

PARTS . ACCESSORIES . PRODUCT

PACKARD MOTOR CAR COMPANY



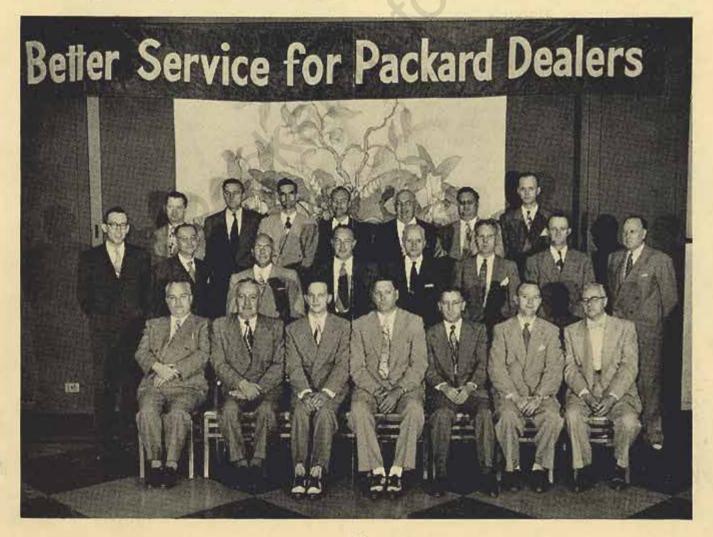
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### Zone Warehouse Managers Meeting

Timed to follow the opening of Packard's new Central Parts Warehouse, located at the famous Packard Proving Grounds, Utica, Michigan, in the interests of "Better Service for Packard Dealers" everywhere, the Zone Warehouse Managers Meeting was held in Detroit on June 12th and 13th.



The meeting was held under the direction of Mr. J. A. Carr, Manager, Parts and Service Department, and was organized by the National Parts Division staff. The Zone Warehouse Managers representing 17 of Packard's 20 Zone Warehouses were present.

Highlights of the meeting included a tour of the new Central Parts Warehouse to familiarize all the Zone Warehouse Managers with the programs which are being placed in operation to secure an expanding and profitable future, together with the introduction of the Zone Cardatype Program which involves the installation of the latest office equipment at the Zones to further expedite Dealer service.

The details involved in the compilation of the new Packard Parts and Prices Master Book were also explained. This reference manual is receiving enthusiastic approval of Packard Dealers across the nation.

The balance of the program was spent in the study of improved Warehouse management routines and techniques which are aimed at improved operating efficiency, and maintaining a quality of service to Packard Dealers unequalled by any other organization.

For those of you who are not yet acquainted with the new Central Parts Warehouse, it is interesting to know that there are 9 acres of parts and accessories under a single roof on one floor. This area of over 400,000 square feet contains more than 6,500 tons of material in 25,000 classifications, totalling nearly \$8,000,000 in parts inventories ready to serve customer requirements from the oldest to the youngest.

When the Warehouse was constructed, over a quarter of a million dollars in new bins, racks, material handling equipment and conveyors were added to existing warehousing facilities.

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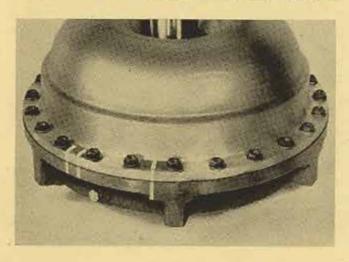
## Converter Assemblies—Balanced

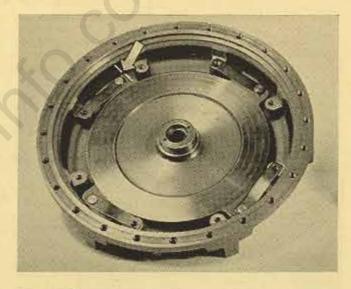
All 25th Series Ultramatic transmissions beginning with transmission serial numbers 211362, 69020 will have the converter assembly balanced as a unit.

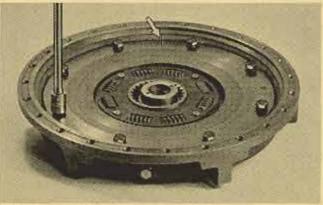
The balancing lugs' thickness are as follows: .0142, .0285, .057, .083, and .125. They are held in place by the converter pump screws only, part number G192347, and not by a driving screw as previously used.

There may be an occasion where there will be one or more balancing lugs in one location, or they may be distributed around the pump.

It is extremely important when disassembling a converter that has been balanced, that the location of the lugs, the clutch housing, converter pump, converter clutch piston and converter clutch pressure plate all be identified as to position and relation to each other so that they can be reassembled in their proper position to maintain an accurate balance. It is suggested that the parts be marked as shown in the three illustrations with either paint or scribe marks, Caution:







Do not prick punch marks since they have a tendency to fracture the casting. If more than one set of balancing lugs is found on the converter, mark accordingly. When more than one lug is found in one location, tie them together or mark all of the lugs for identification so that they will not be mixed up during disassembly or reassembly. The converter pumps that are shipped from the parts warehouse will be balanced and the lugs will be held in place with driving screws. In case of converter pump replacement, the converter pump can be installed in any position to the clutch housing: But be sure to install the balancing lugs that were on the original assembly in their proper location in relation to the clutch housing.

# Starting Motor Anti-Kickout Bendix Drive

Several reports have been received of difficulty in starting the engine due to the starter bendix kicking out on false starts. This has resulted in flooded engines due to the accelerator being operated each time to re-engage the starter bendix after a false start. The false start occurs when one or two spark plugs fire and the engine does not continue to run.

A new anti-kickout bendix drive is now used in production on all models except the "Patrician." It is designed to overcome premature demeshing of the drive pinion from the flywheel ring gear, until a predetermined engine speed is reached (approximately 355 to 448 engine r.p.m.). Fundamentally, it is similar to other barrel-anchor plate types of bendix drives, which have proven highly satisfactory over a period of years.

The screw shaft of the new bendix drive is divided into two sections with a "Dentil" over-running clutch connection between them. This over-running clutch serves as a safety factor preventing damage to the starter motor.

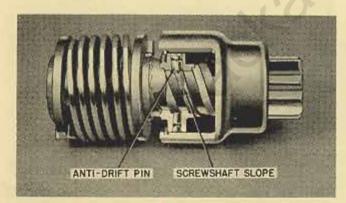


Fig. 1
RETRACTED POSITION

A spring loaded anti-drift pin rides on a slope on the screw shaft and prevents the pinion from drifting toward the flywheel ring gear while the engine is running. (Fig. 1)

With the drive pinion engaged in the flywheel ring gear when cranking the engine, a spring loaded detent pin drops into a notch in the screw shaft, which keeps the pinion engaged in the flywheel on false starts. (Fig. 2)

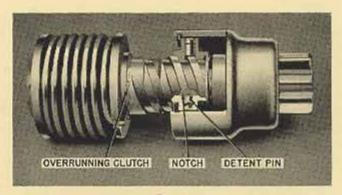


Fig. 2
ENGAGED POSITION

Automatic meshing of the drive pinion with the flywheel ring gear is accomplished in the usual manner by closing the starter switch; the drive pinion then engages to crank the engine. In the meantime, a spring loaded detent pin, located in the control nut, has dropped into engagement with a notch in the screw shaft. If the engine fails to continue running due to weak or irregular firing, movement of the pinion in the demeshing direction on the screw shaft is temporarily checked, because of the detent pin engagement in the screw shaft notch. Premature demeshing of the pinion from the flywheel ring gear is consequently prevented.

After the engine starts, the flywheel ring gear is driving the pinion at a greater speed than the driving effort of the starter motor; the pinion then over-runs the starter motor through the over-running clutch. (Fig. 3)

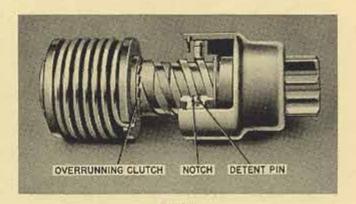


Fig. 3
ANTI-KICKOUT POSITION

When the engine does not continue to run and slows down, the speed of the pinion and screw shaft also decreases. Cranking is automatically resumed immediately after the speed of the over-running parts reaches that of the starter motor, provided the starter switch has been kept closed.

Intermittent action between over-running and cranking occurs until the engine is firing so that its speed reaches the predetermined rate, at which time the detent pin is centrifugally forced against the detent spring, thereby compressing it. The detent pin thus becomes disengaged from the screw shaft notch, which permits the drive pinion to automatically demesh from the flywheel ring gear.

Drifting of the drive pinion towards the flywheel ring gear while the engine is running is prevented by the spring loaded anti-drift pin, which rides on the slope on the screw shaft. This anti-drift pin is identical in design to the detent pin. However, due to the difference in function, the spring tension is not the same. In general, the anti-drift spring is stronger than the detent spring.

Cleaning, lubricating and checking for free longitudinal movement as used on the previous type bendix applies to the anti-kickout type bendix.

The anti-kickout bendix drive can be used on all 20th, 21st, 22nd, 23rd, 24th and 25th Series cars with the exception of the Custom 8 and "Patrician" models which are equipped with an over-running clutch type positive mesh engaging mechanism.

Part No. 436421 anti-knockout bendix drive is available at your Zone Warehouse.

### Frames 24th, and 25th Series

Frames now used in production and frames being shipped for service incorporate the following changes:

- (a) The tapping plates where the upper support arm bracket bolts are attached are for 9/16" bolts instead of ½" as previously used.
- (b) The two clinch nuts where the steering connecting rod idler lever support screws are attached have been removed. A spacer is now used inside the frame side member and the attaching bolts go through the member and are secured by two self-locking nuts.

When installing a frame assembly which have Part Number 443501, 443511, 443521, 443531, 443541, 443551, it will be necessary to replace the upper support arm inner brackets, attaching bolts and the steering idler arm support bolts and nuts. These parts can be ordered as follows:

Part No. 443468 support arm brackets 2
Part No. 443666 support arm bracket bolts 4
Part No. G189121 idler lever support bolts 2
Part No. G451011 idler lever support bolt nuts 2

When replacing a frame front channel assembly using Part No. 443741, it will, also, be necessary to replace the upper support arm brackets and attaching bolts but it will not be necessary to replace the idler lever support bolts.

### Service Training Makes Better Servicemen

To continue doing a "bang-up" job of servicing the Packard cars, the Factory is doing its part by providing adequate Training programs for the Dealer personnel by Factory Service Representatives.



Recently Easamatic Power Brake Schools were held by W. N. Hall and J. H. Tiller, Service Representatives of the Atlanta Zone, at the Bridges Motor Company, Greenville, South Carolina, and Denny Motors. Inc., Columbia, South Carolina.



Nation-wide coverage provides a Packard Owner with confidence when he is need of service. He knows his nearest Packard Dealer can serve him well.

We are pleased with the interest the men have shown in the schools and will strive to continue to make every program covering any new mechanical feature as interesting and as elementary as possible. This, we are confident, will avoid leaving the mechanic in a confused state of mind as to the fundamental principles, construction and operation or servicing the new feature; and a better all around job of servicing will be done.

When we do our best job, we have pleased customers who will return for their mechanical requirements for which we not only reap the pride of a job well done, but increased financial benefits.