

# NORTH HAMPSHIRE AUSTIN ENTHUSIASTS GROUP



## MAY 2016 NEWSLETTER

### CHAIRMAN'S CHUNTER...

So, after a mild winter, a cold spring, we fried in the sun at the Thorneycroft Festival! Despite the cool weather, we very much enjoyed 'Drive it Day' on 24th April. Thanks to Trevor and Jean for devising a very scenic route from Stratfield Saye to the National Trust's Mottisfont Abbey in Romsey, via Overton (my Father's care home) and the Coach and Horses in Sutton Scotney for lunch (*page 2*). Thanks also to Ken Couzens for coordinating entries to the Thorneycroft on Sunday 8<sup>th</sup> May.

Fingers crossed now for some consistent weather which would be perfect for building our new garage and bungalow extension!

Hope to see you all on May club night for Andrew's Music quiz. 'The NHAEG Member Interview' (*page 6*) features Dave & Hazel Holland, while Aunt Brassica (*page 16*) continues to try to sort out readers' questions. As usual, we have lots of goodies in between!

*Simon*

### CLUB NEWS

#### Spring Airing Club Night Monday 11<sup>th</sup> April

There was just enough light at 8pm on Monday 11th April to allow members to browse the seven cars that made it to 'The NHAEG Spring Airing'. Others may have been deterred by the weather - it had rained solidly the previous few days and only just dried up in time. Other cars were apparently still being fettled ready for 'Drive it Day' on the 24<sup>th</sup> (*see page 2*).



#### Successful launch for the Pinewood Centre Sunday Car Meet

The Pinewood Centre (Old Wokingham Rd, Wokingham, West Berkshire RG40 3AQ) finally obtained permission for a monthly classic car meet and the first one took place on Sunday afternoon 24th April.

With a really good turnout of classics from a pre-war Stutz through to a post-war Austin Vanden Plas, including Gavin's Austin 7, it has already established itself as a worthy successor to the White Lion Classic Car Meet.

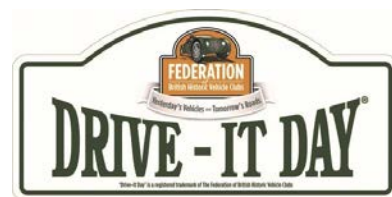


Details for the next meet can be found online or on Facebook.

*Editor: John Pratt ([edmundjohnpratt@hotmail.com](mailto:edmundjohnpratt@hotmail.com))*

## NHAEG 'Drive It Day' 2016 - Sunday 24<sup>th</sup> April

Looking out of the window it was clear that a few ominous drops of rain were already falling, when the telephone rang. It was Ann (Greig) announcing that Colin had been feeling unwell throughout the night and to their considerable dismay they would have to drop out of the D.I.D. run. Not a great start to the day.



The weather forecast for *D.I.D.* 2016 had not been very encouraging; bitterly cold winds coming from the North, but remaining largely dry until later in the afternoon, if the Met Office was to be believed at all. Wrap up warm seemed the best advice so rather than having the hood fully down on 'Clarissa' (the generally preferred option) we chose to simply roll it halfway back and see how that felt bowling along at a steady 35 m.p.h. or so. In the event, although initially a little damp, the rain did not develop further and the sun quickly showed itself; in fact, it was found to be pleasantly warm, streaming in through the open roof as we travelled to the 9.30 a.m. rendezvous point, the Wellington Farm Shop Café, near Heckfield.

There Jean and I found that, true to her promise, the café manager had kindly reserved a number of tables for those of us doing the D.I.D. run and requiring a caffeine fix before setting off. Drinking our coffees, it was a slightly anxious wait before the first members arrived – Clive Jackson in his 1934 Austin Ten and Peter and Lenka Kenrick in his (Dad's) borrowed MG. A bit of *ad hoc* maintenance on Clive's Ten, which had lost a front bumper bolt somewhere along the way, was immediately obviously required and quickly addressed, using a couple of stout cable ties which seemed to do the trick.



Eventually 17 members, driving an eclectic mix of vehicles - two Austin Tens, a Morris Minor, MG, Peugeot 404, Daimler V8, 1926 Top Hat and a couple of moderns (*not* overly decorated in honour of St. George, it has to be mentioned), with all occupants duly issued with route 'cards', set off heading for a 'whistle-stop' at the Beech Tree Care Home, in Overton, where we were due to be inspected by our Chairman's (Simon), father and some of his fellow residents at the home.

We arrived there at about 11.15 and were met by Simon and Denise who has gone straight there. Although sunny, the front of the building was largely in shadow and it was felt unwise to keep elderly folk out in the chilly weather for too long so, after a brief stop of about 20 minutes, we were on our way again to the lunch-time stop at the 'Coach and Horses' in Sutton Scotney. We arrived there shortly after noon though not without losing one of our number – Clive – who, being severely hampered by not having a navigator and therefore having to keep sight of the vehicle in front, was reportedly observed heading off in the wrong direction shortly after being held up at the level crossing in Bramley.

This choice of hostelry, in Sutton Scotney, proved to be an excellent one. We were met in the car park, not only by Andy and Do (Ranson), also in their Moggie, who, fortuitously, were on their way back to Weymouth, from a trip to Sussex (to ride the Bluebell Line railway) and were able to join us for the remainder of the run, but also by Phil, one of the staff members who welcomed us all to the pub



where our tables were awaiting us set up in a separate, dedicated area. This, indeed, was the case and we were soon comfortably seated in a cosy room which accommodated us all perfectly. The meals, served soon after we were settled, turned out to be superb – in quality, quantity *and* temperature, not always the case, of course. This 'Coach and Horses' can be heartily recommended.

Having been served so promptly and efficiently we were able to continue on our way, on schedule, towards our ultimate destination – Mottisfont Abbey – where we arrived shortly after 2.00 p.m. finding many impressive improvements, especially to the reception area, since the last visit Jean and I made. At this point everyone 'did their own thing' visiting the house (Abbey), gardens, grounds and naturally, the catering facilities before, a couple of hours or so later, thinking about starting the return journey.



In the car park we met up with Denise who, speaking to Brian and Jana (Adam) was earnestly trying to source a supply of brake fluid. Seemingly she and Simon had returned to their vehicle (1971 Sprite) only to find the clutch ineffective – clearly due to a loss of fluid in the clutch line. As might be assumed, her pleas to Brian (and me) for help on this issue proved particularly fruitless due mainly to the fact that Herbert Austin did not deem it necessary or even wise to adopt hydraulic brakes until the very late 30s (he obviously had an ample stock of cables and rods which he was anxious to use up before he got involved with any such new-fangled gadgetry). However, the AA, having been summoned and Simon and Denise being kept company, by Andy and Do (Ranson). In the meantime, the Sprite's fluid reservoir was duly topped up and they made it safely back home. Oddly, there had been no sign of fluid leakage under the vehicle so perhaps the least said about the Sprite's routine maintenance schedule the better!!!

After this little diversion, we set off back home, leading Brian and Jana for most of the way to avoid their having to painfully 'reverse' the instructions getting to Mottisfont.

On overall reflection the weather for D.I.D. was *much* kinder than predicted, the hospitality at our chosen 'watering hole' first class and, best of all, no-one had to return home on the back of a recovery truck (although it later transpired that Clive going 'AWOL' was because, having become 'lost' and the engine of his Ten starting to play up, he wisely decided to limp home.)

All in all, 82 miles later, it appears that everyone who made this year's run found it pleasurable and did their bit to keep the spirit of "*Drive it Day.*" alive and kicking.

*Report by Trevor Edwards*

## **Welcome to New Members**

Hello to Adrian Walker who joined for the last club night. Adrian has an MGB, but we're going to be working on him.



## The 'Thorneycroft' Basingstoke Festival of Transport Sunday 8<sup>th</sup> May 2016

As in previous years NHAEG, joined forces with the Hampshire Old Timers Motor Club coordinated by Ken Couzens. The day was sunny and blisteringly hot (over 25degC).

The two fields of the War Memorial Park were filled with a huge range of vehicles, including classic cars and commercial vehicles, buses, fire engines, ambulances, military trucks, and a variety of specialist car clubs, trade stalls and catering outlets. It was nice to meet other Austin owners from further afield.

The Editor's top pick was the caravan towed by Tony & Pat W's 1936 Austin 12/6 Ascot. Many of us hadn't seen it before and couldn't believe our eyes as it serenely entered the showground and was sited. Traditionally constructed of wood & canvas (apart from the axle & wheels!), this addition to their fleet is going to replace their tent!



## OTHER RECOMMENDED EVENTS FOR MEMBERS TO ATTEND

### Merrist Wood Agricultural College - Sunday 15th May 2016

Merrist Wood Agricultural College Annual Summer Show has proved to be very enjoyable in the past. Trevor says it really is a quite excellent show with something for everyone, young and not-so-young! Quite apart from it attracting a large gathering of classic and vintage vehicles, of all types - 2,3, 4 and more wheeled - the Merrist Wood Summer Show, to be held on Sunday 15th May this year, in the grounds of the Merrist Wood Agricultural College, in Worplesdon, near Guildford, has a variety of attractions including, countryside crafts, log carving, a funfair, many stalls and sideshows, flower arranging displays, model railways, tree-climbing opportunities, (for adventurous youngsters) and much, much more.



Family tickets are £20, Adults: £7 and Concessions £4. Although registration to exhibit has officially closed, club members are welcome to attend the event. For further information, see [www.merristwood.ac.uk/NewsEvents/Events/ClassicCarShow.aspx](http://www.merristwood.ac.uk/NewsEvents/Events/ClassicCarShow.aspx)

### The 'BEN' Run - Saturday 25<sup>th</sup> June 2016



Starting near the BEN Retirement Home in Sunningdale, Trevor says that the Run itself (roughly 18 miles or so) is always very enjoyable as it travels partly on roads in the Crown Estate in Windsor Great Park, which are normally closed off to traffic - and ends up at a large recreation field with several sideshows and attractions.

This event is really an '*invitation only*' event – now is the time for anyone wishing to take part to contact Eamonn Galligan via his email address ([eamonngalligan@aol.com](mailto:eamonngalligan@aol.com)) to register an interest. Entrants are expected to make a 'donation', which, last year, was a minimum £25.00!

## Club & Events Diary 2016

Please let John ([edmundjohnpratt@hotmail.com](mailto:edmundjohnpratt@hotmail.com) or 01252 643527) have details of any events that NHAEG members might be interested in, to add to this compilation:

NHAEG	2016 Dates	Club Nights	Arranged by or details from
	Mon 9th May	Music Quiz	Andy
	Mon 13th June	Half Gallon Run	Pat & Tony Westhall
	Mon 11th July	Coveted car & valuations	John P
	Mon 8th August	Walking Rally	Jeanette
	Mon 12th September	Speaker Night – The Brooklands Trust	John P
	Mon 10th October	Shoebox Rally	Don (tbc)
	Mon 14th November	Auction Night	Colin, Don & Trevor
	Mon 12th December	Festive Fun	tba

NHAEG	2016 Dates	Club Lunch Meetings	Contact
	Mon 23rd May	The New Inn	Colin
	Mon 27 <sup>th</sup> June	The New Inn	Colin
	Mon 25 <sup>th</sup> July	The New Inn	Colin
	Mon 22 <sup>nd</sup> August	The New Inn	Colin

Organiser	2016 Dates	Other Events & Location	Contact
Brooklands Museum	Sat 14th May	1940s Relived at Brooklands	<a href="http://www.brooklandsmuseum.com">www.brooklandsmuseum.com</a>
Merrist Wood College	Sun 15th May	Merrist Wood Summer Show, Worplesdon, Guildford	Pre-booking necessary. See <a href="http://www.merristwood.ac.uk/NewsEvents/Events/ClassicCarShow.aspx">www.merristwood.ac.uk/NewsEvents/Events/ClassicCarShow.aspx</a>
Fawley Hill	Friday 20th-21st May	Fawley Hill Vintage Extravaganza, Henley	Pre-register essential at <a href="http://www.fawleyhill.co.uk">www.fawleyhill.co.uk</a>
Beaulieu Museum	Saturday 21 <sup>st</sup> -22 <sup>nd</sup> May	Spring Autojumble	<a href="http://www.beaulieu.co.uk/events/spring-autojumble">www.beaulieu.co.uk/events/spring-autojumble</a>
Brooklands Museum	Sunday 22nd May	Brooklands Classic Breakfast	<a href="http://www.brooklandsmuseum.com">www.brooklandsmuseum.com</a>
Hartley Wintney Festival	Saturday 11th June	Classic Car Show at the Village Festival	Entry Form from David Preston <a href="mailto:classiccars.hwf016@btinternet.com">classiccars.hwf016@btinternet.com</a>
Watercress Line	Saturday 11th-12th June	War on The Line Event	<a href="http://www.watercressline.co.uk">www.watercressline.co.uk</a>
Essex Austin 7 Club	Sunday 12th-17th June	The Only Tour is Essex (& Suffolk)	<a href="https://ea7c.wordpress.com/">https://ea7c.wordpress.com/</a>
Brooklands Museum	Saturday 18th-19th June	Brooklands Double Twelve Motorsport Festival	<a href="http://www.brooklandsmuseum.com">www.brooklandsmuseum.com</a>
BEN	Saturday 25 <sup>th</sup> June	The BEN Run starts near the BEN Retirement Home in Sunningdale	<a href="mailto:eamonngalligan@aol.com">eamonngalligan@aol.com</a> (or Trevor E or Andy B)
750 MC	Sunday 3rd July	National Austin 7 Rally at Beaulieu	Ian Nelson tel: 01932 863073; email: <a href="mailto:ian.s.nelson@bteinternet.com">ian.s.nelson@bteinternet.com</a> <a href="http://www.beaulieu.co.uk/events/austin-seven-rally/">www.beaulieu.co.uk/events/austin-seven-rally/</a>

Watercress Line	Sunday 17th July	Alton Bus Rally	www.watercressline.co.uk
<b>NHAEG</b>	<b>Sunday 31<sup>st</sup> July</b>	<b>Picnic in the Paddock, Finchhampstead</b>	<b>Peter K</b>
Beaulieu Museum	Saturday 3 <sup>rd</sup> -4 <sup>th</sup> September	International Autojumble	www.beaulieu.co.uk/events/international-autojumble
Cobham Heritage	Saturday 10th Sept	Cobham Heritage Day classic car gathering	Ian Nelson tel: 01932 863073; email: ian.s.nelson@btinternet.com
Camberley Car Show	Saturday 3 <sup>rd</sup> September	Vintage, Classics, Customs, Hot Rods, Motorbikes, Entertainment	By invitation only: contact Ken Bonner kenbonner@btinternet.com
Watercress Line	Friday 21st-23rd Oct.	Autumn Steam Gala	www.watercressline.co.uk
<b>NHAEG</b>	<b>Mon 5<sup>th</sup> December</b>	<b>Christmas Dinner, The Mill House, Nth Warnborough, Odiham</b>	<b>Elaine</b>

<b>Club</b>	<b>2016 Dates</b>	<b>Inter Register Event &amp; Location</b>	<b>Contacts as below, or talk to Trevor, Colin or Tony W for information</b>
Riley	Sat 4th June	Batho Trophy Worcestershire	Tom Pellow tom.pellow@zen.co.uk
Humber	Sun 10th July	Navigation Rally Dorset	Dick Arman thearmans@googlemail.com
STD	Sun 31st July	Gymkhana	tba
Riley	Sun 21 <sup>st</sup> August	Rally Thames Valley	Richard Scott rscottok@btinternet.com
Crossley	Sun 18th Sept	Treasure Hunt North Yorks	Stephen Weld Tel. 01765 658569
MGCC	Sun 9th Oct	Autumn "Naviscat" Surrey/Sussex	Roger Thomas mmmfixit@hotmail.com
<b>ATDC/ NHAEG</b>	<b>Sat 19th Nov</b>	<b>"Nightjar" Scatter/Orienteering Surrey/Hants/Berks</b>	<b>Trevor Edwards trevor_c.edwards@btinternet.com</b>

## THE NHAEG MEMBER INTERVIEW – DAVE & HAZEL HOLLAND

### The Member Interview – Dave & Hazel Holland

Editor: When did you first realise that you had an interest in cars (and how)?

Dave: I first got to know Hazel when I was 14, then we started going out when we were 16. At the time, Hazel rode an NSU Vincent – in jeans and no crash helmet! Our interest in motorbikes and then cars developed together.



Editor: What was the first car that you owned?

Dave: We had a BSA Scout 3 wheeler, which you had to push to start. The brakes were inboard and inevitably oiled up, leading to me failing to stop at the iron gates to Hampden Park near Eastbourne, which is where we came from. After an early Fiat 500, we had a 1938 Morris 8, which seemed to adopt a more sporting stance on a daily basis – but eventually, when the doors and bonnet wouldn't open, we realised that the chassis had rotten away and the car had broken in half!



Editor: What is the most interesting car that you have driven?

Hazel: We loved our Riley RM. Although it was only the 1.5 and a bit underpowered, it would reach 70 mph with quite a bit of shuddering and then would go on to reach nearly 100. But work and practicality meant it gave way to an Austin A40 'Devon' van.



Editor: Have you had any scary experiences at the wheel?

Hazel: There was the occasion when Dave thought that he had died and gone to heaven! It was early one foggy morning and he missed a sharp bend in the Minivan – when he came to, he saw a white ghostly figure hovering over him, saying "Are you alright mate?" It turned out to be a milkman!

Editor: As a confirmed petrol-head, what else have you got up to?

Dave: I had been parachuting as a hobby from Thruxton and Blackbushe and this led to me (naturally) learning to fly. Having qualified, we had a share in a Piper Tripacer and later a Rallye and then a Robin, culminating in 2000 fixed-wing flying hours in the logbook. This (of course) led to helicopters and I formed an import business with two others to import kits for the Rotorway Scorpion 133 from the USA. I had 200 hours on this and was the only CAA Accredited Type trainer for this machine.



Then, of course I have always had a motorbike, currently a Yamaha Fazer 1000, which is good for 140mph, but hurts your eyeballs...

Hazel: He goes out with our son and/or my brother on 'Boy's Holidays' (on their Fazers, which are all in our shed), but I won't go on the pillion of these bikes because you sit up so high with your hands behind you...



Editor: How did you come to buy your first old Austin?

Dave: My cousin bequeathed us his Austin 7, a Pearl cabriolet, which led to us joining NHAEG some 15 years ago. We used it on high days and holidays, including a couple of trips to the continent. But ultimately we started to think of finding something a bit more comfortable that we could use more regularly. So when we received an offer for it, we moved on, buying the Morris Minor 1000.



Editor: Did you always tinker with cars? Do you have an engineering bent?

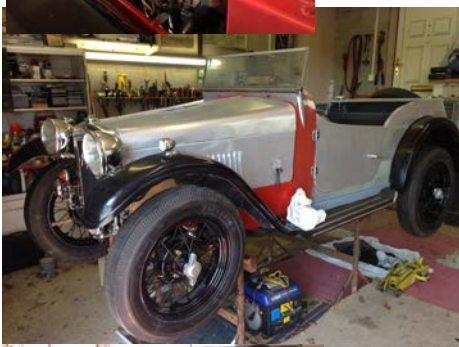
Dave: In our era, we all tinkered with cars, but with my current project (the Comet) I decided that I would restore and fabricate as much as possible myself. I'm particularly proud of the louvres in the bonnet.

Editor: What prompted you to buy a second Austin?

Dave: Having fettled the Morris, I found myself looking for a project – and I had some Austin spares. But I found the Ruby donor car for my Comet project at a house near Didcot.



(The Comet was originally an Australian bodied Austin 7 built between 1924-34.) I just fancied building a special and liked the look of it – it has the look of a classic sports car with a 'slab-tank'.



So, starting with a Ruby chassis, I have a competition engine with twin SU carbs, a close ratio gearbox (unfortunately with straight cut teeth), modified front suspension and wide sports wheels (4.50x16). I've



fabricated the body myself and had a short radiator built to give it a more sporting look.

Editor: What have been the high points of Austin ownership?

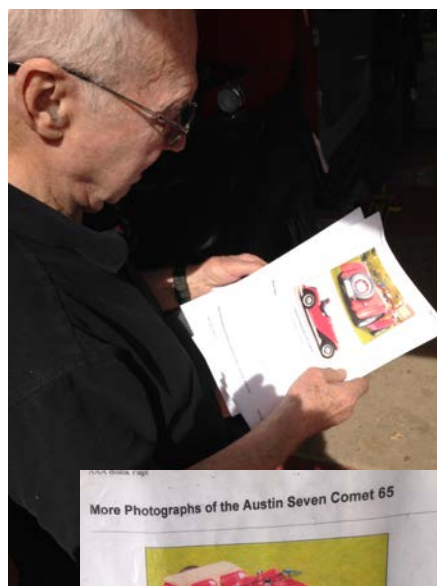
Dave: Belonging to NHAEG – it has given us so many friends and fun – especially the Warners' holidays.

Editor: What have been the low points of Austin ownership?

Dave: Luckily, we seem to have avoided being towed home. But the Comet build has taken a long time and occasionally my morale slips (especially after seeing the skill of the Morgan cars' craftsmen!).

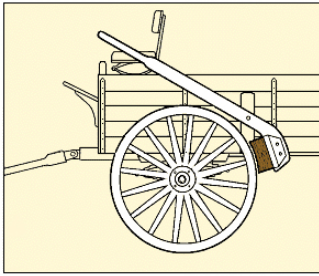
Editor: Do you have enough garage space?

Dave: Only just, as during all this, we found another Ruby chassis, engine and steering wheel in a field, heavily preserved by cow dung and then, of course, added to that, we have another chassis hanging up in the garage and a shed full of spares...





## COMING TO A HALT – PART 1: THE DEVELOPMENT OF POWERFUL BRAKES



The wooden block and lever

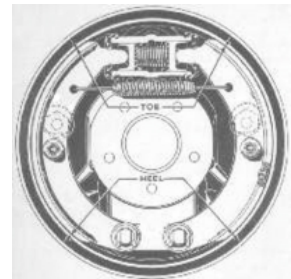
Well before the Roman Empire, one of the first types of brakes was a very crude system of a brake lever that pressed a simple wooden block against the wheel. This slowed the cart down by friction and, in later times, was effective for both horse drawn or steam powered vehicles. But this simple system started becoming obsolete towards the end of the 1890s, when the Michelin brothers began replacing steel rimmed wheels with the rubber tyre.

In 1899, Gottlieb Daimler came up with the idea of wrapping a cable around a drum and anchoring it to the vehicles chassis. The forward motion of the car tightened the cable, making it easier for the driver to pull the lever and get the wood block to do its work. What Daimler had designed was an early attempt at 'servo assistance'.

However, the man generally credited with the development of the modern day drum brake is French manufacturer Louis Renault, in 1902. Yet, crude concepts of the drum had existed before that. For example, Wilhelm Maybach had used a similar, yet simpler, design a year earlier.

The early types of braking system were all external, a feature which soon turned into a problem. Dust, heat and even water rendered them less effective. It was time for the internal expanding shoe brake. By placing the shoes inside the drum brake, dust and water were kept out, allowing the braking process to remain effective. These were initially cable actuated but, as Austin owners will know, have many deficiencies – being supplanted in due course by rod actuation, then by hydraulics.

The end of these mechanically-activated brakes took some 20 years, due to the complication and cost. It started in 1918, when Malcolm Loughead, one of the founders of what later was to become Lockheed Aircraft Corporation, came up with the idea of hydraulic actuation. Loughead had put together a four-wheel hydraulic-brake system for cars. This system used fluids to transfer the force on the pressed pedal to the pistons and then to the brake shoes.



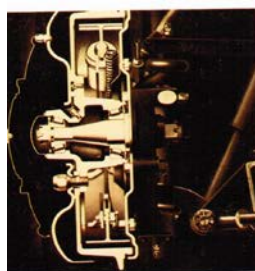
This four-wheel hydraulic system was first used on the 1918 Duesenberg and quickly caught on, mostly thanks to the fact that it made braking this heavy car much easier than with a mechanical system. By late 1920s, this system was fitted on most high-priced American vehicles, but it only slowly expanded across



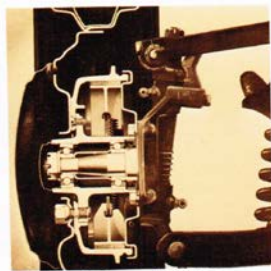
the automotive world. Some 10 years later, in the US, only Chrysler, Dodge, Desoto, Plymouth, Auburn, Franklin, Reo, and Graham had hydraulic brakes. All the others still had cable-operated mechanical brakes. In fact, it was not until 1939 that Ford finally gave in, becoming the last major US manufacturer to switch to hydraulic brakes.

Back in the UK, Girling of Tyseley, Birmingham, had started up in 1925 as a car brake manufacturer after Albert H. Girling patented a wedge-actuated braking system.

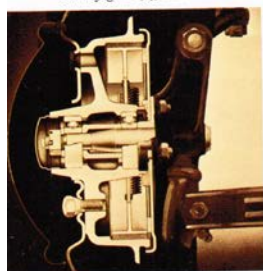
Not long after, Lockheed Hydraulic Brake Company Ltd was established in 1928, to manufacture brakes to Loughead's design. Starting with 25 employees their first contract was with Wolseley cars, who had recently been taken over by Morris.



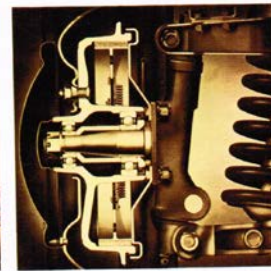
On the Jaguar 1949 X.K.120



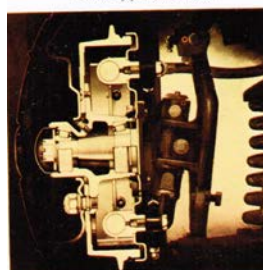
On the 1951 Austin A.30



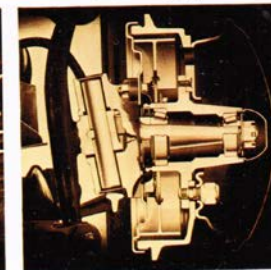
On the 1948 Morris Minor



On the Wolseley 4/40



On the 1947 Standard Vanguard



On the 1947 Humber Hawk

In 1952 Lockheed introduced the two leading-shoe brake system, with its lighter pedal pressure and 40% improved braking performance – initially fitted on racing cars by ERA, Mercedes, Auto Union and the Jaguar XK 120C.

As the vehicles spilled out the assembly plants, they started becoming both faster and heavier. Hydraulic drum based brakes were effective, but they had a tendency to ineffectively distribute heat. This feature led directly to the development of the disc braking system.

First patented in 1902 by William Lanchester, the disc only became popular in the 1950s. In the US, Chrysler became the first manufacturer to implement the system on its vehicles (the Imperial) - using the disc brake in conjunction with Loughhead hydraulics.

In Europe, a Lockheed system was fitted to Capt. George Eyston's world land speed record breaking (357mph) car in 1937. The story of Jaguar exploiting the fade-resistance of Dunlop disc brakes to help win their first Le Mans race with the C-type in 1953 is well known. Subsequently, all C and D type Jaguars were equipped with discs.

By then, the Lockheed disc brake was more widely adopted by Jaguar (XK), Triumph (TR3) and by 1955 Citroen (DS), then later the Wolseley 6/99, Austin A99, Sunbeam Rapier and MGA 1600. Despite the Austin A40 Devon having played an important role in developing Girling disc brakes, the first Austin saloon to have them, the big Farina A99, didn't appear until 1959. By this time, front disc brakes had become increasingly common, while the more advanced Jaguars and Rovers soon had four wheel discs.

Ironically, the disc brake system had been dropped quite quickly in the US, as it still required significant effort from the driver to operate it. It was only in 1964 that it made its final comeback, featured on the Studebaker Avanti, fitted with a power braking system. But still, the heavier weight of American cars really needed ventilated discs.



The evolution of the brakes mechanism has since slowed down, but control systems took off. ABS (Antiblockiersystem), electronic brake-force distribution (EBD), brake assist and many other systems have come to help braking become as effective and as safe as it can be.

Dunlop developed the first anti-lock braking device, called Maxaret. First used by the aviation industry to prevent aircraft wheels from locking when landing on wet runways, it meant that pilots could apply the brakes fully the moment the wheels touched down. The system was first applied to a car in 1965.

In Part 2 of this story, in our July issue, we will follow the rise and fall of the UK brake manufacturers – a salutary tale reflecting the state of British industry in the 1980s.

*Contributed by the Editor*

## TECHNICAL MATTERS – WINTER SPECIAL

### Part 4 – Concluding ‘DynaWoes’ written by Andy Seager

Concluding last month’s article, which focused on charging systems that don’t want to come out and play. In Part 3, we looked at dealing with a lazy dynamo – while issues with the cut-out (or regulator box) and wiring may occur - the chances are that the dynamo is to blame, particularly after a winter layover.

Last month we looked at checking the dynamo condition for obvious internal defects including the wiring, commutator and brushes. Once you’ve been through those steps, put everything back as it should be and then started the car, revved the engine, checked that the cut-out operates and that the ammeter shows a positive charge (when the revs are somewhere around the level at say 30MPH in top gear) – and things are no better! Then read on.

If the charge still fails, we need to assess the integrity of the dynamo by measuring or ‘witnessing’ its function. Now that we’ve performed a visual check we need to establish if the machine is capable of generating sufficient electricity, there are two things we can do:

**Option 1:** Leaving the dynamo in the car, disconnect the wiring harness completely and insulate the wire ends and get them out of the way. Next put a metal strap (a paper clip is good) between ‘D’ and ‘F’ on the dynamo (connect the output to the field winding).



Then connect one lead of a multi-meter (polarity is determined by the car being either +ve or –ve earth) to the wire strap and the other to a reliable earth. Set the range to ‘volts’ and choose a range that is well in excess of the expected dynamo output, since off load the output voltage will be much higher than its nominal rating. So on 6 volt cars set it to 20 volts or so, on a 12-volt car set it to 30 volts or

above. Start the car and watch the volt meter – as you rev the engine you should see the voltage rise substantially, expect around 12-18 volts on an unloaded 6-volt machine and 25 volts or so on a 12 volt one.

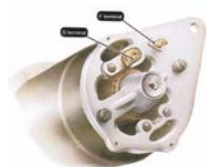
If the output conforms with the above, then your charging problem resides elsewhere – more on that in a while. If the output is zero or negligible then:

On a two brush dynamo try Option 2 below, if no result then the machine needs specialist attention.

On a three brush machine, shift the third brush (you may have to try both directions of travel, move it carefully in small increments with the engine and ignition off) to see if you can bring the output into range – if you cannot then try Option 2, or the machine needs specialist repair.

**Option 2:** You’re here either because you don’t have a voltmeter or because the test above yielded zero output from the dynamo. Either way the dynamo is going to have to come out of the car.

Let’s just deal with the ‘last ditch’ in the case that you followed Option 1 above. It might just be that the machine has lost its residual magnetism – it’s not likely if the car has been used within a year but it is possible. The following test will re-establish the machine’s residual magnetism and after this it may then function again – it’s worth a shot!



OK – so in either case you have the dynamo out of the car, we’re now going to see if it ‘motors’ after all a dynamo is an electric motor! The best thing is to use jump leads and the car’s own battery (assuming its charged!). You’ll need that strap between ‘F’ and ‘D’ as opposite. Connect one of the jump leads to a good earth on the car and the case of the dynamo. Making sure you do this the right way round for your car,

connect one end of the other lead to the car’s battery (the +ve battery terminal on a negative earth car and the –ve battery terminal on a positive earth car). Hold the dynamo still with your foot and touch the

lead from the battery to the strap – the dynamo should spin just like a motor; you will get a spark as you connect – don't panic! However, if the machine does not turn immediately then stop. Note: The motor action is quite gentle; the machine won't try to jump across the floor.

If the dynamo does not spin up on its own – it needs specialist attention. The process of 'flashing' the dynamo like this will establish the residual magnetism in the soft iron core of the field windings – so if it produced nothing in Option 1 above but it subsequently motored then there is a chance it will now work when you put it back in the car.

At this point you should have proved if the dynamo was:

1. Not functioning at all – so it needs specialist attention
2. Was persuaded back into life after being 'flashed' across a battery – so put it back in the car and test.
3. Is working pretty much as expected – so the charging fault is elsewhere

If the dynamo appears to be working and you still have no charge, then you may have an issue with one of the following:

There is a wiring issue – further investigation with a meter will be necessary, test for continuity on each wire run with BOTH ends disconnected.

On a three brush system if either half or full charge works but not both, then the switch might be at fault or the half charge resistor is broken or disconnected (The switch connects 'D' directly to 'F' when shut and the half charge resistor across 'D' and 'F' when open)

The cut out and/or the regulator box has a fault – assuming it's not a seized armature or dirty contact then a swap out is probably the best way to confirm that.

Back to where we started, electrical faults can occur anywhere, this process provides some structure and method to identify where a charging fault might reside. Experience suggests dynamos are more problematic than cut-outs and regulator boxes – but don't assume anything. The only sure way is to diagnose by testing!

## **This month's 'Tip for Spannermen' from Malcolm Ryley**

### **Tyre Work.**

When taking tyres from a rim, my Dad used to tell me, "Start at the valve" and when replacing, "End at the valve" - good advice. A tip in breaking the initial adhesion of the tyre to the rim when the tyre has been on for some time, is to use a suitably sized G clamp to squash the sides of the tyre together, the clamp on the spoke side with a spoked wheel.

One of the difficulties in fitting an inner tube back into the tyre is locating the valve stem into the hole in the rim. Broken finger nails tell the story. There is a tool available on the internet, I believe, called a fishing tool, which comprises a close fitting threaded tube which screws on to the valve stem with a length of flexible cable that goes through the valve hole in the rim and allows the stem to be pulled through. I was planning to make such a tool before I found they already existed. No need to reinvent the wheel then!!

The lubricant that tyre fitters use is available from the internet, better than French chalk used in the old days. Tyre levers are required to remove a tyre, but re-fitting can be done without levers, but with the aid of stout boots and a bit of kicking. When fitting the tube, a little pressure in it prevents it being pinched by the tyre.



## AUSTIN HISTORY

### Queries of The Month from Andy Ranson

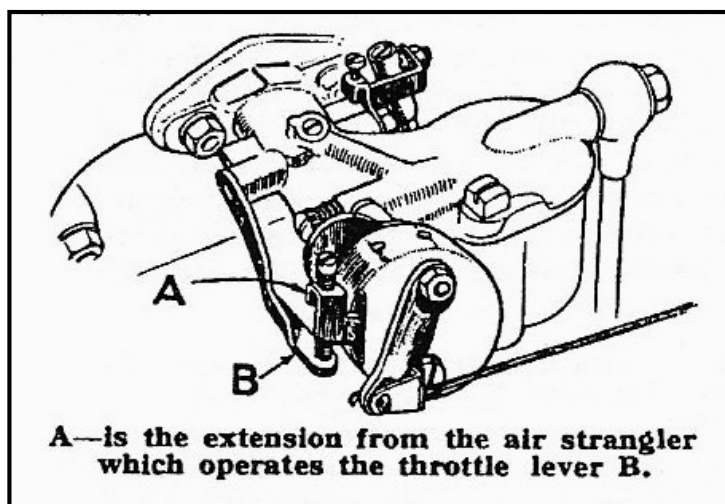
*These are reproduced with the kind permission of the Austin Ten Drivers Club (ATDC)*

These question and answer articles originally appeared in "The Austin Magazine & Advocate" during the 1930s and 1940s. This month's selections are: No 464 Air Strangler – Austin Ten-Four and No 470 Rear Seat – Austin Ten-Four. No 464 appeared in the January 1933 edition and No 470 appeared in the February 1933 edition.

#### No 464 Air Strangler - Austin Ten-Four

**Q.** *On my Austin Seven (1928 model) you fitted an air-strangler control which could be left at the closed position. With this car I used to close the strangler and turn the engine over by hand several times before switching on the ignition and attempting to start.*

*On my Ten-Four, however, I find that the strangler control must be held out to keep the strangler fully shut. I am wondering why you have altered the design as now I cannot turn the engine over by hand to ensure a good charge before using the starter motor, as I hitherto did with my Seven.*



**A.** Our experience is that difficulty in starting most frequently arises from over-use of the strangler rather than through using too little. Consequently, the strangler control of all models is now designed to return to the fully open position when released.

We think that you will get an easy start with the starter motor when the strangler is closed, and then can release the control when the engine gets running. Of course, turning the engine over once or twice when it is cold and stiff will ease the work of the starter.

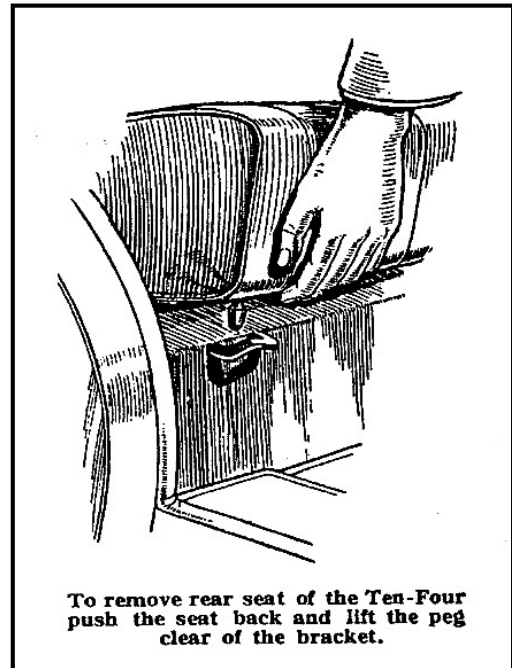
On the Ten-Four, as on the Light Twelve-Four and Twelve-Six models, the movement of the strangler control also affects the throttle setting through a small range, and for warming up a fast running position for the control is provided (turn it to the left when letting it back from the fully strangled position).

With the strangler in this position it is possible to let the engine warm up without any risk of a very rich mixture depositing petrol on the cylinder walls to denude them of lubricant and so initiate wear. This was often done by inexpert owners with the old type of control such as that to which you have been accustomed.

**Q.** In the handbook of my new Ten-Four I notice that lubrication of the rear axle is advised every 2,000-3,000 miles. I cannot, however, see how this is to be effected without getting below the car, which is very inconvenient, to say the least. I have tried lifting the rear seat but this seems permanently secured. Perhaps you can enlighten me on this point.

**A.** Access to the rear axle of the Ten-Four, for lubrication purposes, is very conveniently effected, by lifting the rear seat. This seat is secured by two slotted pegs, which engage with the brackets built into the body to each side.

To release the seat, punch it back towards the squab so that each peg can spring clear. It can then readily be lifted out, to give access to the axle after removing the board which fits under the seat. You will soon acquire the knack of jumping the seat out in this way, even if it seems slightly stiff and not very easy at the first attempt.



To remove rear seat of the Ten-Four push the seat back and lift the peg clear of the bracket.

## Past Press

In this advertisement from June 1960, the Lucas 6v windscreen wiper motor seems a good bargain at £3 including P&P - mind you, in 1960 you could probably have bought a complete Austin 7 for £3!

### CAR AND WORKSHOP BARGAINS

IN STOCK — ALL TYPES OF SPARES AND ACCESSORIES AT WELL UNDER LIST PRICE!  
ALL TOP QUALITY SATISFACTION GUARANTEED. SEND US YOUR ENQUIRY

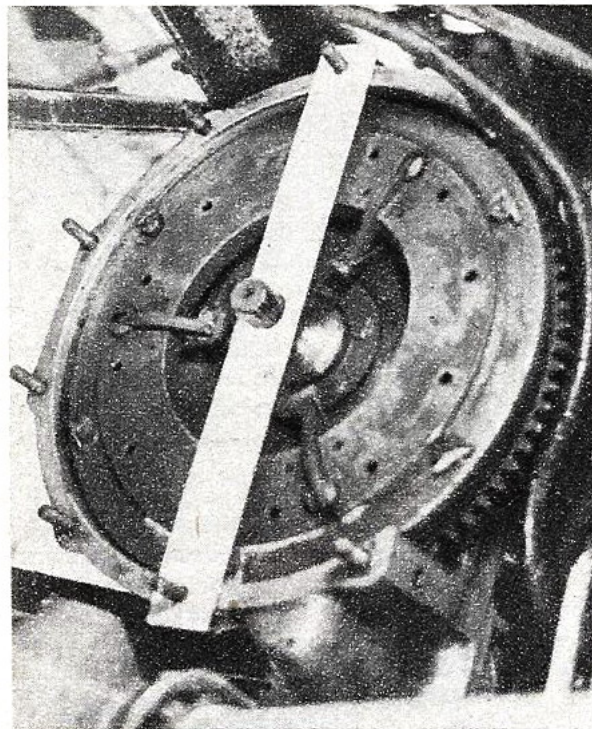
<p><b>SEAT SQUABS</b> In green Rexine. 18in. x 18in. (Post and packing 2/6.)</p> <p><b>FIRE EXTINGUISHERS</b> "PYRENE" Fire Extinguishers. 1 quart capacity, unused, fully charged for immediate use. A must for every motorist. Special price inclusive <b>£1</b> each of P. &amp; P.</p> <p><b>AIR COMPRESSOR TANK</b> The perfect air tank for the small workshop. Unused, perfect condition, made to M.O.S. specifications, complete with drain tap as illustrated. <b>35/-</b> Size 26in. long, 5 1/2in. dia., each inclusive of carriage and packing.</p> <p><b>CANVAS TOOL BAGS</b> Size 14in. x 5 1/2in. x 6 1/2in. deep. Special Purchase. Limited quantity. Ex-M.O.S. Top quality unused. Stiffened heavy canvas, complete flap-over lids with fasteners as illustrated. Bargain, at each (Postage and Packing 2/6) <b>12/6</b></p>	<p><b>LEAD LAMPS</b> (Mains Voltage) Unused, first-class condition, extra strong construction, fitted safety wire guard. Porcelain bulb holder to take standard lamp. Wooden handle, complete with 30ft. of top quality twin core wire. Ideal for garage or home use. Cannot be repeated. Each (Postage &amp; Packing 2/6) <b>15/-</b></p> <p><b>POWER-TONE HORNS</b> Pleasantly blended, high powered to command attention. Easy to install. Well below normal cost. Ebony Black finish. <b>55/-</b> (64/6 pair with Relay.) (P. &amp; P. 2/6.)</p> <p><b>WINDSCREEN WIPER MOTORS</b> 6-volt (Lucas) Complete with Arm and Blade. Special clearance price. <b>£3</b> each. (Incl. P. &amp; P.)</p> <p><b>ARMSTRONG SHOCK ABSORBERS</b> Brand New Shock Absorbers suitable 8, 10, 12 h.p. Distance between fixing bolt holes, centre to centre, 3 1/2in. Diameter fixing bolt holes, 1 1/2in. Length of lever arm, centre to centre, 4 1/2in. Length of connecting link, centre to centre, 6in. <b>£3</b> per set of 4. (P. &amp; P. 5/-.) <b>27/6</b></p>	<p><b>FIT A THERMOMETER</b> Brand New Thermometers complete with 20ft. capillary (as illustrated) calibrated 100-250 degrees F. Diameter of gauge 2 1/2in. Special purchase. Limited quantity. Buy now at only <b>25/-</b> each (P. &amp; P. included.) A Genuine Bargain. Satisfaction guaranteed.</p> <p><b>GREASE GUNS</b> The world-famous "LINCOLN" grease gun made in the U.S.A.; solid construction, snap-on hydraulic ends, beautifully made; stand a lifetime of hard wear, worth at least £5; a limited quantity only available. Special price <b>35/-</b> each, carr. paid.</p> <p><b>WANDERING LEAD LAMPS</b> (6 or 12 volt) Finest quality, heavy duty, complete with 12ft. best quality twin-core wire and extra strong spring clip. Unused, perfect condition. <b>15/-</b> each (P. &amp; P. 2/6.)</p> <p><b>ENORMOUS STOCKS OF</b> Silencers, Road Springs, Brake Linings, Half Shafts, Crown-wheel and Pinions, Brake Cables, Speedo Cables, King-pin and Bush Sets, Track-rod-ends, Hood material, Carpeting, Piping, Trimming, Beading, Tools, Spot-lamps, Horns, Headlights, practically Everything for Motoring.</p>	<p><b>MECHANIC'S TOOL BAG</b> A Genuine Offer of exceptional value. This wonderful Tool Bag of spacious dimensions is made of leather and has steel framework and steel-lined base, very strong carrying handles, absolutely ideal for mechanics and motorists. 13 1/2in. x 7 1/2in. x 6 1/2in. Base taper to 5in. top. Price <b>£1</b> including P. &amp; P.</p> <p><b>BRAKE LININGS</b> Brand New Austin 10 1940/48 Complete set of 8 linings with rivets A40 1947/50 Special Price, carr. Paid, 30/- per Set.</p> <p><b>OVER-RIDERS</b> Brand New, Chromed, Austin 10 1940/48. Set of 4 50/- carr. Paid.</p> <p><b>WHEEL TRIMS</b> Brand New Beautifully chromed 13", 14", 15", 16". Usual price £5 per set, our price <b>£3</b> per set of 4.</p> <p><b>DUST COVERS</b> 260 sq. ft. white cotton material for only 15/- 18ft. diameter 12 panel Parachutes, brand new. Ideal workshop or home use, decorating, painting, etc. A wonderful bargain, satisfaction guaranteed. <b>15/-</b> (p. &amp; p. 2/6.)</p>
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Finally, I found this copy of a readers' letter from a 1960 car magazine on how to centralise the clutch centre plate on an Austin 7. I see the person who submitted the letter was from Wokingham, was he ever a club member?

### **Austin 7 Clutch Plate Jig**

**T**HE simplest way to centralise the clutch centre plate on the old Austin 7 engine is to make an alignment jig from a 12-in. length of  $\frac{1}{8}$  in. to  $\frac{1}{4}$  in. thick mild steel strip not less than  $\frac{1}{8}$  in. wide. The centres of three holes should be marked off, one in the centre and the others  $5\frac{3}{8}$  in. either side of it. A circle of  $\frac{1}{32}$  in. radius can now be scribed around the mark in the centre of the strip, a pilot hole drilled and filed or reamed out to  $\frac{1}{16}$  in. diameter, which is a sliding fit on the splined clutch plate boss. To finish, drill out the end holes to  $\frac{1}{16}$  in. to clear the  $\frac{5}{16}$  in. Whit. flywheel housing studs. When using this jig remember not to tighten the clutch pressure plate screws until the jig is in position.—  
F. VALENTINE (Wokingham).



**Austin 7 clutch alignment jig.**



## **“TREVOR’S TEASER” ‘A to Z’**

All the letters of the alphabet are used once as the initial letters of the answer. The subjects are random and the correct spelling must always be observed!

- |  |     |
|--|-----|
| 1. A beautiful young Greek                                 | 6   |
| 2. A Trafalgar chopper?                                    | 6,3 |
| 3. This insect loves the 20-over game                      | 7   |
| 4. His expectations were huge                              | 7   |
| 5. Is the tiller of a boat made of this wood?              | 3   |
| 6. The end of a task in Roveniemi?                         | 7   |
| 7. Does a novice judo contestant wear this?                | 5,4 |
| 8. A green area in London in which to become escape notice | 4,4 |
| 9. Used by golfers to remove creases                       | 4   |
| 10. A weight-lifting card                                  | 4   |
| 11. A seed centre sounding like a military rank            | 6   |
| 12. A county town bomber                                   | 9   |
| 13. A very sad vegetable!                                  | 10  |
| 14. A pleasant French resort                               | 4   |
| 15. It’s on its own!                                       | 3   |
| 16. A seabird favoured by cars                             | 6   |
| 17. A document such as this                                | 4   |
| 18. Both a turnstile and a weapon                          | 8   |
| 19. A drainage pipe that’s good with a needle              | 5   |
| 20. A sporting trial marriage                              | 4,5 |
| 21. Make safe a firearm                                    | 6   |
| 22. A list of TV programmes for a photographer             | 10  |
| 23. Did Solomon have many of these grinders?               | 6   |
| 24. This can see through one                               | 1-3 |
| 25. Next time you will be sent off!                        | 6,4 |
| 26. It’s negative below this                               | 4   |

Name(s): .....

Please submit your entry to Trevor Edwards, 55 The Brambles, Crowthorne, Berks RG45 6EF,  
by Friday, 8th July 2016 enclosing £1.00 towards prize(s).



## READERS WRITE TO AUNT BRASSICA...



Dear Aunt Brassica,

I am an Austin owner of some years and nearly crippled with Arthritis. Can you publish a recipe that my wife can make while I'm upside down under the car?

Yours hopefully,  
'Crippled of Crowthorne'

Dear 'Crippled of Crowthorne',

I have chosen a Pineapple Upside-Down Pudding for you because you can eat it upside down. Also, I like the history of the name - and it may be good for you.

The word "pineapple" in English was first recorded to describe the reproductive organs of conifer trees (now termed pine cones). So when European explorers discovered this tropical fruit body in the Americas in 1664, they called them "pineapples"

All parts of the pineapple plant contain bromelain which is a mixture of proteolytic enzymes, used in folk medicine for treating burns and arthritis, which you might find helpful. (But it is not licensed by the European Food Safety Authority).

Also, it may not react well if you are taking other medications (amoxicillin, antibiotics, anticoagulant/antiplatelet drugs), and it may increase the risk associated with heart rate, blood clotting, and bleeding after surgery. Otherwise, enjoy this delicious recipe – and let me know how you get on!

Good luck!

*Aunt Brassica*

