The Mileage Book

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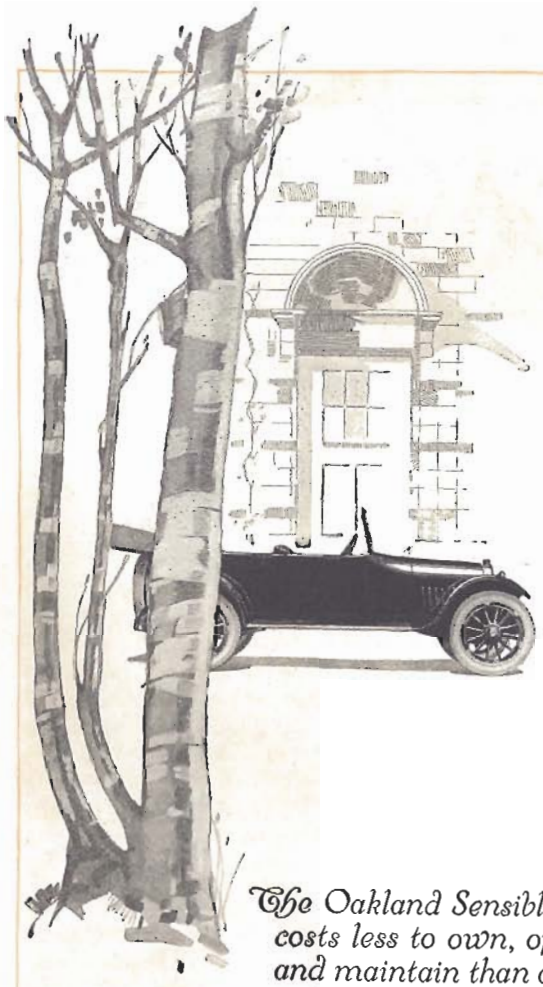


The Oakland Sensible Six costs less to own, operate and maintain than any other automobile in America—

The MILEAGE BOOK

Pertinent facts about motor-travel costs

ROBABLY twenty million people in America today are largely dependent upon the passenger automobile for their daily transportation from home to business and back again, from farm to town and return, and from place to place on business or personal pursuits.

The automobile is the most characteristic symbol of American energy, resourcefulness, indomitable power. It is the indispensable tool of the nation as well as of the individual—indeed, so great are its services and so far-reaching its benefits that the individual has seldom felt it necessary to make a scientific inquiry into its real costs. Its business and economic side has been forgotten in the absorbing employment of its wonderful services. We have been satisfied with the knowledge that no matter what the cost, we have had a just return in benefits.

Now, however, economic conditions and national duties call for a careful conservation of all resources. We must have greater efficiency of machine-power as well as of man-power. We must exercise that foresight in expenditure which will make every dollar return its greatest measure of usefulness.

In this connection, let us point out that few passenger cars today approach in efficiency of operation and economy of service their full possibilities. Few owners of automobiles know

how to judge the value of their cars in terms of mileage—few know how to analyze and compare different cars in a scientific way to ascertain which make assures the highest rate of automotive service.

We urge that the automobile be put on a business basis in respect to its services and its cost in order that its true value may be appreciated and that full efficiency may be derived from it. We believe that a clearer understanding of these things by motorists as a body will hurry the development and perfection of all motor cars to the point of high efficiency which the more advanced examples of automobiles have already attained.

The Oakland Sensible Six, because of very scientific design of all mechanical parts and special provision for fuel and tire conservation, ranks as the most economical car in use today. We have proved this by searching analyses of the cost of owning, operating and maintaining all those other cars which are especially known for their economy, and have taken into account all items of expense on a fair comparative basis.

Obviously we are not at liberty to disclose the figures resulting from these analyses, since they concern other cars as well as the Oakland, but in order that you may have a standard by which to work in making your own analyses and comparisons, we list below the principal items which should be considered in formulating a schedule of costs for different cars in which you may be interested.

The items of cost to be accounted for in any given period of time or amount of service, are as follows:

Interest on Investment.—Figure 6 per cent yearly on price paid for car.

Gasoline Cost.—Figure total number gallons used at current market prices.

Oil and Lubricant Cost.—Determine this by consulting owners of different cars.

Tire Cost.—Determine price of tires used, tire-mileage secured and figure number of new tires necessary for service rendered.

Repair Cost.—From owners' records and information from dealers.

Operating Licenses.—Yearly cost of state licenses may be secured from any dealer.

Depreciation in Market Value.—Investigate second-hand prices for cars of different makes or consult dealers.

While these are the main necessary expenses connected with the use of an automobile, it is also wise to figure in the matter of insurance, if such is procured. To arrive at the ultimate cost-per-mile of each car, divide the total cost by the total mileage recorded or figured upon.

If you will make a careful investigation for yourself among many owners of each make of car which you are considering and secure from these disinterested sources the real facts regarding their gasoline costs, tire costs, repair costs, and the other items of expense enumerated above, and then compare the average results in each case with those secured from an investigation of the costs of many Oakland owners, you will arrive at the same conclusion which we have reached after long and careful investigation of the real costs of all cars, namely, that the Oakland Sensible Six costs less to own, operate and maintain than any other automobile built.

You are invited to call on any Oakland dealer in regard to the securing of information and to obtain the names of Oakland owners in your vicinity who can give you at first hand their figures on the operating costs of the Sensible Six.

In figuring the mileage-cost of a car as outlined above, it is necessary to ignore the factors of comfort, beauty and distinctiveness which are such large items in the satisfactory ownership of an automobile, and to place all cars on a strictly utility basis. In respect to these important factors, however, which have so much to do with the worth of every automobile, you will find upon investigation that the Oakland Sensible Six gives greater value than other cars.

We wish to emphasize again that every motor car owner should know what his car costs him to own, operate, and maintain, not only for his immediate good in getting the greatest benefits from the ever-ready transportation service which it furnishes, but also in order that he may know its worth as compared with other automobiles.

Reasons Why Oakland Gives Maximum Mileage at Minimum Cost

Common sense tells us that the automobile which is most efficient and most practical from the standpoint of mechanical make-up is very likely the most economical as a transportation vehicle. It is entirely natural, then, that the Oakland Sensible Six should be a better producer of travel-mileage than other cars, basing this conclusion on the more advanced character of its design and construction.

The Oakland Sensible Six is above all other things a thoroughly modern and timely *machine*—and in these serious times it is well to judge all automobiles on the basis of utility and results rather than on more superficial counts. Its design embodies the best engineering practices in their most perfected form, as instanced in the high-speed, six-cylinder, overhead valve engine, aluminum pistons, progressively heated fuel-mixing system, the Hotchkiss drive, and the elimination of body brackets, spring hangers, and many other superfluous parts.

The Oakland Sensible Six is *timely* in its performance and operation because it makes best use of all fuel, of oil and tires, is easy to drive and to keep in running order, and in actual transportation service it gives a greater return for the money invested than any other car built.

As we have frequently pointed out, one of the important reasons for Oakland economy is the scientific reduction of its weight to the minimum figure compatible with full strength and enduring service. A heavy car of necessity requires greater power and more fuel to propel it than a light car, and a poorly-designed car of light weight uses more power than a scientifically-designed light weight car like the Oakland Sensible Six.

The weight of the Oakland touring model is 2,130 pounds. For a car of its generous size, high power, and unusual sturdiness, it is the lightest car built. This fact means great fuel economy because the 44 horse-power engine, while capable of unusual pulling and speed performance, is seldom called upon for its full power, and because of its small size and high efficiency, uses but little fuel in ordinary service.

The benefits of correctly-balanced light weight also appear in the matter of tire service and upkeep, with of course splendid results in comfort and ease of riding and driving.

Oakland owners get from 8,000 to 12,000 miles of service from their tires, with many cases of mileage up to 15,000, whereas owners of most other cars must replace their tires after 4,000 to 6,000 miles of use. Right here lies one of the main reasons why the Oakland Sensible Six is cheapest to own. The figures below give some idea of the comparative costs of tires, as taken from the price-list of a well-known tire company, as of February 1, 1918. These prices are for plain tread tires, there being an increase for non-skid treads of approximately 17 per cent over the plain tread price.

Comparison of Tire Sizes by Prices

Tire Size	30x3″	30x3½″	32x3½″	32x4″	34x4″	34x4½″
Price	$14.35	$18.25	$21.35	$29.05	$31.20	$41.35
Price increase over preceding size		3.90	3.10	7.70	2.15	10.15
Per cent increase over preceding size		27%	16%	35%	7%	32%

A study of this schedule discloses some interesting facts. Note that the cross-section of a tire is the principal determining factor in its cost; that is, the noticeable rises in price occur as you advance from a 3-inch to a 3½-inch tire, from a 3½-inch tire to a 4-inch tire, and so on. The wheel diameter is of much less consequence in determining the price of a tire or in the matter of tire service. The 4-inch tire is a good deal more of a tire

(*Continued on page 10*)

Engine of 44 h.p. to 2130 lbs. Car Weight

Only 48 lbs. per horsepower

OVERHEAD VALVES

Most efficient combustion chamber formed. Explosion direct on piston heads insures no waste of power. Perfect expulsion of burned gases. Lighter cylinder casting.

ECONOMY MANIFOLD

Heated three-branch intake manifold to valves. Carburetor bolted direct to manifold. Gas mixture heated by stages to complete vaporization.

EXHAUST JACKET

Chamber surrounding manifold pipes heated by connection from exhaust manifold. Insures quick warming-up. View shows innerside, plate and exhaust connection removed.

AIRPLANE FAN

Three-blade biplane type with powerful suction. Driven by V-belt in combination with large capacity water pump. Minimum consumption of power.

ALUMINUM PISTONS

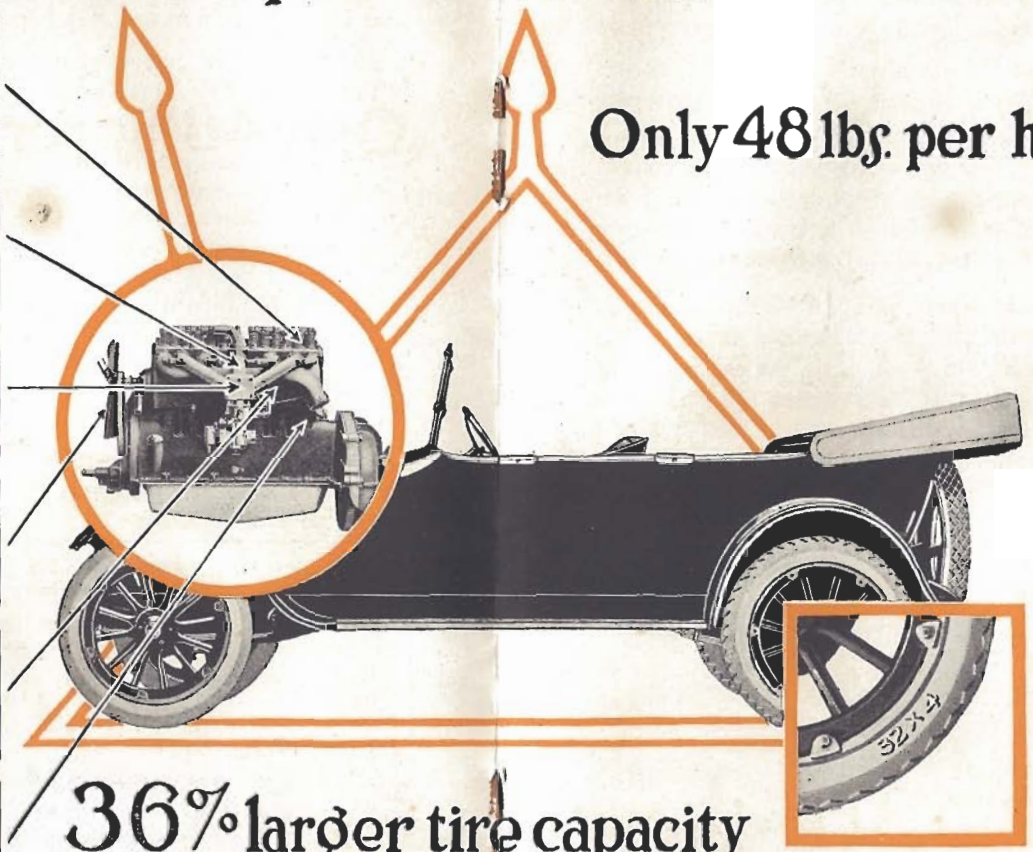
Light aluminum pistons reduce inertia, increase flexibility, assist production of high power with minimum fuel consumption. A feature of high-priced cars.

LIGHT CONNECTING

RODS—Connecting rods are very carefully machined to remove all superfluous metal and reduce weight. All piston and connecting rod assemblies balanced for even weight.

POSITIVE OILING SYSTEM

Gear pump forces oil under pressure to main engine bearings and through drilled crankshaft to connecting rods and thence to pistons. Allows greater engine speed with reduced friction and wear on crankshaft bearings.



36% larger tire capacity than weight of car demands

EXTRA-HIGH MILEAGE FROM OAKLAND TIRE EQUIPMENT

The Oakland Sensible Six is lighter than many cars which are equipped with smaller tires. It could weigh 750 pounds more without overloading the 32 x 4 inch tires. Because it never puts excess strain or wear on its tire equipment, the Sensible Six travels from 8000 to 12,000 miles on each set of tires, or 75% upward more mileage than other cars give.

Lowest owning, operating and maintenance cost of any car

than the 3½-inch size; for instance, a 32 x 3½-inch tire has a carrying capacity of 600 pounds, but a 32 x 4-inch tire has a carrying capacity of 800 pounds, and gives a far greater percentage of tire mileage than the percentage of increase in price.

The Oakland Sensible Six, by reason of its low weight, would be easy on any tires with which it might be equipped. Then add to this the fact that it has extra-large tires for its weight and you have the reason for the truly extraordinary tire-mileage which this car gives. Its 32 x 4 inch tires have a carrying capacity of over 750 pounds more than the weight of the car.

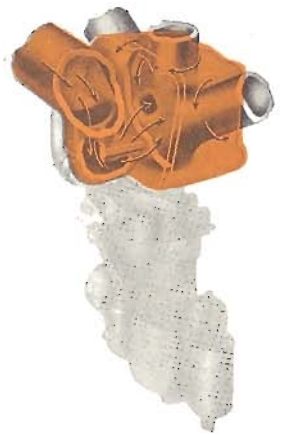
Compare the average minimum mileage of 8,000 miles obtained from a 32 x 4-inch tire on the Oakland with the usual 4,000 miles obtained from a 32 x 3½-inch tire on other cars of Oakland size and price. On this basis 8 new 32 x 3½-inch tires at $21.35 (according to price list above), or $170.80, would be required to give 8,000 miles' service as against 4 new 32 x 4-inch tires at $29.05, or $116.20—a difference of $54.60 on tires alone, a minimum saving experienced by nearly every Oakland owner every 8,000 miles.

Engine Features of Economy

One of the greatest achievements of Oakland engineers has been the painstaking development of the Oakland engine to a point of unusual efficiency, where it now produces driving power at less cost than other cars.

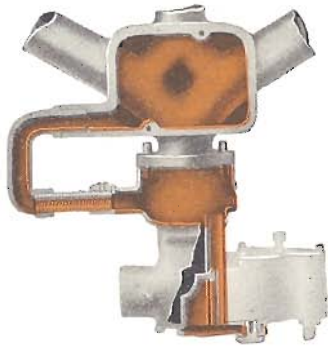
This mechanical efficiency has been secured through the use of overhead valves which typify the most perfect engine design, the use of small cylinders with long piston stroke, aluminum pistons with light, carefully-machined connecting rods, force feed oiling system, drilled crankshaft with large bearings, and high speed operation of the engine.

One of the most signal advances in engine design today is found in the Oakland in the unique system of progressively heating the fuel mixture in its passage from the carburetor to the engine. It is this ingenious system which, combined with the light weight of the car and the high efficiency of the power-plant, makes it possible for Oakland owners to average 20 to 25 miles per gallon of gasoline and for many owners to get up to 28 and 30 miles per gallon in regular driving.



Phantom view of exhaust jacket (from engine side) with connection from exhaust pipe. Color shows heated areas of intake manifold. Arrows indicate circulation of hot exhaust gases in exhaust jacket.

The ordinary engine, after being started from a cold condition, takes some little time to heat up sufficiently to get full efficiency from the fuel which it consumes. It has been shown by actual test that the consumption of gasoline for the period during which the engine is "warming up" is nearly twice as much as is used when the engine has become warm and is securing best results from its fuel. The Oakland progressive heating system advances this full efficiency period so that the engine is running smoothly and economically in a very few moments after starting.



Sectional view of entire progressive heating system. Color shows areas in which heated exhaust gases circulate around intake manifold at top, carburetor throttle, and low speed throat, exhausting at bottom.

The accompanying illustrations show the main features of this improved fuel mixing arrangement. The intake and exhaust manifolds are both on the left side of the engine, the exhaust manifold lying underneath and closely adjacent to the intake pipes. This of itself furnishes a certain amount of heat to the fuel mixing system, but in addition

to this, a very positive and effective provision is made for perfectly vaporizing the fuel mixture so as to secure maximum results in power development.

At a point just above the carburetor, where the three intake pipes branch to the valve passages of the engine, a jacket or chamber around these intake pipes is heated directly from the exhaust manifold through a short connection. From this exhaust jacket a pipe connection extends downward to a hot air jacket around the throttle, and from there down to a jacket around the low-speed throat. Thus there is a progressive heating-up of the fuel mixture which gives complete vaporization at the proper point.

As previously explained, the exhaust jacket also serves to warm the fuel mixture immediately after the engine is started and thus does away with the ordinary delay in getting the engine to running properly after it has become cold. This is a feature which is greatly appreciated by Oakland owners.

It is through such engine features as this and others which have been briefly mentioned before that the Oakland has become known as the most practical and most economical car in use today. Thoughtful foresight, expert design, and unparalleled manufacturing facilities have enabled the Oakland engineers to provide in the Sensible Six an extraordinary combination of features which cater directly to the present great need for reliable motor service at minimum cost.

Prices and Weights of Oakland Models

Five Passenger Touring	Shipping weight 2130 pounds	$990
Three Passenger Roadster	Shipping weight 2070 pounds	990
Roadster Coupe	Shipping weight 2175 pounds	1150
Five Passenger Sedan	Shipping weight 2290 pounds	1190
Five Pass'gr Sedan (unit body)	Shipping weight 2400 pounds	1490
Four Pass'gr Coupe (unit body)	Shipping weight 2350 pounds	1490

Prices f. o. b. Pontiac, Michigan

Owners Prove Oakland Economy

The most convincing evidence of the unusual performance and economy of Oakland cars is found in actual records of their use by individual owners throughout the country. The testimony of many people proves that the Oakland Sensible Six fully lives up to its reputation for reliability, for high gasoline and tire mileage, and for unusual freedom from repair and upkeep expenses.

Simplicity of design makes the Oakland easy to care for, and the exceptional satisfaction which results from the use of the Oakland Sensible Six is reflected in the letters from users which we quote below. These are but a few of the many voluntary expressions of approbation which we are continually receiving, but they represent the universal opinion of Oakland users regarding this truly remarkable automobile.

Garland, Texas.

Dallas Oakland Sales Co.,
Dallas, Texas.

October 11, 1917.

Gentlemen:

On July 9th, I purchased a Model 34 Sensible Six Oakland touring car of your dealer at Garland, Mr. A. V. Morrison, and the satisfaction and service I have had out of this car is so remarkable that I cannot refrain from giving you a slight history of the car during the time I have had it in service.

Since July 1 have made a trip to Texarkana and back and a trip to Oklahoma and back. The balance of the time the car has been in jitney service between Garland and Dallas. Up to the present time the car has been run 13,612 miles; 11,000 miles of which was on the set of tires furnished with the car and two of these tires I am still using and the speedometer shows 13,612 miles.

13,612 miles service and tires still good

During this time outside of tires, oil and gas my entire expense on this car has been $9.00. I have averaged on all the use to which the car has been put over 22 miles on every gallon of gasoline that I have used; while the results on lubricating oil have been satisfactory.

I have had experience with a number of different makes of automobiles, both extremely low priced and some higher priced, and consider that the Oakland Sensible Six offers far more value for the money than any car on the market today.

(Signed) W. R. AILSHIE.

Houston, Texas.

Mr. G. F. Conant, President, December 3, 1917.
East Texas Oakland Co.,

CITY.

Dear Sir:

On November 4th, in company with a party of friends, I made a trip from Houston to Clear Lake in Oakland Car No. 2352234, Motor No. B-26250. Before starting the return trip a careful measurement of the gasoline was made. After returning to Houston, a distance of 32 miles, we had only consumed one (1) gallon of gasoline. The 32 miles were covered in a little less than 50 minutes

32 miles per gallon of gasoline

Doubting this result, measurements were taken the following Sunday over the same route, with the result that the thirty-two (32) miles were covered twice, each time on one (1) gallon of gasoline.

The trip, the second time, was made after a heavy rain and the road was not in the best condition; however, the car did not consume but one gallon for the entire trip.

If it is so desired this statement can be verified by the parties who accompanied us on this trip.

(Signed) MRS. J LOEB.

Wallingford, Conn.,

Oakland Motor Car Co., Dec. 10th, 1917.
Pontiac, Michigan.

Gentlemen:

After two seasons' run with my Oakland roadster, purchased through Mr. F. M. Hastings' Agency, Meriden, Conn., I think you may be pleased to learn how well it has behaved. Well, excellent is the best word to use here. It has run nearly eleven thousand miles. Has never given me one moment's worry or trouble.

I have ground the valves in twice, and adjusted a push rod now and then.

My Oakland roadster is not for sale, and let me say right here that the quality of any car is determined largely by the number of second hand cars that are advertised for sale and the price asked. When an Oakland second hand car is sold I notice that the price paid is well up towards the first cost.

Small depreciation—high second-hand prices

You may draw your own conclusions. Go steadily on making quality The price will take care of itself.

(Signed) D. L. BARBER,

131 Church Street.

Souther Oakland Company, Columbus, Ga.. Oct. 18-17
Atlanta, Ga.

Gentlemen:

With regard to my Oakland Sensible Six purchased September 16th, 1916, would state to date this car has been run thirty thousand miles. On a recent trip through points in South Georgia, totaling three hundred and sixty miles, our average gasoline consumption was 28.1 miles per gallon. I know you will be proud of the performance of this car as much as I am.

28.1 miles to the gallon

(Signed) T. W. SMITH

Topeka, Kansas.,

Oakland Motor Car Co., December 17, 1917
Kansas City, Missouri.

Gentlemen:

I had a man come in the other day and look over the Model 34-B. After talking to him I found out he was a Rural Route Mail carrier, He said if the car would do 16 miles to the gallon or better he would buy the car, So last Saturday I sent a man to Wakarusa, loaded with mail, drove to a filling station, filled it with gas and drove 26.2 miles, made sixty-two stops, stopped the engine each stop, on five quarts of gasoline. The mail carrier did the driving. This was done on low test gasoline. How's that?

Over 20 miles per gallon with many stops

(Signed) J. R. JOHNSON
(Oakland Dealer)

Cincinnati, O., Aug. 7, 1917.

The Cincinnati Oakland Motor Co.,
Cincinnati. Ohio.

Gentlemen:

You may be interested in knowing the mileage which I recently obtained with the 1917 Model Oakland Sensible Six.

During my vacation last week I took some two or three trips. One covering a distance of one hundred and twelve miles, on which I used four gallons of gasoline, being an average of twenty-eight miles per gallon. On another trip I covered a distance of one hundred and twenty-two miles, using something less than five gallons. My average on that trip being twenty-five or six miles per gallon.

25 to 28 miles per gallon in regular driving

While writing you I also wish to compliment you on the splendid service given by your service station here, and in general wish to say that I am thoroughly satisfied and pleased with the car and with the service which I am receiving.

(Signed) H. G. HIGHTOWER

Help Conserve the Gasoline Supply and Reduce Motoring Costs

This company is doing its utmost to assist in the national "conservation of resources" movement. Because of the tremendous importance of utilizing all our transportation resources to the best possible effect, it is necessary that there should be as little waste of motor fuels as is possible.

To this end, we ask for your co-operation and support along this particular line. If you are already a car owner, observe the following suggestions wherever possible. If you do not now drive a car, urge upon others the need for care in the use of gasoline.

A united effort on the part of all automobile owners to reduce all waste of gasoline will not only serve a national purpose, but will bring about personal benefits through more efficient and more economical operation of their cars.

1 Don't spill or expose gasoline to air—it evaporates rapidly and is dangerous.

2 Don't use gasoline for cleaning and washing—use kerosene or other materials to cut grease.

3 Stop all gasoline leakages. Form habit of shutting off gas at tank or feed pipe.

4 Adjust brake bands so they do not drag. See that all bearings run freely.

5 Don't let engine run when car is standing. It is good for starter battery to be used frequently.

6 Have carburetor adjusted at service stations of carburetor or automobile companies—they will make ordinary adjustments without charge.

7 Keep needle valve clean and adjust carburetor (while engine is hot) to use as lean mixture as possible. A rich mixture fouls the engine and is wasteful.

8 Pre-heat air entering carburetor and keep radiator covered in cold weather—this will insure better vaporization.

9 See that spark is timed correctly with engine and drive with spark as fully advanced as possible without causing engine to labor.

10 Have a hot spark, keep plugs clean and spark points properly adjusted.

11 Avoid high speed. The average car is most economical at 15 to 25 miles an hour.

12 Don't accelerate and stop quickly—it wastes gas and wears out tires. Stop engine and coast long hills.

13 Cut down aimless and needless use of cars. Do a number of errands in one trip.

14 Know your mileage per gallon. Fill tank full and divide odometer mileage by gallons consumed.

OAKLAND MOTOR CAR COMPANY

PONTIAC, MICHIGAN


Oakland