

What to look for when evaluating an old MG, particularly one that has been sitting in a barn for a while:

Recently a friend asked me to go through his MGB that he had disassembled and had painted, but then sat for 8 years. I found a lot of things that he was not expecting and these are things that need to be evaluated and remedied before the car can go back on the road. These items are not all inclusive, but will give you an idea of what is involved before going ahead with work or a purchase of an MG. I will not go into detail regarding body rust and condition of the interior and top as these are pretty self evident. Before deciding to buy a car, make sure that the condition of the rust in the body and/or chassis is something you are willing to deal with. Also, even with a "restored" car, one has to be very careful to determine if it has a lot of Bondo or poorly patched bodywork.

Here are some of the things I had to look for and then repair on my friend's MGB (these will be very similar on an MGA or MGTD). I first noticed that the tires were all dry rotted and needed to be replaced. Generally speaking, if tires are more than 10 to 12 years old this is something that should be looked at. If the sidewalls are showing cracking, particularly where the sides meet the tread, even though the tread still looks great, the tires should be replaced. There is a date code on most tires that starts with DOT and followed by 3 or 4 digits on oval indentation (molded into the tire). This could be on the outside or the inside of the tire depending on manufacturer. If it is 3 digits, this means the tire was manufactured before the year 2000. the first two digits is the week of manufacture, and the last digit is the last digit of the year, unfortunately you can't tell if it was in the 1970s, 1980s, or 1990s or even earlier. Usually if you have a 3 digit code, you need to replace your tires, even if they have tubes inside. Also note that if you have tubeless tires, you will still need tubes if the rims were designed for tube tires as the rim does not have a wide enough lip to safely hold the bead in cornering. Also note that all wire wheels will require tubes as the rims are not sealed.

I put the car up on my lift and examined the undersides. Other than the rust that needed to be take care of, I found that the king pins on the front suspension were worn/loose on one side (this can be determined by grabbing the tire at 12:00 and 6:00 and trying to wiggle it looking for any movement in the lower trunnion area.) Also, look for any abnormal where in the trunnion bold at the end of the A-arms. This will appear as the bold head and nut not being centered in the A-arm hole. The A-arm bushings on the inner end of the A-arms should also not be squeezed out of off center. If the A-arm is not centered on the washer and bolt holding it, they need to be replaced. Grabbing the tire at 9:00 and 3:00 try to wiggle with tire and look for any movement in the tie rod ends. If there is any movement, they need to be replaced. If the dust boots are torn, they should also be replaced. Also look for any movement on the inner end of the tie rod where is attached to the steering rack. If the steering rack boots are torn, they need to be replaced and if there is any suspected dirt in the steering rack from compromised rack boots it needs to be thoroughly cleaned and lubricated before reassembly.

The easiest way to test the shock absorbers is to push down on the fender when the car is on the ground and see if it returns to level without bouncing, but I have found it much

more reliable to test the shocks when the suspension is not connected. So, while I was replacing all the king pins and A-arm bushes, I checked the front shocks. You can examine them to see if they look like they are leaking fluid, but with the tire removed and the brake rotor and hub and caliper removed I took off the lower trunnion bolt and removed the spring. With all the pressure off, by lifting and lowering the shock upper trunnion arm a smooth solid feeling action should be felt. If there is no resistance at any part of the motion then it means there is loss of hydraulic fluid. You can try filling the shock, but at this point I think it is better to just replace them with a good used one, or a new/rebuilt one. While I was removing the brake calipers, I noticed that the flexible brake lines showed wear in the sheath braiding, so, these needed to be replaced. While doing this, also examine the one at the rear axle. It also needed to be replaced. Most of these cars I work on have never had any of these things done before and remember that many of these components are between 35 and 60 years old!

While replacing the king pins I also examined the brake rotors and they needed to be replaced. This is also a good time to replace and pack with grease the front wheel bearing. When installing the new brake pads, the pistons of the calipers need to be retracted to accommodate the thickness of the pads and rotors. Make sure that the calipers do not stick after retracting them and putting everything back together. If the calipers stick and cannot be freed up, they will need to be rebuilt or replaced. Of course, on earlier cars with drum brakes (MGA and MGTD, check the brake shoe linings and brake cylinder seals to make sure they are in good order and not leaking or coated with brake fluid. Any leaking or damaged components need to be replaced).

I noticed that when I picked the car up that the clutch would not engage. This could be a sign that the clutch is worn out, or could indicate other problems. Sometimes I have seen the clutch plate stuck to the flywheel and pressure plate so that it would not disengage (this can sometimes be remedied by starting the car in neutral and warming it up, then - particularly going up an incline - hold the clutch pedal down, place in second gear and start the car - it will lurch forward, so, ensure there is nothing in your path - and as you accelerate, the clutch will usually let go and begin to slip as it should.) Now the problem I found was that the hydraulics were sound except that the clutch slave cylinder was stuck all the way out, disengaging the clutch. I replaced the clutch slave - it could have been rebuilt but it is not an expensive part. I also replace the push rod and clevis pin as these often show wear. I worked on a 1962 MGA not long ago where the clutch was working but all of a sudden quite working (staying disengaged) and it turned out to be the flexible line (collapsed) to the clutch slave cylinder. So, it is a good idea to change the flex line while you have everything apart.

While under the car I noticed that the transmission mounts were mush, so, I replaced all the transmission mounts. The engine mounts should also be checked, but they were in decent shape. The rebound straps on the rear axle are often worn or broken, but in this case they were still serviceable.

Now getting to the top side of the car, I did a compression test and although number one cylinder was a bit low it was within spec (with about 10 to 15%) between highest

and lowest reading). It may be worthwhile to remedy this now, but the owner wanted to wait on it. Checking the oil, I noticed that it was runny and smelled like gas and was above the normal full mark. This indicates that there may be an issue with plugs firing and/or carburetor flooding/running rich). I rebuilt the carburetor and replaced the fuel filter (I noticed there was some fine rust particles in the float bowl and the filter was not passing much fuel because it was clogged with particles.) The fuel tank may need to be removed and flushed out or replaced, but the owner did not want to do this just yet. By monitoring the fuel filter we should be able to catch any developing problem. When I turned the key on for the first time, I did not hear the fuel pump. I checked to make sure I was getting power to the pump with a test light, but then checked for ground and there was no ground. The ground wire in the trunk wiring harness had been disconnected where it attached to the license plate mounting bolt. When I made a good ground the pump started working. If after ensuring power and ground and the pump does not work, then you will need to replace the pump if it still does not work. When I started the engine I heard a rumbling noise in the front and isolated it to the water pump. I replaced the water pump (MOSS Motors is now supplying a beautiful cast iron reproduction that looks identical to the original.) Also, it is a good idea to replace the thermostat at this time since the system is drained. One of the radiator brackets had become unsoldered from the side of the radiator, so, this was repaired and the radiator tested before re-installing. The engine was running rough and I determined that number three plug was not firing. After checking that the wire was sparking, replacing the plug solved this problem. Of course, once this was diagnosed, it would be a good idea to go through a complete tune up with cap, rotor, wires, plugs (and points and condenser if equipped.) I noticed that the ignition relay has been bypassed (this is only on 77-80 MGBs). This should be remedied. There were burned wires under the dashboard and I found that the accessory wire from the ignition switch had burned and melted part of the harness. It had fried one of the brown (always hot) wires that went to the headlights. When I took the steering column covers off, there was a little mouse nest next to the headlight switch (this is only in 77-80 MGBs). After cleaning up with wiring by splicing in new wires this area was back in working order. Now I started working through all the rest of the electricals checking each function. While the steering column covers are off is a good time to check all the functions of the various switches since these covers would have to come off again to replace either column switch or the headlight switch.

At this point, there is mostly reassemble to go through and fix any issues with stripped captive nuts or stripped bolts, filled in holes for trim and other hardware, etc. So, I will end this article and hope that it provides some information to those working on their cars, or planning on purchasing an MG that may have not been on the road in a long time.

Safety Fast,

Jack Horner
President, Bay State MGA Club

