

TEST EQUIPMENT

No man can build a successful business on guesswork, and certainly no service manager can build profitable service business on guesswork. He needs a sufficient amount of modern, streamlined equipment; first, to take the guesswork out of his business, and second, to convince his customers that it is out.

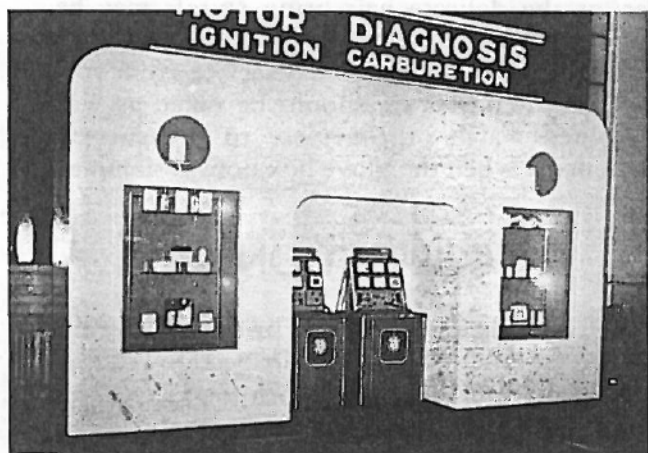
Customers long ago reached a point in their thinking where they were unwilling to spend their money for what they felt was experimental work on the part of the service station to find out what their motoring troubles were. They expect the service station to know or to have equipment which quickly tells them what is wrong.

Selling those services which the customer comes in and asks for may be one way of operating a service station, but the most profitable way both from a service and new-car standpoint is to sell

by means of demonstration those things which adequate equipment proves are necessary for satisfactory operation of that car.

We all realize that service has to be sold. Most people don't like to buy service any more than they like to pay taxes. Nothing helps to sell service like equipment which shows the customer and proves to him what he needs. That type of equipment which enables you to demonstrate exactly what service is needed, in a manner that is interesting, showmanlike and appealing, will help you develop service business because it points out needed services and makes customers satisfied and pleased.

This type of equipment for engine analysis has been developed and proven. The cost is much reduced over a few years ago, and the expense can definitely be more than justified, because a



Detroit—Jefferson Avenue



Milwaukee

reasonable income per repair order can be expected, and time previously spent in experimenting or the "try this" and "try that" method is eliminated.

Good engine-testing equipment eliminates errors in diagnosis, finds needed services, sells more parts, increase sales per repair order and promotes customer goodwill.

One way to handle the merchandising of this testing equipment is to hold clinics in which a sales engineer of the equipment manufacturer will cooperate. In this case letters or cards are sent out inviting a number of customers to come in for no charge inspections. This is a good way to introduce yourself to the equipment and prove whether or not it will do a good job for you. Of course, you can't expect the equipment to do the job alone. It requires a good man and a well-trained man.

If you have any doubt in your mind as to what the equipment will do for you we suggest that you ask one of the manufacturers of such equipment to prove to you by actual demonstration on your cars and with your customers.

There are several good makes of engine-testing equipment on the market such as: Sun, Allen, Wiedenhoff, United Motors, and others. Get full information either from the Special Tool and

In addition to our complete Service Department we have added the very latest Scientific Motor Tune Up Equipment. This equipment is very expensive but to enable us to render better service to our customers we felt the investment a wise one.

In charge of this equipment we have a Factory trained Service man with many years of experience in the servicing of Packard automobiles. With this equipment this man can give you a complete Scientific Analysis of any motor trouble you might be experiencing.

Beginning Monday of next week and continuing for a limited time, to prove the value of this equipment we invite you to drive your car to our Service Department so that we can give you a free complete analysis of the motor and electric system in your car. These tests can be made while you wait.

Yours very truly,

PACKARD MIAMI MOTORS, INC.

J. V. Marks
Service Manager

JVMPM

Equipment Department of the Packard factory or from your local jobber. Make tests in your place, check prices and then give special consideration to a merchandising program that will put the equipment over in a profitable manner.

We suggest you pay particular attention to a real merchandising plan. Put across to your customers "a new scientific testing department." Locate it in a most convenient place on the first floor where your customers can see it. Use it and take advantage of the increased business and satisfaction it will produce.

ELECTRIC CLOCKS

Occasionally the question comes up — "Why doesn't the electric clock in my car keep as accurate time as the electric clock in my home?"

The reason is that the clock in your car is really an electrically wound watch which is wound every two or three minutes by the direct current from your car battery. It is, therefore, subject to the same variations as your hand wound watch.

The electric clock in your home does not have the essential parts of a timepiece such as hair-spring, balance wheel, etc., but only a small motor. The speed of this motor is controlled by the impulses of alternating current coming from your main electric power station. Since these power station impulses are kept constant, your electric house clock is always on time.

Regulation of your electric automobile clock is as necessary as for your watch. Your clock has been carefully regulated at the factory, but due to outside factors such as temperature, vibration, etc., there may be occasion for adjustment.

The regulator is sensitive to the slightest movement of the regulating screw located on the back cover. The letters "S" and "F" are stamped at the ends of a graduated dial. Each division changes the time approximately three minutes a day.

To operate the regulator, rotate the adjusting screw slightly—to the right to increase the clock's speed, and to the left to slow it down. Never rotate the regulator screw from one extreme to the other, as the delicate hairspring spirals may become damaged.

For you to receive maximum service from your electric auto clock, care should be taken as with any valued watch or timepiece to prevent jars such as occur when the glove box door is slammed.

CORRECTION

The Reynolds and Reynolds prices for the new \$3.90 6,000-mile Lubrication-Inspection coupon books quoted in the June 15th Service Letter should read: 50, not imprinted, \$1.50. Including dealer's imprint on cover: 100, \$3.75; 250, \$6.75; 500, \$11.25; 1,000, \$21.50.

EXHAUST MANIFOLD REMOVAL—1803-4-5-6-7-8

Some difficulty has been experienced in removing the exhaust manifold on these cars. If the following procedure is followed, no trouble should be experienced in doing this operation in the flat rate time of 1.4 hours.

First, disconnect the vacuum booster pump and distributor vacuum advance lines and the carburetor throttle rod and remove the carburetor and air cleaner. Then remove the manifold stud nuts and exhaust pipe flange bolts. When all manifold connections are free, pull the front end of the manifold horizontally out toward the side of the car allowing the rear to come only far enough to clear the short studs. When the front end has cleared the long studs, lift it up and at the same time rotate it in a clockwise direction. This will pitch the rear end of the manifold so that it will come off the long studs and it can be lifted out.

STEERING AND STRIKE THROUGH CORRECTION

ALL 18th SERIES

Lack of control on the front end can be overcome and wheel fight and striking through can be materially improved by increasing the tension of the blow-off spring on both the compression and rebound valves in the front shock absorbers.



This may be done by installing two washers, piece number 3868, on the valve under the heavy spring.

It is not necessary to remove the shock absorbers from the car to install the washers. Disconnect the shock arms from the wheel support, and try the shocks by moving the arm up and down to see that they are not leaking or are otherwise in bad condition. Carefully clean all dirt from around the valve cover nuts and remove both compression and rebound valves. The valve will come out in four pieces. Place two washers on the body of the valve as shown then put on the blow-off spring, static valve and static valve spring in order and reinstall the valve.

After the valves have been reinstalled, fill the shocks with fluid, pump the arms to work out all air and reconnect them to the wheel support.

DIRT IN CARBURETORS

ALL 18th SERIES

If dirt gets into the carburetor and an inspection shows little or no dirt in the fuel pump bowl, it indicates that the fuel pump strainer is not functioning properly.

The strainer on these cars is composed of a number of brass discs held together by two studs and nuts, through which the gasoline is drawn. If the nuts come loose in service and permit the discs to separate, all strainer action is destroyed and any dirt in the gasoline will be permitted to pass on to the carburetor.

When cleaning a fuel pump strainer always make sure that the nuts are turned up tight.

STEERING WHEEL FIGHT

ALL 18th SERIES

In past issues of the Service Letter we have outlined various steps which should be taken to control steering wheel fight.

In the issue of June 1, 1940, we described the adjustment of the steering gear and linkage. No attempt should ever be made to work on wheel fight until you have first made sure that the car is in standard condition.

In the Service Letter of April 15, 1939, we described the installation of bronze steering knuckle thrust bearings to replace the standard ball bearings. This is still the most effective further step that you can take after the steering adjustments have been standardized. It is effective because it controls the movement close to its source.

In this issue of the Service Letter you will find an article describing the stiffening of the springs in the blow-off valves of the front shock absorbers. This procedure is not only effective in reducing strike-thru but it also helps wheel fight because anything which reduces front wheel movement will reduce movement in the steering wheel.

An additional correction is now available. A new steering lever has been developed with a rubber bushing at the free end, where it is secured to the steering connecting rod. This new lever does not control the front wheels themselves but it does reduce the extent to which movement in the front wheels is transmitted to the steering gear.

In most cases you will find that wheel fight can be satisfactorily controlled by the other measures outlined above. That is to say, the careful adjustment of the whole linkage, the use of the bronze bushings and the stiffening of the blow-off valves in the front shock absorbers. In extreme cases the new steering lever may also be employed. It can be ordered as Pc. No. 358189.



PACKARD MASTER SERVICE MEN!



"You are now part of a nation-wide group of men making a conscientious effort to become



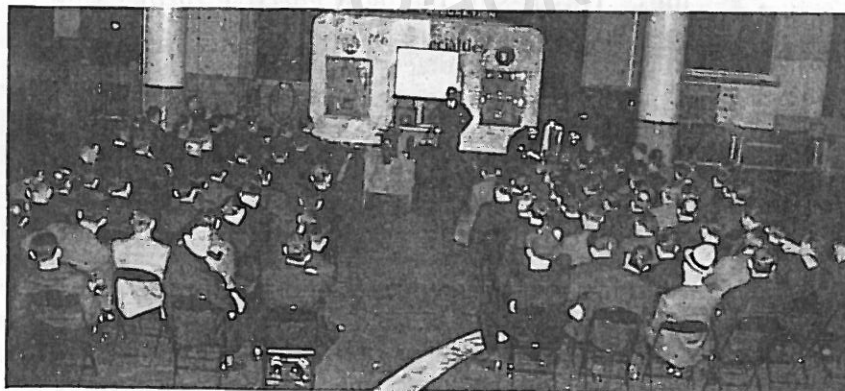
R. E. Rosain presents Chicago buttons.



experts at your job . . . and thus raise the standard of Packard service. I am not sure but what



R. C. Quinlevan presents Milwaukee buttons.



the personal satisfaction of attaining a high mark isn't more satisfying than the insignia you



H. W. Whiting presents Detroit buttons.



are now entitled to wear. The master service man's button is recognition for a job well done and a challenge to keep Packard service—good service."—Excerpts from talk by J. F. Page, General Service Manager

FINAL CLOSING DATE ON QUESTION SHEETS IS JULY 12, 1940