

THE UNIVERSAL CAR

Ford Motor Company Detroit Michigan, U.S.A.

1916-1917



When Henry Ford set his hand to the task of building an automobile that should be a thing of service and not an expensive luxury, he put the peg of human efficiency one notch higher and became a significant factor in the new order of things. In the carrying out of his set purposes Mr. Ford has had the assistance and support of an organization that is recognized as second to none in this country. Mr. Ford is directly responsible for, and directs the policies of the institution that has, within thirteen short years, made itself "the wonder of the manufacturing world"-the leader in automobiledom. And here is put into type its message to the buying world-a message that must be of paramount import to those who are to buy new cars this year.

*

There are over ONE MILLION, FIVE HUNDRED THOUSAND Fords in service to-day.

Practically ONE-HALF of all the cars on American highways are Ford cars.

With more than one hundred different makers of automobiles in America, the Ford factory produces more than one-half of the entire product.





Quenching Steel Forgings in Heat-Treatment

This means that while all the hundred or more other factories combined are producing an automobile, the Ford factory alone has turned out a completed car.

The ratio of production is one to one-with one factory against a hundred factories.

The largest shoe factory in the country produces less than one-fortieth of the entire shoe product.

The greatest American flour mill turns out less than one-twentieth of the flour used in America.

But the Ford factories build substantially one-half of all the motor cars used in all the world.

This is a condition absolutely unprecedented in the industrial world-anywhere.

Ford Coupelet

COR

M

2-Passenger—4-Cylinder—20Horsepower—streamline hood, large radiator and enclosed fan, crown fenders, black finish, nickel trimmings—fully equipped, except speedometer. Inviting trimness of appearance with the highest degree of utility. Top raised or lowered in two minutes. Price \$505 f.o.b. Detroit



And it has not been brought about by any exceptional scheme of selling—or by any extravagant advertising or by any sort of commercial combination.

There is only one reason why the Ford car so far outsells all others.

It is a better car.



Simplicity in Operation

By all the tests that time and the greatest number and variety of uses and abuses can impose, the Ford has demonstrated its superior worth.

The demand is unprecedented because the value is unequalled.

* * * * * *

The Ford must be judged independently of its price.

It is surprisingly low in price—and surprisingly high in value—because it is produced upon a scale so gigantic as to reduce the cost of manufacturing and distributing to a minimum.



When we were building only a few thousand cars yearly our cost of production was nearly twice what it is now.

To-day, with our volume far exceeding that of any other automobile concern in the world, we are able to produce a better car at practically half the cost.

Not many years ago we bought but a few thousand tons of steel. To-day we are one of the largest consumers of steel in the world—200,000 tons—and we buy it *at bottom prices*.

By this same big buying power has the cost of the entire range of materials that go into the construction of the Ford car been minimized.

And our gigantic volume has permitted us to so organize our factory, our branch factories, and construction methods—has made possible the specialization of labor and the use of labor-saving machines to such an extent—that producing costs have been brought down to absolute bed-rock.

In other factories where a small number of cars are produced, or simply assembled, many operations cost three or four times that of similar operations in our Ford factories.

Also-it must be kept in mind, that the entire efforts

of our great factories are focused upon the making of just one car—the famous Model T. The chassis of all Ford cars are alike—only the bodies are different. This concentrated effort produces just the few hundred parts of one model and does not make the mistake of



scattering itself in the production of thousands of parts for many models. And thus is a wonderful economy effected—both in buying, manufacturing and selling, besides the after-service that follows the sale.

Big production has made Ford prices small.

And it is for that reason that you must not judge the Ford by its low price—but rather by its high merit.

* * * * * *

It is the simplicity of the Ford that makes it great. Nothing is incorporated in its construction that is not absolutely necessary for speed, safety, durability, economy and comfort.

It is built in four simple units—the power plant, the frame, the front running gear, and the rear running gear—each of which may be easily removed or replaced separately—and all parts of which are easily accessible for cleaning or repairing.

Perhaps the most distinctive feature of the Ford is its simply constructed, easily operated and powerful engine. While its four cylinders are rated to produce twenty horsepower, in actuality the Ford has more power per pound of car than any other automobile made. As a hill climber it is without an equal and holds the world's hill climbing record, made at Algon-

quin, Illinois, June 21st, 1912.

The Ford specially constructed magneto furnishes a surplus of electricity for exploding the gas in the cylinders. It is an integral part of the motor, being

The Ford Motor

-

CARLA FRANKS

The reliable power plant of more than 1.500,000 Ford cars —simple, sure, strong, successful, and always running



attached to the flywheel—and is simplicity itself. No brushes—no commutators—no batteries—no dry cells are necessary. The Ford magneto is a big and sure item in the Ford's ease of operation and economy of upkeep.

The double brake system of the Ford makes "safety doubly safe"—and is as simple as it is sure in operation. The service brake is controlled by a foot pedal. There is also an emergency brake which acts upon the rear wheel drums and which is controlled by a lever. There is absolutely no chance for the car to get away from its driver.

The special Ford spur planetary transmission leaves the matter of speed absolutely at the instant control of the operator—without the shifting of levers. It is so constructed as to insure a smooth running and silent car. This transmission is another distinctive feature of the Ford.

The Ford left hand drive also adds to the comfort and ease of operation. There are distinct advantages in a left side drive. The driver may more easily see the road ahead—and watch his clearance in passing other vehicles. Also he does not have to get out in the dirt or mud when he steps from the car to the curb.

The simplicity and strength of the Ford spring construction, which insures the easiest possible riding qualities to the car, stands out to striking advantage by comparison with the cumbersome and complicated spring construction of other cars.

Specifications

Axles—Front axle of I-beam construction, especially drop-forged from a single ingot of Vanadium Steel, insuring the highest quality of axle strength obtainable. Rear axle also of Vanadium Steel and enclosed in a tubular steel housing. The Ford differential is of the three-pinion bevel type; all gears are drop forgings made of Vanadium Steel.

Bodies and Capacities—Ford cars are furnished with five styles of bodies—Runabout, for two passengers; Touring Car, capable of carrying five passengers; Coupelet, two passengers; Town Car, six passengers; Sedan, five passengers.

Brakes—Dual system on all Ford cars. Service brake operates on the transmission and is controlled by foot pedal. Expanding brake in rear wheel drums serves as emergency brake. It is controlled by hand lever on left side of car.

Carburetor—Floatfeed automatic with dash adjustment. Specially designed to give maximum power, flexibility and easy starting, with economy of fuel consumption.

Clutch-Multiple steel disc, operating in oil.

Control—On the left side of car. Three foot-pedal controls, low and high speeds, reverse, and brake on the transmission. Hand lever for neutral and emergency brake on left side of car. Spark and throttle levers directly under steering wheel.

Cooling—By Thermo-Syphon water system. Extra large water jackets and a special Ford vertical tube radiator permit of a continuous flow of water and prevent excessive heating. A beltdriven fan is also used in connection with the cooling system.

Equipment—All Ford cars are sold completely equipped, except speedometer—no cars will be sold unequipped.

Final Drive—Ford triangular drive system with all shafts, universal joint and driving gears enclosed in dust-proof and oil-proof housing. Direct shaft drive to the center of the chassis; only one universal joint is necessary. All shafts revolve on roller bearings; a ball and socket arrangement in the universal joint relieves the passengers of all shocks and strains caused by the unevenness of the road. The final drive of the Ford car is patented in all countries.

Gasoline Capacity—All Ford cars have cylindrical gasoline tanks of 10 gallons capacity mounted directly on frame under front seat. Lubrication—Combination gravity and splash system. Oil is poured into the crank case through the breather pipe on the front cylinder cover. All moving parts of motor work in oil and distribute it to all parts of the power plant.

Magneto-Special Ford design built in and made a part of the motor. Only two parts to the Ford Magneto, a rotary part

Specifications-Continued

attached to the flywheel and a stationary part attached to the cylinder casting. No brushes, no commutators, no moving wires to cause annoyance on the Ford Magneto.

Motor—Four cylinder, four cycle. Cylinders are cast en bloc with water jackets and upper half of crank case integral. Cylinder bore is three and three-quarters inches; piston stroke is four inches. The Ford motor develops full twenty horsepower. Special Ford removable cylinder head permits easy access to pistons, cylinders and valves. Lower half of crank case, one-piece pressed steel extended so as to form bottom housing for entire power plant air proof, oil proof, dust proof. All interior parts of motor may be reached by removing plate on bottom of crank case—no "tearing down" of motor to reach crank shaft, cam shaft, pistons, connecting rods, etc. Ford Vanadium Steel is used on all Ford crank and cam shafts and connecting rods.

Prices—Ford cars are sold for all points in the United States at the following prices f. o. b. Detroit: Runabout \$345; Touring Car \$360; Coupelet \$505; Town Car \$595, and Sedan \$645.

Springs—Both front and rear springs are semi-elliptical transverse, all made of specially Ford heat-treated Vanadium Steel. Ford springs are the strongest and most flexible that can be made.

Steering—By Ford planetary reduction gear system. Steering knuckles and spindles are forged from special Ford heat-treated Vanadium Steel, and are placed behind front axle.

Three-Point Suspension—Each of the Ford units is suspended at three points of the chassis. This method of suspension insures absolute freedom from strain on the parts and permits the most comfortable riding of the car body.

Transmission—Special Ford spur planetary type, combining ease of operation and smooth, silent running qualities. Clutch is so designed as to grip smoothly and positively, and when disengaged to spring clear away from the drums, thus assuring positive action and maximum power.

Unit Construction—There are four complete units in the construction of a Ford car—the power plant, the front running gear, the rear running gear and the frame.

Valves-Extra large, all on right side of motor and enclosed by two small steel plates.

Wheel Base—One hundred inches; Standard tread, fifty-six inches. All Ford cars will turn in a twenty-eight foot circle. This feature is of great advantage while operating in crowded thoroughfares.

Wheels and Tires—Wooden wheels of the artillery type with extra heavy hubs. Only tires of the highest grade are used on Ford cars. Front, thirty by three inches; rear, thirty by three and onehalf inches.



5-Passenger-4-Cylinder-20 Horsepower-streamline hood, large radiator and enclosed fan, crown fenders, black finish, nickel trimmings-fully equipped, except speedometer. Price \$360 f. o. b. Detroit

Ford Factories and Branches

Ford Factory, Detroit-Parent Plant-Capacity 750,000 cars annually Ford Factory, Ford, Ontario, Canada-Capacity 50,000 cars annually Ford Factory, Manchester, England-Capacity 25,000 cars annually

American Wholesale Branches

Akron-71 Bowery St. Albany—346 Broadway Atlanta—465 Ponce de Leon Ave. Baltimore-10 East North Ave. Birmingham-1620 Third Ave. Boston-567 Boylston St. Brooklyn-1527 Bedford Ave. The Bronx (New York City) 607 Bergen Ave. Buffalo-2495 Main St. Cambridge-Brookline St. and Charles **River Parkway** Charlotte—212 East Sixth St. Chicago—3915 Wabash Ave. and 2415 Michigan Blvd. Cincinnati-660 Lincoln Ave. Cleveland-11610 Euclid Ave. Columbus-427 Cleveland Ave. Dallas-2800 Williams St. Davenport-324 West 4th St. Denver-920 S. Broadway Des Moines—101 S. E. 5th St. Detroit—1550 Woodward Ave. Duluth-102 W. Michigan St. Erie-112 E. 12th St. Fargo-509 Broadway Fort Worth—200 Commerce St. Fresno—1501 "1" St. Grand Rapids—53 N. Division Ave. Houston-4006 Harrisburg Road Indianapolis—1135 E. Washington St. Jacksonville—16 East Ashley St. Kansas City, Mo.—Winchester Ave. at 11th St. and 1710 Grand Ave. Kansas City, Kan.—744 Minnesota Ave. Long Island City—564 Jackson Ave. Los Angeles—2060 East Seventh St. Louisville—2400 South Third St. Memphis—495 Union Ave. Milwaukee-411 Prospect Ave.

Minneapolis-420 North 5th St.

Nashville-1214 Broadway Newark-17 Halsey St. and 449 Central Ave. New Orleans-2120 Canal St. New York-1723 Broadway and 607 Bergen Ave. Norfolk—713 Granby St. Oklahoma City—900 W. Main St. Omaha-1502 Cuming St. Peoria-2010 Main St. Philadelphia-2700 N. Broad St. Pittsburgh-5000 Baum Blvd. Portland—481 East 11th St. Reading—36 South 4th St. Richmond—1217 West Broad St. Rochester—196 East Ave. Sacramento-1906 M St. St. Joseph-1224 Frederick Ave. St. Louis-4100 Forest Park Blvd. St. Paul-117 West University Ave. Salt Lake City-West Temple and Pierpont St. San Diego-1040 First St. San Antonio-221 W. Commerce St. San Francisco-2905 21st St. Scranton-323 N. Seventh Ave. Seattle-724 Fairview Ave. Sioux City—515 Sixth St. Spokane—1801 W. Third Ave. Springfield, Mass.-95 Liberty St. Syracuse—428 E. Jefferson Tacoma—702 Broadway Toledo—723 Adams St. Trenton-128 N. Warren St. Utica-331 Bleecker St. Washington-Pennsylvania Ave. at John Marshall Pl. Wichita—218 W. Douglas Ave. Worcester—109 Grafton St. Youngstown-Glenoven & Market St. Yonkers-219 S. Broadway

Foreign Branches and Service Stations

Bordeaux, France-63 Rue de la Fondaudege

Buenos Aires, Argentina-Calle Lavalle 1702

Calgary, Alta.-127 E. 11th Ave.

Hamilton, Ont.-74 John St. London, Eng.—55 Shaftesbury Ave. London, Ont.—680 Waterloo St. Manchester, Eng.—Trafford Park

Melbourne, Aus.—153 Williams St. Montreal, Que.—119 Laurier Ave., E. Paris, France—61 Rue de Cormeilles Saskatoon, Sask.—1st and 25th Sts. St. John, N. B.—Rothesay Ave. Toronto, Ont.-672 Dupont St. Vancouver, B. C.-1531 W. 15th Ave. Winnipeg, Manitoba-Portage Ave. at Wall St.

Foreign Department

1136 Whitehall Bldg., 17 Battery Place, New York

There are Ford Agents in all other Principal Cities