

is to use an EGA. If you don't have access to one, then consider buying the Gunson CO tester. You'll find information on the <http://www.cosmic-salamander.com/aep> website. (By the way, this company also sells colortune spark plugs for idle mixture adjustment). There are drawbacks with the EGA tester, but it is worth the price. Honda doesn't specify CO settings for the CBX, but I've read several articles including the instructions that came with the Gunson tester and sent e-mails to Dynojet. 3% CO is our magic number. Begin with the pilot screws set at one and one quarter turns. Set the pilots at

operating temperature. Don't let it overheat and don't let the carbs get hot. If the fuel gets hot in the float bowls, it throws everything off. Now, pull the plugs and read them.

Check the color of the plug body, the grounding electrode and insulator. If the mixture is correct the body will be slightly black, but not sooty. The grounding electrode will be whitish tan or whitish gray and the insulator will be the same a light tan to gray color. The insulator must not be bright white (too lean) or dark or black (too rich). Make your pilot screw adjustments in one quarter to one half-turn increments and use new plugs each time. This is a very important step. The idle mixture must be correct. You definitely don't want your mixture in the carbon foul range. That just makes the bike harder to start, and fuel fouls plugs.

Here's some other advice that I find helpful when tuning carbs: a rich setting gets worse as the engine heats up. If the throttle is lightly "blipped" at idle, and the

rpm drops below the set idle speed, then rises back up to it, the pilots are set too rich. Try leaning them a little bit. A lean problem gets better as the engine heats up. If the throttle is blipped at idle and the rpm "hangs up" before dropping to the set idle speed (making sure there are no intake leaks, and the idle speed is set to 1,000 rpm or less), the pilot screws are probably set too lean. Try richening the mixture a little bit.

On to another carb problem, off idle stumble between 1,000 and 1,500 rpm. I've already said how important it is to make sure the fuel jets, air jets and passageways are absolutely clean. This is where restricted passageways will cause a super headache. The

CBX carbs have a transition circuit upstream of the throttle plate (butterfly valve).

If you look real close you'll see three tiny holes upstream of the pilot jet hole. This is a transitional fuel supply that prevents stumble when the throttle plate begins to open. These ports must be clean.

The low speed air jets and low speed fuel jets feed these ports. If someone has monkeyed with these jets, you'll never get it to run right. You should measure the fuel jets (yes, I know these jets aren't changeable on

'79, '80 and '81 carbs) with pin gages or numbered drill bits. Very carefully make sure they are all the same size. On my X, I found two different size jets, even though they were all numbered the same. I replaced them all. Replacing these jets in conjunction with setting the pilots correctly solved my stumble problems.

Next we need to adjust the midrange. I'm assuming that you haven't changed the stock mains or if you have installed a Dynojet jet kit that you've installed the recommended size mains. You must have the mains sized properly before adjusting the needles. A rule of thumb to follow: if the bike pulls harder at high rpms (7,000 to redline) when cold, and less hard when fully warmed up, the main jet is too large. If the bike doesn't pull well at high rpm when cold (or misfires), and gets only slightly better when fully warmed up, the main jet is too small. Yes, I know what you're thinking, it's very hard to apply these principals on a six-cylinder bike; four good cylinders could be masking two bad cylinders. Now, back to the mid-range. Start with the needle clip settings in the position recommended by Dynojet or the factory. When using the EGA to adjust midrange set the throttle at 3,000 rpm and check the CO. Shoot for the same settings, 3.0% to 3.5% CO. Adjust the Dynojet needles by moving the clip position on the needle. Finer tuning can be accomplished by moving the washers.

Use washers to adjust the stock needles, which don't have clip positions. Don't be concerned about different needle settings between cylinders. Mine range from two clip positions plus two washers to 5 clip positions

*continued on page 26*

#### SPECIFICATIONS 1979 CBX

Venturi dia.	28 mm (1.1 in)
Setting mark	V850A
Floater level	15.5 mm (0.61 in)
Main jet	1st: 65 2nd: 98
Idle speed	900 ± 100 rpm
Throttle grip free play	2-6 mm (0.08-0.24 in)
Fast idle	2,000-500 rpm (after break-in)
Pilot screw	See page 4-26

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around 3.0% and no higher than 3.5% CO. On my 'X' all of the pilot settings are below one turn. Four of the settings are below one half turn. No wonder I was carbon fouling spark plugs. You're probably wondering how to read each cylinder separately since our exhausts are three into one. Our club here in Washington took an old set of aftermarket pipes apart so that we could access each cylinder separately. Works well. You might think that using different pipes will produce different readings, well you're right, but it's close enough for street riding. You can still use the EGA with the stock exhausts, but it is harder, because you must adjust three carbs at the same time. Reading the spark plugs works well also, but

#### SPECIFICATIONS 1980-1981 CBX

Venturi dia.	28 mm (1.1 in)
Setting mark	V864A
Floater level	15.5 mm (0.61 in)
Main jet	# 105
Idle speed	900 ± 100 rpm
Throttle grip free play	2-6 mm (0.08-0.24 in)
Fast idle	2,000 ± 500 rpm after break-in
Pilot screw	See page 4-28

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requires several sets of plugs. Dynojet suggested this method, if you don't have an EGA. Put in a new set of properly gapped plugs. Let the bike idle for 15 minutes at

Members only e-mail directory at [www.CBXclub.com](http://www.CBXclub.com)

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