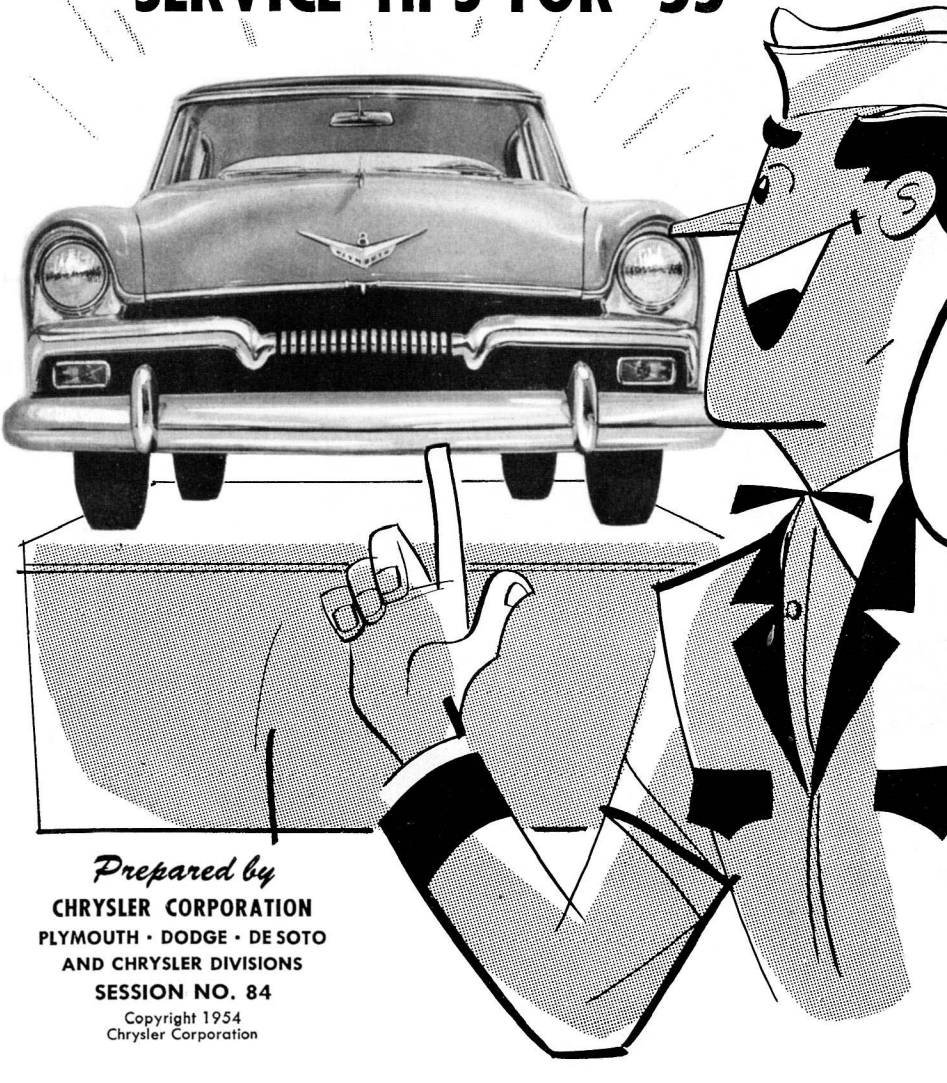
SERVICE REFERENCE BOOK

SERVICE TIPS FOR '55



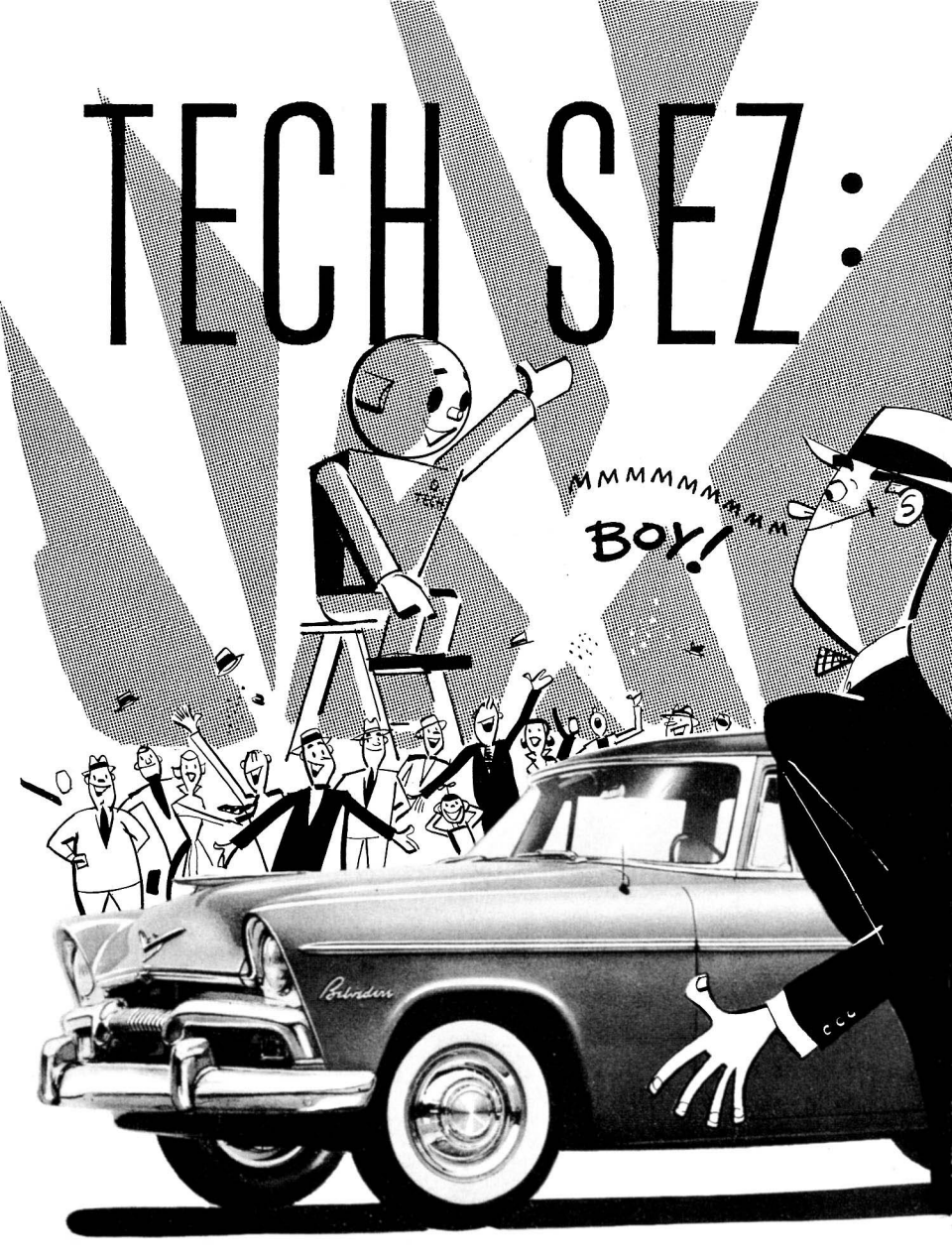
Prepared by

CHRYSLER CORPORATION

PLYMOUTH · DODGE · DE SOTO

AND CHRYSLER DIVISIONS

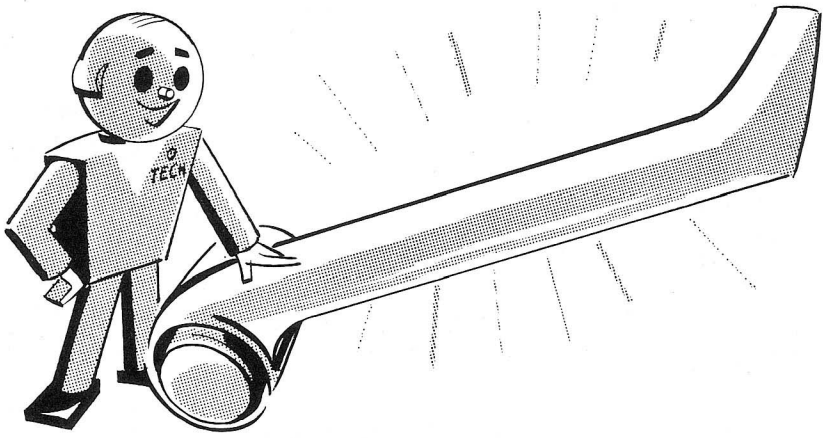
SESSION NO. 84


TECH SEZ:
MMMMMMMMM
BOY!

You've all seen our great new cars for 1955 by now, and you know we've got something special to be proud of. Practically everything is new, so in order for us to hold up our end of the business we've got to be right up to date with our service knowledge.

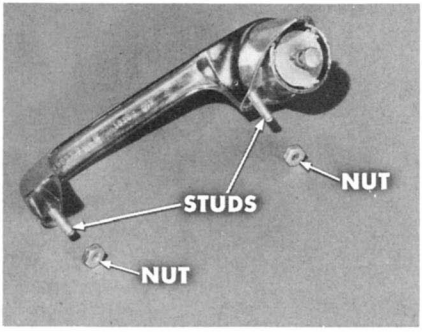
In this book you'll find the service highlights of many of the new features, and there'll be more information coming your way every month. All of it is aimed at helping you do a bang-up job of servicing these new cars so our owners will be the most enthusiastic owners in the country.

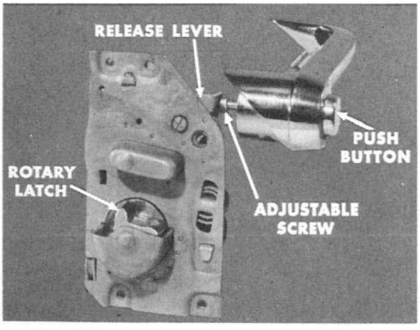
Here's the information you'll find in this book:



DOOR HANDLES

PLYMOUTH AND DODGE—All 1955 Plymouth and Dodge cars are equipped with push-button type door handles. This is the first time the push-button type handle has been used with the self-adjusting rotary latch. The door handle is mounted on the door by two studs which go through the door panel and are held by nuts on the inside of the door.

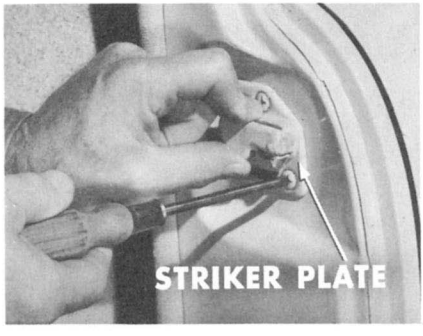




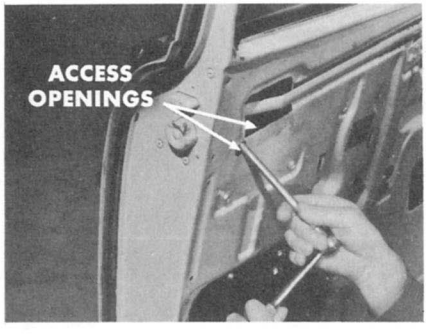
When the push button is pushed, the force is transmitted through the adjustable screw —attached to the button—to the release lever of the door lock, releasing the rotary latch.

The adjustable screw should be adjusted so that it lightly contacts the release lever of the door lock when the button is in the fully released position.

As you can see, the force required to push the button in is directly related to the amount of compression of the door weatherstrip. If the button is hard to push in, move the door lock striker plate out slightly. Be careful, however, that you do not relieve compression of the weatherstrip so much that a leak develops.



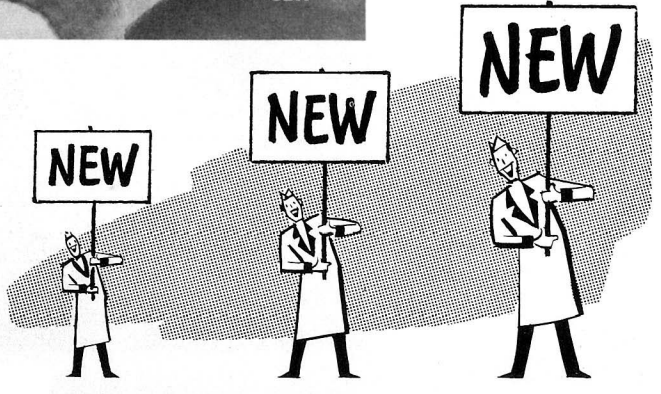
Should it be necessary to remove the handle, first remove the door trim panel. Then use a socket wrench to reach through the access openings in the inner panel to remove the nuts which hold the handle.

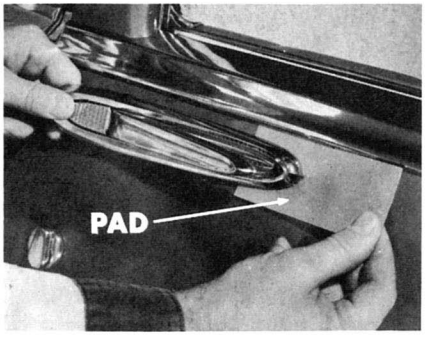


DE SOTO AND CHRYSLER—The door handle used on the 1955 De Soto and Chrysler cars is a combination push-pull type. This is a flush type handle that moves out to meet your hand when you press the button. Then you pull the handle to open the door.

To remove this type door handle it isn't necessary to remove the trim panel. The one attaching screw in the door flange is accessible when the door is open.

After the screw has been removed, the door handle can be lifted slightly and slid from the spring clip which retains the other end of the handle.

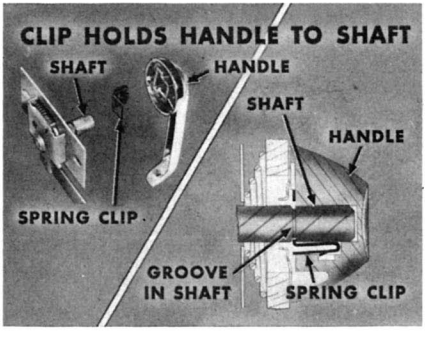




When installing the door handle, care must be taken to avoid damaging the finish. A chafing pad, made from a piece of ten-thousandths shim stock —either copper, brass or aluminum—should be used. Be sure there are no burrs on the edges that could scratch the paint. Place the slotted portion of the chafing pad over the spring clip so the opposite end protects the finish as the handle is slid into place. Then remove the pad by pulling it from underneath the handle. Install the attaching screw, and that's all there is to it.

REMOTE-CONTROL DOOR HANDLE AND WINDOW REGULATOR HANDLE

For 1955 the remote-control door handles, and the window regulator handles are new in design and in the method of attaching them to the shafts.

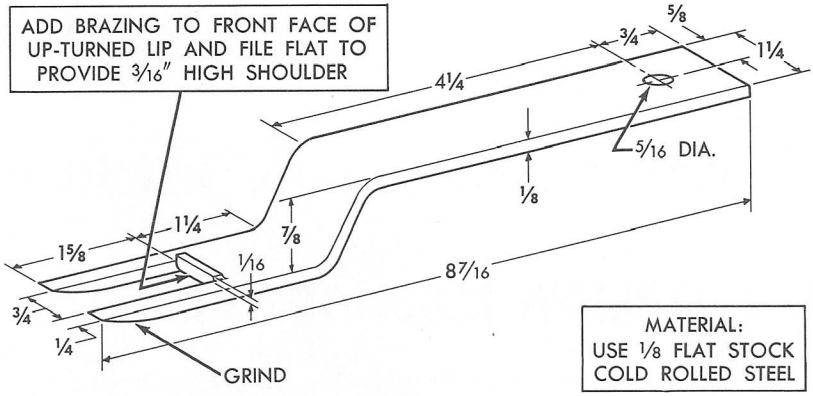


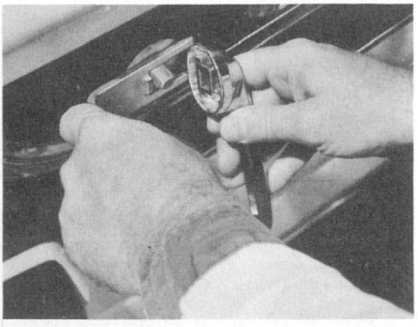
The handle is held to the shaft by a spring clip which snaps into the handle.

As the handle is pushed on, the clip locks into a groove in the shaft, securing the handle to the shaft.

In order to remove the handle from the shaft it is necessary to push the spring clip out of the groove in the shaft. The clip stays in the handle as it is removed.

A tool for pushing the clip out of the groove can be made, following the dimensions given in the sketch shown here. It will pay you to make up this tool because it can also be used for removing the door trim panel. When used for that purpose, the prongs of the tool straddle the panel retaining clip when it is inserted between the panel and the door. Then, when you pry the panel off there is no danger of pulling the clip through the panel.

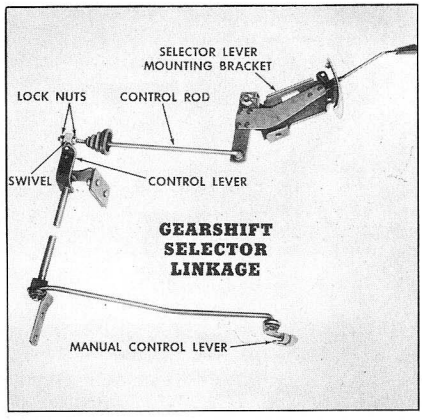


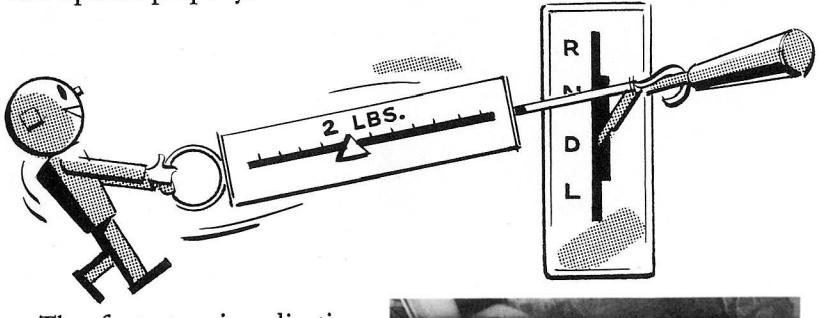


When removing the door remote-control handle or the window regulator handle, be sure the shank of the handle is down. Insert the tool from the left side, between the handle and the washer, pressing the upturned lip of the tool against the edge of the spring clip. As you push the clip out of the groove, pull the handle off the shaft.

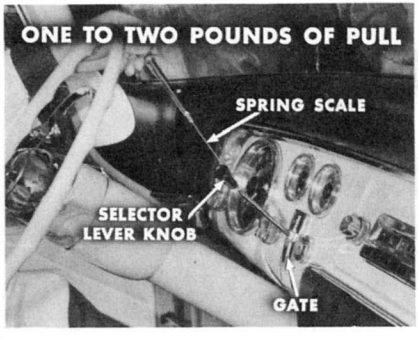
GEARSHIFT SELECTOR LINKAGE

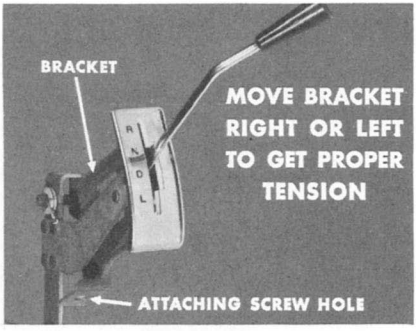
When the car is equipped with the PowerFlite transmission, the selector lever is mounted in a gate in the instrument panel. This location calls for an entirely new linkage system. The new linkage is so designed that engine movement has no effect on the linkage adjustment. However, it is important to know how the linkage should be adjusted so the transmission will operate properly.



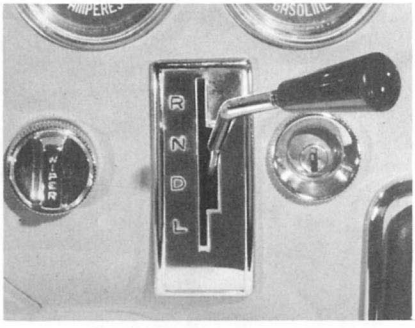


The first step in adjusting the linkage is to use a spring scale and pull the selector lever toward the left. It should require from one to two pounds of pull to move the selector lever away from the edge of the gate. This is the amount of tension the lever should have to hold it in position.

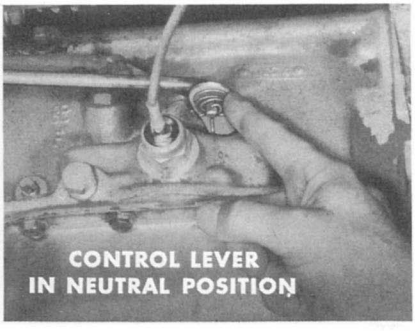




If the tension is not right, adjust the bracket to which the selector lever is mounted, behind the instrument panel. Loosen the bracket attaching screws and slide the bracket right or left to get the proper tension on the selector lever. Then tighten the bracket screws.

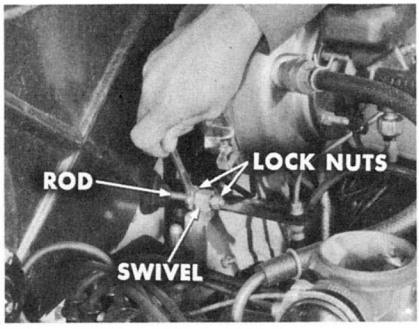


The next step is to be sure the linkage is properly adjusted so the position of the manual control lever on the transmission corresponds with the indicated position at the selector lever gate. First, be sure the selector lever is in the neutral position at the gate on the instrument panel.

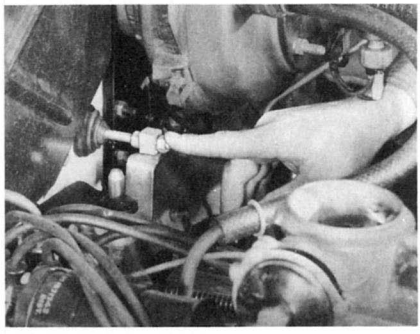


Then, see that the manual control lever on the side of the transmission is in the neutral detent position—that's the second detent from the rear.

Next, loosen the lock nuts on each side of the swivel on the control rod, so that the swivel is free to move on the rod.



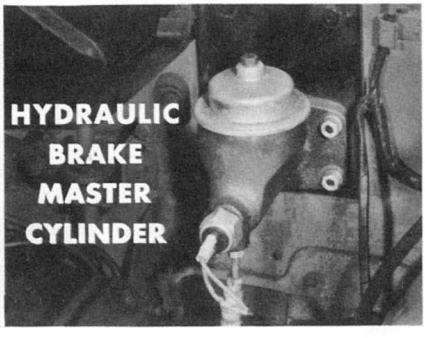
Now, push the control rod toward the dash, to hold the selector lever tightly against the edge of the gate. At the same time, slide the swivel on the rod so the stud is a free fit in the control lever. Then tighten the lock nuts.



Test the action by shifting the selector lever through all the ranges. The selector lever will touch the land of the gate in the neutral position, but will have a slight clearance between it and the lands in the other positions.

BRAKES

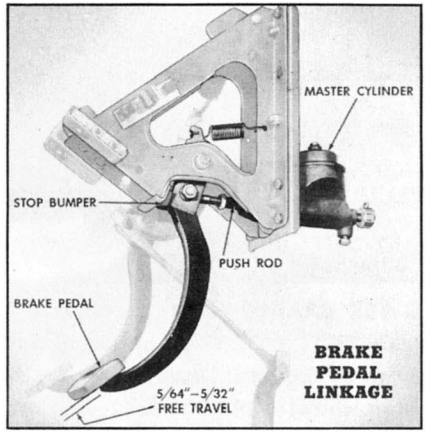
Units of the hydraulic brake system on all 1955 models are positioned for greater convenience of servicing. Brake adjustment at the wheels is the same easy operation.



The hydraulic brake master cylinder is now located on the engine side of the dash panel, where servicing is much easier.

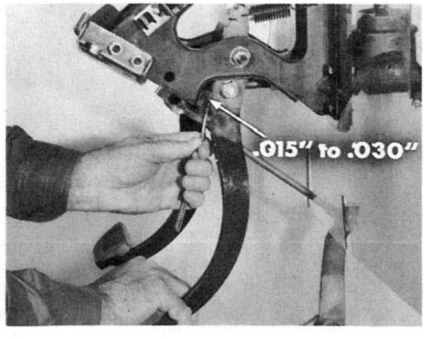
Both the brake and the clutch pedal are suspended from a bracket on the passenger side of the dash panel. This makes the pedals easier to operate, and dirt and road splash can no longer get into the passenger compartment through holes in the floor pan.

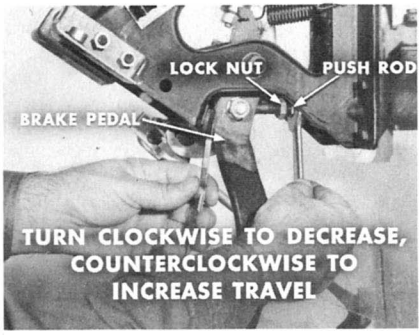
The inner end of the master cylinder piston push rod projects through the dash panel and is connected to the brake pedal.



To insure the full release position of the master cylinder push rod, so the brakes won't drag, the brake pedal must have a free travel of at least 5/64" but not more than 5/32", measured at the pedal pad. The easiest way to check free travel is to measure the clearance at the stop bumper.

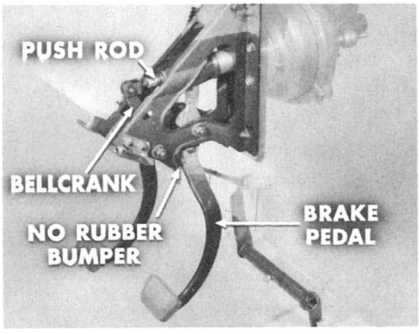
First, push the brake pedal by hand. You can *feel* when the push rod contacts the end of the master cylinder piston. When it does, you should have a clearance of .015" to .030", measured between the pedal and the stop bumper on the bracket.





If the pedal travel isn't right, loosen the lock nut and turn the push rod clockwise to decrease travel, and counterclockwise to increase travel. When you get it right, tighten the lock nut.

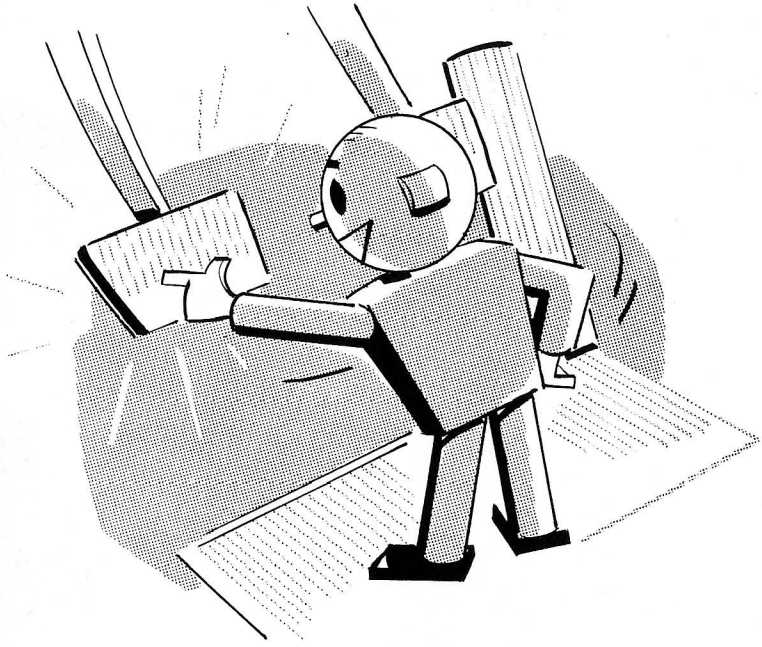
POWER BRAKES—There is no free-play adjustment required on the brake pedal of cars equipped with power brakes. Because the new power brake unit does not use the conventional master cylinder piston, the free play, pedal return spring and pedal return spring stop features are built into the power brake.



CAUTION: If you find a case where the power brake unit does not seem to release the brakes fully when pressure on the pedal is removed, check the pedal mounting bracket to see if there is a pedal return rubber stop bumper there. If the stop is found, remove it.

WHY POWER BRAKE PEDAL AND CLUTCH PEDAL ARE NOT ON SAME PLANE—Because the power brake cylinder push rod is connected to a bell crank instead of directly to the brake pedal as in the cars not equipped with power brakes, the power brake pedal and the clutch pedal are not on the same plane. The power brake pedal doesn't have to move as far as the regular brake pedal. Therefore, it doesn't have to return as far to give the same or more braking effectiveness.

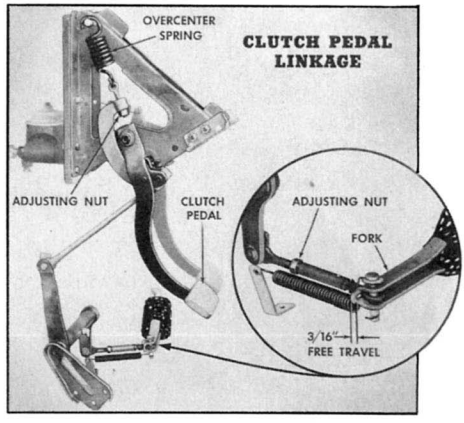
CAUTION: Do not attempt to make any adjustments to bring that pedal up.



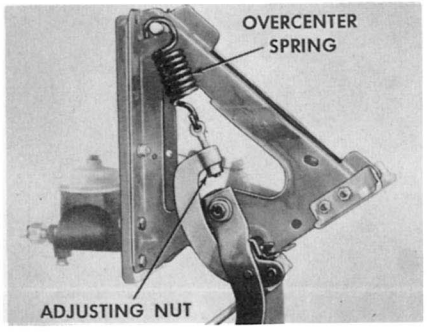
CLUTCH LINKAGE ADJUSTMENT

On the 1955 cars equipped with the manual-shift transmission, the clutch pedal is suspended in the same manner as the brake pedal.

The pedal free play is obtained by turning the rod adjusting nut until there is 3/16" of free travel at the outer end of the fork. This is the *only* adjustment for the clutch pedal.



ADJUSTING THE OVERCENTER SPRING: This spring is properly adjusted during assembly, and should not need attention.

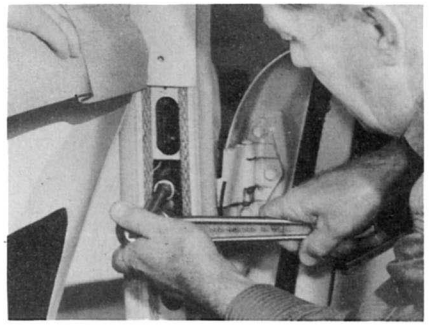


However, if the pedal is too hard to push, you should check the spring tension. Hold the clutch pedal down toward the floor board. Back off the spring eye-bolt adjusting nut and then run it up just finger tight. From this finger-tight position, tighten the nut four complete turns (five turns for De Soto Fireflite models). This gives the proper overcenter spring tension.

DOOR HINGES

The door hinges, although of new design, provide the same movements for door alignment adjustments. The pillar half of the front door hinge provides in-and-out movement, and the door half provides up-and-down and fore-and-aft movement. The pillar half of the rear door hinge provides fore-and-aft movement, and the door half provides up-and-down and in-and-out movement.

To get at the pillar half of the rear door hinge, loosen or remove the trim panel from the center pillar. Then you can reach in through the opening in the pillar to reach the hinge screws.



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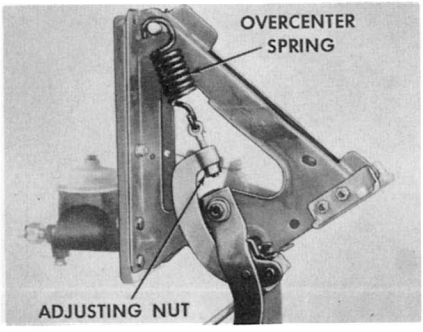

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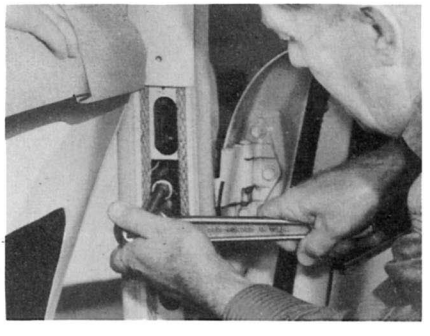
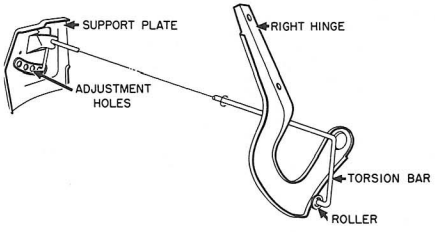


DECK LID TORSION BAR



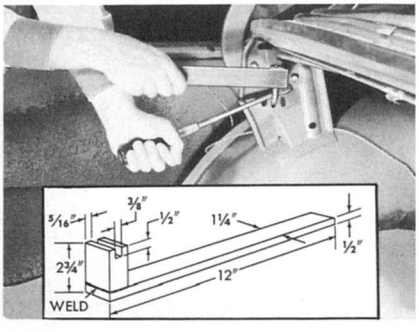
TORSION BAR HINGE MECHANISM

A new deck lid hinge mechanism is used on the new models. The lifting springs have been replaced by two torsion bars. One end of the bar is anchored in a fixed support plate. The other end of the bar is fitted with a roller which rides on the hinge. The lifting force comes from the amount of twist put into each bar.

The torsion-bar tension can be increased or decreased simply by shifting the end of the torsion bar into the next slot in the support to give more or less tension, as needed. It's an operation that is easiest performed by two men.

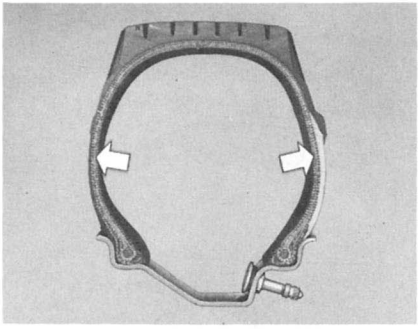
One man holds a piece of two-by-four or some similar prying instrument against the roller end of the bar to be adjusted, to keep it from sliding out from under the hinge. He also holds the deck lid up to relieve the bar of the weight of the lid.

The other man uses the tool (sketch shown here) and a heavy screwdriver. Place the slot of the tool over the bar, and get a good grip on the tool. The bar has quite a lot of twist and, if you are not prepared, the bar may yank the tool out of your hand. Use the heavy screwdriver to pry the bar out of the slot, and move it to the next slot by using the tool.

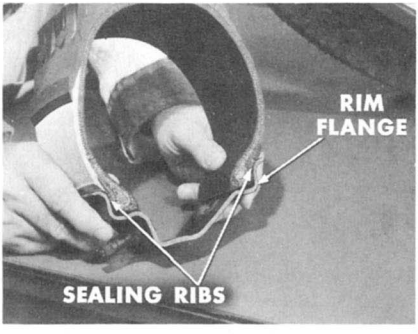


TUBELESS TIRES

The new tubeless tires found on our 1955 models have many features which offer outstanding advantages: They generate less heat, they have longer life, a new tread design gives better traction, there's less annoyance through puncture delay and they're much easier to repair.



The cords are tempered for added strength, and are bonded to the rubber compounds of the tire body. Air can't possibly leak through the carcass.



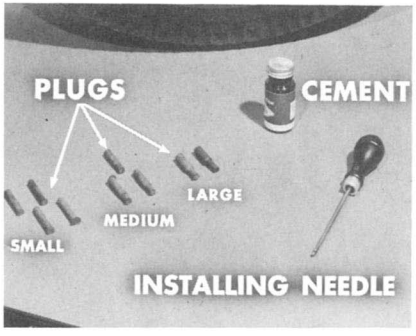
In addition, the sealing ribs on the sides of the bead form an airtight seal against the rim flange of the wheel.

The new tubeless tire gives you an opportunity to offer a new service to owners. The new tire might pick up a nail or something without the owner knowing it, because there will be no noticeable loss of air pressure. However, the puncturing object should be removed and the tire repaired at the first opportunity.

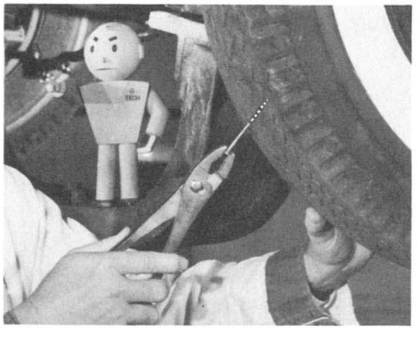
So, when any car equipped with tubeless tires is in for service, inspect the tires. If a puncturing object is found in the tire, remove it and repair the tire. It may save the customer a delay later. The owner will appreciate this service.

PUNCTURE REPAIR—It isn't necessary to remove the tire to make a simple puncture repair. In fact, you don't even have to deflate the tire! It's easier to fix a puncture while the tire is inflated than it is when it's flat. In a majority of cases all you have to do is plug up the hole with a live rubber plug.

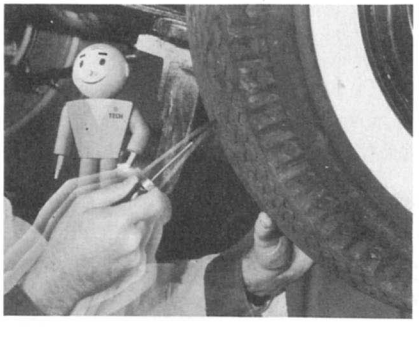
These plugs are available in three sizes: small, medium, and large. A suitable cement, and an installing needle, make up the rest of the repair kit.

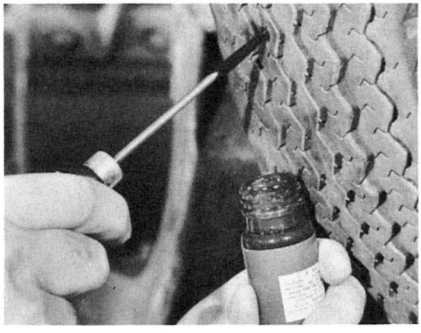


When you pull the puncturing object out of the tire, pay close attention to the angle at which it went in. This is very important. You've got to follow the same course when you put your rubber plug in.

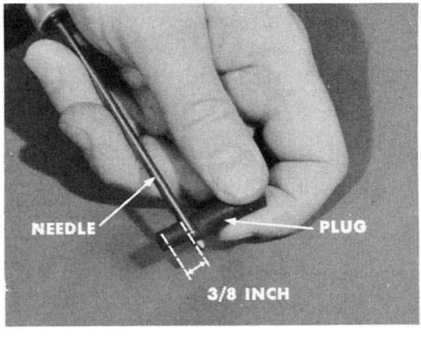


If you don't notice the path of the puncturing object you may have to do considerable probing to find it. That means you may make a double hole and the plug may seal only one. Then the tire would still leak.

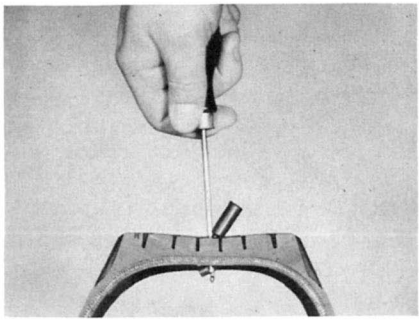




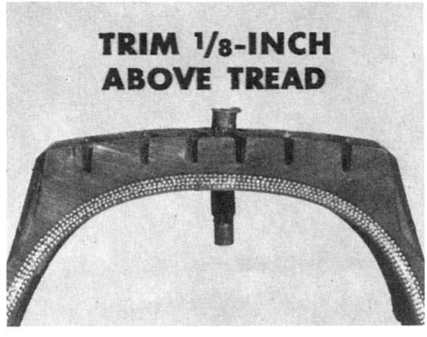
Dip the end of the needle into the cement, and push it down through the path of the puncturing object. That gets cement in the hole, and helps to lubricate the plug you're going to push in.



To install the plug, select one that's at least twice the diameter of the puncturing object. Now roll the small diameter of the plug into the needle's eye, about three-eighths of an inch from the end of the plug.



Dip the plug into the cement and quickly insert the plug into the hole. Use a firm, steady motion and make sure you follow the proper course. Push the plug in until about two-thirds of the needle is in the tire, or until you hear the small end of the plug snap through the tire. That means the large diameter section of the plug has been drawn into the hole.



The needle is removed by pulling straight out. Now trim the plug about one-eighth of an inch above the tread, and you're ready to inflate the tire to the recommended pressure.

PUNCTURE REPAIR, INSIDE METHOD—In some cases, the tubeless tire may be punctured by an irregularly shaped object. In these cases the damaged area may be too big to be fixed by the plug method. However, before removing the tire, the outside method should be attempted first. If this does not stop the leak, the tire should be removed from the wheel and the inside method of repair used.

Dismounting the tire from the wheel calls for careful use of tire tools to prevent damage to the rim flange or the tire bead. The same care must be taken when mounting the tire. When inflating the tire after mounting it, make sure the tire beads are properly seated against the rim flanges. It may be necessary to use a constrictor around the center of the tread to force the beads out to the rim flanges.

Well . . . you've seen the new '55 models and we've talked about some of the service features. I'm sure we all agree that these beautiful cars are going places! There's something about them that makes you want to get behind the wheel and head for the open highway. Every beautiful line, every feature, seems to be looking ahead—cars that are destined to head straight for the top in their field!

After seeing the '55 models you're bound to be enthusiastic. You'll want to talk to your friends and your customers about these cars. It's your enthusiasm, your eagerness to be a working part of an organization that's looking ahead, that will sell these cars.

USE THE NEW TECH QUESTIONNAIRE FOR SESSION NO. 84 WHEN RECORDING YOUR ANSWERS TO THESE TEN QUESTIONS

The Dodge or Plymouth door handle push button adjustable screw should be adjusted so that it *lightly* contacts the release lever of the door lock when the button is in the fully released position.

RIGHT **1** WRONG

The remote-control door handle is held to the shaft by a spring clip.

RIGHT **2** WRONG

A spring scale reading of from one to two pounds is correct to pull the selector lever away from the edge of the gate.

RIGHT **3** WRONG

Gearshift selector linkage adjustments are made with the selector lever in the reverse position.

RIGHT **4** WRONG

With the selector linkage adjustments correct, the lever should touch the land of the gate in *all* shift positions.

RIGHT **5** WRONG

Brake pedal free-play adjustment is made at the push rod up near the top of the pedal.

RIGHT **6** WRONG

No brake pedal free-play adjustment is required on cars equipped with power brakes.

RIGHT **7** WRONG

The rear door hinge adjustment screws are reached through an opening in the body pillar.

RIGHT **8** WRONG

When repairing a puncture in a tubeless tire use a rubber plug which is *smaller* than the hole because the plug expands.

RIGHT **9** WRONG

A cold patch can be used when patching the inside of a tubeless tire.

RIGHT **10** WRONG

LITHO IN U.S.A.