

AIR CLEANERS— EFFECT ON FUEL ECONOMY

Does the air cleaner affect gasoline economy? It should not, but sometimes it does.

The air which enters the carburetor has to pass through the filter element in the air cleaner. This element sets up a certain restriction to the flow of air, but the amount of restriction is recognized by the carburetor manufacturer, and the carburetor is calibrated accordingly.

If, therefore, the carburetor and the cleaner are in standard condition, the amount of air entering the carburetor is just enough to provide the most efficient and economical mixture. If you were to take off the cleaner or remove its filtering element, the mixture would be too lean for greatest efficiency, and no gasoline would be saved.

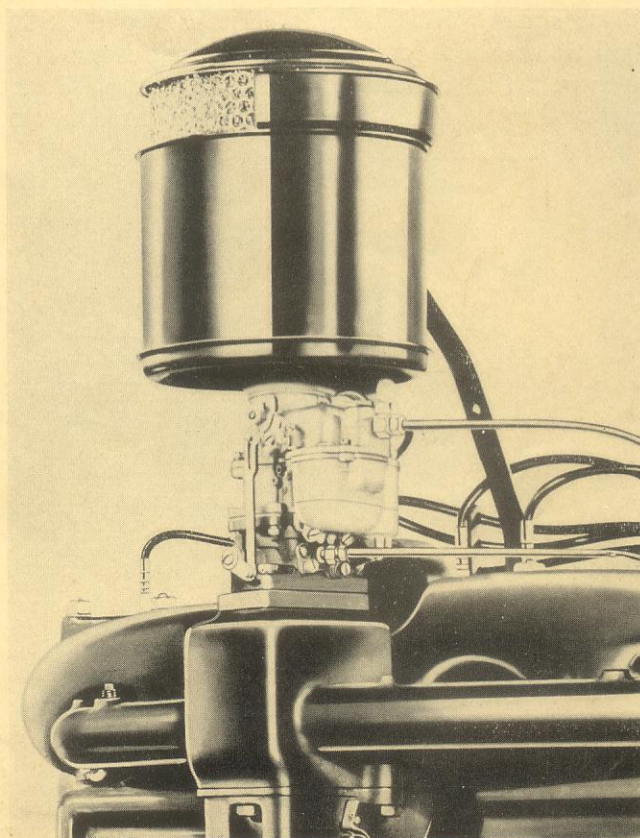
Suppose, on the other hand, the filter is neglected and becomes clogged with dirt. It will not admit enough air, the mixture will be too rich, and the fuel economy will suffer. Obviously, the remedy is the cleaning of the filter element.

Cleaning, as you know, is accomplished by washing the element in the solvent such as gasoline, and dipping in oil of the same grade as used in the engine crankcase. Do not blow out the element with an air hose, as this may crush the material so as to prevent the free passage of air. If the element is made of cactus fibre you must also avoid hot water, steam or a degreasing equipment, since they tend to uncurl the fibre and cause it to mat.

Now let's suppose the cleaner is in standard condition. Might it be possible under some circumstances to increase the gasoline economy by removing the cleaner or taking out the filter element? Yes, it might but this would mean that the carburetor adjustments are not standard.

If, for instance, the float level is too high or if any of the carburetor valves are leaking, the carburetor would run rich. Then the increased air obtained by removing the cleaner might bring the mixture back to normal with an increase in economy. The proper thing to do, of course, is to make the carburetor standard.

Best results and best economy will be obtained if both the carburetor and air cleaner are in standard condition.



CHECK YOUR FILES

Service Letters are available for everyone connected with Packard Service Stations. If service managers are not receiving a sufficient number of copies, they should write the editor and give the extra number needed.

HORN RING RATTLE

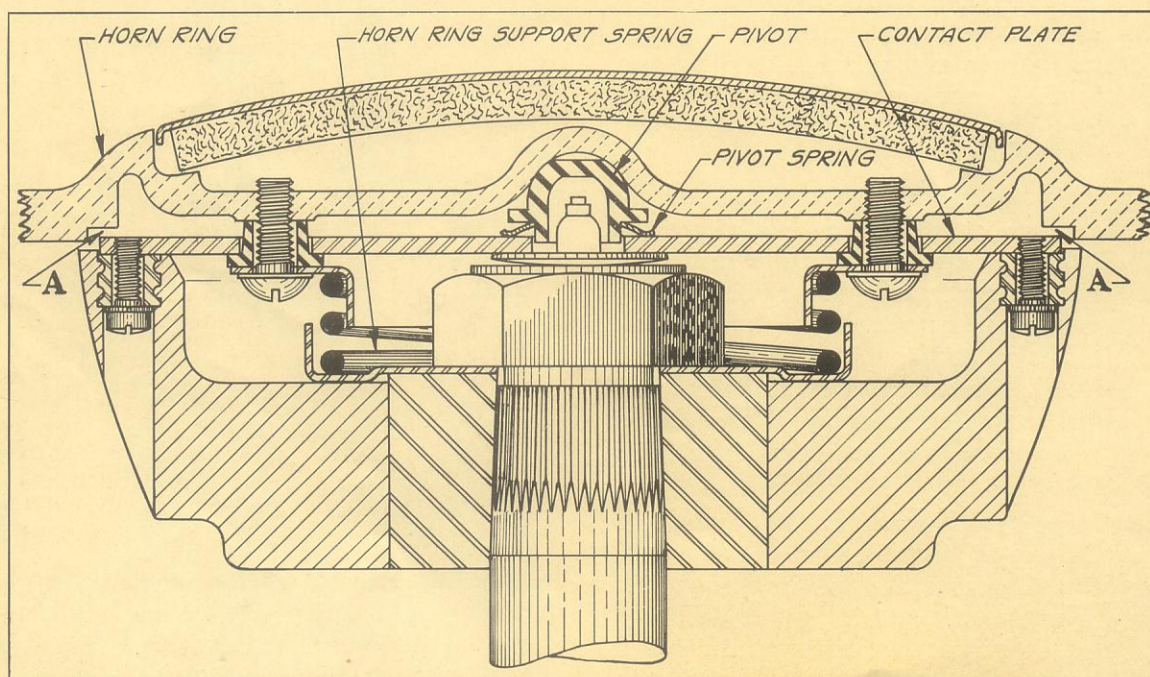
This illustration shows the construction of the Deluxe horn ring.

The blowing of the horn is caused by the contact between the horn ring and the contact plate, at any point around the circumference of the plate, as shown at the points marked "A."

The ring and the plate are held apart by the support spring, which acts through the two insulated screws and forces the ring upward and away from the plate.

A horn ring rattle is usually encountered on a wash-board road. The vibration in the steering column develops a high frequency "buzz" in the horn ring. It is not difficult to correct.

Increase the tension of the support spring by shimming or stretching. This will press the inner screws and their insulators more firmly against the contact plate, so that the horn ring in turn will be held in position and will not respond to the vibration of the steering column.



RADIO WARRANTY SERVICE

The Standard Philco 90-Day Guarantee is still in effect.

Radios requiring repairs either during or after the warranty period should be taken to an authorized Philco Service Station. If they refuse you warranty service, kindly furnish us their name and address and we will take the matter up with the Philco Corporation.

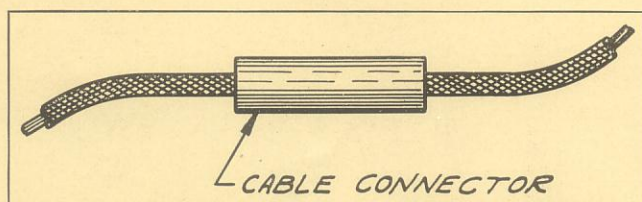
In the event there is no authorized Philco Service Station in your vicinity, take the radio to any radio repair shop and have them repair it. If the radio is within the warranty period and this shop finds a defective part, they can return the part to the Philco Corporation, Allegheny & "A" Streets, Philadelphia, Pennsylvania and it will be replaced. Have the shop send in the correct information from the registration card. The Philco Corporation will pay that shop the standard flat rate charge the same as they pay their authorized service stations. In some cases, perhaps the radio shop will want to be paid more money for the job than Philco's standard flat rate charge and if they do, it will be necessary for you or the car owner to make up the difference. This might also apply to a Philco service station.

It is important that the warranty tag be filled in properly and it must accompany the parts. Do not return any complete radios direct to the Philco Corporation in Philadelphia.



CABLE CONNECTORS

This illustration shows a type of wiring connector used when the free ends of two wires are brought together.



Do not neglect these connectors when you are checking through a broken circuit. The poor contact may be inside the connector itself.

You can check the connector by pulling out the two wires and touching them together. If this closes the circuit the trouble is in the connector and is probably caused by dirty or corroded contacts.

Usually it is enough to clean the ends of the wires and make sure that they are pushed firmly into their sockets. A little oil or grease on the ends will help to snap them into place.

TIRE INSPECTION DATES

Type of Gasoline Ration Book	First Inspection Deadline Date	Subsequent Inspections
A	March 31, 1943	Within every six months' period thereafter; i.e. on or before September 30 and March 31 of each year. Inspections must be at least 90 days apart.
B	February 28, 1943	Within every four months' period thereafter; i.e., on or before June 30, October 31 and February 28 of each year. Inspections must be at least 60 days apart.
C	February 28, 1943	Within every three months' period thereafter; i.e., on or before May 31, August 31, November 30 and February 28 of each year. Inspections must be at least 45 days apart.

SUPPORT ARM BRACKET BOLTS

This is another caution with regard to the wheel support arm inner bracket bolts in the Clipper models.

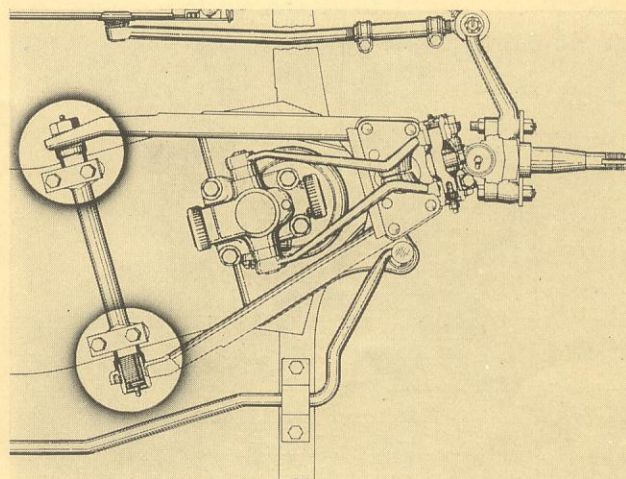
These bolts fit rather loosely in the bracket and in the frame cross member, so that the nuts must be kept tight in order to hold the wheel support arm in alignment with the frames.

If the looseness of the nuts permits the support to shift forward or backward the toe-in will be changed, and if the support shifts in or out, it will alter the camber.

Loose nuts may be indicated first by a snapping noise when turning a corner or when the brakes are applied. On the other hand, the first indication may be rapid and irregular wear in the front tires.

You can see that these bolts and nuts are a very important inspection item. It is well to check them before the delivery of a new car, and they should be rechecked at intervals after the car has gone into service. The fact that the nuts are cotter pinned keeps them from backing off, but it does not mean that they are tight.

When you find the nuts and the bolts loose the best and the permanent correction is to discard the standard $\frac{7}{16}$ " bolt entirely. The bracket and frame may be reamed to $\frac{1}{2}$ " and a $\frac{1}{2}$ " bolt used. Ream the holes and insert the bolts one at a time.

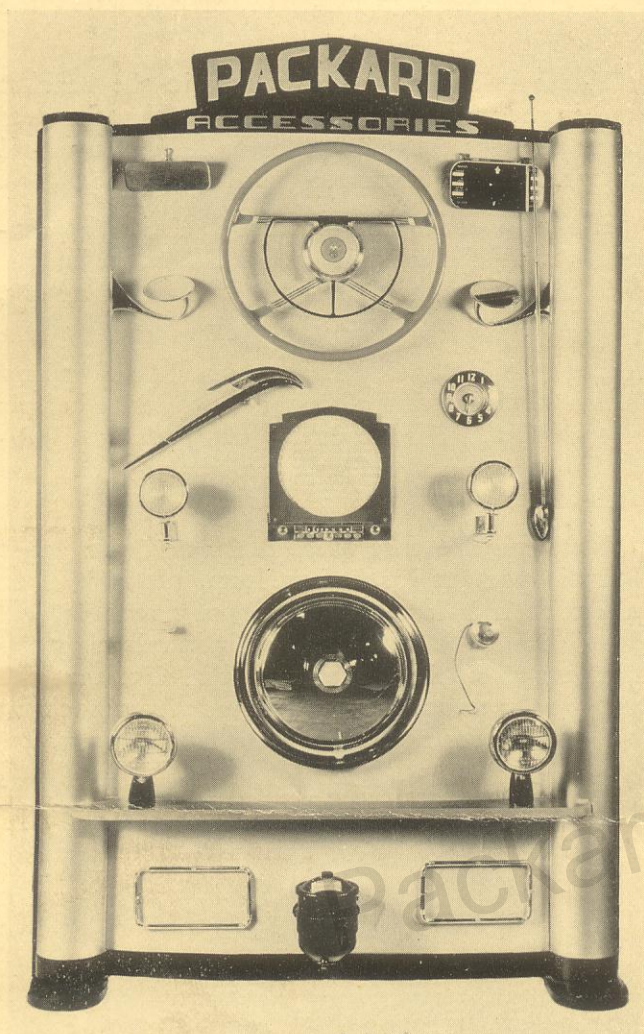


You will require

8-379399 Front susp. support arm bolt
8-7108 Nut 8-4292 Cotter

The nut and cotter are standard utility parts, but the bolt is a special steel, and it will be better to order it from us rather than to use a standard $\frac{1}{2}$ " bolt you may have in stock.

DISPLAY 20th SERIES ACCESSORIES



- PA-378663 Cigar Lighter
- 373198 Cigar Lighter Knob
- PA-375095 Clock
- PA-364755 Emblem
- PA-362638 License Frames
- PA-379214 Light—Fog & Driving
- PA-360450 Light—Backing
- PA-366668 Light—For Luggage Compartment
- PA-374239 Mirror—Cowl, Left
- PA-374238 Mirror—Cowl, Right
- PA-375227 Mirror—Non Glare
- PA-314310 Mirror—Vanity
- PA-378689 Oil Filter Equipment
- PA-373610 Radio
- PA-379586 Radio Antenna—Cowl
- PA-378465 Steering Wheel—DeLuxe
- PA-379447 Horn Ring Equipment—Steering Wheel
- PA-356882 Steering Wheel Horn Ring Button
- PA-362816 Wheel Trim Ring
- 377834 Wheel Hub Shell Cover

A FINE JOB

Here are a couple of fellows who just won't believe you can't sell accessories during a war.

A. J. Gariboldi of San Francisco has done a consistent job on accessory sales and earned the congratulations of Service Manager Harker.

J. Mornin shows a very nice increase in sales. His May figures cover only a half a month due to his vacation.



	GARIBOLDI	MORNIN
Jan.	\$ 441.03	\$325.68
Feb.	626.81	282.44
Mar.	1409.68	611.66
April	1313.66	987.95
May	1662.51	498.05

CLEAN UP AND KEEP CLEAN

The condition of our service stations, after the wear and tear of 15 months of wartime conditions, is a matter for some real concern.

Buildings need paint, floors, benches, window sills, all need a good clean-up. Parts rooms and the stock in them need to be put in order.

About now you're saying, "But where do I get the time and the help?"

One answer is that many dealers *are* keeping their places clean and painted as needed.

Another answer is, get outside help for the painting, do the cleaning on extra time or with extra help over a weekend. Offices, buildings and stores are cleaned at night. Why not car showrooms and service stations?

Every organization is short-handed, but where there's a will there's a way, and the job *is* being done by many dealers.

See yourself as others see you. Look around your place and ask the question, "Does this look like a place to which an owner would be pleased to come?"; and does it look like you and your employees *want* it to look?

Procrastination is the thief of time—so we sincerely urge you to put on a National CLEAN-UP & KEEP CLEAN campaign.

If each one does his part in the effort, the results will be amazing and we'll all have something to be proud of.