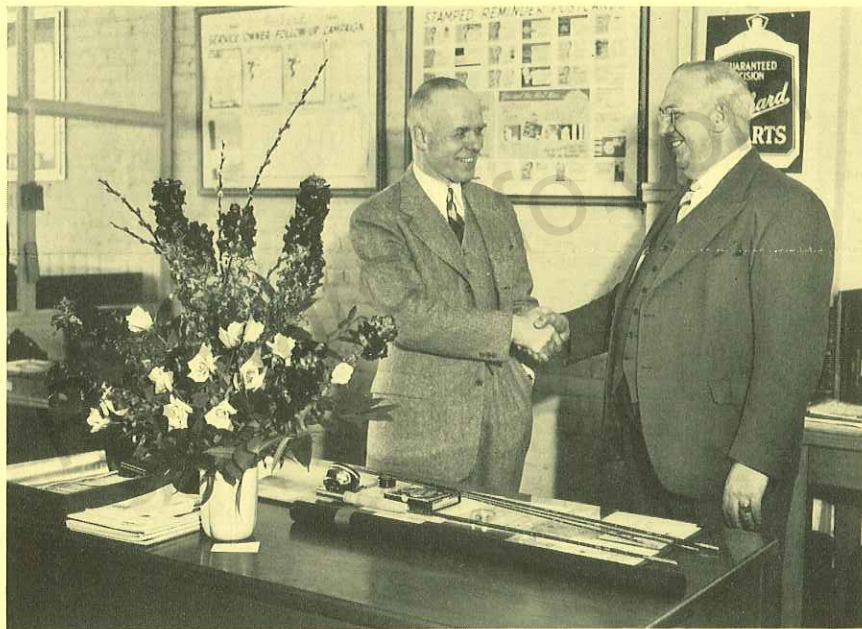


TWENTY-FIVE-YEAR MEN



NORM and VAN

So many of the field service organization know Norm Lull, Editor of the Service Letter, and Ross Van Valkenburg, Assistant Service Stores Manager, that we are sure you will all be interested to know they each have just completed twenty-five years with Packard.

Van's anniversary came on April 24 and Norm's one day later. We know you will want to join with us in extending them congratulations on a

fine record. They are shown here congratulating each other.

Norm is too modest to give himself and Van the publicity he deserves. So we, the rest of the department, have "killed" his front page without his knowledge and are putting their pictures in its place.

We think it's pretty good, don't you?

GAS LINE INTERFERENCE

1951

On some of the early Clippers we have found the right front brake tube rubbing against the gasoline line where it crosses over from the frame to the fuel pump. On other cars we have found the gasoline line rubbing against the side of the opening where it runs through the engine side pan.

If not corrected, interference at either point may cause the gasoline line to be worn through at early mileage. We suggest that both points be checked on fitting and delivery. When interference is found, the gasoline line should be bent to provide clearance.

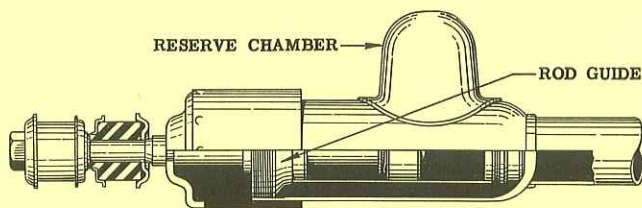
SERVICING FIFTH SHOCK

1951

Mount Fifth Shock in vise horizontally with reserve dome pointing up. Compress and extend the shock absorber, noting particularly any lag or free play which might be present. If functioning properly there will be no free play and considerable resistance, more on the extension stroke than the compression stroke.

If any lag or free play is present, check position of rod guide. Wrench slots in rod guide should be located at 45° to reserve chamber dome so as to place an air vent groove at uppermost point of pressure chamber.

If free play continues, after locating rod guide properly, replace rod guide and seal assembly and refill shock absorber with 3¾ ounces, plus ¼ ounce, minus nothing. Note: Fluid capacity of 3¼ ounces given in film, "Servicing the Packard Clipper," has been increased. 3¾ ounces, plus ¼, minus nothing applies to all direct-acting fifth shock absorbers.



Reassemble using regular direct-acting shock absorber procedure, taking care, however, that rod guide wrench slots are at 45° to reserve chamber dome after tightening the rod guide.

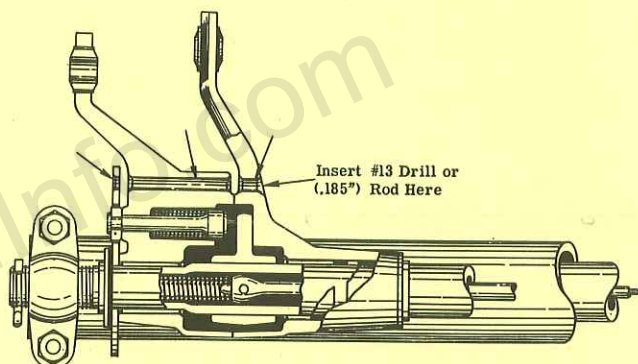
Any general information on the servicing of Monroe Direct Acting Shock Absorbers is applicable to the Model 1951 direct-acting fifth shock absorber.

HANDISHIFT LINKAGE

1951

In some of the early Clippers you may find that when shifting out of first gear, the Handishift lever will drop into neutral before the low gear is out of mesh. This is similar to the sticking in gear experienced in other cars with Handishift when wear develops in the linkage. It is less serious in one respect, however, as in the Clipper the Handishift lever can be put back in first speed to pick up the gear and make the shift without lifting the bonnet and centering the levers.

This condition can be corrected by accurately aligning the Handishift linkage. On the 1951 there is a stamped plate directly below the lower of the two steering column gear shift levers. The hole in this plate must line up with the hole through the levers when the levers are in the neutral position.



When adjusting the linkage, disconnect the rods from the levers and insert a No. 13 drill or a piece of .185-inch rod through the levers and the stamped plate to hold all three in line. Put the transmission gears in neutral and, with the pin still in place through the levers, adjust the turnbuckles so that the ends of the rods will slip into the holes in the ends of the steering column gear shift levers freely.

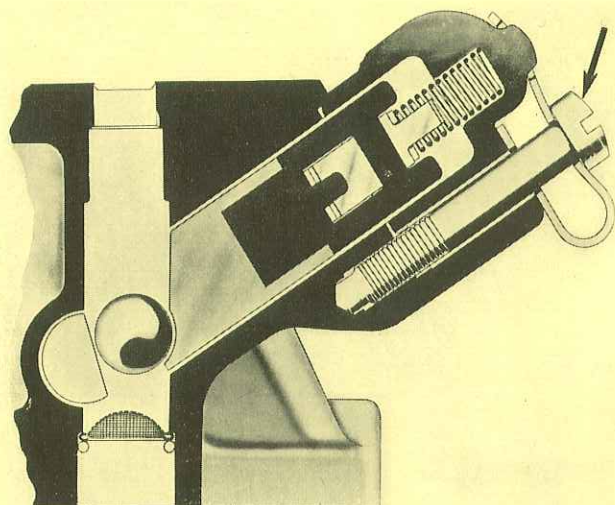
CLIPPER RADIO

In some cases, we have found the Clipper radio has a slight tone distortion when the radio has been turned up to a high volume with the tone control on bass. This trouble has been traced to the screen and cloth that is installed on the underside of the instrument board grille. We suggest you remove this cloth and screen from the grille whenever a radio is installed. This is now being done in production.

CAR-STARTER SWITCH

1951

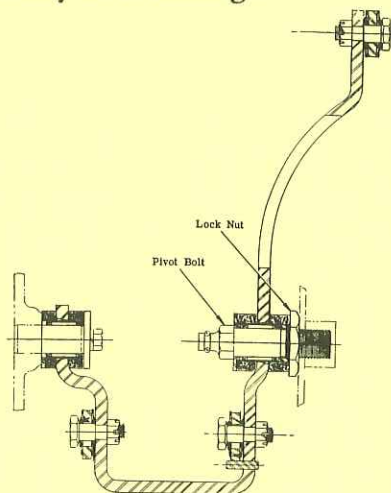
If you should find a case in which the starter does not turn the engine over when the accelerator is depressed, check the car-starter switch located on the side of the carburetor.



The car-starter switch is held in position by a screw which holds a clamp against the terminal cap. If this screw is loose, when the accelerator is opened the ball will lift the entire switch assembly and fail to close the contact points.

CLUTCH RELAY LEVER ELECTROMATIC 1900-1901

A squeak in the clutch relay lever, which may be thought to come from the control valve, or slow sticky operation of the clutch throwout mechanism may be due to incorrect adjustment of the clutch relay lever bearings.



On Model 1900 and 1901 cars equipped with Electromatic, the clutch relay lever is carried on roller bearings. At the frame side the bearing is carried on a bolt threaded into a boss on the frame

and locked with a lock nut. If the bolt is threaded too far into the frame boss, the roller bearing will be locked between the bolt head and nut so the relay lever will turn on the bearing rather than with the bearing on the bolt.

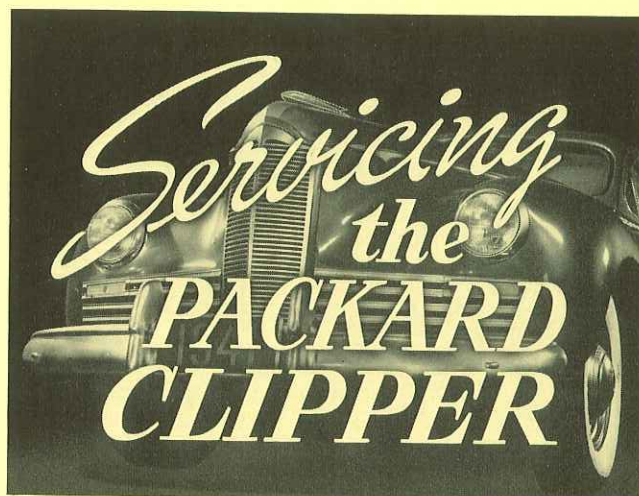
When a misadjustment of the bearing is suspected all connecting linkage should be disconnected from the relay lever and the action tried by hand. If the action is too stiff, loosen the lock nut and back out the bolt approximately $\frac{1}{4}$ turn and retighten lock nut. Try action of lever again. Continue repositioning lock nut until free action is secured.

WEAK VALVE SPRINGS

We occasionally hear from the field of cases where lack of maximum performance or chronic valve sticking has been caused by weak valve springs.

We have lately checked hundreds of valve springs and find they are running within the engineering limits. However, some of these may be on the low limit and also may lose three or four pounds of tension in the first few thousand miles of operation.

In cases of this kind it is not necessary to replace the valve springs, but we do feel that it might help considerably to increase the tension slightly by the installation of an extra star washer at the upper end of the spring. This would mean there would be two star washers between the upper end of the spring and the cylinder casting instead of one as used in production.



Servicing of all the new features of the Packard Clipper, Model 1951, is shown in the current Service Training Film, released April 24.

Don't fail to see this latest film when it is shown to your organization and be sure to get your copy of the Film Supplement. You will want it for future reference.

BATTERY CAUTION

1951

A condition has been called to our attention about which we wish to caution you. It applies to the Packard Clipper or any car with an under-hood battery.

Batteries give off a highly inflammable hydrogen gas when charged and continue to give off this gas after receiving a steady charge. Under no conditions should an open flame or an electric spark be allowed to occur near the battery, especially in the vicinity of the vent cap.

We have heard of a case where a service attendant allowed the high tension lead wire connected to the synchroscope to rest on the top of the battery while checking the engine timing. Should this high tension wire contact the battery, particularly the vent cap, so as to produce a spark an explosion of the hydrogen gas might occur. This has been known to happen and the battery case cover was completely shattered.

This is a very dangerous practice and service-men should make it a policy to avoid placing any conductor of electricity on top of the battery or to examine the battery solution with a lighted match or other flame.

STONE SHIELDS

19th SERIES

Stone shield equipments for the front of Nineteenth Series cars were made standard last April. A large number of cars were sold previous to this without these shields. The Service Parts Department has some of these equipments in stock under part number 377487, Stone Shield Equipment, Front. The suggested list price is \$3.75. Owners of these cars will appreciate this added protection.

TOOL CORRECTION

In the Service Tools and Shop Equipment Bulletin No. 3 on page two under wheel lower control arm expansion tool ST-5219, you will find a socket listed to use with this equipment under ST-10032. This number is incorrect. It should read ST-10033.

The T-handled wrench shown in this cut is a standard size that most mechanics have and the wrench is therefore not being included in the original shipment of tools. If such a wrench is required the one included in ST-5084 will fit and can be ordered under ST-10193. The suggested list is \$1.90.

TRANSMISSION SERVICE UNITS

The following table is to be consulted whenever a transmission service unit is required. It will eliminate all references to your parts records and assure the shipment of the correct unit.

It is essential in each case that, before ordering, you are sure of (a) the exact model, (b) whether standard or econo-drive, and (c) if with or without electromatic clutch.

<i>Pc. No.</i>	<i>Models</i>	<i>Description</i>
326792	120-A-B-C-CA-CD-138CD, 115, 1600-1-1A-1D-2	Standard
338375	1700-1-1A-2	Standard
333951	1700-1-1A-2	Econo-drive
338378	1703-3A-5	Standard
333953	1703-3A-5	Econo-drive
900093	1800	Standard
900170	1800-1-1A	Econo-drive
900095	1801-1A	Standard
900097	1803-3A-4-5-6-7-8	Standard
900171	1803-3A-4-5-6-7-8	Econo-drive
900093	1900 (sq. U.J. flange)	Standard without electromatic clutch
900522	1900 (round U.J. flange)	Standard without electromatic clutch
900766	1900	Econo-drive without electromatic clutch
900800	1900	Standard with electromatic clutch
900803	1900	Econo-drive with electromatic clutch
900095	1901-1A	Standard without electromatic clutch
900768	1901-1A	Econo-drive without electromatic clutch
900801	1901-1A	Standard with electromatic clutch
900804	1901-1A	Econo-drive with electromatic clutch
900097	1903-3A-4-5-6-7-8	Standard without electromatic clutch
900770	1903-3A-4-5-6-7-8	Econo-drive without electromatic clutch
900802	1903-3A-4-5-6-7-8	Standard with electromatic clutch
900805	1903-3A-4-5-6-7-8	Econo-drive with electromatic clutch