



Newsletter No. 37 – SCARCE COVID Catch Up's: – July 2020

A Cautionary Tale

My Fiat barchetta was born in November 1998 and I've had it since 24th July 1999 when it was just 9 months old and had done 9,544 kilometres/5,930 miles; it has now covered just 66,500km/41,320 miles. As the barchetta isn't used all that much, I quite often have to recharge the battery for 24 hours before I can drive it. Over my 21 years of ownership, when the battery no longer holds a charge, I have replaced them as follows:

30th March 2003; 13th May 2008; 13th July 2013; 7th May 2018

As you can see, a battery usually lasts for five years.

Since July 2019, while we have been having major renovations done at home (including a new, larger garage and new driveway), the barchetta has been secreted away securely under cover (and under a cover too) at the small industrial unit in Saddleworth where I used to work – unfortunately I was made redundant in mid-February just before the Covid-19 pandemic began. Due to the pandemic and lockdown, in the first four months of this year the barchetta had only covered 192 miles, so on Sunday 17th May (after charging for 24 hours) I drove it 96 km/60 miles, mainly at a constant high speed, around the M60 motorway.

The battery I installed in May 2018 is a Yuasa (5-year warranty, from Halfords) and has a small inspection window showing either black (discharged), green (charged) or red cross (knackered). At the end of the M60 drive, the battery was showing green, but even so I decided to disconnect the negative lead as I wasn't sure when I would next drive the barchetta.

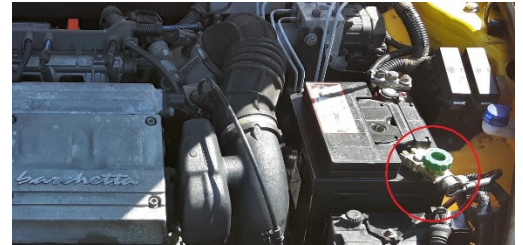
There had recently been a lot of postings on the UK barchetta Club Facebook page from other owners who also don't use their cars very much, about how the installation of a battery terminal isolator switch had stopped them from having to recharge the battery all the time, so I ordered one and, thanks to Amazon Prime, it arrived within two days. Ten days after the blast around the M60, I went back to the car and installed the isolator switch onto the negative lead. The battery indicator was still showing green, but when I reconnected the negative lead, the interior light came on very dimly and there wasn't enough power to start the car. Yet again, I put the battery back on charge.

In the past, I had thought that something (e.g. clock, radio presets memory) must be drawing power from the battery when the car is not in use, but having disconnected it after the last drive, that was impossible. I had installed the battery new in May 2018 and in June 2018, I had taken the barchetta to Turin Motors, an independent Fiat/Alfa specialist in Leeds, for a cambelt service. In the list of other points which I asked them to address was this:

“Bought and installed a brand-new battery at the beginning of May. This week after the car had been unused for 2 weeks, the battery had completely discharged. Is there something draining the battery?”

Turin Motors couldn't find anything amiss and the battery seemed to be OK after that for a while; when I did need to recharge it, it was usually after the car had been standing idle for several weeks, but then last November (2019) it started to completely discharge within just a few days of being recharged.

So, I came to the conclusion that the battery must be knackered after just two years and only 4,031 km/2,504 miles driven.



After charging for 24 hours, when I reconnected the battery the interior light came on brighter than it had done previously, so I was hopeful the car would start, but again there was not enough power – the starter motor clicked a couple of times then all the dashboard warning lights dimmed and went off as the battery died again.

One of my former work colleagues just happened to be passing and suggested jump-starting the barchetta. As we (correctly) connected the last jump lead – BANG! The battery quite literally exploded, cracking the casing and spraying acid around. You will be shocked when you see the attached photographs – I had no idea car batteries could explode like this. Fortunately, neither myself or my colleague were injured. There then followed a frantic 30 minutes or so as we raced to remove the shattered battery from the car, swill the engine bay down with two or three buckets of water and then dry everything off.

As you can probably imagine, the Auty household was not a happy place to be that evening. I was convinced that the electrical system in the barchetta had probably been fried and that the car would only be useful as a source of spare parts for others. Neither myself or Jenny slept particularly well that night.

The following morning, I eventually sourced a new battery which I could collect immediately from Euro Car Parts – most other suppliers were only offering home delivery with a two to three working day lead time. With a very dry mouth, I installed the new battery in the barchetta – and she sprang into life at the first turn of the key! I checked all the electrical items on the car and everything worked perfectly. Relief is not an adequate enough word for how I felt! Jenny and I then took "The Bumblebee" out for a 45-mile top-down drive on what was a beautiful, hot, sunny afternoon.

I concluded that the battery which exploded must have been duff from the outset in May 2018. I took my credit card receipt/guarantee, my service notes to Turin Motors and the photographs of the shattered Yuasa battery to Halfords (who still supply the same one to fit the barchetta); they were extremely shocked and immediately gave me a full refund. Fortunately, one of the photographs clearly shows the battery's serial number which Halfords said would be useful in trying to trace if there had been a faulty batch manufactured.

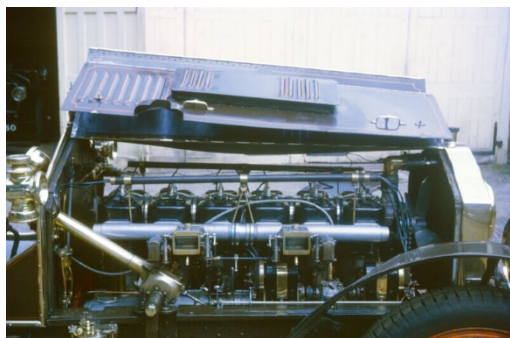
I posted this saga and photographs to the UK barchetta Club Facebook page and several people mistakenly commented " ... I can see what the problem is, you haven't removed the red transit plugs ... ", but another member kindly provided a link to the Yuasa website which indicates that there are no transit plugs and it is the battery's vent holes themselves which are red. If there HAD been any transit plugs which should have been removed, I was certainly NOT informed as such by Halfords when I purchased the battery, and neither were there ANY warning notices on the battery to this effect; furthermore, one would have expected Turin Motors to pick up on such a problem just a month later when examining the battery.

Hopefully, with the new battery and isolator switch installed, continual recharging is now a thing of the past.

In Italian, the word "barchetta" means "little boat", and in automotive circles is used to describe a style of open-top two-seat sports cars. As well as my Fiat, the name has been applied to vehicles from other Italian manufacturers, including several Ferraris, a couple of Maseratis and the 2002 Lamborghini Murcielago concept car; even the 2001 Aston Martin DB4 GT Zagato had the barchetta moniker attached to it. Our late, much-missed, colleague Barry Pelmore always used to enquire, tongue-in-cheek, how my Fiat "ciabatta" was; as a joke, I once presented Barry with an appropriately labelled bakery product, in the correct barchetta-style font, at

Steve Auty

Metallurgique – Maybach MM 1907

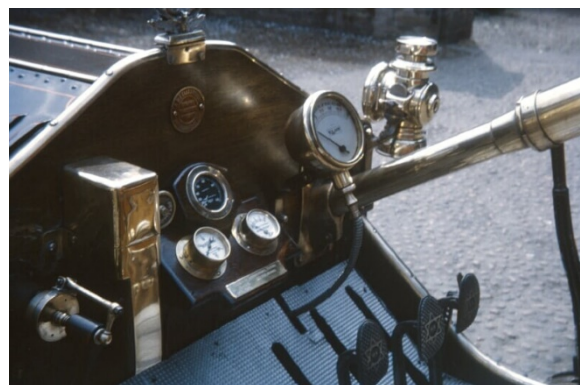


It might be of further interest to members if I explain how I came to be invited to ride in the car and tell the story of this motoring adventure.



Douglas welcomed me and we viewed the house, the garden and of course his cars. I recall a 1903 Achilles (featured in Georgano's encyclopaedia), 1904/5 Wolseley Siddeley, a beautiful Phantom 3 Rolls and of course the Metallugique Maybach reg. no. MM1907.

After dinner Douglas took delight in showing his collection of various musical boxes, nickelodions and early gramophones, including (he said) the actual model for the HMV record logo. The dog wasn't with it! A bare room was set aside for playing 78 records on a bamboo needled gramophone which had a huge specially designed speaker horn fixed in the corner of the room. Douglas carved a needle and I sat in the opposite corner thrilled by the superbly reproduced sound of a 1920s New Orleans jazz band.



Being summertime we had to rise very early if we were to catch the dawn and this was a perfect summer's day. Douglas employed a mechanic called Jerry Magewski who I was

informed had once worked for Mike Hawthorn. He lived in a flat “over the shop” and doubled up as butler. Douglas and Jerry went through the starting procedure which was that of a WW 1 Aeroplane; turn the engine over with a large bar, then “contact” and the beast burst into life. Jerry drove the first few miles and I occupied the single rear chair, feasting on the exhaust noise from the drainpipe exhaust and flames emitted on overrun. We ventured out into the Norfolk countryside on utterly deserted roads. After a stop to change places, Douglas took the wheel and I sat up front alongside him. Douglas explained the single speed instrument; a prominent but erratically calibrated rev counter mounted on the dashboard. The road speed on top gear was the rev counter reading x 8.9. There was a mark at about 11.5 (which was 1150 revs per minute) and another about 12.75 so you knew that anywhere within that region was over 100 mph. We set off and it was clear immediately that Douglas meant business. Sat up front one was impressed by the shear force of the wind on ones chest; it was necessary to make more than the normal effort simply to breathe! Sixty/seventy mph was achieved on a little over tick-over. After a few miles we rounded a bend to see a long, straight road stretching as far as the eye could see. Douglas opened the throttle; the front of the car leaned over under torque reaction and we shot forward. Up and up went the rev counter to 1000 rev/min and beyond. The countryside flashed by, the wind began to lift me from the shiny leather armchair and I had to brace my feet on the footboard and lean forward into the blast just to stay aboard. My mind was a swirl of exhilaration and fear as we sped along at 100 to 110 mph before throttling back for the next bend. The pace slowed and, as dawn broke we returned to the hall, no doubt waking the residents of Sheringham as the Zeppelin engine roared and spat its fire through the outskirts of the town.

That was and remains the most thrilling motoring experiences of my life; unthinkable on public roads today! It was very kind of Douglas to extend the invitation; he was a lovely fellow and wonderful company. The whole weekend was an experience I shall never forget.

Footnote

Sheringham Hall was designed in 1812 by Humphry Repton, who considered it his best house. The design was continued and modified by his son John Adey Repton. Commissioned by Abbot Upcher as a more suitable family house than the old hall, he died before the house was finished and it was 1839 before his son moved in. The house was surrounded by gardens and parkland, supported by some 2,000 acres of rich arable land. The last Upcher, Thomas, inherited the house in 1954 and moved there with Douglas, his lifelong companion until his death in 1985.

When Douglas died in 1986, the house and contents

passed to the National Trust. The inability of the Upcher trustees to furnish an endowment, meant that many of the contents had to be sold. Christie's held the sale at the house in October 1986. This yielded almost £2 million. A huge sum for furniture; but then it was very special.

The house is now let by the Trust on a long lease, but part of the grounds, including one of the best and largest collections of Rhododendrons in Britain is open to the public.

After Douglas Fitzpatrick, MM1907 was owned by VSCC member Brian Moore for over 30 years. It appeared in a recent Bonhams sale in 2019 but was unsold. I'm not sure who owns it now.



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Lockdown Entertainments.

If you thought Iceland was the home of Sagas, read this...

One of the perennial questions we have all been asked over the last few months is “have you been able to keep yourself busy during lockdown” I think anyone who owns a classic car will have been able to answer “YES” Last September we returned from a two-and-a-half thousand mile holiday in Northern Spain’s Picos de Europa mountains, the Pyrenees, the Dordogne, Loire Valley and Brittany. By the time we got home it was apparent that the TR6 needed some TLC.



Col de Tourmalet in the French Pyrenees

The main cause for concern was a ticking noise from the engine and general poor running. At this time Moss had a winter sale on and suspecting the noise may be caused by worn valve gear and/or camshaft I purchased a new camshaft and new rocker shaft complete with new bushed rockers, gaskets etc. to try and obtain all I was likely to need whilst they were still at sale price. It was then a week or two before I could start the stripdown. A compression test indicated number four cylinder had a problem, so off came the cylinder head and sump, and number four piston was removed, revealing that it was starting to break up between the rings. Now this is the second time this has happened, the first time being eight or nine years ago, also after a continental trip.

As long as I have had the car, twelve years now, I have never been able to stop it pinking, and have always used premium grade petrol to try and reduce this. Could the lower grade petrol on the continent have a bearing on this problem? Further investigation needed.

Pinking (a metallic rattling noise caused by the petrol/air mixture igniting too early) can have two root causes, over advanced ignition and/or too high a compression ratio. Since I had retarded the ignition as far as practicable, could the compression ratio be too high? So whilst I had the cylinder head on the bench I decided I should measure the combustion chamber volume and accordingly purchased a burette. Remember those from your chemistry lessons at school? Filling the combustion chamber with a measured volume of paraffin and then

performing some simple sums enabled me to work out the compression ratio. The standard engine CR is 9.5:1. A tuned engine may go up to 10:1 for fast road use on 99 octane petrol. My calculations revealed a CR of 11.26:1. No wonder I couldn't stop it pinking! It's a wonder the pistons had lasted as long as they had.

The reason the CR was so high was that the cylinder head had been skimmed to death in the past, and the only way to cure this would be to replace it with one that hadn't been skimmed as much. Trawling through Ebay every day didn't turn up any cylinder heads so I eventually bought one from TR Bitz. Obviously the following week Ebay was full of them! The "new" head was not in good condition and needed a complete overhaul.

I cleaned up the "new" cylinder head to the best of my ability and bought a new set of valves and guides from Moss and took it to Oldham Engine Parts for them to fit the guides and recut the valve seats. When I got it back they had fitted the guides OK but the recut seats still had odd rust pockets on some of the cylinders. They said they didn't want to cut them any further as they would be too deep into the head. Whilst all the valves had a continuous seal line visible I thought that whilst I may get away with it on the inlets, the exhausts, being subject to a much higher temperature, may deteriorate quickly. They didn't mention anything about fitting new seats, and I already knew they don't list that service on their website, so I didn't push it with them.

After I got it home I measured one of the combustion chamber volumes and I'm looking at a C. R. of around 9.8 to one, which should be a bit more like it. So I then took it to Engine Tekniks in Westhoughton who Ted Roberts has had dealings with for them to fit new exhaust valve seats. They have all the latest tackle for doing the job. The main man there, Paul, thought it needed skimming as well, but he could just take a minimum amount to ensure it's all flat, so hopefully the C.R won't go above 10:1.

This was just at the start of lockdown and I didn't know when, if ever, I would get it back. Imagine my surprise and relief when Paul rang me later the same week to say it was ready for collection! Time to start engine re-assembly. I honed No.4 bore and fitted a new piston. The big end shell was scored, presumably from some piston debris, but the crank still looked OK, so I took out all the other pistons to make sure they weren't breaking up as well. All OK so replaced them and fitted new big end shells. Cam followers were all moving freely and faces were smooth. Camshaft lobes all looked OK when peering down the follower bores so camshaft not disturbed. Ignition timing and injection not touched at all. Decision taken that a new camshaft was not required so new cam returned to Moss for a refund. The timing gears and chain were not touched as they were new two years ago.

Everything now back together and time to start the rebuilt engine for the first time. Turned the key, engine started and its making a horrendous tapping/knocking noise. Absolutely gutted. I'm afraid I just shut the garage door on it and retired to the house for four days. I'd been exchanging emails with fellow TR6 owner Chris Hipkins and four days later this is what I wrote: "I finally screwed myself up to go back in this morning. I've checked the compressions, no problem, the tappet settings, fine, run it with no fanbelt on - noise still there. I've removed each plug lead in turn to see if it made any difference to the noise and therefore show me which cylinder it's on, but that didn't make any difference to it.

I'm trying to decide whether the noise is at engine speed or camshaft speed so I've taken a video (OneDrive attached) which I'm going to play back on my computer to see if I can decide which speed it is in time with. I don't want to run it for too long at a time in case its doing some serious damage. I'm wondering whether I've not tightened a big end properly and one's come loose. Looks like I'll have most of the year to get it sorted though. I wondered if the valve springs were coilbound, so when I checked the tappets I specifically looked and the outer springs still had gaps between the coils. I couldn't see through to the inners, so I had a look at the old ones that were on the head when I bought it. I put an outer one in the vice and tightened it up till it was coilbound and measured it. Then did the same with the inner and its spacer and it was around 1/4" shorter, so I don't think there can be a problem there."

By now I was seriously wondering whether I had not tightened up one of the big-end bolts so I dropped the sump again to have a look. All OK. Bottom end fine, all cylinder head components new so the only thing left was the camshaft and followers. Off came the head again and to withdraw the camshaft from the front of the engine you have to remove the radiator and grille, remove a crossmember and loosen the steering rack. You

then unbolt the engine mounting and jack up the engine so that the camshaft can be withdrawn through the grille aperture. How long is this lockdown going to be?

Camshaft and followers now removed. The followers all looked fine and whilst the camshaft displayed signs of normal wear I couldn't see anything that might have been making the noise. However I thought that since it was all stripped out it would be foolish not to replace it with a new one. If you've been paying attention you'll recall that I returned the new camshaft to Moss for a refund. I now had to order another one.

New camshaft arrived and fitted. End float above permitted limits (original cam endfloat was fine). Contacted Moss to query this, they in turn contacted the cam manufacturer who said to go ahead and use it, there wouldn't be a problem. We shall see.

Replacing the camshaft means retiming the valves and the injection system, both of which involve making your brain hurt. Whilst doing this I was turning the engine slowly with a socket on the crankshaft nut when I heard a boinging sort of noise. On investigation I found that one pushrod at the point of maximum lift suddenly bent. It was as quick as snapping your fingers, and when it bowed it struck the inside of the cylinder head passageway, which was making the noise. Aha, I thought, got you, you B-----d. Took out the offending pushrod to check it for straightness by rolling it on a flat surface. It was ever so slightly bowed (about 1/16"), which is why I hadn't seen it before. Nothing wrong with this engine that throwing more money at it can't cure, so a new set of pushrods ordered.



It was around this time that whilst working on the engine I inadvertently touched my watch bracelet against the positive battery terminal. Shouldn't have done that. NOT a good idea. A bit warm. Eeh Ah were right cross. You will be pleased to learn that the offending terminal is now covered by a nice red plastic shroud. I ordered it on a Tuesday afternoon from Holden Vintage and Classic and it was fitted by Wednesday afternoon. Through the post! Not bad under lockdown! Great service. By this time Moss at Stockport was open again for parts collection, so pushrods collected and fitted. For any of you still reading this you will now be eagerly awaiting, as I was, the starting up of a newly quiet engine.

It's Groundhog Day. Started up, noise still there. Weeks ago Chris had told me that when he fitted new rockers to his engine a couple of years ago he had to remove some metal from the inside of the cylinder head passage to stop the pushrods from touching. This is caused by dimensional inaccuracies in the new rockers. I then received a message from Paul at Engine Tekniks that he had just worked on a TR6 engine with the same problem, which he solved the same way by removing metal from the head. Off came the rocker shaft, all new rockers removed and replaced by the old ones. Bingo! Noise gone.

I jubilantly emailed Chris to update him. He replied to say that he still had all his old rockers, some of which were still in good condition and if I wanted them I could have them. So a quick trip to Slaithwaite and I had a bench full of rockers to play with. I selected the best ones out of his and mine and that's what I'm now using. I've since contacted Moss's Technical Department and the chap said they have had this problem on a couple of previous occasions, but very few and far between. They put it down to slight differences between cylinder head castings. My current theory is that the difference in the rocker length means that even a straight pushrod may be persuaded to bend under extremis.

Whatever the actual cause of the noise, I was reluctant to modify the cylinder head and accept the altered rockers. Moss were very good about it and accepted back the new rockers and refunded my money, even though they had been used.

The good news then is that my engine is now running quietly and the one noise it has never exhibited with this cylinder head is pinking, so hopefully it will hang onto its pistons a bit longer now!

So if anyone now asks me “did you manage to keep yourself busy during lockdown”
See Above.

Deryck

[illegible]

Jump Starting a Classic Car: The hidden danger by a survivor

Many of our Members will be getting their car out of storage after the lockdown and finding their battery is flat. In order to help them "stay safe" can I politely suggest they read this article which I came across and which offers a salutary warning about such an apparently "simple" exercise.

I also hope that the huge efforts by Oxford University, my own university of Nottingham and many others around the world, will result in us all receiving a vaccine in the near future and hopefully we can then all relax. In the meantime..... stay safe. Hope to see you at a suitable distance in the near future.

Starting your car with jump leads is simple: get another car alongside, connect up, start the engine and you're away. But I now know the downside.

An apparently normal jump-start started a fire that could have killed me, wrecked my Aston Martin DB7 and BMW 730i, and burned down my garage. As it was, £2,000 of damage was done to the Aston and I now appreciate the need for adequate jump leads, the correct procedure and the potential for damage to both cars.

Many Astons have starting problems. Their electrical systems drain a 12-volt battery if left for more than a few days, and only the newest ones have a sleep mode. In four years of DB7 ownership I have got through three batteries.

I already had a trickle charger to plug into the cigarette lighter, which was fine except that I had to feed the lead through the window, which entailed leaving the alarm off. Aston Martin has now supplied a charger that feeds a socket in the boot and exits under the lid so the alarm can stay on.

Last winter, however, I was without this device and my Aston's battery was flat just a day after a 200-mile run. With the car in the garage, I reversed the BMW up and took out my "heavy duty" jump leads. I connected them to both batteries, started the BMW, went into the garage and switched on the Aston.

It didn't start, but flames and acrid smoke shot from its boot toward the BMW as the leads' coating melted, scattering gobbets of flaming plastic. The fire hazard was somewhat intensified by the paint store on one side of the garage and a heating boiler and shed full of dry firewood on the other. I was stuck at the back of the garage and to escape I would need to squeeze past both vehicles.

I killed the DB7's ignition, broke the jump-lead connection (the crocodile clips were coming away from the wires) and ran past the Aston. I then drove the BMW clear, smothered the fire and shakily rang the RAC.

The patrolman looked tearful as I explained how close two prized cars had come to destruction; he said I was lucky to get out alive. He reassured me I had connected the jump leads correctly, then diagnosed the causes of the fire.

The leads might have looked superficially sturdy, but their aluminium cores could not handle the amps generated by a modern alternator. He also said the Aston's battery was too flat to cope with a hefty charge-up generated by the BMW, which had detected a flat battery and was belting out the amps to charge it up. He said that I should have connected everything without the cars started, then gone for a cup of tea while the battery acclimatised.

I rang the AA's technical department to find out more. They first advised me the safe order to attach jump leads: I clamp the positive/red jump lead to the positive/red terminal of the flat battery, then the other end to the positive/red terminal on the good battery. After that clip the negative/black jump lead to the negative/black terminal on the good battery and the other end to the negative/black terminal on the flat battery.

To be absolutely safe and avoid the very small risk of an explosion caused by a spark igniting the hydrogen coming off the charging flat battery, don't attach jump leads to that battery, but instead clip the red lead to a distributor box under the bonnet and the black to the engine. If you are trying to jump start an old, classic car, be very careful that you are dealing with the same wiring polarities, as many of them have positive earths. The AA also said that it is best to connect up, run the engine of the donor car, switch off after 10 minutes, disconnect the leads and then try to start the car with the poor battery. Remember to keep the jump leads clear of rotating engine parts and hot exhausts.

The AA said it is best policy not to try to start the car with jump leads still connected and also to keep both ignition keys in your pocket, as occasionally, when systems kick in, they can activate the central locking.

My BMW was almost unscathed, but the DB7 was taken away for evaluation and repairs; by chance its overhaul and MoT were due. The damage was superficial, except to the CD stack, but the fire had knocked out the electrics, so a new radio was needed, too. Aston Martin also fitted the beefiest battery it could find.

I now have my DB7 back and I shall now use my trickle charger religiously, but I also have a set of very expensive copper-cored jump leads and two fire extinguishers in the garage. Better safe than sorry.

Tony