

# SERVICE Counselor

PACKARD MOTOR CAR COMPANY



VOL. 25, NO. 5

MAY, 1951

## Lustur-Seal

Lustur-Seal is a scientific preparation used for restoring and preserving the original beauty of enamel and lacquer paint finishes. Its greatest use naturally, is on automobiles but its application is not limited to automotive finishes. This product is normally classed as a "polish" for lack of a better descriptive term. However, Lustur-Seal will eventually be known as a "paint conditioner" because it is chemically formulated to become a permanent part of the paint itself.

### WHY IS LUSTUR-SEAL DIFFERENT FROM OTHER POLISHES?

Lustur-Seal is different for the simple reason that it does not "polish." Every other material on the market attempts to leave a "protective film" over the surface of the paint. This film can be removed by the heat of the sun, washing with warm water, use of soaps or detergents and by the natural wear and tear of everyday driving. These films become soft and collect dust and dirt, or become brittle and crack leaving an unsightly appearance requiring frequent "cleaning and polishing." As Lustur-Seal chemically combines with the paint, there is nothing left on the surface but paint. *There is nothing to wash or melt off, nothing to collect dust or dirt, and nothing to crack or crinkle.* Due to the fact that *all* other materials leave a film over the paint surface, sooner or later this film will discolor. The more exposed portions of the car discolor first and as a result the finish has a number of different shades of the same color.

*There is nothing on a Lustur-Sealed finish to discolor. The true color of the paint is undisturbed.*

"Protective film" polishes destroy the depth of luster by coating the outer surface. *Lustur-Seal adds depth to the luster much like the backing of a fine mirror.* A coating of wax on a fine mirror would destroy its brilliance, and the same thing happens on a paint surface.

In order to repolish an automobile that has had a coating of common polishes, it is necessary to remove the old coating by the use of abrasive cleaners. Of course this scratches and destroys the surface of the paint beyond repair and a considerable amount of

paint is removed with each application. *Lustur-Seal does not scratch or remove paint, rather it conditions and strengthens the finish.*

### WHAT ARE THE INGREDIENTS OF LUSTUR-SEAL?

Lustur-Seal is a secret chemical compound that was discovered after many years of experimentation. It is composed of over 90% of the same ingredients that are normally found in paint. All of these materials have a natural affinity for paint and as a result easily become a permanent part of the finish during the Lustur-Sealing process.

### HOW DO THE INGREDIENTS IN LUSTUR-SEAL COMPARE WITH COMPETITIVE MATERIALS?

All competitive materials have as one of their basic ingredients *wax, glycerine, or resin.* All of these materials are foreign in nature to paint. *There is no wax, glycerine, or resin in Lustur-Seal.* All the materials in Lustur-Seal have an affinity to paint.

### HOW IS LUSTUR-SEAL APPLIED?

Lustur-Seal is applied directly to the paint surface with a 1200-1400 RPM buffer. This buffer should be equipped with a patented Lustur-Seal flexible backing plate and *must* be fitted with a high quality clean lambswool pad.

The operator must be trained properly in order to do a good job. It is important that enough heat be generated by the rotary action of the lambswool pad to open the pores of the paint allowing for the penetration of the Lustur-Seal. Therefore, the surface must be buffed in small sections.

The Lustur-Sealing process is a rapid one, as the car is covered only one time. An experienced operator will finish the average automobile in *three hours.*

### HOW ARE COMPETITIVE POLISHES APPLIED?

Each polish of course has a special method for application. Some are applied by hand and some



with buffers. However, all competitive materials require from 2 to 4 operations and it is an exception when an operator can finish a car in less than eight hours.

#### WHAT IS THE DIFFERENCE BETWEEN LUSTUR-SEAL NO. 1 AND LUSTUR-SEAL NO. 2?

Basically the two are identical, however, No. 2 has had a very fine high grade compound added. No. 2 is used on surfaces that have been exposed to the elements and waxes, and dirt that must be cut off. Lustur-Seal No. 1 has no compound or abrasive, however, it does a wonderful job on surfaces that are mildly oxidized.

A good rule to follow is never to use No. 2 until you know No. 1 will not do the job.

#### WHAT IS HAZE CREAM?

Haze Cream is a companion product for Lustur-Seal. It is a product designed to chemically clean a

Lustur-Sealed paint finish.

All cars pick up road oils and greases, have tree saps fall on them, and generally pick up foreign materials that dull the surface. Haze Cream is sold to remove these deposits and restore the original Lustur-Seal finish.

It may be used as often as necessary, although under normal operating conditions an application two or three times a year is sufficient. Haze Cream is applied by hand by merely saturating a rag and wiping it over the automobile. When it is dry it is just fluffed or wiped off and the original snap is restored to the paint. As a general rule Haze Cream is applied immediately following the application of Lustur-Seal to remove any deposits of foreign matter that has been raised out of the paint. It also completes the finer details of a perfect job.

*Remember, Haze Cream, like Lustur-Seal leaves nothing on the surface and cannot possibly hurt the finish.*

★ ★ ★

## Service Replacement Bushings

### Ultramatic

Ultramatic units in service may have either one of two types of bushings in the high range clutch housing and the reaction clutch housing.

The early bushings, which have been discontinued and obsoleted, are of the thin wall type whereas the later bushings are of the thick wall or steel-backed type.

Servicing these bushings is as follows:

#### High Range Clutch Housing

When bushing replacement is required in the early housing assembly (part No. 421638), fitted with the thin wall bushing, it will be necessary to install Clutch Housing Assembly Kit, part number 410987. This kit consists of the late type housing assembly (part No. 423366), fitted with the thick wall bushing, and a later design clutch piston inner ring, part number 423367. Service replacement bushings of the thin wall type are not available nor are the bushing replacement tools designed for their replacement.

Clutch housings having the thick wall bushings have a 2.000" plus or minus .0005" bushing bore which is .062" larger in diameter than the early design. Replacement bushings are available under part number 410990 and these can be replaced with the bushing tools.

The early design clutch piston inner ring 421072 can be used only in housings having the thin wall bushing; however, the later design ring 423367 can be used in housings having either the thin wall or the thick wall bushing.

#### Reaction Clutch Housing

Early housing assemblies having the thin wall bushings were listed under part number 421641, and these bushings are not replaceable. Housing assembly 421641 was obsoleted and superseded by

423220, some of which are fitted with thin wall bushings and others with thick wall bushings. Housings having the thick wall bushing have a bushing bore of 1.250" and these bushings are available under 410989 and can be replaced with the bushing tools. The bushings in housings having a bore under 1.250" are not replaceable.

Housing assembly 423220 has been obsoleted and superseded by 410986—Reaction Clutch Housing Assembly. These housings have a 1.250" bore and are fitted only with the thick wall bushing 410989 which is replaceable with the bushing tools.

## Radio Number Plate

The government has issued an order removing aluminum name plates or serial number plates from all production to be effective not later than the 31st of May, 1951. As a result, a decal will be used.

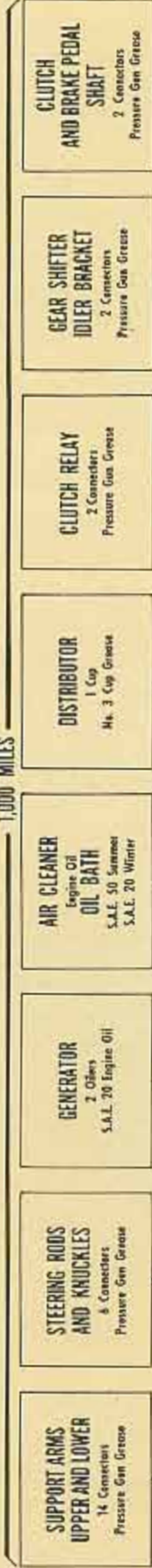
In order to prevent any damage to the decal as a result of the case being pushed around on a repair bench, an indentation has been made in the case which will just take the decal and will protect it from any damage other than that deliberately accomplished by some one who wishes to mutilate the number plate.

The new serial number decal will show the model number of the radio as well as the serial number. The date of sale space has been deleted from the serial number plate due to most of the installations being factory installations, and the dealers would not fill the information in before sending the radio sets over to the service stations so the service stations still ended up by having to call the dealer to find out whether the set was in warranty or not. The radio repair tags which have been supplied to dealers by the United Motors service stations have replaced the date of sale space on the serial number plate.

The new decal serial number plate will start to show up on your sets in production during the last week of May.



1,000 MILES



**CLUTCH AND BRAKE PEDAL SHAFT**  
 2 Connectors  
 Pressure Gun Grease

**GEAR SHIFTER IDLER BRACKET**  
 2 Connectors  
 Pressure Gun Grease

**CLUTCH RELAY**  
 2 Connectors  
 Pressure Gun Grease

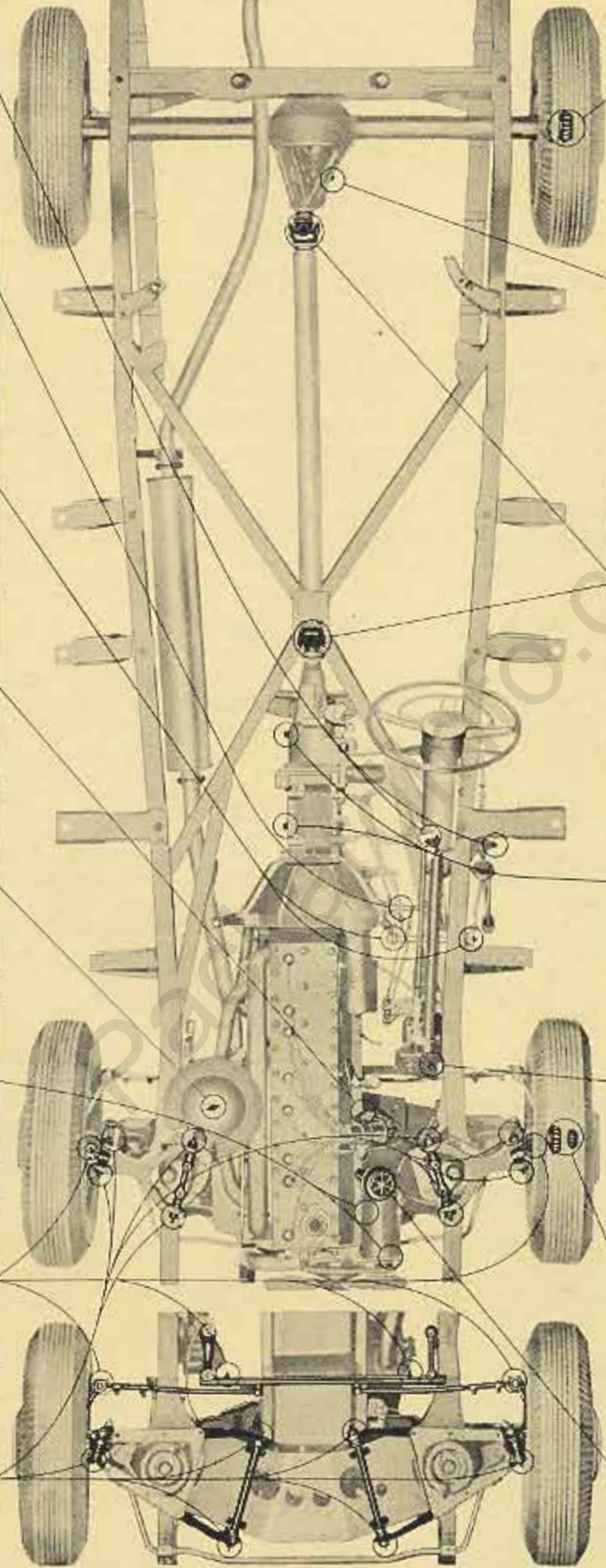
**DISTRIBUTOR**  
 1 Cup  
 No. 3 Cup Grease

**AIR CLEANER**  
 Engine Oil  
**OIL BATH**  
 S.A.E. 30 Summer  
 S.A.E. 20 Winter

**GENERATOR**  
 2 Others  
 S.A.E. 20 Engine Oil

**STEERING RODS AND KNUCKLES**  
 8 Connectors  
 Pressure Gun Grease

**SUPPORT ARMS UPPER AND LOWER**  
 14 Connectors  
 Pressure Gun Grease



**REAR WHEEL BEARING**  
 No. 2 Fiber Grease  
 Repack  
 Every 30,000 Miles

**REAR AXLE**  
 Drain and Refill in Fall  
 S.A.E. 90 Hypoid  
 Gear Oil

**UNIVERSAL JOINTS**  
 Without Connectors  
 Repack  
 Every 30,000 Miles  
 Pressure Gun Grease

**UNIVERSAL JOINTS**  
 With Connectors  
 Every 1,000 Miles  
 S.A.E. 140 Oil  
 DO NOT USE GREASE

**TRANSMISSION and OVERDRIVE**  
 Drain and Refill in Spring  
 Use S.A.E. 90 Mineral  
 Gear Oil

**STEERING GEAR**  
 S.A.E. 90 Gear Oil  
 Maintain Level

**FRONT WHEEL BEARINGS**  
 No. 2 Fiber Grease  
 Repack  
 Every 10,000 Miles

**ENGINE OIL**  
 Change Every  
 2,000 Miles



**REFILL WITH PACKARD ULTRAMATIC DRIVE FLUID**



**DRAIN FLUID EVERY 25,000 MILES**



**CHECK THE FLUID LEVEL EVERY 1,000 MILES**

**SERVICING THE ULTRAMATIC DRIVE**



## Revised Lubrication Chart

### 24th Series

Shown on the single page insert is the 24th Series lubrication chart which has been revised to include lubricator fittings originally not used in early production.

The clutch and brake pedal shaft, on cars having a clutch pedal, now has a lubricator fitting at both the inner and the outer end of the shaft. Early cars have a fitting at the outer end only.

The clutch relay shaft now has fittings at the inner and outer ends. On early cars, lubrication of the bearings is accomplished by saturating the felt washers on the ends of the shaft with oil.

## A Note On Lubrication

Lubricating a car means more than just applying lubricant to the points shown on a lubrication chart. There are also other points which require lubrication. These points are not shown on charts for two reasons: (1) the lines, circles and arrows required to indicate these points would probably make the chart look like a complicated road map; (2) it long has been taken for granted that a lubrication man with customer satisfaction in mind would oil or grease these points automatically.

A dab of lubriplate or a few drops of oil at various friction points will reduce wear and also prevent binding and sticking. A few of these points are: accelerator linkage, brake pedal to master cylinder rod pivot, door hinge pins, door strikers, gas filler door hinge, gear shift levers and linkage (oil through  $\frac{1}{8}$  hole just above gear shift levers will lubricate selector and levers), hand brake rods and toggle assembly and the bonnet and trunk lid linkage. There are still other points which will be spotted immediately after the bonnet or the car is raised if the lubrication man is "on his toes."

The lubrication man should note the condition of various parts of the car while performing the lubrication service. The owner seldom sees the under parts of the car, and therefore, is not acquainted with conditions that might need service care. A real service can be performed for the owner by the lubrication man making observations and recommendations for needed services.



## Speedometer Lighting—"200"

We have recently received reports of insufficient light on the speed indicator hand.

This condition can be improved by moving the speedometer head forward to allow more light on the hand.

This is accomplished by removing the instrument cluster assembly, removing the speedometer head and installing flat washers between the speedometer head and the instrument cluster. Install washers, Part No. G-131015, (see figure 1), or flat washers from stock  $\frac{3}{32}$  inches thick. Replace the four screws with Part No. G-131890 (8-32 x  $\frac{3}{8}$ ) or the equivalent from stock.

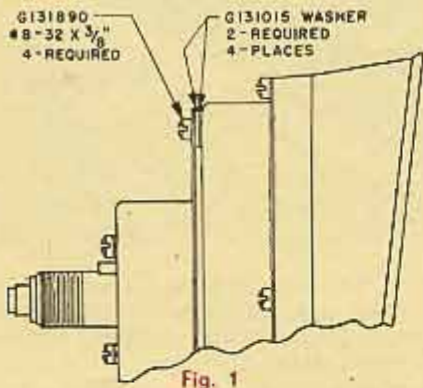


Fig. 1

Mask tape the edges of the speedometer (see figure 2) to prevent light from leaking out edges of the speedometer.

You will find it easier to mask tape the edges of the speedometer by removing the cluster assembly.

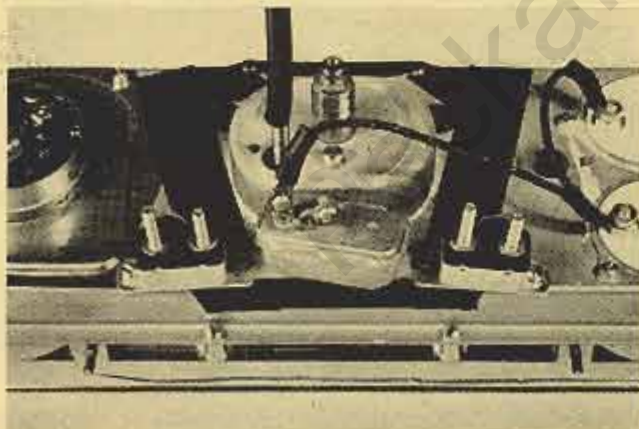


Fig. 2

## Supplementary Spring Data

### 24th Series

Previously published spring data appear in Service Counselors Vol. 24, No. 8, August, 1950; Vol. 24, No. 12, December, 1950; Vol. 25, No. 3, March, 1951.

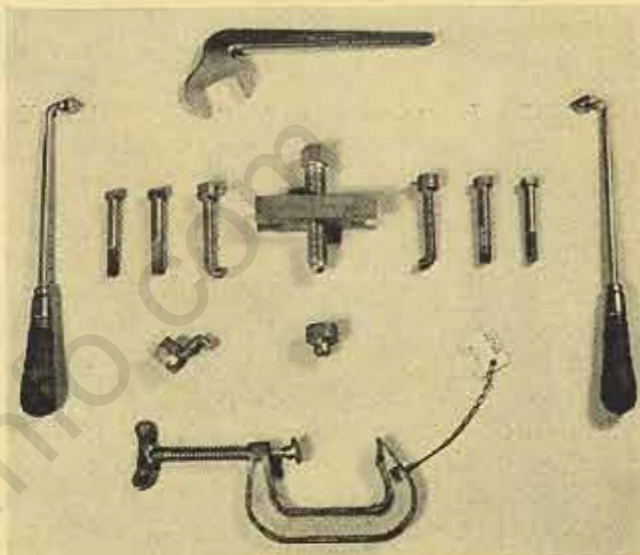
These may be brought up to date by adding or changing the following items as necessary.

			Part No.
2401	Front Springs	2180 x 90	382374
Convertible	Rear Springs	1030 x 110	433532

2413	Front Springs	2900 x 172	395726
Ambulance and Hearse (End Loader)	Rear Springs	1800 x 225	433803
Hearse (3 way)	Front Springs	2900 x 172	395726
	Rear Spring—Left	2100 x 225	418352
	Rear Spring—Right	2000 x 225	418351

## Service Tools

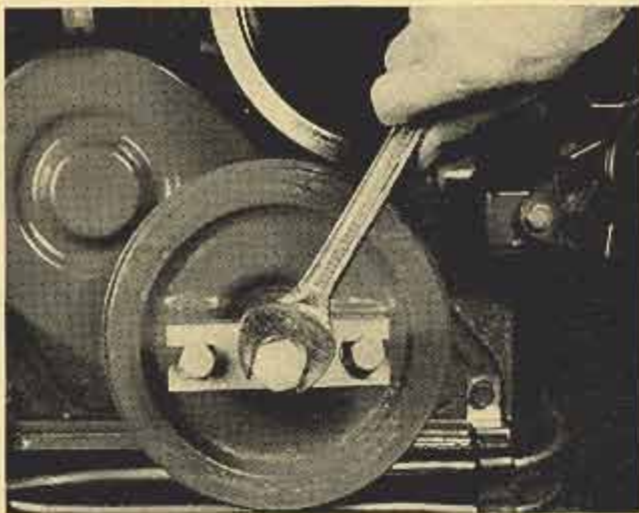
The five service tools pictured in detail and in operation were packaged as a service kit and sold through Zones to Dealers. These tools were supplied by the Kent-Moore Organization, Inc.



Stabilizer Bushing Retainer Clip Installer—J-4654. The clamp and wedge are required when installing the front stabilizer retainer clips on the support arm of all 1951 models. The wedge keeps the prongs of the clips from slipping back as the clamp applies downward pressure to the clips. Tapping with a hammer may be required to assist the clip to lock into place on the lower flange of the support arm. The clip is removed by prying it off with a screwdriver placed between the two (2) prongs.







**Vibration Damper Puller—J-2636-A.** This puller will remove easily and safely without danger of damage to the hydraulic type dampers from all 24th Series engines. It will also remove the dampers from all engines equipped with hydraulic dampers, 1948 through 1951 models inclusive.



**Fan Belt Adjusting Tool—J-4714.** The narrow type fan belt used on all 1951 models must be correctly adjusted to assure maximum life and quietness. The fan belt adjusting tool is required when the torque tightness of the belt is adjusted as fully described in the Service Counselor, Volume 24.

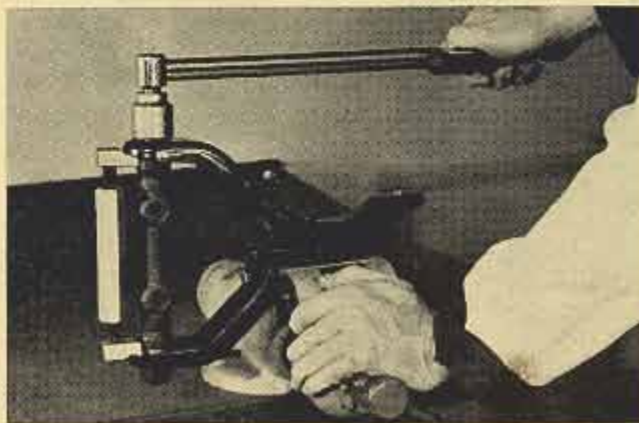


**Windshield Glass Seal Inserter—J-4734.** A pair of tools is used to install the one piece windshield glass in all 1951 models. This pair of tools consist of one right and one left hand tool. These tools are

used to insert the rubber seal in the glass weatherstrip, and are required for this operation as the seal is installed, locking and securing the weatherstrip and glass in place. Full information covering this operation, along with the tools, is covered in the Service Counselor, Volume 24, Number 1.



**Governor Wrench—J-4653.** This wrench is required to break the overdrive governor loose, in the threads, on all 1951 models equipped with overdrive when it is found necessary to remove and replace the governor. This wrench was specially designed for this specific operation.



**Upper Control Arm Spreader—J-3957.** This tool, not shown in the group, is now available and provides an easy method of holding and adjusting the upper support arm on all 1951 models when the bushings are removed and replaced.

This tool was approved and added to the tool list after the release of the original group of 5 tools. This tool should be ordered directly from the Kent-Moore Organization, Inc., General Motors Building, Detroit 2, Michigan. The price is \$9.70.