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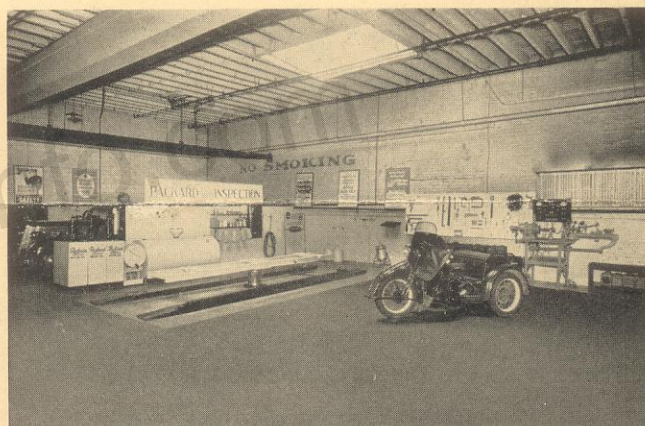
NEW YORK DE LUXE SERVICE

The designing and arrangement of the service and shop layout naturally depends upon the size of the establishment. Its neatness and availability, however, have nothing to do with size.

lighted interior and sufficient space for easy movement after the car gets inside the door. We are into a period where "quick service" is not a dream but an actual condition. The layout today must permit quick service.



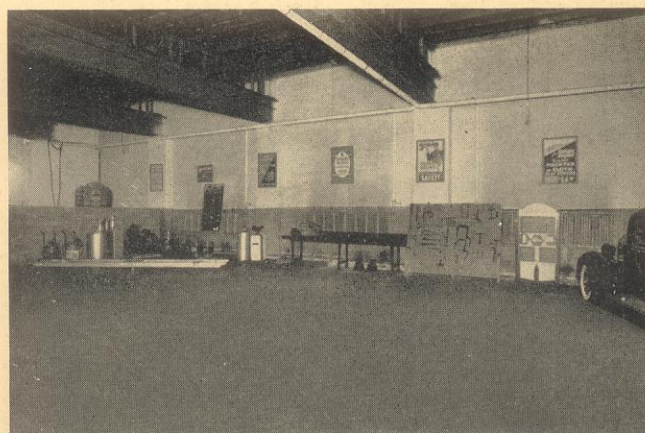
Corona, New York



New Rochelle, New York



Summit, New Jersey



Passaic, New Jersey

In the first place it is extremely important to have a service arrangement that a customer can quickly and easily get into. This means wide enough doors, well-

What reason is there for the Packard owner to patronize the same shop time after time? You may answer off-hand that it is purely a matter of me-

chanics, that what he wants is quick, accurate workmanship and this may be true, but he wants it served to him in an attractive manner. You return to the



Montclair, New Jersey

same store to do your shopping, first, because the place has the material which you want, but even above this, because they meet your requirements with facility and



Bridgeport, Connecticut

dispatch as well as courtesy and because the place attracts you as being business-like and clean. You may prefer Arrow Shirts but if they are sold at the same



Brooklyn, New York

price by the modern department store in your city as well as at "Sloppy Joe's" you just naturally go to the

nice, clean, well-laid-out department store, and let's not kid ourselves—service customers feel the same way.

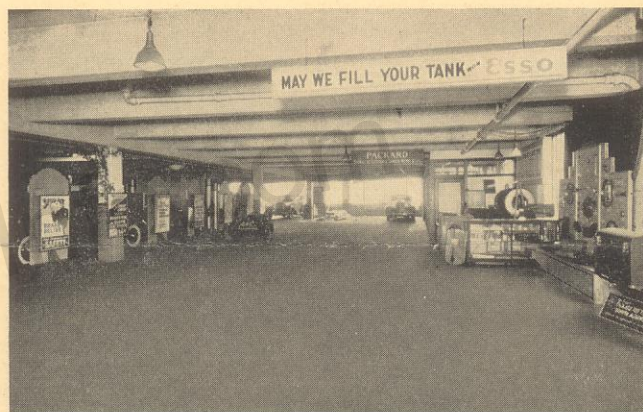
If you're still not sold on this idea ask the next lady



South Orange, New Jersey

customer what she thinks of your place.

The views shown bear out a firm belief in these principles by the New York organization. They have



White Plains, New York

been submitted by Mr. Kloetzer, General Service Manager, and cover various-sized stations. Cleanliness, neatness and well displayed facilities are a most important part of our service job.

COLD WEATHER PRECAUTION

On all current series cars the doors are fitted with sponge rubber door seals. If these seals are wet and the car is allowed to stand in below freezing temperature the door seals may be frozen to the body. If the doors are forcibly opened the sponge rubber seals will be torn from the doors.

This is particularly true after washing a car. Caution your washers in every case to thoroughly dry the door seals as the final step in completing a wash job.

If for any reason a door should become frozen, do not try and force it open. Drive the car into a warm place and let it thaw out. Then thoroughly dry the rubber seal.

In certain cases it may be well also to caution your owners although we do not know of a case where the doors have frozen from being wet.

GENERATOR CHARGING RATE

Packard Six—120-C—1500-1-2—1506-7-8

All four cars in the 1937 line have voltage regulation of the generator output. The senior line cars have two brush bi-polar generators with external current and voltage regulation.

The junior line cars, Packard Six and 120-C, have the third brush type of generator. On these generators the third brush is set to regulate the current output and the dash mounted regulator controls the voltage.

With the voltage regulator operating properly, the voltage of the electrical system is held constant. As the battery becomes charged with the voltage constant, the generator charging rate tapers off until with a fully charged battery a charging as low as 4 to 6 amperes is possible. This condition of a tapering charge from a possible maximum as high as 18 to 20 amperes with a low battery to a minimum of around 5 amperes with a fully charged battery is an ideal one for the proper operation of the electrical system and assures long life to both generator and battery.

AMMETER NEEDLE STAYS AT APPROXIMATELY 5 AMPERES OR LESS. This is not an indication that the generator is not charging and no attempt should be made to increase the charging rate by advancing the third brush on the generator. A low reading on the ammeter is an indication that the battery is fully charged and that the generator and voltage regulator are working properly. To advance the third brush, and the generator output, will not only cause generators to burn out but will materially shorten the life of batteries due to overcharge.

On the Packard Six the third brush is non-adjustable. On the 120-C the third brush can but should not be moved to change the output. The standard setting is when the third brush is two bars and one mica away from the adjacent brush. With the third brush in this position, the maximum output of the generator is 20 amperes at 8 volts with a hot generator and the voltage regulator disconnected from the circuit. If this reading is not produced do not change the position of the brush, but make further tests to determine the true cause of the trouble.

AMMETER NEEDLE FLUCTUATING is an indication that the battery is about fully charged and that the generator and voltage regulator are operating as they should. Voltage regulators on these cars are of the vibrating type. When the voltage rises above the maximum desired, the contact points open and a resistance is cut into the generator field circuit causing the voltage to drop. When the voltage drops, the points close, the voltage builds up, and the points again open. This alternate cutting in and out of the resistance holds the voltage constant.

A fluctuating ammeter needle then indicates that the battery is approaching full charge and the voltage regulator is hunting the proper minimum rate at which to taper off the charge.

Credit will not be allowed, either under our or the Auto Lite warranty, on the Auto Lite GCJ generators—found on 120-C cars—which show evidence of having been damaged as a result of improper advancing of the third brush. All repairs will be charged back to the dealer or owner returning the unit.

BRAKES

Six and 120-C

A third type of brake squeak, not covered by the previous articles on this subject in the October 1st and November 1st issues of the Service Letter, is being reported.

This squeak occurs as the brakes are applied and is caused by the relative movement of the shoe retracting spring and the push rod that connects the hydraulic cylinder to the shoe, and sounds like the shoes rubbing on the backing plate.

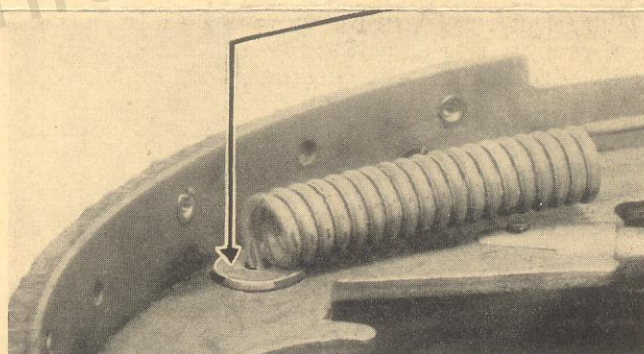
This squeak has been corrected in production by placing a $\frac{1}{16}$ " thick washer between the spring and the shoe web and passing the hooked end of the spring through the hole in the washer and then through the hole in the shoe. The same correction can be made in the field when this condition occurs.

When attaching the retracting springs to the anchor pin, the primary shoe spring must be attached first and the secondary shoe spring second, so as to raise the secondary shoe retracting spring to clear the reinforcing plate at the top end of the secondary shoe.

The illustration shows the washers properly installed.

When reassembling, after the installation of the washers, it is important as a precautionary measure that the shoe bosses on the backing plate be liberally coated with Lubriplate to insure against a squeak developing later at these points.

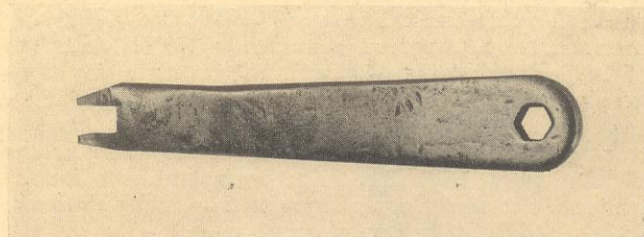
The washers used are standard $\frac{3}{16}$ " finished washers $\frac{5}{8}$ " O.D. x $\frac{1}{16}$ " thick which you can buy locally. Should you wish to order from the factory Parts Department specify No. 3867 washer.



HEADLIGHT SWITCH WRENCH

Packard Six—120-C

Instrument board headlight switch wrench is another important tool. It is made to conform to the shape of the headlight switch nut. It is very difficult to remove the switch without this wrench.



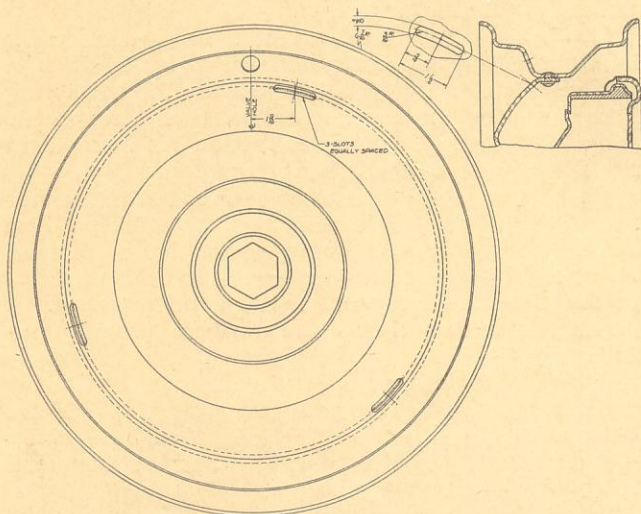
Tool No. ST-5089—Price \$.60

SKID CHAINS ON DISC WHEELS

Six—120's

There has been some inquiry from the service field for a means of attaching emergency skid chains, of the type that strap around the tire through the wheel, on disc wheel equipped cars.

Such installation may only be made if slots are cut in the wheel disc to permit the attaching strap to go through. The illustration shows the proper location,



spacing and size of slots which may be cut in wheels for this purpose. Locating the $\frac{3}{8}$ " x $1\frac{1}{2}$ " slots as shown will keep them high enough so that the brake drum will not interfere with the strap when installing the emergency chains and will reduce to a minimum the knife edge effect of the outer edge of the slot which would have a tendency to cut through the strap.

After cutting the slots, all edges should be neatly beveled and the hole touched up with matching paint to prevent rusting. **DO NOT CUT MORE THAN THREE SLOTS** as shown. To do so would seriously weaken the wheel.

ANTI-FREEZE IN FACTORY CAR SHIPMENTS

A temporary shortage of supply has caused us to discontinue the use of Prestone as an anti-freeze in cars shipped from the factory. Since about November 1st all cars have been shipped with alcohol. When a supply of Prestone is again available, which should be sometime near the middle of December, it will again be used.

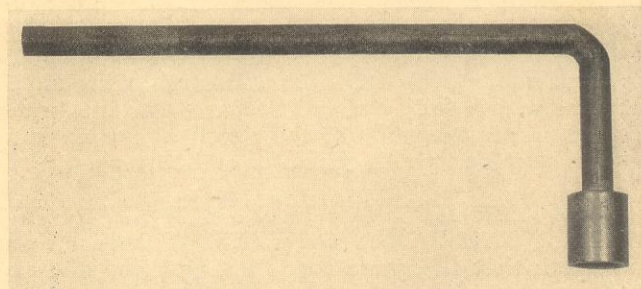
This year, as in the past, all cars ordered equipped with hot water heaters at the factory are also equipped with High Reading thermostats. These High Reading thermostats open at approximately 177° F., instead of 147° F. as in the standard thermostat. By thus keeping the operating temperature of the water high, the efficiency of the heater is improved. We strongly recommend that in all cases where a hot water heater is installed, a High Reading thermostat also be installed if the owner can also be sold on using Prestone or other high boiling point anti-freeze.

Since alcohol boils at 160° F., High Reading thermostats which maintain the water temperature above this point cannot be used if alcohol or an alcohol compound is used as an anti-freeze.

During the time that cars are being shipped with alcohol, cars ordered equipped with hot water heaters will not have the High Reading thermostats installed. The High Reading thermostats will be placed in the glove compartment for later installation.

At the time the car is delivered the owner should be sold Prestone or another high boiling point anti-freeze, and the High Reading thermostat may then be installed.

BRAKE MASTER CYLINDER WRENCH

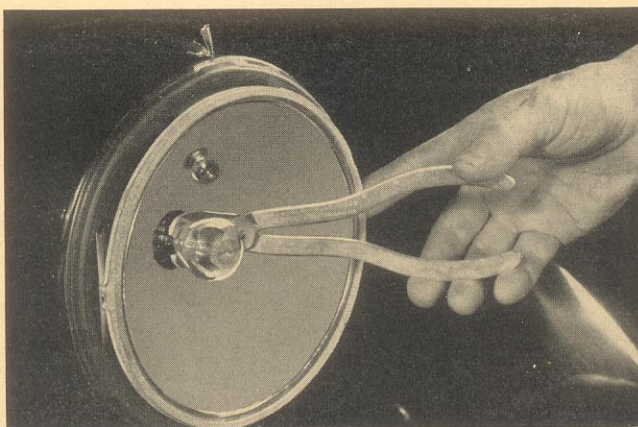


Tool No. ST-983—Price \$2.00
Model 1500—1507—120's—Six

A special right angle socket wrench for removing the brake master cylinder filler plug is illustrated. Since you don't have to remove the front floor boards you save about 15 minutes.

Remove the round plug in the front floor boards and insert the special wrench through the opening. Remove the cylinder filler plug, and fill the master brake cylinder with fluid.

LAMP BULB PLIERS



Tool No. ST-996 Price—\$.70 All Models

Anyone who has ever tried to remove lamp bulbs will recognize the value of this tool. Why risk cut fingers or scratched reflectors, when bulb pliers makes the removal quick and easy?

These pliers grip the base of the bulb and allow it to be firmly held for installation without any danger of the bulb glass being broken.

SUGGESTIONS OR QUESTIONS ARE ALWAYS WELCOME. ADDRESS—N. A. LULL—EDITOR PACKARD SERVICE LETTER.