

## Tech Tips and Troubleshooting the MGA Coupe startup:

If you recall at our 2017 Spring Tech Session my MGA Coupe project was just a rolling chassis with the engine installed and new floor boards. The body was still on Dick Fabrizio's make-shift rotisserie. While getting the car to this point I had been refurbishing parts and installing new parts just to get them off the floor or out of storage as I had been collecting bits for years. Last summer the body went off to be media blasted and then delivered to the body shop for paint. I since have put the body back on the chassis and have been fitting parts and recently put the final parts in such as the radiator to get it ready to start.

Don Tremblay came over to help be start it up just before our Annual Planning Session this year. Unfortunately, the engine was turning over slowly and was popping through the rear carb. We gave up since we had to get to the meeting, but since then I started troubleshooting and found several problems. This article is to discuss those problems and the solutions.

The first problem I tackled was that the fuel pump was not clicking. I had installed an after market solid state fuel pump and it had failed (no fault of Sir Lucas!). Also, before Don came over I had seen an issue that the pump was pumping, but no fuel was getting to the carbs. I found that the fixed line from the tank to the pump was clogged. I separated the pipe from the fittings and ran a wire through it and got it cleared. (Note to self: always checked tubes to make sure they are clear BEFORE installing, particularly used or refurbished parts). I installed a new fuel pump and then I had fuel. Now, the carbs were leaking at the attachment of the fuel bowls to the carbs, so, I replaced the rubber seals with new.

Since I had moved the distributor setting while Don and I were trying to start the engine I took the distributor car off and put a test light across the points (hot side to low voltage coil wire going to distributor. I removed number 1 spark plug and changed engine until timing mark was at 10 degrees Before Top Dead Center and the number one cylinder was coming up on the compression stroke. Now I adjusted the distributor in a clockwise direction until the light just came on and then tightened the pinch bolt. This gave me my initial static timing. Number one plug wire on the cap is just above the low voltage lead coming into the distributor and the distributor should have the vacuum advance can tilted forward (under the heater valve at about the 1 o'clock position. Mine is a little further forward which may indicate that the gear drive inside the engine is perhaps on tooth off of being correct. But, this will work for now.

When I went to put the cap and wires back on I noticed that in the position I had the distributor that the number 4 wire did not reach the plug anymore! I then took a close look at the distributor cap and wires. These had come from a stalled restoration project and I had assumed they were correct. I then saw that they had been confused in a clockwise firing order rather than the correct counterclockwise (rotation of rotor) of 1-3-4-2. I decided to use a different cap and wires at this point to speed up the testing. I have plenty of spare parts laying around. So, the next cap and wires I installed had the correct firing order, but 1 and 4 were not firing. So, I got another cap and wires and installed them. This set was working on all cylinders. BUT, the engine was turning over very slowly and I noticed that the choke cable was getting warm (I was manipulating the chock while cranking the engine from the starter switch under the bonnet). I used a battery jumper cable to establish engine ground and then it cranked over rapidly and the engine sprang to life!

When the engine fired up I found that there was an exhaust leak at the down pipe, so, since I had several issues to investigate I shut it off and put the car on the lift. I righted the bolts on the engine mount where the ground strap is installed on the left motor mount. I also found that all of the exhaust flange nuts had not been tightened yet (as I still needed to install the long exhaust support bracket from the bell housing because the new one I had did not fit). I made a new strap and installed that to the exhaust pipe and tighten all the bolts. This fixed the exhaust

leak. While I was under there I noticed I had not fitted the clamp for the float bowl overflow lines, so, I fitted that. But, I noticed that one of the lines was clogged at the bottom. This was a used overflow line and apparently some bug had made a nest in the end of the tube from some time ago, so, I cleaned the line out. These lines must be free for air/fuel to transit otherwise the float bowl will not operate correctly. Also, make sure you have the fiber washer between the float bowl top and the overflow line with the correct washer that allows the bowl to breath.

Now that the engine would fire up I decided since I had the car on the lift I'd address the hydraulics so that I could actually drive the car. I had already filled the brake/clutch master cylinder with DOT 5 silicone, but had not bled the systems yet. I started with the clutch and started bleeding it, but found fluid leaking from the junction of the fixed line to the flex line at the chassis mount. I had forgotten to tighten this when I was hurriedly fitting parts onto the car! This tightened and now the clutch was bled. I then started at the left rear wheel and started bleeding the brakes (farthest wheel cylinder first). After pumping a bit and getting fluid to the cylinder I noticed dripping up front! I found that both fixed lines to the flex lines to the front calipers were not tight! So, I tightened these and stopped the leaks there. Then I noticed brake fluid dripping from the frame on the right side of the car below the 5 way junction where the brake switch is located. This turned out to be a loose fitting for the line from the master cylinder. NOTE TO SELF: when installing various parts, either make the connections correctly to state with, or create a punch list of things to return to BEFORE attempting to energize the system! I stopped all the leaks and now I just need to finish bleeding the system. Yeah, no more leaks!

Last year, while talking with Chuck O'Neal, he mentioned that he had some wire wheels and tires in decent condition to sell. A friend who needs tires for his TF decided he did not want to spend the money and since I needed tires for the Coupe, I agreed to buy them I picked them up today and they will do very nicely. The wheels and tires I had on the Coupe came from a project I bought a couple years ago and were very old (just for rolling the car around). Below are two pictures. The first picture is of the date code on the old tire. This is a three digit date code with the first two digits the WEEK of the year it was made. The last digit is the last digit of the year. So, you can't tell what decade the tire was made. Since I know this project was abandoned in the 1980s, I know that the date code must be the 22nd week of 1980!!! These tires still hold air (they have tubes), and even though they still have the new bits of rubber from the mold and zero wear, they are unsafe for the road. The second picture is of the new date code format started in the year 2000. This date code has four digits. The first two same as before, but the last two are the last two digits of the year (since 2000). So, in this case 2014. Dana Booth wanted me to write up about tire age again since he was traveling out west and saw an AH 3000 that had wrecked because of old tires. In AARP magazine there was a statement from a mechanic that said (at least for modern cars with many miles driven each year) that tires should be changed about every 4 years. I think this is mostly because the high speed tires put on new cars only last about 35 thousand miles anyway. Most people will say to change tires about every 10 to 12 years for tires not driven on a lot. Some claim that they don't change them because they are not in the sun a lot, but tires do deteriorate even without being in the sun. Don't risk having a tire failure just because you think the tire "looks just fine".

Be Safe Out There,

Jack Horner  
President Bay State MGA Club

Old Tire Code



New Tire Code



