

Ford Illustrated News

Published by FORD MOTOR COMPANY OF CANADA, LIMITED

Ford Plant Greatest in Dominion

**Industrial Giant Has
Capacity of 100,000
Autos Yearly.**

One of the great industrial titans of the Dominion of Canada is situated at East Windsor, Ontario. This colossus has shouldered its way upward until now it stands acknowledged among the greatest industries of the entire British Empire.

It is the Ford Motor Company of Canada, Limited, an institution entirely Canadian, operated largely by Canadians, employing thousands of native Canadians, manufacturing a Canadian motor car from Canadian materials.

Few Canadians realize that the Ford Motor Company of Canada, Limited, is in every truth a Canadian industry, distinct from the Ford Motor Company of the United States. And fewer still, perhaps, know that the Ford Motor Company of Canada, Limited, is the largest motor car factory in the British Empire! Mr. W. R. Campbell is president, Mr. Henry Ford is a member of the board of directors.

The annual capacity of the Ford Motor Company of Canada, Limited, is more than 100,000 automobiles, which are distributed to some 5,500 dealers scattered in every corner of the vast British Empire, with the exception of the United Kingdom and Ireland. This huge industry is purely a Canadian enterprise, manufacturing nearly all of its parts consumed, and importing only such material from the United States as Canada is unable to produce at a reasonable price, or in dependable quantities.

Furthermore, the Ford Motor Company of Canada, Ltd. enriches the Dominion by millions of dollars every year and furnishes employment to thousands of Canadians. To be exact, during the four year period between 1926 and 1929, this company paid to its employees wages aggregating \$45,191,169. During the same period, the company disbursed in the Dominion for materials and services needed for manufacturing the Canadian Ford car an additional \$50,536,686.

Approximately four-fifths of the value of these materials and services went to pay for the labour involved in their production, making an additional \$64,429,349 turned into channels of Canadian labour. This represents a grand total of \$109,620,518 during the last four years, which this vast corporation has turned back into the maintenance of the Canadian high standard of living throughout the Dominion.

The Ford economic principle of high wages and reasonable hours is too well known to need explanation. Everywhere the Ford plan has gone, prosperity and progress have followed.

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Great Crowds Greet Air Tourists



THOUSANDS FLOCKED TO AIRPORTS in Western Canada to welcome Mr. Wallace R. Campbell, president of the Ford Motor Company of Canada, Limited, and his party when the giant Ford tri-motor club plane in which they travelled landed. The upper photo shows a typical crowd at Edmonton. Lower left, a map of the route of the tour; lower right, Mr. Campbell.

Ford Chief Tours West By Airplane

**Mr. W. R. Campbell
Surveys Branches in
Prairie Provinces.**

Mr. Wallace R. Campbell, president of the Ford Motor Company of Canada, Limited, recently completed a 12-day tour by airplane of branches in Western Canada. The aerial survey trip, the first by a leading Canadian industrialist, was made entirely in a Ford tri-motor club plane, and covered 3700 miles. The actual flying time for the two weeks tour was 36 hours, 10 minutes, or at a rate of slightly more than 100 miles an hour.

Mr. Campbell, W. R. Campbell, Jr., his son, and the party of Ford representatives returned to Walker Airport at the conclusion of their tour after a final day's flight of 1,050 miles, from Minot, North Dakota, the longest day's journey during the trip. Taking off at Minot the party stopped first at Fargo, North Dakota, and then at St. Paul for fuel and luncheon. The final jump of 535 miles from St. Paul to Walker Airport was made in four hours, fifteen minutes, at an average speed of 126 miles per hour. Most of the last leg of the day's flight was made at an altitude of 12,000 feet where winds were favoring, but the 80-mile jump across Lake Michigan, which required 35 minutes, was made at 1,000 feet, under low hanging clouds and in a haze which blotted out the lake itself.

The plane carrying Mr. Campbell and his party accomplished the 1,700-mile journey from Calgary, Alberta, the western-most city on the tour in two flying days, the plane being forced to battle heavy rain, strong head winds, low-hanging clouds and fog during most of its flight through Medicine Hat and Moose Jaw on the trip to Minot.

In the course of his survey trip, Mr. Campbell found business conditions generally on the upgrade throughout Western Canada. Prospects also were bright for a fair wheat crop, he observed, despite the damage wrought by severe winds which persisted during most of the time the flying party was in Saskatchewan.

"Economic conditions in Canada are better than in any other country today, at least within the British Commonwealth of Nations," Mr. Campbell declared in the course of an address before the Industrial Development Committee of Winnipeg. "Business is definitely on the upgrade, even though it must be admitted that it could be better, and I know no people who are better able to cope with conditions and to fight back to better times than Canadians."

Mr. Campbell and his party left Walker Airport early on June 9, bound on a one-day flight of 929

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FORD ENGINE HAS NEW FEATURES

The engine of the Ford car embodies many new mechanical features. It has been designed to give unusual speed, acceleration, power and smoothness without sacrifice of reliability or economy. Ford engineering has found the way to include every essential feature of good performance without the necessity of a high speed motor.

The design of the cylinder head is just one factor in this performance. Others are the direct gravity gas-burner fuel feed, the specially designed carburetor, the new hot-spot manifold, the carefully planned large valve diameter, the chrome silicon alloy valves, the aluminum pistons, the statically and dynamically balanced crankshaft and flywheel, and the simplicity and efficiency of the electrical, cooling, lubrication and fuel systems.

New Fordson More Powerful

The new Fordson tractor is ideally suited to farming. For any job requiring power, either belt or draw bar, the Fordson does the work quickly, easily and economically. Some of the new features of the Fordson are more power, easy starting, new cooling, lubrication and ignition systems, larger air washer, redesigned transmission, longer wearing crankshaft, improved gasoline carburetor and hot spot manifold. Lubrication of rear wheel bearings is automatic.

Ford Is Leader In Auto Field

Leadership in Canada
Uncontested.

The Ford car, outselling every other car in Canada by a large and constantly increasing margin, has assumed the uncontested leadership of the Canadian automotive field.

The pinnacle to which the Ford has climbed since the Ford Motor Company of Canada, Limited, was organized 26 years ago is now recognized. The business, started in a frame building from which came only 117 cars the first year, now is housed in a great modern plant covering many acres of ground. Its annual payroll is in excess of \$11,000,000 a year. The first force of 17 men has grown to a peak of 7500. Unquestionably, the Ford Motor Company of Canada, Limited, is one of the leading industrial organizations of the Dominion.

There is a reason, furthermore, for the pride which Canadians feel in the organization. The Ford car is practically all made in Canada, of Canadian materials and by Canadian workmen. Proof that the Canadian public appreciates the unusual value built into the Ford is shown by the ever-increasing popularity of the car. In many sections, 50 to 70 per cent of all cars sold today are Model A Fords.

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STEEL WHEELS ARE UNUSUALLY STRONG

The wheels on the Ford car are of special Ford design. There are thirty spokes in each wheel and each spoke is electrically welded to the hub shell and rim. This one-piece construction gives unusual strength. The spokes are so placed that the force of road shocks is not borne wholly by the spoke nearest the obstruction, but is evenly distributed over all. Cleaning is easy because none of the outer spokes cross.

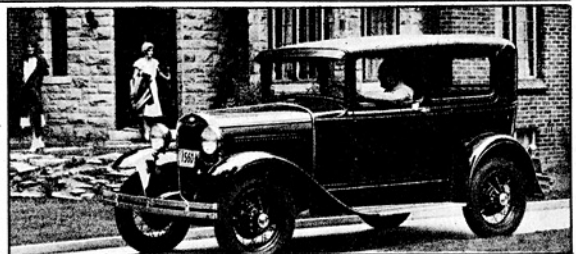
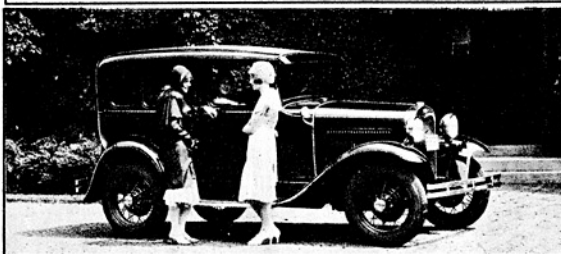
The drop center rim gives added strength and greatly facilitates the changing of tire. Once the air is out, the tire can be removed easily without the use of tools.

It is also important to note that the removal of the entire wheel, due to tire troubles, in no way affects the brake adjustment or the brake drum.

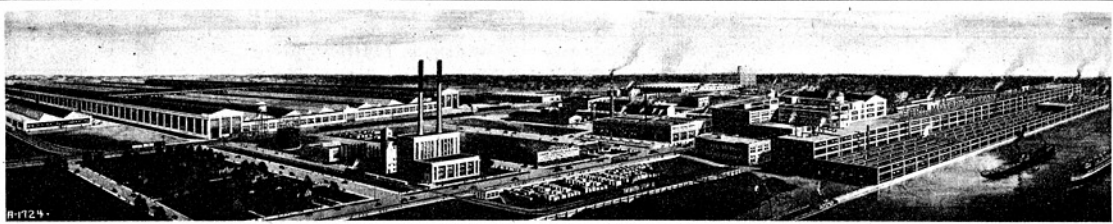
Commercial Cars Redesigned

Redesigned commercial car models of greatly increased utility and added attractiveness have just been announced by the Ford Motor Company of Canada, Limited. The line includes a new 1½-ton truck with 157-inch wheelbase, 25¼ inches longer than the standard wheelbase. This is intended to meet the demand for Ford trucks with longer chassis and capable of adaptation to longer and larger bodies for bulk haulage. A new cowl and increased radiator capacity are features of the new line.

Town Sedan and Tudor, Popular Units of Ford Line



EAST WINDSOR PLANT "LEADER OF EMPIRE"



New Rustless Steel is Used

Non-Corroding Product is Employed in Exposed Metal Parts.

Rustless steel, which the Ford Motor Company of Canada, Limited, introduced this year in exposed metal parts of the new models, is one of the miracles of modern science.

Corrosion, since the days of earliest metal working, has been the archenemy of metallic products. Indeed the marked resistance of gold and silver to corrosion was, in the beginning, one of the chief advantages of the precious metals. Their scarcity, however, naturally prohibited their general use.

The problem of rust increased in direct proportion as man's use of iron and steel increased, until of recent years the cost of rust in the aggregate yearly waste has amounted to staggering figures. In the automotive industry the problem of rust finally became so acute as virtually to preclude manufacturers from using any exposed plated metal parts.

The introduction of chromium plating was heralded by many manufacturers as a great step towards the conquest of corrosion. It remained for rustless steel, however, to achieve the ultimate and final victory. This remarkable metal is absolutely resistant to rust, tarnish or corrosion, a damp rag is all that is necessary to restore its original brilliance. There is no plating to crack or wear off since the lustre quality goes all the way through the metal and will last for generations.

Before the Ford Motor Company of Canada, Limited, decided upon the use of rustless steel in automobiles, it was subjected to many severe tests by the United States Bureau of Mines by metallurgical and other scientific institutions and by the Ford Company. The experiments were conducted for more than a year. Samples of the metal were subjected to a salt spray for 400 hours, the equivalent of 40 years of service. Still the metal could be wiped to its original brilliance with a damp cloth.

A test, startling in its results, was made by the United States Bureau of Mines. A sheet of the metal, eight by twelve inches and 7/100 inch thick, was immersed in highly corrosive mine water in Windburne Field, the strongest corrosive water in Central Pennsylvania. A sheet of ordinary steel with the same dimensions also was immersed as a check on the sample under test.

Miners in this field have left their shovels in working places for a week or ten days and upon their return have found nothing left but the handles. There also have been numerous instances in which steel pipes have been eaten through in from five to ten days. Consequently this was a difficult test. Yet after six months' total immersion the rustless steel sheet was removed and found to be exactly the same weight as when first placed in the corrosive mine water. Long before, the ordinary steel sheet had been eaten away to a few ounces and had fallen apart.

Rustless steel, of course, is more expensive than plated metals. But

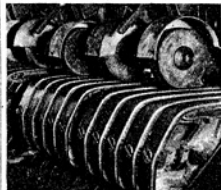
The photograph reproduced gives an aerial view of the great East Windsor plant of the Ford Motor Company of Canada, Limited, where Ford cars for the Dominion and foreign branches are manufactured.

Shatterless Glass is Safety Factor.

All of the Ford cars are equipped with windshields of shatterless glass. This is a safety factor of the greatest importance because it eliminates the danger of flying glass—the cause of most of the injuries in automobile accidents.

In these days of speed and heavy, crowded traffic, the protection afforded by this shatterless glass windshield is an absolute necessity. Its extra margin of safety is something that every motorist should look for in the purchase of a car—especially where there are women and children. Already it has saved hundreds of lives.

This shatterless glass is not provided as standard equipment on any other car in the low price field.



Buffing wheels polish rustless steel radiator shells.

the economies of mass production have made its use possible on the low-priced Ford cars. In the improved Canadian Fords, rustless steel has been utilized in the new cowl strip, the head lamps, radiator shell, rear lamp, and the radiator, hub and gas tank caps.

Upholstery Is Long-Wearing

Exhaustive Tests Assure Lasting Qualities of Materials Used.

Upholstery used in the Ford motor car is intended to last as long as the car itself. It is to insure this permanence of the materials that exhaustive tests are constantly being made of the upholstery fabrics employed.

For instance, in the Ford laboratories there is an energetic little machine that takes a strip of cloth and rubs it and rubs it in a determined effort to wear it out. Nearly is another machine in which pieces of the same cloth are subjected to the burning action of a mercury arc lamp. And at other tables are chemists boiling samples of the cloth in strong acids. These tests simulate under scientific conditions the hardships which upholstery material undergoes in actual use, and enable the scientists to detect weaknesses and guard against them.

The rubbing machine, of course, tests the wearing quality of the cloth. A few hours of the mechanical rubbing is equivalent to several years of actual usage. The mercury arc lamp, enclosed in a quartz tube, produces the same effect as strong sunshine, and soon reveals whether the colors tested will fade. The other tests determine such important factors as weight, number of threads to the inch, percentage of mohair, wool and cotton, and the thickness and quality of the mohair pile.

Every Ford body is upholstered in the kind of material best suited to it. The town sedan and the deluxe coupe are furnished in a rich mohair or in a beautiful Bedford cord cloth. The cabriolet is upholstered in Bedford cord. The Tudor, Fordor standard coupe and sport coupe have upholstery of plain, durable fabric of pleasing appearance. The high quality of these upholstery materials is made possible in the Canadian Ford by the enormous purchasing power of the Ford Motor Company of Canada, Limited.

SIMPLICITY REASON FOR PERFORMANCE

Simplicity of design is a fundamental reason for the good performance, reliability and economy of the Ford car. It has nearly 50% fewer mechanical parts than many automobiles. Each part, therefore, can be made of better material and with more care. It also means fewer parts to get out of order.

Ford dealers will be glad to explain every detail of the Ford ignition, cooling, lubrication and fuel systems and show what this carefully-planned simplicity means to car owners. They will point out how all connections between the distributor and the spark plugs are made by short bronze springs, thus eliminating the need of troublesome high tension cables.

FORD PLANT GREATEST

Continued from page 1, col. 1

The industrial relations of the Ford Motor Company of Canada, Limited, with its employees has been so congenial that strikes are practically unknown.

Even the "bogy" of repetitive work, by which competitors have charged that the Ford mass production methods burned out the company's men through grinding monotony, has been exploded. Several years ago an executive order that every man was to change his job every three months went into effect. To the surprise of everyone, this order was fiercely resisted by the majority of employees in the so-called monotonous jobs. The protests were so violent that the order was recalled.

No development in all the Ford industries has been a greater source of satisfaction than the reduction of industrial accidents to the point where their total elimination may be visualized. The general cleanliness of any Ford plant and its yards is far ahead of the average public park.

As a result of the great volume of production possible to the Ford Motor Company of Canada, Limited, combined with innumerable detailed efficiencies of manufacture and savings in materials, the new Model A Ford motor car is acknowledged by engineers actually to embody considerably greater value than its price indicates.

Use Forgings For Strength

Employment of Proper Steels adds to Sturdiness.

Scores of steel forgings are used in the Ford chassis. In a great many cases, these steel forgings are used where stampings or castings are employed in the ordinary car. Naturally this makes the Ford a stronger car.

Another factor in the sturdiness of the Ford is the extensive use of electric welding. This permits the use of strong single units of great strength instead of several connecting or overlapping parts being riveted or bolted together.

Nearly forty different kinds of steel are used in the Ford cars, each kind being selected and perfected to fit the particular needs of each part. Seven kinds of steel are used in the transmission alone, because research and experience have proved that seven kinds of steel will give greater efficiency and reliability than one or two.

There is no limit to selection—no thought that any certain steel must be made to do to save expense. The Ford policy has always been to use the best possible material for each part and then, through large production to give it to the public at low cost.

FORD IS LEADER IN AUTO FIELD

Continued from page 1, col. 3

But, aside from the public pride in the Ford car, there is just one reason why it is outselling every other automobile in Canada by a large and increasing margin. That reason is value. The new Ford brings its owner everything desired or needed in a motor car and at an unusually low price.

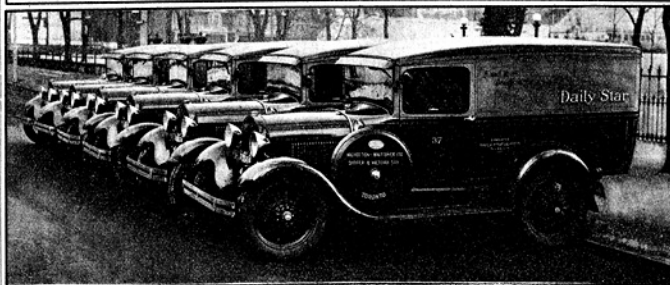
The Ford car has beautiful lines and colors. It will do 35 to 65 miles an hour. It accelerates quickly in traffic. It is the first car away from an intersection. Its power is evident on every hill. It is unusually safe because of the fully enclosed four-wheel brakes and the shatterless glass windshield. It has four Houdaille double-acting hydraulic shock absorbers for comfort.

The value of the Ford car, perhaps, is best demonstrated by its exceptional economy, the result of its low cost of operation and upkeep, low yearly depreciation and long life. Many of the new Fords have already been driven 50,000, 75,000 and 100,000 miles. In tests and contests in Canada, in the United States and abroad, it has won many medals for reliability and general all-round good performance. It is used exclusively by a large number of industrial companies and government bureaus which keep exact cost figures.

But the best way to prove that the new Ford car has all these features is to drive it yourself. Pick your own roads. Give it a severe test. Learn for yourself its speed, power, acceleration, ease of control, safety, comfort—every feature of its good performance.

Then you will know why the new Ford is the most popular Canadian car. It leads in sales because it leads in value.

Fleet Ford Delivery Cars Speed Star Editions



These attractive commercial cars, with bodies specially designed for rushing newspapers from the presses direct to subscribers, are in daily service by the Toronto Daily Star. This type of Ford commercial car is employed by many newspapers throughout the Dominion and has been found ideally adapted to the strenuous demands of newspaper delivery service.

Buyer Should Study Values

Ford Achieves Low First Cost Without Sacrifice of Quality.

Convincing proof that extra value has been built into the new Ford car without extra cost is given by a searching scrutiny of the features which make the new Ford car a value far above the price. Many of these features are exclusive with the Ford car in the moderate price field.

Of first importance in the selection of a motor car comes low first cost. In the Ford car this has been achieved without sacrifice of quality or performance. Next in importance is low cost of maintenance and operation. The Ford car meets these tests admirably.

In the consideration of the Ford car the relation between value and price and the reason for the low price and the manner in which it has been achieved without sacrifice of quality or performance is of the greatest importance.



Accurate tests assure precision in manufacture.

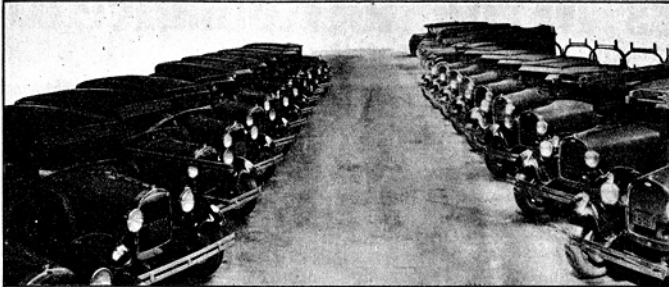
Every purchaser shares the benefits of the Ford policy of large production at low cost—of selling at a small margin of profit—of constantly giving greater and greater value through the vast Canadian organization which has been built up for the making, selling and servicing of the Ford car.

A new degree of excellence has been brought within reach of all the people through the development of new manufacturing machines and the discovery and working out of new manufacturing methods. Evidence of this is found in the extremely close limits of measurement maintained in the manufacture of vital parts. Some of these are held true to within a maximum variation of three ten-thousandths of an inch, reducing friction and wear and resulting in greater reliability and long life.

As the quality of workmanship has been increased, so has the quality of materials been improved. The savings resulting from new manufacturing economies have been put right back into the car. Through special Ford methods, materials once thought too expensive for a low-price car have been made available for use in the Ford.

Today, as a result, the Ford car is an outstanding example of high

Ford Trucks Help to Maintain Nation's Phone Service



These Ford commercial cars parked in the Hutchison Street garage in Montreal are a part of the great fleet of 207 Ford units operated by the Bell Telephone Company of Canada, Ltd., in Montreal, the province of Quebec, and Eastern Ontario. These cars are called upon for service in all kinds of weather, at all times of the day in helping to maintain the Bell Company's service.

Study these Features of the Ford Car

Here are some Additional Features of the Ford Car:

CHOICE OF COLORS—All of the Ford cars are available in a changing variety of beautiful colors—an unusual feature in a low-price car.

FINISH—Appointments in the Ford are in keeping with its mechanical excellence. Upholstery is rich in tone and long-wearing, being 80% wool. Body finish is of enduring pyroxylin lacquer. Radiator shell, headlamps and other exposed bright metal parts are made of rustless steel.

ALUMINUM PISTONS—Aluminum pistons add considerably to the power, speed, and flexibility of the Ford engine. They cost considerably more to make than the cast iron pistons used in some low-price cars.

VALVES—The valves in the Ford are made of chrome silicon alloy—selected after long research because of its resistance to wear and the warping action of heat.

FRONT AXLE—A drop forging of "I" beam design. This gives great strength at outer ends where the greatest wear occurs. The tensile strength of the Ford front axle is 125,000 to 145,000 pounds per square inch.

quality at low cost. Were it made and sold in any other way, under any other business and profit policy it would unquestionably cost much more than the present low price.

The use of shatterless glass for the windshield and rustless steel in many exposed metal parts is a definite indication of the quality that has been built into the Ford car. So are the four Houdaille double-acting hydraulic shock absorbers, the five steel-spoke wheels, the silent, fully-enclosed four wheel brakes, the aluminum pistons, the chrome silicon alloy valves, the simplicity and efficiency of the lubrication, cooling, ignition and fuel systems. So, too, are the large number of ball and roller bearings, the extensive use of fine steel forgings instead of castings or stampings and the many other mechanical advantages that count so much in



Delicate Instruments Measure Accuracy of Piston Construction

REAR AXLE—The Ford rear axle is made entirely of steel and is unusually strong. It is the only car in its field with the same three-quarter floating design used on expensive cars.

TORQUE TUBE DRIVE—Relieves the rear spring of all driving stress, increases power, and adds to the safety of the car.

reliability, economy and long life. All of these are important considerations to any one who is contemplating the purchase of a motor car. All are important reasons why the Ford delivers a value far above the price.

But there are many other considerations which enter into the extra value of the Ford car. The Ford is a smart car. It is available in a changing variety of beautiful colors, an unusual feature in a low priced car. Its appointments are in keeping with its mechanical excellence. Its upholstery is rich in tone and long-wearing. The body finish is of enduring pyroxylin lacquer.

When beauty is added to the other outstanding qualities of the Ford car it is not difficult to understand why the Ford leads all other cars in sales.

DIRECT GRAVITY FEED—The fuel line is only 18 inches long. Gasoline is carried from the tank by direct gravity feed—the simplest and most effective way to insure a constant, even, trouble-free flow to the carburetor.

55 TO 65 MILES AN HOUR—The Ford car has unusual speed and power. Be sure to note how it holds the road when you are traveling at high speed.

QUICK ACCELERATION—Everywhere you go, you note the quick pick-up of the Ford car. Few cars at any price are faster on the getaway.

RELIABILITY—Simplicity of design, high quality of material and careful workmanship make the new Ford an unusually reliable car. It has been built to endure—to serve you faithfully and well for many thousands of miles.

ECONOMY—You save many dollars on operation and up-keep when you buy a Ford. In two, three or five years, depending on how much you drive, this saving will amount to even more than the saving on the first cost of the car.

ROADABILITY—The Ford car has always been known for its ability to travel over roads impassable to the average car. From all over the Dominion come stories of its ability to get through snow, mud, and sand.

Importance of Ball and Roller Bearings

Evidence of the quality built into the Ford cars is the extensive use of ball and roller bearings. There are more than twenty in all—an unusually large number. Their function is comparable to the jewels of a fine watch.

From the engine to the road, in fact, the entire drive of the Ford car on all forward speeds, is wholly on anti-friction ball and roller bearings. In addition to smoother operation, this saves gasoline, gives the car more speed and power in first and second speeds, decreases noise and increases durability and efficiency of the transmission gears.

"How many ball and roller bearings?" is always an important question to ask before buying a motor car.

Allowance on Used Car Vital

Excessive Valuations May Mask "Temporary Bargain"

Before a new car is purchased, the allowance made upon the used car being turned in should be critically analyzed. This is one of the soundest bits of advice given the new car buyer.

If a dealer pays to the new car buyer more than the true worth of the used car turned in, he must make up the difference by extra charges on the new car or he must resell the old car to someone else at too high a price.

The buyer must remember that permanent value is always better than a temporary bargain in the purchase of an automobile. It pays to look ahead and consider reliability and ultimate up-keep costs, as well as comfort, safety, speed and beauty of line and color.

Since most automobiles are bought for replacement, the value set upon the used car is a factor in almost every purchase. Frequently



Rigid Tests Insure Precision in Crankshaft Construction

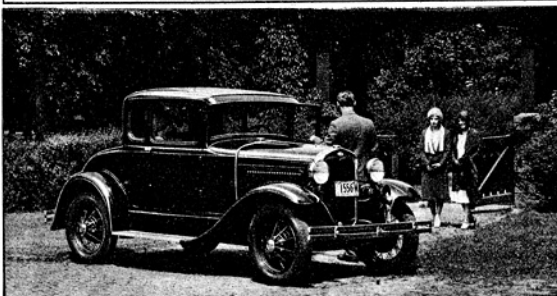
it is given an importance beyond its true worth. Used cars have a definite market value and the new car buyer is justly entitled to an allowance based upon that value. It is not fair to receive less. It is not to his best interests to receive more.

If a dealer by making too high an allowance upon a used car is forced either to re-sell it to someone else at too high a price or make up the difference on the new car, someone must lose. The dealer cannot escape the loss unless he is allowed an excessive profit on the new car, or on financing, extra equipment or other charges. In either case, the buyer pays the bill, for no way has yet been found to give something for nothing. The money must come from somewhere.

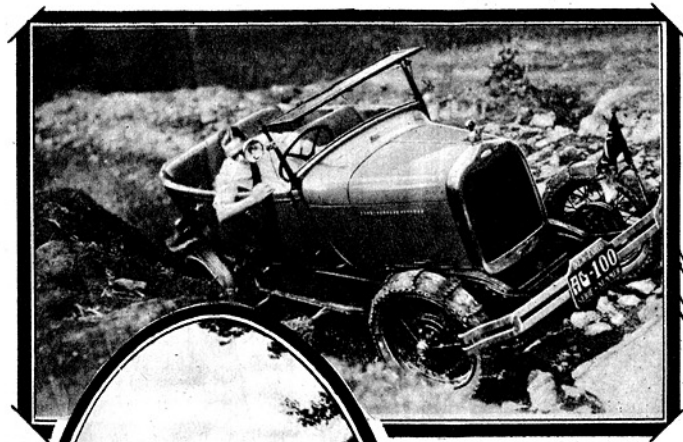
It is good for the buyer to have a true picture of the used-car situation and its secondary importance. The buyer may not get the highest used-car allowance from the Ford dealer, yet gain in the long run. He saves far more than the seeming difference in trade-in allowance because of the lower first cost of the

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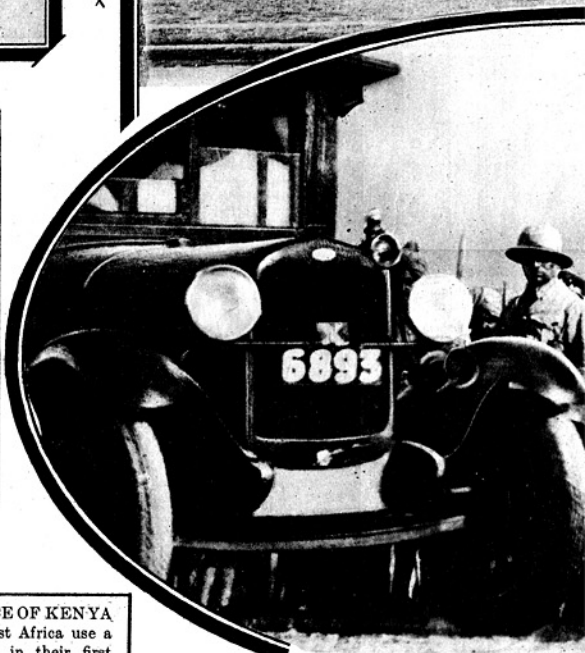
Two Attractive Models, Coupe and Convertible Cabriolet



Ford Cars Write a Romance of Transport



CLIMBING THE DIENG PLATEAU: A Ford Phaeton fought its way to where no motor car had been before in conquering the summit of one of Java's greatest mountains, climbing the Dieng Plateau, 8,600 feet above sea level. The summit revealed numerous wonderful old Hindu statues which have stood for centuries undisturbed. Before the Ford's climb, tourists had been forced to ascend part way up the mountain on horseback and climb the rest on foot. The photographs show the sharply pitched incline which the Ford car was forced to mount.

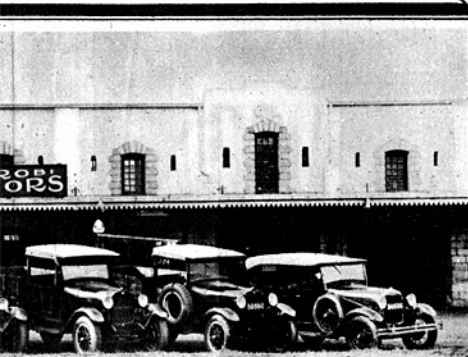


NATIVE POLICE OF KENYA COLONY in East Africa use a Ford ambulance in their first aid work. The photograph shows the ambulance with special body and native police in command of their British officer.

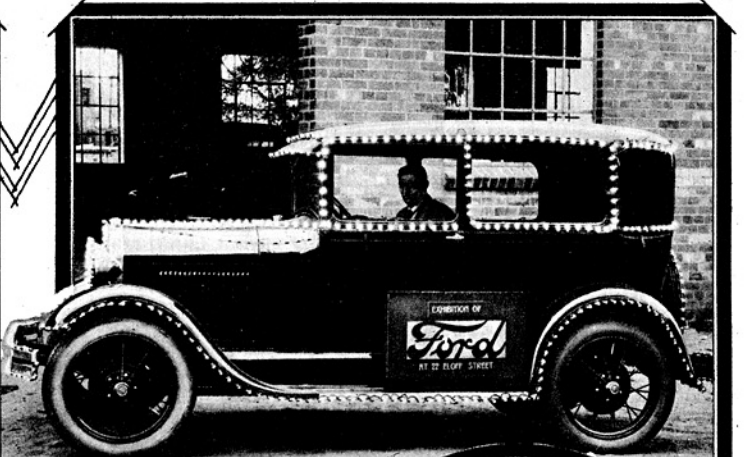


THE PHOTOGRAPH shows some of the arduous traveling of an Italian scientific expedition which is blazing its way from Milan and straight through Africa and return. The Ford trucks carrying the expedition

Transportation in Far Away Corners of the World



WHEN H. R. H. THE PRINCE OF WALES set out on his recent safari into East Africa his equipment and part of his party traveled in these Fords. The Ford equipment supplied to the Prince by Nairobi Motors, Ford dealers at Nairobi, Kenya, included four trucks, one light delivery car and one phaeton. The Ford equipment performed without a single failure during the hunting trip.



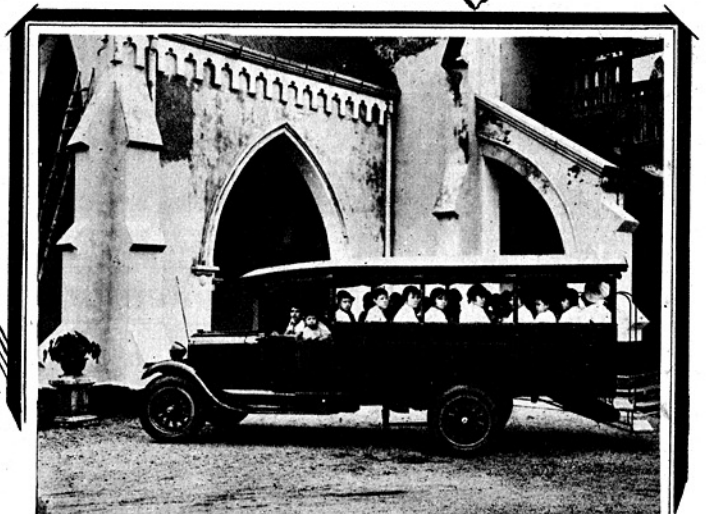
WHEN THE FORD DEALERS AT JOHANNESBURG, SOUTH AFRICA, prepared for their recent exhibition a Ford Tudor was outlined in tiny electric lights, the string following the lines of the fenders and splashboards, the bumpers, rear tire, the lamps and the upper lines of the body. The above photo shows how the car appeared in the daytime. Below is a night photograph revealing how the car appeared to exhibition visitors at night.



NOT ONLY ROAD TRAFFIC but also a Ford delivery truck were blocked when British troops halted the march of Mrs. Naidu, India's Joan of Arc, upon the salt works at Dharsana. With her party of Nationalists Mrs. Naidu, comfortable in a big chair, remained obstinately in the middle of the road for twenty-eight hours, while traffic was demoralized. Eventually the Feminine Nationalist leader was arrested.

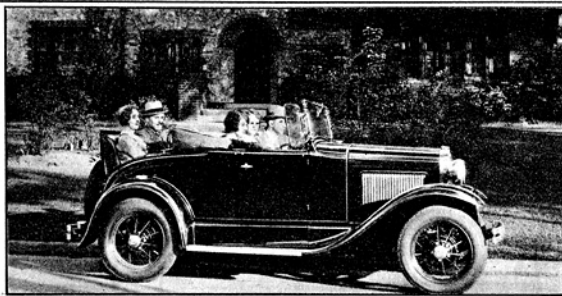
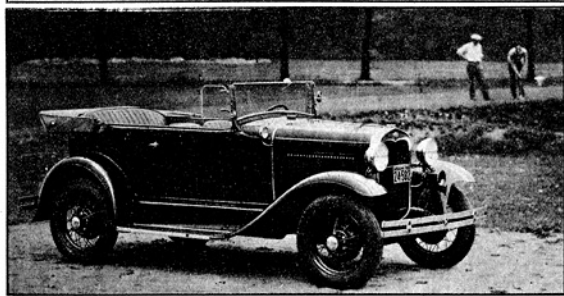


Conditions encountered by Commandante A. Gatti and the members of the expedition were forced to ford raging streams and to battle their way through the densest jungle.



REVISE WHATEVER OPINIONS you may have had of the Malay Peninsula. For here is a common scene in the Straits Settlements, a group of young misses aboard a Ford bus, headed for a convent school in Malacca, each with her shiny portmanteau and garbed in accord with the raging vogue of winter beach resorts—pretty, flowered pajamas!

De Luxe Phaeton, Roadster Ideal for Summer Driving



Tribute is Paid By Sportsman

Commander Kidston Reports Ford Equipment Ideal for African Safari

Lieutenant Commander Glen Kidston, Millionaire British sportsman, racing motorist, big game hunter and air man, has just returned from a 4,000-mile safari in East Africa, frankly astonished at the performance against "incredible" odds of four Ford cars which hauled his equipment.

Lieutenant Commander Kidston is famed for his almost miraculous escapes from death. He was the only survivor of the crash of the German passenger plane which was wrecked and burst into flames last year when it struck tree tops in Surrey after departing from Croydon for a cross-channel flight. On another occasion, his racing automobile, traveling at high speed, struck a telegraph pole, yet he escaped with only a few bruises.

"Having just completed my safari, I feel I must tell you of the wonderful behavior of the four Ford light deliveries which I purchased from you last year," Lieutenant Commander Kidston wrote Nairobi Motors, Limited, at Nairobi, Kenya Colony.

"I motored almost 4,000 miles over Kenya, Tanganyika and Uganda on safari and I thought I had a pretty good idea of what a car would do. Frankly, however, I have been astonished by the remarkable and unflinching performance these four little cars have put up.

"Loaded right up, if not more often grossly overloaded on account of cars of another make being bogged and their loads having been transferred, these cars have been driven through incredible places, suffering the most violent joltings without murmur. The Nairobi-Kilimanjaro road has regularly been reported as 'impassable' for almost the past two months, yet these cars have managed to get through, passing other cars bogged, stuck in rivers, and in many cases, giving them a helping hand.

"I have driven cars in Canada, Australia, New Zealand, China and other countries, and am acquainted with the grueling they are generally put to, but the performance of these four little cars has been a revelation and I want nothing better."



Lieutenant Commander Glen Kidston, millionaire British sportsman.

PRECISION METHODS GOVERN PRODUCTION

The unusual accuracy with which mechanical parts are made and assembled is an important factor in the good performance of the Ford car.

The aluminum pistons are held true to within one one-thousandth of an inch of the specified diameter. The connecting rod is not permitted to exceed a variation of more than four one-thousandths of an inch in length. Every crankshaft is statically and dynamically balanced, with a minimum of 174 checks for accuracy.

It is a simple statement of fact to say that few cars at any price are made to more exact measurements than the Ford car.

Ford Trucks Help to Dig Windsor-Detroit Tunnel

Ford trucks equipped with dump car bodies aided in the construction of the great Windsor-Detroit tunnel under the Detroit river, which is expected to be thrown open to international traffic late next Fall. The trucks were utilized in hauling away the excavated material from the Windsor entrance and also in other haulage jobs in connection with the tunnel construction. A photo of the Ford trucks at work in the Windsor entrance excavation is shown on page 7.

FINISH CRANKSHAFT BY NEW METHODS

Bearing surfaces of the Ford crankshaft are being polished to a much finer degree as the result of the development of machines that finish all seven main and connecting-rod bearings in a single operation, say officials of the Ford Motor Company of Canada, Limited.

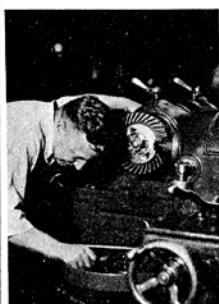
After the crankshaft has received its final grinding and has been statically and dynamically balanced it is placed in a specially built lapping machine which has seven arms—one for each bearing. Each arm holds six very fine lapping stones or hones which clamp around the bearings under heavy pressure. The shaft is rotated and also oscillated until no roughness from the grinding operations remains.

To insure an absolutely smooth and bright finish, the shaft is then placed in a similar machine which holds an extra fine polishing paper instead of the lapping stones. Again it is rotated and oscillated after which the bearings are cleaned and inspected.

This process gives the bearings a mirror-like smoothness which reduces friction and makes easier the breaking-in period of the car. The polishing paper used in the second machine is fed automatically so that there is a fresh supply for each crankshaft. This, with the oscillating motion, permits a more uniform finish than was possible under the old method of polishing each bearing separately on a revolving wheel.



All Crankshaft Bearing Surfaces Finished in one Operation



Matching of Rear End Gears Insures Quiet Operation

FORD BRAKES PROVE UNUSUALLY RELIABLE

One of the first things noticed in driving the Ford car is the quick, effective action of its four-wheel brakes. They are unusually safe and reliable because they are mechanical, internal expanding, with all braking surfaces fully enclosed. This prevents mud, water, sand or snow from entering the brake mechanism or getting between the band and drum and interfering with brake action.

A further improvement is effected by the self-centering feature—an exclusive Ford development. Through this construction, the entire surface of the brake shoe is brought in contact with the drum the instant the brake pedal is pressed. This prevents screeching and howling and insures silent operation.

Tank Cap is Larger

The cap on the gasoline tank of the improved Ford cars is slightly larger than the radiator cap. This prevents the possibility of the radiator cap being placed on the gasoline tank and retarding the flow of gas by cutting off the intake of air.

Larger Hub Caps Used

Hub caps of the new Fords are of flat design and about twice as large as those in the original Model A Fords. They are of rustless steel.

Standards of Service Rigid

Policy Features Quality of Parts and Flat Repair Rates

It is a fact seldom recognized by the public that the modern automobile age has been made possible largely through the development of maintenance services. For, obviously, without garages and service stations, half of the motor-cars in the world would not be operating at their best efficiency within a very short time.

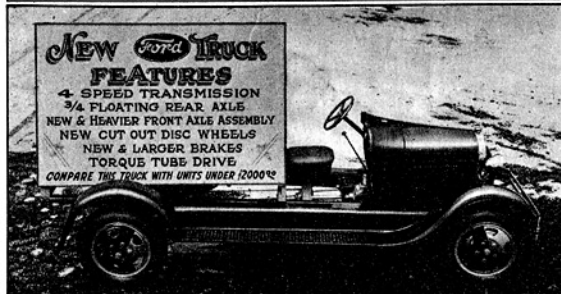
The world-wide distribution of authorized Ford agencies where owners of Ford cars can obtain uniform parts and uniform service is one of the greatest assets of the Ford Motor Company of Canada, Limited. Twenty years ago the difficulties of maintaining an automobile in running condition were far greater than now. There was, at that time, no far-flung chain of authorized service stations where genuine parts and uniform maintenance service could be obtained.

The controlled service, as it has now become known, was founded upon the initial business principles which actuated Mr. Ford, namely, that his obligation to car purchasers did not end with the sale. Just as the Ford Motor Company of Canada, Limited, was a pioneer in the making of a strong, simple, satisfactory automobile at a low price, so it also was a pioneer in establishing complete and satisfactory service facilities. Provision for speedy purchase of parts and repairs at a reasonable cost were the innovations of that service.

Mr. Ford was one of the first to protect the owners of his cars against extortion by instituting a set of flat rate labor charges.

There are today more than 700 Ford dealers in the Dominion whose mechanics have been trained in special schools conducted by the Ford Motor Company of Canada, Limited, and who are equipped with the latest service machinery. No matter in what section of the Dominion the car owner may find himself, there is a Canadian Ford dealer prepared to render prompt and business-like service at fair charges.

Truck and Tractor Feature Commercial Line



Improvements In Ford Truck

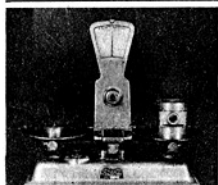
Increased Interest Shown at Shows in Commercial Car Models.

Automobile shows in Canada this year have witnessed universally an increased interest in the commercial exhibits. Visitors appear to have become more alert to the possibilities for greater utilization of motor transportation in business and agricultural activities.

In each city, attention has been centered about the improved Model AA one-and-one-half ton Ford truck chassis. Improvements in the Ford truck include, among others, the new four-speed transmission, the spiral level gear rear axle which is of the three-quarters floating type, larger and stronger front axle and springs, the torque tube drive and larger brake drums. The entire chassis also has been strengthened.

The four-speed transmission gives drivers of the Ford truck ample road speed for rapid, efficient transportation, together with an improved low-speed pulling power sufficient for moving capacity loads out of pits or on soft ground. The new transmission is of the standard, selective gliding-gear type, providing four speeds forward and one reverse. Ball and roller bearings on both shafts reduce wear and friction and add greatly to the life of the transmission. There is a large size outlet on the right side of the transmission case for power take-off.

The new rear axle is of improved construction and has a spiral level gear. It is of Ford truck design with straddle-mounted pinion. Entire weight of truck and load is carried on the housing. This means that axle shafts serve only to turn the rear wheels. The new front axle is nearly twice as strong as formerly.



**Weighing Machines Insure
Accurate Balancing of Pistons**

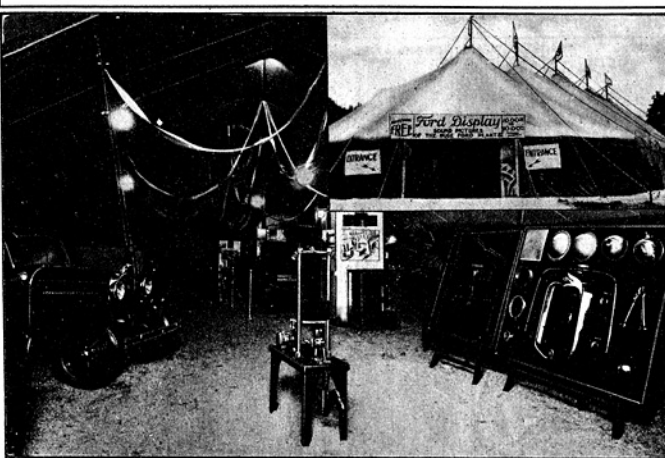
The front spring is heavier with wider leaves. The center cross member of the frame which takes the driving thrust transmitted from the rear wheels, also has been strengthened.

Another major change is to be found in improved braking power. Brakes are larger, the braking surface having been increased to 47 1/2 square inches. All brakes are fully enclosed.

An improvement that will prove of considerable economy and convenience to the truck driver is the dual rear wheel feature, designed to make the steel disc wheels interchangeable.

The principle of the famous torque tube drive used on the Ford chassis permits all strains and drive to be taken up by the tube that surrounds the driving shaft.

Talking Movie Features Ford Show



The two views above give a glimpse of the Ford show, touring the provinces, where, under canvas thousands are viewing displays of new Ford car and truck models and various manufacturing methods. A talking movie of a visit to the Ford plant is shown. One of the special displays is a Ford cutaway chassis.

PISTONS ARE FINISHED TO VERY FINE LIMITS

Pistons for the Ford car and truck are being finished automatically to within very fine limits of weight as the result of the development of a new machine by engineers of the Ford Motor Company of Canada, Limited.

To insure smooth performance and to make possible mass production, every moving part must be manufactured to very definite specifications. No part is any more important in this respect than the piston which must be as exact in size and weight as possible.

Ford aluminum pistons, completely finished except for weight, reach the new machine all slightly over-weight. They leave it, each weighing within two grams of any other piston—and a gram is but one twenty-eighth of an ounce.

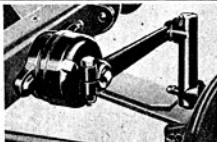
The operator places a piston upon a delicate scale to determine the amount of its overweight. On top of the machine is another scale which is in mechanical contact with a so-called "chip cup." The operator sets the machine scale to a reading corresponding with the overweight of the piston.

The piston is placed in position, the machine started, and metal chips bored from inside the piston drop into the cup. When the weight of the chips equals the overweight of the piston, boring automatically stops.

The whole operation requires but a few seconds.

Chassis dimensions are over-all width across rear hubs, 60 1/2 inches; over-all width across dual wheel tires, 74 1/2 inches; and over-all length, 183 1/2 inches. The wheel base measures 131 1/2 inches. The turning circle of the truck is 46 feet. Fuel tank has a capacity of eight Imperial gallons.

The Canadian Ford Model AA truck comes in three types, one of



**Four Houdaille Shock
Absorbers Assure Easy Riding**

ALLOWANCE ON USED CARS

Continued from page 3, col. 5

Ford, the low charges for selling, financing and accessories, and the lower cost of operation, service and replacement parts. The profits of the Ford dealer are not marked up or increased to cover a high allowance on a used car.

Furthermore, at least \$75 extra value is given the new car buyer in the new Ford in the shatterless glass windshield, the rustless steel, the five steel-spoke wheels and the four Houdaille double-acting shock absorbers. The unusually large number of ball and roller bearings and the extensive use of fine steel forgings instead of castings or stampings, are other features that show the extra quality built into the Ford car.

which is adapted to practically every demand. Three distinct types of truck are available—a speedy, attractive light delivery, a standard one-and-one-half ton truck for general haulage and a heavy-duty one-and-one-half ton model with 9-speed transmission. Prices are low, in accordance with established Ford policy. In addition to the Ford one-and-one-half ton truck chassis, there is a commercial car chassis to meet light-delivery requirements. A wide range of body types is available for each model.

SHOCK ABSORBERS AID EASY-RIDING

One of the fine things about driving the Ford car is the way it covers long distances without strain or fatigue to the rider. No matter how long the trip, or rough or tedious the highway, it will carry its passengers safely, quickly, comfortably to the journey's end. The restfully tilted seats are generously wide and deeply cushioned. The backs of the seats are carefully designed to conform to the curves of the body.

Furthermore, every Ford car is equipped with four Houdaille double-acting hydraulic shock absorbers and specially designed transverse springs. Even bad stretches may be taken at a reasonably fast pace without hard jolts or bumps or the exaggerated bouncing which is the cause of most motoring fatigue.



**Maintenance Service Great
Asset of Ford Organization**

Rustless Steel Used

Rustless steel which retains its inherent brilliance for the life of the metal is used in many of the exposed metal parts of the new Ford body types.

FORD CHIEF TOURS WEST

Continued from page 1, col. 5

miles to Winnipeg. Leroy Manning, chief of aerial operations of the Ford Motor Company, who was pilot of the plane, steered a straight course for St. Paul, crossing Lake Michigan at 7,000 feet altitude. The lake was so calm that the flying party was able to discern the wake of a lake freighter for fully 50 miles. While over the middle of the lake both shores were visible.

At St. Paul, Mr. Campbell was the guest at luncheon of the Association of Commerce, the flight to Winnipeg being continued in the afternoon with Charles (Speed) Holman, famous stunt pilot, and chief of operations of Northwest Airways, accompanying the party.

At Winnipeg, Mr. Campbell was welcomed by His Honor J. D. McGregor, lieutenant-governor of Manitoba, as well as numerous city officials and a crowd of several thousand persons. After a day spent in inspecting the Ford branch plant, Mr. Campbell predicted in his address before the Industrial Development Committee that the branch plant would be replaced at an early date by a new plant with more adequate facilities for serving the Prairie provinces. The following day the party flew to Regina via Brandon and Virden, large crowds greeting the party in each town, it being the first visit of a Ford tri-motor plane to Western Canada, outside of Winnipeg.

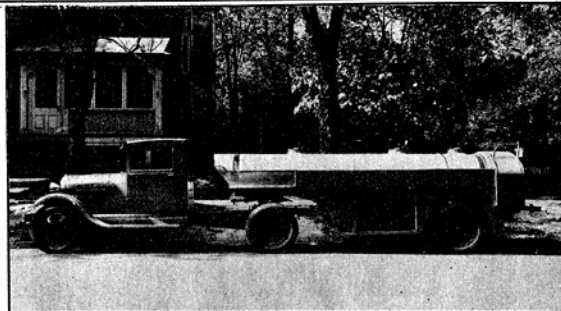
After a day spent in inspecting facilities in Regina and meeting with dealers, Mr. Campbell and his party took off for Moose Jaw in the face of a 30-mile blow which was severely damaging wheat at Regina. The party was able to proceed to Moose Jaw but on attempting to continue north the plane ran into a violent sandstorm and was forced back to Regina, where the party was weathered out for two days.

The weather clearing, Mr. Campbell and his party continued its flight from Regina to Edmonton on Sunday, June 15, stopping at Saskatoon and North Battleford en route, where large holiday crowds greeted the party. During the flight as far as North Battleford, Miss Edna Newlands, daughter of the lieutenant-governor of Saskatchewan, accompanied the party and for part of the time took the controls of the plane. She is a licensed pilot.

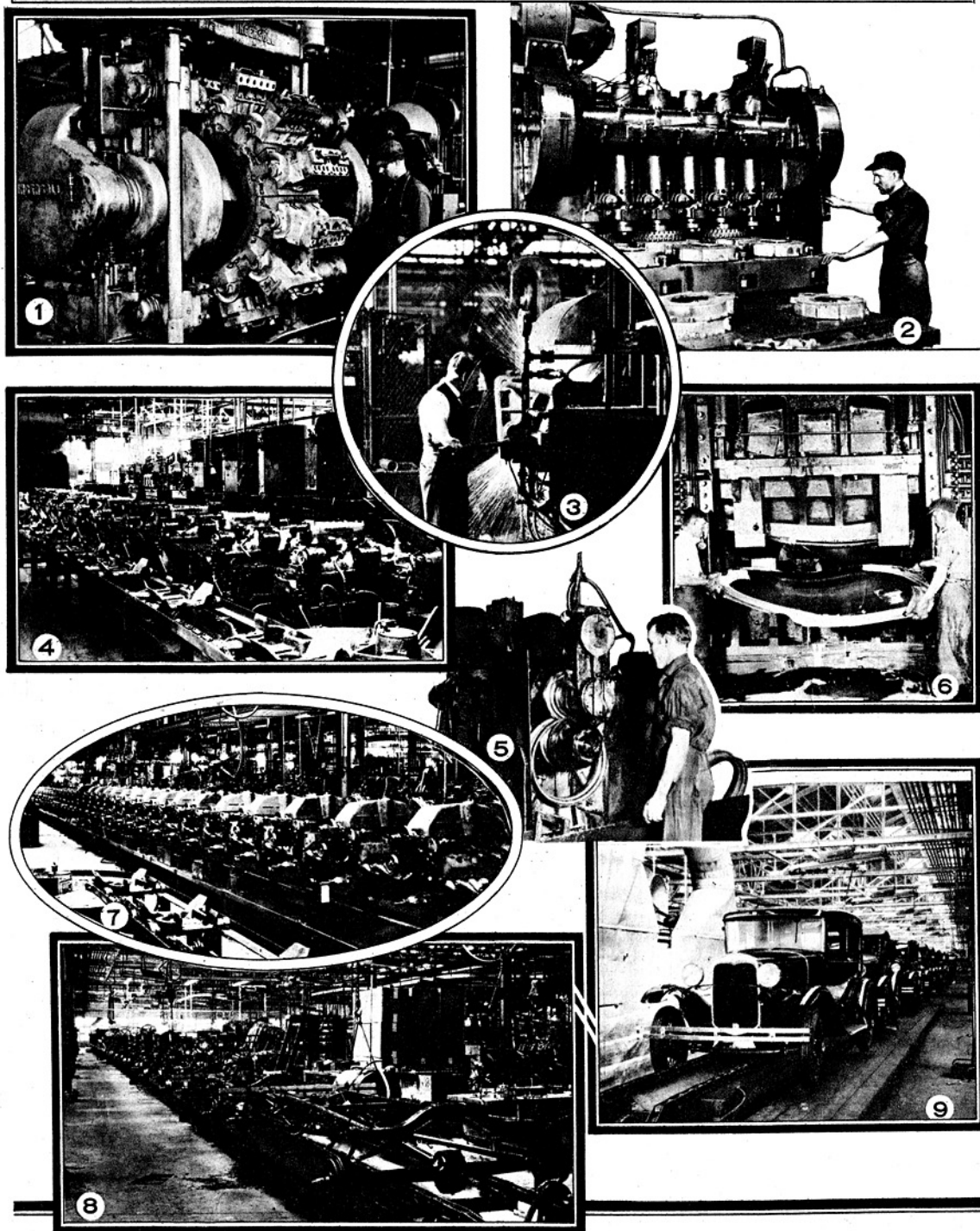
One of the largest crowds during the tour greeted the party at Edmonton, where it was estimated that during the day's stay more than 40,000 persons trooped to the airport to view the plane. His Honor W. G. Egbert, lieutenant-governor of Alberta, was one of those who were guests of Mr. Campbell on flights over Edmonton during the plane's stay there. It was His Honor's first flight and so pleased was he that he readily accepted Mr. Campbell's invitation to accompany the party on the flight to Calgary last Monday.

The flight to Calgary was made an hour after the dust storm which had ripped through the north end of the province for several days had abated, the party being greeted at Calgary by another throng of persons, who rushed to the airport as soon as the plane was spied over the city. Before landing Pilot Manning thrilled the crowds with a demonstration of aerial maneuvers which put the big plane through a series of banks and turns, sometimes almost hanging on its wings tips.

Ford Trucks Dig Tunnels, Haul Heavy Oil Loads



PRECISION METHODS OF MANUFACTURING NEW FORD CARS



The operations pictured above tell only part of the story of how Quality is built into the new Ford cars. (1) Giant machines mill ends of cylinder block. (2) Specially designed machines which mill the front surface of the fly wheel housing. (3) The sparks fly as the wheel rims are butt welded. (4) A long row of Ford engines on block tests. (5) Another machine shapes the wheel rims. (6) Giant presses form front fenders from blanks of sheet steel. (7) The motor assembly line in operation. (8) The chassis frames start on the final assembly line from which (9) completed Ford cars are driven off under their own power.