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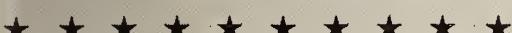
BUREAU OF THE CENSUS

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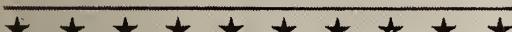
WILLIAM LANE AUSTIN, DIRECTOR (Retired January 31, 1941)

VERGIL D. REED, ASSISTANT DIRECTOR

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16TH CENSUS  
OF THE UNITED STATES  
1940



# MANUFACTURES

1939

## POWER EQUIPMENT AND ENERGY CONSUMPTION

Prepared under the supervision of  
THOMAS J. FITZGERALD  
Chief Statistician for Manufactures

UNITED STATES GOVERNMENT PRINTING OFFICE • WASHINGTON • 1942

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## **POWER EQUIPMENT AND ENERGY CONSUMPTION**

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## POWER EQUIPMENT AND ENERGY CONSUMPTION

### INTRODUCTION

The first census of power-equipment installation in manufacturing establishments was made by the Bureau of the Census in 1870, covering the year 1869. The 70-year period from 1869 to 1939 has witnessed not only a tremendous growth in the use of power equipment in manufacturing establishments, but also the rapid development and adoption of several new types of such equipment. Within this period came the invention and rapid development of the electric motor and its widespread utilization. The horsepower of prime movers plus the horsepower of electric motors driven by purchased energy gives the total horsepower of installed equipment capable of turning the wheels of industry at the close of 1939—50,452,280 horsepower, as against 2,346,142 horsepower in 1869, or an increase of 2,050.4 percent during the 70-year period. During these seven decades, also, the number of *types* of prime movers in manufacturing establishments was increased from two (steam engines and water wheels) to six by the addition of steam turbines, Diesel and semi-Diesel engines, other internal-combustion engines, and hydro-turbines.

As certain industries included in earlier censuses were not covered by the 1939 census, the power-equipment and energy-consumption figures for 1929 and earlier years, back to and including 1899, have been adjusted, for publication in this report, by the subtraction of data for those industries, thereby making the power-equipment statistics for the several censuses of the 70-year period comparable. The industries involved in this adjustment are specified in the headnote to table 1:

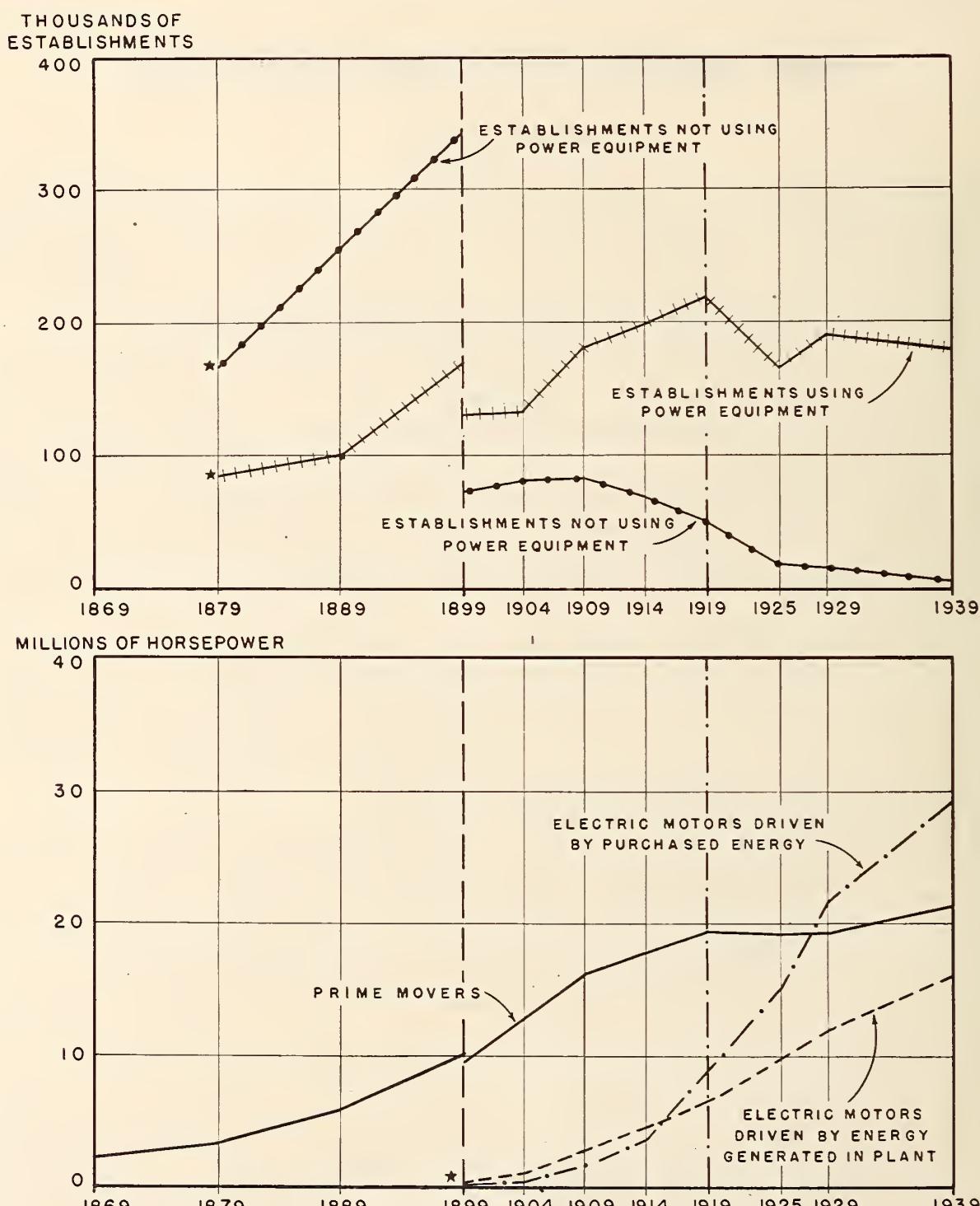
A private power unit operated by a manufacturer and serving two or more plants classified in different industries has been credited, for census purposes, to the industry in which the most important of the plants, on the basis of value of products, has been classified. In some cases the report for such a unit carried data for motors in the plants, but no attempt was made to allocate them. In the case of the "Steel works and rolling mills" and "Blast-furnace products" industries it was

impossible to obtain an approximate break-down of prime-mover data for assignment to the respective industries and the power-equipment statistics for these two industries are given in combination. The same practice was followed in the case of "Paper and paper-board mills" and "Pulp mills."

It is difficult to draw any definite conclusion as to the increase in the power installation per wage earner between 1869 and 1939, because prior to 1899 the number of wage earners as published in the census reports covered those in hand trades and neighborhood industries (carpentry, millinery, dressmaking, custom tailoring, painting, paperhanging, etc.), except gristmilling, custom sawmilling, and cotton ginning. (See headnote to table 1.) Also for 1919 and prior years the census reports covered all establishments with a minimum value of products of \$500, as against a minimum value of products of \$5,000 for subsequent censuses, and the statistics for power equipment were not revised to show the figures for establishments reporting products of "\$5,000 and over" separately. This change of base, however, did not materially impair the comparability of the figures on power equipment or on electric-energy consumption.

Several types of power statistics are included in this report for the first time. Diesel and semi-Diesel engine installation data are reported separately, whereas in prior reports they have been included with "internal-combustion engines." Data on prime-mover equipment ordinarily idle were first collected for 1929, but were not published in the report for the census. The 1939 report shows, for the first time, a distribution of the types of prime movers into two classes—those driving generators and those not driving generators. A correlated series gives the capacity of electric generators driven by each type of prime mover. Data on the rated capacity of electric generators ordinarily idle were first collected for 1929, but were not published in the report for that census. Data on electric energy, sold by manufacturers are also included in this report.

## POWER EQUIPMENT IN MANUFACTURING ESTABLISHMENTS: 1869 TO 1939



1869 TO 1899 ..... FACTORIES, HAND AND NEIGHBORHOOD INDUSTRIES  
 1899 TO 1919 ..... FACTORY INDUSTRIES WITH PRODUCTS VALUED AT \$500 OR MORE  
 1919 TO 1939 ..... FACTORY INDUSTRIES WITH PRODUCTS VALUED AT \$5000 OR MORE

\* NO DATA FOR EARLIER YEARS

TABLE 1.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT RATING, AND ELECTRIC ENERGY PURCHASED (KILOWATT HOURS): 1899 TO 1939

[As certain industries canvassed in earlier censuses were not included for 1939, the figures for 1929 and earlier years, back to 1899, inclusive, as given under the head "Factory Industries," have been adjusted by subtracting the data for these industries, namely: Gas, manufactured, illuminating, and heating; Railroad repair shops (electric and steam); Coffee and spice, roasting and grinding; Peanuts, walnuts, and other nuts, processed or shelled; Flax and hemp, dressed; and Motion pictures, not including projection in theaters. The data for "Grindstones, pulisstones, and millstones," which industry has not been canvassed since the census for 1927, have also been deducted from the figures for 1899 to 1925, inclusive; the data for "Automobile repairing," which is not treated as a manufacturing industry except at the censuses for 1914 and 1919, have been subtracted from the totals for those years, and the data for "Rented power other than electric," (power generated outside and transmitted into the plant by belt or shaft) have been deducted from the totals for 1899 to 1919, inclusive. The figures for 1899 have been further adjusted by deducting the data for the so-called hand and neighborhood industries (operation of custom grain mills and sawmills, cotton ginning, carpentry, blacksmithing, etc.), which have not been treated as manufacturing industries at subsequent censuses. The figures for 1899 and earlier years as given under the head "Factories and Hand and Neighborhood Industries," are those found on page 330 of the "Thirteenth Census of the U. S., 1910, Volume VII, Manufactures." These figures are the same as those originally published, except that the totals have been adjusted by subtracting the data for horsepower of electric motors driven by energy generated in the plant, thus eliminating duplication, and that a further slight adjustment of the 1899 total has been made]

KIND OF EQUIPMENT	FACTORY INDUSTRIES						FACTORIES AND HAND AND NEIGHBORHOOD INDUSTRIES			
	1939 <sup>1</sup>	1929	1925	1919	1914	1909	1899	1889	1879	1869
Number of establishments										
Number of establishments reporting power equipment	184,230	206,663	183,877	2,270,231	2,268,436	2,264,826	2,204,750	2,512,191	2,335,405	2,253,852
Prime movers, total horsepower	3 179,674	190,091	164,530	2 219,398	2 199,098	2 181,994	2 132,220	2 131,309	2 100,735	2 232,148 <sup>(4)</sup>
Electric motors driven by purchased energy, total horsepower	21,239,195	19,328,309	19,233,158	19,421,157	17,857,509	16,383,467	6 12,604,226	9,633,215	7 10,805,383	7 5,938,635 <sup>(4)</sup>
Prime movers:	29,213,085	21,793,762	15,116,326	8,905,406	3,707,414	1,669,226	4,27,749	178,176	183,682	3,410,837 <sup>(4)</sup>
Steam engines, number horsepower	42,538	62,395	69,506	13,346,169	8 131,234	8 148,001	8 123,072	8 127,145	8 156,100	8 91,410
Steam turbines, number horsepower	6,533,129	9,157,735	10,397,106	13,609	8 15,068,309	8 10,593,436	8 7,993,241	8 7,416	8 4,531,305	8 56,483 <sup>(3)</sup>
Internal-combustion engines, number horsepower	12,631	8,883	6,505	5,655	(8)	(8)	(8)	(8)	(8)	1,215,711
Hydroturbines and water wheels, number horsepower	11,295,472	7,409,738	5,328,376	3,098,698	(8)	(8)	(8)	(8)	(8)	—
Electric generators, kilowatt rating n.	15,589	10,991	14,060	30,080	36,585	33,866	21,515	14,231	14,884	—
Electric motors, aggregate horsepower	1,806,225	1,203,303	1,167,388	1,223,296	966,114	739,736	282,510	132,961	143,860	8,930
Driven by purchased energy, number horsepower	3,854	6,511	8,386	10,13,352	10,18,022	10,20,351	10,21,226	10,23,078	10,39,182	10,55,404 <sup>(9)</sup>
Driven by energy generated in plant, number horsepower	1,603,659	1,557,503	1,800,288	10,1,763,994	10,1,823,086	10,1,819,465	10,1,646,380	10,1,453,821	10,1,727,258	10,1,225,379 <sup>(10)</sup>
Electric energy purchased, kilowatt-hours	9,658,828	7,591,999	6,730,513	(8)	(8)	(8)	(8)	(8)	(8)	10,1,130,431
4,138,287	33,844,131	2,655,142	1,680,487	25,092,780	15,611,705	8,392,308	4,562,689	1,517,163	4,75,342	494,698 <sup>(11)</sup>
29,213,085	21,793,762	15,116,326	8,905,406	3,707,414	4,27,749	1,669,226	69,352	178,176	183,682 <sup>(12)</sup>	—
1,224,478	829,939	734,241	405,519	306,298	4,684,894	2,913,463	1,089,414	16,317	16,923	—
16,078,234	12,650,389	9,976,454	6,647,238	(8)	(8)	(8)	(8)	297,166	311,016	12,15,569
Electric energy purchased, kilowatt-hours	45,040,074,557	36,426,624,736	(8)	(8)	(8)	(8)	(8)	(8)	(8)	—

<sup>1</sup> For detailed figures for 1939, see table 2.

<sup>2</sup> Because of the change from \$500 to \$5,000 in the minimum-value-of-products limit, the "Number of establishments" and "Number of establishments reporting power equipment" figures for 1919 and earlier years are not comparable with those for 1925 and subsequent years. This change did not, however, materially impair the comparability of the figures for the other items in this table.

<sup>3</sup> No data.

<sup>4</sup> Includes 28,213 horsepower reported as "Other" owned power (principally from steam turbines, hydroturbines, and internal-combustion engines other than gas or gasoline), as follows: 1904, 75,348; 1899, 47,102.

<sup>5</sup> Includes figures for "Other" owned power derived from sources other than steam engines, water wheels, gas or gasoline engines, or electric motors; also includes data for "Rented" horsepower other than electric (principally power generated outside the plant and delivered by belt or shaft). The amounts thus included are, respectively, as follows: 1899, 54,450 and 137,369; 1889, 4,784 and 88,571.

<sup>6</sup> Not called for on schedule.

<sup>7</sup> Includes data for water in motors.

<sup>8</sup> For 1929, number of generators reported was 16,596; for 1925, 22,633.

<sup>9</sup> Horsepower shown for motors driven by energy generated in plant includes that of motors driven by purchased energy, not reported separately.

## POWER EQUIPMENT AND ENERGY CONSUMPTION

## CENSUS OF MANUFACTURES: 1939

TABLE 2.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS): 1939

Number of establishments.....	184,230	Prime movers—Continued.	
Number of establishments reporting power equipment.....	1179,674	Other internal-combustion engines, horsepower.....	1,176,044
Prime movers, total horsepower.....	21,239,195	Driving generators.....	478,218
Electric motors driven by purchased energy, total horsepower.....	29,213,085	Not driving generators.....	697,826
Prime movers:		Hydroturbines and water wheels, number.....	3,854
Steam engines, number.....	42,538	Driving generators.....	1,843
Driving generators.....	8,192	Not driving generators.....	2,011
Not driving generators.....	34,346	Hydroturbines and water wheels, horsepower.....	1,603,669
Steam engines, horsepower.....	6,533,429	Driving generators.....	1,208,624
Driving generators.....	2,273,983	Not driving generators.....	395,045
Not driving generators.....	4,259,446	Prime movers ordinarily idle, horsepower (included above).....	1,996,357
Steam turbines, number.....	12,631	Electric generators, kilowatt rating.....	9,658,828
Driving generators.....	3,902	Driven by steam engines.....	1,484,945
Not driving generators.....	8,729	Driven by steam turbines.....	6,752,685
Steam turbines, horsepower.....	11,295,872	Driven by Diesel and semi-Diesel engines.....	257,702
Driving generators.....	9,559,089	Driven by other internal-combustion engines.....	316,044
Not driving generators.....	1,736,783	Driven by hydroturbines and water wheels.....	847,452
Diesel and semi-Diesel engines, number.....	5,311	Electric generators, ordinarily idle, kilowatt rating (included above).....	943,133
Driving generators.....	2,409	Electric motors, number.....	5,362,765
Not driving generators.....	2,902	Driven by purchased energy.....	4,138,287
Diesel and semi-Diesel engines, horsepower.....	630,181	Driven by energy generated in plant.....	1,224,478
Driving generators.....	426,779	Electric motors, horsepower.....	45,291,319
Not driving generators.....	203,402	Driven by purchased energy.....	29,213,085
Other internal-combustion engines, number.....	10,278	Driven by energy generated in plant.....	16,078,234
Driving generators.....	1,457	Electric energy, kilowatt-hours.....	73,790,986,815
Not driving generators.....	8,821	Purchased.....	45,040,074,557
		Generated in plant.....	28,750,912,258
		Sold, included above <sup>2</sup> .....	2,921,964,758

<sup>1</sup> The industry "Logging camps and logging contractors (not operating mills)," numbering 967 establishments, was not included in power tabulations.<sup>2</sup> Sold to other manufacturers, to public utilities, or to the general public.

## POWER EQUIPMENT AND ENERGY CONSUMPTION

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TABLE 3.—HORSEPOWER INSTALLATION (RATED CAPACITY) PER 100 WAGE EARNERS: 1869 TO 1939

CENSUS YEAR	Total power installation per 100 wage earners (horse-power) <sup>1</sup>	PRIME MOVERS, HORSEPOWER							ELECTRIC MOTORS, HORSEPOWER			
		Total	Steam engines and turbines			Internal-combustion engines			Hydro-turbines and water wheels	Total	Driven hy purchased energy	
			Total	Steam engines	Steam turbines	Total	Diesel and semi-Diesel engines	Other internal-combustion engines				
1939	642	271	227	83	144	24	9	15	20	576	371	205
1929	491	231	198	109	89	14	(2)	2 14	19	404	260	144
1927	473	241	206	123	83	15	(2)	2 15	20	371	232	139
1925	437	245	207	139	68	15	(2)	2 15	23	319	192	127
1919 <sup>3</sup>	337	231	195	158	37	15	(2)	2 15	21	185	106	79
1919 <sup>4</sup>	333	228	193	157	36	14	(2)	2 14	21	183	105	78
1914 <sup>4</sup>	326	270	227	227	(2)	15	(2)	2 15	28	127	56	71
1909 <sup>4</sup>	5 288	261	220	220	(2)	12	(2)	2 12	29	73	27	46
1904 <sup>4</sup>	5 252	242	205	205	(2)	5	(2)	2 5	32	29	8	21
1899 <sup>4</sup>	5 6 218	213	178	2 178	(2)	3	(2)	2 3	32	11	4	7
1899 <sup>4</sup>	7 8 207	201	165	2 165	(2)	3	(2)	2 3	33	9	3	6
1889 <sup>4</sup>	8 140	138	108	2 108	(2)	(6)	(2)	(6)	30	(6)	(2)	(2)
1879 <sup>4</sup>	125	125	80	80	-----	-----	-----	-----	45	-----	-----	-----
1869 <sup>4</sup>	114	114	59	59	-----	-----	-----	-----	55	-----	-----	-----

<sup>1</sup> Horsepower of prime movers plus that of electric motors driven hy purchased energy.<sup>2</sup> Not reported separately.<sup>3</sup> For establishments with a \$5,000 minimum-value-of-products limit.<sup>4</sup> For establishments with a \$500 minimum-value-of-products limit.<sup>5</sup> Includes data for "Other" owned power (other than steam engines, internal-combustion engines, water wheels, and water motors).<sup>6</sup> Not including data for hand trades and neighborhood industries. See headnote, table 1.<sup>7</sup> Including data for hand trades and neighborhood industries. See headnote, table 1.<sup>8</sup> Includes data for "Other" owned power (other than steam engines, internal combustion engines, water wheels, and water motors) and for "Rented" power other than electric.<sup>9</sup> Less than one-half of 1 percent.

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT AND FOR

[The industry "Logging camps and logging contractors (not operating mills),"

Group No.	Group or Industry	Establishments		Horsepower installation per 100 wage earners	Prime Movers			
		Number	Number reporting power equipment		Total horsepower of prime movers	Steam engines		
						Total	Driving generators	
							Not driving generators	
1	All industries, total	1,184,230	179,674	642	21,239,195	42,538	8,192	34,346
INDUSTRY GROUP								
2	1 Food and kindred products	51,448	50,972	685	1,985,395	8,996	2,129	6,867
3	2 Tobacco manufactures	765	751	115	49,665	95	46	49
4	3 Textile-mill products and other fiber manufactures	6,444	6,236	339	1,441,513	1,286	710	576
5	4 Apparel and other finished products made from fabrics and similar materials	20,206	18,779	33	24,194	177	84	93
6	5 Lumber and timber basic products	111,520	9,842	771	1,687,664	9,967	1,036	8,931
7	6 Furniture and finished lumber products	8,457	8,394	355	406,360	2,203	699	1,504
8	7 Paper and allied products	3,279	3,237	1,560	2,792,900	1,695	513	1,182
9	8 Printing, publishing, and allied products	24,878	24,809	238	53,679	144	123	21
10	9 Chemicals and allied products	9,203	9,130	1,319	2,106,028	2,429	550	1,879
11	10 Products of petroleum and coal	989	977	2,284	1,389,421	7,620	129	7,491
12	11 Rubber products	595	579	820	288,170	385	40	345
13	12 Leather and leather products	3,508	3,448	140	150,166	509	308	201
14	13 Stone, clay, and glass products	7,024	6,908	1,056	947,183	1,286	261	1,025
15	14 Iron and steel and their products, except machinery	8,994	8,911	1,306	5,344,511	2,809	724	2,085
16	15 Nonferrous metals and their products	5,600	5,558	824	671,692	314	132	182
17	16 Electrical machinery	2,014	1,997	397	354,449	101	51	50
18	17 Machinery (except electrical)	9,506	9,459	499	434,109	1,389	439	950
19	18 Automobiles and automobile equipment	1,133	1,069	563	853,672	388	40	348
20	19 Transportation equipment except automobiles	968	959	450	131,924	277	53	224
21	20 Miscellaneous industries	7,699	7,659	199	126,500	468	125	343
INDUSTRY								
22	13 Abrasive wheels, stones, paper, cloth, and related products	124	123	466	3,872	11	4	7
23	17 Agricultural machinery (except tractors)	317	317	489	45,828	77	42	35
24	19 Aircraft and parts, including aircraft engines	125	125	190	6,250	5	4	1
25	15 Alloying; and rolling and drawing of nonferrous metals, except aluminum	188	185	1,226	98,770	37	14	23
26	15 Aluminum ware, kitchen, hospital, and household (except electrical appliances)	32	30	517	1,775	4	3	1
27	15 Aluminum products (including rolling and drawing and extruding), not elsewhere classified	162	157	928	24,708	3		3
28	9 Ammunition	13	12	576	20,721	5	4	1
29	3 Artificial leather and oilcloth	36	35	459	4,147	18	12	6
30	20 Artists' materials	42	42	577	15			
31	13 Asbestos products (except steam packing and pipe and boiler covering)	79	77	595	21,290	5	3	2
32	14 Automobile stampings	90	88	473	40			
33	18 Automobile trailers (for attachment to passenger cars)	79	79	129				
34	16 Automotive electrical equipment	84	84	426	19,794	4		4
35	1 Baking powder, yeast, and other leavening compounds	47	47	2,091	23,503	64	24	40
36	6 Baskets for fruits and vegetables	153	151	260	13,745	176	27	149
37	16 Batteries, storage and primary (dry and wet)	221	219	553	17,932	15	11	4
38	3 Batting, padding, and wadding; upholstery filling	124	123	501	5,812	11	3	8
39	20 Beauty-shop and barber-shop equipment	72	71	200	40			
40	10 Beehive coke	29	28	2,175	8,327	42	5	37
41	1 Beet sugar	85	85	2,104	204,478	407	162	245
42	4 Belts (apparel), regardless of material	245	226	28				
43	1 Biscuit, crackers, and pretzels	356	355	257	17,576	92	55	37
44	14 Blast-furnace products	334	325	2,459	4,944,118	1,891	213	1,678
45	1 Steel works and rolling mills	78	78	628	525	1		1
46	17 Blowers; exhaust and ventilating fans	77	75	352	1,779	6	6	
47	9 Bluuing	13	13	565	155	1	1	
48	19 Boat building and boat repairing	202	201	268	872	6	1	5
49	14 Bolts, nuts, washers, and rivets—made in plants not operated in connection with rolling mills	155	154	579	16,492	14	11	3
50	9 Bone black, carbon black, and lampblack	53	50	971	6,870	11	8	3
51	8 Bookbinding and related industries	1,133	1,133	131	3,890	12	10	2
52	8 Books: printing without publishing	690	690	184	2,574	12	5	7
53	8 Books: publishing and printing	150	150	151	1,275	5	5	
54	8 Books: publishing without printing	556	553	96				
55	12 Boot and shoe cut stock and findings	520	515	196	11,540	21	15	6
56	1 Bread and other bakery products (except biscuit, crackers, and pretzels)	18,043	17,982	177	12,033	154	41	113
57	13 Brick and hollow structural tile	800	774	828	70,159	331	42	289
58	20 Brooms	320	320	104	816	6	3	3
59	20 Brushes	245	243	199	3,252	12	4	8
60	20 Buttons	316	313	151	3,601	16	5	11
61	9 Candles	28	28	231	1,093	9	4	5
62	1 Candy and other confectionery products	1,252	1,244	207	20,887	103	60	43
63	1 Cane sugar—except refineries	78	78	2,648	106,562	829	111	718
64	1 Cane-sugar refining	27	27	837	113,634	202	50	152
65	1 Canned and dried fruits and vegetables (including canned soups)	2,007	1,950	259	72,843	1,160	105	1,055
66	1 Canned fish, crustaceans, and mollusks	214	212	146	4,350	96	11	85
67	4 Canvas products (except bags)	334	316	98				
68	20 Carbon paper and inked ribbons	58	58	559	5,441	7	4	3
69	16 Carbon products for the electric industry, and manufactures of carbon or artificial graphite	31	31	875	1,200	1		1
70	3 Carpets and rugs, wool	43	42	284	44,570	35	22	13

<sup>1</sup> No power equipment for the "Logging camps and logging contractors (not operating mills)" industry was tabulated but the number of establishments is included here.

## POWER EQUIPMENT AND ENERGY CONSUMPTION

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RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS  
INDUSTRIES : 1939

numbering 967 establishments, was omitted from the power-equipment tabulations.

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES

Group No.	Group or Industry	PRIME MOVERS—continued					
		Diesel and semi-Diesel engines—Con.			Other internal-combustion engines		
		Horsepower			Number		
		Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators
1	All industries, total	630,181	426,779	203,402	10,278	1,457	8,821
	INDUSTRY GROUP						
2	1 Food and kindred products	265,053	172,844	92,209	2,522	572	1,950
3	2 Tobacco manufactures	30	30	2	1	1	1
4	3 Textile-mill products and other fiber manufactures	21,890	19,506	2,384	68	23	45
5	4 Apparel and other finished products made from fabrics and similar materials	576	352	224	18	6	12
6	5 Lumber and timber basic products	54,331	5,672	48,659	2,463	32	2,431
7	6 Furniture and finished lumber products	9,455	7,060	2,395	181	19	162
8	7 Paper and allied products	6,353	4,839	1,514	35	17	18
9	8 Printing, publishing, and allied industries	2,255	2,200	55	49	14	35
10	9 Chemicals and allied products	52,444	38,573	13,871	609	92	517
11	10 Products of petroleum and coal	23,482	13,625	9,857	1,280	53	1,227
12	11 Rubber products	1,433	1,330	103	5	5	5
13	12 Leather and leather products	4,295	4,195	100	12	5	7
14	13 Stone, clay, and glass products	62,266	43,336	18,930	1,453	145	1,343
15	14 Iron and steel and their products, except machinery	37,408	30,693	6,715	659	250	439
16	15 Nonferrous metals and their products	11,969	11,469	500	85	43	42
17	16 Electrical machinery	6,756	6,656	100	35	29	6
18	17 Machinery (except electrical)	54,340	50,584	3,756	528	130	398
19	18 Automobiles and automobile equipment	1,300	1,065	235	42	16	26
20	19 Transportation equipment except automobiles	11,174	10,299	875	120	6	114
21	20 Miscellaneous industries	3,371	2,481	890	47	4	43
	INDUSTRY						
22	13 Abrasive wheels, stones, paper, cloth, and related products	60		60	7		7
23	17 Agricultural machinery (except tractors)	1,070	910	160	58	2	56
24	19 Aircraft and parts, including aircraft engines	3,400	3,400		1		1
25	15 Alloying; and rolling and drawing of nonferrous metals, except aluminum				1		1
26	15 Aluminum ware, kitchen, hospital, and household (except electrical appliances)						
27	15 Aluminum products (including rolling and drawing and extruding), not elsewhere classified						
28	9 Ammunition	450	450				
29	3 Artificial leather and oilcloth						
30	20 Artists' materials				1		1
31	13 Asbestos products (except steam packing and pipe and boiler covering)	60		60	2		2
32	14 Automobile stampings						
33	18 Automobile trailers (for attachment to passenger cars)						
34	16 Automotive electrical equipment	40	40		1	1	2
35	1 Baking powder, yeast, and other leavening compounds				2	1	1
36	6 Baskets for fruits and vegetables	440	440				
37	16 Batteries, storage and primary (dry and wet)	1,038	1,058		21	21	
38	3 Batting, padding, and wadding; upholstery filling	76		76	14		14
39	20 Beauty-shop and barber-shop equipment	40	40				
40	10 Beehive coke						
41	1 Beet sugar	430	380	50	3	3	
42	4 Belts (apparel), regardless of material						
43	1 Biscuit, crackers, and pretzels						
44	14 Blast-furnace products						
45	1 Steel works and rolling mills	7,463	6,965	498	294	129	165
	1 Blended and prepared flour made from purchased flour	255		255	3		3
46	17 Blowers; exhaust and ventilating fans				2		2
47	9 Bluing						
48	19 Boat building and boat repairing				23		23
49	14 Bolts, nuts, washers, and rivets—made in plants not operated in connection with rolling mills	2,315	1,350	965	2	2	2
50	9 Bone black, carbon black, and lamp black				86	4	82
51	8 Bookbinding and related industries	470	440	30	2	1	1
52	8 Books: printing without publishing				1		1
53	8 Books: publishing and printing						
54	8 Books: publishing without printing						
55	12 Boot and shoe cut stock and findings	20		20			
56	1 Bread and other bakery products (except biscuit, crackers, and pretzels)	1,384	999	385	55	16	39
57	13 Brick and hollow structural tile	10,459	4,762	5,697	274	26	248
58	20 Brooms				6		6
59	20 Brushes	135	95	40	4		4
60	20 Buttons	400	205	135			
61	9 Candles						
62	1 Candy and other confectionery products	930	820	110	5	3	2
63	1 Cane sugar—except refineries	2,511	1,805	706	31		31
64	1 Cane-sugar refining	270	270		3	2	1
65	1 Canned and dried fruits and vegetables (including canned soups)	1,581	517	1,064	412	4	408
66	1 Canned fish, crustacea, and mollusks	545	174	371	21	1	20
67	4 Canvas products (except bags)				2		2
68	20 Carbon paper and inked ribbons						
69	16 Carbon products for the electrical industry, and manufactures of carbon or artificial graphite						
70	3 Carpets and rags, wool				1		1

## POWER EQUIPMENT AND ENERGY CONSUMPTION

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RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND  
1939—Continued

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES.

Group No.	Group or Industry	Generators (kilowatt rating)						
		Total kilowatt rating	Driven by—					Ordinarily idle (included in total kilowatt rating)
			Steam engines	Steam turbines	Diesel and semi-Diesel engines	Other internal-combustion engines	Hydro-turbines and water wheels	
1	All industries, total	9,658,828	1,454,945	6,752,685	257,702	316,044	847,452	943,133
	INDUSTRY GROUP							
2	1 Food and kindred products	720,413	266,164	318,709	94,425	30,039	11,076	80,711
3	2 Tobacco manufactures	31,512	9,451	22,050	—	3	8	6,602
4	3 Textile—mill products and other fiber manufactures	899,354	162,415	539,750	12,601	2,037	182,551	122,302
5	4 Apparel and other finished products made from fabrics and similar materials	14,050	10,571	2,135	205	387	749	760
6	5 Lumber and timber basic products	531,935	129,632	388,829	4,214	723	8,537	23,811
7	6 Furniture and finished lumber products	181,084	111,583	60,663	4,625	1,457	2,756	12,142
8	7 Paper and allied products	1,546,870	143,418	1,064,851	3,370	2,383	332,548	141,080
9	8 Printing, publishing, and allied industries	33,088	23,218	7,085	1,488	1,111	186	7,271
10	9 Chemicals and allied products	1,103,147	95,941	869,107	15,636	7,483	114,980	83,788
11	10 Products of petroleum and coal	409,210	27,967	367,227	9,028	4,888	100	65,969
12	11 Rubber products	167,248	7,130	158,870	848	—	400	25,783
13	12 Leather and leather products	88,972	51,607	31,294	2,665	590	2,516	12,234
14	13 Stone, clay, and glass products	517,256	52,141	404,664	28,780	19,532	11,839	45,481
15	14 Iron and steel and their products, except machinery	1,877,701	200,276	1,412,358	20,794	234,905	9,368	165,479
16	15 Nonferrous metals and their products	412,526	40,822	228,220	7,558	2,283	133,643	64,409
17	16 Electrical machinery	248,697	14,796	225,317	4,896	672	3,016	16,822
18	17 Machinery (except electrical)	253,494	86,451	117,636	36,445	5,508	7,154	34,723
19	18 Automobiles and automobile equipment	502,339	18,351	458,248	720	1,120	23,900	8,068
20	19 Transportation equipment except automobiles	60,641	12,880	39,800	7,720	241	—	13,135
21	20 Miscellaneous industries	59,291	20,131	35,872	1,681	82	1,525	9,563
	INDUSTRY							
22	13 Abrasive wheels, stones, paper, cloth, and related products	2,050	725	1,325	—	—	—	—
23	17 Agricultural machinery (except tractors)	26,890	10,045	14,275	632	63	1,875	483
24	19 Aircraft and parts, including aircraft engines	4,468	1,668	—	2,800	—	—	—
25	15 Alloying; and rolling and drawing of nonferrous metals, except aluminum	60,991	5,487	54,755	—	—	719	8,610
26	15 Aluminum ware, kitchen, hospital, and household (except electrical appliances)	559	559	—	—	—	—	—
27	15 Aluminum products (including rolling and drawing and extruding), not elsewhere classified	17,500	—	17,500	—	—	—	—
28	9 Ammunition	14,618	1,150	13,176	292	—	—	1,676
29	3 Artificial leather and oilcloth	2,325	485	1,600	—	240	—	232
30	20 Artists' materials	—	—	—	—	—	—	—
31	13 Asbestos products (except steam packing and pipe and boiler covering)	13,452	402	13,050	—	—	—	102
32	14 Automobile stampings	—	—	—	—	—	—	—
33	18 Automobile trailers (for attachment to passenger cars)	—	—	—	—	—	—	—
34	16 Automotive electrical equipment	13,831	—	11,500	25	100	2,206	2,580
35	1 Baking powder, yeast, and other leavening compounds	5,245	4,945	300	—	—	—	1,055
36	6 Baskets for fruits and vegetables	2,946	1,778	927	225	16	—	56
37	16 Batteries, storage and primary (dry and wet)	12,192	4,622	6,300	752	478	40	5,143
38	3 Batting, padding, and wadding; upholstery filling	1,937	399	858	—	—	650	—
39	20 Beauty-shop and barber-shop equipment	—	20	—	—	20	—	—
40	10 Beehive coke	3,800	—	3,000	—	—	—	—
41	1 Beet sugar	86,270	25,595	59,810	245	620	—	2,586
42	4 Belts (apparel), regardless of material	—	—	—	—	—	—	—
43	1 Biscuit, crackers, and pretzels	10,872	9,177	1,695	—	—	—	2,902
44	14 Blast-furnace products	1,674,242	101,649	1,341,366	4,820	225,532	875	131,001
45	1 Blended and prepared flour made from purchased flour	—	—	—	—	—	—	—
46	17 Blowers; exhaust and ventilating fans	1,310	1,250	60	—	—	—	60
47	9 Bluing	130	100	30	—	—	—	130
48	19 Boat building and boat repairing	70	70	—	—	—	—	—
49	14 Bolts, nuts, washers, and rivets—made in plants not operated in connection with rolling mill	9,625	2,675	6,000	950	—	—	1,780
50	9 Bone black, carbon black, and lampblack	2,188	623	1,500	—	65	—	240
51	8 Bookbinding and related industries	1,310	—	—	—	—	—	—
52	8 Books: printing without publishing	1,483	483	1,000	—	—	—	165
53	8 Books: publishing and printing	874	808	—	—	—	66	150
54	8 Books: publishing without printing	—	—	—	—	—	—	—
55	12 Boot and shoe cut stock and findings	8,062	1,787	5,600	—	—	675	480
56	1 Bread and other bakery products (except biscuit, crackers, and pretzels)	6,161	4,267	420	542	932	—	1,010
57	13 Bricks and hollow structural tile	10,135	4,311	1,100	2,615	2,019	90	1,393
58	20 Brooms	315	315	—	—	—	—	70
59	20 Brushes	995	435	500	60	—	—	100
60	20 Buttons	826	250	300	201	—	75	150
61	9 Candles	—	365	365	—	—	—	—
62	1 Candy and other confectionery products	11,426	8,868	1,916	552	90	—	430
63	1 Cane sugar—except refineries	14,874	7,454	6,233	1,187	—	—	3,007
64	1 Cane-sugar refining	66,391	22,796	43,255	180	160	—	14,155
65	1 Canned and dried fruits and vegetables (including canned soups)	12,074	9,473	1,995	314	292	—	1,082
66	1 Canned fish, crustacea, and mollusks	517	374	8	130	2	3	—
67	4 Canvas products (except bags)	—	—	—	—	—	—	—
68	20 Carbon paper and inked ribbons	3,328	328	3,000	—	—	—	—
69	16 Carbon products for the electrical industry, and manufactures of carbon or artificial graphite	—	—	—	—	—	—	—
70	3 Carpets and rugs, wool	30,475	5,405	24,350	—	—	750	5,486

## POWER EQUIPMENT AND ENERGY CONSUMPTION

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RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued

ELECTRIC MOTORS					ELECTRIC ENERGY (KILOWATT HOURS)			
Aggregate horse-power	Driven by purchased energy		Driven by plant energy		Generated in plant	Sold	Purchased	
	Number	Horsepower	Number	Horsepower				
45,291,319	4,138,287	29,218,085	1,224,478	16,078,234	28,750,912,258	2,921,964,758	45,040,074,557	1
4,652,156	610,645	3,656,029	122,115	996,127	1,469,504,428	79,809,096	4,998,208,716	2
80,661	22,248	50,846	6,878	29,815	52,666,256	3,641,951	65,675,344	3
3,184,229	506,396	2,228,977	183,040	955,252	1,774,062,903	171,555,947	5,202,104,424	4
231,806	212,163	220,271	5,761	11,535	12,289,641	1,297,096	341,969,560	5
1,709,125	68,911	916,470	52,664	792,655	896,292,795	184,833,129	526,116,749	6
940,288	139,968	634,436	53,861	305,852	191,678,170	4,550,924	417,938,156	7
3,498,419	116,367	1,336,303	101,388	2,162,116	6,347,237,423	211,863,776	3,258,228,130	8
763,903	308,713	717,994	10,805	45,909	49,684,155	3,216,615	812,741,418	9
2,932,044	189,066	1,681,652	137,449	1,250,392	4,433,408,336	176,214,967	5,554,225,550	10
1,770,365	40,788	1,018,891	26,970	751,474	1,646,096,764	115,179,516	1,909,267,106	11
983,332	58,161	701,757	18,536	281,575	507,632,917	5,007,195	1,081,810,842	12
418,122	95,916	309,866	19,495	108,256	135,881,764	21,177,425	287,149,241	13
2,991,046	148,254	2,089,488	41,390	901,558	1,627,283,162	34,181,931	3,258,522,699	14
12,348,399	490,170	7,277,940	159,916	5,070,459	5,948,991,443	1,363,681,786	7,650,601,022	15
1,553,990	136,984	1,212,772	26,318	341,218	1,473,781,797	311,770,658	4,793,569,474	16
1,016,877	186,174	664,874	63,786	352,003	470,057,648	53,293,735	1,014,843,095	17
2,746,416	383,399	2,177,888	72,996	568,528	353,290,814	10,799,344	1,642,923,135	18
2,231,363	230,262	1,393,294	85,386	838,069	1,174,419,502	128,347,153	1,421,309,614	19
826,261	61,605	574,739	16,845	251,522	67,202,649	4,435,492	419,460,028	20
412,517	132,097	348,598	18,879	63,919	119,449,691	37,107,022	383,410,254	21
43,622	6,579	32,199	1,672	11,423	2,792,870		108,853,122	22
132,601	11,988	90,037	5,469	42,564	24,223,922	383,325	62,021,656	23
86,278	22,839	86,098	46	180	6,000		117,190,008	24
501,008	24,153	376,924	6,704	124,084	172,363,431	647,062	504,029,184	25
30,787	5,019	30,787			610,420		26,348,672	26
159,761	10,466	135,364	1,432	24,397	28,744,740		215,673,898	27
14,658	921	3,856	2,097	10,502	16,809,221	1,889,887	6,935,381	28
17,821	2,120	14,109	575	3,712	6,143,870		17,782,977	29
2,275	519	2,275					3,656,629	30
68,276	5,187	38,123	3,397	30,153	33,818,139	421,680	63,365,433	31
40,638	7,208	40,638					32,499,695	32
1,838	1,133	1,838					1,267,567	33
105,723	17,184	54,652	5,067	51,071	44,679,181	28,283,262	56,653,675	34
35,164	2,292	25,309	1,322	9,855	11,380,279		31,294,384	35
11,549	1,152	7,175	682	4,374	1,200,440	14,500	4,047,098	36
72,675	8,673	65,211	1,401	7,464	14,650,508		141,979,589	37
19,818	2,073	16,767	300	3,051	6,407,845	3,000,000	20,159,960	38
3,959	1,402	3,934	1	25	26,000		1,866,755	39
8,300	286	6,572	74	1,728	3,806,350	1,894,572	2,847,218	40
151,647	1,024	14,597	9,038	137,050	149,335,845	11,236,876	11,571,913	41
1,172	1,560	1,172					1,607,303	42
72,609	16,019	57,526	4,512	15,083	13,066,703		41,119,989	43
9,346,463	114,960	4,606,359	117,902	4,740,104	5,680,050,722	1,349,587,089	5,116,980,842	44
3,912	633	3,912					2,305,285	45
13,934	2,258	11,896	197	2,038	2,955,000		5,562,605	46
156	63	156					77,486	47
6,184	2,080	6,184			15,000		2,420,907	48
77,880	10,058	66,469	1,547	11,411	11,432,703	865,288	60,841,414	49
8,652	1,273	8,418	48	234	2,050,830		29,240,306	50
32,950	20,987	29,840	918	3,110	3,154,476		27,685,021	51
29,801	13,488	27,857	557	1,944	1,346,980		35,451,438	52
9,616	3,808	7,905	778	1,711	701,500	3,356	9,521,875	53
130	165	130					2,323,351	54
27,556	8,714	25,308	504	2,248	6,899,874	4,849,804	21,906,151	55
349,792	141,346	343,794	1,527	5,998	12,900,155		480,306,187	56
180,257	7,424	170,461	658	9,826	10,334,640	389,055	154,639,118	57
3,328	1,231	3,130	44	198	90,000		2,281,886	58
14,424	5,575	12,444	708	1,980	1,136,920		10,100,221	59
14,067	3,366	12,986	171	1,081	691,345		18,213,567	60
998	356	844	105	154	295,210		682,577	61
102,397	27,669	82,120	6,252	20,277	14,425,462		92,328,096	62
17,341	256	5,088	629	12,253	14,248,452		2,204,735	63
129,248	594	4,717	10,462	124,531	200,716,375	4,901,766	5,774,635	64
197,201	42,319	180,989	3,997	16,212	13,242,680	66,220	92,625,695	65
19,104	3,130	18,690	69	414	188,144		12,333,175	66
3,805	3,739	3,805					2,965,586	67
5,712	1,649	4,295	466	1,417	929,962		4,477,285	68
26,697	4,480	26,697					165,436,946	69
67,379	5,323	28,038	6,157	39,341	49,297,840	1,366,900	38,726,558	70

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	ESTABLISHMENTS		Horse-power installation per 100 wage earners	PRIME MOVERS			
		Number	Number reporting power equipment		Total horsepower of prime movers	Steam engines		
						Total	Driving generators	
INDUSTRY—continued								
1	3 Carpets, rugs, and mats made from such materials as paper fiber, grass, jute, flax, sisal, cotton, cocoa fiber, and rags-----	84	82	114	930	6	3	
2	3 Carpet yarn, woolen and worsted-----	18	17	295	2,575	3	1	
3	19 Cars and car equipment—railroad, street, and rapid-transit-----	143	143	908	63,529	109	21	
4	17 Cars and trucks, industrial-----	55	55	539	1,543	5	4	
5	6 Caskets, coffins, burial cases, and other morticians' goods-----	599	597	330	11,115	70	35	
6	14 Cast-iron pipe and fittings-----	74	72	405	6,942	22	12	
7	13 Cement-----	160	157	5,173	554,650	73	34	
8	1 Cereal preparations-----	70	69	1,033	16,551	12	3	
9	1 Cheese-----	2,682	2,665	653	8,466	501	33	
10	9 Chemicals not elsewhere classified-----	543	541	2,671	1,149,347	663	91	
11	1 Chewing gum-----	27	26	466	5,702	16	3	
12	4 Children's coats—made in contract factories-----	45	45	19	-----	-----	-----	
13	4 Children's coats—made in inside factories or by jobbers engaging contractors-----	108	108	14	-----	-----	-----	
14	4 Children's dresses—made in inside factories or by jobbers engaging contractors-----	182	180	17	-----	-----	-----	
15	4 Children's dresses—made in contract factories-----	114	113	18	-----	-----	-----	
16	4 Children's and infants' wear not elsewhere classified—made in contract factories-----	22	22	21	-----	-----	-----	
17	4 Children's and infants' wear not elsewhere classified—made in inside factories or by jobbers engaging contractors-----	103	103	24	-----	-----	-----	
18	20 Children's vehicles-----	44	43	180	1,275	4	1	
19	13 China firing and decorating (for the trade)-----	24	24	12	-----	-----	-----	
20	1 Chocolate and cocoa products-----	39	39	1,303	40,815	13	5	
21	6 Cigar boxes: wooden, part wooden-----	59	58	154	1,318	10	3	
22	2 Cigarettes-----	35	29	217	37,151	14	6	
23	2 Cigars-----	598	591	38	1,501	7	7	
24	13 Clay products (except pottery), not elsewhere classified-----	99	97	802	6,703	48	2	
25	13 Clay refractories, including refractory cement (clay)-----	165	157	640	18,922	106	23	
26	9 Cleaning and polishing preparations, blackings, and dressings-----	637	635	358	1,185	10	4	
27	15 Clocks, watches, and materials and parts (except watchcases)-----	74	72	139	12,630	20	14	
28	4 Clothing, leather and sheep-lined-----	97	96	32	50	1	1	
29	3 Cloth sponging and miscellaneous special finishing-----	112	112	289	2,040	2	2	
30	9 Coal-tar products, crude and intermediate-----	49	49	1,087	8,753	16	-----	
31	7 Coated and glazed paper-----	140	138	545	9,097	23	18	
32	4 Coats, suits, and skirts (except fur coats)—made in contract factories-----	846	846	20	16	2	2	
33	4 Coats, suits, and skirts (except fur coats)—made in inside factories or by jobbers engaging contractors-----	1,120	931	20	4	-----	-----	
34	14 Cold-rolled steel sheets and strip and cold-finished steel bars made in plants not operated in connection with hot-rolling mills-----	43	42	1,782	2,457	7	6	
35	15 Collapsible tubes-----	14	14	226	400	-----	1	
36	9 Colors and pigments-----	89	89	1,452	28,504	34	15	
37	17 Commercial laundry, dry-cleaning, and pressing machinery-----	82	81	502	5,046	8	6	
38	16 Communication equipment-----	227	227	384	82,272	9	3	
39	9 Compressed and liquefied gases—not made in petroleum refineries or in natural-gasoline plants-----	379	377	3,059	21,243	52	5	
40	13 Concrete products-----	2,040	2,015	628	25,291	93	93	
41	1 Condensed and evaporated milk-----	562	559	1,157	60,112	493	234	
42	17 Construction and similar machinery (except mining and oil-field machinery and tools)-----	199	197	694	16,782	49	27	
43	7 Converted paper products not elsewhere classified-----	384	383	193	8,839	17	16	
44	1 Cooking and other edible fats and oils not elsewhere classified-----	56	56	1,141	14,889	104	25	
45	6 Cooperage-----	350	338	426	19,038	100	48	
46	3 Cordage and twine-----	116	113	677	18,071	29	15	
47	6 Cork products-----	35	34	482	4,230	3	3	
48	1 Corn syrup, corn sugar, corn oil, and starch-----	35	35	1,680	102,360	26	15	
49	4 Corsets and allied garments-----	272	270	48	3,165	14	13	
50	20 Costume jewelry and costume novelties (jewelry other than fine jewelry)-----	289	288	56	295	1	1	
51	3 Cotton broad woven goods-----	661	600	480	548,654	160	70	
52	3 Cotton narrow fabrics-----	163	157	212	6,256	26	18	
53	9 Cottonseed oil, cake, meal, and linters-----	447	443	2,053	133,365	299	71	
54	3 Cotton thread-----	75	74	515	28,160	20	10	
55	3 Cotton yarn-----	349	326	508	53,579	34	20	
56	1 Creamery butter-----	3,506	3,494	1,209	43,294	661	72	
57	1 Cured fish-----	114	110	269	373	18	5	
58	4 Curtains, draperies, and hedspreads—contract factories-----	75	75	30	-----	-----	-----	
59	4 Curtains, draperies, and hedspreads—made in regular factories or by jobbers engaging contractors-----	362	337	31	65	1	1	
60	1 Custom slaughtering, wholesale-----	40	40	836	945	8	-----	
61	14 Cutlery (except aluminum, silver, and plated cutlery) and edge tools-----	266	264	373	24,896	24	10	
62	20 Dental equipment and supplies-----	131	129	192	2,020	7	7	
63	7 Die-cut paper and paperboard, and converted cardboard-----	121	120	206	2,840	16	12	
64	20 Dolls (except rubber)-----	84	84	53	-----	10	4	
65	14 Doors, window sash, frames, molding, and trim (made of metal)-----	205	202	396	2,155	7	4	
66	4 Dress and semidress gloves and mittens; cloth, cloth and leather combined-----	49	48	22	-----	-----	3	
67	9 Drugs and medicines (including drug grinding)-----	1,094	1,091	341	20,506	94	44	
68	3 Dyeing and finishing cotton, rayon, silk, and linen textiles-----	468	460	446	164,713	231	120	
69	3 Dyeing and finishing woolen and worsted-----	63	61	534	14,425	35	22	
70	16 Electric lamps-----	55	50	228	550	1	1	

**POWER EQUIPMENT AND ENERGY CONSUMPTION**

13

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued

PRIME MOVERS—continued											
Steam engines—Continued			Steam turbines						Diesel and semi-Diesel engines		
Horsepower		Number		Horsepower		Number		Driving generators		Not driving generators	
Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators
855	580	275	1	1		75	75				
1,075	750	325	2	2		1,500	1,500				
27,305	7,422	19,883	23	23		35,774	35,774				
1,325	1,225	100							2		2
9,863	6,937	2,926	2	2		567	567		1		1
3,974	3,109	865	4	4		1,798	1,798		2		2
48,258	30,181	18,077	156	133	23	479,623	475,748	3,875	26	18	8
2,696	2,157	539	14	6	8	13,200	12,679	521	3	3	8
7,133	1,254	5,879	78	2	76	659	139	520	5		9
200,084	46,884	153,200	743	174	569	759,429	660,466	98,963	18	5	13
4,302	2,000	2,302	4	4		1,200	1,200		2		2
											11
											12
											13
											14
											15
											16
915	500	415	2			200			200		
											17
											18
											19
2,710	2,400	310	9	4	5	36,403	36,193	210	2	2	20
1,238	825	413							1	1	21
5,582	5,352	230	17	13	4	31,539	31,280	259	1		22
1,501	1,501										23
4,382	600	3,782	1			35			35	18	24
15,986	3,808	12,178	5	5		740	740		2	2	25
832	505	327	1	1		350					26
8,545	7,530	1,015	4	3	1	4,025	3,775	250			27
50	50										28
175		175	1	1		1,690	1,690				29
995		995	14	3	11	7,747	7,333	414			30
6,522	5,859	663	1	1		200	200		2	2	31
12		12							1		32
											33
2,137	2,087	50									34
											35
5,635	3,344	2,291	17	9	8	21,167	18,822	2,345	3	1	2
2,345	1,979	366	3	2	1	1,901	1,876	25			36
1,304	610	694	27	16	11	79,789	78,414	1,375	5	5	37
7,519	1,125	6,394	8	2	6	1,402	1,265	137	14	12	39
3,632		3,632	1		1	10		10	24	4	40
53,807	40,330	13,477	93	28	65	4,598	3,056	1,542	7	5	41
8,097	6,980	1,117	7	7		4,475	4,475		29	28	42
6,100	6,000	100	2			169	169		3	3	43
10,128	6,051	4,077	8	3	5	3,611	2,720	891	1	1	44
16,752	11,004	5,748	4	2	2	1,190	1,000	190	10	6	45
9,315	4,440	4,875	6	4	2	6,015	5,760	255	5	3	46
1,380	1,380		8	8		2,850	2,850				47
15,635	12,907	2,728	40	27	13	86,582	83,997	2,585	3	2	48
3,165	3,015	150									49
64		64							2	2	50
81,131	43,883	37,248	116	110	6	307,112	302,269	4,843	12	8	4
3,714	3,029	685	1	1		800	800		2		52
88,874	24,695	64,179	10	4	6	5,778	4,848	930	107	67	40
5,075	2,885	2,190	11	9.	2	19,010	18,110	900	1	1	54
14,991	10,297	4,694	8	7	1	5,995	5,925	70	10	7	55
32,059	11,514	20,545	91	4	87	1,049	450	599	71	34	56
347	80	267									57
											58
65		65									59
570		570							2	2	60
3,565	2,410	1,155	8	4	.4	14,393	12,183	2,210	4	2	61
1,140	1,140		3	3		845	845		1	1	62
2,392	2,197	195	4		4	23			23	4	63
998	638	360	2	2		337	337				64
											65
8,545	6,481	2,064	19	9	10	11,076	10,401	675	3	3	66
47,851	39,443	8,408	201	93	108	102,936	95,024	7,912	2	1	67
8,295	7,707	588	10	6	4	5,650	5,130	520	2	2	68
550	550										69
											70

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group of Industry	PRIME MOVERS—continued					
		Diesel and semi-Diesel engines—Con.			Other internal-combustion engines		
		Horsepower			Number		
		Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators
INDUSTRY—continued							
1	3	Carpets, rugs, and mats made from such materials as paper fiber, grass, jute, flax, sisal, cotton, cocoa fiber, and rags.....					
2	3	Carpet yarn, woolen and worsted.....					
3	19	Cars and car equipment—railroad, street, and rapid-transit.....	46	46	2	2	1
4	17	Cars and trucks, industrial.....	80	80	4	4	
5	6	Caskets, coffins, burial cases, and other morticians' goods.....					
6	14	Cast-iron pipe and fittings.....	775	775	2	2	
7	13	Cement.....	17,848	17,245	48	9	39
8	1	Cereal preparations.....	450	450	2	2	
9	1	Cheese.....	64	64	130	4	126
10	9	Chemicals not elsewhere classified.....	2,803	1,554	187	14	173
11	1	Chewing gum.....	200	200			
12	4	Children's coats—made in contract factories.....					
13	4	Children's coats—made in inside factories or by jobbers engaging contractors.....					
14	4	Children's dresses—made in inside factories or by jobbers engaging contractors.....					
15	4	Children's dresses—made in contract factories.....					
16	4	Children's and infants' wear not elsewhere classified—made in contract factories.....					
17	4	Children's and infants' wear not elsewhere classified—made in inside factories or by jobbers engaging contractors.....					
18	20	Children's vehicles.....					
19	13	China firing and decorating (for the trade).....					
20	1	Chocolate and cocoa products.....	1,060	1,060			
21	6	Cigar boxes: wooden, part wooden.....	80	80			
22	2	Cigarettes.....	30	30			
23	2	Cigars.....					
24	13	Clay products (except pottery), not elsewhere classified.....	1,812	390	1,422	12	
25	13	Clay refractories, including refractory cement (clay).....	360	360	30	7	11 23
26	9	Cleaning and polishing preparations, blackings, and dressings.....					
27	15	Clocks, watches, and materials and parts (except watchcases).....				1	1
28	4	Clothing, leather and sheep-lined.....					
29	3	Cloth sponging and miscellaneous special finishing.....				3	3
30	9	Coal-tar products, crude and intermediate.....					
31	7	Coated and glazed paper.....	430	430	4	4	
32	4	Coats, suits, and skirts (except fur coats)—made in contract factories.....	4	4			
33	4	Coats, suits, and skirts (except fur coats)—made in inside factories or by jobbers engaging contractors.....					
34	14	Cold-rolled steel sheets and strip and cold-finished steel bars made in plants not operated in connection with hot-rolling mills.....				1	1
35	15	Collapsible tubes.....				5	5
36	9	Colors and pigments.....	462	325	137	3	3
37	17	Commercial laundry, dry-cleaning, and pressing machinery.....					
38	16	Communication equipment.....	735	735		2	2
39	9	Compressed and liquefied gases—not made in petroleum refineries or in natural-gasoline plants.....					
40	13	Concrete products.....	2,675	2,480	195	28	20
			1,877	465	1,412	538	527
41	1	Condensed and evaporated milk.....	605	555	50	21	16
42	17	Construction and similar machinery (except mining and oil-field machinery and tools).....	3,840	3,760	80	5	
43	7	Converted paper products not elsewhere classified.....	920	920		4	3
44	1	Cooking and other edible fats and oils not elsewhere classified.....	150	150		6	2
45	6	Cooperage.....	656	506	180	8	7
46	3	Cordage and twine.....	715	540	175	3	3
47	6	Cork products.....					
48	1	Corn syrup, corn sugar, corn oil, and starch.....	143	75	68		
49	4	Corsets and allied garments.....					
50	20	Costume jewelry and costume novelties (jewelry other than fine jewelry).....	41	41			
51	3	Cotton broad woven goods.....	4,034	3,208	826	7	4
52	3	Cotton narrow fabrics.....	250	250			
53	9	Cottonseed oil, cake, meal, and linters.....	23,214	14,914	8,300	108	34
54	3	Cotton thread.....	60	60		1	
55	3	Cotton yarn.....	4,695	3,845	850		
56	1	Creamery butter.....	5,880	4,356	1,524	103	10
57	1	Cured fish.....				5	5
58	4	Curtains, draperies, and hedspreads—contract factories.....					
59	4	Curtains, draperies, and hedspreads—made in regular factories or by jobbers engaging contractors.....					
60	1	Custom slaughtering, wholesale.....	375	375			
61	14	Cutlery (except aluminum, silver, and plated cutlery) and edge tools.....	260	205	55	4	4
62	20	Dental equipment and supplies.....	35	35			
63	7	Die-cut paper and paperboard, and converted cardboard.....	425	425			
64	20	Dolls (except rubber).....					
65	14	Doors, window sash, frames, molding, and trim (made of metal).....					
66	4	Dress and semidress gloves and mittens: cloth, eloth and leather combined.....					
67	9	Drugs and medicines (including drug grinding).....	785	785		6	2
68	3	Dyeing and finishing cotton, rayon, silk, and linen textiles.....	170	60	110	1	1
69	3	Dyeing and finishing woolen and worsted.....	225	225			
70	16	Electric lamps.....					

## POWER EQUIPMENT AND ENERGY CONSUMPTION

15

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND  
1939—Continued

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	Total kilowatt rating	Generators (kilowatt rating)					Ordinarily idle (included in total kilowatt rating)	
			Driven by—						
			Steam engines	Steam turbines	Diesel and semi-Diesel engines	Other internal-combustion engines	Hydro-turbines and water wheels		
INDUSTRY—continued									
1	3 Carpets, rugs, and mats made from such materials as paper fiber, grass, jute, flax, sisal, cotton, cocoa fiber, and rags.	437	387	50					
2	3 Carpet yarn, woolen and worsted.	1,088	338	750					
3	19 Cars and car equipment—railroad, street, and rapid-transit.	29,471	4,796	24,675				3,825	
4	17 Cars and trucks, industrial.	822	735		47		40		
5	6 Caskets, coffins, burial cases, and other morticians' goods.	5,524	4,994	375			155	434	
6	14 Cast-iron pipe and fittings.	3,732	2,072	1,310		200	150	1,355	
7	13 Cement.	378,426	22,320	339,921	11,680	2,305	2,200	34,675	
8	1 Cereal preparations.	10,858	1,438	9,125	165	130			
9	1 Cheese.	1,051	825	103		123		472	
10	9 Chemicals not elsewhere classified.	613,311	30,713	470,647	946	950	110,055	33,477	
11	1 Chewing gum.	2,228	1,428	800				578	
12	4 Children's coats—made in contract factories.								
13	4 Children's coats—made in inside factories or by jobbers engaging contractors.								
14	4 Children's dresses—made in inside factories or by jobbers engaging contractors.								
15	4 Children's dresses—made in contract factories.								
16	4 Children's and infants' wear not elsewhere classified—made in contract factories.								
17	4 Children's and infants' wear not elsewhere classified—made in inside factories or by jobbers engaging contractors.								
18	20 Children's vehicles.	450	300					150	
19	13 China firing and decorating (for the trade).								
20	1 Chocolate and cocoa products.	29,970	1,750	27,000	740		480	3,500	
21	6 Cigar boxes: wooden, part wooden.	550	480	70					
22	2 Cigarettes.	25,582	3,532	22,050				5,792	
23	2 Cigars.	1,090	1,090						
24	13 Clay products (except pottery) not elsewhere classified.	640	425		165	50			
25	13 Clay refractories, including refractory cement (clay).	3,278	1,848	515	240	675		136	
26	9 Cleaning and polishing preparations, blackings, and dressings.	456	156	300				125	
27	15 Clocks, watches, and materials and parts (except watchcases).	8,260	5,390	2,825				45	
28	4 Clothing, leather and sheep-lined.	30	30						
29	3 Cloth sponging and miscellaneous special finishing.	1,380		1,250				130	
30	9 Coal-tar products, crude and intermediate.	5,500		5,500					
31	7 Coated and glazed paper.	5,908	4,139	150	274	765	580	417	
32	4 Coats, suits, and skirts (except fur coats)—made in contract factories.								
33	4 Coats, suits, and skirts (except fur coats)—made in inside factories or by jobbers engaging contractors.								
34	14 Cold-rolled steel sheets and strip and cold-finished steel bars made in plants not operated in connection with hot-rolling mills.	1,775	1,575				200	1,175	
35	15 Collapsible tubes.	300				300			
36	9 Colors and pigments.	15,762	2,212	12,700	250		600	675	
37	17 Commercial laundry, dry cleaning, and pressing machinery.	3,360	1,500	1,400			460	110	
38	16 Communication equipment.	55,807	357	54,650	460		340	282	
39	9 Compressed and liquefied gases—not made in petroleum refineries or in natural-gasoline plants.	4,174	893	900	1,572	309	500	130	
40	13 Concrete products.	336			251	85		12	
41	1 Condensed and evaporated milk.	30,204	27,304	2,127	403	145	225	2,385	
42	17 Construction and similar machinery (except mining and oil-field machinery and tools).	11,501	4,904	3,170	3,347	80		2,885	
43	7 Converted paper products not elsewhere classified.	5,280	4,045	86	690	10	449	875	
44	1 Cooking and other edible fats and oils not elsewhere classified.	6,826	4,496	2,015	100	215		1,340	
45	6 Cooperage.	8,068	6,935	750	308	75		895	
46	3 Cordage and twine.	6,837	1,682	4,000	375		780	1,865	
47	6 Cork products.	3,090	1,090	2,000					
48	1 Corn syrup, corn sugar, corn oil, and starch.	71,538	9,920	61,550	68			5,550	
49	4 Corsets and allied garments.	2,071	2,071					285	
50	20 Costume jewelry and costume novelties (jewelry other than fine jewelry).	40			25			15	
51	3 Cotton broad woven goods.	349,968	26,524	222,253	2,142	925	98,124	40,776	
52	3 Cotton narrow fabrics.	3,194	1,755	600	100		739	75	
53	9 Cottonseed oil, cake, meal, and linters.	21,297	7,114	3,625	6,850	3,708		2,301	
54	3 Cotton thread.	17,307	2,017	12,685	90	25	2,490	4,350	
55	3 Cotton yarn.	30,546	5,288	4,540	2,650		18,068	4,755	
56	1 Creamery butter.	10,787	7,164	330	2,700	563	30	1,267	
57	1 Cured fish.	60	60					60	
58	4 Curtains, draperies, and bedspreads—contract factories.								
59	4 Curtains, draperies, and bedspreads—made in regular factories or by jobbers engaging contractors.								
60	1 Custom slaughtering, wholesale.	252			252				
61	14 Cutlery (except aluminum, silver, and plated cutlery) and edge tools.	15,037	1,720	9,060	166		4,091	430	
62	20 Dental equipment and supplies.	1,496	856	625	15			100	
63	7 Die-cut paper and paperboard, and converted cardboard.	1,785	1,510		275			120	
64	20 Dolls (except rubber).								
65	14 Doors, window sash, frames, molding, and trim (made of metal).	1,285	440	225			620		
66	4 Dress and semidress gloves and mittens: cloth, cloth and leather combined.								
67	9 Drugs and medicines (including drug grinding).	11,943	4,096	7,275	519	53		1,211	
68	3 Dyeing and finishing cotton, rayon, silk, and linen textiles.	102,345	28,085	66,864	40		7,356	20,285	
69	3 Dyeing and finishing woolen and worsted.	8,618	5,218	3,250	150			1,396	
70	16 Electric lamps.	337	337					337	

**POWER EQUIPMENT AND ENERGY CONSUMPTION**

17

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued

Aggregate horse-power	ELECTRIC MOTORS				ELECTRIC ENERGY (KILOWATT-HOURS)		
	Driven by purchased energy		Driven by plant energy		Generated in plant	Sold	Purchased
	Number	Horsepower	Number	Horsepower			
3,095	1,412	2,659	85	436	500,930	2,754	3,618,881 1
11,128	716	6,668	628	4,460	7,210,400	10,066,967 2	
244,873	11,832	159,093	5,825	85,780	29,389,870	1,002,140	59,289,263 3
14,541	1,668	13,192	181	1,349	711,605		6,047,773 4
38,663	7,538	30,006	1,383	8,657	2,100,185		16,115,581 5
68,507	5,265	59,855	662	8,652	4,067,880		55,646,668 6
1,335,231	14,736	676,682	15,876	658,549	1,319,235,603	21,049,500	1,402,367,970 7
79,731	7,411	60,5 8	2,445	19,223	27,580,823	1,752,670	91,478,344 8
24,619	12,597	24,262	117	357	1,101,515		23,902,884 9
1,076,075	46,597	460,559	40,848	615,516	2,873,105,538	142,750,068	3,805,981,195 10
11,204	1,631	6,527	1,362	4,677	4,455,407	408,766	6,957,075 11
220	243	220					465,674 12
296	443	296					1,589,424 13
1,766	1,804	1,766					4,070,034 14
813	668	813					1,194,638 15
210	110	210					344,923 16
1,031	1,359	1,031					1,744,127 17
7,058	1,784	6,481	248	577	509,000		5,123,614 18
52	83	52					167,384 19
90,180	4,849	43,425	3,924	46,755	80,167,094	11,163,840	57,956,850 20
3,840	1,707	3,455	62	385	400,000		2,646,364 21
46,938	7,607	22,348	5,492	24,590	44,539,646	3,266,481	29,640,723 22
18,827	12,030	17,944	385	883	1,441,060		27,868,409 23
7,267	475	6,540	45	727	729,700		5,539,399 24
64,877	4,239	59,271	691	5,606	4,924,500	12,000	54,177,234 25
19,161	5,732	17,176	310	1,985	225,672		12,720,068 26
21,981	5,665	12,251	3,631	9,730	7,276,557		12,153,769 27
1,504	1,338	1,426	20	78	48,000		2,283,979 28
9,988	1,546	6,092	576	3,896	5,069,102	408,226	5,134,803 29
27,808	1,790	16,671	684	11,137	33,471,280		20,008,851 30
39,837	4,264	31,542	1,088	8,295	9,306,725	23,472	39,291,056 31
4,349	4,105	4,349					7,136,501 32
4,828	5,520	4,828					15,533,393 33
100,246	4,665	98,107	216	2,139	900,000	208,209	76,481,396 34
4,262	1,525	3,962	95	300	1,080,000		3,459,031 35
84,609	6,448	56,303	3,120	28,306	62,994,182	6,322,300	98,162,915 36
12,449	2,328	8,524	777	3,925	2,136,220		3,333,948 37
97,133	12,030	41,183	15,992	55,950	83,096,307		39,678,136 38
103,886	3,497	99,888	224	3,998	11,182,373		412,547,411 39
84,699	9,670	83,778	87	921	270,207		34,601,475 40
84,035	12,410	52,150	7,997	31,885	37,682,955	615,103	65,245,858 41
131,470	12,109	102,966	3,640	28,504	18,482,505		65,714,041 42
43,245	12,412	33,207	3,013	10,038	9,064,391		44,936,661 43
54,752	4,368	38,407	1,812	16,345	26,636,898	2,944,630	77,390,752 44
24,044	1,625	11,605	1,227	12,439	7,416,389		7,403,158 45
70,899	5,461	63,849	1,055	7,050	7,575,788	9,498	86,515,888 46
17,197	1,171	9,851	870	7,346	8,190,036		10,376,719 47
152,042	852	11,301	10,922	140,741	284,782,920	6,000	17,386,893 48
6,805	6,577	5,826	347	979	847,710	25,526	6,380,059 49
5,733	3,081	5,721	10	12			5,783,474 50
1,269,812	179,996	949,353	67,833	320,459	862,412,432	113,422,298	2,651,280,915 51
25,061	8,720	21,998	2,303	3,063	4,075,470	318,625	31,296,011 52
201,092	4,702	178,489	798	22,603	43,857,535		191,937,284 53
50,054	7,192	40,306	2,122	9,748	32,075,356		68,180,555 54
321,136	33,936	304,098	1,885	17,038	43,419,841	3,478,671	766,128,762 55
181,889	41,705	173,698	2,002	8,191	14,061,016	676,054	163,892,810 56
4,726	905	4,726					2,960,494 57
334	505	334					475,787 58
4,845	4,643	4,845					10,624,882 59
4,833	456	4,405	13	428	500,000		5,562,695 60
46,439	9,635	32,561	2,149	13,878	19,936,041	4,570,280	32,258,639 61
7,701	3,049	6,111	684	1,590	1,414,556		5,398,204 62
8,669	2,963	6,120	669	2,449	1,848,229	422,550	7,636,791 63
1,624	1,026	1,624					3,303,997 64
30,131	5,660	28,470	297	1,661	326,080		15,682,394 65
737	947	737					1,123,950 66
63,864	21,711	55,928	3,119	7,936	12,431,122	1,028,144	55,516,139 67
248,292	20,189	103,949	19,818	144,343	105,795,098	23,651,420	146,465,754 68
15,501	1,453	5,984	1,514	9,517	15,371,940	4,553,350	7,081,961 69
21,414	16,214	21,414					48,046,567 70

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	ESTABLISHMENTS		Horse-power installation per 100 wage earners	PRIME MOVERS			
		Number	Number reporting power equipment		Total horsepower of prime movers	Steam engines		
						Total	Driving generators	
INDUSTRY—continued								
1	16 Electrical appliances	138	137	298	5,309	6	3	
2	16 Electrical measuring instruments	59	59	185	555	2	2	
3	16 Electrical products not elsewhere classified	175	175	374	212	2	1	
4	15 Electroplating, plating, and polishing	643	642	503	2,779	6	4	
5	8 Electrotyping and stereotyping, not done in printing establishments	234	232	488			2	
6	17 Elevators, escalators, and conveyors	183	183	556	5,790	12	7	
7	4 Embroideries, other than Schiffli-machine products—contract factories	357	304	24	33	1	1	
8	4 Embroideries, other than Schiffli-machine products—made in regular factories or by jobbers engaging contractors	54	49	38				
9	4 Embroideries: Schiffli-machine products	398	376	41				
10	14 Enamelled-iron sanitary ware and other plumbers' supplies (not including pipe and vitreous and semivitreous china sanitary ware)	259	258	435	23,258	40	19	
11	14 Enameling, japanning, and lacquering	80	79	268	100	1	1	
12	15 Engraving on metal (except for printing purposes)	94	94	160	50			
13	8 Engraving (steel, copperplate, and wood); plate printing	436	436	153	25			
14	7 Envelopes	169	168	174	3,139	12	9	
15	9 Essential oils	14	14	393	655	10	1	
16	9 Explosives	80	80	742	20,246	97	39	
17	6 Excelsior	53	53	1,105	8,325	44	5	
18	20 Fabricated plastic products, not elsewhere classified	216	216	358	9,179	18	4	
19	14 Fabricated structural steel and ornamental metalwork, made in plants not operated in connection with rolling mills	1,138	1,130	774	29,498	71	42	
20	20 Feathers, plumes, and artificial flowers	314	313	28				
21	3 Felt goods, wool, hair, and jute (except woven felts and bat bodies and bats)	37	37	537	5,060	15	10	
22	9 Fertilizers	764	755	1,235	15,263	48	19	
23	7 Fiber cans, tubes, and similar products	116	116	339	6,508	12	6	
24	14 Files	22	22	310	4,642	7	1	
25	3 Finishing of men's and boys' hats of fur-felt, wool-felt, and straw	151	151	60	512	7	2	
26	14 Firearms	23	22	422	6,855	3		
27	20 Fire extinguishers, chemical	28	28	359	45			
28	9 Fireworks	59	55	115	25	1		
29	9 Fish and other marine oils, cake, and meal	76	75	1,663	11,543	157	5	
30	13 Flat glass	37	37	946	58,413	21	14	
31	1 Flavoring extracts and flavoring sirups, not elsewhere classified	477	476	389	2,304	28	5	
32	1 Food preparations, not elsewhere classified	1,007	1,003	291	8,768	63	19	
33	1 Food-products machinery	379	378	506	13,531	528	18	
34	13 Floor and wall tile (except quarry tile)	49	48	238	899	3	1	
35	1 Flour and other grain-mill products	2,143	2,123	2,259	228,867	344	100	
36	12 Footwear (except rubber)	1,070	1,042	68	30,686	111	92	
37	14 Forgings, iron and steel—made in plants not operated in connection with rolling mills	207	203	937	13,382	37	18	
38	10 Fuel briquets	32	32	3,467	1,725	5		
39	4 Fur coats and other fur garments, accessories, and trimmings	2,175	2,175	42				
40	20 Furs, dressed and dyed	145	144	263	746	6	4	
41	14 Galvanizing and other coating—carried on in plants not operated in connection with rolling mills	83	83	228	55	1		
42	20 Games and toys (except dolls and children's vehicles)	343	339	162	3,798	8	3	
43	8 General commercial (job) printing	9,595	9,582	204	6,078	22	21	
44	16 Generating, distribution and industrial apparatus, and apparatus for incorporation in manufactured products, not elsewhere classified	491	487	518	167,331	20	10	
45	13 Glass containers	77	73	545	27,221	31	11	
46	9 Glue and gelatin	80	79	1,248	27,363	53	30	
47	15 Gold and silver leaf and foil	26	19	88				
48	8 Gravure, rotogravure, and rotary photogravure (including preparation of plates)	24	24	388				
49	14 Gray-iron and semisteel castings	1,161	1,151	467	18,671	68	32	
50	9 Grease and tallow (except lubricating greases)	310	309	981	13,659	100	19	
51	8 Greeting cards (except hand-painted)	109	108	51				
52	9 Gum naval stores (processing but not gathering or warehousing)	755	743	16				
53	13 Gypsum products	68	66	2,473	13,911	22	6	
54	20 Hair work	42	42	10				
55	4 Handkerchiefs—made in contract factories	20	19	28				
56	4 Handkerchiefs—made in inside factories or by jobbers engaging contractors	60	35	32	549	3	3	
57	20 Hand stamps, stencils, and brands	289	288	184	257	4	2	
58	14 Hardware not elsewhere classified	434	432	337	34,712	43	17	
59	9 Hardwood distillation and charcoal manufacture	43	43	390	4,845	28	12	
60	4 Hat and cap materials; trimmings, etc.	55	48	47				
61	3 Hat bodies and bats, fur-felt	43	41	189	12,448	17	16	
62	3 Hat bodies and hats, wool-felt	12	12	91	1,375	10	2	
63	3 Hats, straw	11	11	26			8	
64	3 Hatters' fur	37	37	284	2,437	5	3	
65	14 Heating and cooking apparatus, except electric, not elsewhere classified	138	137	373	650			
66	3 Hosiery—full-fashioned	499	485	167	10,807	44	31	
67	3 Hosiery—seamless	433	411	67	11,702	45	28	
68	13 Hotel china	17	17	124	2,790	10	6	

## POWER EQUIPMENT AND ENERGY CONSUMPTION

19

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND  
1939—Continued

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES

Group No.	Group or Industry	PRIME MOVERS—continued					
		Diesel and semi-Diesel engines—Con.			Other internal-combustion engines		
		Horsepower		Number	Total	Driving generators	Not driving generators
Total	Driving generators	Not driving generators					
INDUSTRY—continued							
1	16 Electrical appliances.....	65	65		2		2
2	16 Electrical measuring instruments.....						
3	16 Electrical products not elsewhere classified.....				2	2	2
4	15 Electroplating, plating, and polishing.....	1,674	1,494	180	4	2	2
5	8 Electrotyping and stereotyping, not done in printing establishments.....						
6	17 Elevators, escalators, and conveyors.....	120	120		1	1	
7	4 Embroideries, other than Schiffli-machine products—contract factories.....						
8	4 Embroideries, other than Schiffli-machine products—made in regular factories or by johhers engaging contractors.....						
9	4 Embroideries: Schiffli-machine products.....						
10	14 Enamelled-iron sanitary ware and other plumbers' supplies (not including pipe and vitreous and semivitreous china sanitary ware).....	665	525	140	1	1	
11	14 Enameling, japanning, and lacquering.....	60		60			
12	15 Engraving on metal (except for printing purposes).....						
13	8 Engraving (steel, copperplate, and wood); plate printing.....	717	717		1	1	
14	7 Envelopes.....						
15	9 Essential oils.....						
16	9 Explosives.....	300	300		7		7
17	6 Excelsior.....	210		210	2		2
18	20 Fabricated plastic products, not elsewhere classified.....	420	420		3		3
19	14 Fabricated structural steel and ornamental metalwork, made in plants not operated in connection with rolling mills.....	2,125	1,595	530	81	23	58
20	20 Feathers, plumes, and artificial flowers.....						
21	3 Felt goods, wool, hair, and jute (except woven felts and hat bodies and hats).....						
22	9 Fertilizers.....	3,045	2,200	845	69	14	55
23	7 Fiber cans, tubes, and similar products.....	60	60		2	1	1
24	14 Files.....	855	855				
25	3 Finishing of men's and boys' hats of fur-felt, wool-felt, and straw.....				12		12
26	14 Firearms.....	67	67		4		4
27	20 Fire extinguishers, chemical.....				1		
28	9 Fireworks.....						
29	9 Fish and other marine oils, cake, and meal.....	2,105		2,105	4		4
30	13 Flat glass.....				28	19	9
31	1 Flavoring extracts and flavoring sirups, not elsewhere classified.....	123	37	86	2		2
32	1 Food preparations, not elsewhere classified.....	681	650	31	3		3
33	17 Food-products machinery.....				5	1	4
34	13 Floor and wall tile (except quarry tile).....				3		3
35	1 Flour and other grain-mill products.....	67,045	32,516	34,529	351	38	313
36	12 Footwear (except rubber).....	2,195	2,195				
37	14 Forgings, iron and steel—made in plants not operated in connection with rolling mills.....	3,275	2,600	675	7	5	2
38	10 Fuel briquets.....				1		1
39	4 Fur coats and other fur garments, accessories, and trimmings.....						
40	20 Furs, dressed and dyed.....				1		1
41	14 Galvanizing and other coating—carried on in plants not operated in connection with rolling mills.....						
42	20 Games and toys (except dolls and children's vehicles).....	1,135	505	630	2		2
43	8 General commercial (joh) printing.....	885	860	25	6	2	4
44	16 Generating, distribution, and industrial apparatus, and apparatus for incorporation in manufactured products, not elsewhere classified.....	4,158	4,158		5	3	2
45	13 Glass containers.....	1,040	215	825	64	39	25
46	9 Glue and gelatin.....	150	150		2		
47	15 Gold and silver leaf and foil.....						
48	8 Gravure, rotogravure, and rotary photogravure (including preparation of plates).....						
49	14 Gray-iron and semisteel castings.....	1,868	1,220	648	45	13	32
50	9 Grease and tallow (except lubricating greases).....	240	240		19	4	15
51	8 Greeting cards (except hand-painted).....						
52	9 Gum naval stores (processing but not gathering or warehousing).....						
53	13 Gypsum products.....	6,195	5,636	559	17	1	16
54	20 Hair work.....						
55	4 Handkerchiefs—made in contract factories.....						
56	4 Handkerchiefs—made in inside factories or by johhers engaging contractors.....						
57	20 Hand stamps, stencils, and hrands.....	160	160		1		1
58	14 Hardware not elsewhere classified.....	1,049	965	84	7	4	3
59	9 Hardwood distillation and charcoal manufacture.....				4	3	1
60	4 Hat and cap materials; trimmings, etc.....						
61	3 Hat bodies and hats, fur-felt.....				3	3	
62	3 Hat bodies and hats, wool-felt.....						
63	3 Hats, straw.....						
64	3 Hatters' fur.....	75	75				
65	14 Heating and cooking apparatus, except electric, not elsewhere classified.....	500	500		2	1	1
66	3 Hosiery—full-fashioned.....	475	475		2	1	1
67	3 Hosiery—seamless.....	1,065	1,062	3	3	3	
68	13 Hotel china.....				1		1

## POWER EQUIPMENT AND ENERGY CONSUMPTION

21

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued

PRIME MOVERS—continued										Horsepower of prime movers ordinarily idle	
Other internal-combustion engines—Continued			Hydroturbines and water wheels								
Horsepower		Number			Horsepower						
Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators			
39		39	3	2	1	196	121	75	525	1	
37	37	260	115	1	1	40	40		27	2	
375	260								694	3	
										4	
										5	
80	80		1	1	1	35	35			6	
			1	1		30	30			7	
										8	
										9	
35	35		6	4	2	2,135	2,025	110	896	10	
										11	
										12	
25	25		1	1		50	50			13	
			1	1	1	110	110		325	14	
			1		1	15		15		15	
103	103		8	8		1,080	1,080		4,643	16	
98	98		7	3	4	617	360	257	240	17	
57	57		4	3	1	320	195	125	4,598	18	
9,677	5,930	3,747							2,443	19	
										20	
2,774	900	1,874							200	21	
35	15	20	2	1	1	60	40	20	3,848	22	
									828	23	
										24	
60		60							110	25	
20	20		1	1		225	225			26	
45	45									27	
										28	
45		45							190	29	
10,760	6,495	4,265							3,925	30	
9		9								31	
120		120							400	32	
104	27	77							752	33	
460		460								34	
16,332	4,547	11,785	781	91	690	51,157	17,507	33,650	103,670	35	
			5	4	1	2,147	1,867	280	8,080	36	
303	265	38	2		2	125		125	700	37	
45		45							20	38	
1		1								39	
										40	
13	120	13	11	2	9	1,175	75	1,100	550	41	
163		43	3	2	1	215	140	75	1,417	42	
										43	
190	105	85	2	2		191	191		9,621	44	
13,996	11,384	2,612	82						2,386	45	
82									1,735	46	
										47	
										48	
3,054	1,189	1,865	10	5	5	575	320	255	3,430	49	
1,735	1,400	335	1		1	30		30	1,513	50	
										51	
1,365	450	915	2	2		235	235			52	
										53	
										54	
										55	
30		30								56	
414	260	154	3		3	517		517	4,195	57	
350	250	100								58	
285	285		2		2	200		200	1,203	59	
			1		1	225		225		60	
										62	
										63	
										64	
78	75	3	1	2	3	412	245	167	777	65	
182	182		3	1	3	150	150			66	
			13	8	5	875	875		1,025	67	
			50	1	1	1,149	804	345	2,490	68	
						167	167		398	68	

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	Generators (kilowatt rating)						
		Total kilo-watt rating	Driven by—					Ordinarily idle (included in total kilowatt rating)
			Steam engines	Steam turbines	Diesel and semi-Diesel engines	Other internal-combustion engines	Hydro-turbines and water wheels	
INDUSTRY—continued								
1	16 Electrical appliances	3,688	1,850	1,700	48	—	90	350
2	16 Electrical measuring instruments	450	450	—	—	—	—	—
3	16 Electrical products, not elsewhere classified	147	90	—	—	27	30	20
4	15 Electroplating, plating, and polishing	1,545	373	—	1,007	165	—	410
5	8 Electrotyping and stereotyping, not done in printing establishments	—	—	—	—	—	—	—
6	17 Elevators, escalators and conveyors	3,657	972	2,500	100	60	25	—
7	4 Embroideries, other than Schiffli-machine products—contract factories	20	—	—	—	—	20	—
8	4 Embroideries, other than Schiffli-machine products—made in regular factories or by jobbers engaging contractors	—	—	—	—	—	—	—
9	4 Embroideries: Schiffli-machine products	—	—	—	—	—	—	—
10	14 Enamelled-iron sanitary ware and other plumbers' supplies (not including pipe and vitreous and semivitreous china sanitary ware)	10,575	7,298	1,105	350	7	1,815	600
11	14 Enameling, japping, and lacquering	20	20	—	—	—	—	—
12	15 Engraving on metal (except for printing purposes)	35	—	—	—	—	35	—
13	8 Engraving (steel, copperplate, and wood); plate printing	16	—	—	—	16	—	—
14	7 Envelopes	1,907	1,430	—	457	—	20	200
15	9 Essential oils	275	275	—	—	—	—	—
16	9 Explosives	10,651	3,856	5,850	200	—	745	2,970
17	6 Excelsior	1,885	1,640	45	—	—	200	125
18	20 Fabricated plastic products, not elsewhere classified	4,987	800	3,780	277	—	130	2,790
19	14 Fabricated structural steel and ornamental metalwork, made in plants not operated in connection with rolling mills	13,664	7,113	1,500	1,138	3,913	—	1,155
20	20 Feathers, plumes, and artificial flowers	—	—	—	—	—	—	—
21	3 Felt goods, wool, hair, and jute (except woven felts and hat bodies and hats)	2,475	1,775	700	—	—	—	125
22	9 Fertilizers	6,223	3,330	650	1,849	394	—	2,433
23	7 Fiber cans, tubes, and similar products	4,372	1,200	3,100	32	10	30	550
24	14 Files	1,800	250	900	650	—	—	—
25	3 Finishing of men's and boys' hats of fur-felt, wool-felt, and straw	185	185	—	—	—	—	75
26	14 Firearms	4,425	—	4,230	45	—	150	—
27	20 Fire extinguishers, chemical	7	—	—	—	7	—	—
28	9 Fireworks	—	—	—	—	—	—	—
29	9 Fish and other marine oils, cake, and meal	911	61	850	—	—	—	—
30	13 Flat glass	37,176	3,044	29,605	—	4,527	—	2,592
31	1 Flavoring extracts and flavoring syrups, not elsewhere classified	471	446	—	25	—	—	—
32	1 Food preparations, not elsewhere classified	4,591	1,971	2,325	295	—	—	150
33	17 Food-products machinery	4,525	2,567	1,950	—	8	—	492
34	13 Floor and wall tile (except quarry tile)	200	200	—	—	—	—	—
35	1 Flour and other grain-mill products	60,338	13,079	18,564	17,592	2,827	8,276	11,382
36	12 Footwear (except rubber)	19,071	15,717	757	1,362	—	1,235	4,986
37	14 Forgings, iron and steel—made in plants not operated in connection with rolling mills	6,405	1,812	2,646	1,805	142	—	375
38	10 Fuel briquettes	1,050	—	1,050	—	—	—	—
39	4 Fur coats and other fur garments, accessories, and trimmings	—	—	—	—	—	—	—
40	20 Furs, dressed and dyed	467	467	—	—	—	—	—
41	14 Galvanizing and other coating—carried on in plants not operated in connection with rolling mills	—	—	—	—	—	—	—
42	20 Games and toys (except dolls and children's vehicles)	741	366	—	325	—	50	366
43	8 General commercial (job) printing	4,055	3,261	35	559	80	120	894
44	16 Generating, distribution, and industrial apparatus, and apparatus for incorporation in manufactured products, not elsewhere classified	122,167	3,340	115,405	3,211	61	150	6,990
45	13 Glass containers	12,284	2,437	2,350	135	7,362	—	1,455
46	9 Glue and gelatine	18,801	8,695	10,006	100	—	—	1,145
47	15 Gold and silver leaf and foil	—	—	—	—	—	—	—
48	8 Gravure, rotogravure, and rotary photogravure (including preparation of plates)	—	—	—	—	—	—	—
49	14 Gray-iron and semisteel castings	8,798	6,980	—	847	756	215	2,030
50	9 Grease and tallow (except lubricating greases)	6,907	5,162	500	185	1,060	—	550
51	8 Greeting cards (except hand-painted)	—	—	—	—	—	—	—
52	9 Gum naval stores (processing but not gathering or warehousing)	—	—	—	—	—	—	—
53	13 Gypsum products	7,970	1,510	1,695	4,345	300	120	190
54	20 Hair work	—	—	—	—	—	—	—
55	4 Handkerchiefs—made in contract factories	—	—	—	—	—	—	—
56	4 Handkerchiefs—made in inside factories or by jobbers engaging contractors	410	400	10	—	—	—	—
57	20 Hand stamps, stencils, and brands	115	40	—	75	—	—	—
58	14 Hardware not elsewhere classified	19,951	3,710	15,390	640	211	—	2,722
59	9 Hardwood distillation and charcoal manufacture	2,513	1,188	1,180	—	145	—	265
60	4 Hat and cap materials; trimmings, etc.	—	—	—	—	—	—	—
61	3 Hat bodies and bats, fur-felt	8,235	3,410	4,600	—	225	—	860
62	3 Hat bodies and bats, wool-felt	500	500	—	—	—	—	—
63	3 Hats, straw	—	—	—	—	—	—	—
64	3 Hatters' fur	1,100	340	550	35	—	175	120
65	14 Heating and cooking apparatus, except electric, not elsewhere classified	325	—	200	—	—	125	—
66	3 Hosiery—full-fashioned	6,620	4,819	775	315	56	655	727
67	3 Hosiery—seamless	5,998	4,393	100	685	120	700	860
68	13 Hotel china	1,801	1,626	—	—	—	175	350

## POWER EQUIPMENT AND ENERGY CONSUMPTION

23

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued

Aggregate horse-power	ELECTRIC MOTORS				ELECTRIC ENERGY (KILOWATT HOURS)		
	Driven by purchased energy		Driven by plant energy		Generated in plant	Sold	Purchased
	Number	Horsepower	Number	Horsepower			
57,966	14,077	53,971	1,410	3,995	5,807,867		77,595,117 1
13,050	7,135	12,384	150	666	709,644		21,291,854 2
22,296	12,765	22,266	25	30	147,970		34,981,614 3
39,697	6,807	38,517	233	1,180	2,284,556		38,869,317 4
21,547	7,071	21,547					17,136,569 5
49,410	6,167	43,805	664	5,605	4,583,700		29,488,225 6
963	1,566	963					1,553,079 7
229	336	229					274,499 8
1,553	1,964	1,553					2,934,653 9
101,378	10,984	83,759	2,511	17,619	25,247,590	5,410,000	84,470,234 10
4,794	1,147	4,787	5	7	3,120		8,744,262 11
2,356	869	2,216	80	140	28,166		1,666,407 12
8,399	4,102	8,182	73	217			6,065,061 13
14,177	7,543	11,960	1,215	2,217	2,762,859	30,732	11,754,605 14
526	124	348	98	178	1,225,000		276,348 15
55,481	3,108	33,509	1,997	21,972	13,177,489	1,208,558	72,390,706 16
2,628	124	1,894	25	734	383,297		1,498,735 17
49,341	9,407	44,872	809	4,469	1,470,348		64,041,776 18
290,538	26,105	245,107	3,613	45,431	8,924,401	1,106,944	107,140,348 19
1,832	987	1,832					2,248,739 20
16,888	1,594	12,915	614	3,973	5,798,540		14,898,619 21
223,191	9,420	216,142	405	7,049	6,146,010	1,189,871	126,308,285 22
24,201	4,149	15,990	1,201	8,211	12,357,412	14,376	17,382,947 23
8,795	577	5,295	235	3,500	6,192,100		4,859,476 24
3,613	3,024	3,613			87,500		4,453,943 25
18,897	2,295	14,244	1,160	4,653	6,574,909		11,182,524 26
3,526	870	3,526					2,221,079 27
1,303	528	1,303					855,852 28
14,261	998	13,780	25	481	162,500		4,248,259 29
150,930	9,476	100,008	3,645	50,922	88,915,677	12,071,800	177,370,757 30
12,782	5,232	11,664	454	1,118	444,901	6,000	11,301,894 31
35,358	10,946	29,354	1,375	6,004	6,997,082	216,000	29,369,210 32
69,038	10,658	57,269	2,260	11,769	5,666,462		25,373,639 33
13,199	2,684	12,622	65	577	613,648		16,888,303 34
386,051	16,353	330,764	3,701	55,287	89,032,925	9,729,044	598,339,945 35
134,569	60,089	110,713	8,514	17,556	22,474,706	4,184,377	134,718,838 36
144,179	12,646	130,680	1,787	13,499	11,144,558		89,910,477 37
14,116	665	12,489	94	1,627	1,728,900		9,741,515 38
5,505	11,230	5,505					8,514,013 39
13,834	2,445	12,697	84	1,137	983,900		8,828,683 40
2,703	611	2,703					2,029,476 41
22,327	8,045	21,547	361	780	325,000		13,518,536 42
195,269	112,676	190,128	1,626	5,141	6,813,987	590,485	204,328,334 43
382,509	49,219	197,242	29,735	185,267	249,793,881	23,518,751	237,145,983 44
133,581	15,294	113,144	2,835	20,437	42,977,311	22,132	320,268,976 45
33,271	1,237	10,561	2,271	22,710	44,430,848	1,252,695	11,917,227 46
497	312	497					510,795 47
10,185	1,967	10,185					12,785,244 48
270,261	27,251	254,418	1,416	15,843	7,869,160	189,646	189,421,995 49
45,122	3,009	37,380	630	7,742	12,037,433	169,144	31,500,313 50
3,868	2,614	3,868					5,346,918 51
151	31	151					310,523 52
122,065	6,186	108,154	1,019	13,911	18,091,184	119,949	114,938,913 53
31	60	31					116,723 54
338	129	314	10	24			352,626 55
1,071	453	634	508	437	159,365		1,256,458 56
3,896	2,612	3,773	58	123			2,436,656 57
104,240	16,846	85,258	4,424	18,982	29,080,974	704,849	71,751,581 58
16,429	245	2,064	1,644	14,365	11,143,805	95,600	3,844,878 59
376	359	376					552,049 60
15,741	1,369	6,309	3,769	9,432	11,955,044	2,362	9,436,705 61
3,070	631	2,670	75	400	2,313,200		4,819,832 62
126	124	126					210,577 63
3,899	586	2,943	173	956	1,502,340		1,950,031 64
10,259	2,860	10,239	4	20	7,000		5,286,380 65
60,595	29,750	54,219	2,867	6,376	8,502,143	235,339	141,149,750 66
35,430	8,665	29,921	1,417	5,509	12,743,302	7,036	58,115,441 67
5,547	615	2,587	1,016	2,960	2,634,320		5,008,983 68

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	ESTABLISHMENTS		Horse-power installation per 100 wage earners	PRIME MOVERS			
		Number	Number reporting power equipment		Total horsepower of prime movers	Steam engines		
						Total	Driving generators	
INDUSTRY—continued								
1	4	House dresses, uniforms, and aprons—made in contract factories	255	254	20			
2	4	House dresses, uniforms, and aprons—made in inside factories or by jobbers engaging contractors	487	443	31			
3	4	Housefurnishings (except curtains, draperies, and bedspreads)	472	440	115	1,475	4	
4	6	Household furniture, except upholstered	1,592	1,570	335	118,653	368	
5	1	Ice cream and ices	2,734	2,701	1,537	21,504	109	
6	1	Ice, manufactured	3,975	3,790	6,493	294,647	726	
7	12	Industrial leather belting and packing leather	190	190	315	1,995	11	
8	17	Industrial machinery, not elsewhere classified	579	578	712	13,395	70	
9	9	Insecticides, fungicides, and related industrial and household chemical compounds	774	771	641	3,994	51	
10	16	Insulated wire and cable	79	75	688	32,215	12	
11	17	Internal-combustion engines	74	73	674	50,605	13	
12	20	Jewelry cases and instrument cases	132	131	94	10		
13	15	Jewelers' findings and materials	82	81	180			
14	15	Jewelry (precious metals)	886	883	78	517	10	
15	3	Jute goods (except felt)	22	21	1,021	24,257	2	
16	3	Knitted cloth	229	227	245	7,029	17	
17	3	Knitted gloves	20	20	26	385	2	
18	3	Knitted outerwear (except knit gloves)—contract factories	233	233	51	1		
19	3	Knitted outerwear (except knit gloves)—regular factories or jobbers engaging contractors	476	474	75	2,727	11	
20	3	Knitted underwear	199	193	118	19,248	47	
21	6	Laboratory, hospital, and other professional furniture	82	82	330	2,255	5	
22	3	Lace goods	63	62	227	12,754	44	
23	20	Lamp shades	128	128	20			
24	15	Lapidary work	90	90	90			
25	6	Lasts and related products	48	48	464	1,263	11	
26	17	Laundry equipment, domestic	42	42	457	3,283	4	
27	12	Leather gloves and mittens	233	229	33	791	2	
28	12	Leather goods not elsewhere classified	160	160	71		1	
29	12	Leather: tanned, curried, and finished—contract factories	111	110	398	11,572	32	
30	12	Leather: tanned, curried, and finished—regular factories or jobbers engaging contractors	335	319	458	89,167	300	
31	15	Lighting fixtures	568	566	326	2,872	6	
32	13	Lime	269	264	1,451	19,672	77	
33	3	Linen goods	9	9	360	4,309	4	
34	3	Linoleum, asphalted-felt-base, and other hard-surface floor coverings, not elsewhere classified	17	17	822	10,117	14	
35	9	Linseed oil, cake, and meal	25	23	1,866	21,155	2	
36	1	Liquors, distilled	135	134	1,634	45,390	224	
37	1	Liquors, rectified or blended	148	147	192	205	6	
38	8	Lithographing and photo-lithographing (including preparation of stones or plates and dry transfers)	749	744	211	11,804	37	
39	19	Locomotives (including frames) and parts; railroad, mining, and industrial	15	15	729	23,415	49	
40	9	Lubricating oils and greases—not made in petroleum refineries	232	231	890	6,865	40	
41	1	Macaroni, spaghetti, vermicelli, and noodles	328	327	467	2,011	7	
42	8	Machine and hand typesetting (including advertisement typesetting)	641	640	54			
43	17	Machine-shop products, not elsewhere classified	2,125	2,115	528	30,817	218	
44	17	Machine-shop repairs	1,459	1,456	587	6,919	17	
45	17	Machinetool and other metalworking-machinery accessories, metal-cutting and shaping tools, and machinists' precision tools	954	951	427	3,685	11	
46	17	Machinetools	200	200	473	20,030	58	
47	14	Malleable-iron castings	83	80	474	13,057	37	
48	1	Malt	52	52	3,457	14,486	36	
49	1	Malt liquors	605	600	976	187,266	1,275	
50	6	Matches	28	28	454	17,302	21	
51	6	Mattresses and bedsprings	947	945	251	10,432	8	
52	17	Measuring and dispensing pumps	38	38	510	1,700		
53	17	Measuring instruments, mechanical (except electrical measuring instruments, watches, and clocks)	68	68	234	1,094	4	
54	1	Meat packing, wholesale	1,478	1,470	535	234,133	842	
55	17	Mechanical power-transmission equipment	218	214	578	14,893	19	
56	4	Men's and boys' hats and caps (except felt and straw)	270	255	43			
57	4	Men's and boys' shirts (except work shirts), collars, and nightwear—made in contract factories	141	136	20	43		
58	4	Men's and boys' shirts (except work shirts), collars, and nightwear—made in inside factories or by jobbers engaging contractors	449	399	33	4,021	12	
59	4	Men's and boys' suits, coats, and overcoats (except work clothing)—made in contract factories	1,078	1,026	19	239	10	
60	4	Men's and boys' suits, coats, and overcoats (except work clothing)—made in inside factories or by jobbers engaging contractors	1,371	1,101	30	4,041	51	
61	4	Men's and boys' underwear—made in contract factories	10	10	30			
62	4	Men's and boys' underwear—made in inside factories or by jobbers engaging contractors	44	43	39	77	2	
63	4	Men's neckwear—made in contract factories	34	32	16		1	
64	4	Men's neckwear—made in inside factories or by jobbers engaging contractors	347	304	15	4		
65	17	Metalworking machinery and equipment, not elsewhere classified	178	176	556	11,374	39	
66	4	Millinery	1,050	980	28	356	3	
67	13	Minerals and earths, ground or otherwise treated	237	236	1,749	17,871	85	
68	13	Mineral wool	58	58	444	1,295	7	
69	17	Mining machinery and equipment	65	63	684	6,927	19	

## POWER EQUIPMENT AND ENERGY CONSUMPTION

25

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND  
1939—Continued

PRIME MOVERS—continued											
Steam engines—Continued			Steam turbines						Diesel and semi-Diesel engines		
Horsepower			Number			Horsepower			Number		
Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators
725	650	75	1	1	6	300	300	300	21	14	7
86,156	65,252	20,904	30	24	6	26,738	26,468	270	79	42	37
9,976	2,365	7,611	12	4	8	624	175	449	79	42	37
77,187	25,490	51,697	44	20	24	4,331	3,172	1,159	1,461	924	537
1,964	554	1,410									
10,236	7,000	3,236	13	2	11	1,300	350	950	6	5	1
3,132	2,120	1,012	7	6	1	30,570	30,510	60	2	1	2
1,238	1,003	235									
5,790	5,175	615	7	7		14,486	14,486		79	71	8
307	255	52	1	1		130	130				
1,575		1,575	6	5	1	7,421	7,400	21	4	4	
4,326	3,471	855	7	3	4	1,173	798	375	2	2	
385	375	10									
2,087	817	1,270							2	2	
9,766	8,146	1,620	10	8	2	7,443	7,378	65			
1,025	1,025	1		1		1,000	1,000		2	2	
6,293	6,103	190	8	8		4,672	4,672		3	3	
560	95	465									
1,183	933	250	2	2		2,100	2,100				
530	50	480									
5,944	3,810	2,134	4	4		4,775	4,775				
54,563	43,578	10,985	53	32	21	31,432	26,873	4,559	7	7	
680	194	486	1	1		500	500		6	5	
4,843	1,282	3,561	3			75		75	47	17	30
1,100	950	150	1	1		2,500	2,500				
2,445	1,172	1,273	5	5		7,670	7,670				
470	470	6		5	1	8,525	8,325	200	5	3	2
15,738	3,578	12,160	144	16	128	28,632	14,158	14,474	5	2	3
195	195										
9,609	9,404	205	1	1		1,125	1,125		3	3	
12,710	5,100	7,610	15	6	9	9,465	8,675	790	2	2	
5,198	3,330	1,868	3	2	1	1,440	1,435	5	1	1	
724	664	60						6	4	2	
15,291	9,105	6,186	10	5	5	7,255	7,000	255	46	29	17
975	405	570	1	1		50		50	20	12	8
2,255	2,010	245							4	3	1
14,632	13,592	1,040	8	5	3	3,402	2,950	452	9	8	
10,822	7,807	3,015	4	4		1,250	1,250		1	1	
10,901	9,870	1,031	5	4	1	3,545	3,495	50			
138,658	63,303	73,355	99	43	56	44,079	39,799	4,280	15	9	6
6,835	5,970	865	13	10	3	10,217	10,102	115	2	2	
1,114	539	575	3	3		8,665	8,665		3	3	
			2	2		1,600	1,600		1	1	
1,002	750	252									
158,449	43,242	110,207	243	41	202	67,277	53,524	13,753	51	34	17
3,693	2,938	755	6	6		10,490	10,490		3	2	1
									2	2	
1,604	1,450	154	3	3		2,250	2,250		3	3	
239	215	24									
3,525	3,260	265	1		1	7		7	1	1	
77	45	32									
4		4									
9,454	8,260	1,194	1	1		75	75		6	4	2
350	350	350									
6,586	680	5,906	1		1	37		37	43	20	23
1,168	1,050	118	6	6		127		127			
5,455	4,820	635							1	1	

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	PRIME MOVERS—continued							
		Diesel and semi-Diesel engines—Con.			Other internal-combustion engines				
		Horsepower		Number		Total	Driving generators	Not driving generators	
INDUSTRY—continued									
1	4	House dresses, uniforms, and aprons—made in contract factories							
2	4	House dresses, uniforms, and aprons—made in inside factories or by jobbers engaging contractors							
3	4	Housefurnishings (except curtains, draperies, and bedspreads)							
4	6	Household furniture, except upholstered	3,026	2,651	375	20	6	14	
5	1	Ice cream and ices	5,670	3,839	1,831	92	23	69	
6	1	Ice, manufactured	147,270	109,217	38,053	914	377	537	
7	12	Industrial leather belting and packing leather					3	3	
8	17	Industrial machinery, fungicides, and related industrial and household chemical compounds	850	830	20	17	7	10	
9	9	Insecticides, fungicides, and related industrial and household chemical compounds							
10	16	Insulated wire and cable	175		175	21			
			220	180	40	1	1		
11	17	Internal-combustion engines	27,426	27,016	410	28	12	16	
12	20	Jewelry cases and instrument cases					1	1	
13	15	Jewelers' findings and materials							
14	15	Jewelry (precious metals)	3,165	3,165		3	3		
15	3	Jute goods (except felt)							
16	3	Knitted cloth	240	240		1		1	
17	3	Knitted gloves							
18	3	Knitted outerwear (except knit gloves)—contract factories				1		1	
19	3	Knitted outerwear (except knit gloves)—regular factories or jobbers engaging contractors	110	110		1		1	
20	3	Knitted underwear				2	2		
21	6	Laboratory, hospital, and other professional furniture	200	200		3		3	
22	3	Lace goods	1,254	1,254					
23	20	Lamp shades							
24	15	Lapidary work							
25	6	Lasts and related products				1		1	
26	17	Laundry equipment, domestic							
27	12	Leather gloves and mittens				1	1		
28	12	Leather goods not elsewhere classified							
29	12	Leather: tanned, curried, and finished—contract factories				1		1	
30	12	Leather: tanned, curried, and finished—regular factories or jobbers engaging contractors	2,000	2,000		5	3	2	
31	15	Lighting fixtures	530	495	35	5	2	3	
32	13	Lime	6,321	4,315	2,006	189	6	183	
33	3	Linen goods							
34	3	Linoleum, asphalted-felt-base and other hard-surface floor coverings, not elsewhere classified				1	1		
35	9	Linseed oil, cake, and meal	12,120	11,895	225				
36	1	Liquors, distilled	610	480	130	8	1	7	
37	1	Liquors, rectified or blended				1		1	
38	8	Lithographing and photo-lithographing (including preparation of stones or plates and dry transfers)	150	150		2	2		
39	19	Locomotives (including frames) and parts: railroad, mining, and industrial	1,240	1,240					
40	9	Lubricating oils and greases—not made in petroleum refineries	60		60	22		22	
41	1	Macaroni, spaghetti, vermicelli, and noodles	500	350	150	6	4	2	
42	8	Machines and hand typesetting (including advertisement typesetting)							
43	17	Machine-shop products, not elsewhere classified	3,170	2,505	665	131	24	107	
44	17	Machine-shop repairs	1,208	878	330	155	42	113	
45	17	Machinetool and other metalworking-machinery accessories, metal-cutting and shaping tools, and machinists' precision tools							
46	17	Machinetools	395	335	60	5	2	3	
47	14	Malleable-iron castings	1,120	1,070	50	7	4	3	
48	1	Malt	125	125		3	1	2	
49	1	Malt liquors							
50	6	Matches	2,727	2,040	687	42	40	2	
			250	250					
51	6	Mattresses and bedsprings				11		11	
52	17	Measuring and dispensing pumps	286	286					
53	17	Measuring instruments, mechanical (except electrical measuring instruments, watches, and clocks)	100	100					
54	1	Meat packing, wholesale	5,468	4,657	781	49	8	41	
55	17	Mechanical power-transmission equipment							
56	4	Men's and boys' hats and caps (except felt and straw)	405	365	40	4		4	
57	4	Men's and boys' shirts (except work shirts), collars, and nightwear—made in contract factories							
58	4	Men's and boys' shirts (except work shirts), collars, and nightwear—made in inside factories or by jobbers engaging contractors	35	35		1		1	
59	4	Men's and boys' suits, coats, and overcoats (except work clothing)—made in contract factories	167	167					
60	4	Men's and boys' suits, coats, and overcoats (except work clothing)—made in inside factories or by jobbers engaging contractors							
61	4	Men's and boys' underwear—made in contract factories	20	20		3		3	
62	4	Men's and boys' underwear—made in inside factories or by jobbers engaging contractors							
63	4	Men's neckwear—made in contract factories							
64	4	Men's neckwear—made in inside factories or by jobbers engaging contractors							
65	17	Metalworking machinery and equipment, not elsewhere classified	1,320	820	500	4	1	3	
66	4	Millinery					3	3	
67	13	Minerals and earths, ground or otherwise treated	7,195	5,008	2,187	82		82	
68	13	Mineral wool							
69	17	Mining machinery and equipment	232	232		3	1	2	

## POWER EQUIPMENT AND ENERGY CONSUMPTION

27

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	Total kilowatt rating	Generators (kilowatt rating)						Ordinarily idle (included in total kilowatt rating)	
			Driven by—							
			Steam engines	Steam turbines	Diesel and semi-Diesel engines	Other internal-combustion engines	Hydro-turbines and water wheels			
INDUSTRIES—continued										
1	4 House dresses, uniforms, and aprons—made in contract factories									
2	4 House dresses, uniforms, and aprons—made in inside factories or by jobbers engaging contractors									
3	4 Housefurnishings (except curtains, draperies, and bedspreads)	364	164	200						
4	6 Household furniture, except upholstered	66,763	44,090	19,616	1,826	767	464	4,549		
5	1 Ice cream and ices	5,112	1,590	100	2,477	928	17	47		
6	1 Ice, manufactured	94,839	15,277	2,179	57,008	19,830	545	4,820		
7	12 Industrial leather belting and packing leather	357	357					50		
8	17 Industrial machinery, not elsewhere classified	5,953	4,765	350	585	147	106	1,820		
9	9 Insecticides, fungicides, and related industrial and household chemical compounds	1,395	1,395					65		
10	16 Insulated wire and cable	21,243	625	20,337	120	1	160	495		
11	17 Internal-combustion engines	33,771	3,950	9,325	19,121	1,375		157		
12	20 Jewelry cases and instrument cases									
13	15 Jewelers' findings and materials									
14	15 Jewelry (precious metals)	262	123	90		35	14	65		
15	3 Jute goods (except felt)	14,927		5,367	2,210			7,350		
16	3 Knitted cloth	3,208	2,002	430	199		577			
17	3 Knitted gloves	210	210							
18	3 Knitted outerwear (except knit gloves)—contract factories									
19	3 Knitted outerwear (except knit gloves)—regular factories or jobbers engaging contractors	923	530		58		335	93		
20	3 Knitted underwear	13,146	6,025	5,780		450	891			
21	6 Laboratory, hospital, and other professional furniture	1,520	620	750	150			380		
22	3 Lace goods	7,578	4,095	3,165	90			228	335	
23	20 Lamp shades									
24	15 Lapidary work									
25	6 Lasts and related products	526	63				463			
26	17 Laundry equipment, domestic	2,275	700	1,575						
27	12 Leather gloves and mittens	245	30			15	200			
28	12 Leather goods not elsewhere classified									
29	12 Leather: tanned, curried, and finished—contract factories	6,872	2,819	3,437			616	1,000		
30	12 Leather: tanned, curried, and finished—regular factories or jobbers engaging contractors	51,555	28,332	21,350	1,303	545	25	5,478		
31	15 Lighting fixtures	1,610	145	375	350	40	700	490		
32	13 Lime	4,478	874		2,909	195	500	545		
33	3 Linen goods	2,550	650	1,500			400			
34	3 Linoleum, asphalt-felt-base and other hard-surface floor coverings, not elsewhere classified	5,451	550	4,900		1		300		
35	9 Linseed oil, cake, and meal	7,093		6,300	793					
36	1 Liquors, distilled	12,636	2,541	9,755	332	8		185		
37	1 Liquors, rectified or blended									
38	8 Lithographing and photo-lithographing (including preparation of stones or plates and dry transfers)	6,474	5,042	750	82	600		1,602		
39	19 Locomotives (including frames) and parts: railroad, mining, and industrial	10,300	3,525	5,875	900			600		
40	9 Lubricating oils and greases—not made in petroleum refineries	3,247	2,297	950				2,100		
41	1 Macaroni, spaghetti, vermicelli, and noodles	1,171	460		190	226	295	22		
42	8 Machine and hand typesetting (including advertisement typesetting)									
43	17 Machine-shop products, not elsewhere classified	14,134	6,436	4,875	1,602	711	510	3,974		
44	17 Machine-shop repairs	1,481	235		602	644		304		
45	17 Machine-tool and other metalworking-machinery accessories, metal-cutting and shaping tools, and machinists' precision tools	2,388	1,366		265	18	739	1,008		
46	17 Machine tools	12,694	9,744	1,860	653	237	200	1,404		
47	14 Malleable-iron castings	6,631	5,400	981	85	125	90	835		
48	1 Malt	9,134	6,434	2,700				902		
49	1 Malt liquors	64,527	36,166	26,605	1,350	286	120	8,227		
50	6 Matches	11,069	3,750	7,159	160			905		
51	6 Mattresses and bedsprings	6,755	204	6,375	176					
52	17 Measuring and dispensing pumps	1,250		1,200	50			1,250		
53	17 Measuring instruments, mechanical (except electrical measuring instruments, watches, and clocks)									
54	1 Meat packing, wholesale	475	475							
55	17 Mechanical power-transmission equipment	72,256	32,136	36,599	3,003	393	125	12,623		
56	4 Men's and boys' bats and caps (except felt and straw)	9,317	1,826	7,175	250		66	2,360		
57	4 Men's and boys' shirts (except work shirts), collars, and nightwear made in contract factories					15				
58	4 Men's and boys' shirts (except work shirts), collars, and nightwear—made in inside factories or by jobbers engaging contractors	2,553	950	1,500	103					
59	4 Men's and boys' suits, coats, and overcoats (except work clothing)—made in contract factories	200	200							
60	4 Men's and boys' suits, coats, and overcoats (except work clothing)—made in inside factories or by jobbers engaging contractors	2,380	2,143		12		225	160		
61	4 Men's and boys' underwear—made in contract factories									
62	4 Men's and boys' underwear—made in inside factories or by jobbers engaging contractors	30	30							
63	4 Men's neckwear—made in contract factories									
64	4 Men's neckwear—made in inside factories or by jobbers engaging contractors									
65	17 Metalworking machinery and equipment, not elsewhere classified	6,952	6,006	50	584	125	187	1,099		
66	4 Millinery									
67	13 Minerals and earths, ground or otherwise treated	4,104	390		3,364		350	1,200		
68	13 Mineral wool	325	325							
69	17 Mining machinery and equipment	4,501	3,545		156	300	500	1,155		

## POWER EQUIPMENT AND ENERGY CONSUMPTION

29

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued

Aggregate horse-power	ELECTRIC MOTORS					ELECTRIC ENERGY (KILOWATT-HOURS)		
	Driven by purchased energy		Driven by plant energy			Generated in plant	Sold	Purchased
	Number	Horsepower	Number	Horsepower				
2,191	1,754	2,191						3,242,618 1
8,523	7,343	8,523						11,458,798 2
11,359	5,960	10,725	144	634	314,610			8,502,062 3
320,335	43,581	199,112	25,361	121,223	66,735,697	3,466,497	135,577,497 4	
225,615	37,611	220,022	1,220	5,593	3,834,243	38,000	294,092,825 5	
805,248	39,699	738,545	8,674	66,703	69,551,111	3,996,682	1,359,896,132 6	
5,867	1,130	5,361	175	506	425,842		4,228,180 7	
156,824	17,580	142,724	1,552	14,100	6,595,884	41,761	81,318,027 8	
30,316	5,871	28,172	279	2,144	1,808,151		17,243,747 9	
94,413	11,360	75,819	4,460	18,594	31,402,900	1,475,200	80,616,362 10	
124,408	8,658	48,795	8,554	75,613	55,027,124	4,141,508	21,852,925 11	
4,832	1,895	4,832					4,577,151 12	
5,053	1,266	5,053					4,031,005 13	
8,537	7,682	8,389	94	148	230,404		6,833,682 14	
25,183	879	12,362	851	12,821	26,157,000		14,287,002 15	
24,781	6,007	19,706	1,127	5,075	5,166,185		35,769,107 16	
1,608	402	1,041	388	567	660,000		1,608,116 17	
2,095	2,412	2,095				38,000	3,094,078 18	
12,179	7,353	11,144	241	1,035	1,222,200		14,317,653 19	
41,596	9,236	26,084	3,708	15,512	23,635,882	274,098	38,059,750 20	
10,646	1,859	7,575	753	3,071	992,660		4,006,758 21	
10,676	1,526	3,682	2,010	6,994	8,966,909	383,257	3,862,162 22	
522	598	522					880,789 23	
240	449	240					172,499 24	
5,841	2,398	5,779	72	62	974,400	16,421	3,544,030 25	
34,941	5,588	30,853	406	4,088	2,803,940		24,950,479 26	
2,643	2,460	2,500	22	143	115,375		2,630,560 27	
1,761	980	1,756	7	5			1,523,923 28	
17,832	1,182	10,139	1,057	7,693	18,806,042	7,874,065	10,168,463 29	
178,203	11,862	102,136	8,201	76,067	85,858,861	4,269,179	100,418,758 30	
64,351	12,835	63,871	141	480	1,299,670		54,437,716 31	
123,291	5,834	117,549	368	5,742	9,004,875		97,824,648 32	
6,140	1,092	1,929	1,032	4,211	4,365,800		3,014,510 33	
68,800	4,113	47,671	1,560	21,129	14,534,555		60,065,545 34	
24,702	1,191	18,400	289	6,302	18,650,740		39,112,055 35	
45,575	4,926	21,471	4,907	24,104	35,921,073	4,567,120	26,629,147 36	
6,085	3,169	5,200	810	885			5,299,996 37	
50,048	17,105	43,170	2,692	6,878	3,734,849	570,328	49,245,475 38	
139,706	2,272	23,774	7,326	115,932	15,416,209	2,078,933	23,379,419 39	
14,906	2,596	12,071	212	2,835	909,559		11,757,463 40	
27,604	8,157	26,093	398	1,511	752,744		40,073,740 41	
3,348	4,802	3,348					9,208,683 42	
329,540	52,795	289,591	5,631	39,949	16,026,594	894,114	208,596,040 43	
48,432	10,472	46,983	293	1,449	314,175		18,278,725 44	
108,200	27,267	103,778	981	4,422	2,296,792	44,220	73,149,594 45	
180,856	25,497	153,099	4,934	27,757	17,008,636	36,203	105,355,725 46	
81,430	6,740	72,446	1,088	8,984	7,996,582		78,643,419 47	
53,384	2,590	35,954	1,344	17,430	25,277,546		61,504,522 48	
238,058	23,751	164,792	12,178	73,266	156,462,936	24,600,928	212,532,114 49	
20,145	2,206	7,308	3,104	12,837	25,727,676	31,367	7,461,636 50	
41,087	11,252	35,677	970	5,410	5,647,081		27,423,697 51	
24,130	6,056	24,055	1	75			15,297,309 52	
15,650	4,330	14,549	266	1,101	673,800		11,499,822 53	
519,521	43,146	407,332	14,610	112,189	156,432,813	2,112,103	639,539,266 54	
174,191	31,481	160,196	1,568	13,995	21,736,230	460,880	141,437,973 55	
1,478	1,234	1,469	12	9			2,361,427 56	
2,728	2,203	2,626	261	102	2,000		3,475,024 57	
16,634	17,876	14,934	1,073	1,700	2,133,161	54,429	21,440,252 58	
9,129	8,368	8,981	117	148	17,800		13,001,503 59	
24,377	19,687	22,817	943	1,560	1,477,778	192,681	39,464,102 60	
362	190	362					340,094 61	
2,002	1,534	1,982	10	20	59,365		2,247,246 62	
145	217	145					285,523 63	
1,356	2,026	1,329	49	27	308,698		3,511,404 64	
92,367	12,334	77,013	1,532	15,354	6,174,918	2,673	43,660,583 65	
6,435	5,694	6,435					16,471,279 66	
87,329	4,626	84,587	205	2,742	4,201,977		98,745,502 67	
7,101	1,541	7,070	122	31	2,847,000		9,554,980 68	
38,349	3,052	26,879	1,339	11,470	3,931,570		15,821,986 69	

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	ESTABLISHMENTS		Horse-power installation per 100 wage earners	PRIME MOVERS				
		Number	Number reporting power equipment		Total horsepower of prime movers	Steam engines			
						Total	Driving generators		
INDUSTRY—continued									
1	6	Mirror frames and picture frames.....	182	182	153	640	5	1	4
2	13	Mirrors and other glass products made of purchased glass.....	557	554	146	1,282	8	5	3
3	20	Miscellaneous fabricated products not elsewhere classified.....	582	577	115	1,934	24	6	18
4	4	Miscellaneous fabricated textile products not elsewhere classified.....	300	270	113	936	7	2	5
5	20	Models and patterns (except paper patterns).....	683	683	316	55	—	—	—
6	13	Monuments, tombstones, cut-stone, and stone products not elsewhere classified.....	1,244	1,224	1,360	41,156	160	13	147
7	19	Motorcycles, bicycles, and parts.....	36	36	302	1,835	3	—	3
8	18	Motor vehicles, motor-vehicle bodies, parts and accessories.....	1,054	990	565	853,672	388	40	348
9	9	Mucilage, paste, and other adhesives, except glue and rubber cement.....	64	64	484	160	3	1	2
10	20	Musical instruments, parts, and materials not elsewhere classified.....	101	101	163	—	—	—	—
11	14	Nails, spikes, etc., not made in wire mills or in plants operated in connection with rolling mills.....	36	36	408	3,415	7	2	5
12	13	Natural graphite, ground and refined.....	6	6	2,166	465	—	—	—
13	20	Needles, pins, hooks and eyes, and slide and snap fasteners.....	58	57	102	2,412	7	5	2
14	8	Newspapers: publishing and printing.....	6,878	6,843	351	9,703	25	20	5
15	8	Newspapers: publishing without printing.....	431	429	103	—	—	—	—
16	1	Nonalcoholic beverages.....	4,504	4,491	429	4,733	50	13	37
17	13	Nonclay refractories.....	46	45	671	1,755	13	3	10
18	15	Nonferrous-metal foundries (except aluminum).....	600	598	358	635	1	1	—
19	15	Nonferrous-metal products not elsewhere classified.....	438	437	341	6,053	10	6	4
20	17	Office and store machines not elsewhere classified.....	122	123	167	28,136	11	8	3
21	6	Office furniture.....	152	148	290	10,288	41	24	17
22	14	Oil burners, domestic and industrial.....	130	130	332	957	—	—	—
23	17	Oil-field machinery and tools.....	223	222	762	10,921	10	5	5
24	1	Oleomargarine—not made in meat-packing establishments.....	18	18	1,057	1,706	14	8	6
25	20	Ophthalmic goods: lenses and fittings.....	91	91	210	9,190	4	2	2
26	20	Optical instruments and lenses.....	30	29	129	—	2	—	2
27	20	Organs.....	34	33	288	190	—	—	—
28	10	Oven coke and coke-oven byproducts.....	83	83	2,779	273,893	853	76	777
29	9	Paints, varnishes, and lacquers.....	1,166	1,153	782	25,261	48	25	23
30	7	Paper and paperboard mills.....	832	804	2,799	2,745,059	1,511	393	1,118
31	7	Pulp mills.....	119	118	181	2,837	8	5	3
32	7	Paper bags, except those made in paper mills.....	1,338	1,330	182	8,354	68	36	32
33	17	Paperboard containers and boxes not elsewhere classified.....	99	99	666	4,112	11	9	2
34	6	Partitions, shelving, cabinet work, and office and store fixtures.....	716	714	353	4,252	29	9	20
35	10	Paving blocks and paving mixtures: asphalt, creosoted wood, and composition.....	231	227	2,123	19,032	97	3	94
36	20	Pencils (except mechanical) and crayons.....	40	40	317	4,930	17	11	6
37	20	Pens, mechanical pencils, and pen points.....	70	68	122	60	—	—	—
38	9	Perfumes, cosmetics, and other toilet preparations.....	539	537	130	2,890	8	8	—
39	8	Periodicals: publishing and printing.....	600	598	245	18,324	31	30	1
40	8	Periodicals: publishing without printing.....	1,958	1,953	94	—	—	—	—
41	10	Petroleum refining.....	485	478	2,331	1,074,775	6,574	37	6,537
42	8	Photoengraving, not done in printing establishments (including preparation of plates).....	694	694	79	—	—	—	—
43	20	Photographic apparatus and materials and projection equipment (except lenses).....	160	155	409	49,936	192	13	179
44	20	Piano and organ parts and materials.....	23	23	328	1,655	4	4	—
45	20	Pianos.....	35	34	204	5,450	22	13	9
46	1	Pickled fruits and vegetables and vegetable sauces and seasonings.....	377	369	233	4,508	47	18	29
47	5	Planing mills not operated in conjunction with sawmills.....	3,076	3,063	1,016	191,579	1,149	211	938
48	9	Plastic materials.....	38	38	741	11,342	12	—	12
49	5	Plywood mills.....	86	85	509	12,603	73	20	53
50	13	Porcelain electrical supplies.....	42	42	338	2,848	12	6	6
51	13	Pottery products not elsewhere classified.....	151	151	225	2,501	26	8	18
52	1	Poultry dressing and packing, wholesale.....	765	761	108	1,620	13	3	10
53	14	Power boilers and associated products.....	448	445	1,189	22,764	96	60	36
54	1	Prepared feeds (including mineral) for animals and fowls.....	1,383	1,364	1,781	33,689	71	10	61
55	1	Preserves, jams, jellies, and fruit butters.....	171	170	245	1,607	15	9	6
56	15	Primary smelting and refining of nonferrous metals.....	63	63	2,845	500,601	180	55	125
57	9	Printing ink.....	206	206	1,237	380	1	—	1
58	17	Printing-trades machinery and equipment.....	231	229	519	4,135	18	10	8
59	3	Processed waste and recovered wool fibers—contract factories.....	27	27	956	1,305	5	—	5
60	3	Processed waste and recovered wool fibers—regular factories or jobbers engaging contractors.....	—	—	—	—	—	—	—
61	20	Professional and scientific instruments (except surgical and dental).....	126	125	771	6,726	26	5	21
62	6	Public-building furniture.....	218	217	212	3,194	5	4	1
63	7	Pulp goods (pressed, molded).....	106	106	381	11,570	23	17	6
64	17	Pulp mills. (See "Paper and paperboard mills.")	337	333	598	33,353	53	37	16
65	1	Pumping equipment and air compressors.....	36	36	321	1,286	3	—	3
66	16	Quick-frozen foods.....	14	14	855	2,070	2	2	—
	7	Radios, radio tubes, and phonographs.....	224	223	168	23,354	15	6	9

## POWER EQUIPMENT AND ENERGY CONSUMPTION

31

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued

PRIME MOVERS—continued													
Steam engines—Continued			Steam turbines						Diesel and semi-Diesel engines				
Horsepower		Number			Horsepower			Number					
Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators		
620	250	370							3	1	2	1	
1,066	725	341							2	1	1	2	
1,355	785	570	1	1		335	335					3	
415	55	360										4	
									2	2		5	
13,709	2,835	10,874	5	3	2	1,864	1,832	32	80	28	52	6	
700		700							2	2		7	
75,766	25,970	49,796	284	72	212	741,780	677,489	64,291	7	3	4	8	
160	125	35										9	
												10	
2,815	1,200	1,615	1	1		80	80		1	1		11	
1,302	977	325		1	1	750	750					12	
4,882	4,557	325	8	4	4	3,596	2,926	670	4	4		13	
												14	
2,659	781	1,878	5	2	3	467	390	77	11	6	5	15	
1,685	360	1,325										16	
75	75											17	
3,545	2,570	975	2	2		1,500	1,500		5	5		18	
									6	3	3	19	
4,558	3,253	1,305	11	11		23,185	23,185		4	3	1	20	
8,718	6,308	2,410	9	4	5	885	605	280	1	1		21	
									6	6		22	
1,195	785	410	5	2	3	5,510	5,000	510	6	6		23	
1,570	525	1,045							1		1	24	
666	300	366	4	4		8,250	8,250					25	
												26	
150		150										27	
75,980	18,163	57,817	501	52	449	193,565	66,336	127,229	5		5	28	
8,634	6,390	2,244	14	12	2	13,505	13,296	209	19	13	6	29	
396,515	177,409	219,106	1,411	617	794	1,593,097	1,478,697	114,400	17	6	11	30	
758	645	113	1	1		250	250					31	
6,904	5,627	1,277	5	5		255	255		7	6	1	32	
1,390	1,265	125	2	2		935	935		7	5	2	33	
3,870	2,325	1,545	7	3	4	2,785	2,600	185	3	1	1	34	
13,457	10,050	3,407							1	1		35	
4,815	4,695	120										36	
												37	
1,760	1,760		9	4	5	1,130	660	470				38	
12,939	12,864	75	3	3		5,000	5,000		2	2		39	
177,748	5,754	171,994	3,323	178	3,145	744,169	433,025	311,144	117	44	73	41	
												42	
16,036	3,233	12,803	41	9	32	33,900	27,950	5,950				43	
1,430	1,430		1	1		150	150					44	
5,005	3,825	1,180	2	2		445	445					45	
3,141	2,429	712	17	1	16	909	250		6	2	4	46	
141,302	53,338	87,964	76	50	26	43,460	37,410	6,050	38	12	26	47	
1,893		1,893	25	7	18	8,824	5,860	2,964	1		1	48	
8,003	4,706	3,297	7	7		4,155	4,155		2	1	1	49	
1,228	678	550	2	2		1,320	1,320		2	2		50	
2,099	1,004	1,095							5	1	4	51	
700	250	450							7	6	1	52	
13,555	8,960	4,575	1	1		750	750		48	13	35	53	
7,815	2,381	5,434	7	6	1	888	688	200	131	28	103	54	
1,579	979	600										55	
72,628	33,445	39,183	101	62	39	225,087	206,870	18,217	3	3		56	
295		295										57	
3,390	2,413	977	3	3		745	745					58	
710		710	1		1	50		50				59	
4,239	945	3,294	3	2	1	915	870	45				60	
875	825	50	3	3		2,300	2,300					61	
4,605	3,625	980	7	6	1	6,520	6,500	20				62	
2,025	2,025								1	1		63	
13,117	10,452	2,665	15	9	6	10,875	6,040	4,835	20	15	5	64	
290		290										65	
2,785	1,885	900	9	9		20,569	20,569					66	

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	PRIME MOVERS—continued					
		Diesel and semi-Diesel engines—Con.			Other internal-combustion engines		
		Horsepower		Number	Total	Driving generators	Not driving generators
Total	Driving generators	Not driving generators					
INDUSTRY—continued							
1	6	Mirror frames and picture frames					
2	13	Mirrors and other glass products made of purchased glass	160	100	60	2	
3	20	Miscellaneous fabricated products not elsewhere classified	95	70	25	7	
4	4	Miscellaneous fabricated textile products not elsewhere classified				2	2
5	20	Models and patterns (except paper patterns)	55	55			
6	13	Monuments, tombstones, cut-stone, and stone products not elsewhere classified	7,430	4,056	3,344	126	5
7	19	Motorcycles, bicycles, and parts	1,100	1,100		1	1
8	18	Motor vehicles, motor-vehicle bodies, parts and accessories	1,300	1,065	235	42	16
9	9	Mucilage, paste, and other adhesives, except glue and rubber cement					
10	20	Musical instruments, parts, and materials not elsewhere classified					
11	14	Nails, spikes, etc., not made in wire mills or in plants operated in connection with rolling mills	120	120		1	1
12	13	Natural graphite, ground and refined					
13	20	Needles, pins, books and eyes, and slide and snap fasteners					
14	8	Newspapers: publishing and printing	410	410		36	7
15	8	Newspapers: publishing without printing					
16	1	Nonalcoholic beverages	612	422	190	30	8
17	13	Nonclay refractories				1	1
18	15	Nonferrous-metal foundries (except aluminum)	465	465		2	2
19	15	Nonferrous-metal products not elsewhere classified	585	300	285	10	4
20	17	Office and store machines not elsewhere classified	393	368	25		
21	6	Office furniture	350	350		4	3
22	14	Oil burners, domestic and industrial	640	640		7	2
23	17	Oil-field machinery and tools	1,130	1,130		40	12
24	1	Oleomargarine—not made in meat-packing establishments	56		56		
25	20	Ophthalmic goods: lenses and fittings					
26	20	Optical instruments and lenses					
27	20	Organs					
28	10	Oven coke and coke-oven byproducts	756		756	83	1
29	9	Paints, varnishes, and lacquers	2,765	2,275	490	11	3
30	7	Paper and paperboard mills	3,209	1,730	1,479	22	9
31	7	(Pulp mills)					
32	7	Paper bags, except those made in paper mills	525	490	35	3	2
33	17	Paperboard containers and boxes not elsewhere classified	550	500	50	2	1
34	6	Partitions, shelving, cabinet work, and office and store fixtures	70		70	14	
35	10	Paving blocks and paving mixtures: asphalt, creosoted wood, and composition	440	275	165	50	50
36	20	Pencils (except mechanical) and crayons				4	4
37	20	Pens, mechanical pencils, and pen points	60	60			
38	9	Perfumes, cosmetics, and other toilet preparations					
39	8	Periodicals: publishing and printing	340	340		1	1
40	8	Periodicals: publishing without printing					
41	10	Petroleum refining	22,100	13,250	8,850	1,141	52
42	8	Photoengraving, not done in printing establishments (including preparation of plates)					
43	20	Photographic apparatus and materials and projection equipment (except lenses)					
44	20	Piano and organ parts and materials				1	1
45	20	Pianos					
46	1	Pickled fruits and vegetables and vegetable sauces and seasonings	385	190	195	35	35
47	5	Planing mills not operated in conjunction with sawmills	3,201	1,442	1,759	66	2
48	9	Plastic materials	90		90	8	6
49	5	Plywood mills	325	240	85	1	1
50	13	Porcelain electrical supplies	300	300			
51	13	Pottery products not elsewhere classified	305	200	105	6	6
52	1	Poultry dressing and packing, wholesale	680	615	65	8	2
53	14	Power boilers and associated products	2,410	1,775	635	120	32
54	1	Prepared feeds (including mineral) for animals and fowls	13,408	4,374	9,034	119	13
55	1	Preserves, jams, jellies, and fruit butters				2	2
56	15	Primary smelting and refining of nonferrous metals	7,500	7,500		27	8
57	9	Printing ink				3	3
58	17	Printing-trades machinery and equipment					
59	3	Processed waste and recovered wool fibers—contract factories					
60	3	Processed waste and recovered wool fibers—regular factories or jobbers engaging contractors					
61	20	Professional and scientific instruments (except surgical and dental)				2	
62	6	Public-building furniture				1	1
63	7	Pulp goods (pressed, molded)	45	45			
64	7	Pulp mills. (See "Paper and paperboard mills.")					
65	17	Pumping equipment and air compressors	7,161	6,526	635	20	9
66	1	Quick-frozen foods				33	33
	16	Radios, radio tubes, and phonographs					

## POWER EQUIPMENT AND ENERGY CONSUMPTION

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RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND  
1939—Continued

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	Generators (kilowatt rating)						
		Total kilo-watt rating	Driven by—					Ordinarily idle (included in total kilowatt rating)
			Steam engines	Steam turbines	Diesel and semi-Diesel engines	Other internal-combustion engines	Hydro-turbines and water wheels	
INDUSTRY—continued								
1	6	Mirror frames and picture frames.....	155	155				
2	13	Mirrors and other glass products made of purchased glass.....	550	485		65		
3	20	Miscellaneous fabricated products not elsewhere classified.....	793	405	312	76		612
4	4	Miscellaneous fabricated textile products not elsewhere classified.....	399	39			360	
5	20	Models and patterns (except paper patterns).....	10			10		
6	13	Monuments, tombstones, cut-stone, and stone products not elsewhere classified.....	14,274	1,960	1,248	2,589	73	8,404
7	19	Motorcycles, bicycles, and parts.....	750			750		
8	18	Motor vehicles, motor vehicle bodies, parts and accessories.....	502,339	18,351	458,248	720	1,120	23,900
9	9	Mucilage, paste, and other adhesives, except glue and rubber cement.....	90	90				8,068
10	20	Musical instruments, parts, and materials not elsewhere classified.....						
11	14	Nails, spikes, etc., not made in wire mills or in plants operated in connection with rolling mills.....	461	125	60	56	45	175
12	13	Natural graphite, ground and refined.....						
13	20	Needles, pins, hooks and eyes, and slide and snap fasteners.....	1,305	580	500			225
14	8	Newspapers: publishing and printing.....	6,201	3,279	2,250	307	365	1,290
15	8	Newspapers: publishing without printing.....						
16	1	Nonalcoholic beverages.....	1,469	559	300	252	358	150
17	13	Nonclay refractories.....	275	275				25
18	15	Nonferrous-metal foundries (except aluminum).....	405	125		265		
19	15	Nonferrous-metal products not elsewhere classified.....	3,101	1,713	1,000	172	91	125
20	17	Office and store macbines not elsewhere classified.....	19,090	2,206	16,650	234		5,392
21	6	Office furniture.....	4,756	3,896	370	240	250	
22	14	Oil burners, domestic and industrial.....	481			426	40	15
23	17	Oil-field machinery and tools.....	5,419	597	3,080	775	967	682
24	1	Oleomargarine—not made in meat-packing establishments.....	485	425				60
25	20	Ophthalmic goods: lenses and fittings.....	6,360	160	6,000			200
26	20	Optical instruments and lenses.....						
27	20	Organs.....						
28	10	Oven coke and coke-oven byproducts.....	59,326	12,284	47,022		20	4,841
29	9	Paints, varnishes, and lacquers.....	15,303	4,410	9,400	1,460	33	1,565
30	7	Paper and paperboard mills.....	1,517,966	123,052	1,061,038	1,263	1,563	331,050
	(Pulp mills)							138,567
31	7	Paper bags, except those made in paper mills.....	1,048	433	177			438
32	7	Paperboard containers and boxes not elsewhere classified.....	4,873	4,227		330	35	281
33	17	Paper-mill, pulp-mill, and paper-products machinery.....	2,726	886	695	325		316
								231
34	6	Partitions, shelving, cabinet work, and office and store fixtures.....	1,879	1,879				350
35	10	Paving blocks and paving mixtures: asphalt, creosoted wood, and composition.....	11,135	9,435	1,550	150		
36	20	Pencils (except mechanical) and crayons.....	3,370	3,370				100
37	20	Pens, mechanical pencils, and pen points.....	50			50		50
38	9	Perfumes, cosmetics, and other toilet preparations.....	1,491	1,011	480			85
39	8	Periodicals: publishing and printing.....	11,490	8,420	2,800	240	30	2,400
40	8	Periodicals: publishing without printing.....						
41	10	Petroleum refining.....	326,514	3,598	309,235	8,813	4,868	61,128
42	8	Photoengraving, not done in printing establishments (including preparation of plates).....						
43	20	Photographic apparatus and materials and projection equipment (except lenses).....	20,640	1,840	18,800			1,025
44	20	Piano and organ parts and materials.....	1,040	940	100			
45	20	Pianos.....	3,106	2,776	330			255
46	1	Pickled fruits and vegetables and vegetable sauces and seasonings.....	2,007	1,667	200	140		315
47	5	Planing mills not operated in conjunction with sawmills.....	63,386	35,213	27,136	953	34	4,836
48	9	Plastic materials.....	4,457		4,310		147	207
49	5	Plywood mills.....	6,180	3,000	2,945	160	75	120
50	13	Porcelain electrical supplies.....	1,660	470	990	200		75
51	13	Pottery products not elsewhere classified.....	837	687		150		
52	1	Poultry dressing and packing, wholesale.....	621	165		411	45	101
53	14	Power boilers and associated products.....	9,784	7,067	500	1,242	879	96
								1,870
54	1	Prepared feeds (including mineral) for animals and fowls.....	7,401	1,460	500	3,082	1,459	900
55	1	Preserves, jams, jellies, and fruit butters.....	670	670				23
56	15	Primary smelting and refining of nonferrous metals.....	304,364	21,894	144,225	5,000	1,280	131,965
57	9	Printing ink.....						48,701
58	17	Printing-trades machinery and equipment.....	2,186	1,622	564			221
59	3	Processed waste and recovered wool fibers—contract factories.....						
60	3	Processed waste and recovered wool fibers—regular factories or jobbers engaging contractors.....	1,652	475	600			577
61	20	Professional and scientific instruments (except surgical and dental).....	1,905	600	1,300		5	42
62	6	Public-building furnitures.....	7,408	2,602	4,721			1,300
63	7	Pulp goods (pressed, molded).....	1,384	1,350		34		2,060
64	7	Pulp mills. (See Paper and paperboard mills.)	16,481	7,190	3,965	4,815	511	1,649
65	1	Pumping equipment and air compressors.....						
66	16	Quick-frozen foods.....						
		Radios, radio tubes, and phonographs.....	16,675	1,325	15,350			75

## POWER EQUIPMENT AND ENERGY CONSUMPTION

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RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued

Aggregate horse-power	ELECTRIC MOTORS					ELECTRIC ENERGY (KILOWATT HOURS)		
	Driven by purchased energy		Driven by plant energy			Generated in plant	Sold	Purchased
	Number	Horsepower	Number	Horsepower				
4,460	1,588	4,284	66	176				3,582,737 1
13,804	5,915	13,375	215	429	508,000			18,919,763 2
14,531	6,991	14,143	86	388	91,988	75,851		13,706,428 3
6,216	3,343	5,663	253	553	1,530,000			4,824,786 4
17,531	7,128	17,521	11	10	600			6,146,435 5
243,492	12,887	210,605	1,583	32,887	23,492,351	41,036	117,269,770 6	
20,836	3,035	19,212	127	1,624	1,500,960		19,916,660 7	
2,229,525	229,129	1,391,456	85,386	838,069	1,174,419,502	128,347,153	1,420,042,047 8	
1,458	289	1,219	16	239	210,160		1,486,821 9	
5,196	2,682	5,196					4,142,280 10	
7,232	800	6,839	31	393	583,176		10,354,436 11	
748	63	748					246,876 12	
10,387	4,735	8,234	396	2,153	2,917,716		14,788,836 13	
339,850	97,647	330,804	1,283	9,046	13,851,404	626,067	366,634,952 14	
269	235	269					815,121 15	
87,422	41,555	86,499	401	923	1,482,135		84,854,823 16	
30,927	1,967	30,415	38	512	900,000		36,151,262 17	
34,458	7,675	34,115	55	343	209,120		31,267,504 18	
83,606	15,718	78,675	2,056	4,931	4,110,734		106,022,842 19	
56,825	11,073	32,395	5,403	24,430	27,652,244		35,664,068 20	
33,334	5,833	23,829	1,712	9,505	7,393,518	98,900	19,844,025 21	
4,319	1,905	4,020	69	299	85,000		2,471,672 22	
92,924	11,906	84,520	875	8,404	4,263,739	2,916,115	77,015,752 23	
9,516	2,393	8,691	340	825	5,640,000		8,440,559 24	
17,786	4,674	12,357	2,189	5,429	6,026,663		14,692,234 25	
1,775	1,031	1,775					2,071,713 26	
2,655	1,079	2,655					1,072,212 27	
498,879	8,745	309,863	6,852	189,016	287,463,564	41,819,056	336,280,968 28	
176,499	23,897	149,425	4,057	27,074	34,540,996	5,243,341	112,751,498 29	
3,213,637	39,592	1,102,675	88,931	2,110,962	6,297,943,284	210,499,793	2,972,958,641 30	
19,933	5,992	17,173	687	2,760	4,164,402	140,126	20,451,388 31	
118,965	37,590	105,291	4,040	13,674	7,534,688	732,727	91,514,972 32	
39,560	4,043	31,596	1,070	7,964	4,286,145	1,395,703	12,875,286 33	
48,648	10,589	44,518	832	4,130	2,477,650		22,047,474 34	
43,603	2,027	32,700	144	10,903	4,723,849		13,259,960 35	
11,169	2,157	7,062	807	4,107	3,758,781		5,516,835 36	
5,403	3,338	5,368	60	35			4,618,516 37	
11,960	7,255	10,532	664	1,428	1,397,714	802,304	8,534,060 38	
50,895	13,317	33,033	2,878	17,862	20,080,959	1,426,379	45,704,984 39	
411	401	411					3,431,680 40	
1,159,606	24,998	623,283	18,636	536,323	1,339,183,119	71,465,888	1,505,068,345 41	
7,317	8,328	7,317					17,056,712 42	
36,742	8,233	20,724	5,643	16,018	90,712,167	37,017,383	51,225,902 43	
5,263	494	2,652	773	2,611	1,321,250		2,424,461 44	
10,411	1,262	5,386	991	5,025	2,328,276		4,242,091 45	
22,108	6,249	18,556	1,160	3,552	456,375		10,479,058 46	
549,789	44,831	447,123	12,661	102,666	63,873,485	15,107,316	158,028,733 47	
61,830	6,790	40,292	2,231	21,538	38,840	272,400	72,034,024 48	
45,477	3,841	37,312	1,003	8,165	7,589,657	28,640	55,677,029 49	
21,554	3,339	17,490	1,326	4,064	3,871,909		19,437,876 50	
12,091	2,860	11,149	301	942	99,780		12,651,155 51	
14,423	3,840	14,039	124	384	372,170		25,075,336 52	
220,915	15,539	201,841	1,902	19,074	9,438,069	62,854	89,176,004 53	
251,274	16,842	240,602	895	10,672	7,184,236	278,594	184,149,477 54	
8,471	2,723	7,497	344	974	541,708	83,000	5,788,219 55	
448,772	9,302	285,495	8,662	163,277	1,232,353,237	304,883,296	3,694,314,367 56	
31,423	3,636	31,423					23,921,968 57	
49,514	10,005	44,567	935	4,947	1,531,239	36,000	20,290,905 58	
4,613	279	4,613					3,927,816 59	
28,833	1,683	25,850	287	2,983	1,021,700		19,146,578 60	
19,526	8,542	16,794	1,648	2,732	1,300,800	8,300	14,850,146 61	
26,237	2,269	10,881	2,742	15,356	8,987,440	2,545	7,605,993 62	
5,161	425	3,921	125	1,240	1,358,798		43,586,522 63	
121,657	12,754	81,273	4,740	40,384	22,988,775		41,874,868 64	
7,178	1,149	7,178					8,327,743 65	
76,990	20,077	49,790	5,170	27,200	38,067,610		70,921,839 66	

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	ESTABLISHMENTS		Horse-power installation per 100 wage earners	PRIME MOVERS			
		Number	Number reporting power equipment		Total horsepower of prime movers	Steam engines		
						Total	Driving generators	
INDUSTRY—continued								
1	4	Raincoats and other waterproof garments (except oiled cotton)	76	74	32	—	—	
2	6	Rattan and willowware (except furniture) and baskets other than vegetable and fruit baskets	47	47	177	980	12	
3	9	Rayon and allied products	30	30	944	395,787	69	
4	3	Rayon broad woven goods—contract factories	79	78	138	480	1	
5	3	Rayon broad woven goods—regular factories or jobbers engaging contractors	196	190	234	40,558	26	
6	3	Rayon narrow fabrics	120	118	95	1,304	4	
7	3	Rayon throwing and spinning—contract factories	32	32	299	325	2	
8	3	Rayon yarn and thread, spun or thrown—regular factories or jobbers engaging contractors	52	50	339	7,953	10	
9	11	Reclaimed rubber	10	10	3,029	760	1	
10	17	Refrigerators, domestic (mechanical and absorption), refrigeration machinery and equipment, and complete air-conditioning units	309	309	429	11,365	20	
11	1	Rice cleaning and polishing	72	72	1,108	18,563	70	
12	4	Robes, lounging garments, and dressing gowns	264	245	26	—	35	
13	10	Roofing, built-up and roll; asphalt shingles; roof coating (except paint)	129	129	567	11,669	49	
14	13	Roofing tile	16	16	733	2,530	5	
15	11	Rubber boots and shoes (including rubber-soled footwear with fabric uppers)	13	13	438	8,727	36	
16	11	Rubber products not elsewhere classified	519	508	662	46,386	232	
17	12	Saddlery, harness, and whips	156	154	158	1,269	18	
18	14	Safes and vaults	16	16	689	1,825	5	
19	1	Salad dressings	134	134	247	—	4	
20	9	Salt	40	37	1,618	51,447	113	
21	13	Sand-lime brick, block and tile	27	27	1,207	800	4	
22	1	Sausage casings—not made in meat-packing establishments	37	37	39	—	1	
23	1	Sausages, prepared meats, and other meat products—not made in meat-packing establishments	1,067	1,063	726	1,315	16	
24	5	Sawmills, veneer mills, and cooperage-stock mills, including those combined with logging camps and with planing mills	7,391	6,694	722	1,483,482	8,745	
25	14	Saws	87	87	587	2,760	7	
26	17	Scales and balances	56	56	350	644	3	
27	14	Screw-machine products and wood screws	345	345	464	8,830	10	
28	15	Secondary smelting and refining, gold, silver, and platinum	66	66	576	1,031	3	
29	15	Secondary smelting and refining of nonferrous metals, not elsewhere classified	108	107	633	2,709	5	
30	13	Sewer pipe and kindred products	65	63	484	16,638	64	
31	17	Sewing machines, domestic and industrial	39	39	456	12,141	9	
32	15	Sheet-metal work not specifically classified	1,262	1,252	299	2,160	6	
33	19	Shipbuilding and ship repairing	406	399	462	33,163	90	
34	20	Signs, advertising displays, and advertising novelties	1,386	1,385	106	2,081	12	
35	3	Silk broad woven goods—contract factories	37	37	156	—	9	
36	3	Silk broad woven goods—regular factories or jobbers engaging contractors	82	82	298	6,870	9	
37	3	Silk narrow fabrics	100	98	95	590	2	
38	3	Silk throwing and spinning—contract factories	78	73	210	2,307	3	
39	3	Silk yarn and thread, spun or thrown—regular factories or jobbers engaging contractors	53	52	239	4,074	12	
40	15	Silverware and plated ware	150	149	331	12,852	21	
41	12	Small leather goods	118	117	973	150	2	
42	9	Soap and glycerin	264	264	696	46,963	85	
43	20	Soda fountains, beer dispensing equipment, and related products	51	51	288	950	3	
44	9	Soybean oil, cake, and meal	47	46	2,127	2,415	7	
45	1	Special dairy products	51	51	446	3,365	13	
46	17	Special-industry machinery, not elsewhere classified	207	206	547	16,261	12	
47	20	Sporting and athletic goods, not elsewhere classified	350	347	263	7,057	32	
48	14	Springs, steel (except wire)—made in plants not operated in connection with rolling mills	53	53	557	125	1	
49	14	Stamped and pressed metal products (except automobile stampings)	655	650	408	6,375	21	
50	13	Statuary and art goods (except stone and concrete)—factory production	126	125	80	20	—	
51	14	Steam and hot-water heating apparatus (including hot-water furnaces)	68	66	653	9,761	15	
52	13	Steam and other packing; pipe and boiler covering	134	130	491	11,898	16	
53	17	Steam engines, turbines, and water wheels	18	18	476	9,365	14	
54	14	Steam fittings, regardless of material	181	181	417	14,342	36	
55	14	Steel barrels, kegs, and drums	64	64	409	2,105	4	
56	14	Steel castings	164	163	900	48,815	84	
57	17	Steel works and rolling mills. (See "Blast-furnace products.")	61	59	513	3,608	3	
58	14	Stokers, mechanical, domestic and industrial	—	—	—	—	3	
59	14	Stoves, ranges, water heaters, and hot-air furnaces (except electric)	449	442	301	19,814	91	
60	12	Suitcases, brief cases, bags, trunks, and other luggage	329	327	100	2,996	12	
61	20	Surgical and medical instruments	50	50	139	246	1	
62	20	Surgical supplies and equipment, not elsewhere classified; orthopedic appliances	360	359	243	2,679	29	
63	4	Suspenders, garters, and other goods made from purchased elastic material	66	66	43	—	4	
64	13	Tableware, pressed or blown glass, and glassware not elsewhere classified	115	113	240	11,454	19	
65	9	Tanning materials, natural dyestuffs, mordants, assistants, and sizes	158	155	1,300	25,996	86	
66	13	Terra cotta	12	12	568	1,885	10	
67	4	Textile bags—not made in textile mills	216	209	163	4,282	22	
68	17	Textile machinery	300	297	337	12,469	25	
69	15	Tin and other foils (except gold and silver foil)	12	11	1,965	—	—	
70	14	Tin cans and other tinware not elsewhere classified	248	244	399	12,674	51	
71	11	Tires and inner tubes	53	48	1,029	232,297	116	
72	2	Tobacco (chewing and smoking) and snuff	132	131	234	11,013	74	
72	20	Tobacco pipes and cigarette holders	32	32	132	775	7	

## POWER EQUIPMENT AND ENERGY CONSUMPTION

37

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND  
1939—Continued

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	PRIME MOVERS—continued					
		Diesel and semi-Diesel engines—Con.			Other internal-combustion engines		
		Horsepower		Number		Total	Driving generators
INDUSTRY—continued							
1	4 Raincoats and other waterproof garments (except oiled cotton)						
2	6 Rattan and willowware (except furniture) and baskets other than vegetable and fruit baskets					2	
3	9 Rayon and allied products					5	2
4	3 Rayon broad woven goods—contract factories	180	180			3	
5	3 Rayon broad woven goods—regular factories or jobbers engaging contractors	360	360			1	
6	3 Rayon narrow fabrics	605	605			1	
7	3 Rayon throwing and spinning—contract factories						
8	3 Rayon yarn and thread, spun or thrown—regular factories or jobbers engaging contractors	700	700			1	
9	11 Reclaimed rubber	450	450				
10	17 Refrigerators, domestic (mechanical and absorption), refrigeration machinery and equipment, and complete air-conditioning units	1,040	1,040				
11	1 Rice cleaning and polishing	2,057	800	1,257	6	4	2
12	4 Robes, lounging garments, and dressing gowns						
13	10 Roofing, built-up and roll; asphalt shingles; roof coating (except paint)	186	100	86	5		5
14	13 Roofing tile				8	3	5
15	11 Rubber boots and shoes (including rubber-soled footwear with fabric uppers)						
16	11 Rubber products not elsewhere classified	983	880	103	3		3
17	12 Saddlery, harness, and whips	80		80	1		1
18	14 Safes and vaults				1		1
19	1 Salad dressings						
20	9 Salt	400	400		2		2
21	13 Sand-lime brick, block and tile						
22	1 Sausage casings—not made in meat-packing establishments						
23	1 Sausages, prepared meats, and other meat products—not made in meat-packing establishments	461	436	25	7		7
24	5 Sawmills, veneer mills, and cooperage-stock mills, including those combined with logging camps and with planing mills	50,805	3,990	46,815	2,396	29	2,367
25	14 Saws				1		1
26	17 Scales and balances	240	240		1		1
27	14 Screw-machine products and wood screws	2,940	2,603	337	5	3	2
28	15 Secondary smelting and refining, gold, silver, and platinum				3		3
29	15 Secondary smelting and refining of nonferrous metals, not elsewhere classified	575	575		6	4	2
30	13 Sewer pipe and kindred products	150		150	14	4	10
31	17 Sewing machines, domestic and industrial						
32	15 Sheet-metal work not specifically classified	440	440		18	14	4
33	19 Shipbuilding and ship repairing	5,399	4,559	840	91	5	86
34	20 Signs, advertising displays, and advertising novelties	360	300	60	2		2
35	3 Silk broad woven goods—contract factories						
36	3 Silk broad woven goods—regular factories or jobbers engaging contractors						
37	3 Silk narrow fabrics						
38	3 Silk throwing and spinning—contract factories	485	360	125			
39	3 Silk yarn and thread, spun or thrown—regular factories or jobbers engaging contractors						
40	15 Silverware and plated ware						
41	12 Small leather goods						
42	9 Soap and glycerin	235	235		2	1	1
43	20 Soda fountains, beer dispensing equipment, and related products						
44	9 Soybean oil, cake, and meal						
45	1 Special dairy products						
46	17 Special-industry machinery, not elsewhere classified	1,569	1,029	540	12	3	9
47	20 Sporting and athletic goods not elsewhere classified	80	80		4	2	2
48	14 Springs, steel (except wire)—made in plants not operated in connection with rolling mills						
49	14 Stamped and pressed metal products (except automobile stampings)	410	320	90	9	3	6
50	13 Statuary and art goods (except stone and concrete)—factory production				1		1
51	14 Steam and hot-water heating apparatus (including hot-water furnaces)				4		4
52	13 Steam and other packing; pipe and boiler covering	150		150	9	4	5
53	17 Steam engines, turbines, and water wheels						
54	14 Steam fittings, regardless of material				1		1
55	14 Steel barrels, kegs, and drums	80		80	4		4
56	14 Steel castings	2,788	2,720	68	27	5	22
57	14 Steel works and rolling mills. (See "Blast-furnace products.")						
58	17 Stokers, mechanical, domestic and industrial	225	150	75			
59	14 Stoves, ranges, water heaters, and hot-air furnaces (except electric)	3,961	3,463	498	17	6	11
60	12 Suitcases, brief cases, bags, trunks, and other luggage				1	1	
61	20 Surgical and medical instruments	100	100		2		2
62	20 Surgical supplies and equipment not elsewhere classified; orthopedic appliances				2		2
63	4 Suspenders, garters, and other goods made from purchased elastic material						
64	13 Tableware, pressed or blown glass, and glassware not elsewhere classified	350	110	240	21	9	12
65	9 Tanning materials, natural dyestuffs, mordants, assistants, and sizes	370	370		7	1	6
66	13 Terra cotta						
67	4 Textile bags—not made in textile mills				1		1
68	17 Textile machinery	550	550		17	1	16
69	15 Tin and other foils (except gold and silver foil)						
70	14 Tin cans and other tinware not elsewhere classified	300	300		5	2	3
71	11 Tires and inner tubes				2		2
72	2 Tobacco (chewing and smoking) and snuff				2	1	1
72	20 Tobacco pipes and cigarette holders						

**POWER EQUIPMENT AND ENERGY CONSUMPTION**

39

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued

PRIME MOVERS—continued									Horsepower of prime movers ordinarily idle	
Other internal-combustion engines—Continued			Hydroturbines and water wheels							
Horsepower		Number			Horsepower					
Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators		
85	1,115	85	1	1		4,500	4,500		1	
1,325		210							50 2 33,954 4 4,585 5	
10		10	58	44	14	22,822	18,477	4,345		
50		50	2	1	1	119	69	50	110 6 7	
			2	2		2,250	2,250		670 8 9	
			1		1	25		25	2,740 10	
910	760	150							60 11	
500	500	1				285	285		122 13	
905	325	580	5	2	3	1,400	600	800	90 14 1,775 15	
110	110	1		1		60		60	13,209 16	
6	6	1				50	50		61 17	
50	50								480 18	
220		220							19 20 6,016	
									21 22	
157		157							102 23	
103,680	1,100	102,580	139	25	114	17,578	11,707	5,871	43,389 24 25	
60		60								
3		3							150 26	
330	250	80	3	3		260	260		927 27	
41		41							300 28	
134	118	16							958 29	
1,588	780	808							1,265 30	
									250 31	
367	262	105							235 32	
2,969	385	2,584							14,884 33	
6		6							935 34	
			3	3		1,250	1,250		1,508 36	
			3	3		228		228	228 37	
									240 38	
			8	8		1,755	1,755		1,030 39	
			1	1		45	45		960 40	
92	7	85	1	1		30	30		41	
			2	1	1	120	80	40	42 43	
									44 45 1,850	
444	220	224	4	1	3	740	90	650	5,785 46	
154	125	29	4	2	2	338	260	78	3,170 47	
980	773	207	2	1	1	45	30	15	48 49 1,788	
20		20							50	
170		170							2,400 51	
214	120	94							249 52 1,020 53	
10		10	1			12		12	6,018 54	
100		100							350 55	
1,188	725	463							9,149 56	
			4	4		1,134	1,134		600 57	
1,554	1,250	304	2	2		55		55	2,078 58	
50	50		1	1		50	50		340 59	
46		46							6 60	
38		38	2	2		704	704		30 61	
									62	
3,147	2,150	997							2,995 63	
362	20	342							5,239 64	
									710 65	
20		20							470 66	
1,484	40	1,444	13	7	6	1,188	1,005	183	1,719 67	
									68	
617	550	67							1,106 69	
160		160							28,213 70	
55	5	50	7	1	6	370	10	360	1,806 71	
			1		1	225		225	1,275 72	

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	Total kilowatt rating	Generators (kilowatt rating)					
			Driven by—					
			Steam engines	Steam turbines	Diesel and semi-Diesel engines	Other internal-combustion engines	Hydro-turbines and water wheels	Ordinarily idle (included in total kilowatt rating)
INDUSTRY—continued								
1	4	Raincoats and other waterproof garments (except oiled cotton)						
2	6	Rattan and willowware (except furniture) and baskets other than vegetable and fruit baskets	356	342	14			
3	9	Rayon and allied products	257,018	253,418		600	3,000	21,900
4	3	Rayon broad woven goods—contract factories	440	340	100			
5	3	Rayon broad woven woods—regular factories or jobbers engaging contractors	22,472	3,785	5,600	240	12,847	3,150
6	3	Rayon narrow fabrics	825	300		450	75	50
7	3	Rayon throwing and spinning—contract factories	14	14				
8	3	Rayon yarn and thread, spun or thrown—regular factories or jobbers engaging contractors	5,107	2,285	850	472	1,500	500
9	11	Reclaimed rubber	300			300		
10	17	Refrigerators, domestic (mechanical and absorption), refrigeration machinery and equipment, and complete air-conditioning units	7,551	3,750	3,017	784		1,842
11	1	Rice cleaning and polishing	3,787	2,914	200	328	345	35
12	4	Robes, lounging garments, and dressing gowns						
13	10	Roofing, built-up and roll; asphalt shingles; roof coating (except paint)	7,385	1,850	5,370	65		
14	13	Roofing tile	820	625			195	
15	11	Rubber boots and shoes (including rubber-soled footwear with fabric uppers)	3,075	2,675				400
16	11	Rubber products, not elsewhere classified	24,893	4,320	20,025	548		8,433
17	12	Saddlery, harness, and whips	535	505				30
18	14	Safes and vaults	980	980				300
19	1	Salad dressings						
20	9	Salt	25,646	5,191	20,205	250		2,585
21	13	Sand-lime brick, block and tile	20	20				
22	1	Sausage casings—not made in meat-packing establishments						
23	1	Sausages, prepared meats, and other meat products—not made in meat-packing establishments	340	60		280		
24	5	Sawmills, veneer mills, and cooperage-stock mills, including those combined with logging camps and with planing mills	462,369	91,419	358,748	3,101	614	8,487
25	14	Saws	720	720				
26	17	Scales and balances	483	325		158		150
27	14	Screw-machine products and wood screws	5,228	2,475	650	1,770	186	175
28	15	Secondary smelting and refining, gold, silver, and platinum	739	739				240
29	15	Secondary smelting and refining of nonferrous metals, not elsewhere classified	1,432	1,000		368	64	475
30	13	Sewer pipe and kindred products	2,963	2,428	90		445	600
31	17	Sewing machines, domestic and industrial	7,935	1,435	6,500			
32	15	Sheet-metal work not specifically classified	1,414	870		271	273	245
33	19	Shipbuilding and ship repairing	14,024	1,385	9,150	3,270	219	8,610
34	20	Signs, advertising displays, and advertising novelties	1,304	1,019	35	250		620
35	3	Silk broad woven goods—contract factories						
36	3	Silk broad woven goods—regular factories or jobbers engaging contractors	4,972	2,457	1,540			975
37	3	Silk narrow fabrics	175		175			955
38	3	Silk throwing and spinning—contract factories	1,347	450	750	147		75
39	3	Silk yarn and thread, spun or thrown—regular factories or jobbers engaging contractors	2,331	1,122				1,209
40	15	Silverware and plated ware	9,249	1,804	7,420			585
41	12	Small leather goods	100	100				25
42	9	Soap and glycerin	26,360	5,149	21,037	150	4	3,586
43	20	Soda fountains beer dispensing equipment, and related products	100	100				60
44	9	Soybean oil, cake, and meal	810	750				350
45	1	Special dairy products	810	810				
46	17	Special-industry machinery, not elsewhere classified	10,582	1,022	8,550	845	140	25
47	20	Sporting and athletic goods not elsewhere classified	3,317	2,972	25	50	70	200
48	14	Springs, steel (except wire)—made in plants not operated in connection with rolling mills						1,600
49	14	Stamped and pressed metal products (except automobile stampings)	4,058	3,322		215	501	20
50	13	Statuary and art goods (except stone and concrete)—factory production						
51	14	Steam and hot-water heating apparatus (including hot-water furnaces)	4,624	2,274	2,350			1,500
52	13	Steam and other other packing; pipe and boiler covering	7,904	160	7,675		69	160
53	17	Steam engines, turbines, and water wheels	6,025	875	5,150			360
54	14	Steam fittings, regardless of material	5,917	3,167	2,750			4,325
55	14	Steel barrels, kegs, and drums	1,475	1,475				275
56	14	Steel castings	23,070	10,916	9,750	1,855	549	6,166
57	17	Steel works and rolling mills. (See "Blast-furnace products.")						
58	14	Stokers, mechanical, domestic and industrial	2,624	1,237	500	112		775
59	12	Stoves, ranges, water heaters, and hot-air furnaces (except electric)	10,988	7,155	905	2,092	836	1,572
60	12	Suitcases, brief cases, bags, trunks, and other luggage	2,175	1,960	150		30	240
61	20	Surgical and medical instruments	40			40		
62	4	Surgical supplies and equipment, not elsewhere classified; orthopedic appliances	1,380	635	265			480
63	13	Suspenders, garters, and other goods made from purchased elastic material						
64	9	Tableware, pressed or blown glass, and glassware not elsewhere classified	5,379	1,940	2,000	7	1,432	1,793
65	9	Tanning materials, natural dyestuffs, mordants, assistants, and sizes	10,852	3,342	7,275	220	15	2,355
66	13	Terra cotta	1,050	1,050				400
67	4	Textile bags—not made in textile mills	2,664	2,664				300
68	17	Textile machinery	6,830	2,015	3,700	385	25	580
69	15	Tin and other foils (except gold and silver foil)	7,880	6,420	895	200	365	
70	14	Tin cans and other tinware not elsewhere classified	138,980	135	138,845			785
71	11	Tires and inner tubes						16,700
72	2	Toasted (chewing and smoking) and snuff	4,840	4,829			3	810
	20	Tobacco pipes and cigarette holders	225	225				195

**POWER EQUIPMENT AND ENERGY CONSUMPTION**

41

**RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued**

Aggregate horse-power	ELECTRIC ENERGY				ELECTRIC ENERGY (KILOWATT HOURS)		
	Driven by purchased energy		Driven by plant energy		Generated in plant	Sold	Purchased
	Number	Horsepower	Number	Horsepower			
742	571	742					946,913 1
2,232	475	1,456	159	776			924,901 2
369,264	12,333	60,565	58,184	308,699	1,031,504,701	4,493,635	211,918,743 3
6,135	6,637	5,458	394	677	629,340		11,950,326 4
134,342	68,241	112,712	11,613	21,630	43,432,335	4,171,824	377,960,069 5
5,095	3,410	4,387	296	708	834,143		8,073,651 6
6,928	1,858	6,928			1,519		20,294,264 7
16,318	4,512	12,154	1,418	4,164	8,479,750	500,000	39,502,815 8
32,061	847	31,711	18	350	2,000,000		81,650,137 9
148,251	25,918	139,463	1,646	8,788	8,222,053	8,249	209,734,492 10
9,756	443	7,426	224	2,330	2,013,517		7,480,258 11
1,924	2,454	1,924					3,260,919 12
45,861	4,067	33,984	1,170	11,877	9,190,982		42,069,100 13
3,888	117	2,071	190	1,817	1,163,325		1,678,961 14
61,478	6,035	56,384	448	5,094	5,110,982		61,164,893 15
328,150	26,885	288,942	3,199	39,208	44,878,231		319,932,185 16
4,361	948	3,073	163	1,288	502,756		1,752,211 17
12,708	729	6,692	581	6,016	620,000		3,795,437 18
6,319	2,797	6,319					6,085,752 19
38,490	974	9,033	3,145	29,457	55,792,387		12,006,490 20
3,407	316	3,377	1	30	14,480		1,827,939 21
386	187	386					526,331 22
81,240	7,191	80,600	47	640	226,000		57,783,494 23
1,113,859	20,239	432,035	39,000	681,824	824,829,653	169,697,173	312,410,987 24
21,556	4,054	21,136	74	420	218,240		11,852,637 25
10,067	2,198	9,298	120	769	326,650		4,783,421 26
77,192	12,873	69,629	1,337	7,563	7,991,563		67,266,992 27
6,559	2,104	5,387	211	1,172	2,949,700		3,773,939 28
21,212	2,426	20,136	168	1,076	3,513,292		22,572,947 29
18,140	818	14,384	283	3,736	3,239,462		9,362,643 30
27,175	4,807	23,572	597	3,603	3,224,393		19,920,859 31
56,449	12,777	53,988	188	2,461	1,392,830		26,062,606 32
319,446	18,752	274,333	3,085	45,113	20,254,260	1,218,839	195,281,521 33
18,619	9,553	16,147	878	2,472	186,750		22,051,085 34
1,714	2,507	1,714					2,583,858 35
21,738	14,004	19,238	1,512	2,500	3,089,077	307,066	28,194,414 36
3,615	2,772	3,522	41	93	373,320	105,790	4,888,029 37
24,807	9,834	23,625	294	1,182	2,646,750		74,392,629 38
20,672	5,701	17,923	920	2,749	3,903,050	653,500	41,101,570 39
33,632	6,448	27,166	2,158	6,466	14,390,230	6,200,300	21,366,671 40
35,126	1,388	35,009	34	117	199,880		1,185,805 41
96,019	6,612	47,904	8,087	48,115	50,965,331		53,559,397 42
3,694	911	3,636	6	58	178,808		2,212,599 43
30,877	2,442	29,088	90	1,789	1,622,335		59,948,690 44
8,605	1,911	7,249	282	1,356	362,290		10,185,529 45
54,863	7,867	40,613	2,410	14,250	8,648,488		24,788,971 46
36,314	8,719	29,309	1,310	7,005	1,461,299		26,168,685 47
16,241	2,431	16,241					21,910,334 48
131,139	22,117	128,621	1,311	2,518	4,394,630	580,350	119,384,604 49
770	476	770					686,880 50
52,161	5,139	45,736	610	6,425	6,471,175		34,961,580 51
26,347	4,103	17,081	1,141	9,266	19,964,236	54,749	17,846,847 52
49,799	1,086	9,220	3,059	40,579	10,216,700		11,861,227 53
79,521	14,137	76,665	343	2,856	1,088,233		78,665,891 54
27,298	4,600	22,753	479	4,545	2,652,149		23,239,131 55
272,702	17,284	222,100	3,720	50,602	33,032,825	49,764	450,836,485 56
19,942	2,489	14,593	517	5,349	2,800,324	83,307	12,065,154 57
115,663	18,549	105,600	1,749	10,063	7,601,113		108,855,687 58
7,659	3,440	5,326	818	2,333	598,428		4,055,063 59
2,050	1,961	2,020	7	30			1,869,829 60
19,916	8,146	17,926	329	1,990	1,332,380		26,937,484 61
1,102	1,091	1,102					1,154,919 62
62,908	10,511	54,047	2,768	8,861	16,269,840		126,542,360 63
20,986	1,822	9,319	845	11,667	33,356,078	124,123	11,201,069 64
5,550	382	4,353	138	1,197	1,068,000		3,618,720 65
18,410	4,571	15,323	970	3,087	2,779,114		12,923,889 66
75,276	12,216	61,376	2,026	13,900	11,827,899	292,349	42,855,722 67
26,092	1,418	26,092					17,399,271 68
126,134	43,997	114,177	3,907	11,957	9,366,228		102,942,746 69
561,643	24,394	324,720	14,871	236,923	455,643,704	5,007,195	619,063,627 70
14,896	2,611	10,554	1,001	4,342	6,685,550	375,470	8,166,212 71
2,526	686	2,503	8	23	6,000		2,675,166 72

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	ESTABLISHMENTS		Horse-power installation per 100 wage earners	PRIME MOVERS			
		Number	Number reporting power equipment		Total horsepower of prime movers	Steam engines		
						Total	Driving generators	
INDUSTRY—continued								
1	14 Tools (except edge tools, machine tools, files, and saws).....	387	386	483	9,955	32	10	22
2	17 Tractors.....	30	30	529	28,745	27	3	24
3	19 Transportation equipment, not elsewhere classified.....	41	40	711	2,860	15	10	5
4	4 Trimmings (not made in textile mills), stamped art goods, and art needle-work—contract factories.....	395	367	32	16	1	-----	1
5	4 Trimmings (not made in textile mills), stamped art goods, and art needle-work—made in regular factories or by jobbers engaging contractors.....	227	200	62	50	1	1	-----
6	4 Trousers (semidress), wash suits, and washable service apparel.....	297	276	40	2,145	10	8	2
7	20 Umbrellas, parasols, and canes.....	90	90	101	1,865	9	5	4
8	6 Upholstered household furniture.....	853	847	180	13,529	53	27	26
9	9 Vegetable and animal oils, not elsewhere classified.....	54	54	1,740	2,567	17	6	11
10	17 Vending, amusement, and other coin-operated machines.....	51	50	121	90	-----	-----	-----
11	6 Venetian blinds.....	274	274	158	2,110	9	5	4
12	1 Vinegar and cider.....	132	132	717	1,102	15	-----	15
13	Vitreous-china plumbing fixtures.....	25	25	399	2,148	7	4	3
14	14 Vitreous-enamelled products, including kitchen, household, and hospital utensils.....	55	53	261	3,913	17	9	8
15	13 Wallboard and wall plaster (except gypsum), building insulation (except mineral wool), and floor composition.....	124	123	1,205	5,839	10	5	5
16	7 Wallpaper.....	46	46	310	4,157	26	16	10
17	15 Watchcases.....	42	42	199	1,150	2	2	-----
18	13 Whiteware.....	31	29	108	1,005	9	1	8
19	6 Window and door screens and weather strip.....	162	161	403	4,922	18	14	4
20	6 Window shades.....	273	273	454	10,528	6	6	-----
21	1 Wines.....	301	300	952	2,422	49	-----	49
22	14 Wire drawn from purchased rods.....	95	94	824	25,096	32	22	10
23	14 Wirework not elsewhere classified.....	669	664	261	4,380	22	15	7
24	16 Wiring devices and supplies.....	146	146	308	3,725	14	10	4
25	4 Women's and misses' blouses and waists—made in contract factories.....	132	132	21	-----	-----	-----	-----
26	4 Women's and misses' blouses and waists—made in inside factories or by jobbers engaging contractors.....	170	148	19	-----	-----	-----	-----
27	4 Women's and misses' clothing, not elsewhere classified—made in contract factories.....	100	98	23	-----	-----	-----	-----
28	4 Women's and misses' clothing, not elsewhere classified—made in inside factories or by jobbers engaging contractors.....	231	198	34	10	2	-----	2
29	4 Women's and misses' dresses (except house dresses)—made in contract factories.....	1,490	1,487	18	224	-----	-----	-----
30	4 Women's and misses' dresses (except house dresses)—made in inside factories or by jobbers engaging contractors.....	1,426	1,235	21	276	15	-----	15
31	4 Women's, children's, and infants' underwear and nightwear of cotton and flannelette woven fabrics.....	174	170	21	-----	-----	-----	-----
32	4 Women's, children's, and infants' underwear and nightwear of knitted fabrics.....	139	139	28	20	1	-----	1
33	4 Women's, children's, and infants' underwear and nightwear of silk and rayon woven fabrics.....	372	358	20	-----	-----	-----	-----
34	4 Women's neckwear, scarfs, etc.....	107	94	17	-----	-----	-----	-----
35	12 Women's pocketbooks, handbags, and purses.....	286	285	18	-----	-----	-----	-----
36	65 Wooden boxes except cigar boxes.....	642	641	459	45,406	313	80	233
37	9 Wood naval stores.....	25	25	1,144	23,153	196	12	184
38	6 Wood preserving.....	218	218	630	30,392	473	40	433
39	6 Wood products not elsewhere classified.....	886	879	571	64,067	405	110	295
40	17 Woodworking machinery.....	130	129	595	3,743	16	10	6
41	3 Woolen and worsted manufactures—contract factories.....	76	74	324	10,283	32	15	17
42	3 Woolen and worsted manufactures—regular factories or jobbers engaging contractors.....	583	557	370	339,578	260	154	106
43	20 Wool pulling.....	17	17	544	1,015	9	3	6
44	4 Work clothing (except work shirts), sport garments (except leather), and other men's and boys' apparel, not elsewhere classified.....	742	692	38	1,906	9	4	5
45	4 Work gloves and mittens: cloth, cloth and leather combined.....	94	92	51	191	4	1	3
46	4 Work shirts.....	87	84	32	-----	3	3	-----
47	9 Writing ink.....	15	15	198	312	3	3	-----
48	14 Wrought pipes, welded and heavy riveted—made in plants not operated in connection with rolling mills.....	49	48	955	4,595	5	3	2
49	16 X-ray and therapeutic apparatus and electronic tubes.....	84	84	159	-----	-----	-----	-----

## POWER EQUIPMENT AND ENERGY CONSUMPTION

43

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND  
1939—Continued

PRIME MOVERS—continued											
Steam engines—Continued			Steam turbines						Diesel and semi-Diesel engines		
Horsepower			Number			Horsepower			Number		
Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators
4,176	2,990	1,186	17	6	11	2,501	2,100	401	15	10	5
7,525	1,600	5,925	13	9	4	21,160	20,600	560	2		2
2,555	2,145	410	1	1		155	155				
5		5									
50	50										
2,145	2,005	140									
1,610	585	1,025									
9,549	6,236	3,313	7	7	2	2,660	2,660		2	2	
2,267	1,457	810	2			300		300			
									3	1	2
1,945	1,740	205	1	1		65	65		1	1	
475	475	475	5		5	485		485	6		6
1,534	1,049	485	2	2		310	310		3	2	1
3,913	2,881	1,032									
1,270	1,185	85	14	2	12	4,489	3,800	689			
3,785	3,105	680	1	1		350	350		1	1	
900	900								1	1	
1,005	145	860									
3,925	3,505	420	1	1		375	375		3	3	
2,750	2,750		7	5	2	7,748	7,698	50			
1,912	1,912	3		3		40		40	10	6	4
14,578	6,198	8,380	8	7	1	7,970	7,950		20	4	
3,800	3,395	405							6	4	2
3,121	2,571	550	1	1		115	115		4	3	1
10		10									
276		276									
20		20									
39,328	16,950	22,378	16	8	8	4,296	3,800	496	9	2	7
8,017	1,705	6,312	28	18	10	15,111	14,621	490			
24,286	3,672	20,614	46	7	39	3,522	649	2,873	5		4
43,931	20,510	23,421	39	15	24	11,442	9,990	1,452	23	12	11
2,100	1,770	330	4	1	3	780	700	80	2	1	1
5,140	3,780	1,360	5	5		2,750	2,750		3	1	2
74,279	63,619	10,660	154	124	30	223,402	221,350	2,052	17	13	4
915	300	615									
656	561	95	5	5		595	595		2	2	
106	100	6							1	1	
312	312										
1,450	1,250	200	2	2		2,925	2,925				

## CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT FOR INDUSTRIES:

Group No.	Group or Industry	PRIME MOVERS—continued					
		Diesel and semi-Diesel engines—Con.			Other internal-combustion engines		
		Horsepower		Number		Total	Driving generators
INDUSTRY—continued							
1	14 Tools (except edge tools, machine tools, files, and saws).....	1,452	1,035	417	10	6	4
2	17 Tractors.....	35	—	35	3	1	2
3	19 Transportation equipment not elsewhere classified.....	—	—	—	—	—	—
4	4 Trimmings (not made in textile mills), stamped art goods, and art needlework—contract factories.....	—	—	—	—	—	—
5	4 Trimmings (not made in textile mills), stamped art goods, and art needlework—made in regular factories or by jobbers engaging contractors.....	—	—	—	—	—	—
6	4 Trousers (semidress), wash suits, and washable service apparel.....	255	255	—	—	—	—
7	20 Umbrellas, parasols, and canes.....	198	198	—	4	1	3
8	6 Upholstered household furniture.....	—	—	—	—	—	—
9	9 Vegetable and animal oils, not elsewhere classified.....	—	—	—	—	—	—
10	17 Vending, amusement, and other coin-operated machines.....	90	60	30	—	—	—
11	6 Venetian blinds.....	100	100	—	—	—	—
12	1 Vinegar and cider.....	87	—	87	1	—	1
13	13 Vitreous-china plumbing fixtures.....	194	144	50	1	1	—
14	14 Vitreous-enamelled products, including kitchen, household, and hospital utensils.....	—	—	—	—	—	—
15	13 Wallboard and wall plaster (except gypsum), building insulation (except mineral wool), and floor composition.....	—	—	—	4	—	4
16	7 Wallpaper.....	22	22	—	—	—	—
17	15 Watchcases.....	200	200	—	1	1	—
18	13 Whiteware.....	—	—	—	—	—	—
19	6 Window and door screens and weather strip.....	582	582	—	1	—	1
20	6 Window shades.....	—	—	—	—	—	—
21	1 Wines.....	380	205	175	11	2	9
22	14 Wire drawn from purchased rods.....	670	670	—	14	8	6
23	14 Wirework not elsewhere classified.....	235	75	160	7	4	3
24	16 Wiring devices and supplies.....	480	420	60	1	1	—
25	4 Women's and misses' blouses and waists—made in contract factories.....	—	—	—	—	—	—
26	4 Women's and misses' blouses and waists—made in inside factories or by jobbers engaging contractors.....	—	—	—	—	—	—
27	4 Women's and misses' clothing, not elsewhere classified—made in contract factories.....	—	—	—	—	—	—
28	4 Women's and misses' clothing, not elsewhere classified—made in inside factories or by jobbers engaging contractors.....	—	—	—	—	—	—
29	4 Women's and misses' dresses (except house dresses)—made in contract factories.....	220	—	220	1	—	1
30	4 Women's and misses' dresses (except house dresses)—made in inside factories or by jobbers engaging contractors.....	—	—	—	—	—	—
31	4 Women's, children's, and infants' underwear and nightwear of cotton and flannelette woven fabrics.....	—	—	—	—	—	—
32	4 Women's, children's, and infants' underwear and nightwear of knitted fabric.....	—	—	—	—	—	—
33	4 Women's, children's, and infants' underwear and nightwear of silk and rayon woven fabrics.....	—	—	—	—	—	—
34	4 Women's neck wear, scarfs, etc.....	—	—	—	—	—	—
35	12 Women's pocketbooks, handbags, and purses.....	—	—	—	—	—	—
36	6 Wooden boxes except cigar boxes.....	672	255	417	22	1	21
37	9 Wood naval stores.....	—	—	—	1	—	1
38	6 Wood preserving.....	485	65	400	38	1	37
39	6 Wood products not elsewhere classified.....	1,760	1,097	663	44	5	39
40	17 Woodworking machinery.....	90	50	40	6	5	1
41	3 Woolen and worsted manufactures—contract factories.....	275	165	110	1	—	1
42	3 Woolen and worsted manufactures—regular factories or jobbers engaging contractors.....	2,676	2,567	109	12	8	4
43	20 Wool pulling.....	—	—	—	—	—	—
44	4 Work clothing (except work shirts), sport garments (except leather), and other men's and boys' apparel, not elsewhere classified.....	45	45	—	6	6	—
45	4 Work gloves and mittens: cloth, cloth and leather combined.....	85	85	—	—	—	—
46	4 Work shirts.....	—	—	—	—	—	—
47	9 Writing ink.....	—	—	—	—	—	—
48	14 Wrought pipes, welded and heavy riveted—made in plants not operated in connection with rolling mills.....	—	—	—	6	—	6
49	16 X-ray and therapeutic apparatus and electronic tubes.....	—	—	—	—	—	—

## POWER EQUIPMENT AND ENERGY CONSUMPTION

45

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND  
1939—Continued



**POWER EQUIPMENT AND ENERGY CONSUMPTION**

47

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRY GROUPS AND 1939—Continued

Aggregate horse-power	ELECTRIC ENERGY					ELECTRIC ENERGY (KILOWATT HOURS)		
	Driven by purchased energy		Driven by plant energy			Generated in plant	Sold	Purchased
	Number	Horsepower	Number	Horsepower				
70,323	12,592	64,112	1,435	6,211	8,213,440	-----	50,831,483	1
223,183	18,728	136,848	8,931	86,335	54,576,471	23,500	157,254,248	2
8,938	795	6,045	436	2,893	620,350	135,580	1,982,255	3
1,738	2,868	1,738	-----	-----	-----	-----	3,076,344	4
2,440	2,212	2,278	82	162	121,000	-----	3,327,353	5
6,214	5,746	5,676	153	538	946,410	836,080	6,813,805	6
1,417	897	1,028	92	389	240,542	5,488	1,255,877	7
50,111	13,064	40,263	2,412	9,848	6,897,660	50,600	25,661,036	8
16,926	1,204	16,717	12	209	178,700	-----	21,669,611	9
4,589	1,857	4,547	18	42	5,000	-----	4,051,168	10
9,331	3,516	6,083	915	3,248	3,208,812	-----	4,194,402	11
6,538	1,484	6,493	15	45	-----	-----	4,014,801	12
18,431	1,777	15,935	585	2,496	4,356,800	-----	9,775,822	13
30,144	4,580	24,324	467	5,820	3,525,273	-----	57,139,599	14
89,979	4,423	69,205	1,120	20,774	10,943,328	-----	197,482,127	15
10,694	1,437	8,424	419	2,270	896,635	-----	8,714,547	16
4,680	2,068	3,647	410	1,033	944,710	-----	2,603,332	17
11,656	3,651	11,656	-----	-----	-----	-----	20,651,501	18
11,696	1,983	6,476	919	5,220	1,458,082	-----	2,897,470	19
11,582	2,241	4,267	902	7,315	8,823,194	57,786	4,021,373	20
17,213	3,835	17,152	10	61	45,900	-----	15,839,766	21
171,006	18,055	155,848	1,843	15,158	27,456,180	18,700	220,189,126	22
76,632	18,402	74,907	245	1,725	1,222,945	7,993	83,454,589	23
42,892	11,102	41,126	376	1,766	1,701,780	16,522	36,655,040	24
1,055	1,039	1,055	-----	-----	-----	-----	1,546,879	25
866	863	866	-----	-----	-----	-----	1,989,851	26
861	741	861	-----	-----	-----	-----	1,455,931	27
2,143	1,719	2,143	-----	-----	-----	-----	2,902,350	28
8,770	8,458	8,770	-----	-----	-----	-----	16,506,817	29
11,194	12,949	11,194	-----	-----	-----	-----	31,326,936	30
2,389	1,762	2,389	-----	-----	-----	-----	3,899,912	31
1,744	1,955	1,744	-----	-----	-----	-----	2,302,118	32
4,024	4,341	4,024	-----	-----	-----	-----	6,830,319	33
336	604	336	-----	-----	-----	-----	760,851	34
2,545	3,723	2,545	-----	-----	-----	-----	4,561,289	35
95,477	9,383	70,983	2,279	24,494	6,122,696	420,858	44,381,661	36
15,162	227	3,776	685	11,386	47,461,068	6,157,839	11,435,552	37
44,255	2,511	40,419	210	3,836	709,765	43,350	20,195,878	38
106,950	11,903	61,540	6,204	45,410	25,831,492	348,100	42,479,933	39
21,460	4,168	17,803	404	3,657	1,371,617	39,432	8,225,919	40
16,952	1,523	9,416	1,125	7,536	8,801,928	611,020	19,828,406	41
430,063	34,535	179,137	40,457	250,926	337,883,479	14,054,913	288,677,156	42
3,584	177	3,529	1	55	8,640	-----	1,665,676	43
21,364	23,084	20,005	767	1,359	1,444,630	-----	25,659,026	44
4,447	2,934	4,329	42	118	100,000	-----	4,611,875	45
4,358	5,174	4,358	230	342	225,528	-----	7,068,798	46
532	137	190	-----	-----	-----	-----	152,358	47
87,735	6,874	75,304	797	12,431	5,247,384	-----	69,411,349	48
3,119	1,858	3,119	-----	-----	-----	-----	3,840,373	49

## CENSUS OF MANUFACTURES: 1939

TABLE 5.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT AND FOR

DIVISION OR STATE	ESTABLISHMENTS			Horse-power installation per 100 wage earners	PRIME MOVERS					
	Number	Number reporting power equipment	Total horsepower of prime movers		Steam engines					
					Number			Horsepower		
					Total	Driving generators	Not driving generators	Total	Driving generators	
1 United States.....	184,230	179,674	642	21,239,195	42,538	8,192	34,346	6,533,429	2,273,983	4,259,446
GEOGRAPHIC DIVISIONS:										
2 New England.....	16,136	15,733	471	1,968,574	2,316	860	1,456	442,533	249,674	192,859
3 Middle Atlantic.....	56,291	54,922	564	5,080,350	8,736	2,188	6,548	1,920,675	614,321	1,306,354
4 East North Central.....	40,415	39,825	731	6,423,434	8,707	2,475	6,232	1,850,822	768,697	1,082,125
5 West North Central.....	14,947	14,772	607	828,385	2,248	532	1,716	306,201	142,444	163,757
6 South Atlantic.....	17,317	16,666	575	2,759,673	5,708	656	5,047	614,421	170,977	443,444
7 East South Central.....	7,275	6,962	672	1,093,164	3,410	450	2,960	414,135	95,951	318,184
8 West South Central.....	10,021	9,804	950	1,433,406	7,370	609	6,761	520,792	119,204	401,558
9 Mountain.....	4,011	3,869	1,554	530,589	1,076	204	872	178,632	59,416	119,216
10 Pacific.....	17,817	17,121	800	1,121,620	2,972	218	2,754	285,218	53,299	231,919
NEW ENGLAND:										
11 Maine.....	1,210	1,138	920	430,291	348	84	264	59,400	21,967	37,433
12 New Hampshire.....	806	770	497	184,444	233	99	134	40,954	23,879	17,075
13 Vermont.....	717	703	776	67,128	204	35	169	18,995	6,230	12,765
14 Massachusetts.....	9,007	8,803	429	801,612	999	408	591	197,428	118,948	78,450
15 Rhode Island.....	1,460	1,439	348	125,465	152	75	77	32,415	23,931	8,454
16 Connecticut.....	2,936	2,880	432	359,634	380	159	221	93,341	54,719	38,622
MIDDLE ATLANTIC:										
17 New York.....	34,506	33,503	435	1,144,920	3,011	653	2,358	351,988	166,731	185,257
18 New Jersey.....	7,984	7,866	456	782,768	1,210	392	818	201,680	117,067	84,613
19 Pennsylvania.....	13,801	13,553	763	3,152,662	4,515	1,143	3,372	1,367,007	330,523	1,036,454
EAST NORTH CENTRAL:										
20 Ohio.....	10,070	9,933	835	2,044,250	2,175	638*	1,537	733,794	216,986	516,808
21 Indiana.....	4,337	4,290	1,016	954,444	1,203	288	915	176,010	62,889	113,121
22 Illinois.....	12,980	12,795	540	1,236,931	2,370	674	1,696	444,746	214,347	230,399
23 Michigan.....	6,311	6,155	709	1,637,556	1,380	389	991	287,382	147,640	139,742
24 Wisconsin.....	6,717	6,652	650	550,253	1,579	486	1,093	208,890	126,835	82,055
WEST NORTH CENTRAL:										
25 Minnesota.....	4,008	3,956	749	292,571	615	117	498	80,304	29,881	50,423
26 Iowa.....	2,670	2,653	532	105,659	248	65	183	40,828	22,756	18,072
27 Missouri.....	4,796	4,713	440	207,205	658	232	426	96,143	55,678	40,465
28 North Dakota.....	350	350	767	11,070	22	7	15	3,591	1,785	1,806
29 South Dakota.....	468	464	614	12,724	44	10	34	6,282	3,090	3,192
30 Nebraska.....	1,161	1,152	961	46,610	129	56	73	29,968	15,134	14,834
31 Kansas.....	1,494	1,484	1,123	152,546	532	45	487	49,085	14,120	34,965
SOUTH ATLANTIC:										
32 Delaware.....	429	426	665	54,061	118	18	100	16,726	5,785	10,941
33 Maryland.....	2,893	2,801	662	280,668	536	53	483	53,332	15,301	38,031
34 District of Columbia.....	497	492	481	9,049	32	12	20	3,810	1,757	2,023
35 Virginia.....	2,579	2,483	643	553,561	1,115	129	986	132,019	36,064	115,955
36 West Virginia.....	1,130	1,077	1,089	588,958	426	87	339	58,432	19,546	38,886
37 North Carolina.....	3,225	3,078	421	506,508	1,158	157	1,001	116,172	42,763	73,409
38 South Carolina.....	1,331	1,247	510	306,575	584	59	525	71,663	18,633	53,030
39 Georgia.....	3,150	3,037	509	273,159	946	84	862	83,140	21,424	61,716
40 Florida.....	2,083	2,025	560	187,134	788	57	731	59,127	9,674	49,453
EAST SOUTH CENTRAL:										
41 Kentucky.....	1,640	1,601	648	175,571	726	108	618	77,672	20,499	57,173
42 Tennessee.....	2,289	2,225	520	283,402	799	164	635	94,489	37,440	57,049
43 Alabama.....	2,052	1,899	888	472,249	1,095	106	989	163,918	23,890	140,028
44 Mississippi.....	1,294	1,237	593	161,942	790	72	718	78,056	14,122	63,954
WEST SOUTH CENTRAL:										
45 Arkansas.....	1,178	1,116	667	129,835	630	82	548	67,639	14,302	53,337
46 Louisiana.....	1,861	1,823	933	415,088	2,130	273	1,857	203,740	46,615	157,125
47 Oklahoma.....	1,606	1,586	957	186,971	180	42	138	32,768	15,461	17,307
48 Texas.....	5,376	5,279	1,039	751,512	4,430	212	4,218	216,645	42,826	173,819
MOUNTAIN:										
49 Montana.....	585	570	1,813	35,479	180	7	173	13,743	1,731	12,012
50 Idaho.....	549	511	2,137	47,658	208	28	180	32,039	8,558	23,481
51 Wyoming.....	310	278	1,683	36,269	99	13	86	9,966	4,267	5,699
52 Colorado.....	1,298	1,267	1,067	174,841	341	127	214	78,129	37,990	40,139
53 New Mexico.....	272	258	1,530	39,868	73	8	65	6,537	385	6,152
54 Arizona.....	332	327	2,320	87,821	64	5	59	14,932	1,160	13,772
55 Utah.....	560	553	1,167	70,536	105	16	89	23,004	5,325	17,679
56 Nevada.....	105	105	4,099	38,117	6	6	6	282	-----	282
PACIFIC:										
57 Washington.....	3,240	2,980	1,131	408,985	799	74	725	100,630	17,989	82,641
58 Oregon.....	2,248	1,981	896	270,368	834	43	791	77,052	6,221	70,831
59 California.....	12,329	12,160	680	442,267	1,339	101	1,238	107,536	29,089	78,447

<sup>1</sup> No power equipment for the "Logging camps and logging contractors (not operating mills)" industry was tabulated but the number of establishments is included here.

**POWER EQUIPMENT AND ENERGY CONSUMPTION**

49

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR GEOGRAPHIC DIVISIONS  
STATES: 1939

PRIME MOVERS--continued																		
Steam turbines						Diesel and semi-Diesel engines						Other internal-combustion engines						
Number			Horsepower			Number			Horsepower			Number			Horsepower			
Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	
12,631	3,902	8,729	11,295,872	9,559,089	1,736,783	5,311	2,409	2,902	630,181	426,779	203,402	10,278	1,457	8,821	1,176,044	478,218	697,826	1
939	539	400	897,233	818,510	78,723	382	223	159	39,397	28,299	11,098	406	31	375	16,607	990	15,617	2
2,966	944	2,022	2,533,257	2,109,264	484,023	809	448	361	104,167	79,968	24,199	1,500	255	1,245	272,404	98,429	173,975	3
3,035	981	2,054	3,850,708	3,281,296	569,412	891	503	388	135,182	105,576	29,606	1,920	238	1,682	417,186	242,652	174,534	4
505	159	346	319,594	291,355	28,239	555	270	285	69,880	49,244	20,636	782	94	688	51,872	19,222	32,650	5
1,362	435	927	1,462,032	1,320,167	141,865	1,003	314	689	90,746	46,627	44,119	1,376	102	1,274	107,211	40,410	66,801	6
553	174	379	585,951	451,302	134,649	562	160	402	42,195	18,133	24,062	718	82	636	36,337	4,950	31,387	7
1,895	223	1,672	606,466	432,081	174,385	673	357	316	98,233	68,941	29,292	2,219	511	1,708	206,355	61,407	144,978	8
260	106	154	299,775	248,958	50,817	201	52	149	28,253	18,963	9,320	419	33	386	18,539	3,438	15,101	9
1,116	341	775	680,826	606,156	74,670	235	82	153	22,098	11,070	938	111	827	49,503	6,720	42,753	10	
97	47	50	87,913	73,077	14,836	34	8	26	3,478	1,310	2,168	69	1	68	2,041	29	2,012	11
53	28	25	50,325	47,675	2,650	32	7	25	2,410	425	1,985	39	39	1,627	-----	1,627	-----	12
18	8	10	8,862	8,005	857	43	12	31	3,682	1,735	1,947	34	3	31	1,529	225	1,304	13
488	250	238	466,533	412,669	53,864	146	93	53	14,380	10,781	3,599	169	14	155	8,032	445	7,587	14
92	61	31	70,122	67,527	2,595	23	21	2	2,861	2,671	190	19	3	16	900	57	843	15
191	145	46	213,478	209,557	3,921	104	82	22	12,586	11,377	1,209	76	10	66	2,478	234	2,244	16
889	293	596	514,310	430,228	84,082	255	157	98	43,917	36,997	6,920	489	71	418	65,534	6,211	59,323	17
628	285	343	550,538	493,257	57,281	161	105	56	19,095	14,506	4,589	145	19	126	5,992	871	5,121	18
1,449	366	1,083	1,528,439	1,185,779	342,660	393	186	207	41,155	28,465	12,690	866	165	701	200,878	91,347	109,531	19
777	267	510	1,177,012	976,718	200,294	234	138	96	31,400	22,197	9,203	542	99	443	94,688	63,058	31,630	20
348	120	228	591,050	499,798	91,252	148	70	78	15,798	10,860	4,938	282	39	243	166,006	103,867	62,139	21
641	224	417	612,182	474,002	138,180	255	178	77	37,203	31,058	6,145	525	45	480	135,935	71,005	64,930	22
960	253	707	1,270,849	1,140,924	129,925	142	71	71	27,538	20,706	6,832	216	42	174	13,085	3,718	9,367	23
309	117	192	199,615	189,554	9,761	112	46	66	23,243	20,755	2,488	355	13	342	7,472	1,004	6,468	24
116	45	71	106,425	98,123	8,302	83	42	41	11,889	9,237	2,652	135	8	127	19,495	10,102	9,393	25
51	34	17	59,199	58,349	850	53	21	32	3,321	1,484	1,837	64	2	62	1,871	33	1,838	26
110	33	77	80,226	74,366	5,860	214	109	105	22,303	15,037	7,266	176	27	149	8,020	1,330	6,690	27
20	9	11	5,420	4,885	535	10	5	5	1,325	850	475	19	9	10	609	329	280	28
8	4	4	3,300	3,050	250	24	6	18	2,445	1,178	1,267	66	2	64	697	103	594	29
13	6	7	8,060	7,108	952	65	22	43	5,517	2,635	2,882	96	3	93	1,133	340	793	30
187	28	159	56,964	45,474	11,490	106	65	41	23,080	18,823	4,257	226	43	183	20,047	6,955	13,062	31
26	23	3	29,262	29,192	70	32	13	19	4,832	3,995	837	66	3	63	1,608	150	1,458	32
360	36	324	185,773	148,694	37,079	100	30	70	9,842	5,325	4,517	125	8	117	27,647	24,043	3,604	33
3	1	2	2,110	400	1,710	4	2	917	367	550	31	31	31	865	-----	865	34	
312	106	206	337,402	301,555	35,847	151	32	119	11,595	3,051	8,544	231	7	224	11,228	920	10,308	35
371	75	296	338,573	310,748	27,825	33	11	22	2,825	1,555	1,270	154	48	106	36,828	12,953	23,875	36
108	64	44	140,346	137,134	3,212	195	64	131	19,316	10,492	8,824	317	8	309	11,343	254	11,059	37
68	51	17	188,863	185,231	3,632	47	9	38	4,182	945	3,237	118	1	117	4,344	85	4,259	38
62	41	21	139,886	109,746	30,140	189	34	155	12,391	4,822	7,569	228	19	209	10,284	1,368	8,916	39
52	38	14	99,817	97,467	2,350	252	119	133	24,846	16,075	8,771	106	8	98	3,064	607	2,457	40
136	24	112	77,047	66,787	10,260	124	37	87	10,063	5,452	4,611	134	34	100	9,721	1,403	8,313	41
155	76	79	172,102	161,860	10,242	102	28	74	8,248	2,997	5,251	112	8	104	5,399	632	4,767	42
194	34	160	276,765	165,043	111,722	190	30	160	11,598	2,963	8,635	230	12	218	9,674	660	9,014	43
68	40	28	60,037	57,612	2,425	146	65	81	12,286	6,721	5,565	242	28	214	11,543	2,250	9,293	44
71	30	41	41,404	37,004	4,400	80	30	50	8,785	4,197	4,588	201	33	168	12,007	3,399	8,608	45
539	90	449	162,134	116,872	45,262	197	109	88	19,675	13,049	6,626	374	51	323	25,519	7,662	20,557	46
94	19	75	41,980	35,431	6,549	106	55	51	16,343	11,690	4,653	445	137	305	45,880	16,745	29,135	47
1,191	84	1,107	360,948	242,774	118,174	290	163	127	53,430	40,005	13,425	1,199	290	909	119,979	33,601	86,378	48
25	17	8	16,440	16,053	387	21	3	18	1,760	757	1,003	82	3	79	3,487	715	2,772	49
19	14	5	13,920	12,467	1,453	10	1	9	743	150	598	23	1	22	746	2	744	50
99	11	88	21,367	14,261	7,106	17	7	10	1,952	1,418	534	81	2	79	2,869	350	2,489	51
49	23	26	87,705	65,050	22,655	34	7	27	3,282	659	2,623	94	8	86	4,319	410	3,909	52
5	3	2	27,080	23,250	3,830	33	13	20	3,997	2,512	1,485	40	7	33	2,254	848	1,406	53
22	22	25	66,502	66,502	-----	26	9	17	4,897	3,270	1,627	30	7	23	1,490	783	707	54
37	12	25	33,261	17,875	15,386	56	9	47	9,251	7,797	1,454	60	4	56	2,967	150	2,817	55
4	4	-----	33,500	33,500	-----	4	3	1	2,401	2,400	1	9	1	8	407	150	257	56
189	125	64	264,761	259,108	5,653	57	17	40	3,472	1,040	2,432	188	16	172	7,012	628	6,384	57
128	87	41	136,224	133,094	3,130	63	9	54	5,036	1,074	3,962	211	1	210				

## CENSUS OF MANUFACTURES: 1939

TABLE 5.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT AND FOR

DIVISION OR STATE	PRIME MOVERS—continued						Horse-power of prime movers ordinarily idle	GENERATORS (KILOWATT RATING)			
	Hydroturbines and water wheels							Total kilowatt rating	Driven by—		
	Number			Horsepower					Steam engines	Steam turbines	
	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators					
1	United States.....	3,854	1,843	2,011	1,803,889	1,208,624	395,045	1,998,357	9,858,828	1,484,945	8,752,885
2	GEOGRAPHIC DIVISIONS:										
3	New England.....	1,507	855	652	572,804	399,362	173,442	227,158	1,045,303	158,678	585,873
4	Middle Atlantic.....	834	292	542	189,817	104,903	84,914	549,786	2,077,345	406,754	1,495,800
5	East North Central.....	564	297	267	169,536	125,768	43,768	489,829	3,130,324	524,227	2,280,278
6	West North Central.....	150	70	80	80,838	59,156	21,682	93,764	372,094	90,149	203,855
7	South Atlantic.....	541	243	298	485,263	453,207	32,056	234,547	1,433,118	111,790	949,258
8	East South Central.....	91	15	76	14,546	11,048	3,498	63,278	402,845	61,319	319,104
9	West South Central.....	10	3	7	1,530	1,210	320	176,752	458,217	67,893	312,613
10	Mountain.....	51	17	34	5,360	3,709	1,651	87,711	226,342	30,916	179,145
	Pacific.....	106	51	55	83,975	50,261	33,714	73,532	513,240	33,219	426,759
11	NEW ENGLAND:										
12	Maine.....	414	205	209	277,459	154,569	122,890	22,885	182,035	15,098	52,394
13	New Hampshire.....	212	123	89	89,128	79,361	9,767	36,832	108,629	14,237	36,975
14	Vermont.....	124	52	72	34,060	22,468	11,592	8,064	25,481	3,864	5,905
15	Massachusetts.....	426	268	158	115,239	97,608	17,631	93,805	447,323	76,365	296,975
16	Rhode Island.....	101	78	23	19,167	17,001	2,166	24,802	75,874	14,444	48,961
	Connecticut.....	230	129	101	37,751	28,355	9,396	40,770	205,961	34,670	144,663
17	MIDDLE ATLANTIC:										
18	New York.....	497	243	254	169,171	94,837	74,334	129,261	501,134	109,701	309,159
19	New Jersey.....	52	14	38	5,463	3,912	1,551	127,867	436,865	79,125	345,133
	Pennsylvania.....	285	35	250	15,183	6,154	9,029	292,658	1,139,346	217,928	841,508
20	EAST NORTH CENTRAL:										
21	Ohio.....	54	16	38	7,356	5,145	2,211	204,853	890,509	150,129	682,919
22	Indiana.....	51	19	32	5,580	3,407	2,173	50,606	474,717	41,558	346,322
23	Illinois.....	46	30	16	6,865	4,350	2,515	115,793	549,996	143,098	337,092
24	Michigan.....	130	60	70	38,702	31,191	7,511	81,482	919,159	103,424	775,089
	Wisconsin.....	283	172	111	111,033	81,675	29,358	37,095	295,943	86,018	138,856
25	WEST NORTH CENTRAL:										
26	Minnesota.....	95	44	51	74,458	54,096	20,362	39,873	135,811	19,100	71,433
27	Iowa.....	8	1	7	410	160	280	5,118	57,133	14,032	42,265
28	Missouri.....	16	2	14	513	58	455	28,060	97,204	35,423	52,080
29	North Dakota.....	2	2	—	125	125	—	—	570	5,043	3,622
	South Dakota.....	—	—	—	—	—	—	—	1,556	5,350	2,551
30	Nebraska.....	15	11	4	1,932	1,682	250	4,507	16,995	8,631	5,080
31	Kansas.....	14	10	4	3,370	3,035	335	13,780	54,558	9,453	27,345
32	SOUTH ATLANTIC:										
33	Delaware.....	30	3	27	1,633	168	1,465	2,923	27,883	3,196	21,980
34	Maryland.....	25	7	18	4,074	2,962	1,112	9,507	133,139	9,754	101,423
35	District of Columbia.....	3	2	1	1,347	1,325	22	1,587	3,133	1,358	350
36	Virginia.....	189	56	133	41,317	31,345	9,972	38,178	260,066	25,350	210,653
37	West Virginia.....	21	14	7	152,300	152,055	245	12,793	365,840	13,120	237,755
38	North Carolina.....	131	72	59	219,331	212,920	6,411	106,797	275,483	28,533	96,557
39	South Carolina.....	71	55	16	37,523	33,545	3,978	18,221	169,685	10,969	132,723
40	Georgia.....	68	33	35	27,458	18,687	8,771	31,082	106,682	13,785	77,270
	Florida.....	3	1	2	280	200	80	13,459	85,207	5,725	70,547
41	EAST SOUTH CENTRAL:										
42	Kentucky.....	15	5	10	1,068	370	698	9,580	62,620	13,438	44,930
43	Tennessee.....	69	8	61	3,164	588	2,576	26,179	148,563	22,967	122,390
44	Alabama.....	6	2	4	10,294	10,090	204	16,048	138,439	16,575	111,860
	Mississippi.....	1	—	1	20	—	20	11,471	53,223	8,339	39,924
45	WEST SOUTH CENTRAL:										
46	Arkansas.....	—	—	—	—	—	—	4,110	38,689	8,480	25,760
47	Louisiana.....	3	2	1	1,020	1,000	20	56,740	126,183	28,225	84,022
48	Oklahoma.....	—	—	—	—	—	—	9,711	50,283	8,693	24,925
	Texas.....	7	1	6	510	210	300	106,191	243,062	22,495	177,906
49	MOUNTAIN:										
50	Montana.....	3	2	1	49	19	30	4,020	13,293	1,163	11,490
51	Idaho.....	4	1	3	210	50	160	2,084	14,451	5,539	8,750
52	Wyoming.....	2	—	2	115	—	115	13,338	13,235	2,208	9,675
53	Colorado.....	12	3	9	1,406	1,050	356	6,590	67,131	17,280	48,455
54	New Mexico.....	—	—	—	—	—	—	957	17,185	263	15,500
55	Arizona.....	—	—	—	—	—	—	41,433	51,398	775	48,300
56	Utah.....	27	8	19	2,053	1,063	990	19,279	21,684	3,688	11,975
	Nevada.....	3	3	—	1,527	1,527	—	10	27,965	—	25,000
57	PACIFIC:										
58	Washington.....	25	13	12	33,110	30,763	2,347	24,871	224,924	11,592	183,837
59	Oregon.....	70	32	38	43,246	11,923	31,323	3,144	106,419	4,560	93,091
	California.....	11	6	5	7,619	7,575	44	45,517	181,897	17,067	149,831

**POWER EQUIPMENT AND ENERGY CONSUMPTION**

51

**RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR GEOGRAPHIC DIVISIONS STATES: 1939—Continued**

GENERATORS (KILOWATT RATING)—continued				ELECTRIC MOTORS						ELECTRIC ENERGY (KILOWATT HOURS)			
Driven by—Continued			Ordinarily idle (included in total kilowatt rating)	Aggregate horsepower	Driven by purchased energy		Driven by plant energy		Generated in plant	Sold	Purchased		
Diesel and semi-Diesel engines	Other internal-combustion engines	Hydro-turbines and water wheels			Number	Horsepower	Number	Horsepower					
257,702	316,044	847,452	943,133	45,291,319	4,138,287	29,213,085	1,224,478	16,078,234	28,750,912,258	2,921,964,758	45,040,074,557	1	
18,093	532	282,127	121,181	3,867,593	432,715	2,518,491	163,111	1,349,102	2,379,992,782	98,180,352	3,385,513,971	2	
41,588	63,008	70,195	275,590	11,542,265	1,152,794	7,606,740	318,759	3,935,525	5,591,952,665	882,140,219	12,949,780,067	3	
72,077	166,494	87,248	237,717	15,592,605	1,273,336	9,610,304	408,655	5,982,301	9,415,719,962	980,249,839	10,882,529,103	4	
29,490	12,719	35,881	49,761	2,103,829	244,858	1,487,058	54,005	616,771	1,047,210,445	157,038,812	2,051,199,500	5	
27,186	27,083	317,801	88,431	4,737,398	436,135	2,897,014	145,682	1,840,384	5,388,681,541	413,036,006	5,694,100,381	6	
10,300	3,315	8,807	31,617	1,904,465	150,879	1,305,852	43,118	598,613	1,417,382,298	78,512,583	3,787,107,301	7	
39,377	37,134	1,200	59,084	1,689,754	122,770	1,050,992	31,332	638,762	1,367,282,198	85,099,114	1,960,989,544	8	
12,295	1,651	2,335	39,785	799,562	42,875	528,576	12,991	270,986	608,384,225	119,250,248	1,065,388,049	9	
7,296	4,108	41,858	39,967	3,053,848	281,925	2,208,058	46,825	845,790	1,534,306,142	108,457,585	3,263,466,641	10	
1,083	20	113,440	7,335	490,382	25,539	254,940	15,855	235,442	671,685,200	8,876,369	572,342,178	11	
364	57,053	3,832	243,269	17,845	92,151	14,309	151,118	360,469,454	4,601,650	175,081,759	12		
1,075	90	14,547	3,360	140,046	12,301	101,352	3,860	38,694	48,495,498	689,113	104,785,221	13	
6,877	241	66,865	65,839	1,747,491	209,764	1,176,266	76,178	571,225	765,499,883	52,858,855	1,467,581,365	14	
1,667	36	10,766	16,117	338,595	54,257	244,450	15,622	94,145	137,006,934	13,246,049	378,447,746	15	
7,027	145	19,456	24,698	907,810	113,009	649,332	37,287	258,478	396,635,813	17,908,316	687,275,702	16	
14,272	4,204	63,798	72,768	3,619,137	520,469	3,015,433	85,044	603,704	1,240,357,095	76,690,464	6,583,291,081	17	
9,358	584	2,665	77,656	1,803,608	221,976	1,192,255	68,703	611,353	1,105,809,883	73,661,117	1,615,519,131	18	
17,958	58,220	3,732	125,166	6,119,520	410,349	3,399,052	165,012	2,720,468	3,245,785,687	731,788,638	4,750,969,855	19	
14,528	39,349	3,584	106,943	4,870,698	347,724	2,949,745	97,998	1,920,953	2,650,842,930	237,118,389	3,603,401,107	20	
7,684	76,579	2,574	22,915	3,098,587	173,389	1,865,909	46,429	1,232,678	1,498,501,815	490,392,564	1,514,752,668	21	
19,870	47,409	2,527	52,968	2,976,991	335,782	1,984,828	90,735	992,163	1,375,694,547	52,651,108	2,364,470,135	22	
14,164	2,654	23,828	33,082	3,397,730	291,946	2,058,757	125,462	1,338,973	2,699,033,859	148,537,773	2,500,563,789	23	
15,831	503	54,735	21,809	1,248,599	124,495	751,065	48,031	497,534	1,191,646,811	51,550,005	899,341,404	24	
6,285	6,739	32,254	24,813	523,335	54,615	299,342	15,258	223,993	397,159,534	109,292,147	410,962,694	25	
696	20	120	3,172	395,720	43,433	241,529	15,212	154,191	222,526,129	354,497	460,977,065	26	
8,931	735	35	15,253	704,733	99,617	579,067	14,867	125,666	229,482,648	27,376,531	727,009,431	27	
252	165	75	210	16,695	3,004	9,168	649	7,527	10,919,864	10,325,547	23,725,984	28	
677	62	949	30,549	30,549	21,291	504	9,258	11,274,887	807,106	137,486,604	30	-----	
1,744	430	1,110	1,959	156,027	16,927	134,183	1,531	21,844	28,086,617	19,208,531	280,712,175	31	
10,905	4,568	2,287	3,405	276,770	22,167	202,478	5,984	74,292	147,760,766	11,581,500	146,068,803	40	
2,482	111	114	1,563	120,259	9,327	81,501	4,186	38,758	50,673,956	3,356,572	104,696,760	32	
3,542	16,022	2,398	5,116	1,023,302	67,617	656,684	15,135	366,618	557,124,736	26,789,449	825,140,740	33	
275	1,150	1,208	31,076	5,964	28,846	252	2,230	4,475,669	73,060	39,977,034	34		
1,894	524	21,645	20,169	673,826	50,992	305,615	34,021	368,211	906,203,340	47,473,944	591,023,232	35	
830	9,100	108,035	6,094	712,182	25,401	226,863	22,957	485,319	1,516,647,545	21,155,809	586,742,696	36	
6,341	192	146,860	15,237	770,769	128,035	628,734	30,977	142,035	1,044,472,606	223,587,823	1,500,830,801	37	
563	40	25,390	10,888	523,870	60,198	338,294	23,590	185,576	604,929,292	67,020,019	932,458,075	38	
2,743	825	12,059	20,958	657,212	70,220	527,717	10,136	129,495	354,480,804	11,997,830	967,505,240	39	
8,516	269	150	7,198	224,902	18,381	102,760	4,428	122,142	349,673,593	11,581,500	146,068,803	40	
3,384	771	97	4,134	313,286	29,709	231,146	7,420	82,140	92,817,061	512,655	266,937,193	41	
1,635	886	685	14,564	605,275	54,707	401,926	24,959	203,349	502,384,774	7,527,575	2,282,276,613	42	
1,577	402	8,025	7,002	828,014	52,748	561,637	8,165	266,377	712,311,716	69,191,173	1,067,563,185	43	
3,704	1,256	-----	5,917	157,890	13,715	111,143	2,574	46,747	109,868,747	1,281,180	170,330,310	44	
2,481	1,968	548	161,282	11,078	109,832	3,721	51,450	52,927,011	8,359,996	183,109,997	45		
7,959	4,977	1,000	24,089	414,296	23,812	246,674	8,556	167,622	346,012,811	29,931,650	609,400,277	46	
6,357	10,278	3,776	206,001	19,271	131,966	4,595	74,035	154,377,303	7,075,150	198,934,832	47		
22,550	19,911	200	30,671	908,175	68,609	562,520	14,460	345,655	813,965,073	39,732,288	969,544,438	48	
395	235	10	2,108	143,476	6,229	125,442	1,061	18,034	23,198,714	2,061,520	573,743,059	49	
125	2	35	600	195,848	6,094	170,512	1,349	25,336	20,131,580	2,441,284	135,540,683	50	
1,152	200	5,117	34,424	2,402	22,366	834	12,058	15,176,330	1,088,839	36,426,563	51		
489	207	700	2,860	206,777	13,561	78,036	5,509	128,741	177,357,079	8,243,448	86,441,596	52	
1,010	412	205	13,031	1,799	9,847	196	3,184	75,920,110	1,033,705	9,924,737	53		
1,928	395	22,145	98,224	3,519	51,386	1,993	46,838	139,591,056	88,926,520	113,612,917	54		
5,171	100	750	6,750	91,426	8,327	64,298	1,495	27,128	72,838,438	3,028,437	86,730,923	55	
2,025	100	840	-----	16,356	944	6,689	554	9,667	84,170,918	12,426,495	22,967,571	56	
676	364	28,455	20,597	902,653	46,810	531,585	17,433	371,068	720,791,670	44,273,078	935,013,741	57	
660	25	8,083	276	425,375	27,461	248,280	9,882	177,095	269,408,812	39,576,943	387,362,870	58	
5,960	3,719	5,320	19,094	1,725,820	207,654	1,428,193	19,510	297,627	544,105,660	24,607,564	1,941,090,030	59	

## CENSUS OF MANUFACTURES: 1939

TABLE 6.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILO  
AND FOR STATES:

DIVISION OR STATE	Census year	ESTABLISHMENTS		Horsepower installation per 100 wage earners	PRIME MOVERS			
		Total number	Number reporting power equipment		Steam engines		Steam turbines	
					Total horsepower	Number	Horsepower	Number
1 United States.....	1939	1,184,230	179,674	642	21,239,195	42,538	6,533,429	12,631
2	1929	206,663	190,091	491	19,328,309	62,395	9,157,755	8,883
GEOGRAPHIC DIVISIONS:								
3 New England.....	1939	16,136	15,733	471	1,968,574	2,316	442,533	939
4	1929	18,048	16,740	425	2,417,152	4,317	835,166	966
5 Middle Atlantic.....	1939	56,291	54,922	564	5,080,350	8,736	1,920,675	2,966
6	1929	63,871	58,026	457	5,231,831	12,977	2,720,702	2,416
7 East North Central.....	1939	40,415	39,825	731	6,423,434	8,707	1,850,822	3,035
8	1929	45,445	42,040	500	5,645,240	12,913	2,501,861	2,238
9 West North Central.....	1939	14,947	14,772	607	828,355	2,248	306,201	505
10	1929	17,240	16,124	487	838,645	3,057	425,608	529
11 South Atlantic.....	1939	17,317	16,666	575	2,759,673	5,703	614,421	1,362
12	1929	20,358	18,531	473	1,910,949	10,958	905,274	768
13 East South Central.....	1939	7,275	6,962	672	1,093,164	3,410	414,135	553
14	1929	9,643	9,189	556	953,631	6,299	588,149	396
15 West South Central.....	1939	10,021	9,804	950	1,433,406	7,370	520,792	1,895
16	1929	10,208	9,582	624	958,929	5,779	545,482	508
17 Mountain.....	1939	4,011	3,869	1,554	530,589	1,076	175,632	260
18	1929	4,126	3,803	1,032	455,211	1,360	236,185	269
19 Pacific.....	1939	17,817	17,121	800	1,121,620	2,972	285,218	1,116
20	1929	17,724	16,056	604	916,721	3,835	399,328	793
NEW ENGLAND:								
21 Maine.....	1939	1,210	1,138	920	430,291	348	59,400	97
22	1929	1,538	1,444	978	509,555	682	102,953	73
23 New Hampshire.....	1939	806	770	497	184,444	233	40,954	53
24	1929	1,057	1,002	617	299,557	375	65,157	47
25 Vermont.....	1939	717	703	776	67,128	204	18,995	18
26	1929	911	870	606	80,308	278	30,009	15
27 Massachusetts.....	1939	9,007	8,803	429	801,612	999	197,428	488
28	1929	9,771	8,933	369	953,841	2,002	405,267	548
29 Rhode Island.....	1939	1,460	1,439	348	125,465	152	32,415	92
30	1929	1,692	1,587	365	196,300	253	82,918	81
31 Connecticut.....	1939	2,936	2,880	432	350,634	380	93,341	191
32	1929	3,079	2,994	355	377,231	727	148,862	202
MIDDLE ATLANTIC:								
33 New York.....	1939	34,506	33,503	435	1,144,920	3,011	351,988	889
34	1929	39,016	34,958	358	1,251,177	4,021	560,960	668
35 New Jersey.....	1939	7,984	7,866	456	782,768	1,210	201,680	628
36	1929	8,285	7,662	366	754,438	2,066	332,724	522
37 Pennsylvania.....	1939	13,801	13,553	763	3,152,662	4,515	1,367,007	1,449
38	1929	16,570	15,406	608	3,226,216	6,890	1,827,009	1,226
EAST NORTH CENTRAL:								
39 Ohio.....	1939	10,070	9,933	835	2,044,250	2,175	733,794	777
40	1929	11,602	10,878	597	2,067,421	3,560	1,018,909	740
41 Indiana.....	1939	4,337	4,290	1,016	954,444	1,203	176,010	348
42	1929	4,919	4,691	606	864,900	1,554	243,640	271
43 Illinois.....	1939	12,980	12,795	540	1,236,931	2,370	444,746	641
44	1929	15,052	13,589	403	1,143,639	2,770	621,110	526
45 Michigan.....	1939	6,311	6,155	709	1,637,556	1,380	257,382	960
46	1929	6,549	6,167	439	966,127	1,765	321,695	408
47 Wisconsin.....	1939	6,717	6,652	650	550,253	1,579	208,890	309
48	1929	7,323	6,715	476	603,153	2,964	296,507	293
WEST NORTH CENTRAL:								
49 Minnesota.....	1939	4,008	3,956	749	292,571	615	80,304	116
50	1929	4,206	3,903	630	305,660	1,055	105,084	226
51 Iowa.....	1939	2,670	2,653	532	105,659	248	40,828	51
52	1929	3,178	2,998	481	130,836	520	64,589	71
53 Missouri.....	1939	4,796	4,713	440	207,205	658	96,143	110
54	1929	5,627	5,232	356	193,668	1,379	144,216	108
55 North Dakota.....	1939	350	350	767	11,070	22	3,591	20
56	1929	346	332	643	9,997	51	4,692	11
57 South Dakota.....	1939	468	464	614	12,724	44	6,282	8
58	1929	588	558	520	12,504	89	8,324	9
59 Nebraska.....	1939	1,161	1,152	961	46,610	129	29,968	13
60	1929	1,440	1,344	600	51,212	264	37,566	31
61 Kansas.....	1939	1,494	1,484	1,213	152,546	532	49,085	187
62	1929	1,855	1,757	722	134,768	599	61,187	73
SOUTH ATLANTIC:								
63 Delaware.....	1939	429	426	665	54,061	118	16,726	26
64	1929	450	423	510	55,964	246	26,787	34
65 Maryland.....	1939	2,893	2,801	662	280,668	536	53,332	360
66	1929	3,175	2,929	509	280,998	1,403	85,031	99
67 District of Columbia.....	1939	497	492	451	9,049	32	3,810	3
68	1929	535	423	458	8,920	42	5,241	4
69 Virginia.....	1939	2,579	2,483	643	553,361	1,115	152,019	312
70	1929	3,185	2,976	570	372,048	2,003	142,684	156
71 West Virginia.....	1939	1,130	1,077	1,059	588,958	426	58,432	371
72	1929	1,427	1,348	740	309,521	794	113,455	232
73 North Carolina.....	1939	3,225	3,078	421	506,508	1,158	116,172	108
74	1929	3,731	3,624	403	313,291	2,250	180,895	91
75 South Carolina.....	1939	1,331	1,247	510	306,575	584	71,663	68
76 Georgia.....	1939	1,630	1,554	489	232,556	1,195	133,865	58
77	1929	3,150	3,037	509	273,159	946	83,140	62
78 Florida.....	1939	4,090	3,522	402	240,701	2,171	150,749	65
79	1929	2,083	2,025	560	187,134	788	59,127	52
80	1929	2,135	1,732	280	96,950	854	66,567	29

<sup>1</sup> No power equipment for the "Logging camps and logging contractors (not operating mills)" industry was tabulated but the number of establishments is included here.

## POWER EQUIPMENT AND ENERGY CONSUMPTION

53

WATT RATING, AND ELECTRIC ENERGY PURCHASED (KILOWATT HOURS), FOR GEOGRAPHIC DIVISIONS, 1939 AND 1929

PRIME MOVERS—continued				Kilowatt rating of generators	ELECTRIC MOTORS				Purchased electric energy (kilowatt-hours)		
All types of internal-combustion engines		Hydroturbines and water wheels			Driven by purchased energy		Driven by plant energy				
Number	Horsepower	Number	Horsepower		Total horsepower	Number	Horsepower	Number			
15,589	1,808,225	3,854	1,603,669	9,658,828	45,291,319	4,138,287	29,213,085	1,224,478	45,040,074,557		
10,991	1,203,303	6,511	1,557,503	7,591,999	33,844,131	2,655,142	21,793,762	829,959	36,426,624,736		
788	56,004	1,507	572,804	1,045,303	3,867,593	432,715	2,518,491	163,111	1,349,102		
591	34,383	2,542	742,293	1,001,182	3,505,579	295,331	2,181,393	139,614	1,324,186		
2,309	376,571	834	189,817	2,077,345	11,542,265	1,152,794	7,606,740	318,759	3,935,525		
2,304	333,494	1,434	248,183	1,900,457	9,441,736	795,936	5,954,777	248,261	3,486,959		
2,811	552,368	564	169,536	3,130,324	15,592,605	1,273,336	9,610,304	408,655	5,982,301		
2,124	401,846	1,007	238,992	2,529,733	10,775,346	795,763	6,529,907	257,062	4,245,439		
1,337	121,752	150	80,838	372,094	2,103,829	244,858	1,487,058	54,005	616,771		
876	73,650	237	84,478	362,802	1,661,115	156,140	1,199,231	33,843	461,884		
2,379	197,957	541	485,263	1,433,118	4,737,398	436,135	2,897,014	145,682	1,840,384		
1,802	150,872	884	153,562	723,543	3,162,022	246,874	2,140,297	71,872	1,021,725		
1,280	78,532	91	14,546	402,845	1,904,465	150,879	1,305,852	43,118	598,613		
1,168	40,054	138	10,096	287,944	1,337,888	91,303	959,632	26,128	378,256		
2,892	304,618	10	1,530	458,217	1,689,754	122,770	1,050,992	31,332	638,762		
1,210	116,496	15	790	273,919	1,072,269	68,908	710,792	15,405	361,477		
620	46,822	51	5,360	226,342	799,562	42,875	528,576	12,991	270,986		
332	22,072	65	7,386	174,521	651,260	30,146	415,103	9,542	236,157		
1,173	71,601	106	83,975	513,240	3,053,848	281,925	2,208,058	46,825	845,790		
584	30,436	189	71,723	337,898	2,236,916	174,741	1,702,630	28,232	534,286		
103	5,519	414	277,459	182,035	490,382	25,539	254,940	15,855	235,442		
95	2,217	668	337,684	151,586	366,490	14,780	163,418	11,671	203,072		
71	4,037	212	89,128	108,629	243,269	17,845	92,151	14,309	151,118		
77	7,739	418	143,420	149,846	242,101	13,770	99,771	12,906	142,330		
77	5,211	124	34,060	25,481	140,046	12,301	101,352	3,860	38,694		
38	2,437	241	38,909	31,510	121,354	8,433	80,364	4,146	40,990		
315	22,412	426	115,239	447,323	1,747,491	209,764	1,176,266	76,178	571,225		
252	9,645	715	144,075	431,274	1,692,979	153,149	1,063,852	66,322	629,127		
42	3,761	101	19,167	75,874	338,595	54,257	244,450	15,622	94,145		
20	6,825	157	25,396	86,857	346,274	37,052	259,590	15,737	86,684		
180	15,064	230	37,751	205,961	907,810	113,009	649,332	37,287	258,478		
109	5,520	343	52,809	150,109	736,381	68,127	514,398	28,832	221,983		
744	109,451	497	169,171	501,134	3,619,137	520,469	3,015,433	85,044	603,704		
659	75,290	828	210,556	450,387	3,231,194	364,788	2,550,349	61,091	680,845		
306	25,087	52	5,463	436,865	1,803,608	221,976	1,192,255	68,703	611,353		
317	20,113	78	14,714	469,204	1,355,755	124,917	828,832	53,901	526,923		
1,259	242,033	285	15,183	1,139,346	6,119,520	410,349	3,399,052	165,012	2,720,468		
1,328	238,091	528	22,913	980,866	4,854,787	306,231	2,575,596	133,269	2,279,191		
776	126,088	54	7,356	890,509	4,870,698	347,724	2,949,745	97,998	1,920,953		
808	119,069	172	13,795	822,683	3,666,873	221,121	2,185,172	69,717	1,481,701		
430	181,804	51	5,580	474,717	3,098,587	173,389	1,865,909	46,429	1,232,678		
246	163,131	58	6,320	455,409	1,807,353	105,684	937,626	30,662	869,727		
780	173,138	46	6,865	549,996	2,976,991	335,782	1,984,828	90,735	992,163		
392	99,360	99	11,401	471,049	2,311,622	202,185	1,491,306	60,889	820,316		
358	40,623	130	38,702	919,159	3,397,730	291,946	2,058,757	125,462	1,338,973		
196	10,975	183	48,066	531,861	1,966,416	191,319	1,310,631	55,032	655,785		
467	30,715	283	111,033	295,943	1,248,599	124,495	751,065	48,031	497,534		
482	9,311	495	159,410	248,731	1,023,082	75,454	605,172	37,762	417,910		
218	31,384	95	74,458	135,811	523,335	54,615	299,342	15,258	223,993		
142	20,258	111	77,050	142,509	415,914	36,033	264,289	9,265	151,625		
117	5,192	8	440	57,133	395,720	43,433	241,529	15,212	154,191		
103	4,775	23	1,195	71,397	308,770	30,378	206,576	7,666	102,194		
390	30,323	16	513	97,204	704,733	99,617	579,067	14,867	125,666		
269	13,442	57	1,609	70,878	576,430	58,187	473,727	10,769	102,703		
29	1,934	2	125	5,043	16,695	3,004	9,168	649	7,527		
18	935	2	60	2,858	12,203	1,961	6,931	351	5,272		
90	3,142	-----	-----	5,350	30,519	5,095	21,291	504	9,258		
37	1,277	4	222	5,140	24,730	3,225	17,029	351	7,701		
161	6,650	15	1,932	16,995	156,027	16,927	134,183	1,531	21,844		
92	3,929	23	1,887	16,622	111,690	11,447	87,904	1,825	23,786		
332	43,127	14	3,370	54,558	276,770	22,167	202,478	5,984	74,292		
215	29,034	17	2,455	53,398	211,378	14,909	142,775	3,616	68,603		
98	6,440	30	1,633	27,883	120,259	9,327	81,501	4,186	38,758		
43	2,295	43	2,607	23,936	98,072	4,741	53,586	2,206	44,486		
225	37,489	25	4,074	133,139	1,023,302	67,617	656,684	15,135	366,618		
230	79,797	40	3,775	114,778	638,821	36,081	341,261	9,997	297,560		
35	1,782	3	1,347	3,133	31,076	5,964	28,846	252	2,230		
20	379	4	1,520	2,925	31,826	4,219	28,680	375	3,146		
382	22,823	189	41,317	260,066	673,826	50,992	305,615	34,021	368,211		
230	9,038	332	36,784	184,358	429,179	25,004	232,768	22,873	196,411		
187	39,653	21	152,300	368,840	712,182	25,401	226,863	22,957	485,319		
193	26,809	26	8,742	135,885	490,737	16,058	246,347	9,506	244,390		
512	30,659	181	219,331	278,483	770,769	128,035	628,734	30,977	142,035		
271	9,584	271	34,632	97,350	610,755	78,876	512,079	15,905	98,676		
165	8,526	71	37,523	169,685	523,870	60,198	338,294	23,590	185,576		
83	2,000	75	35,096	76,665	349,240	32,817	288,762	6,237	60,478		
417	22,675	68	27,458	106,682	657,212	70,220	527,717	10,136	129,495		
469	10,268	93	30,506	67,911	412,191	39,055	363,415	3,306	48,776		
358	27,910	3	280	85,207	224,902	18,381	102,760	4,428	122,142		
263	10,702	-----	-----	19,735	101,201	10,023	73,399	1,467	27,802		

## CENSUS OF MANUFACTURES: 1939

TABLE 6.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT STATES: 1939

DIVISION OR STATE	Census year	ESTABLISHMENTS		Horsepower installation per 100 wage earners	PRIME MOVERS				
		Total number	Number reporting power equipment		Total horsepower	Steam engines		Steam turbines	
		Number	Horsepower			Number	Number	Horsepower	
<b>EAST SOUTH CENTRAL:</b>									
1 Kentucky	1939	1,640	1,601	648	175,571	726	77,672	136	77,047
2	1929	2,188	2,078	505	112,594	1,109	79,574	51	26,681
3 Tennessee	1939	2,289	2,225	520	283,402	799	94,489	155	172,102
4	1929	2,796	2,655	487	253,012	1,622	152,584	130	87,601
5 Alabama	1939	2,052	1,899	888	472,249	1,095	163,918	194	276,765
6	1929	2,789	2,643	686	392,599	1,981	221,060	156	153,476
7 Mississippi	1939	1,294	1,237	593	161,942	790	78,056	68	60,037
8	1929	1,870	1,813	493	195,126	1,557	134,631	59	47,574
<b>WEST SOUTH CENTRAL:</b>									
9 Arkansas	1939	1,178	1,116	667	129,835	630	67,639	71	41,404
10	1929	1,697	1,630	527	132,241	1,509	99,111	54	23,710
11 Louisiana	1939	1,861	1,823	933	415,088	2,130	203,740	539	162,134
12	1929	1,910	1,752	574	346,194	2,043	218,493	186	107,897
13 Oklahoma	1939	1,606	1,586	957	136,971	180	32,768	94	41,980
14	1929	1,610	1,543	740	114,397	492	47,083	94	39,380
15 Texas	1939	5,376	5,279	1,039	751,512	4,430	216,645	1,191	360,948
16	1929	4,991	4,657	662	366,097	1,735	180,795	174	125,174
<b>MOUNTAIN:</b>									
17 Montana	1939	585	570	1,813	35,479	180	13,743	25	16,440
18	1929	553	503	1,638	33,116	145	19,689	15	9,006
19 Idaho	1939	549	511	2,137	47,658	208	32,039	19	13,920
20	1929	548	500	668	49,277	204	29,975	33	18,403
21 Wyoming	1939	310	278	1,683	36,269	99	9,966	99	21,367
22	1929	233	221	985	28,323	120	9,982	107	15,396
23 Colorado	1939	1,298	1,267	1,067	174,841	341	78,129	49	87,705
24	1929	1,495	1,373	775	130,904	465	76,569	47	48,729
25 New Mexico	1939	272	258	1,530	39,865	73	6,537	5	27,080
26	1929	237	228	579	10,861	93	5,565		
27 Arizona	1939	332	327	2,320	87,821	64	14,932	22	66,502
28	1929	325	293	1,962	132,162	122	52,777	33	72,938
29 Utah	1939	560	553	1,167	70,536	105	23,004	37	33,261
30	1929	631	587	855	54,221	199	33,453	30	17,596
31 Nevada	1939	105	105	4,099	38,117	6	282	4	33,500
32	1929	104	98	2,285	16,347	9	5,175	1	7,500
<b>PACIFIC:</b>									
33 Washington	1939	3,240	2,980	1,131	408,985	799	100,630	189	264,761
34	1929	3,591	3,183	728	412,657	1,278	188,019	176	205,480
35 Oregon	1939	2,248	1,981	896	270,368	834	77,052	128	136,224
36	1929	2,420	2,151	650	205,107	964	82,586	77	73,699
37 California	1939	12,329	12,160	680	442,267	1,339	107,536	799	279,841
38	1929	11,713	10,722	541	298,957	1,593	125,723	540	136,055

## POWER EQUIPMENT AND ENERGY CONSUMPTION

55

RATING, AND ELECTRIC ENERGY PURCHASED (KILOWATT HOURS), FOR GEOGRAPHIC DIVISIONS, AND FOR AND 1929—Continued

PRIME MOVERS—continued				Kilowatt rating of generators	ELECTRIC MOTORS				Purchased electric energy (kilowatt hours)		
All types of internal-combustion engines		Hydroturbines and water wheels			Driven by purchased energy		Driven by plant energy				
Number	Horsepower	Number	Horsepower		Number	Horsepower	Number	Horsepower			
258	19,784	15	1,068	62,620	313,286	29,709	231,146	7,420	82,140	266,937,193	1
133	4,836	24	1,203	38,392	252,190	20,161	214,166	3,503	38,024	253,484,009	2
214	13,647	69	3,164	148,563	605,275	54,707	401,926	24,959	203,349	2,282,276,613	3
194	8,832	103	3,995	84,823	443,166	31,311	322,899	15,166	120,267	1,036,529,638	4
420	21,272	6	10,294	138,439	828,014	52,748	561,637	8,165	266,377	1,067,563,185	5
490	13,465	11	4,898	118,270	551,513	35,029	372,697	5,730	178,816	675,162,331	6
388	23,829	1	20	53,223	157,890	13,715	111,143	2,574	46,747	170,330,310	7
351	12,921			46,459	91,019	4,802	49,870	1,729	41,149	66,939,458	8
281	20,792			38,689	161,282	11,078	109,832	3,721	51,450	183,109,997	9
147	9,420			22,448	111,127	7,943	77,907	1,922	33,220	125,931,380	10
571	48,194	3	1,020	126,183	414,296	23,812	246,674	8,556	167,622	609,400,277	11
289	19,704	7	100	92,847	238,197	10,991	124,369	5,221	113,828	249,532,964	12
551	62,223			50,283	206,001	19,271	131,966	4,595	74,035	198,934,832	13
244	27,934			41,996	155,586	11,433	100,658	2,388	54,928	137,672,311	14
1,489	173,409	7	510	243,062	908,175	68,609	562,520	14,460	345,655	969,544,438	15
530	59,438	8	690	116,628	567,359	38,541	407,858	5,874	159,501	705,176,201	16
103	5,247	3	49	13,293	143,476	6,229	125,442	1,061	18,034	573,743,059	17
68	2,465	8	1,956	6,355	164,830	5,470	152,958	494	11,872	812,015,076	18
33	1,489	4	210	14,451	195,848	6,094	170,512	1,349	25,336	135,540,683	19
29	734	4	165	8,312	63,036	3,921	48,119	651	14,917	54,137,785	20
98	4,821	2	115	13,235	34,424	2,402	22,366	834	12,058	36,426,563	21
43	2,782	4	163	8,363	25,439	1,167	11,438	991	14,001	19,016,967	22
128	7,601	12	1,406	67,131	206,777	13,561	78,036	5,509	128,741	86,441,596	23
90	3,458	11	2,148	63,975	182,721	9,699	86,121	4,026	96,600	78,004,319	24
73	6,251			17,185	13,031	1,799	9,847	196	3,184	9,924,737	25
20	2,296			520	6,835	842	6,043	56	792	6,069,276	26
56	6,387			51,398	98,224	3,519	51,386	1,993	46,838	113,612,917	27
40	6,447			65,504	112,949	2,281	43,981	2,052	68,968	128,482,970	28
116	12,218	27	2,053	21,684	91,426	8,327	64,298	1,495	27,128	86,730,923	29
31	718	36	2,454	14,197	83,688	6,128	60,918	1,051	22,770	97,479,204	30
13	2,808	3	1,527	27,965	16,356	944	6,689	554	9,667	22,967,571	31
11	3,172	2	500	7,295	11,762	638	5,525	221	6,237	4,786,921	32
245	10,484	25	33,110	224,924	902,653	46,810	531,585	17,433	371,068	935,013,741	33
147	4,141	50	15,017	174,098	654,353	29,662	378,507	13,462	275,846	769,413,244	34
274	13,846	70	43,246	106,419	425,375	27,461	248,280	9,882	177,095	357,362,870	35
83	2,238	103	46,584	67,182	290,317	17,987	199,306	4,738	91,011	297,839,049	36
654	47,271	11	7,619	181,897	1,725,820	207,654	1,428,193	19,510	297,627	1,941,090,030	37
354	24,057	36	10,122	96,618	1,292,246	127,092	1,124,817	10,032	167,429	1,523,972,509	38

## CENSUS OF MANUFACTURES: 1939

TABLE 7.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT

INDUSTRIAL AREAS	Horse-power installation per 100 wage earners	Total horsepower of prime movers	PRIME MOVERS					
			Steam engines					
			Number			Horsepower		
			Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators
1 United States.....	642	21,239,195	42,538	8,192	34,346	6,533,429	2,273,983	4,259,446
2 Industrial areas (33 areas).....	599	9,688,480	12,937	3,330	9,607	2,987,194	1,009,448	1,977,746
INDUSTRIAL AREAS								
3 New York City-Newark-Jersey City area..... (Bronx, Kings, New York, Queens, Richmond, and Westchester Counties, N. Y.; Bergen, Essex, Hudson, Middlesex, Passaic, and Union Counties, N. J.)	275	718,258	1,914	540	1,374	234,494	153,279	81,215
4 Chicago area..... (Cook, DuPage, Kane, Lake, and Will Counties, Ill.; Lake County, Ind.)	658	1,418,316	1,215	359	856	286,654	106,624	180,030
5 Philadelphia-Camden area..... (Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, Pa.; Burlington, Camden, and Gloucester Counties, N. J.)	445	520,472	1,377	453	924	232,574	121,098	111,476
6 Detroit area..... (Oakland and Wayne Counties)	743	959,381	483	51	432	78,133	20,922	57,211
7 Boston area..... (Essex, Middlesex, Norfolk, and Suffolk Counties)	414	408,468	532	208	324	87,499	54,281	33,218
8 Pittsburgh area..... (Allegheny, Beaver, Washington, and Westmoreland Counties)	1,424	1,377,627	1,287	176	1,111	547,606	80,080	467,526
9 Providence-Fall River-New Bedford area..... (Providence County, R. I.; Bristol County, Mass.)	349	156,621	185	86	99	55,346	38,198	17,148
10 Cleveland area..... (Cuyahoga and Lorain Counties)	726	332,498	310	105	205	121,358	30,813	90,545
11 Bridgeport-New Haven-Waterbury area..... (Fairfield and New Haven Counties)	460	187,054	168	77	91	44,666	22,397	22,269
12 St. Louis area..... (St. Louis City and St. Louis County, Mo.; Madison and St. Clair Counties, Ill.)	578	265,213	1,044	204	840	116,526	59,804	56,722
13 Los Angeles area..... (Los Angeles County)	528	85,450	190	24	166	19,108	6,153	12,955
14 Baltimore area..... (Baltimore City and Baltimore County)	683	157,852	216	36	180	37,948	13,121	24,827
15 Milwaukee area..... (Kenosha, Milwaukee, and Racine Counties)	539	128,219	322	177	145	76,922	52,779	24,143
16 Buffalo area..... (Erie and Niagara Counties)	1,380	201,023	282	41	241	55,453	11,350	44,073
17 Cincinnati area..... (Butler and Hamilton Counties, Ohio; Campbell and Kenton Counties, Ky.)	716	255,635	282	166	116	82,009	56,371	25,638
18 Worcester area..... (Worcester County)	525	144,555	181	93	88	39,124	21,493	17,631
19 San Francisco-Oakland area..... (Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties)	769	123,133	587	20	567	19,887	3,297	16,590
20 Youngstown area..... (Mahoning and Trumbull Counties, Ohio; Lawrence and Mercer Counties, Pa.)	1,639	588,618	264	52	212	260,353	22,655	237,698
21 Hartford area..... (Hartford County)	448	92,699	91	40	51	53,054	16,722	36,332
22 Allentown-Bethlehem area..... (Lehigh and Northampton Counties)	1,007	385,243	247	46	201	195,936	17,692	178,244
23 Rochester area..... (Monroe County)	391	72,720	242	43	199	26,203	10,763	15,440
24 Minneapolis-St. Paul area..... (Dakota, Hennepin, and Ramsey Counties)	519	100,170	140	60	80	30,771	14,770	16,001
25 Wheeling area..... (Brooks, Hancock, and Ohio Counties, W. Va.; Belmont, Columbiana, and Jefferson Counties, Ohio)	1,024	234,380	170	37	133	125,467	11,200	114,267
26 Reading area..... (Berks County)	294	18,778	98	16	82	9,322	5,616	3,706
27 Akron area..... (Summit County)	1,057	234,617	161	19	142	25,749	4,555	21,194
28 Dayton area..... (Montgomery County)	453	35,599	55	10	45	8,173	3,328	4,845
29 Indianapolis area..... (Marion County)	503	31,917	72	35	37	13,901	8,490	5,411
30 Kansas City area..... (Clay and Jackson Counties, Mo.; Wyandotte County, Kans.)	638	62,281	83	37	46	24,855	14,318	10,537
31 Seattle-Tacoma area..... (King and Pierce Counties)	796	60,660	119	7	112	16,019	2,385	13,634
32 Springfield-Holyoke area..... (Hampden County)	704	104,526	104	31	73	16,369	8,777	7,592
33 Albany-Schenectady-Troy area..... (Albany, Rensselaer, and Schenectady Counties)	593	85,808	154	20	134	18,422	5,295	13,127
34 Scranton-Wilkes-Barre area..... (Lackawanna and Luzerne Counties)	246	16,489	88	38	50	8,045	4,633	3,412
35 Toledo area..... (Lucas County)	818	94,200	274	23	251	19,248	6,159	13,089

**POWER EQUIPMENT AND ENERGY CONSUMPTION**

57

RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRIAL AREAS: 1939

PRIME MOVERS—continued																	
Steam turbines						Diesel and semi-Diesel engines						Other internal-combustion engines					
Number			Horsepower			Number			Horsepower			Number			Horsepower		
Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators	Total	Driving generators	Not driving generators
12,631	3,902	8,729	11,295,872	9,559,089	1,736,783	5,311	2,409	2,902	630,181	426,779	203,402	10,278	1,457	8,821	1,176,044	478,218	697,826
5,625	1,631	3,994	5,762,656	4,680,396	1,082,260	886	597	289	143,596	119,483	24,113	2,171	443	1,728	626,874	310,067	316,807
552	253	299	443,306	389,260	54,046	170	122	48	33,471	29,122	4,349	169	18	151	6,615	1,124	5,491
512	160	352	831,368	629,951	201,417	89	68	21	16,772	14,625	2,147	305	66	239	281,361	173,783	107,578
461	143	318	263,259	219,927	43,332	93	59	34	12,504	10,584	1,920	151	5	146	10,557	520	10,037
609	81	528	892,579	788,591	103,988	27	18	9	10,236	9,190	1,046	100	30	70	6,682	2,165	4,517
298	123	175	274,326	226,507	47,819	68	41	27	7,132	5,329	1,803	83	6	77	4,041	207	3,834
577	104	473	757,589	536,133	221,456	19	9	10	2,350	1,305	1,045	154	77	77	69,179	35,948	33,231
100	75	25	87,605	85,625	1,980	20	18	2	1,919	1,774	145	21	4	17	835	70	765
97	30	67	183,867	147,440	36,427	11	8	3	2,250	1,660	590	30	21	9	24,323	24,125	198
89	76	13	133,552	132,416	1,136	40	33	7	4,391	3,948	443	34	5	29	866	70	796
183	45	138	132,222	121,433	10,789	29	15	14	7,005	5,400	1,605	171	2	169	9,280	720	8,560
371	23	348	47,508	17,532	29,976	16	13	3	1,370	740	630	259	51	208	17,436	3,301	14,135
145	17	128	87,028	53,048	33,980	31	15	16	5,142	3,625	1,517	60	8	52	26,239	24,043	2,196
50	26	24	47,197	44,774	2,423	9	6	3	3,415	3,190	225	9	5	4	685	400	285
253	33	220	98,577	72,070	26,507	4	2	2	650	500	150	58	4	54	46,298	90	46,208
117	46	71	167,605	115,286	52,319	12	6	6	1,280	740	540	35	9	26	1,353	463	890
57	49	8	86,140	83,435	2,705	32	20	12	3,196	2,212	984	31	3	28	2,064	117	1,947
274	35	239	97,137	69,719	27,418	14	2	12	625	90	535	91	8	83	5,484	219	5,265
154	37	117	308,898	207,867	101,031	15	13	2	4,460	4,180	280	47	10	37	14,802	463	14,339
40	26	14	29,430	27,584	1,846	15	10	5	1,549	1,385	164	9	2	7	222	60	162
31	21	10	104,788	103,919	869	33	31	2	3,923	3,873	50	52	7	45	79,718	35,000	44,718
71	20	51	45,111	36,751	8,360	7	2	5	812	307	505	8	1	7	344	50	294
50	19	31	35,338	30,144	5,194	12	10	2	3,880	3,765	115	9	2	7	1,266	870	336
51	25	26	102,042	99,391	2,651	15	12	3	1,915	1,555	360	48	30	18	4,941	3,901	1,040
7	2	5	8,000	1,950	6,050	11	3	8	892	350	542	10	1	9	126	5	121
97	34	63	205,799	193,904	11,895	3	2	1	670	620	50	23	6	17	1,624	715	909
22	13	9	26,691	26,131	560	2	1	1	440	330	110	2	-----	2	75	-----	75
19	11	8	13,739	12,862	877	13	11	2	4,042	3,897	145	1	-----	1	150	-----	150
63	12	51	33,519	28,970	4,549	30	18	12	2,743	2,072	671	34	10	24	1,164	478	686
42	27	15	42,213	40,625	1,588	6	-----	6	633	-----	633	36	3	33	1,545	240	1,305
46	26	20	37,816	36,087	1,729	16	13	3	1,625	1,510	115	15	1	14	371	15	356
69	18	51	62,907	57,599	5,308	6	5	1	555	530	25	63	43	20	1,226	485	741
14	12	2	7,509	7,412	97	6	4	2	542	440	102	11	1	10	308	40	268
104	9	95	67,991	36,053	31,938	12	7	5	1,207	635	572	42	4	38	5,754	380	5,374

## CENSUS OF MANUFACTURES: 1939

TABLE 7. PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY, GENERATORS BY KILOWATT  
1939—

	INDUSTRIAL AREAS	PRIME MOVERS—continued						Horsepower of prime movers ordinarily idle	
		Hydroturbines and water wheels							
		Number			Horsepower				
		Total	Driving genera- tors	Not driv- ing gen- erators	Total	Driving genera- tors	Not driv- ing gen- erators		
1	United States.....	3,854	1,843	2,011	1,603,689	1,208,624	395,045	1,896,357	
2	Industrial areas (33 areas).....	645	378	267	168,160	142,625	25,535	963,999	
	INDUSTRIAL AREAS								
3	New York City-Newark-Jersey City area..... (Bronx, Kings, New York, Queens, Richmond, and Westchester Counties, N. Y.; Bergen, Essex, Hudson, Middlesex, Passaic, and Union Counties, N. J.)	11	1	10	372	30	342	103,356	
4	Chicago area..... (Cook, DuPage, Kane, Lake, and Will Counties, Ill.; Lake County, Ind.)	21	12	9	2,161	1,441	720	85,576	
5	Philadelphia-Camden area..... (Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, Pa.; Burlington, Camden, and Gloucester Counties, N. J.)	29	6	23	1,578	548	1,030	79,597	
6	Detroit area..... (Oakland and Wayne Counties)	15	13	2	1,751	1,736	15	42,317	
7	Boston area..... (Essex, Middlesex, Norfolk, and Suffolk Counties)	103	64	39	35,470	31,095	4,375	48,677	
8	Pittsburgh area..... (Allegheny, Beaver, Washington, and Westmoreland Counties)	6	4	2	903	757	146	116,514	
9	Providence-Fall River-New Bedford area..... (Providence County, R. I.; Bristol County, Mass.)	63	47	16	10,916	9,626	1,290	30,135	
10	Cleveland area..... (Cuyahoga and Lorain Counties)	3	2	1	700	500	200	39,748	
11	Bridgeport-New Haven-Waterbury area..... (Fairfield and New Haven Counties)	31	19	12	3,579	2,798	781	24,693	
12	St. Louis area..... (St. Louis City and St. Louis County, Mo.; Madison and St. Clair Counties, Ill.)	1	—	1	180	—	180	89,594	
13	Los Angeles area..... (Los Angeles County)	3	—	3	28	—	28	8,574	
14	Baltimore area..... (Baltimore City and Baltimore County)	5	3	2	1,495	1,432	63	7,175	
15	Milwaukee area..... (Kenosha, Milwaukee, and Racine Counties)	—	—	—	—	—	—	7,518	
16	Buffalo area..... (Erie and Niagara Counties)	1	—	1	45	—	45	21,874	
17	Cincinnati area..... (Butler and Hamilton Counties, Ohio; Campbell and Kenton Counties, Ky.)	4	4	—	3,388	3,388	—	25,306	
18	Worcester area..... (Worcester County)	113	64	49	14,031	9,779	4,252	12,762	
19	San Francisco-Oakland area..... (Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties)	—	—	—	—	—	—	13,217	
20	Youngstown area..... (Mahoning and Trumbull Counties, Ohio; Lawrence and Mercer Counties, Pa.)	4	—	4	105	—	105	51,544	
21	Hartford area..... (Hartford County)	46	27	19	8,444	6,577	1,867	6,590	
22	Allentown-Bethlehem area..... (Lehigh and Northampton Counties)	13	—	13	878	—	878	26,010	
23	Rochester area..... (Monroe County)	3	1	2	250	100	150	6,500	
24	Minneapolis-St. Paul area..... (Dakota, Hennepin, and Ramsey Counties)	14	10	4	28,975	25,775	3,200	18,903	
25	Wheeling area..... (Brooks, Hancock, and Ohio Counties, W. Va.; Belmont, Columbiana, and Jefferson Counties, Ohio)	1	—	1	15	—	15	6,509	
26	Reading area..... (Berks County)	15	—	15	438	—	438	1,864	
27	Akron area..... (Summit County)	7	4	3	775	645	130	35,578	
28	Dayton area..... (Montgomery County)	2	—	2	220	—	220	7,482	
29	Indianapolis area..... (Marion County)	2	—	2	85	—	85	6,913	
30	Kansas City area..... (Clay and Jackson Counties, Mo.; Wyandotte County, Kans.)	—	—	—	—	—	—	13,284	
31	Seattle-Tacoma area..... (King and Pierce Counties)	2	2	—	250	250	—	600	
32	Springfield-Holyoke area..... (Hampden County)	109	85	24	48,345	44,506	3,839	12,775	
33	Albany-Schenectady-Troy area..... (Albany, Rensselaer, and Schenectady Counties)	16	10	6	2,698	1,642	1,056	5,065	
34	Scranton-Wilkes Barre area..... (Lackawanna and Luzerne Counties)	2	—	2	85	—	85	410	
35	Toledo area..... (Lucas County)	—	—	—	—	—	—	7,339	

**POWER EQUIPMENT AND ENERGY CONSUMPTION**

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RATING, AND ELECTRIC ENERGY CONSUMED (KILOWATT HOURS), IN DETAIL, FOR INDUSTRIAL AREAS:  
Continued

GENERATORS (KILOWATT RATING)							ELECTRIC MOTORS				ELECTRIC ENERGY (KILOWATT HOURS)				
Total kilowatt rating	Driven by					Ordinarily idle (included in total kilowatt rating)	Total horsepower	Driven by purchased energy		Driven by plant energy		Generated in plant	Sold	Purchased	
	Steam engines	Steam turbines	Diesel and semi-Diesel engines	Other internal combustion engines	Hydro-turbines and water wheels			Number	Horse-power	Number	Horse-power				
9,658,828	1,484,945	6,752,885	257,702	318,044	847,452	943,133	45,291,319	4,138,287	29,213,085	1,224,478	16,078,234	28,750,912,258	2,921,964,758	45,040,074,557	1
4,368,256	672,582	3,300,651	69,485	229,983	95,555	436,799	24,655,241	2,325,075	16,156,115	615,734	8,499,126	11,659,598,772	1,661,225,575	21,403,344,030	2
382,942	99,372	271,829	10,974	747	20	64,185	2,165,594	426,657	1,620,101	67,020	545,493	927,324,612	25,602,267	1,882,522,623	3
644,465	74,685	436,405	9,379	123,236	760	37,851	3,362,978	272,005	1,763,629	69,625	1,599,349	2,002,308,109	534,429,591	2,138,404,457	4
241,763	79,997	154,528	6,570	302	366	38,382	1,408,389	146,255	911,709	49,367	496,680	604,519,482	19,165,973	1,351,405,449	5
555,949	13,637	532,993	6,220	1,835	1,264	9,565	2,183,298	162,780	1,323,299	81,100	859,999	1,505,243,852	40,310,478	1,238,622,351	6
225,914	36,860	164,007	3,455	93	21,499	36,570	895,694	103,844	573,832	40,987	321,862	451,610,274	39,982,135	571,763,297	7
453,197	53,417	373,381	879	25,095	425	32,988	2,589,420	83,375	1,354,356	51,830	1,235,064	1,351,395,591	576,337,154	1,812,159,909	8
90,516	20,295	62,333	1,215	40	6,633	24,559	481,934	73,908	376,786	19,059	105,148	164,771,677	7,538,067	581,742,297	9
141,765	20,241	103,880	1,161	16,083	400	15,855	1,027,117	99,138	688,144	10,371	338,973	401,931,400	3,889,618	779,600,748	10
111,961	15,545	92,408	2,128	39	1,841	14,418	555,122	63,441	403,984	19,462	151,138	236,260,057	7,798,885	427,908,985	11
127,346	36,602	86,955	3,389	400	-----	9,041	634,618	69,355	467,422	14,911	167,196	306,331,119	27,510,378	577,701,473	12
19,260	3,872	12,612	490	2,286	-----	1,159	615,940	93,840	582,115	2,743	33,825	70,434,491	387,890	797,846,071	13
67,041	8,063	39,423	2,384	16,022	1,149	4,084	830,662	52,357	564,325	10,246	266,337	407,198,815	19,475,363	641,440,234	14
72,449	37,205	32,705	2,304	235	-----	3,676	578,190	61,020	401,803	22,136	176,387	134,237,640	2,880,252	416,034,467	15
57,364	7,362	49,507	425	70	-----	11,050	1,085,576	75,758	1,058,963	2,410	26,613	230,336,789	3,372,507	2,965,228,119	16
154,144	40,295	110,755	487	312	2,295	16,927	607,495	43,429	370,226	20,057	237,269	408,567,680	13,818,049	316,413,755	17
83,140	14,550	59,748	1,517	61	7,264	7,177	338,833	36,812	266,564	12,326	72,269	91,378,213	1,404,147	281,197,296	18
48,025	2,242	45,622	46	115	-----	4,893	545,043	64,802	464,190	5,374	80,853	147,608,198	3,130,457	615,941,669	19
176,731	15,726	141,125	2,646	17,234	-----	21,013	1,120,997	29,247	604,803	15,885	516,194	354,712,340	123,808,875	662,450,920	20
34,876	10,485	19,470	817	42	4,062	3,962	216,141	35,442	186,048	4,827	30,093	50,285,423	6,777,767	191,426,720	21
113,889	13,557	77,013	2,319	21,000	-----	15,980	494,988	23,610	172,080	13,645	322,908	294,000,589	12,533,834	408,574,801	22
31,913	7,166	24,450	200	31	66	3,327	171,975	29,439	127,792	11,177	44,183	108,725,040	37,077,380	164,812,119	23
52,459	9,460	23,520	2,572	600	16,307	13,100	214,684	30,857	152,096	7,590	62,588	150,139,313	59,753,823	182,562,764	24
87,103	8,565	75,050	934	2,554	-----	3,546	486,964	15,078	211,060	8,776	275,904	338,384,602	15,690,925	291,172,538	25
4,666	3,134	1,300	229	3	-----	310	107,331	19,050	100,499	1,678	6,832	6,372,833	2,454,364	142,317,292	26
137,856	3,050	133,125	600	594	487	21,335	411,676	18,516	189,843	15,834	221,833	435,254,484	5,522,248	237,819,430	27
22,069	2,429	19,415	225	-----	-----	5,150	177,243	27,428	142,754	3,785	34,489	48,348,864	-----	183,465,207	28
18,111	5,560	9,426	3,125	-----	-----	860	180,155	26,719	163,298	3,313	16,857	24,656,425	521,960	191,859,952	29
33,092	10,752	20,975	1,088	277	-----	6,488	221,158	23,051	182,404	5,194	38,754	73,186,635	75,993	267,825,019	30
29,414	1,620	27,500	-----	134	160	275	286,729	24,136	232,619	2,873	54,110	51,839,900	1,824,855	401,879,636	31
61,839	6,122	25,273	900	12	29,532	5,986	213,634	22,385	152,191	7,581	61,443	85,063,127	5,481,021	160,779,219	32
47,156	3,400	42,290	135	306	1,025	1,592	189,276	23,550	129,719	10,890	59,557	83,700,828	148,070	230,012,517	33
8,373	2,991	5,085	272	25	-----	175	71,917	20,675	60,858	1,884	11,059	12,746,639	-----	104,159,685	34
31,468	4,325	26,543	400	200	-----	1,320	184,470	27,116	156,603	1,778	27,867	106,723,731	62,521,249	186,293,011	35

## CENSUS OF MANUFACTURES: 1939

TABLE 8.—PRIME MOVERS AND MOTORS BY NUMBER AND RATED CAPACITY AND ELECTRIC

[As certain industries canvassed in earlier censuses were not included in 1939, the United States and industrial area figures for 1929 have been adjusted by subtracting the walnuts, and other nuts, processed or shelled; Flax and hemp, dressed;

AREA	Census year	Horsepower installation per 100 wage earners	PRIME MOVERS				
			Total horsepower of prime movers	Steam engines		Steam turbines	
				Number	Horsepower	Number	Horsepower
1 United States.....	1939	642	21,239,195	42,538	6,533,429	12,631	11,295,872
2	1929	491	19,328,309	62,395	9,157,755	8,883	7,409,748
3 Industrial areas (33 areas).....	1939	599	9,685,480	12,937	2,987,194	5,625	5,762,656
4	1929	450	9,418,224	18,965	4,415,230	4,553	4,061,807
5 New York City-Newark-Jersey City area.....	1939	275	718,258	1,914	234,494	552	443,306
6	1929	230	737,902	2,599	379,563	501	329,608
7 Chicago area.....	1939	658	1,418,316	1,215	286,654	512	831,368
8	1929	499	1,245,721	1,688	467,403	369	527,971
9 Philadelphia-Camden area.....	1939	445	520,472	1,377	232,574	461	263,259
10	1929	359	566,857	1,993	305,500	414	227,450
11 Detroit area.....	1939	743	989,381	483	78,133	609	892,579
12	1929	415	441,314	470	88,238	176	349,056
13 Boston area.....	1939	414	408,468	532	87,499	298	274,326
14 Pittsburgh area.....	1929	327	449,044	1,049	157,428	228	249,594
15	1939	1,424	1,377,627	1,287	547,606	577	757,589
16 Providence-Fall River-New Bedford area.....	1929	943	1,350,272	2,047	735,349	479	544,433
17	1939	349	156,621	185	55,346	100	87,605
18	1929	402	329,959	425	176,728	242	129,060
19 Cleveland area.....	1939	726	332,498	310	121,358	97	183,867
20	1929	567	480,580	524	207,171	166	235,283
21 Bridgeport-New Haven-Waterbury area.....	1939	460	187,054	168	44,666	89	133,552
22	1929	368	184,941	304	70,601	113	105,819
23 St. Louis area.....	1939	578	265,213	1,044	116,526	183	132,222
24	1929	411	247,833	719	137,781	179	102,599
25 Los Angeles area.....	1939	528	85,450	190	19,108	371	47,508
26	1929	476	75,630	709	31,879	261	30,252
27 Baltimore area.....	1939	683	157,852	216	37,948	145	87,028
28	1929	505	200,668	796	54,628	73	70,069
29 Milwaukee area.....	1939	539	128,219	322	76,922	50	47,197
30	1929	374	166,071	442	109,886	61	52,314
31 Buffalo area.....	1939	1,380	201,023	282	55,453	253	98,577
32	1929	974	239,556	526	125,347	156	75,771
33 Cincinnati area.....	1939	716	255,635	282	82,009	117	167,605
34	1929	428	188,003	460	112,819	84	67,951
35 Worcester area.....	1939	525	144,555	181	39,124	57	86,140
36	1929	367	104,751	303	57,624	38	24,440
37 San Francisco area.....	1939	769	123,133	587	19,887	274	97,137
38	1929	531	50,714	279	122,089	179	26,460
39 Youngstown area.....	1939	1,639	588,618	264	260,353	154	308,898
40	1929	1,538	718,696	773	416,600	216	251,352
41 Hartford area.....	1939	448	92,699	91	53,054	40	29,430
42	1929	311	61,590	99	26,072	33	24,824
43 Allentown-Bethlehem area.....	1939	1,007	385,243	247	195,936	31	104,788
44	1929	982	413,325	417	240,476	67	98,359
45 Rochester area.....	1939	391	72,720	242	26,203	71	45,111
46	1929	215	48,490	178	27,127	23	19,455
47 Minneapolis-St. Paul area.....	1939	519	100,170	140	30,771	50	35,338
48	1929	497	140,225	262	50,953	100	44,694
49 Wheeling area.....	1939	1,024	234,380	170	125,467	51	102,042
50	1929	982	265,305	308	161,631	52	96,690
51 Reading area.....	1939	294	18,778	98	9,322	7	8,000
52	1929	255	42,901	180	34,872	12	6,390
53 Akron area.....	1939	1,057	234,617	161	25,719	97	205,799
54	1929	482	172,215	185	30,408	86	139,327
55 Dayton area.....	1939	453	35,599	55	\$ 8,173	22	26,691
56	1929	277	33,224	73	10,716	16	22,006
57 Indianapolis area.....	1939	503	31,917	72	13,901	19	13,739
58	1929	298	28,046	139	21,183	15	6,269
59 Kansas City area.....	1939	638	62,281	83	24,855	63	33,519
60	1929	463	50,003	205	36,147	45	12,100
61 Seattle-Tacoma area.....	1939	796	60,660	119	16,019	42	42,213
62	1929	625	81,652	291	35,477	48	44,579
63 Springfield-Holyoke area.....	1939	704	104,526	104	16,369	46	37,816
64	1929	462	118,155	142	24,649	30	36,195
65 Albany-Schenectady-Troy area.....	1939	593	85,808	154	18,422	69	62,907
66	1929	516	99,836	136	25,322	61	62,028
67 Scranton-Wilkes-Barre area.....	1939	246	16,489	88	\$ 8,045	14	7,509
68	1929	220	25,368	128	18,770	18	6,125
69 Toledo area.....	1939	818	94,200	274	19,248	104	67,991
70	1929	376	59,077	116	14,793	17	43,284

<sup>1</sup> Item for water wheels and water turbines included with that for steam engines to avoid disclosing data for an individual establishment.

## POWER EQUIPMENT AND ENERGY CONSUMPTION

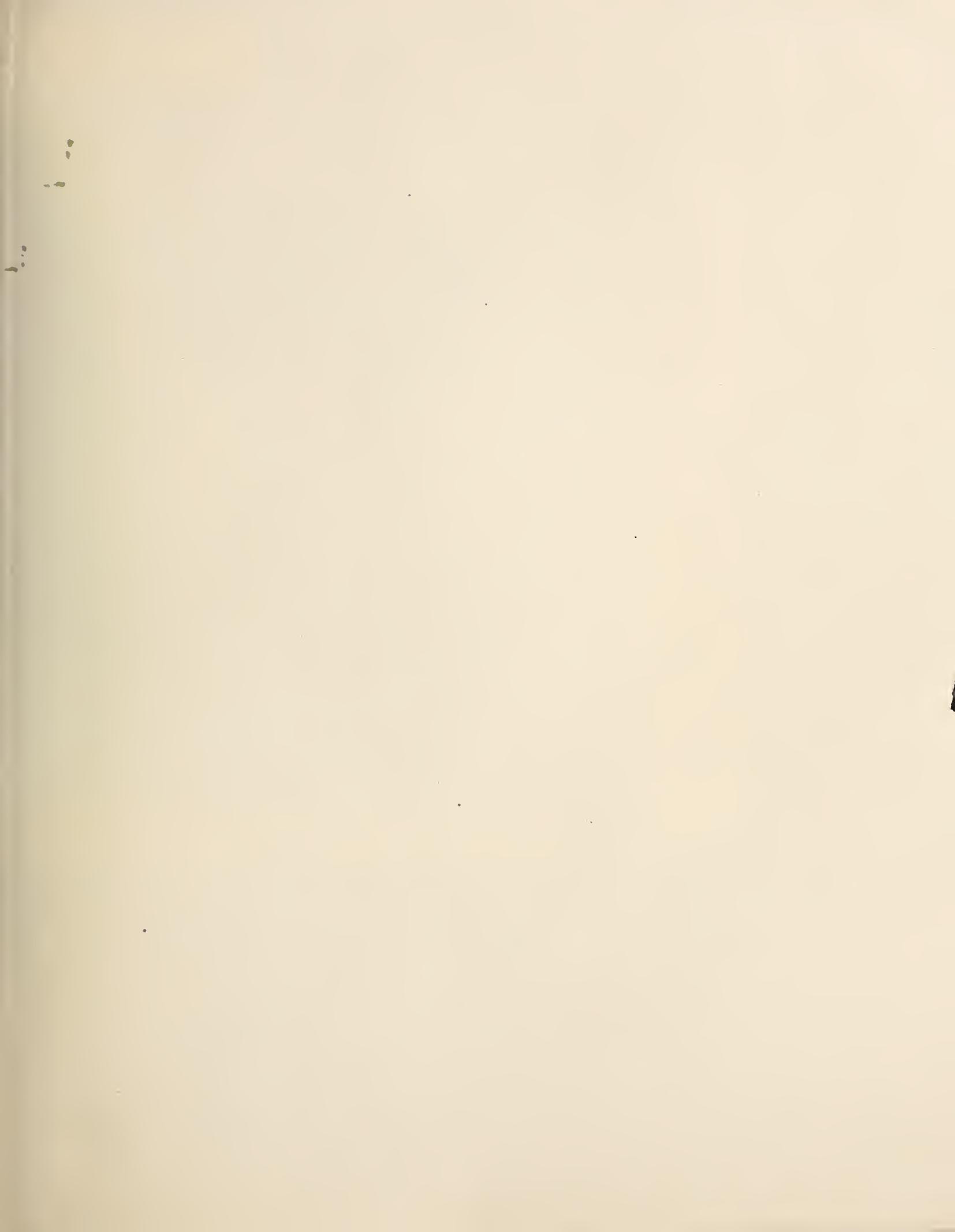
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## ENERGY PURCHASED (KILOWATT HOURS), FOR INDUSTRIAL AREAS: 1939 AND 1929

data for these industries, namely: Gas, manufactured, illuminating and heating; Railroad repair shops (electric and steam); Coffee and spice, roasting and grinding; Peanuts, and for Motion pictures, not including projection in theaters]

PRIME MOVERS—continued				Total horsepower	ELECTRIC MOTORS				Electric energy purchased (kilowatt hours)		
Internal-combustion engines, including Diesel and semi-Diesel engines		Hydroturbines and water wheels			Driven by purchased energy		Driven by energy generated in plant				
Number	Horsepower	Number	Horsepower		Number	Horsepower	Number	Horsepower			
15, 589	1, 806, 225	3, 854	1, 603, 669	45, 291, 319	4, 138, 287	29, 213, 085	1, 224, 478	16, 078, 234	45, 040, 074, 557		
10, 991	1, 203, 303	6, 511	1, 557, 503	33, 844, 131	2, 655, 142	21, 793, 762	829, 959	12, 050, 369	36, 426, 624, 736		
3, 057	770, 470	645	168, 160	24, 655, 241	2, 325, 075	16, 156, 115	615, 734	8, 499, 126	21, 403, 344, 030		
2, 622	708, 523	1, 203	232, 664	18, 835, 238	1, 550, 583	12, 086, 533	449, 193	6, 748, 705	18, 015, 212, 113		
339	40, 086	11	372	2, 165, 594	426, 657	1, 620, 101	67, 020	545, 493	1, 882, 522, 623		
377	27, 844	27	887	1, 777, 253	287, 863	1, 307, 939	54, 246	469, 314	1, 565, 474, 096		
394	298, 133	21	2, 161	3, 362, 978	272, 005	1, 763, 629	69, 625	1, 599, 349	2, 138, 404, 457		
270	246, 353	48	3, 994	2, 474, 130	163, 447	1, 386, 973	48, 042	1, 087, 157	1, 763, 461, 202		
244	23, 061	29	1, 578	1, 408, 389	146, 255	911, 709	49, 367	496, 680	1, 351, 405, 449		
384	30, 487	87	3, 420	1, 161, 961	110, 353	753, 437	38, 578	408, 524	978, 465, 687		
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