

The Packard Maintenance

ANY distributers and dealers in an effort to increase I their service volume, have decided that there are some very distinct advantages in a plan which would cover maintenance as well as lubrication and inspection; a plan which could be sold to Packard owners at a reasonable figure, and which would place the servicing of their automobiles on an entirely new basis.

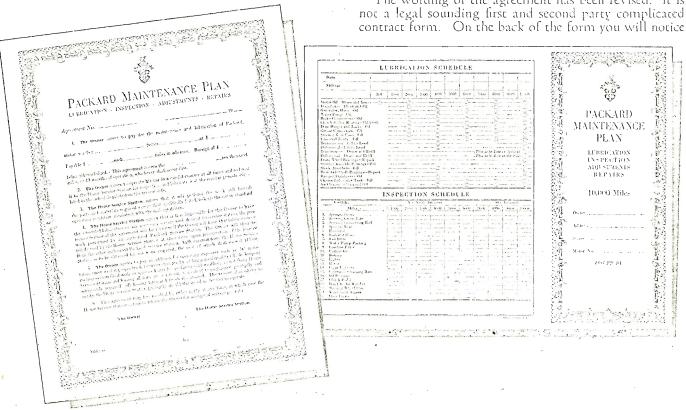
Such a plan was tried out several years ago by such points as Washington, Youngstown, New York, Chicago and several others. The plan at that time anticipated a definite schedule of mechanical work in connection with lubrication and inspection. We have revised this plan so that you, and the selling distributer or dealer, and the owner, agree that for a cerrain amount of money you will place his car on the Packard Maintenance Plan, under which you will take care of lubrication, inspection, adjustiments and repairs. From a service standpoint, you

agree to keep the car in standard operating condition, consistent with the mileage driven. You do not agree to any definite mechanical work at certain mileage periods. You do agree to inspect the car each thousand miles, and to lubricate it properly at the same interval.

There are four items which are not included. These are definitely listed:

- 1. The maintaining of motor oil at the proper level between changes.
- 2. Keeping the cooling system filled with an approved anti-freeze during cold weather.
- 3. The handling of work caused by accident, or negligence.
- 4. The tires and finish are covered only by the original warranty, either on the part of the Packard factory, or in the case of tires, on the part of the tire manufacturer.

The wording of the agreement has been revised. It is not a legal sounding first and second party complicated



that we list simply the lubrication schedule and the inspection schedule. We have two plans to offer, one taking into consideration an oil change at one thousand mile intervals; the other one takes into consideration oil changes at two thousand mile intervals. This naturally can be sold for less money. Oil changes at this mileage are approved by the engineers and, therefore, for the lower figure, you can get your customers coming in on a one-thousand-mile inspection service at two thousand mile intervals for lubrication and in between these intervals, if necessary, for any maintenance work.

We rather favor the lower priced maintenance plan, based on two thousand mile oil changes, due to the fact that it can be sold for less money. In establishing a price for this plan in your territory, it is well to take into consideration that the regular visits of your customers are worth considerable money to you. If we can educate all Packard owners to the custom of visiting the Packard Service Station each thousand miles, we will have gone a long way in determining the answer to increase volume

in Packard Service Stations.

In ordering forms, specify D-44, one thousand mile change, or D-44, two thousand mile oil change. These forms are priced at three cents each.

These are suggested prices for the plan.

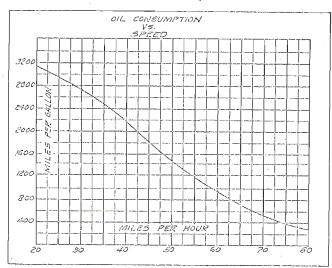
The price includes the factory approved lubrication schedule, plus an amount which a recent analysis shows is adequate for the mechanical attention that these cars require.

Packard Washington probably has used this plan longer, and with better results, than any other place, and the prices which their experience indicates are correct

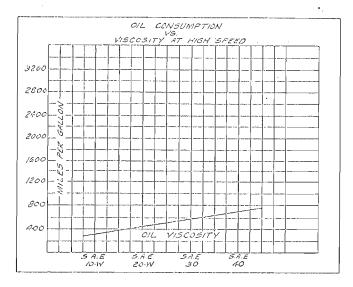
are in line with these:

. 1	000 mi.	2000 mi.
	basis	basis
Packard Eight First 10,000 miles 3	\$ 70.00	\$ 60.00
Packard Eight First 10,000 miles	110.00	100.00
Packard Eight First 10,000 miles	160.00	150.00
Packard Super Eight First 10,000		
miles	80.00	70.00
Packard Super Eight First 10,000		
miles	120.00	110.00
Packard Super Eight First 10,000		
miles	170.00	160.00
Packard Twelve First 10,000 miles.	90.00	80.00
Packard Twelve First 10,000 miles.	130.00	120.00
Packard Twelve First 10,000 miles.	180.00	170.00

Oil Consumption

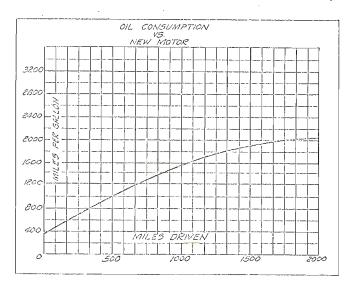


Few people realize the great difference in oil consumption with change in car speed. Figure 1 shows a typical curve illustrating this variation. Note that at 70 m.p.h. oil consumption is at the rate of about 500 miles to the gallon, while at 40 miles per hour it is about 2400 miles per gallon. These figures are approximate for an average



car and do not represent absolute values that should be taken as standard, but the character of the curve is the same for all cars.

The condition of the car as regards piston fits, ring fits, and piston and ring drain holes, greatly affects oil consumption and is second in importance to car speed. A new motor does not have the same fit of pistons and rings with the cylinder walls as does a motor driven several thousand miles, and for this reason oil consump-



tion on a new motor should not be considered excessive until the car is driven at least 3000 miles. Do not be surprised if a new car gives only 400 miles per gallon or less with fast driving. It is a perfectly normal condition and consumption will be decreased as mileage increases and it will continue to improve for many thousand miles or until there is excessive wear or oil drain holes in the piston and rings become plugged.

Oil consumption is also affected by change in oil viscosity or body, but to a much less extent than is generally expected. Figure 2 illustrates the difference that may be expected and note that by changing from SAE-20-W to SAE-30, oil consumption will be less affected than by reducing speed only 3 miles per hour.

Winter months require light oils, either 10-W or 20-W, to give proper cold weather starting, and excessive oil consumption should not be blamed on these oils. Proper education of the car owner to expect oil consumption of around 400 miles per gallon with high speed driving is more in line.

The high speeds possible with our latest type cars use more oil than formerly and this should not be considered bad practice. Remember that with good oil consumption you need not expect worn cylinder blocks, a fact that is borne out with Ninth, Tenth and Eleventh series cars.

The use of heavy oils to reduce oil consumption is false economy. Recent tests have shown that the added friction of such oils as SAE-40, 50 and 60, will increase gasoline consumption to such an extent that it will actually cost more money for gasoline than is saved in oil. This fact is not readily appreciated because gasoline costs are much higher than oil costs. In driving 10,000 miles gasoline will cost about \$1.50.00, where actual oil consumed will only be about \$6.00. Two dollars additional for oil will be seen by the owner much quicker than \$4.00 for gasoline. The fact remains it is cheaper to use the lighter oils, 10-W and 20-W, in the winter, spring and fall, and SAE-30 in the summer.

Light oils also give more power and lower oil temperatures.

If an owner complains of excessive oil consumption, it is first necessary to determine the character of his driving and just how much oil the motor is using. It is quite possible that a consumption of 400 miles per gallon, or even less, represents a normal result if the car is driven fast

The first step would be to check for oil leaks and if none are apparent, determine just how much oil is being consumed. You will often find that the owner does not realize how much oil it is necessary to use if the motor is driven at high speeds, and even if he reports a consumption which appears to be excessive, it is advisable to make an accurate check in order to determine the facts of the case.

The motor should not be torn down until you have made sure that the oil consumption is actually excessive, based on the motor speed and mileage.

If the crankshaft bearings, connecting rod bearings, cylinders and pistons appear to be in good condition, it seldom pays to change the fits at these points, and if piston rings are replaced, it must be borne in mind that considerable mileage will be required for the rings to reach their maximum efficiency. The owner should be cautioned that during the first period of operation he may find an increase rather than a decrease in oil consumption.

Steering Pillar Tube Bushing

A change has been made in the bushing in the upper end of the steering pillar tube of all Eleventh series cars.

The new bushing is covered by piece No. 219557, and will be supplied on all service orders. We suggest that

you return for credit any of the old bushings piece No. 223199 which you may have in stock.

The new bushing is of the lubricated fabric type with a steel back, and is similar to the design which we used in our earlier models. It should be installed without any additional lubricant of any kind. The only precaution necessary is to make sure that the steering shaft presents a smooth, polished surface where it contacts with the bushing.

Valve Springs on Packard Twelves

Our Service Supervisors have called to our attention the fact that valve springs on the Packard Twelve have been incorrectly installed in the field. May we again call your attention to the fact that the valve springs must be installed with the painted end down toward the tappet. This end of the spring, which is installed toward the tappet, has a $\frac{3}{2}$ " space between the first and second coils, while at the upper end, which seats against the block, the space between the first and second coils is $\frac{1}{8}$ "

If, when installing valve springs on the Twelve, it is not possible to see any of the light blue enamel, which marks the end to be assembled to the tappet end of the valve, then it may be necessary to measure the space between the first and second coils and the dimensions which we have given you will determine for you the proper end of the spring to assemble toward the tappet end of the valve.

More and Better Equipment



The Cleveland Packard Company come to bat with a very neat lubrication equipment layout. The volume of lubrication business produced by aggressive selling of Agreements made this possible.

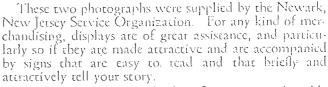
Such corners as this can be made to produce real profits both in dollars and in satisfied owners.

USED BODY WANTED

Sedan Body to let 845. Give condition, color and price.

R. J. Donnelly, Packard -- Newark

Displays Sell Service



The first view shows a display of equipment adaptable to earlier series Packards, and the second is of a small room adjoining the service sales office in which are displayed samples of top covering, floor carpets, slip covers; a description of the painting processes used, and the various color combinations used on the current series cars.

Letters have been prepared and sent out to owners. The letter calling to the attention of the owner the engineering improvements which have been made available to him is also shown.

Added service volume can be expected from such displays and from such letters. Customers who are sold on equipment of this nature are better satisfied owners. A plan of this sort is well worth your serious consideration.

April 14, 1934.

MR. JOHN DOE Newark, N. J.

Dear Sir:

Newark, N. J.

Dear Sir:

The time is now approaching when you no doubt will be making praparations for the summer season that will soon be here. Your motor car transportation will undoubtedly enter into your activities, whether it be for business or pleasure. If you intend continuing throughout the coming season with your present Packard, we have something of interest to offer in addition to our regular Spring Conditioning Campaign; something that will greatly improve the performance of your car and create a greater sense of joy and contentment than you have previously experienced. By special arrangement, through our Factory Engineering Division, it has been made possible to install some of our present 1934 features on our minth series cars, and as a result we offer the following recommendations:
First - DOWM-DRAFT CARBURETION - This is one of engineering's greatest contributions to increased motor performance and efficiency - Dual carburetors so designed as to be built into a single unit, entirely new manifolding that insures greater efficiency in gas distribution, higher explosive power, automatic choke control, instantaneous starting and acceleration. This is a truly worthwhile consideration that we are now able to install on any minth series car for 5000.00.

The other recommended feature is the new DUAL IGNITION COILS and new improved DISTRIBUTOR. This assembly has been so designed as to greatly prolong the life of distributor points and spark plugs. It also materially smoothens out the motor performance. We offer this assembly, installed, for 500.00. This results in an ideal combination and should be considered if you intend continuing with your present inith series Packard car throughout another season. We are sure that you will be more than pleased with the results. We are in a position to furnish you with references where this installation has been made and we are very sure the results will warrant the expenditure which will bring your motor performance up very close to that of our present model.

We

Very truly yours.

HOWARD H. DAY Newark Service Manager

HHD: SC