

PACKARD

Service Counselor

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Thank You!

These are a couple of words that every one likes to hear. Service customers are no exception and we should make sure every single one of our customers hears them after each visit.

These customers of ours have a "thank you" coming. After all, you invited him to come in—he did—and the chances are he left some money. Since you asked him to come in, you ought to thank him, and it's not a bad idea to add a "Sir" to it for good measure. You don't call a man "Sir" necessarily because *he* is a gentleman but always because *you* are a gentleman.

There is one nice thing about this "thank you" business. The more you pass out, the more you get back. We know you don't get too many on the service floor but there are ways of picking up a few. The policeman and the mailman probably don't get many either; yet, they are out there in all kinds of weather trying to do their job right.

These four things well done will get you enough "thank yous" to satisfy the average service man.

1. Get owners' cars out with work done right.
2. Get it out at the promised time.
3. Have the bill ready and as agreed upon.
4. Be courteous and agreeable first, last, and all the time.

Even without all the thanks you want, you do have recognition of a job well done. Satisfaction is not always expressed in words. The repeat visit is the best kind of applause. If, in addition to the repeat order, we can get our customers talking about and recommending our service, that is real recognition of a good job.

So let's keep trying. Treat customers as invited guests, diagnose accurately and completely, explain the order and the prices, follow the job through the shop, get it out on time, be sure it's right, and say "thank you" when he leaves.

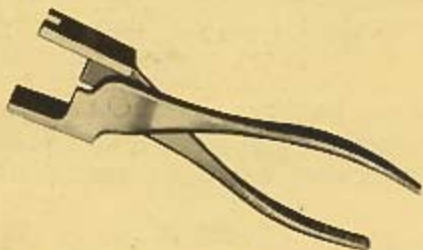
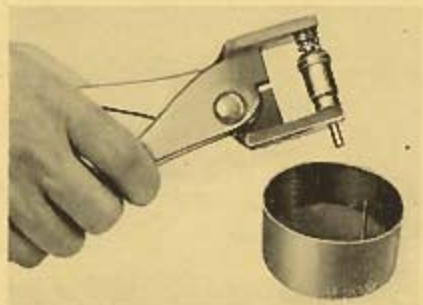
With this kind of service, customers will in one way or another "thank you."

And by the way, a little better repair work comes out of the shop where the mechanics hear a "thank you" now and then. It's been noticed, too, that these words have been known to speed up service at the parts window. Anyway, for reading this, we "thank you."

Hydraulic Tappet Checking Tool J-3176

The tool illustrated provides a quick, easy method of cleaning and checking hydraulic tappets. The tappet is checked using kerosene and a piece of cardboard holding a thin nail upright in a container to release the check ball.

For complete details on checking hydraulic tappets, consult the Service Manual, Section V, Engine, Page 31, Servicing Noisy Tappets (Hydraulic Type).



This tool may be ordered direct from the Kent-Moore Organization, Inc., General Motors Bldg., Detroit 2, Mich. Tool Number J-3176, Price \$5.95.

Transmission Driving Shaft and Universal Joint Flange Data

2201-02-06-11-32-33-40

Standard (non-overdrive) transmission assemblies, now being installed in 120 inch and 127 inch wheelbase vehicles in production, incorporate a change in the lengths of the transmission driving shaft and the driving shaft universal joint flange.

These later transmissions have a driving shaft $17\frac{1}{8}$ inches long and use a universal joint flange with an overall length of $6\frac{1}{4}$ inches. Earlier transmissions have a shaft $14\frac{3}{4}$ inches long and use a flange with an overall length of $9\frac{3}{4}$ inches.

The driving shaft is serviced as part of the driving shaft and first and second speed gears and bearings assembly. The late type assemblies and the late type flanges and detail parts may be ordered under the part numbers listed below. Early type parts should be ordered under the numbers listed in the 22nd Series Parts List.

The late type shaft, gears, and bearings assembly and the late type flange are interchangeable with the early type. However, they must be installed in sets and not separately.

418295—Transmission Driving Shaft and First and Second Speed Gears and Bearings Assembly

412172—Transmission Driving Shaft Universal Joint Flange Assembly.

371815—Universal Joint Flange Dust Shield.

Speedometer Complaints

When an owner registers a speedometer complaint, the speedometer head should not be condemned and replaced until the trouble definitely is traced to a defect in the unit.

A dry or insufficiently lubricated cable, a kinked or sharply bent cable and shaft assembly, an incorrect speedometer pinion, and grease in the speedometer pointer operating mechanism are the more common causes of irregular speedometer operation.

A dry cable is not necessarily a noisy one. Sometimes a dry cable will turn quietly but will cause the speedometer pointer to fluctuate or oscillate.

A kinked or sharply bent cable and shaft assembly also may cause pointer fluctuation. A kinked cable and shaft usually results in cable breakage if not corrected in time.

Incorrect trip odometer, total odometer, and car speed readings often may be traced to an incorrect speedometer pinion. Pinion selection is dependent upon axle ratio and a pinion other than the one specified for a particular ratio will cause the speedometer to read incorrectly.

Grease in the pointer operating mechanism of the speedometer head usually causes the pointer to register a speed considerably higher than the actual car speed. Overlubricating the cable may contribute toward this condition since excess grease is worked upward in the cable shaft or housing and, sometimes, into the speedometer head. When this condition exists, the head should be removed and sent to an authorized speedometer service station for repair.

Overlubricating the cable can be avoided by applying grease only to the lower two thirds of the cable. The upper section of the cable will receive sufficient lubrication by the grease which clings to the inside of the cable shaft or housing when the cable is fed into the housing.

Installing Trunk Lid Weatherstrips

Recent service shipments of trunk lid weatherstrips have a string moulded into the sponge rubber. In a great many cases it will be found that these strips will not be long enough across the top to properly fit the trunk lid opening.

When this condition is found the string should be broken at several points to allow sufficient stretch. The string may be broken easily by hand. If broken only in one place, the weatherstrip will stretch out too thin at the break and may cause a leak.

Weatherstrip shipped in the future will be of the all rubber type.

Diagnosing Tire Thump

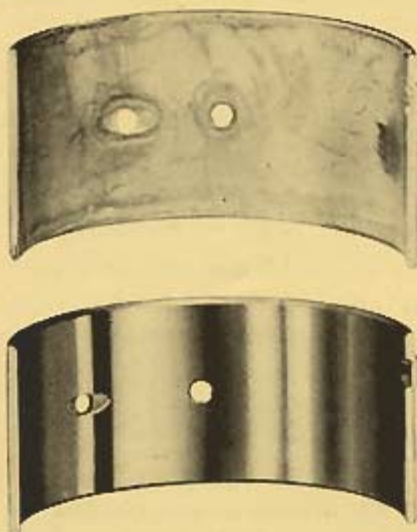
When diagnosing complaints of tire thump it is often quite difficult to isolate the offending tire. A simple method has been suggested by one of the tire companies. Simply inflate the tires one at a time, to 55 pounds pressure and test after each tire is inflated. Since the cause of the thump is a stiff spot in the casing, inflating to the high pressure makes the entire casing so hard that the stiff spot cannot cause a noise.

Complaints of this condition should be turned over to the local tire distributor.

A Note on Bearing Shells

We recently have had requests for information regarding the finish on the bearing surface of connecting rod bearings and main bearings.

We wish to point out that the bearing surface finish is not the same on all bearings being shipped from the Factory. Some bearings have a bright and shiny finish while others have a flat or dull finish as shown in the accompanying illustration.



The finish of the bearing surface does not affect the quality of these bearings in any way. Either type bearing will give satisfactory service and bearings of the same size may be interchanged without affecting bearing clearance. The shiny bearing is plated simply to improve its appearance.

Reducing Clutch Jazz

22nd Series Cars

To reduce the metallic ring associated with clutch jazz and the 20 and 40 mile per hour roar in 22nd Series cars to a satisfactory level, rear spring insulators are now available in Parts Warehouse stock.

These insulators are to be installed between the rear spring and rear axle housing and between the spring and spring block. When installing these insulators new spring to axle U-bolts, which are no longer than standard, should be used.

The following method is used when making the installation:

Lift the rear of the car, disconnect the rear shock absorbers and remove the four rear spring U-bolts.

Raise the rear axle housing by means of a jack and drill out the rear spring center bolt head hole in the axle housing spring pads to $\frac{13}{16}$ inch.

Place one of the insulators on the top of each rear spring with the center bolt head in the depression in the insulator.

Fit the insulator into the hole in the axle housing spring pad and install new U-bolts. U-bolt nuts should be tightened only until the insulators begin to bulge at the edges. Overtightening will destroy the insulating effect of the rubber.

Part numbers and requirements are as follows:

419389 Insulator	4
324059 U-bolt (insert type springs)	4
335995 U-bolt (liner type springs)	4

Engine Oil Capacity Eight and Super Eight

The correct crankcase oil capacity of 22nd Series Eight and Super Eight engines is 6 quarts on engine numbers previous to suffix letter D.

Oil capacity on engines with suffix letters D, E, CD, and CE is 7 quarts.

R-9 and R-11 Overdrive Units Identification

The Service Counselor of February 1, 1949, told how to quickly identify cars equipped with the R-11 Overdrive. We now find these started in production along with the R-9 type so there is no clear breaking point. In between the engine numbers listed, we can not tell which type were used. Engines before the first number had R-9's and engines after the last number had the R-11.

	Eng. No.	Eng. No.
Eight	272006	285157
Super Eight	424978	427710
Custom Eight	610359	611500

R-11 Overdrive Fails to Engage

A limited number of R-11 Overdrive equipped cars have been shipped in which either the overdrive reverse plunger or the shifter rail is not of the proper length. If either of these parts is too long the overdrive cannot be engaged since the undercut in the shift rail will not properly align with the solenoid pawl.

To determine which part is defective, drive the car in low gear above governed speed and attempt to shift into overdrive. If the overdrive will engage in low but not in second or high, it indicates that the low and reverse shifter fork is preventing full forward travel of the reverse plunger.

To correct remove the transmission cover and grind approximately .020 inch from the left hand pad as shown in the illustration.



If the overdrive will not engage in low, the electrical system should first be checked. If found to be operating properly, the unit must be disassembled and checked. If the overdrive shifter rail does not move forward far enough to clear the pawl, remove the shifter assembly and grind approximately .020 inch from the end of the shifter rail.

Sealing Trunk Leaks

One of the most common causes of water leakage into trunk compartments is that of open seams between the rear quarter panels and the roof panel, and between the rear quarter panels and the rear center panel. These seams are now being filled in production by means of a liquid spot glaze applied before the body is painted.

This method of sealing may also be used in the field with a pump type oil gun fitted with a long slender spout. The seams should be cleaned to remove any gum which may have been applied and to remove dirt and dust. The spot glaze should be thinned with lacquer thinner until it can be forced through the gun. It should not, however, be thinned to the point where it will run.

Apply the spot glaze to the seam opening and immediately wipe off any surplus with a clean cloth. Since this material is thinned with lacquer thinner, it forms a bond with the paint and for this reason will adhere tightly. After the material has dried it may be touched up with paint matching the color scheme of the car.

It will be found that this material can be used effectively on drip mouldings and other points where seam openings may occur.

To be sure that the gun will always be ready for use, the spout should be kept in a small container filled with thinner.

Door Window Cylinder Hose

Models 2259-79

The convertible door window cylinder hose described in the March 1, 1949 issue of the Service Counselor has been found to be unsatisfactory and hoses of a different type now are being shipped when service replacement hoses are ordered.

The hose which has been discontinued had a machine threaded fitting at one end and a pipe threaded fitting which screwed directly into the cylinder at the opposite end.

The new type hose has identical machine threaded, swivel fittings at each end and a connector is used at the cylinder.

If the new type hose is to be installed in an early convertible equipped with the short hose and metal tube, remove the hose and the tube but do not remove the connector from the cylinder.

If the new type hose is to be installed in a late convertible to replace the hose which now is obsolete, it is necessary to install the

connector in the cylinder. Before installing the connector, coat the external threads of the connector with sealing compound to insure against possible leakage.

The new type window cylinder hose assembly may be ordered under part number 417548 and the connector under 399002.

R-11 Overdrive Kit

The Parts Warehouse is no longer able to ship R-9 transmission and overdrive assemblies, although detail parts are still available. When an order for an R-9 transmission and overdrive assembly is received, a kit containing an R-11 assembly, all necessary electrical units, an auxiliary wiring harness, and a wiring diagram will be shipped.

These kits may be installed on 22nd Series cars without any further changes. When installed on a 21st Series car the cover must be removed and the direct and second speed shifter fork shaft changed. The shaft may be removed from the old cover and installed in the new one or a new shaft, part number 379004, may be used.

The kit is installed as follows:

1. Remove the overdrive relay and cut off the six wires close to the harness, tape.
2. Measure $1\frac{1}{2}$ inch from the outer relay attaching screw hole toward the center of the car and drill a 9-64 inch hole.
3. Install the new relay using the rubber spacer at the mounting hole just drilled.
4. Remove kickdown switch and cut off wires, tape.
5. Install new kickdown switch.
6. String wiring harness along main harness and attach with the eight strap clamps provided.
7. Connect wires to relay, starting motor, ignition coil, kickdown switch, ignition switch and lockout switch as shown on wiring diagram included in the kit.
8. All service assemblies are supplied with the Mechanics type universal joint flange. If the car is equipped with Spicer universal joints it will be necessary to re-

move the flange from the old overdrive and install it on the new one.

9. Install R-11 transmission and overdrive assembly. When reinstalling the rear engine support channel it should be turned end for end to bring the overdrive lockout cable bracket holes on the left side.

10. Cut the solenoid wires from the old harness and tape the ends. Connect the auxiliary harness to the solenoid.

11. Cut the overdrive governor wire at the harness and connect the auxiliary harness wire. Do not cut the Electromatic Clutch wire from the harness as this lead must be used.

12. The speedometer pinion in the R-11 overdrive is of a different type and the original pinion must be replaced. The part numbers of the new pinions are as follows:

412442—17 tooth
412443—18 tooth
412444—19 tooth

13. The overdrive lockout cable is moved to the left side of the engine and is held in place by a clamp attached to the Electromatic Clutch control valve rear attaching screw hole. A second clamp is attached to a lower flywheel cover attaching screw. The new bracket and clamp should be attached to the mounting holes in the support channel.

14. Attach the operating instruction tag to the lockout knob and, in addition, advise the customer of the proper method of operation of the R-11 overdrive.

The transmission and overdrive kits are carried in Warehouse Stock under the following part numbers:

410603—2201-02-11-22-32
410604—2206-13-26-33

The suggested time allowance for the installation of this kit are:

1. Transmission and Overdrive Assembly—R & R 4.2
2. Relay Assembly—R & R .4
3. Change Over Lockout Cable to Left Side .5
4. Auxiliary Wiring Harness—Install. Includes cutting off and taping leads from main harness. 1.2
5. Kick Down Switch—R & R and Adj. .4