

THAT CHOKE . . . GOT YOU CHOKED?

If most of the choke components on your V-8 WCFB or AFB carburetor engine with a heat activated automatic choke system are still intact, there may still be hope in reactivating a integral part of your carburetors function.

A little T.L.C., cleaning, and maintenance to the choke may help those cold starts (Winter or Summer) from becoming a frustrating experience. Those of you with standard transmission can get moving a little quicker than those poor souls with "automatics" simply because you have access to heavy throttling and double clutching through the coughing and sputtering prior to a complete engine warm-up. Those individuals with the automatics have a little different scenario. A cold start is initiated with the shifting lever in "N" or "P" along with several minutes of revving done in the stationary position. If the car is put in gear prematurely without a complete warm-up, you can expect two or three times of "sudden death" to the engine. The other alternative, if you are in a hurry, may be throttling to 1500 RPM with the brake applied, popping it in gear which at that point could inflict possible whiplash to oneself, not to mention potential troubles to the transmission and differential.

I have talked to some owners who justify the situation by saying "mine has never worked and the car seems to cold start just fine!" My car never did, so I tinkered with it (a lot), and came up with some maintenance which may be of some help. Illustrations are made from a 1960 Corvette 283ci/230hp 1x4 Carter Carburetor Choke System. Fig. 1. Loosen the choke tube with a 1/2-inch open end wrench. Next remove the choke by removing the 3 screws holding the choke cover bracket or collar. There is a gasket between the choke cover and the piston assembly.

Fig. 2. This reveals the piston assembly. Remove the piston by lifting straight up and swiveling the piston arm slightly to the left. At this point you can also remove the small clip holding the piston assembly linkage attached to the butterfly arm.

Fig. 3. There are 3 screws holding the assembly to the carburetor, 2 exposed and 1 screw located in where the screw driver is shown. Also notice the reverse side of the choke revealing the spring. Heat from the exhaust manifold through the choke tube relaxes the spring which is connected to the piston arm which in turn opens the carburetor butterfly to draft more air. The piston moves down the cylinder closing off the heat duct to and from the carburetor. The spring (check) and back plate can be removed and cleaned with a mild solvent.

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Fig. 1

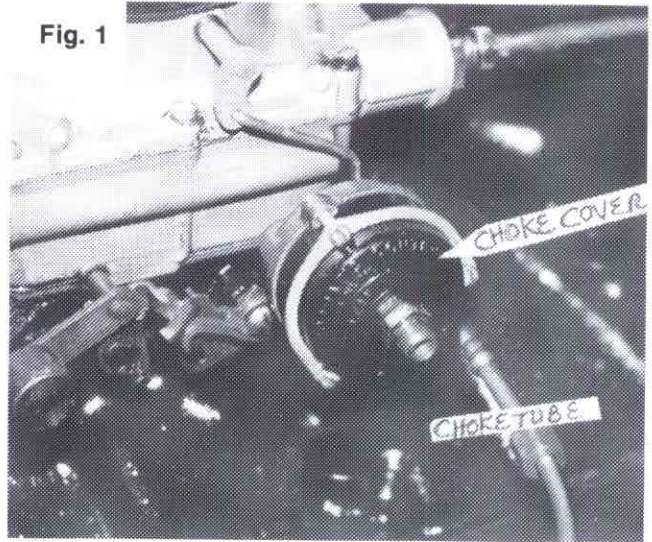


Fig. 2

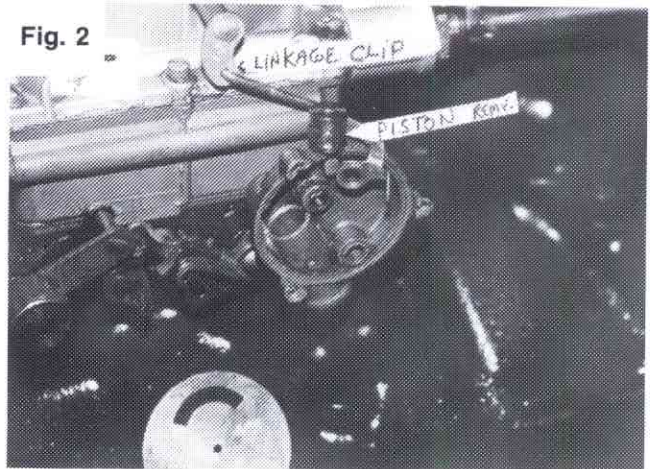
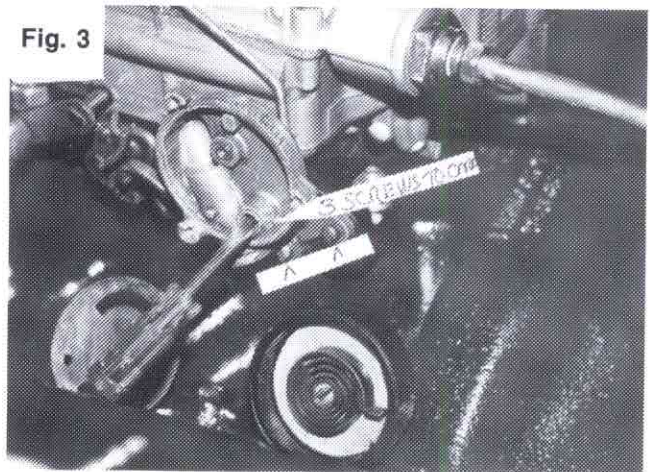


Fig. 3



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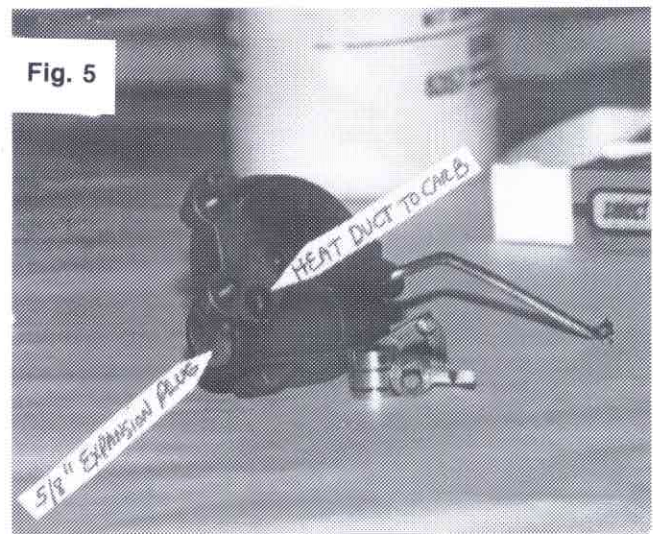
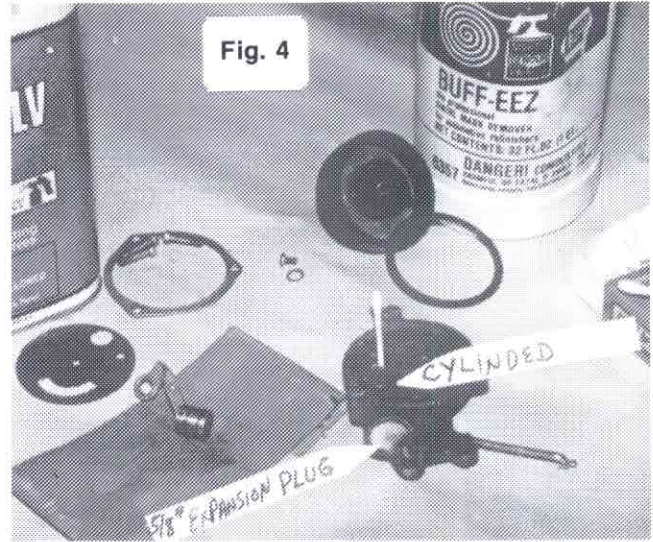
Fig. 4. Shows all the components to the piston assembly. The pistons' inability for movement in the cylinder is primarily where the choke system sticks. Clean cylinder wall with mild solvent and Q-Tips. This may require several swabs as there is usually a build-up of carbon dust. The 5/8" expansion plug can be removed for easier access to the cylinder wall, but is not necessary. In my case this plug was sealing improperly, so I replaced it. These plugs are easily found where hydraulics are sold. You will find the sides of the piston may be scored. The piston surface can be smoothed by rotating it on 1000-1500 grit wet sandpaper with your fingers. Use a soft towel and polishing compound to buff piston. Remove any residue left in the two piston rings. Do not apply any lubricants on the piston or cylinder wall. I found that even high heat lubricants will eventually break down and "gum" the action of the piston.

Fig. 5. Use a pipe cleaner or a fine hair brush to clean the hole or heat duct on back side of assembly. There should be a small "O" ring at this opening. Do the same cleaning in heat duct (hole) on carburetor.

Replace choke parts in sequence as they came off. When replacing the choke cover collar (bracket) do not over tighten as it will bend and pinch the choke cover. Make sure choke spring catches onto piston arm. With a cold engine turn choke cover to the right (lean) until carburetor butterfly is in the closed (choked) position with some slight spring tension. This is a good starting place for rich-lean choke adjustment.

Test: Bring engine to temperature (180 degrees). Choke (butterfly) should move to the open position. Let engine cool completely (overnight). With cold engine the choke will be locked in the open position by the throttle adjustment screw. Slightly pull throttle linkage back with finger or if in car tap accelerator peddle. You should see or hear the choke linkage release and the butterfly snap closed. The choke spring has cooled and coiled to put tension on all the choke linkage. With the piston moving freely, it will move to the top of the cylinder. Exposing the heat duct opening to and from the carburetor. Good luck!

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SIX CYLINDER AIR CLEANER ASSY. 53-54

Below is the print from A.C. showing the cleaner #1551969 black lacquer was used but for the cover, which was chrome.

