

Carburetor Rebuild Kit

Models - BG Claw and Holley 4150 & 4160 and Demon Carburetors



INSTRUCTIONS

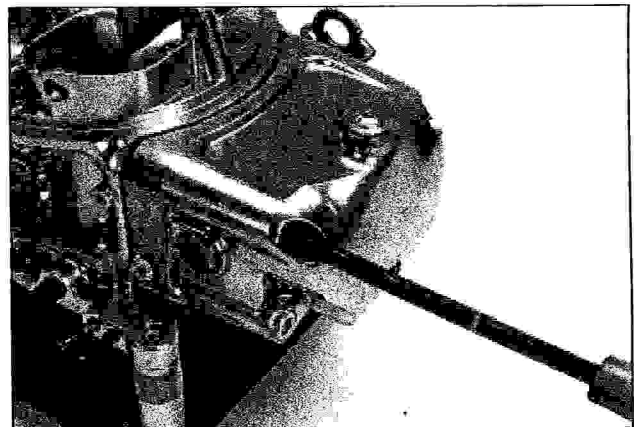
Before getting to the actual rebuild, it should be noted that the carbs shown here BG Claw Series carburetors. It may not be identical to the carb on your engine, but it will be very similar. All BG and HOLLEY four barrels (with the exception of the 4360 Q-Jet replacement), may be disassembled the same way. A few parts differ here and there, but that doesn't alter the rebuild procedure.

You will need to round up the following tools:

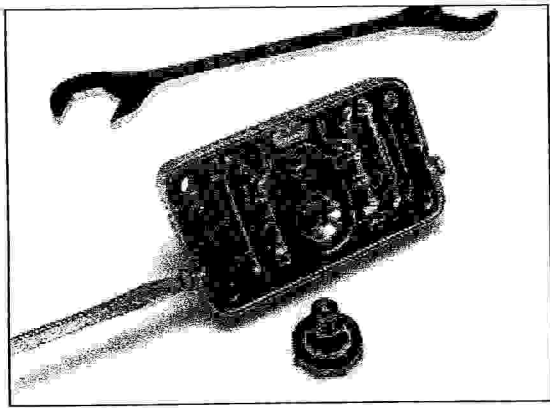
- 5/16" nut driver
- Standard & Phillips screwdrivers
- 5/8" open end wrench for the float adjusting nut and fuel line fitting on some models (an 11/16" open end wrench might be required in some cases)
- 1" socket for the power valve and a 1" open end to remove the fuel inlet adapter fitting
- Needle nose pliers will help in removing small retaining clips and pins
- Clutch-type screwdriver to loosen the secondary metering plate screws used on model 4160 carbs (the ones that do not have replaceable secondary jets)
- Open end 3/8" and/or a 7/16" wrench to adjust the accelerator pump override spring

BG and HOLLEY Four Barrels are actually an easy carburetor to rebuild because of their construction. If you group everything in subassemblies, it is hard to go wrong. When you reassemble the carburetor, install all of the parts on the metering block then set it aside. Do the same with the fuel bowl, main body and the throttle body assemblies. When all of the subassemblies are completed, you will only have six pieces to bolt together to complete the assembly process. Reassembly is done by simply reversing the disassembly steps. Before installing the carburetor on the intake manifold, rotate the idle mixture adjusting screws clockwise until they lightly bottom out in the metering block, then spin them

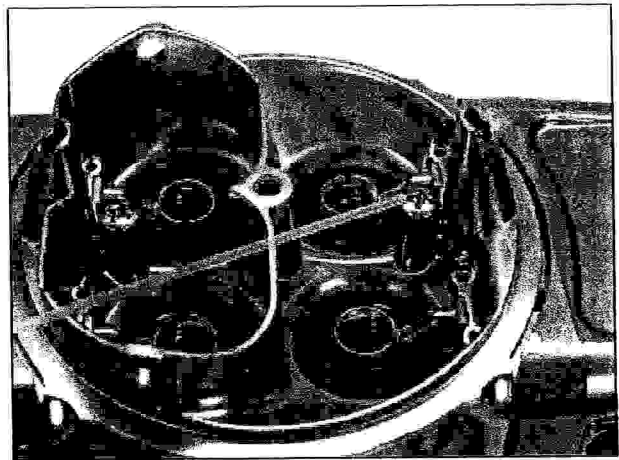
out 1 and 1/2 turns to get the idle setting in the ballpark. Also adjust the accelerator pump override spring by tightening the nut until some clearance is visible between the bolt head and pump lever. Back the nut off until all clearance is removed and then rotate it another 1/8 turn. Setting the float level may be done easily by inverting the fuel bowl (before it is installed) and running the new fuel inlet (needle & seat) assembly in until the top of the float is parallel with the roof of the fuel bowl. This is another ballpark setting. Once a HOLLEY carburetor is in place and the engine is running, the level should be set so that fuel is just below the inspection hole and the mixture screws should be adjusted to provide the highest manifold vacuum reading or engine RPM. Once a BG Claw carburetor is in place and the engine is running, the level should be set such that it is even with the center of the cast rib found in the middle of the sight window. Again, adjust the idle mixture screws to provide the highest manifold vacuum or engine RPM.



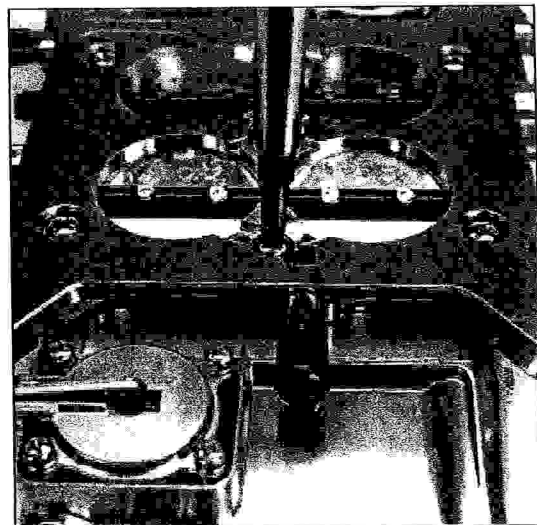
1. Disassembly will be considerably easier if the carb is properly supported. Use of carb feet (#130045) or a carb stand (#130002) will raise the carburetor high enough to prevent damage to the levers and linkages that protrude below the mounting surface. The first disassembly step is to remove the primary fuel bowl. Four screws, located at each corner of the bowl, hold both it and the metering block



8. The idle mixture screws should also be removed from the sides of the metering block. There is a small cork gasket surrounding each of the screws, and it should also be pulled out of the recess in the block. The BG Rebuild Kit comes with rubber o-rings to replace the cork gaskets for a more positive seal. Many late model HOLLEYS contain a "reverse-idle" system and a tag is affixed to the block showing that the mixture is made leaner by rotating the screws counter-clockwise. This tag should be removed and reapplied after cleaning.
9. The next step is to begin stripping the main body and the choke assembly. Before loosening any screws note the position of the adjustment index so that the same setting may be achieved when the carb is reassembled. On integral hot air chokes it may be necessary to scrape away the carbon deposits on the plastic cover.
10. The secondary fuel bowl may be removed in the same manner as the primary. However, in Model 4160 the secondary metering plate is held in place by six clutch-head screws, and a special driver is necessary to remove them.
11. On vacuum secondary models the diaphragm housing is attached to the main body by three screws, and the diaphragm rod is held on the throttle shaft linkage by a retainer "C Clip". With these removed, the housing can be pulled from the main body, and then the four phillips-head screws can be removed so that the housing top can be pulled.
12. The cork gasket on the rear of the diaphragm housing is also critical to secondary operation as it seals the vacuum passage between the housing and the main body. This can be discarded at this time, as your package includes a new seal.



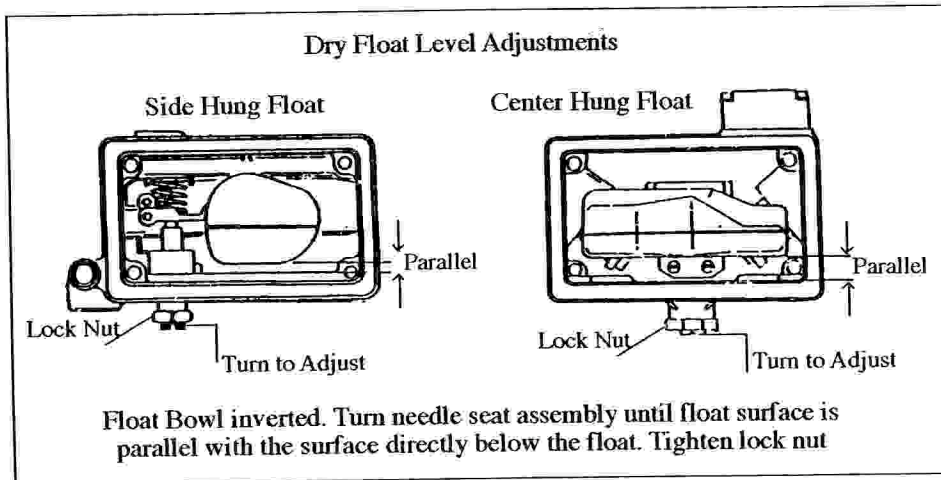
13. The accelerator pump discharge nozzle may be removed by loosening the phillips-head screw and inverting the main body over your hand. When this is done, the nozzle, screw, and the discharge check needle should fall out. Care should be used in reinstalling the phillips-head screw so as to not strip out the threads.
14. The final major disassembly step is to invert the carb and remove the six phillips-head screws that attach the throttle body to the main body. Once the two pieces are separated, the main body gasket may be removed. Before discarding the old gasket, match it up with the new one to insure that the proper gasket finds its way onto the main body during reassembly.
15. Use carburetor cleaner, available at most automotive parts stores, for cleaning.



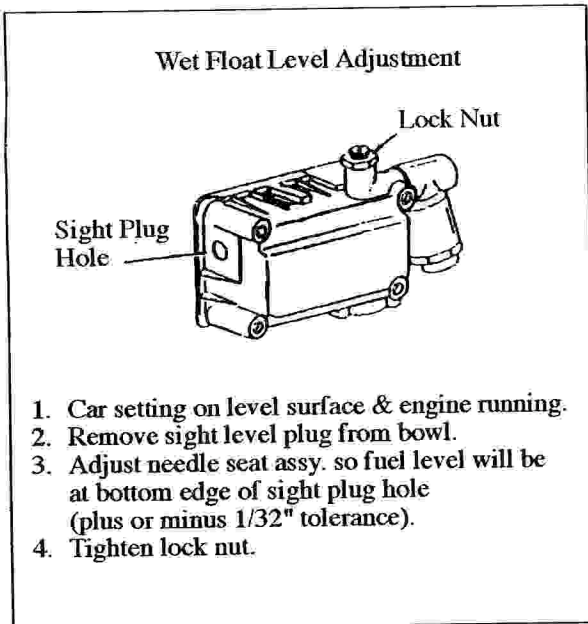
16. When reinstalling the metering plate on the secondary side of Model 4160 carbs, the contoured gasket is placed on the plate first.

Then the thin metal shim plate is placed on top of the contoured gasket. Finally these three pieces are placed on the large rectangular gasket, and the four piece sandwich is then placed on the main body, and the six main body clutch-head screws are tightened. Gold, Silver and Sports

Claw carburetors along with HOLLEY model 4150 carbs, which are fitted with a secondary metering block, are assembled in the same fashion as the primary metering block.



Adjustments



For further questions, please contact our technical department at (706) 864-8544.

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Barry Grant, Inc.
1450 McDonald Rd., Dahlonega, Georgia 30533