

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Report materials, parts, and supplies purchased, transferred from other plants of your company, or withdrawn from inventory.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	Gasoline engines and parts specially designed for gasoline engines, not produced in same establishment	371401 1	\$		
2	Diesel engines and parts specially designed for diesel engines	351902 2			
3	Drive train components and parts	371465 6			
4	Car bodies	371110 8			
5	Refrigeration compressors, compressor units, condensing units, fin coils, and other refrigeration, air-conditioning, and heat transfer equipment	358501 5			
6	Shocks, struts, and other suspension equipment and parts	371402 9			
7	Exhaust systems and parts, including mufflers, pipes, and catalytic converters	371451 6			
8	Machine tool accessories, including cutting tools	354500 1			
9	FLUID POWER PRODUCTS (Hydraulic and pneumatic)	Hydraulic and pneumatic fluid power pumps, motors, and hydrostatic transmissions	359412 4		
10		Valves	349271 7		
11		Cylinders and rotary actuators	359301 9		
12		Hose or tube fittings and assemblies	349261 8		
13		Filters	356921 7		
14	Other fluid power products except pumps, compressors, valves, cylinders, rotary actuators, hose or tube fittings and assemblies, and filters	190089 3			

CONTINUE WITH ITEM 17 ON PAGE 6

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
15	FABRICATED METAL PRODUCTS (Except forgings)				
	Automotive stampings, including body parts, etc.	346501 0	\$		
16	Steel springs, except wire (including leaf, helical, and torsion bar)	349301 2			
17	Motor vehicle metal hardware (lock units, door and window handles, hinges, license plate brackets, panel knobs, etc.)	342961 0			
18	Bolts, nuts, screws, rivets, washers, and screw machine products	345001 2			
19	Other fabricated metal products	340071 0			
20	Forgings	346000 3			
21	Castings (rough and semi-finished)	330091 0			
22	Metal shapes and forms, except castings, forgings, and fabricated metal products, including nonferrous	330090 2			
23	Bearings, ball and roller (mounted and unmounted)	356200 6			
24	Pneumatic tires and inner tubes	301101 2			
25	Rubber and plastics hose and belting	305201 6			
26	Fabricated rubber products, except tires, tubes, hose, belting, and gaskets	306902 8			
27	Gaskets, packing and sealing devices	305302 2			
28	Fabricated plastics products, including components, housings, accessories, etc. (except gaskets, hose, and belting)	308025 6			
29	Glass and glass products, including windows and mirrors	320102 7			
30	Seats (purchased separately) for automobiles, trucks, or buses	253121 8			
31	Seat covers, seat belts, and shoulder harnesses	239901 2			
32	Automotive air bag assemblies and parts thereof	371491 2			
33	Automotive trimmings, textile (panels, headliners, etc.)	239621 6			
34	Carpetings	227002 3			
35	Ceramic and ceramic composite parts, components, and accessories	320601 8			
36	Glues and adhesives	289101 8			
37	Paints, varnishes, lacquers, stains, shellacs, japans, enamels, and allied products	285101 2			
38	Engine electrical equipment	369401 5			
39	Motor vehicle lighting fixtures (including headlights, taillights, running lights, and dome fixtures; except automotive lamps)	364701 3			
40	Automotive lamps (bulbs and sealed beams)	364102 4			
41	Storage batteries, automotive	369104 5			
42	Automotive radios and loudspeakers	365101 5			
43	Purchased computers for incorporation into motor vehicles, trucks, or buses	357104 9			
44	Semiconductors and related devices and electronic control modules	367013 0			

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Item 17. CONSUMPTION OF SELECTED MATERIALS DURING 1997 - 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
45	Motor vehicle clusters, meters, and gauges, except electrical (including speedometers, fuel level, oil pressure, etc.) not produced in same establishment	382441 4	\$		
46	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			
47	TOTAL Sum of lines 1-46 should equal item 10, line a		\$		

Item 18A - Not applicable to this report

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

INSTRUCTIONS

- 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.
- 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 product code 93000 00 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 product code 99989 00 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 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 581 (B)	Products shipped and other receipts		
			Value, f.o.b. plant (E)		
			584 Millions	Thou- sands	Dollars
1	PASSENGER CARS, KNOCKDOWN OR ASSEMBLED; CHASSIS FOR SALE SEPARATELY; AND PASSENGER CAR BODIES (37111)	37111 11 9	\$		
2	Complete vehicles, knockdown or assembled, produced on passenger car chassis. REPORT MINIVANS AND SPORT UTILITY VEHICLES ON LINE 13 REGARDLESS OF CHASSIS TYPE. For vehicles to be assembled abroad, report the value on same basis as for domestic interplant shipments of knockdown vehicles (include in the value of shipments the extra equipment billed with all vehicles).				
3	Chassis for sale separately (including those intended for interplant transfer)	37111 51 5			
4	Passenger car bodies	37111 71 3			
	Kit cars	37111 81 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	Products shipped and other receipts		
						Value, f.o.b. plant (E)		
	(A)				581 (B)	584 Millions	Thou-sands	Dollars
5	BUSES, INCLUDING MILITARY, (Except trolley) AND FIREFIGHTING VEHICLES (Chassis of own manufacture) (37113)	Buses, including military (except trolley buses)			37113 04 0	\$		
6		Firefighting vehicles			37113 03 2			
7	COMBAT AND WHEELED TACTICAL VEHICLES OR CARRIERS (37114)	Armored military vehicles, except tanks and full-tracked vehicles (Report tanks on line 16 and full-tracked vehicles on line 18)			37114 01 4			
8		Non-armored; (chassis of own manufacture)	Motor vehicles		37114 03 0			
9			Trucks (14,000 lbs or less gvw)		37114 05 5			
10			Trucks (14,000-33,000 lbs gvw)		37114 07 1			
11			Trucks (33,001 lbs or more gvw)		37114 09 7			
12		Non armored vehicles built on purchased chassis			37114 11 3			
13	TRUCKS, TRUCK TRACTORS, TRUCK AND BUS CHASSIS (Chassis of own manufacture)	14,000 pounds or less, including minivans and sport utility vehicles (37116)			37116 00 1			
14		14,001 to 33,000 pounds (37115)			37115 00 3			
15		33,001 pounds or more (37119)			37119 00 5			
16	Tanks and parts				37950 01 1			
17	Self propelled weapons and parts				37950 51 6			
18	Other full-tracked combat vehicles and parts, including armored utility vehicles				37950 98 7			
19	Complete vehicles produced on purchased chassis - <i>Specify type</i>				37132 00 8			
20	GASOLINE ENGINES AND GASOLINE ENGINE PARTS FOR MOTOR VEHICLES, NEW (37142)	Gasoline engines, new (with or without cylinder heads, fuel pumps, water pumps, and other standard accessories)			37142 01 5			
21		Intake manifolds			37142 06 4			
22		Exhaust manifolds			37142 07 2			
23		Fuel injection systems (multipoint)			37142 18 9			
24		Flywheels and flexplates			37142 17 1			
25		Timing gears, sprockets, and chains			37142 22 1			
26		Engine cooling fans (including hubs and clutches)			37142 34 6			
27		Other parts and accessories for gasoline engines - <i>Specify kind and principal products and their value on lines 27-30 and report the residual on line 31</i> →			37142 00 7			
28					37142 00 7			
29					37142 00 7			
30					37142 00 7			
31	37142 00 7							
32	Diesel, semidiesel, and dual fuel engines for automobiles, highway trucks, and buses (corresponds to the sum of item codes 9410-9425 as reported on CIR Form MA35L, Internal Combustion Engines, for 1997) (35194)*				35194 00 0			

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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 (B)	Products shipped and other receipts			
				Value, f.o.b. plant (E)			
				584 Millions	Thou- sands	Dollars	
33	Parts and Accessories for Internal Combustion Engines (Except aircraft and gasoline automotive engines and gas turbines) (35199)	Crankshafts, engine	35199 08 2	\$			
34		Camshafts, engine	35199 09 0				
35		Flywheels	35199 21 5				
36		ENGINE BEARINGS (Halves)	Main (crankshaft)	35199 24 9			
37			Connecting rods	35199 25 6			
38			Other (camshaft, balance shaft, etc.)	35199 33 0			
39			Engine oil pumps	35199 27 2			
40		Engine blocks	35199 35 5				
41		Cylinder liners (sleeves)	35199 39 7				
42		Cylinder heads	35199 49 6				
43		Intake manifolds and exhaust manifolds	35199 63 7				
44		Valve guides, seats, and tappets	35199 67 8				
45		Rocker arms and parts	35199 71 0				
46		Fuel injection systems (multipoint)	35199 75 1				
47		Super-chargers (Including turbochargers)	35199 91 8				
48		Other parts and accessories – <i>Specify kind</i>					
				35199 00 9			
49		Drive Train Components, New (Except wheels and brakes) (37146)	TRANSMISSIONS (Except auxiliary and parts)	Car and light truck:			
50	•Manual			37146 03 2			
	•Automatic		37146 05 7				
51	Heavy truck and bus type:		•Manual	37146 13 1			
52			•Automatic	37146 15 6			
53	Parts for manual transmissions		37146 23 0				
54	Parts for automatic transmissions		37146 25 5				
55	Transaxles	37146 28 9					
56	OTHER MOTOR VEHICLE PARTS AND ACCESSORIES <i>Specify principal products and their values on lines 56-60 and report the residual on line 61.</i>		37149 00 2				
57			37149 00 2				
58			37149 00 2				
59			37149 00 2				
60			37149 00 2				
61			37149 00 2				
62	Automotive job stampings (truck, bus, and passenger car) (34650)		34650 00 2				

CONTINUE WITH ITEM 18B ON PAGE 10

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	Products shipped and other receipts			
						Value, f.o.b. plant (E)			
	(A)	(B)	581	584	Millions	Thousands	Dollars		
63	Construction-type scrapers, graders, rollers, and off-highway trucks, coal haulers, trailers, wagons and rough terrain forklifts (excluding parts) (corresponds to the sum of item codes 8601–8690 as reported on CIR Form MA35D, Construction Machinery Shipments, for 1997)*				35310 00 2	\$			
64	Special Dies and Tools, Die Sets, Jigs, and Fixtures	JIGS AND FIXTURES, ALL TYPES	Gauging and Checking Types	Less than 1,000 pounds weight	35441 13 8				
65				1,000 pounds weight or more	35441 15 3				
66			All Other Jigs and Fixtures (Holding, positioning, layout, assembly, etc.)	Workholding fixtures; less than 1,000 lbs weight	35441 16 1				
67				Other than workholding fixtures; less than 1,000 lbs weight	35441 14 6				
68				1,000 pounds weight or more	35441 18 7				
69				Standard catalog components and parts for jigs and fixtures (including drill bushings)	35441 19 5				
70		DIES, METAL-WORKING ONLY	Press brake dies	Press brake dies	35441 21 1				
71				Forming and Drawing Dies	500 pounds weight or less	35441 22 9			
72					501 to 3,000 pounds weight	35441 24 5			
73					More than 3,000 pounds weight	35441 26 0			
74			Stamping Dies (Including lamination and blanking dies)	Progressive-type dies:	35441 27 8				
75				•High-speed steel	35441 27 8				
76				•Carbide	35441 28 6				
77				•Other	35441 25 2				
			All other stamping-type dies (punch, trim, notch, pierce, perforate, etc.)	35441 23 7					
78	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				
79					26				
80					34				
81					42				
82					59				
83				67					
84	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				
85	MISCELLANEOUS RECEIPTS	Sales of scrap, refuse, and other miscellaneous receipts (including receipts for repair work, etc.)			99980 00 5				
86	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				
87	TOTAL value of shipments and other receipts Sum of lines 1–86 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		Was this operation performed at this establishment during 1997?		Unit of measure for quantities (D)	Quantities produced in this establishment and used in manufacturing other products made in this establishment	
		591 (B)	592 (C)	Yes	No		593 (E)	
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"/>			

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Item 20. SUPPLEMENTAL INQUIRY ON DISTRIBUTION OF SHIPMENTS BY END USE

INSTRUCTIONS

1. General –

- Report shipments on distribution by end use of products listed below.
- Do not report products imported for resale, purchased for resale, or received from other plants of your company for resale. The value of such purchased products should be reported under "Resales" on line 79 of item 18B.
- If your book records do not contain information as requested, REASONABLE ESTIMATES ARE ACCEPTABLE.

2. Special Instructions –

Column (E) – Total Value of Product Shipments:

- Post data from Column (E) of Item 18B for appropriate product lines listed below.
- Before posting, see references in product class descriptions below showing corresponding product lines in Item 18B. For example, Line 1, "Gasoline engines and gasoline engine parts for motor vehicles, new" corresponds to lines 20–31 in Item 18B.
- The data reported in Column (E) should equal the sum of data reported in columns (G), (H), and (I). If not, please explain in the "Remarks" section below.

Column (G) – Value of Shipments for Domestic Replacement:

- Report value of shipments of products listed below for domestic (U.S.) replacement.

- Include replacement (service) products shipped to motor vehicle manufactures, transfers to other plants of your company, direct shipments to distributors, dealers, jobbers, wholesalers, fleet operators, governments, etc.
- Exclude replacement shipments outside the U.S. (include such shipments in Column (I), Shipments for Exports).

Column (H) – Shipments for Use in Domestic Original Equipment Manufacturing (O.E.M.):

- Report value of shipments of products listed below to U.S. motor vehicle manufacturers and their suppliers for use in original equipment (O.E.M) produced in the U.S.
- Include original equipment products transferred to other plants of your company for incorporation or assembly in automobiles, trucks, and buses.
- Include shipments to depots and warehouses of the same company where such shipments are for subsequent use in original equipment.
- Exclude shipments for use in O.E.M. to be produced outside the U.S. (include such shipments in Column (I), Shipments for Exports).

Column (I) – Shipments for Export:

- Report Value of Shipments of Exports of Products listed below:
- Report value of shipments for export regardless of whether products are shipped as replacement products or for original equipment manufacturing.

Line No.	Products and service (A)	Census code (B-1)	Total shipments (including interplant transfers)		Shipments for domestic replacement (including shipments to U.S. motor vehicle manufacturers for resale)		Shipments to U.S. motor vehicle manufacturers of their suppliers for use in domestic original equipment		Shipments for export (including transfers to other divisions for export)	
			Value (E)		Value (G)		Value (H)		Value (I)	
			594	Thou-	595	Thou-	596	Thou-	597	Thou-
			Millions	sands	Millions	sands	Millions	sands	Millions	sands
1	Gasoline engines and gasoline engine parts for motor vehicles, new (corresponds to lines 20–31, item 18B)	037142 7	\$		\$		\$		\$	
2	Drive train components, new (except wheels and brakes) (corresponds to lines 49–55, item 18B)	037146 8								
3	All other motor vehicle parts and accessories, new, n.e.c. (corresponds to lines 56–61, item 18B)	037149 2								

Item 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	
666 1								2			
Signature of authorized person						Title				Date	