VOL. 14 No. 11 JUNE 1, 1940

ARE YOU READY?

For service men, a silver lining of the war clouds is that Packard owners, in larger numbers than ever, are going to spend their vacations and make all of their trips somewhere between the Atlantic and Pacific oceans. More people are going to take to heart this "See America" business and that's just fine for us. People just will take vacations and they will travel and that makes all the more important this matter of the proper handling of the touring owner.

We have outlined on many occasions the things that should be done but we all forget some of those things that we figure we know best. So let's go over this once more.

What do touring owners like in the way of service? In the first place, because they're tourists they don't want to spend a large part of their time inside a service station. The first thing for a service salesman, therefore, is to ask each of his owners when he is taking his vacation and try to sell him on work that should be done to his car that will assure him of a pleasant and safe trip. Get as many of your owners started off right as possible.

When a tourist comes into your service station just assume that he is in a hurry to get on his way and do everything you can to be sure that what work is necessary is done quickly and thoroughly.

Probably he is a stranger in your town. You ought to make sure, therefore, that he can find his way around and he is acquainted with a good place to stay if any delay is to be encountered. Be sure you are acquainted with the best routes out of town, and a few good road maps will always come in handy. Make him feel that yours is a friendly service.

Be sure if his car is inside the warranty that he doesn't have to pay for work you should handle on a labor claim. Never send a tourist on his way with any old parts in his car that you should have handled on a returned goods tag with your Distributer or the factory.

Do only the work on a tourist's car that he wants done or that will keep his car running properly. Leave other than warranty emergency work until the owner returns to his home. There is nothing to be gained by criticizing the work of another service station or the factory, nor is there any advantage in letting an owner think that his particular trouble is common to all cars of that series. Make sure that all tourists leave your place with their cars fixed right and with the feeling that Packard Service in your town is "the best."

For details in connection with handling the service policy affecting tourists, read carefully Service Trade Letters T-2882, October 14, 1937; T-2894, December 15, 1937, and T-2902, March 21, 1938.

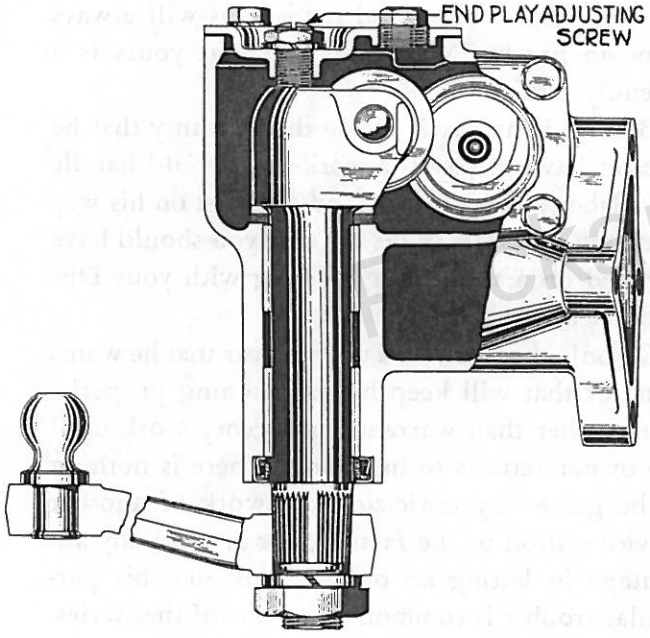
Word of mouth advertising does things; Packard tourists travel far and wide. Let's make sure they have only the right things to say about Packard Service.

WHEEL FIGHT—1801

Wheel Fight, the tendency of the steering wheel to jerk in the hands of the driver when passing over slight road irregularities, is caused by excessive backlash in the steering linkage which permits the wheels to be deflected. When working to correct a condition of Wheel Fight, all steering connections should be checked and adjusted.

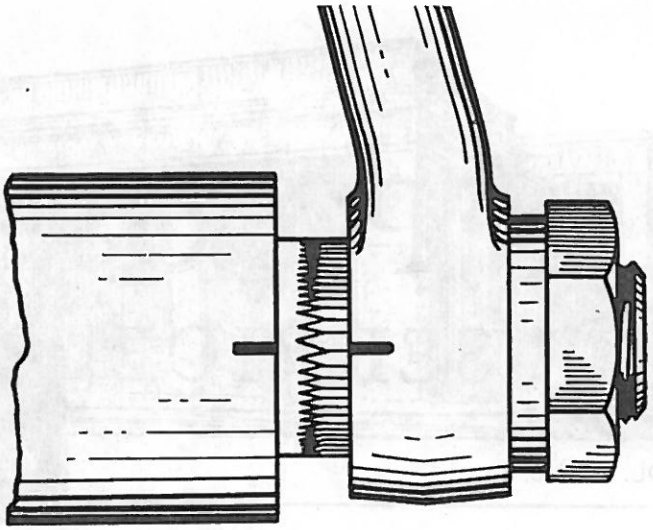
There are, however, two places where excessive play is most likely to develop. These are: excessive end play in the steering gear cross shaft, and the steering gear, not on the high spot in the straight-ahead position.

The first step in correcting Wheel Fight should be to carefully adjust the steering gear for "Up-and-Down Play," "Cross Shaft End Play" and "Roller Mesh" as described in the Shop Manual. If excessive "Cross Shaft End Play" is found in the eighteenth series cars it will probably be due to the cross shaft adjusting screw having worn a groove or recess in the end of the cross shaft.



On the early eighteenth series cars a steel cross shaft adjusting screw was used. Later in production the material in the screw was changed to brass to reduce the wear on the cross shaft. When adjusting for "Cross Shaft End Play" the adjusting screw should be inspected and steel screws replaced with the new brass screw. The new screws are carried in service stock under original piece number 213315. When installing the new screw the outside corner of the contact surface should be rounded slightly with a file to insure its fitting into the recess in the cross shaft.

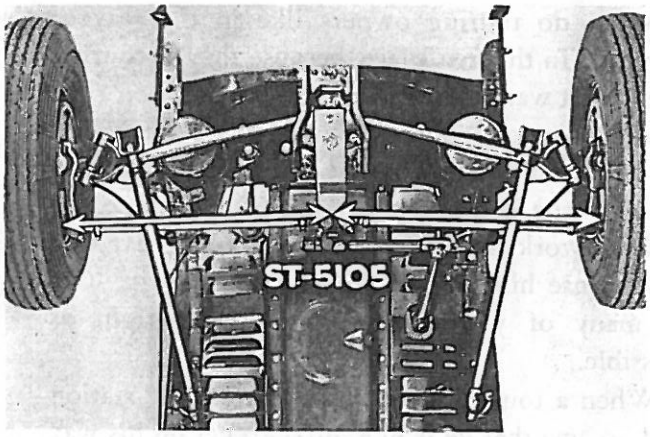
After the steering gear has been adjusted, it should be set on the high spot and the wheels



placed in the straight-ahead position. If the steering linkage is correctly adjusted, the steering connecting rod will just reach from the steering crank to the steering lever.

In production, we are now marking the position of the steering lever in relation to the high spot. A mark on the end of the steering lever lines up with a similar mark on the steering gear case when the gear is on the high spot. Do not move the steering gear off of the high spot to bring the steering lever into position with the connecting rod. If adjustment is necessary it should be made by relocating the steering crank. This may be done by holding the steering gear on the high spot and moving the steering crank to the right or left as necessary to install the connecting rod.

Moving the steering crank in this manner will throw the wheels off the straight-ahead position



and they must be relocated and the toe-in checked and reset. Install the Steering Crank Aligning Gauge ST 5105 in the frame cross channel under the steering crank. The point of the gauge indicates the center line of the car. Adjust the cross tube until the distance from the center of the

gauge to the brake backing plate is the same on each side.

When this is done it will then be necessary to readjust the toe-in. Use Toe-In Gauge ST 128 and adjust by turning each cross tube an equal amount so that the total toe-in will be as equally divided as possible between the two wheels.

It is important that the total toe-in be kept within the recommended limits of 1/32" to 1/16". If necessary to secure an accurate adjustment it is permissible to lengthen or shorten one cross tube ½ turn more or less than the other.

After the toe-in has been set, the length of the cross tubes should be checked. The distance between the centers of the ball sockets should be the same within ½". The Shop Manuals and previous adjustment data give a ⅛" limit for the length of these rods. Recent tests have shown however that as much as ½" difference in length may be permitted without ill effect. Please correct your Shop Manuals accordingly.

If there is more than ½" difference in the length of the cross tubes when the steering gear is on the high spot and the wheels in the straight-ahead position with the toe-in properly adjusted it indicates that a knuckle or other steering part is bent and should be replaced.

CARBURETION—1803-8

In the December 1, 1939 Service Letter a stumble in the Super-Eight engine on light throttle pickup at from 10 to 18 m.p.h. was discussed and some suggestions were made for altering the carburetor to overcome it.

Further experience has shown that additional changes can be made to further improve the condition. Inasmuch as certain of these alterations have already been made in production, we are reviewing the entire operation. The carburetors are identified by the code number which is stamped on top of the float cover.

Carburetors Code Number 10-40 and 10-40A.

Drill out idle tubes to No. 62 drill size. Install .052" main metering jets and advance the ignition timing about 2°.

Carburetors Code Number 10-40B, 10-40C, and 10-40D have No. 62 idle tubes and they need not be drilled. Install .052" main metering jets and advance ignition timing about 2°.

Carburetors Code Number 10-40E have all of the above metering changes and can be used with engines having either the early or late type camshaft.

Please refer to the Service Letter of February 1, 1940 for the changes to be made in the carburetor when the early type camshaft is replaced with one of the later type.

IGNITION DROWNING OUT

ALL MODELS

We have had reports from the field of the ignition drowning out when water is splashed under the bonnet.

The first step on a complaint of this nature should be to check the engine side pans. The fender side splasher particularly should be checked to see that it fits securely against the frame and the fender. Even a small gap may permit water to splash in on the ignition.

To further guard against water drowning out the ignitions, our cars are now being fitted with a rubber insulator over each end of the coil to the distributor high tension cable and at the distributor end of the spark plug wire. These insulators may be ordered from the Service Stores Division. 362119—Spark Plug Cable Insulator $0.04 AA List. 8 required for 110's, 10 required for 120's.

We have had reports from some of our distributers of the good results they have had in overcoming ignition drowning out by sealing the ignition wires with "Lektrik Power Seal" and similar sealing compounds. In extreme cases you may find it advisable to use these materials.

To seal the ignition, the sealing compound is painted on the ignition wires with a small brush —a five-cent mucilage brush will do. It is not necessary to remove the spark plug wires from the conduit. The wires should be pulled out of the distributor head and coated all over their exposed length. Before replacing them work enough of the sealing material into the distributor cap terminal sockets so that it oozes out when the wires are put in place. The coil to distributor cable and terminals at each end should be painted and treated in the same way. It is not necessary to coat the distributor cover entirely. The cover should be removed, however, the inside cleaned and the contacts painted. The pigtail of the condensor should also be painted at the same time.

EXHAUST MANIFOLD GASKETS

We have found very little demand for individual manifold gaskets, and due to a change in design and thickness, we believe it advisable to ship all future orders in sets only.

Pc. Nos. 300037, 300038 and 300039 will no longer be furnished. Instead order Pc. No. 303906 manifold gasket set for all Model 120's.

Pc. Nos. 341619, 341620 and 341621 will no longer be furnished. You should order Pc. No. longer be furnished. Order Pc. No. 351069 manifold gasket set for 18th Series Super Eight.

TRANSMISSION JAZZ—1801

You may have had some complaint, particularly on the 1801, of a rattle or buzz that is heard on pickup at about 20 to 30 m.p.h. Although this noise is a low pitched rattle and sounds much like a loose muffler, it actually is in the transmission and Econo-Drive. It is caused by a natural engine period which sets the transmission and Econo-Drive gears to rattling.

The effect of the engine period may be heard in all cars but is most noticeable in Econo-Drive-equipped cars because of the greater number of gears that may rattle.

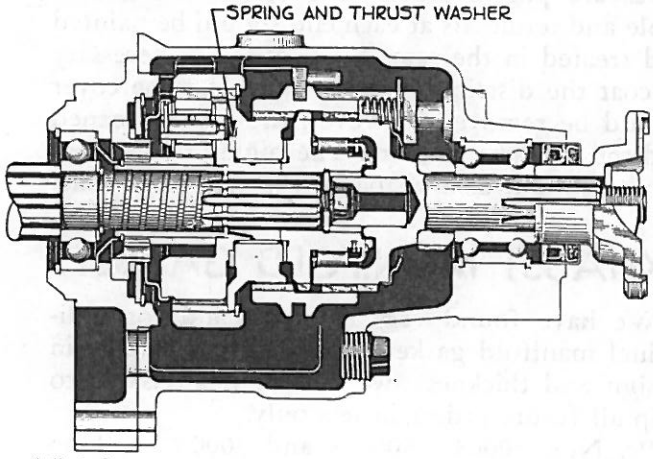
Usually one or more of the following four steps will correct it:

First: Change the transmission and Econo-Drive oil to summer grade S.A.E. 250. Use a premium grade of oil that will maintain its viscosity nearly constant and will not thin out when it gets hot. In some cases the added cushioning effect of the heavier oil alone will dampen out the vibration.

Second: Increase the Econo-Drive cut-in speed so that the engine will have gone through the period before the Econo-Drive is engaged. Governor switches are available in three different speed ranges. The speed range is identified by a paint mark on the cover.

Color	*Range*	*Piece Number*
Yellow	Low	355075
Red	Medium	347478
Blue	High	354943

The exact cut-in speed varies according to the axle ratio (see Service Letter March 1, 1940). The Blue—High—governor switch should be used.



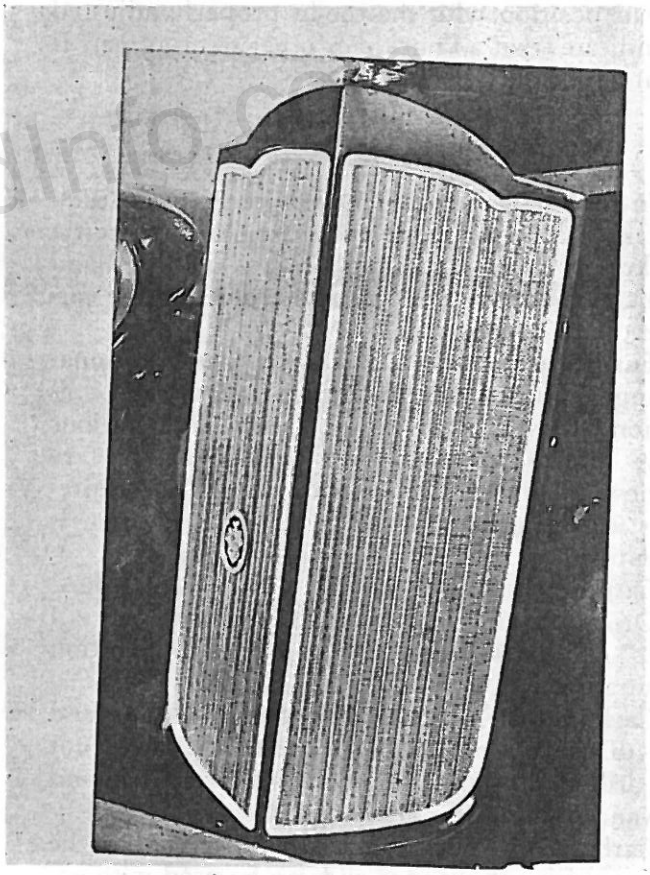
Third: Install spring-loaded Econo-Drive clutch thrust washer. This washer is used to replace the solid bronze thrust washer between the planetary pinion cage and the ring gear hub.

To install it, disassemble the Econo-Drive and replace the original thrust washer with the new thinner washer and spring. Coat both thoroughly with transmission oil and install the spring first with the cupped surface toward the rear of the car and the machined face of the thrust washer away from the spring. When assembling the ring gear and over-running clutch cam, be careful not to jar the spring and washer off the shoulder on the pinion cage. Pull the screw up slowly and turn the assembly occasionally to make sure the spring and washer remain in place. 362821 Overdrive clutch thrust washer, front. 362822 Overdrive clutch thrust washer front spring. These will be available about the second week of June.

Fourth: Install a high friction lag clutch driven plate. A special high friction lag clutch plate is now available for use in the 1801 Econo-Drive equipped cars. This plate (Part No. 362637) is identified by a white paint mark on the hub.

All clutch driven plates now carried in service stock are selected to the high limit of friction lag and are identified by a yellow paint mark.

RADIATOR INSECT SCREENS



PA-356911—Radiator Insect Screens—provide full protection for the 1940 radiators. These screens cover the fender air grilles and radiator grille. They are attractive in appearance and easy to install. Now is the time to sell screens!

PRINTED IN U.S.A.