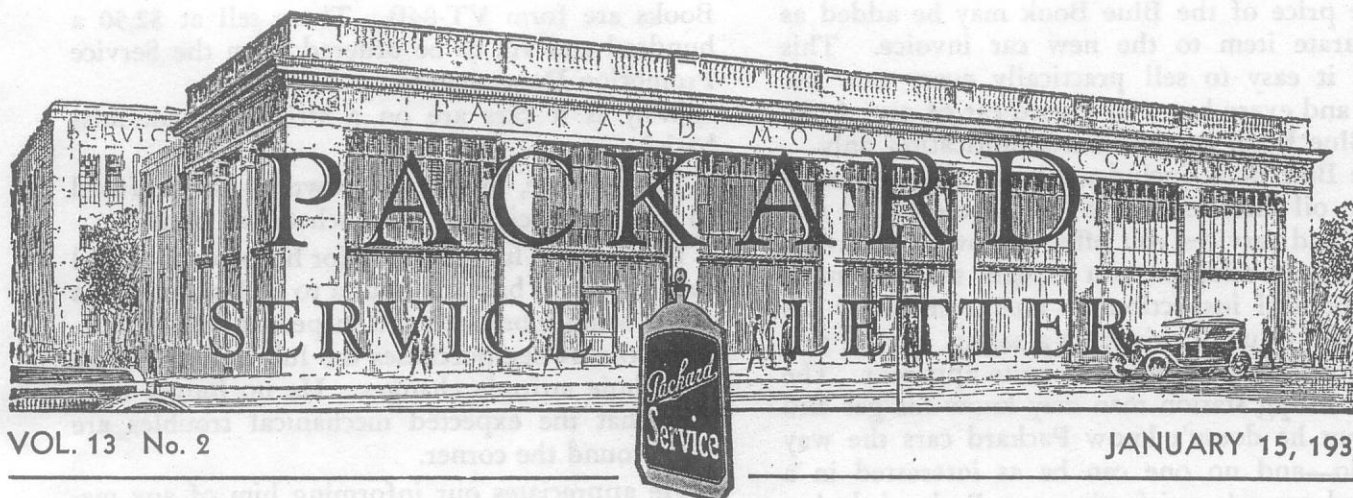


C. R. Smith



VOL. 13 No. 2

JANUARY 15, 1939

## PROFIT BUILDER No. 1—LUBRICATION

A good lubrication business creates regular customer circulation through your service department quicker and at lower cost than any other service you have to offer.

Accessory sales are profitable but infrequent. Many are of a seasonal nature or on a mileage interval basis such as heaters, radios, tires and batteries. The sale of these items does not assure repeat calls at regular intervals.

Safety services such as headlight, wheel alignment and brake work likewise are profitable, but do not build regular customer circulation. The calls for these items are infrequent and unpredictable. Like accessories they do not call for regular repeat visits at frequent intervals.

Even the sale of a new car does not mean regular visits, at least not after the warranty period. But you can bring customers in regularly with a modernized lubrication set-up and a definite selling plan. Lubrication items are the only items which you can sell requiring service at specified intervals of time and mileage. It is the only part of your business which can build regular customer circulation for you.

Selling lubrication is easy because the customer needs it and wants it; but you do have competition. The gas stations and super service stations have a monopoly on convenient locations. Every time the gas gauge says "Empty" your customer sees your competitor nine times to your one. Where would you buy lubrication if you made

nine calls in one place to one in another and they both sold lubrication? Is there an answer that will give you this business?

There is and other dealers are using it—The Packard Lubrication Coupon Book. You say there isn't enough profit in the Book and there is more in the individual sale of lubrication. Maybe there is, but will you get every lubrication job for 10,000 miles? You know you won't.

Another thing, by selling the Book you have one selling expense for fifteen items. Isn't this cheaper than trying to sell him fifteen separate items fifteen different times? Another definite advantage from the Book is that you are paid in advance for 10,000 miles. Is there any other part of your service you can collect for in advance?



The price of the Blue Book may be added as a separate item to the new car invoice. This makes it easy to sell practically every new car buyer and every buyer of a used car of over \$350. The Blue Book covers chassis lubrication only.

The Buff Book includes all oils and lubricants and an oil filter exchange. For these added materials and services you offer the owner a saving of 25%. In addition you explain the advantage of periodical inspection by men who know his car. The value of this from a safety, as well as a money saving standpoint, is quite apparent. The corner filling station man may know his gas and oils, but he doesn't know Packard cars the way you do—and no one can be as interested in a Packard owner's satisfaction as a Packard dealer.

The only other supplies you need are the coupon books. The 1939 Blue Coupon Books are form VT-83B. The standard 1939 Buff Coupon

Books are form VT-84B. These sell at \$2.50 a hundred and are to be ordered from the Service Promotion Department.

Why is it cars are on a strictly hit-and-miss basis?

Just because, in the past, owners have refused to care for their cars on a scheduled basis.

Point out to him that it is for his protection and that his repair bills are bound to be less, when his car is being lubricated and inspected on schedule. Once the owner purchases the lubrication service his whole attitude changes. He no longer is in fear that the expected mechanical troubles are just around the corner.

He appreciates our informing him of any mechanical items that need attention—and about 50% of your shop work will come from this source.

If he does not choose to have the repairs made, he at least blames himself when the troubles arrive, because he has become maintenance-minded.

Report your inspection to the owner and follow up on the report by using form PD128 in duplicate whenever a lubrication item is written.

How would you like to have 50% of your owners pay in advance for their lubrication for 10,000 miles? It's being done and better! A service station in Oklahoma runs 43%, in New York 49%, in Utah 56%, in Illinois 60%, in California 68%, in Ohio 76% and in Colorado 86%.

Check your percentage. If it isn't showing a half to two-thirds of your owners coming in at regular intervals on a "Paid-in-advance" plan then you are missing a bet in both volume and owner satisfaction.

## ECONO-DRIVE REAR BEARINGS

The Econo-Drive rear bearings were made a tight fit on the tail shaft from about December first. This was done by grinding the tail shaft slightly larger and selecting the bearings to make the forward one a no-clearance to .0002" press fit and the rear a no-clearance to palm-push fit. This bearing fit is identified by a "G" or subsequent letter stamped on bottom of the case.

Disassembly and reassembly of these units varies slightly from the procedure given in the October 1, 1938, Service Letter and "The Packard Econo-Drive" film supplement, in that the tail shaft and bearings must be assembled and preloaded on the bench before the case is assembled to the unit. Preloading can be done more accurately on the bench and following procedure is recommended.

FORM PD-128

**PACKARD**  
LUBRICATION—INSPECTION—REPORT

Name \_\_\_\_\_

LICENSE No.	MODEL AND TYPE	MOTOR No.
LUBRICATION BOOK	COUPON No.	MILEAGE

We have lubricated or otherwise serviced your Packard car, as indicated, in accordance with our agreement. The following suggestions are made to protect the mechanical life and efficiency of your car.

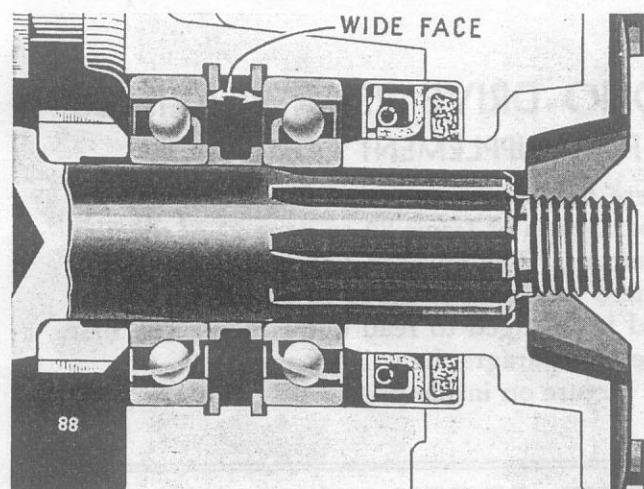
Blue	Buff	WE HAVE LUBRICATED	WE SUGGEST
		<b>MOTOR</b>	
<input type="checkbox"/>	<input type="checkbox"/>	Water Pump	<input type="checkbox"/> Radiator, Rust Preventive
<input type="checkbox"/>	<input type="checkbox"/>	Generator	<input type="checkbox"/> Add Antifreeze
<input type="checkbox"/>	<input type="checkbox"/>	Starter Motor	<input type="checkbox"/> Hose, Renew
<input type="checkbox"/>	<input type="checkbox"/>	Distributor	<input type="checkbox"/> Fan Belt, Adjust Renew
<input type="checkbox"/>	<input type="checkbox"/>	Crankcase	<input type="checkbox"/> Motor Oil, Level Change
<input type="checkbox"/>	<input type="checkbox"/>	Steering Gear	<input type="checkbox"/> Oil Filter, Renew
<input type="checkbox"/>	<input type="checkbox"/>	(10,000 Mile Intervals)	<input type="checkbox"/> (Every 8,000 Miles)
<input type="checkbox"/>	<input type="checkbox"/>	Air Cleaners	<input type="checkbox"/> Heat Control Valve, Free Up
		<b>CHASSIS</b>	
<input type="checkbox"/>	<input type="checkbox"/>	Inflate Tires lbs.	<input type="checkbox"/> Tire Condition
<input type="checkbox"/>	<input type="checkbox"/>	Steering Rods	<input type="checkbox"/> RF RR LF LR
<input type="checkbox"/>	<input type="checkbox"/>	Support Arm Pins	<input type="checkbox"/> Wheel Alignment, Check
<input type="checkbox"/>	<input type="checkbox"/>	(10,000 Mile Intervals)	<input type="checkbox"/> Front Wheels, Adjust
<input type="checkbox"/>	<input type="checkbox"/>	Knuckle Pins	<input type="checkbox"/> Torque Arm Sockets, Renew
<input type="checkbox"/>	<input type="checkbox"/>	Clutch Pedal Shaft	<input type="checkbox"/> Exhaust Gaskets, Renew
<input type="checkbox"/>	<input type="checkbox"/>	Drive Shaft Splines	<input type="checkbox"/> Renew Muffler Tail Pipe
<input type="checkbox"/>	<input type="checkbox"/>	Brake Clevis Pins	<input type="checkbox"/> Universal Joints, Repack
<input type="checkbox"/>	<input type="checkbox"/>	Front Wheels, Repack	<input type="checkbox"/> (30,000 Mile Intervals)
<input type="checkbox"/>	<input type="checkbox"/>	(10,000 Mile Intervals)	<input type="checkbox"/> Rear Wheel Bearings, Repack
<input type="checkbox"/>	<input type="checkbox"/>	Transmission Oil	<input type="checkbox"/> (30,000 Mile Intervals)
<input type="checkbox"/>	<input type="checkbox"/>	(Change In Spring)	<input type="checkbox"/> Transmission Oil, Level Renew
<input type="checkbox"/>	<input type="checkbox"/>	Differential Oil	<input type="checkbox"/> Differential Oil, Level Renew
<input type="checkbox"/>	<input type="checkbox"/>	(Change In Fall)	<input type="checkbox"/> Spring Shackle Cords, Renew
<input type="checkbox"/>	<input type="checkbox"/>	Spring Shackles	
		<b>BODY</b>	
<input type="checkbox"/>	<input type="checkbox"/>	Battery, Add Water	<input type="checkbox"/> Terminals, Clean and Tighten
<input type="checkbox"/>	<input type="checkbox"/>	Clean Gear Shifter Ball	<input type="checkbox"/> Battery Cables, Renew
<input type="checkbox"/>	<input type="checkbox"/>	Clean Steering Wheel	<input type="checkbox"/> Horn, Clean and Adjust
<input type="checkbox"/>	<input type="checkbox"/>	Bonnet Lacings	<input type="checkbox"/> Pedal Pads, Renew
<input type="checkbox"/>	<input type="checkbox"/>	Dovetails and Latches	<input type="checkbox"/> Clutch Pedal, Adjust
<input type="checkbox"/>	<input type="checkbox"/>	Door Hinges	<input type="checkbox"/> Foot Brakes, Adjust
<input type="checkbox"/>	<input type="checkbox"/>	Clean Door Handles	<input type="checkbox"/> Hand Brakes, Adjust
<input type="checkbox"/>	<input type="checkbox"/>	Clean Rear Windows	<input type="checkbox"/> Generator Chg. Rate, Adjust
<input type="checkbox"/>	<input type="checkbox"/>	Clean Rear Lamp Lenses	<input type="checkbox"/> Rear Lamps, Out
<input type="checkbox"/>	<input type="checkbox"/>	Clean Head Lamp Lenses	<input type="checkbox"/> Head Lamps, Out Re-aim
<input type="checkbox"/>	<input type="checkbox"/>	Clean Windshield	<input type="checkbox"/> Wiper Blades, Renew

Form PD 128, \$.80 per 100; \$2.95 per 500. Order from REYNOLDS & REYNOLDS, Dayton, Ohio



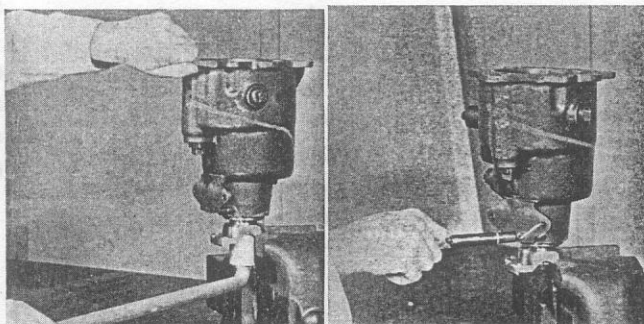
To install new bearings after the case with tail shaft and clutch sleeve has been removed.

1. Remove universal joint flange. Note: Mark splines before removing so it can be assembled on same spline. Flange must be tight fit. If loose, select splines for tight fit or tin shaft.
2. Tap on end of tail shaft with soft hammer driving tail shaft, forward bearing, and spacer out toward front of case.
3. With soft drift on outer race, drive outer bearing out toward the rear.
4. Press bearing off tail shaft. Use S.T. 5086 puller by removing cone on screw and hooking fingers under speedometer driving gear.
5. Put speedometer drive gear on tail shaft with taper toward rear.
6. Press new bearing on tail shaft. Wide face of outer race stamped "Support Here" must face rear end of shaft. Use sleeve when pressing bearing on and press on inner race only. Press bearing up tight against speedometer drive gear.
7. Engage shifter finger in clutch sleeve and move sleeve to rear position where ribs in case will support it.
8. Line up splines on tail shaft with those in clutch sleeve and put tail shaft in place. Tap on forward end of tail shaft with hammer handle to seat bearing.
9. Support case and tail shaft on block under forward end of tail shaft.
10. Put new spacer sleeve on tail shaft.
11. Put on rear bearing with wide face of outer race, stamped "Support Here" facing forward. Use sleeve against inner race and tap



bearing into place. Caution: tail shaft must be so supported that it takes entire force of pressing on bearing.

12. Install new oil seal after soaking in oil or use old seal if undamaged.
13. Install universal joint flange washer and nut. Turn nut up until bearing seats against spacer but not tight.



14. Support case vertically in vice with jaws gripping about half of flange so that nut is exposed.
15. Hook spring scale through hole in rear support pad and by pulling at a right angle measure force required to overcome friction drag of oil seal.
16. Tighten nut until spacer sleeve is felt to buckle. This will require a good strong pull on long handled (30"-36") wrench. Use ST. 5084. To avoid possible damage to the bearings, rotate them by spinning the case while tightening.
17. Then alternately measure preload and tighten until a force of  $3\frac{1}{4}$  to  $4\frac{1}{4}$  pounds in addition to the previously measured friction drag is shown on the spring scale.

Caution: Do not back off nut. If preload is carried too high remove rear bearing, install new spacer and preload as before.

Installing the case with the tail shaft and bearings assembled and preloaded varies from previous instructions only in detail.

1. Pack overrunning clutch cam with heavy grease and place rollers in retainer.
2. Lift case into place and hold at slight angle so that inner bore of tail shaft rests on rollers.
3. Rotate universal flange sharply counterclockwise, while pushing forward, on flange, causing rollers on cam to enter tail shaft.
4. Rotate flange to line up spline on cam and sleeve. Slide case into place and bolt.

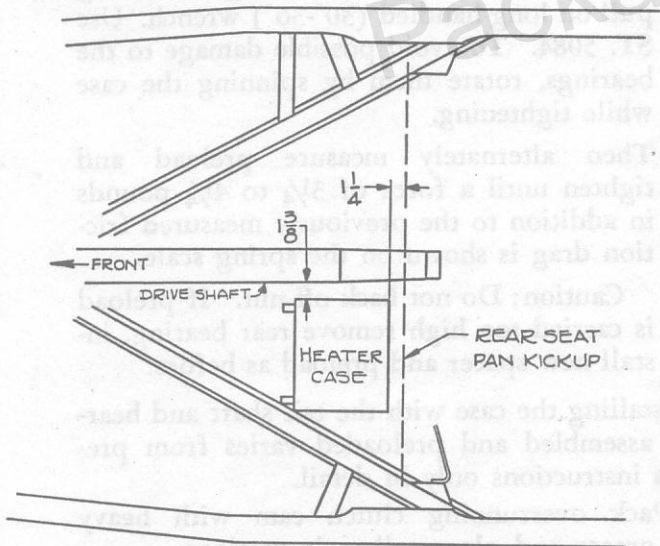
## REAR COMPARTMENT HOT WATER HEATERS

We have had a number of requests for instructions on installing the PA-338017 Rear Compartment Heater in 17th Series five-passenger sedan bodies Nos. 1272, 1282, 1292. The sketch illustrates the layout we feel will be satisfactory.

The owners should be told that when this heater is installed in one of these cars, the register will extend back under the edge of the rear seat cushion approximately  $3\frac{1}{2}$  inches. The heater switch will come under the edge of the rear seat cushion; however, it can be easily reached in this position. A separate switch can be installed on the instrument panel, to operate this heater, if the customer requires it.

It will be necessary to put a small amount of padding under the sides of the carpet where it is cut to receive the heater, as the floor is not level at this point and the padding will bring the carpet up against the register frame, giving a better appearance to the installation.

Locate the heater as shown in this sketch by removing the floor register and holding the heater case up against the bottom of the floor pan. Work underneath the car. From this point on follow the regular instructions provided with each rear compartment heater.

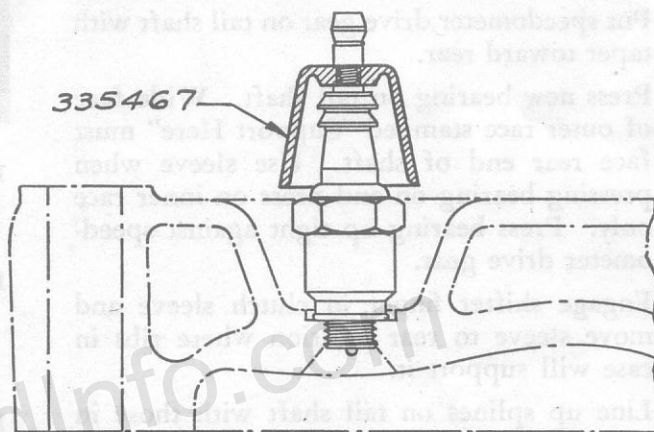


## SPARK PLUG COVERS

Many complaints of hard starting or failure to start, may be avoided by installing spark plug covers No. 335467.

After a car has been out in the rain or after changes in atmospheric temperature, condensation will form under the bonnet. If enough condensation forms on the spark plugs they will short across the porcelain and fail to fire until the porcelain has been wiped clean and dry. Dirt on the porcelains collects and holds the moisture thus making plugs with dirty porcelains more susceptible to shorting than if the porcelains were clean.

Plugs fitted with covers cause very little trouble due to external shorting, inasmuch as the covers catch the dirt and dust which would otherwise catch on the porcelain. Although the cover will eventually become dirty, the air gap at the lower



A335467 Spark Plug Cover. Suggested list 8c. ea.

end prevents the current from grounding. Should the cover finally become so dirty that the current shorts to the cylinder head the cover can be easily cleaned without removing the spark plug.

Every Service salesman, or other individual who meets customers should carry a spark plug and one of these covers in his pocket. An explanation and demonstration will sell them to the majority of your owners. Order from the Parts Department.

## ECONO-DRIVE REAR BEARINGS FILM SUPPLEMENT CORRECTION

There has been some misunderstanding of the first paragraph of frame 88 on page 22 of the film supplement, "The Packard Econo-Drive."

Where reference is made to the inner race it should be changed to read outer race. The first and second paragraphs will then agree.

See picture on inside page.