



VOL. 5, No. 16

AUG. 15, 1931

What! Reline My Brakes?

YOU have undoubtedly met the customer who becomes quite irritated when you inform him that an adjustment on the service floor will not make his brakes satisfactory when they have only been used for a period of thirteen to fifteen thousand miles. He just can't understand why, in a car, in the class with Packard any such expense should be necessary at so low a mileage. Did you every try telling such a customer that the brake lining used on his car was designed to wear out? Did you ever ask him if he knew that it was an actual fact that the brakes on his car did exactly six times as much work as the motor did? Then ask him if he has spent six times as much on the brakes on his car, as he has in the upkeep of the motor over the same period of time. The oil alone required by the motor would be in excess, by far, of what the best of brake service would cost.

Ask your customer, who is complaining about the cost of a brake relining job, to work out a little problem in arithmetic with you. Ask him if he knows that it takes eight and three-quarter seconds to accelerate a car from a standing position to a speed of twenty miles per hour and that the correct legal time in which the car must be stopped from a speed of twenty miles per hour, is one and thirty-seven hundredths seconds. It requires one hundred twenty-eight feet to get the car to twenty miles per hour on acceleration, yet from twenty miles per hour the car must be stopped in twenty feet. The horsepower required at the rear wheel to obtain twenty miles per hour is nine and three-quarters. The horsepower required to stop the car from twenty miles per hour in twenty feet is sixty-two and a half horsepower.

For your high speed driver, try these figures.

To accelerate to a speed of fifty miles an hour, it requires twenty-one and eight-tenths seconds. It requires seven hundred ninety-five feet and it requires twenty-four and four-tenths horsepower. To decelerate from a speed of fifty miles an hour, the time required is three and forty-three hundredths seconds. The distance required to stop is one hundred twenty-five feet and the horsepower transferred into heat at the brakes is one hundred fifty-four and a half horsepower.

If you give the engine twenty-one and eight-tenths second in which to get the car rolling at a speed of fifty miles an hour and then stop the car in three and forty-three hundredths seconds, you stop it in just one-sixth the time. You will consume about six times as much power in stopping as you did in accelerating. Look at it from another angle. If you allow seven hundred ninety-five feet in which to get the car up to a speed of fifty miles per hour, and then you proceed to stop it in one-sixth that distance, of course, you have to apply six times as much power as you used in getting the car rolling.

It seems to us that figures and facts of this kind should be used in properly educating the public to the correct amount of money to be spent in obtaining satisfactory brakes. Good brakes help keep owners satisfied. Brake work is fairly easy to sell. It should be sold primarily from a safety standpoint. A very definite effort should be made to gradually educate Packard owners to an understanding of the actual requirements of the brakes on their cars. When this is accomplished, they will appreciate not only how important the brakes are from a safety standpoint, but what an important job they are called upon to perform. They will also understand why brake linings wear out. The fact is they are intended to be worn out so that other more expensive parts of the car may be saved from wear. He would also understand why brakes need frequent and scientific attention if forces like these are to be controlled by a moderate pedal pressure. He will further understand why safety on the highway depends upon intelligent and accurate brake maintenance and he will not be so prone to hesitate about spending a reasonable amount of money for the satisfactory maintenance of his brakes. Once he knows that they are called upon to do, in a way, six times as much work as the motor, or at least the same amount of work as the motor, but in one-sixth the time, he will expect to pay what is necessary to always have good brakes on his car.

First make sure your brake work is satisfactory. Then go ahead and sell brake service.

NOTICE—So that Labor Day plans will not be so seriously upset, we have decided to change the dates of the Service Managers' Annual Meeting from Sept. 8-9-10 to Sept. 9-10-11

Delivery Dates

We are reprinting, for a very particular reason, a page from the Owner's Instruction Book; it is in the front of the book and is sure to attract the attention of the owner. It is a matter of considerable importance to him, it is likewise a matter of considerable importance to your organization. Particular pains should be taken to see that every car is properly stamped before delivery; a continual check should be made at the time repair orders are written and any case where a plate is found unstamped where you know the car to have been delivered by your organization, pains should be taken to see that it is properly stamped. First, this should be done as a protection and as an assistance to your customers in obtaining service when they are away from your Service Station

NUMBER INFORMATION

The body serial number is embossed in large numerals in the front face of the dash, and the vehicle number plate is secured to the left front face of the dash.

The "Body Serial Number" is a thief-proof number and is used only as an identification number when some of the other numbers are defaced or altered. This is an additional protective measure given to Packard owners.

The "Vehicle Number" and the "Motor Number" are used in ordering parts. These numbers are stamped on the vehicle before it leaves the factory.

Two spaces on the vehicle number plate are filled in by the distributor or dealer delivering the car. They indicate the actual delivery date and the name of the distributor or dealer making the delivery.

This delivery date is of particular importance to the owner because it establishes the age of the car for insurance purposes. Be sure that the delivery date is stamped on your car.

Also, the delivery date and the name of the distributor or dealer are necessary for the records of the Packard Service Stations when your car is serviced away from the home station.



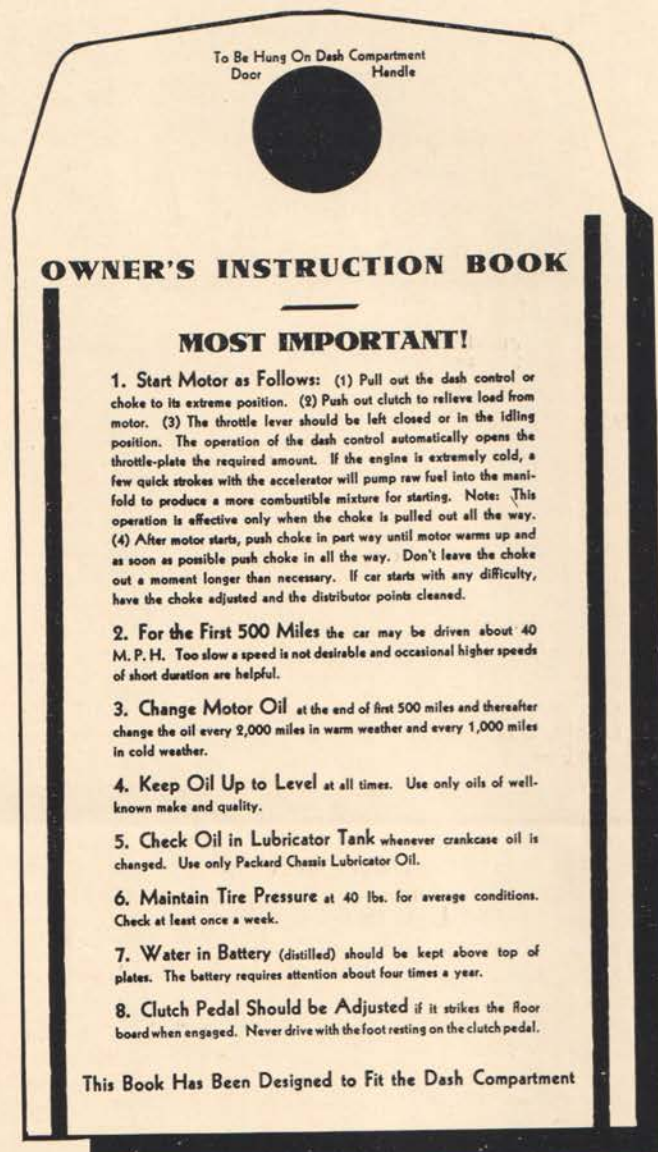
and second, it should be done to protect you against any unjust claims, either from the standpoint of a service commission, or based upon the tourist policy. You will recall that the factory is now operating upon the ruling that any claims arising concerning cars with unstamped plates, the decision on such claims will be against the distributor or dealer failing to properly stamp the plate.

We are again calling this matter to your attention with the request that it receive proper attention.

9th Series Instruction Book

The attached cut shows the envelope being used in connection with the Owner's Instruction Book on Ninth Series cars. You will notice that it is die cut and has a note to the effect that it should be hung on the dash

compartment door handle. You will also note that the small card previously designed to be hung on the choke and which listed ten suggestions for the operation of the Packard car, has been discontinued. Eight of the more



- 1. Start Motor as Follows:** (1) Pull out the dash control or choke to its extreme position. (2) Push out clutch to relieve load from motor. (3) The throttle lever should be left closed or in the idling position. The operation of the dash control automatically opens the throttle-plate the required amount. If the engine is extremely cold, a few quick strokes with the accelerator will pump raw fuel into the manifold to produce a more combustible mixture for starting. Note: This operation is effective only when the choke is pulled out all the way. (4) After motor starts, push choke in part way until motor warms up and as soon as possible push choke in all the way. Don't leave the choke out a moment longer than necessary. If car starts with any difficulty, have the choke adjusted and the distributor points cleaned.
- 2. For the First 500 Miles** the car may be driven about 40 M. P. H. Too slow a speed is not desirable and occasional higher speeds of short duration are helpful.
- 3. Change Motor Oil** at the end of first 500 miles and thereafter change the oil every 2,000 miles in warm weather and every 1,000 miles in cold weather.
- 4. Keep Oil Up to Level** at all times. Use only oils of well-known make and quality.
- 5. Check Oil in Lubricator Tank** whenever crankcase oil is changed. Use only Packard Chassis Lubricator Oil.
- 6. Maintain Tire Pressure** at 40 lbs. for average conditions. Check at least once a week.
- 7. Water in Battery** (distilled) should be kept above top of plates. The battery requires attention about four times a year.
- 8. Clutch Pedal Should be Adjusted** if it strikes the floor board when engaged. Never drive with the foot resting on the clutch pedal.

This Book Has Been Designed to Fit the Dash Compartment

important instructions are now contained on the envelope and we urge you to see that the Instruction Book is in place at the time of delivery, also that it is called particularly to the attention of the owner.

Correction on Spark Timing

Please correct the article in Volume 5, No. 13, under spark setting and also make a proper notation in Supplement No. 1 of Volume 5, dated July 1, under the 901-902 column of spark timing where the information is given that the correct spark setting reads 12° B. T. D. C.

While the early cars with a standard cylinder head went out with the 12° advanced setting, it was found that they were not as smooth at idling speed as they were with a setting of 9° and a correction has, therefore, been made. This should read 9° B. T. D. C.

Will you please see that the other notations referred to are corrected so that reference to them will not give you the incorrect information?

The correct settings are—

	901-2—903-4
Low Compression Cylinder Head.....	12° 12°
Standard.....	9° 9°
High Compression.....	4° 1°

When low compression heads are used on 901-902, use 903-904 distributor.

Carburetor Air Cleaners

Service Letter Vol. 5, No. 12 of June 15 listed detail part numbers on Ninth Series air cleaners for installation on Eighth, Seventh and Sixth Series Detroit Lubricator Carburetor installations, we now have equipment numbers which will facilitate ordering these parts.

97956—Motor Carburetor Air Cleaner Equipment—1 required is for use on 826, 833, 726, 733 and 626, 633. Zone One price \$6.25, Zone Two \$6.55, Zone Three \$7.25.

97957—Motor Carburetor Air Cleaner Equipment—1 required is for use on 840, 845, 740, 745 and 640, 645. Due to fewer parts being required, the prices are as follows, Zone One \$6.25, Zone Two \$6.55, Zone Three \$7.25.

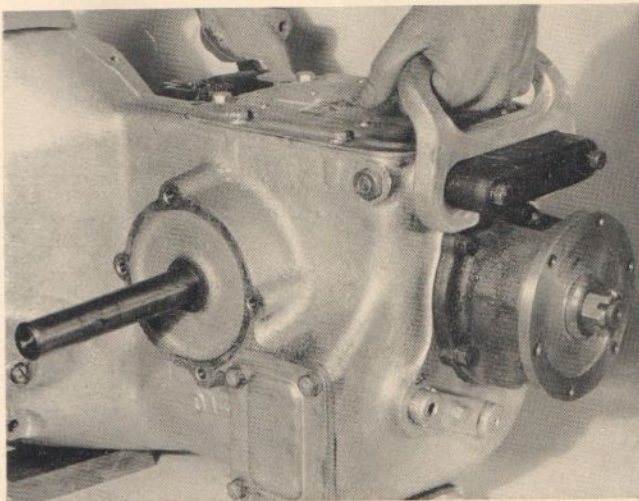
Order these parts under the equipment numbers given.

Engine Tune-Up Charts

We have mailed each distributor and dealer an Engine Tune-Up Chart for the Ninth Series. These have been supplied by the A C Spark Plug Company and we are sure that you will find them useful in your shop. Additional copies may be obtained by addressing the Service Letter Editor. We suggest that you make full use of the chart and obtain additional copies, if necessary, to use for selling engine tune-up work. Make sure the charts are posted where they will be used.

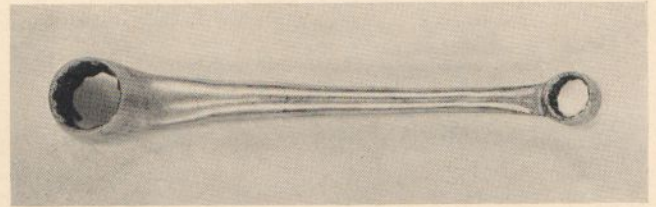
Special Tools, 9th Series

A transmission lifter ST-817 has been designed to facilitate the handling of transmissions on the Ninth Series car. This assembly projects under the front seat and it is difficult to handle without this device.



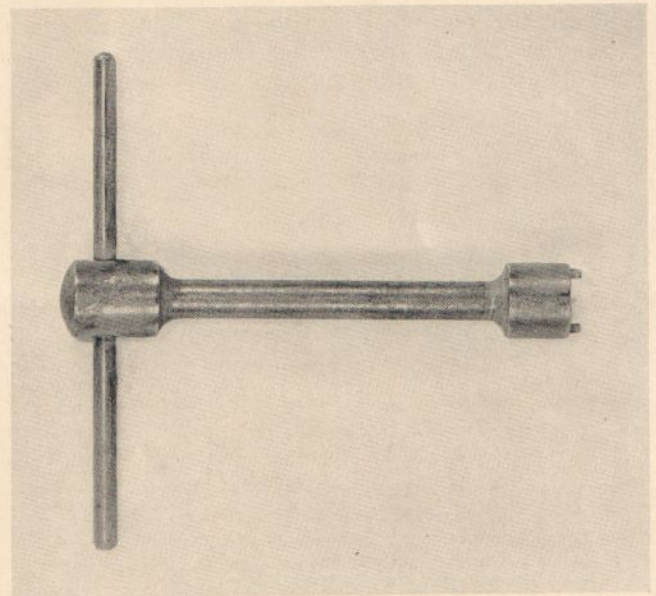
ST-817 Net \$1.00

Exhaust manifold and spark plug wrench—ST-822. The manifold on the Ninth Series car is set at such an angle that an offset wrench on a twenty-five degree angle is required and the Special Tool Department has made this an especially useful wrench by using the other end to fit the new size spark plugs. A larger, heavier wrench should not be used for this purpose.



ST-822 Net \$1.35

Carburetor air valve stem wrench—ST-820 will remove the new size carburetor air valve stem now used in Ninth Series cars. It will be necessary in servicing the new carburetor that you have this wrench.



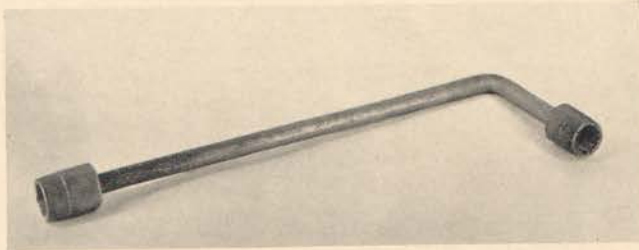
ST-820 Net \$1.40

The radiator anchor bolts on the Ninth Series cars are located in the frame cross channel. It is necessary to have a special socket wrench to remove these. Such a wrench is supplied under ST-823, which also includes, on the other end, a means for getting at the Pitman arm nut, which is very close to the splasher and is of a different size from that used on the Eighth Series.



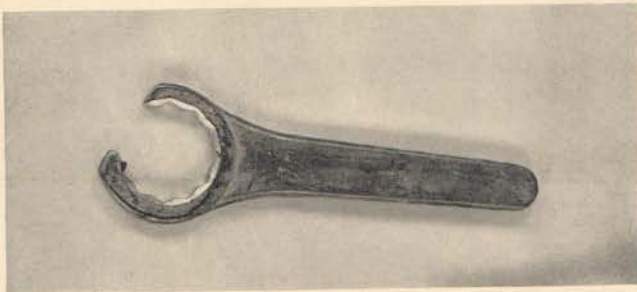
ST-823 Net \$3.00

Radiator to dash tie rod and spring bolt nut wrench—ST-821. The nut which holds the radiator to dash tie rod is located in the dash compartment on each side and it is necessary to have a socket wrench at least fifteen inches long to enable you to clear the dash when tightening the nut. The other end of the wrench is for tightening the rear spring bolt nut at the front of the spring. The rear spring, you will find, has been relocated and it will be necessary to use a special wrench which has been provided for these two purposes.



ST-821 NET \$2.25

The water pump is now equipped with a $1\frac{5}{16}$ inch packing nut and the new twelve point wrench, ST-802, has been designed for this purpose.



ST-802 Net \$1.30

For the Cash System



P-410 Cashier Sign \$4.00

Many distributors have lately adopted the Cash System for handling parts and repairs. It has been urged by the factory. There is one item which must receive

attention when you change over to the Cash System and that is, you must make it easy to locate and pay the repair bills. In line with this thought we have had developed a special cashier sign; the letters are white on black background and show up very nicely in the daytime. When the sign is lighted, the letters appear red. The size of the glass panel is four inches by ten inches; it is very easy to install and comes complete with the cord and plug.

Service Poster



A few more copies of the "Lubrication," No. 12 Service Poster are available. This is the same size poster as previously used, being fourteen inches wide and thirty-nine inches high. Frames for the posters are \$1.50 each, the posters are fifty cents each. This poster is finished in four colors and suggests to the owner the importance of having your organization handle his lubrication work.

If you have not received a copy, we suggest that you order one promptly, as only a few available copies are on hand.

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