

PACKARD

Service Counselor

PARTS * ACCESSORIES * PRODUCT * PROFITS

INSTITUTIONAL



PROMOTIONAL

VOL. 23, NO. 10

OCTOBER 1, 1949

Correct Diagnosis Saves Time and Money

Checking Gas Mileage

When a complaint of poor fuel economy is received the actual consumption should be known before any correction is attempted. Quite frequently a customer complains of poor economy based on one tank of fuel or the amount of gasoline used when making a short trip. These reports should be verified before starting corrective work.

If a car is driven at high speeds fuel consumption is high; if driven in heavy traffic where it is necessary to shift gear frequently consumption will likewise be high.

In order to check mileage accurately a mileage tester should be used. These testers consist of a glass container holding 1/10 gallon of fuel, and the necessary fittings and hose which allows the container to be placed inside the car where the customer can actually see the fuel being used.

The car should be started and thoroughly warmed up before starting to make the test run. The car speed should be brought up to approximately 25 mph and the air valve on the tester opened. Take the speedometer reading as the valve is opened.

The car should be driven at a steady speed until the fuel level in the tester reaches the empty mark and again take the speedometer

reading. The distance traveled multiplied by ten equals the actual gasoline mileage at that speed. The test run should be repeated on the same street going in the opposite direction and the two results averaged.

Now make a second test starting from a standstill and go through all gears. This test will show why driving in a congested city will reduce mileage. If the customer learns to watch the signal lights and gauge his speed accordingly, many unnecessary starts can be eliminated. He should be advised to shift into high gear just as soon as possible. Driving at high speed while in low or second gear or keeping the car in one of these gears longer than is necessary causes extremely high fuel consumption.

Driving at speeds above 70 mph requires twice as much fuel as would be required on the same stretch of road at 50 mph.

Shown below are some typical figures on fuel consumption at various speeds. All are constant speed tests.

20 mph.—20 miles per gallon
30 mph.—19.7 miles per gallon
40 mph.—18.3 miles per gallon
50 mph.—15.9 miles per gallon
60 mph.—12.2 miles per gallon
70 mph.—8.0 miles per gallon

Accelerating in high gear with wide open throttle—approx. 8.0 miles per gal.

Accelerating in second gear with wide open throttle—approx. 4.0 miles per gallon.

Take the customer out when making these tests, drive the car at steady speeds and let him see the mileage obtained. Let him drive and see what his type of driving will do to the mileage.

If the mileage is actually low then give the engine a complete tune-up and recheck.

By means of this method of checking mileage a great deal of unnecessary work can be eliminated and the customer will have a better understanding of the reasons for poor fuel economy.

Gas-Per-Mile Gauge

The Kent-Moore Gas-Per-Mile Gauge, model J 5091, is an instrument of outstanding accuracy and quality.

Exceptional accuracy is possible as the gauge permits fuel to enter the carburetor under actual fuel pump pressure. This feature entirely eliminates the errors due to variable fuel pressures, which are characteristic of "gravity feed" instruments.

New Special Tools

The differential tools along with the new overdrive governor wrench are new to the line of essential tools.

In order to recondition a rear axle carrier assembly, these tools are required. The use of these tools will permit the work to be completed well within the flat rate time and also increase service profits.

The rear axle carrier tools, J-3232, J-3250, J-3227, J-3234, J-3231, J-3230, J-3248, J-872-5, J-3246, J-3244, J-2644, J-3235, J-3243, and J-3245 are listed under a special group price on Essential Packard Service Tools Survey and Order Blank, form number 49-124.

DIFFERENTIAL CARRIER HOLDER

J-3289—Price \$23.80

This fixture provides a safe and secure method of holding a differential unit during disassembling and reassembling.

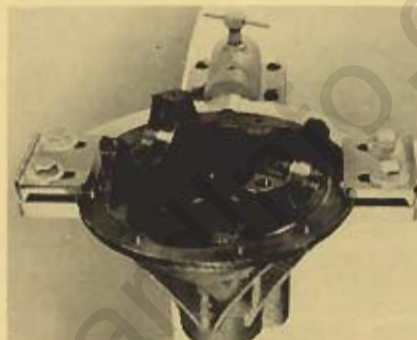
The heavy flange plate permits bolting of the fixture to the bench, and the revolving of the differential, when it is held in the holder.

The differential assembly is placed in the holder at a slight angle, due to the heavy ribs on the outside of the carrier housing.

The Differential Carrier Holder J-3289 is a new fixture for holding the unit during the complete reconditioning operation. This fixture provides a safe method of holding the unit and facilitates the handling of the assembly while the mechanic proceeds with repair operation.

The Brake Spring Remover and Replacer Wrench KMO-526 and the Wheel Puller J-4153 have been added to the Essential Tool Group.

All the tools are available and orders should be sent to the Kent-Moore Organization, Inc., General Motors Bldg., Detroit 2, Michigan.



PINION BEARING CUP REMOVERS

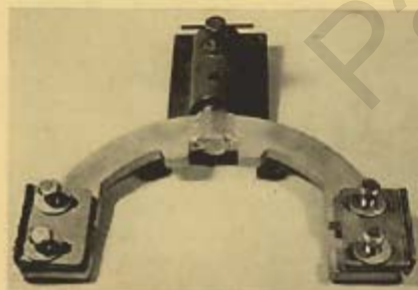
J-3231 J-3235 J-2644
Price \$2.70 \$3.65 \$2.40

This set of Bearing Cup Removers with J-872-5 Driver Handle is so designed that this combination allows easy and safe removal of both front and rear Pinion Bearing Cups in either size differential.

J-3231 Removes the rear pinion bearing cup in the Custom Eight differential 1942—1949 Inclusive.

J-3235 Removes the rear pinion bearing cup in the Six and Eight 1942—1947 Inclusive. The Eight and Super Eight 1948—1949 and the front pinion cup of the Custom Eight 1942—1949.

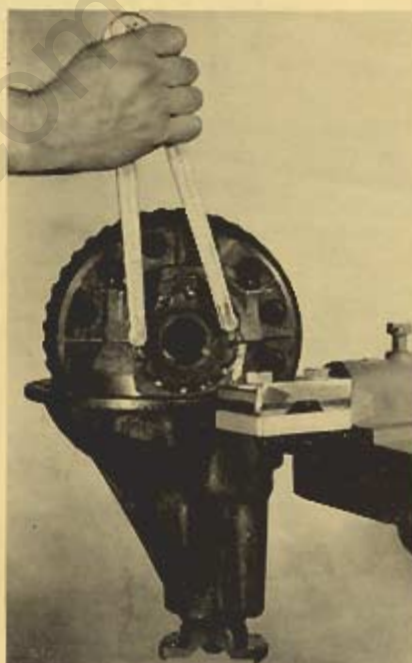
J-2644 Removes the front pinion cup of the Six and Eight 1942—1947 Inclusive and Eight and Super Eight 1948—1949.



DIFFERENTIAL SIDE BEARING ADJUSTER

J-3232—Price \$4.75

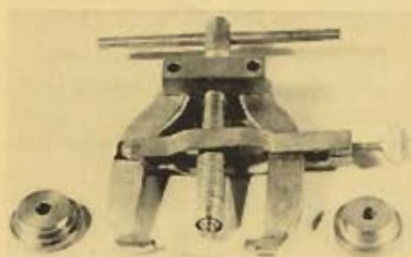
This tool has been designed to allow easy adjustment of the differential side bearings. The tool pins slide well into the adjusting screws to obtain a firm bite. This tool is adaptable to all models.

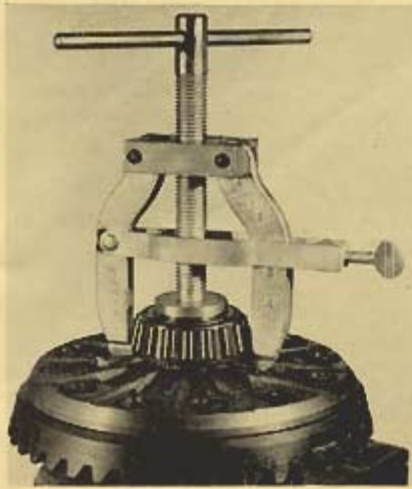


DIFFERENTIAL SIDE BEARING PULLER

J-3250—Price \$12.50

This puller is designed to permit a fast and easy removal of the differential side bearings. The jaws have been re-designed to obtain a positive hold on the inner race of the bearing.





PINION BEARING CUP INSTALLERS

J-3230 J-3234 J-3243
Price \$4.90 \$4.20 \$3.50

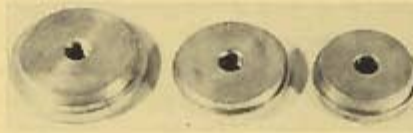
The installers used with Driver Handle J-872-5 provides a safe and quick installation, without damaging, of the Pinion Bearing Cups. J-3230 to install the rear pinion cup of the Custom Axle 1942—1949 Inclusive, J-3234 to install the rear cup in the Six and Eight 1942—1947 Inclusive and the Eight and Super Eight 1948—1949, also the front cup in the Custom Eight 1942 — 1949 Inclusive.



PINION OIL SEAL INSTALLER

J-3245 J-3244
Price \$6.10 \$4.85

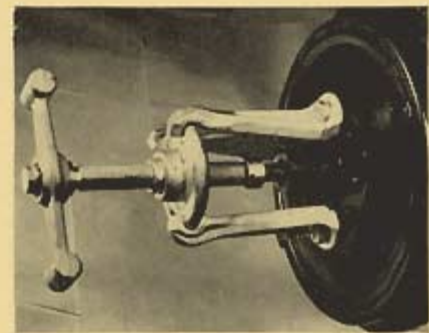
These tools permit a quick method of driving the pinion oil seals to a positive square seat in the differential housing. These tools insure against cocking or damaging of the seal, which may cause leaks. Installer J-3245 applies to all Custom Eight models 1942—1949 inclusive and J-3244 the Six and Eight 1942—1947 inclusive, also the Eight and Super Eight 1948—1949.



DIFFERENTIAL SIDE BEARING INSTALLER

J-3248 J-3246
Price \$3.80 \$3.80

These side bearing installers used with Driver Handle J-872-5 provide a quick easy method of installing differential side bearings. Installer J-3248 is used on the Six and Eight axle 1942—1947 Inclusive and the Eight and Super Eight 1948—1949. Installer J-3246 is used on Custom Eight Models 1942—1949 Inclusive.



WHEEL PULLER J-4153

Price \$15.00

This Wheel Puller is designed to permit quick easy removal of the wheel hub with a minimum of effort. The pull fingers are easily adapted to any bolt circle and are self centering providing positive direct leverage at all times.

DRIVER HANDLE

J-872-5—Price \$3.05

Driver Handle used with J-2644, 3230, 3231, 3234, 3235, 3243, 3246, and 3248.

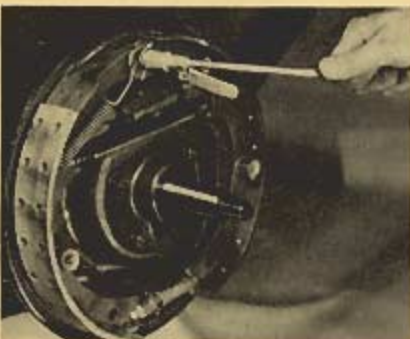


BRAKE SPRING REMOVER AND REPLACER WRENCH KMO 526— Price \$1.40

This tool greatly facilitates removal and replacement of Bendix type brake springs.

To remove: Place large end of tool over the pin with the disengaging lug in the opening of the spring hook, rotate the tool 90 degrees and pull outward.

To Install: Position small end of tool over pin, place spring hook over shaft of tool and pry into position.



OVERDRIVE GOVERNOR WRENCH J-3227—Price \$2.95

This wrench is designed to permit easy removal of the Overdrive Governor without damage on the R-11 Transmission, as well as from the older model units.



Instrument Board Ash Tray

1951-20th Series

The Instrument Board Ash Tray and Cover Assembly used on the 1951 and 20th series, part No. 371538-378088-378087.

For some time, we have been advising the field of our inability to continue servicing the complete ash tray and cover assembly and only shipped the detailed cover which has not been satisfactory.

We are now able to supply the 21st series ash tray which mounts below the instrument board. There is no assembly covering the complete installation but the following parts will be required:

	No. Req'd.
385452 Ash Receiver Retainer and Rim Asb.	1
381422 Ash Receiver Assembly	1
385502 Ash Receiver Cover	1
375619 Ash Receiver Handle	1
7354 Screw (for handle)	2

- 6757 Washer (for retainer) 4
- 7100 Screw (for retainer) 4

If the owner of one of these cars has a hole in the instrument board where the old ash tray was located, it can be covered with the old cover assembly, piece No. 371388. These we can supply and also all of the parts for the 21st series ash tray installation are available.

Dealers order from Zones.

Lubricating Windshield Wiper Motors

All Vacuum Type

The vacuum type windshield wiper motors should have regular lubrication if they are to continue operating at full efficiency. Since the wiper motor is installed on the engine side of the firewall it is subjected to extremely high temperatures which tend to dry out the lubricant. This results in sluggish wiper operation.

It is recommended that the motor be lubricated with Trico Zero-Mix oil three or four times a year, which can be obtained from the Trico dealer.

The wiper motor may be lubricated without removing the unit from the car by means of the following method.

1. Remove the vacuum hose from the windshield wiper and substitute a six inch length of wiper hose.
2. Move the wiper arm to either side and just before the wiper motor valve clicks insert the end of the hose into the can of Zero-Mix Oil and then pull the wiper arm quickly in the opposite direction. This will suck oil into the motor.
3. Move the wiper arm back and forth in the normal manner to force the surplus oil back into the can. This will lubricate one side of the motor.

4. Repeat the above procedure starting with the blade on the opposite stroke to complete the motor lubrication. Reinstall the vacuum hose.

Further information on the servicing of windshield wiper mechanism is found in the Service Counselor Vol. 22, No. 10, dated August 1, 1948.