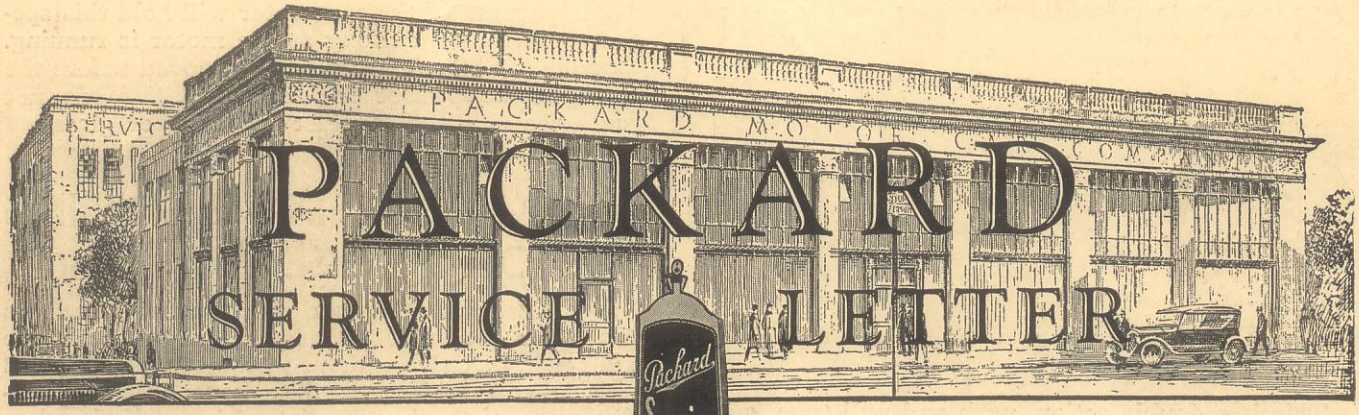


VOL. 12 No. 7 APRIL 1, 1938

IT'S SPRING AGAIN

Spring probably means different things to different people, and to a service department it ought first to mean "Clean Up." Just a little paint makes a lot of difference and the results you can get from some soapy water and a well managed mop will surprise even an old-timer. Clean windows and new light bulbs are also items of comparatively small cost which make a big difference in the looks of a place.

All you have to do is stand in the middle of the service entrance and just look around as though you were a customer coming in for the first time. Then slowly take a walk around the place through each department and see what you, as a new customer, think of the place. It is not at all difficult and it's just a case of using common sense. If the accessory displays are dusty and disorderly and the posters are dirty and torn, you know what the right answer is. As you walk through the shop do you find wrecked parts lying around on the floor, piles of junk under the benches, empty cans, empty milk bottles, and dirty rags sprinkled around? You know, again, what ought to be done.

Next take a look at the waiting room. Honestly now, if you and your wife, or your girl friend as the case may be, were all dressed up and were just going out for a good time and had to stop in at the station, would she sit in that dusty, greasy chair, or would you either for that matter? Chances are you wouldn't even pick up one of those dirty magazines to read while you were waiting. You would stand around in disgust and wonder why any service station would think that providing such facilities added anything to what most people think of as Packard Service.

After getting your hands good and dirty trying to dust off the chair, which either should be thrown out or maybe some new washable covers would be the right answer, you decide that you'll have to wash your hands. You go into the next room provided for this purpose. If you find the average kind of a place you come dashing out again wondering why on earth they don't enforce the laws about ordinary sanitation. Just take a look at these facilities in your service department. Are they fit for your family to use, and if not, why do you think anybody else wants to use them? If a gas station can afford clean facilities, so can you. In fact, you can't afford any other kind.

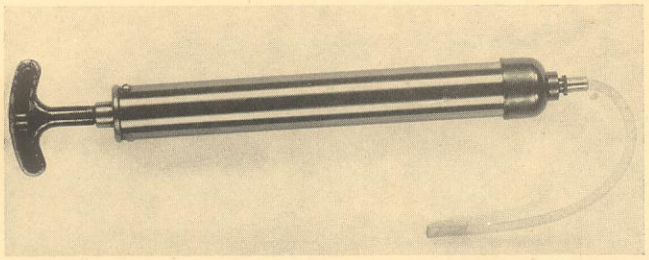
Your neighborhood gas station does wonders with a garden hose and a can of white paint, but if you'll notice carefully the real secret of the cleanliness of his place is that he keeps after it all the time. He doesn't let things accumulate and he doesn't wait for an annual spring house cleaning.

Let's learn from the other fellow—in fact, let's go him one better.

Clean Up and *Keep Clean!*

It is not the hours you put in, but what you put into the hours that counts!

SHOCK ABSORBER FLUID GUN



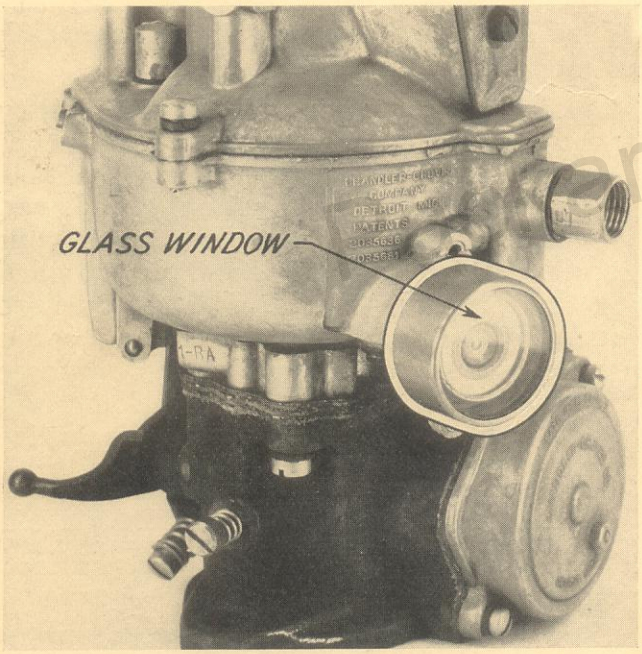
ST-5119, Suggested Price $2.40

This is a double action, push and pull type gun with a small rubber hose attached. It can be filled by either suction or removing the knurled nut.

Cleanliness is essential when refilling shock absorbers. Be sure to clean away all dirt so that it will not fall into the opening.

The gun will pay for itself in a short time by labor savings and the amount of fluid it saves.

ECONOMIZER VALVE INSPECTION COVER



ST-5120, 115C-1600, Suggested Price $.50

Before making any adjustment on Chandler Grove Carburetors, it is most important that the economizer valve be checked. A leaky valve seat gasket or diaphragm will change carburetor mixture and economy.

The economizer diaphragm and gasket are checked for leakage while the motor is running, by looking through the glass window of the special cover which is illustrated in the above picture. If there is a leak you will be able to see gasoline in the economizer suction valve chamber.

The vacuum of the carburetor will hold this special tool in place as long as the motor is running. Care should be taken that it is removed before the motor is stopped or it may break. We do not guarantee this tool against breakage of glass.

INTERMEDIATE DRIVE BEARING PERIODIC NOISE 1601-A, 1602

A decided vibrating period, occurring at speeds of about 40, 50 and 70 miles per hour on both drive and coast, or only on drive in the 1601-A and 1602 long wheelbase Eights, may be caused by misalignment of the intermediate drive shaft bearing, due to the rubber mounting not being neutralized. The condition may be corrected by neutralizing the rubber bearing and cross member mountings.

This condition should not be confused with general body rumble caused by the body pan resting on the frame, the correction of which was described in the Service Letter of November 15, 1937. In fact, correcting the body rumble as described may uncover the drive shaft noise which was not distinguishable before.

To neutralize the intermediate drive shaft bearing:

Support the drive shaft on blocks, or a jack, placed just ahead of the intermediate bearing, and loosen up the four bearing housing bolts A, Figure 2. Slide the bearing back on the bolts just enough so that the housing does not touch the frame cross member.

Shim Here To Line Fit With No Appreciable Compression

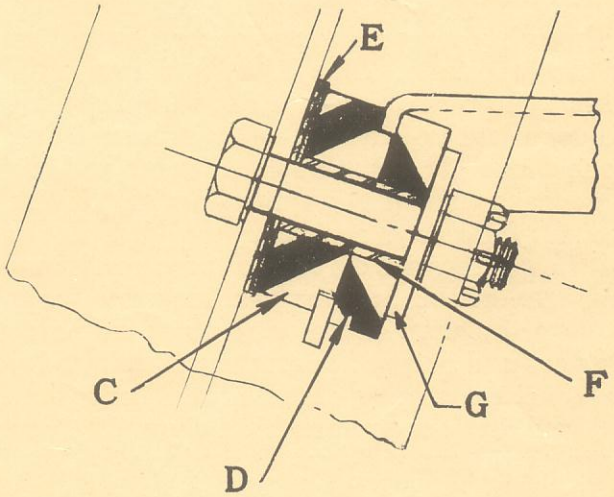


Figure 1

Remove the four cross member bolts and center the cross member so that the distance between the ends and the X members of the frame is the same at each side.

Install new rubber washers—C (Piece Number 327699), and D (Piece Number 327700), Figure 1, at all four bolts. Shim with flat washers between the frame X members and the rubber washers at

E, Figure 2, so as to just fill the space but not to appreciably compress the rubber washers.

Check the length of the spacer sleeve—F (Piece No. 333523), Figure 1. It should be 49/64″ long. Some shorter sleeves were used. When these short sleeves are found they should be replaced with 49/64″ sleeves. The sleeves should permit the bolts to be drawn up tight without compressing the rubber washers more than 1/32″. If the sleeve does not permit 1/64″ compression of the washers, it should be shortened so that it does. If the compression is more than 1/32″, use a longer sleeve.

The rubber washers must be neutralized. Distribute the spacer washers at E and G, Figure 1, so that when the nuts are drawn up tight the total compression of the washers is evenly divided between them.

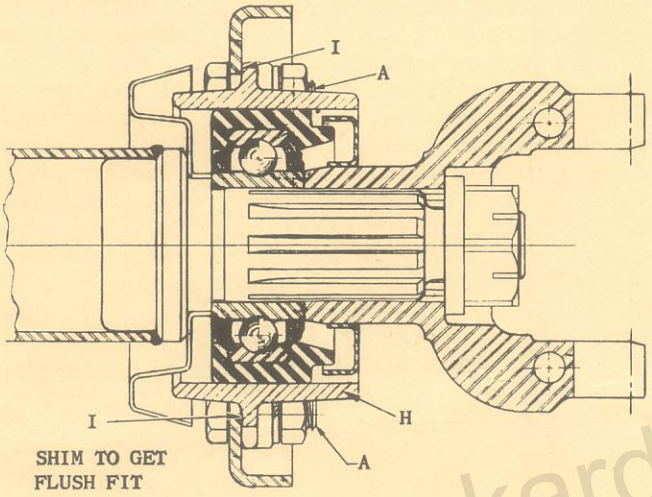


Figure 2

After tightening and locking the cross member nuts, neutralize the intermediate drive shaft bearing. To do this, slide the bearing retainer—H, Figure 2, up into place so that it touches lightly against the frame cross member. It should seat squarely at all four bolts—I, Figure 2. If the retainer does not seat squarely, if there is space between the cross member and the retainer at one or more places, insert enough flat washer shims to just fill the space. Draw the bolts up tight and remove the blocking under the drive shaft.

CYLINDER HEAD CORROSION

The corrosion of aluminum cylinder heads which eats away the metal around the water passages to the cylinder block may be due to any one or a combination of several causes.

All water is slightly corrosive, some much more so than others. The highly alkaline waters found in some sections of the country are particularly corrosive. Packard Rust Preventive, in addition to preventing rust, counteracts the corrosive action of the water. All cars shipped by the factory with water in the cooling system are protected with Packard Rust Preventive. This protection should be continued by adding a fresh supply of Packard Rust Preventive each spring when the anti-freeze is removed and whenever the radiator is drained for any reason. Every car should have Packard Rust Preventive or similar protection in the cooling system at all times. Most radiator cleaning compounds are corrosive in action. If they are used, both engine and radiator should be thoroughly reverse flushed to make sure all of the cleaning compound is removed from the system.

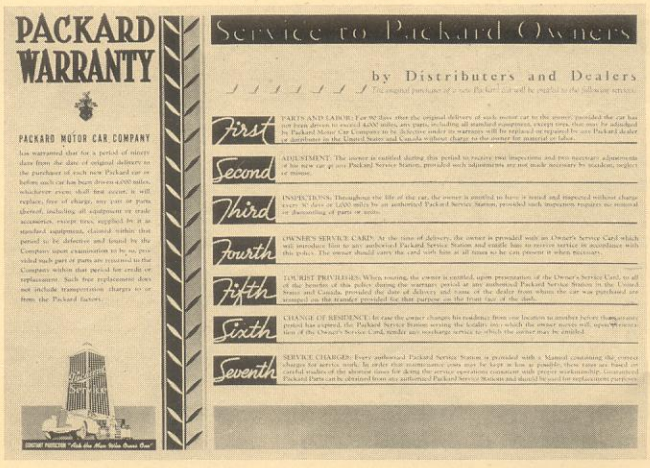
Calcium chloride anti-freeze compounds are highly corrosive and should not be used. Alcohol compounds and Prestone are in themselves non-corrosive. Prestone and some alcoholic compounds contain corrosion preventive compounds to counteract the corrosive and rusting effect of the water. If the anti-freeze used does not contain such a compound, Packard Rust Preventive should be added.

Permanent anti-freeze solutions should not be used a second season. Air leaking in at the water pump and exhaust gases leaking past the cylinder head gasket produce corrosive acids in the solution. The solution may appear rust free when drained out in the spring, but there is no way of knowing, aside from expensive laboratory tests, that it will remain so for another season's use.

Tightening of the cylinder head nuts to the recommended uniform tension, which has been covered several times in the Service Letter, is important. Exhaust gases leaking into the cooling system increase the corrosiveness of both water and anti-freeze solutions. Always use a new cylinder head gasket when the head has been removed and coat both sides liberally with Perfect Seal, grade A, or similar gasket paste. Coating the cylinder head studs with the paste will keep them from corroding and make future removal much easier.

Air which leaks into the cooling system past the water pump packing increases the corrosive effect of the water. Air may leak past the packing at high speed even though it does not leak when standing. Water pump packing nuts should be kept tight, being careful, of course, not to tighten them enough to cause the shaft to score.

WARRANTY POSTER—33 x 44 in.



Additional copies are 50 cents each.

RUSTED CYLINDERS AND VALVES

Unless proper precautions are taken, the cylinder bores and valves of stored cars may rust. When the engine is started the rust is scraped from the cylinder walls by the piston rings and may clog and stick the rings, scuff and score the pistons so that the pistons may have to be replaced before the car can be delivered to a customer.

Rust on the cylinder bores and valves occurs most frequently in cars which are moved under their own power while in storage. Raw gasoline in the mixture delivered to the cold engine washes the oil from the cylinder walls, and when the engine is stopped condensation forms on the valves and cylinder walls and the rusting process starts.

When cars are put in storage, special precautions should be taken to protect the internal parts against rust.

The spark plugs should be removed and a liberal quantity of oil poured into each cylinder through the spark plug hole. The engine should then be turned over several times with the starter.

Cars in storage should be moved by pushing rather than on their own power. Batteries should be removed from cars in storage so that they cannot be started. The batteries, once removed, should be stored where they can be watched and kept charged.

In some instances, more especially with the Senior Line, cars are taken from storage for demonstration and then returned. In such cases it is of utmost importance that the cylinder walls be reprotected with engine oil each time the car is returned to storage.

When the car is finally withdrawn from storage and made ready for delivery to the owner, the engine should be thoroughly flushed. Flushing may be done by feeding a mixture of 50% kerosene and 50% 10-W engine oil to the engine through the air intake of the carburetor.

SERVICE HINTS FOR PACKARD ELECTRIC CLOCKS

We have just completed analyzing the report furnished by the clock companies covering 1938 clocks returned for service, and we find that in over 90% of the cases the difficulties are simple and could be corrected in the field without returning the clocks to the manufacturer. For this reason, we are listing below a few simple suggestions which, if followed, we are confident will enable you to secure better service from your Packard clocks:

Regulation is very sensitive to the slightest movement of the regulating lever located under the back cover, the end of which protrudes through a slot in the cover, with F and S stamped at the ends. **Remember that one division changes the time approximately two to three minutes a day.** Never move the regulators from one extreme to the other, as the hair spring spirals may become damaged.

Automobile clocks operating on a direct current must not be compared to the home electric synchronous motor clocks operating on alternating current. The cycles of alternating current are **controlled and corrected daily** at the power house, thereby eliminating accumulation of errors. Direct current, in contrast, flows continuously in one direction and time errors in automobile clocks operated on this current are **accumulated day by day.** The owner must, therefore, anticipate resetting the hands occasionally to correct the time.

WESTCLOX

(Equipped with a fuse in the wiring harness.)

Before installing the clock, it is well to try whether it will wind correctly by touching the ground (black lead) and clock (black lead with yellow tracer) wires to the poles of a 6-volt storage battery. The clock should wind immediately and be heard running when placed against the ear.

If the clock does not run either in this test or after being installed, open the fuse holder and check the fuse. If blown, replace it with a 1-amp. fuse, same size. **Do not use a fuse of higher rating.** Clean the fuse ends and metal cups inside the fuse holder thoroughly, if necessary, and when assembling the fuse again be sure that the fuse is seated in metal cups. Also check condition of terminals.

JAEGER CLOCKS

To start this clock, it is necessary to set the hands. In doing so, the clock starts automatically. If it fails to start, check the wiring to make sure the wire is not cut at point where it passes through hole in the glove compartment. Also check the terminals and connections to make certain the door has not pinched a wire or ripped a connection loose. If the clock case is twisted when installed and a bind is imposed on the frame of the clock, it will not start. Tighten the anchor screws to the door evenly, and not too tightly.

If the circuit is found to be perfect, set the hands and listen by placing your ear against it for a start when the button is released. If it fails, check to see if the button releases by spring action as a stuck "reset" will prevent starting. Remove the cover on the back of the clock case to check the connections (Do not disturb regulator lever). Check the tightness of the three nuts on the back of the case. If, after these precautions, nothing is wrong with the hook-up, the trouble may be inside the clock and this can be proven if another clock will start.

REPLACEMENTS

Should a clock fail it should be shipped to the nearest service station representing the manufacturer of the replaced clock. Care should be taken in packing. Place the clock in a clock box and pack the box with at least an inch of packing material around the box to protect it. Be sure to send it to the service station representing the correct manufacturer. List supplied with "Service Managers'" copy of this issue of the Service Letter.

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