

V-Star 1100 Carburetor Bowl Screw Repair and Removal After Stripping and Pilot Cap Removal

Removal of carburetor bowl screws after the Philips screw is stripped

When I first started working on bike many years ago, I learned the danger of stripping the heads of Philips screws when removing or installing them on motorcycles. I remember the two worst screws were the casing side-cover aluminum screws and carburetor bowl screws. I think I tried every method of screw removal after they were stripped. Vice grips, better tipped screwdriver, hammer, drill, and other tools were used.

One way I learned to remove stripped screws is to re-make the Philips head into a flat-head screw. Cutting a slot in the top of the screw and then use a flat-head screwdriver to remove the screw. On some parts this technique can work, other parts and screws it may not.

The Philips screws on the bottom of the V-Star carburetor bowls are VERY prone to stripping. In fact, I will not start a carburetor cleaning without new hex head screws to replace the original Philips bowl screws. Replace the bowl screws for yourself if you keep the bike, or for the next rider that will appreciate the hex-head screws when they clean the carburetors. Not many other parts on a V-Star have screws that are prone to stripping.

This documentation is to help riders with motorcycle maintenance. Some riders will find themselves with the problem of removing stripped screws. A carburetor cleaning can quickly double in time when you realize the hardest part of the job is removing bowl screws after they strip. And then realizing you do not have the replacement hex-head screws available and must now go to the hardware store.

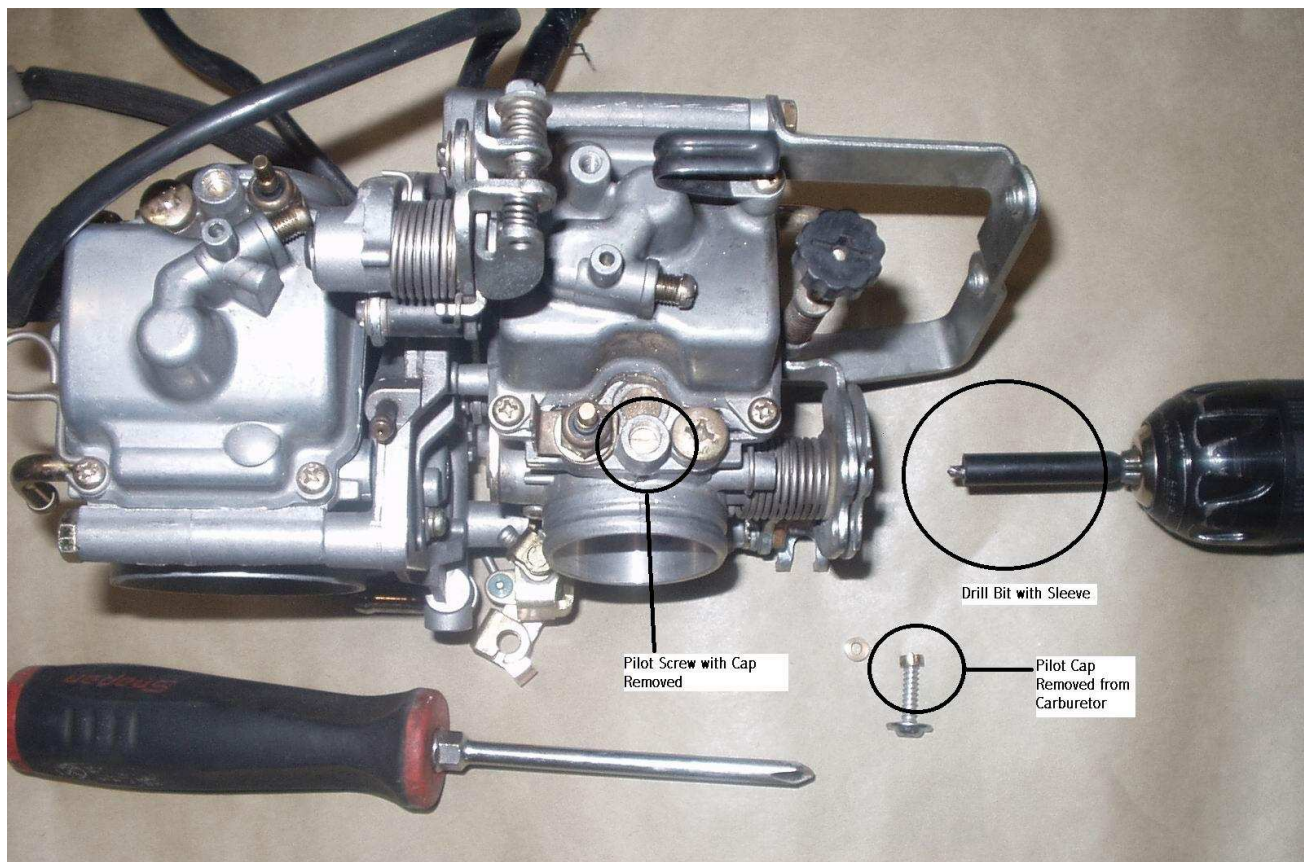
Included first is information on pilot screw cover cap removal. The pilot screw cap removal procedure is included first because it should be done FIRST. Drilling the pilot screw cap will create metal filings that can be cleaned easier before the carburetor bowls are opened. Cap removal will allow the pilot mixture screw to be cleaned and adjusted.

Carburetor cleaning is not a difficult task. Tips for not stripping the carburetor bowl screws are included with repair tips to remove any stripped bowl screws to complete the cleaning. Good documentation is available on the Internet for V-Star carburetor cleaning.

V-Star 1100 Pilot Screw Cover Cap Removal Before Carburetor Cleaning

The pilot screw is used to adjust the air for the idle fuel mixture on the carburetor. The factory installs a metal (brass) cap or plug over this screw. Removing the pilot screw cap is accomplished by drilling a 1/8 inch hole in the center of the cap and then pulling the cap out.

The hole in the pilot cap can not be drilled too deep or the drill bit will damage the pilot screw head. Use a plastic or metal sleeve over the drill bit to allow the drill bit to only drill into the cap 3/16 inch. The following picture shows a V-Star carburetor with the cap/plug removed. A drill bit covered with a plastic sleeve is shown. The pilot cap has been drilled and a screw was inserted in the drilled hole to remove the cap.



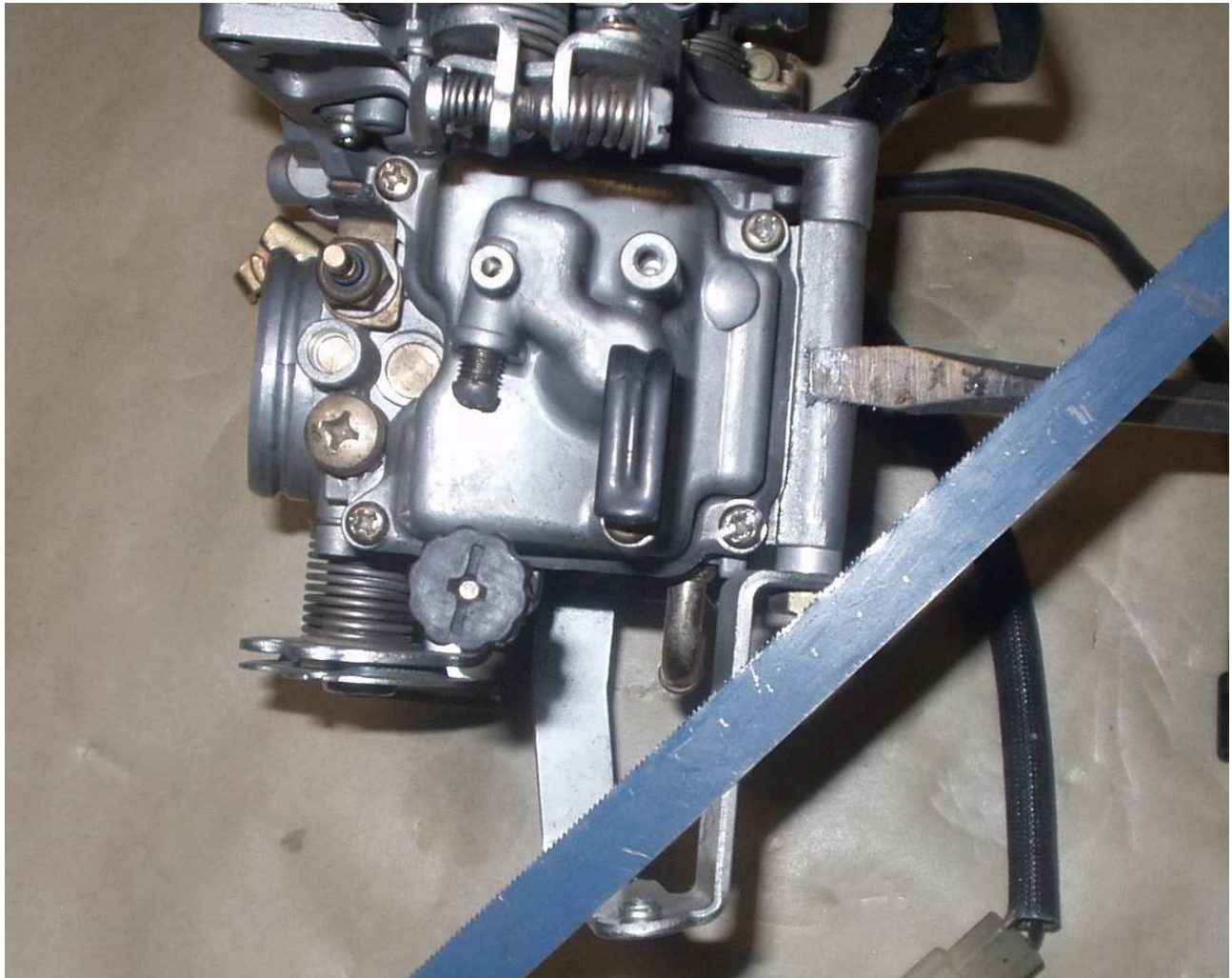
This picture shows the completed pilot cap removal including cleanup of metal filings before the carburetor bowls are removed. Tools are shown except the pliers used to pull the cap out after a screw was inserted in the drilled cap hole.

The factory installed pilot cap is not difficult to remove. Remove the caps before carburetor cleaning and then clean all metal filings before opening the carburetor bowls.

Removal of V-Star carburetor bowl screws after the Philips screw is stripped

One may try to remove carburetor bowl screws without first tapping the screw on the side to loosen the threads. This works on maybe half the bowl screws. But, like many mechanics I sometimes strip the screws.

When removing the bowl screws, one can try once to remove them without tapping. But have a flat-head screwdriver and hammer available to immediately tap the side of the screw if it does not come loose. The following picture shows a screwdriver ready to tap the side of the screws. The picture also shows the backup removal tool, a fine tooth hacksaw blade, if the screw head strips.



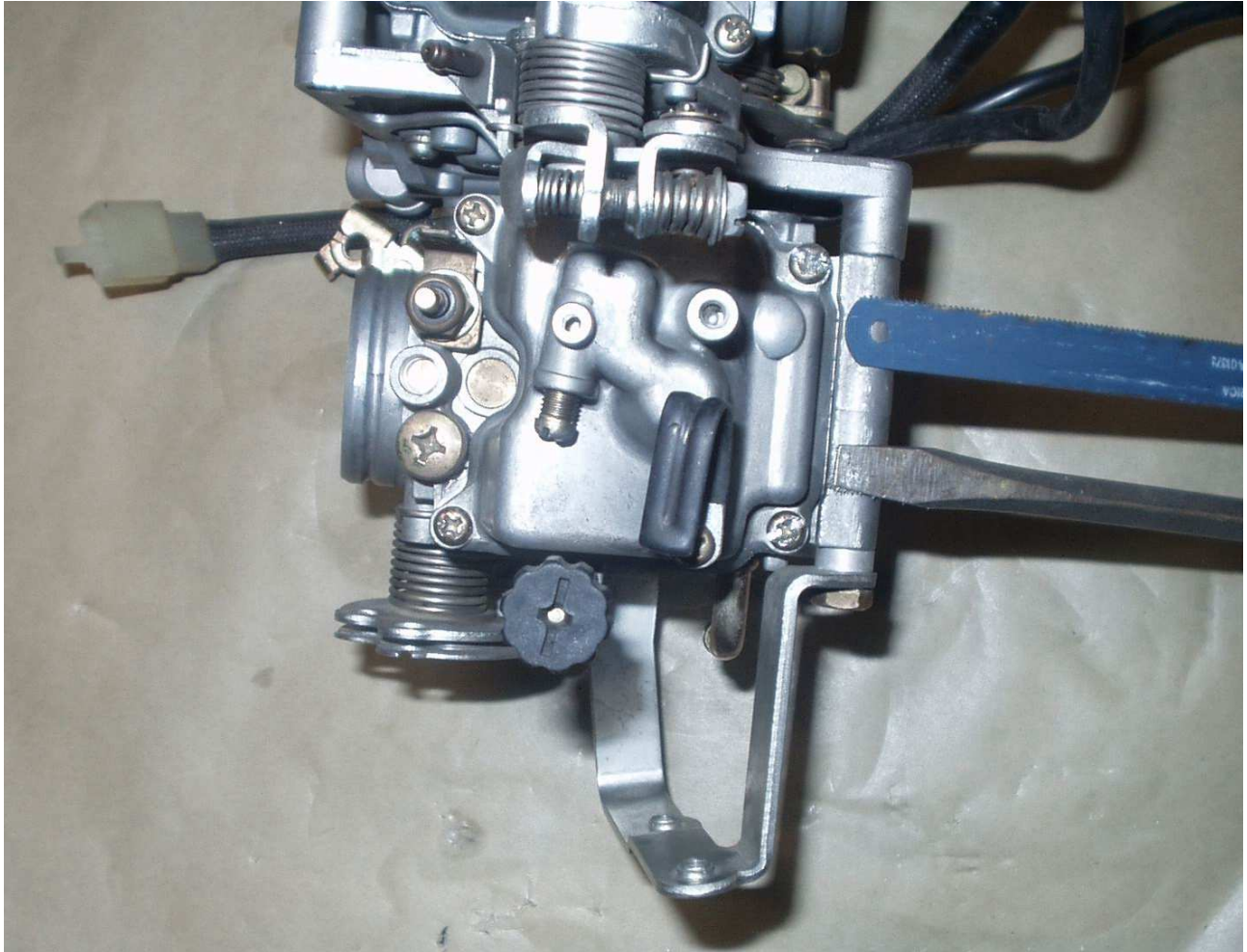
This carburetor has two stripped screws on the right side.

The repair technique is to first tap the side of the screw with a flathead screwdriver and hammer. Next, cut a slot or slit in the center of the Philips screw head to create a flathead screw out of the Philips head screw.

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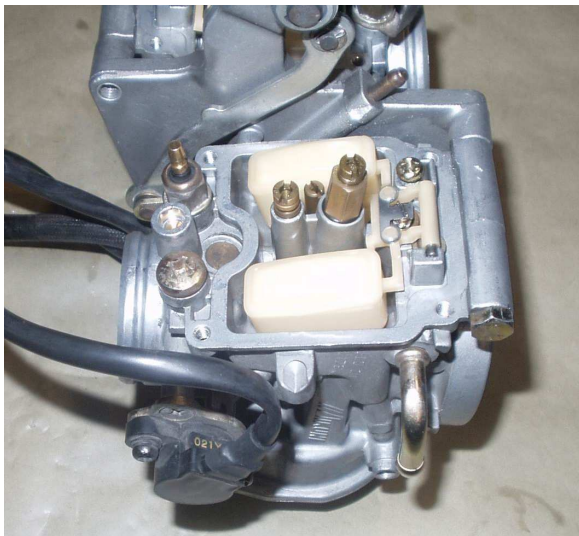
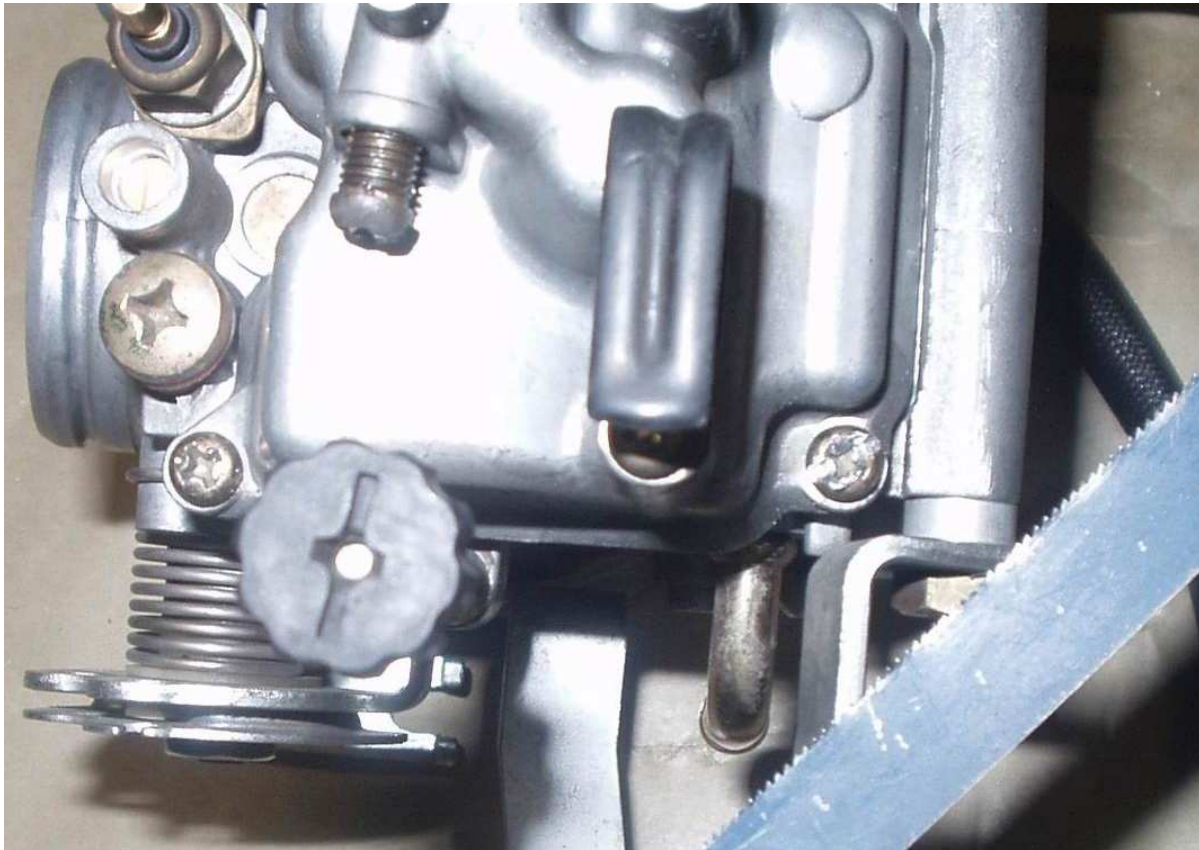
The flathead screwdriver is used to both tap the side of the screw if it does not come loose and is used to remove the screws after they have a slot cut in them with the hacksaw blade.

The following picture shows the stripped screws after a slot has been cut in the screw heads. A flathead screwdriver can now be used to remove the screws. Care must be taken when using the hacksaw blade to cut the slot in the Philips screw head. The carburetor aluminum case can easily be cut with the saw blade.



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Here is a closer picture of a carburetor bowl screw that has been slotted with a hacksaw blade and is ready for removal.



Here is a picture of the carburetor after the pilot cap has been removed, and the damaged bowl screws removed to open the carburetor for cleaning.

Visit VSTAR.BRAZILMISSION.net for more V-Star and Dragstar 1100 modifications and information.

Have a good day and safe ride.