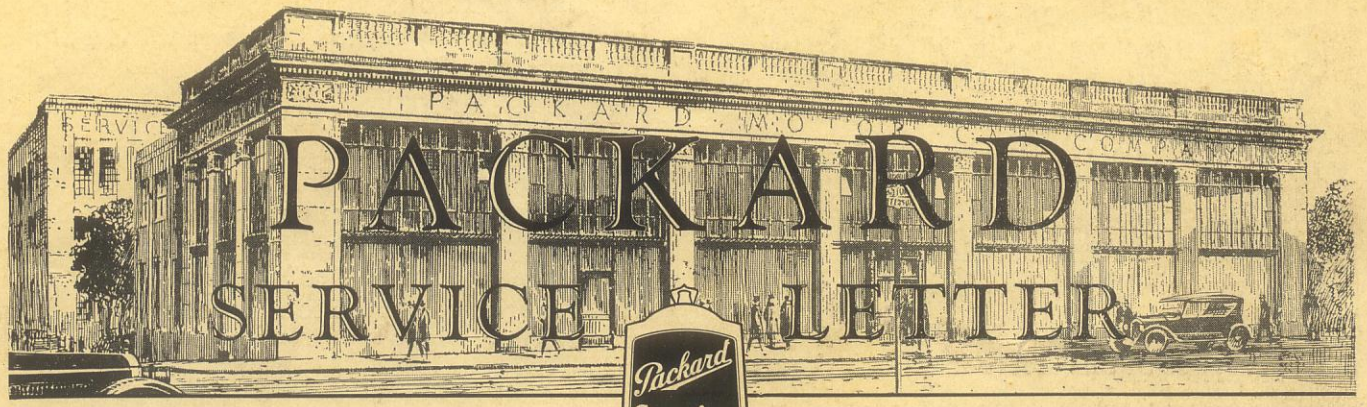



VOL. 17, NO. 21 NOVEMBER 1, 1943

*Presenting*

# PACKARD PARTS CONTROL PLAN

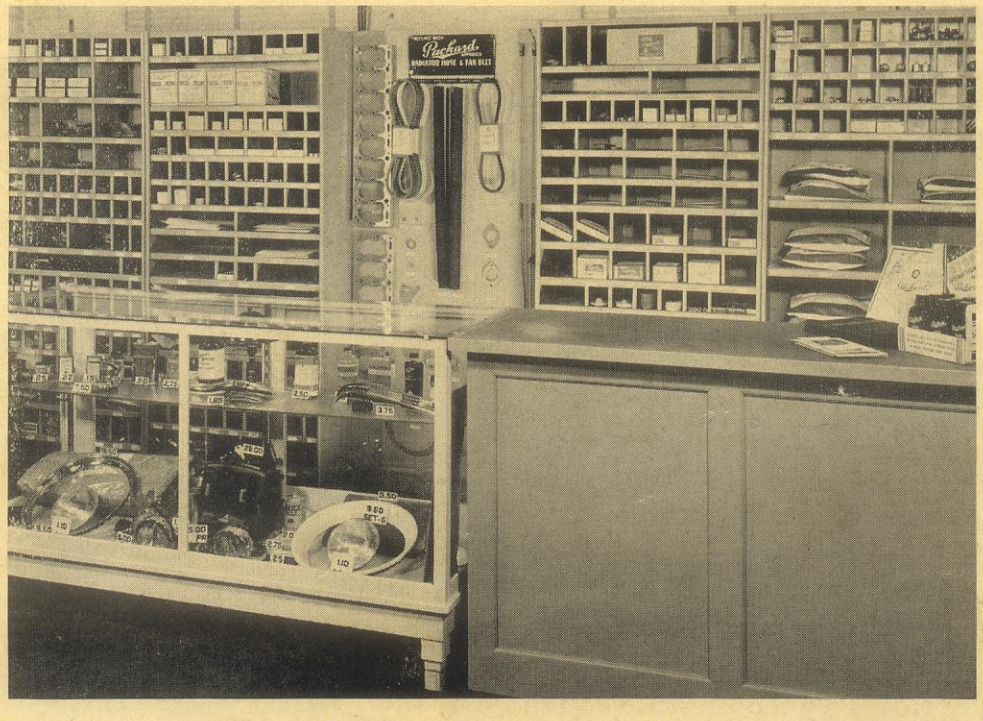
The Packard Parts Control Plan is offered to all dealers to help them:

1. Build a more profitable service business.
2. Increase profits from parts sales.
3. Help to build new car sales.
4. Reduce obsolescence.
5. Facilitate a six time annual parts turnover.
6. Reduce Emergency Orders.
7. Create an even flow of parts capital, and increase Packard car owner satisfaction.

The plan is one of simplicity. It consists of a two months' inventory of the fastest moving parts, systematically arranged by groups in labeled bins. There is an easy to use inventory control and ordering system which will maintain a 60-day supply of the needed parts based on each Dealer's individual requirements.

There is a Packard Parts Control Plan for every size dealer.

Your Distributer has all the detailed information on the Plan.



The postcard enclosed is for your convenience when requesting more information and assistance if installation of the Plan is desired or being considered

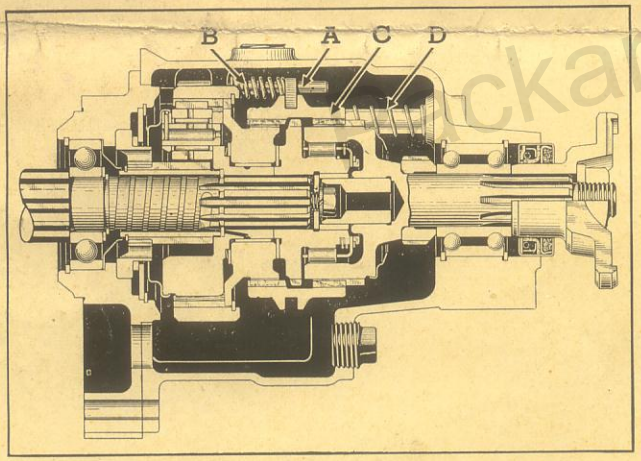
Shop Talk

## OVERDRIVE LOCKOUT SLEEVE

If a car equipped with an overdrive will not back up, after the transmission is shifted into reverse, the trouble is usually in the overdrive lockout sleeve.

The purpose of this sleeve is to lock the over-running clutch. It is operated in two ways. First, it can be moved to the locked position by pulling out the overdrive control knob on the instrument board. When this is done the transmission remains in direct drive at all times, and the overdrive does not function.

The sleeve is also moved to the locked position when the transmission is shifted into reverse. Otherwise the over-running clutch would permit the transmission drive shaft to turn without turning the universal joint shaft. The manner in which the lockout sleeve is operated from the transmission is shown in the illustration.




When the transmission goes into reverse the shifter rod A is moved backward. The flange on the rod presses against the forward end of the spring B, and the lockout sleeve C is forced backward so that it engages the over-running clutch. When the transmission is shifted out of reverse the shifter rod moves forward, and the spring D is then able to push the lockout sleeve forward and out of engagement.

Now comes the reason for this explanation.

You can see that when you go into reverse the sleeve is actually moved by the pressure of the spring B. Unless the sleeve moves freely the spring pressure may not be enough to push it back into position. If the sleeve does not move freely it is usually caused by the condition of the lubricant.

Perhaps it is simply a cold weather condition. A thick summer lubricant may "get by" as far as the shifting of the transmission gears is concerned because the gears are moved positively, and yet the same lubricant may prevent the operation of the lockout sleeve because the resistance of the lubricant may be too great for the spring to overcome.

The same result may develop in hot weather or hot climates from an entirely different cause. Transmission oil which has been in use for a long time has a tendency to become thick and gummy. The hotter the oil has been and the longer it has been used the greater this tendency will be. It is more apt to happen to an EP lubricant than to a straight mineral oil.

This thick, gummy lubricant may deposit on the splines of the lockout mechanism so that the sleeve cannot be shifted. Sometimes it can be removed by flushing the transmission and overdrive, but in extreme cases it may be necessary to disassemble the unit in order to remove the deposit.

If you have followed the above explanation you can see that it is a simple matter to check the operation of the sleeve. If the car will not move when it is in reverse pull out the control knob on the instrument board. Usually this will engage the sleeve. You can make a further check by disconnecting the control linkage at the transmission and operating the small lever by hand. This will tell you whether the lockout sleeve is sliding freely and traveling the proper distance.

## HAND BRAKE CABLES

The failure of most hand brake cables is caused by lack of lubrication.

If the cable is dry the wire strands may eventually start to fray and break. Water entering the conduit will cause the cable to rust and freeze.

The cables can be lubricated by disconnecting the ends. You can then slide the cable through the conduit far enough to lubricate each end in turn.

If you find that the rear cables are sticking in the conduit you should not only clean and lubricate the cables themselves but also check the condition of the conduits.

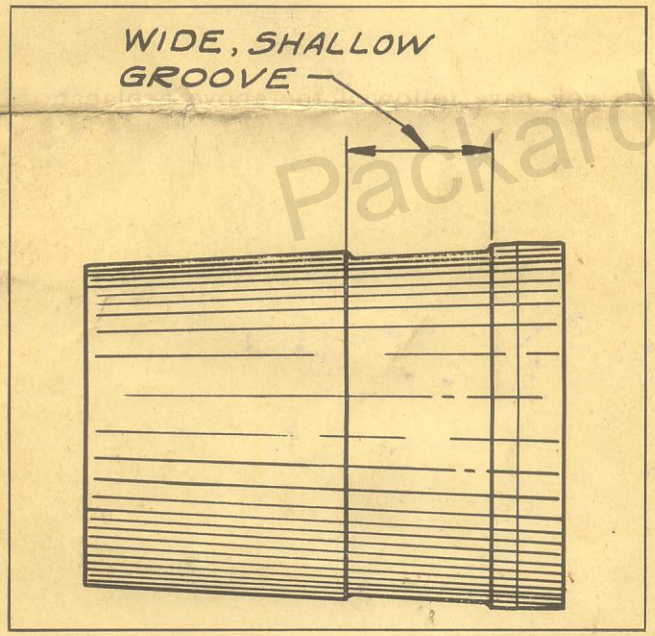
In some cases you may find that the conduits have rusted through, and water has entered to such an extent that the cables cannot be freed up. This is particularly apt to happen at the point where the rear conduit bends sharply before entering the brake support.

If the conduit shows evidence of corrosion but has not yet rusted through its life can be prolonged by cleaning the conduit and covering it with a protective coat such as asphalt paint.

## Parts

## DIFFERENTIAL DRIVING PINION BEARING SLEEVE

The illustration shows the differential driving pinion bearing sleeve, piece No. 341792. This is the "crush sleeve which provides the pre-load for the pinion shaft bearings.




Please check your stock on this piece number, particularly if you have received any recent shipments from the factory. We find that in the machining of these sleeves the shallow groove shown in the illustration was in some cases omitted.

This means that the sleeve cannot compress when the nut is tightened, so that it is impossible to obtain the proper bearing pre-load. If you find any such sleeves in your stock they should be returned to the factory for credit.

## —in the Field

Another Packard birthday was celebrated by Walter Jarrett. He has been with Packard 25 years. Working in the Cost Department, Service Sales and as Service Manager at Wells St., Hubbard Woods, and Evanston. Walter has established a fine reputation as a merchandiser and organizer. We join his many Chicago friends in wishing him well.



## Accessories

## BLUE CORAL

Tell your customers a "new car finish" can be restored, protected and sealed for the duration with a Packard Blue Coral Treatment.

Some day they will be trading their car in on a new one. It will be a much older car than they used to trade in. By protecting its finish they will protect its value.

The finish of a car doesn't need what is commonly called a "polish job." These "polishes" tend either to leave a soft coating to which dirt adheres, or they have harsh abrasives or lacquer softening chemicals which remove the paint.

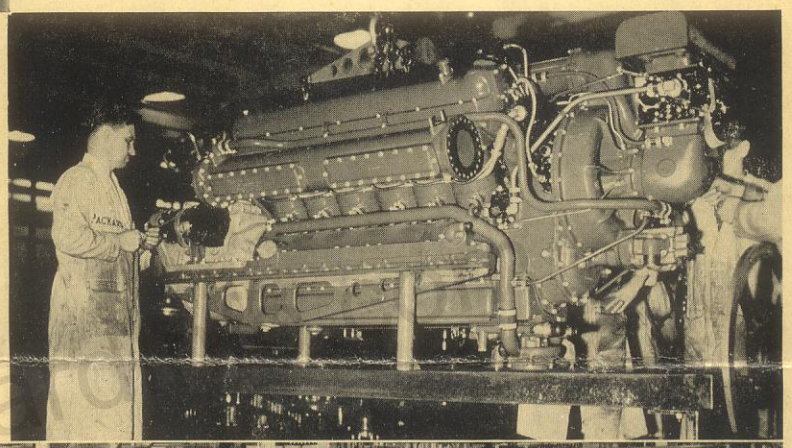
A treatment is needed that removes nothing from the finish, but restores its original new-car lustre and seals it against the attack of the elements. That is what a Blue Coral Treatment does. It burnishes the finish, making it hard and glass-like, so that dirt cannot adhere to it, and sun, rain, sleet or snow cannot dull it.

A Blue Coral Treatment will retain the finish's lustre for months. Only a simple wash with plain water is needed to remove all accumulated dirt without scratching or harming the surface.

# – at the Factory

A new page has been added! One we think you will like because it will show you the mile long Packard factory at war now building the Rolls-Royce aircraft engine and the Packard Marine engine in a staggering volume, compared to previous car volume. The Regional Managers on their last visit to Detroit took a trip through these plants on the "Toonerville Trolley." We will take you on a similar trip in future issues and show you what Packard is doing. Many of the lessons learned in this precision building of war engines will some day, and soon we hope, be used in building even finer post-war Packard cars in much larger quantity than ever before.

*Here is the Packard Marine engine* that powers the Torpedo boats for U. S. and allied navies. It is a V-12 Supercharged engine. Basically aircraft in design, it stems from the Packard Liberty engine of World War 1 fame. It is an outgrowth of those engines which powered the Miss America boats in numerous record-breaking races. The output per cylinder is greater than that of the entire Packard 120 car engine.



*Here is the aircraft engine assembly line.* Skillful adaptation of automotive shop practices has enabled Packard to mass produce the high precision Rolls-Royce engine formerly built by hand. Important among these applications of automotive technique in the Packard aircraft engine division is the moving conveyor-line system shown. This double line is nearly two city blocks long. Here the famous Packard-built Rolls-Royce engine is assembled. It is used in the Mustang, the Warhawk, the Hurricane, the de Havilland Mosquito and the Lancaster.

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Be sure and stay with us on this trip through Packard's war-time factory and for other current Packard news. It will be continued in the issues to follow.

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