PACKARD SERVICE LETTER

VOL. 7 No. 11 JUNE 1, 1933

Keeping Cool—

ANY difficulty with the cooling system on a Packard car seems decidedly out of place to the owner. He feels that they should not exist on his car. This is the season when overheating is both more prevalent and most annoying.

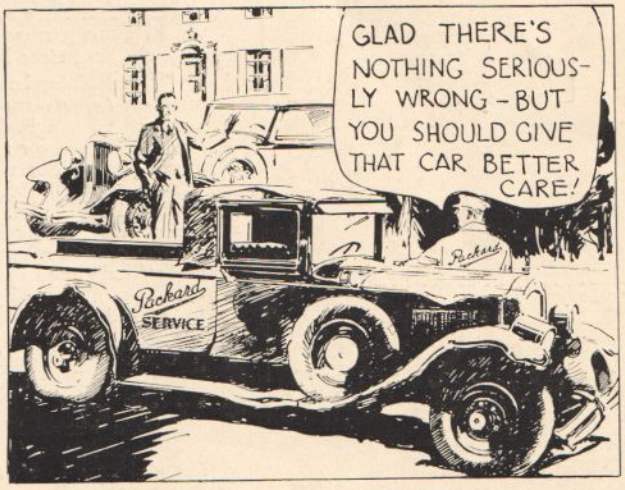
Just what, in customer's language, is a cooling system, and why should any trouble develop in this system? The cooling system has been described as a scheme for taking heat units out of the cylinder block, where they are developed as the motor operates, and getting rid of them by the wind which passes through the radiator.

The success of this scheme depends upon five items: 1—water, 2—water tightness, 3—water flow, 4—air flow, 5—clean surfaces. The first four are self evident and the fifth sounds that way, but consider them from these facts.

The customer gives little thought to water, except to see that there is enough of it. If the water he used was actually pure he would have practically no trouble. Water, like so many other things used for drinking, is far from pure. Even rain water fresh from the clouds contains several acids which are not so friendly to cooling systems. There are traces of nitric acid, carbonic acid, sulphuric acid, and, of course, there is oxygen.

Oxygen and carbon dioxide are most efficient manufacturers of rust. Most cities use an aerating process to purify their water. This is fine for getting rid of germs, but in the form of spray the water absorbs more oxygen, and, therefore, produces more rust. Water from many sources contains minerals. Some of these cause deposits in the cooling system, and others attack the radiator core or pump parts. Any deposit of dirt, rust or minerals retards cooling efficiency.

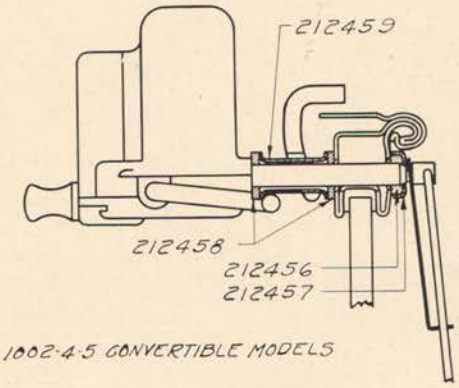
Next we have our old friend—anti-freeze. People still insist upon using anything sold for this purpose. Some of these contain injurious materials and others by heat develop new chemicals which cause deposits and likewise prevent cooling. In some instances acids are formed which react on certain metals to produce an electrolytic action which in time completely destroys them. All of this means that there are many things in connection with the operation of the car which affect cooling system efficiency.



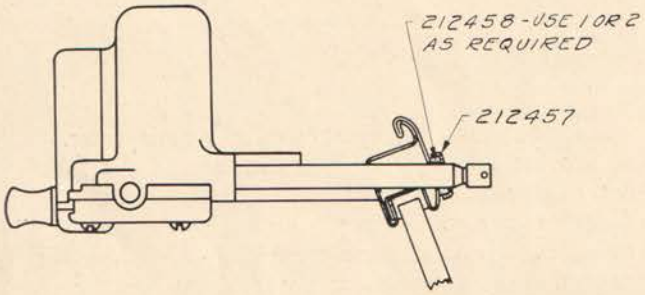
Two solutions to cooling troubles seem apparent. (1) The use of water softeners or carefully strained rain water, both of which probably should be boiled before using. (2) Thorough periodical cooling system cleaning by experts with adequate equipment made for this purpose.

You should tell this story to your customers. It is preventative service which they should buy regularly. It will save replacement costs on expensive parts.

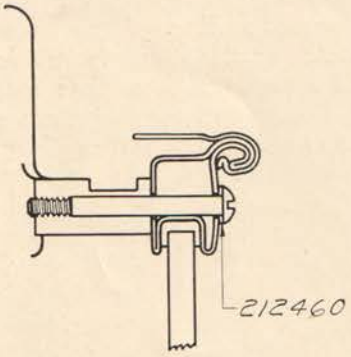
Windshield Wipers



1002-4-5 CONVERTIBLE MODELS



1001 CONVERTIBLE MODELS



1002-4-5 CONVERTIBLE MODELS

We are illustrating the latest means for protecting the windshield wiper mountings of the Convertible cars against water leaks.

In the 1001 Convertible models, the only change is a packing box on the forward side of the windshield frame consisting of a stamped cup containing either one or two felt washers as the situation may require.

In the remaining models this packing is used, and a spacer surrounds the wiper shaft back of the windshield frame with a rubber washer at each end. The wiper attaching screws should also be protected by zinc washers under their heads as shown in the illustration.

The following list covers the piece numbers and names of the parts illustrated:

		No. Req.
212456	Windshield Cleaner Motor Shaft (Felt) Washer	2
212458	Windshield Cleaner Motor Shaft (Rubber) Washer	4
212459	Windshield Cleaner Motor Shaft Spacer	2
212457	Windshield Cleaner Motor Shaft Washer Retainer	2
212460	Windshield Cleaner Motor Attaching Screw (Zinc) Washer	4
Model 1001:		
212457	Windshield Cleaner Motor Shaft Rubber Washer	2
212458	Windshield Cleaner Motor Shaft Rubber Washer	4

Has Packard-LaSalle Sales *(Continued)*

"I have been employed by the Packard Motor Car Company of ——— for a period of fourteen years, and never before have I been so 'Packard Minded' as at the present time.

"This training has aided me greatly in revising my conversations with Packard owners so whatever I say will carry weight to thoroughly convince the owner that the matter I am bringing to his attention should justly be performed to avoid future trouble or uneasiness in the performance of his car.

"Only the other day, one of my customers came into the service station with a badly damaged right rear fender. The fender was cut in several places and required replacing, without a doubt. It so happened that this car had special painted fenders and, of course, we make an additional charge for lacquering same. When I told him the price, $33.45, he gave me a stiff argument. If I were not an experienced service salesman, I would have told him the price of the fender in the Packard Manual was $23.45, in black, and an extra charge of $10.00 for lacquering it to match the damaged one, and that I would have to charge according to the Manual. After this customer called me a highway robber, I started in to talk as follows:

> " 'You might think that $33.45, Mr. Stein, is a lot of money to invest in one mudguard, but when you stop to consider that our fenders are made of heavy gauge metal, thus absorbing the greatest shocks possible, you are indeed fortunate that the rear lower body panel was not dented, as well, at the time of your collision. While the fender is badly mutilated and cut still and all it took the shock, due to its strength, and the body panel, if dented, would mean an extra layout of $55.00.'

"He accepted my argument and signed the order for a new fender. I might have lost the sale of this fender, as well as the customer's future patronage, if I had not been diplomatic in my conversation.

"I have learned that whenever you quote a price to a customer to explain to him in detail just what we are doing for this amount of money and invariably he says, 'I guess that fellow is right and knows what he is talking about and I guess I should have this work done.'

"I might add that I read the portion of the training we are to discuss about four times, and generally on Sunday. I go into a room by myself and read it aloud. After that I take a Packard Remember Card and jot down those points of interest so that I may review them before the meeting on Tuesday evening and thoroughly familiarize myself.

"Diplomacy and courtesy is a whale of a job for a service salesman, but it doesn't cost a dime to perform either job. Dozens of times each day I ask a customer, who may be standing around, if he is being taken care of and it doesn't cost one cent to perform this kindly act, and besides it makes the customer feel as if we are on our toes all the time.

"I again desire to express my gratitude for what the LaSalle Training Course has done for me in the past and what it has in store for me in the future, particularly Book 8 on Packard Service."

Very sincerely yours,

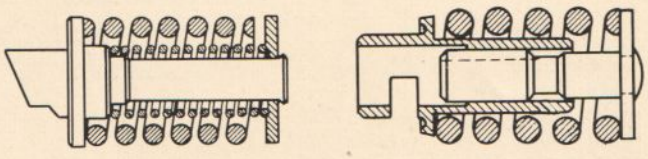
(Signed) Service Salesman.

Used Bodies For Sale

901—5 Pass. Sedan Body "D." Fonda Motor Car, Inc. Syracuse, N. Y.

901—5 Pass. Sedan, "Like New." Packard Florida Motors Co., Jacksonville, Fla.

Shock Absorber Valves and Metering Identification



COMPRESSION REBOUND

STANDARD

Pc. No.		Model	Mark
210030	Shock Absorber Front Left	1001-2	#40
209584	Shock Absorber Front Left	1003-4	#40
210031	Shock Absorber Front Right	1001-2	#39
209585	Shock Absorber Front Right	1003-4	#39
210027	Shock Absorber Rear Left	1001-2	#41
210046	Shock Absorber Rear Left	1003-4	#65
210028	Shock Absorber Rear Right	1001-2	#42
210045	Shock Absorber Rear Right	1003-4	#64

SPECIAL CUSTOM REAR

213816	Shock Absorber Rear Left	1001	#95
213817	Shock Absorber Rear Right	1001	#94
213818	Shock Absorber Rear Left	1004	#89
213819	Shock Absorber Rear Right	1004	#88

The identification mark is stamped on the outer end of the metering valve stem.

Shock Absorber Valves— Standard Equipment

Model	REBOUND Front Code	Front Pc. No.	Rear Code	Rear Pc. No.	COMPRESSION Front Code	Front Pc. No.	Rear Code	Rear Pc. No.
826-33	3G	185166	3J	185165	G4	203814	G2	203811
840-45								
900	OCH	205646	OFN	205647	GI	203812	GO	207479
901-2-3-4								
905-906								
1001-2-3-4								
1005-6	ICH	213164	5GR	213179	G4	203814	G2	203811

Fuel Pump (Tenth Series)

We have discovered in certain Tenth series cars a tendency toward the loosening of the nuts which hold the fuel pump against the side of the crankcase.

We suggest that this be made a point of inspection before the delivery of the car to the customer, and that the nuts be checked during the early period of the car's life. After the fibre block has become seated, it is probable that further attention will be unnecessary.

We also wish to call your attention to a noise which is often present in the diaphragm of the vacuum pump section of the unit. This noise sounds very much like piston blow-by, and can be heard distinctly through the crankcase breather.

The noise does not indicate an incorrect condition and is apt to be just as evident if the diaphragm or pump itself is replaced. No change, therefore, should be attempted.

Fitting Pistons

When fitting the aluminum piston to a cylinder bore a definite procedure should be followed in order to obtain the proper clearance. A strip of feeler stock ½" wide and .0015 thick should be used and this feeler should be long enough to extend the full length of the cylinder bore. The piston rings should be removed and the piston fitted with the piston pin holes parallel to the cylinder block. The feeler gauge should be laid in the cylinder bore parallel to the piston pin and on the side opposite to the slot in the piston. In this position the piston is pushed into the bore.

If the piston is of the proper size it should be just possible to withdraw the feeler gauge with the thumb and forefinger and the fit should be checked in this manner at both top and bottom of the bore. If the fit has been properly made a piece of .002" feeler stock used in the same manner should bind sufficiently tight to prevent withdrawal by the thumb and forefinger.

Referring to the illustrations it will be noted that the piston is ground to provide a taper on the skirt which makes it smaller at dimension B than at dimension A.

The piston is also ground out of round to compensate for expansion and a study of the limits that have been established reveals that when measured at right angles to the piston pin (Fig. 1), the piston can be .0015 smaller at the bottom of the skirt than at dimension A and when measured parallel with the pin it can be as much as .003 smaller at the bottom.

These limits also provide for the piston to be ground as much as .0025 out of round although the average will be approximately .0015.

It is therefore obvious that a long piece of feeler stock must be employed to make sure the piston is fitted properly at dimension A. After the pistons have been fitted they should be stamped with the cylinder bore number to insure their proper identity. Piston assemblies ordered from the factory come with the pins properly fitted and when assembling pistons to the rods it is good practice to heat the pistons in hot water of approximately 160 deg. F. to avoid causing a possible distortion when either removing or replacing the pin.

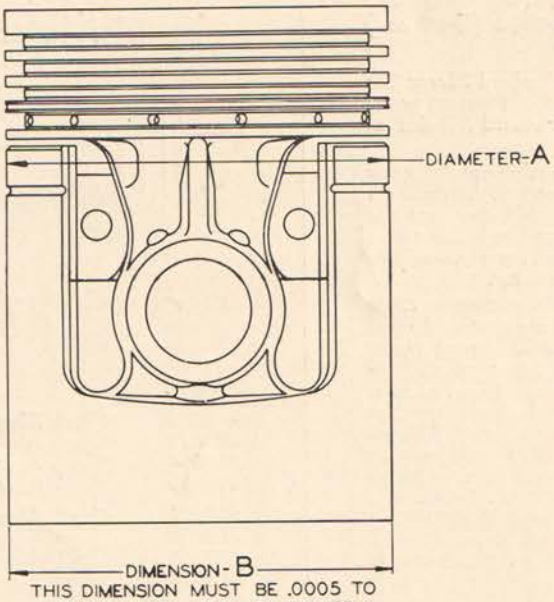


FIG-1

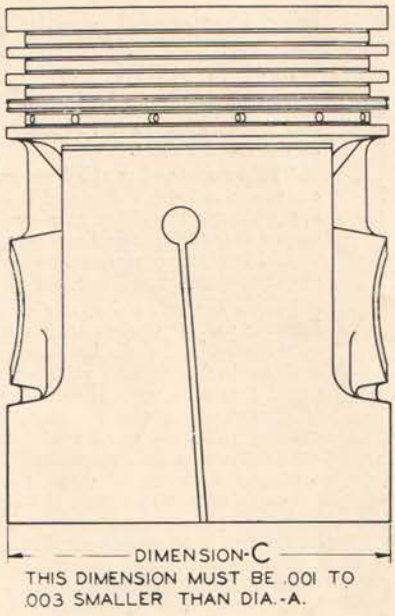


FIG-2

"Chet" Hassell and 16 other reasons why Packard Service is good in Syracuse, at 8½ years apiece you have 141 years of experience.

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.*

PRINTED IN U. S. A.