

NEW FORD TRACTOR OF ORIGINAL DESIGN

Machine Is Light in Weight and Has High Speed of 2.83 Miles Per Hour.

FACTORY OUTPUT 50 DAILY

No Price for Tractor Is Yet Announced and First Ones Made Will Be Turned Over for Use of Great Britain.

The tractor built by Henry Ford and his son, Edsel, and which is now ready for production at the rate of 50 vehicles a day, according to official announcements made last week in the leading magazines, represents many original features in farm tractor engineering and gives an indication of what points of design the motor car industry may carry into the tractor field.

Many of the principles Ford has championed in the motor car field are seen in the tractor, notably that of light weight, the tractor scaling at 2500 pounds, whereas tractor weights with few exceptions average double that much. Design is largely for economy in this low weight in that many parts used in other tractors have been eliminated; thus there is no frame because the motor, axle and transmission are bolted to the other, forming a bridge construction which takes the place of the frame. The radiator bolts to the engine, so that necessary connecting pipes and tubing are eliminated; there is no water pump, there is no oil pump; then alloy steels are used through many parts, giving lighter construction, and lastly the design in which relatively small driving wheels are used results in large weight reductions.

The rear wheels are but 42 inches in diameter and the front wheels 28 inches. Many tractors have 60-inch wheels and larger wheels. When it is remembered that a 60-inch tractor wheel may weigh 850 pounds and that the four wheels of such a tractor may weigh approximately 1700 pounds, you gain some conception of what Ford gains by smaller wheels, when you recall that his entire machine weighs but 2500 pounds.

The present Ford machine is a development of the one demonstrated at the Fremont, Neb., plowing demonstration a year ago, when it was first exhibited and demonstrated to the public. Since that time little has been heard of it, but it is known that changes have been made and unquestionably the experience with the tractor in Europe and hastened alterations. Several thousand of the first produced will be absorbed by the British government.

In a word the Ford is a four-wheel machine, driving through the two rear wheels and steering through the front ones. It uses a four-cylinder engine multiple-disc clutch, a three-speed and reverse gear, a worm-driven rear axle and is particularly conspicuous in the tractor field in that everything is inclosed, which in much variance with much tractor design today. Nothing is more necessary than having all parts inclosed, and the motor in that the machine is very often working in a constant cloud of dust. It starts on gasoline and burns kerosene.

Price is unannounced. At present no price is announced, but from the construction it is seen that the machine will not be an abnormally low-priced job. The expense is spared is shown by the very general use of the finest annular ball bearings as well as alloy steels. The aim of Henry Ford has been to build a good, serviceable machine, a handy type as well, in that it can turn in a circle with a radius of 21 feet and works with a draw-bar pull of 1200 pounds. This makes it a two-mow machine for working on intermediate speed of 2.7 miles per hour. It is claimed to have a 25 per cent reserve power, which means that at standard. The machine has a high speed of 2.83 miles per hour.

Ten years ago Henry Ford conceived the idea that a light farm tractor, differing within reach of the average farmer, would prove to be one of the greatest boons to the country. At the same time he had two other ideas, one that an economical sawmill would also be a great boon and the other that a low-priced motor car incorporating good materials and the elements of reliability would make a great manufacturing success.

Fate decreed that he should make the motor car and the success which he has achieved with it is well known. During the years that Henry Ford had been making cars and millions the idea of the tractor has never left him. Three years ago he started accurate experimenting on ideas which he had taken up from time to time during the previous years, and the results of these experiments in the engineering laboratory and on the farm are just about ready to enter the final stage of production.

AUTO PROVIDES LIGHT HEAD LAMPS ILLUMINATE INDIAN WAR DANCE

Sam Maffet Has Unusual Pleasure on Umatilla Reservation; Wrestling Match Is Staged, Too.

The novelty of furnishing through the headlights of his Liberty car the only illumination for the Indian war dance and thrilling wrestling bout held recently on the Umatilla Indian reservation 18 miles from Pendleton was enjoyed recently by Sam Maffet, territory man for the firm of Mitchell & Wallingford, Oregon distributors for the Liberty six and the Premier car.

While he was making the Umatilla territory, Mr. Maffet learned of the big time that was to be held on the reservation and thought he might as well spend the night. The plan was that a wrestling match was to be held on the dark but for the lights of the Liberty six. "I have never in all my life seen quite such a wrestling match as the one between the negro and Indian who were pitted against each other that night," said Mr. Maffet last week. "Both of them were game to the core, but the negro seemed to be the stronger and finally won out but not until after he had broken the red man's shoulder. After that the negro challenged all comers for another match but no one undertook to throw him. There was considerable betting among the cow boys prior to the match and a good deal of money changed hands over the result of the contest."

OREGONIAN REPORT ON ROADS

Table with columns: Route, Miles, Condition. Includes entries for Portland South via Pacific Highway to California Line, Portland to Oregon City, etc.

Table with columns: Route, Miles, Condition. Includes entries for Portland North via Pacific Highway to Seattle, Vancouver to Woodland, etc.

Table with columns: Route, Miles, Condition. Includes entries for Beaches and Coast Districts From Trunk Highway Points, Portland to St. Helens, etc.

Table with columns: Route, Miles, Condition. Includes entries for PORTLAND TO ASTORIA AND SEASIDE VIA LOWER COLUMBIA HIGHWAY, Forest Grove to Timber, etc.

Table with columns: Route, Miles, Condition. Includes entries for McMinnville to Tillamook, Grand Ronde to Tillamook, etc.

Table with columns: Route, Miles, Condition. Includes entries for DALLAS TO NEWPORT, Roseburg to Marshfield, etc.

Table with columns: Route, Miles, Condition. Includes entries for COOS BAY TO CRESCENT CITY, Crescent City to Grants Pass, etc.

Table with columns: Route, Miles, Condition. Includes entries for Columbia River Highway, Hood River to The Dalles, etc.

Table with columns: Route, Miles, Condition. Includes entries for Other Cross-State Roads Running West to East, Government Camp to Wapinitia, etc.

Table with columns: Route, Miles, Condition. Includes entries for The Dalles and Points East and Northeast, The Dalles to Wasco, etc.

Table with columns: Route, Miles, Condition. Includes entries for The Dalles South, Tygh Valley to Shaniko, etc.

CAMPIGN TO SAVE GASOLINE'S BEGIN

Garage Men and Auto Owners and Dealers to Be Asked to Conserve Fuel.

ARMY AND NAVY NEEDS BIG

Volunteer Stoppage of Wastage Is Desired and Drastic Action by Government Is Not Expected to Become Necessary.

To guarantee ample fuel for Army and Navy needs the legitimate requirements of motor car users, the National automobile organizations have begun their "save gasoline" campaign among garages, dealers and owners.

Co-operating in the movement are the National Automobile Chamber of Commerce, Society of Automobile Engineers, Motor and Accessory Manufacturers and the American Automobile Association, with its membership of clubs and individual owners.

In his announcement Van H. Manning, director of the Bureau of Mines, says it is estimated the United States Army will need 350,000,000 gallons of gasoline for airplanes, trucks, tractors, etc. He says: "Automobile owners need not lay up cars, but should use them either for trade or pleasure purposes thoughtfully and judiciously. If this advice is followed, there will be no undue scarcity, for the United States produces an abundant supply for ordinary purposes."

Drastic Action Unlikely. In the opinion of Chester Naramore, chief, and John H. Wiggins, of the petroleum division of the Bureau of Mines, and of many oil producers and refiners, the gasoline situation, while it must be viewed seriously, is not such as to indicate probable need for drastic action by the Government or the suspension of the customary useful operation of passenger automobiles, yet it is the patriotic and unselfish duty of owners to use gasoline with utmost economy. It is not a question of saving money spent for gasoline, but of saving gasoline to prevent an increase in price, but of conserving the fuel itself so there will be ample for war needs.

The situation in this country is not like that of England, because England is entirely dependent upon imports for her gasoline supply, whereas the United States is a large producing country and exports great quantities of oil and gasoline. During the fiscal year ended June 30, 1917, the United States exported 425,705,139 gallons of gasoline and naphtha, as compared with 29,772,892 gallons in the previous fiscal year. Her exports of crude, illuminating, lubricating and fuel oils, residuum and other mineral oil products, from 1916 to 1917, totaled 1,212,000,000 gallons in the 12 months ended June 30, 1916, to 2,222,735,304 gallons during the last fiscal year.

During the fiscal year of gasoline refined in this country last year, about one-half was used in the 2,500,000 motor vehicles in use. Even if only 25 per cent of the gasoline used by motorists, this will amount to more than 125,000,000 gallons in the next 12 months.

Saving Is Easy Matter. Such a saving is easy to accomplish, according to the National Automobile Chamber of Commerce, without entailing hardship on anyone and with actual benefit to the motorist. The saving in fuel and the cost thereof. By more careful adjustment of carburetors, cleaning of cylinders, tight packing of pistons, the cars will run better, develop more power and generally give more satisfaction.

Adjustment Is Advised. 1—Have carburetors adjusted to use lean mixture posts can be combined to avoid carbon deposits. 2—See that piston rings fit tight and cylinders hold compression well. Leakages of gas cause fuel economy.

3—Stop all gasoline leakage. Form the habit of shutting off gasoline at the tank when standing. 4—See that all bearings run freely and are well lubricated—friction consumes power and wastes gas. 5—Protect the radiator in cold weather—a cold engine is hard to start and is short in power. 6—Keep tires fully inflated—soft tires consume power. 7—Do not drive at excessive speed. Power consumption increases at a faster rate than speed. Every car has a definite speed at which it operates with maximum fuel economy. 8—Change gears rather than climb hills with wide open throttle—it saves car and gas.

9—Do not use cars needlessly or aimlessly. By exercise of forethought a number of errands can be combined on one trip to town or elsewhere. 10—Reduce the amount of riding for mere pleasure by shortening such trips or cutting down their frequency. Congressional Action Wanted. The Government is not contemplating any drastic action to compel car owners to give up riding for pleasure or recreation, and if there is a general and concerted effort to save gasoline it is believed there will be ample to meet all reasonable requirements. Congress will be urged to modify regulations surrounding the manufacture of industrial alcohol so that distilleries which are prohibited by new food law from manufacturing whiskey can produce alcohol from things other than cereals to sell cheaply in competition with gasoline for fuel purposes. Farmers can produce it from waste products. New oil field and refining processes and a persistent campaign of economy are expected to help the fuel situation to the benefit of the Government and all other users.

Packard Sales Increase. An increase of 19 1/2 per cent in motor carriage sales for the first four weeks of the new season over the same period of the last fiscal year is announced by George R. Bury, assistant general sales manager of the Packard Motor Company. The year of August 1, 1916, to August 1, 1917, was the greatest in the history of the company.



Insure Your Battery's Health

Get a Willard Service Card and use it. It entitles you to semi-monthly testing by battery experts. It insures the health and satisfactory performance of your battery, because frequent and regular hydrometer tests detect battery troubles before they are big enough to make trouble.

This battery health insurance policy is yours for the asking. Come in for it.

AUTO ELECTRIC EQUIPMENT CO. Sixth and Burnside Sts. Broadway 1073



DEALERS TO GO TO FAIR

MANY PORTLAND AUTO MEN TO VISIT GRESHAM THURSDAY. Parade in This City Will Precede Start for Exhibition Portland Day to See Special Programme.

The Dealers' Motor Car Association will participate in the Portland day programme of the Multnomah County Fair at Gresham next Thursday. The association has accepted an invitation of the board of directors and Senator H. A. Lewis to give a monster parade of automobiles Thursday noon about the principal streets of Portland and then drive to Gresham to attend the fair for the afternoon.

Campbell's American band of 17 pieces will lead the parade in a motor truck, and the dealers with their friends and prospects will follow. It is expected that 60 cars will be in line at the start. Cars will assemble at the North Park blocks, Park and Couch streets, Thursday at 11:30 A. M., and the parade will move promptly at 12 o'clock.

A special racing programme for Portland day has been provided, consisting of a 2200 trot, 214 pace, one-half mile run, one mile run and a one-half mile run of Shetlands. The races will start immediately upon the arrival of the auto train at Gresham.

All automobile owners who expect to attend the Gresham Fair are requested to have their machines at the assembly point at 11:30 Thursday, when places will be assigned to them for the parade.

A committee probably will be appointed at the Monday night meeting of the Dealers' Association to take charge of the transportation of the band. Auto owners may obtain further information by telephoning Main 2166. As much as Mayor Baker has proclaimed Portland day a holiday, it is expected that a record-breaking attendance will attend its way to Gresham Thursday.

TIRES STAND UNUSUAL TEST

Car Leaps 51 Feet to Prove Durability of Parts. If you can imagine a dead weight of 16,000 pounds—say eight tons of lead—dropping a distance of eight feet to the pavement, with its fall checked and withstood wholly by four automobile tires, you can grasp just half of the blow that was given to the United States chain-tread tires on a Maxwell touring car when it recently made a sensational leap of feet in the downtown section of Newark, N. J. The astonishing jump was made with P. W. Gibbs, road engineer for the Maxwell Motor Company, at the wheel. His performance was for the purpose of proving Maxwell durability and quality. In doing this he subjected his United States chain-tread tires to the most convincing test of toughness that a tire ever has been put to.

ENTRANCE FEE ELIMINATED

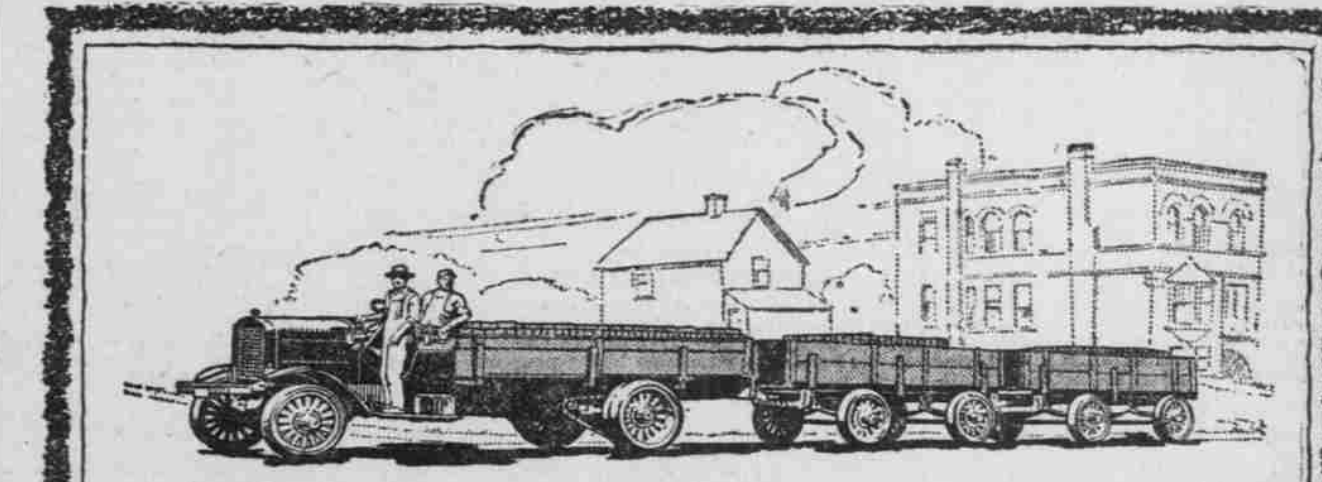
Directors of Motor Association Act to Increase Membership. As the first step toward an active membership campaign, the directors of the Oregon State Motor Association have decided to eliminate the entrance fee entirely and to make a standard charge of \$15 for those joining under the new arrangement. This fee will pay all dues up to January 1, 1918. The directors feel that an increased membership is necessary if the plans of the association are carried out to the best advantage.

BUYING EARLY SAVES MUCH

Hudson Company Will Have to Increase Price When Stock Goes. "Fifty-one motor cars have advanced their prices within the past few months," remarked C. L. Boss, local Hudson dealer last week. The advances are big—from \$200 to \$700. Visitors to my show rooms have asked me, with some show of suspicion, whether this general rise was not the result of an agreement to advance prices on the part of manufacturers and, if so, why had not the Hudson Super-Six advanced with the others. "Of course, the real situation is that these other manufacturers were forced to raise their prices because of the advances of raw materials. And the Hudson Super-Six escaped the necessity for advancing price because the Hudson Company bought its raw materials at the market of a year ago, when prices were less than half what they are now."

"When our present stock is exhausted, and it is vanishing rapidly, the Super-Six, too, will have to advance its prices."

There are 15 technical colleges in Queensland, with 8000 students in attendance.



Salt Lake Pressed Brick Co. run 6 5-ton TROY TRAILERS in trains of two or three to the truck. They realize that TIME is the big element in keeping transportation costs down.

"Troy Trailers"

The average truck owner figures that when his truck is carrying its RATED CAPACITY, it is working at 100% efficiency, and that in order to carry double the amount at the same time, he must use another truck of the same capacity. The fact is, when your truck is full it is nearly EMPTY, for it can easily haul as much again as it can carry—and at less cost. TROY TRAILERS manufactured by The Troy Wagon Works Co., Troy, Ohio, are made in capacities from 5 to 5 tons, and with any type of body. They are built for use as a single trailer or in trailer trains. They are reversible, and therefore can be backed up to any loading platform, or backed into any alley, as easily as if they were being moved forward. Tell us what your hauling problems are; what trucks you now operate, and we will advise you as to the best way to solve your delivery problems. QUIT PILING AND START PULLING. We know that YOUR truck, on your particular job, will pull on a Troy Trailer more than the rated capacity of your truck, and carry its full rated capacity AT THE SAME TIME. This is because every truck has, in addition to its carrying capacity, another and far more important power—DRAW-BAR PULL, or PULLING power. HODSON-FEENAUGHTY CO. Northwestern Distributors PORTLAND, OREGON