Low Grade Gasoline Vaporized to Advantage

The present tendency of gasoline constantly to depreciate in quality is looked upon with equanimity by the Olds Motor works, of this city, builders of the Oldsmobile.

The reason lies in the fact that gasoline conditions as they now exist were foreseen by the engineers of the Olds company, and special provision made to meet them.

Successfully using low grade fuels is simply a problem in sustained vaporization. The fuel must first be burned into gas, and then kept in that condition until it reaches the cylinders.

In the Oldsmobile, a unique arrangement of gas passages is employed at this end, an especially noteworthy application of this principle being found in the Oldsmobile eight-cylinder.

In the first place, the carburetor on this car is situated between the cylinder blocks, where it is bathed in a constant stream of warm air from the radiator and from the motor.

Next the carburetor manifolds, which lead to the intake manifolds proper, are exceptionally short and surrounded by large water jackets, which prevent any condensation of gas at these points.

Finally, the intake manifolds of the motor are cast integrally with the exhaust, so that the exhaust heat is utilized to keep the gas in suspension and insure its delivery to the cylinders in proper conditions.

The result is not only to insure the ready consumption of low grade gasoline, but a fuel company that is noteworthy. The gasoline average of the Oldsmobile Eight is thus from 12 to 14 miles a gallon, which is exceptional for multi-cylinder motors.

The Oldsmobile Four has always been noted for its ability to handle low grade fuels and to convert them into high mileages. In fact, it was the success of certain constructive principles in this car, such as the juxtaposition of intake and exhaust passages, and the shortening of carburetor manifolds, which paved the way for the present remarkable showing of the Eight.

Gasoline standards may come and go, with little sign of protest from the Olds Motor Works. This particular coscern feels itself prepared to take care of any eventualities.

Sun Sedan a Model For Summer as Well

"The automobile is no longer a luxury to be used only a few months in the year," declares H. A. Minturn, Engineer, Sun Motor Car Co. "The automobilist now demands a car that he can use in any kind of weather, in fact the more disagreeable the weather the more he needs his car.

"The millionaire, of course, has his limousine for winter use and his touring car for summer. The wealthy man has his touring car with two tops, a winter top and a summer top, but the average man wants an all season car.

"The Sun Sedan has been designed to meet the requirements of the buyer who desires a car of general utility at a reasonable price.

"All doors, windows and panels may be easily removed giving maximum ventilation for summer, in fact the Sun Sedan top is really cooler in summer than an ordinary old style top as the double thickness structure gives perfect insulation against heat. On the other hand when the winter comes the doors may be instantly replaced giving a coziness that has heretofore been found only in the most expensive enclosed cars.

SUN LIGHT SIX EFFICIENT TYPE

Exclusive Features Include Dual Ejector Exhaust Manifold and Special Design

The Sun Light Six which is built by the Sun Motor Car Company, Elkhart, Ind., is a high-powered light weight six-cylinder car selling at $1095. It is an exclusive Sun design and much attention has been paid to mechanical refinement. The wheelbase is 116 inches, long enough to give easy riding and ample room in the body and yet short enough to be handled easily in city streets through congested traffic.

The motor is of the high speed, high efficiency type, guaranteed to develop 50 horsepower on the block test. It is an L-head design with the valves located on the right side. The crankcase is cast integral with the cylinder casting and the cylinder head is removable. The motor is exceedingly simple and compact yet readily accessible.

The manufacturers state that it has been their aim to design a car that would operate economically even when the lowest grade of gasoline is used. Both the intake manifold and the hot air connection are cast integral with the cylinder casting in order that the full benefit may be derived from the heat of the motor. A 20-gallon gasoline tank is located at the rear of the chassis and gasoline is fed to the carburetor by the Stewart vacuum system. The Rayfield carburetor, so well known for its economy and dependability is standard equipment.

The valves are large in diameter, the pistons are very light, and the three bearing crankshaft is balanced by curving the webs in such a manner as to scientifically distribute the weight. These features permit the motor to operate at exceedingly high speed without vibration.

An exclusive Sun design "dual-ejector" exhaust manifold is used. It is divided into two divisions which although connected give the effect of two independent manifolds as the exhaust gases from the three front cylinders are handled independently of the three rear cylinders. These gases are separated by a web that is cast within the manifold outlet. A slight web is also cast at each cylinder division in the manifold, which guides the gas in the right direction, thereby preventing it from causing a back pressure on the other cylinders. Furthermore, the act of the gas rushing by the openings at high speed in the direction of the outlet causes a slight vacuum or suction. In short, the manifold construction is such as to not only overcome back pressure but really aid in perfectly scavenging the cylinders.

The valve operating mechanism is located within the crankcase where it is constantly subjected to a spray of oil, which prevents wear, and makes the working parts exceedingly quiet.

A very effective combination, constant level splash and force feed lubrication system is employed. The oil pump is of the plunger type and is operated from the camshaft. The main bearings and lower connecting rod bearings are die cast.

Natural circulation cooling system. Water circulates entirely around the cylinder barrel and the valve seats. Both inlet and outlet water pipes are 2¾ inches in diameter. The radiator is of the honeycomb type with a 2½-gallon water capacity.

The transmission is of the selective type, three speeds forward and one reverse. It is mounted as a unit with the motor. A three-point power plant suspension is employed which absolutely safeguards the motor from any distortions. The frame is very rigid. It is made of 5-32-inch steel and is reinforced by six cross members. It is only 28 inches wide in front which permits the car to be turned in a very small space.

Semi-elliptic springs are used throughout. The rear springs are 52 inches long by 2¼ inches wide. Cross-rolled Vanadium steel ins used in their construction. The frame channels are arched over the axle at the rear and the springs swing directly underneath.

Other interesting features are as follows: Remy Starting, lighting and ignition system, Burd piston rings, Borg & Beck single plate dry disc clutch, irreversible steering gear, full floating rear axle, twelve spoke wheels, both front and rear; 34x4-inch tires, nonskid on rear; one-man top, jiffy curtains, double ventilating, rain-vision windshield, electric motor-driven horn, nickel plated robe and foot rails, tire carrier at rear of chassis and Firestone demountable rims. The weight of the car ready for shipment is 2,575 pounds.

The standard color is Brewster green with hood, fenders and running gear black enamel. In addition to the five-passenger touring car a five-passenger sedan and a four-passenger roadster are available on the same chassis.

The Sun is distributed in the Harrisburg and Lancaster territory by the Penna. Auto Sales Co. with local offices at 58 South Cameron street, with B. L. Davidson, manager, and J. M. Davidson, of Lancaster, president.

Values Greater Today Than Ever Before

That the purchaser of an automobile will never have another chance to get so much for his money or to buy so cheaply, is the opinion of E. C. Ensminger, who distributes the Dort car. As proof of this sweeping statement, Mr. Ensminger calls attention to the sturdy, efficient car turned out to-day as compared with their far less efficient prototypes of a few years ago. He also expresses the opinion that this present condition cannot continue for more than a short time, and he quotes some figures, which make one wonder why more manufacturers have not already raised their prices.

"The cost of motors," says Mr. Ensminger, "has gone up fifteen per cent. this Spring; steel has gone up 70 per cent; tool steel has increased 200 per cent. The cost of radiators has gone up 40 per cent. on account of the increase in price of brass and copper; bearing metal has increased 20 per cent. White lead has increased 150 per cent. and colors from 10 per cent. to 300 per cent. and some cannot be obtained at any price. Leather has gone up 25 per cent., mohair for tops, 25 per cent. All these materials enter into the building of an automobile. The manufacturer must have them or go out of business. He is paying these high prices to get them and this extra cost of manufacture must soon enter into the retail price to the consumer."

"Presuming you have the purchase of an automobile in mind, to say that it is a good tip to place your order now, is putting it mildly. You simply cannot afford to delay at all if you expect to own your car at anywhere near present market prices."