AUTOMOBILE NEWS

OVERLAND PLANT BUILDS THOUSAND MOTORS EACH DAY

A statistician has gathered together some interesting data which show the magnitude of the automobile business. He took as a basis the Willys-Overland capacity of 1000 cars per day and then figured out the average length of the various models, approximately 14½ feet.

The factory's output for a single day would extend in a straight line for a distance of about two and three-quarter miles if the cars were placed end to end and touching each other.

In a year's time this stream of cars would be 860 miles long—an unbroken line of automobiles from Toledo to New York and then back again as far as Albany.

Even more startling were the figures compiled showing the value of the Overland factory's output. The enormous manufacturing facilities of the plant enable it to ship out finished cars valued at approximately $900,000 every 24 hours. In a year's time, at the rate of 1000 cars per day, these shipments would represent over $200,000,000.

The sensational growth of the Willys-Overland Company during the last eight years has changed the factory from a few building, scattered over a sizeable lot, to that of the largest individual automobile plant in the world. In less than a decade the Toledo institution has doubled and trebled in size until today it boasts of 103 acres of floor space available for manufacturing purposes and gives employment to more than 17,000 men.

During this period of expansion the output of the factory has jumped from 12 cars a day to nearly 1000 cars a day, or an increase of over 8000 per cent in eight years. This is a record never before equaled by any other producer of medium or high-priced motor cars.

Daily shipments that at one time required but three or four freight cars now leave the Toledo plant in solid trainloads. At almost any time of the day these long freight trains can be seen pulling out of the Overland yards, loaded with automobiles for all parts of the world.

Five Excelsior motorcycles arrived at the Schuman Carriage Company this week, and all were disposed of within the week. Two were electrics and the others were the big valves.

About 3000 rookies formed the July regiments in the training camps at Plattsburg, N. Y.

MR. MOTORIST, YOU OUGHT TO KNOW ABOUT THESE IMPORTANT THINGS

Find Spark Plug Leak By Running in the Dark

It is not always certain whether a certain spark plug is leaking through the porcelain, and a good way to determine which plug is wasting electricity is to run the motor in a dark room. If the plug is leaking the spark may be seen jumping the break in the porcelain or mica as the case may be.

Speedometer Tells When to Change Gears

Though speedometers are used to ascertain the speed at which the car is being driven, there is another use, i. e., to determine the time to change gears. Of course, the time when gears should be shifted will vary slightly, according to the conditions under which the car is being driven. It may be taken that when the speedometer hand points to six miles an hour a change to second speed should be made. Thus the engine and the car will be saved wear.

Carefully Inspect Steering Mechanism

One's life depends upon the stability of the steering mechanism. Too great stress cannot be laid upon the necessity for a careful inspection of these parts at frequent intervals. Between the steering control and wheels there are numerous connections, any one of which, if defective, might prove disastrous. It is not an unnecessary hardship to inspect the front wheel bearings also at times when the general inspection is being made.

Spark Plug Gasket Often Causes Leak

The gasket under the spark plug often causes a slight leak by holding a piece of dirt against the countersink. The dirt, even though it be very small, may cause the gasket to permit gas to leak out around the spark plug. When replacing the plugs it is well to clean the gasket and its seat thoroughly.

Care is Needed In Oil Systems

Most lubricating systems employ a positive driven oil pump, which forces the lubricant from lower oil reservoir or crank case to the upper retainer, where connecting rods dip. In such a system there is an oil screen or filter through which the oil must pass before entering pump in lower oil reservoir. Care should be taken to clean this screen occasionally. The proper circulation of oil depends upon keeping this filter clean.

Care is Necessary In Washing Filter

When washing out a filter, such as an oil filter, care should be taken to pass the gasoline or other washing fluid through the wire gauze in the direction opposite to the normal flow of oil through the device. The reason for this is that if gasoline is passed through in the same direction as the oil it will probably leave particles of fluff or other substances that might have been caught, sticking just where they were, while washing in the opposite direction would dislodge them.

Care Necessary In Washing Car

Proper washing care is particularly advisable with a new car, for it soon can be ruined if the job is performed in the manner some irresponsible garages employ. Supervision by the owners where a garage does the work is a good idea; but before he can supervise the owner must know what he is talking about.

Keep Mud Off Your New Car

Do not allow mud to stay on a new car over night, particularly for the first few weeks. The finish is brand new, not seasoned, and the mud will almost surely get in its defacing work if it is given a chance.

Soap Not Advisable Upon a New Car

Soaps are not advisable on the fine finish of the modern car, for most soaps are not pure in the sense that they contain linseed oil. The latter is not harmful to the finish, but as most soaps are made with chemical cleaning agents in them, these are obviously detrimental. In garages of the highest class they go to the expense of procuring pure soaps, but such cost more money.

Running Gear Not Hurt by Soaps

Soaps of any kind will not harm the running gear, providing, of course, some discretion is used in rinsing the parts free of any of the cleaning agent after the dirt is removed. Wheels will stand a moderate use of soap, but require much care to see that they are not scratched by indiscriminate use of the sponge.

Gasoline is Best For Removing Mud

Grease or oil is a hard thing to get off, particularly if it has had a chance to dry. If necessary, either gasoline or kerosene may be used to remove such deposits, but gasoline is the most advisable as it evaporates quickly and therefore will not collect dust. Road tar that has not been allowed to dry can be removed by local applications of a mixture of lard or butter with a small quantity of salt. Take a small amount of it on the finger and rub it on the tar spot lightly so that there will be no scratching. This should loosen the tar and allow it to be washed off immediately.

Tar is an Enemy Of a Fine Finish

Tar is one of the worst enemies of a fine finish and should be taken off as soon as possible. Taken off when it is fresh, no detrimental effect will be noticed, but if allowed to dry it will gradually get in its destructive work of eating down through the varnish coats to the wood or metal. In any case the new car should shun the freshly oiled road if there is any way of doing so.

Actress Drives 'Roadaplane For 3000 Mile Trip

The 1917 Apperson roadaplane, the new car announced by Apperson Bros. Automobile Company, is receiving its baptism by a fast run from New York to Frisco. At the wheel is Claire Rochester, vaudeville star, who is proving that the roadaplane is an easy car to handle. She is sure to establish a woman's record for a transcontinental trip.

The motive for the trip is a patriotic one, for the driver is carrying a letter from the mayor of New York to the executive of the city on the western shore. The letter asks for aid in behalf of a permanent lighting fund for the famous Statute of Liberty in New York harbor. It is proposed to brilliantly illuminate France's gift to this country, so it will stand out as magnificently at night as it does now by day.

The roadaplane, it would seem at this writing, would make the trip inside of ten days. At each stop mammoth crowds gather around, all desiring to see, at one time the first roadaplane made in this country. More than once it has been necessary for the police to tell the driver to move on for the reason that she caused a suspension of traffic.

Mechanically, the car has not given her a particle of trouble since she left New York. She wired the factory that the gasoline consumption was unusually low and that the car, in the high altitudes, did not heat in the least.

The introduction of the roadaplane by the pioneer makers of automobiles has caused discussion throughout the country. The interest is general, both from dealers and individuals and the home office at Kokomo has been swamped with inquiries for information.

HOW MANY NOISES HAS AUTOMOBILE?

In the current number of The Automobile, A. Ludlow Clayden presents an interesting analysis of the really wonderful achievement of the modern motor car engineer in producing cars that operate with such silence as do the high-grade cars of today. Taking the Packard "twin six" as an example, Clayden gives a graphic enumeration of all the sources of noise which, through design and workmanship, are concealed and blended until their total is merely the pleasant hum that characterizes the Packard in action.

All parts of the Packard twelve in action at a speed of 20 miles an hour furnish the astounding total of 217,000 separate noises per minute. Supposing a motor car speed of 1000 r. p. m. at this speed, Mr. Clayden points out that the number of explosions per minute will be 6000.

100 Explosions a Second.

"Taking a further step," continues the article, "each valve is opened and closed once to each explosion; so, at the rate of 100 explosions to each second there are 200 valve-lifting motions performed, and 200 valve-closings. The crank-shaft revolves twice to each explosion and the piston makes four complete strokes; hence the 100 explosions per second represent 400 piston strokes in the different cylinders. Meanwhile, the breaker mechanism must operate the contacts in the ignition device 100 times.

"If a chain front end is used the crank-shaft sprocket will have about 20 teeth and will revolve 1000 times in the minute, so there will be 20,000 engagements of chain link with sprocket tooth on the crank-shaft pinion; on the cam-shaft sprocket and on any other intermediate pinion an equal number of contacts must take place.

Too Fast to Count.

"Thus, neglecting any other parts in addition to those mentioned, with a 12-cylinder car running at 20 m. p. h., there are 2000 things happening every second which have possibilities for noise production, and each minute there will be 120,000.

"There are many other small joints and connections on the engine which might be included. Altogether it is not too much to say that a 12-cylinder engine at 20 miles per hour performs 150,000 operations per minute, each of which could make an audible noise were care not taken to prevent it.

"While the engine contains the most possibilities for noise production, it has by no means all. The gear-set and bevel drive, bearings throughout the car, etc., can be credited with no less than 67,000 opportunities for noise-making per minute, blended into the hum we hear in a twin six running at 20 miles an hour."

S. D. Weisbaum of San Francisco has joined the sales department of the Schuman Carriage Company. Weisbaum has been connected with the automobile industry for a number of years, and has met with much success in his chosen profession.

Smoot & Steinhauser report a good business for July, and sales were far in advance of any other month, despite the tie up in freight. The increased floor space has given them a big advantage in taking care of the increased orders.

IT WON'T HURT TO KNOW THESE THINGS ABOUT RUNNING A CAR

Interesting information furnished by Smoot & Steinhauser, Ltd., territorial agents for Stromberg carburetors.

Low Speeds and Idling

When there is uneven running at low speeds, and you find that there is a regular miss in the motor, this is not because of faulty carburation, but is due to either ignition or engine trouble.

If the motor fires, first on three cylinders and then on four, or in the case of a six-cylinder job, on five and then on six, the cause of this is either carburetor or ignation trouble.

If you find that the motor fires with a roll, having a sort of rumbling sound, the carburetor is delivering too much gasoline.

If, when opening the throttle quickly, the engine kills or backfires—insufficient gasoline is the cause.

If, when opening the throttle quickly, the motor throws out heavy charges of black smoke and misses, the mixture is too rich on idling, and also needs heat.

Running Speeds

If the motor does not respond quickly to movements of the throttle and the spark plug gets black with soot in a short time, it indicates that you are running with too much gasoline.

If the motor fires back occasionally while the motor is running under power, it indicates that it is not receiving enough gasoline, providing the motor is in good condition and the valves are not sticking.

These conditions which we have given above are the primary difficulties which will be encountered in carburation. It must be remembered that in order to make any of our present day carburetors work in an efficient manner it is absolutely necessary to introduce hot air into the mixtures in order to make it deliver the results expected.

Reasons for Misfiring

Cylinders—Poor compression. Water leaks into combustion chamber.

Valves

Push rods adjusted too tight or too loose. Weak exhaust springs. Sticking stems. Loose inlet stems.

Ignition

Battery—Loose connections. Sticking vibrators. Roller or segment worn in cummutator. Poorly insulated or broken wires. Improper timing.

Magneto — Breaker adjusted too close or too wide. Corroded points. Roller worn, making break uneven. Distributer dirty or insulation broken down. Sticking brushes. Improper timing.

Gasoline

Tank empty. Air bound. Boiling. Water. Line clogged. Air leaks anywhere between throttle and combustion chamber.

GIRLS TIRED OF HIKING PURCHASE FORD AUTOMOBILE

Three eastern girls, all university graduates, have recently completed a trip overland to the Pacific coast and back again. They are Maude Brideson, Eleanor Poor and Ruth E. Harsiy. The purpose of their trip when they started out on this long hike was to gather material and views for a book of travels. They went over the Lincoln highway, through Omaha to Denver, visited Salt Lake, Yellowstone National Park, Spokane, Seattle and Portland, and then went down the coast to San Francisco and San Diego.

Leaving California, on the return trip they crossed over the Mojave desert and through the canyons of Arizona into New Mexico and western Texas.

By the time they had reached southern Oklahoma, they made up their minds that sore feet and sprained ankles could be very substantially relieved by the use of a Ford car. In Oklahoma City they bought their Ford, as they said, because they decided it was the best car for cross-country work.

In El Paso, Tex., their number was reduced to two, Miss Brideson deciding that she would abandon the remainder of the trip in order to marry an aeroplane inventor of that city.

To secure protection on their long trip, the girls were appointed deputy United States marshals in order that they might carry arms without any interference.

From Oklahoma City they are driving their Ford eastward and will conclude their trip in Portland, Me.