

# Y TYPE NEWSLETTER

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Dennis Doubtfire stars again in this issue, along with an in depth look at our web-site by Paul Barrow. This last summer was again a hot one, and some advice to anyone with an XPAG engine is given. The 'Y' type is beginning to appear on items other than MG club items. David Mullen of Liverpool has spotted that the latest WOOLIES catalogue, those suppliers of anything to do with trim, has a YB on its cover. A bit of detective work from Jack Murray shows it to be the YB of no lesser star than Brian Cox, registration DFB777, of 'Practical Classics' magazine fame. Apparently Woolies asked him for a picture as he lives near to the firm. It is all good advertising for our little car. Also, you are not too late to support BEN, the charity that helps current and retired members of the motoring, cycling, agricultural and allied trades. On the card set called "Christmas Eve at the Station", there is a maroon YB registration MYN11, alongside a little Standard Ensign. The card is a painting by Kevin Walsh, they are available in sets of ten for £6.50, available on 020-7610-6275. Again this information comes from David Mullen. In case you have difficulty finding the short-reach-plugs for the pre-SC2 engine, try your local garden centre at the lawn-mower counter, or local motor-factors. The same plug is used in many Briggs & Stratton engines in garden machinery!

We extend a welcome to Paul Gresser of Surrey who owns YB1446. For new owners to 'Y' Types David Hague stocks booklets like 'Living With The Y Series', and 'Living With The XPAG', David is on tel/fax 01730 266362.

The photo's in this issue are 1) Alan Chick with Mary navigating risks the ford at Oareford, Exmoor, on the Y2X2 run in his maroon YB; photo Neil Cairns. 2) Jerry and Jo Birkbeck looking out over Exmoor on the hottest day in 2003; photo Dennis Doubtfire. 3) Andrew Coulson counting the spark plugs from the wrong side on his YA prior to racing about Exmoor on the Y2X2 weekend in August; photo Neil Cairns. 4) Andrew Morland with his immaculate NTG Cup winning YT at the 2003 Spring Run; photo Brian Cox. The last photo (5) is of Alan Chicks YB suffering from fuel-vaporisation, and myself cleaning the sooted-up plugs that results from this. This was on the Y2X2 run with temperatures up in the nineties. Alan is behind me, with Dennis Doubtfire leaning on the roof. There is a prize of a 'Living With The Y Series' booklet to the best caption sent to me before Christmas, of what Dennis is saying. ●

## TO GO WITH THE FLOW, OR IMPROVE IT?

Following on from the Spring Run Catastrophe, (Dennis melted a piston at Mach Two on the M5...) I was still able to brew up tea after each run. As I am not keen enough on tea to warrant such a supply, I decided to remove the radiator and get it tested.

I had done all the usual tests, taken off the hoses and flushed it out both ways, and everything seemed OK. There was a good flow and it was nice and clean, but was there sufficient flow? As I could not convince myself that everything was in apple-pie order I took the radiator along for a professional appraisal. Our local radiator repairer soon pressure tested the core and gave it a fair bill of health flow-wise, but the air vanes were in a pretty bad way. (Note; MG Metro radiator's lose all their aluminium fins in a similar way, you end up with just tubes and a hot engine. Ed.) The recommendation was to re-core it and I was offered two choices. Maintain the status quo with a standard block or fit a high-efficiency one

which would cater better with modern running conditions and hot summers.

When you think about it our radiators were designed back in the 1930s, when you only saw a car every twenty minutes or so, not a bit like today's nose to tail conditions. Fuels have also changed out of all recognition and burn a lot hotter. Plus I have not helped the situation by blocking off some of the airflow with club badges. So it seemed sensible to take the modern option and go high-efficiency.

You may ask as I did, 'Just what is the difference between the two options?' Outwardly there are hardly any. The change is in the number of water tubes. The original design was 15mm between tube centres, whilst the high efficiency radiator has 10mm centres. It does not take a genius to realize that means an improved water flow of 33%. So if you are having problems it is nice to know that you have another option. ●

Dennis Doubtfire

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# RUNNING HOT IN SUMMER

The summer of 2003 was a warm one, did your engine boil over, or did you suffer fuel-starvation when the fuel vaporised in the carburettor and fuel pipes? How can you cure the problem? Read on.

On the older pre-war cars the engine was cooled by the action of hot water rising up to the radiator, called 'thermo-syphon', which was quite satisfactory for the feeble side-valve cars about then, and that was why these pre-WW2 cars all had such tall radiators. The water was fed into the bottom of the block, to rise up through the head, and up into the radiator header tank. The block would be cool, and the head very hot.

The XPAG's designer Claude Bailey added a water pump to the Morris engine to boost the natural action of the hot water to rise, but he only pumped the water through the cylinder-head. The cylinder block was also cooled by water, but only half way down the bores. The cooling area was that of the surface wiped by the piston rings. There was no water flow through the cylinder block, it relied entirely upon thermo-syphon. The water was collected from the bottom of the radiator, cooled by its fall down the copper tubes, to be pulled through the water pump driven off the fan belt. The water pump then assists the water, (note, not forcing it as the oil pump does with the sump oil,) along a duct on the offside of the engine underneath the manifolds, to the rear of the cylinder block. The water then enters the rear of the block to be fed directly up into the back of the cylinder head. It comes up through the large slotted holes at the back of the block, which can be seen when the head is off. In this way the hottest part of the engine is cooled first, which on an in-line four-cylinder engine is number four cylinder. Due to the way an in-line engine is laid out, the rear always runs hotter.

The water flows forwards through the head, to the front where it rises into a thermostat housing. The thermostat will control the engines running temperature at about 82 degrees 'C'. The fact the block has no flow other than the natural rising of hot water, and the head has all the flow, keeps those exhaust valve seats cool. The major cooling of the engine is done virtually all through the head. This area is the most important on the engine, and the hottest area. The block will be kept pretty hot, and the overall temperature graph for the head and block will be about the same, ie no big differences between the metal's temperature, leading to less stress and more even expansion. It also means the exhaust valve can be run pretty hot with less risk, getting more power from the fuel. In fact the 'X' series is very up-to-date in its design.

The water jacket does about 60% of the engines cooling, the oil system does about 35% and about 5% is radiated from the castings. From the thermostat the water rises to the header tank, where it cools and drops through the cooling tubes in the radiators matrix, to start all over again. The thermostat is a bellows controlled affair that expands as it is heated up. On the 'X' series it starts by stopping any flow through the radiator, by blocking the entry up to the radiator. Instead it gives access to a small by-pass pipe on the side of the thermostat housing, to 'recirculate'

the water back to the water pump entry, missing out the radiator. This is to get the water and engine heated up quickly upon starting it. The cool water will run round the engine, via the by-pass pipe until it gets to the temperature that will open up the thermostat, to let the now hot water up into the radiator. On hot days the thermostat will be fully open, on very cold days it may only open up a little, controlling the water flow to keep the engine at its optimum working temperature. When the thermostat is fully open, it closed off the by-pass hose. Old thermostats are supposed to fail "open", but often stick half and half. This permits water to by-pass the radiator, and can cause the engine to boil on hot days.

Normally, the system is no problem to look after. The correct ratio of anti-freeze solution will stop any cylinder blocks being cracked in the winter, but a good by product is that good quality antifreeze also reduces internal corrosion. The cast iron of the engine will corrode slowly, and produce sludge and iron oxide flakes. This will often sink into the cylinder block and slowly block up the bottom of the water jacket. After a time this can cause hot-spots and therefore stress areas in the casting. Some can collect at the rear of the block, where the water is fed in via the off-side duct. Luckily, the cylinder head has a pair of rear and front alloy bolt on covers. This is excellent for giving the head a good wash-out. A hint that a wash-out required is when you drain the radiator, and the last few pints of water are a thick brown colour. You may well have been suffering a hotter engine, and perhaps even boiling occasionally. The radiator will need a good flushing out, best when it is removed from the car, and washed out in the reverse direction to the normal flow. Using a proprietary radiator flushing mixture will help, follow the instructions on the packet. On really badly gunged up engine water jackets, the core-plugs will need removing to get at the difficult areas.

Other than the TF and Wolseley 4/44, the cooling system of the 'X' series of Morris engines, in this case the XPAG version, run un-pressurised. This means the boiling temperature is that of the ambient air pressure, 100 degrees. If the thermostat operates at 82 degrees, the water around the exhaust valve seats will be very, very close to boiling point. As the system is open to the atmosphere, it is natural that the hot water will evaporate. That is why on these early MG's the radiator level needs checking weekly. On modern cars with pressurised, sealed systems, the water cannot evaporate, so need less topping up. This is one of those old facts lost to modern drivers, and one to bear in mind. Once that water level drops too far, the engine will run even hotter and boil. This can cause exhaust valves to burn away, and even the engine to seize up. Therefore, check the water level at least every week of a parked car, and daily if in use. The TF and 4/44 run with a 4psi sealed system, so do not suffer water loss naturally.

Old age problems of the cooling system are discussed above, in the accumulation of sludge in the block and head, and the age hardening of the hoses. Another is the rusting away of the radiator fins between the radiator down-tubes. Not only do they rust away, the

fins expand with rust and get blocked with dead flies. Using a thin PLASTIC tie-wrap to poke out the flies is one way, another is to soak the lot with water, then blast the flies out from inside the engine bay, forward through the matrix. Take care to straighten any bent fins, though if you find they break off through corrosion, start saving for a re-cored radiator. The core itself gets blocked with sludge, and lime scale. A proprietary cleaner such as Hoits Radflush will clear this problem. Follow the instructions on the tin.

Although you need to be odd to do so, there have been cases of people assembling the fan the wrong way around. It can be fitted so it tries to blow forward through the radiator, instead of pulling the air towards the engine. Whilst this does not have much effect when stationary, as the fan is still 'cooling' the water, once you drive away you get a stalemate. The air coming in from the forward motion of the car is met by the air going backwards from the fan, the result is a boiled engine. The fan only cools the engine below about 25 mph. Above this speed the ram-air effect of the cars speed is responsible for most of the cooling effect. But without the fan the engine would boil at slow speeds and when the car is stopped in traffic. If the vanes are all rusty, little air can flow and cool the water.

When the engine gets very hot, its transfers the heat to other components under the bonnet. One is the carburettor, and too much heat soaking into the carb will cause the petrol to vaporise. The problem is that modern fuels vaporise easily, old cooling systems struggle in hot summers, and few items are insulated in the 'Y'. Today you must fit a heat-shield between the carburettor and inlet manifold. As well as a steel heat-shield, an insulation block is required between the carb and manifold. The Y has a single casting for both inlet and exhaust, so lots of heat can get to the carburettor body. Whilst under normal running conditions you may have no problems, just wait until you are stuck in a huge traffic jam on a very hot day. Your engine will stall, and cough to a standstill. And it will not re-start until it has cooled down. That is the symptom of a vapour lock, where the fuel has vaporised in the pipes and pushed the petrol back to the pump. The fuel pipe from the pump needs to be re-routed away from the exhaust, and not run over it as it does unmodified. The pipe that runs along the battery box need insulating as well. Insulating the exhaust manifold and pipe also helps, and is supposed to boost bhp a little. Keep the fuel cool, and you will not stall. Dousing the carb body with water is one way of condensing the fuel so you can start the car again.

How do modern cars get round the problem? They run a fuel pump in the fuel tank, miles away from the hot engine. The fuel is fed to a 'fuel-rail' on the inlet manifold, then back to the fuel tank. It flows all the time in a loop, and only gets to be injected into the engine when a solenoid opens to permit a 'squirt' at each inlet valve. The fuel does not sit for ages under a hot bonnet as it does in our cars in traffic jams, so it does not vaporise. ●

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# Y TYPE REGISTER WEBSITE

It was a cold, dark night in March 2002 while we were having a Y Type Register committee meeting when, under Any Other Business, someone suggested that maybe we ought to have a website. Beside the fact that some of us did not know what a website was, it was agreed we would form a small sub-committee and look into it. Madly I volunteered to be a part of that sub-committee as I had an old copy of some software at work that we had never used for anything. I tried it, and to my great surprise had knocked up three pages (Welcome, News and another that I cannot remember now!). These were circulated by email with a suggestion for a domain name and the rest is history as they say. Somehow or other, I had become the Webmaster in all this too! The site has (at the time of writing) had in excess of 22,000 visitors and by the time you get to read this will be heading for the 30,000! Originally, the thought of a website for a Y Type had seemed incongruous to me - now it is like another life!

So, for those of you who (understandably) do not have (or want) Internet access what has the site got to offer? Well, surprisingly, quite a lot really. The site comprises of some 50+ main pages of information, news, and general Y fellowship with the ability to reach around the world. As Jack Murray said in his Registrar's report to the AGM in March 2003, "Since the inception of our website one year ago, we have made contact with, and been able to welcome, many Y Type owners from around the world. It is pretty clear from the comments we receive that the website has been positively received by all who have visited it over this period." Jack further informed us that when the site started, we had details of 1,467 cars, by March 2003 we had 1,517, of which 41 had been registered via the site: the total number (as of the end of August 2003) was 1,540, a number of which new registrations have come in as a result of the site, including a YT from India!

To give those of you who have not yet been to the site a flavour of the sort of things on the site, I have been asked to give you a rough précis of it, so I will do only the main pages.

• **News:** - This page keeps you up to date with what has been added to the site recently so that you do not miss anything (as a regular visitor). Archive, or previous month's pages can be loaded to "catch up" on events. There is also a useful side column from where, amongst other things, you can download a screensaver (taken from original sales brochures), the YT production records, Neil Cairns engine history, Y ledger records and Post War Saloons publications.

• **Picture of the Month:** - As the name suggests, a new picture from Y owners around the world.

• **Classified Advertisements:** - buying and selling parts and cars across the globe.

• **Bulletin Board:** - A discussion board for interactive discussion on Y Topics with other Y owners.

• **Hints and Tips:** - Contributions from Y owners worldwide covering anything from why you should carry a squeeze bottle with water to wishbone arm bushes, that Y owners have found worked for them and their cars.

• **Technical Advice:** - Owners asking technical questions which David Pelham and Neil Cairns field.

• **Technical Data and Information:** - General technical data of the Y, YT and YB and wiring diagrams for the various different models.

• **Contact Us:** - A "who is who", together with mug shots of the committee (not for the faint hearted).

• **Ys on Parade:** - A set of pages comprising the largest ever gathering of Ys in one place - virtually! Currently nearly 200 Y owners from around the world share a picture of their car with the rest of us Y owners who cannot see enough of them!

• **Links:** - A useful set of links to other suppliers worldwide who may, or may not, have internet access, but provide a very valuable service to Ys and their owners. Also includes links to other websites featuring the MG Y.

• **Regalia:** - What is available in Books, Datasheets, Accessories and spares, and Regalia for Y owners, together with a catalogue of all the Accessories and spares, and Regalia so that you can see what you want.

• **Events:** - Events for Ys from Australia to the UK past, present, and future, including, for some events, reports and photographs from the event.

• **Register your Y Type:** - An opportunity for you to file a registration for your car so that we can maintain the most accurate database on Ys ever.

• **Book Review:** - A brief synopsis of all the available literature that is worth having that either centres solely on Y Types, or mentions Ys with more than a passing reference, including text books, reference books, manuals, coffee-table reading, and data sheets.

• **Y History:** - The origins of the Y Type and some background history, written by David Lawrence and David Pelham.

• **Interesting Ys:** - Variations on a theme, what Ys have had done to them from a barn find in Sri Lanka that is being painstakingly restored by its owner, to a V8 Y Type, via an MG Y convertible.

• **Colour Schemes:** - So you want to know what colour something should be on your car, and a full set of MG Y paint finishes together with some major paint manufacturers' colour codes - just look here.

• **Register History:** - The genesis of the MG Car Club Y Type register and where it came from.

• **Reprints:** - A set of pages comprising reprints of

a. Contemporary advertisements,  
b. Magazine articles from 1947 to the present day on MG Ys that you may have missed (being added to monthly, currently I have some 20 odd unreleased items, but this is by no means exclusive), and  
c. Contemporary sales brochures

• **Collectibles:** - I never knew there were so many things out there to collect for an MG Y - 40 odd items (some very odd) have been sent in to feature on this page.

• **Artists' Impressions:** - your "gallery" of Y paintings and sketches including a contribution from an 11 year old in Japan! All works of art!

So, that is it. If you do not have access to the Internet but have a son or daughter who does, or even do but have not yet been to see it, pop in and have a visit - be careful though, you could enjoy it too much! Like a true spider's web, it is live and changing constantly. If there is something missing which you think ought to be there, get in touch and we'll put it into the forward plan. At the end of the day, it is your Y Type, and it is your website so make use of it freely. ●

Paul Barrow