35329 27 5					
51			Drill bits not having a working part of sintered metal carbide or cermets, and base metal parts thereof	35329 29 1					
52	Receipts for machine shop job work and job order repair		35995 00 0						
53	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					
54				26					
55				34					
56				42					
57				59					
58	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						

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

Line No.	Products and services (A)	Census product code (B)	Unit of measure for quantities (C)	Products shipped and other receipts			
				Quantity (D)	Value, f.o.b. plant (E)		
					584 Millions	Thou- sands	Dollars
59	MISCELLANEOUS RECEIPTS Receipts for repair work	99980 61 7			\$		
60	Receipts for equipment rental and leasing	97390 00 9					
61	Other miscellaneous receipts	99980 98 9					
62	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					
63	TOTAL value of shipments and other receipts Sum of lines 1–62 column (E)	77000 00 8			\$		

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 17.
- Materials used to produce the items specified below should be reported in item 17.
- Quantities produced for sale as such and not for incorporation in other products should be reported in item 18B.
- 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		
			591	593		
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>)		
FROM: Month		Day	Year	TO: Month	
666		1		2	
Signature of authorized person		Title		Date	