SERVICE MANAGER'S
PERSONAL COPY

PACKARD SERVICE LETTER

VOL. 7 No. 12 JUNE 15, 1933

The Service Lesson
of the
Packard—LaSalle Course

And now the Service Assignment of the Packard-LaSalle Course is out!

It is interesting, comprehensive, full of good practical material for Service men and Salesmen.

The results of a careful, thorough study of this volume will be: An improvement in owner follow-up; better salesmanship in service selling; greater cooperation and appreciation of a mutual problem between Sales and Service departments; better satisfied owners; profitable business.

Packard owners will not fail to notice a very real improvement in our handling of their Service. If we can get our owners to pass the word along that Packard Service is the very finest and that there are really convincing reasons why Packard owners should patronize only Packard Service Stations for either Lubrication, Mechanical work or Accessories, and then if they find we do a better and more intelligent job of "personalizing" our contacts with them—surely we shall have justified our time and investment in the Sales Course.

If I'm not greatly mistaken this Eighth Assignment is just about the most important in the Course, so don't let's mind what the thermometer says, or how busy we are. Let's just get all the good there is out of this Service Lesson —and it is chock full of good stuff for everybody in the business.

Here's to more Service Minded Salesmen, and more Sales Minded Service Men.

Better Service = More Car Sales.

J. F. PAGE
General Service Manager

"EVERY OWNER A SALESMAN"

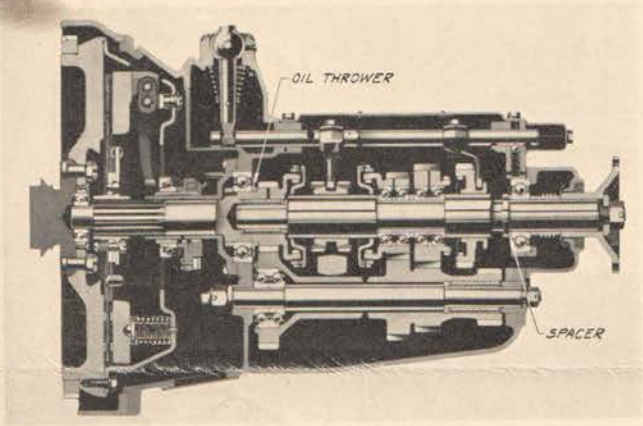
Servicing Synchro-Mesh Transmissions

Any service work required on either the three or four-speed synchro-mesh transmissions will, as a rule, fall within three classifications—namely:

1. "Hop-out" of either 2nd or 3rd speed.
2. Noisy operation.
3. Synchronizer not functioning properly.

The correction of these conditions is not at all difficult when these instructions are followed.

"Hop-out" is corrected by fitting a new sliding gear to the mainshaft. This gear has a recess in the splined hole ⅜" wide which prevents the rocking motion of the gear on the shaft. It is an excessive motion at this point that causes the "hop-out." These gears should fit this shaft as closely as possible and still slide freely. In case a hard shift has developed between second and third it may be due to the sliding gear having scored on one of the splines of the mainshaft.

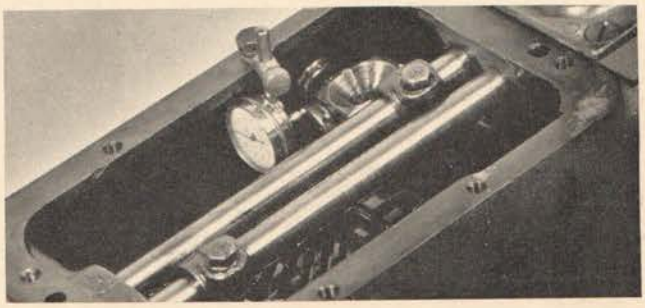


In transmissions reported as noisy it is generally found that either the lubricant used did not provide a standard result or the noise attributed to the transmission was in some other unit. When a noisy transmission is encountered, it is very apt to be caused by a bearing and an inspection of the mainshaft bearings would be in order. The rattle that is sometimes experienced when coasting with the clutch released is something that cannot be corrected by a field service operation.

Improper synchronizer adjustment will be indicated by the fact that the car speed at which a quiet shift can be made has been much reduced. First, check for clutch spin before working on the synchronizers.

The function of the synchronizer clutches is to synchronize the speed of the two gears to be engaged. Through the medium of cone clutch type brakes these clutches are engaged and then fully released before the gear engagement takes place. In order to have the synchronizer clutches provide the desired braking effect and release at the proper time, a definite clearance between the two members has been established. This can be measured with an indicator at the end of the spring boss on the synchronizer yoke as shown in the illustration. To make this check it is only necessary to remove the transmission cover.

The indicator should be set to contact with the top edge of the yoke boss and the movement of the yoke checked by starting from a neutral position. The shift lever should be moved until the yoke is just ready to release and jump back to a neutral position. The indicator reading should be not less than .115" nor more than .140". This reading should be taken in both directions from the same point at the rear end of the yoke boss. There is not enough room to use the indicator on the forward side of the yoke. This means that in taking the reading for the shift into high gear the indicator hand should be set ahead by forcing the indicator button against the yoke boss sufficiently to get the reading as the yoke moves away from the indicator on this shift.

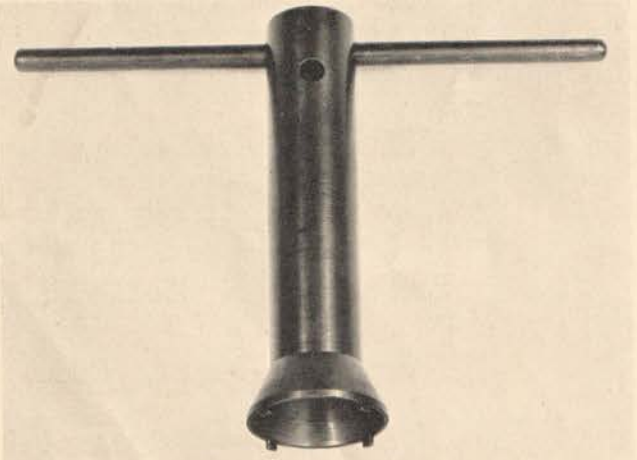


The indicator and holder as illustrated are carried under piece number ST-837 and sell for $10.00.

In case a synchronizer adjustment is required for second speed only, this can be accomplished without removing the transmission from the car—although it would be necessary to remove it in case a synchronizer adjustment for high speed is required.

Any movement of the synchronizer yoke in excess of .140", after either a second or high speed shift, should be reduced by a thicker shim at the point indicated on the drawing, and a movement less than .115" will require a thinner shim at the specified point. A shim or oil slinger of .001" thickness is equal to .004" movement of the synchronizer yoke. Therefore, if it were necessary to reduce yoke movement by .008", you would add .002" to the thickness of the shim or oil slinger, depending on whether the adjustment was being made to the second or high gear synchronizer. We believe, however, that you will find very few synchronizers requiring adjustment, as very little wear seems to take place in these parts.

As stated before, the synchronizer clutch should be fully released before the engagement of the gears takes place. This can be checked by pushing the shift lever through the shift until the synchronizer yoke jumps back to a neutral position. Stop the shift lever just at this point. Then turn the clutch shaft to see if it turns free without turning the mainshaft.



Tool No. ST-914 is a transmission clutch shaft bearing nut wrench which has been designed to remove the clutch shaft to bearing nut when it is necessary to adjust the high speed synchronizer. It sells for $3.50.

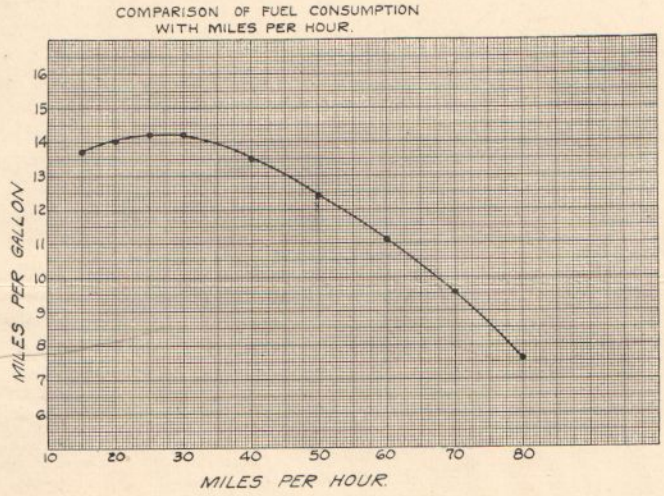
Gasoline Consumption

The fuel consumption of any car will depend so largely upon its operating conditions that without a knowledge of these conditions, it is impossible to tell what the fuel consumption should be.

Numerous gear changes and accelerations, caused by frequent stops in heavy traffic, will increase the consumption. Sub-normal motor temperatures, because of the short distances covered, improper adjustments and poor mechanical condition of the motor are also important factors.

The influence the car speed has upon fuel consumption is seldom appreciated, and the accompanying chart illustrates a test recently completed. The fuel economy shown on this chart is the result of an uninterrupted run at the different speeds, and the economy shown could not be duplicated under normal driving conditions.

The increase in fuel consumption at high speeds is due almost entirely to increased wind resistance, and is something entirely outside of the control of the driver. High speeds will inevitably demand more gasoline.



Numerous quick accelerations, as well as the operation of the car in hilly districts, will increase the fuel consumption. The fact that the Tenth series cars have better acceleration and a higher top speed than our previous models will produce a definite increase in the amount of fuel consumed, and it may be necessary to point out to the customer that in order to secure the fuel economy he expects, he must drive his Tenth series car as his previous cars were driven.

The spark timing is very important in its effect on fuel economy. In order to secure the best result the spark should be set as far advanced as is possible without encountering objectionable spark knock.

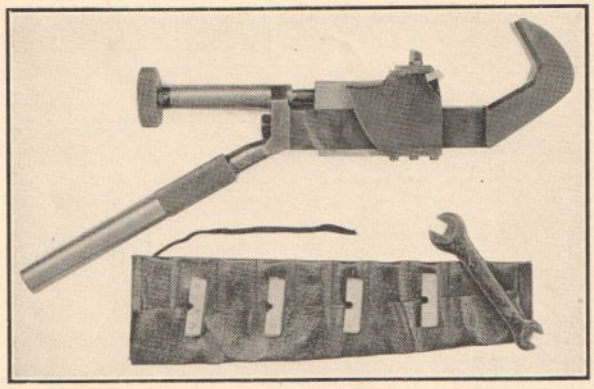
Replacement of Connecting Rods

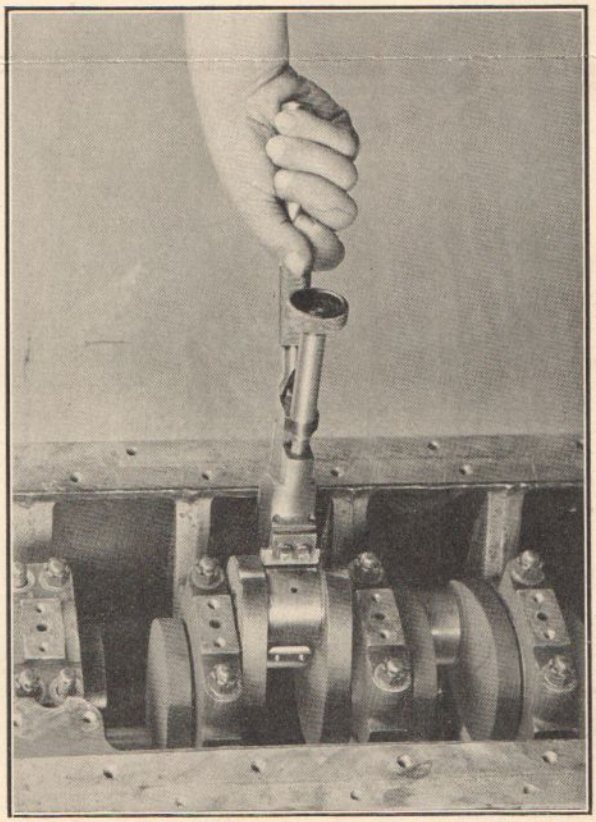
In the replacement of connecting rods it is essential that the crank pins be smooth and round. Unless this is the case, it cannot be expected that the new rod bearings will stand up satisfactorily.

Several cases have been reported to us where new connecting rods have been installed in a motor, and the rod bearings have lasted only a few hundred miles. This condition can be traced directly to the fact that the crank pins were not properly prepared. If the crank pins are out of round more than .0015", the condition should be corrected before new rods are installed.

We are illustrating the crank pin returning tool carried by our special tool department. This tool will do a very satisfactory job and will insure satisfactory performance in the connecting rods which are installed. We do not know of any other way in which such a result can be obtained.

Our connecting rods are carried in stock with the rod bearings reamed to the standard dimension, and also reamed .015" undersize. If the crank pins are cut down with the re-turning tool, it will, of course, be necessary to use the undersized rods.





CRANK PIN RE-TURNING TOOL

Tool No. S. T. 707. Tool No. S. T. 895—905-906

CRANK PIN CUTTING OIL

Tool No. S. T. 706—Quart

New Shop Equipment

Enclosed with the Service Manager's copy of this issue are three pages for the Packard Service Merchandising Manual. The page numbers will indicate the position in which they are to be inserted. These pages show some of the recent installations of the latest in lubrication equipment and others in scientific equipment. You will undoubtedly want to keep posted on what other distributers are doing along these lines. One page illustrates the latest development in motor and electrical analyzing equipment.

You already have information on the larger pieces of equipment for this purpose and this will give you two additional pieces for consideration. All three of these are made by the same people and are approved by the Factory Special Tool Department. By ordering any of this equipment through this department there will be a considerable saving.

If we can be of any assistance in recommending or obtaining for you any items of this kind, please write Harry Taylor, Special Tool Department.

Summer Mailing Piece

SEE GL-549 FOR DETAILS ON THE VACATION MAILING PIECE. It is based upon the idea that there will be an unusual amount of travel by automobile this summer. It ties in with the World's Fair and the Packard exhibit. This exhibit, like many others, will be of great interest to Packard owners. It depicts Packard's Third of-a-Century of Progress in design and construction. There will be a portion of the Precision Exhibit and a movie showing an interesting Packard story. Cars will be on display and there will be a courtesy desk with a service man in attendance at all times. Your owners going to Chicago should be made to feel that this is their headquarters—you should capitalize on these facts. GET YOUR ORDER IN EARLY!

Popular Summer Accessories

TRUNKS . . .

The touring season is getting under way and two of the most popular accessories for tourists are: Trunks and Car Radio.

Every deluxe equipped car in your territory is a prospect for a rear rack trunk. Remind your service salesmen of this and have them canvass every owner who comes into your Service Station, keeping in mind that Packard Trunks eliminate the necessity of carrying handbags within the car. They have every requisite of appearance, refinement and durability demanded by those desiring quality luggage.

Each trunk is made of three-ply basswood covered with a special material that will retain its original appearance for a long period. The interlocking edges of the trunks make them both waterproof and dustproof.

RADIOS . . .

The next three months is the best season for selling car radios. This is an item that is steadily gaining in popularity. We are quire confident many owners would purchase a radio if they were aware of the progress that has been made in the development of car radio in the past year. The quickest way to prove this is by demonstration, preferably on a car. A number of our distributers now have a radio on their car demonstrator and find it a very effective way of merchandising this radio. Another valuable sales asset is our radio stand. One of these should be in every Service Department.

Remember, we have two models: one, Packard DeLuxe which retails for $89.50 installed and the Philco No. 5 which retails for $39.95.

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.*

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