



SERVICE NEWS

VOLUME 34

AUGUST-SEPTEMBER, 1962

NUMBER 8

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CORVAIR ENGINE HOT IDLE

Carburetors on some 1961-62 model Corvair and Corvair "95" vehicles may require additional internal venting to improve engine idle and prevent stalling immediately after a hot start, or when encountering long idle periods in slow traffic.

If engine stalling is evident during extremely hot weather, or under the other conditions stated above, additional internal venting may be provided as follows:

1. Remove bowl covers from both carburetors.
2. Invert bowl covers and remove float, float needle and bowl cover gaskets.
3. Locate and drill two $\frac{3}{16}$ " diameter holes in each bowl cover, as shown in Figure 1. Holes must be drilled straight through to break out inside the air horn as illustrated.
4. Clean out all chips, remove burrs and reassemble the carburetors.

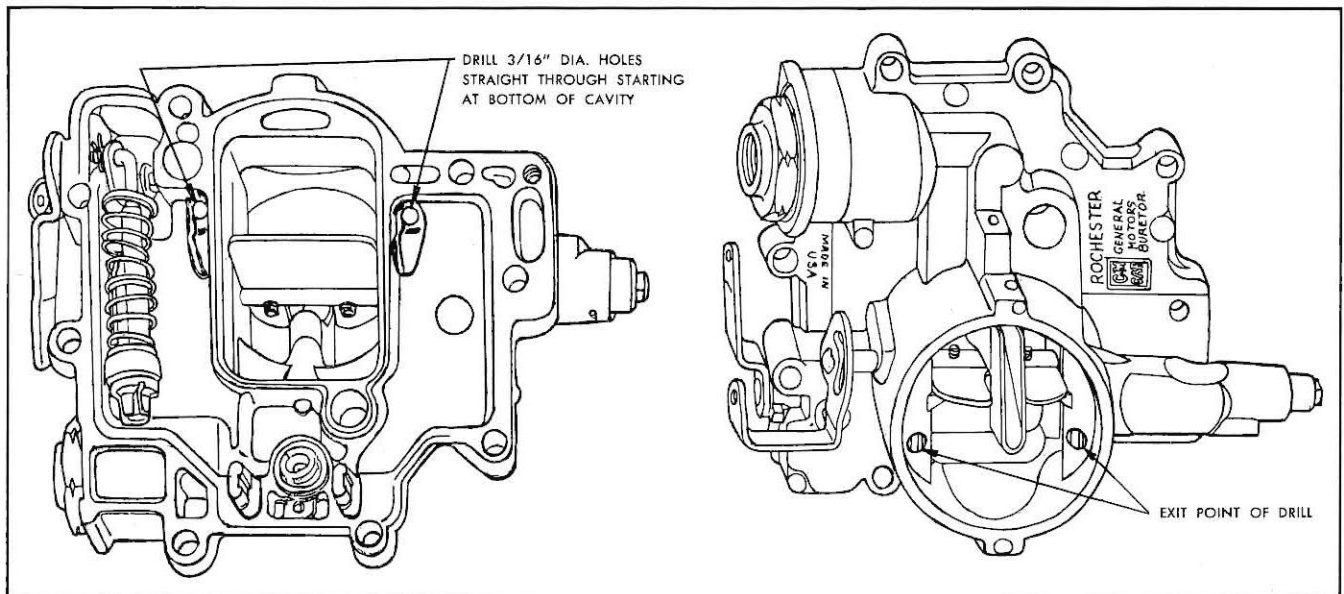


Fig. 1—1961-62 Corvair Carburetor Modification to Improve Hot Idle

Hydra-Matic Reverse Internal Gear Bushing Installation

Many instances have been reported wherein a 1954-62 Chevrolet truck Hydra-Matic transmission has encountered reverse cone failure soon after transmission overhaul. In most of these cases the cone failure has proven to be the result of reverse lock-up induced by improper installation of the transmission Reverse Internal Gear Bushing.

This bushing should be installed with the oil groove facing forward in the transmission, as shown in Figure 2.

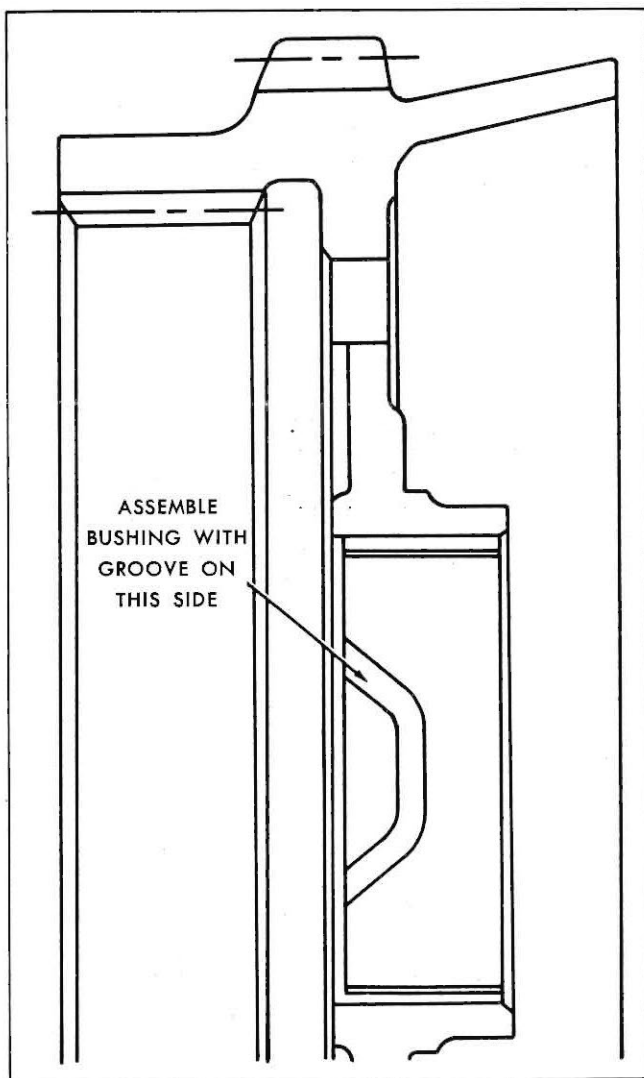


Fig. 2—Hydra-Matic Bushing Installation

Delcotron Pulley Installation

A small quantity of 42 ampere Delcotrons installed on Chevrolet and Chevy II series vehicles, did not have the pulley woodruff key assembled

in the rotor shaft—it is also possible that on some of these units the key-way was not machined in the shaft.

There should be no concern about the unit functioning just as well without the key, as the only purpose of the key is to aid in pulley assembly and disassembly—it is not a drive key.

In the event one of these units require pulley disassembly and the shaft nut cannot be removed because the shaft slips in the pulley (indicating no woodruff key), it will be necessary to remove the slip ring end frame and grip the rotor in a vise.

CAUTION: Do not disassemble the pulley by inserting a screwdriver through the slip ring end frame cooling ports to hold the rotor from turning. If this method of disassembly is attempted it would, in most cases, result in the shorting of the rotor windings.

Monza Spyder Distributor

The radically different spark curve produced by the distributor on the turbocharged engine is shown on page 22 of the April, 1962, issue of *Service News*. The necessity of utilizing a distributor of this type on the Corvair Monza Spyder turbocharged engine is explained in the following paragraphs.

At high engine speeds, manifold boost pressure provided by turbocharger operation increases the density of the air-fuel mixture to provide higher performance. With the turbocharger pressurizing or "packing" the intake manifold at high engine speeds; this more dense air-fuel mixture, when spark ignited, sweeps the combustion chamber with a much faster flame front. Since the flash rate of the combustible air-fuel mixture is increased as the turbocharger provides manifold boost pressure, it is then necessary to reduce spark advance to provide detonation of the mixture at the proper time.

The distributor pressure retard system operates to reduce spark advance, thereby preventing a damaging pre-ignition knock that could result, if the retard was not utilized or became inoperative due to a malfunction.

Oil Pump Suction Pipe— 348 and 409 Engines

To prevent the oil pump suction pipe and screen assembly from loosening and disengaging from the oil pump assembly during vehicle operation, oil pumps of late manufacture incorporate a .1513-.1528 diameter hole in the cover to accept an oil pump suction pipe retaining pin.

To service the oil pump having the new pin-retained suction pipe and screen assembly, follow service procedures under "Oil Pump Assembly" as

outlined in Section 8—Page 81 of the 1960 Truck Shop Manual, or in Section 8—Page 84 of the 1961 Passenger Car Shop Manual, with the only exception being that replacement of the suction pipe and screen assembly should be performed as follows:

1. Mount oil pump cover in a soft jaw vise and install tool J-8369 on pipe and drive pipe and screen assembly from cover. This will push pin outward during pipe removal.
2. Put new suction pipe and screen assembly in vise, tap cover onto pipe with a soft hammer, drive existing pin down flush with pump cover (or use new pin #3816327) and stake pin in place with a center punch.

When replacing an oil pump assembly which uses a pinned suction pipe, the suction pipe and screen will be damaged in removal, therefore, it will be necessary to also procure a new pin as well as the suction pipe and screen assembly.

Distributor Dust Contamination on 6-Cylinder Engines

Under extremely dusty operating conditions such as encountered in off-highway driving, it may be necessary to provide additional protection against distributor dust contamination on 6-cylinder engine equipped vehicles. This article lists air vent changes incorporated in distributors of late manufacture, also detailed are recommended service modifications which will extend the service life of distributor contact points, rubbing block and cam, when operating in dusty areas.

Distributors on 1953-62 Models Equipped with 216, 235 & 261 cu. in. L-6 Engines

PRODUCTION CHANGE—In late 1961, the two $\frac{5}{16}$ " diameter vent holes in the bottom of the distributor housing were replaced with one $\frac{1}{4}$ " hole to reduce the possibility of dust entry.

FIELD CORRECTIONS—Venting area on early distributors may be reduced by plugging the two existing $\frac{5}{16}$ " holes with a suitable substance such as plastic body solder. A $\frac{1}{8}$ " hole in one of the plugs must be provided to allow escape of the ozone gas generated during distributor operation.

CAUTION: Failure to provide a $\frac{1}{8}$ " vent will result in premature ozone corrosion of all metal surfaces. Care should be taken not to foul the advance mechanism by pushing solder inside the distributor.

A Service only, Dust Shield, Part Number 1945388, is available to provide additional protection for all L-6 engines of the 1953 thru 1962 model

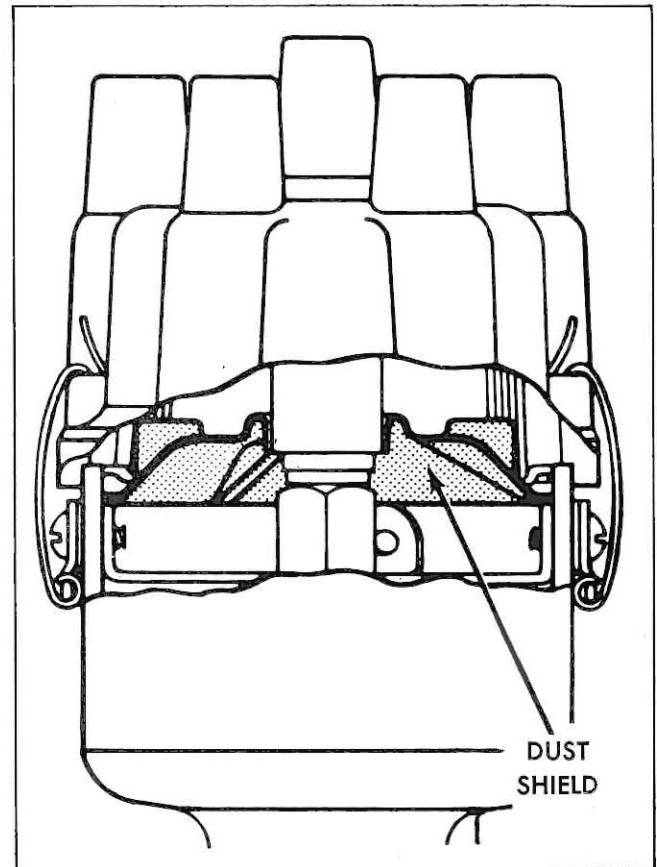


Fig. 3—Dust Shield Installed on Six Cylinder Engine Distributors

years. This shield is easily installed by removing the distributor cap and placing shield over the contact points, as shown in Figure 3.

1962 Model Corvair and Chevy II Distributors

PRODUCTION CHANGE—On late 1962 distributors, the two $\frac{1}{4}$ " diameter holes in the bottom of the distributor housing have been eliminated. Sufficient venting area is provided by the opening around the vacuum advance control.

FIELD CORRECTIONS—Both vent holes in the distributor housing may be plugged with plastic body solder. Care should be taken not to foul the advance mechanism by pushing solder inside the distributor.

Corvair Accelerator Pedal

When installing the front floor mat in a 1962 Corvair vehicle, the heel flap on the accelerator pedal should be pulled up so that it rests on the top surface of the mat. If the accelerator pedal heel flap is allowed to remain beneath the mat it would create a hump in the mat, that could be objectionable to the driver.

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The product information on which the Technicians Annual Examination will be based has been covered in recent **Monthly Service Meetings**. The Monthly Service Meeting for September details the sources of reference reading material that would aid the Technician in his review of service information in preparation for the Annual Examination.



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