

TIRE EXPERT TELLS OF VARIOUS TYPES

Solid, Cushion, Pneumatic and Balloon Tire Information Given

By Ethelbert Favary, Consulting Engineer, Moreland Motor Truck Company

PART 2 Pneumatic Tires

The great advantage of the pneumatic tire is that it can absorb obstructions on the road without raising the axle. For this reason, it will eliminate the many small vibrations and jars arising from the many small obstructions or road inequalities. A tire containing air under pressure is very quick in yielding and in returning to its original position (as compared with a solid tire) hence does not consume as much power as a solid tire and will have more speed.

Other advantages of the pneumatic tire are greater deformability, that is, it will deform or adapt itself to the road surface more readily than any other tire, and in consequence it is easier riding. It has a higher elastic efficiency, or in other words, it consumes less power than the solid rubber tire. The disadvantages of the pneumatic tire are its well-known susceptibility to punctures, blowouts and valve leaks.

The air in the inner tube is retained by the fabric casing of the tire; this casing must be strong enough, it must be composed of a sufficient number of plies of duck or fabric to withstand the air pressure inside the tire. The thicker the casing or carcass of the tire, that is to say, the greater

the number of plies or fabric of which it is composed, the lower will be its efficiency for more energy is required to deform it or flatten it as it rolls on the road and is accommodating itself to the road surface. To demonstrate the amount of power which is wasted even with pneumatic tires, try to indent or flatten a casing by hand before any air is pumped into the tire. When a car is in motion four tires have to be deformed continuously and this consumes power.

Cord Tires

The more flexible the wall of a tire is, the less is the power wasted and the greater is the tire efficiency. In a cord tire the carcass is made of a number of strands of cords tied together, (and not of cotton duck, as in fabric tires) and this can be deformed much more easily than a fabric tire. For this reason a cord tire is "faster" than an ordinary fabric tire. Being softer and more "deformable" a cord tire will also absorb larger obstructions on the road, as for instance when crossing over stones. Its absorption quality is better, there will not be so much pressure between the small stones on the road and the tire, since the tire will largely rest on the road surface while at the same time, permitting the small stone to imbed itself into the tire. For instance, say a small sharp stone projects one-half inch above the road surface, the cord tire will absorb the stone so to say and yet the maximum load will rest on the road surface in front and behind the stone. A fabric tire would not be able to absorb so high a stone and hence the entire load supported by the tire will be resting on the small stone. If this should be sharp, a puncture is liable to occur. This is the reason why less trouble is experienced through punctures with cord tires than with ordinary fabric tires.

Balloon Tires

A balloon tire is pneumatic tire with a larger amount of air and a lower air pressure. In order to

COVERED WAGON TO CROSS CONTINENT

New York to Los Angeles in Thirty Days by Motor Route Inaugurated

A service which promises to be epoch making and which is the greatest step in the rapid advance of the motor bus industry, will be inaugurated when the Motorway Tours Parlor Car caravan leaves New York on November 10, for a transcontinental tour of thirty days to Los Angeles. This wonderful motor train will consist of four luxurious Pierce-Arrow twenty-passenger parlor cars, equipped with deeply upholstered individual chairs. The equipment and service to be embraced on this tour mark the establishment of a new high standard in American travel, offering remarkable comfort and easy riding qualities, with splendid view of the country through which the motor train will pass.

The route to be followed by the "Covered Wagon of 1924" is as follows: New York, Philadelphia, Gettysburg, Pittsburgh, Cleveland, Chicago, Omaha, Newton, Kansas, Garden City, La Junta, Colorado Springs, Trinidad, over the Raton Mountains to Santa Fe, Albuquerque, down the Rio Grande valley to Socorro, and then over the Continental Divide to Springfield, Arizona, through the Petrified Forest, via Canyon Diablo, and the Grand Canyon, Needles as the Mojave Desert to Golden Southern California and Los Angeles. Stops for sightseeing are to be made at Chicago, Colorado Springs, Santa Fe, Petrified Forest and the Grand Canyon.

The trip will be made by easy stages and by daylight only, the parlor cars stopping at first-class hotels along the route each night. This trip will represent an achievement in human transportation and the opening of a new field of pleasure travel. It will be under the auspices of Motorway Tours of New York and will be maintained throughout on the high standard of this concern's service in all their American Tours.

Application for reservations on this wonderful transcontinental motor tour are coming into the company's office in New York from all parts of the United States from people who desire to be passengers on this first great trans-

continental motorway tour. The tickets include all meals and hotel rooms throughout the trip, but an arrangement has been made to take a few passengers who pay for transportation only and arrange their own hotel accommodations and meals.

Co-operation is being given by Chambers of commerce, civic organizations, and the Pierce-Arrow distributors and dealers along the route, and everything that can be done to make the tour a glowing success is being arranged. The "Covered Wagon of 1924," are using Mobiloil for lubrication.

Motor transportation in De Luxe parlor cars, between New York and Los Angeles, has become an established fact and marks a new mile-stone in human progress. The pleasure of seeing the country in this way cannot be over estimated.

FRED KIRKWOOD IS MAKING PLANS NOW

In Portland Arranging Details for Garage in YMCA Building Purchased

Fred Kirkwood spent yesterday in Portland perfecting plans for the remodeling of the Y.M.C.A. building which he and Mr. James Imlah will make into a modern Garage. When seen Friday Mr. Kirkwood stated that he had not decided yet just what make of car he would sell in the future. He said that he had several good propositions but had not decided on any as yet. As announced a few days ago in the Statesman the agency for the Hudson and Essex cars has been taken away from Mr. Kirkwood. Mr. Kirkwood made no complaint about this to the Statesman representative but stated that it was the privilege of a manufacturer or dealer to cancel their contracts within ten days without any reason whatsoever.

Fred Kirkwood has been selling the Hudson and Essex cars in Salem for the past six years. He has worked up a good business and has made friends here.

Compressed Air Motors Roar Up German Hills

BERLIN, Nov. 9 (AP)—Compressor motors on automobiles are finding favor in Germany with drivers who want speed. This compressor attachment is similar to the supercharger as used for high altitude airplanes; compressed air is forced into the intake manifold and results in a supercharged fuel air feeding the cylinders.

The result of the compressor's action is an instant additional power impulse, amounting to more than 50% of the normal motor performance. For instance, climbing a steep hill with full power and a motor slowly decreasing in revolutions, a compressor-equipped car will suddenly leap forward with a roar and pick up new speed, after the normal maximum limit has been reached.

SEAPLANES TO USE SAILS

LONDON, Nov. 2 (AP)—All-metal seaplanes with masts and sails to fly are possibilities of the near future, according to Dr. Wilhelm Rohrbach, who lectured recently before the Royal Society of Arts in London. He emphasized the safety and utility of seaplanes carrying sails, and said this fact might open a new era for naval seaplanes, as it meant they could sail at sea without using gasoline.

OLDS EXHIBITS AT 143 SHOWS IN YEAR

Will Exhibit at All Shows and Salons During 1925 Season

Oldsmobile with exhibit at virtually every automobile show and salon during the 1925 season, starting with the Twenty-fifth Silver Jubilee exhibit opening in New York City, January 2, factory officials announce. Last year Oldsmobile was represented at shows held in 143 cities in this country as well as several foreign salons.

While figures are not available Olds Motor Works feels justified in making the claim that it has been represented at more automobile shows than any other manufacturer. The Olds Motor Works is the oldest automobile manufacturing company operating today, having been formed in 1897, more than three years prior to the advent of the first automobile show. The first year real production started 1900, saw 1400 of the famous little curved dash one cylinder "Merry Oldsmobiles" built and sold.

From the earliest days of automobile exhibits Oldsmobile has taken an active part in these displays, which did much to foster the popularity of the motor car. Factory officials are of the opinion that these exhibits, even today when the automobile has reached the high mark of being the second largest industry in the country are of untold value.

"These exhibits perform the same function for the automotive industry as do central markets and department stores in other lines of trade," said Thomas O'Brien, assistant sales manager of Olds Motor works. "By means of the shows the public is given an opportunity in its natural desire to shop around and see what is being offered. Many persons dislike shopping along 'automobile row' owing to their being importuned by salesmen every time they enter a show room. At the show, however, they can look to their heart's content and see just what the motor industry has to offer them."

"Actual orders taken during the shows usually more than pay for any expense involved, but without doubt three or four times this number of immediate sales result from the annual exhibits in the weeks following."

"Another important feature is the wholehearted support given these exhibitions by the newspapers of the country. This attitude clearly indicates that the editorial mind of America rightly places the automobile business at the top of the list of the country's essential industries. Anything that gains the undivided support of the public press must be fundamentally important to the nation's welfare."

In addition to the various body types of the six cylinder Oldsmobile, a cut-away chassis, showing in detail every working part, will be included in most of the show exhibits of Oldsmobile during the coming season.

Working isn't as much fun as loafing, but you get more for it.

Right to Increase Power Output Granted

WTAM, the broadcasting station of the Willard Storage Battery company, Cleveland has been

You Know in Advance

Dodge Brothers Motor Car owners know in advance what any service operation will cost.

But they do not pay in advance for service they may never need.

That is because Dodge Brothers do not believe in so-called "free" service, which simply means that the selling price of the car is so inflated that the extra profit is sufficient to cover "free" service costs.

Under the "free" service policy, every owner pays a maintenance fee for the upkeep of every other owner's car—and he pays this fee in advance.

Under Dodge Brothers policy, the owner is not so penalized. He pays a fair, predetermined price for service, but he pays only as he needs it—and he pays only for his own.

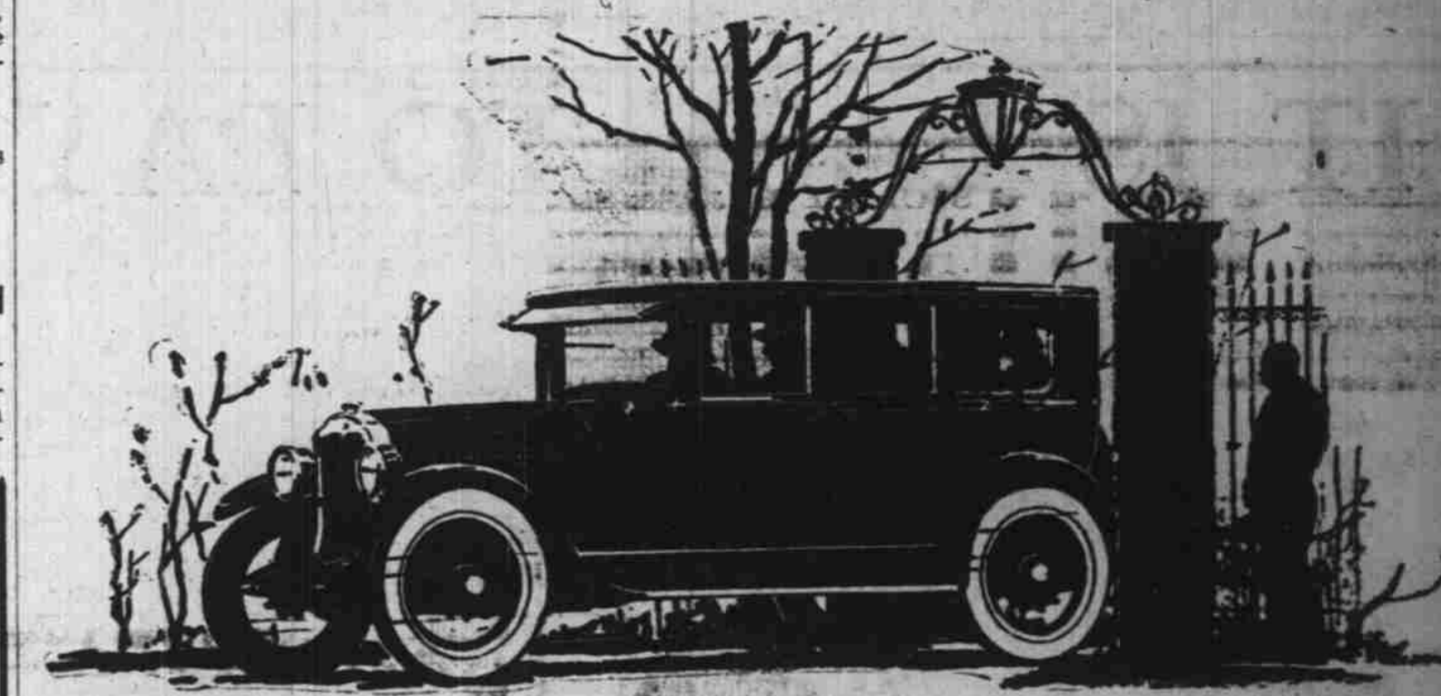
Bonesteel Motor Co.

474 South Commercial Street. Phone 423

granted a license by the department of commerce, to increase its power output from 1000 watts to 1500 watts.

The Willard station is the first to be granted such a license. It follows close upon the heels of the recent Radio conference at which Secretary Hoover advocated the policy of higher power stations.

It is the purpose of the engineers at WTAM to give the listener the best that can be obtained from radio reception. Experiments lead to the belief that higher power such as WTAM is now licensed to use, will be of material benefit to the receiving set owner. Higher power, it is anticipated, will overcome fading, drown out static to such a point as to make it negligible and insure good clear reception, all year round, regardless of weather conditions at the point of sending, receiving or points between.



It's Extraordinary!

Not only a Sedan out of the ordinary—but a truly extraordinary value as well! Its body is Fisher-built. Its powerful and economical L-Head Six-Cylinder Engine is remarkably quiet. It has Delco electrical equipment, pressure-feed lubrication, a Harrison radiator, dry disc clutch, floor-type heater, automatic windshield cleaner—quality features all! And this all-purpose Sedan can be bought for only \$1275 f. o. b. factory on the easiest payment plan ever devised.

The Sedan \$1275

Roadster - \$ 875
 Touring Car - 925
 Sport Roadster - 985
 Sport Touring - 1015
 Coupe - 1045
 Coach - 1065
 Six-Cylinder Sedan - 1175
 De Luxe Sedan - 1375

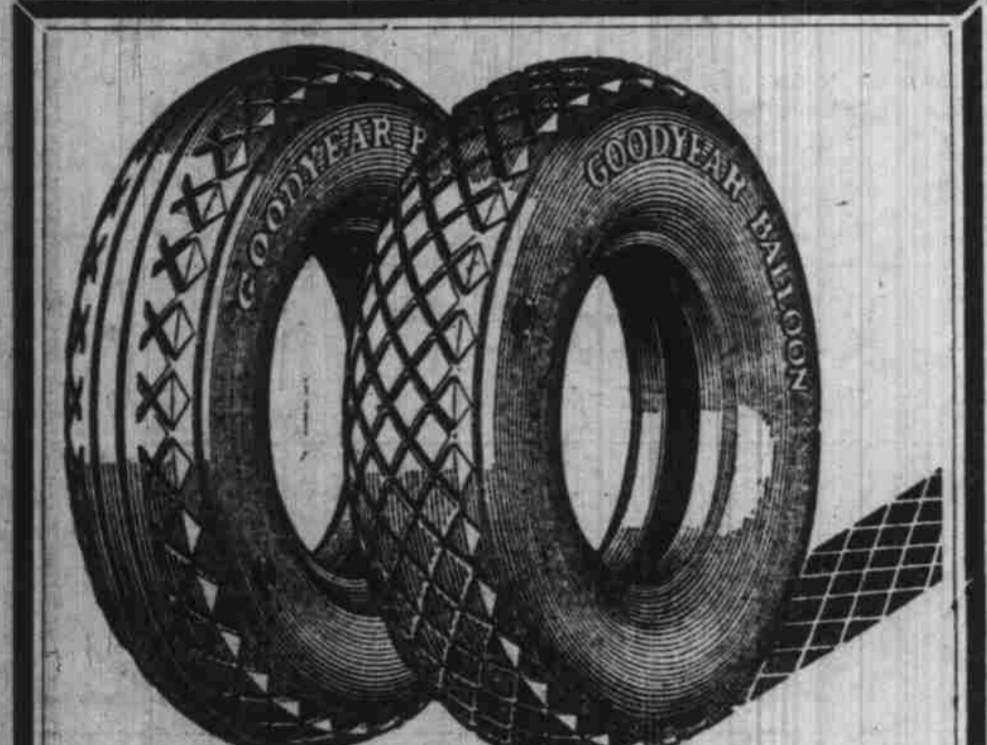
The G. M. A. C. extended payment plan makes buying easy. All prices f. o. b. Lansing. Tax and spare tire additional.

F. W. Pettyjohn Co.

219 N. Commercial Street

OLDSMOBILE SIX

PRODUCT OF GENERAL MOTORS



Balloon Tires You KNOW Are Stronger and Safer

You want more than just "balloon tires." You want dependable balloon tires that wear long and hold the road safely. You want Goodyear Balloon Tires. Here they are, at lowest prices:

29x4.40	\$16.95
31x5.25	25.75
32x5.77	35.05
33x6.20	39.35
33x6.75	43.60
34x7.30	44.30

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We maintain a complete repair service for all storage batteries.

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Our starter specialists can make your car start easier these winter mornings.

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WHAT DEC. 1, 1924, BLUE BOOK SAYS

The following is the percentage of depreciation that is taken on 1924 model touring cars as compiled by the Blue Book up to December 1, 1924. This is the average in the U. S. A.

	Per Cent Depreciation
1 MAXWELL	.174857
2 Willis Knight	.174895
3 Jewett	.1813
4 Rickenbacker	.1840
5 Ford	.1899
6 Hupmobile	.20
7 Dodge	.2020
8 Studebaker Light Six	.2030
9 Essex Six	.2050
10 Cadillac	.2110
11 Overland	.2150
12 Oakland	.2160
13 Durant 4	.22
14 Chevrolet	.2450
15 Nash 4	.2450
16 Oldsmobile 6	.2550
17 Star	.2660
18 Gardner	.2670
19 Hudson	.30
20 Buick 4	.33

Chrysler and Flint Are Too New to Figure

A car with a high re-sale value is a car that stands up and cuts down your yearly loss

SEE THE MAXWELL AND CHRYSLER
You will be surprised what they will do

GINGRICH MOTOR CO.

SOUTH COMMERCIAL STREET