

UNUSUAL INTEREST IN NEW WILLEYS SIX

Quantity Production Will Bring It Within Reach of Moderate Incomes.

The coming of the first six cylinder car to be given large quantity production has awakened keen interest throughout the motor world.

This is the first and only car produced by the Willys Corporation which is the big concern headed by John N. Willys heretofore to the production of the auto-lite, the Willys light and the new process transmission and differential gears.

It is reported that the difficulties which have stood in the way of production of six cylinder cars in large quantities have been eliminated by radically new ideas of construction.

Just what these are has not been made public as yet, but the new principle of spring suspension is one of them. The new spring gives the car the riding qualities of a 142 inch wheel base, though the actual wheel base is but 132 inches.

All of the features of the car have been thoroughly tested over a period of two years, totaling a distance of 200,000 miles. During these tests the new six proved an average of seventeen to twenty miles a gallon of gasoline, due to its unusual light weight, 2,100 pounds—and to new efficiencies of the engine.

Production is being hastened in the Duesenberg Motors plant at Milwaukee, Wis., recently purchased and greatly enlarged and amplified by the Willys Corporation.

If the car even approximates the economies reported established by the two years of testing it will undoubtedly create a stir in the six cylinder field, and with quantity production it is freely predicted that it will rapidly become one of the widest and most intensively owned cars in the world, as the field for a six within the reach of motorists with moderate incomes is simply enormous.

BIG ACCESSORY EXHIBIT.

Elaborate Plans Inaugurated for New York Exhibition.

The demand for space at the National Automobile show this year by the manufacturers of parts and accessories is exceeding all records. From 1917 to 1918 the year's purchases and sales, both at New York and Chicago, will be the greatest in the history of the industry.

These conclusions are based on the applications already received by the Motor and Accessory Manufacturers Association, as announced by M. L. Hemmway, general manager.

"The healthy condition of the automobile industry is demonstrated clearly by the enthusiastic interest displayed by all manufacturers in both the passenger and truck show that will take place next January in New York and Chicago," said Mr. Hemmway.

"The 1920 shows will mark an epoch in the industry, for the manufacturers are going into them with fresh vigor and zeal, ready to make up for the abnormal years caused by the war.

"Nothing is more significant of the sound readjustment to the conditions of peace than the universal desire to make the shows this year the largest and most representative since the establishment of the national automobile exhibitions. All manufacturers are on their toes. Not satisfied with the present prosperity, they are wisely planning ahead for years to come, constantly improving, enlarging and advancing, to increase the efficiency and adaptability of their products."

MOTOR TO DANBURY FAIR.

Special Arrangements Have Been Made for Motorists.

Once a year at least the town motorists become searchers for the buxom joys of life—big pumpkins, fat cattle, bulky pigs, fine horses, record laying hens and thoroughbred dogs, and when the "back to the farm" feelings set in it is time to throw on high speed and set out for Danbury fair. It will be held throughout the week, with the best dog show in the land outside of New York the feature on Wednesday, Thursday and Friday.

Danbury is on the best of motoring roads, whether approached from New York, Albany, Hartford or Boston. All

routes converge to bring the trippers to the fair and the dog show, amid the changing hues of the autumn foliage, the crisp sunlight that imparts a silvery sheen to the gayly colored mountain sides and woodlands, and under the stimulus of toniclike October weather. At Danbury every possible concession is made in the way of free parking places and comfortable hotels and boarding houses will be ready for the tourists.

TY COBB IN TIRE BUSINESS.

Will Sell Pennsylvania Product in Augusta, Ga.

Ty Cobb, the greatest of all baseball players, has decided to take up for a winter pastime the selling of automobile tires for the Pennsylvania Rubber Company.

Cobb has with him as his partner in business Mr. Sanford, who is well known to everybody in Augusta and was the principal of the high school which was responsible for turning out such a celebrity as Cobb.

Cobb played his last game of ball in Chicago on September 27 and hastened to Augusta in time for the opening of the Cobb-Sanford Tire Company on October 1, and incidentally to meet the new member of the Cobb family, who arrived only a few days ago.

MOTOR TRUCK TIPS.

Tractor Lubrication.

The operator new to tractor work will find many differences in lubrication requirements as compared with those of other automotive vehicles. For instance transmission bearings of the tractor will usually be fed by oil cups, a good grade of engine oil being used and they must be replenished about six times a day.

The Spark Gap.

It is important to keep the spark gaps of the plugs of the truck engine properly distanced. If the gap is too wide the spark may not jump at the spark plug gap, particularly at low speeds. This will subject the insulation of the secondary winding circuit to unnecessarily great stresses and may cause a relief spark to occur at the safety gap, which is an indication of danger. Insulation if subjected to such stresses continually will break down. On the other hand if the spark gap is too narrow the spark will probably not be hot enough to start and may cause shorting by carbon will result. Watch the spark gaps.

Four Wheel Drive.

The question is frequently asked in regard to the actual benefits of four wheel drive. The answer is almost obvious. With the application of tractive effort at four points, the front wheels have a lifting effect which enables the truck to climb over an obstruction more easily than a two wheel driver can do. For this reason the four wheel drive truck is peculiarly well adapted to service over bad roads, where heavy loads must be carried.

Worn Tires.

Solid tires that have worn unevenly or gotten so thin that they do not absorb shock, are a great danger to the truck. Through them the wheel bearings may be broken and the bottom steering knuckle may also break, while rapid disintegration of the whole mechanism will be expected. Do not run solid tires until they are too thin.

Wheel Alignment.

The wheels of the truck should be tested for alignment once every six months or oftener, in case the vehicle has been involved in any kind of a bump, even a hard curb smash. If the truck is out of alignment the wear on the tires is accelerated many times. A tire may even go to pieces in a couple of hundred miles of running.

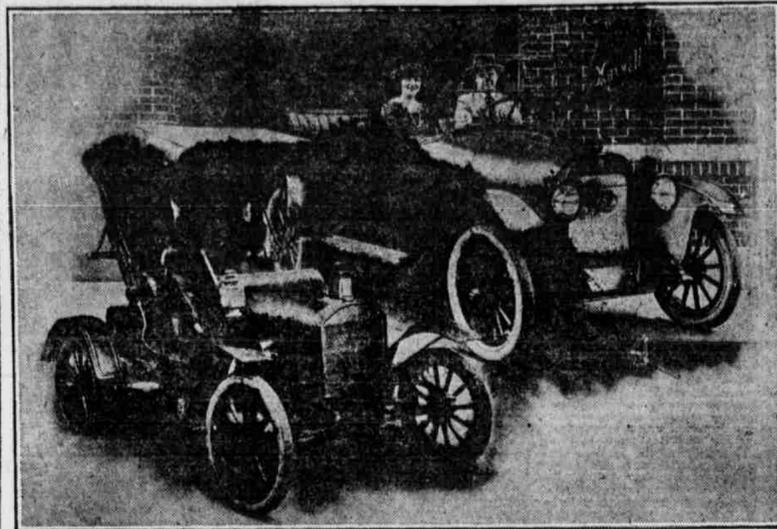
TRUCK OWNERS' DEPARTMENT.

Q. Will you please give me the make of engine, bore and stroke and the original price of the Atterbury one and a half ton truck put out in 1918? A. The 1918 Atterbury one and a half tonner had a Continental engine with a bore and stroke of 4 1/2 by 5 1/2, and the original selling price was \$2,375.

Q. Would it be possible for me to get a kerosene burning device for installation on a Ford truck made with a converter outfit? I can save a lot of money by using kerosene, even though the price is up, but would I get a reasonable efficiency from the engine with this heavier fuel? A. You can get a kerosene burner for the Ford outfit. I am mailing you a list of makers of this sort of equipment. Yes, you ought to get very satisfactory service with a kerosene burner.

Q. How many motor trucks are there in the United States at the present time? A. At the last official announcement there were about 425,000, but by this time there are undoubtedly over half a million.

Comparing 1904 and 1920 Maxwells.



In this photograph Harry J. DeBear, manager of the New York Maxwell-Chalmers branch, shows the wonderful advancement made in motor car construction since 1904. It must be admitted that the little old 1904 wasn't so bad for its day, but—

PNEUMATICS SPEED UP TRUCKS' WORK

Also Cut Down Repair Bills, Says United States Tire Official.

By W. V. LOGAN, Manager Pneumatic Truck Tire Department, United States Tire Company.

The development of large pneumatic cord tires for motor trucks means a great deal to truck users throughout the country in effecting large savings in the cost of truck operation and in greatly increasing the radius over which a truck may operate in its day's work. It has set the motor world to thinking on the problem of getting the full benefits it makes possible.

The United States Tire Company is the pioneer pneumatic truck tire manufacturer. In 1909 the development department of this company started an investigation to find out whether pneumatic tires could be used on heavy duty trucks. This investigation resulted in experiments with this type of tire in 1910. These experiments proved very satisfactory, and late in the same year the first pneumatic truck tire was built in the Morgan & Wright factory of the United States Tire Company.

Early in 1911 three Reliance trucks were equipped with 38 by 8 nobby tread tires of fabric construction. It is a remarkable fact that these three trucks have been in service continually up to the present day, carrying approximately twenty tons of freight every day. No clearer illustration could be desired of the fact that trucks which run on pneumatic tires live a long time.

These large fabric tires demonstrated their value at once in the remarkable effect they had upon the truck chassis. The elimination of trouble with the truck was immediately noted, vibration was materially reduced, and we learned after a few months that the truck was doing twice as much work as it had done previously.

Experiments were continued at our Detroit factory until the nobby cord tire was perfected and placed on the market.

One of the very tangible results of the advantage of these tires is that there is not a truck manufacturer of any consequence who is not at work on the development of a truck especially constructed for pneumatic truck tires. The engineers of these manufacturers realize fully that trucks traveling upon air are

able to travel much greater distances and cannot help but reduce maintenance and repair expense and save the chassis from the shocks and strains brought about by the use of solid tires.

At the recent summer session of the Society of Automotive Engineers, held at Ottawa Beach, Mich., the prediction was made by a truck expert that the time was not far distant when truck manufacturers would turn out two distinct types of motor trucks, one for solid tires and the other for pneumatic tires. In line with this prediction I believe it will be but a short time before truck manufacturers will be building \$5 per cent. of their output of two and a half ton trucks to take nothing but pneumatic cord truck tires.

There are a number of advantages to be derived from the use of pneumatic truck tires which cannot be overlooked by the truck purchaser. Chief among these advantages is that of increased speed. When a truck user learns that one of his trucks can do twice as much work on pneumatic tires as it could on solid tires he will not hesitate because of the initial additional cost. When he learns that his truck equipped with pneumatic tires is not in the repair shop one-third of the time that the truck with solid tires is he will find an added reason for using pneumatic tires. In addition to this the truck owner will find that he can haul all kinds of materials without breakages that are incurred on trucks equipped with solid tires. Large fleet owners of trucks who figure the cost a mile on every tire they purchase are seeing the advantage of pneumatic truck tire equipment and are changing over their trucks from solids to pneumatic daily.

It is a matter of record that pneumatic truck tires in a number of instances have decreased maintenance expense as much as 60 per cent. on trucks which had been operated on solid tires. Aside from this there is a saving in gasoline and oil consumption of approximately 35 to 40 per cent. and there is a saving in claims for breakage of cargo.

It is not unusual for a truck equipped with pneumatic tires to travel as fast as forty miles an hour. I know, for instance, of a bus line in Washington, D. C., which has a bus that makes a round trip each day averaging twenty-eight and a half miles an hour for the entire trip. In this trip seventeen stops are made, necessitating that the bus attain a speed of high as forty-four miles an hour between stops. Along with this performance it might interest the user to know that this bus has received as high as 46,000 miles on nobby tires. This shows clearly the additional work that trucks are able to do when they can be driven at high speed, and at the same time with safety.

There are certain locations throughout the United States where a truck equipped with solid tires cannot operate because of insufficient traction due to

sandy or muddy condition of the soil. I have in mind one instance in Maryland where a company decided to lay out their trucks for the winter, due to the condition of the roads. They equipped their trucks with pneumatic tires and found that the traction permitted them to operate their trucks throughout the entire winter. In Arkansas a company operating a large fleet of trucks had come to the conclusion that they would have to discontinue the use of their trucks during the winter months on account of lack of traction with solid tires. This company will equip its trucks with pneumatics and as a consequence will be able to work all winter.

Another attractive feature of pneumatic truck tires is that they can be applied and dismantled on the road instead of having to be applied or removed at a service station as in the case of solid tires.

A phase of the desirability of the pneumatic truck tire in which every delivery user is vitally concerned is that of mileage service. Of course every one knows that any make or type of tire will give phenomenal mileage once in a while in isolated cases. A performance of this nature proves absolutely nothing, and if our truck pneumatics had to rely on such instances as proof of their reliability we would consider that they were still in the experimental stage.

But the records show a uniformity of the performance and we have affidavits showing where tires have given 20,000, 30,000 and in some instances 36,000 miles of service on entire sets. We have innumerable letters from users showing mileages of from 25,000 to 30,000 miles without a puncture. Actual records in the Fourth Assistant Postmaster-General's office at Washington, D. C., show tire after tire and set after set that have rendered more than 20,000 miles. When we see this kind of record we know that the hour has arrived when pneumatic truck tires have come into their own and that they are no longer an experiment.

One of the most prominent engineers in the truck industry has made the statement that "to operate a truck successfully on pneumatic tires the truck should be specially designed and that the truck should be on the order of the large passenger car chassis rather than the way trucks are constructed today." This is true. But the heavy built truck of to-day can, with no change other than that of preparing the wheels for pneumatic tires, show a very large saving in operating cost. This has been proved time after time on numerous makes of trucks where trucks were originally designed for solid tire equipment.

We must not forget that in any case practical results are what count, and regardless of any theoretical idea that may be advanced our pneumatic truck tires have far exceeded anything that has ever been claimed for them.

Thro' the Berkshires

It is not often that New York motorists find combined in a single week and tour the four elements essential to enjoyable motoring—good roads, attractive scenery, excellent hotels and interesting landmarks. The touring bureau of the American Automobile Association, 501 Fifth Avenue, has laid out such a trip, and it includes the Litchfield Hills, the Berkshires, the famous Mohawk Trail and the fertile Connecticut valley.

Starting from New York, the road runs north via Seventh Avenue to 145th Street, where turn right across the Harlem River and through East 149th Street to Mott Avenue. Here turn left and continue up the Grand Concourse to the Moshulu Parkway, where bear left and immediately right on Jerome Avenue. Pass the Empire City race track and continue north on Central Avenue, which is in excellent condition all the way to Hart's Corner. The balance of Central Avenue into White Plains is very rough, so turn right at this point to Hart's station, run over the railroad, and immediately turn left on Walworth Avenue. This is followed to Lexington Avenue in White Plains, where turn left one block, then right on Martine Avenue, which for half a mile is lined by beautiful residences. At the end of Martine Avenue turn to left on North Broadway and follow a good macadam road along the west side of Kensico Reservoir. After passing the famous Kensico dam follow a good, winding road to Armonk, where turn right at church and keep straight ahead to the green in Bedford, where bear left and then right along a stone wall. Keep on up hill and follow a winding road through Cross River and South Salem to Ridesfield.

The route now runs almost due north to Danbury. Leaving via White Street go through Newton, Southbury and Middlebury to Waterbury, ninety-six miles from New York. Leave Waterbury running on Waterville Street through Waterville and Thomaston to Torrington. This trip, alternating along both sides of the river, is one of the most picturesque anywhere in southern New England. The road leads directly to the Berkshires, passing in succession through Canaan, Ashley Falls, Shelburne, Great Barrington, Stockbridge and Lenox to Pittsfield. Magnificent scenery, numerous historic landmarks and exceptionally fine hotels all combine to give the Berkshires Hill country a popularity which never wanes. Then, as a fitting climax, comes the Mohawk trail. Steeped in Indian tradition, the ancient road, which extends from North Adams to Greenfield, is now perhaps the most famous motor road anywhere throughout the East, and the view from the summit of Hoosac Mountain is magnificent. Stunning south from Greenfield, the route passes in succession through Deerfield, with its old Colonial houses and museum of Indian relics, and Northampton, home of Smith College. It then runs along the foot of Mt. Tom. Next in order comes Holyoke and after that Springfield.

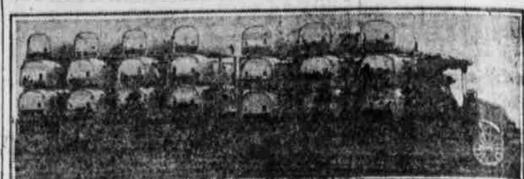
Between Springfield and Hartford there are two routes, but the preferable one at present is that which follows the east side of the river. From Hartford there is an excellent and unmistakable State macadam road through Berlin, Meriden and Wallingford to New Haven, the seat of Yale University.

The last section of the trip follows the Boston Post road all the way back to New York, passing through Bridgeport, Norwalk, Stamford, Greenwich, Port Chester, Rye and Rochelle. The best entrance into New York city is via Pelham Parkway and the Grand Concourse to 145th Street bridge.

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Ship Car Bodies by Truck.



This is how the Westcott Motor Car Company, Springfield, Ohio, is getting around transportation difficulties. By this method they can haul twenty-one of the Lighter Six touring bodies at one load—a number equal to that generally loaded into a 40 foot railroad car.

The Westcott body factory is at Muncie, Ind., a distance of approximately 100 miles each way. The round trip is made by truck in twenty hours, including loading and unloading time, with an average of fifteen miles an hour on the road.

Under normal conditions the average shipping time from Muncie to the Westcott factory is one week. Under present

conditions delivery is practically impossible. While the expense of shipping by truck is somewhat greater the Westcott company is using the precaution against any tieup in production.

The special racks for carrying the bodies were built in the Westcott factory, and provision is made to bolt down each body securely to prevent damage. Large canvas envelopes fit down close over the bodies on both the truck and trailer, protecting them against the weather.

The J. S. Wagner Transfer and Storage Company, Springfield, Ohio, is handling the transportation for the Westcott company.

COST OF MOTORING IS LOWER.

Price of Gasoline Has Been Kept Down.

"In these days when the high cost of living is a matter of serious concern the motorist has one cause for rejoicing," says Harry S. Houpt, president of the Hudson Motor Car Company of New York, "and that is that the Standard Oil Company has not raised the price of gasoline.

"The cost of motoring for pleasure is not rising proportionately. The price of gasoline, which is the stuff that joy riding dreams are made of, has little effect on the price a man has to pay for the pleasure he gets out of running his car. A great many car owners do not compute carefully the yearly cost of running their automobiles.

"When they do make a try at it they are likely to omit some essential item like depreciation, and that throws the whole estimate out of focus.

"Interesting proof that the price of gasoline is not a very large part of the expense of running a car has been made available for motorists by a Government agency which has just compiled accurate data on operating costs of approximately 600 trucks and 150 light passenger cars in constant use for the past year. The wide range in which this equipment has served makes the statistics of their operating costs particularly valuable.

"The 600 trucks for which records were kept accurately included machines from one and a half to five ton capacity. The chief elements in their running costs, in order of size, are repairs, chauffeur, depreciation, gasoline, tires, oil and grease. Of these cost elements gasoline represents only 9 per cent. of the total running expense. This gasoline cost is charged at the prevailing commercial truck prices.

"In the operation of 150 light passenger cars there was no charge for chauffeur. The cost elements in this case ranged proportionately as follows: Repairs, gasoline, tires, depreciation, oil and grease. The gasoline item here was only 17 1/2 per cent. of the total.

"Less complete data on the operation of heavier passenger cars showed that

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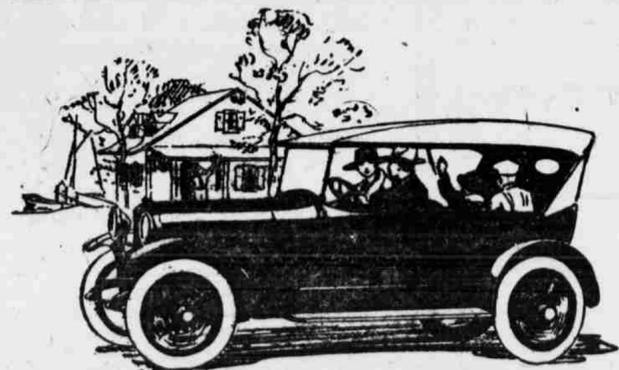
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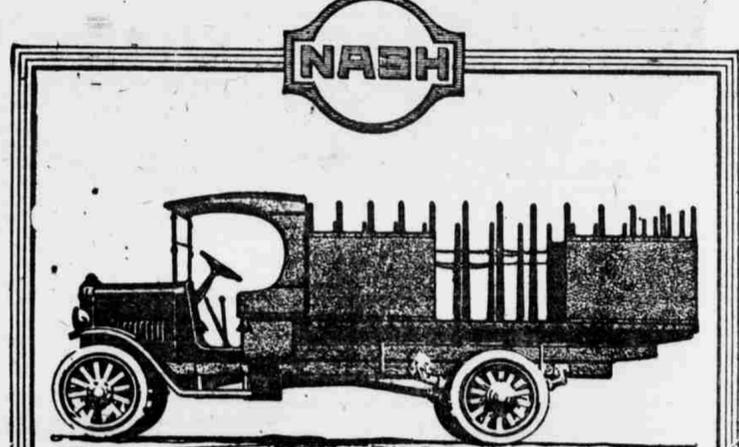
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With such a policy there can be only one result. Our cars go into service with an honest heritage and a limitless capacity for hard, gruelling work. They endure because they are fit to endure. They prove, day by day, that they are worthy of an honorable name plate and the confidence that has been placed in them.

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