

Ford

AT THE
**PANAMA-PACIFIC
EXPOSITION SAN FRANCISCO
1915**

Assembling Exhibit—Palace of Transportation
25 Ford cars assembled each day

Sociological Exhibit—Palace of Mines
*Showing the improved living conditions through
Ford Profit-Sharing with employees*

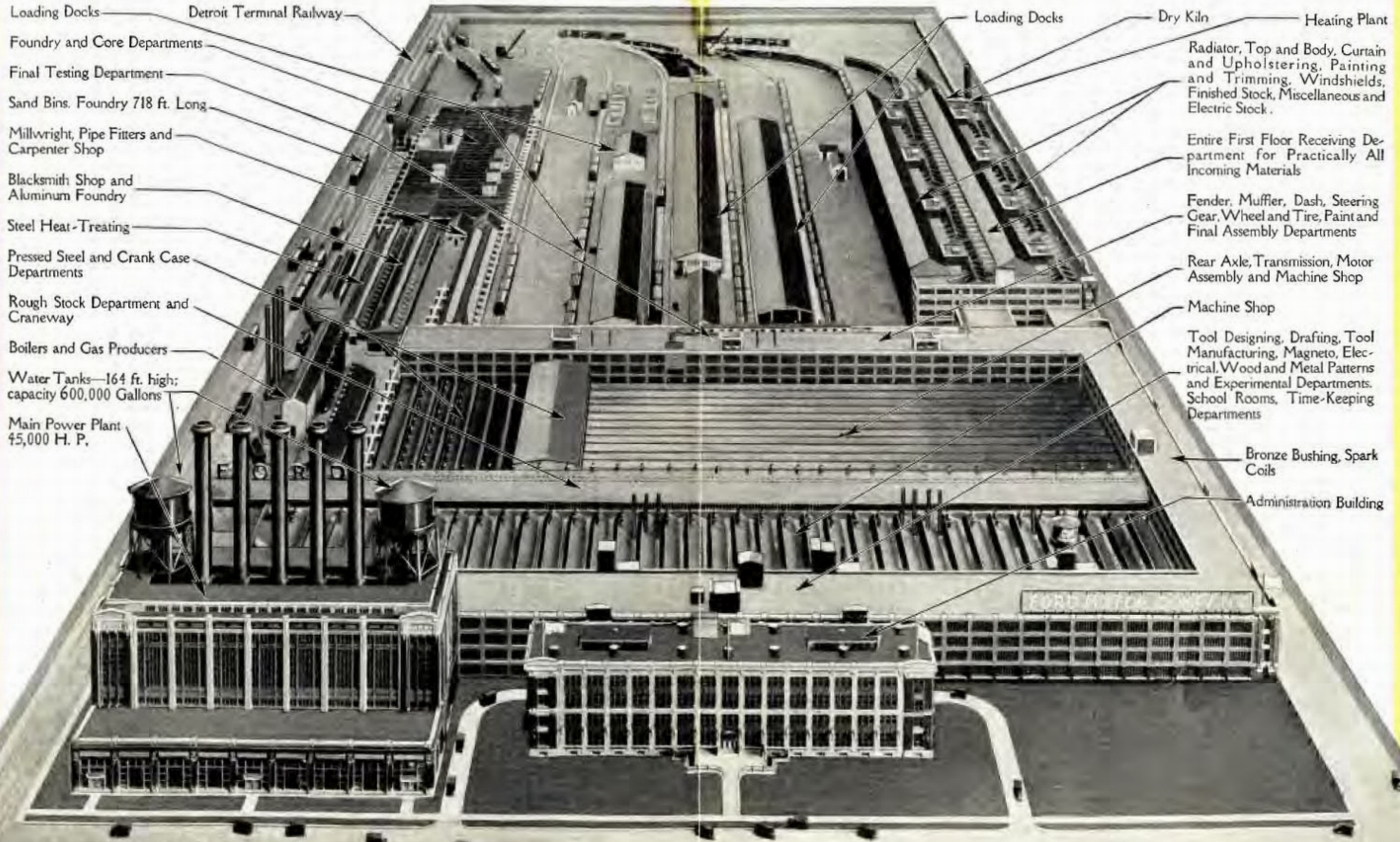
Motion Picture Exhibit—Palace of Education
*The "Making of an American," also views in and about
the big Ford factory where 1000 cars are made daily*



Ford Factory and Administration Buildings

A photographic birdseye view of the Factory and Administration buildings of the Ford Motor Company at Detroit, Michigan Facing on Woodward Avenue 924 feet, and extending back one-half mile to Oakland Avenue

A miniature model of the plant is a feature of the Ford exhibit in the Palace of Mines, at the San Francisco Panama-Pacific Exposition. The model is on the scale of one-sixteenth of an inch to a foot, and was built complete in the Ford factory by Ford workmen. Every exterior detail of the big factory is reproduced



- Loading Docks
- Foundry and Core Departments
- Final Testing Department
- Sand Bins. Foundry 718 ft. Long
- Millwright, Pipe Fitters and Carpenter Shop
- Blacksmith Shop and Aluminum Foundry
- Steel Heat-Treating
- Pressed Steel and Crank Case Departments
- Rough Stock Department and Craneway
- Boilers and Gas Producers
- Water Tanks—164 ft. high; capacity 600,000 Gallons
- Main Power Plant 45,000 H. P.

- Loading Docks
- Dry Kiln
- Heating Plant
- Radiator, Top and Body, Curtain and Upholstering, Painting and Trimming, Windshields, Finished Stock, Miscellaneous and Electric Stock.
- Entire First Floor Receiving Department for Practically All Incoming Materials
- Fender, Muffler, Dash, Steering Gear, Wheel and Tire, Paint and Final Assembly Departments
- Rear Axle, Transmission, Motor Assembly and Machine Shop
- Machine Shop
- Tool Designing, Drafting, Tool Manufacturing, Magneto, Electrical, Wood and Metal Patterns and Experimental Departments. School Rooms, Time-Keeping Departments
- Bronze Bushing, Spark Coils
- Administration Building

Los Angeles
2060 East 7th St



Ford Factory Facts

THE Ford plant at Detroit, Mich., occupies an area of 56 acres. 47.5 acres of floor space under cover in the factory and administration buildings.

The annual business of the Ford Motor Company approximating \$150,000,000, means a production of \$3,157,894.74 per acre. The Machine Shop holds 5,500 machines of various kinds, including 1,000 drill presses of both the multiple and single spindle types, 700 turning lathes, 300 punch presses, several of 50 tons each, with a pressure power of 900 tons to the square inch.

12,124 tons of structural steel, 10,000,000 bricks, and 172,000 barrels of Portland cement were used in the construction of the plant.

471,485 square feet of glass were required. (In the world-famous Woolworth building in New York City, there are 3,250 windows, calling for 85,000 square feet of glass. Enough glass in the Ford factory and administration building to supply the windows of five and one-half Woolworth buildings.)

15,000 is the average number of Ford employees in the factory proper, representing 52 distinct nationalities, who speak in more than 100 different dialects.

In the administration building the average number of employees is 600.

In the 35 branches located in 35 of the principal cities of the United States, and the 24 assembling plants situated in 24 different cities of the United States, the average number of employees approximates 6,000. A grand total on the Ford pay roll in excess of 21,000 individuals. If these represent the average family of 5 members, the Ford Motor Company maintains a city of 105,000 population. And if we consider the number of persons employed in outside factories, whose work is entirely devoted to the making of equipment used in Ford cars, a conservative estimate would be that the Ford Motor Company in its operations of manufacturing and selling motor cars supports a city of 200,000 people.



Ford Factory Facts—Continued

The production for the fiscal year ending July 31st, 1915, is expected to be 300,000 cars.

The power plant, with its 7 great engines of the gas-steam type, develops 45,000 h. p., and is without doubt the largest individual unit of any power plant in the world. These are the first and only gas-steam engines in practical use in the world.

The cylinders in the largest engine are 42 inches in diameter, with a stroke of 72 inches. The flywheel on this engine has a diameter of 20 feet and a gross weight of 100 tons.

40 tons of coal per hour are required for the steam in connection with gas. In the gas-steam engines and fuel consumption an average of 2,200,000 cubic feet of gas are consumed daily—equivalent to care for the home needs of a city of 100,000 population.

1½ miles of traveling conveyor track are used in the factory. This includes the final assembly conveyors, and those which deliver units to them.

1½ miles of mono-rail, from which electrically operated trolley cars are suspended.

In addition to this there are two main crane ways, one 860 feet in length and 56½ feet in width and the other 900 feet long and 40 feet in width, carrying huge traveling cranes with a capacity of 5 tons each, to facilitate the handling of stock within the factory.

150 gallons of machine oil per hour are used in the machine shop for lubricating the machinery.

30 barrels of oil per hour are consumed by the furnaces in the heat treating department.

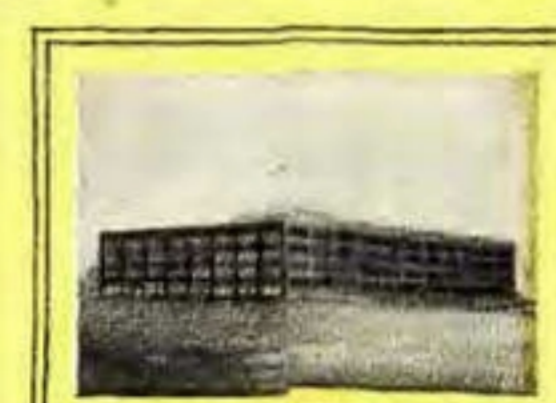
About 125,500 tons of steel will be used in the production of these 300,000 Ford cars. This is enough to furnish all the steel required to make steel ranges for every kitchen in New York City, Chicago, Boston, Philadelphia, Cleveland, Detroit, Kansas City, Los Angeles and San Francisco.

1,725,000 square feet of plate glass are used in a year in the making of Ford windshields; enough to fill 115,000 windows, or to give ample light to 5,500 average homes.

In addition to the Assembling Plants shown below the Ford Motor
Boston Brooklyn Charlotte, N. C. Kansas City, Kas.



Atlanta



Buffalo



Cambridge



Chicago



Cincinnati



Cleveland



Col



Kansas City



Long Island City



Los Angeles



Louisville



Memphis



Minneapolis



Phila



Ford Factory Facts—Continued

2 carloads of Spark Plugs are used every month.
 15,000,000 square feet of upholstery in 300,000 Ford cars. This would make 937,500 five-piece parlor suites. 7,480,470 pounds of hair are used in the upholstery. This would make 498,698 of the regulation hair mattresses, enough to sleep 997,396 persons each night.
 34,633,500 square feet of rubber cloth material are used in the making of tops. If made into raincoats it would supply one each for 1,300,000 men.
 1,500,000 lamps are required and 1,200,000 each of wheels and tires. The electric headlights in a year's output of Ford cars represent a total of 9,600,000 candle power, equal to 9,600 ordinary arc street lights. This is enough to illuminate a city of 31 square miles area, or a population of 750,000. The city of Detroit with a population of nearly 600,000 has but 7,471 street arc lights.
 2,661,120 feet of Vanadium Steel shafting and axles; 1,251,360 feet of exhaust pipe; 9,028,800 feet of tubular radius rods will be used in the 300,000 cars.
 13,650,000 square feet of sheet metal for guards and fenders, an annual consumption equivalent to a flat surface of 313 acres.
 6,000,000 pounds of brass required for radiators, and considerable more for other parts.
 1,440 inches of copper tubes are used in a single radiator, or a total of 36,000,000 feet of copper tubing this year for radiators alone.
 4,200,000 pounds of steel for magnets for Ford magnetos.
 10,625 miles of wiring in 300,000 Ford magnetos.
 4,359 pounds of solder used daily, a total of 1,307,700 pounds annually.
 About 2,682,000 square feet of galvanized steel goes into gasoline tanks for Ford cars this year.

Company operates Sales and Service Branches in the following cities:
 Milwaukee Newark New York Oklahoma City Omaha



San Francisco
 2905 21st St

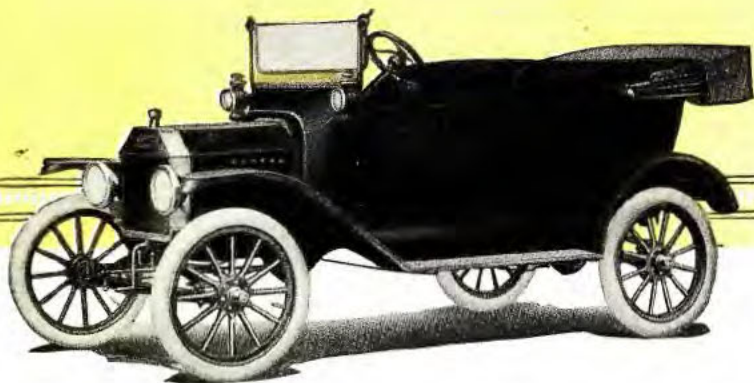


Ford Factory Facts—Continued

It will require 56,218 freight cars to bring in the supplies and carry away the manufactured product for this year's operation of the Ford factory. 39,500 of these freight cars will be outgoing, equal to 790 trains of 50 cars each, or the departure daily of a loaded train every three hours.
 Two trains may be loaded at one time within the plant.
 The total accumulated force of 300,000 Ford cars is 6,000,000 h. p. The modern railway locomotive is of 3,850 h. p. The concentrated energy of 300,000 Ford cars is sufficient to pull 6,232 trains of 50 freight cars each at an average speed of 25 miles an hour.
 Running in line 430 feet apart, this year's output of Ford cars would encircle the world (25,000 miles) and every driver would be within hail of the car ahead.
 Approximately \$10,000,000 profits shared annually with employees.
 It is expected to share about \$15,000,000 with the retail buyers of the 300,000 cars in August 1915—barring the unforeseen.
 Schools are maintained within the factory for the specific purpose of teaching the English language to employees of foreign birth. These schools are under capable teachers of the Ford organization, who volunteer their services, and the results are most gratifying.
 Everything practical in the way of "Safety First" devices prevails throughout the entire Ford factory and organization, the employees being taught the wisdom of observing "Safety First," and "helping the other fellow."
 Ford cars are in use in every part of the civilized world, and because of its satisfactory service in every line of human activity, the Ford is justly entitled to be, and is called, the "Universal Car."



Columbus Dallas Denver Detroit Fargo Houston Indianapolis Philadelphia Pittsburgh Portland, Ore. St. Louis St. Paul San Francisco Seattle



Ford Touring Car

It's the Universal Car because it serves everybody—is a universal utility. It's a universal economy because it saves money for everybody. It's a universal servant because it serves everybody. It's a universal luxury because it gives pleasure to everybody. Simple in design, it is quickly understood and easily operated. Light in weight, it is wonderfully flexible. It runs readily over all sorts of roads, and all sorts of hills, in all sorts of weather. Strong in construction, it endures. Low in cost of maintenance and operation, averaging about 2 cents a mile.

Ford Motor Company

Detroit, Michigan