

## How to bleed the 20VT coolant system properly

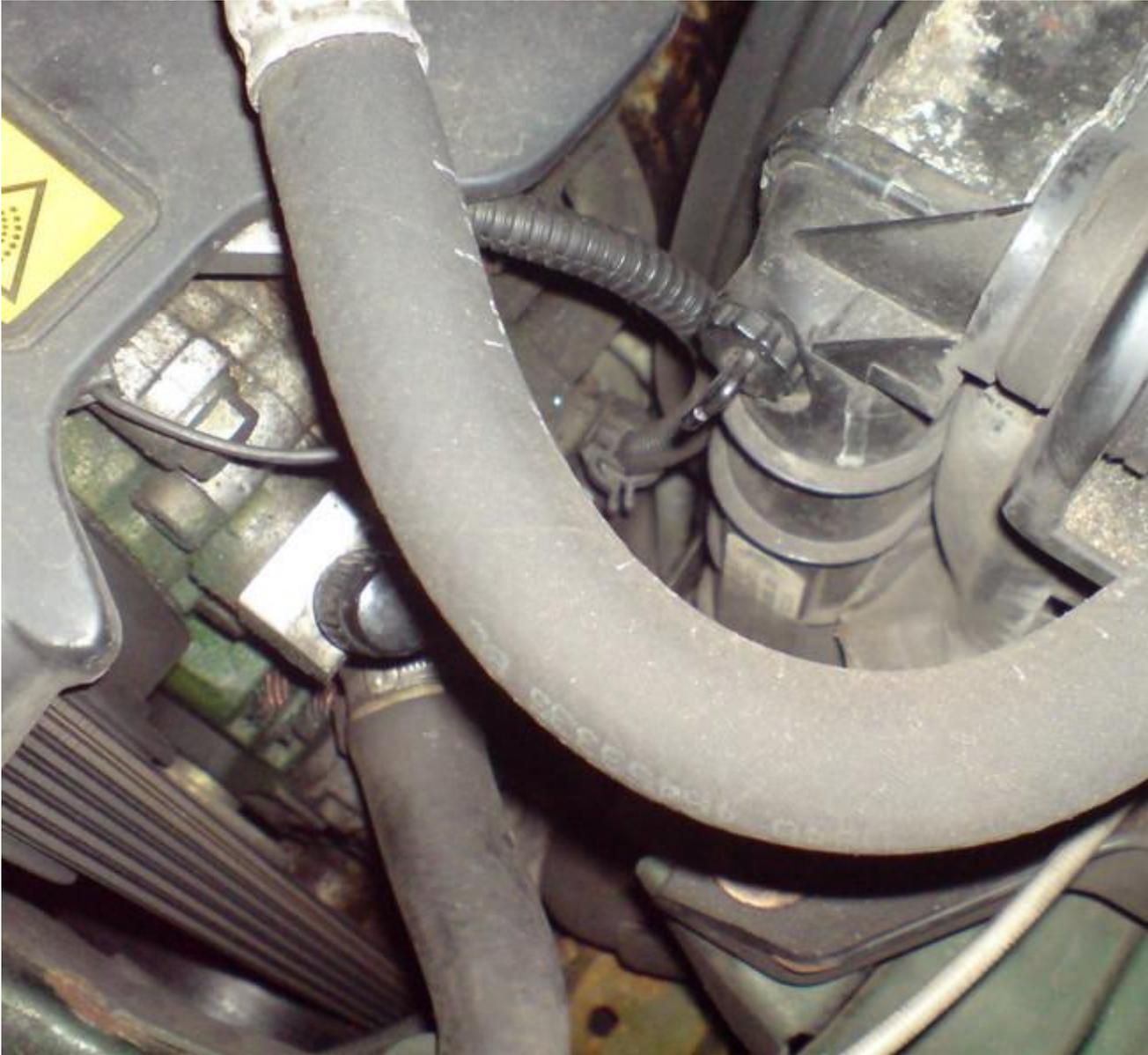
When you refill the coolant system with coolant (antifreeze and water: 50/50 mixture) there is a set sequence for allowing all the air to escape thereby preventing airlocks in the system and potential overheating. If there is a large airlock in the head you could even warp it and trash the engine by pressurising the coolant and loosing 2/3rds of it before the temperature gauge even starts to rise. (Happened to me on a motorway - dead engine, pistons melted before the gauge hit red).

Anyway, the sequence is this;

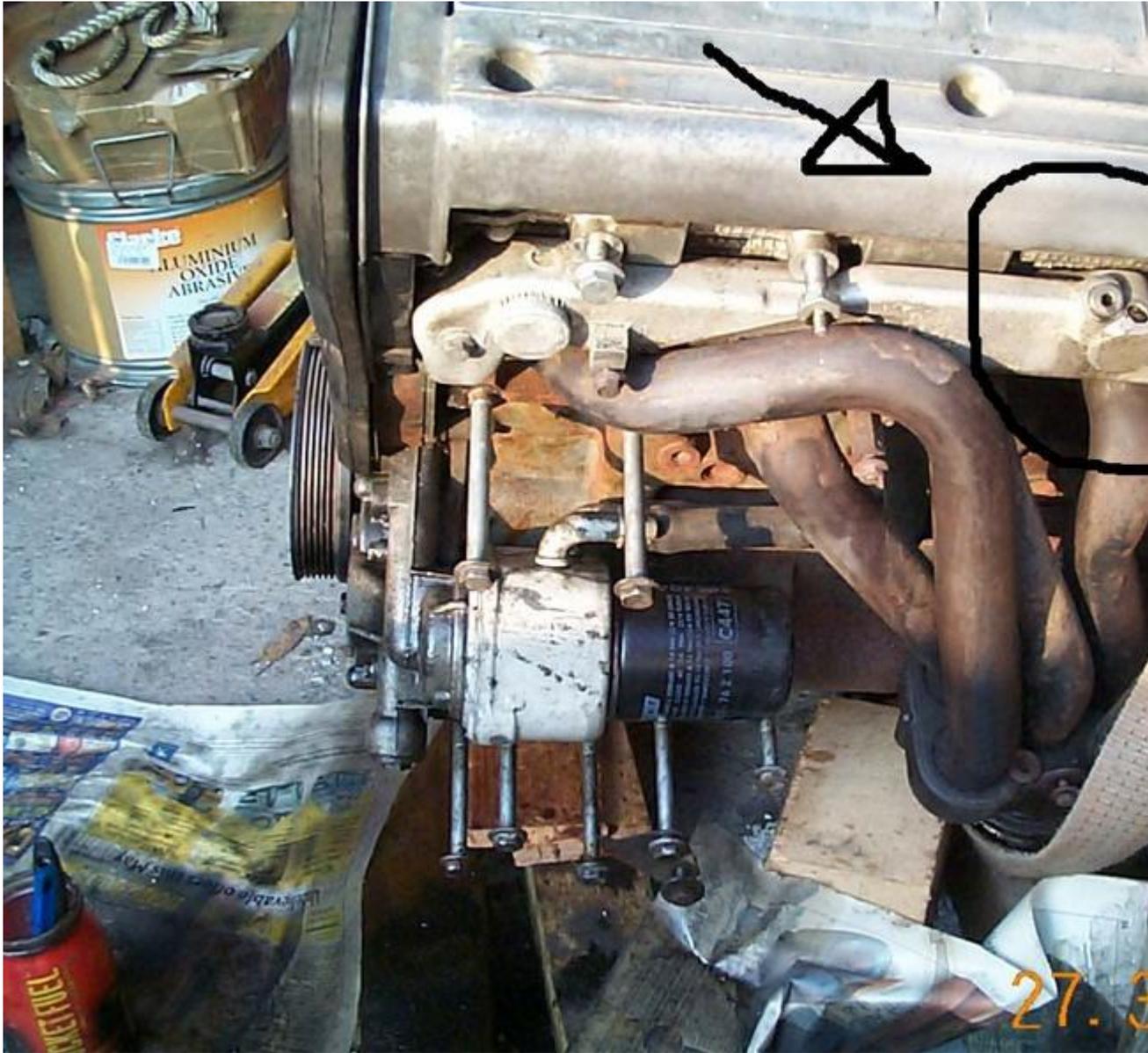
Firstly make sure that all water pipe connections are secure and that the power connections to the two fans on the radiator are secure.

For early models there are three bleed points. Before you start filling the system from the expansion tank cap remove all of them (the third one actually only turns a few turns and stays there).

1. First one is located at the top of the radiator on its left hand side (looking into the bonnet). It is a plastic wing nut type affair and easy to find.



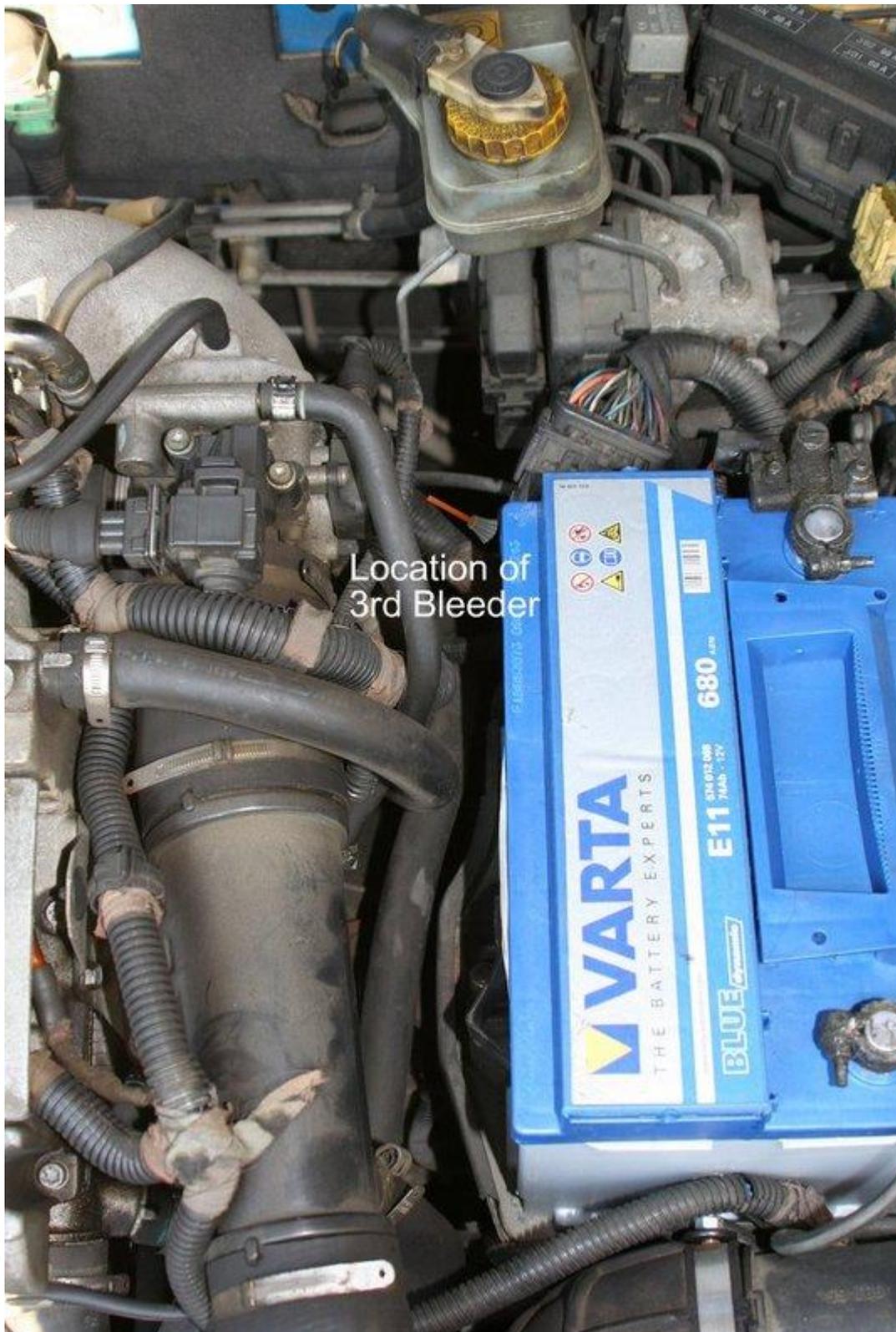
2. The second is located half way along the coolant distributor rail just above the centre of the manifold heat shield



(on latter Coupes there may fitted a pipe from this location which goes to a connector back to the expansion tank an attempt to overcome the bleed problem.)

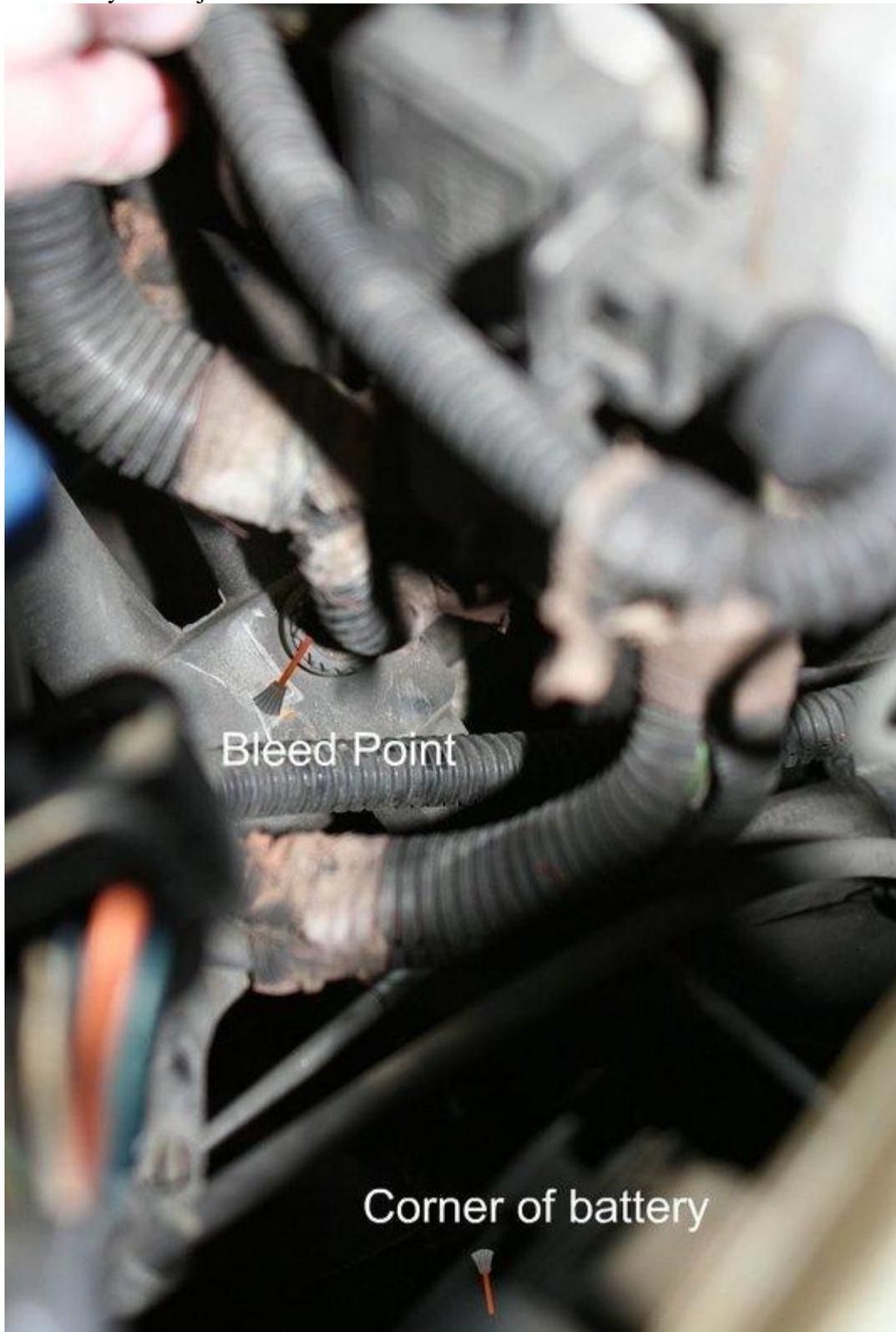
- The third is the hardest to find. It is a 5mm diameter knurled plastic screw which is in the top of the plastic water pipe which runs under the throttle body be patient, you will find it.

Here is the area to search

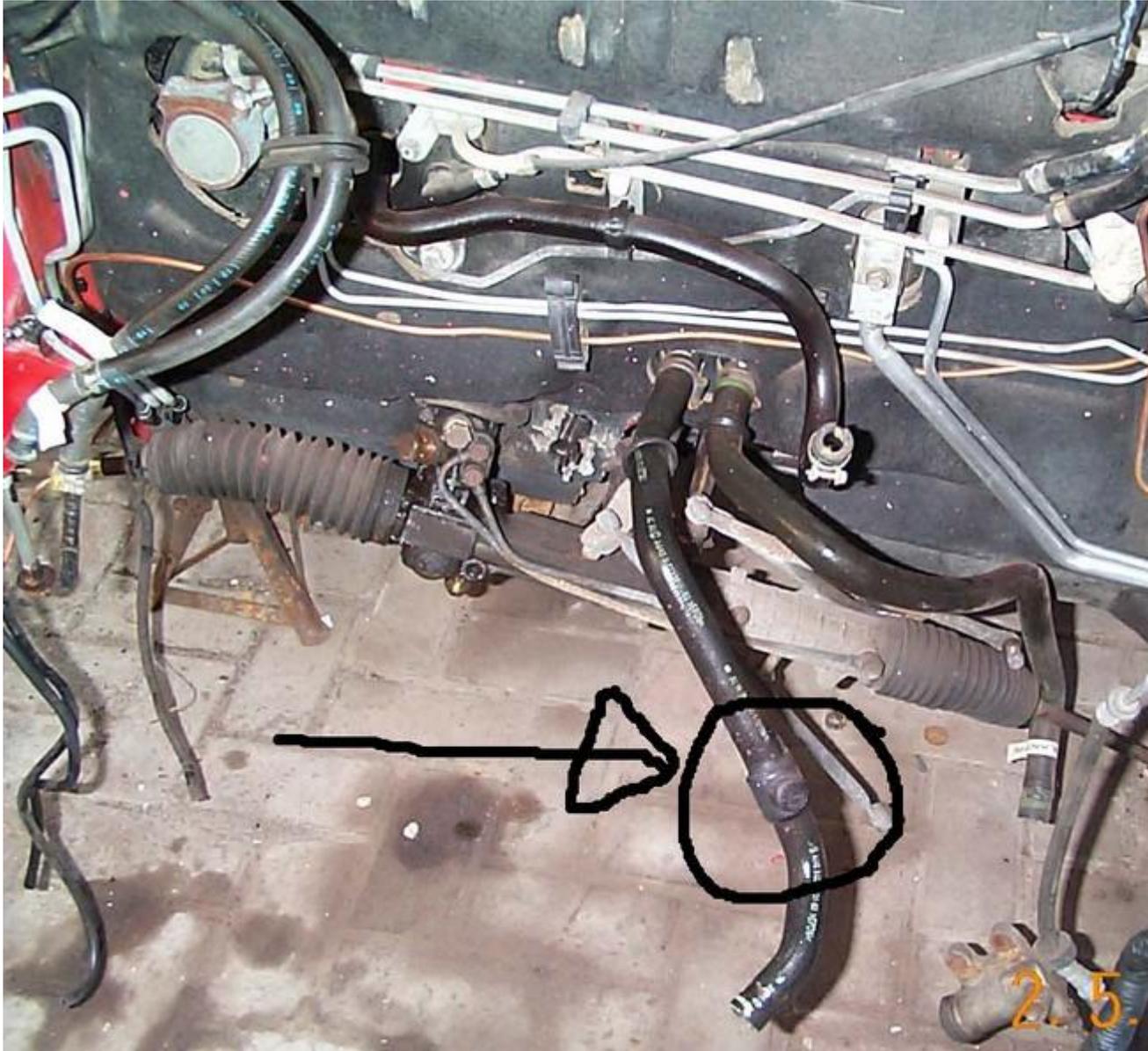


- 4.
- 5.

And here you can just see the knurled bleed nut



6. Here is an example of the same nut on a 20V NA. Much easier to get at with the engine out 🍷



As you slowly fill the system water will start to come out of the first bleed valve when the water appears to have no air in it replace the bleed screw.

Carry on filling and the second one will start to overflow (unless you have the pipe I mentioned) when it runs clear replace it.

Keep filling until the third one has released all its air and then close it.

When restarting the engine it is important that you allow the engine to prime the oil ways in the turbo first. I disconnected my coils and span the engine for a few seconds until the oil pressure came up. Refit the coils plugs and run the engine for few minutess until it starts to get warm (not hot or you will burn yourself).

When warm undo each one (using extreme caution) until you are sure that there is no air trapped behind each bleed.

When you're happy, run the engine until the fans cut in keeping an eye on the water temp gauge (fan should cut in at around 93 degrees) allow it to run until temp drops to 91 when the fan should cut out.

Turn off engine, allow to cool for quite a while (I recommend a mug of tea or two at this point). When cold return and check the Second and Third bleed valves again.

If no air comes out you're OK.

If later you start to get a gurgling noise from the heater matrix (sounds like it comes from behind the Speedo) then find a steep hill, drive so the nose of the car points up-hill and repeat the process.

Open the bleed screws one at a time starting with No 1 until no air bubbles come out (careful the water might be HOT)

Check inside the car to make sure its blowing hot air.

That's how it should be done.