PARTS • ACCESSORIES • PRODUCT

SERVICE Counselor

PACKARD MOTOR CAR COMPANY

VOL. 24, NO. 2 FEBRUARY 1, 1950

# Squawks—Their Cause and Cure

Every service station has a certain number of customers who are hard to get along with and who are always complaining. Now why is this and what can be done about it? Every service manager will admit to having a few of these "squawkers" but the sad part is that he does not know how many customers he has lost because they made no "squawk." Most people even today just, "will never go back to that place." They don't want to make a scene so they say nothing—not even "good bye." They just leave for good.

You ought to thank the ones who do make a fuss about something which they feel is wrong because this gives you a chance to straighten it out and in most cases to save the customer.

The loudest complaints are those which take from the customer either too much of his time or too much of his money, as he sees it.

There are two ways in which you can take too much of the customer's time—one, by not having his car ready when promised. He does not like to wait for it after you said it would be ready at 4 o'clock. As he waits he visualizies work being done that was not ordered or work that was not done right and you had to do it over again. You see you can't blame him. You disturbed him by taking too much of his time and it's your fault that he spent that time in thinking the wrong things about you.

You know the answer to this one. Have the car ready when you promised it or call him and explain why you need more time. Time is money to him and you have no right to use his time without his approval. This complaint can be eliminated to the tune of almost 100%.

The second way in which you can take too much of the customer's time is either by poor diagnosis or by poor workmanship, thus turning out a job that comes back. Comebacks take up customer's time by making return trips necessary, and don't forget that the customer measures the performance of his car as much by the number of times he has to take it in for service as he does by the amount he spends for service.

If two jobs in a row for one customer turn out to be comebacks, that customer has made at least four trips to your shop. By that time he knows he has troubles and you do too.

You know the answer to this one. Correct diagnosis, good workmanship and careful inspection on every job.

Now, let's look at this matter of taking too much money from a customer. Please remember that we didn't say this—your customer did. He said he was overcharged. He inferred that you pad orders. He said that you did work he did not order.

This one is tougher to handle because it just can't happen. You don't pad orders—that is not deliberately. You may list some overlapping operations by mistake. You don't do work he doesn't order—that is, you know he needs the work and you intend to phone him about it so you write it on the order but you forgot to phone. And, most important, how can you overcharge a customer? Every shop uses repair orders. You itemize the work he orders or which you sell him. Now you can't sell him a thing and he can't buy a thing unless a price is agreed upon. You have not done a selling job unless you have quoted a price. If you use the rule "quote a price to every customer whether he asks for it or not," you will never hear any more of this "thief and robber" stuff.

So, you have the answer to this one—quote a price. We know there are exceptions and you will have to call him after you know the exact figure on those jobs which you can't price until you "get into it." Most jobs you can price accurately as to labor and a close estimate as to parts. Let's quote prices and stop this talk about overcharges.

Let's put smiles on customer's faces and keep them there. Let's give them no reason to feel that we are taking too much of their time or their money.

## Vacuum Type Wipers Affect Engine Idle

Do you occasionally have an owner report an uneven engine idle when the windshield wipers are operating? If so, was the owner informed that this is to be expected to a certain degree on all types of vehicles equipped with vacuum type wipers?

When the wipers are not operating and the engine is idling, the mixture of air and fuel which enters the intake manifold is properly proportioned by the carburetor and we will assume that the idle is smooth. When the wipers are turned on, this same mixture enters the manifold through the carburetor; however, additional air enters the manifold below the carburetor and is pulled in through the wiper motor. Adding this air to the properly porportioned mixture tends to lean out the mixture and cause an uneven idle.

Although an uneven idle with the wipers operating may be considered more or less standard to a certain extent, a few steps can be taken to improve the idle.

The engine must be properly tuned and have a smooth idle when the wipers are not operating since it is very obvious that a ragged idle with the wiper off will become worse when the wipers are turned on. Adjusting the idle so that the mixture is slightly on the rich side will help the idle when the wipers are operating.

If the car is not equipped with an Electromatic Clutch, the idle may be improved by moving the wiper vacuum line to the Electromatic take-off in the manifold.

Resistor type spark plugs also may tend to smooth out the idle because of their wide gap setting.

## The Importance of Torque Tightening

An item which does not always receive the attention it should receive is that of tightening various bolts and nuts to their specified torque.

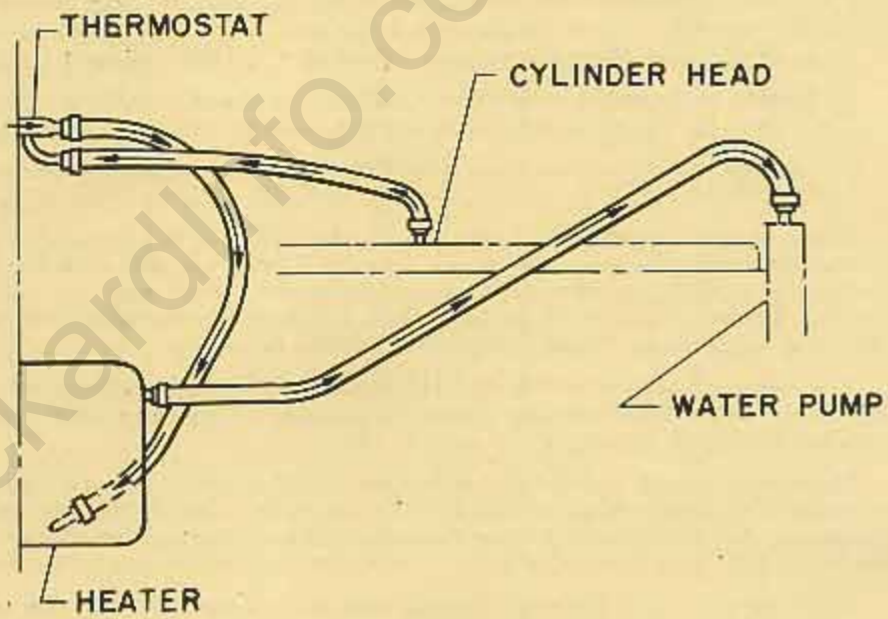
Mechanical distortion often may be the underlying cause of various failures or difficulties which might not have developed had a torque wrench been used. Probably the most outstanding example to cite is the tightening of cylinder head retaining nuts because it is considered physically impossible for any mechanic to tighten a series of nuts to an equalized pre-determined tension with ordinary wrench equipment.

Pulling cylinder head nuts up too tight, or tightening them unevenly, may be the cause of excessive oil consumption, low gasoline mileage, generally poor performance, or cracked cylinder heads.

When the cylinder head nuts are tight, the tension of the studs in the block tend to pull it out of shape. If the nuts are tightened unevenly or are too tight, the studs may pull the cylinder bores out of round so that the piston rings cannot seat properly and excessive oil consumption, loss of compression and poor performance may follow. This unequalized tension of the cylinder head nuts also may cause the head to crack because it cannot expand uniformly when hot.

Improperly tightened bolts and nuts such as those at the main and rod bearing caps, manifolds, body bolts, rear spring U-bolts, door hinge bolts, etc., may result in parts failure, poor engine performance, body roar, or some other non-standard condition which might cause owner dissatisfaction.

## Heater Control Valve Flutter




Occasionally a "metallic flutter" may be heard behind the instrument panel in the vicinity of the heater control system. This noise will invariably occur at a given combination of engine speed and heat control setting, and normally can be caused only by an improper hook-up of the heater hose.

The heater control, of course, regulates the flow of coolant admitted through the control valve to the heater core. The arrangement of the various parts in the control is such that the control valve stem is under a constant spring preload, so as long as the circulating coolant enters at the correct side of the valve, no fluctuation can result. When the hoses are switched, however, so that the flow of coolant through the valve is reversed, the coolant under pump pressure will work against the valve and, consequently, against the spring loaded valve stem. When, at a given engine speed and control setting, the pump pressure finally equals that of the spring loaded valve stem, conditions are right for the previously mentioned valve flutter.

When installing a heater or replacing a heater hose, be sure that the hook-up agrees with that shown in the illustration.

## Throttle Shaft Adjusting Gauges

PU-333-2301

This is a new gauge in the line of Essential Service Tools for the Ultramatic.

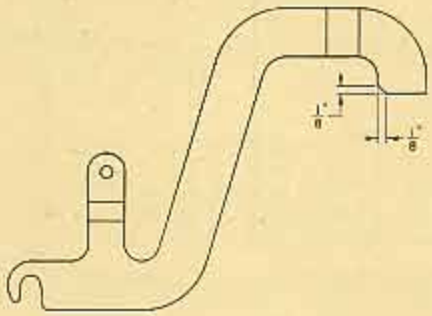
The purpose of gauge PU-333 is to properly set the throttle cross shaft to carburetor rod on the Packard Eight (288 engine) equipped with the WGD carburetor.

This tool is now available and is included in the Ultramatic Essential Tool group now being shipped by K. R. Wilson.

Send all orders for PU-333 Throttle Shaft Adjusting Gauge to K. R. Wilson, 215 Main St., Buffalo 3, New York.

The price of the gauge is $4.25. The price of the complete group of Essential tools remains the same, $240.00.

PU-332-2302-22-32



In some cases it has been reported that gauge PU-332 would not fit into position properly, due to interference of the starter switch on the carburetor.

The illustration shows where and the amount of stock to remove to provide clearance at the starter switch. After removing this stock, being careful not to damage the flat blade surface on the tool, the gauge will fit properly into place when the carburetor rod is correctly adjusted.

## Ultramatic Oil Cooler Fittings

Early 23rd Series Custom Eights are equipped with radiator cores having 90° elbow fittings for attaching the oil cooler to transmission intake and return oil lines.

Later Custom Eights and all Ultramatic Drive equipped Eights and Super Eights have 45° elbows in the oil cooler tank.

This change to the 45° elbow was made to eliminate the sharp bend in the flexible hoses which sometimes caused a strain on the hoses and the fittings when the 90° elbows were used.

Only the 45° elbows will be furnished by the Parts Warehouse for service replacement and these are available under part number G444184 listed in the 23rd Series Preliminary Parts List.

If it is necessary to replace a flexible hose between the oil cooler and the intake and return lines, on an early Custom Eight, first turn a new 45° fitting into the original 90° elbow at the cooler.

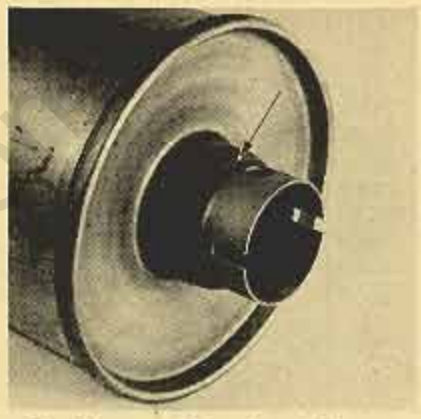
If it is necessary to replace an oil cooler fitting, the 45° elbow should be soldered into the cooler tank.

Either of these replacements involves the following readjustment in the metal tubing before connecting the flexible hose.

Slack off the two forwardmost tubing support brackets *only* and force the forward end of the tubing back, fixing its position so that the flexible hose connection is as nearly straight as is possible. By allowing the rear clips to remain tight around the lines, the necessary slack will be taken up by the tubing, preventing any change in the position of the rear hose connections.

## Muffler—Rear Support

To maintain an adequate supply of replacement mufflers for 1951, 2001, 2011, 2101, 2111 models, it was necessary to procure this item from two sources, "Walker" and "Mackenzie." No trouble will be experienced at installation with the "Walker" product. The early "Mackenzie" muffler, however, incorporated a shoulder on the rear flange which, at installation, resulted in an interference with the muffler support bracket and prevented placement of the positioning stud.



If this trouble should be experienced on a muffler replacement job, it may be easily corrected by "dinging in" the shoulder interference area with a ball-peen hammer.

The shoulder has been eliminated on later "Mackenzie" mufflers and no interference will be experienced.

## Corrections

Please make the following corrections in Service Counselor Vol. 23, No. 4, April 1, 1949.

On page 19, in the article "Reducing Clutch Jazz," delete the word "no" in the second from the last line in the second paragraph. The second sentence in the paragraph should read "When installing these insulators new spring to axle U-bolts, which are longer than standard, should be used."

On page 20, in the article "R-11 Overdrive Kit," paragraph No. 8 of the installation instructions, delete the words "remove the flange from the old overdrive and install it on the new one." In their place insert "install a new flange which may be ordered under part number 418929."

# AXLE AND SPEEDOMETER RATIOS—23rd SERIES

| Model | AXLE Ratios | AXLE Ultra-matic | AXLE Std. Trans. | AXLE Over-drive | SPEEDOMETER ULTRAMATIC Pinion No. | ULTRAMATIC Adaptor No. | ULTRAMATIC Gov. Assem. No. | ULTRAMATIC Teeth in Gears | STD. TRANS Pinion No. | STD. TRANS Teeth in Gears | OVERDRIVE Pinion No. | OVERDRIVE Teeth in Gears | Tire Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3.9 10-39 | Std. | Std. | | 421222 | 421049 | 423223 | 22-8 | 354976 | 17-6 | | | |
| 2301 | 4.1 10-41 | Opt. | Opt. | Std. | 423225 | 421049 | 423224 | 23-8 | 354976 | 17-6 | 412442 | 17-6 | 7.60-15 4 Ply |
| | 4.3 10-43 | Opt. | | Opt. | 423226 | 423216 | 423224 | 24-8 | | | 412443 | 18-6 | |
| 2302 Std. | 3.54 11-39 | Std. | | | 421220 | 421049 | 421834 | 20-8 | | | | | |
| | 3.9 10-39 | Opt. | Std. | | 421222 | 421049 | 423223 | 22-8 | 354976 | 17-6 | | | 7.60-15 4 Ply |
| 2382-85 Bodies | 4.1 10-41 | Opt. | Opt. | Std. | 423225 | 421049 | 423224 | 23-8 | 354976 | 17-6 | 412442 | 17-6 | |
| 2302-32 Deluxe | 3.54 11-39 | Std. | | | 421220 | 421049 | 421834 | 20-8 | | | | | |
| 2372-73 | 3.9 10-39 | Opt. | Std. | | 421222 | 421049 | 423223 | 22-8 | 367650 | 16-6 | | | 8.00-15 4 Ply |
| 2375-79 Bodies | 4.1 10-41 | Opt. | Opt. | Std. | 423225 | 421049 | 423224 | 23-8 | 354976 | 17-6 | 412442 | 17-6 | |
| | 3.54 11-39 | Std. | | | 421220 | 421049 | 421834 | 20-8 | | | | | |
| 2306 2333 | 3.92 12-47 | Opt. | Std. | | 421222 | 421049 | 423223 | 22-8 | 367650 | 16-6 | | | 8.20-15 4 Ply |
| | 4.09 11-45 | | Opt. | Std. | | | | | 354976 | 17-6 | 412442 | 17-6 | |
| | 4.54 11-50 | | Std. | | | | | | 347536 | 18-6 | | | 7.50-16 6 Ply |
| 2313 | 4.7 10-47 | | | Std. | | | | | | | 412444 | 19-6 | |
| | 3.92 12-47 | Std. | | | 421221 | 421049 | 423223 | 21-8 | | | | | |
| 2322 | 4.09 11-45 | | Std. | | | | | | 354976 | 17-6 | | | 8.20-15 6 Ply |
| | 4.36 11-48 | | | Std. | | | | | | | 412443 | 18-6 | |





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