

PACKARD

Service Counselor

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INSTITUTIONAL

APPROVED
Packard
SERVICE

PROMOTIONAL

VOL. 19, NO. 7

JULY, 1945

SLUDGE AND THE "MIRROR TEST"

Our Advertising and Public Relations Department have prepared some very timely newspaper releases and the first series of these are starting to appear now.

These releases bring to the car owners' attention the damaging effects from sludge accumulation in the engine. Since it is quite difficult for the owner to see the presence of sludge, the "Mirror Test" is suggested.

The presence of sludge can easily be shown to a customer by removing the rear valve cover and holding a small mirror alongside the valve compartment at such an angle as to reflect clearly the sludge condition. The customer should then be told of the possible harm that can occur to his engine if it is not thoroughly cleaned.

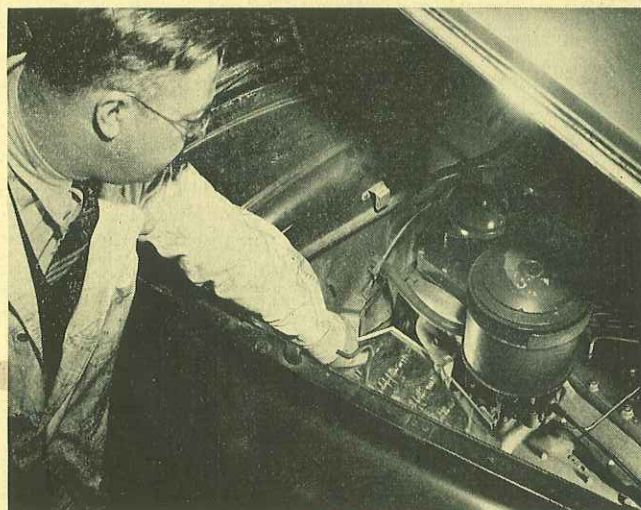
The approximate oil consumption should be ascertained from the owner since excess consumption ordinarily indicates clogged and in-operative piston rings. If a sludge condition is found, the pistons and rings should be removed, and cleaned. If normal operation is to be restored, new rings will be required. All crankshaft bearings should be inspected for wear.

On any sludge removal job, make certain the thermostat is operating correctly and that the crankcase ventilating system is clean. In cases of mild accumulation of sludge, a thorough

flushing may be sufficient, but the only sure way is to remove the oil pan and other parts necessary to allow complete cleaning of the interior of the engine.

After each sludge cleaning job, the customer should be instructed to have the oil changed often enough to keep the accumulation at a minimum. Climate and the type of driving still control the interval, as changes should be more frequent in cold weather and for short, low speed trips. Caution customers to insist that oil be drained while the engine is hot.

Use the "Mirror Test" to help your customers protect their cars and assure longer car life.



"QUIZ TEST"

**HOW MANY DO YOU KNOW—
without looking at the answers?**



Here is a new feature we think you are going to like. Try answering these and when you have finished, check your answers with those given on the back page. What was your score?

1. What is the firing order of the Packard 8 or Super 8?

- a. 1-5-3-6-4-7-2-8
- b. 1-6-2-5-8-3-7-4
- c. 1-7-2-6-3-8-4-5

2. In an engine tune up, which should be adjusted first?

- a. Breaker point gap
- b. Timing

3. Select two of the three that will cause quick

depreciation of the ignition breaker points.

- a. Points too close
- b. Low battery
- c. Bad condenser

4. What do we mean by cam angle (dwell)?

- a. The number of degrees the points remain open.
- b. The size of the cam.
- c. The number of degrees the points remain closed.

5. The voltage unit in the regulator regulates the voltage by regulating:

- a. The speed of the armature.
- b. The strength of the field coil.
- c. The voltage going into the battery.

NEW YORK SHOP

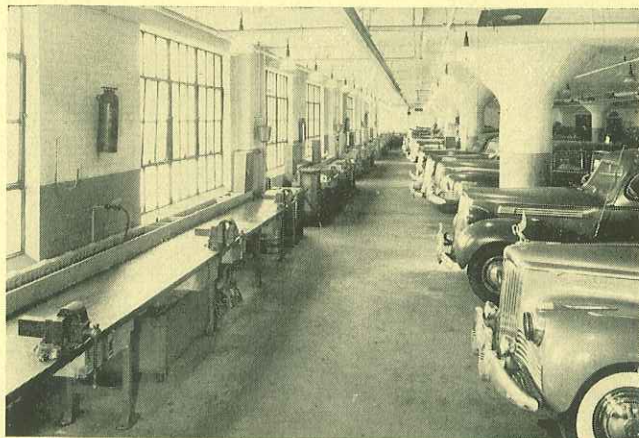
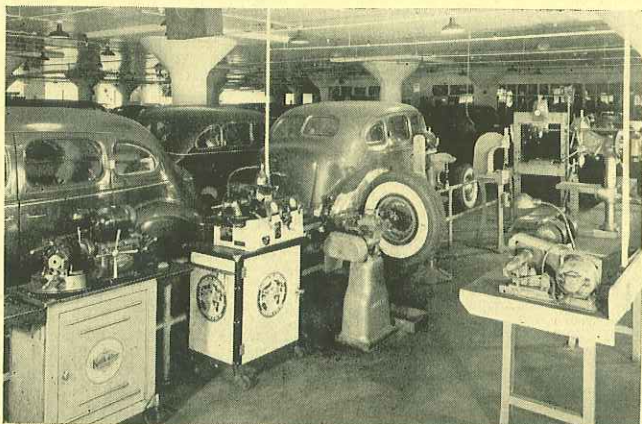
These pictures show the result of a very thorough shop cleanup campaign conducted at Eleventh Avenue, New York. The outstanding features, according to Mr. H. K. Fletcher, Retail Service Manager, are:

- 1. Mechanics' benches are neat and tidy.
- 2. Cabinets above the work benches are provided for droplights and miscellaneous supplies.
- 3. Behind the benches may be observed the open compartments for each man's fender and seat covers.

4. All down the line in their racks are creepers or skids. They are conveniently located in each bay, and eliminate the possibility of their being left around carelessly.

5. Each bay has one trash box which is emptied daily.

6. On top of and under the work benches is to be noted the absence of pans and buckets for washing parts. This is occasioned by the availability of Klee-Flo units located between work benches in every other bay.

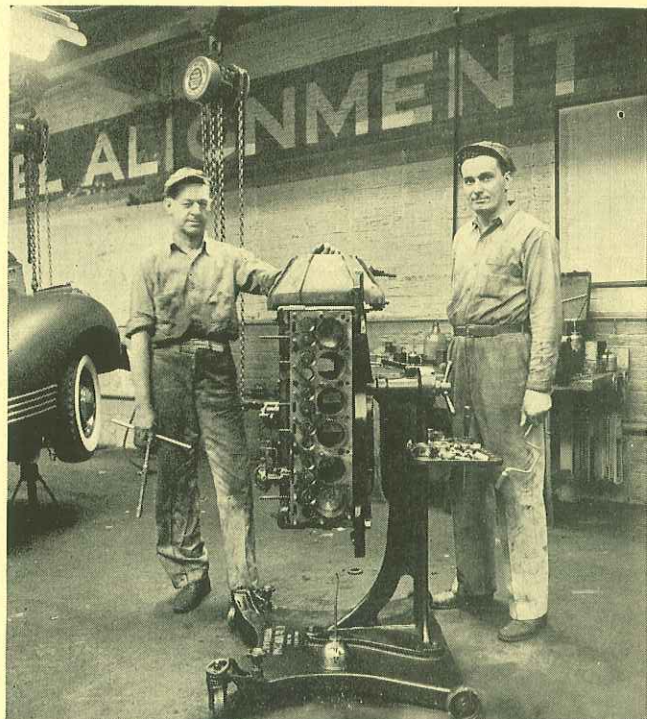


7. Each bay is equipped with water and air connections.
8. One picture presents a general view of the "heavy equipment bay" wherein is located the valve grinding unit and other heavy duty equipment.

The mechanics prefer clean working conditions and all do their share to maintain the cleanliness and orderliness shown.

CHICAGO USES ENGINE STAND

The Wells Street Service Station in Chicago was one of the first places to receive their engine stands. Pictured are their two motor overhaul men, Vern Stone and Thad Wagner. Both are over six feet and have been overhauling Packard engines for a good many years. They are very much pleased with the stands: They enable them to work faster, more efficiently, and with less fatigue. All parts of the engine are easily accessible when standing and there is no more bending and backbreaking positions to get into and practically no further use for creepers.



According to Rudy Rosain, Retail Service Manager, it is possible to make a much more careful inspection of an engine with the use of a stand and it is much easier to disassemble or rebuild.

The boys in Chicago are wondering how they ever got along without the engine stand.

Shop Talk

SELECTING AND INSTALLING PERFECT CIRCLE PISTON RINGS

We recently sent you a folder describing the new Packard Perfect Circle Piston Ring Sets. The folder listed the set numbers for original equipment pistons in standard and all over-sizes back through the 9th series.

Different combinations of piston ring grooves are used on the same size piston for different yearly models. This makes it necessary to supply different piston ring sets for different yearly models having the same bore diameter.

Replacement pistons supplied by the Factory Parts Department do not always carry the same ring combination as the pistons originally installed. This is due to the fact that current production pistons have been supplied for service replacement in earlier models. This means that the set numbers specified in the Piston Ring folder may not be correct if the engine has been fitted with replacement pistons.

A Piston Ring Selection Chart has been published to assist selecting the proper ring set. This chart shows the various combinations of piston ring grooves found on Packard pistons and the part number of the correct ring set for each, in standard and all available oversizes.

Two copies of this chart are being inserted in the Service Manager's copy of this addition and additional copies may be had on request.

To insure selecting the correct piston ring set:

(1) Compare the width of the ring grooves with the chart to identify the piston ring combination required. Note: with but four exceptions all pistons used since the 9th Series may be identified by the width of the ring grooves.

Pistons E and F differ only in the depth of the second ring groove. Identification is made by measuring the piston diameter at the bottom of the second ring groove.

Pistons J and K differ in the depth of the bottom ring groove. They may be identified by the width of the strut.

(2) Check the cylinder bore for size and determine the oversize ring set to be used according to Oversize Table on the chart.

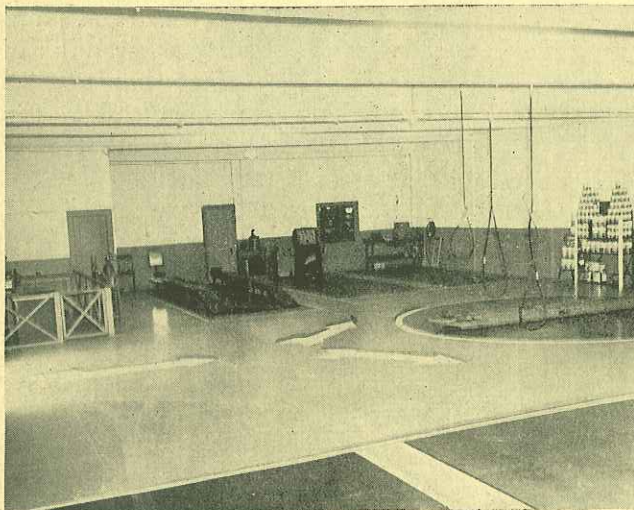
NEW SERVICE FACILITIES



AUSTIN, TEXAS, PPCP



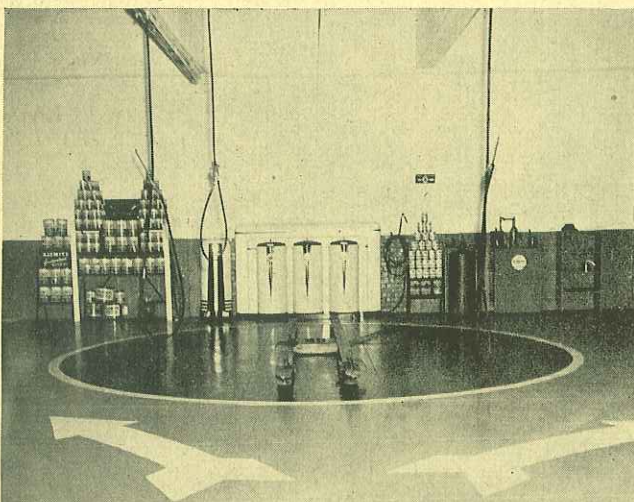
KEOKUK, IOWA



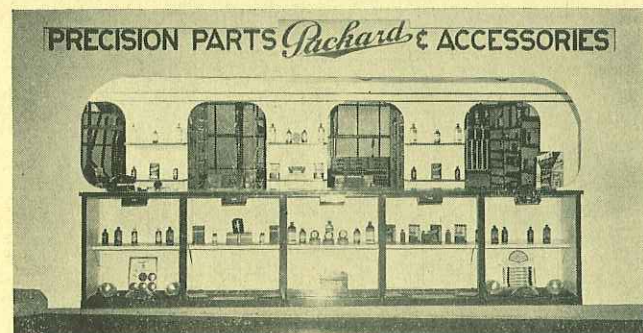
AUSTIN SHOP



ERIE, PENNA.



AUSTIN LUBRICATION



GROSSE POINTE, MICH.

QUIZ TEST ANSWERS

- | | |
|-----|---------|
| 1—b | 3—a & c |
| 2—a | 4—c |
| 5—b | |