Ford Motor Cars

"Buy a Ford because it is a Better Car, not because it is Cheaper"
—Henry Ford

Ford Motor Company
Detroit, Michigan, U.S.A.
In this, its tenth successful year—and with the issuing of this catalogue—the Ford Motor Company extends its sincerest thanks to the automobile buying public for the hearty and unprecedented recognition that has been given the Ford Model T throughout the civilized world.

As a reward for merit this recognition has come.

In 1903 the Ford Motor Company was established. It was a fortunate organization in that it combined rare inventive and creative genius coupled with substantial business ability and integrity. Fundamental in this organization was the fixed determination to build a car that should be as simple, practical and economical as human ingenuity could devise, to the end that it might be a thing of use and service to the greatest possible number of users—and not a mere luxury. From the very beginning the Ford car obtained a distinctive recognition. And as the manufacturing facilities, the efficiency of the car and the volume of its output increased, the cost of its production automatically decreased—until today its value cannot be measured by any mere dollar-and-cent standard.

What Has Been Accomplished

To date, more than one hundred and seventy-five thousand Ford cars have been delivered. Practically every third car upon American highways is a Ford car.

In the season just ended the Ford Motor Company manufactured and sold more than seventy-five thousand new cars—a remarkable accomplishment for twelve short months—a record that represents even more than one-third of America's entire automobile output.

In nearly six thousand cities and towns of the United States and Canada, Ford cars and Ford parts are for sale by responsible dealers.

In forty-six of the largest cities of the world are located direct branches of the central organization at Detroit. The Ford is the one car that has a world-wide distribution.
a world-wide reputation—and a world-wide service system; the one car that has back of it the manufacturing and distributing equipment essential for such a world-wide operation.

In many of these cities are being built large Ford assembling plants, sub-factories to which will be sent the different units of the car for assembling. By this arrangement not only will Ford distribution be greatly facilitated, but the economy of both time and money in shipping and assembling will more than justify the expenditure of the several millions which this new service system entails.

A World-Wide Reputation

IN THE ten years of its successful development the Ford has acquired a reputation absolutely unmatched in automobilism—and the guarantee of a financial responsibility that scarcely has its equal in the manufacturing world. The Ford Motor Company resembles in many respects a great banking house of world-wide reputation and absolute integrity. The world buys Ford cars with the same confidence and assurance that it buys bonds guaranteed by such a banking institution.

And it must be borne in mind that the personnel and management of the Ford Motor Company is the same today that it was when the first Ford car was built. The accumulated experience of years of successful automobile building goes into the making of the Ford car of today.

The Making of the Ford

THE Ford factory in Detroit is acknowledged to be the most complete, compact, economically efficient and thoroughly equipped automobile plant in the world. It is imposing architecturally and is extensive. But largeness is of no significance—it is the use to which the space is put that tells. As the Ford factory site is sixty acres in extent, new buildings of uniform design are added as conditions demand. In the past year the floor space has been nearly doubled and the new season will probably see it still further enlarged.

In the Ford plant rigid economy prevails from one end to the other—from foundation to roof, from front door to back. Every foot of space is utilized, and there is no overcrowding or massing of workmen. All is thoroughly sanitary and every known means for the comfort and protection of the workmen is employed.
Scientific Workmanship

THIS great manufacturing organization is specifically a Ford creation. Machinery details and equipment are of special design for Ford Model T construction. In every department the working men are lined up like soldiers in battle array—a union of effort from one end to the other, each man “on the job” all the time.

And their employment is continuous the year around. Herein is a big economy in the handling of men. Automobile factories whose production is limited to a few thousand cars have their seasons when they run full force, and again when they are closed down for inventory, for the changing of models, for the laying of plans for the coming year, etc. This sort of idleness is expensive. Each season such factories must operate largely with a force of new employees. The best men of last season are not to be had—they have found steady employment elsewhere. This is expensive in more than one way—men new to their work will be neither as productive nor as efficient as are the men who are continually at work—mistakes of omission and of commission are bound to follow, despite the sharpest inspection.

With the Ford Motor Company this is altogether different. The same men, year after year, working at the same work, naturally must improve, naturally must become thoroughly efficient, naturally must be a pronounced economy in manufacture. This continual employment means loyalty as well as faithfulness and efficiency in service—and a better car at a lower price.

Simplicity of the Ford Car

If you will examine the illustration of the chassis shown on the next page you will quickly perceive the greatness and simplicity of the Ford design. There is little to it but a few simple and mechanically perfect parts. You will see at a glance how concise and free from complication it all is—how simple it must be to operate—and how easy it must be to get at any part of the mechanism. It is quickly accessible from every angle. That is one reason why Ford owners are so universally enthusiastic over their cars. They care for their cars themselves, just as easily and inexpensively as they could for a horse and buggy.

The illustration of the chassis shows why Ford Model T is so light in weight—there’s little to it, and as it is built
of Vanadium steel, it is the strongest, also the lightest. chassis made anywhere—bar none.

And weight is expensive in a motor car—because it takes power to move and carry it. The heavier the chassis, the more gasoline and oil; the greater wear on tires; the greater difficulty in traveling over rough roads, in sand and up hills; the more bother and trouble keeping it in order—and the smaller is the factor of safety.

It's the simplicity, light weight and economy of the Ford that make it "The Universal Car."

Unit Construction

An important feature of the Ford is the fact that there are but four constructional units in the car—the power plant—the frame—the front axle—the rear axle. These, and any part of them, are easily accessible, and can be quickly removed for adjustment or replacement.

All of these simplifying features go to make the Ford a silent running car. Its perfect mechanical adjustment and the elimination of all unnecessary parts minimize noise in Ford operation. The Ford is as silent as machinery can possibly be made.

Only One Model

The Ford is a standardized car. The Ford Motor Company devotes all its time and facilities to the building of one model—one car, the Model T chassis. Several different bodies, of course, but the one chassis, the one car, as, after all is said and done, the chassis is really the car.

Now, consider what this means—the purchasing in maximum quantities of all materials, parts and accessories, with the consequent low price that always follows quantity orders, with cash in hand for prompt payment. Consider with an output of two hundred thousand or more cars in one year, what a force goes behind the buyer for the Ford Motor Company, when he enters the market of supply; eight hundred thousand wheels, eight hundred thousand tires, one million lamps, all of the one size and one model; ninety thousand tons of steel, and spot cash in payment—no notes, no mortgages, no promises, no delay—spot cash. You cannot measure such a tremendous influence in its effect on price.

Big buying and big production—centered upon the making of one model—has made Ford values maximumly high and Ford prices minimumly low.
A Truly Wonderful Engine

Perhaps the most distinctive one-feature of the Ford is its simply constructed, easily operated and powerful engine. The removable cylinder head and adjustable plate at the bottom of the crank case housing permit easy accessibility to all interior parts of the motor. 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. Ford engines are all alike, all maximum efficiency, powerful, simple.

The Ford Magneto

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

Strong Spring Construction

Springs—Ford springs are extra large. They are made of spring tempered Vanadium steel—and are semi-elliptical transverse. This means that they will resist any strain which the hardest usage places upon them and that they give the easiest possible riding qualities to the car.

Low Operating Cost

By all counts the Ford costs less to operate than any other car. Individual experiences vary, according to the temperament of the person who drives the car, and the condition under which it is maintained. From the experiences of thousands of owners of Ford cars, it has been found that a Model T may be maintained at an average expense of from five to twelve dollars a month. Many of our owners drive their cars at a cost of less than a cent a mile. A few of them double this cost. One owner recently drove his Ford a hundred and nine miles at a total cost for gasoline and oil of eighty-one cents—a not exceptional experience. By all tests the Ford's cost of maintenance is demonstrated to be the lowest.

Ford Vanadium Steel

A DISTINCTIVE feature of the Ford car—and a marked advantage to the buyer, is the fact that it is built of Vanadium steel—a steel that is recognized the world over as not alone the toughest, strongest, best, but the most expensive steel known to the world of steel making. We have no hesitancy in stating that Ford Model T, constructed as it is of Vanadium steel, is the strongest and most durable car in the world. Vanadium is a mineral alloy. It is fused with the molten steel at a high temperature and acts as a flux or cleanser. It also imparts to the molecules of the steel a greater adhesiveness and a tremendous resistance against the action of vibration. As Vanadium cleanses and strengthens the
Vanadium Tests

The assertion that the Ford Model T is the strongest built car in the world, due to the use of Vanadium steel throughout, is, we realize, a very broad claim and may be considered by some of our readers as extravagant and improbable.

Numberless proofs are at hand, however, to substantiate the unqualified truth of this statement, but we are confident the results of recent tests made by the French Government will afford ample sufficient testimony to satisfy the most skeptical. The experiments in question were conducted by the Testing Department of the Conservatoire National des Arts & Metiers, which is under the direction of the Minister du Commerce and de l'Industrie of the French Republic.

At the conclusion of the tests, a certificate was issued by the Laboratoire des Essais, containing a detailed table of the results, of which the following facts constitute a brief summary:

A scientific and exhaustive comparison was made of two steering spindle connecting rod yokes of identical dimensions, one from a Ford Model T and the other from a noted French car, generally acknowledged as the best built car of French manufacture. Of all the tests made, the part from the Ford car proved distinctly the better in every instance. For the Ford, the elastic limit was given as 375 kilograms and only 295 for the other; Ford elastic limit per square millimeter, 56 kilograms, 30.4 for its competitor.

In breaking, the Ford proved fifty per cent the stronger of the two. The pieces submitted to shock were identical in size, and again the Ford outclassed its rival, showing 3,450 kilogram meters absorption as against 3,250 for the other steel. The data given above is necessarily technical, but as evidence of the highest possible authority we believe it will prove convincing and impressive to anyone interested in motor car problems.

Special Ford Vanadium Steel is the highest grade steel and is incidentally the most expensive used in the manufacture of automobiles. It is employed in the making of all metal parts in the Ford car, where strength is required. Its elaborate use in Ford construction, wherever it can be applied to advantage, emphasizes the well-known policy of the Ford Motor Company to supply its customers with the highest grade material.

Ford Heat-Treatment

A certain kind of Vanadium steel is used in a limited way elsewhere—but Ford Vanadium is Ford steel. Every important part of the Ford Model T is specially heat-treated for its particular work. It must be made tough or hard or springy—as the conditions demand.

It cost the Ford Motor Company considerably over $200,000 to incorporate this special heat-treating equipment in its great manufacturing plant.

Vanadium steel, scientifically heat-treated, has made it possible for the Ford Motor Company to build a car extra light in weight and yet tremendously strong. A Ford car can be lifted from the

Top view of Motor, with cylinder head removed, showing pistons, valve setting and water jackets

For toughness and elasticity, no better proof for Vanadium steel quality can be given than is shown in this Model T Crank Shaft
Vanadium steel construction is a distinct Ford advantage. An advantage which we cannot unduly emphasize.

**Safety in Driving**

The double brake system of the Ford makes "safety doubly safe"—and is as simple as it is safe in operation. The service brake is controlled by a foot pedal on which the slightest pressure is sufficient to stop the momentum of the car. There is also an emergency brake which acts upon the rear wheel drums and which is controlled by a lever. The use of this brake is made necessary only when stopping on hills or when the car is left standing without an operator. There is absolutely no chance for the car to get away from its driver.

**Left Hand Drive**

The Ford left hand drive adds to the comfort and ease of Ford operation. Many American manufacturers have blindly followed European customs by placing the driving wheel upon the right. In Europe, however, the rule of the road is to turn to the left when approaching a vehicle. But in America, where we keep to the right, there is a distinct advantage 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 properly stops the car at the curb.

**Easy to Operate**

On account of the many features for safety in driving and because of its simplicity in control, the Ford Model T is especially adapted for the use of the lady driver.

The fact that there are more women drivers of Ford cars than any other motor car on the market is directly responsible to the ease of Model T operation and its safety in driving.

There is no complex shifting of gears to bother the driver—in fact there is very little machinery about the car—none that a woman cannot understand in a few minutes and learn to control with exceedingly little practice.

At no time in the operation of the Ford car is it necessary to remove the hands from the steering wheel. Starting, stopping and reversing are controlled by foot pedals, leaving the hands of the driver free at all times for the more delicate operation of steering the car. This feature for safety will be recognized as a great advantage to men and women drivers alike.

**Ford Service for Ford Owners**

We have indicated that in nearly six thousand cities and towns, in fact in practically every business center of any size throughout the United States and Canada, is located a Ford dealer—and every Ford dealer is required under the terms of his contract to carry an adequate supply of Ford parts. It is rarely possible, therefore, for one to travel many miles in any direction without coming in contact with one or more Ford dealers. Each of these dealers, with his supply of parts, is at the service of the Ford owners, thus saving time in making repairs and assuring to the owner of a Ford car the almost continuous use of his car.
As all Ford parts are standardized, there is little trouble, even for the owners, to make repairs. You can tour anywhere throughout America, over Canada, down in Mexico and in most European countries with your Ford Model T and be satisfied that you will not be caught at a disadvantage in case of accident. Ford dealers are always within easy hail and, wherever they are, they hold themselves at the service of the Ford owners.

Economy of Ford Parts

Another important fact is that Ford parts are exceptionally reasonable in price. You can buy the parts in a Ford Model T one at a time for practically the same money that you can buy the finished car direct from the dealer. Get the “Parts Price List” of any other car and compare the prices with the prices for Ford parts. Then you'll get a practical example of Ford economy for Ford owners. Every purchaser of a Ford car receives, at the time of the sale, a complete price list of Ford parts and knows exactly what each part costs. He cannot be overcharged.

Ford Sales Organization

Prompt and courteous attention you will receive in all of your dealings with the Ford Motor Company. A big factor in Ford success has been the liberal and painstaking treatment that has been universally accorded Ford owners and prospective purchasers.

The splendid efficiency of our selling organization we view with just pride.

Every member of this organization works along as definite lines as do the draftsmen in the engineering department—a determined and fixed policy has been laid out for them. Every man knows exactly what he is expected to do and he does it. He is never troubled with sleepless nights, wondering if the company will be in business next month or next year; or wondering over changing designs in cars and changing policies. He has none of such worries. He represents a reliable company.

Wherever you meet a Ford manager, dealer or salesman, you touch a “live wire”—one who knows he has a car that has a record for delivering expectations; has a car that has accomplished more than has been achieved by any other motor car in the world; has a car that is sold at one price—no sliding scale in prices in the Ford selling organization—no “robbing Peter to pay Paul.”

The Ford manager, dealer and salesman can look every Ford owner in the eye, with the confidence that each purchaser of the Ford car paid identically the same price for the same car. He knows that every man who sells a Ford car stands upon identically the same footing; knows that his company stands behind the car; knows that he represents the best in the automobile world; knows that he is there to take care of Ford owners, to give every helpfulness possible, and that his company is behind him in his effort; knows that he will be treated liberally, honestly, courteously.

Ford Literature Free on Request

Each year adds thousands of new names to the roll of Ford owners. As every new car and its enthusiastic owner brings us the names of several prospective buyers, the need of Ford literature has multiplied until the demand for this new catalogue has required an edition of more than a million copies, and their distribution covers the civilized world.

As a further illustration of the magnitude and thoroughness of all Ford efforts, we may say that in addition to the circulation of a million copies of the Ford catalogue, the company issues monthly one hundred thousand copies of its magazine, FORD TIMES. While essentially a “house organ,” devoted principally to the

Front Axles on all Model T Cars are each drop-forged from one single ingot of Vanadium steel especially heat-treated in our own plant.

Ford Rear Axle completely enclosed in dust proof and oil proof housing.
Fixed Prices on Quantity Orders

TO CONCERNS who purchase Ford cars in quantity lots for commercial purposes we will give the benefit of a reduction in the cost of selling, and that all such Commercial Buyers may have absolutely the same proportionate reduction or discount, we have fixed a sliding scale of prices upon the following basis:

Orders for single cars from Commercial Houses will be filled only at the regular list prices in accordance with our catalogue.

Orders from Commercial Houses for several cars to be delivered and paid for at the same time, or orders for more than one car provided such orders are placed with and accepted by us and deliveries made during our fiscal year, viz: From October 1st, 1912 to September 30th, 1913, will entitle the commercial purchaser to a discount from our list equivalent to the number of cars so ordered and taken, multiplied by the constant two-tenths of one per cent.

Thus, on an order for ten Ford cars for commercial purposes the price would be calculated by multiplying two-tenths of one per cent by 10 and using the amount so arrived at, namely two per cent (2%) as a discount from the total purchase list price of the ten cars. For example, if these ten cars were our Ford Runabouts at $325 each, ten of them would cost $5,250 less the discount of two per cent (2%) figured on the above basis, would be a reduction of $105.

The Model T Magneto is of special Ford design. It is built in as a part of the motor and consists of two parts, one rotating with the flywheel, the other stationary, attached to the cylinder casing. A single turn of the motor will create enough spark to ignite the charge in the cylinders.
If fifty cars were purchased on the same basis the discount would be ten per cent off the list. Therefore, on a total purchase of $26,250, the buyer would receive a discount of $2,625.

This plan will make the discounts cumulative on all the Ford machines purchased from us by Commercial Houses during our fiscal year, and will apply uniformly in the establishing of prices for all orders from Commercial Concerns for Ford cars for commercial purposes on from two to fifty machines if purchased between October 1st, 1912 and September 30th, 1913, the latter number (fifty), however, being the point of maximum reduction.

No Ford cars will be sold unequipped or special in any manner other than indicated in our catalogues. All prices are f.o.b. Detroit, and no discounts will be allowed on Freight or other Extras.

By this plan all Commercial Buyers will be on exactly the same footing as regards discounts in proportion to the number of Ford cars they purchase. Commercial Buyers' Orders and Agreements will be executed with Commercial Buyers when they order their first car.

Specifications

For all Ford Model T Cars

Motor—Four (4) cylinder, four cycle. Cylinders are cast en-bloc with water jackets and upper half of crank case integral. Cylinder bore is 33/4 inches; piston stroke is 4 inches. The Ford Motor is rated at twenty (20) 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. Vanadium steel is used in all Ford crank and cam shafts and connecting rods.

Unit Construction—There are four (4) complete units in the construction of Ford Model T—the power plant, the front axle, the rear axle and the frame.

Three-Point Suspension—Each of the Ford Model T 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.

Clutch—Multiple steel disc, operating in oil.

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

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.

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 belt driven fan is also used in connection with the cooling system.

Carburetor—Special design, float feed automatic with dash adjustment. No spring attachment on air valve.

Gasoline Capacity—Touring Car, Runabout and Town Car have cylindrical gasoline tanks of 10 gallons capacity mounted directly on frame under front seat.

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

Valves—Extra large, all on right side of motor and enclosed by two small steel plates, making their action noiseless.

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.

Brakes—Dual system on all Ford Model T 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.

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

Wheels and Tires—Wooden wheels of the artillery type with extra heavy type. Only tires of the highest grade are used on Ford cars. Front 30 x 3 inches. Rear 30 x 3 3/4 inches.

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 Model T is patented in all countries.

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 is 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 Model T cars are furnished with three styles of bodies—Touring Car, capable of carrying five (5) passengers; Runabout for two (2) passengers; Town Car, six (6) passengers.

Prices—F. O. B. Detroit—Touring Car, $600; Runabout, $525; Town Car, $800.

Equipment—All Ford Model T’s are sold completely equipped—no Ford cars will be sold unequipped. Standard equipment includes Top, Top Cover, Windshield, Gas Lamps, Generator, Speedometer, Three Oil Lamps, Horn and Kit of Tools, including Jack.

Wheel Base—100 inches; Standard tread, 56 inches; 60 inches for Southern roads where ordered. All Ford Model T cars will turn in a twenty-eight (28) foot circle. This feature is of great advantage while operating in crowded thoroughfares.
Ford Factories and Branches

Ford Factories—Detroit (Parent Plant); Walkerville, Canada; Manchester, England.

Eastern Service Plants—Long Island City, N. Y., and Cambridge, Massachusetts.

Western Assembling Plant—Kansas City, Mo.

American Branches

Atlanta Long Island City
Boston Los Angeles
Buffalo Louisville
Cambridge Memphis
Charlotte Minneapolis
Chicago New York
Cincinnati Oklahoma City
Cleveland Omaha
Columbus Philadelphia
Dallas Pittsburgh
Denver Portland
Detroit St. Louis
Fargo St. Paul
Houston San Francisco
Indianapolis Seattle
Kansas City

Foreign Branches

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Melbourne, Australia Winnipeg, Manitoba

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