

Wise



VOL. 6 No. 13

JULY 1, 1932

## "Of Increasing Importance"

Volume 6, No. 5 SERVICE LETTER of March 1 presented a definite goal for our service efforts for this year. It was Mr. Macauley's suggestion that we start a campaign and carry it out with particular emphasis this year. He suggested a slogan around which we should build our plans. "EVERY OWNER A SALESMAN," is a condition which is possible only when service is handled on such a basis that it not merely produces service work that is well done, and promptly and efficiently done, but that is agreeably done.

Most service organizations have been considerably reduced in size in the general drive for reduced expenses. While this has reduced our field service organization in quantity, it should have very definitely increased its quality. Obviously the best men in each organization are still on the payroll. The mechanic who has been most productive in turning out quality work; the foreman who has through his supervision developed the most profitable shop, and the service salesman who has retained the confidence of a large group of owners on a basis which has resulted in fair maintenance cost to the owner and a profitable service volume to the distributor or dealer, are still with us today. There is, therefore, no reason why the development of the highest type of service is not possible under conditions now existing. It may be true that we have fewer men to handle each customer and each repair order, but it is likewise true that we have more space per car and more tools and equipment per car.

Mr. Macauley has suggested that rather than attempt to develop some new and untried plans that we first make sure that those plans and methods, which we know have proven successful during the past few years, be revived and carried out with renewed effort.

With this thought in mind we have made available for your use a new service film, which presents again those essential items that make good service and the

finishing touches with which it is possible to make Packard service stand out as different and better than any other service. There are certain things that every customer expects when he buys a new car and there are certain things that he expects when he has that car serviced. If we continually keep in mind those things which the customer needs and wants and has a right to expect and we know how to give him this type of service, then we are well started in our efforts to make "Every Owner a Salesman."

The one asset that every salesman must have is enthusiasm. In order to make salesmen out of Packard owners, you must do more than simply keep their cars running efficiently. It is important that he is not only convinced that the work he has requested has been well done, but that he is enthusiastic about the improvement, which has been brought about by those repairs in the operation of his car. At times it will be necessary to create this enthusiasm, not because of any big improvement in the car itself, but because of the manner in which the customer's requests have been handled, that is, by the exceptional courtesies extended, or the additional unexpected small items that mean so much to every customer.

This is not a new subject with any of us, but it is one which we have been inclined to somewhat overlook during the past year. We are thoroughly convinced that the continued training of service personnel to produce a type of service which creates enthusiastic customers is of more importance this year than it has ever been.

We urge you to obtain a copy of the film entitled "What The Packard Owner Wants and How To Give It To Him," and to start again on putting into practice all of the finishing touches on your present brand of service. It is through these efforts that Packard Salesmen are made out of Packard Owners.

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" EVERY OWNER A SALESMAN "

## New Type Repair Orders

General Letter G-446 described the new size and price for the standard D-104 Packard service repair order and invoice. The order has been reduced in size in order to obtain a better price. It is now possible to obtain the standard repair order at one-third the former price. In small quantities the old price was 30 cents a pad; it can now be purchased for 10 cents a pad of twenty-five sets. Imprinting, if desired, is obtained at slightly additional

**PACKARD SERVICE**  
REPAIR ORDER and INVOICE

No. 786  
Date Sept. 24 1952

SHOP COPY

Name: John Jones  
Address: 261 Michigan Avenue  
City: Detroit  
State: Michigan  
Zip: 48206

OPERATIONS - BE SPECIFIC

| SYMBOL | DESCRIPTION                    | CHARGE PRICE |
|--------|--------------------------------|--------------|
| E-11   | steering connections - tighten | 2.00         |
| E-21   | ball joint - flush             | .90          |
| E-121  | spark plugs - remove           | 4.00         |
| L-6    | universal joints - lubricate   | 1.18         |
|        | check battery                  | W.C.         |
|        | check tires                    | 3.00         |

TOTAL 10.70

D-104 REPAIR ORDER  $7\frac{1}{4}$ " x  $8\frac{1}{2}$ " ST 816 ENVELOPE

cost. The form has not been altered except in size, and we, therefore, plan to eliminate the large size form just as soon as our stock is exhausted.

We believe that you will be interested in reducing your cost on service forms and we will continue to make similar reductions as each different form is reprinted. The celluloid-faced envelope has been reduced in size to accommodate the new order. These are carried under ST-816 at 45 cents.

## Coupe Tops

Should you find it difficult to fasten a coupe top back into position at the top of the windshield, after having had the top down, it is possible that the following condition exists:

The chrome-plated weatherstrip retainer at the rear side of the door glass may extend too far up, thus pre-

venting the top header bar from properly seating across the top of the windshield so that the catches can be locked. It will be necessary to remove this piece and cut the mitered corner down by filing at the forty-five degree angle, a sufficient amount to allow the top to be locked in position.

It may also be necessary to slightly bend the Landau arm so as to straighten it in the rear section, that is, below the center hinge on the arm. This will allow the front edge of the top to extend further forward which may be necessary before the header bar will properly line up with the top of the windshield.

## Inexpensive Volume Builders

Syracuse has been using post cards in an effort to get additional business in their service department. These have been sent to a portion of their owner list monthly, the total number in Syracuse being about three hundred and fifty post cards a month.

**BRAKES** never receive much attention, yet they actually do six times more work than the motor. A relining job is safest in the long run.

Formerly \$28.00 - our new low price - \$23.00.

We straighten fenders - small or large dents - and relacquere at a very reasonable price.

Let us do all your body and fender work.

### Do You Know That -

Leaky exhaust gaskets are very dangerous. They allow monoxide gas to escape and get into the car. Let us eliminate this danger.

A dirty and oily motor produces the same thing. We clean them with air pressure and kerosene - a short job.

### Serving You and Saving You Money

In the past we charged \$3.00 for a first class car wash.

However, in keeping with the times, we are now reducing it to \$2.00 and will continue to give the same high class work as before.

We also change your motor oil without a labor charge and use a very high grade Pennzoil at 30c per qt.

### Why Not Make Your Car Look Like New!

#### RELUSTERIZE

For a limited time, we will spray and polish all fenders and splash guards, clean and spray chassis, clean, polish and restripe entire car - \$42.50. Former price was \$65.00

May we expect you in soon?

**FONDA MOTOR CAR CO., Inc.**  
638 West Genesee Street  
Syracuse, New York  
Phone 2-2151

The cost of the card, plus the printing, has run them about one and one-half cents. As there will be no increase in Post Card Postal Rates, it will be less expensive than to send out any type of letter or direct mail campaign when soliciting new business.

Syracuse feels that this has been much more satisfactory than telephone calls by service men, or letters, and they have traced a surprising amount of business to these cards.

One particular thing which Syracuse has found, has been that it is unwise to quote a price on anything for which the owner might shop around. The cards without prices have invariably brought in more business than those on which prices have been quoted. They have known several instances where their owners have taken their cards to an alley garage to ask whether or not they could better the prices quoted by the Syracuse distributor.

## Cleaning Carbon, Refacing Valves and Tuning Motor on the Twin Six

M-24 Bogey Time—13 hours—all Zones, \$28.75

Remove hood and drain water from radiator and both cylinder block pet cocks.

Remove air cleaner, wash in gasoline and re-oil.

Remove ignition cables and metal conduit.

Remove gas lines and clean gasoline filter. Disconnect vacuum pipe.

Disconnect exhaust manifold and remove exhaust and intake manifold header assembly. If necessary, lower steering gear after loosening at instrument board and frame. Remove cylinder heads. Cover intake and exhaust ports with cover ST-871. Clean carbon from cylinder head and pistons. Remove valve cover plate.

Attach valve racks ST-874. Remove intake and exhaust valves with lifter ST-860.

**NOTE:** On the first run of motors, a split valve retaining key was used. Care must be taken to prevent keys from dropping in crankcase. For replacing this type of key use key inserter ST-864.

Grind all valves. Face off seats and reseal valves if necessary. This operation is covered by M-211 and is not included in M-24.

In grinding valves, it will be necessary to use ST-879 rocker lever wedges between the rocker lever and the crankcase. This will hold the rocker levers away from the valve so that clearance will be obtained. To install the wedge, it is necessary to bleed the automatic take-up piston in the rocker arm assembly. This is done by holding the bleeder valve away from its seat to allow oil to escape so that the lever can be pushed back. Use a round piece of  $\frac{1}{8}$ " stock and insert it in the rocker lever bleeder cap hole. Do not attempt to force the valve.

**NOTE:** After valve springs have been removed, you will find that the automatic adjustment on rocker lever will not allow the valve to seat. There should be approximately .028 clearance between the valve and the valve seat.

When the valves have been refaced and reseated, the clearance between the valve stem and the rocker lever should be checked for proper clearance. To do this, make certain that the rocker lever roller is on the low side of the cam. Insert the valve in position with the clearance gauge ST-865 between the valve and the cylinder, taking care that the gauge is in the center of the valve. Then measure the clearance between the end of the valve stem and the rocker lever with the feeler gauge. You should have a maximum of not more than .015 and the minimum of .002. With the minimum clearance the auto-

matic adjustment will have approximately .040 take-up on the valve. With the maximum clearance, the automatic adjustment clearance will be approximately .025. If the clearance is not within these dimensions, the end of the valve stem should be ground off until you have the clearance of .015 between the valve stem and the rocker lever.

**NOTE:** To make certain that the valve roller is on the low side of the cam, turn the crankshaft over until the valve is open to its fullest height, then turn the crankshaft over one complete revolution. *Never turn the crankshaft with the wedges in position.* Hold the rocker lever away from the valve as far as possible by using your thumb against the lever. This will insure the roller following the low side of the cam. Do not force it.

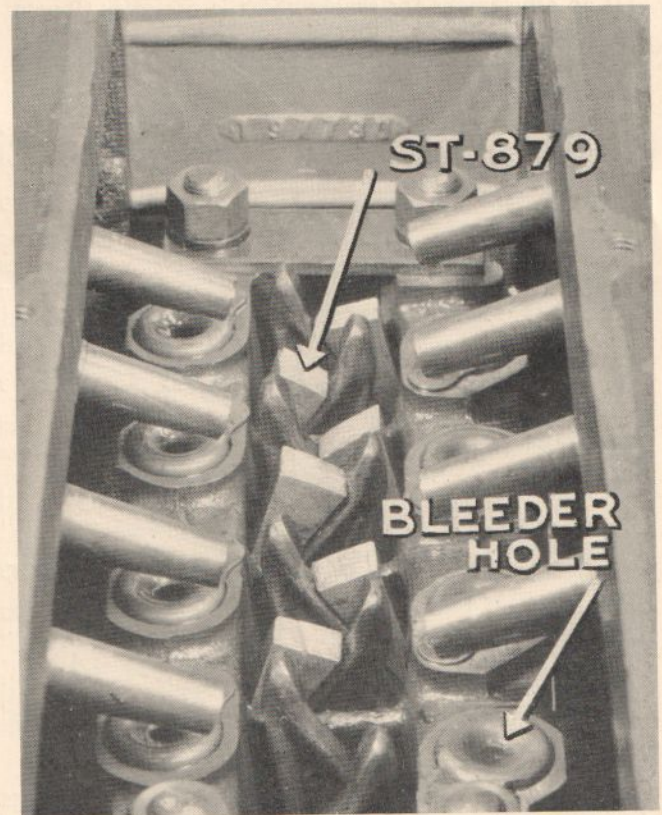
The valve spring must be installed with the japanned end down toward the tappet. This end of the spring has a  $\frac{3}{8}$ " space between the first and second coil while at the upper end, which seats against the block, the space between the first and second coil is  $\frac{1}{8}$ ".

Remove carburetor from manifold, using ST-673. When cleaning and dis-assembling, lift off the upper part of the throttle body by removing the cap screws. Carburetor parts should be carefully handled. Wash in gasoline and blow out with air hose. Carburetor tool set ST-869 will be required for removing the following parts:

Main metering jets.

Pump valve.

Needle valve seat and pump screen.



A long thin screw driver will be required when removing the pump jets. Use new gaskets when reassembling.

Adjust carburetor. Adjustment is made by means of the two knurled screws below the float chamber. The idling adjustment is made by turning the two screws in all the way, then back out one complete turn. This gives the approximate setting. Turn out for richer mixture

and turn in for a leaner mixture. This is the only adjustment required and should be done with the motor at operating temperature.

Clean and adjust spark plugs to .025. Adjust fan belt by loosening gear cover nuts on generator support. Attach spring scale to generator. At 180 pounds reading on the scale, tighten nuts.

Set distributor points. These should be cleaned and adjusted to a contact point gap of .020. The breaker point gaps should be set to .020 for both sets. The fixed points are adjusted by loosening the lock screw and pivot screw and adjusting the eccentric. After adjusting, tighten screws and recheck for .020. The adjustable points are set by loosening the lock nut and turning the screw point in or out, as required. After adjusting, recheck for .020. Use ST-868.

### Timing the Ignition

With No. 1 cylinder Right Bank on its compression stroke, rotate the motor by hand until No. 1 piston is 7° before U. D. C. as indicated by the marking on the vibration damper. Set spark advance in full advanced position.

With the fixed points properly timed with the engine, hand crank the engine to bring the 7° mark for No. 6 cylinder L. B. which is the next cylinder to fire, under the pointer. In this position the timing light when connected should go on and off with the slightest movement of the breaker cam in either direction.

If an adjustment for synchronism is necessary, loosen the three sub-plate holding screws and rotate the sub-plate around the cam by the eccentric screw.

### Parts Required

- 1—201167—Exhaust Manifold to Pipe Gasket
- 2—197821—Cylinder Head Gasket
- 2—197806—Intake Manifold Center to Cylinder Gasket
- 4—197808—Intake and Exhaust Manifold to Cylinder Gasket

### Motor Support Brace

Technical Letter 1926 refers to the installation of a motor support brace. These should be installed on all 900 motors. The correct method of installation is as follows, rather than as described in the Technical Letter:

The brace is installed at the left front end of the motor, the bolt at the rear of the rubber bumper should be removed. The bolt at the front of the rubber bumper should be loosened freely. The vertical motor support bolt is next driven upward far enough to allow the rear end of the brace to be placed in position. It is then fastened at this point by driving the support bolt back down into position through the hole in the brace. The nut is then tightened in place.

You will then find that the front end of the brace can be placed in position over the rear bolt of the rubber bumper. After attaching the brace at this point, tighten both rubber bumper bolts. Making the installation in this manner does not require placing any strain upon the brace. Installation of the brace as described will permit the brace to prevent the motor from shifting forward and backward and at the same time will not destroy the function of the rubber mounting.

## Capacity Chart

| Models       | 126-133  | 226-233  | 326-333  | 426-433  | 526-533  | 626-633  |
|--------------|----------|----------|----------|----------|----------|----------|
| CRANKCASE    | 6 qts.   | 6 qts.   | 6 qts.   | 6 qts.   | 7 qts.   | 8 qts.   |
| TRANSMISSION | 2 qts.   | 2 qts.   | 2 qts.   | 2 qts.   | 2 qts.   | 2 qts.   |
| REAR AXLE    | 2½ qts.  | 2½ qts.  | 2½ qts.  | 3 qts.   | 3 qts.   | 4½ qts.  |
| COOLING      | 4⅞ gals. | 4⅞ gals. | 4¼ gals. | 4¼ gals. | 5 gals.  | 5 gals.  |
| GASOLINE     | 19 gals. | 19 gals. | 21 gals. | 21 gals. | 22 gals. | 22 gals. |

| Models       | 726-733  | 826-833  | 900      | 901-902  |
|--------------|----------|----------|----------|----------|
| CRANKCASE    | 8 qts.   | 8 qts.   | 8 qts.   | 8 qts.   |
| TRANSMISSION | 2 qts.   | 2 qts.   | 2¼ qts.  | 2¼ qts.  |
| REAR AXLE    | 3 qts.   | 3 qts.   | 2 qts.   | 3 qts.   |
| COOLING      | 5 gals.  | 5 gals.  | 4¾ gals. | 5 gals.  |
| GASOLINE     | 25 gals. | 25 gals. | 20 gals. | 25 gals. |

| Models       | 136-143  | 236-243  | 336-343  | 443      | 640      | 645      |
|--------------|----------|----------|----------|----------|----------|----------|
| CRANKCASE    | 8 qts.   | 8 qts.   | 8 qts.   | 8 qts.   | 10 qts.  | 10 qts.  |
| TRANSMISSION | 2 qts.   | 2 qts.   | 2 qts.   | 2 qts.   | 2 qts.   | 2 qts.   |
| REAR AXLE    | 4 qts.   | 4 qts.   | 3½ qts.  | 3½ qts.  | 5 qts.   | 5 qts.   |
| COOLING      | 6 gals.  | 6 gals.  | 6 gals.  | 6¼ gals. | 6¼ gals. | 6½ gals. |
| GASOLINE     | 21 gals. | 21 gals. | 21 gals. | 21 gals. | 22 gals. | 28 gals. |

| Models       | 734      | 740      | 745      | 840-845  | 903-904  | 905-906   |
|--------------|----------|----------|----------|----------|----------|-----------|
| CRANKCASE    | 10 qts.  | 10 qts.  | 10 qts.  | 10 qts.  | 10 qts.  | 10 qts.   |
| TRANSMISSION | 2 qts.   | 2 qts.   | 2 qts.   | 2 qts.   | 2¼ qts.  | 2¼ qts.   |
| REAR AXLE    | 3½ qts.  | 3½ qts.  | 3½ qts.  | 3½ qts.  | 3½ qts.  | 3½ qts.   |
| COOLING      | 6½ gals. | 6¼ gals. | 6½ gals. | 6½ gals. | 6½ gals. | 11½ gals. |
| GASOLINE     | 25 gals. | 25 gals. | 28 gals. | 25 gals. | 25 gals. | 25 gals.  |

*We Welcome Suggestions and Inquiries from Packard Service Men. Address All Communications Care Editor, Packard Service Letter.*