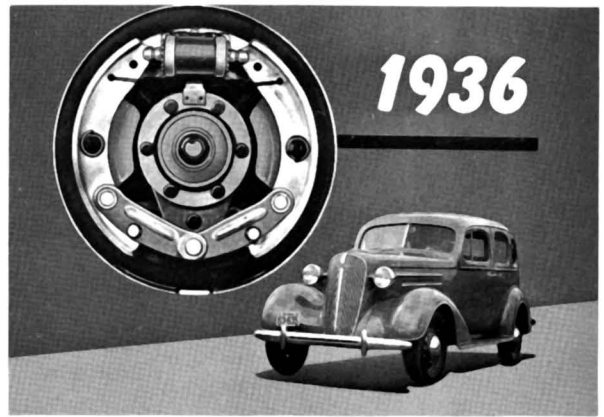


FOREWORD

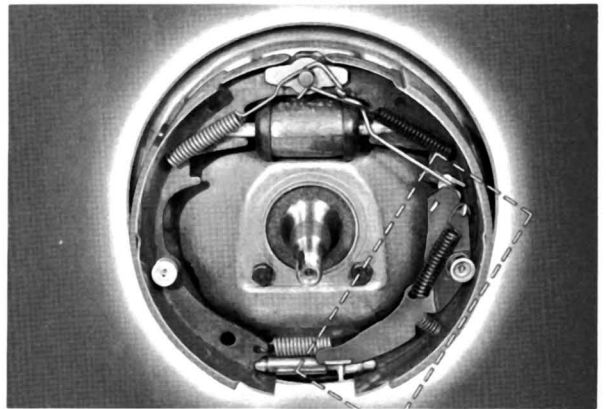
This booklet contains a complete review of the discus-sional sound slidefilm, *Self-Adjusting Brakes*. Each man should have one of these booklets for on-the-job reference and one copy should be retained in the Service Department file of Technical Information.

CONTENTS

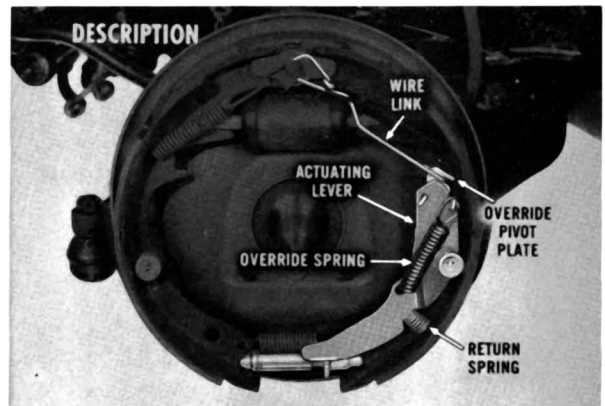
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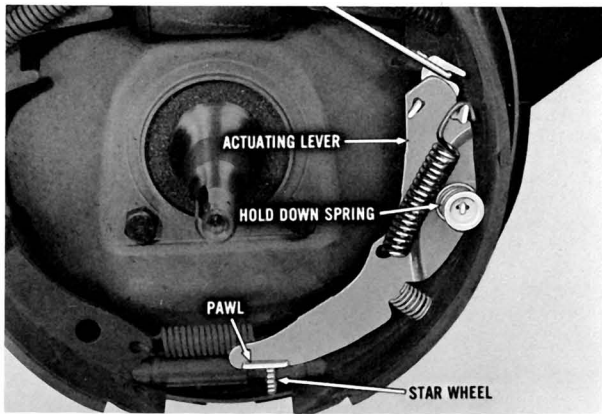
Chevrolet hydraulic brakes have undergone many improvements since they were first introduced in 1936, to give drivers more efficient braking action with less pedal effort. And now . . .



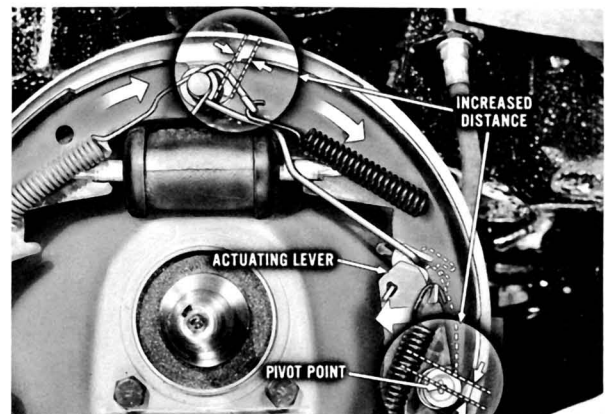
. . . all 1963 Chevrolet, Corvair, Chevy II and Corvette models incorporate another kind of brake improvement, new *automatic, self-adjusting brakes*. This new feature maintains a nearly constant lining-to-drum clearance throughout the life of the linings. Now, let's examine the parts which make up this assembly.



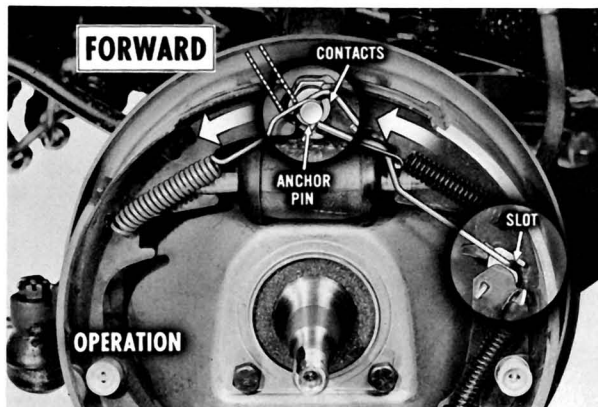
The self-adjusting mechanism consists of a heavy wire link, a pivoted actuating lever, an override pivot plate, an override spring, and a return spring.



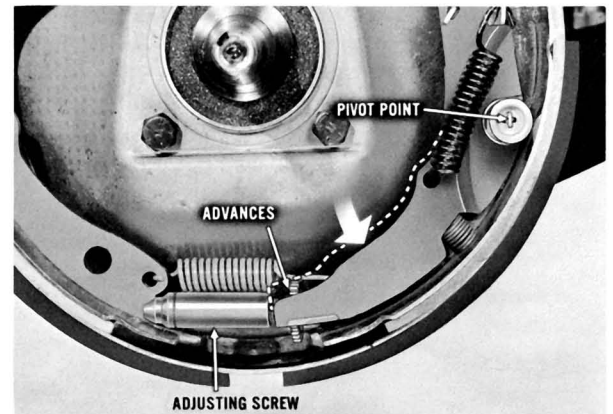
The actuating lever is attached to the web of the secondary shoe by the hold-down spring and pin, which also holds the pawl in firm contact with the adjusting screw star wheel. Now, let's see how this mechanism operates, using the left front brake.



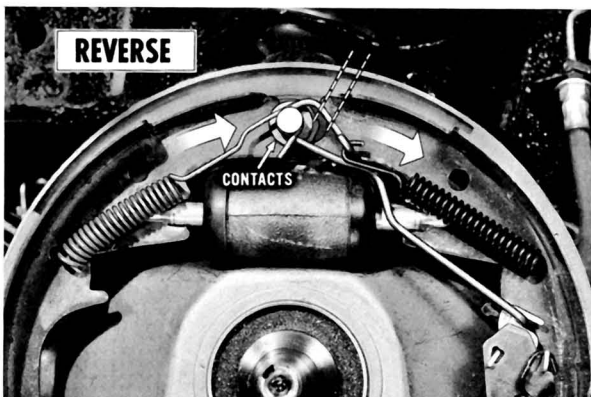
This increases the distance from the anchor pin to the actuating lever pivot point. Since the wire link maintains a fixed length, it, in effect, pulls the actuating lever to the position shown.



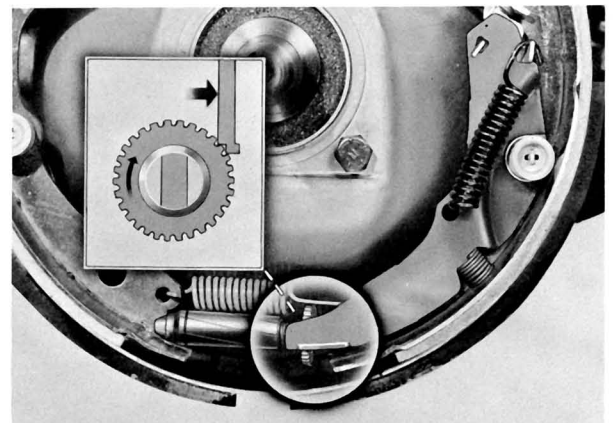
During a forward stop, the shoes rotate with the drum until the web of the secondary shoe contacts the anchor pin. Since the actuating lever moves forward with the secondary shoe, the open end of the wire link slides in the pivot plate slot. As a result, brake adjustment remains unchanged.



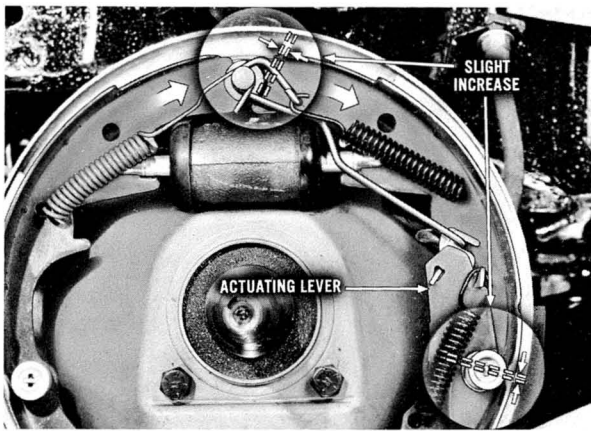
As the lever pivots, the pawl end rocks down and advances the star wheel, increasing the length of the adjusting screw. When the pawl turns the star wheel, it also . . .



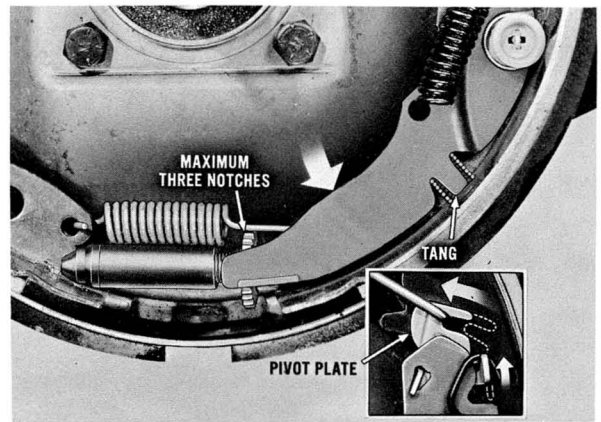
During a reverse stop, the shoes rotate with the drum until the web of the primary shoe contacts the anchor pin.



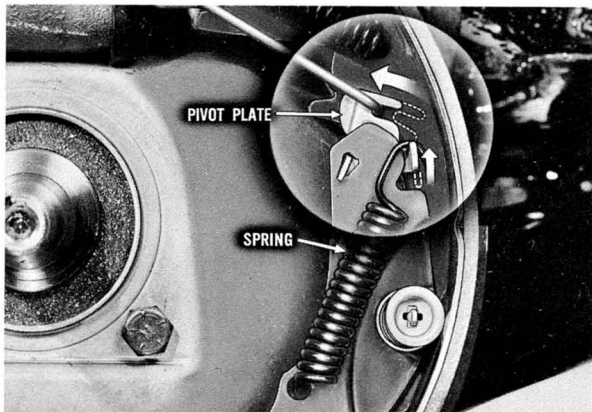
. . . moves outboard as it follows the curve of the star wheel. When the brakes are released, the pawl slips back over the teeth and takes a new bite on another notch.



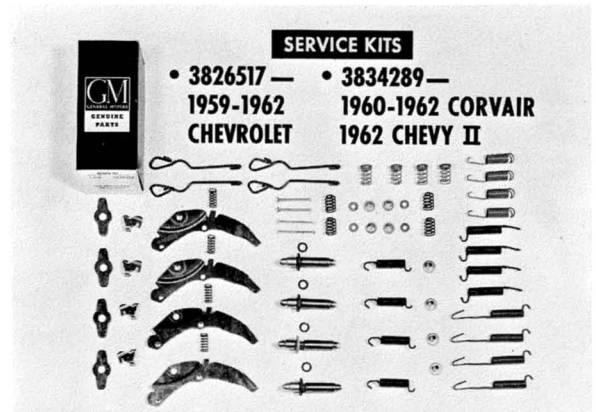
When there is only a slight clearance between the linings and the drum, such as when the brakes are correctly adjusted, the shoes rotate only a slight amount and the actuating lever does *not* move far enough to advance the star wheel. Therefore, the brakes cannot become overadjusted and lock up. Now, let's see how the override pivot plate functions.



To protect the brake shoes from overadjustment, the star wheel can only advance a maximum of three notches during one stop, before the tang butts against the secondary shoe. Any additional shoe motion is absorbed by rotation of the pivot plate. This completes an explanation of how the self-adjusting mechanism operates.



If the adjusting screw threads should ever bind or lock, preventing movement of the actuating lever, *only* the pivot plate rotates forward against spring tension.



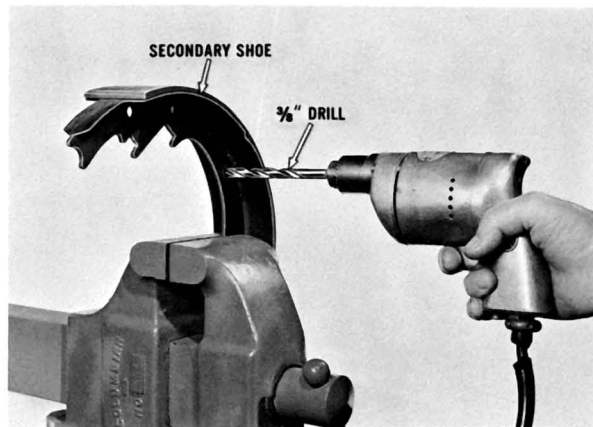
The self-adjusting mechanism is now available in two service kits, for converting the earlier Chevrolet, Corvair and Chevy II models from standard to self-adjusting brakes. New brake shoes are *not* included in these kits.

Now let's follow the procedures to install a conversion kit on the 1961 Chevrolet.

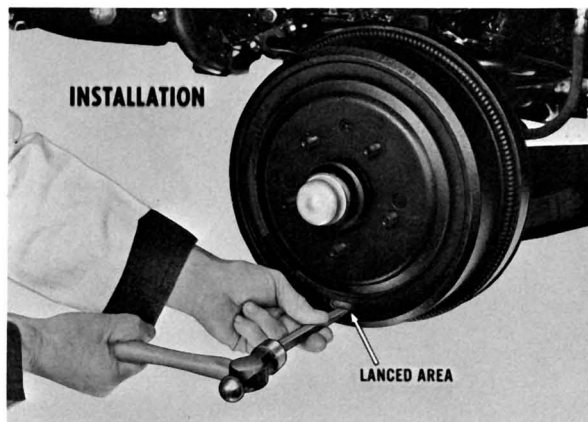
Basically the same steps and precautions apply when converting the Corvair, the Chevy II and when relining brakes on 1963 models.

Minor differences will be pointed out.

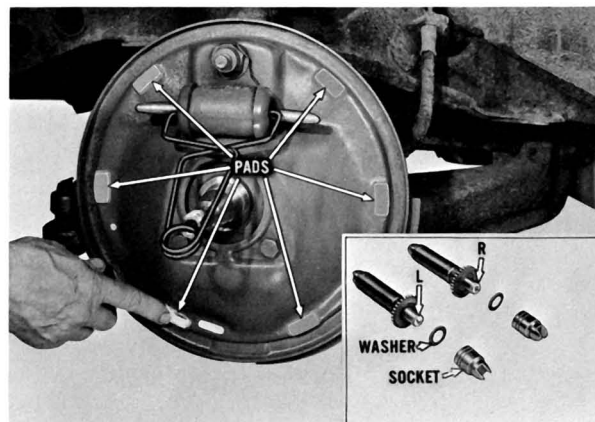
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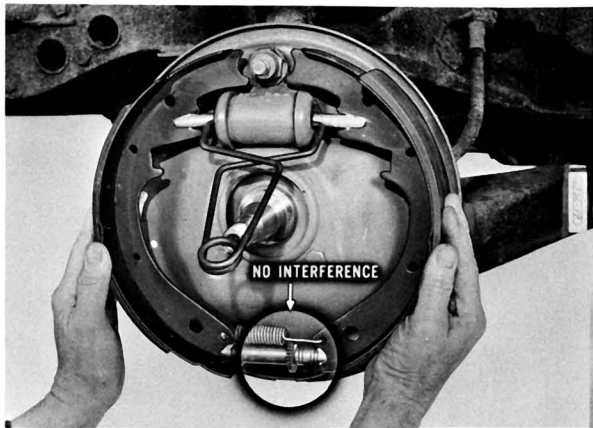
Remove the shoe assembly. When there is still usable lining material, the secondary shoes can be modified for attachment of the self-adjusting mechanism by drilling out the hold-down pin hole to $\frac{3}{8}$ inch. If new brake linings are required, use the appropriate 1963 brake shoes.



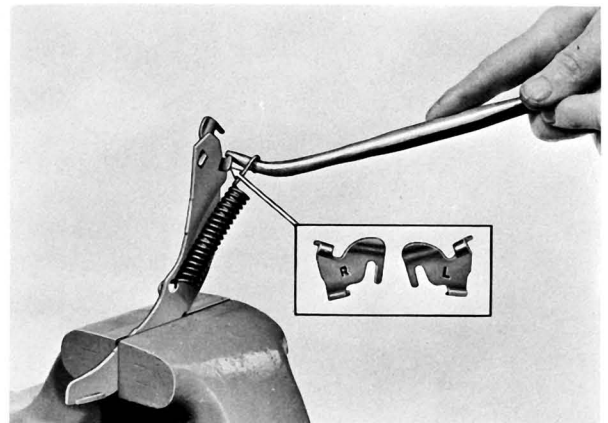
If linings and drums are severely worn, the shoes must be retracted to permit drum removal. On 1963 models, a lanced area on the face of the drum must be knocked out to gain access to the star wheel. Replace with a snap-in-type hole cover.



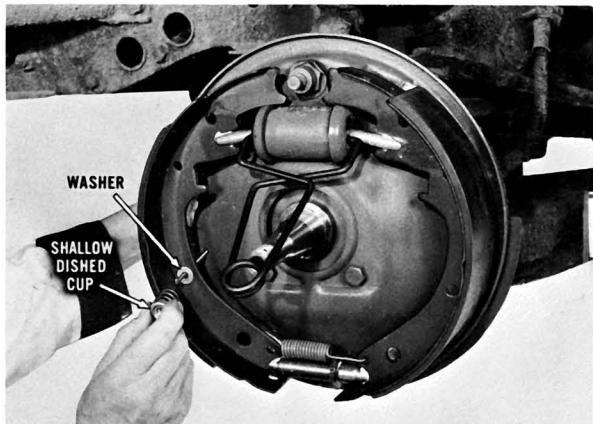
Clean and lightly lubricate the brake pads. New adjusting screw assemblies are included in the conversion kits, but on 1963 models the original adjusting screws must be cleaned and lubricated. Assemble with the antifriction washer and the socket. Left and right sides are identified by the L or R stamped on the adjusting screw.



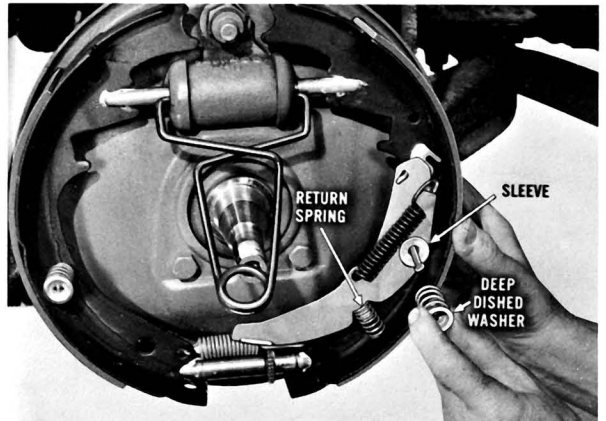
Connect the brake shoes, the adjusting screw and the adjusting screw spring together, and position this assembly to the anchor pin. The adjusting screw is correctly installed when the star wheel is nearest the secondary shoe. The spring is correctly installed when the coils do not interfere with the star wheel.



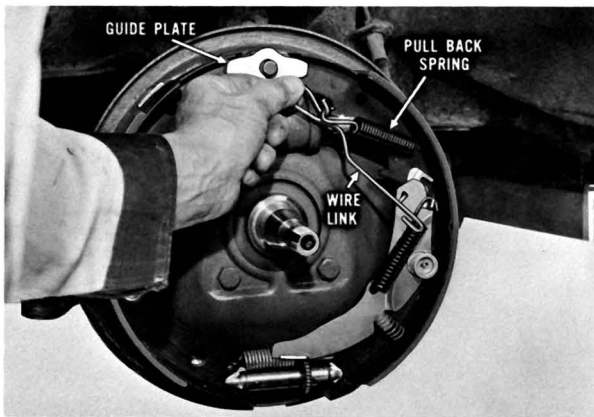
Clamp the actuating lever in a vise and install the pivot plate and override spring. The pivot plates are clearly identified for the right and left sides of the car. During a brake reline on the 1963 models, it is not necessary to disassemble the actuating lever assembly unless parts are damaged.



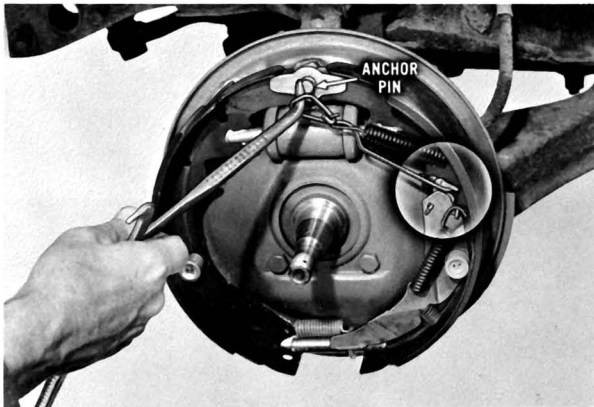
Install the primary brake shoe hold-down pin, the spring washer, the spring and shallow dished cup. A new spring washer, spring and cup are included in both conversion kits.



Position the actuating lever assembly to the secondary shoe. Place the return spring over the tang. Install the hold-down spring sleeve, spring and the deep dished washer, using a new longer pin. These new parts are included in both conversion kits.



Install the brake shoe guide plate. This part is not used on the Corvair or Chevy II models. Install the secondary shoe pull-back spring, and connect the spring to the heavy wire link.



Hook the open end of the link in the pivot plate slot. Snap the link into position over the anchor pin.



Install the primary shoe pull-back spring. Proper assembly is indicated when the bottom edge of the lever is $\frac{1}{4}$ inch, plus or minus $\frac{1}{16}$ inch above the center line of the adjusting screw. Check the actuating lever assembly by hand operation.



Using the special Drum-to-Brake-Shoe Clearance Gauge, J-21177, measure the brake drum diameter across the drum center line. Tighten the locking knob to hold this measurement.



Transfer the gauge to the brake assembly with the opposite side of the gauge fitted over the shoes. Hold the actuating lever away from the star wheel, and turn the star wheel as necessary until the linings just touch the gauge.



Install drums and all wheels. Check fluid level in the master cylinder and add if necessary. Road-test the car. Firmly apply the brakes several times in forward and reverse stops. This completes the installation procedures.

NOTES

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