SERVICE MANAGER'S
PERSONAL COPY

VOL. 16, NO. 1 JANUARY 1, 1942

SPECIAL

NEW BUSINESS FOR JANUARY

We suggest you immediately contact car owners to visit your service station for examination of tires and to have them cross switched, balanced and wheels aligned, also to receive complete information on care of tires.

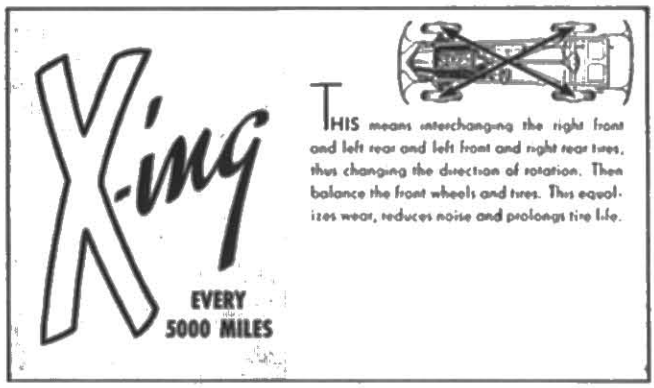
This will offer opportunity to do any other necessary operations to tune motors, check brakes, clean carbon, inspect and lubricate chassis, change oil, etc.

Contact all owners during January and February when service volume is usually below average.

General Service Manager

WHAT TO USE

Post cards are inexpensive and get business. They go after one item at a time. Use all three and put on a real drive for this timely work. Start talking to customers about today's service needs. Keep your shop filled during January and February. We can get these cards imprinted for you in a hurry. Order by number. They cost $1.25 per hundred plus 80c for the first 100 of each card. Add 15c per hundred to the card cost of $1.25 a hundred for each additional hundred of the same card.



Card No. 20

Card No. 28

Card No. 8

Sealbeam fog lights are efficient in snow, fog, rain or dust. The powerful white light is not reflected back into the driver's eyes, but pierces the darkness ahead and illuminates the road. Their use permits one to travel steadily onward instead of having to wait until after the storm or fog has lifted.

To get the greatest benefit from these lights, connect them in series with the parking lights. This will provide the correct distribution of light for the best results and comply with all state laws.

The winter months, when many people drive to and from work in darkness, offers the best opportunity to sell fog lights. Start a campaign on this item today.

Buy an adequate stock. Ask the public to buy. Display all the lights you have on hand.

AN OLD SPANISH CUSTOM

You have all heard about the importance of building and maintaining good will. Before we hear any more about it, suppose we stop for a moment and find out just what it is, then we will know how important it is and what we should do about it.

The English definitions are all good and you have heard most of them. It might interest you to know that the Spanish term for "good will" is "La llave del negocio." Until we get it into English it won't mean much to most of you. Translated, it says "The Key of the Business."

Many dollars spent on advertising, many hundreds of phone calls, many hundreds of contacts and many years of rendering good service make up this key. It is the key that keeps the doors of the business open.

What you sell must be good. The parts and accessories and labor have to be right or quickly and cheerfully made right. You can't do anything about the "Key of the Business" until what you sell is right. How you sell it and whether you will sell that customer again is largely a matter of how that key is working.

The things we ask you to do on the Service Promotion Program are all for the purpose of helping you keep the "Key of the Business." What are the things you should do?

1. Have adequate interior and exterior Packard signs.
2. Have a registration list of owners.
3. Have and operate a follow-up file.
4. Establish quotas and beat them.
5. Sell Lubrication-Inspection Coupon Books.
6. Have and sell more Packard Parts and use Balance Parts Stock Plan.
7. Display and sell more Packard accessories.
8. Build and merchandise through new departments such as Body and Paint, Motor Analyzing and Lubrication.
9. Have and train apprentice personnel.
10. Keep the place clean, orderly and well arranged.

These are what give you the "key." Don't just check them off and say, "We have all that." Do you just "have" them or is every one of them the best you can get and are they working the best you know how to work them? Have you given each one your full attention lately? Can they or the way they work be improved upon? Check them from this standpoint and see how much better you can make them.

There are other things you can do also. You can find out what the customer wants and do those things. You know he wants:

1. An atmosphere of welcome.
2. A prompt and cordial greeting.
3. Courteous consideration.
4. Punctuality on promises.
5. Protection of his property.
6. Necessary work pointed out.
7. Interest taken in his problem.
8. Expert diagnosis.
9. Good materials used.
10. The job done right.

These are the ten things you must have and they must be kept working right. These are the ten things you must do right all the time. These are what give you the "Key to *Your* Business." They build and keep "good will." It is owner satisfaction that builds *your* service business.

SOFT RIDE—19th SERIES CLIPPER

We have had some inquiries regarding the possibility of obtaining a firmer ride for the 19th Series Clippers.

This result can be provided by the use of the shock absorber valves used in the 2003 model, and these can be ordered in the regular way.

The additional control provided by the Super Eight valving also reduces steering wheel fight. We suggest that the valves in question be used both for reducing wheel fight and for meeting complaints on too soft a ride or excessive strike-through of the springs.

CAST IRON PISTONS—20th SERIES

The 20th Series cars equipped with cast iron pistons are indicated by the suffix "C" or a later letter following the motor number.

If any cast iron pistons are installed in the field they should be fitted to .0015" at the skirt. The piston pins are a light palm-push fit at room temperature. The pistons should not be heated as is the case with aluminum pistons.

HANDISHIFT LINKAGE

The proper adjustment and inspection of the handishift linkage has been reviewed in the Service Letter a number of times.

If the entire linkage is properly checked and adjusted, a satisfactory result will be obtained but there have been numerous cases where owners have had trouble with the transmission sticking in gear after the condition had presumably been corrected.

Many of these cases develop from a cause which the average service station has overlooked. When the transmission sticks in gear the driver usually makes very vigorous efforts to move the handishift lever into position. When this is done it has the effect of trying to operate both of the shifter forks in the transmission at the same time and the full load is taken by the interlock block which is bolted in the transmission cover between the two shifter fork sectors.

The load on this block may be sufficient to bend the bolt and if the block is not in position the forks, of course, can not operate properly.

It is very important, therefore, to check the transmission cover assembly in correcting a gear shifting complaint. The operation of the levers on the side of the cover should be smooth and without undue resistance. If they do not operate freely and accurately the cover should be removed.

If it is found necessary to relocate the interlock block the surfaces of the sectors should be inspected to make sure that they are smooth. If they are scored it will usually be found that the block can be shimmed inward toward the center of the case so that the balls and the plunger will operate on smooth surfaces.

In checking the linkage you may find in the case of a 19th Series car that the assist spring is not properly centered. This may cause the linkage to bind or it may have a tendency to throw the linkage over center and thus in itself cause the transmission to lock in gear. The best practice, we believe, will be to eliminate the spring entirely. It is not used in the Clipper models.

Do not forget that the manner in which the car is driven is the most important factor in the proper operation of the linkage. Where trouble persists in spite of the fact that the linkage has been properly adjusted, you should ride with the operator of the car to make sure that the clutch is being properly disengaged. Where the driver only partially disengages the clutch the pedal should be adjusted to get the benefit of all possible travel.

WHAT DOES THE CUSTOMER WANT?

Another article on handling Packard Service by R. B. Parker, General Manager of Packard-Philadephia, on the subject of "What the Packard Service Patron Wants."

A COURTEOUS CONSIDERATION ALWAYS

That we refrain from any word or act of *dis*courtesy goes without saying. Normal gentlemanly demeanor dictates that.

But there is a considerable difference between a negative courtesy and a positive courtesy. Positive courtesy demands not merely the avoidance of discourtesy, but a self-evident personal interest in the visitor, and an apparent desire to go "just a little bit out of the way" to please.

For example: When a visitor comes in and inquires for some particular individual or office, negative courtesy might lead to politely directing the visitor to his destination, possibly by pointing in the general direction, and with the comment, "Right through that door over there." Positive courtesy, however, would suggest escorting the visitor at least to a point where the individual desired could be seen, and if not known to the visitor, a personal introduction to that individual.

When a visitor is observed apparently waiting for someone, to *assume* that he is being attended may not be actually discourteous, but positive courtesy would dictate stepping up and making sure, and offering to be of assistance.

PUT YOURSELF IN THE CUSTOMER'S SHOES—WHAT WOULD YOU WANT?

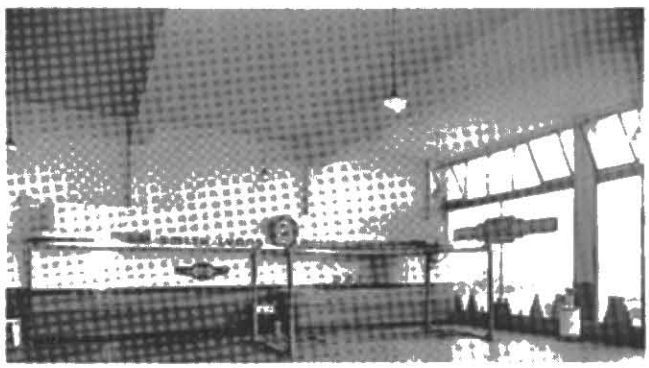
LUBRICATION INSPECTION PROCEDURE

Experience has shown that, when lubricating automobiles, certain details of procedure, aside from the technical steps recommended in the lubrication chart, are impressive to the customer, save time and steps, insure thoroughness in the job, make errors and oversights improbable and contribute generally to orderliness and efficiency.

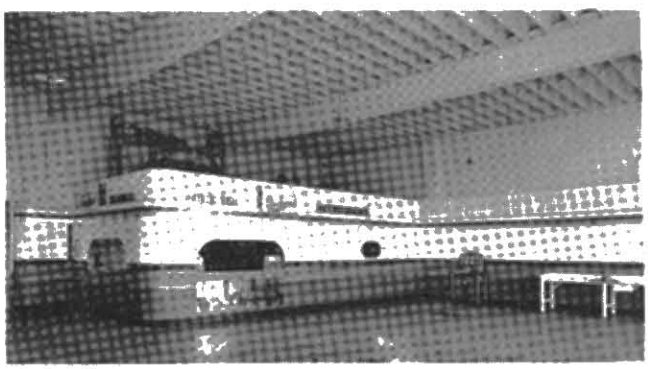
We list herewith a few details of procedure, which, if followed in the order suggested, will accomplish these ends, providing, of course, that tools and equipment are properly organized:

1. Always put a seat cover and steering wheel cover in place before getting into car.
2. First drive car on lift before doing any work on it. Do all under-chassis work first.
3. If motor transmission or differential are to be drained, remove plugs and allow to drain while lubricating chassis. If not to be drained, check level of lubricant and replenish, if necessary.
4. Wipe all lubrication fittings. Always start at a certain position, such as the right front, working around the car in a clockwise direction, finishing at the starting point, so that no fittings are missed. Don't forget, the customer appreciates cleanliness.
5. Replace any missing fittings before lubricating the car.
6. Replace crankcase, transmission and differential plugs after filling.
7. Check and inflate tires before lowering car. Inspect tires for nails, glass and other objects which may cause punctures. Notify customer or service manager if there are any breaks in the tire or if there is any indication of poor wheel alignment.
8. Rotate front wheels and check bearing adjustment. Refer to work order: If wheel bearings are to be repacked, lower car to a convenient height (if on a free wheel lift) and repack them. Note: In many shops it has been found that this service can be done more profitably on a floor jack away from the lift, leaving the lift free for other lubrication services.
9. Lower car and put fender covers in place.
10. Raise hood and replenish motor oil. Lubricate all under-hood parts according to lubrication chart.
11. Clean air filter.
12. Inspect fan belt for condition and adjustment. If replacement should be made, notify owner or service manager.
13. Check mileage on oil filter. Suggest new cartridge if required.
14. Check battery water and fill to proper level. *Never perform this service before lifting car.* Any water dripping down the side of the battery may contain acid and damage clothes or equipment. Check battery cable and connections. Tighten if necessary. Suggest replacement if required.
15. Sweep out or vacuum clean interior of car. Empty ash trays and wipe off dash and steering post.
16. Use "Door Ease" on door lock, dovetail, and strikers.
17. Clean windshield and windows. Test windshield wipers and inspect blades. Suggest replacement if necessary.
18. As a final service, test all lights, including stop lights. Call owner's attention to any replacement necessary or notify service manager.
19. Remove fender, seat and steering wheel covers. Check upholstery for grease spots. If any are found, remove with spot remover.

SMITH LYONS — SEATTLE



NEW LUBRICATION DEPARTMENT



NEW PARTS DEPARTMENT

PRINTED IN U. S. A.

VOL. 16, NO. 2 JANUARY 15, 1942

WHAT NOW?

The winter preparation rush is over, and very likely the number of repair orders written is becoming lower. Now what do we do? The obvious answer is, to go out and fight for every possible dollar of business. Use everything available, including a part of everybody's time.

Everybody on the payroll, regardless of his position, has one job ahead of him. Get more service business. The follow-up job is no longer the job of one girl or one man—it's everybody's job.

Get together with the boss and decide what you are going to use and get it started quick. If the shop down the street is getting your business on a price basis, maybe it's because he knows more about his costs than you do. Maybe you still have some work to do on your overhead costs. Maybe your shop times are not right, based on the equipment you have. Maybe your charges on certain fast-moving jobs need revising. Is your "motor tune" the same job that's being sold down the street for less?

A lot of people driving Packard cars have not been buying Packard service. This is something you and we have got to change. They have to be told of your equipment—the fact that you have parts and trained men and a keen desire to handle their service requirements. Your job is to convince these owners that you can do a better job than anyone else in making their Packards last longer.

The first thing is to make it easy for them to buy from you, and the next is to get over the idea that the old, familiar service station is good enough. The owners you are trying to get in don't think so, and even today are passing it by for the new, shiny one with good equipment, pleasant attendants greeting them promptly and up-to-date servicing methods.

Times are changing and our methods must change. Showrooms may become parts departments or waiting-rooms or motor analyzing departments. Some of them may become Red Cross sewing-rooms—and that's not a bad idea either. The boss may become a repair order writer or chief greeter on the service floor during the morning rush. A master salesman may become a service follow-up and contact man. The bookkeeper may be spending a lot of time writing credit forms on repair work instead of on new cars.

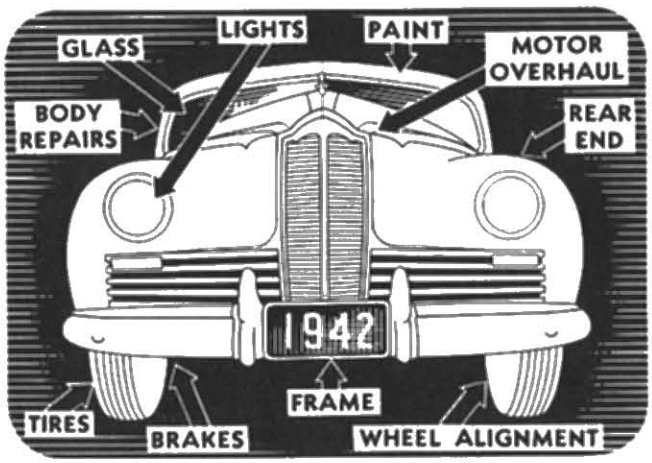
Business changes with the times and so will the service business. A lot of people are going to be driving Packard cars, and that means there is going to be some Packard service business. Let's get all of it. Let's handle it right and we will be making a living while we are helping to keep the wheels rolling on the home front.

MECHANICAL REFERENCE BOOK SUPPLEMENT

Insert pages for your Mechanical Reference Book covering the items of a mechanical nature which have appeared in 1941 issues of the Service Letter are being sent to Distributers and Dealers. Two sets are being mailed, and a few additional copies are still available, with index tabs if desired, upon request to the Service Letter Editor.

Since the articles are arranged in groups of assembly units, they are easy to locate and the Supplement takes the place of a Service Letter index.

MAKE IT EASY TO BUY REPAIRS AND ACCESSORIES



A great deal of needed conditioning, both from a longer life and a safety standpoint, will be done on cars if owners can avail themselves of a budget or time payment plan easily and without embarrassment.

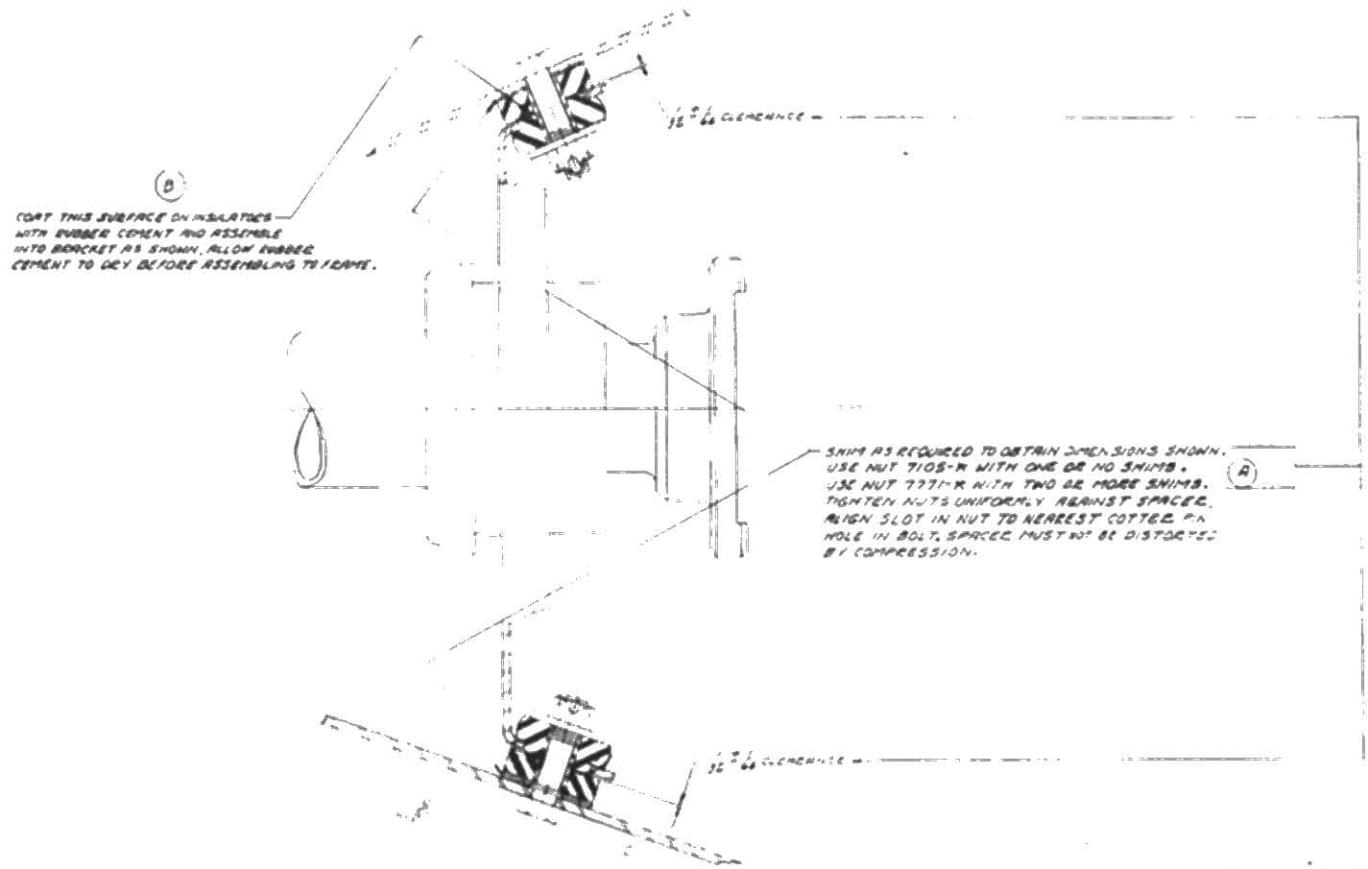
We believe all dealers should immediately make arrangements with some finance concern to handle repairs or accessories. You may already have an arrangement with some local concern or you may wish to discuss the plans offered by nationally known credit companies.

Plans offered by the larger concerns may have some advantages, such as handling the arrangements with the customer in your own place, national advertising, mailing pamphlets, signs, or other advertising media.

Two of these plans to come to our attention are the A. R. P. (Automobile Reconditioning Plan), offered by Commercial Credit Corporation and the Reconditioning and Accessory Finance Plan, offered by C. I. T.

We suggest you get the details from their local representatives or, if you prefer, write to us for details.

DRIVE SHAFT CENTER BEARING MOUNTING



The long-wheelbase cars are equipped with a drive-shaft center bearing which is mounted in rubber.

Unless the bearing mounting is properly aligned a drive-shaft disturbance will be noticeable. This disturbance is most evident in the neighborhood of 45 miles an hour. It can most easily be checked by bringing the car up to a higher speed and coasting down through the 45-mile range with the gears in neutral and the motor idling.

The proper installation of the rubber insulators is shown in the illustration. Care must first

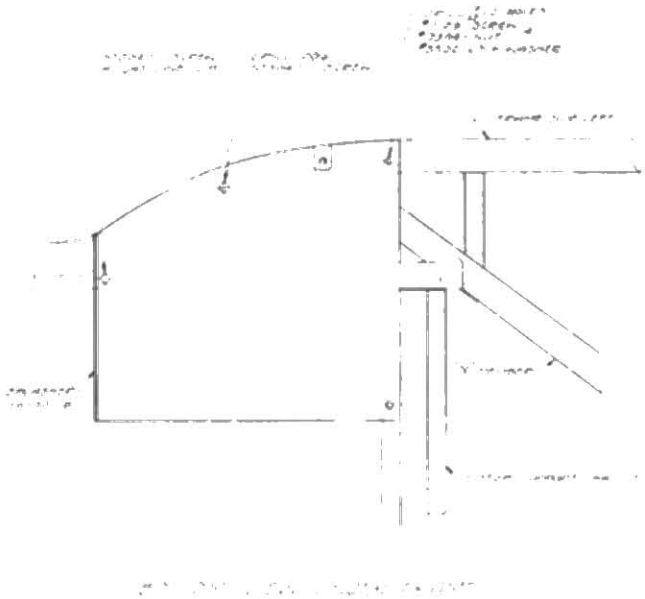
of all be taken to see that they are centered around the bolt so that they are not crushed or distorted when the bolt is tightened.

The nut should be pulled up snugly so that the washer bears against the collar surrounding the bolt. The collar, in turn, bears against the frame or against the shims between the frame and the outer insulator (when these shims are used).

If, in tightening the nut, the inner rubber is compressed so that the clearance between the two rubbers is lost, one or more shims should be added, as shown in the illustration. A clearance of not less than $\frac{1}{32}$" should be maintained between the two rubbers.

When a drive line disturbance is noticeable it will usually be found that the rubbers are distorted or are compressed too much. The whole construction should be mounted so that there is no undue compression or tension at any point.

FRAME SPLASHER
20th SERIES CLIPPER



Under certain weather conditions, splash from the road may lodge on the clutch and transmission linkage of the 20th Series Clippers.

Normally this will do no harm, but if mud and water from the road lodge on the linkage and then freeze, the ice may interfere with the free operation of the clutch and the gear shift. The illustration shows a splasher which may be attached to the under side of the frame to protect the linkage.

In mounting the splasher it will be found that one hole is already in place. This is the hole which takes the gas line clip. The splasher can be located at this point, and the other three holes can then be drilled, using the splasher itself as a template.

The splasher is listed as follows:

Pc. No. 382341, Splasher—Clutch and Transmission Levers.

This part will carry a suggested list of $2.00.

We suggest that you do not order them unless you find they are required because they will only be of value under unusual weather conditions.

CARBURETOR HEAT CONTROL VALVES

Do not forget the carburetor heat control valve.

If this valve is sticking the motor can not be made to function properly and any motor check should include the heat control valve. This can be done in a few seconds.

In order that the valve may operate properly it is necessary that the shaft be a very free fit in the manifold. Our specifications call for .007 to .010, and anything less than this is apt to cause trouble. The ends of the shaft must be free from carbon and corrosion and you must make sure that the clearance is adequate.

WHAT DOES THE CUSTOMER WANT?

Another article on handling Packard Service by R. B. Parker, General Manager of Packard-Philadephia, on the subject of "What the Packard Service Patron Wants":

AN ATMOSPHERE OF WELCOME

We all know how especially we enjoy going somewhere—be it a store or a friend's house—where we feel we are welcome—where there is an evident and sincere pleasure in having us come—and where we feel they are glad to see us.

A great deal of study was given the planning of our building in order that it might have that open and friendly atmosphere of "welcome." All offices were located as close as possible to where visitors might be expected—and enclosed only with plain, clear glass so that we might clearly see our visitors approach, and they clearly observe whether we were actually busy with another visitor, or engaged "in conference"—(a distasteful word to any visitor)—among ourselves. If in conference among ourselves, an interruption to greet the visitor and attend to him becomes doubly appreciated—and no conference among ourselves should take precedence over prompt attention to the customer.

A realization of the fact that it is our customers who provide the funds for the "ghost" who walks on Friday should encourage as hearty a welcome of them.

PUT YOURSELF IN THE CUSTOMER'S SHOES—WHAT WOULD YOU WANT?

SELLING RADIOS NOW

Here is an idea used by Los Angeles and New York. Many motorists have probably come to the realization that Car Radios are now a *real necessity*. Those who have this equipment are fortunate indeed, as they can not only obtain latest war news but also be warned in case of blackouts or other emergencies.

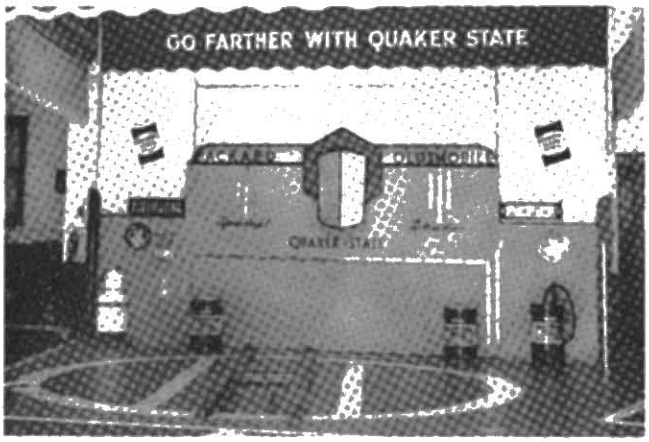
Take an air raid for example. If a motorist happened to be on a trip with his family and he suddenly heard over his radio that a certain town or section was being bombed he would be in a position to decide whether to go home or *hit for the hills*.

A wise motorist will not only have his car radio equipped but will also see that it is kept in first class operating condition.

We suggest that all new car and service salesmen tell this story to every Packard owner and prospect (19th-20th Series) and try to sell them a radio before someone else does. Start this campaign at once as the supply of radios is limited and we have every reason to believe that very few will be built next year.

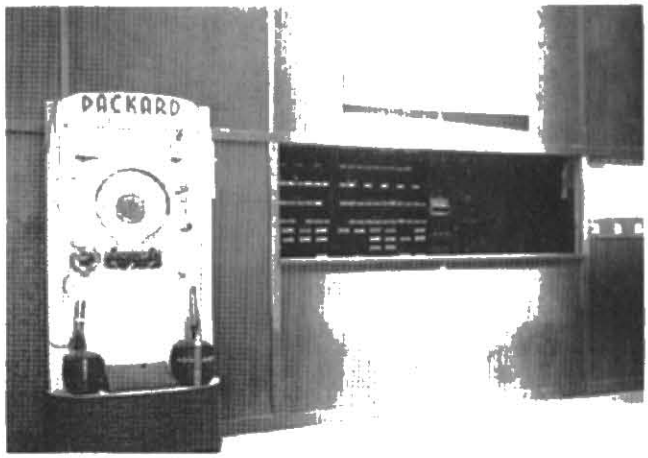
NEW LUBRICATION DEPARTMENTS

RATON, NEW MEXICO



PARKERSBURG, WEST VIRGINIA

SANTA MONICA CHANGES OVER TO BALANCED PARTS PLAN

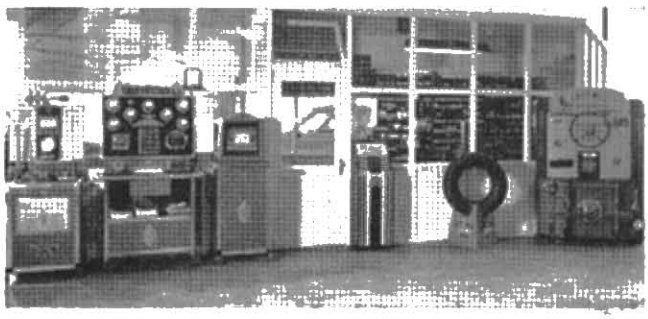


BEFORE

AFTER

WEST PALM BEACH, FLA.

LAURENT & NIELLO CO.—CALIF.



PRINTED IN U.S.A.

VOL. 16, NO. 3 FEBRUARY 1, 1942

IMPORTANT! CARS IN STORAGE IMPORTANT!

When cars are to be stored for an indefinite period, it is necessary to take precautions which are not required when the storage period is limited.

First make sure the car is in standard condition. If any corrective work is required it should be performed now. Naturally no claim against the factory, covering the original condition of the car, would be considered when it is put into service at some later date.

LUBRICATION:

The car should be thoroughly lubricated and all oil levels checked. This will prevent the rusting of the frictional surfaces.

TIRES:

The wheels should be jacked up and blocked to take the weight off the tires. It is not necessary to lower the pressures because normal leakage will take care of this. Tires are best stored in a dark, cool room but normal storage conditions would be reasonably satisfactory.

COOLING SYSTEM:

The cooling system should be drained. Before draining, add double the normal quantity of Packard Rust Preventive to the water in the system and run the motor long enough to permit it to circulate. After the system has been drained, a thin coating of this soluble oil will remain on the inside of the radiator and cylinder water jacket and will retard any rust formation. If the cooling system contains anti-freeze it need not be drained unless you wish to do so.

MOTOR:

The normal storage practice should be followed. Gasoline should be drained and the motor run long enough to empty the carburetor. Spark plugs should be removed and oil injected through the spark plug holes. The motor should be cranked with the starter long enough to spread the oil so that it will protect the cylinder walls, piston rings and valve stems.

BATTERY:

The battery should be removed and kept in a charged condition. If you have no facilities for doing this, arrangements should be made with a local battery shop and, preferably, the local representative of the battery manufacturer.

CLUTCH:

The clutch pedal should be blocked down so that the clutch will be disengaged. This will prevent the facing of the driven plate from sticking to the flywheel or the pressure plate. This sticking develops most rapidly when heat and humidity are high, but will develop in time under any normal weather conditions.

FINISH:

Plated metal parts should be covered with a good, protective coating and the car itself should be covered to prevent dust from imbedding itself in the lacquered surfaces.

As a protection against moths the trim material may be sprayed with naphthalene.

CARBURETOR TIGHTENING

In checking the carburetor adjustments it is always good practice to make sure that the screws which hold the sections of the carburetor together are tight in order to prevent air leaks.

It is possible, however, to overdo this operation, especially where a die-cast boss is involved. If excessive pressure is put on the screw the die-cast boss may be distorted so that in spite of the gasket the sections of the carburetor do not seat properly.

The air leakage which results is most apt to be noticed in a surge or light throttle miss between 20 and 30 miles an hour. There is no good way to check the condition except by disassembling the sections of the carburetor and trying the faces with a straight edge.

AC AIR CLEANER OILING INSTRUCTIONS

The instructions for oiling both Heavy-Duty Oil-Bath-Type and Oil-Wetted-Type Air Cleaners as given on the instruction label on each Air Cleaner recommends SAE 50 engine oil. This oil has been generally withdrawn from the market and is obtainable at only a few oil stations.

For this service SAE 90 straight mineral gear oil is now recommended as an alternative for summer use. This oil is of comparable body to the SAE 50 engine oil. Do not use an EP (Extreme Pressure) lubricant of the SAE 90 grade. For winter use or for all temperatures below 32° F., SAE 20-W engine oil is recommended.

A NEW PARTS STORE

ASHEVILLE, NORTH CAROLINA

LOW OCTANE GASOLINE

You have undoubtedly heard reports regarding the possibility of a change in the character of the gasoline which will be commercially available. It has been suggested that there may be a reduction in the supply of gasoline of the higher octane ratings.

Whether or not these rumors become a fact, you should understand the effects of such a change so that you can discuss the problem intelligently with your customers.

A reduction in octane rating makes the motor more sensitive to spark knock, but any changes in the spark timing or the compression ratio which would reduce the tendency to knock would also reduce the efficiency of the motor. This would apply both to gasoline economy and to motor performance.

The owner should understand that there may be an indication of spark knock on slow, heavy acceleration, particularly if there is a carbon deposit in the cylinders. Unless the knock is so loud as to be definitely objectionable, it will not be harmful and the owner will lose more than he gains if an attempt is made to eliminate the noise. The efficiency of the motor will be reduced.

Suggest to the owner that if he finds the noise objectionable he can drive with a lighter accelerator pedal. This is in any case desirable in order to save gasoline. He can also shift gears more frequently instead of trying to pull away in high gear at a low car speed.

Cleaning carbon will, of course, put the motor back in its original condition as far as spark knock is concerned if the other adjustments are standard, but in pointing out that this work can be performed, the owner should also understand that the manner in which he handles the car will be a factor in the result.

In addition to spark knock, there is another condition which is usually referred to as preignition. While spark knock is a "clatter" which occurs in all the cylinders and is uniform in its character, preignition is an extremely sharp noise which is more irregular in its symptoms and is apt to be more severe.

Preignition develops when the mixture is ignited by incandescent matter in the combustion chamber. It may be caused by hot carbon, by rough surfaces or sharp edges in the cylinder head or, perhaps, an overheated spark plug porcelain.

Spark knock is affected by the spark timing but preignition may continue even if the spark advance is reduced. It is best corrected by the use of a thicker cylinder head gasket or by a double gasket.

We repeat, however, that the retarding of the spark and the reduction of the compression reduce the motor efficiency and neither of these steps should be taken without a realization on the part of the customer of the unfavorable results.

LET'S FIGHT!

Distributers and Dealers have discovered that service can be profitable when good mechanical work and an adequate supply of parts is combined with prompt, courteous, careful consideration of the customer.

We know how to get good work done. It's a matter of combining the efforts of a good mechanic with good, modern equipment and tools, good supervision, good inspection and keeping posted on the latest and best methods of performing each operation. We know how to assure an adequate supply of parts. This is a matter of combining a well-trained parts man with proper bin space, and records to assure the correct ordering of parts based on sales, seasonal requirements and common sense.

We also know how to give service that combines promptness, courtesy and careful consideration of each and every customer. With less manpower on the floor, we must learn how to promptly serve more customers. The answer to this in many places is to add some "greeters" and show them how to take the simpler orders such as lubrication, polish and wash jobs. Maybe such a man has been a new car salesman or maybe he is the boss himself. Find one or two men who can help out during the early morning rush. With a little coaching they can greatly relieve a congestion on the floor. They can greet the people promptly and soon will be selling a lot of service work.

Courteous, careful consideration of all customers we likewise know a great deal about, but it pays to keep talking about it because we all forget or get too busy to think much about it.

One thing is happening right now in many service stations. We are getting a lot of new customers. People who now believe that, since their Packard must last a long time, feel that they should give it the best possible attention. Other people are buying used Packards and are becoming Packard service customers. Let's remember new customers are just as valuable as old customers and, if handled right, will soon be old customers. Some of these customers won't be dressed like the old Packard customer. They are defense workers making big money, but for their money they should receive the same good workmanship and proper handling that has made Packard service famous.

This type of service is again a matter of combining supervision, training and a real desire to build service volume through satisfied customers. This is no time to quit—it's time to fight—fight for business. The champion is the fellow who can take the blow and come back with a new and better attack. He knows how to combine all his fighting power. That's what makes him a champion. Let's get all of our fighting power working and see this thing through.

WHAT DOES THE CUSTOMER WANT?

Another article on handling Packard Service by R. B. Parker, General Manager of Packard-Philadelphia, on the subject of "What the Packard Service Patron Wants":

PUNCTUALITY IN ALL OUR ACTS

The customer expects us to be alert and punctual in all things—in greeting him when he arrives —in getting his order written up—in getting the job done on time—and in settling any complaint he may have to make.

There are those who are inclined to be slow and late in their general make-up—those who annoy others by an attitude that is interpreted as indifference—those who find it easier to procrastinate in making a decision or undertaking an unpleasant task than meeting the issue and "getting it back of them."

The customer invariably regards our estimate as to when a job can be completed as a promise and becomes very critical over any failure of ours to "keep a promise." It is interpreted as dishonesty.

There are times, with the fluctuations of shop work volume that any repair shop has, or because of unanticipated complications in the work itself, when a job cannot be completed at the time when we might fairly have estimated at the start it could. In such case, we should at least contact the owner in time to prevent his arriving too soon and waiting around, or so that he may make other arrangements for his transportation.

PUT YOURSELF IN THE CUSTOMER'S SHOES—WHAT WOULD YOU WANT?

SERVICEMEN DISCUSS SERVICE PROBLEMS

BILLINGS, MONTANA

CHICAGO, ILLINOIS

BOSTON, MASSACHUSETTS

NASHVILLE, TENNESSEE

WHAT OTHERS ARE DOING

In these columns we will present every worthwhile idea we can find in operation in the field for increasing service traffic or service volume. Study what the other fellow is doing and send in everything that's working for you. Let's all help each other see this thing through.

PACKARD

BERRY MOTOR CAR COMPANY
[illegible] SAINT LOUIS

January 15, 1942

TO PACKARD OWNERS:

In these times of limited car production, we realize our responsibility to Packard owners to assist in keeping their cars running, and at a low up-keep cost.

With this in mind, we are expanding our service facilities for taking care of your every service need, both for your Packard and cars of any other makes which you may own.

A special department for cleaning and polishing has been added, and experienced men are on duty to give you the best job possible. This is very important in preserving the finish of a car.

We also offer a complete tire service designed to get for you all the mileage possible from your tires. This includes a thorough check of each tire and changing them from one wheel to another, which makes them wear more evenly, thereby increasing the mileage they deliver.

We are also equipped to regroove tires. This operation renews the non-skid feature and is desirable if the tire has become smooth, but not worn enough to require recapping.

These services are offered in addition to complete mechanical repairs, including motor ring jobs and reconditioning at attractive prices.

We invite you to drive into our Service Department and we shall be pleased to make a free inspection and furnish prices and other details.

Yours very truly,

P. W. Pelsue,
Asst. Manager

'ASK THE MAN WHO OWNS ONE'

SAINT LOUIS

SAN FRANCISCO

PRINTED IN U.S.A.

SERVICE MANAGER'S
PERSONAL COPY

VOL. 16, NO. 4 FEBRUARY 15, 1942

GET READY!

We know you haven't had much use for a follow-up file since last fall. We know, too, you haven't much help to keep one up to date right now. And there is one more thing we know and that is you need one NOW and it's about the most important part of the service job.

Find some way to get your owner follow-up file up to date and keep it that way. Service volume must be increased and this is your principal working tool.

We can develop for you the material you need to bring in new business, or we can help you develop it. The way it's used is determined by your follow-up system, and this must be complete, and up to date, because the follow-up file tells you whom to call on, whom to contact by mail.

Your file must tell you who owns Packard cars in your vicinity, whether they come to you for service, and how often and what they do and do not buy in the way of service.

Who owns Packard cars is a matter of a registration list. Whom to contact is a matter of entering R.O.'s on the file every day. What to use is a matter of deciding how much coverage you can get for a given amount of money and who has the time, facilities and experience to develop the most effective pieces.

The announcement very soon of a new Service Promotion Program will, we believe, answer this question for you. In the meantime we urge you to get every bit of available help and turn it loose on your owner follow-up file—get it up to date and see that it is complete. See that it gives you three groups of customers to work on—

1. Active—within 120 days.
2. Occasional—from 120 days to 6 months.
3. Inactive—not in for at least 6 months.

Get an accurate count of each group. Be prepared to use a service selling campaign that will give you a service volume so big and so profitable that your chief worry will be how to handle it.

WHAT ARE YOU DOING?

In these columns we will present every worthwhile idea we can find in operation in the field for increasing service traffic or service volume. Study what the other fellow is doing and send in everything that's working for you. Let's all help each other see this thing through.

Who Is Going To Be First With An Idea?

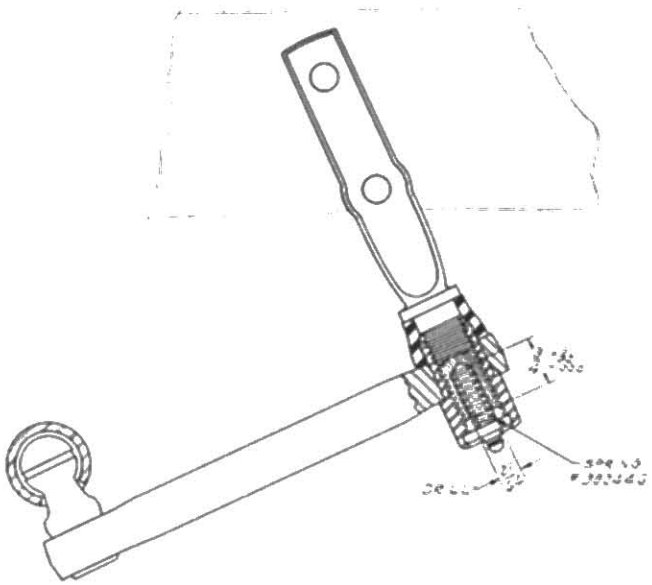
STEERING IDLER LEVER
CLIPPER

This illustration shows the steering idler lever construction of the Clipper models.

The threaded bushing design provides a certain amount of clearance in the threads, and it is always possible to develop lost motion by "working" the free end of the lever. This is a normal condition.

The rubber seal between the hub of the lever and the shoulder on the arm is under compression. It puts a load on the threads, so that when the bushing is properly lubricated the lost motion is not excessive. Normal lost motion does not cause a rattle, although it may be blamed for a noise which develops at some other point.

If you find a case in which there is abnormal movement in the hub in spite of the lubricant and the seal, it can now be reduced by the method shown in the illustration.



A $^{21}/_{64}$" hole ¾" deep may be drilled in the end of the arm. Spring piece No. 382446 (a new part) is then inserted in the hole and the threaded bushing screwed into place. The spring puts a greater load on the threads than can be developed by the rubber seal.

HIGHER TIRE PRESSURES

There is no doubt that the average owner will now do a better job of keeping his tires inflated than he has ever done before.

This will increase his tire mileage, but it will also present new problems for you to handle. The owner is apt to find that his car does not ride properly and that it rattles more than it did previously.

Unless you tell him, he will not realize that these conditions are a direct result of the increased tire pressures. The ride will be harsher and the tendency to develop rattles will be increased but this must be accepted if the maximum in tire life is to be obtained.

The time to explain this is *before* and *not after* he complains. The explanation is a logical one, but if you wait for him to complain he will say to himself (or to you) that the answer is "just another service alibi."

A SUGGESTED LETTER

January 28, 1942

Mr. Packard Owner:

I imagine that circumstances are making it necessary for you to plan to keep your present car for a considerable period.

This brings up new problems. Undoubtedly you will plan the maintenance of your car in a different manner than would be the case if it were to be sold or traded in the near future.

You have read articles in the newspapers and in the magazines, telling you what to do in order to maintain your car properly. I am making no such suggestions because I do not know the condition of your car or the type of service which you expect it to give.

If you and I could talk over the situation, and if I had a chance to determine its condition, I believe that I could help you. My recommendations would be based on what I, myself, would want to have done if I were in your place.

If you care to call me, or drop me a line we could make arrangements to get together.

Very truly yours,

YELDREB MOTOR COMPANY
Service Manager

TAS.PA

ACCESSORY DISPLAY

Wade Evans, Albuquerque, New Mexico

THIS HELPS USED-CAR LOOKS

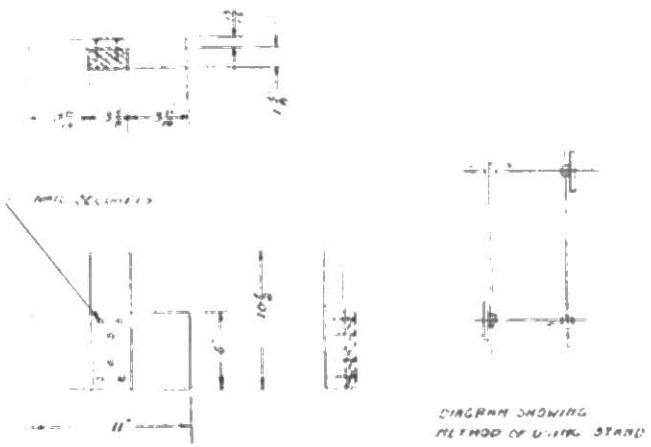
Dan Parker of Jacksonville, Fla., has a good idea to save on the cost of reconditioning a used car. This trick increases the appearance value of

the car as well as saves money. Many used cars need a new exhaust tail pipe as the end is rusted through or broken off. Dan installs a chrome exhaust pipe extension, PA 311997 at a cost of only 65c instead of buying a new tail pipe for $1.50 or $2.00. Try this idea. Improve the appearance of your used cars and save money.

FURTHER NOTES ON CAR STORAGE

In the Service Letter of February 1, we outlined steps to be taken in putting cars into storage.

This was followed by Mr. Page's letter of February 4, with an instruction sheet attached. The instruction sheet covers several items not included in the Service Letter, and supersedes it.



We are illustrating what is, we believe, the easiest and least expensive way of blocking up the wheels. This method requires for each wheel only an 11" piece of 1" x 6" and 10½" piece of 2" x 4". If the blocks are installed, as shown at the right, the car will be securely supported.

Make sure that the carburetor air cleaner and the cleaner on the oil filler pipe are dipped in engine oil in the usual way.

STICKY VALVES

Sticky valves again!

Why is it that some service stations still call on us for help when they encounter a case of sticky valves? The causes have been reviewed many times, and there are no conditions with us now which have not been with us in the past.

Here is the plain truth. Sticky valves may be due to any one of a number of reasons. In order to determine the cause, it is necessary to study the operating conditions of the car and to study the evidence of the valves themselves.

Unfortunately, some service men simply will not do this. They appeal to us for help. How can we tell what is wrong when the evidence is a thousand miles away?

The valves and guides will usually tell the story. Is it a rust problem, a carbon problem or a gum problem? A study of the operating conditions of this particular car will indicate whether the trouble will occur again, and whether the owner's responsibility must be explained to him.

* * *

We have found several cases recently where sticky valves have resulted simply from insufficient valve spring tension. When this is the case the stems and guides may show a reasonably good condition and yet the symptoms will be definitely those of sticky valves.

If the valves have been reseated or if the springs have taken more "set" than usual, it will be necessary to use an additional star washer at the top of the spring in order to regain the original spring tension.

WHAT DOES THE CUSTOMER WANT?

Another article on handling Packard Service by R. B. Parker, General Manager of Packard-Philadelphia, on the subject of "What the Packard Service Patron Wants":

OUR PERSONAL INTEREST IN HIS INTERESTS

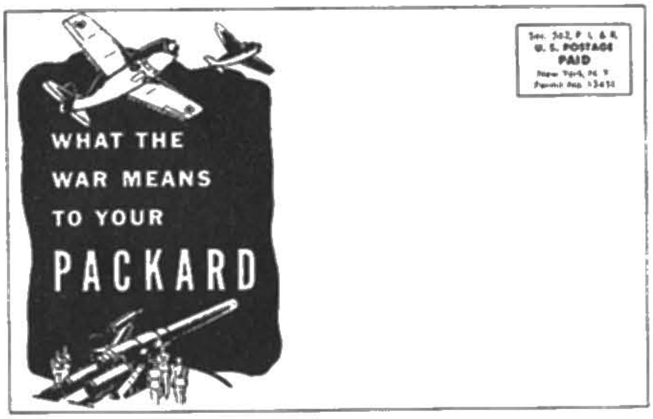
It is the customer who is in trouble—who has a car that needs fixing. It is he who is spending the money. He expects us to diagnose the cause of the trouble and to correct it at as little expense to him as possible. Unless he is treated as though he were our *only* visitor of the moment, he feels that he is but one of a crowd and that one customer more or less counts for little in a large place like ours.

The Service Salesman should regard himself in his relation to the customer as that of attorney to client—responsible for seeing that the customer receives at our hands the character of service that we have invested so much money in facilities and equipment and personnel toward giving him. And unless we know, through a sincere interest in what the customer wants, what he should have, we probably fail to deliver what he wants.

After any job where correct diagnosis may be doubtful, or where positive correction is not a surety, the customer should be told of such possibility upon delivery of the job, and then 'phoned within a day or two for a report.

PUT YOURSELF IN THE CUSTOMER'S SHOES—WHAT WOULD YOU WANT?

WHAT OTHERS ARE DOING!



Front

YOUR PACKARD CAR

HAS ALL THE FINE QUALITIES OF TRADITIONAL PACKARD CRAFTSMANSHIP . . . QUALITIES THAT WILL STAND YOU WELL IN THE PRESENT EMERGENCY WHEN EVERY MAN'S CAR MUST LAST LONGER. YOU CAN HELP TO PRESERVE THESE PACKARD QUALITIES BY GIVING YOUR CAR CONSISTENT ATTENTION AND REGULAR SERVICE DURING THE COMING MONTHS.

Back

***Increasingly acute material shortages mean . . .* YOU SHOULD RECONDITION NOW**

You, as a Packard owner, face a serious problem . . . keeping your car in good working order for the duration! Few new cars . . . tire rationing . . . are parts of this problem you know already.

Obviously, RECONDITIONING NOW is the best possible insurance that you will continue to enjoy your Packard during the restricted months ahead.

Packard owners are fortunate in the present emergency in having the tradition of Packard quality reconditioning behind their cars . . . service craftsmanship that through the years has become known as the ultimate in owner satisfaction.

Today this quality service is at your beck and call . . . the means of sustained motoring enjoyment for the duration.

Read this folder through now. It shows you the things your car needs today . . . both in the interests of your present winter motoring, and for keeping your present car longer than usual.

Packard-New York Folder

PACKARD COLUMBUS INC.

[illegible] EAST LONG STREET • COLUMBUS, OHIO • PHONE ADAMS [illegible]

January 28 1942

Dear Packard Owner:

Now that car production has been curtailed, many motorists will be compelled to keep their cars for the duration of the emergency period. Here is where we, in the Service Department, come into the picture more strongly than ever.

Your concern now is how to keep your Packard in new car condition at low cost. You are interested in preventative service, to keep trouble away. That is our business - - we work hard at it - we're set for it.

Our experienced men, using special Packard tools, can do a better job in less time - at low cost. Let us prove it!

We consider it just plain good business at this time to offer our Packard owners a few specials, which will mean a substantial saving for YOU - as well as assist us in having a steady flow of service work each day to keep our men busy - and while repair parts are still available.

Now, more than ever, you should take our offer of 25% saving on 10,000 miles of complete lubrication and oil changes, by purchasing one of our lubrication contracts.

We maintain a modern Paint Department, manned by expert painters and polishers. Let us polish and wax your car. Or, if the condition warrants, let us quote you prices on a complete repaint job - you will find them very low.

We want your Packard to keep on looking its best, running its best, serve you better and last you longer.

Let us be of service to you.

Very truly yours,

PACKARD COLUMBUS INC.

Harry Fuller

Harry Fuller,
Service Manager

[illegible], President [illegible], Sec'y-Treas.

PACKARD TRENTON, INC.

Telephone 3295 61 Prospect Street

Trenton, N. J.

January [illegible], 1942

Dear Packard Owner:

"All Out War" will mean both a diversion of materials and finished products to war production that we must all conserve and protect that which we now have because many items, particularly automobiles themselves, will not be replaceable.

Your own car, upon which you depend for transportation, will need better care and protection than ever before. Not one single measure of prevention against excessive wear should be omitted.

Your Packard service has anticipated these extra demands and is now equipped with the finest machinery and tools obtainable and our shop is manned by factory-trained personnel.

Our supply of parts has been greatly increased to fill all needs with the best materials and genuine Packard Precision Parts.

As the only Packard authorized service in this territory, we pledge ourselves to give Packard owners "All Out Service" to protect their investment in their Packard automobiles so that they will enjoy the most trouble-free and economical long-life transportation at the lowest cost consistent with precision quality of materials and labor.

If you do not now enjoy the benefits of Real Packard Service, stop in or 'phone today.

The writer will personally consult with you and advise such service or adjustments as may be necessary to insure your individual transportation requirements for the duration of this emergency period.

Yours for Victory!

PACKARD TRENTON, INC.,

Wm J Goedeke

William J. Goedeke, Service Manager

NO EXTRA CHARGE FOR PICKUP AND DELIVERY SERVICE

- - - - - - - - - -

[illegible]

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[illegible]

For The Best Results — Use The Best Service

Printed in U. S. A.

PACKARD
SERVICE LETTER

Packard Service

VOL. 16, NO. 5 MARCH 1, 1942

CAR HEALTH ANALYSIS

1. Provide a space on the service sales floor, if possible, next to the lubrication rack for making inspections. This space should be where other customers can see it and it should be identified with appropriate sign as shown in folder on Window Sign Suggestions.

2. Have inspections made by a well-qualified man—a trained man—one who can put real showmanship into making this Car Health Inspection a valuable part of the program.

3. As far as possible, handle inspections only by appointment. Make them valuable in the eyes of the owner.

4. Never make an inspection without first studying the owner's repair order file. Otherwise, you may list in the Urgent group, work that the owner had done in your shop a short time ago and it immediately weakens the effect of the inspection, or may result in some corrective work being called for. It's very important to check the owner's file first.

5. Never make an inspection without a road test.

6. Don't rush the inspection—take from three-quarters to one hour. The average dealer should make about three a day and per man in any shop two in the morning and three in the afternoon will be a good day's work. Don't figure on more than one an hour.

7. Never oversell and be sure your recommendations are placed in the correct group.

8. Inspect and sell on the basis of preserving car life, economy of operation and safety. Take advantage of today's conditions. Stress shortage of trained mechanics and material as reason for prompt action.

9. Sell necessity of Urgent group before pricing items.

10. Whether the owner buys the Urgent work right now or not, do the usual courtesy items such as clean windshield, check tires and battery.

11. After every big repair job, call owner within three days and ask how he likes it.

HOW TO HANDLE THE INSPECTION

1. IGNITION COIL: With the motor running pull out the high tension wire at the end of the coil and see if you have a good long arc; or it can be done by merely pulling off a spark plug wire and checking the amount and color of the arc.

2. SPARK PLUG AND WIRES: Take hold of the wires, bending them to see if they are brittle and the insulation cracked. See that terminals fit tightly on the spark plugs. To check the spark plugs first wipe the porcelains off with a rag, then put the motor in gear and "pull" it against the brake until it almost stalls. If it does not miss on this heavy pull, you know that the spark plugs are in fairly good shape. Check the mileage that the spark plugs have been in use.

3. DISTRIBUTOR POINTS AND CONDENSER: Remove distributor cap, wipe dirt from cap contacts. "Break" the points with your fingers to see that they are not burned. Check condenser wire to see that it is tight and, of course, if the points are burned it might indicate a perforated condenser.

4. CARBURETOR AND FUEL PUMP: Check throttle operating rods and levers for being free. Speed up the motor two or three times to see that it does not starve at high speed. Also check by hand the heat control valve to make sure that it is not sticky. In this operation you may wish to disconnect the fuel line at the carburetor, turn the motor over with the starter to see that the

pump delivers a given stream of gasoline. Check mileage to see if fuel pump was ever reconditioned.

5. COMPRESSION: With the switch off turn motor over with starter, noting that the sound when the pistons come up on the compression stroke should be even. If so you know that the compression is even.

6. OIL PRESSURE: Check pressure at gauge both with motor idling slowly and warm and see that the pressure comes up to the proper poundage when the motor is speeded up.

7. GENERATOR AND STARTING MOTOR: Turn the motor over with the starter and note whether it turns as fast as it should to check starter motor. To check generator, run engine, watching ammeter, seeing that the generator does not cease to charge at too low a speed and that it builds up when the motor is speeded up. This also gives you a fair check on the voltage.

8. BATTERY: See that connections are not badly corroded and are tight. It is not necessary to make a hydrometer check unless you wish. However, remove caps and see that water is up to level.

9. FAN BELT: Check for slippage by turning fan by hand. Also feel slack in belt and look for frayed edges.

10. LIGHTS: See that all lights burn, jarring each one to see that it does not flicker. Have somebody depress the brake pedal to check stop lights.

11. HORN: Blow horn two or three times, taking note of amount of pressure used to make button contact and make sure that both horns are blowing, which can be determined by their tone.

12. WINDSHIELD WIPERS: Turn on wipers, if two speeds check both, and if they operate on a dry glass you know that they will operate on a wet glass. Examine rubber on blades and see that spring tension is tight enough to make the proper contact with the glass.

13. WHEEL BEARINGS: Shake or spin wheels, when on jack or hoist, to see that there is no looseness and that front wheels turn freely.

14. STEERING: Take hold of steering wheel and feel for lost motion. Set front wheels straight ahead and sight along tires, which gives you a fairly accurate check on toe-in. If front is jacked up it is a good idea to swing steering the extreme distance both ways to see that there is no catching or binding.

15. SHOCK ABSORBERS AND SPRINGS: Rock car front and rear by standing on the bumpers to check for spring squeaks or shock absorber noise. Press down slowly on each end of each bumper and this will determine whether one shock absorber has more resistance than the others.

16. DRIVE SHAFT AND UNIVERSAL JOINTS: Check drive shaft for looseness by hand, both up and down and rotating.

17. MUFFLER: Check for leakage with engine running and make visual check for rust or looseness.

18. BRAKES: Check pedal to see that the throw is not too short or too long. Then try brakes back and forth on the floor.

19. CLUTCH: Check pedal-toeboard clearance, making sure that there is not too much clearance and that the spring pressure is not too light. Too much lost motion between floor board and pedal makes transmission hard to shift. Insufficient spring pressure, of course, may cause a slipping clutch.

20. TRANSMISSION: Listen to transmission with motor idling and clutch engaged, shift lever in neutral, and check sound of constant mesh gears. Try the shift on the floor. Recheck in final road test.

21. TIRES: Thorough visual check can be made very rapidly, preferably with wheels jacked up. The amount of wear or scuffing will quickly indicate whether the tires should be rotated or toe-in reset. Check pressure.

22. DOOR AND WINDOWS: Open and close all doors, checking lineup of dovetails and general fit of doors. Operate all windows, check for sticking. Also examine all liners for being worn and frayed. Shake glass with window partly down to check for looseness.

23. UPHOLSTERY: Examine for tears, worn spots, stains, dirt, etc.

24. Make visual check for dents, paint nicks due to flying stones, etc. Be sure to make impressive check of paint underneath one or more fenders, indicating to the owner that it is very essential at this time to keep the under-surfaces of the fenders well painted to guard against rust.

MINNEAPOLIS, MINN.

CARE OF CHROME PLATING

The life of a plated surface depends on the exposure it encounters and the treatment it receives.

Rusting is aggravated by moisture and particularly by salt water. Chrome plating, along the sea coast, depreciates more rapidly than in the interior. Salt used on the roads to melt snow and ice is the worst of all.

Due to the shortage of certain strategic metals, a strict control has been set up over plating processes, and the amount of material which can be used is definitely limited. Naturally the quality of the result is affected by the thickness of the plate.

The problem will become more difficult as the shortage of materials becomes more severe. You may already have found that local companies handling your plating are finding it difficult or impossible to obtain the materials they require. This situation will become more acute.

How does this affect you and your customers?

It means that your customers must take care of their present chrome, because they may not be able to get any more. It also means that traces of rust can not be considered as a reason for replacing chrome-plated parts, because the supply of such parts must be conserved for necessary replacements.

The simplest and easiest way to protect chrome plating is to wash it thoroughly with kerosene until the surface is clean and the rust has been removed, and then rub in a coating of Packard Body Polish. The polish fills the small holes which penetrate the plated surface.

The frequency with which the treatment must be repeated depends upon the degree of exposure. On the average, once a month will keep the plating in good shape.

WINDSHIELD WIPERS

Few things are more annoying to a driver than a windshield wiper which does not properly clean the glass.

In many cases this is caused simply by the fact that the blades are not clean. Some of the fluids which are used by filling stations in cleaning windshields leave a thin film on the glass and the rubber and the blades will not wipe properly through this film. They must be wiped clean of any foreign matter.

The greater the pressure which the blade exerts against the glass the better it will wipe, but the pressure must not be so great that the wiper will stall when it is operating on slow speed with a dry glass.

If the blade pressure is too light it can be increased by strengthening the spring. This is most easily done by shortening the spring by one coil. Bending the arm has little effect on the blade pressure. It can only increase the pressure by the amount which the new position of the arm increases the tension of the spring. Shortening the spring is more effective.

The greater the wiped area of the windshield, the more accurately the blades must operate in order to wipe clean. For this reason it is particularly important, in the case of the Clipper models, that the blades be properly set and in good condition.

FRONT UNIVERSAL JOINT LUBRICATION

The front universal joint of the 1900 and 2000 models is a ball-and-trunnion type. It is identified by the fact that no slip joint is used.

It is recommended by the manufacturers that this joint be lubricated at 20,000-mile intervals and that it be packed with heavy fiber grease.

This does not apply to any rear universal joints or any front universals employing a slip joint.

THIS ISSUE MARKS THE 15TH BIRTHDAY OF THE SERVICE LETTER

MOISTURE ON INSIDE OF BODY GLASS

Under certain conditions the "frosting" or "steaming" of the windshield and windows presents a problem to the owner and a general understanding of the situation will be helpful.

If the humidity inside the car is high, and the humid air comes in contact with the cool glass, moisture will deposit on the glass. If the glass temperature is above freezing point "steam" will result, and if it is below freezing, the glass will "frost".

The problem has become more serious in recent years because bodies are more tightly sealed. This causes the air to remain inside the body with the result that the humidity increases. The more airtight the body, the more serious the problem.

If steam collects on the glass while the car is being driven, the ventilating windows should be opened slightly and the defroster turned on. The greater the circulation of air across the face of the glass the more quickly it will dry off the moisture. Cracking the ventilating windows not only sets up air circulation but also withdraws the more humid air from the inside of the body.

Naturally it is better to prevent the moisture from forming than to attempt to remove it after it has formed. Just as soon as the motor is started the heater and defroster may be turned on. If air is in circulation moisture is not as apt to deposit.

The fresh air intake—in cars which are so equipped—helps the condition because it reduces the humidity of the air in the body.

MOTH SPRAY AND MOTH CRYSTALS

The storing of new cars calls for care to upholstery. Protecting these cars against moths is one of the important items that should be done as soon as cars are put in storage.

Packard Approved Moth Spray and Moth Crystals are now available. They are stainless and will not attack the chrome plated hardware.

This material is easy to use. Follow the instructions furnished to spray the interior of the car and then leave a sack of the moth crystals hanging on the sun visor for prolonged protection.

This new Packard Approved Moth Spray and the Moth Crystals are available in kits or as separate items. The kit contains one gallon of spray, one spray gun and eight sacks of moth crystals. This is enough material to treat eight cars. Additional material may be purchased as separate items, the spray in gallons and the crystals in sacks.

Order a supply today for yourself and for your dealers' use. The following chart shows the PA numbers and prices.

	Suggested Dealer Cost
PA 13235 Moth Spray and Crystal Kit (enough for eight cars)	$7.60
PA 13240 Moth Spray, 1 Gallon	2.85
PA 13245 Moth Crystals, 1 Sack	.50
PA 13250 Spray Gun, 1 Pint Size	.45

LICENSE DATA AND CAPACITY INFORMATION

Series	No. of Cyls.	Bore In.	H.P.	Piston Displacement Cu. In.	Stroke In.	Crankcase Capacity Qts.	Trans. Capacity Pts.	Rear Axle Capacity Pts.	W.B. In.	Cooling System Qts.	Gasoline Capacity Gals.
1800	6	3½	29.4	245	4¼	5	2	4½	122	17	17
1801-1A	8	3¼	33.8	282	4¼	6	2	6	127	18	21
1803-3A-4-5-6-7-8	8	3½	39.2	356	4⅝	7½	2	6	127-38-48	20	21
1900	6	3½	29.4	245	4¼	5	2	5	122	15	17
1901-1A	8	3¼	33.8	282	4¼	6	2	6¾	127	17	20
1903-3A-4-5-6-7-8	8	3½	39.2	356	4⅝	7	2	6¾	127-38-48	20	20
1951	8	3¼	33.8	282	4¼	6	2	6¾	127	17	17
2000	6	3½	29.4	245	4¼	5	2	5	120	14	17
2020	6	3½	29.4	245	4¼	5	2	5	122	15	17
2001	8	3¼	33.8	282	4¼	5½	2	5	120	17	17
2021	8	3¼	33.8	282	4¼	5½	2	6¾	127	17	20
2003-4-5-6-7-8-23	8	3½	39.2	356	4⅝	7	2	6¾	127-38-48	20	20

Printed in U. S. A.

SERVICE MANAGER'S
PERSONAL COPY

VOL. 16, NO. 6 MARCH 15, 1942

I AM A SERVICE MAN—SO WHAT?

This country is at war and we and our allies must win it—quickly, we hope. Everybody needs some kind of transportation to get to the place where he'll do the most good toward the war effort.

The kind of transportation he uses depends on a number of things which needn't be repeated here. BUT—transportation of *some kind* must be available or we won't be able to get the men to where they can be used to make the things the Army and Navy and Air Corps need to win the war. Obviously then the job of Servicing Automotive equipment is essential.

If you don't believe it, look at these charts showing how much "Necessity" transportation must be provided by personal cars and how much more mileage they cover than *all other* means of transportation.

The Packard Motor Car Company is going to do everything within its power to keep Packard Cars serviced and running efficiently. We believe there's work, important work, to be done. Good mechanics and other service men are needed to do this job regardless of how long a war it's going to be.

Furthermore, service will be needed *after* the war ends. So it looks like a steady and important job you service men have. That's what we think.

J. H. Page

General Service Manager

75% OF CAR USE FOR NECESSITY

TO WORK	BUSINESS TRIPS	TO MARKET, SCHOOL	RECREATION
33%	30%	12%	25%

|← 75% ESSENTIAL →|

77% OF TOTAL MILEAGE IS PASSENGER CAR MILES

77%

PASSENGER CAR (NECESSITY USE)

ELECTRIC RAILWAY
STEAM RAILWAY
BUSES AIRLINES

23%

DRAINING ANTI-FREEZE

Some of your customers will undoubtedly bring up the question of whether their anti-freeze should be saved when the cooling system is drained in the spring.

It has always been our recommendation that anti-freeze be discarded, even though its freezing point may be unchanged.

This is in order to prevent corrosion. All good anti-freeze solutions contain rust inhibitors, but these inhibitors will in time become ineffective. When this occurs the rusting of the interior of the water system, and particularly the radiator, will develop rapidly.

Inhibitors may lose their effectiveness because of the leakage of gas across the face of the head gasket into the water system. Also, the hotter the motor runs, the more quickly the inhibitor will break down, so that hard driven cars will suffer most.

It is impossible, therefore, to tell how long an anti-freeze will remain non-corrosive, and the safest procedure is to discard it in the spring.

At present, it appears that anti-freeze will be available this fall, although naturally no one can guarantee that this will be the case. If an owner wishes to save his anti-freeze we suggest that you discuss the situation with him, pointing out that he must accept the risk of corrosion if it is used again.

When the system is filled with water in the spring, *do not forget to add Packard Rust Preventive.* The cost to the owner is small and is out of all proportion to the value of the protection given to the water system. Corrosion and rust develop much more rapidly in hard summer driving, and summer protection is particularly important.

CONVERTIBLE TOP DRESSING

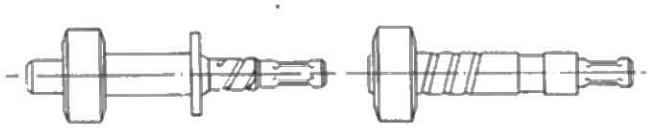
A new dressing for convertible tops has been approved. This material is supplied in either black or olive tan. It does not leave a glossy finish. The material is sprayed on with a paint gun, or it can be applied with a brush. It waterproofs the top, rejuvenates the cloth and provides a long-lasting color which withstands fading with long exposure to the sun. This material will not crack when the top is raised or lowered.

It can be secured through your distributer by ordering under the following Packard Approved Accessory No.: PA13255 Black Convertible Top Dressing, 1 Qt.; PA13260 Olive Convertible Top Dressing, 1 Qt. Dealers' suggested cost is $1.50 and the suggested list price is $2.75. This quantity is enough for the average top.

TRANSMISSION SPEEDOMETER PINION AND SHAFT

For information on models previous to 1900 see Service Letter, Vol. 14, No. 2.

Pc. No.	No. Teeth	Models		Ratio
335163	20	1900	*C	4.55 to 1
335162	19	1900	C	4.3 to 1
347537	19	1900	**NC	4.3 to 1
347538	20	1900	NC	4.55 to 1
335161	18	1901-3-4-5-6-7-8	C	4.36 to 1
335162	19	1901-3A-5-8	C	4.54 to 1
335160	17	1901-3-4-6-7-8	C	4.09 to 1
335161	18	1903A Bus	C	4.54 to 1
335162	19	1901A-3A-Amb. and Hearse	C	4.7 to 1
335161	18	1901A-3A-Amb. and Hearse	C	4.7 to 1
335163	20	1901A-Amb. and Hearse	C	4.9 to 1
335162	19	1901A Bus	C	4.9 to 1
335162	19	1901A-3A	C	5.22 to 1
354976	17	1901	NC	4.09 to 1
347536	18	1901	NC	4.36 to 1
347537	19	1903A-1901-5-8	NC	4.54 to 1
347538	20	1901A	NC	4.9 to 1
347537	19	1901A	NC	4.7 to 1
347537	19	1903A	NC	4.7 to 1
367650	16	1903-6	NC	3.9 to 1
354976	17	1904-7-3-6	NC	4.09 to 1
347536	18	1903-4-6-7-5-8	NC	4.36 to 1
347537	19	1901-A	NC	5.22 to 1
347537	19	1901A-3A Bus	NC	4.9 to 1
347536	18	1901A Bus	NC	4.7 to 1
347536	18	1951	NC	4.36 to 1
347537	19	1951	NC	4.54 to 1
354976	17	1951	NC	4.09 to 1
347538	20	2000-20	NC	4.55 to 1
347537	19	2001	NC	4.3 to 1
347537	19	2001-A	NC	4.9 to 1
347538	20	2001-A	NC	4.9 to 1
347538	20	2001-A	NC	5.22 to 1
347537	19	2001A Bus	NC	4.9 to 1
347536	18	2001A-3A Bus	NC	4.7 to 1
354976	17	2003-6-23	NC	4.09 to 1
347536	18	2003A 7.50-16 Tires	NC	4.7 to 1
347537	19	2003A 7.00-16 Tires	NC	4.7 to 1
347536	18	2004-7	NC	4.36 to 1
347537	19	2005-8-21	NC	4.54 to 1

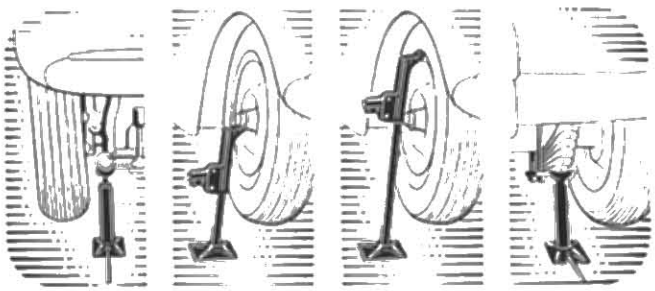


*C - with collar

**NC - without collar

USE OF JACK

How many of your owners do you suppose are familiar with the operation of the jack in the current model cars?



Very few drivers look at the jack until it becomes necessary to change a tire. By this time the Owners Manual has usually disappeared. Even when it is in the glove box it seldom occurs to the driver to look at it.

Many drivers become hopelessly confused. They figure that it is a bumper jack and never think of using it against the rim of the wheel.

While you are talking tires to your customers we suggest that you make sure that they are familiar with the jack. This is the sort of thing that is easy to do, costs nothing, and indicates a real interest in the customer's welfare.

Note: Perhaps you had better make sure first that you can work it yourself.

STARTING CIRCUIT
20th SERIES CLIPPERS

If the engine does not crank when the accelerator pedal is depressed, the circuit, which includes the solenoid on the starter motor and the switch on the carburetor, should be checked.

The circuit is grounded from the "A" post on the voltage regulator through the generator. By grounding from the "A" post to the dash the generator wire "3A" and the generator are eliminated from the circuit.

If the engine will then crank when the accelerator is depressed it indicates that the ground is not completed at the generator. This may be caused by sticking brushes or by a poor contact between the brushes and the commutator.

If the engine still does not crank when the "A" post is grounded the trouble may be in the starter switch on the carburetor. It may be checked by shorting across the two wire leads at the carburetor switch. If the engine then cranks the trouble is in the switch.

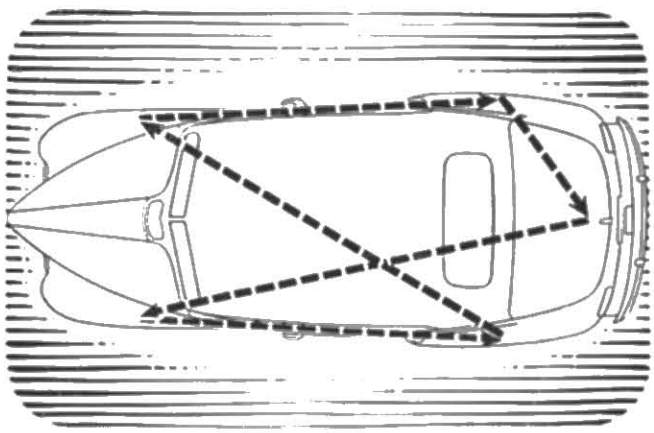
If the above tests do not locate the trouble the solenoid switch may be shorted out by bridging across the hot lead from the battery to the starter motor post. If the motor then cranks the trouble has in all probability been located in the solenoid switch.

This switch sometimes fails to operate because of a sticky plunger, and sometimes because the current in the solenoid coil does not overcome the spring tension.

NOTE: The above instructions cover those 20th Series Clippers with the additional wire running from the solenoid switch to the "A" post on the voltage regulator. The 19th Series Clippers and some of the early 20th Series do not carry this wire. In these cars the circuit is grounded in the solenoid switch.

CROSS-SWITCHING TIRES

This illustration shows the standard procedure used in cross-switching tires, including the spare. The reasons for changing in this manner are based



on the variation in tread wear. Under average operating conditions the ratio of wear is as follows:

Left front	14%
Left rear	29%
Right front	19%
Right rear	38%

You will note that the right rear tire, which wears the most, becomes the spare, and that at the next switching operation it is moved to the left front where the wear is the least.

You will also note that in shifting tires from the rear to the front, the direction of rotation is reversed. This tends to equalize the wear which develops in the rear tires due to starting traction. When the free rolling front tires are moved to the rear the direction of rotation is unchanged.

In some cases it may be found that unusual operating conditions have caused a noticeable variation in the normal ratio of wear. When this is the case the above table will be helpful in placing the tires so that the wear will balance up.

BODY POLISHING—HIGHER PROFITS

The sale of body polishing jobs will increase as car owners condition their cars—both mechanically and appearance-wise—for the duration.

To the car dealer polishing is a most desirable activity—No expensive equipment—small inventory investment—rapid turnover of shop space—no highly skilled help—fine margin of profit.

For some years we have polished all Super Eights and all drive-aways with Packard Hard Gloss before delivery from the factory. This Packard Hard Gloss gives a good result.

Our present stock of Packard Hard Gloss is being offered to the first comers at bargain prices —bigger profits for you.

	Old Price	New Price
PA-356774 Luster, Pt.	$ .65	$ .40
PA-356775 Luster, Gal.	2.80	2.10
PA-356776 Cleaner, Pt.	.65	.40
PA-356777 Cleaner, Gal.	3.35	2.10

Set up a real polish department and advertise it to your owners.

No. 6

Here is a suitable post card offered at no charge —you pay only the postage.

Order quickly—Our supply is limited.

SMITH AND SMYTHE

The customer with an unusual or hyphenated name, such as Smythe or Worcester-Jones, is generally sensitive about it. Incorrect pronunciation may offend him. And if his name is just plain Smith, he probably wants to be addressed as Mr. Smith, rather than Smitty.

It flatters a man's vanity to have his name remembered. This is one of the "little things" in the service relationship; but if you train yourself to remember names, your customers will like to deal with you.

CONVERTIBLE TOP BINDING

In cleaning a convertible top, special attention must be given to those cases in which rust stains have developed in the material at the binding.

It will be found that the rust comes from the tacks which are used to secure the binding. It will also be found that the rusting is most likely to occur in those tacks which come in contact with the wire lacing in the binding.

Even tacks which are rustproofed or cadmium-plated (our own tacks are plated) may become rusty when they come in contact with the brass wire. This is probably due to electrolytic action.

The safest procedure to prevent rust from developing again is to renew both the tacks and the binding. We are now carrying in stock "Hidem" binding which does not contain any wire, and the tacks which we are now supplying have a heavier cadmium plating than was formerly obtainable.

When tacks and binding are replaced, the safest plan is to purchase both tacks and binding from us, specifying the purpose for which the tacks will be used and stating that the "Hidem" binding is to be supplied.

A LOGICAL APPEAL TO CAR OWNERS AT THIS SEASON

If your service department isn't busy at this time, call your owners on the phone.

Remind them that only by keeping your men busy can you continue to render efficient service. Ask them whether they realize the seriousness of a possible elimination of authorized parts and service facilities to keep their cars running.

Then point out that this is always a quiet period for service, although we are looking for a very heavy spring service demand with its inevitable delays and hurried work.

Follow this reasoning with the request that you be allowed an opportunity to give the owner's car a "Health Check," at no expense to him, and that you and he can then discuss what work to have done now and what might be postponed until later.

It is well, also, to suggest the possibility of financing repairs by easy payments out of income.

For quick results use the telephone.

Service Letters are available for everyone connected with Packard Service Stations. If service managers are not receiving a sufficient number of copies, they should write the editor and give the extra number needed.

Printed in U. S. A.

SERVICE MANAGER'S
PERSONAL COPY

PACKARD SERVICE LETTER

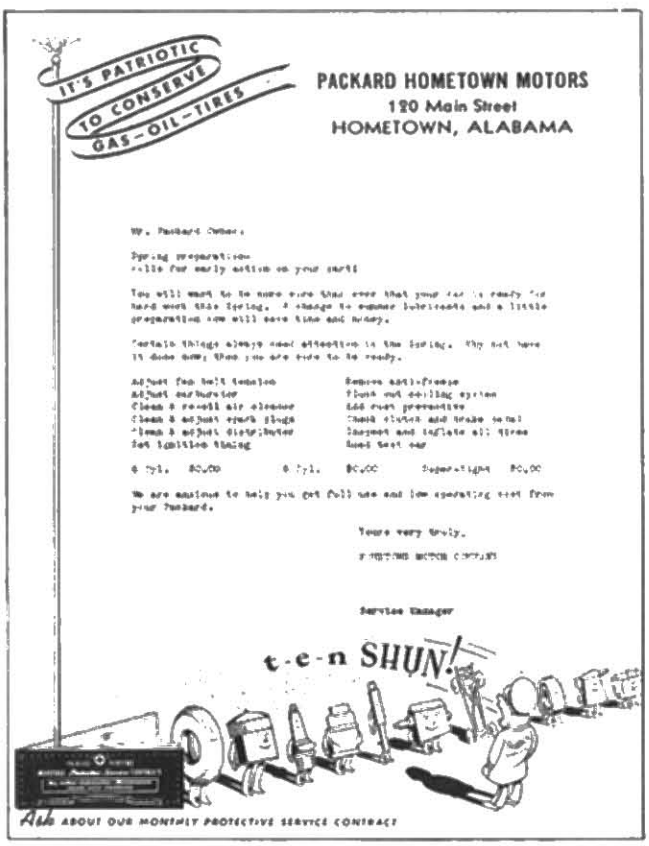
Packard Service

VOL. 16, NO. 7 APRIL 1, 1942

1942 SERVICE SPRING MAILING

Car owners have been buying Spring conditioning services since they owned their first car. Even with all the worry about continued operation of their cars and appeals to protect their cars for the duration, the lifetime habit of Spring conditioning will bring many cars to service stations.

Owners will expect to receive your recommendations and advice. Here is a double-barreled weapon for getting your full share. Today you can't wait for business to come to you. The red, white and blue letterhead has a timely appeal and will serve as a Spring piece. It is a good supplementary piece for the material offered in the Packard Wartime Service Plan.



As further assistance, the factory is offering to stand the expense of all artwork, preparation and printing costs. The letterhead is supplied without charge in the quantity you agree to mail.

The factory also makes available the services of letter reproducing concerns which produce a very satisfactory type of work on printing the letter you select for the piece.

The cost of imprinting firm name and reproducing any one of four sample letters with your price for the service work offered is as shown on the order blank attached with sample letterhead and suggested letters to General Letter G-523.

IS YOUR ORDER IN FOR WARTIME SERVICE PLAN MATERIAL?

How about your order for the material required to help you cash in on the Packard Wartime Service Plan? Samples of the material available were supplied in a portfolio mailed with General Letter G-522, Dealer GL-1113, on February 24, 1942.

MONTHLY PROTECTIVE SERVICE CONTRACT

The Monthly Protective Service Contract contains a Lubrication Inspection book with 1000-mile lubrication and 2000-mile engine oil changes. Some customers may want the added protection of more frequent oil change.

This change can very easily be made in the book as it is sold. The book now has in it five white coupons covering oil changes so you add five more changes by taking No. 1, 3, 5, 7 and 9 red coupons and adding in pen and ink or with rubber stamp the words "Drain and Refill Crankcase" as shown in the drawing.

You add these to the price of the book according to the model car. For instance, for a six with five-quart capacity, you could add $6.75 to the contract price. For an Eight with six-quart capacity you could add $8.00 and for a Super 8 with 8-quart capacity, $10.50.

The first visit he makes to your service station remove No. 1 red coupon and give him a lubrication-inspection and oil change. The second time he comes in remove No. 2 red coupon and give him a lubrication-inspection. Also remove No. 1 white coupon and give him an oil change. Repeat this procedure for each visit.

For the owner who seems to like the plan but objects to the price, try extended payments. First, check with the auditor, then try ½ down and the other ½ when coupons totaling the value of the payments have been received. If this doesn't work, try quarterly payments, with the approval of the auditor. If this fails, try reducing the value of the book by removing one or more coupons such as the "Refill Shocks." This would reduce his cost by 1.5 hours times your customer's hourly rate and other coupons could if necessary be handled on the same basis.

It will be easier to handle if all books are the same. However, the plan is so flexible that hardly any sales need be lost because you can give the customer about anything he wants in the way of a planned protection for his car.

Detailed instructions regarding the accounting procedure for keeping track of contract sales will be found attached to General Letter G-525. Such a record is necessary both from an accounting as well as from a selling standpoint.

CARE OF ANTI-FREEZE SOLUTIONS

In the last issue of the Service Letter we covered the draining of anti-freeze solutions.

We suggested that these solutions be discarded because of the possibility that their inhibitors might have become ineffective, causing the solutions to become corrosive in their action. We said that it appeared that anti-freeze would be available in the fall.

Since that article was written, there has been further discussion regarding the future supply of anti-freeze, and your customers may suggest the advisability of saving their present solutions.

We suggest that you get in touch with the organization from whom you have secured your anti-freeze. Obtain a recommendation from them as to the course which should be followed. Various inhibitors are used in different types of anti-freeze and it will be safest to follow the recommendations of the manufacturers.

Naturally, we cannot give you this advice because we do not know the anti-freeze which you have used.

CHROME PLATING

In the Service Letter of March 1, 1942, we cautioned you regarding the shortage of chromium plating and the necessity for conserving the plating now on the cars.

This shortage is becoming more acute and as we stated in the previous article we shall not be able to replace chromium plated parts even on recent cars in order to take care of a rust condition.

It is unfortunate that this is the case but it can not be helped. If any of your customers complain of rusty chromium you must tell them that no action on our part is possible. You will, of course, outline to them the steps which can be taken to keep their present chromium in the best possible condition.

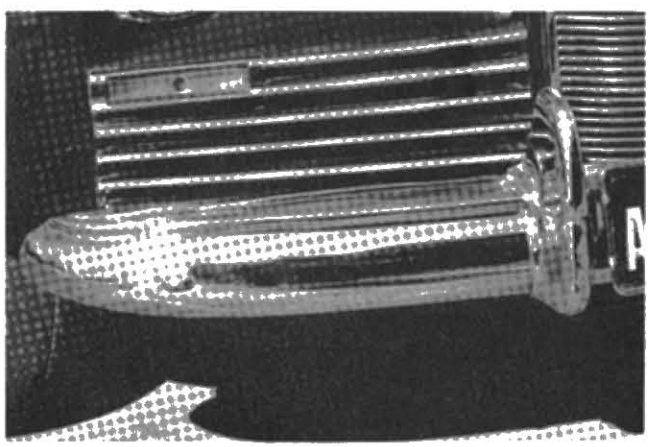
VALVE TIMING

MODELS	Inlet Opens	Inlet Closes	Exhaust Opens	Exhaust Closes
1600-1601-1602				
1700-1701-1702				
1800-1801-1801A				
1900-1901-1901A				
1951-2000				
2001-2020-2021	1° BTDC	39° ALDC	45° BLDC	5° ATDC
115C-120C-CA				
120-120B-BA				
120-120A	5° BTDC	39° ALDC	45° BLDC	5° ATDC
2003-2003A-2023				
2004-5-6-7-8				
1903-3A-4-5-6-7-8				
1803-3A-4-5-6-7-8	4° BTDC	51° ALDC	49° BLDC	10° ATDC
1506-1507-1508				
1606-1607-1608				
1706-1707-1708	ATDC	45° ALDC	35° BLDC	10° ATDC
1703-1705	26° BTDC	69° ALDC	61° BLDC	34° ATDC
1603-1604-1605	30° BTDC	45° ALDC	65° BLDC	30° ATDC
1500-1501-1502				
1400-1401-1402				
1403-1404-1405				
1200-1201-1202				
1203-1204-1205				
1100-1101-1102				
1103-1104-1105				
1001-1002				
1003-1004	30° BTDC	65° ALDC	65° BLDC	30° ATDC
900				
901-902-903-904	20° BTDC	65° ALDC	65° BLDC	20° ATDC

FRONT FENDER GRILLE LEAKAGE
CLIPPER

If the joint between the fender grilles and the fenders themselves is not tight, water and mud thrown from the front wheels will penetrate the joint and collect on the front bumper splasher.

In some cases this mud also prevents the grounding of the parking lamps and the ground should be checked if trouble develops.



The leakage of mud onto the splasher can best be corrected by sealing the joint with a heavy sealer such as dum-dum, first removing the wheels so that the work can be thoroughly done.

The removal of the wheels also provides an excellent opportunity to thoroughly tighten the whole front end, and especially the fenders themselves.

WINDSHIELD WASHER

An outstanding new accessory is the windshield washer equipment.

The use of this equipment increases the safety and pleasure of driving as it helps to provide clear vision for both driver and passengers.

This new desirable accessory provides a very substantial profit. It is easy to install and easy to sell.

It floods the windshield glass with water which loosens the mud, scum and insects, permitting the windshield wiper blades to clean the glass. Place your order with your distributer today under the Packard Approved Accessory No. PA13265. The dealer suggested cost is $3.25 and the suggested list price installed is $6.75. It requires less than an hour to install the unit.

WHEN SERVICE IS QUIET USE THE TELEPHONE

The quickest and surest way to get service business is through owner contacts by telephone, *but* do it intelligently.

Go quickly through your repair order files and owners' list, picking out those whose cars haven't been in for 90 days or more. Familiarize yourself with the last work done and the mileage when last in.

When you call the owner have something definite in mind to sell him, work reasonably to be expected at present estimated mileage. Suggest a polish job, seat covers, general reconditioning, a new radio, battery, wheel alignment, tire switching, or any one of the many things which will now appeal to the owner who must expect his present car, even if an old one, to last for the duration.

Talk about the new Packard Wartime Service Plan and "Monthly Protective Service" with the "Health Check" which will appeal to all car owners.

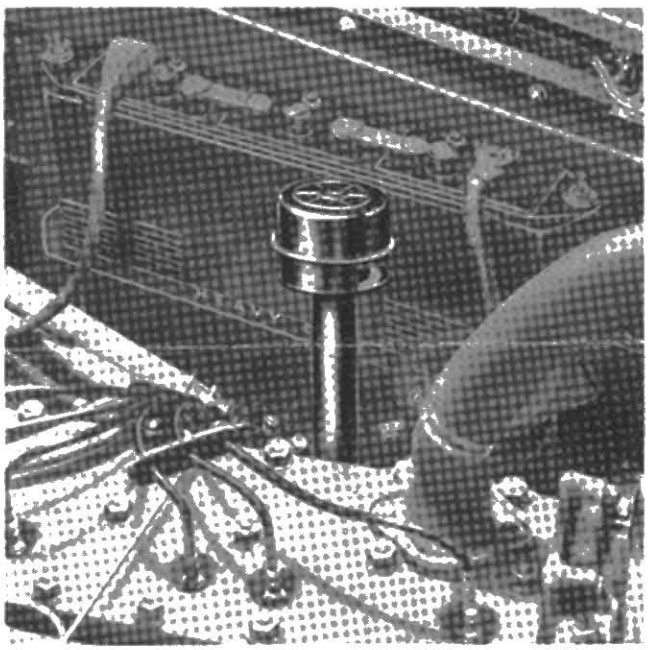
For immediate results use the telephone. There's plenty of proof from field experience to show that it works—if worked intelligently.

MOTOR OIL FILLER PIPE
19th SERIES

We suggest that you read again the article in the Service Letter of February 1, 1941, covering the installation of the lengthened oil filler pipe on 19th Series motors.

We have recently received several reports of sticking valves in these cars, and the indications are that the condition is caused by rust. A 19th Series car which is driven slowly in cool weather should have the long filler pipe and the new cap. Otherwise the circulation of air through the crankcase ventilating system will not be sufficient to remove the moisture from the valve compartment.

In correcting a sticking valve condition on a car previous to the 19th Series it is not necessary



to use these parts because the ventilation is adequate with the original filler pipe and cap. Too much ventilation would cause excessive oil consumption in high-speed driving.

1000 AND 3000-MILE INSPECTIONS

Many of our service stations do not have a clear picture of the nature of the 1000 and 3000-mile inspections.

These inspections are the obligation of the organization which sells the car to the customer, and are in effect a follow-up on the new car fitting and delivery job. They are part of the Owner's Service Policy but they are not in any way connected with the guarantee which covers defects in workmanship and material.

The thing to bear in mind is that every new car buyer is entitled to these two inspections. It doesn't make any difference whether or not they fall within the mileage period of the warranty. The 1000-mile inspection will usually be inside the warranty mileage, but the later inspection will probably be made after it has expired.

This is particularly apt to be true with the present curtailed driving. The 3000-mile period may not be reached until the car is six months old, but it is better to make the inspection when the mileage is reached than to attempt to crowd it into the warranty period.

The coupons state that the inspections will be made without charge "within the warranty period," but it is not good business to deny the inspections simply because the warranty has expired. The cost is small and it is an excellent time to make contact with the owner. Moreover, he feels that it is a service to which he is entitled.

In the case of a tourist, it is necessary to rely on the good judgment of the service station handling the car. We have suggested that the first inspection be performed between 1000 and 2000 miles, and the second between 3000 and 4000 miles, but this is not always practical. If the touring owner has made a reasonable effort to follow instructions, the work should be performed for him.

This means that coupons from your own touring customers will occasionally be charged back to you which may not adhere closely to either the age or the mileage, but if you use your best judgment in handling "the other fellow's" customer, you can depend upon his being equally ready to take care of yours.

SELLING BATTERIES

Battery inspection is profitable in sales of cables and the sale of new batteries. They should be recommended to owners of cars that have been in use two or more years. As electrical equipment becomes worn, it places an added load on the battery and the purchase of a new one now is a form of insurance against starting troubles.

It is suggested that you do not recommend the purchase of a spare battery for the customer to store away for future use. Batteries should only be sold for immediate need. It should be pointed out that unless a battery is regularly charged and discharged by experts, the plates will become sulphated and make the battery useless.

You should urge owners to have the entire electrical system of their car checked. At this time if you find the battery in other than perfect condition, suggest the purchase of a new one. Such recommendations will be appreciated and will result in greater profit over a longer period of time. It's a matter of keeping customers satisfied.

PRINTED IN U.S.A.

VOL. 16, NO. 8

Packard Service

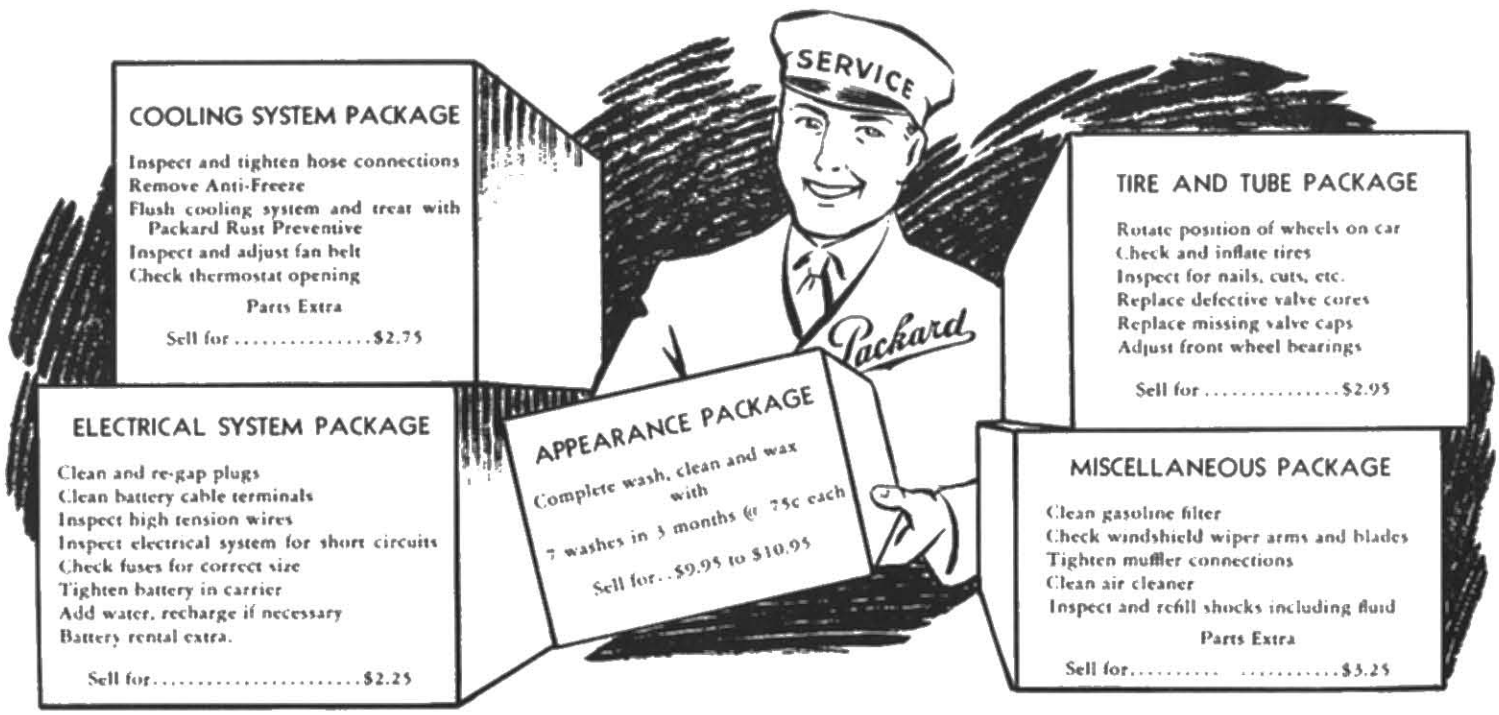
APRIL 15, 1942

FREE COURTESY SERVICE

"Free Courtesy Service" such as adjusting fan belt, refilling battery, windshild wiper service and inflating tires is not to be confused with Warranty Service, often referred to as "free" service. Actually any warranty service is paid for by the purchaser. He pays more for any article that is guaranteed than he does for one that is not guaranteed. When a guarantee is properly handled it builds good will, creates repeat business and makes an article easier to sell. All guaratee services should be no-charge to the customer.

On the other hand, now is an ideal time to get rid of most of this haphazard "free courtesy service" which has in recent years been developed by the super stations.

We do not advocate eliminating the services themselves but most of them can be removed from the "free" list. The simple way to do this is to include them in "pay" packages such as those illustrated. Some suggested prices have been worked out. They may have to be changed to meet local conditions and various labor rates. It is interesting to note that major tire and oil companies, as well as such organizations as Check Chart are urging the discontinuing of these free courtesy services and the substituting a packaged service. It is a timely step and should be followed by all automobile service stations.



WAR TIME SERVICE PLAN FOLLOW-UP MATERIAL

The Packard Wartime Service Plan is being promoted by magazine and newspaper advertising. A follow-up on this is being made by the use of two direct mail pieces, the folder and the reply card.

The reply card permits the owner to ask for additional information on either the "Car Health" check or the Monthly Protective Service Contract. Most of these requests you will want to handle promptly by a personal call or a telephone call.

Where this is not practical, a form letter such as the samples included in the Service Manager's copy of this issue serve the purpose. These should be followed up with phone calls where practical.

Either the "Car Health" letter or the "Wartime Contract" letter will be printed on the red, white and blue letterhead with your firm name ready for hand written signature at

100—$1.06	400—$2.36	800—$4.10
200— 1.49	500— 2.80	900— 4.54
300— 1.93	600— 3.23	1000— 4.97

These prices include only printing the letter and the firm name. The letterhead itself is supplied without charge. When ordering, specify either the "Car Health Letter" or the "Wartime Contract" letter or both.

TIRES AGAIN

In the March 15th issue of the Service Letter we discussed the cross switching of tires.

We pointed out that the purpose of the operation is to equalize tire wear, but if the tires are not in a normal condition this fact may influence you in changing their location.

This, however, should be discussed with the customer. Most owners are definitely tire conscious, and are familiar with the cross switching sequence. If they, themselves, discover that you have not followed this sequence they will feel that it is carelessness or lack of interest on your part.

Before the work is performed it is best to inspect the tires with the customer and tell him *what* you are doing, and *why*.

In the February 15th Service Letter we pointed out that the higher tire pressures which now prevail will result in harsher riding, and an increase in rattles and squeaks.

We suggested that you explain this to your customers *before* they discovered it themselves. Unfortunately this is not being done. It is proven by the owners' letters which we receive.

We are receiving more criticisms on body rattles and harsh ride than ever before. They are not the fault of the car. It is such an easy matter for you to head off these complaints and prevent customer disastisfaction that there is no reason why the criticisms should exist.

FLORIDA SEABOARD AIRLINE REPORTS NO TIRE SHORTAGE!

FRONT WHEEL LOWER SUPPORT ARM BRACKETS - CLIPPER

All of you know that you can not check front wheel alignment unless the entire front suspension is set up so that there is no excessive lost motion at any point.

Yet here is a case which actually happened. A Packard Clipper owner had a minor front end accident which was corrected by an independent shop. He then found his front tires wearing rapidly so he went to a *Packard* service station. (He was touring at the time.)

They told him his front wheels were out of line, put the rear tires on the front, and naturally charged him for realignment. His fronts still wore rapidly, so he went to a *second Packard* shop.

They also told him his front wheels were out of line. They charged him for the correction, but didn't switch any tires because there were no good tires left. Still the fronts continued to wear.

By this time he was back home. He took the car where he bought it and they found what was wrong. The lower wheel support inner bolts were loose, so that the wheel supports shifted their position.

The story is self-explanatory. Even although the nuts are now secured by cotter pins, the bolts should be checked for looseness or lost motion.

UPHOLSTERY PROTECTION

As warm weather approaches, the protection of the new cars in storage against moths becomes more and more important. April and May are the months when the moths germinate. Consequently, now is the time to spray the upholstery to accomplish the most in the way of protection.

Packard Approved Moth Spray and Crystals are available from your distributer as an approved accessory. The application is simple and the cost is low. Order by PA number today.

		Dealers Suggested Prices
PA13240	One-gallon spray (enough for eight cars).....	$2.85
PA13245	One Sack—Moth Crystals (one sack to a car).....	.50
PA13250	Hand Spray gun.....	.45

WHEEL LOCK

The approved Packard Wheel Lock consists of a set of two hub shields and four spinner locks and two keys.

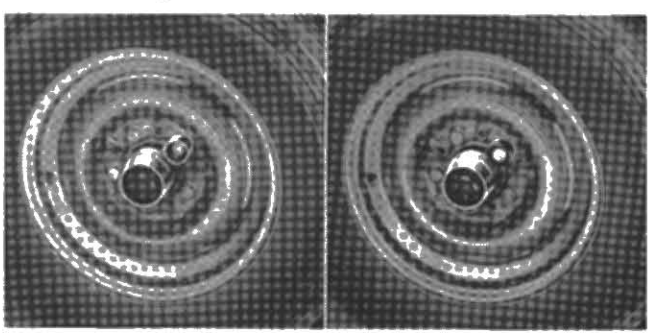
The four spinner locks, one for each wheel, cover a wheel stud so a wrench cannot be used to remove the wheel stud. The two hub shields are designed to prevent a thief from removing the wheel and hub assembly. These shields are not necessary on the rear wheels.

The hub shields are drawn steel, anchored under the wheel stud and lock. They are painted a bright color.

This set of four comes packed in one box with a Packard label.

An additional spinner lock can be secured for use on the spare wheel in the trunk compartment if desired. You replace the wing nut with a standard nut of the right size to use this lock.

		Dealers Cost	List Installed
PA13266	Wheel Lock Set of four	Suggested $4.95	$8.25
PA13267	Wheel lock for spare	.95	1.50



Get in on this fast moving popular market now. Place your orders with your distributer today. Display and sell Packard Wheel Locks.

35 YEARS AGO

CONGRATULATIONS

Thirty-five years ago if a customer wanted his headlights focused, you went to work on a couple of kerosene lamps. If he complained about windshield leaks you knew he must be wrong because there wasn't any windshield. If he came in with the running boards loaded down with tow ropes and shovels, you knew he was a tourist. If he wanted the spark plugs cleaned, it didn't take long because there were only four of them.

How do we know all this? By keeping in touch with a couple of old timers who used to service Model L and Model N cars. They started with Chicago Packard 35 years ago. The youngsters are still at it and showing a lot of pep too.

They are Frank Slouf of South Shore and "Rudy" Rosain, Chicago's General Service Manager.

LOOSE WRIST PINS

Sometimes loose wrist pins will develop at an unusually low mileage.

When this is the case, an examination of the wrist pin bushings will almost always indicate the cause. It will be found that these bushings are black and corroded.

This is caused by a corrosive action in the engine oil. The condition may be due to the original character of the oil or to the fact that it has been used for too long a period. In any case, black and corroded bushings are definitely an oil condition and the pin noise which results is not the fault of the motor.

Even when the age and mileage are extremely low, the expense for both labor and material is the responsibility of the owner. Show him the bushings from his motor and point out that the copper in the bronze bushings has actually been eaten away by the action of the oil.

The same condition will occur again unless the cause is corrected, and the correction is in the hands of the owner.

SPRING AND SHOCK ABSORBERS

20th SERIES—For 19th Series See Vol. 15, No. 1

FRONT SPRINGS

Body Type	Pc. No.	Color	Load	Rate
2000-10 All Std.	367653	Blue	1740	76
2020 Con. Coupe	362823	Red & White	1430	69
2030 Taxicab	326860	Green	1625	77
2001-11 All	373862	Yellow	1890	81
2021 Con. Coupe	348377	Yellow & Blue	1525	74
F.W.E.	326860	Green	1625	77
2003-6 All	367740	Red	2030	90
2023 Con. Coupe	335692	Red & Silver	1750	77
F.W.E.	338166	Yellow & Silver	1870	90
2004-7 All Std.	354690	Orange-Red-Blue	1870	95
F.W.E.	354691	Orange-Red-Purple	1890	100
2005-08-55 All Std.	351256	Purple & Silver	2050	100
F.W.E.	354710	Yellow-Red-Silver	2175	120

FRONT SHOCK ABSORBER VALVES

Body Type	Rebound Pc. No.	Rebound Code	Compression Pc. No.	Compression Code
2000-10 All Std.	357857	3-B	357858	1-B-2
2020 Con. Coupe	367523	3½-A-5	338065	2-A-1
2030 Taxicab	367523	3½-A-5	338065	2-A-1
2001-11 All	239080	3-C	379412	1-C-1
2021 Con. Coupe	367523	3½-A-5	338065	2-A-1
F.W.E.	367523	3½-A-5	338065	2-A-1
2003-6 All	379393	3-D	379394	1-Ad-7
2023 Con. Coupe	367524	3½-B-5	367527	1¾-A-3
F.W.E.	367524	3½-B-5	367527	1¾-A-3
2004-7 All Std.	338779	3-B-5	354880	2-A-3
F.W.E.	338779	3-B-5	354880	2-A-3
2005-08-55 All Std.	354875	3-Bd-5	367526	2-Aa-3
F.W.E.	354875	3-Bd-5	367526	2-Aa-3

REAR SPRINGS

Body Type	Pc. No.	Load	Rate	Code
2000-10 Sedan	378640	870	105	F
Sedan Coupe	378641	830	105	F
2020 Con. Coupe	367721	750	100	E
2030 Taxicab	364618	1200	120	C
2001-11 Sedan	378640	870	105	F
Sedan Coupe	378641	830	105	F
2021 Con. Coupe	367723	820	100	E
2003-6 Sedan	379174	980	110	F
Coupe	379175	940	110	F
2023 Con. Coupe	364660	880	100	D
2004-7 All	367726	1000	110	B
2005-08-55 All Std.	367961	1200	122	A
F.W.E.	367961	1200	122	A

REAR SHOCK ABSORBER VALVES

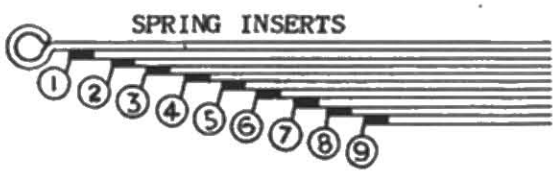
Body Type	Pc. No.	Code	Pc. No.	Code
2000-10 Sedan	379281	4-*5/4	351575	A-3
Sedan Coupe	379281	4-*5/4	351575	A-3
2020 Con. Coupe	367511	2-4/4	351569	A-2
2030 Taxicab	367512	1½-4/4	367515	A-1½
2001-11 Sedan	379282	2-*5/4	379357	Ad-3
Sedan Coupe	379282	2-*5/4	379357	Ad-3
2021 Con. Coupe	367511	2-4/4	351569	A-2
2003-6 Sedan	379356	4-*6/4	379357	Ad-3
Coupe	379356	4-*6/4	379357	Ad-3
2023 Con. Coupe	367511	2-4/4	351569	A-2
2004-7 All	367520	2-5/6	367519	A-6
2005-08-55 All Std.	367514	2½-6/6	367518	B-6
F.W.E.	371922	2½-7/6	367518	B-6

REAR SPRING INSERT LOCATION

Code	1	2	3	4	5	6	7	8	9
A	1/16 R	1/16 R	S	S	S	1/16 R	1/16 R	1/16 R	7½ AL
B	S	S	1/16 R	1/16 R	1/16 R	10 AL	7½ AL	5 AL	
C	1/16 R	S	S	S	S	S	S	S	
D	S	1/16 R	1/16 R	1/16 R	10 AL	7½ AL	5 AL		
E	S	S	S	3/8 R	7½ AL	5 AL			
F	1/16 R	S	S	10 AL	7½ AL	5 AL			

Pc. No.
358492—Silenite
347427—1/16 Rubber
354799—3/8 Rubber

Pc. No.
327753—5% AL
327954—7½% AL
327726—10% AL



PRINTED IN U. S. A.

VOL. 16, NO. 9 MAY 1, 1942

PACKARD BLUE CORAL TREATMENTS A NATION-WIDE DRIVE

Packard is now promoting the sale of Blue Coral Treatments. We have endeavored for some time to find a material that would protect the finish and restore the high new car lustre. We wanted a product that would be exclusive from a sales stand point, one with an appealing name and one that would produce more in the way of profits than could be obtained from just the sale of a polish.

Most polish jobs on the market can be bought from any repair shop, storage garage or gas station, and usually at a lower cost than you can sell them. Competition has often made this type of work unprofitable.

In Packard Blue Coral Treatments we have the answer to this problem. It cannot be purchased through jobbers and outside sources. It is exclusive to car dealers.

It is particularly worth while at this time because it represents a very salable item. It requires no large investment in shop equipment. It requires no large inventory. It requires no technically skilled labor. The gross profit on this Treatment is very satisfactory because most of it is derived from the sale of labor.

Promotion material is being supplied without charge on your initial orders. There are mailing folders, large eight-foot banners and easel cards for "spot cars."

Two things are important—first, talk and sell Packard Blue Coral Treatments. It is more than a polish and should not be sold as such. Second, display both the material and your equipment. Locate your "Treatment" department where customers can see it. Display both the attractive Blue Coral bottle and white jar of sealer.

Packard Blue Coral Treatments are neither a polish job, a wax, nor a cleaner. It is a finish restorative and protective treatment. It removes the dirt and traffic film and gets down to the lacquer. It burnishes the finish, restoring its original color and all of the remaining lustre. It does not add any finish. It restores and protects. It leaves a hard, smooth bright finish, completely dry. There is no layer of polish or wax left on the finish. There is simply a restored finish sealed against dirt.

One application lasts from 2 to 5 times as long as other materials. Washing will not dull it.

Packard Blue Coral Treatments are not just the sale of a bottle of polish—it's a complete beauty treatment—it should include:

1. Thorough washing of car.
2. Touch up rust spots.
3. Application of Blue Coral and Sealer
4. Cleaning and Vacuuming interior.
5. Dressing top where needed.

This type beauty treatment should sell for

SIX	$10.50 to $12.50
EIGHT	12.50 to 15.00
SUPER-8	15.00 to 18.00

Every Packard Distributer and Dealer should plan to start this program at once—it's timely —it's profitable.

WHAT DOES THE CUSTOMER WANT?

Another article on handling Packard Service by R. B. Parker, General Manager of Packard-Philadelphia.

ALL NECESSARY WORK DONE, BUT NO NONESSENTIAL

Repairs are not something a man enjoys buying. He wants all the adjustments and repairs essential to the maintaining of his car in good operating condition, but no more.

It is understandable that a shop whose only income is derived from the sale of repairs and supplies may lean toward advising repairs which are really unnecessary, even if, as a result of such *over*-selling, the *car* may suffer in the estimation of its owner. Our policy must be built around the hope of some day selling the owner another Packard—and toward that end low cost of mechanical upkeep we know to be a most influencing factor.

The customer does not want us to recommend an extensive repair job when an inexpensive adjustment will suffice. As the question often arises as to whether, in making a minor adjustment or repair, we may be criticized for failing to do the job 100% right, or in recommending the more extensive repair operation, we may become criticized for high costs of maintenance, the pros and cons of the question should be discussed with the customer before proceeding with the work.

Few car owners are mechanically minded, and hence it is a breach of faith to recommend a repair expense to a customer, the necessity for which is not self-evident, without also advising him as to alternatives.

FOR SALE
USED PACKARD ENGINE

The Heaton Motor Company of Terre Haute, Indiana, notifies us that they have on hand a used 1936 twelve cylinder engine which they describe as fully equipped and in good condition. They offer it for sale at $100 f.o.b. their city. If interested, write Ren Heaton for further information.

REAR SPRING SQUEAKS—
CLIPPER

We are having more complaints about rear spring squeaks on the Clipper than we have had for some time. These squeaks are caused by lack of lubrication around the lead inserts, which are at both ends of the three shortest leaves.

Upon examination it will be noted that the flat surface of the lead insert is scored due to friction with the leaf above. However, this is not where the squeak occurs. The squeak is caused by the insert rocking in the cup which is supposed to be filled with grease.

These cups previously have been made of brass but now are made of steel surrounded with synthetic rubber to hold the grease. It is natural that the steel cup will be more susceptible to squeaks than was the brass.

It is much easier to remove the cup and insert from the three short leaves on the Clipper than it was on previous models, because the leaves are slightly longer, and therefore, easier to spread.

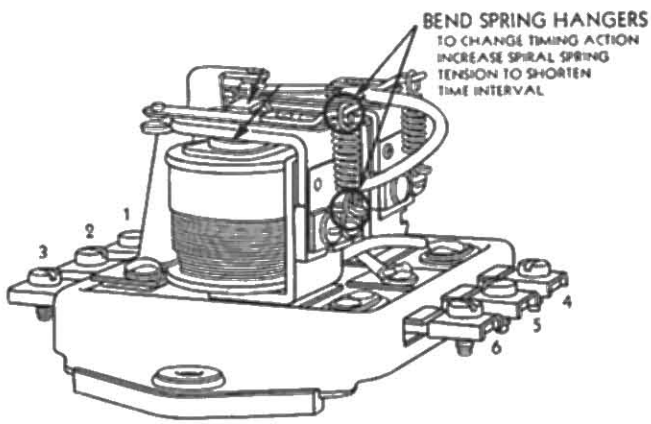
To correct the squeak, remove the cup and insert, lift the insert out of the cup, put a slight amount of EP lubrication in the cup and replace the insert. EP lubricant will last longer than cup grease due to its resistance to high pressure.

Never spray the spring when lubricating the car because if oil gets on the Silenite or rubber inserts between the long leaves, it will destroy them.

IGNITION CUT-OUT

You may have some Econo-Drive equipped cars in which the ignition cuts out and the engine stops when decelerating in Econo-Drive.

This condition may be caused by improper adjustment of the Econo-Drive relay, which is mounted on the front of the dash.



A quick check of the relay may be made by holding the points on the upper coil closed with your finger. This will cause the lower points to close.

When the upper points are released, the lower points should open a split second later. If the lower points fail to open, the spring pressure should be increased by bending the *lower* spring hanger.

Repeat the above check each time after adjusting the spring hanger. It is important that there be a noticable time delay between the opening of the upper and lower sets of points. If the points open together it will be impossible to operate the kickdown feature of the Econo-Drive.

CAR STORAGE BY OWNER FOR SHORT PERIOD

You may receive inquiries from customers as to whether special precautions need be taken if cars are allowed to stand for a few weeks at a time.

If the car will be idle for not more than four to six weeks no special storage precautions need be taken except to make sure that the battery is fully charged and the tires fully inflated.

If the battery is fully charged at the beginning of the period it will not suffer during the six weeks interval; and if the tires are inflated to 35 pounds they will not lose enough air to do any damage. This, of course, is barring the possibility of a slow leak.

The gasoline condition is one on which it is rather hard to give advice. Gasoline develops a gum content in storage, but if the gasoline is "fresh" when the car is laid up, a six weeks interval will not cause trouble.

If, on the other hand, the gasoline is stale at the beginning of the period it may develop an objectionable gum content. Of course the owner can not tell whether the gasoline he purchases is stale or fresh and his only safeguard is to purchase his fuel from a filling station which does enough business so that its storage tanks are frequently replenished.

In general it probably does not pay to go to the trouble of draining the tank, lines and carburetor for a short storage period, but it is well to explain the situation to the customer and leave the option with him.

If an owner decides to take his car out of commission for a longer period a definite storage procedure should be followed. Unless this is done the car may depreciate seriously and this depreciation can easily be greater than if the car were actually in use.

If, therefore, the car is to be taken out of commission we suggest that you use the outline on "Preparing Cars for Storage" which accompanied Mr. Page's letter of February 4, 1942. The treatment of the individual items may vary according to the particular situation, but this is something which can easily be determined if the conditions are known.

VAPOR LOCK

Every year, at the start of the warm weather we have cases of vapor lock. They are caused by the fact that certain filling stations still have a remainder of highly volatile winter gasoline in their tanks.

This difficulty can only be corrected by the use of summer gasoline. Modern cars will not operate properly in hot weather with a winter fuel.

Vapor lock is caused by the fact that the fuel is heated beyond its boiling point. It may, therefore, occur with a winter fuel when the motor and fuel pump are at normal summer temperatures. It may occur even with a summer fuel if the motor and pump are unusually hot.

In checking a vapor lock condition, therefore, the first step is to determine whether the fuel is responsible, by trying another fuel which you know to be giving satisfactory results. This is particularly important in the Spring and early Summer.

If you find that the fuel is not responsible, you should make sure that the motor temperature is normal. This means, first of all, a general checkup of the spark timing, fan belt, water circulation, etc.

Make sure, also, that the heat control is free and the spring is not too tight. A tight spring or a valve which sticks, in the closed position, will cause excessive heat in the manifold and carburetor.

Vapor lock usually occurs when the motor is idled or stopped after the car has been driven at a higher speed. When the motor is stopped, the lack of air circulation causes the temperature to build up and the increased heat may "cook" the gasoline in the carburetor to the point where vapor lock occurs. When this happens, the motor will not start until it cools, or until a cooler fuel has been drawn into the carburetor.

A weak fuel pump may also cause vapor lock, under different conditions. The trouble starts as a high speed miss, which is due to a lean mixture. The lean mixture increases the motor temperature and may start a vapor lock condition in spite of the air circulation. Sometimes the motor will continue to slow down until it stops entirely.

The remedy, of course, is to see that the fuel pump delivers the normal pressure.

SERVICING AIR CONDITIONING UNITS FOR SPRING OPERATION

There are certain instructions that should be followed when cars equipped with air conditioning units have been disconnected for the winter. We would suggest that you reread the instructions issued in April, 1941 and mailed with Service Letter Volume 15, No. 8 of April 15, 1941.

The automobile air conditioning system when placed in service for the summer months should be carefully checked to see that there has been no loss of refrigerant gas from the system due to slow leaks during the winter months when no cooling was required. This check is readily made by slightly cracking the test cock on the side of the liquid receiver under the car. A discharge of milk-like spray indicates a full charge. If there is no discharge except the invisible gas, the system is low in refrigerant and needs recharging. This test should be made only after the compressor has been running not less than 15 minutes.

In the event the above test indicates and insufficient charge of refrigerant, additional refrigerant should be added until the test cock shows the correct discharge of milk-like spray.

The oil level in the compressor should then be checked to determine if there has also been a loss of oil. As a rule, a loss of refrigerant due to a small leak does not necessarily mean that the oil has also been lost; however, it is recommended that the oil level be checked. This test is accomplished by allowing the compressor to run from 20 minutes to a half hour to make sure that the oil is properly distributed throughout the system. After this period, the compressor is then stopped and both service valves closed. The oil filler plug is then removed from the crankcase and a pencil or clean wire is inserted so that it touches the bottom of the crankcase. When removed, it should show an oil level of approximately $1\frac{1}{2}$" in the crankcase. If the oil level is below $1\frac{1}{2}$", additional oil should be added to give a normal level. *Only special compressor oil can be used.* Care should be taken in inserting the test rod as an undue agitation causes the oil in the crankcase, which is saturated with refrigerant, to foam.

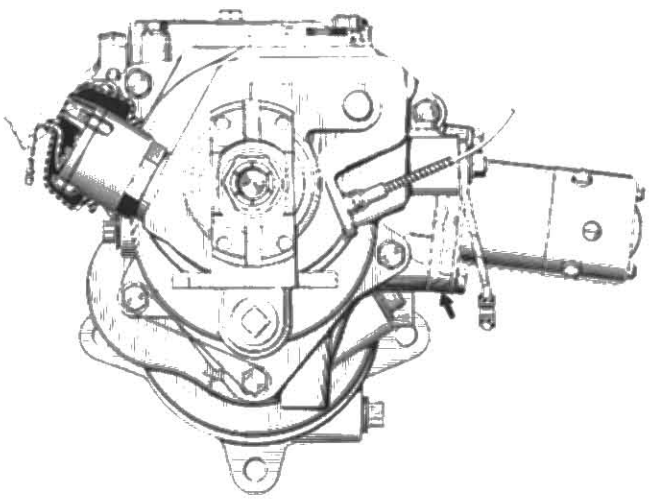
In the event it has been necessary to add refrigerant to the system, a careful check should be made of all tubing connections, joints, etc. in the system so that the leak can be located and fixed. We cannot too strongly recommend the checking of each installation as it is put into service, as a loss of refrigerant during the winter months results in a condition whereby there is an insufficient amount of refrigerant to properly absorb and return the oil back to the compressor crankcase.

ECONO-DRIVE SOLENOID INSTALLATION

A case recently came to our attention where an owner's Econo-Drive ceased to operate. The car was brought to the dealer's service man who quite readily diagnosed the trouble as being in the solenoid unit.

A new solenoid was installed. A road test proved that the original trouble had been corrected but now the car would not go into Econo-Drive when releasing the accelerator above the governor cut in speed and the indicator light burned all the time.

The mechanic then completely dismantled the Econo-Drive unit, but everything seemed to be in order, so the unit was reassembled and replaced.



The trouble proved to be the position in which the metal spacer between the solenoid and the Econo-Drive housing was installed. The center hole in this spacer through which the solenoid shaft passes is offset. Although the two attaching cap screw holes will line up in either position, there is only one way to install the spacer so that the shaft will clear the hole in the spacer.

In this case the spacer was installed upside down with the result that the spacer pressed so hard against the solenoid shaft that it was impossible for the pawl to slide out of the balk ring and permit the Econo-Drive to engage.

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VOL. 16, NO. 10 MAY 15, 1942

GASOLINE ECONOMY

In any region where the supply of gasoline is to be reduced there will be a desire on the part of the operator to improve the fuel economy of his car.

Naturally, the first step to take is to make sure that the motor is in good condition and, particularly, that the ignition timing is set with all the advance which it will take.

It must be born in mind that all motors are built for the greatest economy which the designer feels is practical, and that a sacrifice of some kind must be made if the economy is to be still further improved.

Increasing the spark advance increases spark knock. Leaning the mixture increases the tendency toward spark knock and also reduces motor performance. A very lean mixture will increase the motor temperature under hard driving and may even cause vapor lock or sticking valves.

Unfortunately the desire to improve fuel economy collides "head on" with the present movement toward a reduction in the octane rating of the gasoline, because the two important items in improving economy, leaning the mixture and advancing the spark, definitely increase spark knock.

The subject should be carefully reviewed with the customer if he asks for your help. The main metering jets of the Stromberg carburetor can be replaced with jets one or two sizes smaller and leaner metering rods can be installed in Carter carburetors.

The spark should be advanced as far as the road conditions and the fuel available will permit. The driver must then accept the increase in spark knock. You should warn the owner, however, that he will probably be disappointed in the result.

Operating conditions are the biggest factor in fuel economy. The fast driver, the "jack rabbit" driver and the driver who must operate in traffic will not be able to get good gasoline mileage in spite of anything you may do.

The greatest improvement can be obtained in the car which is driven on long runs at even, moderate speeds. In such a car the effect of the leaner mixture and the increased spark advance will not be as objectionable.

THE "CAR HEALTH CHECK"

Whether your service department is busy or not, use the "Car Health Check" on as many of the cars coming in as possible. Why? Because you'll need the "work deferred" to call in later when you will need it badly.

The "Car Health Check" is both a present and future "Self Seller." Don't miss an opportunity to use it.

Those service men who have found out by actual trial and experience, are getting increased business by using the Health Check and they are getting a lot more dollar sales per repair order. Furthermore, they *know* right where to go for additional work later on.

It's a good bet, don't pass it up.

PROFITS FROM SHOCKS

Somebody made a survey and found that only one out of every thousand car owners had ever been asked whether his shock absorbers needed attention. We hope this ratio doesn't hold true as far as Packard owners are concerned.

We don't believe Packard Service Stations are overlooking so profitable an item. Go after shock absorber service either by means of separate inspections or, as a part of the "Car Health Check." Send out Reminder Card No. 9. Don't forget there are two profits—get both. There is the refilling and the repairing or replacement where your inspection shows them to be worn out and useless.

The Monroe people claim there is as much profit in a refilling job as there is in 80 lubrication jobs or 400 quarts of oil or 1650 gallons of gasoline, or 132 front wheel bearing repacks. Check your stock of Packard Repair Kits and go after this business.

For additional shock absorbers business, follow these four easy inspection steps.

1. Jump on the front and then the rear bumper. If the car springs move too rapidly and the car continues to bound after you jump off you have either a repair or a replacement job.

2. Look for fluid that has leaked out of the shocks—refilling seldom helps these either.

3. Move the arm sideways to test for side play on bearing—if there is noticeable movement the bearing is worn.

4. Never replace a broken connector without inspecting the unit—check the arm movement sideways and up and down. If up and down movement is too easy the unit has lost its control—if too hard, it's dirt or damage. In either case there is business in sight for you.

ATLANTA-BRASWELL CALLS ON DEALERS

TRANSMISSIONS STICKING IN LOW GEAR

It should not be necessary for us to talk to you about the transmissions sticking in low gear.

We have covered it many times and we would not mention it again if it were not for the fact that some customers still report difficulty in securing a satisfactory result.

Let's get this straight: When a customer comes back to you and says that the trouble is not fixed, it means that you have fallen down on the job. Instead of blaming the customer or criticizing the "design," why not do the job right? Only reasonable care and reasonable intelligence are necessary to get a result.

First see that the detent block in the left side of the transmission cover is tight. It is held by a bolt put through from the inside with a castellated nut and a cotter pin on the outside.

Remove the cotter pin and see whether this nut is tight. If it is loose it has probably worn the block or the detents themselves, and merely tightening the nut will not give an accurate lineup.

If a loose block has been found the cover should be removed and a thorough examination made of the block and the detents to see that there is no excessive wear.

Be sure that when the nut is tightened it does not pull the block in so far that the detent balls do not line up properly with the grooves. If this condition exists it will be necessary to shim the block in order to get the proper lineup.

While checking the detent block, disconnect both rods from the levers on the left side of the transmission cover, working the levers by hand to make sure that they are not loose on the splined end of the cross shaft. You can tell by the feel of the lever whether or not the forks are loose on their shafts or against the block.

Examine the lower holes in these levers to see that they are not badly worn. Work from there through the shifter mechanism, making sure that all rod and toggled connections are not sloppy.

Disconnect the two adjusting rods which connect the levers at the lower end of the steering post. Examine the white metal levers for wear at the holes where the adjusting rods connect to them. See that the levers have only enough end clearance so that they will operate freely, using the shims provided for this purpose if excessive end clearance is found. This is important.

After all the rods, levers, etc., have been checked for lost motion and found to be okey or repaired, put the shifter lever in neutral and

adjust the two rods which connect with the white metal levers at the lower end of the steering post so that the two levers are parallel in the neutral position. This is done by putting a snug fitting piece of rod through the holes in the levers.

There have been many cases where a thoroughly good job has been done all the way through the shifter mechanism, but the job has failed due to lack of sufficient clutch release. Adjust pedal with as little free play as possible, making sure, of course, that the pedal does not ride the floor board. This is important.

The importance of proper clutch release is indicated by the fact that cars equipped with the electromatic clutch seldom stick in gear. This is because the clutch is always properly released.

In cold weather the viscosity of the transmission lubricant has much to do with hard shifting out of low gear, which is the cause of much of the sticking in this gear. It is due to the fact that the gear hangs back while the operator is trying to shift, and the shifter lever hits neutral before the low speed gear is disengaged. Many cases have been corrected simply by thinning the transmission lubricant. Anything which causes the sliding gear to drag may result in sticking in gear.

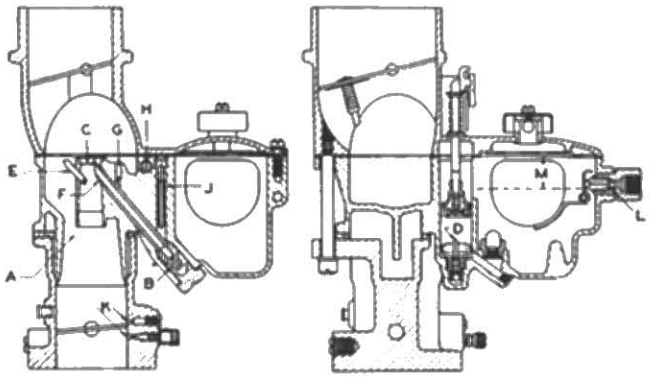
A slow motor idle may be one of the causes of trouble. If the motor is idling too slowly, when the accelerator is released to make the shift out of low gear, it will cause more back drag than if the motor is turning faster. A driver who is careless about releasing his clutch is less likely to have trouble if the motor is idled at about 10 m.p.h.

In our opinion the most common mistake which has been made by the average shop is changing the die cast levers without checking the rest of the linkage. The next most common mistake is ignoring the interlock block in the transmission. A loose or misaligned block can even permit the engagement of two gears at the same time, causing the stripping of the gear teeth.

The third mistake is your failure to check the driving habits of the customer and to point out to him how easy it is to shift without getting into trouble.

CARBURETOR SETTINGS

STROMBERG



LUBRICATION OF WHEEL LOCKS

Due to the heavy coat of paint, in some cases, the wheel locking cap fits tight on the wheel bolt shield. The outside upper edge of the shield should have a light coating of Lubriplate applied to it before the locks are installed on a car. This will enable the mechanic to install the locks quickly. It will also assure the easy operation of the locks when the owner wishes to remove them to change a wheel.

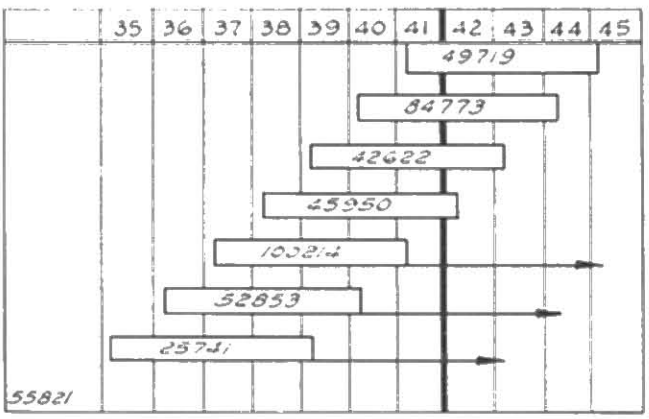
Model	Year	Carb. Type	Venturi A	Metering Jet B	Main Discharge Jet Clearance C	By Pass Jet D	Pump Jet E	Main Discharge Jet F	High Speed Bldr. G	Idle Air Bleed H	Idle Tubes J	Idle Discharge Holes K	Needle Valve Seat L	Fuel Level M
120	1935	EE-14	1 3/32	.048	.285	#62	#65	#32-36	#65	#50	#70 Upper #55 Lower	#60 Upper #54 Lower	.113	13/32
120B	1936	EE-14	1 3/32	.048	.281	#60	#65	#32-36	#65	#56	#65 Upper #55 Lower	#58 Upper #54 Lower	.101	13/32
120C	1937	EE-14	1 3/32	.047	.281	#57	#65	#32-36	#65	#60-38	#68 Upper #55 Lower	#56 Upper #54 Lower	.101	13/32
1601-2	1938	EE-14	1 3/32	.047	.300	#57	#65	#32	#65	#60-38	#55	#58 Upper #54 Lower	.101	13/32
1701-2	1939	10-33-A	1 3/32	.047	.300	#60	#65	#32	#65	#60-38	#60 Upper #55 Lower	#58 Upper #54 Lower	.101	13/32
1801-1A	1940	10-33-A	1 3/32	.047	.300	#60	#65	#32	#65	#60-38	#60 Upper #55 Lower	#58 Upper #54 Lower	.101	13/32
1901-1A	1941	10-47-A	1 3/32	.047	.300	#60	#65	#32	#65	#60-38	#60 Upper #55 Lower	#58 Upper #54 Lower	.101	13/32

HOW MANY CARS HAVE TIRES?

Dealer Service Stations are facing many problems these days. These are not the first days in their histories when they have faced problems and once again they have rolled up their sleeves and gone to work. Shortages are nothing new to automobile dealers. In the past they faced shortages of convertibles in the Spring selling months. At announcement time they either had elaborate plans and catalogs and no cars, or cars and no catalogs. When bright colored cars were selling, they had all black ones, and when coupes were selling, they couldn't get one.

Today, too, we have shortages in some things and overages in others. One that has received a lot of publicity is tire shortages. We have all done a lot of worrying about it.

Here are some facts that would seem to indicate that for 1942 tires are not a major problem for Packard Dealers. Take a look at this chart.



The light vertical lines are years. The heavy one is the tire freezing line. The figures are the number of Packards of each yearly model registered. The horizontal boxes are the four years average life of the first set of tires. The horizontal lines with the arrow heads are the second set of tires.

For example: there are 45,950 1938 Packards which as a group have about used up their tires. Not all of this group are without tires because some are on their second or third set. In the 1937 group, there are 100,214 cars, most of which are safely on their second set. Glancing down the '42 column you find the reason for our assuming that there are a lot of Packards still on rubber.

Do not assume that it is an accurate forecast of what will happen. It is simply a group picture from which to base an opinion. Too often we arrive at conclusions that are based only on individual cases.

Let us first establish a figure on "tire life." Such a figure is not too closely connected with "tire replacement mileage" because in the past, tires have been replaced far in advance of the end of the tire life period. The average replacement mileage was between 18,000 to 20,000 or 25,000. The actual tire life may have been between 30,000 and 40,000 miles.

There are plenty of records to indicate that a figure of 35,000 is not unreasonable. The tire companies anticipate that this will approach 40,000 to 50,000 miles with due care as recommended today.

Another figure must also be established and that is the average yearly mileage of the average car. From actual records, these figures are obtained:

Age of Car	Mileage per Year
1	10,768
2	9,628
3	8,592
4	8,106
5	7,624
6	7,083
7	6,718

It would require $3\frac{3}{4}$ years for a new car to run 35,000 miles while an older car would require $4\frac{1}{2}$ years. We will take 35,000 as tire life in miles and 4 as tire life in years.

Your own personal experience or that of some of your friends may not coincide with these figures. Averages based on thousands of cases are a lot safer than a few personal opinions. If you still insist you can make your own chart. You can reduce the years of tire life by 6 months or even one year but you haven't changed the picture one bit, because as you move the age line to the left and pass the "freezing" line, you have to add a second "life" line, created by the second set of tires. With your chart or ours, you still have tires on all but one group.

There are 457,693 Packard cars registered. Deduct the 55,821 (prior to 1935) and deduct another group of 45,000, who are out of tires, then add 20,000 for 20th Series, delivered but not shown as registered, with new tires and you have a total in excess of 375,000.

Three hundred seventy-five thousand Packard cars with tires that will see them through 1942 and into 1943.

Let's stop worrying about tires and see how many of these cars we can get into your shops.

PRINTED IN U. S. A.

SERVICE MANAGER'S
PERSONAL COPY

PACKARD SERVICE LETTER

Packard Service

VOL. 16, NO. 11 JUNE 1, 1942

PUSH "CAR HEALTH" CHECKS

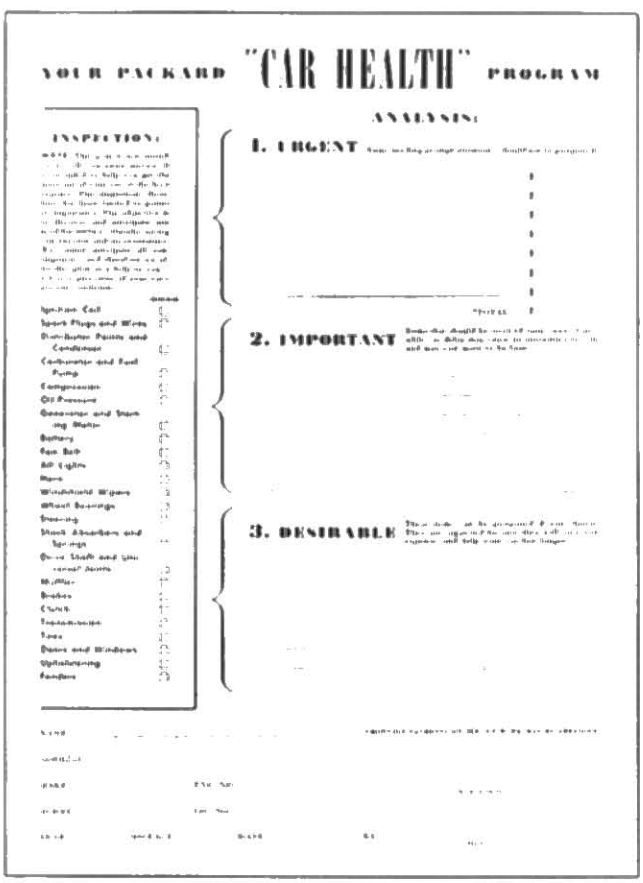
The Wartime Service Program included as one of its principle features, an inspection program. This was a sound practical part of the plan which should receive much more attention than it has so far.

Probably the fact that a large number of cars have come in and that there have been fewer men to handle them accounts for the very low number of inspections reported.

However, as the number of customers tends to become lower, the importance of the "Car Health" analysis becomes more evident.

You will notice the analysis has three parts "Urgent", "Important" and "Desirable". You do not point out to the customer any unnecessary work. You divide the work needed into the three groups.

You try to sell him only on the work listed as "Urgent". At the same time you build up future volume in the other two groups. You automatically create two natural follow-up periods. Two reasons for personal letters, one on the "Important" work and one on the "Desirable" work.


YOUR PACKARD "CAR HEALTH" PROGRAM

INSPECTION:

ANALYSIS:

1. URGENT

2. IMPORTANT

3. DESIRABLE

You frankly admit that all cars do not require the same attention at the same periods. You take into consideration the variations in handling and in driving conditions.

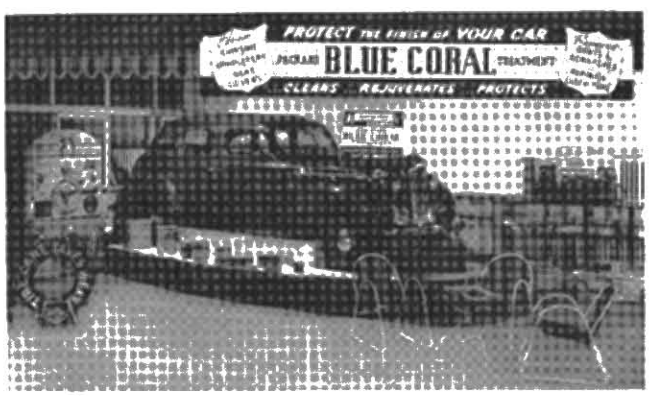
Cars require different attention because of three things, present condition, driving habits and driving conditions. All three are taken into consideration in this plan. Recommendations are based on each individual case.

You go a step farther and consider with each owner what he wants to spend. Some owners want to keep their cars in "new car" condition while others want "just what is needed to keep it running".

The right way to sell service today is to find out what result the owner wants, then through visual inspections plus road test determine what should be done now to obtain this result. At the same time, list the other items which naturally fall into the "Important" and the "Desirable" group. Follow these up by personal letters and phone calls. The result will be more service work.

Get this "Car Health" analysis plan going today, and keep it going.

CONSERVING CAR FINISH



Car conservation may, in the mind of the owner, be a matter of saving tires and rubber, but there are other parts of the car that should receive his attention.

Among the important items is conservation of car finish. Every owner wants to preserve new car appearance. It pays dividends in maintaining the value of his car—and new cars are quite a ways off.

New car appearance keeps alive his pride of ownership. It gives him increased satisfaction and delays for a long time, expensive refinishing. Today cars are going to last a long time and conservation of the finish is important to both the owner and to you.

You now have in Packard Blue Coral, an ideal product for such a program. It thoroughly removes dirt and grime—it burnishes the lacquer and restores the original beauty and lustre—it leaves a smooth, hard, dry surface.

Since Packard Blue Coral does not contain any harsh, gritty abrasives, it does not remove any of the lacquer and is not only harmless to the finish but preserves and protects it against the deteriorating effects of sun, rain and dust.

Selling aids have been described in a broadside. Selling facts, mailing folders, suggested letters, car signs and department banners are supplied with initial orders of material.

Display, demonstrate and sell the Packard Blue Coral Treatment. It answers a definite and timely need on the part of the owner. It increases profitable labor sales for the dealer. It requires no large investment in material, equipment or highly skilled personnel. It's an exclusive product and this is the time of year to sell it—Stress "finish conservation".

FRONT COVER OIL LEAKS

In checking complaints on excessive oil consumption in low mileage cars, it is always well to look for any other oil leaks.

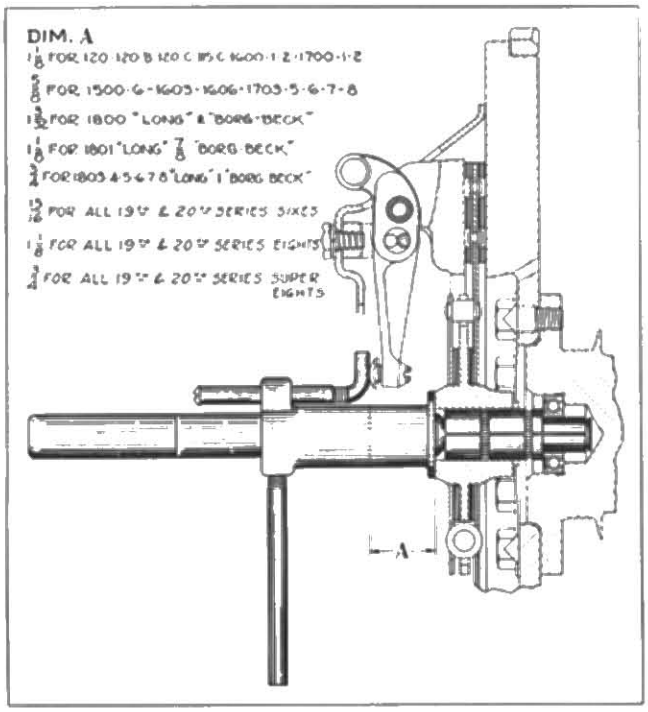
In the last two models we have found a number of cases of leakage at the front cover. These can be detected by an examination of the cover and sometimes by the presence of oil on the floor. You will not always find oil on the floor, however, because leakage at the cover develops only when the motor is running.

Cover leaks may be caused by loose bolts or cap screws. Occasionally, it may be found that a tight lock washer will prevent the head of the bolt from seating. Check the joint between the cover plate and the stamping against which it seats, particularly in the neighborhood of the timing indicator. Leakage at the cork seal may be caused by an uneven surface on the inside of the cover or by a damaged seal.

If in the correction of a leak it is necessary to remove the vibration damper, care must be taken not to pry against the cover. If the cover is distorted at the oil seal, it is almost impossible to straighten it so that the seal will be tight.

In the replacement of a seal, you must make sure that the surface of the cover against which the seal bears is smooth and flat. Soak the seal in engine oil so that it will not burn before the oil from the motor reaches it.

CLUTCH FINGER ADJUSTMENT DIMENSIONS



Tool shown is ST-5004 Clutch Aligning Fixture listed on page 6 of the Special Tool and Shop Equipment Catalog.

CYLINDER HEAD GASKETS

For many years, it has been considered good practice to install a new cylinder head gasket when the cylinder head, for any reason, is removed and replaced.

The practice is still a good one because the consequences of a leaking gasket may be serious unless the condition is quickly corrected. Cylinder head gaskets, however, are difficult for us to obtain, and the shortage will probably continue for the war period.

If the gasket is carefully removed, it may be in such condition that it can be used again. Be sure that in taking it off, it is not buckled so that the asbestos filler is broken. A break in the filler may permit the copper sheet to become so hot as to burn through.

Before replacing a used gasket, examine it carefully to make sure that the asbestos is in good condition. See that all surfaces are clean, making sure to remove any corrosion around the base of the studs. Coat the surfaces with a sealer such as the Perfect Seal gasket sealing compound which is merchandised by our Parts Division.

In replacing the head, see that the stud nuts are tightened in the proper sequence.

NOTES ON FUEL ECONOMY

In checking carburetor adjustments do not overlook the float level. The level has a tendency to rise as wear develops in the mechanism. When economy is desired set the level on the low side rather than the high side of the standard dimension.

Make sure that the operation of the choke valve is perfectly free because any binding tendency may prevent it from opening fully. Binding might be due to dirt in the thermostatic spring chamber or to the sticking of the small choke piston. If the choke valve remains partially closed the fuel consumption will be very high.

Under some circumstances it will be good practice to increase the tension of the heat control valve. If a car is driven at moderate speeds the manifold temperature will not be excessive and carburetion will be more efficient. On the other hand, if a car is driven fast and hard it is not safe to increase the spring tension because the manifold and carburetor might be overheated to a point which would cause vapor lock as well as a loss in performance.

In those cases where the spring tension can safely be increased the simplest method is to slip a small bushing or a nut over the post which forms the stationary anchorage. This will increase the tension without altering the spring itself, so that you can easily return to the original adjustment if desired.

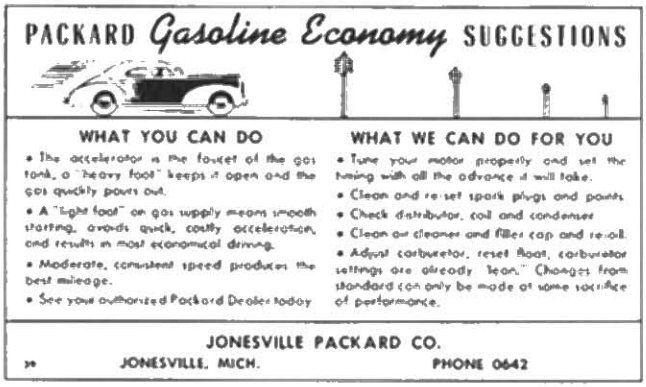
In the Service Letter of May 15th, we pointed out that a lean mixture and an early spark will improve economy but will also increase spark knock. The use of premium fuel will, of course, reduce spark knock and may offset the effect of the spark and mixture changes. A premium fuel, therefore, will permit you to go farther with such changes than would otherwise be satisfactory.

AN IDEA

"Cultivate Lady Mechanics" a "trade" article reads. "One dealer invited the Auxiliary Women's Ambulance and Transport Corps to attend a free school held in his place. It was a two hour, one night a week class on nomenclature, emergency service, electrical systems and similar subjects.

An instructor was provided for each ten students. As a result of these contacts, the dealer has sold several hundred dollars worth of service to students and three used cars."

GASOLINE ECONOMY POSTAL CARDS



Card No. 39

A new and very timely Reminder Post Card, No. 39. It tells your customers what they can do and what you can do for them about Gasoline Economy. How they can get the most miles out of every gallon of gasoline they can now buy. Your customers are very much interested in this subject today. Before a lot of harmful adjustments are made and unsatisfactory results obtained which may be blamed on the car, why not get your owners to come to you with their problems?

Many of these problems are individual ones and can only be handled satisfactorily after an individual examination of the car and a talk with the owner to find out about his driving habits, driving problems and the condition of his car.

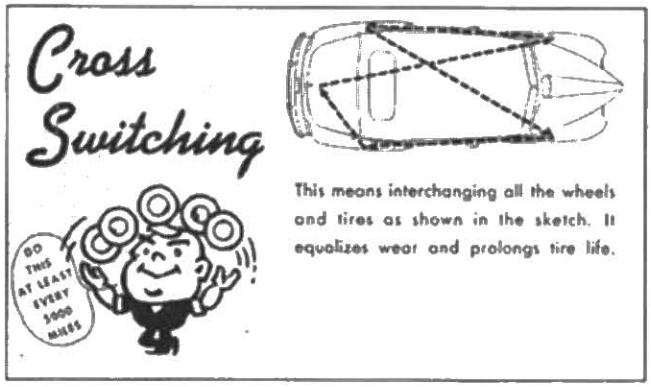
Urge your customers to come to you for Gasoline Economy Suggestions. These cards are supplied by the factory no charge. They are printed on government one cent post card stock and a charge is made for the stamps. Imprinting your firm name is charged at the following rates. 100 cards cost $1.00 for stamps and $ .65 for imprinting firm name—additional cards cost $1.00 per 100 for stamps and $ .10 per 100 for imprinting.

Order Gasoline Economy Card number 39.

EXCHANGE CARDS

If you have in stock, some Reminder Post Cards with prices that have changed, you can trade them at your post office for stamps. A credit of three quarters of a cent per card can be obtained where you can show your original purchase order. Use the stamps for mailing follow up letters. Do not waste any government stamped postal cards—all unused stamped postal cards have an exchange value.

OTHER TIMELY CARDS



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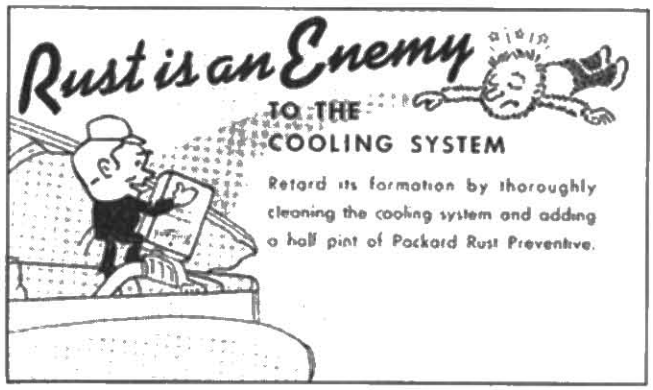
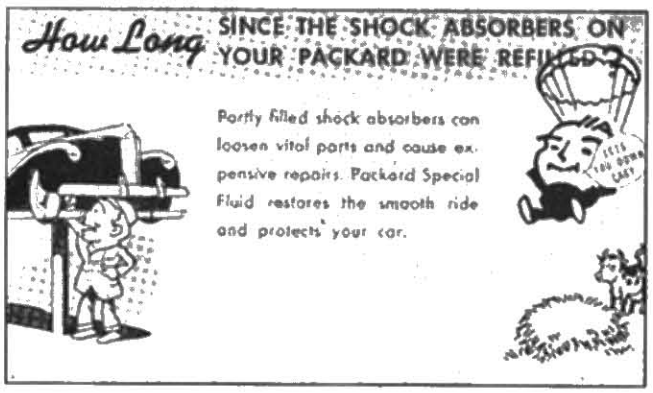


Card No. 1

Card No. 6



Card No. 9

PRINTED IN U. S. A.

SERVICE MANAGER'S
PERSONAL COPY

VOL. 16, NO. 12 JUNE 15, 1942

THE STARTING CIRCUIT—20th Series Cars

Read this if you have had trouble with the starting circuit.

First of all let's make sure that we know what we want to discuss.

Previous to the present models the starting circuit grounded at the solenoid switch on the starter motor. This circuit is identified by the fact that there are only three terminals on the solenoid switch body, one small one in the center and a large one on each side.

In the present models there are four terminals, with two small ones on the top taking the place of the old single terminal. The reason for this is that the circuit no longer grounds in the switch. Instead, it comes out on the new terminal, goes up to the dash and then back to the generator, grounding through the brushes and commutator.

First, let's see why the change was made. It is a safety device to prevent the starter motor from cranking while the engine is running. When the engine is running the current from the generator *backs up* through the solenoid switch, reversing the solenoid and tending to hold the contacts *apart.*

Well, it works all right, but we seem to have fallen into more trouble than we got out of, and here is the reason.

It takes a certain amount of current to energize the solenoid. If, when you depress the accelerator, you don't get enough current, the solenoid won't move and the switch points won't close. Therefore, anything which increases the resistance in the circuit may prevent the switch from operating. The resistance might come from a poor connection or from a poor contact between the generator brushes and the commutator, because the contact between the brushes and the commutator completes the ground.

You may have found cases where the engine wouldn't crank, and simply tapping the solenoid switch caused the switch to "click" and the points to contact. The solenoid was trying to operate but wasn't getting quite enough current. On switches where the plunger projects from the end of the case, touching the plunger has the same effect.

If you have trouble with the present circuit we believe the best thing to do is to go back to the old hookup, grounding the circuit right at the switch. This can easily be done as follows:

One of the two center posts on the switch carries the hot wire coming from the carburetor and the other carries the dead wire which goes to the generator by way of the connection on the voltage regulator box. Naturally you want to ground the dead post.

Here is the easiest way to find it: First, take the red wire off the generator. This breaks the ground. Turn on the ignition switch and open the throttle enough to close the carburetor switch. Then ground each of the two center posts on the solenoid switch in turn. When you ground the dead post the circuit will be completed and the motor will start.

Now that you have found the dead post, disconnect the wire and tape the end. Then run the nut off the post and take off the insulating washer. When you replace the steel washer and nut the post will be grounded.

The red generator wire which you removed is no longer active, but it is easier to replace it than to remove it.

NOTE: All you can lose by this change is that there is a possibility of the starter cutting in with the engine running. This is unlikely. If it happens simply make sure that the carburetor switch is properly adjusted and that the ball can lift and break the circuit when the motor starts.

DEALER SAYS "HEALTH CHECK" IS A "GRAND IDEA"

It isn't too difficult to find a dealer who will tell you that factory plans and factory promotional materials are always planned in such a way that only the large operators can use them.

This just isn't true of most Packard plans. Here's what one dealer has to say about the car "Health Check" plan as it applies to his service station being operated at a profit in not too large a building and not too large a community.

Mr. Farner of Royal Oak, Michigan is the sort of a fellow who would sell you his fountain pen and then borrow it from you to fill out the order. He isn't a bit fussy about where the profit comes from, as long as it keeps coming.

He doesn't sit back and worry too much about why more Packard Twelves don't come in for service. If they don't, he goes out after the telephone company's maintenance trucks, makes a deal and services the trucks whether they are Fords or Chevrolets. He would just as soon service the city ambulance or the city fire department and he isn't a bit backward about having the right kind of equipment because you will find a brake tester, motor analyzer and modern lubrication equipment by just looking in the front door.

He thinks the "Health Check" is a great idea. He says he likes it better as it goes along because it saves him time. He makes his inspection quickly and he has a very definite understanding with owners which prevents any later arguments. He says it's the best record he ever had for future service work. He likes it too, because he can use it on any make of car and as he says, "We are all out for all the Service Business of any kind that we can get." His aim is to make friends with these people so that some day when they are thinking of new cars, "they will just naturally think of me."

WHAT DOES THE CUSTOMER WANT?

Another article on handling Packard Service by R. B. Parker, General Manager of Packard-Philadelphia.

THE JOB TO BE DONE RIGHT THE FIRST TIME

It is annoying enough to have to go to the inconvenience of making a trip to the repair shop once for the correction of some trouble. Annoyance turns to belligerency when, having done so, the trouble is not corrected, and there is the necessity of another trip. Any repetition of this sort of experience is one of the surest ways of arousing a customer to make the trip somewhere else—not to us.

To do a job right has three requirements—first, through discussion with the customer, and correct diagnosis, to *know* what should be done—second, to carefully *do* what should be done, observing any further possible cause of trouble in the process, and third—by careful inspection upon completion of the job, to reassure ourselves that our diagnosis was correct and the trouble really cured.

In the event of any doubt as to the correctness of the job at time of delivery back to customer, it is better to anticipate the possibility of further adjustment and so warn the customer than, by silence, to virtually guarantee correction and later become subjected to criticism for having failed.

A GOOD DISPLAY

BRAKE BACKING PLATES

Loose brake backing plates not only produce a disagreeable noise but also may cause oil leakage at the axle shaft seals.

Loose backing plates can be checked by going ahead and backing up, applying the brakes strongly each time you stop. You will get the noise each time the brakes are applied. You won't get it, however, unless you change the direction of the car. Otherwise the lost motion will pile up in one direction and stay there.

Of course, there are other things that may also cause a "back up and go ahead" noise. The wheels might be loose on the hubs. The hubs might be loose on the axle shafts. The universal joint splines or flanges might not be tight. The brake shoes might be hanging up against the backing plates.

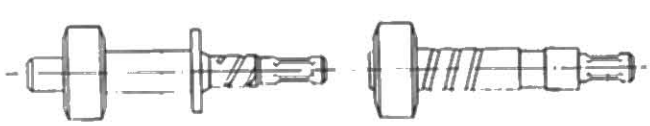
Any one of these conditions should be fixed, because any of them may cause its own particular trouble if it is allowed to continue.

TRANSMISSION SPEEDOMETER PINION AND SHAFT

This is a corrected list and should be used in place of the one in Vol. 16, No. 6.

For information on models previous to 1900 see Service Letter, Vol. 14, No. 2.

Pc. No.	No. Teeth	Models		Ratio
335163	20	1900	*C	4.55 to 1
335162	19	1900	C	4.3 to 1
347537	19	1900	**NC	4.3 to 1
347538	20	1900	NC	4.55 to 1
335161	18	1901-3-4-5-6-7-8	C	4.36 to 1
335162	19	1901-3A-5-8	C	4.54 to 1
335160	17	1901-3-4-6-7-8	C	4.09 to 1
335161	18	1903A Bus	C	4.54 to 1
335162	19	1901A-3A-A. & H.	C	4.7 to 1
335161	18	1901A-3A-A. & H.	C	4.7 to 1
335163	20	1901A-Amb. and H.	C	4.9 to 1
335162	19	1901A Bus	C	4.9 to 1
335162	19	1901A-3A	C	5.22 to 1
354976	17	1901	NC	4.09 to 1
347536	18	1901	NC	4.36 to 1
347537	19	1903A-1901-5-8	NC	4.54 to 1
347538	20	1901A	NC	4.9 to 1
347537	19	1901A	NC	4.7 to 1
347537	19	1903A	NC	4.7 to 1
367650	16	1903-6	NC	3.9 to 1
354976	17	1904-7-3-6	NC	4.09 to 1
347536	18	1903-4-6-7-5-8	NC	4.36 to 1
347537	19	1901-A	NC	5.22 to 1
347537	19	1901A-3A Bus	NC	4.9 to 1
347536	18	1901A Bus	NC	4.7 to 1
347536	18	1951	NC	4.36 to 1
347537	19	1951	NC	4.54 to 1
354976	17	1951	NC	4.09 to 1
347538	20	2000-20	NC	4.55 to 1
347537	19	2001-2000-2020	NC	4.3 to 1
347537	19	2001-A	NC	4.9 to 1
347538	20	2001-A	NC	4.9 to 1
347538	20	2001-A	NC	5.22 to 1
347537	19	2001A Bus	NC	4.9 to 1
347536	18	2001A-3A Bus	NC	4.7 to 1
354976	17	2003-6-23-4-7-21	NC	4.09 to 1
347536	18	2003A 7.50-16 Tires	NC	4.7 to 1
347536	18	2001-11	NC	4.1 to 1
347537	19	2003A 7.00-16 Tires 2001A	NC	4.7 to 1
347536	18	2004-7-5-8-3-6-20-1-3	NC	4.36 to 1
347537	19	2005-8-21-2003A-2030	NC	4.54 to 1
354976	17	2003-6-23	NC	3.92 to 1



*C-with collar **NC-without collar

IDEAS FROM TRADE MAGAZINES

"Many dealers have adopted the idea of sending 'Thank You' cards. They build up good will and are particularly good right now."

Card No. 14

Here is one that does three jobs at one time. It thanks the customer for his work. It invites him to keep coming back. It gives him a chance to offer suggestions or comment on the job just finished.

" 'Car Birthday' cards have been used with surprising results. They are sent out after a car is one year old and offer a small accessory, or perhaps a free lubrication job."

Card No. 17

This, too, is a good idea and card No. 17 is available. The visit gives you a chance to look the car over for needed work.

These cards and those on the back page are supplied by the factory no charge. They are printed on government one cent post card stock and a charge is made for the stamps. Imprinting your firm name is charged at the following rates. 100 cards cost $1.00 for stamps and $ .65 for imprinting firm name—additional cards cost $1.00 per 100 for stamps and $ .10 per 100 for imprinting.

A GOOD LETTER

The results from this letter sent by the Charleston, W. Va. Distributer were very satisfactory —why not try one?

Mr. Packard Owner:

We know that you are interested now more than ever before in keeping your car in top condition in order to prolong its period of usefulness. This means greater care for your battery, tires checked, oil kept clean in the motor, grease of the proper grade in the right place, brakes cleaned so they will not grab and cause undue tire wear, and the finish protected by waxing at least three times a year.

Your Packard Service Station is equipped to give you this service as this is our obligation to all Packard Owners. We must endeavor to have trained mechanics, equipment and parts necessary to keep ours running as long as possible, and also to perform this service at no greater cost to you than any other comparable service establishment. But since we have no other source of income until new cars are again in production it is necessary that you as an owner give us your service work as near 100% as possible. This will enable us to hold our shop mechanics and maintain ample parts stock to supply your needs as they arise.

Therefore, we ask that you think this over for if we do not get the full cooperation from our owners now during this emergency, it will be impossible for us to hold our shop men and maintain a parts supply.

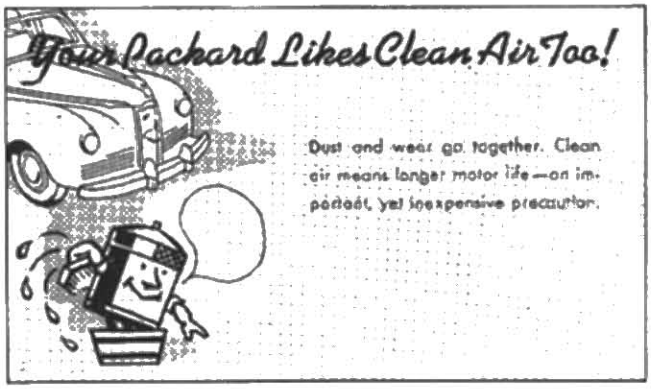
We have appreciated your patronage all these past years, as it has made it possible for us to continue nearly twenty-three years in serving the people of this area. We know you will help out.

Yours sincerely,

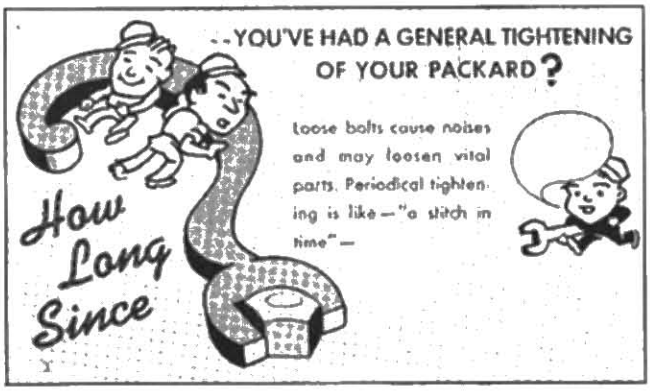
J. B. RUBY MOTOR COMPANY

J. B. Ruby
President.

TWO EFFECTIVE PRECAUTION CARDS



Card No. 2



Card No. 3

QUICK SERVICE REPAIR ORDERS SAVE TIME

There has been some request for a repair order which was somewhat more convenient for service salesmen to handle, one which could be conveniently carried and one which would have some of the quick service items printed on it and therefore require only a check mark on these items. The difficulty with most orders of this type has been that they do not allow room enough for additional items. This objection has been taken care of by making two orders exactly the same except that on one, the quick service items are printed.

Samples of the order are included in the Service Manager's copy of this edition of the Service Letter. The order is 5½ by 10½. The back of the form provides an accounting distribution exactly the same as the large size order recommended in the Standard Service Routine. The back of the shop copy provides for time clock record and outside repairs.

Illustrated is a pocket size container which speeds up the use of these orders. Carbon paper is provided with each pad and orders of both types are carried in the cover.

The covers are carried under form number SA-9600 and sell for $1.35 each. The repair orders are carried under form number OL-600 for the quick service order and OL-600-A for the order without the list of maintenance operation. Both orders can be imprinted with firm names and order numbers printed consecutively. No changes, however, can be made in the items printed on the order unless you order OL-600-A and pay for the extra type setting required for your particular list of items.

These forms are carried by and should be ordered from the Reynolds & Reynolds Company of Dayton, Ohio. Both forms are padded 15 triplicate sets per pad. Carbon paper is included with each pad. Prices include printing name, address, and consecutive numbers.

When ordering, be sure and specify the starting order number and give firm name imprint instructions.

30 pads, 525 triplicate sets, $9.60.

70 pads, 1050 triplicate sets, $14.50.

PRINTED IN U. S. A.

SERVICE MANAGER'S
PERSONAL COPY

Packard Service

VOL. 16, NO. 13 JULY 1, 1942

SERVICE MANAGER'S CHECK LIST!

A short time ago all General Managers received a Service Promotion Check List. They are probably busy with it now.

You, too, want to make sure everything is being done both to hold and to increase service volume.

There is business to be had, but you have to go out after it. You have to keep after it. You may be busy today but let's think of and plan for more than just today.

Sure, it takes a little time to make these inspections but they not only give you work for today —they point out work for tomorrow.

One distributer reports making 93 inspections which brought in $1,583.67, an average of $32.99 per car. This was the "Urgent" work. How much of the "Important" and the "Desirable" work can you get in with persistent follow-up?

When you go after this "extra" work you are talking to the owner about work his car needs, work you have already told him about. You can call him or write him about his car and the work it needs. It's much more effective than a general letter about something he may not need or may have had done recently. Go after this "Car Health" business—it pays!

In addition, check each of these items. Be sure they are all working for you, all the time. Do more than check them. See that some extra push is put into every one of them.

HOW TO GET OWNERS IN FOR SERVICE

Clean space with friendly atmosphere.
Set monthly quota on labor, parts, accessories.
Complete, accurate, follow-up system.
Use owner list as "Prospect File."
Use folders and letters.
Use Reminder Post Cards.
Use Telephone for definite suggestions.
Use specials—seasonal and timely.
Use window signs on Wartime Service Plan.
Use Service Associate Plan—
Hotels, garages, parking lots, etc.
Pay commission for owners not in for over 90 days.
Have all employees go after business.
Use a tire company "Longer Life" plan.

WHAT TO SELL

Sell the complete War Time Service Plan
1. Monthly Protective Service Contract
2. Car "Health Check"

Sell appearance items.
Touch-up, painting, washing.
Floor mats, seat covers.
Sell Tire Service.
Sell Pick-up and deliver as an added service.
Sell Repair work on time.
Sell Parts and Accessories by open displays.
Sell wreck and insurance work.
Sell Blue Coral Treatments.

A JOB FOR A SALESMAN

Dealer "A" decided to try out the "Car Health" plan. First, however, he decided that the factory suggestion that the inspection be a thorough one was unnecessary. Next he decided to sell one himself. Then he could tell the boys out in the back how it should be done.

He went out to the Service Department and found Mr. Jones, a customer, waiting for his car which was on the lift, having a lubrication job performed. He approached the customer in this way:

"Good morning, Mr. Jones. You will be interested in this new plan we just received. It's called a Packard 'Car Health' Check—it's a sort of inspection. It will only take a few minutes as long as your car is in here and its' free. What do you say we give your car a 'Health Check.'"

Mr. Jones thought to himself, "Oh, Oh, here's another plan for looking a car over for something to sell me. It's running all right and I'm not going to spend any more money on it. Besides, if this inspection only takes a few minutes, I can do all the walking around the car and inspecting that it needs." To the dealer Mr. Jones said, "No, the car's running all right. I just want it lubricated."

And dealer "A" decided that the "Car Health" inspection plan wasn't much good.

Dealer "B" decided to give the "Car Health" plan a try. He sat down and figured out what there was to the plan that would appeal to the customer. He, too, decided to try out one on a customer. He went out in the Service Department and approached Mr. Smith, a customer who had just driven in. His talk went something like this:

"Good morning, Mr. Smith. This wartime driving is getting to be something of a problem, isn't it? We have decided that we can be a lot of help to you owners in prolonging the life of your car. We, of course, have a very good reason for wanting you to continue to be very much satisfied with your Packard. While we aren't doing much about selling new cars right now, we will be in the new car selling business again one of these days, and we figure that our best bet is to make sure that every Packard owner stays happy about his car. We have a sane, sensible plan to make Packard cars last longer. It's called a 'Car Health' check. We will need the car for about half a day and we can inspect it thoroughly. We list what should be done now in the 'Urgent' column. Then we make a separate list of what we call 'Important' work. It's work that should be done soon—a sort of a 'stitch in time' idea to save you more money later on. Then we make a third list of what we call 'Desirable' work. This, too, is work that will make the car last longer or look better or drive more comfortably, but it's work that doesn't need attention right away. It keeps both you and our Service Department posted on the condition of your car so that we can give you the benefit of our service experience.

"Right now we have plenty of good skilled mechanics and so far we have been able to keep our parts bins pretty well filled.

"This Car 'Health Check' is the real answer to making your car last longer. If you can spare your car for a half a day, right now would be a good time to take advantage of this no-charge service."

We won't carry the story any further. We'll just leave it up to you. There are a couple of morals here. When you adopt a plan, adopt the whole thing, and once adopted, put the same amount of intelligent selling effort into it that you would on any selling campaign if used up in front. Keep in mind that service is a new car sales tool that you are using today for tomorrow's new car sales as well as for today's and tomorrow's service volume.

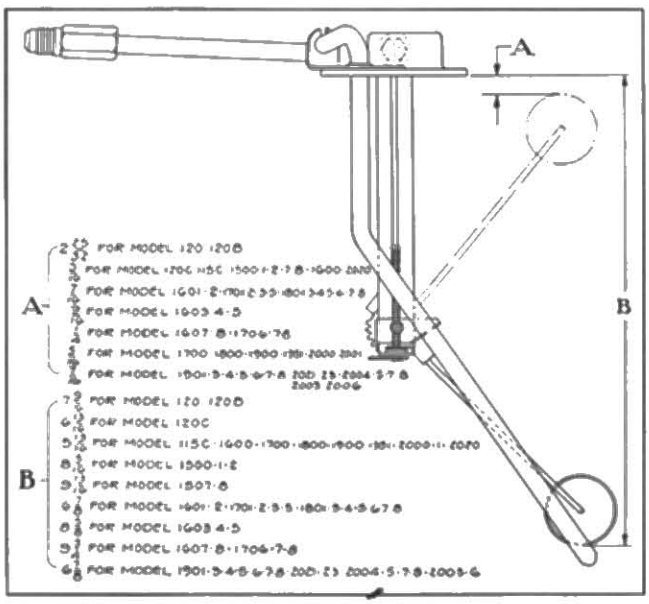
ANOTHER WAY TO GET BUSINESS

The distributer in St. Johnsbury, Vermont has found that a very simple way in which to increase his service volume is to go out after it and literally bring it in. He says that this is a matter of having the proper equipment and the proper connections such as Automobile Club and State Inspection arrangements. They report that with the equipment as shown, the results have been quite satisfactory.

GASOLINE TANK GAUGES

The control type of gasoline gauge makes use of a float mechanism operating a rheostat in the head of the tank unit.

Due to the necessarily fragile construction of the tank unit it is impossible for us to guarantee that these units shipped from service stock will not be bent in handling or shipment.



Before making the installation of a tank unit, it is necessary that the cork float at the bottom of the wire arm be properly located in order that a correct reading may be shown, and this illustration indicates the distance from the top of the tank to both the top and the bottom of the float.

ANOTHER DEALER USES "CAR HEALTH" CHECK

A letter from the Packard dealer in Wichita Falls, Texas is that the "Car Health" check program was explained to him in detail and actually put into effect by Mr. Minnick of the Dallas office. He writes that he is not only pleased with the assistance and cooperation given in getting the plan into operation, but that the results have been very satisfactory.

Nineteen new customers came to the service station in three days and several hundred dollars worth of parts and labor were sold. They are still doing work that was sold on the "Car Health" inspection.

During 16 years as an automobile dealer, he has used several different promotional programs and he says that this was the most successful in all his experience.

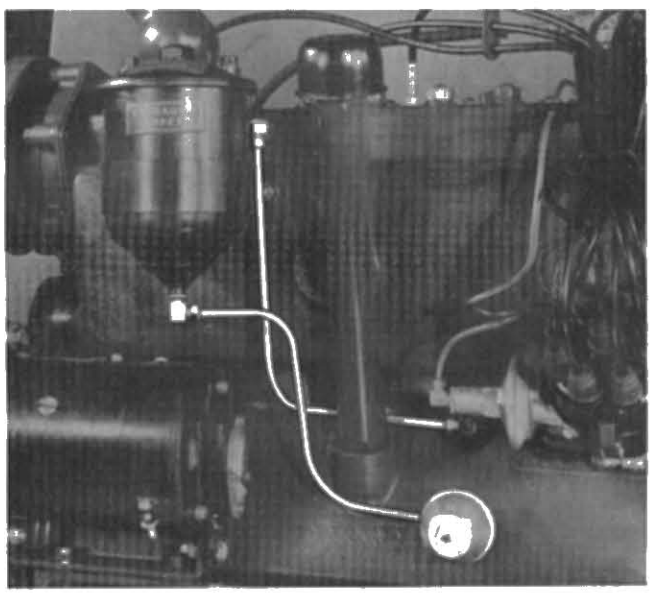
PAPER CAR COVERS

We have had some requests for car covers and have endeavored to obtain a source of supply.

Your particular new-car storage problem may call for a cover, or you may have some requests from customers. We have found one manufacturer who is in a position to supply a paper cover which is made of heavy moisture-resistant Kraft paper. The cover will completely cover the car from bumper to bumper and below the fender line. These are available at the following prices: 1 to 10 covers—$1.78 Each; 10 to 50 covers—$1.71 Each; 50 to — $1.68 Each.

The prices given are net, cash with order, F.O.B. Order from the Westervelt Paper Co., 601-603 North Church Street, Decatur, Illinois.

PUROLATOR CONNECTIONS



The purolator mounting bracket must be kept perfectly tight.

If the bracket is allowed to become loose it will permit the purolator to shake, and this movement is apt to cause serious trouble. It is apt to develop leakage in the lines running to and from the crank case, at the unions at either end.

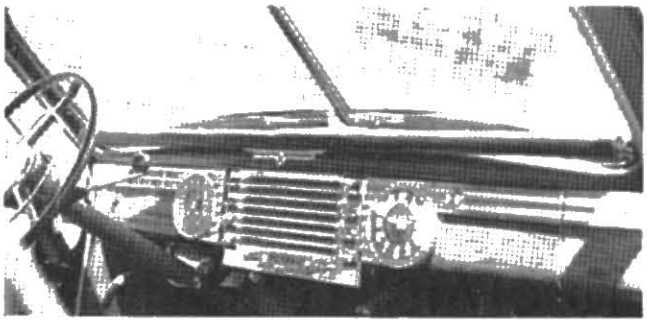
Some times the union connection may simply loosen, but in some cases the movement causes the end of the tube to crack and to fail. It may result in a burned up motor before the owner realizes that he has lost his oil pressure.

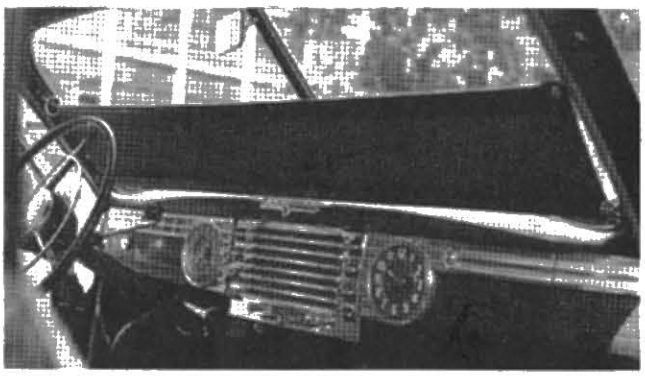
If the purolator is tight and if there is no movement between the purolator and the cylinder block there will be no strain on the pipe connections and no danger of failure.

SUN SHADES

It seems that some customers do not enjoy combining a sun bath with their driving in hot weather. The sun area is greatly increased in the modern design body with sloping windshield and rear windows over the more vertical type used in older designs.

"Jim" Deacon, Factory Service Representative, found himself in this group of owners and decided to figure some way out. With sun visors





at the front and venetian blinds at the back, he still had more sunlight than he wanted. Being of a practical turn of mind he stopped at a hardware store and bought an ordinary curtain roller, a couple of key rings and two pieces of wire. Then he stopped at a trim shop and had the trimmer put a piece of top material on the roller with a regular wooden strip sewed in the opposite end. Then he went to work himself. He took a couple of ordinary brackets for mounting window shades, made up a couple with slightly longer flanges. He bent the flanges to fit and neatly fastened them as shown in the picture at the lower corner on the inside of the windshield. He removed the spring catch from the curtain roller so that he would have tension on the curtain when it was in the open position. He found that this mounting left a small opening at each corner due to the curved shape of the dash but this didn't let enough sunlight in to bother.

He experimented with the curtain open until he found a position that just suited him as far as keeping out the sunlight and still making sure that he had enough opening so that his driving vision was not at all impaired. When this position was found he drilled two small holes and worked out two very simple wire hooks. These you will notice, catch the key rings and hold the curtain in the up position. When the device is needed, it is quickly unfastened and rolled up along the dash where it is not too noticeable. By using a brownish shade of material which would approximate the color of the dash trim, an installation can be obtained that does not too seriously mar the appearance and will be found quite practical as a sun shade.

The idea sounds and looks pretty good. It is not an item which can be made up for sale by the factory. However, there may be some customers who would appreciate knowing about the idea, and it might be offered just as a suggestion as to what can be worked out to meet the condition of too much sunlight.

WHAT OTHERS ARE DOING

We notice in the May issue of the NADA Bulletin, a letter to car owners sent out by an Oldsmobile dealer.

We have received permission from the NADA to republish the letter as issued by Mr. Walker, the Oldsmobile dealer in Jackson, Michigan.

"THE WAR AND YOUR AUTOMOBILE

Dear Customer,

From your radio and your newspapers you have been made familiar with the restrictions placed on Automobile Dealers and the difficulties we have ahead of us for the duration of the War.

During the past 14 years we have been your Oldsmobile Dealer and it is our intention to carry on in the same capacity until such time as restrictions or lack of business prohibits our operation.

RESTRICTION is a government matter but LACK OF BUSINESS is a matter concerning you and your car.

We carry thousands of dollars worth of Repair Parts and Accessories for your car in addition to special Machinery and Experienced Mechanics to do the work on it. In order to make all of this practical and worthwhile, we of course must have your cooperation. In other words, we need you to make our future existence possible and you need us to keep your car running. You may feel that it is easier for you to run in to the corner gas station for your OIL CHANGES, LUBRICATING, WASHES, POLISHES and MINOR REPAIR WORK even though it costs you the same as we charge you but when you do this, you are lessening our chances of staying open. You may say to yourself, why should I be concerned as to whether he stays open or not? Here is the answer;

If we go out of business, it would be impossible for the factory to secure another dealer in our place until the War is over because no individual in his right mind would think of making an investment in a dealership with the CHANCE that's ahead for our kind of a business. This means if something happened to your car, you would be unable to secure Repair Parts without experiencing delays of weeks and possibly months as gas stations and small repair shops do not carry these items. When you bought your car, one of the main things you were interested in was that the Dealer was equipped to give you the kind of SERVICE you wanted when you needed it. From now on you are going to need us more than ever as your present car must be kept going. A new one will not be possible until all of this is over with.

Our place is as close to you as your phone. DIAL 9176 AND WE STILL DO THE REST.

Yours for GOOD SERVICE,

We think that it is a particularly good letter. We believe that customers like this type of approach to their problem and to your problem. This dealer has shown an unusual increase in service volume. Probably a large part of it is due to this letter.

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SERVICE MANAGER'S
PERSONAL COPY

PACKARD SERVICE LETTER

Packard Service

VOL. 16, NO. 14 JULY 15, 1942

DISPLAYS DO SELL

Don't miss a bet on this display business. It's easy to make up a display of parts and accessories. The folder recently sent out on Merchandise Attractively Displayed contains suggestions and shows pictures of how to do it without spending a lot of money.

There just isn't any argument against the fact that clean, neat, attractive displays sell goods. Not so long ago you were selling cars off the floor of your show room. Service, too, can be sold by display.

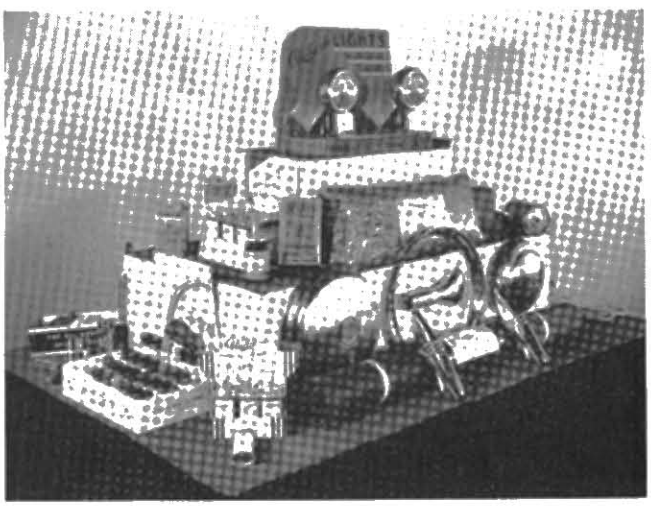
The trouble with most service displays has been that they have not been out in the open and they haven't been changed often and kept clean.

Illustrated are inexpensive displays as described in the folder. Try one! And don't be afraid to show prices.

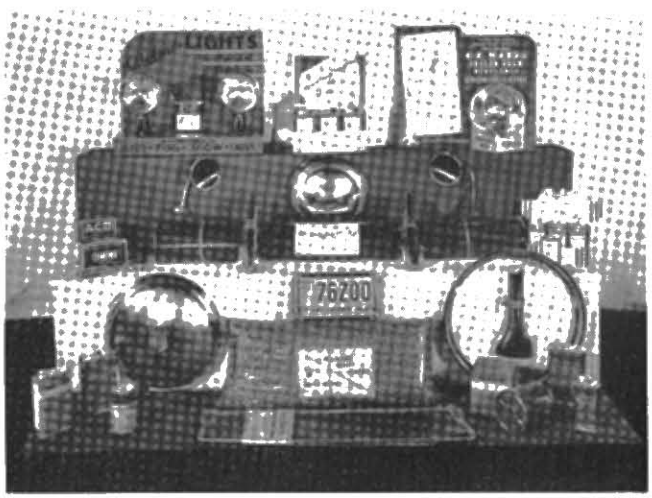
We just received a report from one distributer who made up a similar display featuring seat covers and in thirty days sold 12 sets of covers.

Find the display folder and read it through. It's a real help. It not only tells you exactly how to build them, it helps you sell. There is a list of the items on display with list prices. In addition you will find another list of all piece numbers and list prices of the same part or accessory for all the older models. For instance, you display one 20th Series Oil Filter cartridge and in the list you find the numbers and prices of all the other cartridges. So you don't have to stop and look up this information in a couple of books while the customer is waiting.

If you can't find your copy of the folder write the Service Letter Editor for an extra copy.



FOUR SIDED DISPLAY



AGAINST THE WALL TYPE

CARE WILL SAVE WEAR

This is excellent advice for you to give customers but have you thought of it as sound advice to all servicemen? It applies to your equipment and tools. These are, almost without exception, not being made today. Most of the tools and equipment you use every day cannot be replaced. Have you thought of that and are you treating them carefully?

Care will save wear on your air compressor. Air leakage causes extra motor wear and so does shortage of oil. Your compressor is important to you.

Your battery business may stop when the rubber cable becomes useless from careless handling. Any rubber should be handled with care. Don't leave hose on the floor with grease —coil it and have a safe place to keep it. Extension cords and the cables on motor analysers are definitely on the care saves wear list. Here are some of the items you now have—treat them carefully—remember it's almost impossible to replace them—without them it's just about impossible to operate a Service Station.

Battery Charger and Cables
Rubber Hose for Pumps
Air compressor and Parts
Tire Tools and Jacks
Grease Guns and Spray Guns
Hydrometers and Precision Tools

As this list gets longer, this business of care saved wear means as much to the service man and his equipment as it does to the owner and his car.

ARMY WORK

Here is evidence that some Packard shops are keeping busy on war work. It would seem that others, particularly those located near army camps or depots, could do likewise. If personal contacts are made with the proper officers you can usually obtain a worth-while volume of repair work on army cars and trucks as well as officers' personal cars.

There is probably more army automotive equipment than army repair shops can possibly take care of and there is every reason to believe that some of this work can be obtained by reliable automobile service stations. We suggest if your equipment and location is such that you can handle this type of work, that you go after it. One service station reports a profit of approximately $1700 on work now in their shop.

JACKSONVILLE, FLA.

JACKSONVILLE, FLA.

COLUMBIA, S. C.

COLUMBIA, S. C.

OPA RATIONING

Consumer Service—Effective July 1 all consumer services are brought under a special regulation establishing March ceiling prices. Included are automobile service, storage, and repair, and tire repair and vulcanizing. We suggest all dealers get a copy of price regulations from their local authority.

MUFFLER CORROSION

No one ever likes to buy a muffler. When it becomes necessary, the owner is very apt to tell you that in his opinion, the unit should last the life of the car. and that he should get a new muffler for nothing.

Most muffler replacements are a result of corrosion, and this has always been the case. Corrosion, however, does not indicate any defect in design, workmanship or material.

Corrosion (another name for rust) is caused by the water in the exhaust gas which condenses in the muffler. Water is one of the products of combustion when gasoline is burned, and fortunately, most of it is blown out with the exhaust gas. We say "fortunately" because over a gallon of water is produced in burning a gallon of gasoline. When the motor is stopped, however, some gas remains in the muffler and the vapor condenses as the gas cools.

You can see that every time a car stops and cools off, additional water will be condensed in the muffler. This means that the car which is driven on short trips is the one which will suffer the most because it goes through the cooling process most frequently. The owner will say that the car "has never been abused" and "has had the best of care." He may be right, but that doesn't help his muffler.

The mufflers we use are the best we are able to obtain. They are coated with terne plate to provide the greatest possible resistance to corrosion. This is all that we can do. The life of the muffler will depend on operating conditions which are beyond our control, and, to a certain extent, beyond the control of the driver himself.

WATER PUMP LEAKS

Many service stations are using unnecessary parts in correcting water pump leaks.

It is seldom necessary to use the complete pump repair kit in the case of a recent car with low mileage. If you disassemble a leaking pump in such a car, you will probably find that the trouble is in the water pump seal thrust washer, piece No. 351549.

Sometimes rust particles will have lodged between the face of the thrust washer and the housing. Sometimes the washer does not move freely in the slots in the impeller hub, so that the spring does not press the washer firmly against the housing. Usually, however, the washer itself does not have a good bearing surface where it comes in contact with the housing.

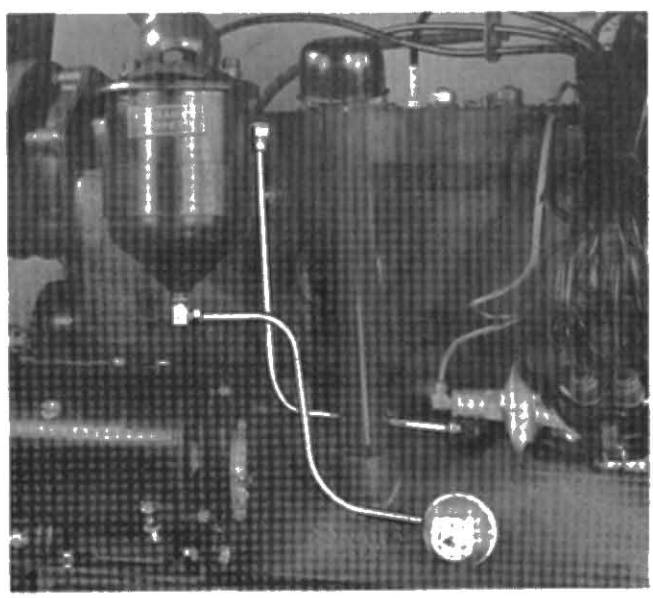
In most cars having low mileage nothing more than the replacement of the thrust washer is needed. Make sure that the new washer can move freely in the impeller hub and that it bears against a smooth surface in the pump housing.

In pulling down an old pump, you may find that the shaft is corroded, the ball bearings worn and the thrust washer and pump housing face in bad shape. Then the use of the complete pump repair kit is advisable.

No matter what repairs have been made, the most important item of all is to see that you have a smooth, flat thrust washer, bearing against a smooth surface on the housing. If you find it necessary to use the refacing tool (ST-5165) be sure to center it carefully, using the pump shaft as a pilot, and be sure that the finishing cut is as smooth as you can make it.

WHAT IS WRONG WITH THIS PICTURE?

This illustration was used in the July 1st Service Letter for the story on the importance of the purolator connections. It shows a 1901 motor.

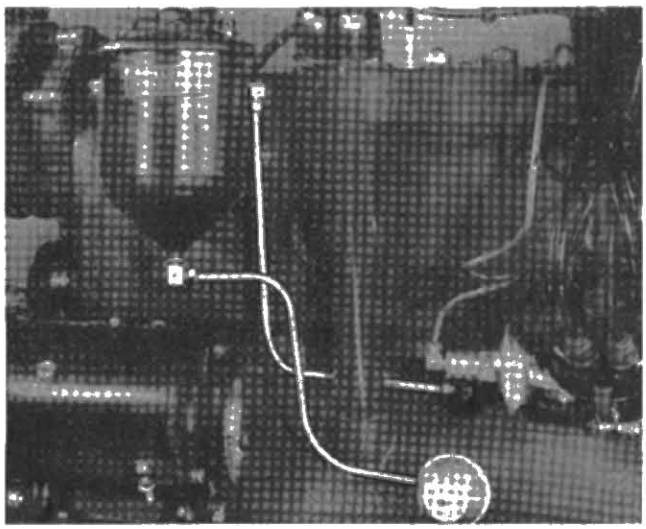


Take a good look at this picture and see whether you know what is wrong. You should, and if you are on the job you do.

Have you got it? Turn the page and see.

WHAT IS WRONG?

This motor is equipped with the old style crank case oil filler tube and cap. The picture



was taken before the new tube and cap were developed.

In the Service Letters of February 1, 1941 and April 1, 1942 we told you that these parts are necessary to get proper crankcase ventilation in idling or slow speed driving.

When you find a rusty valve condition in a 19th Series car always make sure that the motor has the new design parts.

Don't think, however, that there is any kind of crankcase ventilation which can make up for a bad storage condition. If cars are shifted in storage under their own power, the starting, cold running and stopping will eventually develop rusty valves and guides.

The proper way to store cars is to store them dead, with the batteries removed and the cylinders, pistons and valves coated with oil. If for some reason, this cannot be done, the use of light motor oil in the gasoline will help somewhat, but it is only partially effective. The real answer is to store the car properly.

CLUTCH PRESSURE SPRINGS

Piece No.	Models	Per Car	O. D.	Load in Lbs.	Color
184346	726-733-826-833 740-745-840-845 901-902-903-904-5-6	12	1.187	125	Black
202601	1001-2, 1100-1-2 1200-1-2, 1400-1-2	12	1.062	125	Red
213383—Out. 213384—In.	1003-4-5-6	12	1.062	100	None
	1103-4-5-7-8 1203-4-5 1403-45	12	0.687	50	None
221066—Out.	1207-8	12	1.062	115	Yellow
213384—In.	1407-8	12	0.687	50	None
303501	120-120-B 120-C 1601-2, 1701-2 1601A, 1701A	9	1.062	115	Grey
317853	115-1600-1700	6	1.087	155	Pink
	120-120-B 120-C 1601-2 (Taxis)	9	1.087	155	Pink
	1701-A 1801-A 1901-A 2001-A (Amb. & Bus)	9	1.087	155	Pink
326526	115-1600-Taxi	6	1.125	175	——
338228	1703-5	9	1.087	142	Aluminum
341700	1800-1900 2000-10-20	6	1.099	163	Tan
	1803-3A-4-5-6-7-8 1905-3A-4-5-6-7-8 2003-3A-4-5-6-7-8-23-55	9	1.099	163	Tan
202601	1801-1A-1901-1A 2000-10	9	1.075	127	Red
	1900-EL-Clutch	6	1.075	127	Red
	2001-1A-11-21	9	1.075	127	Red
373444	2030 Taxi	9	1.107	149	Brown

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SERVICE MANAGER'S
PERSONAL COPY

VOL. 16, NO. 15 AUG. 1, 1942

KEEP THE MILLS GOING!

The government needs and wants scrap metal. Let's see that they get it. Let's get every piece out from under those benches, on top of the parts bins, out of the corners and off those balconies. Clean out that surplus stock room and that pile of used parts you have been saving for years. How about those old parts you wrote off the books long ago. Let's get it all to the scrap man.

One distributer reports delivery of 3000 pounds from discarded and surplus stock and 1500 pounds from the shop. You will be surprised how much you can find around the place. The shortage of scrap metal in the hands of the steel mills is serious. Let's make doubly sure that no Packard service station becomes even a small part of any bottle neck in the national program of building war supplies.

Once you have the place thoroughly cleaned out it should be easy to keep it that way. Under the new ruling of an old part for a new one, and 30 days to get it out of the building, all service stations should from now on be neat and clean.

Apparently it has taken a war to get the scrap out from under the benches—if so, it's one of the first benefits of the war. Let's use it. We can't all throw bombs and bullets but we can throw scrap into the pile so hard and fast that all the steel mills and factories will be well supplied with raw material. Let's all do our full share.

TELL HIM AGAIN!

Telling your customers about the importance of service and how to take care of their cars for the duration is one of those continuing jobs. Maybe it's a good idea to let somebody else do it for a change.

Collier's has a booklet on "War and Your Automobile." It does an unusually fine job of telling customers what they can do and what they ought to have you do for them.

In eleven pages it answers questions like these:

What will save tires? What is "rotating," "out of balance" and "out of line"? When does an engine start to wear and what to do about it. What is "Ping"? What do I do about wasting gas and oil?

What attention should I give the cooling system, the brake system, the clutch, the finish?

The answers are well written. Your customer is told, "America needs your car. . . Needs it kept in good operating condition as a part of the largest privately-owned transportation system in the world—a system vital to Victory.

"The easiest way to keep your car running—and running with patriotic efficiency—is to give it frequent and thorough *preventive* service. To reveal possible sources of trouble—and deal with them before the trouble happens.

The booklets are inexpensive and make an excellent attachment for a letter to your customers. They fit a No. 10 envelope, cost $1.50 per 100 and should be ordered from P S—Colliers, 250 Park Avenue, New York City, with check attached.

FRONT END EQUIPMENT

WHAT YOU NEED

Car owners just naturally are thinking more about their tires than they ever did before. This means that service stations who are not equipped to handle tire work and steering work find themselves sending a lot of customers down the street.

Some of them are beginning to wonder just what they would have to spend to get equipment that would enable them to do a satisfactory job on steering work.

Some very large and impressive equipment has been turned out and to look at a modern, fully-equipped front end Service Department you would get the impression that you just couldn't afford this type of work.

You will recall that some years ago when motor analyzers were first introduced that it didn't take the manufacturers long to decide that the bigger and more impressive looking the equipment was, the easier it would be to convince the customer that the machine was right and that if you could run it, you must know all there was to know about a motor.

In its day, this was a good theory. Very soon, however, it was discovered that all the garages and service stations that could buy $1500 pieces of equipment had been sold and that something else would have to be worked out. The result was small inexpensive equipment of ten of a portable type that did almost if not the same kind of a job and at a lot less money as far as the dealer was concerned.

This is more or less true of steering equipment. You can still find steering equipment that does the finest kind of a job and that is so impressive looking and so large that you probably will have to install it in your used car lot because your building won't be big enough, and when the average dealer finds out the cost of such equipment, he just won't be interested in it.

However, there are several manufacturers making steering equipment of an inexpensive and portable nature and they all do a very satisfactory job. You have to know how to use them and you have to know just what equipment is necessary.

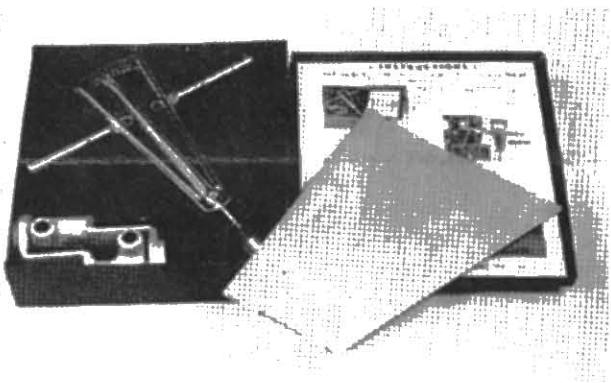
The essential equipment is a wheel toe-in gauge, such as described on Page 53 of the Tool Catalog, carried under ST-5189. You also need a centering gauge shown on Page 47 of the Tool Catalog and carried under ST-5105. This is all that is absolutely necessary for checking and adjusting toe-in.

Next you need a gauge for checking caster and camber. Such a tool as described on Page 58 and 59 of the Tool Catalog and listed under ST-873 will do the job. For checking the turning radius, we suggest turning tables covered by ST-959. Under these two numbers you have the equipment necessary to check caster and camber, king pin inclination and steering geometery.

Such equipment as offered by the Bennett-Feragen, Inc. of South Bend, and the Bear Manufacturing Company of Rock Island under their equipment No. 26 does the same job.

The equipment as described in the Packard Tool Catalog costs approximately $75.00. The Bennett-Feragen equipment costs approximately $138.00 (this includes a Wee Gee board for quick toe-in checking) and the Bear equipment is $85.00.

If you want to start with the least possible outlay of equipment, get a toe-in gauge at $9.50 and a camber and caster gauge at $12.80 and go to work. Later to speed up the work, add the turn tables and the Wee Gee board.



There may be other equipment on the market that will do just as satisfactory a job as those mentioned. The items listed in the Packard Equipment Catalog are still available and the other equipment mentioned is some that we are familiar with.

BEALE AND COREY

GREYBULL, MONT.

RIGHT OUT AFTER BUSINESS

COSTON MOTORS
HAGERSTOWN, MD.

GORE MOTOR CO.
WESTMINSTER, MD.

LUBRICATION STICKERS

There has been some request for a Lubrication Door Jam sticker which included space for wheel alignment and tire cross-switching. Such a sticker is now supplied by Reynolds and Reynolds, form number SA-103.

This is the type with the linen covered adhesive back, no wetting required, easy to apply. Tells your customers when to come back. Don't let customers forget where you are.

Imprinted with your firm name they cost only $3.95 for 250—$5.95 for 500 or $9.75 for 1000. Order direct from Reynolds and Reynolds, Dayton, Ohio.

DEALER EMBLEM HERE
250 — $3.95
500 — 5.95
1,000 — 9.75
Add'l M's — 7.70

OWNER

SAVE TIMES

ROTATE TIRES
At _____ Miles

ALIGN FRONT WHEELS
At _____ Miles

CHANGE ENGINE OIL
At _____ Miles

LUBRICATE
At _____ Miles

TEST BATTERY
At _____ Miles

DEALER NAME AND ADDRESS HERE

SIGNS SELL SERVICE

These pictures were sent in by the S & R Motor Company, a Milwaukee Dealer.

The use of showroom windows for building service volume is an idea that could be used by many other dealers.

A GOOD LETTER

Subject: SHOCK ABSORBERS AND TIRE WEAR

Next to improper wheel alignment, poorly operating shock absorbers probably contribute more to excessive tire wear on an automobile than any other one condition.

Generally speaking, shock absorbers are the most neglected parts of a motor car. Present day shock absorbers are hydraulic devices, thus causing their action to vary slightly with temperatures, making service of these important parts desirable with season changes.

Shock absorbers assist in controlling the action of the entire car and when not operating in standard condition, permit the wheels to bounce unduly, especially in warm or hot weather, resulting in excessive friction between tire tread and road surface, therefore greatly increasing tire wear. This is particularly true when applying power or braking the car on uneven road surfaces.

We recommend that shock absorbers be adjusted and refilled with new fluid at least each 10,000 miles of car service. If your shock absorbers have not had attention recently, it is important that you bring your car in for this service immediately, especially with the beginning of hot weather.

Our charge for refilling and adjusting all shock absorbers (4) on all model Packard cars, including the necessary fluid, is ---- $4.50, (new parts, if needed, extra).

Yours very truly,

ATLANTA PACKARD MOTORS, INC.

G. O. Braswell

G. O. Braswell,
Service Manager.

P. S. Correctly adjusted shock absorbers prolong tire wear, improve steering, passenger comfort, safety and roadability.

SELL APPEARANCE ACCESSORIES AND BLUE CORAL TREATMENTS

Lots of people will not have an opportunity to buy a new car for some time. They will in the meantime get the old car paid for. They will be reading and hearing a lot about conserving their car. They will be anxious to keep it looking good and running good for their essential driving. They will be having the needed repairs made.

You should be getting more than a fair share of this maintenance business. But what plans have you made to get the appearance business.

A survey of items sold on repair orders has just been made at ten points. The number of polish jobs per 100 repair orders averages 2. Just 2 polish jobs to 100 customer contacts. Not so good—More selling effort is needed on this profitable work now. We believe you can do a better selling job on this type of work if you sell Packard Blue Coral Treatments. It has a good name. It's backed by Packard. It's exclusive in distribution. It's long-lasting, highly lustrous, streak-proof, spotproof, rainproof.

DISPLAY A BLUE CORAL TREATMENT

You can get promotional material, folders, display cards and banners without charge. Just give us the date and order number on which you ordered a dozen bottles of Blue Coral and we will send you these selling helps. We can help you sell Blue Coral. It's selling now. Get some material and get started. In the Chicago area, 15 Service men sold 297 Blue Coral Treatments in 60 days. This is about 10 jobs per man per mo. You can do as well if you go after it and keep after it.

Write "Packard Blue Coral Treatment" on every "Car Health" check where the customer has not had one for six months. Put it in the "Desirable" group and follow it up.

There are a lot of people who are not going to buy new cars but who are willing to spend some money to make their car look different or to add some new devise that will either add to the appearance, the comfort or the safety of the car.

There are too many accessories on the shelves in stock rooms and not enough on display in the show rooms and on the service floor. Accessories won't sell in the back end of the stockroom. We ought to take a lesson from such concerns as Western Auto, Firestone, and Sears & Roebuck. One reason they are selling accessories is because they display them. Putting a special price on never slowed up any sales either.

Take a look through your accessories bins and get a load of the bug screens, seat covers, trim rings, tire locks and windshield washers down where they can be seen. Put signs on them and keep talking about them.

You will be surprised at what you can do with such an item as the windshield washer. Have one on a car where you can demonstrate and talk about it to customers. This is not just another gadget but a safety and comfort item which does a job on the windshield when you really need it.

Here are two items you can sell on the basis of protection. It's an effective appeal today and a better one than comfort or appearance or convenience. Upholstery materials are not so plentiful. Even the installation is a problem.

Owners should protect their upholstery with seat covers at a very low cost compared with $125 to $150 involved in taking care of worn out or torn upholstery.

Make protection the main feature of your selling talk. Mention these figures and then quote prices for seat covers.

Another item to work on is the Radiator Insect Screen. Bugs and insects of all shapes, kinds and sizes are now with us. Radiators need the protection of a good screen in order to keep them from becoming clogged. Radiators are rather hard to get at and cleaning costs more than a screen. Besides, enough bugs may cause overheating and this means a loss in gasoline mileage.

We've three months ahead for reducing accessory inventories. Forget about the season. Sell winter accessories, including anti-freeze as well as summer accessories.

PRINTED IN U. S. A.

SERVICE MANAGER'S
PERSONAL COPY

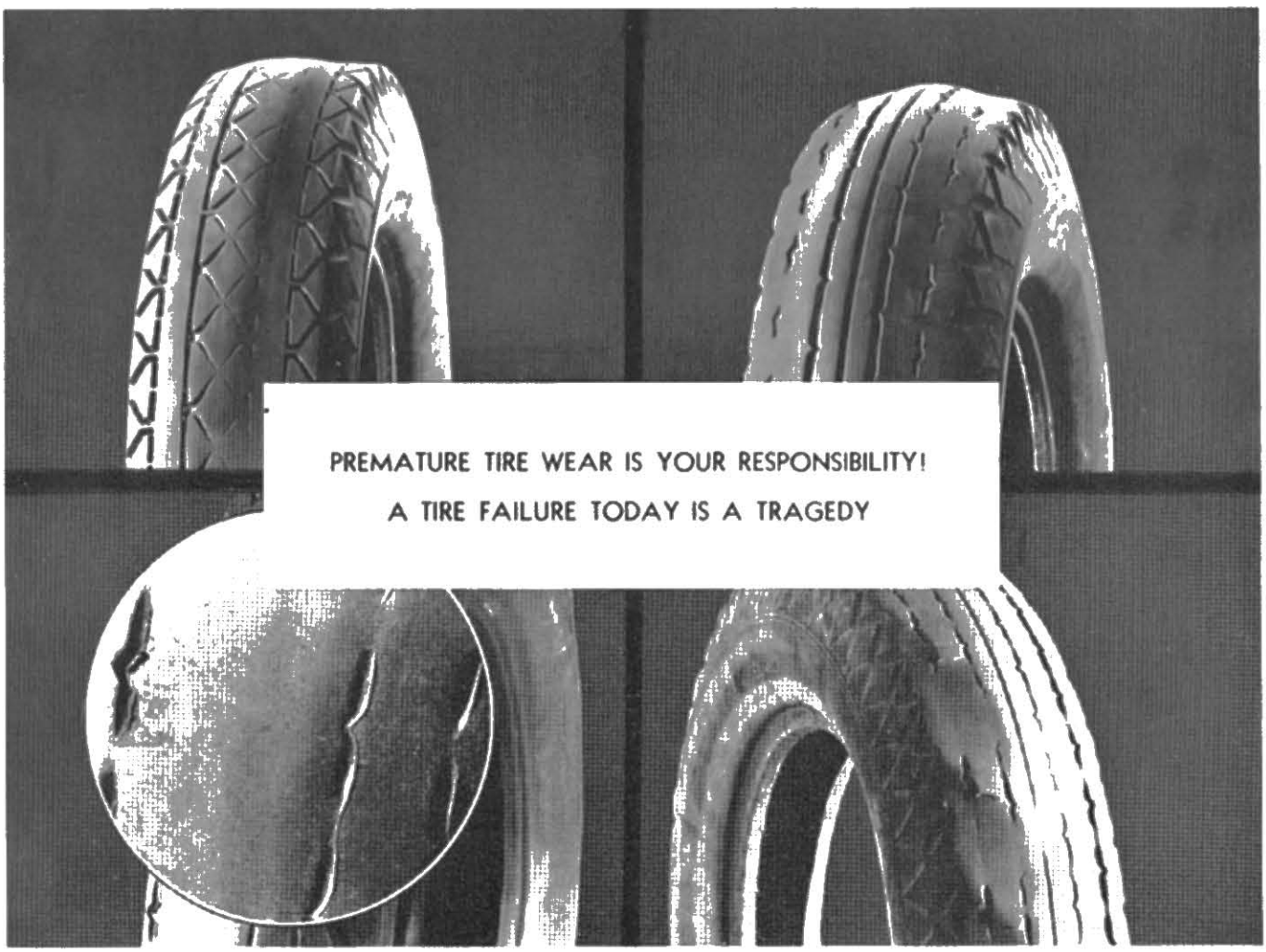
PACKARD SERVICE LETTER

VOL. 16, NO. 16 AUG. 15, 1942

PRESERVING TIRES is PRESERVING CUSTOMERS

Are you keeping this thought in mind every working hour? It's the most important factor in the continuance of service business.

Sure, your customers hear about it on the air and read about it in magazines and newspapers but they are thinking about other things at the time and they don't do anything about it. The time to get action from him is when he is thinking about his car. Every time he comes into the service station, talk to him about his tires and



their care. Talk to everybody about their tires. The more he takes care of them the longer he will be driving, and stored cars don't need much service care.

The length of tire life depends, as you know, upon several things—cover all of them with your customers.

Drive slowly.

Keep proper inflation—carry about 2 to 4 pounds more than recommended and check at least once a week.

Avoid quick starts and quick stops.

Drive slowly around corners.

Avoid car tracks and holes.

Avoid curbs when parking.

See that brakes are properly adjusted.

Keep front wheels in proper alignment.

Have cuts and bruises repaired promptly.

Have tire positions switched from 3000 to 5000 miles.

PRICES FOR ANTI-FREEZE SET BY OPA

Anti-Freeze Inventories Exempt From Priorities Regulation 1

OPA has established prices of anti-freeze to distributors, retailers and consumers by Amendment No. 1 to Maximum Price Regulation 170.

No Inventory Restrictions for Anti-Freeze for Use During 1942-43 Season

Inventories of anti-freeze acquired for use during the season April 1, 1942 to March 31, 1943 are exempt from Priorities Regulation No. 1, according to Amendment 1 to L-51

Oliver Baker, Secretary
Replacement Parts Committee

OIL PRESSURE READING

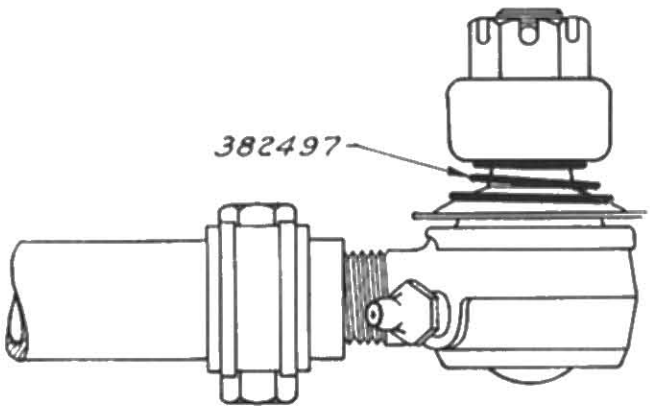
If the electric type oil pressure gauge does not show a normal reading, the sending unit on the side of the crankcase is most likely to be at fault.

The sending unit can be quickly replaced. If the gauge reading becomes normal, you have found the trouble. If you do not have another sending unit available, you can temporarily install one of the old style fluid gauges on the crankcase.

The old fluid gauge will tell you whether the actual oil pressure is normal and whether it will be safe to operate the car until a new sending unit can be obtained.

You may find a case where the pressure reading on the instrument board receiving unit is very high, and is unchanged by a replacement of the sending unit. This usually means that the receiving unit does not have a good ground. The correction, of course, is to see that it is properly grounded.

STEERING CROSS TUBE DUST WASHER



This illustration shows the end of the steering cross tube on cars beginning with the 120-C and 115-C and continuing through the 19th series.

In the original construction a rubber washer, piece number 317812, was compressed by the hub of the lever, forcing the dust cover against the joint.

It is now impossible for us to secure this rubber washer, and a conical spring, piece number 382497 has been obtained to take its place. The spring holds the dust cover in position.

This information is for the benefit of your stock room as well as the shop. Without it the stock room will feel that they have received the wrong part.

"CAR HEALTH" CHECK RESULTS

We mailed and followed by phone twenty owners in two days. Ten came in and spent $205. We are much pleased and will continue.
Kansas City

Completed seventeen "Health Checks" that average $42. It's a business getter.
Warren, Ohio

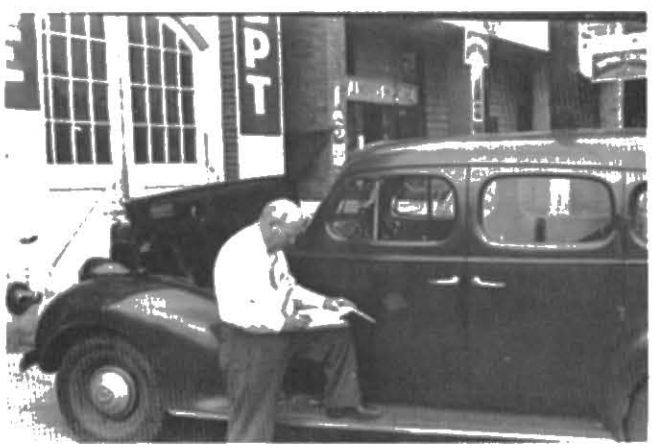
Have made twenty-one "Checks" and sold an average of $23.50 per car. It's built up a nice back log of work. Clinton, Ohio

From seventy-five letters got eighteen answers and have made seven "Checks" at a $35 average.
New Phila., Ohio

$1062.50 extra income from 17 "Checks." That's $62.50 per job. It's an excellent idea.
Cleveland, Ohio

Repair orders are averaging $60 each from Health Checks. Splendid results.
Corpus Christi

City	*Health Checks Number Sold*	*Average Amount Sold*
San Antonio	20	$69.40
Columbus, Ga.	12	33.75
Macon	11	35.86
Warren, Ohio	30	42.00
Cleveland Hgts., Ohio	42	18.25
Canton, Ohio	44	23.50
Sandusky, Ohio	3	62.00
New Philadelphia, O.	7	35.00
Lakewood	9	26.00
Cleveland	17	62.50
New York (11th Ave.)	119	22.79
Newark	31	21.38
Brooklyn	40	18.64
White Plaines	23	25.89
Bronx	4	33.84
Hempstead	10	46.42
New Haven	2	32.25
Stamford	2	31.94
Houston	12	35.00
Meriden	48	21.00



"Health Checks" Keeps Shops Busy—

Macon, Ga.

Columbus, Ga.

SERVICE MANAGER'S
PERSONAL COPY

PACKARD
SERVICE LETTER

Packard Service

VOL. 16, NO. 17 SEPTEMBER 1, 1942

IS THE CUSTOMER ALWAYS RIGHT?

The answer to this question may be either "yes" or "no," there being plenty of arguments in favor of either answer.

It may be contended that at the time the slogan was adopted in such stores as Marshall-Field's and John Wannamaker's, it was a necessary step in the progress of merchandising; that because of the methods used up to that time, some very drastic action had to be taken to convince the customer it was safe for him to deal with you.

It might be contended that the policy has been continued for so long the interpretation of it has become illogical. To a large number of people such a policy works entirely to their advantage.

We do know, of course, that there are several distinct advantages on the "yes" side of this argument. We may say that the increase in business, as a result of treating the customer in this way, far offsets any amount which the dishonest customer will accept on adjustments which are unfair to the service department. We may further say that the slogan should still apply in our particular line of work, since even today all customers have not been brought to the point where they can thoroughly trust the service organization with which they deal.

When the customer enters the service station, we should assume that what he is about to tell us concerning his car, or the bill which we recently rendered him, or the work we recently did for him, is based upon the conviction which he has in his own mind that he is right. This customer may be just as wrong as he can be, but if your adjustment is made against him while he firmly believes that he is right, then you are just as wrong as you can be.

The one thing to get across to the customer is the fact that you are just as interested as he is in getting the thing settled. He cannot hold out in rage against you for a long period of time, if you convince him at the start that you want more than anything else to have the matter that he has brought to your attention settled.

The best thing to do, is to get all the cards on the table as quickly as possible, by all means let him play his hand first and in playing it he undoubtedly will give you some mighty good cards to use while you are playing yours.

Most Americans have a few drops of sporting blood in their system. They are willing to concede something and they have more or less of a sense of fair play, however, they do not want to be argued with, nor combated. Never *argue* your side of the case, do only one thing after listening to his story and that is *explain* your side of the case, then tell him quickly and plainly what you feel you should do about it.

If he wants to start an argument, ask him to place himself in your position, consider both sides, and determine what adjustment he would make. If you find the whole controversy cannot be settled with reasonable speed, pick out a few items which can be, and settle on these. Above all, keep in mind the fact that good will is important in service selling.

The customer is not always right, but he is nearly always honest in his claim, when he isn't, you can generally detect it and when he is, give him credit for honestly trying to get what he believes he is entitled to.

In making any adjustment, make it with the idea of breaking down the barriers of mistrust which has grown up in the customer's mind. Any adjustment which sends the customer away with the conviction that he has been treated fairly, and after all that is all he wants, is not only money well spent, but money which will sooner or later come directly back to you.

"CAR HEALTH" CHECKS WITH GAS RATIONING

Unfortunately we got off to rather a slow start as at the time the program was originated we had all we could do to handle the customer work which was piling in on us, and had very little time to use the Car Health Check system. Now we wish we had however as subsequent experience has proven, this program is one of the best Service Sales aids we have ever used. Customers like the idea and our Service Men are more and more sold on the advantages of the program each week.

To date we have written approximately 55 Health Checks and sold about $425 of extra service work with them. During the past 10 days we have written only about 12 Health Checks from which we secured $105 of business

Stamford, Connecticut

For the Month of July

Letters sent out	492
Telephone calls	196
Inspections	65
Repair Orders Written	39
Total business	$727.96
Average	18.64

This Packard Wartime Service Plan, has contributed greatly to the maintenance of our Service volume, and has brought a great many Packard Owners to our Service Station, who have not been in for three months or more.

Brooklyn, N. Y.

Of the 48 cars we applied the Health Check to, we have completed 16, and have four in process of completion. The majority of these completed were regular Packard owners and customers. We are particularly pleased with the volume of business—$60.29, $49.50, $35.00 and $45.60 being the general run of the rapair orders.

We appreciate the Packard Health Check not only for the immediate business we have gained, but we feel that it will tend to preserve future business.

Meriden, Connecticut

Covering thirty-one actual working days of this plan from June 20th to July 31st inclusive.

Letters mailed out	363
Follow up Telephone Contacts	144
No. of inspections	51
Total Number of Jobs Sold	31
Billings	$662.97
Average per R. O.	21.38

Newark, N. J.

Starting in April with a mild sort of interest, as our shop had been busy, we soon found that the gasoline rationing changed this condition so we turned more attention to the Health Checks with the following results.

1. Have made fifty-three Health Checks.
2. Have sold thirty repair orders from Health Checks.
3. Total dollar amount $1176.60
4. Average per health check made $22.20
5. Average per health checks sold $39.22

We feel that the Health Check is good for the customer and gives us additional work without overselling as most items are visible or mileage items. Most customers appreciate knowing the condition of their car and want any necessary work done to prolong its life.

Waterbury, Connecticut

We have "Health Checked" 81 cars of which 54 were actually sold amounting to approximately $1600.00, or an average of approximately $30.00 per Health Check. We feel reasonably sure that some of those already made will undoubtedly result in future business.

About a week ago we put on a special two-day campaign which resulted in a writeup of 8 Health Checks, 4 of which amounted to $432. or an average of $108.00 per Health Check.

We believe that the Health Check System has been one of the best mediums we have used to not only maintain our service volume; but to increase our July business over June and at the same time assuring us of future business as a result of its use.

New Haven, Connecticut

Some figures that were taken from our July records at 11th Avenue and 54th Street.

Letters sent out with sample of Health Check form	832
Telephone follow-up calls	312
Inspections made	164
Jobs secured	119
Amount	$2712.32
Average per job	$ 22.79

The Health Check Plan has been instrumental in helping us build up our average per repair order, and it has also brought in owners who would not have come in otherwise. It is the best means we know of to bring forcibly to an owner's attention any maintenance work necessary for economical and satisfactory car operation for the "duration."

New York City, N. Y.

PARTS FOR DIRECT ACTING REAR SHOCK ABSORBERS

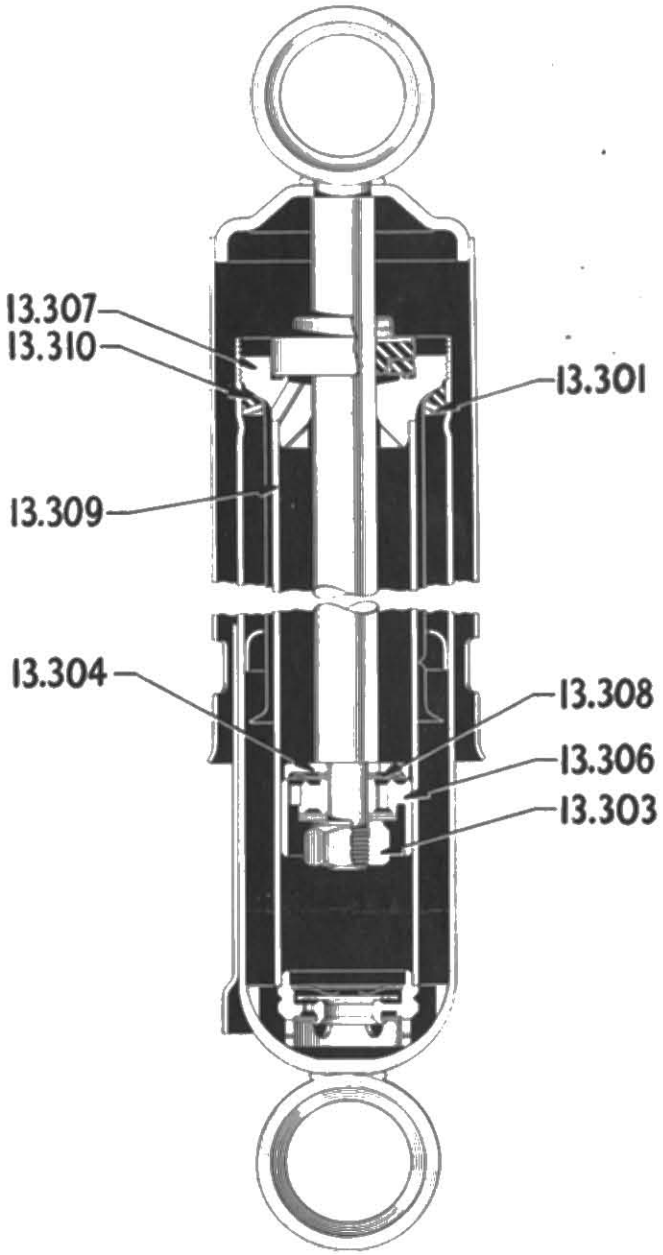
Rear Shock Absorbers of the direct acting type have been supplied to us by both Monroe and Delco, and our Master Parts Book has listed the details with the part numbers of the manufacturer who supplies them.

Even though the Monroe and Delco parts are listed separately they are interchangeable and can be used in either shock absorber. We will, in the future, carry these parts under Packard part numbers. The illustration and the accompanying list indicate the parts and the new Packard numbers.

Shock absorber assemblies and valves have always been carried under Packard numbers.

SHOCK ABSORBER—REAR

	Monroe	*Delco*	*Index No.*	*No. Reqd.*
378522—S. A. Reservoir Gasket Support Washer	10874	5312156	13.301	2
378523—S. A. Piston Rod Nut	12410	5352264	13.303	2
378524—S. A. Support Washer	10853	5329293	13.304	2
378526—S. A. Piston	10966	5315850	13.306	2
378527—S. A. Piston Rod Guide and Seal	12406	5340582	13.307	2
378528—S. A. Piston Support Washer Spacer	10854	5329294	13.308	2
378529—S. A. Pressure Tube	10956	5304092	13.309	2
378530—S. A. Reservoir Tube Gasket	10875	5302396	12.310	2



AXLE SHAFT OIL LEAKS

There are several possible causes for leakage of the differential lubricant past the leather seal around the axle shaft.

In correcting such a leak you should first try to determine the cause. If you simply replace the leather seal without an investigation, the car may be back again with the same trouble.

First of all, examine the seal which is removed. If the contact surface is cut or damaged, you have probably found the trouble. After the new seal has been installed, the replacement of the axle shaft should be made with great care. The sharp edges of the splines on the inner end of the shaft can easily cut the leather if the shaft is carelessly installed.

Make sure that there is no end play in the axle shaft and that the brake backing plate bolts are tight. Either of these conditions can cause oil leakage even if the leather seal is normal.

See that the air vent on the axle tubing is clear. A blocked vent will cause a build-up in pressure, and may force the oil past the seal. Of course, you would make sure that the oil level in the differential is not too high.

Sometimes, leakage may be caused by a foaming condition in the lubricant itself. Foaming is hard to detect because it is intermittent, and may not be in evidence when the oil is examined. If you have carefully checked the items mentioned and the leakage continues we suggest that you try another differential lubricant.

CLUTCH PEDAL ADJUSTMENT

It is very important to check the free play in the clutch pedal. (It should not be over 1½" to 2").

It has always been necessary to watch the pedal position. In early cars wear in the clutch plate caused the pedal to come back toward the driver and it was necessary to make sure that it did not ride the floorboard. This, of course, would cause slippage.

In recent years the change in pedal position has reversed itself. Wear in the linkage is apt to be greater than wear in the plate. This means that the pedal goes down instead of coming up, so that the amount of useful travel is reduced. It may be reduced to a point where the clutch is not properly released when the pedal is pushed down.

There are several serious consequences which may develop if the clutch does not release sufficiently. One of these is the transmission sticking in gear. When an attempt is made to shift without fully releasing the clutch, the gears drag, and the shifter lever may reach the neutral position before the gears move out of engagement.

Another serious consequence is damage to the transmission. If the driver will not wait for the clutch to stop spinning, and attempts to "clash" into first or reverse, he is almost sure to damage the gears. This is no fault of the gears themselves.

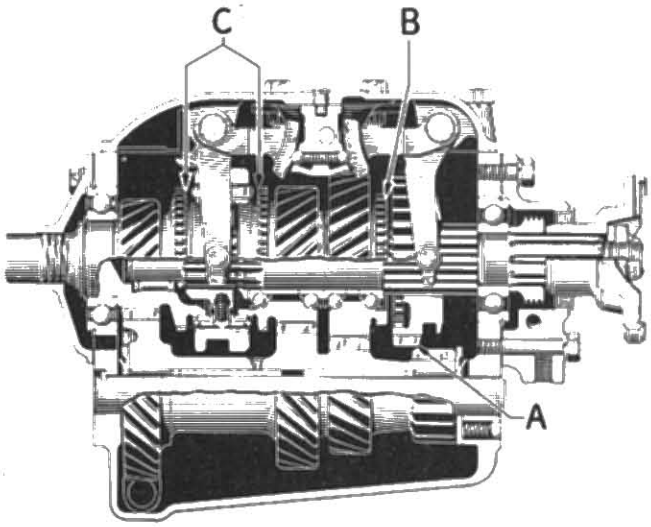
In checking pedal adjustment particular attention should be paid to cars in which the driver is of less than average height. In such cases the pedal should be brought up as high as it is safe to go, and if necessary, the front seat should be relocated in order to give the driver a better chance to operate the pedal.

Do not overlook the fact that the pedal position is just as important in cars equipped wih the electromatic clutch. In driving a car which is so equipped the operator does not use the pedal and may miss the fact that it is improperly adjusted.

DAMAGE TO TRANSMISSION GEARS IN SHIFTING

In the article above we have just pointed out that the transmission gears may be seriously damaged if an attempt is made to "clash" the gears into mesh without dis-engaging the clutch, or before the clutch stops spinning.

The arrow "A" points to the rear end of the teeth on the first speed sliding gear. When the teeth are battered or chipped at this point it is because an attempt has been made to jam the gears into reverse while the clutch is still spinning, or while the car is rolling forward.



When the teeth of the first speed sliding gear are found to be damaged, a similar condition will be found on the teeth of the reverse pinion (not shown in the illustration). The ends of the teeth are sometimes simply battered, but in other cases entire sections of the teeth may be broken out.

Arrow "B" indicates the points where the internal teeth in the first speed gear engage with the first speed clutch on the drive shaft. If the teeth are damaged at this point, it is because the operator has attempted to shift into first speed without waiting for the gears to stop spinning.

It is easy to show that this damaged gear condition is the result of carelessness or rough treatment by using the second and third speed clutch gears for a comparison. (These gears are indicated by arrow "C.") All three clutch gears are exactly the same in design and material; but the second and third speed gears (C) are protected by the synchronizers, while the first speed gear (B) must depend on the driver for the treatment it receives.

If therefore, the second and third speed clutch gears are in excellent condition (as is almost always the case), any damage which the first speed clutch gear or sliding gear have suffered is due to the treatment received. The responsibility is that of the owner.

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SERVICE MANAGER'S
PERSONAL COPY

VOL. 16, NO. 18 SEPTEMBER 15, 1942

HOW TO INCREASE VOLUME

It is a very simple matter to figure out an answer to the average dealer's problem. All that has to be done is to increase his service volume to where it more than covers the total cost of doing business. The net result is bound to be a profit.

"Service volume," however, isn't something that you wrap up in one package and hand out over the counter. It isn't as simple as that. It is made up of a lot of different kinds of packages and a great many different sizes. As you know there are labor sales, part and accessory sales, miscellaneous sales, gas, oil and grease and so forth.

Labor sales alone account for a lot of different size packages and just to say increase labor sales doesn't do much good. The job, of course, is one of increasing each of the individual labor operations in direct proportion to the requirements and needs of all customers.

This brings up the point as to how many of each operation a dealer should sell. If there is an answer to this question the job becomes simpler because he can then establish definite quotas and can easily determine whether he is selling the proper quantity of each operation in order to arrive at a satisfactory volume.

Feeling that some guide figures would be valuable we have had a number of surveys made of repair orders in various dealer establishments and have reduced the figures to the basis of the number of each operation per 100 repair orders. To verify the figures we have compared them with a similar survey made by another company.

You will notice that the other company is doing a much better job on certain items and likewise Packard is better on others. Where Packard is better the dollar volume is greater so any attempt to catch up with the other company on the more active items should not decrease the effort on the less frequent but more profitable items.

R. O. SURVEY PER 100 REPAIR ORDERS

	Other Co.	*Packard*
Chassis Lub	44.6	35
Oil change	32.6	25
Trans. & Diff.	7.5	8
Wheels—repick	6.5	5
Shocks fill	2.9	3
Engine Tune up	12.8	11
Valve Grind	1.3	3
Head Lights	2.6	3
Align Wheels	3.3	7
Adj. Steer	1.9	4
Adj. Brakes	8.0	9
Reline	2.3	3
Wash	11.7	10
Polish	2.3	2
Body-Fender	11.	21

There are several things that can be done about these figures.

1. Set a labor sales quota for each month.
2. Decide on the proper amount of labor sales per repair order.

3. Divide the sales quota by the sales per repair order to arrive at the number of repair orders you will have to write.
4. Divide this figure by 100 to find the number of groups of RO'S.
5. Multiply each of the individual figures on the list by the number of RO groups.
6. Divide each of these figures by the number of working days in a month to secure a daily quota.

EXAMPLE

1—Labor sales quota.....	$2400
2—Labor sales per R. O.....	6.00
3—2400 ÷ 6.00 = ...	400
4—400 ÷ 100 = ...	4
5—35 Chassis Lubrications × 4 = ...	140
6—140 ÷ 25 working days = approx.	6

Repeat No. 5 and No. 6 for each operation.

You will then have something definite to work toward. You know what you have to do for the day and you know at the end of the day how close you have come to your goal.

While this sounds like a lot of work it is in fact quite simple and takes very little time. It is well worth while and it certainly makes the job much easier if you have a clear understanding of just what the job is. We urge every dealer to try it.

GASOLINE ECONOMY

This will continue to be an important subject for some time to come.

In the rationed areas particularly, efforts will be made to sell various devices which are supposed to increase gas mileage. Such devices have always been on the market, but under present conditions selling pressure is apt to be particularly active.

We have not found that such equipments produce a worth while result. Usually they are "agitators" or "bleeds" or a combination of the two. In the early days of the industry they were some times effective, but present day carburetors are so efficient and so well designed that these "improvements" seldom accomplish anything.

It is true that improved mileage is often noted after one of these installations is made, but the improvement usually results from a good valve job and tune-up or from the fact that the operator of the car drives more conservatively.

This is verified by the fact that leaning the carburetor, as described in the Service Letter of May 15th, has little effect in altitudes close to sea level. The standard adjustment provides not only maximum performance but maximum economy as well.

The value of a leaner adjustment naturally increases as the altitude increases, but this is simply because it regains the proper mixture ratio, and not because anything leaner than the proper ratio is an improvement. An excessively lean mixture not only fails to save fuel but also develops its own troubles such as loss of power, overheating, burnt valves, etc.

Of course this does not mean that the carburetor is not important. It must be in proper adjustment, and the float level in particular must be watched. This is because the normal wear in the linkage causes the level to rise, and it should be held on the low side of the standard setting.

Spark advance is undoubtedly the most important motor adjustment in working for maximum economy. The motor should be given all the spark advance it will take. Premium gasoline should be used because it permits more spark advance.

If an owner complains of spark knock you should first explain that the octane ratings of all fuels have been reduced owing to a shortage of Ethyl fluid. Make it clear that retarding the spark will cause a loss in fuel economy.

If he wishes maximum economy he should:

1. Have you make sure that the motor is in good condition.
2. Use a premium fuel, because it has the highest octane value.
3. Permit you to advance the spark as far as possible.
4. Have the carbon cleaned more frequently.
5. *Drive moderately* and *use the accelerator lightly.*

Service Letters are available for everyone connected with Packard Service Stations. If service managers are not receiving a sufficient number of copies they should write the editor and give the extra number needed.

PISTON RINGS
20th Series Cars

Owing to confusion between the aluminum and cast iron pistons the specifications listed in the Service Letter of Sept. 1, 1941 are not clear.

All 20th series Sixes and Super Eights are equipped with aluminum pistons. The Eights, on the other hand, started with aluminum pistons and a change was made to cast iron during production. Any Eight motor with the suffix "C" or "D" following the motor number is equipped with iron pistons.

In the Specification Service Letter mentioned above the description of the Super Eight piston and rings is correct. All Sixes, however, used the same piston as the Super Eight, and the Super Eight description is correct for the Six. Do not use the Six Specifications. These are the same pistons and rings which we used in the 19th Series.

In the 20th Series Eight the original aluminum piston and ring set-up is the same as the 19th Series, but the iron piston is a new design and uses different rings. The ring combinations for the Eight are as follows:

	Aluminum	Iron
1st ring	K-200	K-200
2nd ring	K-70 stepped	70 stepped
3rd ring	X-90 "C" wall	X-90 "B" wall

The second and third rings in the iron piston are changed because of the difference in the design of the piston itself. The wall of the iron piston can be made thinner than when aluminum is used. This calls for shallower ring grooves, so that shallower rings are used to correspond.

The above comments refer to the rings used in production. When you install ring sets in service you will, of course, use the regulation Triple Action service equipment.

AIR CONDITIONER COMPRESSORS

We have recently examined several air conditioner compressors which were stuck so tightly that they would not turn.

These compressors stuck because of a copper deposit on the cylinder walls and pistons. The deposit, in turn, was caused by an acid condition in the refrigerant which attacked the copper in the system and carried it into the compressor.

The acid condition is apt to develop unless the system has been properly serviced, but it can be avoided if proper care is used.

We have recommended that only special Packard compressor oil be used when additional oil is necessary. This is in order to be sure that it contains no impurities which might cause an acid condition in the refrigerant. Piece number 365970 covers compressor oil in 1½ pint cans.

We have also urged that equal care be used with the dehydrator if it is found necessary. Please refer to the Service Letter Supplement covering the air conditioner, particularly the portion describing the use of a dehydrator.

The complete Dehydrator Equipment is covered by ST-5186, and additional material may also be obtained from us. One pound cans are carried under ST-10088 and five pound cans under ST-10089.

The collection of the copper deposit in the compressor is serious not only because of its effect on the compressor itself but also because it indicates that corrosion has attacked other parts of the system and may make the air conditioner inoperative.

Corrosion can be avoided if the system is kept free from moisture and if the proper dehydrator and compressor oil are used.

ALBUQUERQUE, NEW MEXICO

A CHICAGO BOUQUET

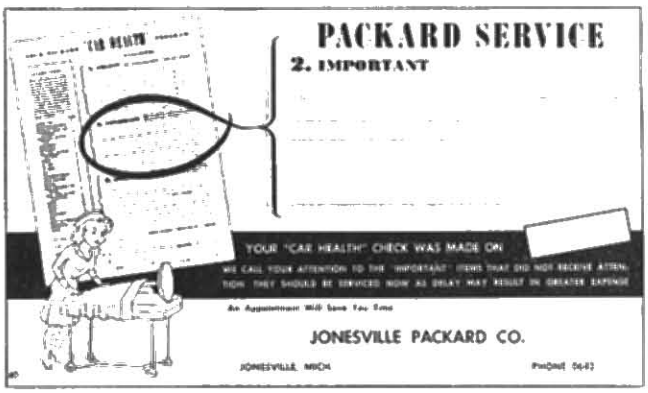
The service station on Wells Street has made a practice of sending a service reply card (like VT36) to customers who have been in for the first time to learn if they were received courteously, unreasonably delayed, satisfied with the work, etc. With very few exceptions, the replies are always favorable. The "exceptions" are followed up immediately.

Today the following reply was received: "Betsy is an old tub, 1937 vintage, but I was greeted with the same courtesy as I would have been had I been driving a 1942 Clipper."

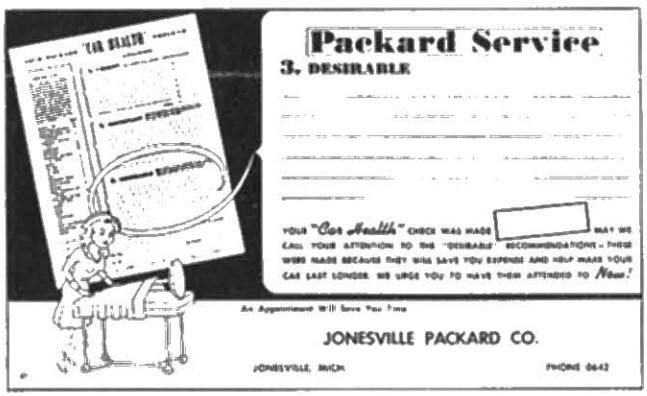
"HEALTH CHECK" FOLLOW UP

Here are two stamped postal cards to help you follow up the "Important" and the "Desirable" groups of work on "Health Checks." The personal call and the telephone call are of course most effective. We realize that these take time and time is a very scarce article these days.

A few cards a day takes only a few minutes and will help a great deal to keep the "Health Check" and its continuing benefits in the minds of your customers. For future service business don't neglect the follow-up of "Health Checks."



Card No. 40



Card No. 41

These cards are supplied no charge—a charge is made for the stamps and for form name imprinting—100 cards cost $1.00 for stamps and .65 cents for imprinting. Additional cards cost $1.00 for stamps and .10 cents for imprinting.

DOOR WEATHERSTRIPS LOOSE

Clipper

We still hear occasionally of loose weather strips on the Clipper doors.

This condition is most likely to occur at the forward edge of the door. It is also most likely to happen in very warm weather when the car has been in the hot sun. Heat may soften the cement, so that the rubber is not held as strongly to the edge of the door.

In addition to cementing the weatherstrip carefully to the door, it is necessary to make sure that there is no tendency for it to stick to the body. This can occur if the cement is carelessly applied, and after the strip is cemented in place, the outer surface should be carefully cleaned.

After you are sure that the exposed face of the weatherstrip is clean, it should be coated with powdered graphite or soapstone. If this is done, the door will close more easily and the edge of the body will not tend to pull the rubber loose from the door.

LUBRICATION OF MOTORS IN CARS IN STORAGE

In his letter of September 9, Mr. Page sent to all Packard Distributers and Dealers a copy of the new Conservation Order M-216 covering Maintenance Requirements for New Stored Vehicles.

This Order must be considered from two standpoints:

1. It is not only to your private interest, but it is also your public duty to take care of your new cars.
2. The Conservation Order must be carefully observed if loans are to be obtained on these cars.

In general the storage instructions follow the recommendations of the individual automobile manufacturers, but they are not identical with any such instructions, so that the Conservation Order should be carefully studied to see in what particulars it differs from your own preparations.

Our recommendations are unusually close to the Conservation Order, but you should note particularly the instructions covering the lubrication of the engine.

The Conservation Order specifies a rust inhibiting oil in the preparation of the engine. Here at the factory we have used Rust-Ban 603, which is produced by Penola, Inc., Pittsburgh, Pa. There are other good rust inhibiting oils, but our own experience has been with this product.

Do not forget that the *entire* Order must be followed if the cars are to be subject to an RFC loan.

PRINTED IN U. S. A.

SERVICE MANAGER'S
PERSONAL COPY

VOL. 16, NO. 19 OCTOBER 1, 1942

WHY ADVERTISE NOW?

Most Packard distributers and dealers have in the past spent a reasonable amount of money for advertising, and by so doing have built up a name in their community. This has been followed by the building up and maintaining of that invaluable business asset called good will.

This money has been well spent and now is no time to lose it. The war has interfered with your regular business but there can be only one answer to the question of whether or not you want people to remember your name. It is extremely important that you maintain in people's minds your company name as well as the reputation which has built the good will you have enjoyed in the past.

A short time ago a national magazine published a pamphlet in which it illustrated 25 trade marks of products still being advertised. They were published without names and it was not at all difficult to name practically every one of them because the names were still fresh in your mind due to the continued advertising.

On another page another group of trade marks were reproduced. These were from companies who had ceased to advertise. There were 20 pictures on the page and it was very unusual to find anyone who could identify more than two or three.

On another page was a list of trade names for which you were to identify the products. The first list was easy because the items were all still being advertised. The second list of unadvertised names was extremely difficult. It was hard to pick out more than one or two.

The result of these tests showed how quickly you, and therefore the public, will forget a product and a name.

Keeping in touch with your owners and a reasonable amount of advertising under today's conditions is extremely important. The good will which you have created only by long patient work is a perishable item. You, your product and your services can very quickly be forgotten by your own customers.

Your good will is not like a frozen car. It cannot be wrapped up and put up for the duration. Markets never come back quickly. Neither your car market nor your service market is your property. Markets are simply groups of people and people are busy and interested in many other things besides you and your business. They are people who forget quickly.

As advertising and personal contact are neglected, your market falls to pieces and quickly becomes—just people—and when the time comes for you to again use your markets, it will be a long slow process for you to bring people back together again in the form of a market. It has truthfully been said that it is cheaper to hold a market than to gain one back again.

The factory is doing its share in Magazine advertising, but you too must keep at it and particularly from a service standpoint. Use carefully worded letters on today's service problems. Use seasonal letters and postal cards. Don't let your customers forget you.

HOW TO USE BLUE CORAL

Getting the best results out of Packard Blue Coral means following the directions carefully. You can hardly expect satisfactory results unless you do.

Since there are so many dealers using Packard Blue Coral for the first time, we are repeating the instructions to make sure that satisfactory results are obtained on each Packard Blue Coral Treatment.

It is important, too, that service salesmen be familiar with just how the material is applied, and how thoroughly and carefully the job is done. It is easy to sell if you know this story.

The car should be thoroughly washed and cleaned inside, outside, and underneath.

The finish of the car after cleaning, should be inspected for scratches, tar spots, etc. Most scratches can be readily removed with a slight amount of rubbing compound and tar spots should be removed with tar remover.

On cars with a very badly deteriorated finish, it is sometimes necessary to go over the entire surface lightly with rubbing compound in order to take off the accumulated film. The car is now ready for treatment with Packard Blue Coral.

Packard Blue Coral should be applied on an area approximately two feet square at a time, starting with the hood and then working downward and backward on the car. The Blue Coral should be rubbed into the surface with long, even strokes until the surface is burnished to a hard glass-like finish. The amount of Blue Coral and the length of time for polishing depends, of course, on the finish of the particular car being treated.

Considerable time can be saved in giving a car a Blue Coral treatment if a machine applicator is used. For best results a polishing machine operating at approximately 1200 r.p.m. should be used. A sheepskin or a synthetic sheepskin disc will be found most suitable.

When using a machine, do not press down heavily on the applicator but guide it lightly from end to end of the treated area. It is also important that the machine be kept moving at all times that it is resting on the surface of the car. After the desired finish has been obtained on a car with an applicator, it is necessary to go over the surface lightly by hand in order to obtain a smooth appearance without any disc markings.

After the car has been completely treated with Blue Coral, the surface should be further protected with an application of Packard Blue Coral Sealer. The sealer paste should be spread on lightly over a small area at a time, then rubbed off with a clean cloth.

For best results the entire car should then be rubbed with a damp turkish towel and wiped dry. This will harden the protective film and bring out the last degree of luster.

A car treated in this way will have the brilliance of the finish restored and it will again have that "Show Room" appearance.

OWNERS EXPECT MORE THAN SATISFACTORY REPAIRS!

They want personal attention. While it is true many complaints come from poor workmanship just as many come from lack of personal attention.

Many complaints of poor workmanship are actually due to lack of personal attention. Incomplete, careless or actually unintelligent diagnosis to the owner means unsatisfactory repairs because the results are not what he wanted. Lack of attention to details or an unsympathetic attitude also result in incomplete repair order instructions and therefore unsatisfactory repairs.

Probably most complaints are due to poor personal handling of the customer, because of the rush and strain people are working under today this assumes greater importance than ever.

In your plans to build larger service volume the first step is to remove every sales resistance you can think of that might make it difficult or impossible for a customer to do business with you.

The things customers want and expect along with satisfactory repairs are:

1. Prompt greeting
2. Sympathetic attitude
3. Accurate diagnosis
4. Accurate estimate
5. Work done at promised time
6. Attention to details
7. Appreciation of patronage

These added up spell "personal attention." You may feel your particular type of service always includes these items. It would be well to do a little checking just to make sure.

Every customer has a right to expect this kind of attention every time he comes to your place

to buy repair work. In fact he can't very well get what he would call satisfactory repairs unless you include in every package a fair measure of each of these seven personal attention items.

RUST INHIBITING OIL

Please refer to the article on the last page of the service Letter of September 15th covering the use of a rust inhibiting oil in the engines of stored cars.

This article suggested the use of Rust-Ban 603 which we have used ourselves. The government, however, has now set up restrictions on the use of certain rust inhibiting materials, and Rust-Ban 603 may be difficult to obtain.

This is not a serious matter. You undoubtedly will be able to obtain a suitable oil from your own oil dealer, or at least he will be able to advise you where such an oil can conveniently be obtained.

Any well-informed oil company will be familiar with Conservation Order M-216.

EFFECT OF TIRES ON GASOLINE CONSUMPTION

Every owner knows that proper tire pressures must be maintained to secure satisfactory tire life, but few realize that low pressures will also increase gasoline consumption.

Low pressures increase the rolling resistance of the tire, partly because of the increase in the area in contact with the ground and partly because more power is consumed in the actual flexing of the tire carcass.

Tires which are badly worn will also increase gasoline consumption. Of course, this is beyond the owner's control, but he can at least make the best of the situation by keeping the tires properly inflated.

We find that most owners are carrying 30 lbs. both front and rear, although the car naturally will not ride as well and rattles will be much more noticeable on rough roads.

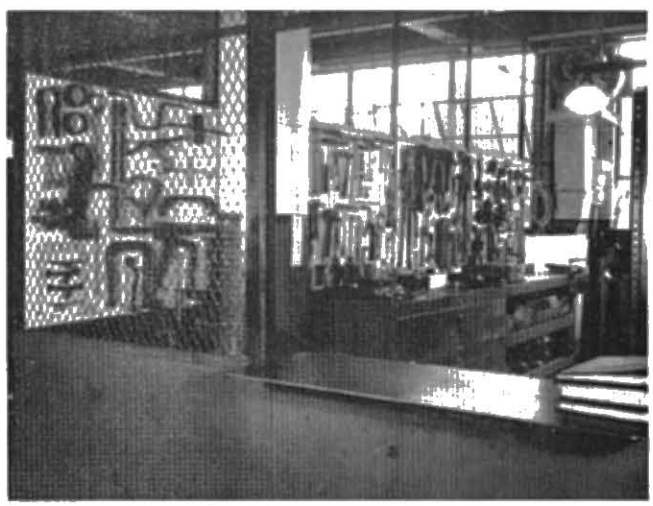
The conservation of rubber and gasoline certainly justify a slight sacrifice in riding comfort and a slight additional expense in taking care of various rattles and squeaks.

YOUR TOOLS AND YOU!

Men of course are important, but men in the shop without tools and equipment cannot work. Keeping the nation's vital transportation system rolling is your part of the battle. Tools are your weapons. They deserve the same care that the soldier gives his gun.

The soldier probably would have an easier time replacing his gun than you will in replacing some of the tools and equipment you now have.

Most of the equipment you work with every day can't be replaced. Take the one item of air compressor out of your shop and figure what its loss will do to your job. No spray gun, no tire inflation, no lubrication. Sure, you used to get along without compressed air, but have you tried it lately? Just what are you doing about taking care of your compressor and all rubber hose?

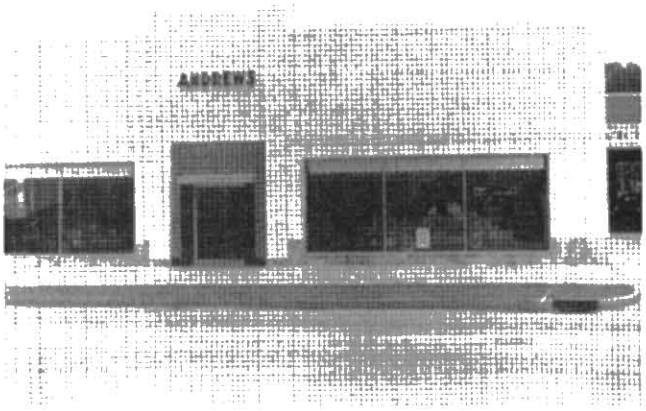


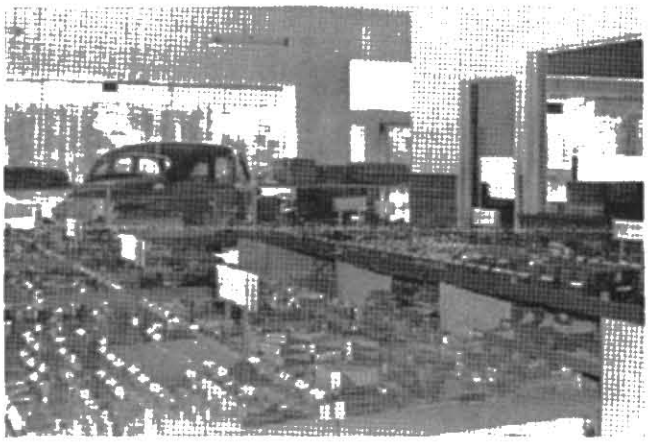
Precision tools, jacks and even wrenches are just about on the "impossible" list. Are you using them carefully? Are you protecting them in every way possible?

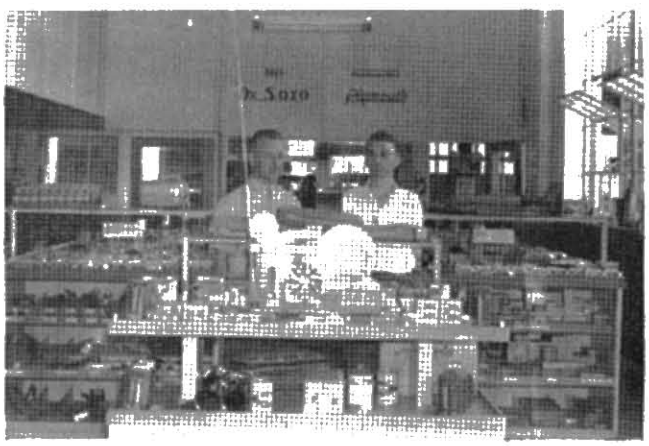
You now have tools and equipment. They will have to serve you for the duration. They are mighty important to you—take care of them.

SERVICE IN ROME, GEORGIA

The pictures indicate they have a very modern and up to date building. Mr. Andrews is doing a very good service volume; in addition he operates a Taxi business utilizing his used cars.







DON'T LET BLUE CORAL FREEZE

The manufacturer of Blue Coral informs us that Blue Coral like other polishes, will freeze at about 28°. Care should therefore be used both with regard to storage and shipping. Heated storage should be used and shipments during freezing weather should be made by express. It might be advisable to put in a reasonable stock to see you through the winter.

HELP OWNERS SAVE TIRES

Mr. George T. Taylor,
3818 N. Fort St.,
Galesville, Mie.

Dear Friend.

How long are your present tires going to last?

You're asking yourself this question now, of course. So are all of America's motoring millions. Because, with conditions what they are, the failure of even a single tire may make the finest car as useless to you as a pile of junk.

Remember -- YOU CAN NO LONGER BUY NEW TIRES. So you must make your present tires last. For how long, nobody -- not even your government -- knows.

We're not trying to worry you. On the contrary, we have the answer to your question -- an answer which promises not only your normal expected mileage from present tires but up to two and even three times as many extra miles.

Come in and get the full details of our new Tire-Life Extension service and the complete Tire-Life Extension Policy which backs it up.

See how, for a full year, we take over responsibility for that part of the care of your tires requiring expert trained attention -- in order to keep 'em rolling far beyond their average life.

But these Tire-Life Extension Policies can be issued only up to the limit of our service facilities. This letter is numbered. It represents a policy reservation in your name good for 10 days from today.

Bring the letter in and we'll give you, free of charge, a careful tire inspection, an accurate estimate of the tire mileage you have left in your tires. We will also explain how our Tire-Life Extension Plan can UP that mileage by thousands of miles.

Keep your car rolling - use this letter promptly.

Cordially yours,

Ray McKeith

A 1401 D

One thought is properly uppermost in the minds of motorists today: conserve tires!

Making transportation last as long as possible is now a patriotic duty, as well as common sense. Transportation is still and will remain a necessity for many car owners. Therefore, it is of national benefit to make present tires last much longer.

Tire life is directly proportionate to tire care. There are five simple practices, which if periodically followed, will definitely contribute to longer life for your tires:

1. Proper tire inflation
2. Accurate front wheel alignment
3. Switching or "X"-ing tires
4. Uniform brake adjustment
5. Correct tire balance.

In addition to these important tire items, we are now offering a wartime Lubrication Service Contract. It provides real savings on essential lubrication services needed during your next 10,000 miles of driving.

If you have not recently had your tires switched from wheel to wheel, brakes adjusted, wheels aligned, or tires balanced, we suggest you come in NOW and let us help you insure getting the utmost out of your present tires.

Very truly yours,

McCORMACK BROTHERS MOTOR CAR CO.

EAB:ce

E. A. Hicks
Service Manager

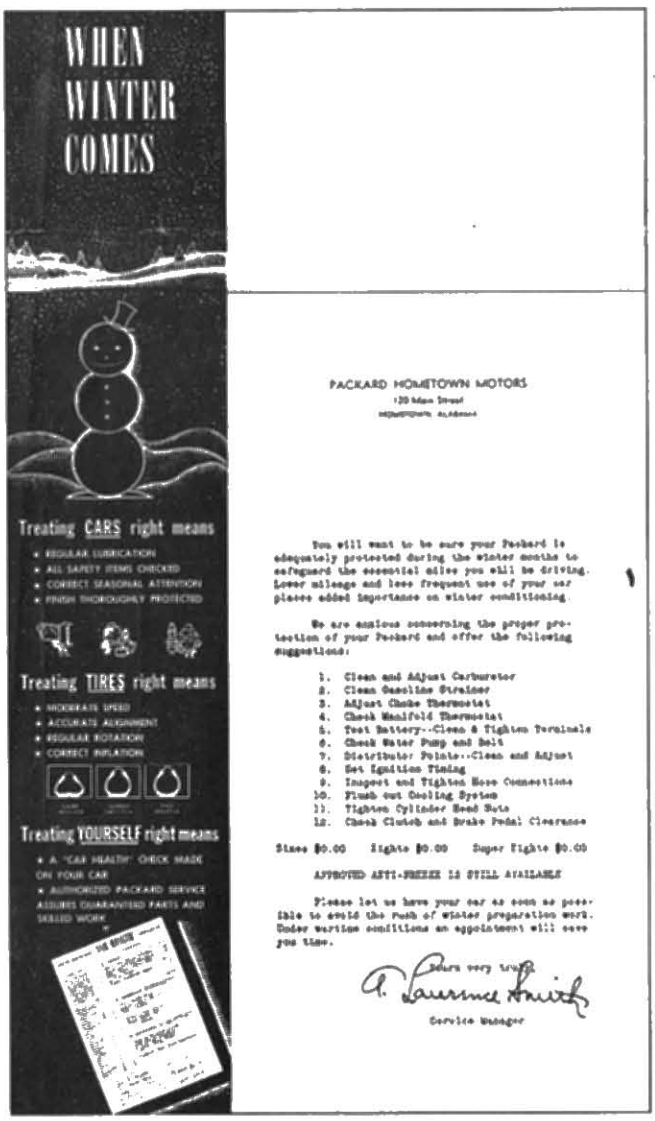
PRINTED IN U. S. A.

SERVICE MANAGER'S
PERSONAL COPY

Packard Service

VOL. 16, NO. 20 OCTOBER 15, 1942

WINTER LETTER



Winter preparation work will very soon be here and with it lots of customers. Maybe you have made plans to spread the work out so that you can handle more of it and get the most out of it.

Winter mailing pieces do this for you if they are mailed in small quantities over a two or three-week period. By spreading the work, you have more time with each cutsomer and have a chance to sell him what he needs.

But what happens after the winter preparation season is over? Your present volume may not hold up? You may think it will and we hope so but business is like an automobile—it is built with a reverse gear and sometimes the brakes don't hold.

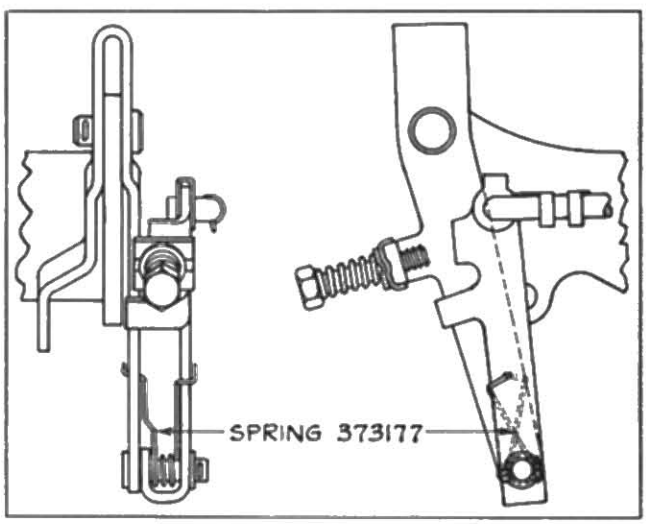
As a service manager you are interested in planning ahead—you know from experience that the best time to advertise is when you have business and customers—not after the business and the customers have left you. It has always been easier to hold business than to get it back. Now is the time to do everything you can to hold it.

Plan ahead—use a winter mailing piece. Try the 1942 Service Winter Letter as shown or use Reminder Post Card No. 26. Mail something to all owners—a few each week. Call owners on the phone and ask them if they got the letter—suggest a definite day when you can handle their work. See General Letter 537.

ELECTROMATIC CLUTCH VALVE ADJUSTMENT

This may explain some cases in which the electromatic clutch does not seem to hold its adjustment.

The illustration shows the levers at the forward end of the control valve. It also shows the small wire spring which surrounds the pin and bears against the two levers. The purpose of this spring is to push the spool rod linkage back toward the valve unit so as to remove the slack from the spool rod operation.



This spring was omitted on the control valve assembly of a number of the Clipper models which were electromatic equipped. It is not *necessary* to the operation of the electromatic but we believe that it is helpful in cases where the car has been in operation long enough to develop lost motion in the linkage.

We suggest, therefore, that if you find an electromatic which is not easy to adjust or one which loses its adjustment, you see whether the spring is in place. If not, it can easily be installed by pulling the cotter pin and slipping the control lever off the clevis pin. The spring is:

373177—Electromatic valve linkage spring.

Please understand that the installation of this spring is in no sense a cure-all. The success of the electromatic adjustment will depend on the care with which it is made. The spring may, however, make the adjustment somewhat easier.

In working on the electromatic adjustment you should make sure that the spool rod slides freely. If it is at all sticky it should be slid out, by removing the link, and thoroughly cleaned. *It should not be lubricated.*

SERVICE IN THE FUTURE

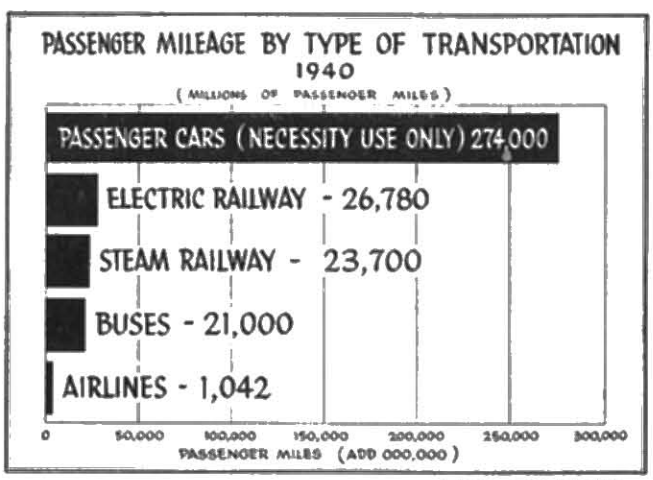
In spite of restrictions the government has placed on the use of automobiles, the country must depend for transportation very largely on privately owned cars. True, these restrictions will result in lower speeds and less miles driven but as long as cars are used at all, they will need replacement parts, adjustment and repairs.

The Office of Defense Transportation, O.D.T. which controls both public and private transportation facilities has stated many times that the public transportation systems such as railroads, street cars, busses, airlines, etc., are totally inadequate and cannot possibly furnish anywhere near the necessary facilities required to keep the war effort moving.

Actually, passenger cars covered 3½ times the mileage covered by all other public transportation systems—two hundred and seventy four billion miles in one year.

From all this it must be obvious that we not only have a service job to do, but that this service job, as definitely stated by the Office of Defense Transportation, is absolutely essential to the war effort.

No man who is physically fit will be exempt from the country's call if the necessity becomes great enough, but automobile service men will be considered just as necessary as workers in the war plants, because the passenger cars, busses and trucks of the country must be kept rolling.



A.M.A. 1942 FACTS

WATER PUMP LEAKS

Perhaps you have noticed that a large percentage of water pump leaks develop immediately after the anti-freeze has been drained in the spring or after it has been installed in the fall.

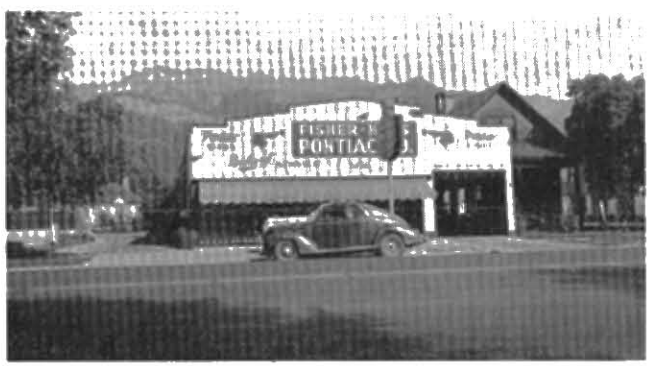
You may also have found that the water pump is in good condition except for the thrust washer which bears against the pump housing. Sometimes the bearing surface of the washer will show small blisters which prevent the washer from seating properly.

We have not been able to definitely determine the cause of the blisters. It is possible, however, that they are caused by draining the water system and pouring in cold water while the pump is still hot.

We suggest that in filling the water system you use hot water if the motor is hot and cold water if the motor is cold. This is easy to do and it *may* prevent some leaking pumps.

See the article in the Service Letter of July 15th, 1942 regarding water pump leaks.

SERVICE IN OGDEN, UTAH



REAR SPRING INSERTS

A change in the condition of the spring inserts will cause a definite change in the riding qualities of the car.

Normally the inserts will last for a long time, but this will not be the case if the spring leaves are lubricated. This, of course, should never be done, but it is sometimes performed by an independent shop which considers it part of the regular chassis lubrication. Sometimes it is the result of a mistaken effort to remove what is thought to be a spring squeak.

Lubrication of the spring will decompose both the rubber and the Silenite inserts. It is not apt to affect the lead inserts because they are protected by the cups in which they are installed. The breaking down of the rubber and Silenite, however, not only changes their own friction characteristics but also permits the ends of the leaves to come together.

When the leaves come together at the ends the riding qualities of the springs will be entirely upset. In addition to this, you may find a snapping noise when the car starts, similar to that which might be made by a loose universal joint flange. This noise is caused by the end of the spring changing its contact with the face of the leaf above it.

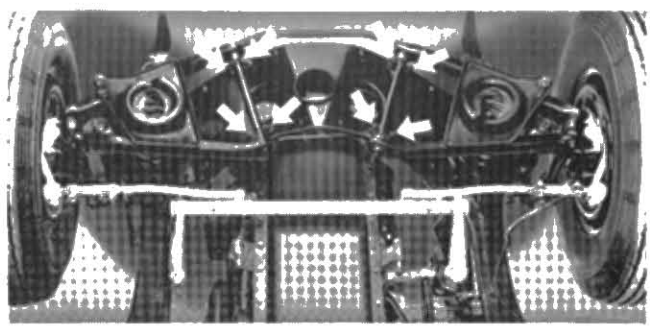
In making the Health Check, or any other inspection, you should note the condition of the inserts, and suggest the replacement of those which should be renewed.

You are apt to find the lead inserts in reasonably good condition. They are near the center where there is less movement, the material is harder, and they are protected by the cups and seals in which they are mounted.

The lead inserts, however, may develop squeaks, and it may be necessary to repack the cups with grease. (See the Service Letter of May 1, 1942). This squeak is easily located by rocking the rear bumper slightly.

When spring inserts are replaced, be sure that the proper inserts are used. The spring tables in the Parts Book indicate the correct set-up.

VARIATION IN FRONT WHEEL CAMBER



In checking front wheel camber on the Clipper models, you must always make sure that the lower support arm inner bracket bolts are tight.

The bolt nuts are cotter pinned but the bracket may loosen, in spite of this, enough to permit it to shift. This, of course, would cause a change in camber.

It is a very simple matter to try the nuts without removing the cotter pins. If the nuts are loose, the cotters should be removed so that the nuts can be properly tightened.

OVER-SEAS NEWS

Lionel E. Leon, formerly Service Manager for his father, Distributer at Johannesburg, South Africa, is now an R.A.F. Squadron Leader.

After twelve months in the Desert, "Cookie" has been resting at an Operational Training Unit. At this Unit he is doing a certain amount of instructing. He has been in so many theatres of war and has seen so many different countries since he joined the Royal Air Force some 2½ years ago, that he is almost a veteran of war.

He particularly asked his father to write and say that he constantly thinks of his friends in the States and hopes one day to return to our midst.

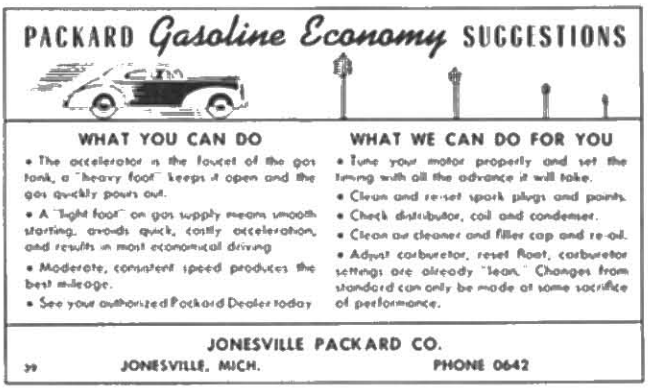
• • •

Another Packard serviceman joined the over-seas forces and cables his safe arrival for duty with the Packard Marine Division. All who know Jack Harrison from Coast to Coast will join us in our "best wishes."

ORDERING PARTS

The distributer in St. Johnsbury, Vermont, has been assisting its dealers in ordering parts according to I. A. Preston, Parts Manager. He has been using an addressed business reply card which supplies him with proper information to ship the car parts. Since the L-158 order, he has added a certificate of compliance, across one end of the card with a rubber stamp. Isn't it possible more dealers would order more parts if more distributers would make it more easy?

GASOLINE ECONOMY POSTAL CARDS


PACKARD *Gasoline Economy* SUGGESTIONS

WHAT YOU CAN DO

- The accelerator is the faucet of the gas tank, a "heavy foot" keeps it open and the gas quickly pours out.
- A "light foot" on gas supply means smooth starting, avoids quick, costly acceleration, and results in most economical driving.
- Moderate, consistent speed produces the best mileage.
- See your authorized Packard Dealer today.

WHAT WE CAN DO FOR YOU

- Tune your motor properly and set the timing with all the advance it will take.
- Clean and re-set spark plugs and points.
- Check distributor, coil and condenser.
- Clean air cleaner and filler cap and re-oil.
- Adjust carburetor, reset float, carburetor settings are already "lean." Changes from standard can only be made at some sacrifice of performance.

JONESVILLE PACKARD CO.

39 JONESVILLE, MICH. PHONE 0642

Card No. 39

A new and very timely Reminder Post Card, No. 39. It tells your customers what they can do and what you can do for them about Gasoline Economy. How they can get the most miles out of every gallon of gasoline they can now buy. Your customers are very much interested in this subject today. Before a lot of harmful adjustments are made and unsatisfactory results obtained which may be blamed on the car, why not get your owners to come to you with their problems?

Many of these problems are individual ones and can only be handled satisfactorily after an individual examination of the car and a talk with the owner to find out about his driving habits, driving problems and the condition of his car.

Urge your customers to come to you for Gasoline Economy Suggestions. These cards are supplied by the factory no charge. They are printed on government one cent post card stock and a charge is made for the stamps. Imprinting your firm name is charged at the following rates. 100 cards cost $1.00 for stamps and $ .65 for imprinting firm name—additional cards cost $1.00 per 100 for stamps and $ .10 per 100 for imprinting.

Order Gasoline Economy Card number 39.

Service Letters are available for everyone connected with Packard Service Stations. If service managers are not receiving a sufficient number of copies, they should write the editor and give the extra number needed.

PRINTED IN U. S. A.

VOL. 16, NO. 21 NOVEMBER 1, 1942

"ESSENTIAL TRANSPORTATION WORKER" PLAN

Today the automobile dealer has two very important jobs to do, (1) to encourage his entire organization to efficiently keep America's automotive transportation system in good operating condition—running at maximum efficiency, (2) to help owners and operators in every way possible to conserve gasoline, oil and tires.

Proper maintenance, education and conservation are now made tangible goods considered essential to the war program and are so classified by Joseph B. Eastman, Director of the Office of Defense Transportation.

We now have a nation-wide program of cooperation with America's war effort. All dealers have been requested by every car and truck manufacturing company, to get behind this program. You are one of a nation wide group of some 40,000 dealers. An army backing up and maintaining a wartime transportation system that will deliver vast quantities of war material. These goods must reach their destinations and workers must get to their jobs.—on time.

What do you do about all this? Realizing that automotive transportation is vital to our war production as well as to our civil economy—realizing that the existing supply of automotive units and their tires is all but irreplaceable and that every extra mile that each can be made to serve is a direct help to victory, dealers should sign a pledge to the Office of Defense Transportations as follows:

WE HEREBY PLEDGE that we will regard it as our patriotic duty to do all in our power to prolong the life of any automotive part or tire on which we perform any maintenance work or service.

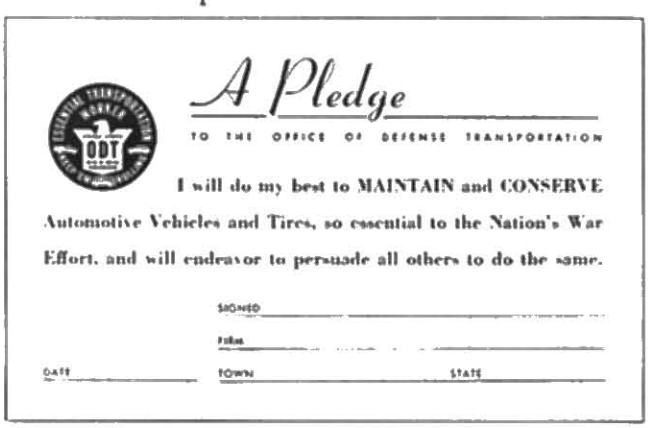
We will see that careful inspections are made, that all adjustments or minor repairs that come within the service facilities we are equipped to give are performed promptly and efficiently, thereby doing all we can to prevent major repairs with consequent waste of parts, materials and tires.

To accomplish this, the full cooperation of every man in every organization is needed. Lets fully and enthusiastically accept the responsibility that goes with this official emblem.

In time of war, more is required of all of us and from now on in your capacity as a civilian worker in an essential industry, you are doing important work in helping your country.

Very naturally and most emphatically we do not want anyone of you to take any part of this program as an excuse for refraining from volunteering your services or your time in any other activity deemed essential by the Government. Certainly we will, and we want every one of you if it is at all possible, to take on more work during this emergency. We know that you will be anxious to do so. Nothing in this program should be interpreted as meaning that any of us who are of the right age and fitted for military service can escape such service. No real American wants such an excuse. All we have asked for is the privilege of working in some essential capacity. We have now received officially, such a designation. Any man who can, should enter the armed forces of our country, and those of us who cannot, will be proud of him. Those of us who remain as civilians have our work clearly defined and with you we will accept as a real responsibility, the important job of efficiently keeping America's transportation system "delivering the goods."

The material which the factory has supplied to carry out this program consists of a large window poster which will be properly displayed in front windows and in Service Departments. The message printed on the poster will be carried to all customers by means of a reproduction of the Eastman statement in the form of a sticker and we are asking every service manager, mechanic, service salesman and parts man to join with us in pledging to the Office of Defense Transportation as follows:



In return for this pledge and the continued cooperation and fine spirit, an official emblem will be presented designating you as an Essential Transportation Worker, the large pin to be worn on work clothes and the lapel button for dress suits.

SPARK PLUG TERMINAL NUTS

To further conserve brass for direct war purposes and to avoid curtailment of spark plug production, spark plug manufacturers find it necessary to ship replacement spark plugs less the terminal nuts.

Spark plugs shipped from our factory will include these nuts as long as our present stock allows, but as soon as these are exhausted, all future shipments of plugs will be less the terminal nuts.

When new plugs are installed, the old terminal nuts should be removed from the discarded plugs and again used on the new plugs. Even though new plugs received for the present are equipped with terminal nuts, the old nuts should be saved to help make up any losses after these are discontinued from new plug shipments.

This applies to both A. C. and Champion spark plugs.

GEAR SHIFTING IN COLD WEATHER

Have you figured out why there is more trouble with the gear shift mechanism during cold weather? If you have not, the following information will clear up the question.

From a standpoint of lubrication alone, the oil in the transmission is not a difficult problem. Bearing loads and tooth pressures are not high, so that a straight mineral oil of the recommended viscosity will do a satisfactory job.

When cars leave the factory, the transmissions are lubricated with an oil of S.A.E. 140 viscosity. It is a "summer" lubricant, but it is used here throughout the year, because we do not know the season when the car will actually go into service. In warm climates this summer lubricant is good for the entire year, and even in cold climates it is suitable for all but a few months.

Summer oil will lubricate even in cold weather, because first the friction and then the radiated heat from the motor will thin it to a suitable consistency. The gears and bearings do not suffer during the period immediately after a cold start because the film of congealed oil provides lubrication until the bulk of the oil becomes fluid.

But here is where the catch comes in. In very cold weather, a summer oil becomes so stiff

that a great deal of pressure on the gear shift lever is necessary for the first shift. Even though there is only a normal amount of stretch and lost motion in the shift linkage, the movement of the gear may be held back (by the thick oil) so that the linkage drops into the neutral position before the gears are out of mesh. This will not happen if a winter oil is used.

Incidentally, the winter oil will lubricate well enough in hot weather, but there is apt to be an increase in gear noise and a tendency for the clutch to spin. For this reason a change to summer lubricant in the spring is a good practice.

PROTECTION OF WIRING HARNESS—CLIPPER

In the Clipper Models, the electrical wiring harness comes through the dash on the left side, just above and close to the rear end of the battery.

The clearance between the wiring harness and the battery varys on different models, *but there should always be a clearance.*

The metal retaining plate and the thumb nut sometimes become corroded from battery fumes and moisture. If the braided wiring harness comes in contact with this corrosion the insulation may be destroyed so that a short circuit in the electrical system may result.

It is a simple matter to check this condition when the left side of the hood is raised, and this should always be done. If you find that the harness has been making contact with the retaining plate or the thumb nut, the following procedure should be followed:

1. Loosen the thumb nuts and slide the retaining plate forward, away from the harness.

2. Clean the metal parts and grease thoroughly.

3. Use rubber or friction tape to cover the harness, and shellac the insulation.

4. Pull the harness up through the hole in the dash and as far away from the battery as possible.

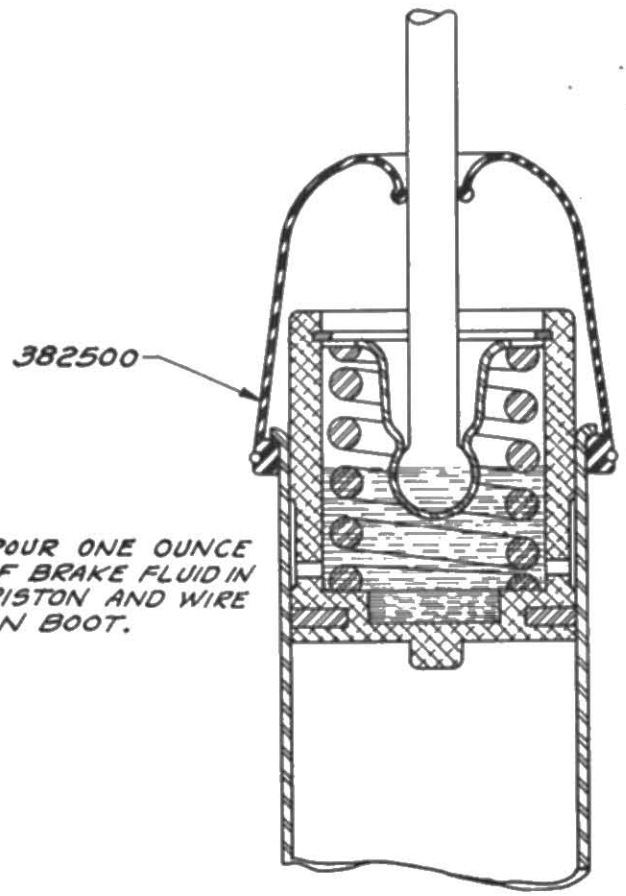
5. See that the harness lies down close to the dash, to further increase the clearance.

You will appreciate the importance of this inspection. A short circuit may cause serious and expensive results.

HYDRAULIC CYLINDER BOOTS AUTOMATIC WINDOWS

SUPER EIGHT

In checking the hydraulic cylinders of the automatic window mechanism, you may find that there is occasion to replace the rubber boot at the upper end of the cylinder.



A break in the boot will permit the loss of the brake fluid which lubricates the cylinder and the piston. It may also permit the extrance of foreign matter.

We are now carrying these boots in our Service Stores Division and they may be ordered individually:

382500—Hydraulic Cylinder Boot.

Before installing a new boot, add one ounce of brake fluid to the inside of the piston. This insures the lubrication of the piston and cylinder, and prevents the boot from sticking to the piston.

After the boot is installed, it should be held in place with a soft wire, lightly twisted.

OTHERS ARE SELLING SERVICE THIS WAY—

IMPORTANT

As the owner of a good automobile you **must** take care of it, for you dont know how long it will be before you can replace it.

O. D. T. wants twenty million cars maintained on the highways, operating at maximum efficiency to do our war job. We invite you to use our Packard Service Station for all repairs, refinishing, fender and body work, welding, wheel alignment, lubrication, winter preparation and every kind of car service.

Thirty-two years with Packard, a competent staff of service men, necessary equipment, charges no higher than average, work guaranteed — all make it worth your giving us a trial.

ASK THE MAN WHO OWNS ONE

Packard Lackawanna Automobile Co.

ELMER JONES, Service Mgr.

580 MARKET STREET, KINGSTON, PA. DIAL 7-1141.

Here's something interesting . . .

CONSERVE YOUR MOTOR CAR

How? By consulting us about our "Car Health analysis Plan" Have your car inspected by us today!

PACKARD MOTOR CAR COMPANY
OF CANADA, Limited
4026-30 St. Catherine St. W. Fitzroy 6363 Montreal

Mr. Edward Lang,
1836 Brewster Ave.
Cincinnati, Ohio

Dear Mr. Lang:

Gasoline rationing, for the purpose of conserving tires, is scheduled to become effective nation-wide sometime during the next sixty days. While this will undoubtedly cause some adjustment in our driving habits, we are sure, that all of us are willing to make this needed sacrifice to prolong the life of the nations transportation system. At the same time we should be sure that under these forthcoming restricted driving conditions, we make certain we get the utmost in mileage from whatever gasoline we are permitted to buy.

In addition, The War Production Board Limitation Order L-158 which places certain restrictions on the sale of replacement parts and limits the manufacture of certain parts, has occasioned some confusion in the minds of car owners.

We are anxious to be of the utmost assistance to Packard owners and accordingly are sending Mr. L. D. Bowles, Factory Service Manager, and Mr. Herman Schaich, Factory Parts Representative to the Citizens Motor Car Company, 918 Sycamore Street, Cincinnati on October 19, 20 and 21.

In addition to giving your car a thorough and complete inspection without charge or obligation on your part, Mr. Bowles and Mr. Schaich will gladly co-operate with your dealer in advising you of the parts you can have replaced, if necessary, and the parts that can only be reconditioned, all for the purpose of keeping your car in running condition for the duration.

You are invited to avail yourself of the services of these men during their necessarily brief visit at The Citizens Motor Car Company. Do so today by phoning Mr. Matteson, Service Manager, telephone Cherry 4110 for a definite appointment.

Very truly yours,

PACKARD MOTOR SALES COMPANY

D. S. Hansford
Zone Manager

TO ALL PACKARD OWNERS:

Our factory has imposed upon us the responsibility of a dealer to his customers to help them keep their cars in as perfect mechanical condition as possible. In order to do our part in helping you take care of your car, we have grouped together a number of special jobs which will help give you more gas mileage and help prevent future trouble and wear.

Remove and clean carburetor and set with analyzer
Clean and adjust distributor points and set timing
Clean, adjust and test spark plugs
Check compression and record
Set carburetor with motor analyzer
Clean and repack air filter
Clean and repack front wheel bearings
Tighten all electrical connections
Set voltage control and generator
Test condenser and coil
Check front wheel alignment and balance, and report to owner. This is very important to minimize tire scrub, tire wear

We are making a special price of the above group for only $4.50 on six cylinder cars and $5.00 on eight cylinder cars.

We will be glad to take care of your car any time you can let us have it.

We want to assure all Packard owners that our carpenter and the many special Packard mechanics are still with us to serve you and take care of your car needs.

We will be glad to send for and deliver your car anywhere in Knoxville for no additional charge.

Very truly yours,
Morton-McCrary Motors, Inc.

Gordon Hare
Service Manager.

Mr. Packard Owner:

Many Packard owners are asking, "What can I have done to my car to make sure that I get the best possible mileage?"

In answering this we will have to assume that the car in general and the motor is in fairly satisfactory condition and that such items as pistons, rings and bearings do not require attention.

The items which should be checked and put in first-class condition are as follows:

Ignition timing should be set with all the advance it will take.
The carburetor should be cleaned and adjusted with special attention to the float level and fuel setting.
The air cleaner and oil filler cap should be cleaned and reoiled.
The heat control valve should be operating freely.
Engine temperature should be controlled by efficient thermostats and radiator covers.
Manifold gaskets should be checked for leaks.
Cylinder compression and the condition of valves should be checked. The carbon should be removed if necessary.
Wheels should turn freely with proper lubrication, alignment and no brake drag due to improper adjustment or sticky brake cables.
Tire pressures should be maintained at approximately two pounds above the recommended pressure since under-inflated tires require extra power.

We urge you to let us check these items for you. In addition, may we suggest that the use of premium gasoline will give you best results and that it is well to remember that a "light foot" on the accelerator and the brake pedal will greatly aid in obtaining the most economical driving and the best possible mileage from both gasoline and tires.

Very truly yours,

MORETOWN MOTOR SALES, INC.

Service Manager

SUGGESTIONS OR QUESTIONS ARE ALWAYS WELCOME. ADDRESS—EDITOR PACKARD SERVICE LETTER

PRINTED IN U. S. A.

SERVICE MANAGER'S
PERSONAL COPY

PACKARD SERVICE LETTER

Packard Service

VOL. 16, NO. 22 NOVEMBER 15, 1942

BUT—THAT SHOULDN'T HAPPEN TO A PACKARD!

It's true the car being talked about is anywhere from thirteen months to three years old and the mileage is greatly in excess of 12000 miles. Usually, the part involved is one which in the mind of the customer, should never wear or break and certainly a Packard part should never develop a defect, regardless of age or use. The stories from here on are very similar. The customer has bought Packard cars for years. He has influenced the sale to dozens of his friends. Occasionally he has played golf with the President of the Company, the amount of money involved is never important. It's just a matter of principle. In practically every case of this kind, the owner is sincere and feels he is justified in his request.

There are many parts of this story that any Packard man can readily agree with. On the other hand, you are dealing with a 90 day or 4000 mile warranty and a parts adjustment period of one year or 12000 miles, so your answer can only be "no."

Selling this "no" is not too easy and selling it by letter is tougher yet. Here is a letter that really does a job. It's frank, logical, sincere and friendly. It's the result of handling hundreds of these cases. We suggest you remember the date of this issue of the Service Letter because if you find yourself on the adjusting end of one of these cases, this will come in mighty handy.

Dear Mr. Customer:

We have your letter of December 15, and we are glad to have you raise the question with regard to our guarantee.

It is your feeling that cars such as our own should have an unlimited guarantee, and this is a matter which we and other manufacturers have carefully considered. The same conclusion has been reached in each case and we do not know of any car manufacturer in the industry today who provides an unlimited guarantee.

In effect, a guarantee is a type of insurance and is paid for by the customer in the price of the car. We must try to decide the amount of protection which the average owner should receive and should not penalize all owners by forcing them to pay for something which would not be profitable to them.

The older a car gets, the more difficult it is to determine actual defect because wear and metal fatigue are very apt to obscure the picture. If, therefore, our guarantee extended for an indefinite period, we would be involved in endless arguments, and in order to retain our customer goodwill it would be necessary to take so lenient an attitude that the expense of fulfilling the guarantee would be very high. This, in turn, would mean that the careless, irresponsible driver would be benefitted and that the careful, reasonable driver would be correspondingly penalized.

All car manufacturers have reached the same conclusion. They have felt that a limited guarantee is best for every one concerned, and that the guarantee should stop short of the point where natural wear, abuse and fatigue can enter into the picture.

In this particular case, the decision may have worked a hardship on you, but over your entire motoring experience this certainly has not been the case, and your car operation has been more economical than would have been true with a lifetime guarantee on each car.

We take a more liberal attitude with regard to replacement of material than do most car manufacturers, and it is a commonplace procedure for us to provide material where the car has been in service for not more than twelve months or twelve thousand miles. This, however, is as far as we feel we should go.

We sincerely hope that this outline has appealed to you, and we can assure you that our attitude is based on what we believe to be the best interests of every one concerned.

Very truly yours,

SALES POINTS ON BLUE CORAL

A Blue Coral Treatment is not just a polish—It is a scientific method of cleaning, restoring and protecting the original lustre of Duco and lacquer finishes—for long periods of time. No cleaner or so-called polish or wax can actually *add* lustre not in the painted surface originally—In spite of what some polish salesmen claim. Blue Coral business is profitable; the applications require no skilled labor; no expensive equipment is involved and repeat sales are made easily.

Blue Coral contains no paint solvents or harsh, fast-working abrasives. The painted surface is preserved—Not damaged.

Ordinary polishes merely do a job of quick cleaning down to the bright surface—often with abrasives.

Blue Coral —

1. Cleanses
2. Burnishes
3. Polishes
4. Seals

In Summer it protects against dirt, rain and sun—And assures lasting beauty. In Winter it protects the finish against repeated attacks by snow, ice, sleet, mud and rain—And assures a fine appearance with a minimum of expense.

Use these sales features to do an even greater volume of Blue Coral business.

SPARK KNOCK AGAIN

During the coming year you will hear more from your customers about spark knock than ever before. There are two reasons for this.

The first reason is one which we have already discussed in the Service Letter. Gasoline octane ratings are lower and yet the desire for maximum gasoline economy makes it necessary to keep the spark advanced as far as possible.

This means that spark knock will always be more noticeable and it also means that the *effect* of a carbon deposit in the combustion chamber will be greater. A moderate carbon deposit, which would not ordinarily be objectionable, may result in a noticeable knock.

There is a second reason why carbon will be more of a problem. When a car is driven only at slow speeds the carbon collection is actually increased. Occasional fast driving has the effect of burning out the carbon deposit, but under present day slow driving conditions, there is nothing to check the accumulation.

The owner therefore, has a choice of three alternatives. He can have the spark retarded with a consequent loss in economy. He can put up with the knock and use his accelerator more carefully. He can pay to have the carbon removed.

When the head is removed to clean carbon an additional head gasket can be installed if desired. It will not make much difference in motor performance at slow speeds and will reduce spark knock. Of course, you must tighten the head nuts evenly and carefully in order to avoid leakage.

Perhaps you have noticed that a carbon deposit on the piston head sometimes produces a motor rattle which sounds like loose wrist pins. It resembles a wrist pin noise in that it develops when you *let up* on the accelerator. After carbon is removed the additional head gasket mentioned above will of course lengthen the period of motor operation before the condition develops again.

RUN-DOWN BATTERIES

During recent years we have had very little trouble with run-down batteries.

Under normal circumstances the generator output has been ample to keep the battery charged. The occasional case of trouble has been due to some fault in the electrical system or to abnormal driving conditions.

The coming winter, however, will present a more difficult problem. Due to the rationing of gasoline most cars will be driven only on short, necessary trips. Slow speed, traffic driving, particularly with the lights on, causes a drain on the battery which may be beyond the capacity of the generator to replace.

This will particularly be true in the case of cars which are not driven regularly. When a car is not used the battery runs down, the carburetor drains itself, and the oil has a tendency to congeal. This means that the cranking speeds will be lower and the cranking period much longer. In cold weather such a car with a partially discharged battery might not even get started.

In looking forward to the coming winter the first step, perhaps, is to see that your own organization is "battery conscious". They should "think battery" whenever an owner comes into the service station. Unless you already know that the battery and electrical system are in good condition it is logical that a check be made. It is a wise precaution from the owner's standpoint and profitable work from your own.

This work should include checking the condition of the battery and the cable terminals and making sure that the regulator is properly controlling both the voltage of the generator and its current output. It should include anything which will affect easy starting, such as spark plugs, breaker points, choke adjustment, etc.

Cars which are subject to cold starts at low winter temperatures *must* contain a winter engine oil. The use of a summer oil may lower the cranking speed to such an extent that the engine will not start even on a full battery. Always suspect the oil when the cranking speed is low.

Service stations having a quick charging equipment will find it particularly useful. A quick battery charge can be combined with many lubrication and short repair operations without adding to the time the car is in the shop. This should be an easy operation to sell.

The owner, also, must be made "battery conscious". A battery is like a bank account—if you take out more than you put in you will find yourself in trouble. If driving conditions are making it impossible to put as much current as usual into a battery it is necessary to cut down the current consumption to correspond.

All the electrical equipment consumes current, and it is possible to "economize" in a number of ways. The headlights, heater, defroster, and windshield wiper can be turned off except when actually needed, and the radio need not be used at all. The *unnecessary* use of these items may mean the difference between a charged and a discharged battery.

When a large percentage of the driving is in city traffic the idling speed of the motor is important because the motor is idling a considerable part of the time. An idling speed equivalent to ten miles per hour is not objectionable to the average customer and it reduces the battery discharge.

There is one special step which can be taken. We are arranging to carry a small diameter pulley to increase the generator speed. This, of course, enables the generator to start charging at a lower motor speed.

In normal peace-time driving it is not safe to use such a pulley because high car speeds would reduce brush and commutator life and increase belt wear. It is an emergency step, to be taken when car speeds are so low that the generator is unable to maintain the battery. The car which is benefited by the special pulley is also the car which will benefit by stepping up the motor idling speed as suggested above.

The small pulley can be used on the generators of the Six and 120 models. (The Super Eight has a larger belt and we have not been able to secure a pulley for these models.)

Each Six or 120 generator will require:

1—382505 Motor Generator Pulley.

The only exception is the 115-C, which requires pulley No. 320501.

The owner should understand that when normal driving conditions return the standard pulley should be replaced, to prevent generator and belt depreciation. It would be a good idea to put the standard pulley in the glove compartment when the explanation is made.

NOTE: The small home charging outfits such as we formerly sold through the Accessories Division are excellent for winter use, but, of course, they can no longer be obtained.

HEALTH CHECK CLINIC RESULTS

Warren L. Langwith, of Davenport, Iowa have been so successful in the use of the Packard "Health Check" program, that the results to date might interest you.

We have made fourteen "Health Check" inspections since our letter went out to the Packard Owners on October 2. The results are as follows:

12 repair jobs sold	
Customer labor total	$195.60
Average labor per job	16.30
Total parts sold	254.04
Average parts per job	21.17
Total accessories sold	46.25
Total oil and grease sold	37.80

The total sales from these "Health Checks" was $533.69.

This amount does not include any Packard service business that did not come in directly from the Health Check inspections.

REMOVAL OF TIRE FROM SIDE CARRIER

The Government regulation limiting a car to five tires presents a problem on cars equipped with side tire carriers.

Most owners wish to preserve the appearance of the car by keeping the tire cover in the fender well, and since the cover is supported by the tire it is necessary to provide a new support for the cover.

Tire covers on the 18th, 19th and 20th series cars can be handled without any great difficulty. (These are the covers in which the outer face is closed). Either of two methods can be followed:

1. The cover can be held in the fender well with metal screws. The cover can be drilled at the front and rear so that two metal screws are used at each end. After the cover is drilled, holes are punched in the well to correspond and the screws inserted.

2. The cover can be supported by a simple wooden frame whose outer dimensions correspond with the diameter of the tire. A certain amount of "cutting and trying" is necessary to reach the proper dimensions.

Either of the above methods can be followed depending largely on the materials and equipment most easily available.

Cars of the earlier models (prior to the 18th Series) are equipped with various types of covers, usually a two piece or three piece construction, and no standard method can be suggested. The wheel will remain on the carrier and the sections of the cover held together with metal screws. The method of supporting the cover will then depend on the carrier and fender well construction.

The front of the car will "level up" better if the tire on the right side is removed. This is because streets are lower on the curb side, so that the slight increase in height on the right side would not be noticeable.

TECHNICAL AND PARTS INFORMATION FOR THE ARMY

We are receiving quite a few requests from dealers and distributers to supply various non-commissioned and commissioned officers in nearby camps with Parts Lists. Manuals and other technical information.

While we wish to cooperate in every way possible, we can, of course, be of most assistance in complying with requests from Army Headquarters on such matters.

All requests for Technical information, including Manuals, Parts Lists and Price Lists are to be sent to the Quartermaster Department, Technical Service Division, Camp Holabird, Baltimore, Maryland. We are specifically requested to discontinue the distribution of this type of material to any field units.

This procedure is used by the army to avoid recommendations and instructions contrary to military regulations or policies and they must, of course, standardize these regulations and policies, and the method of distributing such information to the various forces of the Army.

With this information at hand, you will understand our reason for referring any requests that you may send to us to the Depot Headquarters, Technical Service Division at Camp Holabird.

PRINTED IN U. S. A

VOL. 16, NO. 23 DECEMBER 1, 1942

OUR PART IN THE WAR EFFORT

All Packard mechanics, parts men and service salesmen should now be wearing their Essential Transportation Worker pins. The shop wear pin was made large size so customers could see it. We want everyone to know what the pin stands for and what we are doing about it.

We have accepted the word of government officials that automotive transportation is essential to the winning of the war. Now let's tell the public about our plans to keep trucks, buses and necessary cars rolling.

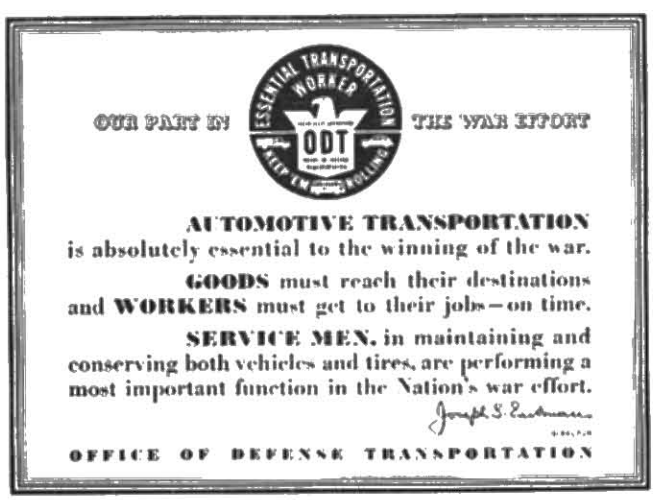
Let's make sure our large four color posters are clean, in good condition and prominently displayed. While our supply is not large, we are anxious to have them displayed in every Packard service station. If you need some clean ones write for them. Next, make sure every man who contacts owners and every mechanic wears the ODT pin designed for shop wear in a conspicuous place.

Use the correspondence sticker on customer letters or on invoices. Tell every customer the government has recognized as essential your part in the war effort. The dress wear lapel buttons have all been shipped and these, too, should be worn where they can be seen.

Let's do all we can and continue to tell the public that our business is essential and we are anxious to assist every owner in making his car last longer and his gas and tires go farther.

While the governmental Employment Agency has a big and important job to do, they have in some cases been possibly over-zealous in their efforts. For instance, if a mechanic or a parts man received a card suggesting an immediate appointment be made at a certain plant or that he should report there for work, the dealer or distributer should be consulted.

A letter can be written stating that the man is now employed in work pertaining to the maintenance of the nation's vital automotive transportation system. Such work has been designated by the Office of Defense Transportation as necessary to the war effort and the man as an essential transportation worker. It would,



therefore, not be possible for him to take advantage of the invitation as suggested on the card.

The government wants no breakdown in the Highway Transportation System and our job is to keep them rolling. Let's keep in mind that we are now Essential War Effort Workers. Let's stay on the job and "Work to Win."

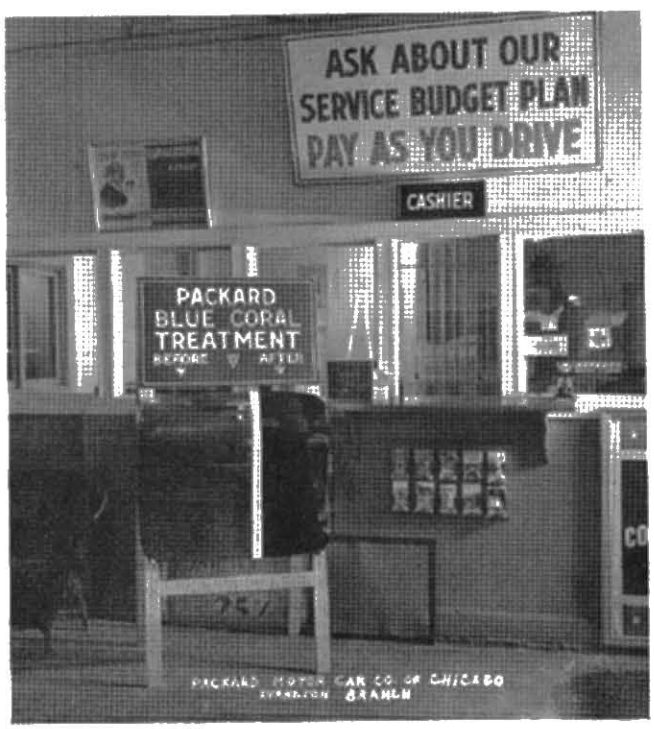
THESE SELL BLUE CORAL

Here are working displays on Packard Blue Coral. This is selling by demonstrating and it really works. It's like a well lighted display counter with an animated display. People like to watch other people work. Car polishing has to be sold and the best way to do it is by displays, signs and working demonstrations.

Illustrated are exceptionally fine displays in three different size places. This works well in the medium size town, the medium size city and in the largest city.

In the New York display, a boy did the actual polish, but the girl certainly adds something to the effectiveness of the demonstration. The Harrisburg display was worked out by the owner, Joseph Canis, and the Evanston display is paying big dividends with the well trained and efficient colored boys.

Note too the use of the trunk lid to show what Blue Coral will do.



PACKARD-NEW YORK

HARRISBURG, PA.

Service Letters are available for everyone connected with Packard Service Stations. If service managers are not receiving a sufficient number of copies, they should write the editor and give the extra number needed.

WINTER MOTOR TEMPERATURES

It has always been important that a motor be given the proper cold weather protection, so that an efficient motor temperature can be maintained, and this is especially true under present driving conditions.

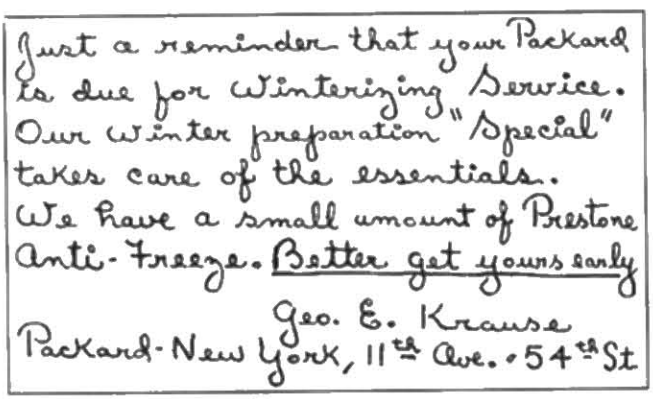
The slower the driving and the shorter the trips, the more necessary it is to provide this protection. During and after every cold start the carburetor choke is partially closed, and obviously gas mileage will be very low until the choke is fully open.

All cars driven in cold climates should be provided with radiator and grill covers. The sooner the motor warms up, the sooner the choke will take its wide open position. When the covers are installed, it is a good idea to check the choke to see that it is operating properly.

Cars which use a permanent type anti-freeze can use the high temperature thermostat to good advantage. This thermostat provides the most efficient operating temperature but it cannot safely be used with the alcohol type anti-freeze.

INEXPENSIVE POST CARDS

Geo. Kloetzer, Gen. Service Manager of New York is obtaining excellent results from a hand-written postal card which is being sent out to owners in connection with winter preparation and anti-freeze. A sample of this postal is shown—


Just a reminder that your Packard is due for Wintering Service. Our Winter preparation "Special" takes care of the essentials. We have a small amount of Prestone Anti-freeze. Better get yours early

Geo. E. Krause
Packard-New York, 11th Ave. - 54th St

They started using cards that had the text of the message, and the addresses of the customers typed. They got little or no response from a mailing of over 500 of these cards.

Next they tried out the same printed postal cards, but with the sales message in writing. Another batch of approximately 500 produced little or no result. Then they decided to try a perfectly plain 1¢ Government Postal Card, and both the customer's address on the front, and the sales message on the back were completely hand-written. They got an immediate response which was sustained over a period of almost two months, during which time batches of cards were sent out daily, or every couple of days as they found time to write them.

Apparently the absence of any firm name or quick identification makes the recipient read the card, and the fact that the message is short and to the point has undoubtedly appealed to owners. As a matter of fact, several customers have commented favorably on these particular points.

SAVE YOUR LUBRICATION EQUIPMENT

Most of the equipment you now have cannot be replaced. Anyone can eat a meal without knife, fork and spoon but it's a lot easier and faster with the usual tools. Likewise, anyone can lubricate a car without the usual equipment but you are quite apt to get grease on your vest and it will take a lot longer.

Care of equipment is a matter of cleanliness careful handling and regular oiling. Small grease guns take a terrible beating in the average station. Many a gun has been put out of use for the duration by being dropped or left on the floor to be kicked around or run over. Some equipment has been ruined by trying to force too heavy a grease through it.

Just because a grease pump has grease in it is no sign it doesn't need oil regularly. Most manufacturers recommend oiling every other day and caution against over-oiling which may cause fouling of the air cylinder or piston assembly.

Check valves should be cleaned with a soft cloth. Strainer screens at the base of the pump should be blown clean and dried before replacing. Air piston cup leathers cause trouble if squeezed out of position or due to moisture causing them to harden.

Cleanliness is very important not only in impressing the customer that he is getting a good careful job but in the life of your equipment. The equipment you now have must serve you for the duration. Clean it—oil it—handle it carefully.

HEALTH CHECK CLINIC RESULTS

Making Health Checks has been somewhat side-tracked because of a general increase in business, particularly due to winter preparation work.

We are anxious, however, that this program should not be definitely side-tracked.

It is too valuable, too great an aid in building both present and future work.

Experience in the East with gas rationing has definitely indicated that there is an immediate drop-off in service volume and then a return to normal volume, equal to, and in some cases, ahead of the month preceding gas rationing.

There is reason to believe that the same trend will hold in other sections of the country when gas rationing starts. Every effort should be made to hold the volume up, and the best means we know of is the Car Health Check.

Special emphasis should be placed on the type of work which will enable the owner to get the best possible tire mileage and best possible gasoline mileage. Economy and conservation make the best possible selling story.

The Car Health Check is ideal for a time like this because it aims to give the owner exactly what he wants in the way of service. It should not be made to appear as an evident method of selling, but rather a sincere attempt to make your facilities meet their actual requirements. The three sections of the inspection form should be used. You should review the broadside on how to sell and use Car Health Checks, mailed to you in August.

The following encouraging results just came to our attention:

A splendid job has been done at three Authorized Service Stations and the White Plains, N. Y. Branch.

In Flushing, 7 jobs, averaging $35.70 each were written.

At Montclair, New Jersey, 12 jobs were written for an average of approximately $31.50 and at South Norwalk, Connecticut, 13 jobs for an average of approximately $47 each.

The reaction of the program was splendid. Also, they each expressed their appreciation for the help Packard was giving them.

At White Plains, 6 jobs were written for an average of about $43.

This program is "sure-fire." It works both ways—it is reassuring to the customer, and not only helpful, but stimulating to the service station.

A Car Health Check clinic was held at Citizens Motor Car Co., Cincinnati, Ohio, the 19th, 20th and 21st. About 700 letters were mailed. In the three days we made 19 checks which yielded $590 worth of work, or $31.05 per check made. Several additional checks were made which revealed no work necessary as they were low mileage cars, as well as some 1942 Clippers the owners of which heard about the clinic and wished to have their cars checked.

Calls are still coming in which will produce added revenue. Mr. Schaich assisted at the clinic. They were handicapped for space due to the fact that the place was jammed to the doors with regular work which delayed getting the cars placed for the inspection and getting them out of the service department for a road test. As each inspection was completed it was turned over to the service manager for pricing so that in each case we were ready to discuss each Health Check in its entirety. Most of the owners wanted the work done at once and were just as anxious to have the Important and Desirable items attended to as the Urgent items. These checks should get the dealer at least 85% of the work recommended. About 90% were 1938, 1939 and 1940 owners.

A Health Check Clinic was held at Walter Long Auto Sales of Cincinnati, and the total results of the three day clinic were 17 inspections which resulted in $723.80 or $42.57 per Health check.

From discussing results with Mr. Long, and he had talked with each owner personally after the check was made, it looks as though he would come close to getting 100% of the work recommended.

Blue Coral and seat cover sales were pushed in every case where it looked feasable and efforts along that line are well rewarded.

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SERVICE MANAGER'S
PERSONAL COPY

PACKARD SERVICE LETTER

Packard Service

VOL. 16, NO. 24 DECEMBER 15, 1942

MORE HELP!

The condition we are facing today is one where there is more service work available than can be handled with the number of mechanics available.

We are like the farmer who today has more acres and more crops than he can handle with the help he has left. He has the choice of turning down business by discontinuing the use of productive land or of training new help. If the country is going to eat, the farmer will have to get used to a new kind of help and he is going to have to take time to train this new help.

If this country is to keep in use its vital automotive transportation system, service stations are going to have to get used to the idea of getting and training new help. We can hardly hope to get along if automobiles, busses and trucks are taken off the roads because of lack of help, due to prejudices against hiring and training women. Women in repair shops will very soon be a matter not of choice but of staying in business.

It is a shortsighted policy to sit around and make up long lists of things women can't do and reasons why women will never be of value in repair shops. The automobile business was never built and cannot be maintained on the basis of impossibilities.

There are many kinds of work women can do around a service station to save time. They can move cars, work on the parts counter and in fact run the parts department, wash and polish cars, help mechanics with such jobs as remove carburetors, dissemble and clean them, remove carbon, change light bulbs and fuses and lubricate cars.

We must first overcome the prejudice against hiring women and admit that if we are to hold enough service business to more than cover operating expenses, we must have more help.

The next problem is how do you go about getting them and how do you train them. The answer to the first part is—you get them the way you get men — advertise, check vocational schools and word of mouth. Women are not hard to employ. The hard part is to make up your mind to do it. You will find they adapt themselves quickly and pleasantly. It has been pointed out that you should avoid the glamor type. Check for mechanical liking or ability and watch for "a ready smile and neatness of appearance." Women in a shop must be able to inspire respect and courtesy both from other employees and customers. When the manner of her conduct and that of those she works with is clearly defined and backed up by the management, the customers will follow suit. If we go into this as a wartime necessity measure to help our customers in maintaining a vital part of our war effort, we will find that it does work.

You can sit back and wait for factory schools or trade schools to do the training job but it never worked for men mechanics and our opinion is it won't work for women either. It's a matter of individual old style "helper" type of training plus some classroom work on general principles and the sooner we get at it, the better.

We need work to stay in business and we need help to do the work in sufficient volume to make it profitable so let's get and train the help.

FRAME SPLASHER
20th Series Clipper

The Service Letter of January 15, 1942, contained an article describing the installation of a splasher on the frame of the 20th series Clipper.

The purpose of the splasher is to prevent water and mud from reaching the clutch and transmission linkage, because in cold weather it may freeze on the linkage and prevent the proper operation of the clutch pedal and the gearshift.

Only an unusual combination of weather conditions can cause trouble, but the condition can make driving very difficult if it does occur.

We suggest that you review the Service Letter mentioned above, and that the splasher be installed if it is found that mud and water are preventing the proper operation of the linkage.

PACKARD—HARRISBURG

The December 1 issue of the Service Letter contained a picture of a very fine display and work space for Packard Blue Coral. Credit for the display was given to Joseph Canis. This was a matter of poor checking on our part. The correct name is Joseph Louis. We regret the error.

WATERPROOFING OVERDRIVE SOLENOID

If it is found necessary to replace the solenoid assembly in a car equipped with an overdrive, the unit should be examined to determine the cause of the failure.

When a car is subject to an unusual amount of road splash, you may find that the unit has been put out of commission by water entering the cover. This will be an unusual condition.

It will be well, however, to see that the solenoid which you install is protected against water. The joint between the housing and the cover can be coated with Permatex. The nuts holding the cover and the screws, which act as binding posts for the wires, can be similarly coated after the wires are attached.

This is an operation which we cannot perform at the factory because the wires must be in place before the screws are waterproofed.

ELECTROMATIC CLUTCH FAILURE TO RELEASE

In a car equipped with an electromatic clutch, the clutch should automatically disengage before the car comes to a stop.

Occasionally you may find a case in which the clutch does not release, so that the motor stalls as the car stops. It will be much easier to correct the condition if you know how it is supposed to work.

In normal direct drive operation, the electromatic does not work. This is because the solenoid shut-off valve (also called the direct speed solenoid) is closed. This valve is No. 3 on the diagram. When it is closed, there is no vacuum in the operating cylinder.

When the car slows down below 20 m.p.h., however, we want the electromatic to go to work. This is accomplished by the governor switch. When you take your foot off the accelerator and the car drops below the governed speed, the governor points close. This completes the circuit through the shut-off valve. The valve opens and the clutch operates.

You can see that if the points do not close the shut-off can't open and the clutch will remain engaged.

There is another switch in this same circuit which can cause trouble. If you will follow the EC wire from the governor, you will see that it goes through the accelerator switch on the dash (No. 10) on its way to the shut-off valve.

This accelerator switch is not absolutely necessary—it is simply a refinement to give smoother high gear operation. It is connected with the accelerator, so that as the throttle opens, the points separate. This is so that you can drive in high gear below the governed speed without having the clutch disengage. As long as the throttle is even slightly opened, the circuit will be broken, so that the shut-off valve cannot be energized and cannot put the electromatic to work. (Maybe you had better read this paragraph again, slowly).

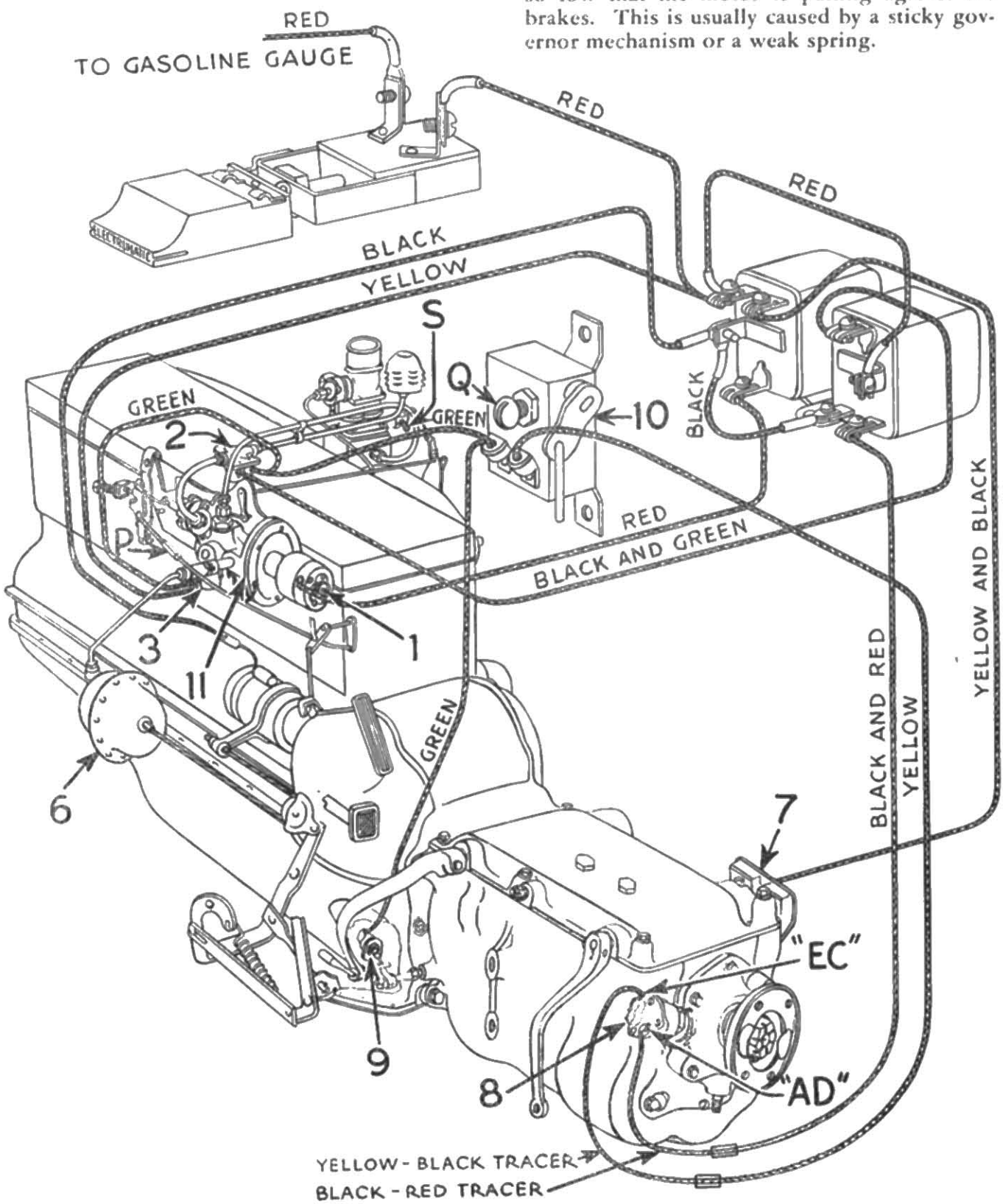
As you slow down to a stop, both the governor points and accelerator switch points close, so that the circuit is completed—the shut-off valve opens and the clutch is released.

If the clutch *doesn't* release, it means that the valve hasn't opened, and the circuit should be checked. The break is most apt to be found at the accelerator switch. Perhaps the throttle linkage does not close completely, or perhaps the switch adjustment is incorrect.

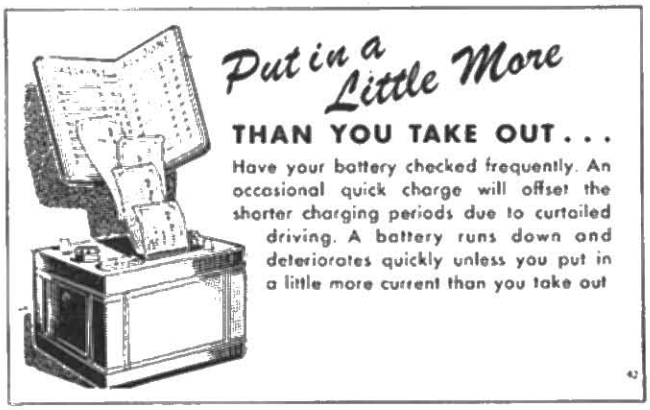
The adjustment of the switch is fully covered in the electromatic instructions. It can be quickly checked from the driver's seat. Depress the accelerator slowly with the ignition turned on; the ammeter should move slightly—showing that the circuit is completed—while the pedal is going through its free travel.

A poor contact anywhere in the circuit can either break the circuit or reduce the flow of current to such a point that the shut-off valve solenoid is unable to operate.

Sometimes the governor simply "hangs on" too long, failing to break at the normal governed speed. It may hang on until the car speed is so low that the motor is pulling against the brakes. This is usually caused by a sticky governor mechanism or a weak spring.



4 GALLONS OF GAS WON'T KEEP A BATTERY CHARGED



This Reminder Postal Card, No. 42, will bring in some added business and help a lot of your customers this winter. . .

Re-read the articles on "Run Down Batteries" in volume 16, No. 22 of Nov. 15, 1942. Tell your customers you can help them with their battery problem.

PACKARD IN SOUTH AMERICA

This picture comes from Lima, Peru and shows the personnel of the "LaCommercial Importadora S. A." It handles distribution and service on Packard cars under the able supervision of V. A. Mortellra, formerly factory and Export service supervisor. A note on the picture reads—"*El personal de la casa Packard con todo carino al Sr. Vans Mortellra.*"

We are glad to welcome our South American friends to the columns of the Service Letter.

ANTI-FREEZE SOLUTION

We are frequently asked whether a certain anti-freeze solution is familiar to us, and whether we recommend it.

There are so many preparations on the market that even in normal times we cannot keep track of them, and the name and description seldom give any clue as to the character of the product.

There are only two types of anti-freeze mixtures which can be considered satisfactory.

1. Ethylene glycol solution
2. Alcohol solution

For many years, efforts have been made to develop anti-freeze mixtures from other materials. These efforts have recently been intensified because of the scarcity of alcohol and ethylene glycol, but no satisfactory substitutes have been found.

Ethylene glycol mixtures such as Prestone and Zerex are usually preferred. These mixtures have so high a boiling point that they do not lose their strength. They permit the use of a high temperature thermostat in the water system, so that the engine runs better and the heater is more effective.

The various alcohol solutions are quite similar in their characteristics. Different types of alcohol differ slightly in their boiling points, but in no case is it safe to use a high temperature thermostat in the water system. It is necessary to watch for evaporation when an alcohol mixture is used.

It is not safe to sell or to recommend an anti-freeze of a type other than the two described above. Calcium chloride mixtures, even though they contain inhibitors, are corrosive in their action and tend to form a scale deposit. Their use is not advised. Kerosene has no ill effects on metal parts, but its heat capacity is low and its action upon rubber objectionable. It has a pronounced seepage tendency and a noticeable odor.

If you are considering the sale of a new anti-freeze, the first thing to do is to determine its *type*. The different types are clearly defined and this information will be given if you insist on it. You can then be governed accordingly.

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