

**MA333L — INTERNAL COMBUSTION ENGINES  
(EXCEPT AIRCRAFT AND NONDIESEL AUTOMOTIVE)**

**DEFINITIONS AND SPECIAL INSTRUCTIONS**

**1. Scope of survey**

This survey covers the production of all types of internal combustion engines except outboard, tank, aircraft, and nondiesel automotive engines produced for shipment or for the incorporation into other products.

**2. Figures to be reported**

Companies with more than one establishment manufacturing the products covered by this survey are requested to complete a separate report form for each location. If you have not received a separate form for each of your establishments, please call the contact listed on the report form or write to the U.S. Census Bureau for additional forms.

This report must be filed for each plant producing internal combustion engines either for sale to other companies, for transfer to other plants of the same company, or for incorporation into machinery or equipment shipped from the same plant, including engine-driven generator sets. Do not include engines purchased and resold without further manufacture. If you purchase engines and "hook them up" with generators (either of your own manufacture or purchased by you), the quantity and value of such engine-driven generator sets should be reported on Census Bureau annual form MA335H, "Motors and Generators," under product codes 3353127101-3353127164. Such sets should not be reported in this survey.

If you ship basic engines (short block engines) for conversion to marine or other type engines, such units should be included in this report. In order to avoid duplication, establishments which receive engines for conversion to marine or other uses should exclude such units from their reports.

If your company ships engines between engine producing plants for finishing, such as further trim, etc., for eventual shipment to another company, please take steps to assure that such engines are reported only once. Such engines should be reported as "shipments to other companies" if they are shipped to an outside company or to a distributor (whether or not affiliated with the company).

**a. Produced and incorporated into other products**

Report the number of engines produced and incorporated into other products in the same plant such as construction and farm machinery (including tractors), engine-driven generator sets, and other products incorporating an engine of your own manufacture.

**b. Quantity and value of shipments**

The figures on quantity and value of shipments should include the physical shipments of all products sold, transferred to other establishments within your company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to your own branches should be assigned the same value as comparable sales to unaffiliated customers, i.e., the value includes an appropriate allocation of company overhead and profit. Products bought and resold without further manufacture should not be included in shipments.

**c. Columnar structure of report**

*SECTION 1* — Fuel system and horsepower rating (item codes 9101–9699)

*Column 1* — Total number of engines produced (sum of columns 2, 4, and 6).

*Column 2* — Number of engines shipped to other companies.

*Column 3* — Value of engines shipped to other companies (\$1,000).

*Column 4* — Number of engines shipped or transferred to other plants of the same company.

*Column 5* — Value of engines shipped or transferred to other plants of the same company (\$1,000).

*Column 6* — Number of engines produced and incorporated into other products in the same plant.

*SECTION 2* — Fuel system and piston displacement (item codes 9821–9899)

*Column 1* — Number of gasoline engines produced. (Corresponds to number reported in column 1 for item code 9299.)

*Column 2* — Number of nonautomotive diesel engines produced. (Corresponds to number reported in column 1 for item code 9399.)

*Column 3* — Number of automotive diesel engines produced. (Corresponds to number reported in column 1 for item code 9499.)

**SECTION 3** — Fuel system and end application (item codes 9900– 9990)

*Column 1* — Number of gasoline engines produced. (Corresponds to number reported in column 1 for item code 9299.)

*Column 2* — Number of nonautomotive diesel engines produced. (Corresponds to number reported in column 1 for item code 9399.)

**3. Definitions**

**HORSEPOWER (SECTION 1)**

A unit for measuring the power of motors or engines, equal to 746 watts or to a rate of 33,000 foot-pounds per minute (the force required to raise 33,000 pounds at the rate of one foot per minute).

Engines rated on the basis of "maximum published horsepower at maximum recommended r.p.m." Brake horsepower is no longer collected on this survey.

**PISTON DISPLACEMENT (SECTION 2)**

The volume (measured in cubic inches) displaced by a stroke of a piston. (Metric equivalents are shown in parentheses.)

**END APPLICATIONS (SECTION 3)**

*Oil field and petroleum related generating and stationary equipment (item code 9900)* — Such as electric power generating equipment and other oil field and petroleum uses.

*Other generator sets (item code 9902)* — Non-oil field applications of electric power generating equipment, including marine auxiliaries

*Irrigation (item code 9903)* — Stationary irrigation applications

*Agricultural vehicular (item code 9904)* — Mobile agriculture equipment: agricultural tractors, combines, etc.

*Off-highway mobile construction equipment (item code 9905)* — Mobile material handling: loaders, graders,

scrapers, construction-type tractor, etc.; mobile logging, mining, quarrying equipment

*Marine, except outboard (item code 9906)* — Propulsion units only. Report marine auxiliary as other generator sets (item code 9902)

*Railroad, motive power type (item code 9907)* — Report for diesel engines only

*Chain saws (item code 9908)* — Report for gasoline engines only

*Garden tractors (item code 9909)* — Tractors designed for lawn and garden applications (generally less than 20 horsepower)

*Lawn, home, and recreational equipment (item code 9910)* — Lawn mowers, tillers, snow blowers, edge trimmers, golf carts, motorcycles, mopeds, etc.

*Other general industrial (item code 9912)* — All other end applications, including cotton gins, non-oil field pumps and compressors, government research, and those not specified elsewhere.

**4. Comparability**

If you also report in the Annual Survey of Manufactures (Form MA-10000), the sum of values for item codes shown in column (a) should correspond to the dollar values reported under product class codes indicated in column (b) below:

Current Industrial Reports (Form MA333L)  Item codes (a)	Annual Survey of Manufactures  Product class codes (b)
9101 through 9207	3336181
9331 through 9353	3336183
9410 through 9425	3336185
9611 and 9612	3336189

## REFERENCE LIST

FORM MA333L

### INTERNAL COMBUSTION ENGINES (EXCEPT AIRCRAFT AND NONDIESEL AUTOMOTIVE)

#### Section 1 — PRODUCTION AND SHIPMENTS OF INTERNAL COMBUSTION ENGINES BY FUEL SYSTEM AND HORSEPOWER RATING

##### Gasoline engines (except automotive)

3336181111	<b>9101</b>	Under 11 hp
3336181113	<b>9202</b>	11 to under 21 hp
3336181115	<b>9203</b>	21 to under 61 hp
3336181117	<b>9207</b>	61 hp and over

**XXX**      **9299**      **Total (Sum of item codes 9101–9207)**

##### Nonautomotive diesel engines

3336183111	<b>9331</b>	Under 101 hp
3336183113	<b>9333</b>	101 to under 151 hp
3336183115	<b>9335</b>	151 to under 176 hp
3336183117	<b>9337</b>	176 to under 251 hp
3336183119	<b>9339</b>	251 to under 301 hp
333618311B	<b>9341</b>	301 to under 401 hp
333618311D	<b>9343</b>	401 to under 451 hp
333618311F	<b>9345</b>	451 to under 601 hp
333618311H	<b>9347</b>	601 to under 701 hp
333618311J	<b>9349</b>	701 to under 801 hp
333618311L	<b>9351</b>	801 to under 1,501 hp
333618311M	<b>9353</b>	1,501 hp and over

**XXX**      **9399**      **Total (Sum of item codes 9331–9353)**

##### Automotive diesel engines

3336185111	<b>9410</b>	Under 226 hp
3336185113	<b>9414</b>	226 to under 251 hp
3336185115	<b>9425</b>	251 hp and over

**XXX**      **9499**      **Total (Sum of item codes 9410–9425)**

##### Natural gas and LPG engines

3336189111	<b>9611</b>	Under 501 hp
3336189113	<b>9612</b>	501 hp and over

**XXX**      **9699**      **Total (Sum of item codes 9611–9612)**

**REFERENCE LIST — Continued**

FORM **MA333L**

Product code	Item code	Item description
<p align="center"><b>Section 2 — PRODUCTION OF INTERNAL COMBUSTION ENGINES BY FUEL SYSTEM AND PISTON DISPLACEMENT (CUBIC CENTIMETERS)</b></p>		
XXX	9821	Under 251 cc
XXX	9826	251 to 1,000 cc
XXX	9831	1,001 to 2,500 cc
XXX	9836	2,501 to 3,700 cc
XXX	9841	3,701 to 5,000 cc
XXX	9846	5,001 to 6,500 cc
XXX	9851	6,501 to 8,000 cc
XXX	9856	8,001 to 13,000 cc
XXX	9861	13,001 cc and over
XXX	9899	<b>Total (Sum of item codes 9821–9861)</b>
<p align="center"><b>Section 3 — PRODUCTION OF INTERNAL COMBUSTION ENGINES BY FUEL SYSTEM AND END APPLICATION</b></p>		
XXX	9900	Oil field and petroleum related generating and stationary equipment
XXX	9902	Other generator sets
XXX	9903	Irrigation
XXX	9904	Agricultural vehicular
XXX	9905	Off-highway mobile construction equipment
XXX	9906	Marine, except outboard
XXX	9907	Railroad, motive power type
XXX	9908	Chain saws
XXX	9909	Garden tractors
XXX	9910	Lawn, home, and recreational equipment
XXX	9912	Other general industrial
XXX	9990	<b>Total (Sum of item codes 9900–9912)</b>
<p><b>NOTES:</b></p>		