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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 \$25,000 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Report materials, parts, and supplies purchased, transferred from other plants of your company, or withdrawn from inventory.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 Millions	Thou- sands	Dollars
<b>1</b>	Fluid power pumps purchased for incorporation into products of this establishment		\$		
<b>2</b>	FABRICATED METAL PRODUCTS (Except forgings)				
<b>3</b>	Bolts, nuts, screws, washers, rivets, and screw machine products				
<b>4</b>	Pipe, valves, and pipe fittings				
<b>5</b>	Other fabricated metal products				
<b>5</b>	Forgings				
<b>6</b>	CASTINGS (Rough and semifinished)	Iron and steel			
<b>7</b>		Aluminum and aluminum-base alloy			
<b>8</b>		Other nonferrous			
<b>9</b>	Shapes and Forms (Except Castings, Forgings, and Fabricated Metal Products)	STEEL	Bars, bar shapes, and plates		
<b>10</b>			Sheet and strip		
<b>11</b>			Tubing		
<b>12</b>			All other steel shapes and forms		
<b>13</b>		ALUMINUM AND ALUMINUM-BASE ALLOY	Extruded shapes (including extruded rod, bar, pipe, tube, etc.)		
<b>14</b>	All other aluminum and aluminum-base alloy				
<b>15</b>	Other nonferrous shapes and forms				
<b>16</b>	Metal powders				



Item 16. CONSUMPTION OF SELECTED MATERIALS DURING 2002 – Continued					
Line No.	Materials, parts, and supplies  (A)	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	Thou- sands	Dollars
17	Lubricating and cutting oils		\$		
18	Paints, lacquers, varnishes, stains, enamels, japans, shellacs, and allied products				
19	Electric motors and generators				
20	BEARINGS (Mounted or unmounted) Ball				
21	Roller				
22	Plain bearings and bushings				
23	Speed changers, gears, and industrial high-speed drives				
24	Gaskets (all types) and packing and sealing devices				
25	Cutting tools for machine tools				
26	Cost of all other materials and components, parts, containers, and supplies consumed. . . . . <i>Describe the principal materials, etc., included in this value.</i>				
27	<b>TOTAL</b> Sum of lines 1–26 should equal item 15, line 1		\$		

FOR COMMENT

Item 18– Not applicable to this report

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.

The value of pumps and motors shipped as hydrostatic transmissions should be reported separately in the pump and motor categories shown on lines 5 through 9 in item 18B.

**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. The Current Industrial Reports related to this report are as follows:

a. MA333N, Fluid Power Products (Including Aerospace)

b. MA333P, Pumps (Except Hydraulic) and Compressors

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

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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				Census product code <small>581</small>	Corresponds to the sum of products reported for 2002 on –		Products shipped and other receipts										
						CIR form <b>(B-2)</b>	Item code <b>(B-3)</b>	Value, f.o.b. plant <b>(E)</b>										
	<b>(A)</b>				<b>(B-1)</b>			<b>(B-2)</b>	<b>(B-3)</b>	<small>584</small> Millions	Thou- sands	Dollars						
1	<b>Fluid Power Cylinders and Actuators</b>	NON-AEROSPACE	Hydraulic types, linear and rotary *		MA333N	↑	4501-4519	\$										
2			Pneumatic types, linear and rotary *				4601-4619											
3		Aerospace-type, hydraulic and pneumatic *		4851-4877														
4		Parts for fluid power cylinders and actuators, hydraulic and pneumatic, including accumulators, cushions, nonvehicular shock absorbers, and related items *		4841-4847														
5	<b>Fluid Power Pumps, Motors, and Hydrostatic Transmission Components</b> <i>(See instructions)</i>	NON-AEROSPACE	Pumps	Reciprocating types *	MA333N	↑	5504-5517											
6				Rotary and other types, n.e.c. *			5534-5538											
7		Motors *		5545-5571														
8		Aerospace pumps and motors *		5581-5589														
9		Parts for pumps and motors *		5591-5597														
10	Industrial pumps, except fluid power*				MA333P	↑	1098-1298											
11	Other pumps, not elsewhere classified* – <i>Specify kind</i>						1800											
12	<b>Fluid Power Valves and Hose Fittings</b>	AEROSPACE	Valves	Hydraulic*	MA333N	↑	1281-1289											
13				Pneumatic*			1291											
14			Hydraulic and pneumatic hose or tube end fittings and assemblies*				2271-2277											
15		NON-AEROSPACE	Valves	Hydraulic:			MA333N					↑						
16				• directional control*														1201-1219
17				• other*														1221-1249
18				Pneumatic:														1251-1269
19		Flared (metal) fittings and couplings for, and assemblies of, tubing (including assemblies which combine tubing and hose) used in fluid power transfer systems*		1271-1279														
20		Flareless fittings and couplings (including nonmetal fittings) used in fluid power transfer systems*		2201-2209														
21		Hydraulic and pneumatic fittings and couplings for hose*		2211-2221														
22	Hydraulic and pneumatic assemblies of hose*		2241-2251															
23	Parts for fluid power valves*		2261-2263															
						↓	1293-1295											

FOR COMMENT

CONTINUE WITH ITEM 22 ON PAGE 8

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			Census product code <small>581</small>	Corresponds to the sum of products reported for 2002 on –		Products shipped and other receipts		
					CIR form <b>(B-2)</b>	Item code <b>(B-3)</b>	Value, f.o.b. plant <b>(E)</b>		
	<b>(A)</b>	<b>(B-1)</b>	<b>(B-2)</b>	<b>(B-3)</b>			<small>584</small> Millions	Thou- sands	Dollars
24	<b>Filters for Fluid Power Systems</b>	NONAEROSPACE	Hydraulic*	MA333N	3301-3309	\$			
25			Pneumatic*		3311-3323				
26		Aerospace-type filters for fluid power systems (hydraulic and pneumatic)*			3325, 3327				
27	Receipts for machine shop job work and job order repairs								
28	Miscellaneous machinery products – <i>Specify kind</i>								
29	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>							
30				18					
31				26					
32				34					
33				42					
34	CONTRACT WORK	Receipts for work done for others on their own materials . . . . . <i>Describe below products worked on and kind of work.</i>							
35	MISCELLANEOUS RECEIPTS	Receipts for repair work							
36		Other miscellaneous receipts (including sale of scrap and refuse, receipts for research and development, and installation or construction of products of this establishment)							
37	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.							
38	<b>TOTAL value of shipments and other receipts</b> Sum of lines 1-37, column (E)					\$			

FOR COMMENT

**CONTINUE WITH ITEM 26 ON PAGE 9**

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**Item 26. 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 16.
- 3. Materials used to produce the items specified below should be reported in item 16.
- 4. Quantities produced for sale as such and not for incorporation in other products should be reported in item 22.
- 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 2002?  (C)		Unit of measure for quantities  (D)	Quantities produced in this establishment and used in manufacturing other products made in this establishment  (E)
			592			
			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.

FOR COMMENT

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