

Keeping Your Cool

It's something that many over look and seldom give a second thought too, until they notice their temperature gauge heading towards the "Red Zone", what am I talking about? Coolant and the entire heat exchanger system. As with any water cooled engine, the cooling system needs to be inspected and maintained on a regular basis.

Hoses should be firm and not soft, if you can squeeze them easily, it's time to consider replacing them. The OEM (stock) clamps work well and will hold with few problems. Changing to screw type hose clamps is a personal choice but they are not needed.

To start with, you will need a pan that can hold at least one gal. of fluid. The complete heat exchanger system is three qt's., so a one gal. pan is plenty. Remove the dummy tank cover, the right scoop needs to come off so the radiator cap can be removed. Some bikes came with a plastic cover that went over the aluminum tube (manifold) that the cooling hoses attach to, it

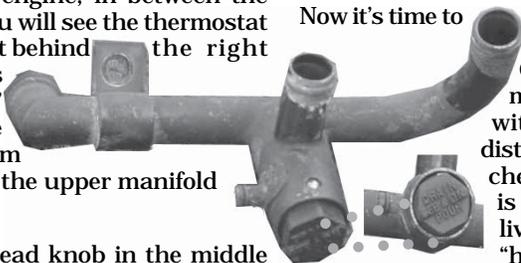
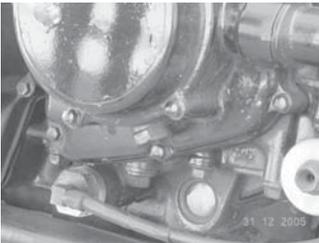
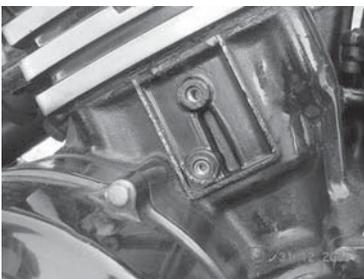
remove so you can get all the coolant out from the engine. You can remove these plugs by screwing an old spark plug into them and pulling them straight out. Do one at a time and you won't make a big mess. Don't throw the freeze plugs away they are reusable.

You should now take plain water and pour into the filler neck manifold, (under the right scoop), and flush the complete system. You can move the bike outside and use a garden hose, on low flow, holding it in the filler neck. Let it flow for a couple of minutes to make sure that any crud that is in the water jackets and the rest of the system is flushed out. When you are satisfied move the bike back inside and reinstall the freeze plugs, covers and the water pump drain plug.

just snaps off. A 19mm wrench is need to remove the drain plug at the bottom of the water pump. (When you reinstall the plug, when the job is finished, be careful not to over tighten this plug, very little torque is needed to tighten it). Look at the front of the engine, in between the exhaust pipes you will see the thermostat housing, it's right behind the right pipe. There is also a "spider" manifold where small hoses from the radiator and the upper manifold attach.

There is a hex head knob in the middle of this "spider". It needs to be in the correct position to drain the system, there is a position indicator. In this valve there is a spring loaded ball that will hold it in position, the spring loaded ball will let you know it is in the correct position. When the ball is in top hole the drain is open. Also looking at this hex head valve will let you know its in correct position.

Once you have all the coolant removed, there are 4 covers, one on each cylinder, that need to be removed. Behind each cover is a freeze plug that you need to



Now remove the overflow catch tank, (behind the airbox), empty all the old coolant and flush out "bottle". No sense in leaving old coolant to contaminate the new stuff.

Now it's time to add fresh coolant. Take a clean one gal. Container to use for mixing new coolant with water. Some use distilled water, some not, check manual for what is recommended. If you live in an area that has "heavy water" I would recommend using the distilled. Now fill the container with a 50/50 mix of antifreeze and water. For antifreeze use a product that is designed for all aluminum engines and radiators. At this time you can also add any products such as water wetter or the like, just be sure to follow the product label directions.

Reinstall the overflow catch tank and attach the hose, leave it empty for now, next add the coolant mix to the main system, through the filler neck, until you have added approximately half a gal. of the 50/50 mix. This will fill the water pump and most of system... Start the engine. As the engine warms up keep adding coolant until you just see it moving in the

aluminum tube (under the filler neck). Once you have filled the system, put cap back on the filler neck and add coolant into the overflow tank to the low level mark, careful it doesn't take much.

Let the engine run until the radiator fan kicks in, this allows the system to stabilize.

Do not remove the pressure cap when hot. Getting scalded is not a good thing. Once your finished check the overflow tank to see if any coolant is needed. Don't forget to reset the valve by the thermostat, turn it back to the closed position. Running the bike with it in the drain position has caused some bikes to run hot. While you are doing all this be sure to check for leaks around all of the hoses that you removed and reinstalled or replaced.

Put the scoop and top cover back on and your finished. When the engine is cooling down it will pull extra coolant needed from the overflow tank on a regular basis and add coolant as needed.

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