

116  
135  
3-51



VOL. 6 No. 21

NOV. 1, 1932

## Scientific Radiator Service

EQUIPMENT which will help sell radiator service is now available. Periodical care of the radiator and the cooling system is just as important as periodical lubrication.

It is easy enough to talk about the necessity of a new radiator core, or the flushing out of the cooling system, but it is much more convincing and, therefore, better selling to let the customer sell himself on the necessity of such work. The equipment which we present has been designed to not only test the efficiency of the radiator core, but at the same time to show the customer the need for attention or replacement.

The cost of the installation illustrated can very quickly be offset and the making and installation of the test meter is very simple.

*The installation is as follows:*

Procure a 52 gallon tank (a standard steel oil drum will serve this purpose). Install this on a well-built stand so that the bottom of the drum is about six inches above the top of the radiator filler cap on the car. Paint the tank and stand white and letter the tank in blue, as indicated.

Use 1½" pipe fittings. Braze six inch length of 1½" diameter steel tubing through the outlet pipe nipple for attaching hose. An adapter is used for the 900 radiator and a "Y" fitting for the Twin.

If the installation is made in a dark space, we suggest running a light to illuminate the dial, or one bulb with a suitable reflector will illuminate the whole device.

*Instructions for operating the radiator test meter:*

1. Drain cooling system.
2. Disconnect upper and lower radiator hose.
3. Plug bottom of overflow tube.
4. Attach hose from meter to upper radiator fitting.
5. Fill test tank with water. (This tank should be kept full of water to prevent delaying customers.)

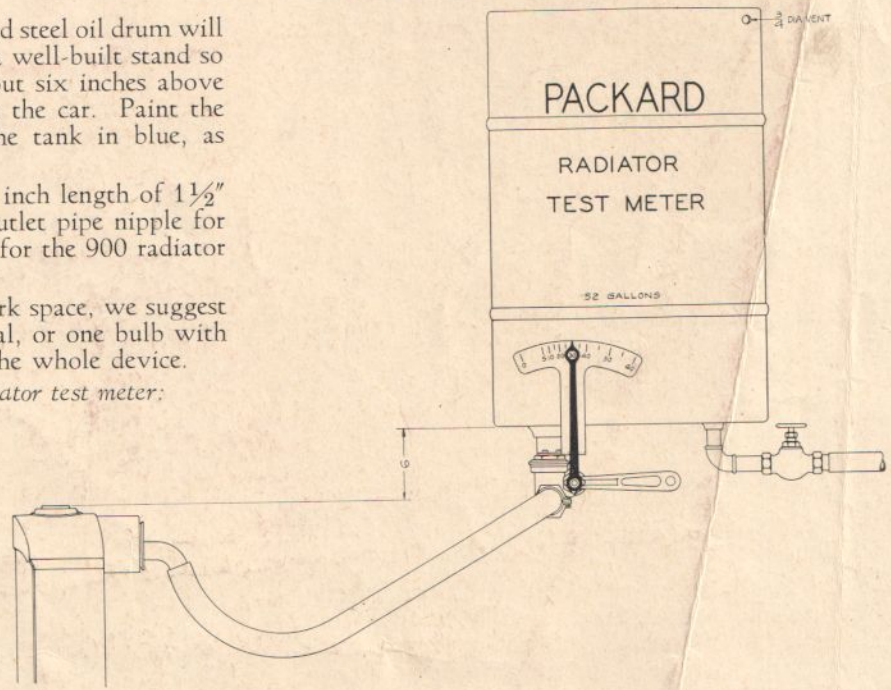
6. Open valve wide and hold until radiator overflows the filler neck.
7. Close valve until water just maintains its level with the top of the filler neck.

The hand on the dial will show the gravity flow per minute in gallons.

Consult chart, which should be displayed. (See next page.)

NOTE: To avoid variations, the tank should be kept filled and not more than five gallons will be used in making a check.

Testing of the core should be done in front of the customer. As soon as the results are obtained you can easily convince him of the desirability of having the work you suggest promptly taken care of.

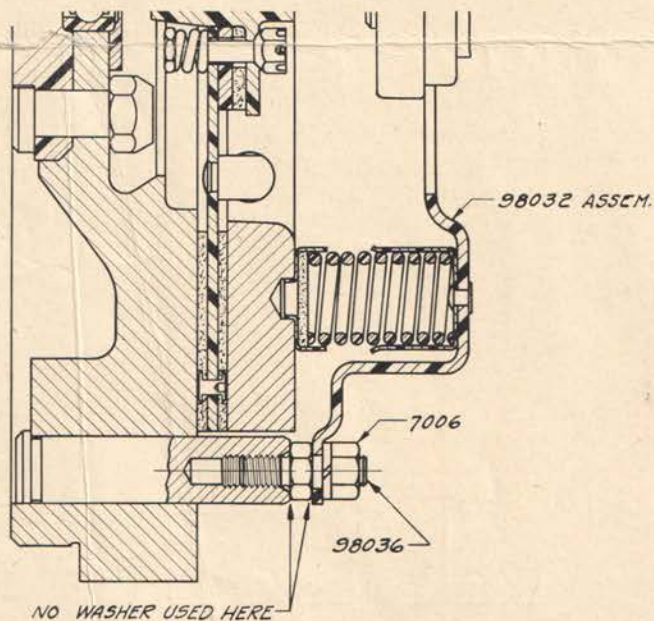


"EVERY OWNER A SALESMAN"

## Radiator Gravity Flow Chart

Model	Piece Number of Core	Gravity Flow in Gals. per Min.	
		New Core	Minimum Limits Used Core
116	114832	25	20
126-133	121735	30	24
226-233	135197	30	24
326-333	135197	30	24
326-333	141513	30	24
426-433	141514	30	24
526-533	145882	30	24
136-143	124171	25	20
236-243	124171	25	20
336-343	141472	27	21
443	145884	30	24
626-633	158854	25	20
626-633	97824	25	20
726-733	170087	27	21
826-833	184837	27	21
826-833	98001	25	20
900	197580	30	24
901-902	191849	30	24
640	159711	27	21
645	159309	27	21
740	170245	27	21
745	179296	35	28
745-C	175716	30	24
840-845	184838	28	22
840-845	98002	30	24
903-904	191850	30	24
905-906	201209	60	50

## Service Clutch Installation



Technical Letter No. 1932 illustrates the installation which has been developed for all cars using the single plate design.

We find that in some cases the instructions covering the installation have not been carefully followed, and when this is true the clutch will not operate properly. This applies particularly to the mounting of the dowel screws which are threaded into the flywheel.

You will note from the illustration that no washer is used between the dowel screw and the flywheel driving

stud, and that there is none between the screw and the cover plate. The only washer is between the cover plate and the nut.

Any mistake at this point will cause the improper location of the entire cover plate assembly with the result that the clutch will be practically inoperative.

## Proper Tire and Tube Mounting

The tube shown in the accompanying picture was damaged as the result of careless mounting on a drop-center rim.

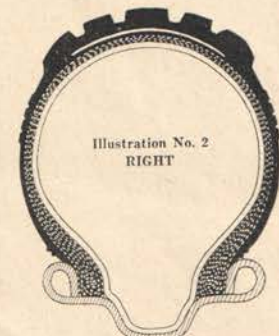
When tires are mounted on drop center rims, the beads at the top side of the rim are pushed into the bottom of the well in order to swing the beads over the flange at the bottom.

If the tire is not lifted up so that the beads can easily find a seating on the ledge, the tube will then wrinkle up in the narrow space between the beads, giving the appearance of buckling as shown in the photograph. (See illustration No. 1.)

If you will examine a tube that has failed from that kind of treatment, you will notice that the bead markings on the tube are approximately one-half inch apart, whereas when the tube is properly mounted on a drop-center rim, the bead markings will be about one and one-quarter inches apart. (See illustration No. 2.)

You will notice that the wrinkled portion of the tube is always at the valve section, which is ordinarily placed at the top of the rim when the tire is mounted. In addition to this the wrinkled condition extends approximately only one-third of the total length of the tube, which further bears out this explanation.

When mounting tires on drop-center rims, if the operator will only take time to lift the tire slightly before inflating, this condition will not be encountered in the tube.



## Introducing the Service Representative

During the past three years some distributors have reduced the number of points in their territory where Packard service could be obtained. This undoubtedly will react in an unfavorable way to hinder Packard business in those localities where service is not available.

To offset this, Authorized Packard Service Stations should be established provided efficient and reliable connections can be made. However, simply the appointing of such places is only the first step. It is essential that a definite contact be established which will enable these places to obtain the necessary current information to properly service Packard cars and that these stations be supervised and assisted. There is an important first step to be taken and that is the introduction of such a service station to the owners of Packard cars who should logically obtain their service at that point.

In Holyoke, Massachusetts this introduction was very nicely taken care of through the Springfield Branch. An announcement card was mailed to all owners. The expense of the card was not great, although it was of a very attractive appearance. The contact which was immediately established between owners and the authorized service representative was of mutual value and, it seems to us, represents a most important step in appointing such service representation.

The  
PACKARD MOTOR CAR COMPANY  
of NEW YORK

*Takes pleasure in Announcing*

*the Appointment of*

**VICTOR QUILLARD**

1594 DWIGHT STREET  
H O L Y O K E

Telephone Holyoke 61

at AUTHORIZED PACKARD SERVICE REPRESENTATIVE  
for PACKARD MOTOR CARS in HOLYOKE and vicinity



MR. QUILLARD has for many years been in charge of PACKARD SERVICE in Holyoke, and has been highly recommended to us by Packard Owners.

HE IS FULLY QUALIFIED in experience and in tool equipment to provide capable and efficient service. The standard Packard Flat Rate charges will prevail.

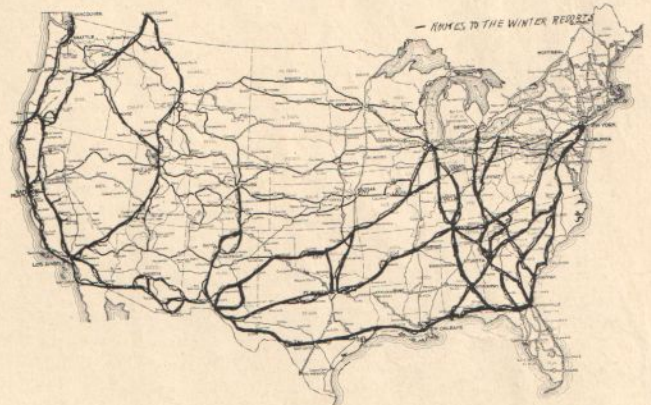
ON BEHALF OF MR. QUILLARD, we take this opportunity to extend a cordial invitation to you to visit his new service station, where the best of attention is assured for your car.

THE SALE OF NEW PACKARD CARS in Holyoke and vicinity will be carried on by salesmen from our Springfield Show-rooms.

PACKARD MOTOR CAR COMPANY OF NEW YORK  
721 STATE STREET  
SPRINGFIELD, MASS.

Another important step in connection with the appointment of these authorized service stations is in arranging for a proper identification of the service station. The standard Packard service sign should be displayed. It is important, however, that it be handled on a rental basis so that the sign cannot be used in case of cancellation. The sign rental agreement should be used for this purpose. It allows the service station the use of a standard service sign during the time that he is handling Packard service work. The sign remains the property of the Packard Company. In this way the price of the sign becomes a total rental cost. In the case of the large lighted sign, this is \$15.00. In the case of the flanged type sign, which is enameled in blue and white, and is 18 x 26", the cost is \$2.00.

## Touring Service



Packard owners bound for the winter resorts will appreciate your assistance. We have recommended the Hobbs' Guides and suggest that you avail yourself of this unique travel service for the benefit of your customers.

It consists of a series of guides that describe in accurate and intimate detail 60,000 miles of highway that have been selected by research as the best and most enjoyable for long distance touring. No advertising is sold; instead the hotels, camps and eating places are selected for merit alone. A profile of the road is shown and the road surface is pictured. It is really a remarkable publication.

Of particular interest is the Car Dealer Directory which gives a complete list of Packard distributors and dealers along the route of each guide. These are listed according to stock of parts. Address, phone and closing hour are also given.

With this guide touring Packard owners always know where to turn for authorized service. Its value to all concerned is obvious. The following guides route to the winter resorts:

- No. 7—DETROIT AND OHIO TO Florida and the Gulf Coast.
- No. 15—NEW YORK SOUTH, to Florida and New Orleans.
- No. 24—SHENANDOAH VALLEY ROUTE, to Atlanta and Dallas.
- No. 10—CHICAGO SOUTH, to Florida and the Gulf Coast.
- No. 19—CHICAGO SOUTHWEST, to Texas and El Paso.
- No. 4—EL PASO TO PHOENIX AND LOS ANGELES.
- No. 14—YELLOWSTONE-Boulder DAM Hy. to Los Angeles.
- No. 8—CALGARY AND SPOKANE to Los Angeles.
- No. 5—PACIFIC REDWOOD ROUTE, Seattle to Los Angeles.

These guides are so filled with helpful and money-saving information that we recommend them highly. Their retail price is 20c; to dealers 10c. They are published by the Hobbs Guide Company, Akron, Ohio.

## Spark Plug Cleaner

TOOL No. S. T. 897 - - - Net \$8.25



A practical tool for every shop.  
Can be installed in five minutes.

Operates off the air line.  
Cleans a plug in five seconds.  
Does not harm the insulator.  
Saves much time in tune-up.

An air-blast spark plug cleaner that cleans thoroughly without damaging the insulator.

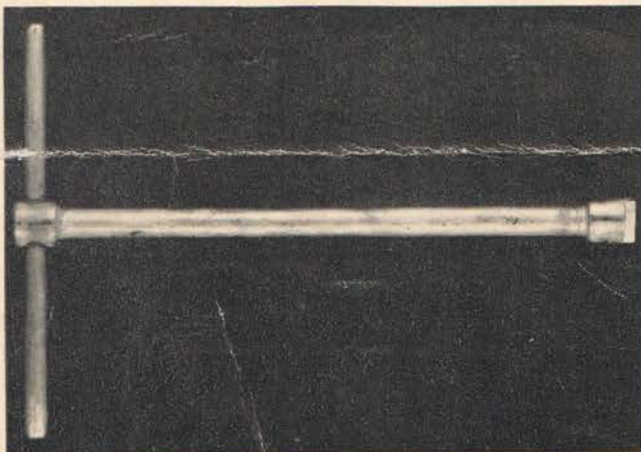
This machine uses a new cleaning compound developed for removing the oxide film and carbon and oil coatings from the spark plug which nets at \$.35.

The initial price of \$8.25 includes one can of compound.

## Twin Tools

### ROCKER LEVER PLUG WRENCH

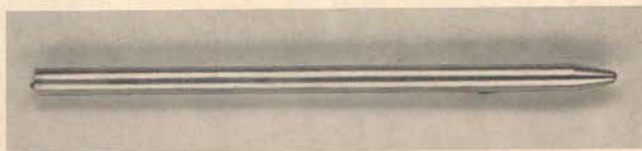
TOOL No. S. T. 866 Models 905-906 - - Net \$.77



The "T" handle wrench is long enough to supply the necessary leverage to remove rocker lever plug when changing necessary pistons and valves in the Rocker Lever Block Assembly.

### ROCKER LEVER ASSEMBLY ALIGNING BAR

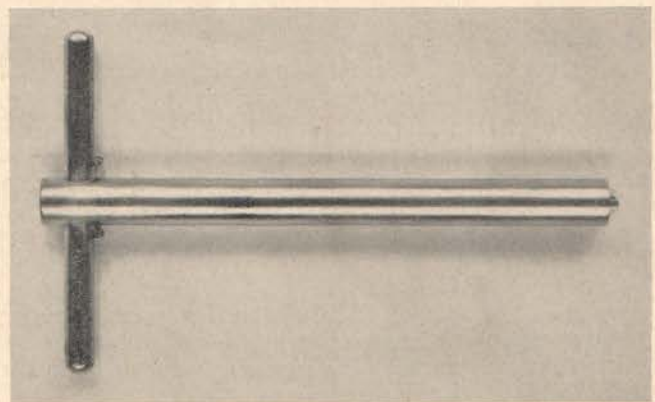
TOOL No. S. T. 899 Models 905-906 - - Net \$.50



This aligning bar is used to line up the rocker lever assemblies when assembling them to the housing. It has a tapered end and can be placed temporarily in the housing before the regular pin is assembled.

## ROCKER LEVER SHAFT WRENCH

TOOL No. S. T. 900 Models 905-906 - - Net \$.77



This tool is for the purpose of turning the rocker lever shaft so that the set screw hole in the shaft can be lined up with the hole in the housing.

## A Tool Bargain!

### CLUTCH SPRING COMPRESSOR

TOOL No. S. T. 127—SIX AND EIGHT



NEW PRICE \$3.00

Models 126-226-326-136-236 only

Here is a practical and useful tool that you cannot afford to overlook. This special tool is used for changing clutch springs on the earlier models.

## Changing Oil in the Rear Axle

Heavy black oils such as are used in the lubrication of hypoid gears have a tendency to become thicker when subjected to high temperatures.

Our past experience has indicated that most scoring of ring gears and pinions occurs after the lubricant has been in the differential for a long period of time, and the condition is naturally aggravated as winter approaches, because cold weather further increases the viscosity of the oil.

Oil which has been used all summer, for instance, may channel with the first cold weather. This may not occur when the car is driven slowly because the heat developed in the differential may cause the oil to become fluid before trouble occurs. If, on the other hand, it is driven fast, or under a heavy load, the gears may score before the oil regains a fluid condition.

For this reason we recommend that the differential lubricant be changed in the fall in order that the car may go through the winter with an oil of the proper viscosity. This should be done in the case of all cars which have experienced a normal amount of summer and fall driving.

Now is the time to cover your owners' list very carefully, because attention given to this feature will prevent gear trouble at a later date.

SUGGESTIONS OR QUESTIONS FROM READERS ARE ALWAYS WELCOME. HOW CAN WE MAKE THE SERVICE LETTER OF MORE VALUE TO YOU? ADDRESS LETTERS—NORM. LULL—EDITOR—PACKARD SERVICE LETTER.