

SERVICE Counselor

PACKARD MOTOR CAR COMPANY



VOL. 28: NO. 7

JULY, 1954

SCHOOL'S OUT FOR THE KIDS—BUT NOT FOR US!!

This Formula Won't Blow Up Anything...

BUT YOUR PROFITS

$$SV = GCR + SA f^2 \times \frac{MS}{RO}$$

SERVICE VOLUME = GOOD CUSTOMER RELATIONS + SERVICE ADVERTISING × FOLLOW-UP² MORE SELL REPAIR ORDER

Mix Well and Serve Daily

Do You Have All the Ingredients?

World-Wide Packard Service Training

Packard Export Service Representative Mr. C. E. Benham, the handsome chap with the necktie, sent us this picture of the service personnel of Hussein Aoueini & Cie., Packard Distributor in Djeddah, Arabia. The Arabian Service Manager, Mr. Faud Hashash, is on Mr. Benham's left.



This group had just completed an Ultramatic School with Mr. Benham instructing when this picture was taken. They were also trained to properly service and prepare a new car for delivery.

The distributor is sending Mr. Hashash to the States sometime in August for a six month training course. He will spend about four months at the Packard New York 54th Street Service Department, one month at the Detroit Factory and Utica Warehouse and possibly a month at El Paso, Texas, where climatic conditions are similar to those in Arabia.

★ ★ ★ ★ ★

Nylon Speedometer and Governor Gears Ultramatic

All Models

This article cancels and supersedes the article "Nylon Speedometer and Governor Driving Gears" in Service Counselor Vol. 27, No. 9, September, 1953.

Starting in production approximately July 15, 1953 all Ultramatic transmissions were equipped with nylon speedometer, governor pinions and driving gears instead of steel or brass. This change went into effect starting with Ultramatic transmission serial numbers 226040, 91778, 31640, and 10001.

Prior to this production, a few transmissions were built with steel speedometer and governor pinions mated with nylon driving gears. The steel gears in these units were "Tampico brushed" to remove all

sharp spots and edges which might mutilate the nylon gears.

When replacing a governor assembly, governor adapter assembly, governor pinion, speedometer pinion or driving gear on an Ultramatic transmission, all gears must be of the nylon material or if nylon gears are mated with steel gears the steel gears must be "Tampico brushed" gears.

Part No. 434608 Speedometer Driving Gear (Nylon) cancels and supersedes Part No. 421129 Speedometer Driving Gear (steel) and will be shipped for service replacement for *all* Ultramatic transmissions. When this nylon driving gear is installed in 23rd, 24th, 25th or early 26th series transmissions prior to serial numbers listed above, it will be necessary to also install nylon or "Tampico brushed" speedometer and governor pinions.

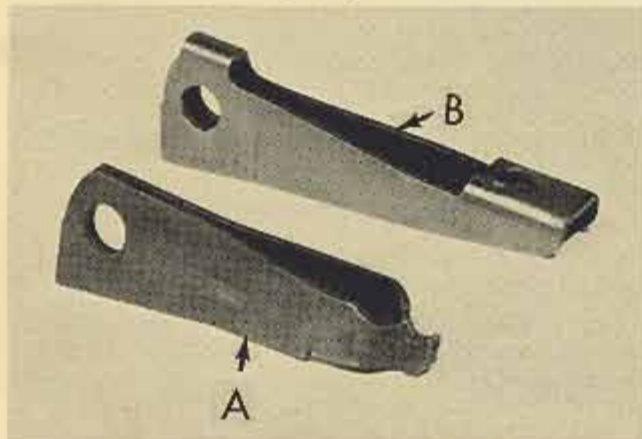
Nylon gears and "Tampico brushed" steel gears are available at the Central Warehouse and are listed for your ready reference:

PART NO.	DESCRIPTION	MODEL
434608	Driving Gear (Nylon)	All Models
434516	Governor Pinion (Nylon) 3.54, 3.9, 4.1, 4.36 to 1 axle ratio	All Models
434514	Governor Pinion (Nylon) 3.23 to 1 axle ratio	2601-02-06-11-31 5401-02-06-11-31
434722	Speedometer Pinion and Shaft Assembly (Steel-Tampico Brushed) 3.9 to 1 axle ratio	2301-02-32 2401-02-06 2501-02-06-31 2601-02-06-11-31 5401-02-06-11-31
	3.92 to 1 axle ratio	2306-33
434723	Speedometer Pinion and Shaft Assembly (Steel-Tampico Brushed) 4.1 to 1 axle ratio	2301-02-32 2401-02-06 2501-02-06-31 2601-02-06-11-31 5401-02-06-11-31
	4.3 to 1 axle ratio	2413-2513
	4.36 to 1 axle ratio	2613-5413
434724	Speedometer Pinion and Shaft Assembly (Steel-Tampico Brushed) 4.3 to 1 axle ratio	2301 2401 (Bodies 2462-65-92- 95-98) 2501
	4.1 to 1 axle ratio	2633-5433
434721	Speedometer Pinion and Shaft Assembly (Steel-Tampico Brushed) 3.9 to 1 axle ratio	2626-5426
434320	Speedometer Pinion and Shaft Assembly (Nylon) 3.54 to 1 axle ratio	2302-06-32-33 2401-02-06 2501-02-06-31 2601-02-06-11-31 5401-02-06-11-31
434618	Speedometer Pinion and Shaft Assembly (Nylon) 3.23 to 1 gear ratio	2601-02-06-11-31 5401-02-06-11-31

A.C. Fuel Pump Vacuum Diaphragm Kits 26th—54th Series

A few reports have been received stating that A.C. Fuel Pump Vacuum Diaphragm Kits, Part No. 436148, do not fit on some 26th and 54th Series A.C. double acting fuel pumps. In other words, the stem on the diaphragm will not attach to the operating lever.

The illustration shows the two types of levers used in the A.C. fuel pumps. Vacuum diaphragm kits, Part No. 436148, can be used in A.C. fuel pumps having lever as indicated by "A" in the illustration. In A.C. fuel pumps having lever as indicated by "B", it will be necessary to install a complete repair kit, Part No. 436146, or use the levers in the repair kit in conjunction with diaphragm kit, Part No. 436148.



Fuel pumps having operating lever as indicated by "A" in the illustration can be identified by the number 9606 stamped on the edge of the pump mounting flange. Pumps having operating lever as indicated by "B" have 9920 stamped on the edge of the mounting flange.

A new vacuum diaphragm kit will be released in the near future that will fit the lever indicated by "B" in the illustration.

Delco-Remy Distributor Breaker Plate 54th Series

A few reports have been received of erratic spark timing, point bounce and unsteady cam dwell angle on Delco-Remy distributors used on the 54th Series cars.

The center bearing vacuum advance assembly used in the Delco-Remy distributor is designed to be capable of responding quickly to the pulses of the vacuum unit that actuates it. The spring-loaded construction of the breaker plate automatically takes up looseness created by normal wear and controls any tendency to chatter. Every wearing part, in fact, has a spring take-up to maintain accurate operation over long service periods.

Erratic spark timing, point bounce or unsteady cam dwell angle in most cases can be corrected by proper servicing. Listed are four important precautions when servicing this type distributor.

1. Lubricate the center bearing advance assembly through the breaker plate marked "OIL" with 3 or 4 drops of SAE 10-W oil every 5000 miles. Wipe off any excess oil left on top of the breaker plate.



Fig. 1

2. Be sure that the small flat "side spring" is upright and in the recess of the center opening of the support plate. With the breaker plate assembly upside down as shown in Fig. 1, the spring is installed with the two prongs upward and the flat side of the spring bears against the bronze center bearing of the movable breaker plate to oppose the thrust from the breaker arm spring. The flat retaining snap ring holds the side spring in place.

3. Vibration in the movable breaker plate causing unsteady cam angle dwell is probably due to insufficient tension on the stabilizing spring washer. Attach a spring scale to the vacuum unit linkage post as shown in Fig. 2 and check the effort required to start compressing the stabilizing spring washer.



Fig. 2

The effort should not be less than 32 ounces nor more than 56 ounces. If necessary to change the spring tension it can be adjusted by adding one or more shims to the stabilizing spring washer indicated by "arrow" Fig. 2.

4. Make sure that the vacuum control linkage fits properly without binding where it attaches to the breaker plate. Proper fit and alignment can be obtained by loosening the vacuum housing screws and shifting the housing or bending the link slightly.

Be sure the condenser does not touch the vacuum linkage in any position of the movable breaker plate.

5. Since springs are used in this distributor to compensate for normal wear, it is very important that *all* springs be in place, breaker plate moves freely and most important is that the breaker arm spring tension be adjusted to 19 to 23 ounces.

The breaker arm spring tension can be checked with a spring scale and adjustment is made by moving the tension spring forward or back on the slotted bakelite attaching block.

Distributor Governor and Vacuum Advance

All Models

We have received reports that mechanics are unable to obtain the amount of distributor advance that is listed in the Packard Mechanical Specifications and Adjustments.

The Packard distributor specifications are always listed in crankshaft degrees, in fact, the 54th Series specifications are indicated as such. The reason being that on the engine the advance of the distributor is in direct relation to the crankshaft travel. It must be remembered that distributor rotation is only one-half of crankshaft rotation.

Some distributor testers show the degree of advance in distributor degrees which is only one-half of crankshaft degrees; therefore, the amount of advance shown on the tester should be doubled which will give you advance specifications according to crankshaft degrees and will correspond to our mechanical specifications. For example, our mechanical specifications for the 5400 model shows 16° maximum governor advance at 3200 engine RPM's. On the distributor tester, it will show 8° advance at 1600

distributor RPM's. The maximum vacuum advance is listed at 10° in crankshaft degrees but will only show 5° on the distributor tester.

Distributor advance can be checked with a timing light by following the procedure outlined:

1. Disconnect the vacuum tube at the distributor vacuum unit and hold your finger over the tube or plug the tube to maintain engine idle speed. With the engine idling at 400 RPM, check the timing pointer reading on the vibration damper with a timing light. Speed up the engine until maximum governor advance is obtained and take a reading on the damper. The difference between the two readings will give you the maximum governor advance.

2. Install a tight fitting rubber hose on the vacuum tube so that it can be attached quickly to the distributor vacuum unit. With the engine operating at 1000 RPM, check the timing pointer reading on the vibration damper with a timing light. With the engine still operating at 1000 RPM, connect the rubber hose on the vacuum tube to the distributor vacuum unit and take a reading on the damper. The difference between the two readings will give you the maximum vacuum advance.

Air Conditioning School

During the early part of May the Kansas City Zone held a timely Air Conditioning School at Jack Beebe Packard, Kansas City, Missouri. The school was conducted by the Kansas City Zone Parts and Service Representatives, namely, Mr. M. D. Katen, Mr. Art Utterback and Mr. James Aylward.



Service personnel from the following dealers attended: Jack Beebe Packard and Packard Country Club, Kansas City, Mo.; Oklahoma Packard Co., Oklahoma City, Okla.; Don Schmid Packard, Inc., Wichita, Kansas; and Ben Franklin Co., Tulsa, Okla.

Part Number—Correction

Please make the following correction in Service Counselor Vol. 28, No. 5, May, 1954.

In the article "Mag-Nu-Matic Windshield Washer Control Button" Part Number 448727 is listed for the control knob button. As this part is an accessory, the correct Part Number is PA448727. Please correct your copy accordingly.