

OLD TYPE MOTOR COMES TO FRONT

Diesel Proves Successful in German Trucks—Fuel Cost Lessened

A type of motor, long used in stationary and marine work, is threatening the supremacy of the spark plug and carburetor type engine now in general use for automobiles, according to reports made at the recent meeting of the society of automobile engineers in Detroit.

This engine, the Diesel, has proved successful on a number of trucks in Germany, is about to be manufactured for such purposes in the United States, is seriously being considered for aircraft and for automobiles, and is asserted to operate under one-fifth the fuel cost of the present type of automobile motor, in as much as it uses fuel oil.

Unlike the conventional automotive engine, says a writer for "Motor," a trade magazine, it has no carburetor, no throttle and no ignition system, although in other respects it resembles current designs. The article continues:

When the intake valve opens the piston draws in a charge of pure air which is then compressed to a pressure of about 350 pounds, this high compression heating the air to a temperature of several hundred degrees. When the piston nears the top of the stroke a measured drop of fuel oil is shot into the cylinder at high pressure and tremendous velocity, almost immediately being mixed, vaporized and ignited by the hot air.

Each Has Fuel Pump Each cylinder has its individual fuel pump, with a pipe running from the pump to the nozzle in the combustion chamber, the four pumps being mounted in a housing on the left side, and driven from the timing gear train.

The amount of fuel injected determines the power of the explosion, the compression pressure remaining constant regardless of whether the load of the engine is heavy or light. In other words, instead of using a throttle to control the vehicle on the road, the "throttle" lever or accelerator pedal varies the amount of fuel injected. As the speed increases, the fuel must be injected somewhat earlier, and another lever taking the place of the spark advance, controls this feature. Pump stroke and pump timing are both regulated by a cam and lever mechanism within the pump housing.

To start the engine, it is rotated

by an electric starter, with the compression relieved from three cylinders. As soon as the fourth cylinder starts firing the other three cylinders are cut in.

Safety Valve A safety valve is provided in each cylinder in case of excessive pressure. An air heater is installed for warming the air in very cold weather. In other respects the engine follows current automotive practice except that it is somewhat heavier throughout because of the greater compression and combustion pressures.

Before discussing this engine in more detail, it is worth pausing a moment to review briefly the history of the Diesel. Its chief features since the very beginning have been unusually high fuel economy and ability to run on much lower grades of fuel than the carburetor engine can use effectively. Due to its high compression, its fuel consumption is as low as 3 pound per horsepower hour whereas the best carburetor engines have a minimum fuel consumption of approximately 45 pound of fuel per horsepower hour. The latter reaches this high economy only on full throttle. On part throttle the fuel consumption is very much higher.

Whereas with the Diesel there is very little reduction in fuel economy on part load because the compression pressure remains constant. Road tests show that the Diesel will run a truck about two and a half times as far on a gallon of fuel as the carburetor engine. And because the fuel used by the Diesel engine costs half as much as gasoline, the fuel cost per mile is only one-fifth.

GENERAL MOTORS FREIGHT BILL

General Motors last year sold 1,554,577 automobiles, consisting of Chevrolet, Oldsmobile, Pontiac, Oakland, Buick, LaSalle and Cadillac. Of this number approximately one-quarter were driven away from the plants and the remainder shipped by railroads.

In 1927 the freight charges upon General Motors cars and trucks and the material from which these automobiles were made amounted to \$50,479,712.

TIRE SALES INCREASE

General Tire and Rubber Co., announced today increases of 23 and 40 per cent in sales and tire production respectively for the first three months of the fiscal year. Sales passed well over the six million mark. New York financial papers reported.

TOKYO—Of 9,000,000 who voted at the national election only 3,393 were arrested against 11,300 among 3,900,000 voters in 1924.

Driver Urged To Carefully Follow Directions In Breaking In Auto

When breaking in a new car, it is advisable to strictly follow the manufacturer's directions during breaking-in period, which usually is 500 miles.

The parts of a new car are carefully and accurately made, but as a pair of new shoes must be broken in before fitting comfortably, the breaking-in period, which usually is 500 miles, is necessary.

High points on the bearings must be smoothed out, and grinding marks gradually worn away and a high polish acquired. After this period and when the engine is warm, one can occasionally accelerate up to 45 and 45 miles an hour, but immediately the speedometer registers this speed slow down to about 35 miles an hour. This enables the oil to circulate freely among the moving parts.

The short bursts of speed permit the parts to become accommodated to full load operation without danger of burning or sticking, which might occur with continued high speed running. At the end of the first 1000 miles the car should be driven back to the dealer for a complete check.

PLAN TOUR EARLY AUTO CLUB SAYS

Careful Arranging Beforehand Will Yield Grestest Pleasure

WASHINGTON, D. C. — For many, the annual touring trip is months away but the opportunity to make it a more joyous event, to make it the most successful of its kind, is present now, says a statement issued today by national headquarters of the American Automobile association in which it is pointed out that the tour that has the advantage of early and thorough planning always is more successful than that arranged and begun haphazardly.

The motor car owner who already has determined that his annual vacation will be spent "on tour" might well go further and decide precisely what kind of a tour he is going to take, says the statement. Who will accompany him? Will it be a campaign, sight-seeing, mountain, shore, or some other kind of trip? To what point or points will the journey lead? What will it cost? By careful advance planning how much farther can the family's appropriation for the vacation be made to go?

These are questions relating to the annual motor outing that may and should be answered far in advance of actually starting the journey, the A. A. A. is convinced as a result of its experience in counselling millions of persons on questions of motor vacationing.

Is Nation's Recreation

"Touring has become the nation's fair weather recreation," says the statement. "This year, more than forty-four million people will enjoy motor journeys of sufficient length to call them tours. Provision of facilities for this multitude has resulted in the creation of a new and many-sided industry. It is an industry whose products range widely in quality, price, and other characteristics, and availing oneself of its commodity or service to the best advantage requires intelligent forethought."

Regardless of the type of trip it contemplates, the family should begin now to make its definite plans, the A. A. A. declares. The first point to be decided is where to go; after that the manner of going, says the statement.

"In deciding the destination of the tour the time limit, the sum available for vacation expenses, and the purpose to be served—whether the trip is to be for sight-seeing, camping, fishing, hunting, mountain climbing or rolling on the seashore, to acquaint the children with some of nature's wonders, or something else—are the chief factors to be considered." The national motoring body points out, "There are many places, perhaps, that can be used to fit these specifications. Intelligent consideration and discrimination will enable one to select the one which is ideal, the trip whose termination will not find everyone wishing that some other objective had been chosen.

There will be several routes, perhaps to the site that is chosen. One will be distinctly outstanding. It is the one that should be selected. The facilities of the motor club, of course, are available in aiding the motorist in this and other important aspects of advance planning. Through such an agency he can learn in advance not only road conditions, but the scenic advantages of the various routes; the facilities for camping along the route; what it offers in the way of hotel and lodging facilities; traffic regulations and the like."

Equipment Needs Considered

If the trip is to be a camping outing, the potential traveler should begin to consider what he will need in the way of equipment, the statement advises. He should begin to make his purchases early and buy to advantage, learn how to pack them so they will take the least room in the car, it is pointed out.

The condition of the car in its relation to its service, it will be called upon to render also should begin to come in for consideration long before the journey actually gets under way, the A. A. A. declares.

"The trip planned in advance in its every important detail, planned with the intelligent counsel that is available to everyone, is certain to be the best trip the motor car ever provided," the A. A. A. statement concludes.

Union, Wallowa Goodyear Meet Held Wednesday

One of the interesting business company meetings to be held here during the year was a Goodyear tire meet of dealers from Union and Wallowa counties held here last Wednesday at the Sarajawea Inn, with three officials from the Portland offices attending and in charge. Many phases of the huge Goodyear business were discussed, particularly the selling phase and some splendid talks were heard that, according to dealers, will prove a definite help to all dealers who attended. A moving picture relative to Goodyear problems was shown with the talks and added to

the interest. Several dozen dealers and employes from the two counties attended. The W. H. Bohnenkamp company, La Grande distributors of Goodyear tires for a period of about 15 years, were represented at the meeting. Chase Bohnenkamp is manager of that phase of the Bohnenkamp business.

UNSUGHT HONOR

TSURUGA, Japan—This port likes its soviet consul, M. Kesselof. The Russian got several votes for the Japanese diet at the empire-wide election.

EVOLUTION OF CARROUSEL

PARIS—Wooden horses on French merry-go-rounds have been supplanted by airplanes, automobiles, tanks and field guns.

PARIS—A street has been named for Edgar Allan Poe.

To Spend Billion And Half Dollars On Highway Work

There will be approximately one and one-half billion dollars spent for roads throughout the country this year and highway construction will at least equal and probably exceed the highest mark recorded in any preceding year, according to Dr. E. B. McDaniel, president of the Oregon State Motor association. This prediction, it was said, is based on information just received from the American Automobile association, with which the club is affiliated.

Dr. McDaniel said that improvement of the state and federal-aid highway systems under the supervision of the highway departments

of the various states will go forward during the season now opening with a construction of more than 20,000 miles of surfaced roads and about 8000 miles graded and drained. Dr. McDaniel was advised by the A. A. A. of road-building prospects after reports of the various states to the bureau of public roads, under which the federal-aid program is carried on, had been carefully considered.

TIMBUCTOO NEARER

TIMBUCTOO, India — The remoteness of this city is threatened by air travel. It has been reached by air from Paris in 26 hours, and hopes to become a station on a French route to Africa.

NAPLES—King Victor Emmanuel has given Naples a priceless collection of modern paintings and statues.



No need to risk your motoring enjoyment and spend more money by buying cheap tires or used tires. Our Pay-as-You-Ride plan gives you brand new Goodyear Tires, with all the Mileage, Safety, Traction built into these world-famous tires at the factory.

You can have your new Goodyears today. No Red Tape. No delay this easy, convenient way.

Table with 2 columns: Item description and Price. Includes '2-29x4.40 All Weather Balloons \$24.40', 'You Pay 1/4 Down \$ 6.10', 'Leaving a Balance of \$18.30', and 'Payable in 5 Monthly Installments of \$ 3.66'.

More People Ride on Goodyears than Any Other Kind of Tire

W. H. BOHNENKAMP CO.

Advertisement for Jack Allen Supply Co. featuring 'AUTO REPAIRING AND GENUINE PARTS' and 'FEDERAL TIRES More Mileage—Less Money'. Includes illustrations of cars and a tire.

Car Still Luxury Through Europe

PARIS (AP)—Automobiles are still the exception rather than the rule on the continent of Europe, where the pedestrian out-number those who ride by twenty, thirty and a hundred to one.

Advertisement for 'AUTO Glass Work' featuring an illustration of a car and a list of services: Windshields, Door Glass, Side-Windows.

La Grande Construction & Supply Co. Charles Harris, Prop. 1501 Madison