

CHAPTER VI.—POWER EQUIPMENT

INTRODUCTION

The major part of the stationary primary power equipment of the country is installed in central electric light and power plants, manufacturing establishments, mines and quarries, and electric-railway power plants. Approximately 32 per cent of the aggregate for 1929, as measured by horsepower capacity, was reported by manufacturing establishments, as compared with about 42 per cent for 1919.¹ The decreasing proportion of primary power equipment found in manufacturing establishments (the aggregate capacity of factory prime movers was less than 1 per cent greater in 1929 than in 1919) marks important changes in the sources of motive power for driving production machinery rather than any abatement in the total industrial demand for power.

The increase in "Horsepower per 100 wage earners" from 326 in 1919 to 486 in 1929 (General Summary, Table 2, p. 17), resulting almost entirely from the installation in factories of electric motors energized from public-utility power stations, exaggerates the increase in the use of power-driven machinery, as noted in GENERAL EXPLANATIONS—Power equipment, page 8.

The rapid and general growth in the industrial consumption of purchased energy during the past quarter century had various causes, among them (a) the introduction of alternating current, which made high-voltage transmission and low-voltage distribution possible, and later (b) the difficulty experienced by industries during the World War in securing dependable supplies of fuel for power generation. Expansion of the industrial, commercial, and domestic markets for energy led to an increase of 90 per cent in the prime-mover capacity of central electric stations between 1920 and 1929.² In general, those industries in which the processes lend themselves readily to machine operation made the largest growth between 1919 and 1929 in the use of motors on purchased energy, while those industries which utilize process heat in large quantities showed the strongest tendency toward the generation of their own heat and power.

When the distribution of total horsepower between prime movers and motors on purchased energy is related to size of establishments rather than to nature

of processes, a fairly regular trend is discernible. (See Table 8, p. 147.) As the size of plant increases, the proportion of motors on purchased energy tends to decrease, the reason in all probability being that in the larger plants it is desirable from the standpoint of costs and in some cases of special needs—e. g., for process steam—to control most or all of the services incident to production. The large percentage of prime-mover capacity in the small plants with no wage earners and in those with one to five wage earners is accounted for in part by the extensive use in those plants of internal-combustion engines. The distribution by size of establishments follows:

PER CENT DISTRIBUTION OF TOTAL HORSEPOWER CAPACITY BETWEEN PRIME MOVERS AND MOTORS ON PURCHASED ENERGY, BY SIZE OF ESTABLISHMENTS: 1929

CLASS ACCORDING TO NUMBER OF WAGE EARNERS	Prime movers— per cent of total	Motors on pur- chased energy— per cent of total
All classes.....	46.0	53.1
No wage earners.....	40.7	59.3
1 to 5.....	38.4	61.6
6 to 20.....	29.1	70.9
21 to 50.....	33.2	66.8
51 to 100.....	38.2	61.8
101 to 250.....	46.5	53.5
251 to 500.....	48.9	51.1
501 to 1,000.....	55.1	44.9
1,001 to 2,500.....	52.0	48.0
2,501 and over.....	50.2	49.8

The factory power furnished by prime movers may be applied either directly to production machinery through belts and shafting or indirectly through generators and motors in the form of electric energy. A highly flexible utilization of power in the manufacturing plant is afforded by its intermediate conversion to electric energy. Greater freedom in plant layout, for example, is obtainable where each machine is operated by an individual motor with an adjustable wire connection leading to the source of energy than where the machine must be placed in proper relation to a main shaft or countershaft motivated by a prime mover. The extent to which prime movers are used for the internal electrification of manufacturing plants is roughly indicated by the kilowatt capacity of the electric generators reported. In theory there should be 1.34 horsepower of prime movers to each kilowatt of generators, but in practice the ratio is somewhat higher, largely because of (a) the common practice of running a generator by a shaft served by two or more

¹ The figures used in the calculation of the percentages do not apply in all cases precisely to the years 1929 and 1919. Those for central electric stations, taken from reports of the National Electric Light Association, cover the years 1920 and 1929, and those for electric-railway power plants are from the reports of the census of electrical industries and relate to the years 1917 and 1927.

² Reports of National Electric Light Association.

prime movers, one of which may be a reserve machine; (b) the necessity of installing more power in hydraulic turbines than in the generators they drive, on account of the inability of the hydraulic turbine to take care of temporary overloads; and (c) the fact that the efficiency of even the best generators is somewhat less than 100 per cent. If it be assumed that in practice the ratio between horsepower capacity of prime movers and kilowatt capacity of generators is 1.5 to 1, the

aggregate capacity of electric generators in manufacturing establishments would represent about 11,690,000 horsepower of prime movers, leaving about 8,465,000 horsepower for driving production machinery directly through belts and shafting. The data indicate that approximately 80 per cent of the machinery in manufacturing establishments was electrically driven (partly by motors on purchased energy and partly by motors on energy generated in the plants) in 1929.

TABLE 1.—PRIME MOVERS, MOTORS, AND GENERATORS, BY NUMBER AND RATED CAPACITY: 1899 TO 1929

[No data in regard to power equipment were collected at the census for 1921]

KIND	1929	1927	1925	1923	1919 1, 2	1914 1, 2	1909 1	1904 1	1899 1
Number of establishments, total.....	210,959	191,866	187,390	196,309	274,598	272,518	268,491	216,180	207,514
Number of establishments reporting power equipment.....	193,069	174,118	167,649	173,475	228,029	202,529	185,042	134,481	133,418
Prime movers and electric motors driven by purchased energy, aggregate.....	42,931,061	38,825,681	35,772,628	33,094,228	29,327,669	22,290,890	18,551,737	13,296,394	9,960,980
Prime movers, total—									
Number.....	95,036	93,640	104,931	115,071	166,962	192,314	209,163	169,775	168,143
Horsepower.....	20,155,397	10,693,371	19,903,800	10,728,565	20,043,170	18,406,175	16,802,706	12,854,805	9,778,418
Steam engines and turbines, total—									
Number.....	77,225	73,382	82,176	90,057	122,508	137,134	153,525	127,267	130,710
Horsepower.....	17,361,926	16,923,931	16,916,856	16,700,993	17,036,210	15,591,171	14,228,632	10,917,502	8,189,564
Steam engines—									
Number.....	66,914	64,507	74,691	(5)	116,068	(5)	(5)	(5)	(5)
Horsepower.....	9,029,905	10,140,381	11,434,388	(5)	13,838,111	(5)	(5)	(5)	(5)
Steam turbines—									
Number.....	10,311	8,875	7,485	(5)	6,440	(5)	(5)	(5)	(5)
Horsepower.....	7,732,021	6,783,550	5,482,468	(5)	3,198,099	(5)	(5)	(5)	(5)
Internal-combustion engines—									
Number.....	11,288	12,664	14,362	15,721	30,474	37,115	34,356	21,516	14,334
Horsepower.....	1,233,853	1,170,774	1,186,116	1,224,262	1,241,829	988,501	751,186	289,423	134,742
Water wheels and water turbines—									
Number.....	6,523	7,594	8,303	9,293	13,980	18,065	21,282	20,002	23,099
Horsepower.....	1,559,618	1,593,666	1,800,828	1,803,310	1,765,131	1,326,413	1,822,888	1,647,880	1,454,112
Electric motors driven by purchased energy—									
Number.....	2,724,843	2,151,675	1,724,180	1,445,003	976,463	447,502	199,309	(7)	(7)
Horsepower.....	22,775,684	19,132,310	15,868,828	13,365,663	9,284,499	3,884,724	1,749,031	441,589	182,562
Electric motors, total:									
Number.....	3,577,275	2,942,455	2,496,625	2,061,425	1,463,337	768,825	388,854	(7)	(7)
Horsepower.....	35,152,040	30,352,289	26,123,573	22,187,214	16,263,702	8,823,254	4,817,140	1,592,475	492,936
Driven by purchased energy—									
Number.....	2,724,843	2,151,675	1,724,180	1,445,003	976,463	447,502	199,309	(7)	(7)
Horsepower.....	22,775,684	19,132,310	15,868,828	13,365,663	9,284,499	3,884,724	1,749,031	441,589	182,562
Driven by energy generated in establishments reporting—									
Number.....	852,432	790,810	772,445	610,422	486,874	321,323	189,545	73,110	16,891
Horsepower.....	12,376,376	11,219,979	10,254,745	8,821,551	6,969,203	4,938,530	3,068,109	1,150,886	310,374
Electric generators:									
Number.....	17,270	19,028	23,635	(7)	(7)	(7)	(7)	(7)	(7)
Kilowatts.....	7,793,875	7,345,685	6,887,045	(7)	(7)	(7)	(7)	(7)	(7)

1 The figures for 1919 and earlier years are not strictly comparable with those for 1923 and subsequent years because of the change from \$500 to \$5,000 in the minimum value-of-products limit. See GENERAL EXPLANATIONS—Establishments covered—Type.
 2 The figures for 1919 and 1914 have been adjusted by subtracting the data for establishments classified in the "Automobile repairing" industry, which was not canvassed in connection with the censuses of manufactures for any of the other years covered by this table.
 3 These aggregates do not include data for "Rented horsepower other than electric" and therefore differ slightly from the corresponding aggregates given in the reports for 1919 and earlier years as originally published. (See also footnote 2.)
 4 Includes horsepower reported as "other" owned power, as follows: 1909, 29,293; 1904, 92,154; 1899, 40,985.
 5 Not reported separately.
 6 Includes data for a relatively small number of water motors.
 7 Not called for on schedule.

TABLE 2.—INCREASE IN POWER EQUIPMENT PER 100 WAGE EARNERS: 1899 TO 1929

[The items in this table are based on the rated horsepower capacity of the respective types of power equipment]

CENSUS OF MANUFACTURES	Aggregate horsepower per 100 wage earners 1	PRIME MOVERS				ELECTRIC MOTORS			Per cent total electric is of aggregate
		Total	Steam engines and turbines	Internal combustion engines	Water wheels and turbines	Driven by—		Total electric	
						Purchased energy	Generated energy 2		
1929.....	486	228	196	14	18	258	140	398	82
1927.....	465	236	203	14	19	229	134	304	78
1925.....	427	237	202	14	21	189	122	312	73
1923.....	377	225	190	14	21	152	100	253	67
1919.....	326	223	189	14	20	103	77	181	56
1914.....	323	267	226	14	26	66	72	128	40
1909.....	287	260	220	12	28	27	47	74	26
1904.....	248	240	204	5	31	8	21	30	12
1899.....	211	207	174	3	31	4	7	10	5

1 Power of prime movers plus that of electric motors driven by purchased energy.
 2 Energy generated in plant.

POWER EQUIPMENT

TABLE 3.—PRIME MOVERS, MOTORS, AND GENERATORS, BY NUMBER AND RATED CAPACITY, BY INDUSTRY GROUPS AND INDUSTRIES.

GROUP OR INDUSTRY	Num-ber of estab-lish-ment report-ing power equip-ment	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY										Electric motors driven by energy generated in establishments reporting		Electric gen-erators			
		Aggre-gate horse-power		Steam engines		Steam turbines		Internal-com-bustion engines		Water wheels and water tur-bines		Electric motors driven by pur-chased energy		Horse-power	Num-ber	Horse-power	Num-ber
		Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power				
All industries, total.....	183,969	42,931,061	20,155,397	66,914	9,639,905	10,311	7,732,021	11,288	1,233,833	6,523	1,559,618	2,724,843	22,775,664	852,432	12,376,376	17,270,717	793,875
GROUP																	
Food and kindred products.....	53,457	4,697,913	1,775,933	14,091	1,173,478	1,177	286,241	3,807	213,859	1,870	102,360	356,621	2,831,975	67,938	642,530	2,854	475,695
Textiles and their products.....	25,706	4,145,998	1,959,325	3,188	3,907,068	754	755,632	9,207	18,746	1,870	397,630	486,738	1,156,673	160,246	1,044,623	2,546	973,881
Forest products.....	24,912	3,243,204	2,421,851	21,243	1,775,049	734	740,766	2,170	64,306	1,522	48,931	161,802	1,252,343	76,085	900,862	2,033	634,023
Paper and allied products.....	2,940	3,168,894	2,207,352	2,407	1,547,049	716	740,766	2,108	19,136	1,725	871,408	168,301	1,252,343	58,177	1,248,776	1,499	968,021
Printing, publishing, and allied industries.....	24,072	3,162,285	1,054,243	2,407	97,081	307	3,007	207	3,150	84	7	255,701	608,196	58,468	31,002	1,167	22,615
Chemicals and allied products.....	6,940	1,312,558	435,243	2,407	97,081	307	3,007	207	3,150	84	7	255,701	608,196	58,468	31,002	1,167	22,615
Products of petroleum and coal.....	1,369	3,785,338	1,142,136	2,407	97,081	307	3,007	207	3,150	84	7	255,701	608,196	58,468	31,002	1,167	22,615
Rubber products.....	509	831,312	248,949	256	141,701	163	47,182	10	72,954	20	2,089	102,666	1,228,149	58,699	533,039	1,130	451,509
Leather and its manufactures.....	4,014	450,342	200,948	832	141,701	163	47,182	60	5,770	33	3,000	26,266	604,471	11,831	240,021	134	150,569
Stone, clay, and glass products.....	7,998	2,854,402	1,035,643	2,863	334,918	900	547,851	1,520	97,706	77	95,080	96,430	2,798,757	29,615	812,862	545	110,021
Iron and steel and their products.....	6,503	9,200,822	5,408,076	4,830	2,651,328	1,250	146,721	1,560	610,967	159	19,862	97,620	1,792,146	39,512	1,068,875	1,019	579,134
Nonferrous metals and their products.....	6,522	1,570,217	517,169	1,816	212,310	345	238,820	154	8,645	16	7,104	22,627	1,083,048	28,635	434,572	446	282,947
Machinery, not including transportation equipment.....	12,634	3,647,343	831,910	1,018	178,313	335	345,102	271	11,596	16	29,531	196,548	2,818,638	40,640	733,463	1,389	480,461
Machinery, including transportation equipment.....	2,516	2,271,192	562,544	1,018	207,313	216	163,083	102	11,424	5	47,460	119,097	1,711,635	18,786	278,247	529	310,072
Transportation equipment, air, land, and water.....	1,965	1,183,147	442,112	1,852	117,585	97	88,394	191	10,733	92	7,007	119,097	440,622	28,607	173,457	465	111,391
Railroad repair shops.....	11,972	664,371	223,719	852	117,585	97	88,394	191	10,733	92	7,007	119,097	440,622	28,607	173,457	465	111,391
Miscellaneous industries.....																	
INDUSTRY																	
Agricultural implements.....	291	128,499	54,118	154	35,169	25	14,777	30	732	28	3,443	7,633	74,381	3,246	40,990	80	28,198
Aircraft and parts.....	132	16,505	312	2	16,505	1	200	1	50	6		4,339	10,138	8	12	2	1,769
Alcohol, ethyl, and distilled liquors.....	28	13,577	13,985	91	5,725	28	1,507	3	37	3	136	6,485	6,093	1,609	28,087	13	8,614
Aluminum manufactures.....	146	107,846	9,800	22	3,048	13	6,601	4	771	3	151	1,116	7,261	1,356	6,076	9	3,307
Ammunition and related products.....	21	17,061	9,450	3	41	1	986	1	5	5		318	579	34	354	6	700
Artificial and preserved flowers and plants.....	16	14,650	2,172	14	1,050	6	986	5	174	1	100	571	2,585	80	750	2	325
Artificial leather.....	58	3,297	2,812	9	538	9		5									
Artists' materials.....																	
Asbestos products, other than steam packing or pipe and boiler covering.....	57	40,468	11,945	10	1,645	12	9,840	5	170	2	290	2,894	28,513	1,484	24,465	22	12,625
Asphalted felt-base floor covering.....	14	11,062	1,809	6	614	4	1,195	12	103			1,122	1,112	1	1,112	6	1,592
Awnings, tents, sails, and canvas covers.....	951	4,995	1,455	4	340	1	12	5	103			5,325	4,540	1	4	3	81
Bags, other than paper, not made in textile mills.....	196	19,159	6,647	25	4,897	2	1,600	2	150			2,955	12,512	607	2,901	21	8,525
Bags, paper, exclusive of those made in paper mills.....	93	13,416	1,048	8	810	2	1,500	2	88			3,250	12,368	187	388	6	305
Baking powders, yeast, and other leavening compounds.....	44	42,788	27,740	138	18,096	28	9,571	3	82			1,265	15,039	1,222	13,150	32	5,569
Baskets and rattan and willow ware, not including furni-ture.....	289	20,180	12,835	189	12,462	3	180	4	88	2	105	1,050	7,345	163	922	13	874
Belting other than leather and rubber, not made in textile mills.....	9	1,648	824	6	818			1	185	5	310	5,629	49,115	1,084	10,565	24	7,546
Belting, leather.....	194	6,828	2,780	16	2,592			1	53	1	80	74	824	1	20	14	1,360
Beverages.....	5,076	149,166	67,960	706	61,459	32	2,710	86	3,441	8	320	26,280	81,206	4,037	22,675	163	16,537
Billiard and pool tables, bowling alleys, and accessories.....	35	6,402	4,366	18	4,325							301	2,087	87	2,190	3	8,000
Blacking, stains, and dressings.....	128	3,317	4,712	14	694							56	2,605	87	1,190	4	157
Bluing.....	14	1,069	8	8								35	161				
Boils, nuts, washers, and rivets, not made in plants operated in connection with rolling mills.....	116	66,343	17,228	28	9,360	5	7,373	3	185	5	310	5,629	49,115	1,084	10,565	24	7,546
Bone black, carbon black, and lampblack.....	75	11,268	6,732	135	4,281			3	2,371	1	80	231	526	56	56	29	1,360
Bookbinding and blank-book making.....	1,067	21,741	8,242	7	1,499	3	7,325	3	134	1	135	14,239	26,219	403	670	6	881
Boot and shoe cut stock, not made in boot and shoe factories.....	187	15,828	3,801	80	3,458	2	155	4	155	4	210	4,355	16,438	144	2,787	12	2,319
Boot and shoe findings, not made in boot and shoe factories.....	331	140,329	45,667	222	39,652	8	1,745	17	2,172	10	2,100	35,659	64,662	6,674	22,552	189	24,097
Boots and shoes, other than rubber.....	1,274	62,603	14,440	20	11,625	2	294	301	301	9	2,128	48,163	6,180	6,180	6,180	14	3,507
Boots and shoes, rubber.....	22	62,603	14,440	20	11,625	2	294	301	301	9	2,128	48,163	6,180	6,180	6,180	14	3,507
Boxes, cigar, wooden.....	114	5,518	1,897	24	2,250	2	525	16	301	6	870	23,237	67,856	2,608	9,568	60	7,192
Boxes, wooden, except cigar boxes.....	1,249	80,064	12,208	30	6,774	15	1,199	30	1,354	5	918	7,180	27,176	2,280	21,482	86	13,710
Boxes, wooden, except cigar boxes.....	750	137,251	70,794	30	6,774	15	1,199	30	1,354	5	918	7,180	27,176	2,280	21,482	86	13,710
Bread and other bakery products.....	19,728	393,762	35,925	362	65,924	48	1,805	252	16,250	5	260	93,706	317,001	6,768	30,295	130	18,964
Brooms.....	353	4,072	2,364	21	2,441	1	750	10	106	3	67	2,555	8,447	362	1,185	12	1,880
Brushes, other than rubber.....	20	11,313	3,324	11	3,324	1	1,583	176	3,390	22	236	121,088	121,088	1,117	4,941	12	4,981

CENSUS OF MANUFACTURES: 1929

TABLE 3.—PRIME MOVERS, MOTORS, AND GENERATORS, BY NUMBER AND RATED CAPACITY, BY INDUSTRY GROUPS AND INDUSTRIES: 1929—Continued

GROUP OR INDUSTRY	Num-ber of estab-lish-ments report- ing equip-ment	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY										Electric motors driven by energy generated in establishments reporting		Electric gen-erators			
		Aggre- gate horse- power		Steam engines		Steam turbines		Internal-com- bustion engines		Water wheels and water tur- bines		Electric motors driven by pur- chased energy		Electric motors driven by energy generated in establishments reporting		Electric gen-erators	
		Num-ber	Horse- power	Num-ber	Horse- power	Num-ber	Horse- power	Num-ber	Horse- power	Num-ber	Horse- power	Num-ber	Horse- power	Num-ber	Horse- power	Num-ber	Kilo- watts
Buttons.....	208	14,615	29	3,564			13	279	7	441	1,334	10,331	52	748	7	458	
Candles.....	20	1,971	7	1,803							121	468	126	543	3	389	
Canning and preserving: Fish, crabs, shrimps, oysters, and clams.....	291	21,692	221	6,397	7	106	67	668	5	50	2,012	14,471	169	778	33	866	
Canning and preserving: Fruits and vegetables; pickles, jellies, preserves, and sauces.....	2,874	224,097	2,188	80,179	68	7,881	399	7,284	8	240	24,365	128,513	4,109	18,766	154	13,150	
Car and general construction and repairs, electric-railroad repair shops.....	344	76,424		65			3	65			7,385	76,369					
Car and general construction and repairs, steam-railroad repair shops.....	1,571	1,076,723	1,676	267,550	216	169,988	99	4,959	5	180	40,075	634,676	19,766	278,247	563	179,664	
Cardboard paper and inked ribbons.....	15	1,549	10	1,030			3	53			108	786	143	170	8	255	
Cardboard, not made in paper mills.....	12	1,030		1,030							108	786	143	170	8	255	
Card cutting and designing.....	70	3,909	5	1,075							1,084	2,822	169	762	5	700	
Carpets and rugs, rag.....	87	2,416		1,182			1	12	11	40	652	2,234	6	39	1	60	
Carpets and rugs, wool, other than rag.....	64	65,205	55	17,010	20	22,440	1	45	11	1,508	4,136	24,202	4,370	36,213	59	25,627	
Carrage, wagon, sleigh, and sled materials.....	38	4,760	31	2,404			2	200			252	7,600	267	1,744	13	1,620	
Carrage and sleds, children's.....	79	10,895	23	2,885	3	2,075	4	72	2	202	1,373	7,600	267	1,744	13	1,620	
Carrage, wagon, sleighs, and sleds.....	88	14,899	41	2,885	3	2,075	4	72	2	202	1,068	7,567	493	4,817	21	3,686	
Cars, electric and steam railroad, not built in railroad repair shops.....	136	238,455	169	46,174	39	49,848	9	1,878			8,997	140,555	6,530	95,405	83	49,764	
Cash registers and adding, calculating and card-tabulating machines.....	45	28,257	9	3,030	8	19,950	2	220			1,300	5,273	2,776	15,957	16	12,265	
Caskets, coffins, burial cases, and other morticians' goods.....	363	12,811	88	12,043	2	4	8	220	7	378	4,768	26,708	958	5,443	44	5,444	
Cast-iron pipe.....	72	69,757	39	6,822	4	2,133					3,829	61,552	505	7,514	27	5,544	
Cement.....	173	1,183,969	205	109,697	186	475,637	52	16,901	11	6,700	12,981	575,054	12,834	573,937	283	417,220	
Cereal preparations.....	119	66,291	22	5,618	4	8,300	4	3,000	11	6,669	4,791	575,054	12,834	573,937	283	417,220	
Cheese.....	2,277	24,739	15,701	1,522	1,247	318	1,185	3	23		3,233	9,405	6	8,576	16	9,477	
Chemicals, not elsewhere classified.....	629	854,358	850	163,537	470	292,692	64	3,587	27	15,682	25,346	378,860	18,772	288,278	296	226,924	
Chewing gum.....	35	10,350	22	3,794	1	80					1,516	6,476	309	1,829	4	1,022	
China firing and decorating, not done in potteries.....	10	53									22	53					
Chocolate and cocoa products, not including confectionery.....	62	63,236	36	10,422	12	21,273					2,099	31,101	3,473	37,207	35	22,195	
Cigars and cigarettes.....	662	25,192	40	3,304	23	16,593	6	295			13,432	34,325	3,919	17,785	31	16,562	
Clay products (other than pottery) and nonclay refractories.....	1,722	533,887	1,249	164,855	29	3,761	437	23,894	7	480	15,143	340,947	1,996	26,554	281	29,438	
Cleaning and polishing preparations.....	10,609	1,115	12	172			3	35			1,690	9,494		629		309	
Clocks, clock movements, time-recording devices, and time stamps.....	52	12,451	18	5,791	3	135	1	35	2	120	1,725	6,370	2,915	6,481	11	5,625	
Clothing (except work clothing), men's, youths', and boys', not elsewhere classified.....	3,299	40,325	70	8,111	3	1,040	9	246	5	198	21,249	30,730	786	2,535	40	4,175	
Clothing, men's, buttonholes.....	29	104					1	6			101	98					
Clothing, women's, not elsewhere classified.....	7,675	35,291	8	217			48	149			31,069	34,925	4	16	1	30	
Clothing, work (including sheep-lined and blanket-lined work coats but not including shirts), men's.....	497	11,492	4	233			4	161	4	171	4,373	10,977	80	362	4	319	
Cloth sponging and finishing.....	43	800									343	800					
Coffee and spice, roasting and grinding.....	918	45,465	33	3,984			7	392	3	75	9,343	41,014	555	3,233	17	2,209	
Coke, not including gas-house coke.....	115	281,685	904	106,045	344	174,966	7	205	1	470	3,924	111,525	8,661	255,036	139	127,324	
Collapsible tubes.....	17	272					8	540			458	1,732	17	175	5	320	
Collars, men's.....	15	281									405	1,026	48	175	3	200	
Collars, men's, not made from metal or rubber.....	21	1,015					2	95	3	110	104	382	2	10	1	5	
Compressed and liquefied gases.....	320	85,293	72	6,373	6	843	17	846	6	1,226	7,156	76,005	100	1,755	26	2,729	
Concrete products.....	2,194	67,651	71	2,232			488	4,462	2	25	2,322	60,932	4	13	3	18	
Condensed and evaporated milk.....	1,519	85,258	699	40,689	59	3,717	15	388	5	304	6,918	40,160	4,790	21,417	210	19,034	
Confectionery.....	1,842	112,644	310	27,192	17	2,955	7	218	10	10	22,808	82,269	4,328	20,065	113	12,751	
Copperage.....	304	38,885	165	20,260	5	560	11	477	6	425	1,457	12,163	479	4,580	37	3,670	
Copper, tin, and sheet-iron work, including galvanized-iron work, not elsewhere classified.....	1,482	53,749	4	2,027			48	2,970			9,111	49,152	305	2,048	15	2,104	
Cordage and twine.....	121	73,021	57	18,003	6	5,670	3	295	31	4,101	3,633	44,562	373	5,720	37	8,679	
Cork.....	34	14,829	5	3,715	3	884					1,146	9,034	449	2,031	3	3,450	
Corn sirup, corn sugar, corn oil, and starch.....	34	84,686	17	18,604	31	64,884					72	1,198	6,089	98,439	45	58,235	
Cosmetics and allied garments.....	210	6,043	22	755							3,293	3,293	401	1,337	19	2,403	
Cotton goods.....	1,270	2,969,865	592	380,669	246	391,313	18	1,692	760	265,691	174,900	1,229,981	65,207	377,982	721	450,936	
Cotton small wares.....	198	27,908	47	8,485	2	1,600	1	25	17	1,295	5,601	16,305	1,326	3,606	30	4,367	
Cotton, not elsewhere classified.....	10	1,680									133	1,195					
Cutlery (not including silver and plated cutlery) and edge tools.....	238	49,886	35	4,438	9	14,014	12	720	43	5,162	5,384	25,532	1,079	12,489	33	12,733	

POWER EQUIPMENT

414	67, 145	13, 289	52	11, 678	5	468	7	168	8	975	7, 569	2, 228	29, 970	49	8, 071
973	44, 538	12, 209	102	8, 932	7	2, 912	14	291	4	74	8, 832	1, 968	6, 661	50	6, 530
119	30, 230	8, 230	100	7, 949	2	105	6	229	4		926	11	1, 083	51	196
166	16, 193	7, 954	63	7, 402	1	100	8	452	1		1, 278	64	64	27	3, 701
37	9, 921	3, 500	12	3, 470	1	30	1	30	1		1, 256	409	4, 351	8	1, 833
71	4, 235	947	3	435	1	300	1	12	3	200	1, 314	198	818	7	614
548	12, 150	1, 574	15	1, 544	3	30	30				10, 576	1, 008	818	8	780
343	789, 849	485, 866	3, 360	123, 265	1, 461	309, 807	486	53, 794			302, 963	11, 077	300, 979	291	186, 664
57	38, 483	27, 445	19	4, 485	2	735	2	228			11, 833	3, 883	32, 107	25	15, 802
631	9, 349	9, 349	21	4, 655	5	15, 460					7, 255	9, 349	15, 802	18	14, 503
90	31, 904	20, 115	7	4, 436	67	27, 467	198	7, 108	47	2, 852	49, 851	10, 672	100, 954	313	67, 240
23	2, 276	436			9	5, 980	2	50	8	3, 371	3, 525	704	3, 138	31	6, 877
4, 941	677, 993	262, 594	1, 784	225, 077	188	27, 467	198	7, 108	47	2, 852	49, 851	10, 672	100, 954	313	67, 240
251	100, 821	24, 298	75	18, 900	3	2, 170	11	933	6	2, 295	7, 599	1, 902	14, 588	39	10, 230
277	1, 828	166	2	2, 393	5	2, 850	6	610	6	843	8, 337	445	3, 279	2	2, 690
309	61, 868	18, 233	146	16, 871	7	538	31	742	2	177	9, 046	1, 741	9, 083	48	6, 957
365	13, 500	2, 464	42	1, 741	29	723	29	125	9	82	11, 036	82	11, 036	9	227
12, 170	211, 448	9, 343	121	8, 599	4	365	23	379			120, 495	3, 016	8, 307	58	5, 413
27	332, 184	22, 457	220	18, 678	8	1, 252	180	2, 527			309, 727	3, 083	15, 414	67	11, 706
81	2, 709	172	5	1, 172	2	537	2	36			2, 537	6	8	8	36
44	14, 190	5, 853	17	2, 393	5	2, 850	6	610	6	843	8, 337	445	3, 279	2	2, 690
314	82, 403	20, 251	49	8, 963	21	9, 140	18	1, 038	6	1, 110	7, 726	3, 152	31, 457	12	13, 005
29	195, 844	132, 965	77	8, 736	88	124, 209	2	20			62, 579	13, 153	88, 469	34	78, 807
186	23, 493	13, 893	47	10, 168	4	3, 700				25	3, 283	2, 113	12, 205	35	7, 491
32	44, 953	5, 500	1	3, 100	2	380	4	370		46	7, 446	336	5, 704	1	373
67	1, 105	359	3	310	2	380	4	370		1	7, 446	336	5, 704	1	373
60	28, 901	14, 870	54	14, 140	2	380	4	370		1	7, 446	336	5, 704	1	373
94	33, 791	6, 032	32	2, 802	1	1, 930	8	1, 300		1, 300	2, 402	27, 759	275	9	2, 593
398	295, 452	60, 221	180	28, 990	29	19, 791	7	618	10	822	13, 009	2, 062	30, 711	77	20, 237
89	463, 277	184, 288	102	17, 634	78	106, 001	3	230	1	133	15, 688	9, 437	203, 725	48	126, 825
245	4, 638	2, 065	12	2, 573	1	12	6	192	1	40	3, 951	70	3934	8	2, 105
28	10, 506	8	8	2, 065	38	16, 563	38	1, 623			856	2, 008	22, 879	51	18, 985
57	67, 711	39, 881	197	21, 695	58	16, 563	38	1, 623			17, 830	2, 008	22, 879	51	18, 985
40	7, 346	1, 717	14	1, 670	1	1, 670	1	47			413	5, 629	20	30	30
11	6, 927	1, 522	8	1, 622	4	94	4	64			960	5, 405	71	6	685
624	25, 755	1, 469	35	2, 841	4	94	4	64			3, 000	24, 256	290	4	280
81	11, 694	2, 798	9	2, 769	2	2, 769	2	33			1, 310	9, 096	100	2	775
58	9, 738	8, 733	5	4, 462	2	658	2	240		288	1, 619	8, 748	52	4	433
266	64, 940	8, 733	21	7, 175	2	658	13	755		249	3, 479	249	3, 479	4	3, 772
35	23, 659	16, 067	15	3, 147	3	12, 680	6	240		240	1, 853	13, 592	10, 894	16	9, 690
610	337, 455	54, 427	328	31, 841	18	15, 837	178	6, 744		5	14, 434	1, 460	17, 834	39	15, 580
808	17, 040	5, 144	29	2, 662	2	2, 100	4	85		3	11, 896	3, 848	3, 848	27	4, 579
38	36, 547	10, 747	53	7, 542	7	2, 155	4	1, 050		297	7, 283	886	8, 848	27	4, 579
757	19, 627	5, 254	24	4, 949	2	528	5	30			25, 900	464	3, 559	19	3, 903
1, 773	220, 225	67, 093	202	38, 445	28	16, 463	34	4, 081		45	5, 893	14, 373	3, 542	21	3, 184
26	7, 325	3, 292	16	2, 961	1	23	2	28		280	90, 645	16, 835	20, 093	186	32, 450
19	412, 244	245, 155	170	103, 945	57	138, 922	4	468		4	1, 451	4, 033	1, 623	9	1, 309
85	59, 936	13, 462	31	8, 586	7	4, 836	1	40		1, 840	3, 958	4, 780	127, 648	94	124, 031
85	18, 174	605	3	380	7	4, 836	1	40		1, 840	3, 958	4, 780	127, 648	94	124, 031
30	123, 901	53, 879	84	17, 244	30	40, 345	19	1, 290		35	1, 657	17, 569	4, 658	15	4, 995
252	65, 856	28, 780	136	19, 057	33	9, 663	1	25		35	2, 014	2, 014	37, 669	42	33, 579
45	5, 271	775	6	775	33	9, 663	1	25		35	4, 628	3, 859	24, 807	49	10, 909
232	18, 039	2, 808	17	1, 668	4	488	9	307		4	1, 029	4, 496	318	4	310
84	24, 318	3, 251	12	2, 680			4	451		2	2, 536	148	2, 599	12	1, 985
571	98, 184	14, 740	80	12, 780	9	674	16	965		6	11, 901	1, 163	8, 722	59	8, 971
188	11, 523	2, 638	23	2, 275	1	15	7	196		2	4, 313	1, 173	1, 960	18	1, 235
91	1, 539	189	1	150			4	39			3, 365	16	1, 960	2	150
165	30, 881	14, 349	38	7, 714	9	6, 050	11	365		4	2, 184	826	8, 886	19	6, 064
234	137, 333	23, 498	75	16, 343	6	6, 050	10	605			11, 210	1, 678	16, 848	53	11, 572
53	15, 289	1, 800	8	1, 800	2	240	31	3, 665			11, 556	98	16, 848	5	11, 980
226	21, 347	402	4	162	2	240	31	3, 665			6, 707	20, 945	270	3	140
593	113, 100	21, 159	99	14, 909	4	2, 585	4				12, 556	91, 941	12, 161	57	9, 738
1, 456	265, 175	36, 338	229	24, 474	3	3, 750	92	7, 919		5	23, 334	3, 454	39, 962	77	10, 055
70	146, 393	136, 913	474	104, 975	54	30, 701	17	1, 237			29, 622	4, 413	75, 860	177	54, 039
21	66, 779	66, 513	591	56, 860	34	5, 077	37	1, 526		2	13	9, 490	1, 977	29	2, 101
70	98, 637	84, 565	109	32, 872	74	51, 597	1	100			14, 072	6, 947	93, 175	82	50, 713
300	13, 407	3, 450	16	2, 375	3	211	4	34		8	2, 585	9, 957	93, 175	8	635

Paper goods, not elsewhere classified.
 Patent or proprietary medicines and compounds.
 Peaving materials: Asphalt, tar, crushed slag, and mixtures.
 Pears, walnuts, and other nuts, processed or shelled.
 Pencils, lead (including mechanical).
 Pens, fountain and stylographic; pen points, gold, steel, and brass.
 Perfumes, cosmetics, and other toilet preparations.
 Petroleum refining.
 Phonographs.
 Photo-engraving, not done in printing establishments.
 Photographic apparatus and materials.
 Pipes (tobacco).
 Planing-mill products (including general millwork), not made in planing mills connected with sawmills.
 Plated ware.
 Plumbers' supplies, not including pipe or vitreous-china sanitary ware.
 Pocketbooks, purses, and cardcases.
 Pottery, including porcelain ware.
 Poultry killing, dressing, and packing, wholesale.
 Printing and publishing, book and job.
 Printing and publishing, newspaper and periodical.
 Printing materials, not including type or ink.
 Pulp goods.
 Pumps (hand and power) and pumping equipment.
 Rayon and allied products.
 Refrigerators and refrigerator cabinets, exclusive of mechanical refrigerating equipment.
 Refrigerators, mechanical.
 Regalia, badges, and emblems.
 Rice cleaning and polishing.
 Roofing, built-up and roll; asphalt shingles; roof coatings other than paint.
 Rubber goods other than tires, inner tubes, and boots and shoes.
 Rubber tires and inner tubes.
 Saddlery and harness.
 Saws and vaults.
 Salt.
 Sand-lime brick.
 Sandpaper, emery paper, and other abrasive paper and cloth.
 Sausage, meat puddings, headcheese, etc., and sausage casings, not made in meat-packing establishments.
 Saws.
 Scales and balances.
 Sewing-machine products and wood screws.
 Sewing machines and attachments.
 Ship and boat building, steel and wooden, including repair work.
 Shirts.
 Shortenings (not including lard) and vegetable cooking oils.
 Signs and advertising novelties.
 Silk and rayon manufactures.
 Silversmithing and silversware.
 Smelting and refining, copper.
 Smelting and refining, lead.
 Smelting and refining, metals other than gold, silver, or platinum, not from the ore.
 Smelting and refining, zinc.
 Soap.
 Soda-water apparatus.
 Sporting and athletic goods, not including firearms or ammunition.
 Springs, steel, except wire, not made in plants operated in connection with rolling mills.
 Stamped ware, enameled ware, and metal stamping, enameling, japanning, and lacquering.
 Stationary goods, not elsewhere classified.
 Stationary and art goods, factory product.
 Steam and other packing, pipe and boiler covering, and gaskets, not elsewhere classified.
 Steam fittings and steam and hot-water heating apparatus.
 Steel barrels, kegs, and drums.
 Stereotyping and electrotyping, not done in printing establishments.
 Stoves and ranges (other than electric) and warm-air furnaces.
 Structural and ornamental iron and steel work, not made in plants operated in connection with rolling mills.
 Sugar, beet.
 Sugar, cane, not including products of refineries.
 Sugar refining, cane.
 Surgical and orthopedic appliances, including artificial limbs.

POWER EQUIPMENT

TABLE 4.—PRIME MOTORS, MOTORS, AND GENERATORS, BY NUMBER AND RATED CAPACITY, BY GEOGRAPHIC DIVISIONS AND STATES:

DIVISION OR STATE	Num-ber of gen-erators re-ported	Aggre-gate horse-power	PRIME MOTORS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY										Electric motors driven by energy generated in establishments reporting		Electric gen-erators				
			Total horse-power of prime movers			Steam engines		Steam turbines		Internal-com-bustion engines		Water wheels and water tur-bines		Electric motors driven by pur-chased energy		Horse-power	Num-ber	Kilo-watts	Num-ber
			Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power					
UNITED STATES																			
GEOGRAPHIC DIVISIONS:																			
New England	16,953	4,855,822	4,705	857,996	1,123	822,628	600	35,738	2,546	742,398	2,298,167	140,792	1,388,725	2,557	1,010,837	17,270	793,875		
Middle Atlantic	58,812	5,492,727	14,136	2,880,368	2,867	2,023,795	2,372	340,331	1,494	248,183	6,170,955	256,518	3,618,960	4,718	1,955,256	4,718	1,955,256		
East North Central	42,845	12,602,451	14,143	2,618,010	2,551	2,555,883	2,182	409,876	1,008	240,792	6,170,955	266,518	4,718,960	4,718	1,955,256	4,718	1,955,256		
West North Central	16,614	2,210,192	4,452	924,064	644	289,941	923	76,394	242	84,668	1,286,108	37,307	512,188	1,155	387,545	1,155	387,545		
South Atlantic	19,011	4,318,015	11,412	948,832	976	705,009	1,827	152,423	884	153,662	2,297,169	73,840	1,050,273	1,439	778,208	1,439	778,208		
East South Central	9,995	1,999,354	6,532	613,473	321	321,311	1,170	40,090	138	10,066	1,014,385	26,844	388,963	760	294,884	760	294,884		
West South Central	9,919	1,749,555	5,912	632,513	526	298,100	1,227	118,041	17	820	73,908	16,118	371,123	928	280,322	928	280,322		
Mountain	3,974	938,689	474,821	194,519	345	194,519	1,227	118,041	17	820	73,908	16,118	371,123	339	341,273	339	341,273		
Pacific	16,446	2,802,301	4,129	425,087	903	430,640	642	38,510	69	71,723	1,836,341	28,594	535,540	625	341,264	625	341,264		
NEW ENGLAND:																			
Maine	1,472	679,153	702	103,370	78	67,234	95	2,217	698	337,684	188,648	11,671	203,072	296	151,586	296	151,586		
New Hampshire	1,019	402,147	412	66,120	59	83,422	78	7,769	418	143,420	101,416	12,906	142,380	227	160,146	227	160,146		
Vermont	884	286,940	300	80,508	18	9,028	39	2,447	211	38,909	8,432	4,146	40,990	107	31,510	107	31,510		
Massachusetts	9,030	2,068,621	2,197	421,473	644	407,812	255	10,837	719	144,180	1,084,219	67,249	639,517	1,132	489,324	1,132	489,324		
Rhode Island	1,966	200,731	309	85,278	98	88,144	21	6,913	157	25,366	283,313	15,782	87,133	266	87,107	266	87,107		
Connecticut	2,962	909,239	381,578	799	151,631	226	171,883	112	5,555	52,809	527,361	28,968	223,683	537	181,164	537	181,164		
MIDDLE ATLANTIC:																			
New York	35,298	3,986,781	4,532	626,281	867	432,107	687	77,990	828	210,556	371,567	63,349	724,774	1,454	400,362	1,454	400,362		
New Jersey	7,757	1,645,408	2,241	385,452	612	408,245	330	21,360	78	14,714	126,328	54,732	535,109	1,137	473,480	1,137	473,480		
Pennsylvania	15,757	5,991,493	7,373	1,898,635	1,388	1,183,445	1,355	241,121	528	22,913	310,697	138,457	2,356,077	2,127	1,021,404	2,127	1,021,404		
EAST NORTH CENTRAL:																			
Ohio	1,088	4,340,575	3,713	1,041,497	752	920,240	817	119,690	172	13,795	225,287	70,763	1,494,495	1,362	832,161	1,362	832,161		
Indiana	4,818	1,858,735	2,090	255,126	300	457,346	250	163,456	98	6,320	107,862	31,403	880,156	1,977	488,779	1,977	488,779		
Illinois	13,843	2,807,001	3,220	675,770	621	429,732	429	105,652	59	11,401	207,973	63,613	851,644	1,197	588,780	1,197	588,780		
Michigan	6,290	2,556,746	2,154	342,131	342	342,131	202	11,331	186	48,066	194,366	58,050	655,977	1,361	532,461	1,361	532,461		
Wisconsin	6,806	1,239,394	3,056	303,486	332	144,359	484	9,877	466	161,210	76,715	38,552	427,209	806	282,185	806	282,185		
WEST NORTH CENTRAL:																			
Minnesota	3,999	606,704	1,168	115,150	257	110,731	163	20,813	113	77,110	37,534	10,059	161,667	251	148,216	251	148,216		
Iowa	3,122	366,760	1,451	73,266	88	66,224	107	5,231	23	1,185	31,519	8,295	110,588	181	74,964	181	74,964		
Missouri	5,351	717,978	2,183,200	1,507	158,592	140	43,089	285	14,880	60	60,328	11,632	119,178	391	77,136	391	77,136		
North Dakota	3,351	19,756	11,096	5,746	13	4,340	19	960	2	60	2,123	8,660	5,617	23	3,152	23	3,152		
South Dakota	5,777	31,297	12,889	103	8,677	11	2,711	38	1,279	4	222	3,356	18,408	20	5,340	20	5,340		
Nebraska	1,392	169,210	63,411	305	42,563	44	14,804	94	4,157	23	1,887	12,940	7,961	24	19,344	24	19,344		
Kansas	1,812	298,457	651	69,097	91	48,042	217	29,084	17	2,455	15,371	4,697	83,008	206	59,393	206	59,393		
SOUTH ATLANTIC:																			
Delaware	432	114,961	259	28,181	44	25,819	49	3,195	43	2,607	4,831	55,159	46,484	53	25,386	53	25,386		
Maryland	2,982	659,823	297,692	95,225	154	118,795	230	79,797	40	3,775	37,675	10,020	297,984	184	115,638	184	115,638		
District of Columbia	435	44,916	79	4,776	23	3,807	25	1,520	3	509	31,544	393	3,381	3	3,185	3	3,185		
Virginia	3,073	646,251	390,508	150,358	175	194,180	233	9,188	329	46,749	26,675	24,051	213,264	246	192,037	246	192,037		
West Virginia	1,400	650,190	370,296	118,864	242	221,769	192	26,951	271	8,749	7,510	9,818	270,973	216	213,264	216	213,264		
North Carolina	3,686	839,645	2,938	183,292	117	60,292	274	9,753	271	84,529	33,109	16,016	100,202	240	97,774	240	97,774		
South Carolina	3,683	827,326	2,315	183,090	71	61,838	84	2,085	15	35,038	6,237	6,237	60,478	176	79,665	176	79,665		
Georgia	1,508	641,839	233,523	184,766	93	55,878	470	10,273	95	30,506	40,621	3,398	50,727	188	71,087	188	71,087		
Florida	1,805	192,685	930	71,813	55	22,121	264	10,732	17	2,455	11,065	1,494	28,077	91	20,410	91	20,410		
EAST SOUTH CENTRAL:																			
Kentucky	2,184	354,740	1,166	88,911	63	29,415	134	4,852	24	1,203	21,951	3,905	44,197	159	40,902	159	40,902		
Tennessee	2,700	606,704	1,705	161,281	144	89,968	194	8,852	103	3,985	32,710	12,300	129,675	209	87,126	209	87,126		
Alabama	2,700	785,330	400,224	227,562	162	164,269	490	13,465	11	4,888	32,893	6,815	180,608	163	120,235	163	120,235		
Mississippi	1,850	252,580	1,607	135,688	61	47,634	352	12,941	11	590	5,340	1,734	41,203	139	46,681	139	46,681		
WEST SOUTH CENTRAL:																			
Arkansas	1,662	223,034	1,520	101,185	51	23,710	150	9,500	9	88,639	8,698	1,022	33,220	118	22,808	118	22,808		
Louisiana	1,583	480,404	2,068	350,165	186	107,867	234	20,617	9	130	13,617	3,577	130,239	118	64,660	118	64,660		
Oklahoma	1,583	223,257	1,158,857	48,673	94	32,389	244	27,934	8	690	12,092	2,368	55,653	314	42,016	314	42,016		
Texas	4,846	822,860	1,821	161,134	192	127,113	539	59,990	8	690	41,499	6,221	104,732	378	150,688	378	150,688		

CENSUS OF MANUFACTURES: 1929

TABLE 4.—PRIME MOVERS, MOTORS, AND GENERATORS, BY NUMBER AND RATED CAPACITY, BY GEOGRAPHIC DIVISIONS AND STATES: 1929—Continued

DIVISION OR STATE	Num-ber of estab-lish-ments report-ing power equip-ment	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY												Electric motors driven by energy generated in establishments reporting		Electric gen-erators				
		Aggre-gate horse-power	Steam engines			Steam turbin-es			Internal-com-bustion engines			Water wheels and water tur-bines			Electric motors driv-en by purchased energy		Num-ber	Horse-power	Num-ber	Kilo-watts
			Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power				
MOUNTAIN:																				
Montana.....	533	197,731	187	22,455	18	9,006	71	2,530	8	1,956	6,021	161,834	617	13,311	35	7,446				
Idaho.....	314	105,737	209	30,837	33	18,403	31	2,738	4	1,163	4,437	55,624	651	14,917	35	8,612				
Wyoming.....	284	46,677	197	10,374	107	15,398	43	2,732	4	1,63	1,740	17,962	1,017	14,277	30	8,656				
Colorado.....	1,424	233,726	497	73,764	49	49,929	92	3,492	11	2,148	10,798	98,373	4,181	99,474	106	63,973				
New Mexico.....	234	23,147	106	11,591	6	2,210	20	2,296			2,483	7,050	4,420	7,008	13	2,913				
Arizona.....	314	180,637	140	54,344	42	73,445	43	6,637			2,483	46,211	2,079	69,173	54	63,729				
Utah.....	607	123,737	205	34,409	31	17,730	31	6,718	36	2,454	6,700	68,426	1,053	22,781	43	14,297				
Nevada.....	114	27,197	22	6,702	6	8,400	14	3,207	2	500	816	8,383	240	7,222	23	8,545				
PACIFIC:																				
Washington.....	3,256	814,891	1,392	193,560	188	206,758	150	4,397	50	15,017	30,822	395,159	13,498	276,286	222	174,768				
Oregon.....	2,193	418,324	972	83,738	79	75,039	83	2,238	109	46,564	18,681	210,725	4,738	91,011	110	68,607				
California.....	10,997	1,569,086	1,765	147,739	636	148,843	409	31,875	36	10,122	133,875	1,230,457	10,358	168,243	263	97,879				

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TABLE 5.—PRIME MOVERS AND ELECTRIC MOTORS, BY NUMBER AND RATED CAPACITY, FOR INDUSTRIAL AREAS: 1929

[See "Industrial area," p. 11]

INDUSTRIAL AREA	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY												Electric motors driven by energy generated in establishments reporting	
	Aggregate horse-power	Total horse-power of prime movers	Prime movers								Electric motors purchased			
			Steam engines		Steam turbines		Internal combustion engines		Water wheels and water turbines		Number	Horse-power		
			Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power				
United States.....	42,031,001	20,155,397	66,914	9,629,905	10,311	7,732,021	11,288	1,233,853	6,523	1,559,618	2,724,843	22,775,604	852,432	12,376,376
Industrial areas, total.....	22,261,804	9,775,300	20,807	4,632,020	5,193	4,183,704	2,750	724,005	1,221	235,580	1,581,354	12,486,495	450,190	6,871,659
New York City area.....	2,172,889	813,023	3,048	431,827	637	352,850	379	27,372	28	1,074	292,793	1,359,266	55,822	504,238
Chicago area.....	2,720,674	1,292,677	1,974	493,594	430	542,442	307	252,647	48	3,994	167,365	1,436,997	49,405	1,116,899
Philadelphia area.....	1,368,306	592,516	2,103	317,849	479	238,205	386	30,712	96	5,740	111,733	775,790	38,770	411,374
Detroit area.....	1,238,348	467,531	605	99,616	203	363,720	59	2,833	11	1,312	115,031	770,817	30,089	280,216
Boston area.....	936,457	470,129	1,181	169,088	290	258,249	129	6,332	178	37,460	81,136	460,328	35,739	326,948
Pittsburgh area.....	2,082,327	1,373,433	2,103	750,380	488	552,503	231	69,842	6	708	54,048	708,894	42,138	980,266
Providence-Fall River-New Bedford area.....	738,958	329,959	425	176,728	242	129,060	25	6,963	105	17,208	50,483	408,999	17,168	128,409
Cleveland area.....	989,227	490,743	547	213,984	169	235,283	97	37,007	9	860	63,548	498,484	12,373	370,485
St. Louis area.....	624,756	259,343	734	145,214	204	105,561	86	7,606	43	1,062	44,254	305,413	10,856	212,991
Milwaukee area.....	524,947	170,690	449	112,511	62	64,314	22	3,768	4	113	30,345	354,251	22,683	201,368
Bridgeport-New Haven-Waterbury area.....	506,495	188,812	361	73,043	120	107,213	43	1,397	61	7,159	37,513	317,683	15,451	123,824
Buffalo area.....	1,079,725	243,911	567	128,347	170	77,036	77	37,106	11	1,422	46,834	835,814	6,165	130,867
Los Angeles area.....	538,831	81,005	700	31,879	261	30,252	175	18,874	-----	-----	54,004	457,826	1,383	23,300
Cincinnati area.....	475,196	190,704	484	116,165	85	67,061	88	4,295	7	3,283	33,827	284,402	12,275	140,836
Baltimore area.....	508,520	215,243	824	63,041	117	76,231	70	74,816	9	1,156	29,834	288,277	7,212	238,001
San Francisco-Oakland area.....	509,954	70,717	321	32,730	213	35,653	68	2,325	1	(?)	48,057	439,237	1,587	18,537
Worcester area.....	306,677	104,943	309	57,674	42	24,582	25	1,016	203	21,672	24,085	201,734	6,261	49,392
Youngstown area.....	1,171,241	722,846	799	420,432	217	251,620	73	46,087	32	4,707	18,233	448,395	14,083	411,099
Akron area.....	323,460	172,321	193	30,514	86	139,327	16	1,199	14	1,281	11,085	151,139	7,602	162,823
Hartford area.....	206,930	62,728	118	26,742	39	25,292	24	740	66	9,954	18,415	141,202	4,334	38,704
Minneapolis-St. Paul area.....	308,347	151,344	326	57,557	122	48,695	32	2,012	34	43,080	22,800	157,003	5,056	40,887
Rochester area.....	140,714	48,902	133	27,479	23	19,455	22	718	12	1,250	17,343	91,812	8,739	50,517
Albany-Schenectady-Troy area.....	315,674	104,852	146	30,182	61	62,023	31	1,236	21	11,406	27,967	210,822	4,109	52,468
Allentown-Bethlehem area.....	568,583	416,137	438	243,213	68	98,394	46	72,675	38	1,955	24,413	152,446	11,467	281,299
Springfield-Holyoke area.....	252,013	120,735	161	26,720	42	36,665	25	1,044	148	59,297	18,204	131,278	9,948	133,230
Toledo area.....	201,483	59,737	122	15,453	17	43,284	20	850	2	150	17,774	141,740	1,301	31,612
Indianapolis area.....	154,110	36,473	165	25,237	21	10,642	7	594	-----	-----	18,173	117,637	2,217	21,527
Kansas City area.....	214,781	56,683	226	39,307	50	15,620	41	1,756	-----	-----	15,063	158,098	3,993	33,094
Seattle-Tacoma area.....	293,088	87,539	330	40,049	56	45,644	30	1,678	2	268	17,054	205,549	2,709	47,744
Reading area.....	124,615	49,095	203	40,788	16	6,608	23	833	26	806	14,713	75,520	2,891	23,181
Wheeling area.....	446,601	265,965	312	162,231	52	96,690	71	7,044	-----	-----	9,927	180,636	6,408	231,005
Dayton area.....	117,896	33,233	75	10,725	16	22,006	9	502	1	(?)	16,098	84,663	2,653	24,272
Scranton-Wilkes-Barre area.....	95,981	30,734	167	22,703	26	7,558	8	288	5	185	18,796	65,247	3,303	20,286

¹ Industrial areas by constituent counties:

New York City area: Bronx, Kings, New York, Queens, Richmond, and Westchester Counties, N. Y.; Bergen, Essex, Hudson, Middlesex, Passaic, and Union Counties, N. J.
 Chicago area: Cook, DuPage, Kane, Lake, and Will Counties, Ill.; Lake County, Ind.
 Philadelphia area: Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, Pa.; Burlington, Camden, and Gloucester Counties, N. J.
 Detroit area: Oakland and Wayne Counties.
 Boston area: Essex, Middlesex, Norfolk, and Suffolk Counties.
 Pittsburgh area: Allegheny, Beaver, Washington, and Westmoreland Counties.
 Providence-Fall River-New Bedford area: Providence County, R. I.; Bristol County, Mass.
 Cleveland area: Cuyahoga and Lorain Counties.
 St. Louis area: St. Louis City and St. Louis County, Mo.; Madison and St. Clair Counties, Ill.

Milwaukee area: Kenosha, Milwaukee and Racine Counties.
 Bridgeport-New Haven-Waterbury area: Fairfield and New Haven Counties.
 Buffalo area: Erie and Niagara Counties.
 Los Angeles area: Los Angeles County.
 Cincinnati area: Butler and Hamilton Counties, Ohio; Campbell and Kenton Counties, Ky.
 Baltimore area: Baltimore City and Baltimore County.
 San Francisco-Oakland area: Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties.
 Worcester area: Worcester County.
 Youngstown area: Mahoning and Trumbull Counties, Ohio; Lawrence and Mercer Counties, Pa.
 Akron area: Summit County.
 Hartford area: Hartford County.
 Minneapolis-St. Paul area: Dakota, Hennepin, and Ramsey Counties.

Rochester area: Monroe County.
 Albany-Schenectady-Troy area: Albany, Rensselaer, and Schenectady Counties.
 Allentown-Bethlehem area: Lehigh and Northampton Counties.
 Springfield-Holyoke area: Hampden County.
 Toledo area: Lucas County.
 Indianapolis area: Marion County.
 Kansas City area: Clay and Jackson Counties, Mo.; Wyandotte County, Kans.
 Seattle-Tacoma area: King and Pierce Counties.
 Reading area: Berks County.
 Wheeling area: Brooke, Hancock, and Ohio Counties, W. Va.; Belmont, Columbiana, and Jefferson Counties, Ohio.
 Dayton area: Montgomery County.
 Scranton-Wilkes-Barre area: Lackawanna and Luzerne Counties.

² Item for water wheels and water turbines included with that for steam engines to avoid disclosing data for a single establishment.

CENSUS OF MANUFACTURES: 1929

TABLE 6.—PRIME MOVERS AND ELECTRIC MOTORS, BY NUMBER AND RATED CAPACITY, FOR IMPORTANT INDUSTRIAL COUNTIES: 1929

[This table gives separate statistics for each county in which the combined horsepower rating of prime movers and electric motors driven by purchased energy (as given in the "Aggregate" column) amounted to 25,000 or more. The combined aggregate for all counties for which such statistics are presented in this table amounted to 79.9 per cent of the aggregate for the United States. The "All other counties" items for the several States necessarily differ from the "All other counties" items in certain other tables, in which such items cover only those counties for which separate figures can not be published without disclosing approximations of the data for individual establishments.]

COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY												Electric motors driven by energy generated in establishments reporting	
	Aggregate horsepower	Total horsepower of prime movers	Prime movers								Electric motors driven by purchased energy			
			Steam engines		Steam turbines		Internal-combustion engines		Water wheels and water turbines		Number	Horsepower		
			Number	Horsepower	Number	Horsepower	Number	Horsepower	Number	Horsepower				
ALABAMA														
The State.....	785,330	400,224	2,054	227,592	102	154,269	490	13,465	11	4,898	35,895	385,106	5,815	180,008
Important counties:														
Calhoun.....	25,491	1,086	25	826			12	260			2,818	24,405		39,071
Etowah.....	68,415	47,994	35	13,017	8	34,607	13	370			1,343	20,421	620	118,208
Jefferson.....	362,609	192,142	274	95,545	104	96,324	9	273			5,917	170,467	2,796	
Madison.....	27,895	6,399	11	5,633	2	766					3,325	21,496		179
Mobile.....	26,140	11,441	111	9,666	3	213	28	1,572			1,084	14,699	23	5,000
Tuscaloosa.....	26,469	20,462	61	7,994	5	11,893	15	600			560	6,007	329	17,130
All other counties.....	243,311	120,700	1,537	94,951	40	10,461	413	10,390	11	4,898	17,848	127,611	2,047	
ARIZONA														
The State.....	180,637	134,426	140	54,344	42	73,445	43	6,637			2,483	46,211	2,079	69,173
Important counties:														
Cochise.....	54,596	53,933	45	29,610	10	24,323					94	573	638	15,344
Gila.....	31,788	2,798	5	12,633	1	(1)	2	165			442	28,990	27	205
Yavapai.....	36,362	35,380	12	7,845	7	27,000	4	535			140	982	710	23,800
All other counties.....	57,981	42,315	78	14,250	24	22,122	37	5,937			1,807	15,666	704	29,824
ARKANSAS														
The State.....	223,034	134,395	1,520	101,185	54	23,710	150	9,500			8,098	88,039	1,922	33,220
Important county, Pulaski.....	31,815	8,749	66	18,119	1	(1)	3	630			2,250	23,066	166	1,107
All other counties.....	191,219	125,646	1,454	93,066	53	23,710	147	8,870			6,448	65,573	1,756	32,113
CALIFORNIA														
The State.....	1,509,086	338,029	1,765	147,789	636	148,843	409	31,875	36	10,122	133,875	1,230,457	10,358	168,243
Important counties:														
Alameda.....	157,178	18,289	80	13,463	22	4,141	23	685			16,299	138,889	180	2,321
Contra Costa.....	150,274	30,332	121	6,321	161	23,090	21	921			5,140	119,942	1,363	15,751
Fresno.....	29,151	9,413	58	3,118	11	5,491	10	804			2,438	10,738	325	8,125
Humboldt.....	35,333	30,207	57	6,017	18	24,172	3	18			581	5,126	1,040	32,773
Los Angeles.....	538,831	81,005	709	81,879	261	30,252	175	18,874			54,904	457,826	1,383	23,360
Sacramento.....	32,446	4,001	27	3,269	20	718	3	14			3,203	28,445		
San Bernardino.....	62,626	14,899	33	3,894	11	9,193	9	1,812			3,020	47,727	837	8,075
San Francisco.....	157,372	19,094	80	10,460	24	8,163	18	471	1	(?)	24,118	138,278	37	335
San Joaquin.....	33,001	9,619	28	6,264	9	3,095	4	260			2,114	23,442	133	4,945
San Mateo.....	39,460	1,575	24	1,490	1	(1)	3	85			2,169	37,894	7	130
Santa Clara.....	29,550	4,261	38	3,102	8	491	12	663			3,836	25,289	1	(3)
All other counties.....	303,795	115,934	510	58,512	90	40,037	122	7,263	35	10,122	16,063	187,861	4,446	72,428
COLORADO														
The State.....	233,726	135,353	497	79,784	49	49,929	92	3,492	11	2,148	10,798	98,373	4,181	99,474
Important counties:														
Denver.....	61,435	17,120	79	11,178	16	4,930	35	1,012			6,279	44,315	858	12,327
Pueblo.....	55,216	46,038	59	21,708	9	24,275	2	55			778	9,178	1,631	68,045
All other counties.....	117,075	72,195	362	46,898	24	20,724	55	2,425	11	2,148	3,741	44,880	1,692	29,102
CONNECTICUT														
The State.....	909,239	381,878	790	151,631	226	171,883	112	5,555	343	52,809	68,866	627,361	28,908	223,683
Important counties:														
Fairfield.....	191,870	72,026	136	31,995	44	37,319	13	459	19	2,253	15,753	110,844	7,114	35,998
Hartford.....	206,930	62,728	118	26,742	39	25,292	24	740	66	9,954	18,415	144,202	4,334	38,764
Litchfield.....	35,338	20,146	34	4,347	17	13,973	6	325	19	1,501	2,049	15,192	1,386	20,133
New Haven.....	314,625	116,786	225	41,048	85	69,894	30	938	42	4,906	21,700	197,839	8,337	87,826
New London.....	72,257	46,924	125	20,357	20	10,868	11	1,826	57	13,873	5,252	25,333	3,748	18,760
Windham.....	56,830	46,651	72	17,467	14	14,216	11	565	00	14,403	3,089	10,179	2,470	14,263
All other counties.....	31,389	16,617	89	9,675	7	321	17	702	80	5,019	2,548	14,772	1,579	7,949

(See footnotes, p. 130.)

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TABLE 6.—PRIME MOVERS AND ELECTRIC MOTORS, BY NUMBER AND RATED CAPACITY, FOR IMPORTANT INDUSTRIAL COUNTIES: 1929—Continued

[See note at head of this table]

COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY												Electric motors driven by energy generated in establishments reporting	
	Aggregate horse-power	Total horse-power of prime movers	Prime movers								Electric motors driven by purchased energy			
			Steam engines		Steam turbines		Internal-combustion engines		Water wheels and water turbines		Number	Horse-power		
Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power	
DELAWARE														
The State.....	114,961	59,802	250	28,181	44	25,810	49	3,105	43	2,607	4,831	55,159	2,413	46,434
Important county, New Castle.....	103,733	52,475	119	23,245	40	25,766	14	1,440	20	2,034	4,268	51,258	2,362	46,020
All other counties.....	11,228	7,327	140	4,936	4	63	35	1,755	23	573	563	3,901	51	414
DISTRICT OF COLUMBIA														
District of Columbia.....	44,916	13,372	79	7,476	23	3,807	25	569	4	1,520	4,509	31,544	393	3,381
FLORIDA														
The State.....	102,605	104,666	930	71,813	55	22,121	264	10,732	-----	-----	11,085	88,020	1,494	28,077
Important counties:														
Duval.....	26,864	9,341	78	6,726	6	1,721	9	894	-----	-----	2,033	17,523	241	1,494
Hillsborough.....	26,927	12,416	44	4,374	13	7,847	8	195	-----	-----	1,874	14,511	188	8,094
All other counties.....	138,904	82,909	808	60,713	36	12,553	247	9,643	-----	-----	7,178	55,995	1,065	17,889
GEORGIA														
The State.....	641,899	253,523	2,267	158,766	95	53,978	470	10,273	93	30,506	40,521	388,376	3,398	50,727
Important counties:														
Bibb.....	39,519	11,378	51	8,240	5	3,026	4	112	-----	-----	1,774	28,141	286	3,486
Chatham.....	30,321	9,084	46	5,967	8	3,062	2	55	-----	-----	1,419	21,237	325	3,938
Floyd.....	31,949	14,310	11	870	9	13,305	5	135	-----	-----	2,047	17,630	488	3,000
Fulton.....	102,283	27,896	104	14,739	21	13,107	6	50	-----	-----	7,358	74,337	366	6,881
Muscogea.....	48,553	10,640	23	2,050	-----	-----	4	135	20	8,455	5,468	37,913	283	4,174
Richmond.....	34,575	12,831	24	3,393	2	38	9	161	16	9,269	949	21,744	27	543
All other counties.....	354,099	167,384	2,008	123,537	50	21,440	440	9,625	57	12,782	21,506	187,315	1,623	27,805
IDAHO *														
The State.....	105,787	50,163	209	30,857	33	18,403	31	738	4	165	4,437	55,624	651	14,917
ILLINOIS														
The State.....	2,807,001	1,222,655	3,220	675,770	621	429,732	429	105,652	99	11,401	207,973	1,584,440	63,613	851,644
Important counties:														
Adams.....	26,232	5,918	34	5,817	6	90	3	11	-----	-----	1,753	20,314	53	798
Cook.....	1,643,698	621,548	1,462	350,652	228	177,482	178	83,839	4	575	144,201	1,022,120	32,257	301,668
Kane.....	39,724	17,802	57	10,951	7	3,710	8	622	41	2,519	3,418	21,922	1,543	10,929
Lake.....	56,322	33,354	48	22,252	32	10,718	15	384	-----	-----	3,488	23,468	1,662	27,542
La Salle.....	99,383	77,039	85	20,398	32	51,543	3	33	20	5,065	2,011	22,849	4,083	70,057
Macon.....	39,238	22,132	33	6,008	12	15,575	-----	-----	-----	-----	1,801	17,055	1,553	25,772
Madison.....	179,137	115,314	252	41,227	122	72,761	25	1,326	-----	-----	4,947	63,873	4,340	99,008
Peoria.....	62,342	27,284	92	15,893	20	11,215	11	170	-----	-----	2,614	36,058	649	11,240
Rock Island.....	31,996	10,950	39	7,822	8	2,584	3	244	-----	-----	5,479	51,346	1,188	11,009
St. Clair.....	110,285	48,937	85	31,507	21	16,975	16	455	-----	-----	4,623	61,343	1,299	63,996
Tazewell.....	31,376	11,963	20	4,024	3	7,870	6	69	-----	-----	3,046	19,913	728	13,342
Will.....	111,586	78,090	147	52,187	48	13,679	11	11,324	3	900	2,313	33,496	2,327	34,693
Winnebago.....	64,750	22,440	53	14,147	10	6,636	7	425	10	1,232	7,402	42,310	3,311	18,001
All other counties.....	279,407	130,033	813	33,285	72	38,894	143	0,744	6	1,110	20,877	149,374	8,020	82,909
INDIANA														
The State.....	1,858,735	882,248	2,000	255,126	300	457,346	250	163,456	58	6,320	107,862	976,487	31,403	880,156
Important counties:														
Allen.....	77,523	8,801	34	3,246	13	5,428	3	127	-----	-----	15,970	68,722	539	5,537
Delaware.....	56,225	7,558	48	5,694	5	1,714	4	250	-----	-----	7,111	48,667	408	5,340
Elkhart.....	25,457	6,781	36	3,930	2	2,666	3	185	-----	-----	3,494	18,676	363	3,574
Howard.....	56,931	19,382	17	2,624	3	16,500	4	258	-----	-----	1,830	37,549	621	12,174
Lake.....	873,749	540,680	247	47,352	115	330,853	94	166,475	-----	-----	13,493	333,069	11,357	651,096
La Porte.....	30,133	9,198	20	4,514	6	3,825	13	569	-----	-----	2,430	21,735	335	7,165
Lawrence.....	24,144	4,832	17	4,662	2	170	-----	-----	-----	-----	899	21,312	126	4,243
Madison.....	59,010	27,066	82	21,631	8	5,120	4	415	-----	-----	7,955	28,944	814	6,672
Marion.....	154,110	36,473	165	25,237	21	10,642	7	594	-----	-----	15,173	117,637	2,217	21,627
St. Joseph.....	73,652	47,433	48	9,045	37	33,484	2	44	28	4,860	4,532	26,219	4,583	63,448
Vanderburg.....	47,962	16,472	86	12,929	7	3,377	5	166	-----	-----	3,599	31,490	1,501	12,483
Vigo.....	35,177	22,123	88	14,733	17	7,334	1	(*)	2	56	1,718	13,054	717	9,947
All other counties.....	344,862	135,449	1,112	99,429	64	30,233	110	4,383	28	1,404	26,658	209,413	7,122	74,001

(See footnotes, p. 130.)

CENSUS OF MANUFACTURES: 1929

TABLE 6.—PRIME MOVERS AND ELECTRIC MOTORS, BY NUMBER AND RATED CAPACITY, FOR IMPORTANT INDUSTRIAL COUNTIES: 1929—Continued

[See note at head of this table]

COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY												Electric motors driven by energy generated in establishments reporting	
	Aggregate horse-power	Total horse-power of prime movers	Prime movers								Electric motors driven by purchased energy			
			Steam engines		Steam turbines		Internal-combustion engines		Water wheels and water turbines		Number	Horse-power		
			Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power				
IOWA														
The State.....	306,760	145,016	641	73,266	88	66,224	107	5,231	23	1,195	31,510	220,844	8,205	110,588
Important counties:														
Cerro Gordo.....	33,577	26,020	19	10,020	8	10,000					693	7,557	428	19,857
Linn.....	37,060	9,299	19	2,872	10	6,427	1	(¹)			2,662	27,761	606	10,444
Polk.....	41,392	12,095	38	5,093	8	7,812	3	90			4,063	28,397	223	6,955
Scott.....	33,788	20,647	27	4,907	8	15,740					1,800	13,111	1,279	21,386
Woodbury.....	25,767	8,525	32	4,188	13	1,337	1	(¹)			1,955	17,242	575	2,771
All other counties.....	195,206	68,430	508	43,186	41	18,908	102	5,141	23	1,195	20,340	126,776	5,094	49,139
KANSAS														
The State.....	293,487	148,678	651	60,097	91	48,042	217	20,084	17	2,455	15,571	149,809	4,697	83,008
Important counties:														
Montgomery.....	27,494	10,400	58	4,467	19	10,368	31	4,565			753	8,094	680	14,955
Wyandotte.....	74,919	24,600	75	17,045	20	6,980	13	965			3,516	50,229	1,105	13,833
All other counties.....	190,074	104,588	518	47,585	52	30,694	173	23,854	17	2,455	11,302	91,486	2,932	54,190
KENTUCKY														
The State.....	354,740	124,381	1,166	88,911	63	20,415	134	4,852	24	1,203	21,251	230,350	3,005	44,197
Important counties:														
Boyd.....	83,632	8,524	49	7,874	6	399	3	251			1,202	74,508	95	1,327
Campbell.....	20,285	16,240	7	8,370	3	7,510	3	360			1,141	13,045	572	7,022
Jefferson.....	137,631	42,400	263	26,646	39	15,697	7	93	1	(²)	12,462	95,225	2,386	27,801
All other counties.....	104,792	57,211	847	46,021	15	5,839	116	4,148	23	1,203	6,446	47,581	552	7,987
LOUISIANA														
The State.....	480,404	350,165	2,068	221,521	186	107,807	294	20,617	0	180	11,017	130,239	5,577	118,118
Important parishes:														
East Baton Rouge.....	30,300	27,825	21	4,005	7	21,800	8	2,020			357	2,475	705	27,560
Jefferson.....	31,500	11,419	71	6,726	3	4,455	10	238			1,080	20,081	210	841
Morehouse.....	26,281	7,632	40	1,827	15	4,005	11	1,800			542	18,640	11	36
Orleans.....	73,050	18,288	140	12,011	10	4,220	20	1,977	7	80	6,288	54,762	619	5,363
Ouchita.....	25,379	23,457	105	6,645	3	15,163	57	1,649			238	1,922	455	13,075
Washington.....	30,422	29,091	24	9,591	6	19,500					203	1,331	511	17,928
All other parishes.....	263,472	232,453	1,067	180,716	137	38,754	188	12,933	2	50	2,014	31,010	2,976	53,296
MAINE														
The State.....	679,153	510,505	702	168,370	78	67,234	95	2,217	608	337,684	15,108	168,648	11,071	203,072
Important counties:														
Androscoggin.....	58,868	40,381	42	6,128	5	2,164	7	62	97	88,027	2,208	12,487	3,230	22,977
Aroostook.....	27,383	25,109	33	24,704			10	250	2	155	234	2,274	540	15,820
Cumberland.....	60,402	39,747	99	7,625	16	7,919	11	187	91	24,016	2,867	20,655	1,148	22,176
Franklin.....	73,859	71,761	70	7,239	4	5,800	12	258	51	58,404	317	2,088	366	9,843
Kennebec.....	65,724	39,493	75	8,908	10	4,565	1	(¹)	73	25,990	1,931	26,231	1,042	19,999
Oxford.....	57,439	34,635	105	14,313	2	110	6	100	36	20,103	851	22,804	411	10,507
Penobscot.....	135,230	117,339	65	13,310	14	13,218	1	(¹)	155	90,808	1,597	20,894	1,183	45,041
Somerset.....	41,693	30,205	31	4,397			5	139	33	25,609	540	11,385	173	12,841
Washington.....	34,549	32,551	40	2,818	13	2,368	19	250	23	27,085	284	1,998	572	15,113
York.....	67,158	47,259	44	6,184	11	30,590	1	(¹)	60	10,485	2,755	19,809	2,779	22,433
All other counties.....	53,948	26,028	98	7,744	3	440	22	962	47	16,882	1,425	27,920	227	5,422
MARYLAND														
The State.....	659,823	207,592	1,454	95,225	154	118,795	230	79,797	40	3,775	37,675	362,231	10,020	297,984
Important counties:														
Allegany.....	63,430	32,516	34	4,884	8	27,632					3,154	30,914	1,618	41,000
Baltimore.....	209,729	159,044	457	20,772	19	63,029	29	73,555	6	1,088	2,096	50,685	4,723	206,468
Baltimore (city).....	293,791	56,199	367	42,269	98	12,602	41	1,260	3	68	27,738	237,692	2,489	31,533
All other counties.....	92,873	40,833	596	27,300	29	14,932	160	4,982	31	2,619	4,687	43,040	1,190	18,983

(See footnotes, p. 130.)

POWER EQUIPMENT

TABLE 6.—PRIME MOVERS AND ELECTRIC MOTORS, BY NUMBER AND RATED CAPACITY, FOR IMPORTANT INDUSTRIAL COUNTIES: 1929—Continued

[See note at head of this table]

COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY												Electric motors driven by energy generated in establishments reporting	
	Aggregate horse-power	Total horse-power of prime movers	Prime movers								Electric motors driven by purchased energy			
			Steam engines		Steam turbines		Internal-combustion engines		Water wheels and water turbines		Number	Horse-power		
			Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power				
MASSACHUSETTS														
The State.....	2,068,521	984,302	2,197	421,473	644	407,812	255	10,837	719	144,180	155,239	1,084,219	67,249	689,517
Important counties:														
Berkshire.....	81,423	49,869	166	24,841	80	15,330	22	873	59	8,825	2,904	31,554	6,979	49,057
Bristol.....	359,701	181,955	214	120,108	163	59,451	13	455	24	1,941	13,633	177,740	6,845	61,890
Essex.....	323,556	222,943	328	52,700	119	156,179	26	817	47	13,247	22,304	100,633	18,845	155,139
Franklin.....	30,785	10,120	32	3,447	4	1,567	8	518	41	10,538	2,174	23,065	552	6,649
Hampden.....	252,013	120,735	161	26,729	42	36,665	25	1,044	143	56,297	18,204	131,278	9,948	133,230
Hampshire.....	47,253	20,630	41	5,634	11	7,138	19	1,325	43	6,533	3,773	20,023	352	5,200
Middlesex.....	343,645	159,135	421	63,699	104	71,977	49	2,048	90	21,411	27,633	184,510	9,993	116,539
Norfolk.....	83,690	33,098	216	21,122	26	9,657	18	998	31	2,251	5,991	54,592	2,130	22,711
Plymouth.....	43,519	18,555	37	12,828	9	4,625	7	233	13	804	4,845	24,964	433	5,481
Suffolk.....	180,666	54,053	216	31,567	41	20,436	36	1,499	10	561	25,808	126,013	4,771	32,559
Worcester.....	300,677	104,943	369	57,674	42	24,582	25	1,015	203	21,672	24,085	201,734	6,261	49,892
All other counties.....	1,693	1,366	6	1,124	3	205	7	37			85	327	120	1,770
MICHIGAN														
The State.....	2,356,746	1,005,388	2,154	342,131	540	603,860	202	11,331	183	48,060	194,356	1,351,358	58,050	655,977
Important counties:														
Bay.....	43,545	18,177	65	5,606	15	12,038	3	533			2,996	25,368	464	10,623
Berrien.....	33,144	10,240	36	5,227	3	2,450	4	98	8	2,465	2,764	22,904	525	13,393
Calhoun.....	53,224	9,627	41	6,657	7	2,400	1	(*)	11	510	5,637	43,597	803	5,468
Delta.....	26,206	23,795	44	7,942	6	8,427	6	126	4	7,300	246	2,411	138	10,331
Dickinson.....	31,432	26,685	14	8,179	7	12,666			3	13,200	607	4,747	1,190	12,783
Gonosee.....	122,547	17,542	15	3,870	11	13,248	0		74	350	14,925	105,005	704	8,769
Ingham.....	74,146	11,590	46	7,471	12	3,893	1	(*)	3	226	10,711	62,556	975	8,282
Jackson.....	40,063	3,172	28	1,647	12	1,348	14	177	1	(*)	4,772	37,791	65	54,432
Kalamazoo.....	83,107	65,210	97	22,844	30	42,485	1	(*)	6	390	3,353	17,883	1,949	54,587
Kent.....	93,476	46,495	176	27,917	39	17,294	3	170	15	1,114	7,056	46,981	5,047	28,461
Midland.....	37,287	37,015	11	10,215	4	26,800					53	272	1,950	20,800
Monroe.....	30,689	20,224	61	5,224	1	(*)	1	(*)	1	(*)	3,038	10,465	618	11,219
Muskegon.....	54,034	27,554	27	9,049	19	15,670	15	2,835	9	912	3,392	26,453	3,188	38,873
Oakland.....	100,455	9,135	50	0,121	21	1,082	3	720	9	612	10,123	91,323	67	91,010
Saginaw.....	51,722	13,507	69	11,458	11	1,559	2	65	8	425	5,472	35,215	1,085	5,142
St. Clair.....	33,967	0,677	93	7,037	4	1,882	2	158			2,150	24,290	724	7,399
Wayne.....	1,137,890	458,396	555	93,495	242	362,638	51	2,183	2	700	93,905	679,494	30,022	270,306
All other counties.....	308,909	197,338	756	94,432	102	77,920	84	4,212	109	20,774	14,523	111,571	8,430	1,388,940
MINNESOTA														
The State.....	606,704	323,804	1,168	115,150	257	110,731	163	20,813	113	77,110	37,534	283,900	10,059	161,667
Important counties:														
Hennepin.....	181,028	81,419	158	32,740	54	21,081	28	1,918	30	25,080	13,723	99,609	2,032	17,169
Koochiching.....	26,422	22,670	7	3,189	25	15,490	1	(*)	2	4,000	7,230	3,743	592	13,410
Ramsay.....	106,844	49,426	151	18,192	37	23,140	4	94	4	18,000	7,651	47,418	2,574	18,461
St. Louis.....	81,324	59,992	43	8,959	36	24,575	3	10,128	3	300	2,908	31,332	1,559	61,763
All other counties.....	211,086	110,288	803	52,040	105	25,845	122	2,673	74	29,730	13,027	100,798	3,302	50,924
MISSISSIPPI*														
The State.....	252,580	106,263	1,607	135,088	61	47,634	352	12,941			5,840	56,317	1,734	41,208
MISSOURI														
The State.....	717,978	218,200	1,507	158,592	140	43,039	285	14,880	60	1,729	60,328	466,688	11,632	119,178
Important counties:														
Buchanan.....	36,772	11,591	87	8,350	21	2,416	9	786			2,873	28,181	265	1,701
Jackson.....	123,268	25,970	144	16,364	30	8,640	26	966			10,557	97,238	2,146	12,944
Jefferson.....	35,027	3,995	9	2,835	2	1,050	1	(*)	2	60	806	31,082	24	361
St. Louis.....	42,273	5,623	18	4,149	8	1,447	2	27			2,343	36,650	370	3,039
St. Louis (city).....	293,011	89,469	429	63,331	53	14,378	43	5,098	43	1,062	32,341	203,542	4,847	55,398
All other counties.....	184,687	81,642	820	58,474	26	15,158	204	7,403	15	607	11,408	103,045	3,980	44,785
MONTANA														
The State.....	197,781	35,947	187	22,455	18	9,066	71	2,530	8	1,056	6,021	161,834	617	13,311
Important counties:														
Cascade.....	47,526	447	17	368			3	70			1,101	47,079		4,140
Deer Lodge.....	87,437	7,220	9	5,405	3	475			2	1,340	2,146	80,187	85	4,140
All other counties.....	62,818	28,280	161	16,682	15	8,531	68	2,451	6	616	2,774	34,568	832	9,171

(See footnotes, p. 130.)

CENSUS OF MANUFACTURES: 1929

TABLE 6.—PRIME MOVERS AND ELECTRIC MOTORS, BY NUMBER AND RATED CAPACITY, FOR IMPORTANT INDUSTRIAL COUNTIES: 1929—Continued

[See note at head of this table]

COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY											Electric motors driven by energy generated in establishments reporting		
	Aggregate horse-power	Total horse-power of prime movers	Prime movers				Electric motors driven by purchased energy							
			Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power		
NEBRASKA														
The State.....	169,210	63,411	305	42,503	44	14,804	94	4,167	23	1,887	12,940	105,799	1,872	24,169
Important county, Douglas.....	82,959	24,483	112	15,825	28	8,493	3	165	-----	-----	6,176	58,476	775	4,976
All other counties.....	86,251	38,928	193	26,738	16	6,311	91	3,992	23	1,887	6,764	47,323	1,097	19,193
NEVADA *														
The State.....	27,197	18,800	22	6,702	6	8,400	14	3,207	2	500	816	8,388	290	7,222
NEW HAMPSHIRE														
The State.....	402,147	300,731	412	66,120	59	83,422	78	7,709	418	143,420	13,901	101,416	12,906	142,330
Important counties:														
Coos.....	110,213	91,439	18	4,167	9	28,633	1	(¹)	59	58,630	1,139	13,774	3,264	60,016
Hillsborough.....	134,537	115,066	105	19,780	33	45,284	18	1,297	92	48,705	3,432	19,471	7,755	64,280
Merrimack.....	33,018	22,150	53	7,088	1	(¹)	35	5,268	72	9,794	2,014	10,868	157	964
Strafford.....	30,617	16,129	36	7,501	4	2,750	4	143	30	5,735	2,612	14,488	284	4,405
All other counties.....	93,792	55,947	200	27,584	12	6,755	20	1,061	165	20,547	4,704	37,815	1,446	12,665
NEW JERSEY														
The State.....	1,645,408	799,771	2,241	355,452	612	403,245	330	21,860	78	14,714	126,326	845,637	54,732	535,109
Important counties:														
Bergen.....	106,233	73,142	131	27,868	43	44,281	14	993	1	(¹)	6,388	33,091	6,479	58,345
Burlington.....	26,648	8,110	35	6,407	3	470	14	1,013	8	220	2,401	18,538	413	2,787
Camden.....	125,745	85,448	200	20,026	86	63,231	19	1,291	-----	-----	4,977	40,297	6,458	73,454
Cumberland.....	25,032	13,144	45	4,088	11	7,172	22	1,139	4	745	2,400	11,888	839	6,080
Essex.....	222,396	58,183	350	43,063	36	11,820	57	3,262	3	38	35,641	164,213	4,708	20,610
Hudson.....	313,371	156,234	393	60,284	170	90,128	50	5,822	-----	-----	23,234	157,137	11,916	98,989
Mercer.....	134,523	49,111	147	34,206	23	14,343	8	385	6	172	6,881	85,412	2,164	28,431
Middlesex.....	168,922	97,946	160	43,701	38	53,072	18	1,173	-----	-----	8,231	70,976	4,415	66,832
Morris.....	40,283	22,935	70	16,848	15	5,205	4	248	7	633	1,333	17,348	1,006	11,125
Passaic.....	147,278	55,921	276	32,172	41	23,868	6	291	7	590	17,323	90,357	5,338	26,923
Union.....	151,782	73,332	163	27,943	50	43,729	26	1,440	2	220	7,892	78,460	4,834	63,042
Warren.....	56,738	35,242	34	13,858	6	12,500	2	95	17	8,789	2,135	21,496	1,822	21,950
All other counties.....	126,457	70,623	228	24,088	90	35,420	90	4,208	23	3,307	7,385	56,434	4,340	52,523
NEW MEXICO *														
The State.....	23,147	16,097	106	11,591	5	2,210	20	2,296	-----	-----	932	7,050	420	7,008
NEW YORK														
The State.....	3,986,781	1,346,844	4,522	626,281	867	432,107	687	77,900	823	210,556	371,597	2,639,937	63,349	724,774
Important counties:														
Albany.....	89,801	22,791	53	8,768	9	4,677	6	247	5	9,099	5,801	67,010	1,688	14,320
Bronx.....	65,401	7,399	43	4,825	2	55	24	2,510	-----	-----	10,943	58,002	509	4,165
Broome.....	49,362	10,019	36	5,428	6	4,511	2	80	-----	-----	10,798	39,343	1,845	12,406
Cattaraugus.....	28,024	14,022	94	8,420	19	4,045	10	1,523	2	34	1,796	14,002	1,007	9,385
Chautauqua.....	57,470	17,123	105	12,550	4	3,233	9	340	7	1,000	4,755	40,347	1,891	23,046
Chemung.....	25,349	7,336	37	6,767	7	517	2	62	-----	-----	2,608	18,013	540	6,367
Columbia.....	39,867	31,635	36	13,214	9	16,364	4	165	12	1,892	878	8,232	695	16,236
Erie.....	381,733	225,087	527	119,161	150	69,985	70	36,390	4	151	34,681	656,046	5,859	135,549
Essex.....	27,309	22,355	22	4,906	7	8,825	1	(¹)	24	9,624	2,283	4,954	200	4,400
Genesee.....	26,392	5,531	24	1,360	12	3,315	10	275	2	75	1,869	20,861	477	5,150
Herkimer.....	40,557	20,057	45	9,900	3	1,912	1	(¹)	34	8,185	2,171	20,500	933	6,446
Jefferson.....	83,852	42,863	65	6,539	19	7,968	8	215	138	28,131	1,957	40,999	865	9,088
Kings.....	394,990	101,946	732	80,771	52	16,273	73	4,826	4	77	48,780	293,044	5,230	36,005
Lewis.....	36,290	27,337	22	2,841	4	4,452	12	7,106	40	16,938	458	8,953	172	3,742
Monroe.....	140,714	48,902	183	27,479	23	19,465	22	718	12	1,250	17,843	91,812	8,739	50,517
New York.....	314,583	78,784	472	56,106	110	18,906	44	3,688	9	84	107,536	235,804	5,312	64,239
Niagara.....	197,992	18,224	40	9,186	20	7,051	7	716	7	1,271	12,153	179,768	306	4,318
Oneida.....	119,696	42,047	124	19,026	30	20,793	27	451	21	1,777	9,864	77,619	898	11,134
Onondaga.....	172,228	66,453	202	27,309	63	34,753	13	376	44	4,015	11,870	105,775	1,759	27,882
Orange.....	27,707	11,841	62	7,734	15	2,524	14	640	10	943	3,317	15,865	676	6,839
Oswego.....	46,990	16,308	43	5,188	6	8,916	13	184	20	2,020	2,357	30,682	1,660	13,876
Queens.....	147,797	47,432	157	23,034	56	22,078	19	1,122	-----	-----	19,256	100,365	3,039	23,492
Rensselaer.....	51,126	24,769	68	12,251	42	9,901	4	310	16	2,307	3,001	26,357	1,271	10,188
Richmond.....	55,846	14,441	50	10,332	7	3,760	11	349	1	(¹)	2,590	41,405	895	7,363
St. Lawrence.....	117,229	27,297	82	6,435	8	3,654	4	15	120	17,193	2,444	89,932	505	8,873
Saratoga.....	66,426	60,367	57	9,365	5	8,005	1	(¹)	42	43,027	744	6,059	918	27,911
Schenectady.....	174,747	57,292	25	9,183	10	47,450	21	679	-----	-----	19,165	117,455	1,150	28,000
Warren.....	37,535	24,094	25	12,522	1	(¹)	2	184	29	21,888	782	13,441	179	2,595
Washington.....	45,537	31,257	36	4,946	11	4,916	2	87	48	21,808	1,283	11,280	919	19,767
Westchester.....	84,235	47,863	121	21,193	32	24,882	37	1,788	1	(¹)	5,874	36,422	3,147	29,624
All other counties.....	342,971	173,382	934	89,936	125	52,433	214	12,246	176	18,767	25,641	169,589	10,005	100,402

(See footnotes, p. 130.)

POWER EQUIPMENT

TABLE 6.—PRIME MOVERS AND ELECTRIC MOTORS, BY NUMBER AND RATED CAPACITY, FOR IMPORTANT INDUSTRIAL COUNTIES: 1929—Continued

[See note at head of this table]

COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY												Electric motors driven by energy generated in establishments reporting	
	Aggregate horse-power	Total horse-power of prime movers	Prime movers						Electric motors driven by purchased energy					
			Steam engines		Steam turbines		Internal-combustion engines		Water wheels and water turbines		Number	Horse-power		
Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power	
NORTH CAROLINA														
The State.....	839,945	317,739	2,288	183,202	117	90,252	277	9,753	271	34,532	79,510	522,206	10,016	100,202
Important counties:														
Cabarrus.....	32,209	3,491	7	145	2	3,340					8,727	28,718	1,193	2,600
Durham.....	30,255	18,368	38	4,870	10	13,142	3	80	5	270	1,973	11,887	1,087	4,991
Forsyth.....	31,157	17,159	73	9,029	14	7,543	8	367	0	230	1,784	13,998	1,940	11,799
Gaston.....	80,238	2,483	32	1,115	2	28	1	(¹)	9	1,845	9,793	77,760	880	452
Guilford.....	56,756	20,295	81	6,415	0	12,558	4	507	8	815	8,715	36,461	4,049	12,337
Haywood.....	29,536	26,538	25	7,920	5	17,416	4	65	4	133	1,175	3,803	639	21,050
Mecklenburg.....	36,637	8,329	26	4,516	6	3,755	3	58			2,728	28,308	244	1,235
Rockingham.....	26,102	9,127	17	4,220	5	4,282	1	(¹)	9	2,025	3,909	16,975	804	3,927
All other counties.....	517,255	212,949	1,989	146,966	61	28,183	253	8,686	230	29,114	42,051	304,306	5,280	41,751
NORTH DAKOTA*														
The State.....	19,756	11,090	77	5,746	13	4,340	19	950	2	60	2,123	8,600	388	5,617
OHIO														
The State.....	4,340,575	2,095,138	3,713	1,041,497	752	920,286	817	110,560	172	13,795	225,287	2,245,437	70,763	1,490,485
Important counties:														
Butler.....	173,384	98,668	77	44,589	35	50,319	9	477	7	3,283	3,555	74,716	4,504	75,542
Clark.....	36,381	11,580	29	7,081	5	1,770	22	2,159	05	570	3,137	24,801	843	8,181
Columbiana.....	49,586	23,077	89	20,343	11	1,072	20	1,622			2,585	26,509	213	2,581
Cuyahoga.....	782,808	315,108	349	128,522	121	169,089	80	16,628	9	869	61,412	407,700	8,229	261,382
Eric.....	25,522	8,597	31	3,909	2	4,330	10	268			1,374	16,925	310	7,725
Franklin.....	111,018	25,721	95	22,804	2	1,000	28	1,827			11,222	85,207	2,365	28,101
Greene.....	25,384	21,062	12	1,098	8	20,219	3	345			334	3,722	570	24,376
Hamilton.....	262,764	74,247	374	61,121	44	9,882	68	3,244			27,498	188,517	7,145	57,773
Jefferson.....	198,352	104,772	107	90,775	11	13,463	6	534			2,015	93,580	2,075	69,549
Lake.....	43,488	26,931	64	29,346	17	17,573	2	12	1	(¹)	876	16,557	1,060	10,668
Lorain.....	206,419	175,035	198	85,462	48	69,194	17	20,979			2,136	30,784	4,144	109,103
Lucas.....	201,483	59,737	122	15,453	17	43,284	20	850	2	150	17,774	141,746	1,301	31,612
Mahoning.....	576,152	464,712	382	257,327	102	162,408	23	40,696	20	4,381	5,162	111,440	7,327	235,799
Montgomery.....	117,896	33,233	75	210,725	16	22,006	9	502	1	(²)	10,098	84,603	2,663	24,272
Muskingum.....	32,228	21,133	51	10,539	5	9,760	17	622	3	222	1,504	11,095	668	22,023
Rickland.....	51,309	1,684	8	1,651	4	1,033	1	(¹)			4,014	49,625	366	4,516
Scioto.....	68,259	55,078	63	19,348	32	34,967	10	763			1,474	13,181	1,240	46,021
Stark.....	281,115	85,822	111	25,452	42	58,895	23	1,220	6	225	9,687	195,293	4,081	112,908
Summit.....	323,460	172,321	192	30,514	86	139,327	16	1,199	14	1,281	11,685	151,139	7,002	162,823
Trumbull.....	236,262	61,296	88	29,571	38	30,715	10	1,010			7,002	174,966	1,687	64,973
Tuscarawas.....	40,663	23,078	107	22,595	1	(¹)	14	402	3	81	1,408	17,585	628	7,842
Wayne.....	28,373	16,746	32	8,689	15	5,950	16	1,107			1,013	12,627	493	5,606
All other counties.....	468,269	215,300	1,057	135,473	90	54,040	393	23,054	41	2,733	32,022	252,969	10,963	117,784
OKLAHOMA														
The State.....	223,257	115,987	503	48,673	94	39,380	244	27,934			12,092	107,270	2,398	55,053
Important counties:														
Oklahoma.....	25,698	10,175	28	10,428	1	(¹)	9	747			2,340	15,523	264	6,024
Tulsa.....	43,200	13,154	29	2,005	41	6,067	33	5,082			2,920	30,046	281	5,848
All other counties.....	154,359	92,658	446	37,240	52	33,313	202	22,105			6,826	61,701	1,853	43,181
OREGON														
The State.....	418,324	207,599	972	83,738	79	75,039	83	2,238	103	46,584	18,081	210,725	4,738	91,011
Important counties:														
Clackamas.....	80,903	50,184	70	5,467	4	2,640	2	42	50	42,015	812	30,739	339	7,227
Coos.....	28,337	18,676	42	3,822	6	14,674	7	180			795	9,691	340	1,114
Lane.....	26,052	16,204	165	13,773	5	2,289	9	142	1	(²)	780	9,848	317	6,185
Multnomah.....	107,936	22,138	105	10,302	10	10,714	8	124	10	998	10,793	85,797	649	8,343
All other counties.....	175,097	100,417	690	50,374	54	44,722	57	1,750	42	3,571	5,530	74,680	3,093	68,142

(See footnotes, p. 130.)

CENSUS OF MANUFACTURES: 1929

TABLE 6.—PRIME MOVERS AND ELECTRIC MOTORS, BY NUMBER AND RATED CAPACITY, FOR IMPORTANT INDUSTRIAL COUNTIES: 1929—Continued

[See note at head of this table]

COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY											Electric motors driven by energy generated in establishments reporting		
	Aggregate horse-power	Total horse-power of prime movers	Prime movers								Electric motors driven by purchased energy			
			Steam engines		Steam turbines		Internal-combustion engines		Water wheels and water turbines		Number			Horse-power
			Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power				
PENNSYLVANIA														
The State.....	5,091,493	3,340,112	7,373	1,898,635	1,388	1,183,443	1,355	241,121	528	22,913	310,097	2,645,381	138,437	2,359,077
Important counties:														
Allegheny.....	1,398,914	947,853	1,087	2,522,055	300	361,909	183	63,889	1	(?)	38,100	451,061	29,105	666,713
Armstrong.....	89,847	12,196	30	6,429	0	2,136	60	3,631			2,406	77,051	79	562
Beaver.....	249,055	213,709	143	96,426	71	114,795	21	1,781	5	707	6,321	135,346	6,335	185,200
Berks.....	124,615	40,095	203	40,788	16	6,668	28	833	26	806	14,713	75,520	2,891	23,181
Blair.....	61,971	51,566	121	17,011	35	34,071	12	254	9	230	2,262	10,405	3,044	45,568
Bucks.....	30,603	15,868	64	7,524	8	7,069	10	500	11	775	2,907	14,735	706	7,786
Butler.....	95,953	6,804	30	1,519	1	(?)	37	1,545			2,337	92,089	481	6,283
Cambria.....	220,265	199,094	121	126,391	19	72,500	6	203			2,450	21,171	4,277	147,530
Carbon.....	44,095	37,321	37	8,310	35	28,183	9	566	6	262	1,052	6,774	1,010	16,961
Chester.....	110,874	53,102	249	35,257	34	8,612	53	8,804	17	420	3,041	57,772	2,285	64,461
Clearfield.....	25,547	13,076	95	11,845	6	1,051	10	380			1,168	12,471	203	3,096
Clinton.....	33,801	22,081	58	10,711	10	11,010	4	120	0	240	1,729	11,780	860	17,830
Dauphin.....	114,784	79,512	56	23,990	62	27,436	16	27,878	8	208	3,607	35,272	4,654	92,777
Delaware.....	234,476	73,580	143	22,683	34	47,913	31	2,629	10	355	12,570	160,896	3,890	39,950
Elk.....	40,373	23,505	55	10,200	6	12,270	9	1,035	1	(?)	1,253	16,868	796	15,706
Erie.....	111,668	46,358	132	23,008	13	22,523	9	707	4	115	8,579	65,310	9,611	76,018
Fayette.....	30,262	13,520	85	11,208	3	328	29	1,842	0	148	1,358	16,736	306	3,367
Lackawanna.....	41,440	10,560	41	6,401	12	4,159	1	(?)			0,788	30,886	1,754	8,650
Lancaster.....	76,865	10,016	77	7,439	12	499	28	552	50	1,529	11,249	66,849	1,156	1,659
Lawrence.....	155,209	100,688	170	98,072	36	31,411	8	409	8	196	2,156	54,521	2,893	66,230
Lebanon.....	67,142	30,023	31	5,019	8	33,650	6	194	8	160	3,031	28,119	1,112	26,771
Lehigh.....	111,246	40,919	177	30,522	21	8,053	15	1,339	18	1,005	13,954	70,327	1,706	14,983
Luzerne.....	54,535	20,174	126	16,352	14	3,399	7	235	5	185	12,008	34,361	1,549	11,636
Lycoming.....	40,645	17,506	93	16,208	5	750	4	134	16	414	4,957	23,139	1,621	8,319
Mercer.....	203,618	96,150	159	64,962	41	27,086	32	3,972	4	130	3,913	107,468	2,176	44,097
Mifflin.....	49,661	29,402	75	12,780	4	14,000	13	1,515	9	207	1,466	14,259	327	15,322
Montgomery.....	171,940	80,797	211	49,695	50	28,599	20	1,865	21	938	10,548	91,143	3,916	63,375
Northampton.....	457,337	375,218	261	212,691	47	90,341	31	71,236	20	950	10,459	82,119	9,761	266,316
Northumberland.....	33,493	11,352	71	8,506	13	2,123	10	688	2	35	5,274	22,141	2,845	37,653
Philadelphia.....	652,321	264,830	1,166	170,815	256	76,520	231	14,163	29	3,332	74,026	387,491	20,792	155,293
Schuylkill.....	38,908	22,542	93	21,633	7	318	8	466	3	75	2,767	16,366	836	13,149
Venango.....	31,908	16,870	91	5,800	9	6,607	46	4,463			1,707	15,038	964	10,400
Washington.....	130,987	91,146	62	46,911	10	41,145	16	3,090			2,746	39,841	2,280	57,219
Westmoreland.....	203,371	120,725	211	84,989	38	34,654	11	1,082			6,821	82,646	4,412	71,134
York.....	98,376	29,986	162	17,058	18	8,929	11	285	24	3,714	9,887	68,390	1,754	26,560
All other counties.....	258,322	109,902	787	73,180	59	11,821	330	18,833	189	6,068	20,427	148,420	6,044	47,317
RHODE ISLAND														
The State.....	463,822	200,731	300	85,278	98	83,144	21	6,913	157	25,806	37,313	263,091	15,782	87,133
Important counties:														
Kent.....	45,008	36,038	52	19,302	10	7,016	2	150	54	8,670	1,960	8,970	4,730	12,820
Providence.....	379,257	148,004	211	56,620	79	69,600	12	6,508	31	15,207	32,450	231,253	10,353	66,519
All other counties.....	39,557	16,689	46	9,356	9	5,619	7	255	22	1,459	2,903	22,868	689	7,794
SOUTH CAROLINA														
The State.....	527,326	234,018	1,215	134,969	71	61,888	84	2,065	75	35,096	33,109	203,308	6,237	60,478
Important counties:														
Anderson.....	46,032	24,007	17	9,840	6	7,545						22,925	1,361	9,705
Charleston.....	28,752	9,838	43	4,855	9	4,452	13	501		6,622	2,709	959	12	251
Greenville.....	60,781	22,720	37	12,056	6	7,166					6,791	38,055	376	6,910
Spartanburg.....	78,876	35,791	25	14,074	7	8,577	2	15	15	2,905	4,306	43,085	1,960	8,400
All other counties.....	311,985	141,650	1,093	92,915	43	34,148	68	1,549	29	13,044	18,344	170,320	2,528	35,212
SOUTH DAKOTA*														
The State.....	31,297	12,889	103	8,077	11	2,711	38	1,279	4	222	3,356	18,408	364	7,961
TENNESSEE														
The State.....	606,704	264,101	1,705	161,281	144	89,993	194	8,882	103	3,995	32,710	342,603	15,390	122,975
Important counties:														
Davidson.....	87,977	42,806	116	16,095	31	26,613	4	98			5,109	45,171	5,848	14,179
Hamilton.....	81,917	15,903	96	15,108	5	500	7	180	4	120	7,466	66,014	419	5,462
Knox.....	63,998	22,576	112	16,712	18	5,234	6	425	4	205	5,218	41,422	630	6,819
Polk.....	26,353	6,157	16	3,814	3	2,274	2	69			768	20,196		
Shelby.....	137,088	60,378	230	42,144	38	16,910	13	1,824			4,099	76,710	3,982	52,462
Sullivan.....	29,315	9,538	29	2,953	5	6,890					1,780	19,777	440	10,362
All other counties.....	180,056	106,743	1,106	64,460	44	32,072	162	6,736	88	3,475	8,210	73,313	4,071	33,701

(See footnotes p. 130.)

POWER EQUIPMENT

TABLE 6.—PRIME MOVERS AND ELECTRIC MOTORS, BY NUMBER AND RATED CAPACITY, FOR IMPORTANT INDUSTRIAL COUNTIES: 1929—Continued

[See note at head of this table]

COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY												Electric motors driven by energy generated in establishments reporting	
	Aggregate horse-power	Total horse-power of prime movers	Prime movers								Electric motors driven by purchased energy			
			Steam engines		Steam turbines		Internal-combustion engines		Water wheels and water turbines		Number	Horse-power		
			Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power				
TEXAS														
The State.....	822,800	378,927	1,821	101,134	192	127,113	539	50,990	8	690	41,490	448,938	0,221	164,732
Important counties:														
Bexar.....	40,090	12,762	36	5,407	1	(^o)	31	7,355	1	(^o)	3,189	27,328	160	7,331
Dallas.....	74,210	28,643	31	11,705	11	9,866	32	7,072			5,507	46,567	1,017	13,553
El Paso.....	36,217	20,082	39	5,603	24	14,096	6	383			1,020	16,136	437	11,333
Harris.....	120,055	30,224	104	13,307	51	9,352	47	7,565			7,303	89,831	249	7,481
Jefferson.....	121,361	39,733	118	10,488	23	74,517	33	4,728	1	(^o)	1,857	31,508	2,659	95,482
Tarrant.....	59,327	15,564	46	10,154	7	363	44	5,047			3,340	43,703	142	2,625
All other counties.....	371,600	181,919	1,397	134,470	75	18,919	346	27,840	6	690	18,677	186,741	1,557	26,927
UTAH														
The State.....	123,737	55,311	205	34,409	31	17,730	31	713	36	2,454	6,700	68,426	1,063	22,781
Important county, Salt Lake.....	59,517	26,410	55	15,022	11	9,748	11	158	6	882	3,637	33,107	548	12,792
All other counties.....	64,220	28,901	150	18,787	20	7,982	20	560	30	1,572	3,063	35,319	505	9,989
VERMONT														
The State.....	163,940	80,508	286	30,124	18	9,028	39	2,447	241	38,909	8,662	83,432	4,146	40,990
Important county, Rutland.....	29,318	15,082	19	3,675			2	100	15	11,307	1,372	14,236	819	13,930
All other counties.....	134,622	65,426	267	26,449	18	9,028	37	2,347	226	27,602	7,290	69,196	3,327	27,060
VIRGINIA														
The State.....	646,251	390,508	2,090	150,356	175	194,180	233	9,188	332	36,784	26,076	255,743	24,061	213,264
Important counties and independent cities:														
Alleghany and Clifton Forge city.....	54,120	47,276	47	5,556	32	41,155	1	(^o)	3	565	775	6,844	1,556	47,826
Campbell and Lynchburg city.....	25,066	17,294	42	7,180	4	9,060	8	313	11	741	1,450	8,372	353	8,849
Henrico and Richmond city.....	62,672	13,302	62	9,125	10	1,536	10	411	18	2,230	5,025	49,370	159	2,126
Norfolk and Norfolk, Portsmouth, and South Norfolk cities.....	55,302	8,498	76	6,211	5	2,055	8	232			3,853	46,864	200	2,057
Pittsylvania and Danville city.....	47,550	45,692	24	1,780	0	31,027	4	255	74	12,630	237	1,867	12,759	38,913
Prince George and Hopewell city.....	82,170	67,639	29	29,628	45	33,975	8	36	4	4,000	537	14,531	906	28,727
Roanoke and Roanoke city.....	40,800	26,188	20	895	12	25,143			4	150	1,324	14,072	2,512	32,023
Warwick and Newport News city.....	35,070	4,599	10	2,258	3	2,202	3	139			1,044	30,471	3	2,100
All other counties and independent cities.....	242,772	160,020	1,780	87,723	55	48,027	191	7,802	218	16,468	10,931	82,752	5,603	50,648
WASHINGTON														
The State.....	814,891	419,732	1,392	193,560	188	206,758	150	4,397	50	15,017	30,822	305,159	13,468	276,286
Important counties:														
Clallam.....	30,222	22,745	33	8,635	5	8,800	6	70	11	5,240	331	7,477	716	36,795
Clark.....	59,197	11,512	34	5,517	3	4,195	1	(^o)	4	1,800	1,939	47,685	123	3,400
Cowlitz.....	67,940	62,340	22	26,855	18	35,330	4	155			280	5,000	3,262	73,407
Grays Harbor.....	68,893	60,212	149	31,412	23	28,701	6	39			885	8,681	1,840	36,309
King.....	156,544	47,600	234	17,662	30	28,474	24	1,484			12,038	108,944	1,423	29,005
Pierce.....	136,544	39,939	146	22,387	26	17,170	6	114			1,336	10,731	1,286	18,739
Snohomish.....	80,604	43,873	113	19,968	28	23,549	22	356	2	268	933	14,485	483	28,540
Spokane.....	45,577	8,168	70	5,511	3	1,650	6	77			2,930	37,409	66	1,116
Whatcom.....	20,540	15,061	64	6,343	7	8,655	5	63			77	1	66	2,650
All other counties.....	159,824	108,282	527	48,270	45	50,244	70	2,059	32	7,709	4,174	51,542	1,924	45,825

(See footnotes, p. 130.)

CENSUS OF MANUFACTURES: 1929

TABLE 6.—PRIME MOVERS AND ELECTRIC MOTORS, BY NUMBER AND RATED CAPACITY, FOR IMPORTANT INDUSTRIAL COUNTIES: 1929—Continued

[See note at head of this table]

COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY												Electric motors driven by energy generated in establishments reporting	
	Aggregate horsepower	Prime movers								Electric motors driven by purchased energy				
		Total horsepower of prime movers	Steam engines		Steam turbines		Internal-combustion engines		Water wheels and water turbines		Number	Horsepower		
			Number	Horsepower	Number	Horsepower	Number	Horsepower	Number	Horsepower				
WEST VIRGINIA														
The State.....	650, 199	379, 226	830	118, 894	242	224, 769	195	28, 851	26	8, 742	17, 247	270, 973	9, 818	249, 726
Important counties:														
Brooke.....	27, 618	3, 595	7	2, 615	1	(1)	5	980			890	24, 023	65	429
Cabell.....	47, 079	8, 078	20	4, 173	3	2, 000	11	1, 905			2, 640	39, 001	2, 897	15, 778
Hancock.....	116, 130	109, 330	37	29, 883	15	79, 265	3	182			1, 281	6, 800	2, 697	145, 578
Kanawha.....	142, 609	65, 945	57	6, 225	166	50, 707	30	9, 013			1, 666	76, 664	1, 847	32, 589
Mercer.....	75, 480	65, 085	10	1, 640	7	63, 445					468	10, 395	59	1, 135
Ohio.....	32, 941	12, 143	32	9, 368	8	640	24	2, 135			1, 936	20, 798	789	6, 019
Wood.....	29, 782	16, 411	22	4, 716	3	10, 765	8	930			1, 425	13, 371	792	7, 885
All other counties.....	178, 560	98, 639	645	60, 244	39	17, 947	114	11, 706	26	8, 742	6, 941	79, 921	2, 672	40, 313
WISCONSIN														
The State.....	1, 239, 394	618, 932	3, 056	303, 456	332	144, 359	484	9, 877	406	101, 210	76, 715	620, 462	38, 352	427, 209
Important counties:														
Brown.....	38, 745	15, 520	71	7, 316	19	3, 444	2	10	36	4, 750	1, 988	23, 225	505	5, 828
Kenosha.....	46, 423	17, 895	10	4, 495	7	13, 400					2, 012	28, 528	3, 577	28, 550
Manitowoc.....	33, 067	13, 996	90	8, 584	5	5, 197	12	215	1	(2)	3, 006	19, 071	753	12, 380
Marathon.....	36, 838	27, 328	120	7, 785	17	6, 911	15	97	26	12, 535	1, 244	9, 510	958	23, 433
Marinette.....	30, 127	24, 112	38	6, 168	6	1, 476	10	20	19	16, 452	1, 536	6, 015	290	8, 372
Milwaukee.....	421, 681	130, 060	377	89, 674	51	36, 664	19	3, 722			31, 676	291, 621	17, 769	157, 329
Outagamie.....	84, 166	57, 823	74	11, 315	15	20, 179	6	28	115	26, 303	2, 031	26, 343	1, 524	29, 952
Racine.....	56, 843	22, 741	62	18, 342	4	4, 250	3	36	4	113	5, 657	34, 102	1, 337	15, 479
Rock.....	27, 117	6, 502	37	4, 530	6	38	15	1, 171	12	763	3, 403	20, 615	698	4, 032
Sheboygan.....	26, 860	16, 632	132	15, 589	10	411	40	432	2	200	1, 823	10, 228	2, 005	13, 355
Winnebago.....	50, 079	33, 766	101	15, 423	24	16, 656	7	107	33	1, 580	2, 684	16, 313	2, 340	21, 302
Wood.....	52, 504	38, 208	50	4, 110	8	13, 936	9	46	23	20, 116	1, 027	14, 298	895	25, 474
All other counties.....	334, 944	214, 349	1, 894	110, 165	160	21, 797	340	3, 989	225	78, 398	10, 628	120, 595	5, 701	80, 823
WYOMING *														
The State.....	46, 677	28, 715	127	10, 374	107	15, 396	43	2, 782	4	163	1, 740	17, 962	1, 017	14, 277

* No county in this State reported as much as 25,000 horsepower.
 1 Item for steam turbines included with that for steam engines to avoid disclosing data for a single establishment.
 2 Item for water wheels and water turbines included with that for steam engines to avoid disclosing data for a single establishment.
 3 Included in item for "All other counties" to avoid disclosing data for a single establishment.
 4 Item for internal-combustion engines included with that for steam engines to avoid disclosing data for a single establishment.
 5 Items for steam turbines, internal-combustion engines, and water wheels included with that for steam engines to avoid disclosing data for individual establishments.
 6 Items for steam turbines and water wheels included with that for steam engines to avoid disclosing data for individual establishments.

POWER EQUIPMENT

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
ALABAMA	795,330	400,224	385,108	180,808	ARKANSAS	223,034	134,395	88,039	33,220
Autauga	1,366	1,000	366	(?)	Arkansas	4,494	3,000	1,404	156
Baldwin	2,036	1,607	429	350	Baxter	253	246	7	
Barbour	4,841	3,397	1,444		Benton	1,741	1,000	675	30
Bibb	960	765	204		Boone	1,081	375	706	
Blount	2,068	1,055	1,013		Bradley	5,520	5,460	60	3,700
Bullock	1,532	948	584		Calhoun	163	156	7	
Butler	6,793	5,944	849		Carroll	1,126	975	151	
Calhoun	25,491	1,086	24,405		Chicot	1,331	1,170	161	
Chambers	21,965	5,411	16,554	1,669	Clark	3,804	3,010	794	167
Cherokee	379	376	3		Clay	1,085	885	200	
Chilton	1,113	516	597		Cleburne	800	702	88	178
Choctaw	4,425	4,371	54	750	Cleveland	317	311	6	
Clarke	3,482	3,462	20		Columbia	1,832	1,273	609	
Clay	1,049	931	118		Conway	1,379	1,307	72	165
Cleburne	844	844			Craighead	2,941	2,540	401	
Coffee	2,079	2,022	57	6	Crawford	663	165	488	
Colbert	1,902	1,014	888	185	Crittendon	752	565	187	
Conecuh	1,147	1,121	26		Cross	927	734	193	
Coosa	1,074	1,051	23		Dallas	4,076	3,272	804	575
Covington	5,100	5,877	2,229	2,384	Desha	1,877	1,445	432	
Crenshaw	1,447	1,292	155		Drew	1,843	929	914	28
Cullman	2,092	1,963	129		Faulkner	683	565	118	
Dale	2,741	2,608	133	178	Franklin	83	61	22	
Dallas	7,457	2,218	J. 247		Garland	4,904	1,534	3,370	86
Elmore	2,101	1,080	1,021		Grant	1,400	1,375	25	
Escambia	5,014	4,890	324	1,200	Greene	1,859	1,589	270	
Etowah	69,415	47,004	20,421	39,071	Hempstead	2,006	1,727	279	106
Fayette	2,968	2,177	791	105	Hot Spring	4,839	1,824	3,015	250
Geneva	2,078	1,220	858		Independence	1,122	498	624	28
Greene	1,303	1,300	3	472	Jackson	1,423	870	553	
Hale	2,181	1,998	183		Jefferson	17,868	6,913	10,955	1,260
Henry	2,261	2,030	231		Johnson	698	653	15	
Houston	4,694	2,862	1,832		Lawrence	1,384	1,185	199	
Jackson	2,182	1,168	1,024		Lee	1,305	1,340	25	
Jefferson	362,609	192,142	170,467	118,268	Lincoln	367	305	62	
Lamar	1,292	1,116	176		Logan	658	628	30	18
Lauderdale	3,435	1,333	2,102		Madison	795	701	4	
Lawrence	158	168	(?)		Marion	359	357	2	
Lee	6,079	955	5,124		Miller	2,316	1,043	673	73
Limestone	1,051	1,005	46		Mississippi	5,900	5,059	841	1,248
Lowndes	808	758	50		Monroe	1,172	1,007	165	40
Macon	1,781	1,685	96	840	Nevada	1,922	1,690	232	127
Madison	27,895	6,399	21,496		Newton	709	742	27	
Marengo	8,070	2,987	5,083		Ouachita	17,474	3,830	13,644	76
Marion	2,130	1,355	775	(?)	Perry	238	205	33	
Marshall	2,698	480	2,218		Phillips	8,737	4,351	4,386	3,796
Mobile	26,140	11,441	14,699	170	Poinsett	6,897	6,064	233	3,828
Moore	2,029	2,000	29		Polk	1,317	1,234	83	
Montgomery	20,675	4,671	16,004	125	Pope	3,145	1,882	1,263	
Morgan	8,668	2,941	5,727	944	Prairie	981	945	36	25
Perry	2,741	1,283	1,458		Pulaski	31,815	8,749	23,066	1,107
Pickens	2,240	1,498	742		Randolph	565	534	31	
Pike	4,149	3,032	1,117		St. Francis	2,495	1,905	590	
Randolph	5,817	826	4,991		Saline	2,923	2,171	752	277
Russell	1,913	1,133	775	937	Searcy	878	873	5	50
St. Clair	7,940	1,131	6,809		Sebastian	12,388	4,443	7,945	490
Shelby	2,500	750	1,750		Sevier	1,043	764	279	32
Sumter	2,389	2,265	124	1,410	Stone	172	172		
Talladega	22,903	3,043	19,860		Union	10,227	7,594	2,633	477
Tallapoosa	14,224	6,137	8,087	5,665	Van Buren	335	335		
Tuscaloosa	26,469	20,462	6,007	5,960	Washington	2,634	1,090	944	79
Walker	7,236	2,733	4,503		White	1,701	1,557	144	160
Washington	2,310	2,310			Woodruff	1,902	1,270	632	150
Wilcox	1,955	1,955	(?)	(?)	Yell	862	218	644	
Winston	1,351	755	596		All other counties ²	22,363	20,867	1,526	14,469
Other counties (De Kalb and Franklin)	3,180	2,097	1,083		CALIFORNIA	1,569,086	338,829	1,230,457	168,243
ARIZONA	180,637	134,426	46,211	69,173	Alameda	157,178	18,289	188,889	2,321
Cochise	54,506	53,933	573	15,344	Amador	940	845	595	
Coconino	2,333	2,285	48	313	Butte	9,977	3,800	6,177	1,000
Gila	31,788	2,798	28,990	205	Colusa	552	300	252	
Graham	444	310	134	3	Contra Costa	150,274	30,832	119,442	15,751
Maricopa	14,131	3,146	10,985	301	Del Norte	1,668	1,016	52	(?)
Mohave	69		69		Eldorado	5,849	4,340	1,506	3,885
Navajo	5,140	4,805	335	987	Fresno	29,151	9,413	19,738	8,125
Pima	4,501	1,820	2,681	536	Glenn	572	80	492	
Santa Cruz	886		886		Humboldt	35,393	30,207	5,120	32,773
Yavapai	36,362	35,380	982	23,800	Imperial	7,591	430	7,161	
Yuma	1,536	977	559	531	Inyo	5,078	270	4,808	
All other counties ³	29,241	28,072	269	27,183	Kern	17,149	1,944	15,205	9
					Kings	3,062	560	2,498	

¹ Horsepower of electric motors driven by energy generated in establishments reporting.

² Included in total for State but not shown separately to avoid disclosing data for a single establishment.

³ The item for electric motors is included in that for prime movers to avoid disclosing data for a single establishment.

⁴ Apache, Greenlee, and Pinal Counties; combined to avoid disclosing approximations of the data for individual establishments.

⁵ Ashley, Fulton, Howard, Izard, Lafayette, Little River, Lonoke, Montgomery, Pike, Scott, and Sharp Counties combined to avoid disclosing approximations of the data for individual establishments.

⁶ Included in total for State but not shown separately to avoid disclosing data for a single establishment.

CENSUS OF MANUFACTURES: 1929

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
CALIFORNIA—Continued.					CONNECTICUT				
Lake	584	485	99	400	Fairfield	191,870	72,026	119,844	35,068
Lassen	19,304	17,590	1,714	18,994	Hartford	206,930	62,728	144,202	38,764
Los Angeles	633,831	81,005	457,826	23,360	Litchfield	35,338	20,140	15,192	20,138
Madera	4,283	2,455	1,828	804	Middlesex	19,983	8,180	11,803	3,138
Marin	5,661	1,427	4,234	—	New Haven	314,025	110,786	187,839	87,828
Mendocino	8,901	8,229	672	4,180	New London	72,257	46,924	25,333	18,750
Merced	11,842	2,660	9,182	—	Tolland	11,466	8,487	2,909	4,761
Modoc	1,180	1,075	85	—	Windham	50,880	46,651	10,170	14,263
Monterey	10,533	7,098	9,435	4,768	DELAWARE				
Napa	1,955	90	1,865	—	Aggregate	114,961	69,802	55,150	46,434
Nevada	8,530	5,721	2,809	1,218	Kent	4,269	3,287	982	182
Orange	10,844	3,400	6,044	1,515	New Castle	103,733	52,475	51,258	46,020
Placer	9,149	110	9,039	—	Sussex	6,959	4,040	2,919	232
Plumas	3,987	3,115	872	481	DISTRICT OF COLUMBIA				
Riverside	13,940	9,181	4,779	17,840	Aggregate	44,916	13,372	31,544	3,931
Sacramento	82,446	4,001	23,446	—	FLORIDA				
San Benito	3,941	155	3,786	70	Aggregate	192,695	104,666	88,029	28,077
San Bernardino	62,626	14,899	47,727	8,075	Alachua	2,310	1,058	1,252	—
San Diego	23,340	3,323	20,017	554	Baker	614	614	—	—
San Francisco	157,372	19,094	138,278	335	Bay	2,977	2,875	102	1,300
San Joaquin	33,061	9,019	23,442	4,945	Bradford	101	170	15	(⁹)
San Luis Obispo	2,383	674	1,709	—	Brevard	842	285	557	—
San Mateo	30,469	1,575	37,894	130	Broward	2,280	398	1,881	—
Santa Barbara	4,475	1,432	3,043	228	Calhoun	630	617	13	—
Santa Clara	20,550	4,201	25,259	(⁹)	Charlotte	374	130	244	—
Santa Cruz	18,298	550	17,748	22	Citrus	353	315	38	—
Shasta	1,104	414	690	—	Clay	204	190	14	13
Sierra	3,058	3,657	1	1,136	Columbia	603	457	236	—
Siskiyou	20,089	12,642	8,047	11,510	Dade	13,004	2,754	10,850	98
Solano	8,445	746	7,699	—	De Soto	2,244	1,448	796	108
Sonoma	6,086	477	5,609	—	Duval	26,864	9,341	17,523	1,494
Stanislaus	10,218	756	9,462	433	Escambia	11,314	7,679	3,635	1,183
Sutter	531	72	459	—	Flagler	174	166	8	—
Tehama	1,059	218	841	—	Franklin	970	788	181	38
Trinity	131	130	1	—	Gadsden	2,889	2,747	142	817
Tulare	5,063	1,608	3,695	—	Glades	115	115	—	—
Tuolumne	7,051	3,660	3,091	2,250	Glenn	667	667	—	—
Ventura	9,063	6,956	2,697	1,095	Gulf	—	—	—	—
Yolo	1,357	4	1,353	—	Hamilton	723	417	306	—
Yuba	2,437	1,044	1,393	—	Hardee	354	60	294	—
All other counties ¹	4,628	446	4,182	—	Hernando	343	237	106	—
COLORADO					Highlands	2,003	1,913	90	33
Adams	5,466	2,456	3,010	1,362	Hillsborough	26,927	12,416	14,511	8,604
Alamosa	1,113	280	833	—	Indian River	309	10,300	(¹⁰)	—
Arapahoe	3,368	418	2,950	—	Jackson	302	88	214	—
Archuleta	245	225	20	—	Jefferson	1,354	1,062	292	—
Bent	974	180	794	—	Lafayette	980	67	67	—
Boulder	4,096	3,503	1,193	751	Lake	3,377	2,004	1,378	25
Chaffee	1,623	272	1,351	—	Lee	1,579	560	1,010	—
Costilla	1,178	153	25	—	Leon	2,011	1,421	590	14
Delta	2,872	2,512	360	1,900	Levy	2,277	2,250	27	80
Denver	61,435	17,120	44,315	12,327	Liberty	612	612	—	—
Eagle	133	75	58	—	Madison	547	366	181	—
El Paso	3,582	1,201	2,201	30	Manatee	2,692	2,200	492	172
Fremont	11,869	9,617	2,252	6,252	Marion	2,775	1,936	867	—
Garfield	233	141	92	—	Martin	1,053	1,007	46	14
Gunnison	2,717	2,654	63	624	Monroe	1,283	816	467	116
Huerfano	197	134	63	—	Nassau	873	725	148	—
Jefferson	2,011	951	1,060	471	Okaloosa	334	181	153	—
La Plata	3,710	1,170	2,540	—	Orange	5,491	1,791	3,700	60
Larimer	24,615	15,076	6,539	1,447	Osceola	2,314	2,127	187	2,256
Las Animas	4,779	1,085	3,694	78	Palm Beach	4,275	953	3,322	—
Lincoln	214	30	184	—	Pasco	2,283	2,045	238	3,163
Logan	2,831	2,363	468	227	Pinellas	7,761	591	7,160	—
Mesa	1,658	422	1,236	—	Polk	9,096	5,345	3,751	1,080
Montrose	196	87	109	—	Putnam	3,770	3,154	616	3,302
Otero	9,913	8,394	1,519	6,273	St. Johns	3,730	269	3,461	—
Phillips	50	25	25	15	St. Lucia	1,176	30	1,146	—
Prowers	3,397	1,677	1,720	168	Sarasota	1,004	790	214	—
Pueblo	55,216	46,038	9,178	58,045	Seminole	3,029	1,120	1,909	—
Rio Grande	506	381	125	—	Sumter	1,022	935	87	87
Routt	321	283	38	75	Suwannee	887	817	70	—
Saguache	57	50	7	—	Taylor	7,299	6,966	333	2,029
San Miguel	193	165	28	—	Union	360	360	—	—
Teller	93	60	33	—	Volusia	3,868	1,756	2,112	50
Weid	9,077	7,406	1,671	3,920	Wakulla	453	453	—	—
Yuma	40	20	20	—	Walton	1,849	1,832	17	18
All other counties ²	14,148	8,639	5,509	5,201	Washington	1,561	1,447	114	1,260
					All other counties ¹¹	8,428	7,549	879	9,684

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
² Included in total for State but not shown separately to avoid disclosing data for a single establishment.
³ Calaveras, Mariposa, and Mono Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing reported from Alpine County.
⁴ Baca, Clear Creek, Conejos, Crowley, Custer, Dolores, Douglas, Elbert, Grand, Hinsdale, Jackson, Kit Carson, Lake, Moffat, Montezuma, Morgan, Ouray, Park, Pitkin, Rio Blanca, San Juan, Sedgwick, Summit, and Washington Counties; combined to avoid disclosing approximations of the data for individual establishments. No horsepower was reported in Gilpin County and no manufacturing was reported from Cheyenne, Kiowa, and Mineral Counties.
⁵ The item for Bradford County is included in that for "All other counties" to avoid disclosing data for a single establishment.
⁶ The item for electric motors is included in that for prime movers to avoid disclosing data for a single establishment.
⁷ Collier, Dixie, Glades, Hendry, Okeechobee, and Santa Rosa Counties; combined to avoid disclosing approximations of the data for individual establishments.

POWER EQUIPMENT

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—
Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
GEORGIA	641,899	253,523	388,376	50,727	GEORGIA—Continued.				
Appling.....	531	439	92		Lea.....	295	255	40	
Atkinson.....	380	380			Liberty.....	327	327		
Bacon.....	225	197	28		Lincoln.....	805	805	15	
Baldwin.....	1,347	830	517		Lowndes.....	4,370	2,711	1,659	(12)
Barrow.....	1,221	114	1,107		Lumpkin.....	65	65		
Bartow.....	12,852	4,139	8,733	180	McDuffie.....	1,483	1,425	58	
Ben Hill.....	2,527	2,377	150	349	McIntosh.....	531	525	6	
Berrien.....	165	187	8		Macon.....	1,172	1,015	157	
Bibb.....	30,619	11,378	28,141	3,486	Madison.....	400	235	255	
Bleckley.....	658	429	129		Miller.....	155	155		
Brantley.....	97	97			Milton ¹³	62	62		
Brooks.....	1,884	1,585	299	34	Mitchell.....	2,800	1,915	894	30
Bryan.....	88	88			Monroe.....	3,374	1,606	1,808	292
Bulloch.....	1,136	970	157		Montgomery.....	438	438		
Burke.....	1,801	1,498	393	180	Morgan.....	444	435	9	
Calhoun.....	911	792	140	60	Murray.....	545	401	144	
Camden.....	390	390			Muscogee.....	48,553	10,040	37,913	4,174
Candler.....	255	250	5		Oglethorpe.....	1,637	1,037		425
Carroll.....	5,018	2,680	2,338		Paulding.....	705	300	405	
Catoosa.....	163	128	35		Peach.....	2,359	2,193	166	120
Charlton.....	231	231		(12)	Pierce.....	723	360	363	
Chatham.....	30,321	9,084	21,237	3,938	Pike.....	303	274	29	
Chattooga.....	160	160			Polk.....	18,076	3,295	15,381	2,750
Chattahoochee.....	8,642	3,600	5,042		Pulaski.....	386	329	57	
Cherokee.....	5,861	1,583	4,278	15	Putnam.....	1,528	541	987	
Clarke.....	8,595	1,928	6,667	915	Quitman.....	834	834		
Clay.....	601	577	24	35	Randolph.....	797	749	48	
Clayton.....	60	57	3		Richmond.....	34,675	12,831	21,744	543
Clinch.....	918	876	42		Schley.....	144	108	36	
Cobb.....	5,495	2,089	3,406	1,305	Screven.....	1,244	1,219	25	
Coffee.....	906	845	61		Seminole.....	434	428	6	
Colquitt.....	4,715	3,657	1,058	165	Spalding.....	12,700	3,467	9,293	586
Columbia.....	1,497	1,407	90		Stephens.....	1,188	888	320	300
Cook.....	286	259	27		Stewart.....	1,048	1,035	13	
Coweta.....	10,315	3,732	6,583		Sumter.....	3,630	2,708	922	25
Crawford.....	752	752			Talbot.....	1,278	1,142	136	
Crisp.....	2,606	2,104	502		Taliaferro.....	258	14	258	(14)
Dade.....	195	195			Tattnall.....	344	277	67	
Dawson.....	132	132			Telfair.....	1,230	924	306	
Decatur.....	2,110	1,300	810	18	Terrell.....	1,621	1,591	30	15
De Kalb.....	5,513	1,086	4,427	(12)	Thomas.....	2,841	1,674	1,167	
Dodge.....	1,082	132	950		Tift.....	1,317	753	564	
Dooly.....	498	430	68		Toombs.....	927	645	282	
Dougherty.....	6,840	2,021	4,819	40	Trenton.....	78	14	78	(14)
Douglas.....	1,621	1,535	86	168	Troup.....	22,354	2,621	19,733	
Early.....	818	711	107		Turner.....	786	748	38	
Echols.....	66	66			Twiggs.....	573	573		
Effingham.....	789	789			Union.....	415	415		
Elbert.....	2,788	652	2,136		Upson.....	21,132	1,245	19,887	
Emanuel.....	826	758	68		Walker.....	9,153	5,833	3,320	3,811
Evans.....	200	282	8		Walton.....	4,145	605	3,540	
Fayette.....	255	232	23		Ware.....	9,393	4,368	5,025	
Floyd.....	31,949	14,310	17,639	3,900	Warren.....	363	360	3	
Forsyth.....	95	95			Washington.....	2,862	2,800	62	402
Franklin.....	952	384	574	6,881	Wayne.....	1,212	1,186	26	
Fulton ¹³	102,283	27,896	74,387	50	Webster.....	215	215		
Gilmer.....	1,200	1,162	38		Wheeler.....	20	20		
Glascock.....	215	215			Whitfield.....	7,555	1,550	6,005	750
Glynn.....	6,480	5,752	728	5,519	Wilcox.....	227	227		
Gordon.....	2,739	1,984	755		Wilkes.....	1,551	1,494	57	
Grady.....	388	360	28		Wilkinson.....	761	761		
Greene.....	2,140	740	1,400		Worth.....	591	230	361	
Gwinnett.....	3,511	459	3,052		All other counties ¹⁶	32,731	15,674	17,057	3,024
Hall.....	13,050	4,650	8,400		IDAHO	105,787	50,163	55,624	14,917
Hancock.....	1,357	1,200	157		Ada.....	4,107	748	3,359	
Harrison.....	1,399	1,355	44		Adams.....	178	25	153	
Harris.....	904	584	320		Bannock.....	10,090	1,410	8,680	
Hoard.....	254	254			Bear Lake.....	664	335	329	
Henry.....	1,819	172	1,147		Benewah.....	2,018	1,752	266	220
Houston.....	6,593	6,564	29	6,155	Bingham.....	3,108	2,190	918	
Irwin.....	821	693	128		Bonner.....	7,459	6,655	804	
Jackson.....	2,120	932	1,188	12	Bonneville.....	2,097	1,179	918	15
Jasper.....	1,020	650	370		Boundary.....	368	348	20	
Jeff Davis.....	1,434	362	72		Canyon.....	3,118	195	2,923	110
Jefferson.....	1,886	1,795	91		Cassia.....	1,332	646	686	419
Jenkins.....	1,415	1,361	54		Clearwater.....	4,836	4,710	170	2,233
Johnson.....	293	248	45		Franklin.....	1,482	1,182	300	1,500
Lamar.....	2,436	525	1,961		Fronton.....	430	215	215	
Lanier.....	37	37			Gooding.....	144	10	128	
Laurens.....	2,655	2,111	544	20	Idaho.....	408	220	189	
					Jefferson.....	1,074	965	109	

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
² Included in total for State but not shown separately to avoid disclosing data for a single establishment.
³ Campbell and Milton Counties combined with Fulton County Jan. 1, 1932. Campbell is one of the "All other counties." The figures for Fulton County refer to that county as constituted Dec. 31, 1929.
⁴ The item for electric motors is included in that for prime movers to avoid disclosing data for a single establishment.
⁵ Baker, Butts, Campbell, Fannin, Habersham, Hart, Jones, Long, Marion, Meriwether, Newton, Oconee, Pickens, Rockdale, Taylor, Towns, and White Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing reported from Banks and Rabun Counties.

CENSUS OF MANUFACTURES: 1929

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
IDAHO—Continued.					ILLINOIS—Continued.				
Kootenai.....	15,051	14,700	351	4,091	Randolph.....	3,687	2,638	1,040	716
Latah.....	7,463	6,414	1,049	4,412	Rock Island.....	61,996	10,650	51,346	11,009
Lemhi.....	223	160	63	---	St. Clair.....	110,285	48,937	61,348	53,696
Lewis.....	1,110	1,085	34	---	Saline.....	1,106	427	679	---
Madison.....	1,787	1,411	376	53	Sangamon.....	14,685	1,447	13,238	---
Minidoka.....	302	---	302	---	Schuyler.....	263	165	98	---
Nez Perce.....	22,422	85	22,337	---	Shelby.....	690	403	287	30
Oneida.....	312	85	227	---	Stark.....	382	185	197	---
Payette.....	703	135	568	---	Stephenson.....	10,714	5,072	5,642	2,550
Teton.....	81	20	61	---	Tazewell.....	31,876	11,963	19,913	13,342
Twin Falls.....	1,040	55	985	---	Union.....	1,605	534	1,071	---
Valley.....	1,186	1,090	96	130	Vermilion.....	17,473	6,791	10,682	5,130
Washington.....	423	105	318	---	Wabash.....	4,124	3,393	726	1,272
All other counties ^{1a}	10,707	1,981	8,726	1,134	Warren.....	1,034	565	469	124
ILLINOIS	2,807,001	1,222,555	1,584,446	851,644	Washington.....	504	385	179	12
Adams.....	26,232	5,918	20,314	798	White.....	832	430	402	---
Alexander.....	3,438	4,065	4,423	2,200	Whiteside.....	10,830	7,605	3,221	5,711
Bond.....	1,154	705	449	369	Will.....	111,586	78,090	33,496	34,693
Boone.....	2,700	2,075	625	1,612	Williamson.....	1,172	480	692	535
Bureau.....	8,352	4,540	3,803	3,752	Winnobago.....	64,750	22,440	42,310	18,091
Calhoun.....	31	17	(^{1b})	---	Woodford.....	1,598	1,065	533	35
Carroll.....	1,133	428	755	155	All other counties ^{1a}	18,111	12,280	5,831	18 14,595
Cass.....	732	90	642	---	INDIANA	1,858,735	882,248	976,487	880,156
Champaign.....	6,468	2,738	3,730	472	Adams.....	4,813	2,096	2,717	478
Christian.....	2,864	984	1,880	(^{1c})	Allen.....	77,523	8,801	68,722	5,837
Clark.....	198	---	198	---	Bartholomew.....	5,330	1,155	4,175	235
Clinton.....	2,743	1,939	800	164	Benton.....	246	83	163	---
Coles.....	4,285	1,727	2,558	1,057	Blackford.....	7,352	4,779	2,573	4,119
Cook.....	1,643,698	621,548	1,022,120	391,568	Boone.....	2,032	1,098	934	142
Crawford.....	5,276	3,662	1,614	2,663	Carroll.....	798	472	326	200
Cumberland.....	81	---	81	---	Cass.....	5,097	1,930	4,367	1,242
De Kalb.....	8,654	3,985	4,669	1,274	Clark.....	15,244	9,416	5,828	13,240
De Witt.....	1,527	200	1,327	55	Clay.....	6,313	2,635	4,278	466
Douglas.....	814	505	309	---	Clinton.....	5,070	372	4,707	---
Du Page.....	4,125	1,203	2,922	1,131	Crawford.....	731	652	40	62
Edgar.....	1,599	651	948	152	Davies.....	2,798	900	1,898	40
Edwards.....	805	374	431	---	Dearborn.....	6,414	4,430	1,984	2,164
Effingham.....	2,202	542	1,660	65	Decatur.....	1,565	945	620	---
Fayette.....	1,471	330	1,141	---	Delaware.....	56,225	7,558	48,667	5,349
Ford.....	984	110	874	---	Dubuois.....	5,231	2,518	2,713	673
Franklin.....	1,078	250	828	---	Elkhart.....	25,457	6,781	18,676	3,574
Gallatin.....	171	135	36	---	Fayette.....	8,030	2,008	6,022	3,234
Greene.....	2,001	75	1,926	---	Floyd.....	14,309	8,841	5,468	3,587
Grundy.....	3,423	2,560	863	2,145	Fountain.....	4,045	294	3,751	---
Hamilton.....	430	322	117	---	Franklin.....	1,297	1,221	76	375
Hancock.....	521	62	459	40	Fulton.....	1,556	350	1,206	---
Henderson.....	79	60	19	---	Gibson.....	5,382	1,446	3,936	850
Henry.....	7,003	4,933	2,070	5,805	Grant.....	20,412	4,840	15,563	639
Iroquois.....	1,640	366	1,274	---	Greene.....	1,430	386	564	---
Jackson.....	3,096	1,095	2,001	579	Hamilton.....	6,997	5,685	1,312	2,435
Jasper.....	334	220	114	---	Hancock.....	951	613	338	90
Jefferson.....	6,189	3,914	2,275	6,960	Harrison.....	3,285	701	2,584	428
Jo Daviess.....	1,595	947	648	291	Hendricks.....	716	450	266	---
Johnson.....	62	18	44	---	Henry.....	20,246	6,455	13,791	3,973
Kane.....	39,724	17,802	21,922	10,229	Howard.....	56,931	19,382	37,549	12,174
Kankakee.....	10,801	4,752	6,049	2,415	Huntington.....	6,287	1,885	4,382	657
Kendall.....	495	---	495	---	Jackson.....	5,281	3,028	2,253	670
Knox.....	12,319	1,078	11,241	676	Jasper.....	204	27	177	---
Lake.....	56,822	33,354	23,468	27,542	Jay.....	5,102	1,395	3,707	114
La Salle.....	90,888	77,039	22,840	70,057	Jefferson.....	2,894	1,964	930	---
Lee.....	18,603	13,805	4,798	11,285	Jennings.....	1,043	475	568	300
Livingston.....	1,913	435	1,478	---	Johnson.....	4,199	682	3,517	613
Logan.....	729	143	586	---	Knox.....	5,599	3,912	1,687	1,206
McDonough.....	4,088	1,885	2,203	64	Kosciusko.....	2,733	681	2,052	282
McHenry.....	4,074	1,824	2,250	1,639	Lagrange.....	5,111	4,987	124	2,550
McLean.....	12,505	3,375	9,130	---	Lake.....	873,749	540,680	333,069	651,036
Macon.....	39,238	22,183	17,055	25,772	La Porte.....	30,933	9,198	21,735	7,165
Macoupin.....	1,257	793	464	80	Lawrence.....	26,144	4,832	21,312	4,243
Madison.....	170,187	115,514	63,873	99,908	Madison.....	56,010	27,006	28,944	9,672
Marion.....	4,400	2,335	2,065	2,293	Marion.....	154,110	36,473	117,637	21,527
Mason.....	1,543	800	1,243	---	Marshall.....	2,950	833	2,117	---
Massac.....	1,866	1,223	643	375	Martin.....	610	320	290	280
Menard.....	202	140	122	---	Miami.....	5,076	1,387	3,689	243
Mercer.....	524	243	281	22	Monroe.....	19,196	1,920	17,276	2,418
Monroe.....	803	377	426	---	Montgomery.....	5,036	754	4,282	83
Montgomery.....	6,013	2,640	3,373	1,309	Morgan.....	3,090	1,344	1,746	61
Morgan.....	2,712	853	1,177	---	Newton.....	103	33	70	---
Moultrie.....	117	---	117	---	Noble.....	2,912	1,297	1,621	1,273
Ogle.....	4,867	1,615	3,252	954	Ohio.....	365	195	170	314
Peoria.....	62,342	27,284	35,058	11,240	Orange.....	2,285	1,911	374	980
Perry.....	1,640	640	1,000	---	Owen.....	380	332	48	---
Pike.....	750	527	223	36	Parke.....	2,275	2,152	123	50
Pulaski.....	1,944	1,273	671	85	Perry.....	5,029	3,534	1,495	1,049
Putnam.....	179	75	104	---					

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
^{1a} Elaine, Boise, Butte, Camas, Caribou, Clark, Custer, Elmore, Gem, Jerome, Lincoln, Power, and Shoshone Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Owyhee County.
^{1b} Item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.
^{1c} The item for Christian County is included in that for "All other counties" to avoid disclosing data for a single establishment.
^{1d} Clay, Fulton, Hardin, Jersey, Lawrence, Marshall, Piatt, Pope, Richland, Scott, and Wayne Counties; combined to avoid disclosing approximations of the data for individual establishments.

POWER EQUIPMENT

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—
Continued

STATE AND COUNTY.	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
INDIANA—Continued					IOWA—Continued.				
Pike.....	321	140	181		Jones.....	740	187	553	12
Porter.....	2,367	122	2,245	(20)	Keokuk.....	585	485	100	158
Posey.....	4,951	4,790	161	1,182	Kossuth.....	483	180	297	
Pulaski.....	419	36	383		Lee.....	23,411	10,927	12,444	7,827
Putnam.....	14,575	636	13,939		Linn.....	37,060	9,200	27,761	10,455
Randolph.....	2,928	1,061	1,867	300	Louis.....	243	10	238	
Ripley.....	3,354	1,512	1,842	1,120	Lucas.....	357	25	332	
Rush.....	5,525	4,050	1,475	2,845	Lyon.....	148	35	113	
St. Joseph.....	73,652	47,433	26,219	63,448	Madison.....	181		181	
Shelby.....	7,245	2,916	4,329	1,105	Mahaska.....	1,087	480	607	40
Spencer.....	1,384	1,157	227	288	Marion.....	1,271	543	723	
Starke.....	108	21	87		Marshall.....	5,238	345	4,890	100
Steuben.....	620	189	431	60	Mills.....	474	135	339	
Sullivan.....	743	551	192	680	Mitchell.....	274	122	152	
Switzerland.....	97	88	9		Monona.....	189		189	
Tippecanoe.....	10,128	1,418	8,710	110	Monroe.....	295	100	195	
Tipton.....	2,003	818	1,185		Montgomery.....	1,192	745	447	400
Union.....	382	336	46		Muscatine.....	6,456	3,410	3,046	1,114
Vanderburg.....	47,962	16,472	31,490	12,483	O'Brien.....	333	75	263	
Vermillion.....	2,778	1,470	1,308	347	Page.....	876	47	829	
Vigo.....	35,177	22,123	13,054	9,947	Palo Alto.....	284	78	208	
Wabash.....	9,861	3,509	6,352	(20)	Plymouth.....	718	95	623	
Warrick.....	707	224	543		Pocahontas.....	168		168	
Washington.....	1,415	866	549	200	Polk.....	41,302	12,995	28,397	6,946
Wayne.....	17,912	4,801	13,111	13,336	Pottawattamie.....	6,306	847	5,459	299
Wells.....	1,417	192	1,225		Poweshiek.....	378	223	356	
White.....	849	441	408		Ringgold.....	49	43	48	
Whitley.....	1,839	847	992	501	Sac.....	437	162	275	
All other countries ²¹	4,020	1,320	2,700	85	Scott.....	33,758	20,647	13,111	21,351
					Shelby.....	522	240	282	
IOWA.....	366,760	145,916	220,844	110,688	Sioux.....	544	138	406	
Adair.....	92	40	52		Story.....	1,918	655	1,263	118
Adams.....	67	37	20		Tama.....	2,005	1,511	494	360
Allamakee.....	328	140	170		Taylor.....	77		77	
Appanoose.....	2,258		2,258		Union.....	1,073	410	663	
Arthur.....	362	112	250		Wapello.....	8,388	2,073	6,315	263
Benton.....	1,582	1,045	517	650	Warren.....	59	18	41	
Black Hawk.....	18,701	4,818	13,883	5,514	Washington.....	473	237	236	(22)
Boone.....	1,496	254	1,242		Wayne.....	327	132	195	12
Bremer.....	1,112	413	699	105	Webster.....	12,188	1,705	10,483	1,293
Buchanan.....	665	110	555		Winneshago.....	465	279	186	
Buena Vista.....	745	100	645		Winneshiek.....	865	304	561	24
Butler.....	408	165	243	10	Woodbury.....	25,767	8,525	17,242	2,789
Calhoun.....	288	105	183		Worth.....	447	360	87	192
Carroll.....	1,182	288	894		Wright.....	1,820	1,435	385	1,447
Cass.....	1,309	605	804		All other countries ²³	1,195	333	862	
Cedar.....	516	172	344			298,487	148,678	149,809	88,008
Cerro Gordo.....	33,577	26,020	7,557	19,874	Allen.....	23,163	16,718	6,445	12,960
Cherokee.....	186	68	118		Anderson.....	676	275	401	
Chickasaw.....	441	260	181		Atchison.....	6,420	435	5,985	
Clarke.....	78	5	73		Barber.....	1,101	1,037	64	605
Clay.....	285		285		Barton.....	2,158	1,552	606	612
Clayton.....	1,156	590	566	162	Bourbon.....	3,123	1,140	1,983	(24)
Clinton.....	16,421	9,761	6,660	11,607	Butler.....	5,597	1,540	4,057	
Dallas.....	2,976	685	2,301		Chase.....	61		61	
Davis.....	102		102		Chautauqua.....	837	811	26	437
Decatur.....	274	40	234		Clay.....	584	95	489	
Delaware.....	373	60	313		Cloud.....	1,658	647	1,011	70
Des Moines.....	9,940	5,643	4,306	5,529	Coffey.....	101	10	91	
Dickinson.....	101	5	96		Comanche.....	42	25	17	
Dubuque.....	16,622	5,718	10,904	9,308	Cowley.....	5,482	2,886	5,896	312
Emmet.....	1,875	1,575	300		Crawford.....	5,666	2,640	3,026	2,955
Fayette.....	3,014	2,155	859	2,346	Decatur.....	104		104	
Floyd.....	7,056	633	6,423	70	Dickinson.....	2,332	1,975	857	535
Franklin.....	1,563	201	1,362		Doniphan.....	230	200	30	
Fremont.....	310	280	30		Douglas.....	2,451	766	1,685	
Greene.....	249		249		Edwards.....	204		204	
Grundy.....	282	31	251		Elk.....	162		162	
Guthrie.....	326	17	309		Ellis.....	755	475	280	115
Hamilton.....	785	23	762	15	Ellsworth.....	1,774	1,275	499	177
Hancock.....	227	122	105		Finnery.....	5,660	5,383	277	1,660
Hardin.....	773	116	657		Ford.....	880	498	382	80
Henry.....	494	92	402		Franklin.....	1,263	130	1,133	
Howard.....	520	353	167	80	Geary.....	1,375	500	875	235
Humboldt.....	346	55	290		Greenwood.....	404	185	219	
Ida.....	123		123		Harper.....	1,265	1,054	211	220
Iowa.....	842	650	192	110	Harvey.....	2,957	1,282	1,675	273
Jackson.....	993	94	899						
Jasper.....	7,505	301	7,204						
Jefferson.....	1,851	720	1,131	(22)					
Johnson.....	1,461	525	936						

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
²⁰ Included in total for State but not shown separately to avoid disclosing data for a single establishment.
²¹ Brown, De Kalb, Scott, and Warren Counties; combined to avoid disclosing approximations of the data for individual establishments.
²² Included in total for State but not shown separately to avoid disclosing data for a single establishment.
²³ Crawford, Harrison, Osceola, and Van Buren Counties; combined to avoid disclosing approximations of the data for individual establishments.
²⁴ Included in total for State but not shown separately to avoid disclosing data for a single establishment.

CENSUS OF MANUFACTURES: 1929

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—
Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
KANSAS—Continued.					KENTUCKY—Continued.				
Jackson	301	120	181		Fleming	281	226	55	
Jefferson	18		18		Floyd	210	171	39	
Jewell	19		19		Franklin	2,066	865	1,201	
Johnson	402		402		Fulton	2,563	2,051	512	560
Kearny	253		253		Garrard	217	92	125	
Labette	7,607	5,440	2,167	3,048	Graves	2,413	1,794	619	698
Leavenworth	5,207	2,780	2,427	1,371	Grayson	3,027	260	42	
Lincoln	207	200	7		Green	202	186	76	
Logan	123	30	93		Greenup	3,413	845	2,568	70
Lyon	1,127	105	1,022		Hardin	636	405	230	(20)
McPherson	2,469	1,625	944	20	Harlan	685	475	210	
Marion	616	240	376	(21)	Harrison	241	75	168	
Marshall	1,802	253	1,549	10	Hart	281	158	73	
Miami	1,373	303	1,070	30	Henderson	5,791	4,325	1,466	1,100
Mitchell	395	180	215		Hickman	203	109	48	
Montgomery	27,494	19,400	8,094	14,985	Hopkins	1,998	872	526	
Morton	141	60	81		Jackson	693	623	70	(20)
Nemaha	165	80	75	25	Jessamine	137,631	42,406	95,225	27,861
Neosho	9,813	9,084	779	9,730	Johnson	393	75	318	
Norton	324	185	139	(21)	Kenton	185	172	13	(20)
Osage	448	315	133		Knox	0,763	1,549	8,214	549
Osborne	278	162	126		Knott	243	236	7	
Ottawa	738	670	68		Knox	814	736	79	
Phillips	332	290	42		Larue	160	144	6	
Pottawatomie	320	125	195		Laurel	314	226	88	
Rawlins	67	50	7		Lawrence	139	75	64	
Reno	14,275	0,772	7,503	962	Lee	381	300	31	
Republic	339	187	152		Leslie	117	117		
Rice	2,788	643	2,145	600	Letcher	495	264	231	
Riley	865	107	758		Lewis	581	459	122	(20)
Rooks	40		40		Lincoln	304	160	144	
Saline	5,883	1,380	4,503	50	Logan	761	736	65	
Scott	35	4	31		Lyon	228	100	128	
Sedgwick	20,904	6,922	14,042	3,495	McCracken	8,365	3,040	4,225	35
Seward	370	340	30	(21)	McLean	677	672	5	
Shawnee	12,932	6,445	6,537	6,852	Madison	506	340	247	
Sherman	453	390	68	181	Marion	870	460	410	250
Smith	96		96		Marshall	224	184	60	
Sumner	2,686	2,375	311	307	Mason	2,144	505	1,339	208
Thomas	95	9	87		Meade	332	332		
Wabasha	32	5	27		Mercer	354	88	266	
Washington	159	17	142		Metcalfe	262	262		
Wilson	10,766	0,780	985	5,281	Monroe	488	488		
Woodson	95	80	15		Montgomery	189	75	114	
Wyandotte	74,919	24,690	50,229	13,833	Morgan	90	87	3	
All other counties ²³	6,637	3,461	3,176	762	Muhlenberg	1,004	384	620	
KENTUCKY	354,740	124,361	230,369	44,197	Nelson	370	310	60	
Adair	560	560		(20)	Nicholas	180	50	130	
Allen	559	551	8		Ohio	419	395	24	48
Anderson	337	55	282		Owsley	90	90		
Ballard	290	265	25		Pendleton	200	190	10	
Barron	914	618	296		Perry	657	262	395	
Bell	1,554	717	837		Pike	1,479	1,323	156	
Bourbon	358	165	193		Pulaski	3,307	1,824	1,483	415
Boyd	83,032	8,524	74,508	1,327	Rockcastle	187	146	41	
Boyle	682	332	350		Rowan	1,779	886	893	46
Bracken	365	117	246		Russell	81	81		22
Breathitt	95	85	10		Scott	179	165	14	
Breckinridge	1,089	921	168	683	Shelby	300	295	95	
Bullitt	230	165	65	150	Simpson	348	137	211	(20)
Butler	91	91			Taylor	628	312	316	
Caldwell	777	342	435		Trigg	878	731	147	
Calloway	1,192	766	426		Union	481	301	180	
Cambell	20,285	16,240	19,045	7,022	Warren	2,318	1,720	1,098	145
Carlisle	282	7,252	(21)		Washington	334	230	104	
Carroll	577	320	257	320	Wayne	593	27,593	(21)	
Carter	3,442	616	2,826	(20)	Webster	300	288	12	
Casey	252	245	7		Whitley	1,318	462	866	
Christian	2,003	2,259	644	421	Woodford	161	145	16	
Clark	1,148	465	683		All other counties ²³	4,539	4,240	299	510
Clay	458	120	120		LOUISIANA	480,494	350,165	130,239	113,118
Clinton	273	258	15		Acadia	3,146	2,793	353	22
Crittenden	8,107	3,171	4,936	1,064	Allen	10,858	9,700	4,163	3,035
Davess	127	125	2		Ascension	1,787	1,670	111	50
Edmonson	925	755	170	575	Assumption	7,880	7,388	192	11
Estill	3,430	234	3,196		Avoynes	1,890	1,248	142	
Fayette					Beauregard	7,580	7,367	213	3,462
					Bienville	1,078	878	200	
					Bossier	6,525	3,940	2,585	
					Caddo	18,606	10,761	7,745	3,783
					Calcasieu	6,968	5,317	1,651	1,918

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
² Included in total for State but not shown separately to avoid disclosing data for a single establishment.
³ Brown, Cherokee, Cheyenne, Clark, Gove, Graham, Grant, Gray, Hamilton, Haskell, Hodgeman, Kingman, Kiowa, Lane, Linn, Meade, Morris, Ness, Pawnee, Pratt, Rush, Russell, Sheridan, Stafford, Stevens, Trego, Wallace, and Wichita Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Greeley and Stanton Counties.
⁴ Included in total for State but not shown separately to avoid disclosing data for a single establishment.
⁵ Item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.
⁶ Bath, Boone, Cumberland, Gallatin, Grant, Hancock, Henry, Livingston, McCreary, Magoffin, Martin, Menifee, Oldham, Owen, Powell, Robertson, Spencer, Todd, Trimble, and Wolfe Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing reported from Elliott County.

POWER EQUIPMENT

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
LOUISIANA—Continued.					MARYLAND—Continued.				
Claborne.....	1,891	1,718	173		Prince Georges.....	680	246	434	
Concordia.....	4,265	4,254	11	925	Queen Annes.....	1,082	779	303	
De Soto.....	1,372	995	377	22	St. Marys.....	610	600	19	
East Baton Rouge.....	30,300	27,825	2,475	27,589	Somerset.....	3,002	1,597	1,405	
East Feliciana.....	310	310			Talbot.....	2,069	1,410	659	
Grant.....	5,203	5,198	5	2,128	Washington.....	23,316	11,825	11,491	9,047
Iberia.....	9,902	8,253	1,649	2,576	Wicomico.....	4,112	1,645	2,467	310
Iberville.....	11,089	10,993	96	60	Worcester.....	2,398	2,093	305	46
Jackson.....	11,010	10,710	300	5,750					
Jefferson.....	31,500	11,419	20,081	841	MASSACHUSETTS.				
Jefferson Davis.....	833	528	305	(20)	Barnstable.....	1,242	965	279	1,670
Lafayette.....	8,817	8,175	642	327	Berkshire.....	81,423	49,899	31,554	49,057
Lafourche.....	7,231	7,182	49	75	Bristol.....	359,701	181,065	177,746	61,890
La Salle.....	5,923	5,908	22	60	Essex.....	323,556	222,043	100,613	155,139
Lincoln.....	1,605	1,584	111	60	Franklin.....	39,785	16,120	23,666	6,549
Livingston.....	1,801	1,758	43		Hampden.....	252,013	120,735	131,278	133,230
Madison.....	1,500	1,329	171		Hampshire.....	47,253	20,630	26,623	5,200
Morehouse.....	26,281	7,632	18,649	36	Middlesex.....	343,645	159,135	184,510	116,539
Natchitoches.....	2,457	2,313	144	25	Norfolk.....	85,590	33,998	54,592	22,711
Orleans.....	73,050	18,288	54,762	5,353	Plymouth.....	45,519	18,555	24,964	5,481
					Suffolk.....	180,606	54,053	126,613	32,559
Ouachita.....	25,370	23,457	1,922	13,075	Worcester.....	306,677	104,943	201,734	49,392
Plaquemines.....	3,665	3,665		3,935	Other counties (Dukes and Nantucket)	451	401	50	100
Pointe Coupee.....	1,844	1,831	13	(20)					
Rapides.....	13,057	11,080	1,977	937	MICHIGAN				
Richland.....	1,394	1,295	99	231	Allegan.....	13,157	11,345	1,812	8,463
Sabine.....	5,084	5,063	21	7,223	Alpena.....	23,982	22,017	1,965	37,920
St. Bernard.....	7,021	4,830	2,191	221	Antrim.....	1,449	836	613	115
St. Landry.....	3,969	3,516	450		Barry.....	2,893	2,114	749	2,673
St. Martin.....	3,338	3,276	62		Bay.....	43,545	18,177	25,363	10,923
St. Mary.....	14,037	13,960	687	509	Benzie.....	47	47	37	
St. Tammany.....	2,099	1,823	276	892	Berrien.....	33,144	10,240	22,904	13,393
Tangipahoa.....	5,357	4,125	1,232	2,084	Branch.....	7,023	3,471	3,557	940
Tensas.....	1,019	1,010	(20)	235	Calhoun.....	53,224	9,027	43,597	5,408
Terrebonne.....	5,546	5,374	172	407	Cass.....	5,572	2,210	3,362	291
Union.....	890	890		13	Charlevoix.....	934	714	220	824
Vermilion.....	5,000	4,947	53	48	Chesapeake.....	1,108	375	731	
Vernon.....	6,033	5,927	106	125	Chippewa.....	8,106	1,022	7,087	
Washington.....	30,422	29,091	1,331	17,928	Clare.....	182	80	102	
Webster.....	2,493	2,225	268	973	Clinton.....	1,100	321	779	163
West Baton Rouge.....	6,856	6,832	24	950	Delata.....	29,203	23,795	2,411	10,331
West Carroll.....	1,355	1,285	70	255	Dekla.....	7,396	2,800	4,596	1,508
West Feliciana.....	409	403	6		Eaton.....	7,905	7,502	403	8,432
Winn.....	897	615	282		Genesee.....	122,547	17,542	105,005	8,769
All other parishes ²¹	30,790	29,208	1,582	9,940	Gladwin.....	119	12	107	
					Gogebic.....	1,162	750	412	
MAINE					Grand Traverse.....	2,144	409	1,735	
Androscoggin.....	58,868	46,831	12,487	22,977	Gratiot.....	6,281	4,855	1,426	3,422
Aroostock.....	27,383	25,109	2,274	15,320	Hillsdale.....	4,865	2,768	2,097	1,310
Cumberland.....	90,402	39,747	20,655	22,178	Houghton.....	8,490	3,581	4,909	1,550
Franklin.....	73,859	71,761	2,098	9,843	Huron.....	3,570	2,768	802	328
Hancock.....	3,014	2,428	1,180	1,320	Ingham.....	74,146	11,500	62,646	8,232
Kennebec.....	65,724	39,493	26,231	10,909	Ionia.....	7,122	5,693	1,429	2,920
Knox.....	20,029	2,020	17,100	466	Iosco.....	6,023	260	5,763	
Lincoln.....	794	430	364		Iron.....	143		143	
Oxford.....	57,439	34,635	22,804	10,507	Isabella.....	4,337	3,574	763	8,320
Penobscot.....	138,230	117,336	20,894	45,941	Jackson.....	40,963	3,172	37,791	432
Piscataquis.....	5,636	2,902	2,784	598	Kalamazoo.....	83,107	65,219	17,888	54,587
Sagadahoc.....	22,191	16,210	5,981	3,029	Kent.....	93,476	46,495	46,981	28,461
Somerset.....	41,593	30,205	11,388	12,841	Lapeer.....	952	117	835	
Waldo.....	1,634	1,138	496		Leelanau.....	354	315	39	
Washington.....	34,540	32,551	1,988	15,113	Lenawee.....	11,161	5,244	5,917	5,449
York.....	67,158	47,259	10,899	22,433	Livingston.....	1,430	275	1,155	73
					Luce.....	4,387	4,368	19	3,046
					Mackinac.....	126	110	16	
MARYLAND					Macomb.....	3,329	2,286	3,043	
Allegany.....	63,430	32,516	30,914	41,000	Manistee.....	10,843	9,963	890	6,017
Anne Arundel.....	1,610	413	1,197	(21)	Marquette.....	8,491	3,312	5,179	738
Baltimore.....	209,729	159,044	50,685	206,465	Mason.....	5,290	2,360	2,930	2,098
Baltimore city (independent, not included in any county)	293,791	56,199	237,592	31,533	Mecosta.....	2,355	538	1,817	
Calvert.....	272	272			Menominee.....	15,576	11,190	4,386	5,380
Caroline.....	1,840	1,266	583	103	Monroe.....	30,689	20,224	10,465	11,219
Carroll.....	16,110	8,800	7,310	6,069	Montcalm.....	3,656	2,847	809	2,390
Cecil.....	4,706	3,800	906	686	Montmorency.....	431		(22)	
Charles.....	172	130	42		Muskegon.....	54,034	27,564	26,480	38,873
Dorchester.....	3,004	2,273	1,631		Newaygo.....	3,577	3,104	473	3,761
Frederick.....	12,523	3,825	8,698	849	Oakland.....	100,458	9,135	91,323	910
Garratt.....	466	405	61		Oceana.....	822	193	629	
Harford.....	2,800	1,743	1,057	5	Ogemaw.....	140	136	14	
Howard.....	6,891	5,380	1,511	1,848	Ontonagon.....	4,909	4,050	10	3,958
Kent.....	1,028	864	164	6	Osceola.....	312	255	57	
Montgomery.....	3,264	467	2,797	15	Otsego.....	576	500	76	
					Ottawa.....	16,089	8,279	7,810	5,886
					Presque Isle.....	296	96	200	
					Saginaw.....	51,722	13,507	38,215	5,142

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
²⁰ Included in total for State but not shown separately to avoid disclosing data for a single establishment.
²¹ Item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.
²² Caldwell, Catahoula, East Carroll, Evangeline, Franklin, Red River, St. Charles, St. Helena, St. James, and St. John the Baptist parishes; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Cameron Parish.
²³ Item for Anne Arundel County combined with that for Howard County to avoid disclosing data for a single establishment.
²⁴ Item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.

CENSUS OF MANUFACTURES: 1929

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
MICHIGAN—Continued.					MINNESOTA—Continued.				
St. Clair	33,967	0,677	24,290	7,399	Washington	7,588	1,046	6,542	604
St. Joseph	18,519	13,686	4,833	7,590	Watsonwan	822	57	765	
Banlac	764	331	433		Wilkin	228	123	105	
Schoolcraft	14,614	14,547	67	3,245	Winona	10,425	2,637	7,788	720
Shiawassee	10,050	3,308	6,742	1,998	Wright	1,511	618	893	12
Tuscola	2,984	2,515	469	818	Yellow Medicine	233	22	211	
Van Buren	3,270	1,390	1,880	2,093	All other counties ³⁵	33,743	29,260	4,483	19,286
Washtenaw	10,336	2,414	7,922	720	MISSISSIPPI				
Wayne	1,137,890	458,306	679,494	279,306	Adams	3,364	2,554	810	3,000
Wexford	10,793	7,947	2,846	600	Alcorn	2,484	2,058	426	175
All other counties ³⁴	84,050	73,064	10,986	42,503	Attala	6,258	5,428	830	373
MINNESOTA	606,704	323,804	282,900	161,687	Benton	723	723		
Atkin	621	503	118		Bolivar	1,390	1,293	97	
Anoka	4,097	1,878	2,219	5	Calhoun	3,196	3,184	12	340
Becker	1,002	543	459		Carroll		753	3	
Beltrami	3,376	1,260	2,116	200	Chickasaw	1,399	1,280	119	(49)
Benton	10,741	9,788	1,003	4,000	Choctaw	499	476	24	
Big Stone	582	300	282		Claiborne	1,504	1,477	27	37
Blue Earth	4,180	1,602	2,578	392	Clarke	6,044	5,095	1,849	204
Brown	4,775	3,917	858	1,757	Clay	1,372	1,140	232	
Carlton	9,726	3,835	5,888	1,700	Coahoma	3,623	1,955	1,668	65
Carver	3,481	1,947	1,534	549	Copiah	2,503	2,402	101	20
Cass	416	336	80	7	Covington	390	390		
Chippewa	500	32	468		Forrest	8,602	5,815	2,787	2,576
Chisago	1,137	403	734		Franklin	2,540	2,540		
Clay	979	677	302	278	George	155	155	20	2
Clearwater	252	209	43		Greene	4,278	4,248	30	3,475
Cottonwood	110	10	100	9	Grenada	2,379	2,370	509	131
Crow Wing	23,591	23,049	561	18,381	Hancock	2,516	2,461	55	1,140
Dakota	20,475	10,499	9,976	5,317	Harrison	3,187	1,729	1,458	146
Dodge	641	411	230		Hinds	14,206	7,367	6,800	961
Douglas	567	268	299		Holmes	2,217	1,923	294	50
Faribault	2,151	1,118	1,033	90	Humphreys	1,024	930	94	
Fillmore	757	334	423		Iowa	1,768	1,763	5	
Freeborn	4,508	902	3,606		Iowanna	21,475	21,347	128	9,837
Goodhue	3,452	1,766	6,686		Jackson	1,507	1,507	(37)	
Grant	229	57	172		Jasper	204	203	1	
Hennepin	181,028	81,419	99,609	17,169	Jefferson Davis	373	370	3	
Houston	262	195	67		Jones	22,454	12,502	9,952	2,715
Hubbard	422	210	212		Kemper	5,332	5,172	160	2,076
Isanti	348	188	210		Kanabec	1,028	950	78	
Itasca	13,737	9,001	4,736	6,302	Lafayette	6,988	3,690	3,298	685
Jackson	790	610	180		Lawrence	397	397	(37)	
Kanabec	166	47	119		Leake	940	881	59	
Kandiyohi	848	482	360		Lee	2,890	730	2,100	237
Kittson	64	46	18		Leflore	4,452	3,615	837	271
Lac qui Parla	394	120	264		Lincoln	4,345	3,235	1,110	1,828
Lake of the Woods	54	25	29		Lowndes	3,303	2,320	974	150
Le Sueur	5,511	3,840	1,671	633	Madison	2,327	2,207	120	613
Lincoln	79	15	64		Marion	3,304	2,308	996	245
Lyon	623	70	553		Marshall	526	474	52	
McLeod	1,280	510	779		Monroe	2,625	2,443	182	
Mahnomen	187	92	46		Montgomery	2,241	2,100	141	
Marshall	255	144	111		Neshoba	4,009	3,855	154	555
Martin	2,166	106	1,990		Newton	2,455	2,164	291	12
Meeker	782	465	317	125	Noxubee	2,380	1,089	400	126
Mille Lacs	303	119	184		Oktibbeha	2,965	2,364	601	412
Morrison	6,022	2,802	3,220	56	Panola	1,190	1,045	145	
Murray	140	277	137		Pearl River	9,366	9,158	208	
Nicollet	460	202	258		Perry	1,135	1,052	83	
Norman	388	100	100		Pike	5,048	2,557	3,091	902
Olmsted	2,607	785	1,822	260	Pontotoc	560	515	45	
Otter Tail	2,084	731	1,353	158	Prentiss	576	498	78	
Pennington	187	63	113		Quitman	255	210	45	
Pine	727	284	473	253	Rankin	3,616	2,980	636	642
Pipestone	414	45	369		Scott	2,158	2,158		
Polk	3,796	2,730	1,066	1,006	Simpson	4,264	3,917	347	2,934
Popo	420	266	154		Sunflower	1,335	550	785	52
Ramsay	106,844	50,426	47,418	18,401	Tallahatchie	1,584	1,525	59	357
Red Lake	581	512	69		Tate	97	50	47	
Redwood	430	165	274		Tippah	1,093	1,068	25	
Renville	1,135	500	635		Tishomingo	2,672	2,586	86	
Rice	4,411	2,411	2,000	944	Union	791	696	95	
Rock	113	20	93		Walthall	417	410	7	
Roseau	293	244	49		Warren	6,752	4,505	2,247	1,660
St. Louis	81,324	40,602	31,332	61,763	Washington	3,445	5,208	3,237	5
Scott	954	25	925	12	Wayne	1,795	1,729	66	
Sherburne	317	27	290	8	Webster	1,366	1,360	6	
Sibley	702	378	324		Winston	2,684	1,769	915	
Stearns	13,313	2,059	11,254	183	Yalobusha	1,775	1,159	616	
Steele	1,878	470	1,402		Yazoo	2,392	1,665	727	50
Stevens	247	152	95		All other counties ³⁵	12,248	9,423	2,825	2,146
Swift	933	729	204	117					
Todd	1,089	640	440						
Traverse	62	10	52						
Wabasha	1,560	274	1,286						
Wadena	409	166	243						
Waseca	1,575	213	1,362	100					

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
² Alcona, Alger, Arenac, Baraga, Crawford, Dickinson, Kalkaska, Keweenaw, Midland, Missaukee, Oscoda, and Roscommon Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing reported from Lake County.
³ Cook, Koochiching, Lake, Mower, and Nobles Counties; combined to avoid disclosing approximations of the data for individual establishments.
⁴ The item for Chickasaw County is included in that for "All other counties" to avoid disclosing data for a single establishment.
⁵ The item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.
⁶ Amite, De Soto, Lamar, Sharkey, Smith, Stone, Tunica, and Wilkinson Counties; combined to avoid disclosing data for individual establishments. No manufacturing was reported from Issaquena County.

POWER EQUIPMENT

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—
Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
MISSOURI	717,978	218,290	499,686	119,178	MISSOURI—Continued.				
Atchison	254	100	154		Randolph	3,644	1,258	2,380	354
Audrain	7,432	2,135	5,297	336	Ray	166	112	84	2
Barry	2,726	2,007	719		Reynolds	612	610	2	
Barton	831	255	576		Ripley	468	236	202	
Bates	456	334	122		St. Charles	3,412	2,099	713	4,060
Benton	189	118	68		St. Clair	566	230	306	
Bollinger	442	442			St. Francois	1,497	630	867	
Boone	2,608	315	2,293	240	St. Louis	42,273	5,623	36,650	3,980
Buchanan	39,772	11,591	28,181	1,701	St. Louis city (independent, not included in any county)	293,011	89,409	203,642	55,398
Butler	1,780	885	905		Ste. Genevieve	2,322	1,135	1,187	400
Caldwell	145	92	53		Saline	2,652	623	1,529	250
Callaway	974	565	409		Scotland	18		18	
Cape Girardeau	15,104	13,901	1,263	14,011	Scott	2,113	1,403	710	575
Carroll	330	75	255		Shannon	371	965	6	
Carter	350	350			Shelby	319	150	169	
Cass	876	150	726		Stoddard	994	874	120	140
Cedar	182	80	102		Stone	402	344	58	
Chariton	294	175	109		Taney	132	125	7	
Christian	391	311	80		Texas	769	590	179	
Clark	298	285	13		Vernon	905	604	301	
Clay	16,654	6,023	10,631	7,127	Warren	158	77	81	
Clinton	352	58	294	1	Washington	622	572	50	
Cole	2,297	240	2,057		Wayne	479	389	90	
Cooper	1,000	620	380	254	Webster	527	414	113	
Crawford	144	³⁹ 144	(³⁹)		Wright	424	382	92	
Dade	118	78	40		All other counties ⁴¹	21,628	2,606	19,022	⁴⁰ 672
Dallas	86	37	49		MONTANA	197,781	35,947	161,834	13,311
Davies	178	52	126		Beaverhead	209	180	29	88
Dent	779	739	40		Blaine	996	847	149	70
Douglas	259	225	34		Carbon	449	60	389	
Dunklin	1,149	770	379	90	Cascade	47,820	447	47,079	
Franklin	3,523	1,902	1,661	606	Custer	932	545	388	1,092
Gasconade	1,535	1,272	263	335	Deer Lodge	87,497	7,220	80,187	4,140
Gentry	184	52	132		Fergus	4,309	355	3,954	
Greene	18,541	5,460	13,081	4,060	Flathead	6,125	5,087	1,038	710
Grundy	536		536		Gallatin	5,158	307	4,851	
Harrison	155	12	143		Granite	156	150	6	
Henry	2,150	1,702	448	141	Hill	1,393	259	1,134	
Hickory	154	52	102		Jefferson	24		24	
Holt	73		73		Lake	557	495	62	
Howard	1,057	776	281		Lewis and Clark	6,518	170	6,348	
Howell	634	273	361		Lincoln	5,387	5,381	6	606
Iron	294	275	19		Madison	10	53	46	
Jackson	123,208	25,970	97,238	12,944	Missoula	10,721	5,328	5,393	3,875
Jasper	15,289	2,755	12,534	1,121	Musselshell	55		55	
Jefferson	35,027	3,995	31,032	361	Park	2,435	538	1,897	
Johnson	795	615	180		Pondera	69	15	54	
Knox	193	120	73		Ravalli	637	330	307	
Laclede	255	149	106		Richland	1,819	1,760	59	850
Lafayette	1,446	329	1,117	25	Roosevelt	28	3	25	
Lawrence	1,484	838	646	120	Sanders	541	419	122	(⁴²)
Lewis	2,719	170	2,549		Sheridan	88	50	38	
Lincoln	422	206	216	3	Silver Bow	3,493	695	2,798	765
Linn	1,022	425	597	265	Stillwater	92	80	12	
Livingston	1,611	450	1,161	80	Sweet Grass	85	71	14	
McDonald	402	345	57		Valley	202	150	52	
Macon	271	129	142		Wheatland	939	10	929	
Madison	585	570	15		Yellowstone	5,841	3,958	1,883	781
Marion	7,180	2,625	4,555	2,590	All other counties ⁴³	3,537	990	2,547	⁴¹ 334
Mercer	57	47	10		NEBRASKA	199,210	63,411	105,799	24,169
Miller	265	133	132		Adams	2,988	403	2,585	
Mississippi	573	470	103		Antelope	371	100	271	
Moniteau	826	75	751	(⁴⁰)	Boone	158	35	123	
Monroe	270	92	178		Box Butte	766	217	549	14
Montgomery	745	665	80		Brown	451	200	251	
Morgan	372	275	97		Buffalo	951	59	892	
New Madrid	1,323	1,205	118	38	Burt	334	37	297	
Newton	1,512	822	690	264	Butler	406	225	181	
Nodaway	266	30	236		Cass	7,229	680	6,549	16
Oregon	1,006	793	213		Cedar	152	80	72	
Osage	240	246			Chase	158	135	23	
Ozark	450	410	40		Cheyenne	516	175	341	
Pemiscot	1,480	899	581		Clay	703	535	168	
Pattis	6,421	4,157	2,264	6,087	Colfax	1,082	952	130	30
Phelps	368	215	153		Cuming	109		109	
Pike	1,009	636	373	516	Custer	102		102	
Platte	300	115	185		Dawes	932	400	532	
Polk	397	132	265		Dawson	616	93	523	
Pulaski	134	119	15		Dixon	13		13	
Putnam	123	115	8		Dodge	2,006	210	1,796	

¹ Horsepower of electric motors driven by energy generated in establishments reporting.

³⁹ Item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.

⁴⁰ Item for Moniteau County included in that for "All other counties" to avoid disclosing data for a single establishment.

⁴¹ Adair, Andrew, Camden, DeKalb, Maries, Pery, Ralls, Schuyler, Sullivan, and Worth Counties; combined to avoid disclosing approximations of the data for individual establishments.

⁴² Item for Sanders County included in that for "All other counties" to avoid disclosing data for a single establishment.

⁴³ Big Horn, Broadwater, Carter, Chouteau, Daniels, Dawson, Fallon, Garfield, Glacier, Golden Valley, Judith Basin, McCone, Meagher, Mineral, Petroleum, Phillips, Powder River, Powell, Prairie, Rosebud, Teton, Toole, Treasure, Wibaux Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing reported from Liberty County.

CENSUS OF MANUFACTURES: 1929

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
NEBRASKA—Continued.					NEW MEXICO				
Douglas	82,959	24,483	58,476	4,976	Bernalillo	23,147	16,097	7,050	7,008
Fillmore	181	77	104		Chaves	6,416	4,050	1,706	5,770
Franklin	166	90	76		Colfax	1,760	846	914	28
Furnas	342	144	198		Curry	1,114	940	174	227
Gage	3,062	848	2,214	75	Dona Ana	2,108	1,149	1,049	472
Grealey	554	500	54		Eddy	837	200	637	
Hall	4,844	2,167	2,677	727	Eldorado	893	725	168	
Hamilton	340		340		Grant	253	180	123	
Hitchcock	415	377	38		Hidalgo	60		60	
Holt	93	10	83		Luna	111		111	
Howard	67	30	37		McKinley	2,329	2,225	104	436
Jefferson	1,397	405	992	(4)	Mora	89	89		
Johnson	133	75	58		Otero	4,342	3,089	1,253	
Kearney	239	100	79		Quay	128	60	68	
Keith	57		57		Rio Arriba	398	398		
Kimball	24		24		Roosevelt	122	85	37	
Knox	305	210	95	78	Sandoval	190	175	15	
Lancaster	20,033	6,407	13,626	225	San Miguel	640	410	230	
Lincoln	2,000	1,139	1,761	233	Santa Fe	145		145	
Madison	1,580	307	1,213	60	Socorro	148	140	8	
Merrick	412	95	317		Taos	164	105	59	
Nance	41	5	30		Torrance	75	73	2	
Nomaha	190	75	115		Valencia	587	517	70	75
Nuckolls	3,283	2,640	643	3,558	All other counties ¹⁷	148	91	57	
Phelps	360		360						
Platte	1,565	427	1,138		NEW YORK				
Polk	134		134		Albany	3,986,781	1,846,844	2,639,937	724,774
Red Willow	633	254	379		Broome	89,801	22,791	67,010	14,320
Richardson	1,232	660	572	392	Allegany	6,273	2,963	3,310	964
Sarpy	119	75	44		Bronx	65,401	7,399	58,002	4,165
Saunders	296	60	236		Broome	49,362	10,019	39,343	12,406
Seward	588	300	288		Cattaraugus	23,024	14,022	14,002	9,385
Sheldon	160	105	61		Cayuga	24,707	8,272	16,435	800
Stanton	42		42		Chautauqua	57,470	17,123	40,347	23,946
Thayer	505	80	425		Chemung	25,349	7,336	18,013	6,367
Valley	154	70	84		Chenango	5,774	3,676	2,099	2,083
Washington	327	141	186	20	Clinton	19,691	10,649	9,042	3,200
Wayne	87	25	62		Columbia	39,867	31,635	8,232	16,230
Webster	226	127	99		Cortland	14,124	9,848	4,276	3,984
York	580	76	504		Delaware	4,788	2,818	1,970	125
All other counties ¹⁸	18,638	16,171	2,367	13,765	Dutchess	24,004	8,418	15,586	6,065
					Essex	881,733	225,687	666,040	135,549
NEVADA					Franklin	27,309	22,355	4,954	4,400
Churchill	471	25	446		Fulton	11,190	5,401	5,789	183
Clark	3,402	3,347	55	1,821	Genesee	16,250	5,220	11,030	1,539
Elko	481	307	174		Greene	26,392	5,531	20,861	5,159
Humboldt	36	15	21		Hamilton	14,987	7,068	7,919	6,002
Nye	72		72		Herkimer	210	210		
Ormsby	188	70	118		Jefferson	40,657	20,057	20,500	6,446
Pershing	249	200	49	10	Madison	83,852	42,853	40,999	9,088
Washoe	8,449	2,700	5,749	1,391	Montgomery	394,900	101,946	293,044	36,605
All other counties ¹⁹	13,849	12,145	1,704	4,000	Nassau	36,290	27,337	8,953	3,742
					Ontario	11,030	5,786	5,244	5,020
NEW HAMPSHIRE					Putnam	11,030	5,786	5,244	5,020
Belknap	5,307	2,970	2,337	709	Queens	4,914	2,329	2,585	1,004
Carroll	4,465	2,430	2,035	60	Rensselaer	140,714	48,002	91,812	50,517
Cheshire	21,436	13,226	8,210	2,679	Saratoga	12,776	9,334	12,442	9,050
Coos	110,213	91,439	18,774	60,046	Schenectady	13,091	5,506	7,585	1,720
Grafton	24,134	16,925	7,209	3,869	St. Lawrence	13,091	5,506	7,585	1,720
Hillsborough	134,537	115,066	19,471	64,280	Ulster	314,588	78,784	235,804	64,239
Merrimack	33,018	22,150	10,868	4,904	Warren	107,902	18,224	170,768	4,313
Rockingham	16,366	8,329	8,037	1,146	Washington	119,606	42,047	77,619	11,134
Strafford	30,617	16,129	14,488	4,405	Westchester	172,228	66,453	106,775	27,882
Sullivan	22,054	12,067	9,987	4,302	Windsor	14,000	3,034	10,966	1,355
					Yates	27,707	11,841	15,866	6,339
NEW JERSEY					Albany	8,457	2,335	4,122	902
Atlantic	11,916	7,597	4,319	1,464	Broome	46,800	16,308	30,682	13,876
Bergen	106,233	73,142	33,091	58,345	Cattaraugus	5,683	2,142	3,441	870
Burlington	26,648	8,110	18,538	2,787	Chenango	470	334	136	154
Camden	125,745	85,448	40,297	73,454	Chemung	147,797	47,432	100,365	23,492
Cape May	3,749	2,388	1,361	93	Clinton	51,126	24,700	26,367	10,138
Cumberland	25,032	13,144	11,858	6,080	Columbia	55,846	14,441	41,405	7,363
Essex	222,396	58,183	164,213	29,619	Cortland	16,738	11,117	4,621	8,766
Gloucester	15,699	10,781	4,918	4,263	Delaware	117,229	27,297	89,932	8,873
Hudson	313,371	156,234	157,137	93,989	Dutchess	86,426	60,367	6,059	27,911
Hunterdon	22,397	11,211	11,186	5,831	Hamilton	174,747	57,292	117,455	28,000
Mercer	134,523	49,111	85,412	28,431	Montgomery	7,469	6,560	909	6,515
Middlesex	168,922	97,946	70,976	66,832	Nassau	3,200	2,753	442	2,293
Monmouth	21,302	6,620	14,682	1,218	Putnam	8,728	4,130	4,598	3,001
Morris	40,283	22,935	17,348	11,125	Rockland	17,335	13,670	4,165	12,773
Ocean	1,695	1,097	598	16	Saratoga	9,387	5,304	4,083	1,834
Passaic	147,278	56,921	90,357	26,923	Schenectady	1,343	867	476	55
Salem	22,799	14,404	8,395	20,177	St. Lawrence	2,635	637	1,998	325
Somerset	24,013	13,767	10,266	12,800	Ulster	13,540	10,406	3,134	11,835
Sussex	2,887	2,168	719	1,320	Warren	18,722	8,070	10,643	2,403
Union	151,782	73,332	78,450	63,042	Westchester	37,635	24,094	13,441	2,595
Warren	56,738	35,242	21,406	21,059	Washington	42,537	31,257	11,280	19,757
					Wayne	11,608	5,153	6,455	1,370
					Westchester	84,285	47,863	36,422	20,624
					Wyoming	9,230	6,137	3,099	4,445
					Yates	4,205	3,216	989	262

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
² Item for Jefferson County included in that for "All other counties" to avoid disclosing data for a single establishment.
³ Boyd, Cherry, Dakota, Deuel, Dundy, Frontier, Garden, Garfield, Gosper, Grant, Harlan, Hayes, Keyapaha, Logan, Morrill, Otoe, Pawnee, Perkins, Pierce, Rock, Saline, Scotts Bluff, Sherman, Sioux, and Thurston Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Arthur, Banner, Blaine, Hooker, Loup, McPherson, Thomas, and Wheeler Counties.
⁴ De Douglas, Esmeralda, Eureka, Lander, Lincoln, Lyon, Mineral, and White Pine Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Storey County.
⁵ De Baca, Guadalupe, Harding, Lea, Lincoln, San Juan, and Union Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Catron and Sierra Counties.

POWER EQUIPMENT

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—
Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
NORTH CAROLINA	889,945	817,739	522,208	100,202	NORTH CAROLINA—Con.				
Alamance.....	15,483	5,937	9,546	2,358	Stokes.....	1,128	275	853	
Alexander.....	1,996	702	1,293		Surry.....	7,337	4,209	3,137	2,380
Alloghany.....	156	156			Swain.....	421	312	109	
Anson.....	4,103	997	3,106	65	Transylvania.....	2,435	2,426	0	430
Ashe.....	380	358	22		Union.....	5,010	2,178	3,732	80
Avery.....	502	417	85	(48)	Vance.....	9,048	1,807	7,241	310
Beaufort.....	4,538	3,555	983		Wake.....	8,215	2,564	5,651	212
Bertie.....	1,076	1,148	528	(48)	Warren.....	1,836	1,403		
Bladen.....	9,133	6,626	2,507	298	Washington.....	1,376	1,340	36	276
Brunswick.....	3,339	1,500	1,839		Watauga.....	452	344	108	
Buncombe.....	22,123	10,858	11,265	7,411	Wayne.....	7,564	2,686	4,878	1,158
Burke.....	8,362	1,470	6,893		Wilkes.....	8,936	6,480	2,456	1,884
Cabarrus.....	32,209	3,491	28,718	2,000	Wilson.....	5,360	2,908	2,452	882
Caldwell.....	17,100	2,688	14,412	1,475	Yadkin.....	1,032	987	45	
Carters.....	2,015	1,934	81		Yancey.....	208	208		
Caswell.....	719	715	4		All other counties ²⁰	5,493	3,866	1,627	300
Catawba.....	16,187	4,211	11,976	829	NORTH DAKOTA	19,766	11,096	8,660	5,617
Chatham.....	5,500	3,465	2,035		Adams.....	108	2	106	
Cherokee.....	1,872	1,331	541	11	Barnes.....	1,180	1,045	135	416
Chowan.....	2,609	1,635	974	642	Bottineau.....	87	75	12	
Clay.....	210	203	7		Burke.....	50	25	25	
Cleveland.....	15,590	3,654	11,936	950	Burleigh.....	547	65	482	
Columbus.....	5,126	4,267	859		Cass.....	3,208	940	2,268	659
Craven.....	7,480	5,665	1,815	315	Eddy.....	51		51	
Cumberland.....	10,225	5,023	5,202	1,700	Foster.....	17		17	
Dare.....	222	222			Grand Forks.....	6,122	4,740	1,373	3,747
Davidson.....	20,006	8,450	11,526	3,440	Hettinger.....	250	225	31	
Duplin.....	2,474	2,460	14	300	McHenry.....	39	3	36	
Durham.....	30,255	18,368	11,887	4,901	McLean.....	57	47	10	
Edgecombe.....	12,118	3,842	8,276	(48)	Morton.....	1,089	128	961	15
Forsyth.....	31,157	17,159	13,998	11,799	Pembina.....	132	100	32	
Franklin.....	2,688	1,300	1,388		Pierce.....	148	135	13	
Gaston.....	80,238	2,488	77,750	452	Ramsey.....	521	255	266	105
Gates.....	390	390			Ransom.....	89	44	45	16
Graham.....	385	385			Richland.....	420	80	340	
Granville.....	2,012	1,020	992		Stark.....	1,692	1,445	147	100
Greene.....	90	90			Stutsman.....	792	295	497	141
Guilford.....	59,756	20,205	36,461	12,337	Trall.....	41	2	39	
Halifax.....	23,647	9,012	14,635	480	Walsh.....	88	3	85	
Harnett.....	8,806	1,991	6,875		Ward.....	1,539	948	591	394
Haywood.....	29,336	25,533	3,803	21,050	Wells.....	46	10	36	
Henderson.....	4,691	2,045	2,046	993	Williams.....	382	212	170	
Hertford.....	801	777	24	67	All other counties ²¹	1,065	293	802	25
Hoke.....	1,189	735	454		OHIO	4,340,575	2,095,133	2,245,437	1,489,435
Iredell.....	15,859	3,989	11,870	1,975	Adams.....	395	231	164	
Jackson.....	4,350	3,500	850	2,155	Allen.....	21,717	12,833	8,884	16,771
Johnston.....	7,893	1,867	5,931	(48)	Ashland.....	5,902	978	4,924	1,160
Jones.....	440	440		140	Ashtabula.....	18,418	8,000	10,418	4,748
Lee.....	4,145	1,609	2,536		Athens.....	4,994	2,197	2,797	130
Lenoir.....	2,467	1,759	608	22	Auglaize.....	9,610	4,802	4,808	915
Lincoln.....	8,119	3,922	4,197	25	Belmont.....	21,974	13,048	8,926	7,049
McDowell.....	9,117	5,728	3,389	1,080	Brown.....	464	406	58	10
Macon.....	607	693	44		Butler.....	173,384	98,668	74,716	75,542
Madison.....	340	313	27		Carroll.....	6,264	2,986	3,278	561
Martin.....	673	431	242		Champaign.....	5,204	3,394	1,810	100
Mecklenburg.....	36,637	8,329	28,308	1,205	Clark.....	36,381	11,530	24,801	8,181
Mitchell.....	1,135	808	332		Clermont.....	1,443	908	536	88
Montgomery.....	4,211	2,017	2,194		Clinton.....	1,580	210	1,370	
Moore.....	2,975	1,463	1,512		Columbiana.....	49,586	23,077	26,509	2,581
Nash.....	6,910	5,485	1,425	2,068	Coshocton.....	7,275	2,601	4,674	1,584
New Hanover.....	10,196	2,512	7,684	100	Crawford.....	11,192	2,911	8,281	1,750
Northampton.....	780	765	14		Cuyahoga.....	782,808	315,108	467,700	261,382
Onslow.....	646	49	(49)		Darke.....	2,249	773	1,476	
Orange.....	5,728	1,700	4,028		Defiance.....	5,202	1,537	3,755	178
Pamlico.....	641	635	6		Delaware.....	2,419	1,118	1,301	260
Pasquotank.....	4,729	2,095	2,634	400	Erie.....	25,522	8,597	16,925	7,725
Pender.....	1,278	1,257	21	30	Fairfield.....	11,899	2,460	9,410	630
Perquimans.....	1,428	1,235	193	120	Fayette.....	2,331	1,187	1,144	40
Person.....	3,579	125	3,454		Franklin.....	111,018	25,721	85,297	28,101
Pitt.....	2,949	2,543	406	140	Fulton.....	2,546	670	1,897	292
Polk.....	1,373	1,005	368		Gallia.....	889	494	395	
Randolph.....	11,494	7,356	4,138	2,125	Greene.....	25,384	21,662	3,722	24,376
Richmond.....	17,652	4,450	13,202	165	Guernsey.....	9,688	8,103	1,585	2,963
Robeson.....	10,809	2,257	8,552		Hamilton.....	292,764	74,247	188,517	57,773
Rockingham.....	26,102	9,127	16,975	3,927	Hancock.....	14,626	4,203	10,423	571
Rowan.....	19,192	2,187	17,025	1,441	Hardin.....	3,849	1,049	2,791	
Rutherford.....	19,753	7,417	12,366	745	Harrison.....	780	507	273	
Sampson.....	1,829	1,251	678						
Scotland.....	6,998	749	6,249						
Stanly.....	24,682	3,634	21,048						

¹ Horsepower of electric motors driven by energy generated in establishments reporting.

²⁰ Included in total for State but not shown separately to avoid disclosing data for a single establishment.

²¹ Item for electric motors included with that for prime movers to avoid disclosing data for a single establishment.

⁴⁸ Currituck, Davie, Hyde, and Tyrrell Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Camden County.

⁴⁹ Benson, Bowman, Cavalier, Dickey, Divide, Dunn, Emmous, Golden Valley, Grant, Griggs, Kidder, La Moure, Logan, McIntosh, McKenzie, Mercer, Mountrail, Nelson, Oliver, Renville, Rolette, Sargent, Sheridan, Sioux, Slope, Steele, and Towner Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Billings County.

CENSUS OF MANUFACTURES: 1929

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
OHIO—Continued.					OKLAHOMA—Continued.				
Henry	1,734	686	1,048	-----	Haskell	138	80	58	-----
Highland	3,136	2,127	1,009	1,102	Hughes	681	800	381	-----
Hocking	6,818	3,716	3,102	2,250	Jackson	1,999	1,228	771	-----
Holmes	2,617	937	1,680	346	Jefferson	506	325	181	-----
Huron	6,715	2,500	4,215	900	Kay	22,044	12,648	9,396	7,677
Jackson	12,157	10,619	1,538	1,132	Kingfisher	1,121	280	841	-----
Jefferson	108,352	104,772	3,580	69,349	Klowa	2,189	1,700	489	110
Knox	6,583	3,107	3,476	2,595	Lafimer	251	163	88	-----
Lake	43,488	20,931	16,557	19,693	LeFlora	3,610	3,368	242	2,775
Lawrence	20,862	10,331	6,730	6,730	Lincoln	1,436	612	524	66
Licking	19,459	8,543	10,916	2,864	Logan	1,868	1,200	578	188
Logan	2,936	1,896	1,037	608	Love	286	-----	286	-----
Lorain	206,419	175,635	30,784	109,103	McIntosh	475	250	225	-----
Lucas	201,483	59,737	141,746	31,612	Major	178	160	28	-----
Madison	1,088	520	554	46	Marshall	87	-----	87	-----
Mahoning	576,152	404,712	111,440	235,799	Mayes	111	7	104	-----
Marion	24,974	4,188	20,786	931	Murray	703	162	541	-----
Medina	9,071	4,423	4,648	1,684	Muskogee	7,059	2,425	4,634	18
Meigs	2,919	1,311	1,608	75	Noble	408	400	98	(⁵³)
Mercer	3,842	3,013	829	2,073	Nowata	292	110	92	-----
Miami	16,303	8,057	8,246	4,209	Okfuskee	958	25	933	-----
Monroe	446	179	267	-----	Oklahoma	25,698	10,175	15,523	6,024
Montgomery	117,896	33,233	84,663	24,272	Oklmulgee	7,610	2,453	5,457	1,685
Morgan	650	507	53	-----	Ottawa	1,807	468	1,339	-----
Morrow	693	607	86	918	Payne	7,075	1,832	5,243	99
Muskingum	32,228	21,133	11,095	22,023	Pittsburg	1,613	1,083	830	-----
Noble	296	280	16	-----	Pontotoc	12,187	11,055	1,132	10,008
Ottawa	9,210	3,053	6,157	5,008	Pottawatomie	5,891	1,950	3,411	-----
Paulding	1,728	1,430	293	-----	Pushmataha	1,412	1,297	115	-----
Perry	5,740	3,068	2,672	1,373	Rogers	207	75	132	50
Pickaway	4,080	2,263	1,817	(⁵²)	Seminole	848	260	588	-----
Pike	461	414	77	-----	Stephens	1,694	600	1,094	-----
Portage	18,001	4,900	13,101	346	Texas	67	-----	67	-----
Preble	684	180	504	-----	Tillman	1,152	760	392	-----
Putnam	1,437	1,113	324	964	Tulsa	43,200	13,154	30,046	5,848
Richland	51,309	1,084	49,625	4,516	Wagoner	828	720	108	300
Ross	24,584	23,321	1,263	17,312	Washington	11,125	10,576	549	7,003
Sandusky	15,793	1,973	13,820	181	Washita	170	113	57	-----
Scioto	68,259	55,078	13,181	40,021	Woods	1,843	1,080	263	300
Seneca	17,532	1,495	16,037	350	Woodward	452	240	212	10
Shelby	4,527	393	4,134	-----	All other counties ⁵⁴	12,940	10,790	2,150	⁵³ 7,593
Stark	281,115	85,822	195,293	112,908	OREGON	418,324	207,599	210,725	91,011
Summit	323,460	172,321	151,130	162,823	Baker	3,922	986	2,936	200
Trumbull	236,262	61,296	174,966	64,973	Benton	4,887	3,126	1,761	-----
Tuscarawas	40,663	23,078	17,585	7,342	Clackamas	80,908	50,164	30,739	7,227
Union	1,350	652	698	240	Clatsop	11,257	7,922	3,335	4,928
Van Wert	2,453	580	1,873	(⁵²)	Columbia	14,531	11,588	2,943	9,922
Warren	11,654	5,488	6,166	1,779	Coos	28,337	18,676	9,661	1,114
Washington	5,429	813	4,616	142	Crook	335	215	120	-----
Wayne	28,373	15,746	12,627	5,400	Curry	168	128	40	-----
Williams	2,603	691	1,912	113	Douglas	7,979	4,646	3,333	1,363
Wood	20,317	15,295	5,022	20,268	Harney	240	196	44	-----
Wyandot	2,363	1,262	1,111	250	Hood River	1,498	1,200	298	1,230
Other counties (Geauga and Vinton)	2,037	1,063	374	300	Jackson	9,370	3,880	5,490	4,600
OKLAHOMA	223,257	115,987	107,870	55,053	Josephine	2,029	1,440	589	-----
Adair	428	325	103	-----	Klamath	23,429	4,694	18,735	3,281
Alfalfa	422	325	97	-----	Lake	1,266	1,215	61	-----
Atoka	245	80	165	-----	Lane	26,052	16,204	9,848	6,185
Beckham	1,174	735	439	-----	Lincoln	7,343	6,757	586	6,772
Bryan	1,067	467	600	-----	Linn	6,182	3,125	3,057	-----
Caddo	1,601	1,220	372	-----	Malheur	116	20	96	-----
Canadian	4,307	2,365	1,942	716	Marion	24,535	8,999	15,536	3,585
Cartor	2,543	855	1,688	-----	Morrow	372	238	134	-----
Cherokee	372	140	232	-----	Multnomah	107,935	22,138	85,797	8,343
Choctaw	1,027	290	737	62	Polk	7,951	4,893	3,058	5,099
Cleveland	722	400	322	25	Tillamook	6,024	4,750	1,274	4,927
Comanche	1,477	300	1,177	-----	Umatilla	3,065	637	2,428	43
Cotton	223	80	143	-----	Union	7,492	5,386	2,106	270
Craig	263	24	239	-----	Wallowa	1,164	990	174	300
Creek	6,287	3,843	2,444	1,180	Wasco	2,140	220	1,920	-----
Custer	1,099	493	601	-----	Washington	6,528	4,943	1,585	76
Garfield	11,685	6,222	5,463	3,322	Yamhill	6,849	4,073	2,776	568
Garvin	1,325	710	616	-----	All other counties ⁵⁵	14,425	14,060	365	21,078
Grady	2,399	1,865	534	-----					
Greer	801	700	101	-----					

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
² Included in total for State but not shown separately to avoid disclosing data for a single establishment.
³ Item for Noble County included in that for "All other counties" to avoid disclosing data for a single establishment.
⁴ Beaver, Blaine, Cimarron, Coal, Delawars, Dewey, Ellis, Grant, Harmon, Harper, Johnston, McClain, McCurtain, Osage, Pawnee, Roger Mills, and Sequoyah Counties; combined to avoid disclosing approximations of the data for individual establishments.
⁵ Deschutes, Gilliam, Grant, Sherman, and Wheeler Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Jefferson County.

POWER EQUIPMENT

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹		
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors			
PENNSYLVANIA				5,991,493	3,348,112	2,645,381	2,369,077	SOUTH CAROLINA—Con.			
Adams	7,421	2,609	4,812	684	Cherokee	15,863	5,610	10,244	766		
Allegheny	1,398,914	947,853	451,061	666,713	Chester	10,108	690	9,418	220		
Armstrong	89,847	12,196	77,651	562	Chesterfield	3,067	1,094	1,973			
Beaver	349,055	213,709	135,346	185,200	Clarendon	2,623	2,600	23	1,296		
Bedford	6,432	5,130	1,302	1,145	Colleton	2,143	2,027	116			
Berks	124,615	49,095	75,520	23,181	Darlington	10,289	6,977	9,312	1,540		
Blair	61,971	51,568	10,405	45,568	Dillon	2,712	905	1,807			
Bradford	13,969	11,024	2,945	6,470	Dorchester	2,612	2,392	120	(57)		
Bucks	30,603	15,868	14,735	7,786	Edgefield	1,949	1,020	820			
Butler	98,953	6,864	92,089	6,283	Florence	4,854	3,147	1,707	300		
Cambria	220,265	190,094	21,171	147,530	Georgetown	6,306	6,288	18	4,221		
Cameron	1,309	1,064	335	482	Greenwood	60,781	22,726	38,055	6,910		
Carbon	44,005	37,321	6,774	16,901	Hampton	24,647	21,067	3,580	10,327		
Centre	8,707	1,184	7,523		Horry	3,230	3,080	150	442		
Chester	110,874	53,102	57,772	64,461	Jasper	2,027	2,024	3	120		
Clarion	7,496	4,188	3,308	1,188	Kershaw	1,162	1,155	7	60		
Clearfield	25,547	13,076	12,471	3,096	Lancaster	4,050	1,615	2,435			
Clinton	33,861	22,081	11,780	17,830	Laurens	18,550	12,840	710	7,866		
Columbia	23,785	0,186	14,599	5,743	Lee	11,555	581	11,024			
Crawford	17,516	5,337	12,179	3,670	Lexington	1,127	509	618			
Cumberland	18,516	4,480	14,036	2,607	McCormick	6,334	3,030	3,304	125		
Dauphin	114,784	79,612	35,272	92,777	Marion	1,157	1,157	(58)			
Delaware	234,476	73,580	160,896	39,950	Nowberry	6,850	4,365	2,485	1,648		
Elk	40,373	23,505	16,868	15,706	Oconee	13,908	4,126	9,782			
Essex	111,668	40,358	65,310	76,018	Orangeburg	11,005	5,992	5,013	55		
Fayette	30,262	13,526	16,736	3,367	Pickens	4,946	4,450	496	100		
Forest	2,294	2,259	35	669	Richland	10,569	7,067	3,512	912		
Franklin	19,188	7,744	11,444	8,214	Saluda	24,445	2,585	21,860			
Fulton	403	339	69		Spartanburg	1,151	1,058	95			
Greene	601	374	227		Sumter	78,876	35,791	43,085	8,400		
Huntingdon	10,465	3,425	7,040	1,224	Union	6,459	3,825	2,634	(57)		
Indiana	14,110	2,509	11,601	22	Williamsburg	23,810	6,464	17,346			
Jefferson	7,491	3,723	3,768	286	York	323	300	23			
Juniata	1,061	757	304		All other counties (Fairfield and Marlboro)	17,708	1,512	16,196	540		
Lackawanna	41,446	10,560	30,886	8,650	SOUTH DAKOTA						
Lancaster	76,865	10,010	66,840	1,059	Aurora	31,297	12,889	18,408	7,961		
Lawrence	155,209	100,688	54,521	66,230	Beadle	115	50	65			
Lebanon	97,142	39,023	28,119	26,771	Bon Homme	2,301	719	2,082	940		
Lehigh	111,246	40,919	70,327	14,933	Brookings	153	68	85			
Luzerne	54,535	20,174	34,361	11,036	Brown	225	65	160			
Lycoming	40,645	17,506	23,139	8,319	Brule	1,968	215	1,753	260		
McKean	18,924	9,555	9,369	3,951	Butte	133	20	113			
Mercer	203,618	96,150	107,463	44,097	Charles Mix	2,637	2,322	215	1,794		
Mifflin	43,661	29,492	14,259	15,322	Clay	220	42	178			
Monroe	0,070	1,411	4,659	74	Codington	32		32			
Montgomery	171,940	80,797	91,143	63,375	Custer	1,279	237	1,042			
Montour	11,894	1,686	10,308	65	Davison	879	874	5			
Northampton	457,337	375,218	82,119	266,316	Day	1,004	173	831			
Northumberland	33,493	11,852	22,141	37,653	DeWitt	192	27	165			
Perry	1,870	1,067	803	125	Fall River	301	178	123	125		
Philadelphia	652,321	264,830	387,491	155,298	Grant	432		432			
Pike	466	345	121	(59)	Gregory	181	60	121			
Potter	6,858	6,439	419	1,386	Hamlin	68	20	48			
Schuylkill	38,908	22,542	16,366	13,149	Hughes	93	34	59			
Snyder	2,661	749	1,912	15	Hutchinson	145	15	130			
Somerset	3,861	2,402	1,459	1	Kingsbury	94		94			
Sullivan	670	494	182		Lake	184	27	157			
Susquehanna	3,749	903	2,846	5	Lawrence	834	509	325			
Tioga	7,205	5,795	1,410	3,321	Lincoln	103	3	100			
Union	2,809	1,967	842		Marshall	37	18	19			
Venango	31,908	16,370	15,038	10,400	Meade	604	80	524			
Warren	24,138	7,789	16,390	2,673	Miner	43		43			
Washington	130,897	91,146	39,341	57,218	Minnehaha	8,851	1,448	7,403			
Wayne	3,777	1,925	1,852	1,000	Pennington	5,397	4,918	479	4,785		
Westmoreland	208,371	120,725	82,646	71,134	Perkins	33	15	18			
Wyoming	2,395	2,143	252	1,211	Roberts	111	25	86			
York	98,376	29,986	68,390	26,560	Spink	359	120	239			
RHODE ISLAND				483,822	200,731	263,061	87,133	TENNESSEE			
Bristol	20,190	3,535	16,655		Bedford	606,704	284,101	342,603	122,875		
Kent	45,008	36,038	8,970		Benton	2,464	538	1,926			
Newport	5,693	3,078	2,615	12,820	Bledsoe	155	155				
Providence	379,257	148,004	231,253	66,519	Bradley	141	75	66			
Washington	13,674	10,070	3,598	7,794	Brady	5,090	2,582	2,508	2,049		
SOUTH CAROLINA				597,326	234,018	293,308	60,478	TENNESSEE			
Abbeville	4,693	3,490	1,203	2,272	Campbell	1,718	1,603	115	(60)		
Aiken	16,131	5,958	10,173	168	Cannon	123	90	33			
Allendale	773	540	232		Carroll	1,203	1,007	196			
Anderson	46,932	24,607	22,925	9,705	Cartor	14,007	12,990	1,017	10,033		
Bamberg	1,607	1,280	347	400	Cheatham	125	61	64	(61)		
Barnwell	1,264	1,150	114	500	Claiborne	217	196	21			
Beaufort	1,893	700	1,193								
Berkeley	2,976	2,972	4	1,200							
Calhoun	807	715	92								
Charleston	28,752	9,838	18,914	251							

¹ Horsepower of electric motors driven by energy generated in establishments reporting.

⁵⁸ Item for Pike County combined with that for Wayne County to avoid disclosing data for a single establishment.

⁵⁹ Included in total for State but not shown separately to avoid disclosing data for a single establishment.

⁶⁰ Item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.

⁶¹ Bennett, Clark, Corson, Deuel, Dewey, Douglas, Edmunds, Faulk, Haskon, Hand, Hanson, Harding, Hyde, Jackson, Jerauld, Jones, Lyman, McCook, McPherson, Mellette, Moody, Potter, Samburg, Stanley, Sully, Todd, and Ziebach Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Armstrong, Buffalo, Campbell, Shannon, Washabaugh, and Washington Counties.

⁶² Included in total for State but not shown separately to avoid disclosing data for a single establishment.

⁶³ Item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
TENNESSEE—Continued.					TEXAS—Continued.				
Clay	116	116			Bowie	7,231	5,114	2,117	112
Coeke	2,162	2,007	155	365	Brazoria	972	263	709	
Coffee	2,362	2,004	358		Brazos	639	448	191	
Cumberland	259	176	83		Brown	2,067	865	1,202	(63)
Davidson	87,977	42,806	45,171	14,179	Burnet	208	50	158	
De Kalb	165	133	32		Caldwell	1,340	901	439	
Dickson	1,404	1,137	217		Callahan	180	55	125	
Dyer	3,146	2,043	1,103	(69)	Cameron	5,012	1,195	3,817	
Fayette	125	120	5		Camp	797	594	203	233
Fentress	1,146	1,146			Carson	1,156		1,156	
Franklin	7,101	545	6,556	30	Cass	1,062	975	87	
Gibson	3,886	2,460	926	446	Chambers	108	108		
Giles	742	650	92		Cherokee	2,433	2,050	383	(63)
Granger	245	245			Childress	2,832	940	1,892	320
Greene	1,643	928	415	202	Clay	134	65	69	
Grundy	749	728	21		Coleman	809	530	279	
Hambleton	2,841	1,498	1,343	36	Collin	3,289	1,704	1,585	108
Hamilton	81,917	15,903	69,014	5,452	Collingsworth	82	50	32	
Hardeman	613	576	37		Colorado	1,084	940	144	12
Hardin	423	423	(61)		Comal	5,602	546	5,056	
Hawkins	380				Comanche	603	287	316	
Haywood	464	250	214		Cooke	2,161	1,209	952	219
Henry	1,273	550	683	192	Coryell	324	278	46	
Humphreys	453	327	131		Cottle	65		66	
Jefferson	558	373	185		Crosby	248	120	128	
Johnson	907	830	27		Dallam	503	75	423	
Knox	68,998	22,576	41,422	6,319	Dallas	74,210	28,643	45,567	13,563
Lauderdale	745	640	105		Dawson	543	165	378	
Lawrence	1,221	1,025	196		Delta	819	215	104	
Lewis	276	275	(61)		Denton	2,216	1,800	416	223
Lincoln	1,894	1,492	402	685	De Witt	2,533	980	1,553	
Loudon	4,614	630	3,984		Dickens	182	110	72	
McMinn	3,400	1,251	2,149	545	Donley	16		16	
McNairy	205	202	3		Eastland	1,768	652	1,116	
Macon	217	215	2		Ellis	5,646	1,750	3,796	94
Madison	13,070	10,626	2,443	6,460	El Paso	30,217	20,032	16,135	11,333
Marion	12,777	4,620	8,157	115	Erath	1,570	750	820	491
Marshall	1,868	1,168	700	480	Falls	885	620	265	
Mauzy	3,057	1,222	1,835	249	Fannin	2,936	825	2,110	
Meigs	434	434			Fayette	1,467	1,113	354	168
Monroe	3,052	2,131	1,821	1,078	Fisher	2,801	325	2,476	
Montgomery	3,086	2,250	836	301	Frestonia	778	408	370	663
Obion	1,096	768	298	335	Galveston	18,936	9,783	8,553	4,779
Overton	528	500	28		Gillespie	423	36	387	
Perry	364	364			Goliad	81		81	
Pickett	129	129			Gonzales	2,100	906	1,194	
Putnam	1,568	1,232	336		Gray	1,794	505	1,289	
Rhea	1,120	676	444	450	Grayson	15,483	5,535	9,898	727
Roano	10,065	9,490	578	4,235	Gregg	1,419	1,077	342	460
Robertson	1,415	719	696		Grimes	1,170	919	251	
Rutherford	2,262	1,170	1,092	225	Guadalupe	1,751	1,325	426	450
Scott	3,235	3,160	75	2,472	Hale	1,818	692	1,126	
Sevier	1,296	1,003	293		Hamilton	517	435	82	
Shelby	137,088	60,378	76,710	52,462	Hardeman	3,435	2,700	2,077	190
Smith	409	175	234		Hardin	2,911	2,700	211	165
Sullivan	29,315	9,538	19,777	10,362	Harris	120,055	30,224	89,831	7,481
Sumner	744	373	371		Harrison	10,473	5,206	5,207	1,314
Tipton	1,100	910	190		Hays	494	150	344	
Trousdale	251	148	103		Hemphill	105	75	30	
Union	3,993	1,110	2,883		Henderson	1,023	525	503	
Union	92	92			Hidalgo	3,309	422	2,887	
Warren	2,532	1,905	657	307	Hill	3,140	465	2,681	
Washington	9,669	3,435	6,234	630	Hockley	64	30	34	
Wayno	1,143	1,144	4		Hopkins	841	470	371	19
Wookley	895	780	115		Houston	1,360	1,054	815	185
White	833	583	255		Howard	2,020	240	1,780	62
Williamson	792	672	120	63	Hunt	5,510	3,520	1,990	190
Wilson	1,662	481	1,181	(69)	Hutchinson	5,071	1,720	3,351	(63)
All other counties ⁶²	50,702	14,545	36,157	1,409	Jackson	1,132	75	57	
TEXAS	822,860	378,927	443,933	164,732	Jasper	4,055	3,036	110	15
Anderson	4,123	1,272	2,851		Jefferson	121,301	89,733	31,568	95,482
Angelina	7,610	6,142	1,468	180	Johnson	5,742	750	4,992	50
Atascosa	258		258		Jones	1,830	401	1,428	
Austin	623	145	483		Karnes	1,487	343	1,144	
Bastrop	2,383	600	1,783		Kaufman	2,200	945	1,255	45
Baylor	475	275	200		Kendall	205	162	43	
Bee	421		421		Kerr	264	75	189	
Bell	3,855	682	3,173	105	Kleberg	1,540	931	568	680
Bexar	40,090	12,742	27,328	7,331	Lamar	4,007	1,624	2,383	149
Bosque	817	590	227		Lampasas	172	147	25	

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
⁶⁰ Included in total for State but not shown separately to avoid disclosing data for a single establishment.
⁶¹ Item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.
⁶² Anderson, Blount, Chester, Crockett, Decatur, Hancock, Henderson, Hickman, Houston, Jackson, Lake, Moore, Morgan, Polk, Sequatchie, Stewart, and Van Buren Counties; combined to avoid disclosing approximations of the data for individual establishments.
⁶³ Included in total for State but not shown separately to avoid disclosing data for a single establishment.

POWER EQUIPMENT

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
TEXAS—Continued.					UTAH—Continued.				
Lavaca.....	2,003	749	1,254	.....	Sanpete.....	1,319	841	478	735
Liberty.....	1,070	777	293	60	Sevier.....	549	200	250	.....
Limestone.....	1,390	1,085	275	412	Summit.....	79	40	30	.....
Llano.....	355	50	305	.....	Uintah.....	119	50	69	.....
Lubbock.....	3,151	1,591	1,560	375	Utah.....	15,405	11,018	4,477	2,849
Lynn.....	56	.....	56	.....	Wasatch.....	603	61	542	.....
McCulloch.....	771	295	476	.....	Weber.....	15,300	3,173	12,127	964
McLennan.....	19,718	8,905	10,723	5,242	All other counties ⁶⁵	11,901	4,804	7,097	3,423
Marion.....	725	678	47	.....	VERMONT				
Matagorda.....	631	424	207	.....	Addison.....	163,940	80,508	83,432	40,990
Maverick.....	230	150	80	.....	Bennington.....	3,318	1,655	1,663	.....
Medina.....	584	500	84	90	Blenheim.....	8,801	6,398	2,403	2,898
Menard.....	114	.....	114	.....	Caladonia.....	11,338	4,187	7,151	163
Midland.....	266	.....	266	.....	Chittenden.....	10,434	8,707	7,727	4,875
Millam.....	895	225	670	.....	Franklin.....	14,458	9,709	4,749	7,872
Montague.....	1,039	330	759	.....	Lamolle.....	3,384	2,254	1,130	.....
Montgomery.....	2,810	2,757	53	47	Orange.....	3,083	2,209	874	210
Morris.....	158	105	53	.....	Orleans.....	6,329	3,942	2,387	692
Nacogdoches.....	2,251	1,934	317	69	Rutland.....	29,318	15,082	14,236	13,630
Navarro.....	5,532	2,122	3,410	180	Washington.....	24,535	4,912	19,623	3,871
Newton.....	5,339	5,339	.....	.....	Windham.....	13,962	4,396	9,566	100
Nolan.....	5,838	1,905	3,933	1,155	Windsor.....	19,616	7,826	11,790	4,370
Nueces.....	3,085	1,375	1,720	.....	Other counties (Essex and Grand Isle).....				
Orange.....	10,108	5,370	4,738	3,438	.....	0,304	0,231	133	2,500
Palo Pinto.....	1,477	220	1,257	.....	VIRGINIA				
Panola.....	726	611	115	.....	Accomac.....	646,251	390,508	255,743	213,264
Parker.....	1,727	565	1,162	(*)	Albemarle County and Charlottesville city ⁶⁶	1,507	1,166	341	.....
Pecos.....	106	.....	106	.....	Alleghany County and Clifton Forge city ⁶⁶	4,275	1,855	2,420	34
Polk.....	2,012	1,920	92	35	Amelia.....	54,120	47,275	6,844	47,826
Potter.....	7,980	2,487	5,493	447	Amerst.....	893	67,893	(*)	100
Presidio.....	213	2	211	.....	Appomattox.....	483	483	.....	100
Randall.....	77	.....	77	.....	Arlington County and Alexandria city ⁶⁶	461	361	100	.....
Red River.....	1,406	645	761	.....	Augusta County and Staunton city ⁶⁶	8,755	1,908	6,847	110
Robertson.....	1,028	955	73	.....	Bedford.....	10,874	15,806	4,068	10,329
Runnels.....	1,329	107	1,222	.....	Botetourt.....	8,520	7,009	1,511	1,233
Rusk.....	1,654	1,378	276	.....	Brunswick.....	1,698	526	1,172	.....
San Augustine.....	1,100	1,083	17	.....	Buckingham.....	1,795	1,573	222	.....
San Saba.....	58	.....	58	.....	Campbell County and Lynchburg city ⁶⁶	1,249	1,249	.....	.....
Scurry.....	393	250	143	.....	Caroline.....	25,066	17,294	8,372	8,849
Shackelford.....	203	25	178	.....	Carroll.....	1,417	1,398	19	(*)
Shelby.....	2,900	2,742	158	145	Charles City.....	2,330	842	1,488	.....
Smith.....	4,132	1,017	3,115	69	Charlotte.....	680	680	.....	.....
Starr.....	160	.....	160	.....	Chesterfield.....	1,220	1,189	31	.....
Stephens.....	1,423	1,197	226	29	Craig.....	18,127	16,164	1,963	10,479
Tarrant.....	59,327	15,564	43,763	2,925	Culpeper.....	667	215	452	.....
Taylor.....	3,414	1,148	2,271	107	Cumberland.....	244	67,244	(*)	.....
Titus.....	422	290	132	.....	Dinwiddie County and Petersburg city ⁶⁶	953	303	650	.....
Tom Green.....	2,034	415	1,619	.....	Elizabeth City, County and Hampton city.....	230	230	.....	.....
Travis.....	6,010	2,863	3,147	49	Essex.....	7,314	4,312	3,002	988
Trinity.....	2,049	2,590	59	(*)	Fairfax.....	1,312	385	927	425
Tyler.....	2,319	2,313	6	43	Fauquier.....	456	434	22	.....
Upshur.....	947	812	135	.....	Floyd.....	515	219	296	.....
Uvalde.....	258	.....	258	.....	Fluvanna.....	213	81	132	.....
Val Verde.....	408	220	403	.....	Frederick County and Winchester city ⁶⁶	534	67,534	(*)	.....
Victoria.....	838	.....	838	.....	Giles.....	283	67,283	(*)	.....
Walker.....	2,350	2,291	119	.....	Gloucester.....	6,732	2,314	4,418	926
Waller.....	17	15	2	.....	Goehland.....	963	459	504	.....
Ward.....	125	100	25	.....	Grayson.....	284	67,284	(*)	.....
Washington.....	1,742	15	1,727	.....	Greene.....	242	242	.....	.....
Webb.....	1,944	1,249	695	40	Grayson.....	4,207	4,248	49	1,217
Wharton.....	1,186	819	367	.....	Greene.....	110	110	.....	.....
Wheeler.....	753	675	78	.....	Greensville.....	1,830	1,075	755	735
Wichita.....	13,128	4,984	8,144	360	Halifax.....	2,136	706	1,430	.....
Willbarger.....	4,420	1,631	2,789	475	Hanover.....	965	940	25	14
Williamson.....	2,382	1,651	681	10	Henrico County and Richmond city ⁶⁶	62,672	13,302	49,370	2,126
Wilson.....	1,026	1,705	321	60	Henry County and Martinsville city.....	12,797	10,042	2,755	5,248
Wise.....	854	355	499	.....	Highland.....	125	125	.....	.....
Wood.....	2,024	1,648	378	20	Isle of Wight.....	3,112	2,756	356	2,120
Young.....	1,056	750	308	.....	James City County and Williamsburg city.....	644	512	132	.....
All other counties ⁶⁴	30,706	15,019	15,637	1,465	King and Queen.....	386	386	.....	.....
UTAH					UTAH				
Beaver.....	215	12	203	.....	King George.....	70	70	.....	.....
Box Elder.....	5,010	2,636	2,374	.....	King William.....	4,980	4,980	.....	3,612
Cache.....	4,837	3,607	1,230	1,902	Lancaster.....	1,523	1,376	147	140
Carbon.....	214	52	162	.....	Landon.....	872	301	571	.....
Davis.....	3,834	1,785	2,049	20	Louisia.....	897	880	8	.....
Duchesne.....	220	80	140	.....	Lunenburg.....	862	795	67	466
Juab.....	384	290	94	96					
Millard.....	211	113	99	.....				
Morgan.....	3,930	50	3,880	.....				
Salt Lake.....	59,617	26,410	33,107	12,792					

¹ Horsepower of electric motors driven by energy generated in establishments reporting.

⁶⁴ Included in total for State but not shown separately to avoid disclosing data for a single establishment.

⁶⁵ Aransas, Archer, Armstrong, Bailey, Bandera, Brewster, Briscoe, Brooks, Burleson, Calhoun, Cochran, Coke, Crane, Crockett, Culberson, Deaf Smith, Dimmit, Ector, Edwards, Floyd, Foard, Fort Bend, Franklin, Frio, Garza, Hall, Hansford, Haskell, Hood, Hudspeth, Jack, Jeff Davis, Jim Hogg, Jim Wells, Kent, Kimble, Kinney, Knox, Lamb, La Salle, Lee, Leon, Live Oak, Madison, Martin, Mason, Mills, Mitchell, Motley, Ochiltree, Parmer, Rains, Reagan, Real, Reeves, Refugio, Rockwall, Sabine, San Jacinto, San Patricio, Sherman, Somervell, Stonewall, Sutton, Swisher, Terrell, Terry, Throckmorton, Upton, Van Zandt, Willacy, and Zavala Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Andrews, Blanco, Borden, Castro, Concho, Duval, Gaines, Glasscock, Hartley, Irion, Kenady, King, Lipscomb, Loving, McMullen, Moore, Oldham, Roberts, Schleicher, Sterling, Winkler, Yoakum, and Zapata Counties.

⁶⁶ Emery, Garfield, Grand, Iron, Piute, Rich, San Juan, Tooele, and Washington Counties; combined to avoid disclosing approximations of the data for individual establishments. No manufacturing was reported from Daggett, Kane, and Wayne Counties.

⁶⁷ Independent city located within county.

⁶⁸ Item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.

⁶⁹ Item for Caroline County included in that for "All other counties" to avoid disclosing data for a single establishment.

⁷⁰ Independent city nearly surrounded by Henrico County.

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors—plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
VIRGINIA—Continued.					WASHINGTON—Contd.				
Madison.....	623	546	77		Pacific.....	9,701	8,999	702	2,700
Mathews.....	243	211	32		Pend Oreille.....	10,874	7,603	3,271	1,622
Mecklenburg.....	2,310	1,700	610		Pierce.....	136,544	39,939	96,605	18,739
Middlesex.....	214	207	7		San Juan.....	485	454	31	15
Montgomery County and Radford city ⁶⁵	6,120	5,155	965	1,599	Skagit.....	21,722	15,761	5,961	9,255
Nansemond County and Suffolk city ⁶⁶	9,221	2,012	7,209	40	Skamania.....	1,768	1,355	413	
Nelson.....	2,016	1,991	25	2,150	Snohomish.....	60,604	43,873	16,731	28,540
New Kent.....	250	250			Spokane.....	45,577	8,168	37,400	1,116
Norfolk County and Norfolk, Portsmouth, and South Norfolk cities ⁶⁶	55,362	8,498	46,864	2,057	Stevens.....	5,444	2,901	2,543	120
Northampton.....	2,326	1,760	566	387	Thurston.....	18,531	7,486	11,045	4,667
Northumberland.....	5,088	5,088	(⁶⁷)		Wahkiakum.....	363	70	(⁷⁰)	5
Nottoway.....	2,939	2,109	830		Walla Walla.....	2,405	305	2,100	
Orange.....	992	629	363		Whatcom.....	29,546	15,061	14,485	2,650
Page.....	3,432	1,546	1,886		Whitman.....	705	120	585	
Patrick.....	460	458	2		Yakima.....	7,045	2,852	4,193	
Pittsylvania County and Danville city ⁶⁸	47,559	45,692	1,867	38,913	All other counties ⁷¹	477	110	387	5
Powhatan.....	505	505			WEST VIRGINIA.....				
Prince Edward.....	1,033	272	761		Barbour.....	580	463	117	100
Prince George County and Hopewell city ⁶⁸	82,170	67,639	14,531	28,727	Berkeley.....	12,641	1,115	11,526	576
Prince William.....	459	436	23		Boone.....	1,115	1,095	20	
Princess Anne.....	157	70	87		Braxton.....	1,032	979	53	646
Pulaski.....	9,323	5,315	4,013	1,905	Brooke.....	27,618	3,595	24,023	429
Rappahannock.....	128	121	7		Cabell.....	47,079	8,078	39,001	15,778
Richmond.....	500	(⁶⁷)	(⁶⁷)		Clay.....	798	796	2	
Roanoke County and Roanoke city ⁶⁹	40,860	26,188	14,672	32,023	Doddridge.....	69	65	4	
Rockbridge County and Buena Vista city ⁶⁹	6,372	2,974	3,398		Fayette.....	11,228	8,306	2,922	610
Rockingham County and Harrisonburg city ⁶⁹	4,352	2,498	1,854	459	Gilmer.....	314	168	146	
Russell.....	243	200	43		Greenbrier.....	2,766	1,943	823	1,334
Scott.....	189	185	4		Hancock.....	116,130	109,330	6,800	145,578
Shenandoah.....	2,528	1,445	1,083		Hardy.....	953	920	33	165
Smyth.....	19,420	12,628	6,792	3,047	Harrison.....	17,213	11,597	5,706	8,078
Southampton.....	1,000	955	45	25	Jackson.....	543	441	102	
Spotsylvania County and Fredericksburg city ⁶⁹	2,257	1,290	967	62	Jefferson.....	8,017	3,455	4,562	694
Stafford.....	74	(⁶⁷)	(⁶⁷)		Kanawha.....	142,609	65,945	76,664	32,589
Surry.....	147	135	12		Lewis.....	1,898	860	1,038	98
Sussex.....	2,114	2,017	97	27	Lincoln.....	82	70	12	
Tazewell.....	1,216	640	576		Logan.....	1,880	561	1,319	
Warren.....	3,012	380	2,632		McDowell.....	3,880	505	3,375	
Warwick County and Newport News city ⁶⁹	35,070	4,599	30,471	2,100	Marion.....	17,103	4,704	12,404	3,665
Washington County and Bristol city ⁶⁹	11,981	4,889	7,072	2,005	Marshall.....	17,731	5,212	12,519	4,109
Westmoreland.....	934	850	78		Mason.....	2,411	1,602	909	263
Wise.....	3,059	949	2,410	30	Mercer.....	75,480	65,085	10,395	1,135
Wythe.....	1,215	306	909		Mingo.....	3,146	1,165	1,981	
York.....	4,237	40	197		Monongalia.....	7,441	4,429	3,012	1,718
All other counties ⁶⁹	4,257	4,017	240	68,751	Monroe.....	1,048	420	628	
WASHINGTON					WISCONSIN.....				
Asotin.....	527	100	427		Nicholas.....	11,726	11,125	31	5,188
Benton.....	549	110	439		Ohio.....	32,941	12,143	20,798	6,019
Chelan.....	6,174	2,944	3,230	1,254	Pendleton.....	235	231	4	
Clallam.....	30,222	22,745	7,477	36,795	Pocahontas.....	1,043	4,023	20	1,824
Clark.....	59,197	11,512	47,685	3,400	Preston.....	7,844	7,692	152	3,437
Columbia.....	428	263	165		Raleigh.....	3,213	2,314	899	175
Cowlitz.....	67,940	62,340	5,600	73,407	Randolph.....	4,545	3,473	1,072	400
Ferry.....	1,591	1,561	30	20	Ritchie.....	417	372	45	(⁷²)
Franklin.....	1,155	42	1,113		Roane.....	217	168	49	5
Garfield.....	91	95			Taylor.....	3,271	2,815	456	1,769
Grays Harbor.....	68,893	60,212	8,681	36,809	Tyler.....	1,028	391	637	
Jefferson.....	20,065	19,977	88	1,880	Upshur.....	1,011	374	137	413
King.....	156,544	47,600	108,944	29,005	Wayne.....	6,260	780	5,480	
Kitsap.....	6,014	4,890	1,124	5,480	Webster.....	2,367	2,367		
Kittitas.....	2,287	1,948	339		Wetzel.....	29,732	10,411	13,371	7,885
Klickitat.....	5,383	4,861	522	3,258	Wood.....	3,050	1,032	2,018	
Lewis.....	23,672	19,376	4,296	9,560	Wyoming.....	12,626	8,757	3,869	4,754
Lincoln.....	520	240	280		WISCONSIN.....				
Mason.....	7,408	1,765	5,643	5,414	Adams.....	228	213	13	230
Okanogan.....	3,745	1,805	1,940	520	Ashland.....	7,704	4,402	2,802	1,809
					Barron.....	4,958	3,108	1,850	808
					Bayfield.....	6,040	4,358	1,682	98
					Brown.....	38,745	15,520	23,225	5,882
					Buffalo.....	608	463	145	
					Burnett.....	367	284	103	
					Calumet.....	2,510	1,095	1,415	306
					Chippewa.....	21,463	19,930	1,533	5,386
					Clark.....	3,836	2,518	1,321	366

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
⁶⁵ Independent city located within county.
⁶⁶ Item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.
⁶⁷ Item for Caroline County included in that for "All other counties" to avoid disclosing data for a single establishment.
⁶⁸ Bath, Bland, Buchanan, Dickenson, Franklin, and Lee Counties; combined to avoid disclosing approximations of the data for individual establishments.
⁶⁹ Item for electric motors included in that for prime movers to avoid disclosing data for a single establishment.
⁷⁰ Adams, Douglas, Grant, and Island Counties; combined to avoid disclosing approximations of the data for individual establishments.
⁷¹ Item for Ritchie county included in that for "All other counties" to avoid disclosing data for an individual establishment.
⁷² Calhoun, Grant, Hampshire, Mineral, Pleasants, Putnam, Summers, and Tucker Counties; combined to avoid disclosing approximations of the data for individual establishments.

POWER EQUIPMENT

TABLE 7.—HORSEPOWER OF PRIME MOVERS AND OF ELECTRIC MOTORS, BY STATES AND COUNTIES: 1929—
Continued

STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹	STATE AND COUNTY	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY			Electric motors— plant energy ¹
	Aggregate	Prime movers	Electric motors			Aggregate	Prime movers	Electric motors	
WISCONSIN—Continued.					WISCONSIN—Continued.				
Columbia.....	3,611	1,370	2,241	270	Richland.....	1,465	1,121	344	110
Crawford.....	1,430	1,141	289		Rock.....	27,117	6,502	20,615	4,932
Dane.....	14,401	3,832	10,569	1,203	Rusk.....	11,916	11,193	723	488
Dodge.....	10,630	4,925	5,705	1,825	St. Croix.....	3,312	938	2,374	
Door.....	1,810	824	1,186		Sauk.....	3,164	1,677	1,487	1,445
Douglas.....	15,167	4,707	10,460	662	Shawano.....	5,047	4,820	1,127	2,981
Dunn.....	2,566	605	1,901	172	Sheboygan.....	26,860	16,632	10,228	13,355
Eau Claire.....	24,540	14,830	9,710	9,279	Taylor.....	2,932	2,528	404	186
Fond du Lac.....	12,514	7,298	5,216	6,218	Trempealeau.....	1,461	723	738	
Forest.....	3,618	2,768	860	20	Vernon.....	1,214	988	226	83
Grant.....	1,271	800	471	(²)	Vilas.....	1,741	1,723	18	503
Green.....	1,793	1,236	567	270	Walworth.....	2,305	1,084	1,221	513
Green Lake.....	1,043	491	552	172	Washington.....	295	25	240	
Iowa.....	2,314	1,950	364	707	Washington.....	6,994	3,545	3,449	2,042
Iron.....	391	280	111		Waukesha.....	14,773	3,784	10,989	1,756
Jackson.....	1,437	620	917		Waupaca.....	5,554	2,618	2,936	432
Jefferson.....	8,955	3,487	5,468	1,638	Waushara.....	1,182	143	1,039	(²)
Juneau.....	741	393	348		Winneshago.....	50,079	33,766	16,313	21,302
Kenosha.....	46,423	17,895	28,528	28,550	Wood.....	52,504	38,208	14,296	25,474
Kewaunee.....	3,225	1,206	1,029	97	Other counties (Florence and Sawyer).....	754	710	38	221
La Crosse.....	12,095	4,366	7,729	3,540	WYOMING				
Lafayette.....	2,104	942	1,162		Albany.....	6,525	1,044	5,481	453
Langlade.....	2,487	1,492	995	(²)	Big Horn.....	3,523	3,261	262	769
Lincoln.....	24,024	21,840	2,184	10,520	Carbon.....	2,972	2,646	320	1,769
Manitowoc.....	33,067	13,696	19,071	12,380	Converse.....	684	402	282	
Marathon.....	36,838	27,328	9,510	23,433	Crook.....	444	428	16	
Marquette.....	30,127	24,112	6,015	8,372	Fremont.....	480	60	420	
Marquette.....	577	453	124	779	Hot Springs.....	62	25	37	
Milwaukee.....	421,681	130,060	291,621	157,329	Johnson.....	128	110	18	
Monroe.....	1,066	632	434	100	Laramie.....	4,498	112	4,386	227
Oconto.....	0,003	8,385	618	3,352	Lincoln.....	165	145	20	
Oneida.....	17,409	16,055	1,354	8,555	Park.....	659	85	574	
Ozaukee.....	84,166	57,823	26,343	20,052	Platte.....	84		84	
Pepin.....	4,816	3,091	1,755	1,106	Shoshone.....	2,503	1,041	1,462	377
Pierce.....	373	159	214		Sublette.....	242	242		
Polk.....	2,128	1,113	1,015		Sweetwater.....	847	150	697	49
Portage.....	20,409	17,713	2,696	5,206	Tioga.....	738	14	724	
Price.....	13,456	10,883	2,573	5,224	Weston.....	535	465	70	
Racine.....	56,843	22,741	34,102	15,479	All other counties ²	21,588	18,485	3,103	10,033

¹ Horsepower of electric motors driven by energy generated in establishments reporting.
² Included in total for State but not shown separately to avoid disclosing data for a single establishment.
³ Campbell, Goshen, Natrona, Niobrara, Teton, and Washakie Counties; combined to avoid disclosing approximations of the data for individual establishments.

TABLE 8.—PRIME MOVERS, MOTORS, AND GENERATORS, BY NUMBER AND RATED CAPACITY, FOR ESTABLISHMENTS CLASSIFIED ACCORDING TO NUMBER OF WAGE EARNERS EMPLOYED: 1929

CLASS ACCORDING TO NUMBER OF WAGE EARNERS (average for the year)	Number of estab- lish- ments report- ing power equip- ment	Aggregate horse- power	PRIME MOVERS								ELECTRIC MOTORS DRIVEN BY PUR- CHASED ENERGY		ELECTRIC MOTORS DRIVEN BY EN- ERGY GENERATED IN ESTABLISH- MENTS REPORTING	
			Steam engines		Steam turbines		Internal-combus- tion engines		Water wheels and water turbines		Number	Horse- power	Number	Horse- power
			Num- ber	Horse- power	Num- ber	Horse- power	Num- ber	Horse- power	Num- ber	Horse- power				
All classes, total.	193,069	42,981,001	66,914	9,628,905	10,311	7,732,021	11,288	1,233,853	6,523	1,559,018	2,724,843	22,775,604	862,432	12,376,370
No wage earners.....	3,398	33,488	386	4,472	47	367	225	3,041	178	5,141	6,978	19,867	40	117
1 to 5.....	86,786	1,660,052	14,967	445,899	401	11,276	3,955	115,409	1,583	65,507	254,511	1,021,991	2,336	26,260
6 to 20.....	50,996	2,676,232	9,264	585,958	426	24,702	2,435	117,594	680	51,721	327,069	1,896,257	7,328	61,932
21 to 50.....	24,114	3,226,460	8,872	820,971	520	56,007	1,377	86,870	651	107,046	305,960	2,154,975	18,552	197,786
51 to 100.....	12,196	3,709,060	7,139	881,470	731	270,948	1,094	121,779	690	140,983	288,355	2,293,880	41,022	616,984
101 to 250.....	9,993	7,389,081	9,716	1,085,676	1,859	1,268,778	978	105,773	1,183	382,964	438,476	3,955,900	116,337	1,612,535
251 to 500.....	3,791	6,370,876	6,265	1,439,191	1,747	1,202,912	511	172,601	609	248,434	336,439	3,257,688	138,527	1,831,621
501 to 1,000.....	1,709	6,283,924	5,008	1,480,027	1,791	1,497,463	317	145,908	438	338,462	281,300	2,822,064	148,159	2,012,331
1,001 to 2,500.....	780	6,613,392	3,570	1,207,886	1,798	1,833,377	387	259,445	297	137,950	266,524	3,174,734	181,711	2,532,991
2,501 and over.....	206	4,968,487	1,727	1,028,385	991	1,575,591	59	104,833	124	81,370	221,231	2,178,308	197,920	3,483,569

CENSUS OF MANUFACTURES: 1929

TABLE 9.—AGGREGATE HORSEPOWER IN ESTABLISHMENTS CLASSIFIED ACCORD

[The figures given in this table refer only to establishments reporting power, and therefore the items for "Establishments" are somewhat smaller than the corresponding ones in electric motors driven by purchased energy. In cases where the item for a certain group can not be given separately without disclosing data for individual establishments, which it has been consolidated is printed in *italics*. The term "wageearners" refers to the average number employed during the year]

INDUSTRY	TOTAL		ESTABLISHMENTS EMPLOYING—					
	Number of establishments	Horsepower	No wage earners		1 to 5 wage earners		6 to 20 wage earners	
			Estab-lishments	Horse-power	Estab-lishments	Horsepower	Estab-lishments	Horsepower
1 All industries.....	193,969	42,931,061	3,398	33,488	86,780	1,060,052	50,996	2,676,232
2 Agricultural implements.....	261	128,499			98	1,592	68	3,693
3 Aircraft and parts.....	132	16,505			27	240	33	630
4 Alcohol, ethyl, and distilled liquors.....	28	13,577			2	(x)	6	1,855
5 Aluminum manufactures.....	146	107,840			32	973	47	4,988
6 Ammunition and related products.....	21	17,061			1	(x)	2	86
7 Artificial and preserved flowers and plants.....	94	625			23		38	128
8 Artificial leather.....	16	14,650					17	(x) 372
9 Artists' materials.....	88	3,397	1	(x)	28	352	13	1,450
10 Asbestos products, other than steam packing or pipe and boiler covering.....	67	40,468			6	225		
11 Asphalted-felt-base floor covering.....	14	11,092						
12 Awnings, tents, sails, and canvas covers.....	951	4,995	12	18	619	1,540	282	1,623
13 Bags, other than paper, not made in textile mills.....	180	19,159	2	(x)	43	380	51	716
14 Bags, paper, exclusive of those made in paper mills.....	93	13,416			2	(x)	24	557
15 Baking powders, yeast, and other leavening compounds.....	44	22,788			13	173	7	448
16 Baskets and rattan and willow ware, not including furniture.....	239	20,130	3	9	36	767	77	2,689
17 Belting other than leather and rubber, not made in textile mills.....	9	1,648			4	(x)	1	163
18 Belting, leather.....	194	6,828	4	15	113	941	50	1,048
19 Beverages.....	5,070	149,166	103	1,019	3,851	35,828	870	38,141
20 Billiard and pool tables, bowling alleys, and accessories.....	35	6,402			14	283	14	710
21 Blacking, stains, and dressings.....	128	3,317	7	12	81	721	26	513
22 Bluing.....	14	3,169			10	32	3	187
23 Bolts, nuts, washers, and rivets, not made in plants operated in connection with rolling mills.....	110	66,343	1	(x)	14	749	22	1,474
24 Bone black, carbon black, and lampblack.....	75	11,268			4	232	32	2,613
25 Bookbinding and blank-book making.....	1,066	21,741	11	39	451	1,948	370	3,775
26 Boot and shoe out stock, not made in boot and shoe factories.....	187	15,823			52	244	72	903
27 Boot and shoe findings, not made in boot and shoe factories.....	331	20,250			84	590	108	3,012
28 Boots and shoes, other than rubber.....	1,274	140,320			118	554	182	1,917
29 Boots and shoes, rubber.....	22	62,603			1	(x)	1	(x)
30 Boxes, cigar, wooden.....	114	5,518	2	(x)	21	208	38	640
31 Boxes, paper, not elsewhere classified.....	1,230	80,064	1	(x)	94	327	435	6,620
32 Boxes, wooden, except cigar boxes.....	740	137,261	4	63	178	6,492	215	19,293
33 Bread and other bakery products.....	19,728	355,523	541	1,219	13,293	45,220	4,293	37,292
34 Brooms.....	393	4,672	4	67	213	1,055	130	1,476
35 Brushes, other than rubber.....	260	11,015	6	22	128	694	92	1,569
36 Butter.....	3,443	164,413	174	2,470	2,478	64,556	621	49,995
37 Buttons.....	208	14,615	1	(x)	37	249	69	1,347
38 Candles.....	20	1,971			5	76	5	70
39 Canning and preserving: Fish, crabs, shrimps, oysters, and clams.....	291	21,692	1	(x)	52	390	62	3,465
40 Canning and preserving: Fruits and vegetables; pickles, jellies, preserves, and sauces.....	2,874	224,097	16	85	847	12,912	1,003	49,254
41 Car and general construction and repairs, electric-railroad repair shops.....	394	76,424			64	1,235	133	9,033
42 Car and general construction and repairs, steam-railroad repair shops.....	1,571	1,076,723			48	1,184	197	10,300
43 Carbon paper and inked ribbons.....	55	3,642	2	(x)	23	745	18	452
44 Cardboard, not made in paper mills.....	12	1,549			2	(x)	5	228
45 Card cutting and designing.....	70	3,909	2	(x)	14	70	26	372
46 Carpets and rugs, rag.....	87	2,416			48	611	5	362
47 Carpets and rugs, wool, other than rag.....	64	66,205			2	(x)	5	258
48 Carriage, wagon, sleigh, and sled materials.....	38	4,760			18	597	8	1,420
49 Carriages and sleds, children's.....	79	10,855			11	58	14	278
50 Carriages, wagons, sleighs, and sleds.....	88	14,869	1	(x)	17	390	28	1,612
51 Cars, electric and steam railroad, not built in railroad repair shops.....	136	238,455			4	940	15	3,247
52 Cash registers and adding, calculating, and card-tabulating machines.....	45	28,257			13	66	10	273
53 Caskets, coffins, burial cases, and other morticians' goods.....	363	39,609	2	(x)	62	327	133	5,014
54 Cast-iron pipe.....	72	69,757					1	(x)
55 Cement.....	173	1,183,989			3	12,150	4	2,439
56 Cereal preparations.....	119	66,291			54	2,099	32	4,105
57 Cheese.....	2,277	24,739	442	2,637	1,784	18,297	41	1,910
58 Chemicals, not elsewhere classified.....	529	854,368	6	338	89	4,463	136	22,998
59 Chewing gum.....	35	10,350			8	247	13	903
60 China firing and decorating, not done in potteries.....	10	63			5	12	4	41
61 Chocolate and cocoa products, not including confectionery.....	59	63,236					22	7,067
62 Cigars and cigarettes.....	562	49,617	2	(x)	100	161	136	542
63 Clay products (other than pottery) and nonclay refractories.....	1,722	533,887			212	13,800	468	59,059
64 Cleaning and polishing preparations.....	315	10,609	18	60	216	1,934	59	1,414
65 Clocks, clock movements, time-recording devices, and time stamps.....	62	12,461			11	198	15	354
66 Clothing (except work clothing), men's, youths', and boys', not elsewhere classified.....	3,299	40,325	137	97	1,142	1,801	830	2,926
67 Clothing, men's, buttonholes.....	29	104			16	29	11	75
68 Clothing, women's, not elsewhere classified.....	7,675	35,291	35	246	1,466	2,915	3,763	11,007
69 Clothing, work (including sheep-lined and blanket-lined work coats, but not including shirts), men's.....	497	11,492	2	(x)	32	146	120	770
70 Cloth sponging and refinishing.....	43	800			5	11	28	395
71 Coffee and spice, roasting and grinding.....	918	45,466	30	112	522	7,583	265	15,127
72 Coke, not including gas-house coke.....	115	393,211			2	(x)	19	4,786
73 Collapsible tubes.....	17	2,272					1	(x)
74 Collars, men's.....	15	1,281			3	13	4	12
75 Combs and hairpins, not made from metal or rubber.....	21	1,016			3	79	9	263
76 Compressed and liquefied gases.....	320	85,293	1	(x)	115	12,488	164	49,847
77 Concrete products.....	2,194	67,651			576	1,466	552	23,211
78 Condensed and evaporated milk.....	519	85,258	13	236	226	20,845	152	27,077
79 Confectionery.....	1,842	112,644	11	33	837	4,948	465	9,324
80 Cooperage.....	304	33,885	2	(x)	97	1,652	96	3,042
81 Copper, tin, and sheet-iron work including galvanized-iron work, not elsewhere classified.....	1,482	53,749	9	29	523	4,108	688	13,009

POWER EQUIPMENT

ING TO NUMBER OF WAGE EARNERS EMPLOYED, BY INDUSTRIES: 1929

other tables, which cover all establishments, including those reporting no power. The "Horsepower" figures represent the rated capacity of prime movers plus that of it has been combined with that for another group. In such cases an (x) is shown in the column in which the item has been omitted, and the item for the group with

ESTABLISHMENTS EMPLOYING—													
21 to 50 wage earners		51 to 100 wage earners		101 to 250 wage earners		251 to 500 wage earners		501 to 1,000 wage earners		1,001 to 2,500 wage earners		More than 2,500 wage earners	
Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower
24, 114	3, 226, 469	12, 196	3, 709, 060	9, 993	7, 389, 081	3, 791	6, 370, 876	1, 700	0, 283, 924	780	0, 613, 302	206	4, 968, 487
48	5, 967	22	6, 894	21	14, 841	14	13, 917	10	21, 672	7	28, 683	3	31, 240
22	1, 866	16	1, 187	19	5, 001	0	3, 169	3	2, 141	3	2, 262		
11	4, 908	7	7, 314	2	(x)								
21	1, 827	13	6, 189	11	10, 877	11	8, 717	4	11, 260	6	62, 986	1	(x)
7	294	1	(x)	2	(x)	3	2, 760	2	(x)	3	13, 981		
24	239	5	63	3	126	1	(x)						
2	455	7	5, 274	3	1, 632	2	(x)	1	7, 289				
7	851	2	(x)	3	1, 822								
7	3, 041	11	3, 045	11	9, 302	5	9, 173	3	12, 722	1	(x)		
2	(x)	3	1, 592	6	4, 474	2	5, 226	1	(x)				
45	1, 022	7	219	6	573								
32	1, 480	26	3, 837	36	9, 098	5	3, 748	1	(x)				
25	1, 646	21	2, 588	17	6, 132	4	2, 493						
6	1, 749	6	6, 636	9	53, 782	2	(x)						
65	5, 084	37	4, 501	19	6, 290	2	(x)						
2	(x)	2	1, 485										
15	1, 083	7	1, 237	5	2, 502								
127	30, 059	42	10, 181	21	25, 238	2	(x)						
6	(x)									1	5, 409		
8	441	3	253	2	1, 377	1	(x)						
1	(x)												
21	3, 244	21	6, 057	22	13, 384	7	12, 231	5	11, 267	3	17, 637		
28	2, 843	6	2, 478	5	3, 102								
129	3, 624	64	3, 453	28	3, 849	9	2, 906	4	2, 147				
29	973	20	1, 907	9	2, 693		(x)	2	(x)	2	9, 043		
83	0, 215	39	5, 833	15	4, 559	2	(x)						
221	6, 181	237	11, 339	282	27, 847	144	30, 522	73	80, 925	15	51, 044	2	(x)
		3	3, 091	1	(x)			5	8, 133	9	51, 374	2	(x)
26	1, 294	18	1, 648	7	1, 719	2	(x)						
389	14, 019	194	10, 856	97	21, 029	18	17, 004	2	(x)				
163	27, 677	109	34, 033	69	35, 804	11	13, 269						
932	70, 646	364	51, 057	240	73, 932	44	28, 549	12	16, 107	2	(x)	1	11, 531
32	903	11	724	2	417								
35	1, 427	14	1, 835	9	3, 823	6	2, 545						
138	33, 366	25	9, 208	7	4, 848								
48	1, 638	27	2, 088	21	4, 924	5	4, 369						
4	31	5	1, 794	1	(x)								
67	4, 100	45	4, 774	29	5, 725	4	2, 693	1	(x)				
551	54, 062	248	37, 316	165	43, 686	36	16, 421	4	1, 938	3	8, 423	1	(x)
104	9, 954	36	9, 961	35	13, 578	13	10, 634	7	22, 029	1	(x)	1	(x)
285	32, 184	258	48, 153	378	210, 280	220	217, 187	125	260, 298	53	218, 176	7	69, 601
3	275	6	1, 240	3	930								
1	(x)	2	1, 321	2	(x)								
14	678	9	1, 065	5	1, 724								
7	382	2	(x)	1	1, 161								
8	1, 033	12	3, 771	12	4, 645	11	6, 841	8	23, 200	2	(x)	4	25, 457
8	1, 908	4	835										
27	2, 632	10	1, 657	11	2, 258	4	3, 692	1	(x)	1	(x)		
37	4, 632	10	4, 765	5	3, 630								
29	5, 231	20	18, 152	23	23, 039	25	63, 549	9	29, 861	10	34, 436	1	(x)
1	(x)	5	517	4	740	7	2, 206	3	(x)			2	24, 365
97	10, 126	45	8, 450	19	7, 613	4	6, 876	1	(x)				
8	1, 538	11	1, 945	25	9, 269	17	24, 068	7	21, 382	3	11, 765		
10	22, 250	39	144, 511	79	528, 957	31	304, 477	5	139, 205	2	(x)		
13	4, 173	12	9, 827	3	3, 684			3	42, 403	2	(x)		
9	1, 595			1	(x)								
115	52, 079	62	44, 164	59	99, 300	32	203, 115	18	215, 789	12	212, 122		
6	301	3	2, 492	2	(x)	2	6, 497	1	(x)				
1	(x)												
16	7, 907	9	6, 784	6	9, 160	3	9, 040	2	23, 188	1	(x)		
85	410	66	634	82	2, 456	42	5, 225	32	6, 987	16	33, 096	2	(x)
467	124, 044	342	106, 205	104	180, 653	28	33, 404	10	16, 722	1	(x)		
14	2, 337	4	747	3	4, 067	1	(x)						
7	195	5	1, 213	5	685		3, 837	2	(x)	2	6, 169	1	(x)
608	4, 735	286	5, 023	106	6, 028	61	7, 775	23	3, 983	15	7, 987	1	(x)
1	(x)	1	(x)										
1, 041	8, 554	535	5, 826	203	5, 195	28	1, 334	4	214				
137	1, 620	103	2, 280	71	3, 257	27	2, 634	4	785	1	(x)		
8	394	1	(x)	1	(x)								
71	11, 073	19	5, 723	11	5, 847								
14	5, 665	23	32, 060	35	141, 250	15	75, 771	5	133, 679	2	(x)		
4	181	6	499	5	1, 592	1	(x)						
3	303	2	(x)										
6	363	1	(x)	2	305								
37	20, 528	3	2, 925										
118	11, 986	26	5, 710	8	3, 902								
108	28, 179	18	8, 921	2	(x)								
247	13, 652	135	17, 206	108	28, 479	24	13, 949	11	16, 772	4	8, 251		
58	7, 356	29	7, 355	18	8, 012	3	5, 598	1	(x)				
165	9, 545	66	11, 762	24	5, 190	4	3, 473	3	6, 633				

CENSUS OF MANUFACTURES: 1929

TABLE 9.—AGGREGATE HORSEPOWER IN ESTABLISHMENTS CLASSIFIED ACCORD

[See headnote on first

INDUSTRY	TOTAL		ESTABLISHMENTS EMPLOYING—					
	Number of establishments	Horsepower	No wage earners		1 to 5 wage earners		6 to 20 wage earners	
			Estab-lishments	Horse power	Estab-lishments	Horsepower	Estab-lishments	Horsepower
1 Cordage and twine.....	121	73,021			7	163	25	1,495
2 Cork products.....	34	14,829			10	90	5	231
3 Corn sirup, corn sugar, corn oil, and starch.....	34	84,086			19	864	2	(x)
4 Corsets and allied garments.....	210	6,048			39	63	56	287
5 Cotton goods.....	1,270	2,269,346	1	(x)	37	1,598	76	5,293
6 Cotton small wares.....	198	27,808	1	(x)	29	442	60	2,532
7 Crucibles.....	10	1,080			1	(x)	4	764
8 Cutlery (not including silver and plated cutlery) and edge tools.....	238	49,886	1	(x)	62	793	63	2,300
9 Dairymen's supplies; creamery, cheese-factory, and butter-factory equipment; and poultrymen's and apiarists' supplies.....	162	13,672	1	(x)	65	948	44	2,162
10 Dental goods and equipment.....	83	6,216	1	(x)	33	216	26	513
11 Doors, shutters, and window sash and frames, metal.....	147	25,027			37	1,007	40	1,336
12 Druggists' preparations.....	321	19,448	0	48	130	821	105	1,512
13 Drug grinding.....	26	5,277			9	385	11	1,903
14 Dyeing and finishing textiles.....	702	304,057			97	1,768	191	9,935
15 Electrical machinery, apparatus, and supplies.....	1,716	893,519	5	23	365	3,459	462	15,071
16 Electroplating.....	513	24,015	9	85	254	4,798	177	8,840
17 Embroideries.....	684	2,279	4	4	467	934	168	989
18 Emery wheels and other abrasive and polishing appliances.....	64	18,113			18	360	17	744
19 Engines, turbines, tractors, and water wheels.....	196	287,079			19	466	40	5,322
20 Engravers' materials.....	16	1,493			7	250	5	244
21 Engraving (other than steel, copperplate, or wood), chasing, etching, and disinking.....	160	2,955	3	10	107	354	35	368
22 Engraving, steel and copperplate, and plate printing.....	392	8,506	1	(x)	148	534	154	1,377
23 Engraving, wood.....	21	54			15	26	5	29
24 Envelopes.....	167	13,077			18	108	44	665
25 Excelsior.....	66	10,667			13	1,254	37	3,425
26 Explosives.....	92	51,612			36	956	6	588
27 Fancy and miscellaneous articles, not elsewhere classified.....	649	11,071	3	5	214	658	231	1,956
28 Feathers, plumes, and manufactures thereof.....	28	100			13	48	14	52
29 Feeds, prepared, for animals and fowls.....	750	170,482	11	547	392	26,837	222	42,449
30 Felt goods, wool, hair, or jute.....	54	25,955			3	221	10	1,048
31 Fertilizers.....	621	169,984			158	6,153	204	18,169
32 Files.....	33	12,091	1	(x)	5	38	10	532
33 Firearms.....	21	15,427			1	36	3	(x)
34 Fire extinguishers, chemical.....	24	1,464	1	(x)	9	82	4	91
35 Fireworks.....	26	1,746			3	4	7	69
36 Flags and banners.....	45	877			18	37	17	97
37 Flavoring extracts and flavoring sirups.....	483	33,838	19	64	299	3,771	115	5,707
38 Flax and hemp, dressed.....	5	429			2	(x)	3	489
39 Flour and other grain-mill products.....	4,022	641,456	265	12,867	3,010	184,450	475	103,434
40 Food preparations, not elsewhere classified.....	683	36,716	10	58	366	5,163	204	7,297
41 Forgings, iron and steel, not made in plants operated in connection with rolling mills.....	216	147,491	1	(x)	25	1,330	53	4,514
42 Foundry and machine-shop products, not elsewhere classified.....	8,433	1,804,886	61	525	2,524	25,985	2,531	100,876
43 Foundry supplies.....	55	9,396			24	1,067	19	4,561
44 Fuel: Briquettes and boulets.....	23	14,893			5	221	10	3,743
45 Fur goods.....	2,765	5,811	119	126	1,891	2,534	641	1,069
46 Furnishings goods, men's, not elsewhere classified.....	550	7,036	3	103	124	197	150	419
47 Furniture, including store and office fixtures.....	3,621	509,970	11	264	930	14,953	964	41,676
48 Furs, dressed.....	147	10,769			38	1,032	38	1,169
49 Galvanizing and other coating, not done in plants operated in connection with rolling mills.....	55	2,266	1	(x)	14	179	24	592
50 Gas and electric fixtures; lamps, lanterns, and reflectors.....	564	40,209	5	46	183	1,086	165	2,505
51 Gas machines, gas meters, and water and other liquid meters.....	69	11,029			10	125	125	550
52 Gas, manufactured, illuminating and heating.....	721	544,024			174	9,940	295	29,430
53 Glass.....	261	341,979			6	157	15	1,407
54 Glass products (except mirrors) made from purchased glass.....	350	5,757	3	6	189	754	109	1,108
55 Gloves and mittens, cloth or leather combined, made from purchased fabrics.....	122	3,702			13	99	34	380
56 Gloves and mittens, leather.....	243	3,498	3	4	52	91	76	354
57 Glue and gelatin.....	65	23,584			24	921	13	964
58 Gold leaf and foil.....	52	353			24	41	18	48
59 Gold, silver, and platinum, reducing and refining, not from the ore.....	67	4,230	3	5	44	492	13	880
60 Graphite, ground and refined.....	11	3,156			4	773	5	2,338
61 Grease and tallow, not including lubricating greases.....	284	41,686	3	67	122	6,154	98	12,822
62 Haircloth.....	10	1,113					4	113
63 Hair work.....	20	44			12	30	6	14
64 Handkerchiefs.....	85	2,400			11	19	15	62
65 Hand stamps and stencils and brands.....	222	3,506	11	16	163	518	80	815
66 Hardware not elsewhere classified.....	470	112,705	1	(x)	109	1,259	127	4,918
67 Hat and cap materials, men's.....	93	5,164	2	(x)	38	200	25	765
68 Hats and caps, except felt and straw, men's.....	537	1,796	20	31	225	404	226	617
69 Hats, fur-felt.....	155	19,894	1	(x)	31	134	31	591
70 Hats, straw, men's.....	49	1,836	1	(x)	4	53	12	53
71 Hats, wool-felt.....	14	2,811					2	563
72 Hones, whetstones, and similar products.....	6	850			3	55	1	(x)
73 Horse blankets, fly nets, and related products.....	13	1,375			3	10	5	75
74 House-furnishing goods, not elsewhere classified.....	888	16,866	26	101	341	1,177	304	3,018
75 Ice cream.....	3,142	230,832	180	1,912	2,104	53,525	634	66,074
76 Ice, manufactured.....	4,048	1,077,295	4	260	2,437	315,309	1,314	480,373
77 Ink, printing.....	145	20,300	7	163	58	2,317	54	5,252
78 Ink, writing.....	19	847			9	70	6	159
79 Instruments, professional and scientific.....	257	22,816	1	(x)	85	494	82	979
80 Iron and steel: Blast furnaces.....					4	952	19	8,990
81 Iron and steel: Steel works and rolling mills.....	501	7,532,530						
82 Iron and steel, processed.....	46	2,210	1	(x)	21	323	16	553
83 Ivory, shell, and bone work, not including buttons, combs, or hairpins.....	21	642			6	64	11	154
84 Jewelry.....								
85 Jewelry and instrument cases.....	1,425	27,402	24	36	705	1,841	410	3,261
86 Jute goods.....	96	1,503	1	(x)	33	166	32	470
87 Knit goods.....	20	35,079			2	(x)	2	311
88 Labels and tags.....	1,848	181,879	7	65	212	1,351	427	5,110
89 Lace goods.....	149	6,473			43	290	51	760
90 Lapidary work.....	42	10,466			2	(x)	7	431
	96	474	4	12	73	173	16	182

TABLE 9.—AGGREGATE HORSEPOWER IN ESTABLISHMENTS CLASSIFIED ACCORD

[See headnote on first

INDUSTRY	TOTAL		ESTABLISHMENTS EMPLOYING—					
	Number of establishments	Horsepower	No wage earners		1 to 5 wage earners		6 to 20 wage earners	
			Estab-lishments	Horse-power	Estab-lishments	Horsepower	Estab-lishments	Horsepower
1 Lasts and related products.....	56	7,230			9	92	17	1,267
2 Leather goods, not elsewhere classified.....	355	3,196			141	662	140	946
3 Leather: Tanned, curried, and finished.....	406	229,660			30	917	87	9,888
4 Lime.....	218	90,276			26	2,563	75	9,273
5 Linen goods.....	16	11,006					1	(x)
6 Linoleum.....	7	51,047						
7 Liquors, vinous.....	22	1,188			16	659	4	529
8 Lithographing.....	352	35,471	1	(x)	48	362	105	2,552
9 Locomotives, not made in railroad repair shops.....	16	98,482				(x)	2	140
10 Lubricating oils and greases, not made in petroleum refineries.....	162	13,281	2	(x)	85	2,142	54	3,583
11 Lumber and timber products, not elsewhere classified.....	12,325	1,985,301	3		7,836	259,427	2,119	150,818
12 Macaroni, spaghetti, vermicelli, and noodles.....	348	24,448	17		185	3,160	83	4,704
13 Machine-tool accessories and small metal-working tools, not elsewhere classified.....	705	64,398	4	34	170	1,951	276	6,907
14 Machine tools.....	280	141,778			26	479	49	2,551
15 Malt.....	28	18,098			2	(x)	14	6,664
16 Marble, granite, slate, and other stone products.....	1,826	305,915	21	204	791	26,500	616	68,135
17 Matches.....	21	17,997			1	(x)		
18 Mats and matting, grass and coir.....	5	1,293			1	(x)	1	(x)
19 Mattresses and bed springs, not elsewhere classified.....	943	50,554	9	32	499	4,981	297	10,135
20 Meat packing, wholesale.....	1,109	524,989	17	580	290	10,378	310	21,909
21 Millinery.....	1,176	10,176	3	4	241	679	506	2,159
22 Minerals and earths, ground or otherwise treated.....	80	39,117			18	2,319	52	12,783
23 Mirror and picture frames.....	165	8,334	1	(x)	43	199	69	792
24 Mirrors, framed and unframed.....	287	8,414	3	17	105	1,019	109	2,028
25 Models and patterns, not including paper patterns.....	762	12,378	11	74	413	4,151	271	4,708
26 Motion pictures, not including projection in theaters.....	103	49,732	9	61	29	219	24	977
27 Motor-vehicle bodies and motor-vehicle parts.....	1,152	824,705	7	84	322	7,937	327	15,098
28 Motor vehicles, not including motorcycles.....	244	713,912	1	(x)	24	2,068	45	3,669
29 Motorcycles, bicycles, and parts.....	21	11,124			1	(x)	12	142
30 Mucilage, paste, and other adhesives, except glue and rubber cement.....	73	2,594	2	(x)	54	1,337	11	649
31 Musical instrument parts and materials: Piano and organ.....	64	11,009			15	543	20	1,801
32 Musical instruments and parts and materials, not elsewhere classified.....	101	6,060	2	(x)	35	255	33	509
33 Musical instruments: Organs.....	61	4,740			21	268	18	335
34 Musical instruments: Pianos.....	77	27,193			4	88	15	615
35 Nails, spikes, etc., not made in wire mills or in plants operated in connection with rolling mills.....	54	9,096			14	268	12	744
36 Needles, pins, hooks and eyes, and snap fasteners.....	40	6,694			8	68	3	62
37 Nets and seines.....	16	1,155			4	85	2	(x)
38 Nonferrous-metals alloys and products, not including aluminum products.....	1,169	506,273	7	55	397	3,792	391	12,146
39 Oil, cake, and meal, cottonseed.....	553	284,365			29	5,530	197	71,000
40 Oil, cake, and meal, linseed.....	29	31,191	1	(x)	1	(x)	2	560
41 Oils, essential.....	16	1,894			9	369	4	206
42 Oils, not elsewhere classified.....	68	14,670	1	(x)	34	1,144	17	1,652
43 Oilcloth.....	9	5,017					1	(x)
44 Oleomargarine, not made in meat-packing establishments.....	39	6,670			6	275	1	858
45 Optical goods.....	110	15,626			31	130	33	520
46 Paints and varnishes.....	1,041	180,315	3	49	405	10,290	338	26,724
47 Paper.....	749	2,968,431	6		14	8,598	69	41,021
48 Paper goods, not elsewhere classified.....	414	67,145	6	35	113	1,595	121	4,843
49 Patent or proprietary medicines and compounds.....	973	46,538	28	101	616	6,919	284	8,046
50 Paving materials: Asphalt, tar, crushed slag, and mixtures.....	119	30,393	3	255	27	2,204	58	12,116
51 Peanuts, walnuts, and other nuts, processed or shelled.....	166	16,193	1	(x)	36	737	41	2,779
52 Pencils, lead (including mechanical).....	37	9,021			4	22	2	185
53 Pens, fountain and stylographic; pen points, gold, steel, and brass.....	71	4,235	1	(x)	16	75	22	285
54 Perfumes, cosmetics, and other toilet preparations.....	548	12,150			274	821	153	1,461
55 Petroleum refining.....	348	739,840	11	20	25	4,245	64	11,244
56 Phonographs.....	57	38,483			9	147	13	1,257
57 Photo-engraving, not done in printing establishments.....	631	9,349			158	921	290	2,850
58 Photographic apparatus and materials.....	90	31,904	5	15	23	244	31	524
59 Pipes (tobacco).....	23	2,276	1	(x)	4	47	7	135
60 Planing-mill products (including general millwork), not made in planing mills connected with sawmills.....	4,841	677,998	29	660	2,065	108,036	1,677	188,313
61 Plated ware.....	95	28,899			10	204	20	466
62 Plumbers' supplies, not including pipe or vitreous-china sanitary ware.....	251	100,821			38	422	66	3,606
63 Pocketbooks, purses, and cardcases.....	277	1,828			50	96	104	276
64 Pottery, including porcelain ware.....	309	61,868	1	(x)	40	831	61	2,571
65 Poultry killing, dressing, and packing, wholesale.....	366	13,500			51	606	191	5,491
66 Printing and publishing, book and job.....	12,170	211,448	347	1,063	7,334	35,851	3,111	47,107
67 Printing and publishing, music.....	27	956			10	55	10	343
68 Printing and publishing, newspaper and periodical.....	8,911	332,184	128	490	6,037	35,578	1,733	37,633
69 Printing materials, not including type or ink.....	41	2,709	1	(x)	40	304	20	806
70 Pulp goods.....	84	14,190			9	241	13	480
71 Pulp (wood and other fiber).....								
72 Pumps (hand and power) and pumping equipment.....	314	82,493	1	(x)	90	1,407	69	2,440
73 Rayon and allied products.....	29	195,844						
74 Refrigerators and refrigerator cabinets, exclusive of mechanical refrigerating equipment.....	186	28,493			48	454	63	2,483
75 Refrigerators, mechanical.....	32	44,953	1	(x)	4	47	11	136
76 Regalia, badges, and emblems.....	67	1,105			27	64	26	178
77 Rice cleaning and polishing.....	60	22,901			11	2,257	16	5,696
78 Roofing, built-up and roll; asphalt shingles; roof coatings other than paint.....	94	33,791			21	291	17	1,052
79 Rubber goods other than tires, inner tubes, and boots and shoes.....	398	295,452	3	50	85	2,641	94	10,707
80 Rubber tires and inner tubes.....	89	463,257			6	681	12	6,685
81 Saddlery and harness.....	245	4,698	4	93	118	480	84	1,736
82 Safes and vaults.....	26	10,896			3	216	5	187
83 Salt.....	57	67,711			7	1,015	8	856
84 Sand-lime brick.....	40	7,346			3	1,038	23	2,775
85 Sandpaper, emery paper, and other abrasive paper and cloth.....	11	6,927			2	(x)		
86 Sausage, meat puddings, headcheese, etc., and sausage casings, not made in meat-packing establishments.....	624	25,755	46	375	325	6,048	191	11,298

* The horsepower items for "Pulp (wood and other fiber)" are included with those for "Paper."

POWER EQUIPMENT

ING TO NUMBER OF WAGE EARNERS EMPLOYED, BY INDUSTRIES: 1929—Continued

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ESTABLISHMENTS EMPLOYING—													
21 to 50 wage earners		51 to 100 wage earners		101 to 250 wage earners		251 to 500 wage earners		501 to 1,000 wage earners		1,001 to 2,500 wage earners		More than 2,500 wage earners	
Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower
17	2,473	12	3,308	1	(x)								
50	823	9	179	12	572								
119	25,230	88	30,818	92	71,184	37	54,230	9	14,210	4	23,183		
68	21,037	28	18,602	19	33,211	2	(x)						
2	221	6	2,277	0	3,508	1	(x)	1	(x)				
1	(x)		(x)			2	(x)	4	51,647	1	(x)		
101	5,901	51	5,200	31	7,012	14	14,444	1	(x)				
1	(x)	2	1,092	5	8,736	1	(x)	1	(x)	1	(x)		
14	1,300	4	1,690	2	4,500			1	(x)			2	88,594
1,016	167,309	470	155,812	501	346,944	202	413,302	95	271,378	21	220,587	2	(x)
36	4,037	17	5,430	10	6,913								
152	9,135	52	8,538	34	10,299	12	12,303	4	15,141	1	(x)		
04	7,065	42	10,853	50	29,080	23	29,584	21	36,347	4	25,819	1	(x)
10	11,434	2	(x)										
250	69,037	87	48,924	49	41,931	10	4,010	1	(x)	1	(x)		
5	978	4	841	7	1,263	2	6,927	2	16,423	1	(x)		
1	(x)												
85	7,106	32	4,890	16	6,927	2	(x)	2	85,449	22	142,031	1	(x)
201	40,302	101	32,594	84	50,881	47	62,043	30	1,792			7	88,810
279	1,973	99	1,792	40	1,807	3	(x)						
12	9,092	1	(x)	2	1,323	1	(x)						
25	1,180	14	1,395	13	4,708								
55	3,123	11	996	4	631								
56	2,014	8	696	3	770								
8	1,215	9	1,646	13	4,597	5	6,358	3	11,308	3	23,350		
194	16,104	75	15,429	83	123,912	49	71,813	39	109,977	30	206,130	17	258,215
33	4,411	20	2,630	25	11,575	17	15,318	81	41,050	28	193,835	20	439,360
5	487	4	618	4	2,740	2	(x)	2	7,157	1	(x)		
6	578												
12	786	4	752	12	7,217	1	(x)						
14	760	9	1,989	6	2,538	1	(x)	1	(x)				
6	648	10	1,104	5	2,385	1	(x)						
15	2,494	14	2,891	20	3,245	3	2,505	5	9,300	1	(x)		
15	2,404	10	3,570	2	2,110	1	(x)						
5	182	9	837	7	943	5	1,550	2	3,052	1	(x)		
6	233	1	(x)	2	889	1	(x)						
171	18,850	84	23,126	55	62,342	33	71,460	15	62,596	13	105,479	3	50,421
205	139,574	54	53,102	8	14,499								
6	1,872	13	12,275	3	4,322	3	12,162						
2	1,209		(x)										
10	5,181	4	6,693	2	(x)								
1	470	1	(x)										
9	1,002	3	1,146	4	4,547	2	(x)						
21	920	9	264	11	3,339	1	(x)						
161	38,274	62	24,109	3	3,602	2	(x)	1	(x)	1	10,190	1	(x)
157	159,068	165	342,888	53	51,360	12	29,599	1	(x)	5	127,830		
90	8,955	42	10,680	234	1,117,599	81	635,940	24	485,568				
80	8,814	40	6,781	26	9,066	13	10,427	1	(x)	2	20,704		
27	9,983	8	5,895	19	7,218	5	6,569	1	(x)				
56	7,193	22	3,242	7	(x)								
8	524	10	3,802	7	1,638	1	(x)	1	509	1	(x)		
18	557	4	142	3	311			5	8,077				
61	1,718	25	2,150	14	1,300	1	(x)	3	1,376				
09	28,519	67	43,498	56	1,247	7	2,929	3	1,804				
13	852	8	43,498	30	109,637	30	120,503	21	184,743	11	155,603	5	140,707
137	2,323	28	1,612	7	2,205	5	32,410	1	(x)			1	(x)
16	1,115	7	1,375	13	1,856								
4	168	3	853	6	1,602	3	1,744	2	25,822	1	(x)	1	(x)
703	160,164	221	329	2	1,597	1	(x)	1	(x)				
25	1,822	12	84,507	117	92,317	26	38,296	3	5,685				
44	4,030	36	1,614	18	5,475	7	7,720	1	(x)	2	11,589		
60	344	30	7,801	45	21,287	12	17,907	6	24,948	3	20,730	1	(x)
53	4,056	53	255	20	422	3	435	1	(x)				
111	5,354	9	8,610	62	16,340	28	14,253	10	14,607	1	(x)		
899	35,582	264	1,026	3	933	1	(x)						
2	(x)	3	23,143	155	20,102	44	16,118	13	11,870	1	(x)	2	11,612
734	40,830	210	3,558	2	(x)								
10	1,562		35,494	144	57,400	43	43,603	10	48,202	6	32,394	1	(x)
11	1,868	1	(x)	6	3,296	3	(x)	1	(x)				
05	6,459	32	9,633	31	17,543	6	8,540	12	56,331	2	(x)		
1	(x)	5	1,654	2	(x)	7	29,421	3	25,662	5	45,858	6	93,240
27	2,813	23	5,152	18	7,473	4	3,690	2	6,438	1	(x)		
3	288	3	280	4	5,443	1	(x)						
8	216	3	135	2	5,512	1	(x)			3	38,744	2	(x)
26	10,100	7	4,848										
12	2,144	22	7,930	21	22,374	1	(x)						
64	22,573	51	32,647	54	50,468	30	88,234	11	48,208	6	39,924		
11	7,217	11	10,499	10	12,461	14	46,472	9	58,927	9	80,640		
24	1,232	10	633	5	554							7	230,366
5	235	6	2,833	2	(x)	3	7,885	2	(x)				
13	4,826	15	13,040	14	30,420	4	8,434						
10	3,553												
2	155	3	553	1	(x)	3	6,219						
45	5,288	14	1,944	3	802								

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CENSUS OF MANUFACTURES: 1929

TABLE 9.—AGGREGATE HORSEPOWER IN ESTABLISHMENTS CLASSIFIED ACCORD

[See headnote on first

	INDUSTRY	TOTAL		ESTABLISHMENTS EMPLOYING—					
		Number of establishments	Horsepower	No wage earners		1 to 5 wage earners		6 to 20 wage earners	
				Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower
1	Saws	81	11,894			35	573	22	1,253
2	Scales and balances	58	9,738			15	142	12	344
3	Screw-machine products and wood screws	260	64,840	1	(x)	50	1,060	92	4,265
4	Sewing machines and attachments	35	29,659	2	(x)	12	45	5	57
5	Ship and boat building, steel and wooden, including repair work	610	337,455			178	3,533	172	10,077
6	Shirts	808	17,040	14	131	120	416	193	701
7	Shortenings (not including lard) and vegetable cooking oils	38	36,647			2	(x)	8	1,071
8	Signs and advertising novelties	757	19,627	5	10	314	1,100	261	2,743
9	Silk and rayon manufactures	1,378	220,225	4	20	130	1,411	332	6,500
10	Silversmithing and silverware	77	7,325	1	(x)	19	109	30	573
11	Smelting and refining, copper	26	412,244					1	(x)
12	Smelting and refining, lead	19	59,936						
13	Smelting and refining, metals other than gold, silver, or platinum, not from the ore	85	18,174			26	525	21	790
14	Smelting and refining, zinc	30	123,901						
15	Soap	252	65,856	4	57	123	2,467	71	4,505
16	Soda-water apparatus	45	5,271			13	150	16	522
17	Sporting and athletic goods, not including firearms or ammunition	232	18,039	2	(x)	74	487	63	1,242
18	Springs, steel, except wire, not made in plants operated in connection with rolling mills	84	24,318	1	(x)	18	198	28	660
19	Stamped ware, enameled ware, and metal stamping, enameling, japanning, and lacquering	671	98,184			103	1,016	170	5,399
20	Stationery goods, not elsewhere classified	188	11,523			45	291	54	884
21	Statuary and art goods, factory product	91	1,539	2	(x)	31	164	39	406
22	Steam and other packing, pipe and boiler covering, and gaskets, not elsewhere classified	165	30,881	1	(x)	68	863	54	2,361
23	Steam fittings and steam and hot-water heating apparatus	234	137,330			43	384	48	1,884
24	Steel barrels, kegs, and drums	53	15,239			3	110	8	245
25	Stereotyping and electrotyping, not done in printing establishments	226	21,347	2	(x)	39	810	98	5,972
26	Stoves and ranges (other than electric) and warm-air furnaces	593	113,100	3	8	144	1,922	128	4,057
27	Structural and ornamental iron and steel work, not made in plants operated in connection with rolling mills	1,450	206,175	3	13	440	5,645	512	20,091
28	Sugar, beet	82	140,393						
29	Sugar, cane, not including products of refineries	70	66,779			4	307	24	11,889
30	Sugar refining, cane	21	98,937						
31	Surgical and orthopedic appliances, including artificial limbs	300	13,407	8	15	159	622	77	1,238
32	Suspenders, garters, and other elastic woven goods, made from purchased webbing	88	1,180	1	(x)	30	50	20	100
33	Tanning materials, natural dyestuffs, mordants and assistants, and sizes	114	22,575	1	(x)	44	929	35	4,286
34	Textile machinery and parts	350	66,539	2	(x)	96	900	132	4,603
35	Theatrical scenery and stage equipment	45	618			21	152	20	230
36	Tin and other foils, not including gold foil	7	18,642						
37	Tin cans and other tinware, not elsewhere classified	218	77,332			23	210	35	863
38	Tobacco: Chewing and smoking, and snuff	117	15,467	2	(x)	50	445	25	1,037
39	Tools, not including edge tools, machine tools, files, or saws	523	65,965	6	32	224	2,597	138	4,777
40	Toys (not including children's wheel goods or sleds), games, and playground equipment	454	25,642	5	14	111	633	166	2,169
41	Trimmings (not made in textile mills) and stamped art goods for embroidering	603	3,088	7	9	271	656	244	995
42	Trunks, suitcases, and bags	441	10,220	3	7	166	404	149	1,181
43	Turpentine and rosin	423	1,995			30	172	128	597
44	Type foundry	19	1,218			11	46	6	1,172
45	Typewriters and parts	24	23,383			1	(x)	1	(x)
46	Umbrellas, parasols, and canes	134	3,099			57	171	46	289
47	Upholstering materials, not elsewhere classified	49	3,915	1	(x)	6	323	28	1,367
48	Vinegar and cider	163	8,074	1	(x)	109	3,551	43	3,505
49	Wall paper	56	12,740			3	25	9	421
50	Wall plaster, wall board, insulating board, and floor composition	214	142,354			93	3,801	56	12,651
51	Washing machines, wringers, driers, and ironing machines, for household use	62	26,732			10	220	12	314
52	Waste	127	18,592			21	1,066	53	4,347
53	Watch and clock materials and parts, except watchcases	14	1,077			4	15	7	111
54	Watchcases	39	5,581			9	30	14	181
55	Watches and watch movements	8	10,146						
56	Whips	6	22						
57	Windmills and windmill towers	15	4,401			3	(x)	3	56
58	Window and door screens and weather strip	272	14,034	2	(x)	155	1,638	74	2,374
59	Window shades and fixtures	415	8,389	13	19	299	836	69	617
60	Wire, drawn from purchased bars or rods	81	150,620			2	(x)	7	1,219
61	Wirework, not elsewhere classified	528	48,864	4	10	104	1,618	167	4,267
62	Wood distillation and charcoal manufacture	72	25,509			6	226	19	1,044
63	Wood preserving	184	67,913			17	1,092	40	3,106
64	Wood turned and shaped and other wooden goods, not elsewhere classified	870	88,398	4	25	338	11,015	291	21,432
65	Woolen goods	451	195,247	3	95	35	879	48	5,114
66	Wool pulling	17	1,847			2	(x)	5	332
67	Wool scouring	21	8,241					8	1,357
68	Wool shoddy	49	15,940			7	677	16	2,534
69	Worsted goods	258	372,536			8	438	18	1,200
70	Wrought pipe, welded and heavy riveted, not made in plants operated in connection with rolling mills	50	68,630			1	(x)	9	1,089

POWER EQUIPMENT

ING TO NUMBER OF WAGE EARNERS EMPLOYED, BY INDUSTRIES: 1929—Continued

page of this table]

ESTABLISHMENTS EMPLOYING—													
21 to 50 wage earners		51 to 100 wage earners		101 to 250 wage earners		251 to 500 wage earners		501 to 1,000 wage earners		1,001 to 2,500 wage earners		More than 2,500 wage earners	
Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower
11	1,463	8	5,289	2	(x)	1	(x)	1	5,316	1	(x)		
12	839	9	1,070	6	1,590	3	5,744	1	(x)				
48	4,876	28	6,988	30	12,430	9	12,767	5	9,631	3	12,823		
2	(x)	2	246	4	1,305	4	2,542	2	(x)	1	25,374	1	(x)
113	16,461	51	25,110	47	39,900	22	47,448	19	82,531	6	112,255	2	(x)
170	2,001	147	2,098	118	4,624	35	2,750	9	4,259	2	(x)		
9	4,112	12	10,500	5	20,004	2	(x)						
93	8,147	54	3,125	21	3,243	7	6,253	1	(x)	1	(x)		
310	17,698	286	29,450	228	59,935	80	42,332	18	28,231	9	34,648	1	(x)
14	636	4	801	4	1,437	3	3,679	1	(x)	1	(x)		
1	(x)	1	(x)	7	69,008	6	61,051	7	102,983	4	118,302		
15	1,485	13	7,105	8	17,022	8	48,914	1	(x)				
2	(x)	3	12,757	9	9,388	10	20,615	5	75,141	1	(x)		
17	2,203	9	4,958	11	7,808	12	30,221	2	(x)	3	13,547		
5	847	4	832	4	1,206	2	2,214	1	(x)				
41	1,802	24	3,035	22	4,415	4	7,053	2	(x)				
13	1,504	11	4,986	8	5,397	3	11,543	2	(x)				
125	10,865	65	10,277	67	27,313	29	19,180	11	24,134	1	(x)		
39	1,765	22	1,498	20	3,287	2	(x)	6	3,798				
13	365	5	604	1	(x)								
20	2,063	8	2,483	6	5,128	4	11,318	4	6,635				
20	3,215	28	10,827	48	22,727	25	22,494	6	14,000	6	61,808	1	(x)
17	1,617	12	3,033	10	6,058	3	4,220						
64	6,870	15	4,423	6	3,272	1	(x)	1	(x)				
87	6,488	95	17,378	93	37,047	35	29,634	6	15,666	2	(x)		
268	34,848	121	41,835	78	55,196	25	45,480	5	31,207	4	31,200		
21	24,492	31	40,109	30	72,702								
30	30,116	8	15,053	4	8,814								
27	886	12	1,441	12	12,073	4	5,780	11	59,900	3	20,884		
16	106	11	207	8	3,876	3	5,529	1	(x)	1	(x)		
15	4,403	15	8,711	4	4,246								
56	3,052	31	5,595	21	9,899	10	10,381	6	8,763	5	22,356	1	(x)
3	236	1	(x)										
1	(x)	2	3,300	2	(x)	1	15,342	1	(x)				
36	3,243	28	3,624	58	24,810	27	28,636	9	15,896	2	(x)		
10	449	9	1,429	7	1,273	9	5,638	3	6,198	2	(x)		
71	7,477	33	9,067	39	24,124	7	8,604	5	9,287				
90	5,244	37	4,369	38	9,518	6	3,645	1	(x)				
55	416	19	438	6	554			1	(x)				
72	2,361	27	2,355	19	2,592	5	1,260						
225	876	28	243	9	78	2	29	1	(x)				
4	133	1	(x)			1	(x)						
16	357	10	410	2	328	2	(x)	5	3,017	3	18,090	2	(x)
8	650	2	(x)	4	930								
10	1,588				1,676								
16	1,410	11	2,122	13	5,052	4	2,810						
30	25,361	13	22,036	16	31,098	5	47,407	1	(x)				
11	679	12	1,800	10	6,090	2	(x)	4	17,629	1	(x)		
34	5,566	14	4,282	5	3,331								
2	71	1	(x)										
7	312	3	179	2	1,097	1	(x)	3	3,782				
		2	183	1	(x)			1	(x)	2	9,993	2	(x)
7	1,334	1	(x)	3	3,167	2	(x)						
23	1,980	9	2,520	9	5,522								
16	241	9	834	5	1,471	4	4,371						
9	4,352	15	10,795	21	25,135	15	47,004	9	35,551	2	26,564	1	(x)
71	5,065	42	6,988	33	13,467	11	8,034	5	3,315	1	(x)		
23	4,503	14	5,207	6	5,297	4	9,232						
43	9,491	44	22,319	34	17,022	6	4,883						
160	21,909	56	14,450	26	14,464	5	5,103						
70	12,137	98	29,329	134	71,701	53	49,595	7	11,450	3	14,947		
7	865	2	600	1	(x)								
7	3,117	2	(x)	3	3,737	1	(x)						
16	5,250	6	4,089	4	3,340								
31	3,787	31	8,404	81	38,603	50	55,993	23	69,798	13	82,450	3	111,773
11	3,482	10	7,512	8	9,993	5	9,923	4	36,667	2	(x)		

CENSUS OF MANUFACTURES: 1929

TABLE 10.—AGGREGATE HORSEPOWER IN ESTABLISHMENTS CLASSIFIED ACCORDING TO NUMBER

[The figures given in this table refer only to establishments reporting power, and therefore the items for "Establishments" are somewhat smaller than the corresponding of electric motors driven by purchased energy. In cases where the item for a certain group can not be given separately without disclosing data for individual establishments which it has been consolidated is printed in *italics*. The figures for the geographic divisions have been adjusted in harmony with those for the States; but in the totals items and of the State items in the respective columns. The term "Wage earners" refers to the average number employed during the year.]

DIVISION AND STATE	TOTAL		ESTABLISHMENTS EMPLOYING—					
	Number of establishments	Horsepower	No wage earners		1 to 5 wage earners		6 to 20 wage earners	
			Establishments	Horsepower	Establishments	Horsepower	Establishments	Horsepower
1 UNITED STATES.....	193,069	42,931,061	3,398	33,488	86,786	1,600,052	50,996	2,076,232
GEOGRAPHIC DIVISIONS:								
2 New England.....	16,053	4,086,822	210	1,338	6,127	103,433	4,608	207,174
3 Middle Atlantic.....	58,812	11,623,682	1,065	10,171	23,734	298,657	17,300	603,673
4 East North Central.....	42,845	12,002,451	1,053	8,583	18,156	328,331	10,740	552,554
5 West North Central.....	16,614	2,210,192	361	4,775	8,929	172,336	4,013	236,446
6 South Atlantic.....	19,011	4,318,015	103	2,780	6,222	254,474	4,410	325,425
7 East South Central.....	9,395	1,990,354	57	1,260	5,085	151,077	1,966	149,493
8 West South Central.....	9,919	1,749,555	95	1,193	4,969	159,947	2,605	233,147
9 Mountain.....	3,974	938,689	83	1,224	2,258	48,558	393	63,715
10 Pacific.....	16,446	2,802,301	321	2,147	8,306	153,462	4,421	274,605
NEW ENGLAND:								
11 Maine.....	1,472	679,153	14	132	642	18,370	392	27,746
12 New Hampshire.....	1,019	402,147	10	97	380	9,457	254	18,015
13 Vermont.....	884	163,940	6	137	373	14,957	260	23,553
14 Massachusetts.....	9,030	2,088,521	119	609	3,203	40,214	2,543	92,660
15 Rhode Island.....	1,596	463,822	18	81	504	7,374	415	13,189
16 Connecticut.....	2,952	909,239	43	232	1,025	13,061	744	32,611
MIDDLE ATLANTIC:								
17 New York.....	35,298	3,986,781	599	3,284	14,910	132,649	11,345	285,429
18 New Jersey.....	7,757	1,645,408	118	1,020	2,911	35,654	2,074	100,575
19 Pennsylvania.....	15,757	5,991,493	348	5,807	5,913	125,654	3,881	217,609
EAST NORTH CENTRAL:								
20 Ohio.....	11,088	4,340,575	154	1,887	4,271	85,060	2,036	170,061
21 Indiana.....	4,818	1,858,735	57	675	1,907	51,657	1,261	73,765
22 Illinois.....	13,843	2,807,001	203	1,078	5,827	76,589	3,752	178,824
23 Michigan.....	6,200	2,356,746	127	859	2,600	58,941	1,568	87,240
24 Wisconsin.....	6,806	1,239,394	512	4,086	3,542	56,084	1,223	72,058
WEST NORTH CENTRAL:								
25 Minnesota.....	3,999	606,704	70	548	2,250	40,356	920	49,861
26 Iowa.....	3,122	360,700	74	1,031	1,705	30,618	755	38,722
27 Missouri.....	5,361	717,978	110	1,057	2,503	47,009	1,372	77,833
28 North Dakota.....	351	19,756	11	153	224	3,452	77	4,078
29 South Dakota.....	577	31,297	17	162	410	6,849	111	6,230
30 Nebraska.....	1,392	169,210	39	1,508	819	20,661	333	23,596
31 Kansas.....	1,812	208,487	30	316	1,009	23,891	445	36,126
SOUTH ATLANTIC:								
32 Delaware.....	432	114,961	4	50	179	5,876	119	5,754
33 Maryland.....	2,023	659,823	32	273	1,220	24,616	850	38,119
34 District of Columbia.....	435	44,916	16	32	197	2,849	124	9,327
35 Virginia.....	3,073	640,251	38	1,111	1,650	42,214	723	56,117
36 West Virginia.....	1,406	650,199	21	345	639	18,043	300	23,501
37 North Carolina.....	3,686	839,945	20	468	1,844	57,007	700	63,299
38 South Carolina.....	1,583	527,326	6	98	795	23,083	322	33,549
39 Georgia.....	3,608	641,869	16	304	1,779	51,042	802	54,845
40 Florida.....	1,805	192,695	10	99	919	29,744	470	40,914
EAST SOUTH CENTRAL:								
41 Kentucky.....	2,134	354,740	21	450	1,153	34,244	473	31,057
42 Tennessee.....	2,711	606,704	19	621	1,369	40,731	563	45,974
43 Alabama.....	2,700	785,330	9	196	1,484	44,151	539	43,307
44 Mississippi.....	1,850	252,580	8	93	1,079	31,951	391	29,155
WEST SOUTH CENTRAL:								
45 Arkansas.....	1,662	223,034	17	515	929	32,805	354	27,125
46 Louisiana.....	1,828	480,404	13	104	728	17,295	492	50,843
47 Oklahoma.....	1,583	223,257	25	210	839	26,668	458	38,984
48 Texas.....	4,346	822,860	40	364	2,473	77,173	1,301	116,195
MOUNTAIN:								
49 Montana.....	533	197,781	16	549	310	5,699	119	7,800
50 Idaho.....	514	105,787	12	170	331	3,685	96	8,080
51 Wyoming.....	234	46,677	7	140	144	3,007	44	3,099
52 Colorado.....	1,424	233,726	22	97	775	14,559	379	25,918
53 New Mexico.....	234	23,147	3	26	160	3,488	44	3,052
54 Arizona.....	314	180,637	2	(x) 156	3,630	8,738	98	5,738
55 Utah.....	607	123,737	17	220	317	7,967	127	7,399
56 Nevada.....	114	27,197	4	22	65	1,523	26	2,653
PACIFIC:								
57 Washington.....	3,256	814,891	61	269	1,576	31,559	862	61,384
58 Oregon.....	2,193	418,324	60	452	1,153	25,390	570	38,987
59 California.....	10,997	1,569,086	200	1,396	5,577	96,504	2,989	174,234

POWER EQUIPMENT

OF WAGE EARNERS EMPLOYED, BY GEOGRAPHIC DIVISIONS AND STATES: 1929

ones in other tables, which cover all establishments, including those reporting no power. The "Horsepower" figures represent the rated capacity of prime movers plus that which it has been combined with that for another group. In such cases an (X) is shown in the column in which the item has been omitted, and the item for the group with for the United States the data for each establishment are included in the item for the proper group, and therefore these totals differ from the sums of the geographic-division

ESTABLISHMENTS EMPLOYING—														
21 to 50 wage earners		51 to 100 wage earners		101 to 250 wage earners		251 to 500 wage earners		501 to 1,000 wage earners		1,001 to 2,500 wage earners		More than 2,500 wage earners		
Estab-lishments	Horsepower	Estab-lishments	Horsepower	Estab-lishments	Horsepower	Estab-lishments	Horsepower	Estab-lishments	Horsepower	Estab-lishments	Horsepower	Estab-lishments	Horsepower	
24, 114	3, 220, 469	12, 196	3, 709, 060	9, 993	7, 389, 081	3, 791	6, 370, 876	1, 709	6, 283, 924	780	6, 613, 392	206	4, 908, 487	
2, 494	291, 981	1, 353	356, 490	1, 241	811, 093	503	734, 135	290	897, 555	133	998, 574	24	285, 049	2
8, 058	745, 911	3, 988	913, 017	2, 911	1, 939, 738	1, 041	1, 657, 012	440	1, 601, 603	216	1, 974, 084	59	1, 824, 516	3
5, 618	774, 708	2, 952	931, 128	2, 011	1, 933, 540	1, 009	1, 801, 853	483	1, 754, 580	227	2, 284, 801	96	2, 202, 223	4
1, 924	225, 657	785	259, 730	573	414, 242	201	301, 161	84	240, 982	48	354, 393	3	(X)	5
2, 256	307, 422	1, 120	429, 230	1, 087	771, 901	470	747, 527	202	774, 471	73	486, 934	13	157, 752	6
948	173, 646	500	211, 052	482	403, 436	182	274, 601	70	220, 178	35	274, 739	4	79, 372	7
1, 172	280, 999	495	177, 402	390	350, 990	122	185, 070	55	164, 638	11	103, 083	5	98, 552	8
942	83, 825	163	108, 711	122	182, 187	43	132, 363	24	287, 970	5	30, 180	1	(X)	9
1, 702	282, 200	708	321, 691	596	536, 036	214	542, 334	85	398, 705	32	291, 091	1	(X)	10
184	42, 495	97	58, 945	85	145, 872	34	94, 119	16	187, 485	7	103, 989	1	(X)	11
152	25, 898	72	34, 700	103	72, 683	31	50, 451	11	96, 307	4	94, 330	2	(X)	12
133	29, 899	51	16, 948	47	34, 007	7	13, 607	0	50, 722	1	(X)		(X)	13
1, 363	128, 931	749	162, 102	598	338, 222	251	310, 594	136	352, 892	60	471, 561	9	171, 276	14
246	21, 098	152	27, 698	136	74, 813	75	129, 095	30	60, 200	18	181, 265	2	(X)	15
426	43, 660	232	50, 007	272	145, 496	105	136, 009	61	160, 070	34	207, 420	10	118, 773	16
4, 682	355, 264	1, 900	354, 829	1, 207	801, 627	304	569, 542	161	377, 438	82	511, 512	18	595, 207	17
1, 144	131, 569	648	145, 451	531	280, 229	193	242, 001	87	321, 807	41	227, 911	10	158, 591	18
2, 232	259, 078	1, 440	412, 737	1, 173	857, 882	454	844, 809	192	962, 358	93	1, 284, 061	31	1, 070, 718	19
1, 509	227, 626	802	281, 735	793	672, 465	312	658, 050	161	374, 870	67	543, 373	23	824, 848	20
947	102, 114	373	123, 354	347	223, 926	122	211, 012	61	164, 820	32	613, 043	11	205, 356	21
1, 869	212, 676	944	255, 304	775	445, 155	269	303, 550	128	337, 071	52	516, 852	24	389, 842	22
797	121, 940	443	148, 503	400	301, 843	180	289, 898	87	265, 827	49	181, 265	30	603, 859	23
696	110, 412	330	123, 172	296	290, 151	123	249, 353	46	111, 983	27	133, 777	8	88, 318	24
382	52, 820	170	61, 284	130	130, 708	40	53, 921	16	106, 835	12	110, 311			25
201	35, 952	157	53, 827	88	53, 723	25	56, 809	18	42, 079	9	53, 099	1	(X)	26
622	67, 006	337	80, 150	256	131, 047	99	111, 079	42	78, 667	19	123, 630	1	(X)	27
23	4, 643	10	5, 376	5	2, 064	1	(X)							28
26	2, 461	6	5, 711	5	1, 590	2	3, 294				(X)			29
112	22, 711	39	17, 806	35	26, 304	8	16, 655	3	3, 490	4	30, 410			30
168	40, 094	70	35, 576	54	68, 096	26	54, 403	5	9, 111	4	30, 904	1	(X)	31
47	10, 205	20	0, 650	33	27, 265	12	19, 654	6	28, 465	3	11, 042			32
415	47, 746	225	151, 765	149	79, 609	40	125, 743	35	132, 099	5	32, 434	3	27, 419	33
60	7, 578	17	3, 020	10	14, 072	4	8, 038	1	(X)					34
293	61, 749	154	42, 929	124	99, 499	59	64, 458	20	153, 120	6	25, 379	6	94, 060	35
175	40, 298	88	36, 829	107	163, 099	45	155, 164	22	71, 675	8	141, 265	1		36
373	66, 223	248	75, 969	321	209, 537	117	126, 953	40	117, 545	20	87, 280	3	35, 664	37
171	25, 608	80	33, 086	80	57, 417	73	125, 040	30	141, 321	12	87, 218			38
488	74, 826	219	61, 472	174	89, 507	84	92, 734	31	117, 270	15	99, 809			39
234	33, 189	69	16, 619	63	31, 896	28	29, 747	8	7, 970	4	2, 517			40
220	38, 429	118	30, 034	97	46, 414	26	23, 445	18	50, 637	5	20, 658	3	79, 372	41
278	51, 426	198	80, 047	184	186, 704	63	73, 180	21	33, 673	15	94, 448	1	(X)	42
270	48, 924	159	77, 320	138	175, 990	90	135, 029	26	100, 810	15	159, 633			43
180	34, 867	85	24, 251	63	54, 358	33	42, 847	11	35, 058					44
195	39, 400	73	19, 273	70	44, 125	12	21, 082	11	38, 709	1	(X)			45
201	73, 813	130	49, 672	132	133, 961	46	58, 347	23	57, 220	2	39, 148	1	(X)	46
154	33, 981	54	21, 497	29	27, 853	16	37, 200	7	36, 864	1	(X)			47
562	133, 305	238	86, 960	159	144, 991	48	98, 441	14	31, 839	7	64, 540	4	98, 552	48
42	12, 728	18	12, 459	13	17, 057	10	31, 963	4	109, 520	1	(X)			49
43	11, 741	13	7, 908	6	8, 106	4	12, 566	6	15, 351	3	30, 130			50
10	1, 900	12	8, 431	13	12, 357	3	17, 783	1	(X)					51
125	21, 294	58	37, 321	49	62, 462	11	20, 115	3	51, 960	1	(X)	1	(X)	52
13	3, 376	5	2, 950	4	1, 515	4	7, 740	1	(X)					53
20	11, 646	11	14, 872	8	43, 753	6	27, 407	4	73, 691					54
70	17, 275	41	20, 297	27	21, 228	4	14, 799	4	34, 554					55
10	3, 865	5	3, 423	2	15, 711	1	(X)	1	(X)					56
370	70, 410	155	80, 750	149	228, 566	60	174, 751	18	109, 961	5	57, 212			57
204	49, 625	86	35, 808	61	59, 820	41	149, 816	14	46, 973	4	29, 444			58
1, 128	171, 216	527	205, 133	386	247, 660	113	228, 767	53	241, 771	23	204, 406	1	(X)	59