

16 DETAILED COST OF MATERIALS, PARTS, AND SUPPLIES

General - The materials, parts, and supplies listed below are those commonly consumed in the manufacture, processing, or assembly of the products listed in **2**. 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 that are not listed, describe and report them in the "Cost of all other materials . . ." 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 009700 99 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Report materials, parts, and supplies purchased, transferred from other plants of your company, or withdrawn from inventory.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.

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 amount 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.

Contract Work - Include all 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 **15**, line A5, 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.

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 **15**, line A2, not in **16**. The value of these products shipped by this establishment should be reported in **2** under Census product code 000999 8900 6, "Resales."

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)		
			\$ Bil.	Mil.	Thou.
0634		0630	0631		
	Fluid power products (hydraulic and pneumatic)				
1	Pumps, motors, and hydrostatic transmissions	333996 01 5			
2	Cylinders and rotary actuators	333995 01 7			
3	Filters	333999 01 9			
4	Hose or tube fittings and assemblies	332912 03 9			
5	Valves	332912 07 0			
	Fabricated metal products (excluding forgings)				
6	Bolts, nuts, screws, rivets, washers, and screw machine products	332722 03 2			
7	Metal stampings	332000 AC 2			
8	Metal tanks, heat exchangers, steam condensers, and other boiler products; fabricated steel plate and weldments	332000 A1 6			
9	Fabricated structural metal products	332000 99 1			
10	Other fabricated metal products	332000 79 3			

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If not shown, please enter your 11-digit Census File Number (CFN) from the mailing address.

16 DETAILED COST OF MATERIALS, PARTS, AND SUPPLIES - 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)		
			\$ Bil.	Mil.	Thou.
0634		0630	0631		
11	Forgings				
	Iron and steel	332111 01 2			
12	Nonferrous	332112 01 0			
	Castings (rough and semifinished)				
13	Iron and steel	331510 01 6			
14	Aluminum and aluminum-base alloy	331520 05 6			
15	Other nonferrous	331520 03 1			
	Shapes and forms (excluding castings, forgings, and fabricated metal products)				
	Steel				
16	Bars, bar shapes, and plate	331200 07 1			
17	Sheet and strip	331200 17 0			
18	All other steel shapes and forms	331200 33 7			
19	All nonferrous shapes and forms	331000 AJ 9			
20	Pistons, piston rings, carburetors, valves (intake and exhaust only)	336311 00 6			
21	Turbochargers	333618 13 0			
22	Injection fuel pumps	333618 15 5			
23	Machined engine blocks	333618 17 1			
24	Engine electrical equipment (spark plugs, magnetos, generators, starters, etc.)	336322 00 3			
25	Integral horsepower electric motors and generators (1 hp or more)	335312 21 1			
	Bearings (mounted or unmounted)				
26	Ball	332991 05 8			
27	Roller	332991 03 3			
28	Plain bearings and bushings	333613 01 6			
29	Speed changers, gears, and industrial high-speed drives	333612 00 0			
30	Turbines purchased for incorporation into turbine generator sets	333611 01 0			

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16 DETAILED COST OF MATERIALS, PARTS, AND SUPPLIES - 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)		
			\$ Bil.	Mil.	Thou.
0634		0630	0631		
31	Generators purchased for incorporation into turbine generator sets	333611 03 6			
32	Fabricated plastics products (excluding gaskets)	326100 11 2			
33	Rubber and plastics hose and belting	326220 01 9			
34	Gaskets (all types), and packing and sealing devices	339991 03 6			
35	Cutting tools for machine tools	333515 03 9			
36	Cost of all other materials and components, parts, containers, and supplies consumed (Specify the principal materials, etc., included in this value.) ↘	009700 99 8			
37	TOTAL (Should equal total reported in 15, line A1)	771000 00 7			

17-21 Not Applicable.

22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE

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 2. 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.

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.

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 code 000930 0000 8.

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 code 000999 8900 6, "Resales."

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 form, the sum of the detailed products should equal the total reported on this form. For corresponding survey item codes, see paragraph 4, "Comparability," of CIR Instruction Manual.

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

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If not shown, please enter your 11-digit Census File Number (CFN) from the mailing address.

22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts			
			Value, f.o.b. plant			
			\$ Bil.	Mil.	Thou.	
	0734	0730	0731			
1	Turbines, turbine generators, and turbine generator sets Turbine generator sets, except prime mover generator sets (<i>Report prime mover generator sets on line 12.</i>)	333611 0101 8				
2	Steam turbines and other vapor turbines	333611 0211 5				
3	Hydraulic turbines (all sizes)	333611 0836 9				
4	Gas turbines, except aircraft (all sizes)	333611 0951 6				
5	Wind turbines	333611 0856 7				
6	Turbine generators	333611 0871 6				
	Parts and accessories (sold separately)					
7	For steam and other vapor turbines	333611 0746 0				
8	For hydraulic turbines	333611 0741 1				
9	For gas turbines, except aircraft	333611 0761 9				
10	For wind turbines	333611 0766 8				
11	For turbine generators	333611 0776 7				
12	Prime mover generator sets, except steam or hydraulic turbine	335312 7100 6				
13	Gasoline and gas-gasoline engines (except aircraft, automobile, highway truck, bus, tank, and outboard marine) (Corresponds to value of shipments reported on CIR MA333L, Internal Combustion Engines, for 2002.)*	333618 1100 4				
14	Diesel, semidiesel, and dual fuel engines (except automobile, highway truck, bus, and tank) (Corresponds to value of shipments reported on CIR MA333L, Internal Combustion Engines, for 2002.)*	333618 3100 2				
15	Diesel, semidiesel, and dual-fuel engines for automobiles, highway trucks, and buses (Corresponds to the value of shipments reported on CIR Form MA333L, Internal Combustion Engines, for 2002.)*	333618 5100 0				
16	Piston-type natural gas engines, including LPG engines (excluding gas turbines) (<i>Report gas turbines on line 4.</i>) (Corresponds to value of shipments reported on CIR MA333L, Internal Combustion Engines, for 2002.)*	333618 9100 6				

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22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
17	Other engine equipment, nec Tank engines (except gas turbines) (<i>Report gas turbines on line 4.</i>)	333618 B101 1			
18	Converted internal combustion engines (basic engines, short blocks purchased or intracompany transfer and converted to marine or other uses)	333618 B106 0			
19	Outboard motors (including electric)	333618 B108 6			
20	All other engine equipment, nec (<i>Specify kind.</i>) ↴ 	333618 B110 2			
21	Parts and accessories for internal combustion engines (except aircraft and gasoline automotive engines and gas turbines) (<i>Report parts for gasoline automotive engines on line 46 and parts for gas turbines on line 9.</i>) Connecting rods	333618 F101 7			
22	Crankshafts	333618 F106 6			
23	Camshafts	333618 F111 6			
24	Flywheels	333618 F116 5			
25	Engine bearings (halves) Main (crankshaft)	333618 F121 5			
26	Other (camshaft, balance shaft, etc.)	333618 F131 4			
27	Connecting rod bearings (halves)	333618 F126 4			
28	Oil pumps, new	333618 F136 3			
29	Fuel pumps, new	333618 F141 3			
30	Water pumps, new	333618 F146 2			
31	Engine blocks	333618 F151 2			
32	Cylinder liners (sleeves)	333618 F156 1			
33	Cylinder heads	333618 F161 1			
34	Intake and exhaust manifolds	333618 F166 0			
35	Valve guides, seats, and tappets	333618 F171 0			
36	Rocker arms and parts	333618 F176 9			
37	Speed governors	333618 F186 8			

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22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
	Parts and accessories for internal combustion engines (except aircraft and gasoline automotive engines and gas turbines) (<i>Report parts for gasoline automotive engines on line 46 and parts for gas turbines on line 9.</i>) - Continued				
38	Superchargers, including turbochargers	333618 F196 7			
39	Fuel injection systems (multipoint)	333618 F281 7			
	All other parts and accessories (<i>Specify kind.</i>) ↴				
40		333618 F199 1			
	Pistons, all types (machined) (excluding rough castings)				
41	For motor vehicle engines (passenger car, truck, and bus)	336311 3101 9			
42	All other pistons	336311 3103 5			
	Complete electrical and/or electronic equipment for internal combustion engines (<i>Specify kind.</i>) ↴				
43		336322 9309 9			
44	Air and gas compressors, except compressors for ice making, refrigeration, or air-conditioning equipment, and except air motors and packaged compressors (Corresponds to value of shipments reported on CIR Form MA333P, Pumps and Compressors, for 2002.)*	333912 1110 0			
45	Parts and attachments for air and gas compressors (except for refrigeration, ice making, and air-conditioning equipment), and packaged compressors (Corresponds to value of shipments reported on CIR Form MA333P, Pumps and Compressors, for 2002.)*	333912 5100 7			
	Parts and accessories for gasoline engines, new, for motor vehicles (<i>Specify kind.</i>) ↴				
46		336312 1574 7			
	All other products made in this establishment - <i>Specify and report each product with sales value of \$50,000 or more that cannot be assigned to one of the "listed products and services". For all remaining products, write "Other" and report a single total value.</i>				
47		18			
48		26			
49		34			
50		42			
51		59			
52		67			

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22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
53	Miscellaneous receipts				
	Sales of scrap and refuse	000999 8013 8			
54	Receipts for installation or construction	000999 8031 0			
55	Receipts for maintenance contracts	000999 8035 1			
56	Receipts for research and developmental work	000999 8041 9			
57	Receipts for repair work	000999 8061 7			
58	Other miscellaneous receipts	000999 8098 9			
	Contract work - Receipts for work done for others on their materials (<i>Specify products worked on and kind of work.</i>) 7				
59		000930 0000 8			
60	Resales - Sales of products bought and sold without further manufacture, processing, or assembly (The cost of such items should be reported in 15 , line A2.)	000999 8900 6			
61	TOTAL (<i>Should equal 4, line A</i>)	770000 0000 8			

23-27 Not Applicable.



33320144

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28 ESTABLISHMENT ACTIVITIES

A. Indicate activities that were performed by this establishment or were performed for this establishment by another company during 2002.
(Mark "X" ALL that apply.)

This activity was performed -			
By this establishment	By another establishment of this company	By another company	Not at all
0921 <input type="checkbox"/>	8071 <input type="checkbox"/>	0941 <input type="checkbox"/>	0961 <input type="checkbox"/>
1. Product design/engineering			
2. Order fulfillment			
0923 <input type="checkbox"/>	8072 <input type="checkbox"/>	0943 <input type="checkbox"/>	0963 <input type="checkbox"/>
a. Bundling or kitting (combining multiple items into a prepackaged product)			
0924 <input type="checkbox"/>	8073 <input type="checkbox"/>	0944 <input type="checkbox"/>	0964 <input type="checkbox"/>
b. Pick and pack (taking goods from inventory and packaging them to fill orders).			
0925 <input type="checkbox"/>	8074 <input type="checkbox"/>	0945 <input type="checkbox"/>	0965 <input type="checkbox"/>
c. Warehousing of finished products			
0926 <input type="checkbox"/>	8075 <input type="checkbox"/>	0946 <input type="checkbox"/>	0966 <input type="checkbox"/>
d. Breaking bulk (reducing large shipments into smaller portions for customers)			
0927 <input type="checkbox"/>	8076 <input type="checkbox"/>	0947 <input type="checkbox"/>	0967 <input type="checkbox"/>
e. Local delivery (within a city, town, or other local area, including adjoining towns and suburban areas)			
0928 <input type="checkbox"/>	8077 <input type="checkbox"/>	0948 <input type="checkbox"/>	0968 <input type="checkbox"/>
f. Long distance delivery (beyond local areas and commercial zones)			
0932 <input type="checkbox"/>	8078 <input type="checkbox"/>	0952 <input type="checkbox"/>	0972 <input type="checkbox"/>
g. Processing of returned merchandise			

B. During 2002 did this establishment:

- 1. Manage inventory owned by this establishment AND held at this location? 0936 Yes 0937 No
- 2. Manage inventory owned by this establishment BUT held at a customer's location?. 0956 Yes 0957 No
- 3. Manage inventory owned by another company BUT held at this location? 0976 Yes 0977 No
- 4. Manage inventory owned by another company AND held somewhere other than at this location?. 0994 Yes 0995 No
- 5. Contract with another firm for any of your production using materials owned by this location? 8041 Yes 8042 No
- 6. Send any partially completed products to a foreign facility for processing that were then returned to this establishment for completion? 8044 Yes 8045 No
- 7. Manufacture products for a government to their specifications? 8047 Yes 8048 No
- 8. Manufacture products for another business to their specifications? 8016 Yes 8017 No
- 9. Manufacture products for a final retail customer to their specifications? 8060 Yes 8062 No



33320151

29 OPERATIONAL STATUS

Activity that best describes this establishment's status at the end of 2002
(Mark "X" only ONE box.)

0011 <input type="checkbox"/> In operation	0013 <input type="checkbox"/> Temporarily or seasonally inactive							
0012 <input type="checkbox"/> Under construction, development, or exploration	0014 <input type="checkbox"/> Ceased operation - Give date at right →	0018 <table border="1"> <tr> <th>Month</th> <th>Day</th> <th>Year</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Month	Day	Year			
Month	Day	Year						
	0015 <input type="checkbox"/> Sold or leased to another operator - Give date at right AND enter new name and mailing address below ↴	→						

0060 Name of new owner or operator	0061 Employer Identification Number		
	Enter EIN of new owner (9 digits) →		-
0062 Mailing address (number and street, P.O. Box, etc.)			
0063 City, town, village, etc.	0064 State	0065 ZIP Code	
			-

Remarks (Please use this space for any explanations that may be essential in understanding your reported data.)

30 CERTIFICATION - This report is substantially accurate and was prepared in accordance with the instructions.

Is the time period covered by this report a calendar year?								
0078 <input type="checkbox"/> Yes	0079 <input type="checkbox"/> No - Enter time period covered →	FROM 0070	Month	Year	TO 0071	Month	Year	
0072 Name of person to contact regarding this report				0073 Title				
Telephone 0074	Area code	Number	Extension	Fax 0075	Area code	Number		
0076 Internet e-mail address					Date completed 0069	Month	Day	Year

Thank you for completing your 2002 Economic Census form.
PLEASE PHOTOCOPY THIS FORM FOR YOUR RECORDS AND RETURN THE ORIGINAL.

33320169