

Buying and Running an old M.G. Y

The Running Gear.

So you have decided to buy a M.G. 'Y' series. You have read up on all the road tests available, and the excellent books 'Let there be Ys' by David Lawrence and 'MG Y-Types Saloons and Tourers' John Lawson (both available from the MG Car Club Y Type Register website www.mgytypes.org). You sent off or downloaded the reprints of the Practical Classics back-copy on Buying A 'Y', of November 1993, the MG Enthusiast Magazine 'Y' Type article of Feb/March 1985 and Popular Classics Magazine 'The Y Type of November 1993, (now available from Practical Classics) and you have read the reprint of the article from Practical Classics December 1984 reprinted in Brookland's book MG Y Types and Magnettes ZA/ZB (also available from the MG Car Club Y Type Register website www.mgytypes.org). You have been to a few M.G. shows, and have spoken to 'Y' owners. The car is what you want, and you have a good idea of its abilities, running costs, spares availability, insurance, etc. Now it is time to look at the cars for sale to find your ideal version. Always, always do your homework before you buy a car, impulse buying will only lead to tears and an overdraft.

In this article we are going to look at the running gear, this includes the engine, gearbox, rear axle, steering and suspension. The car has many grease nipples that will require attention every 1,000 miles, and oil changes at every 3,000 miles. Servicing an older car is quite an expense if you cannot do it yourself. Fail to service it properly and things will seize up and break. Service it properly and most of it will last for ages and ages, well beyond that of the equivalent sealed-for-life modern car part.

The M.G. 'One and a Quarter Litre' sports saloon is "*of its age*". That simply means the car is not a 1990's sports hatch, and cannot hope to keep up with modern motorway traffic. Under its bonnet is an engine the origins of which date its design back to the 1920's, while at the same time having some very modern engineering inside it. It is an overhead-valve (ohv) unit of 1,250cc giving out 46 brake-horse-power. That is only 1,250cc pulling a car weighing over a tonne, so today the performance may seem very pedestrian. In 1937, when the car was conceived (to be ready for the 1940 motor show), its 70mph max speed was very good, its specification excellent, and its road holding superb. This was in comparison with other four door family saloons, of the late 1930's. Many had elderly, long stroke, asthmatic side valve engines of very low power. The little M.G. sports saloon was the VW Golf GTi of its day, (or even a BMW 2002 of the 60's for you older enthusiasts). Note this was the late 1930's, so to drive a YA, YT, or YB today requires very careful road reading, as most modern motorists will not understand your cars lower performance.

If you are going to look at a restoration job, the engine is going to need a full rebuild, as is the gearbox, brakes, suspension, steering and rear axle. For the engine alone, you should budget for £1,500 plus. Gearboxes often only require new bearings and oil seals, rear axles the same, though note that the one fitted to the YB is the later hypoid type and longer available. (The YA has the older spiral-bevel axle, whereas the YB has the later Nuffield axle.) As you will have read all about the cars, you will also know the braking system's differ, twin leading shoe on the YB, and single leading shoe on the YA/YT. While the 'Y' series look as if they come from the 1930's with their upright styling, the independent front suspension (designed by a young Alec Issigonis), rack and pinion steering, ohv engine, three synchromesh gearbox and hydraulic brakes set the standard for cars of the late 1950's. The steering and suspension were used on the TD, TF, MGA, MGB undergoing only slight modifications before finishing up on the MG RV8 1993!

If the car you are going to see is a runner, and advertised with an MOT, tax, and driveable, then you can do quite a bit to check out the running gear.

- When you arrive have a long chat with its owner. An enthusiast will tell you a great deal about the car, any work done, and possibly anything that will need work. Check the engine is not hot, as you will want to see how the car starts from cold.
- Walk about the car, does it sit level, what are the door gaps like, tyre condition, how clean is the engine, battery condition, (take its cover off), what is the wiring like? You are getting a general feel for the car, its condition, how it has been kept and serviced.
- Look underneath at the kingpins (front suspension main vertical piece about which the wheel turns), is there clean grease coming out of them? Or are they dry and rusty looking?
- Take out the engine dip stick, look at the oil, is it clean or thick black muck?
- Take off the engine oil filler cap, is it clean inside or is there lots of white 'mayonnaise'? This white foamy looking stuff tells of a cold running engine, possibly with an internal water leak. Grey oil is an indication of oil mixed with water.
- Look underneath at the engine sump. If it is all dry and clean that is very suspect, as these old engines all weep at the timing cover seal, and the rear crankshaft seal after a few miles. The front seal is a bit of asbestos rope, the rear seal a reverse-scroll type (unless a new seal has been expertly fitted – ask to see the invoices for this work and the parts). These engines were being built a long time before neoprene spring loaded lip-seals.
- Look where the car is usually parked, that will tell you how much the engine/gearbox/rear axle leaks. The gearbox should not leak, but the speedometer drive may seep a little. The rear axle again should not leak. These two units have leather lip-seals.
- Check the steering rack boots for splits and leaks whilst you are underneath, (MGA ones fit). So far, you are just looking at things, we have not actually tried the engine yet.

So, now get into the drivers seat, pull out the choke if it's a cold day, turn on the ignition, and pull (or push on some very early side battery box YAs) the starter button. All 'Y's fire up instantly so long as you let the fuel pump tick away till the carburettor float chamber is full. When you started the engine, a glance in the rear view mirror would have shown you a puff of blue smoke. This will be oil that drained down the inlet valve guides.

- These engines DO USE OIL, it is quite normal, it is how much that is important. Blue smoke on starting up is nothing to worry about.
- The engine should idle over a little fast with the choke out, but look at the ammeter, it should be charging a little after the use of the starter motor.
- Glance at the oil pressure gauge which should be creeping up to about 50psi. Once the engine is hot, the oil pressure will be between 15 to 60 psi depending upon the condition of the engine, at idle rpm. But at 30mph it should be firm on 50psi when the engine is hot. People worry a lot over oil pressure, and it is one of the easiest 'pressures' to boost by adding washers to the pressure relief valve. As long as it is over 40psi at 30mph, and at least 10psi at idle, there will not be a great deal wrong.
- It is the sounds the engine makes that is important. It will 'tick' a little from under the rocker cover, as these engines are very 'tappety'. Now leave the engine running whilst you listen to it.
- Wait until the radiator cap is hot, (there is no water temperature gauge on these cars, and the system is not pressurized.) This will take a good ten minutes.

Blue smoke all the time that the engine is running though, is a hint of serious wear. To check this out we need to go for a drive. But before this, open the bonnet and look under the water pump at the front of the engine. Any water dripping from here shows the water pump is worn out.

- Look down at the engine breather, the pipe that runs down behind the distributor. There should not be any smoke coming out of this, though a small amount of oil vapour may stain the chassis. Remember, these old engines do not have enclosed breather systems as on modern cars. Many of them leave a little ‘fingerprint’ of their oil drips when parked, not something people with posh driveways relish. Only a new XPAG engine does not leak, or else one with an empty sump! Leakage includes that oil mist that escapes via the breathers. A very oily rocker cover may indicate the engine has worn pistons and rings, as the oil is blown out of the oil filler cap and from the vent pipe to the air silencer/filter mounted above the engine.
- Take a look at all the core plugs you can see. There are five of these on the inlet side of the engine and none of them should be weeping. Any with signs of rust may be about to burst, loosing all the coolant. Replacement is more fiddly than expensive though.
- Listen to the front of the engine. A rattle at the front of the engine may be a worn timing chain. This will require the sump to be removed to change it, not an easy task.

Now, having done all of the above, take the car for a run.

- The clutch should be firm and easy to operate. Glance down at the pedals as you push in the clutch, the brake pedal should NOT move. They run on the same shaft and if not lubricated can become very stiff and interact. This is an MoT failure point.
- The first gear will need firm engagement as it uses direct cogs, (as does reverse) and all the gears will seem to have low ratios.
- **Unless you are an expert at double-de-clutching never engage first with the car moving.** Drive off and change gear as required. Second, third and top will be easy as these have synchromesh. Now go back down the box, but NOT into first. Do this a few times to check the synchromesh is good. If the gears crunch a little, try double-de-clutching as this may improve the change. The gearbox should not be noisy, but sometimes the rear axle can whine. This is more noticeable as you get nearer 60mph. The gear lever may ‘zzizzz’ at speed, this can be bearing wear inside the box, or just the rear axle sending its whine up the propeller shaft. There should not be any loud clonks from the transmission. If there are the propeller shaft universal joints may be worn, or the flanges may not be tightly done up to the gear box / rear axle.
- The steering should be very good and positive, the rack and pinion and independent front suspension make the car feel very modern.
- If cross ply tyres are fitted, they will scrub on fast corners, If radial ply tyres are fitted the car will run quieter but the steering will be much heavier. That is why the steering wheel is so big, - to give you the leverage.

The brakes on the YA are good, but those on the YB far better. Both cars need a very firm foot on the brake pedal, as there is no servo assistance. Basically the harder you can push, the better they are. The pedal should be firm and only go down half way. Again it should not move the clutch pedal, or hit it by sideways movement.

The car is pleasant to drive, and in its element between 20 and 55 mph. It will love secondary roads and winding lanes, but fast trunk roads will be hard work, and motorways far too fast. You must learn to use the rear view mirror often, and give plenty of time to pull out of T-junctions.

Upon returning from the run, leave the engine idling over for about ten minutes, and then blip the throttle.

- Only a small amount of blue smoke should come out of the exhaust. If there is a lot, the engine may need a rebore, and probably new valve guides. This is expensive. Ask the vendor is the engine is converted for lead-free petrol. If not, then the valve guides

fault will be cured once new valves and guides are fitted. Worn pistons are another story, and will mean an expensive engine rebuild.

- On the drive there should not have been any rattling from the engine, and the oil pressure should have remained about 50psi when on the move. Now, after the run, with the hot engine idling, look at the oil pressure gauge. If there is virtually no pressure, this will confirm the engine is worn out if there is blue smoke from the exhaust pipe.
- Check the carburettor now, there should not be any fuel leaks.
- Look under the car to see if any oil has magically re-appeared where all was dry before the run. People have been known to clean the sump off with carburettor cleaner, this makes it look oil free. Small drips are not too serious and can be lived with.
- Undo the radiator cap with a cloth, (it is not pressurised) and see where the water level is. It should be at the bottom of the filler neck., If it is out of sight, where has it gone? Look underneath for drips. Inspect the radiator matrix carefully, as this is expensive to rebuild. Do this with the engine stopped, or the cooling fan will take your finger off.

What is your impression? If you like the car now is the time to give other items a firm check over.

- Jack up each wheel in turn and check for worn wheel bearings and tyre condition.
- Spin the steering from lock to lock, checking for play in the king pins with a tyre lever under the wheel, lifting the lever gently from below as the MoT examiner does to see if there is play in the kingpin.
- Look at brake hose condition, there should be no cracks.
- Check brake pipes for corrosion.
- Look hard at suspension fixings and rear spring hangers for rust.
- From underneath, grasp the very rear end of the gearbox and shove it up towards the floor hard. It should not move, unless the rear eye-bolt is broken. This eye-bolt holds the gearbox down onto the cross member, and sometimes the casting cracks if the car has been 'jumped' over bridges, etc. The action of the car landing forces the prop-shaft forward, and this can hit the gearbox breaking this mounting.
- Check the universal joints on the propeller shaft, do they look dry and rusty? Grasp the shaft each side of a joint and try twisting in opposite directions. Any play is bad news.
- On the YA/YT look at the chassis to rear axle Panhard rod, are the end fixings in good condition.
- On the YB look hard at the front anti-roll-bar. This differs from the MGA/MGB fixing, and can crack at the lower spring pan mounting points

The front damper is part of the upper suspension arm. If the trunion does not get greased regularly, the bolt seizes in the trunion, and twists in the damper arms. Eventually it will break, and you crash! The guide is fine rust dust around the bolt ends, and an awful squeak when depressing the front wings.

Grasp the car at each bumper corner and bounce it up and down to see if the damper on that corner works. Any leaks from the damper mean fitting a reconditioned unit, more expense, and an MOT failure if you do not.

The Jackall system may not work, though many do but on the front end only. You can try it out, but the rear axle hose has often burst, and the rear jacks have seized up. Use ordinary motorcycle fork oil in the reservoir. **Never trust the Jackall system to go under the car, without axle stands.** Many MOT examiners mistake this tank for the brake master cylinder reservoir. The master cylinder is under a little steel cap under the floor of driver's seat. The

floors are wooden, so be very suspicious of cars fitted with seat belts, as they may not have sufficient anchoring strength. **Remember, if you lower the Jackall rams, you must ensure that the rams are fully retracted before moving off in the car, otherwise substantial damage will be caused to the rams.**

Looking under the car again, at the back of the brake backplates, look for damp areas where brake fluid has seeped out. If there is any doubt over brake cylinder leaking, take off that wheel and brake drum to check. YA and YT will need the cylinders re-lining, though the YB uses the later TD items. Maybe just a seal kit is needed.

The XPAG engine used in the 'Y' series is based on a design first fitted to the Morris Ten/4 of 1938. This engine was also fitted to the M.G. TA. It proved to not be very tuneable, so it was updated and had a certain amount of redesign to become the 'Short Stroke Morris Ten 'M' engine of 1,140cc in 1939. This was opened out to 1,250cc and fitted to the M.G. TB as the XPAG. The TC, TD and TF also used the 1,250cc engine up to 1955, as did the Wolseley 4/44 from 1952 to 1956. It is a tough unit, but suffers the common faults of early overhead valve types. That is a high wear rate of the camshaft, followers, rocker arms, rocker shaft and valve guides. The timing chain also rattles if the oil pressure gets low, as it has an oil-pressurised tensioner. The long stroke also means rpm is limited, so long runs at high speeds leads to bore and piston ring wear. It has shell bearings fitted on the crankshaft, so these can be renewed. The oil pump is an excellent one, and will be more than capable of feeding any quantity required. It has a pressure relief valve that operates all the time once 50psi is reached. This is why putting a couple of washers behind the valves spring will 'artificially' boost the oil pressure. The Morris Ten/4 series 3 and Wolseley Ten/40 used the 1,140cc engine, up to 1947. This can be bored out to 1,250cc if required. For more information is available on this engine as a free download, go to www.mgytypes.org and this can be downloaded from the list of Other Items on the side bar to the News page.

Other points to consider maybe:

- Where will you get the spares you need?
- How much will it cost to insure, and do you need agreed-value insurance?
- Where will you store the car?
- And more to the point what space will you need if you are to strip and rebuild it?

Owning and driving a classic car of the 'Y's vintage means a lot of Tender Loving Care is needed, constant servicing and watching for signs of faults. The M.G. Car Club offers lots of technical advice to Y owners via its website at www.mgytypes.org, and the 'Y' Register has people with many years of experience to help you. You only have to ask!

