HCP5460 YICS TOOL USAGE

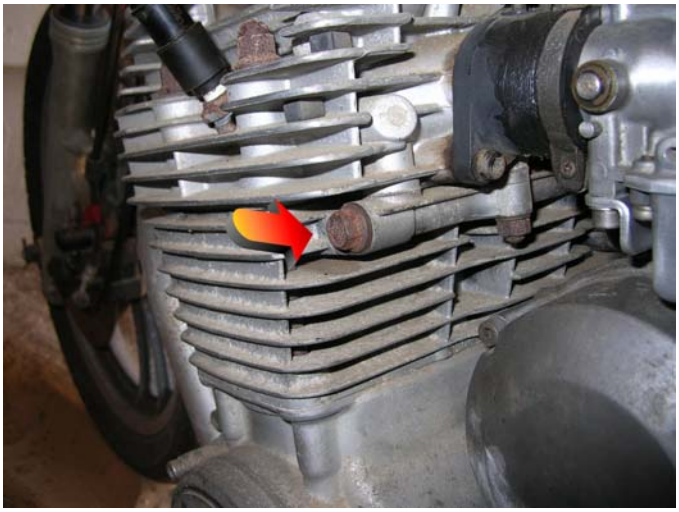
Thank you for your purchase of our reproduction YICS port blanking tool.

This tool is a copy of the original Yamaha tool that is to be used when synchronizing the engine. When the tool is inserted and locked in place by flipping the trunion lever handle 90 degrees, the small rubber seals expand and effectively isolate the carburetors from each other by blocking the vacuum between them. This is necessary for proper tuning and synchronization.

What also helps is that you check and adjust (as necessary) the valve clearances by replacing any valve shims with their correct sizes. Although no one wants to hear this, and even fewer want to actually do it, the proper adjustment of the intake and exhaust valve clearances is an absolute necessity in order to be able to obtain a proper engine synch and tuneup. I know, it's a royal pain, but on the bright side, it shouldn't be necessary to do it but once every 7500 miles or so. Plus, Yamaha clearly states that unless you make sure that the valves are adjusted correctly, you're basically just wasting your time synching the engine or colortuning your carbs. Something to think about...

BEFORE YOU START

With the handle in its "open" or relaxed position, make sure there is very little or no pressure at all on the rubber seals. If there is, loosen the small nut at the end of the shaft to relieve almost all of the seal tension. You do **NOT** want the seals to be expanded while trying to insert the tool into the passage! You will tear the seals, be unable to close the handle once installed, and/or will get the tool stuck within the passage, which is a REAL bummer. (Please. Don't ask how we know about this.)



Remove both the left and right YICS passage bolts and visually inspect the condition of the passage, kinda like looking down a rifle barrel. (A small flashlight comes in very handy here.) Inspect the passage for excessive carbon build-up on the walls. If there is any, it needs to be removed. You need to do this because there isn't a whole lot of difference between the inner diameter of the passage and the outer diameter of the seals. You want the passage to be clean, lest you run the risk of getting the tool stuck.

Our HCP1410SS stainless steel wire bristle brush performs well for this task, along with a strong solvent. We recommend a aggressive gun-cleaning solvent, Hoppes #9 (available at most gun shops) to cut through the carbon build-up. Use small, clean rags to "wipe" any dissolved build-up out of the passage after each cleaning pass with the bristle brush. (If you have a bore cleaning tool and some large patches, that works great for this.) If there's a lot of built-up carbon in the passage, you may need to go through it several times to get it all out.

http://www.hoppes.com/products/solvents.html

If, on the other hand, you don't feel like clearing your sinuses or going on a psychedelic trip (to say that Hoppes is "pungent" is a bit of an understatement) then you may want to consider an alternative gun cleaning solvent by the name of MPro7. Cleans just about anything, and is odorless to boot.

http://www.mpro7.com

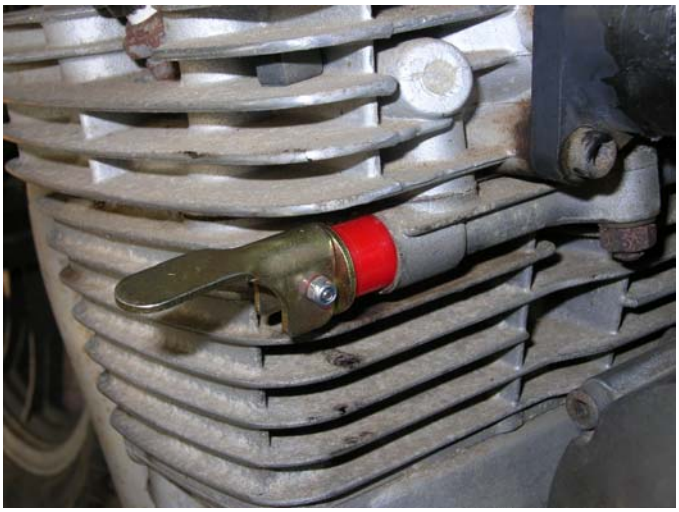
Once you have the brush in the passage as far as it can go, you may have some trouble pulling it back out. To help "persuade" it, you can put a ratchet extension through the loop and use it as a handle to twist and pull the brush.

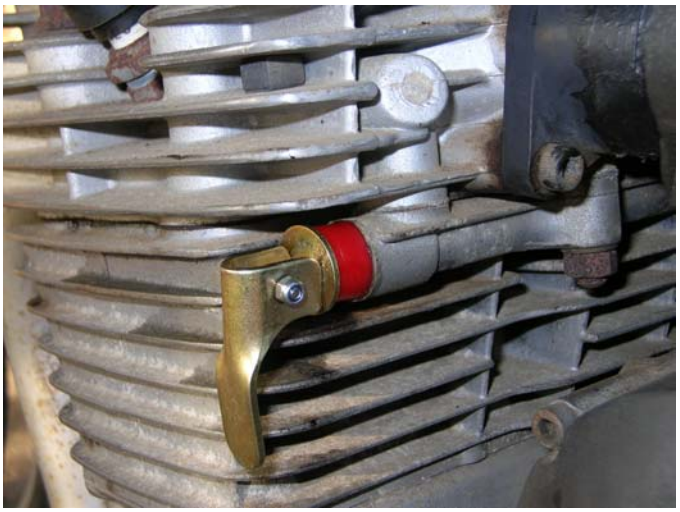
If you have purchased our HCP1282 YICS port clean-out tool, now is the time to use it to probe the four tiny YICS ports at the top of the passage. Gently use the pointed tip of the tool to punch through any accumulated carbon build-up in these ports.

You'll note the two grooves on the shaft – those show the approximate locations of the holes within the passage. It's not exact, but it'll get you close.

HOW IT WORKS

Now you're ready to actually start using the tool. Reinstall one of the YICS passage end bolts and its washer (either the left or right side, it doesn't matter) and tighten it to 16.0 ft-pounds. Lightly oil the entire shaft of the YICS tool with silicone spray lubricant, WD40, etc. Insert the tool into the passage until the large end grommet is FIRMLY seated against the end of the passage.





Flip down the trunion (locking) lever to expand the rubber seals and lock the tool into the cylinder. If the tool is not REALLY tight in the YICS passage, remove the tool and tighten the adjusting nut at the end of the tool slightly, put the tool back in and try again. The tool, when locked, should not be movable within nor removable from the passage.

With the shutoff tool properly in place, follow normal engine synch procedures.

When synch is completed, release the locking lever and remove the YICS shutoff tool from the passage. Reinstall the YICS passage bolt and its washer, and torque the bolt to 16.0 ft-lbs.

You're done! Wipe the tool shaft clean with a dry rag. Store the YICS tool with the handle unlocked. Do not leave the handle flipped down – you can ruin the seals if you do.

NOTE: If you are using the YICS tool in conjunction with a Colortune procedure, OR, if for any reason, your engine synch procedure lasts more than a few minutes, it is **STRONGLY** recommended that the YICS tool be removed from the YICS chamber to allow it some cool-down time, as the rubber expansion seals in the tool WILL melt if they get overheated. This problem will make an incredibly difficult-to-clean mess within your YICS chamber! Therefore, please remember to remove the YICS tool from the chamber every few minutes and let it cool down, and whenever you shut the engine down, make the removal of the YICS tool your first priority.

Replacement YICS tool expansion seals can be obtained ordering part number HCP6380B.

info@xj4ever.com