# NORTH HAMPSHIRE AUSTIN ENTHUSIASTS GROUP



# MARCH 2016 NEWSLETTER

# CHAIRMAN'S CHUNTER...

Although the days are getting longer, our cars mostly remain garaged, giving you an opportunity to enjoy this bumper edition of the newsletter. New features are 'The NHAEG Member Interview' (page 6) with a duo of members, while Aunt Brassica (page 16) tries to sort out 'Bothered of Bracknell'.

Meanwhile sandwiched in between, we have our Diary (page 4), a Technical Article titled 'DynaWoes' (page 10) and a History of Car Airconditioning (page 8). To bring us up to quota we have some Austin Historical Technical Queries & Past Press advertisements (page 12) and another teaser of a quiz from Trevor (page 15). Enjoy your reading, the next issue is due early May.

# **CLUB NEWS**

# The Speaker Night Monday 14<sup>th</sup> March at 8pm

This should be a very entertaining illustrated talk with Rollo Malcolm-Green speaking about his Peking to Paris Rally in a 1930 Delage and subsequent trips in north Africa including Timbuctoo in a Lea-Francis!

Rollo says, "It all began aged 11 in the pre-MOT era when a friend of the same age took me for a ride around his garden in a dilapidated Austin 7. He showed me how to steer it, and I was hooked! After that I pestered my parents to get a car for our garden, which they eventually did (cost £3) for my 13th birthday. It was a 1936 Talbot 10 tourer, and 4 years later I had it running and restored to a usable state. In the intervening years at school, another friend and I started a car club, and rebuilt his Austin 7 and several motorbikes with help from a teacher.

"A Jowett and a Lea-Francis were every-day transport while at Uni and years later in Africa, other friends started bringing their vintage cars to be repaired. This led to the setting up of a small restoration business, with the opportunity to tinker with a number of Rolls-Royce, Lagonda, MG, Riley, Alvis, Daimler, Jaguar, Buick, Alfa Romeo and others.

"More recently an intensive 18-month restoration of a 1930 Delage was completed just in time to drive it in the 2007 Peking to Paris rally, and in 2010 we drove the Lea-Francis with 4 other vintage cars through the Sahara to Timbuctoo and on to Ghana, and in 2013 from London through Spain and Morocco to Marrakesh and Fes across the Atlas Mountains (and back)."

This should be an evening not to miss...

# Update on our committee

Editor: John Pratt (johnpratt@orange.net)

The responsibilities of the newly-elected committee are

Simon Jocelyn (Chairman), Denise Adams (Secretary), Andy Barker (Treasurer), Peter Kenrick (Events), John Pratt (Newsletter), Jeanette Mosley-Pratt (Facebook) and Elaine Watkin (**Raffles**). Also Alan Pickett has taken over as Membership Secretary.

# Wecome to New Members

Hello to Clive & Francis Jackson (Austin 10) and Robert ('Bob') Clarke (Ulster Replica)!

# **EVENTS FOR MEMBERS TO ATTEND**

# NHAEG 'Drive It Day' 2016 - Sunday 24th April

For 2016, our *'Drive It Day'*, is being marked by meeting up at (it's hoped!) a mutually convenient spot for coffee, etc., prior to setting off on a leisurely run, of approximately 35 miles, using minor roads as far as possible, to a country pub for lunch, followed by a visit to a nearby National Trust property.



At the February Club Night, several members expressed

an interest in going on this run but if any others would like to take part it would be helpful to have names now, in order to estimate numbers and be able to advise the chosen hostelry in advance.

Once all responses have been received, a menu will be distributed from which members will be invited to choose a meal preference. This should ensure that there will be no unnecessary delays, e.g. with service, on the day. We would aim to arrive at the lunch venue between noon and 12.30 p.m., later reaching the N.T. Property about 2.00 p.m.

No maps will be required; a detailed Route Card will be supplied.

If interested in participating please let me know <u>soonest</u>, or at the latest by March Club Night (14<sup>th</sup>).

Many thanks, *Trevor*  $\mathcal{E}$  01344 775012 trevor\_c.edwards@btinternet.com

The Federation of British Historic Vehicle Clubs (FBHVC) has announced that Drive It Day<sup>™</sup> 2016 has been nominated by the Federation Internationale Vehicles Anciens (FIVA), the world body governing historic vehicle issues, as its flagship event for the UK marking World Motoring Heritage Year.

# The White Lion Sunday Car-meet - not resurrected yet

With the demise of the White Lion Classic Car Meet, a replacement monthly gathering at the Pinewood Centre, Old Wokingham Rd, Wokingham, West Berkshire RG40 3AQ was mooted. The centre, which has a cafe and bar, already hosts motorbike and MX5 meetings.

But all hope of starting on Sunday 21<sup>st</sup> February was thwarted as it emerged that a license would be needed from Wokingham Council. Meanwhile, the organisers are looking for someone from the car fraternity to help liaise with the local



council on this. Please contact Denise or Gavin Francis if you can assist. As a result of this delay, Gavin has been told that the first Pinewood meeting could be late April – but this is yet to be confirmed.

# Other Recommended Events for members to attend

#### UTC Reading - Engineering Open Day

Reading College hosts an engineering open day on Thursday 17<sup>th</sup> March and invites members to visit with their old cars. The form is to arrive at 11 am and there is usually a guided tour and refreshments available, finishing at about 2 pm. Don, Trevor and Andy have attended in the past and John Hancock is a regular.

The vision at UTC Reading is to deliver computer science and engineering excellence for 14-19 year olds and for students to be inspired by the relevance and challenge of solving real-life industrial and community problems. The result is that they rapidly gain the confidence through project-based learning. They also gain the technical and personal skills required to creatively contribute to the future of businesses and public services. The school was opened in September 2013 and rated 'Outstanding' by Ofsted in 2015. Location: Kings Road, Reading, Berkshire, RG1 4HJ.

#### Merrist Wood Agricultural College

On Sunday 15th May, Merrist Wood Agricultural College holds its annual Summer Show. Trevor advises that it has proved to be very enjoyable in the past, (for those of us who've entered it), yet hasn't been particularly well-attended, on the whole, by NHAEG members. He says this is a shame since 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, for example, 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.

Entry forms for this event are now being sent out to all those who have attended in previous years. However, all other Club members are welcome to enter the event - free - but must register before the 6th May since, this year, as each vehicle will require its own unique ticket. Otherwise, family tickets are £20, Adults: £7 and Concessions £4.

Hence anyone planning to attend this year should do so by contacting Annette Smith, fairly soon on 01483 884022 (between Monday and Friday), or via email at: asmith@guildford.ac.uk. For further information, see ww.merristwood.ac.uk/NewsEvents/Events/ClassicCarShow.aspx

# The 'BEN' Run

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 - or at least it has been up until now, due to space limitations at the former venue - although several members, having attended regularly, have what can be considered 'permanent invitations'. Around April/May time, would be the best time for anyone wishing to take part to contact Eamonn Galligan via his email address (<u>eamonngalligan@aol.com</u>) 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 (johnpratt@orange.net 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 14th March	Speaker Night: (Rollo Malcolm- Green) 'Driving Paris to Peking in a 1930 Delage'	Peter
	Mon 11th April	Spring 'Airing'	Committee
	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
	Tues 29th March	The New Inn	Colin
	Mon 25th April	The New Inn	Colin
	Mon 30 <sup>th</sup> May	The New Inn	Colin
	Mon 27 <sup>th</sup> June	The New Inn	Colin

Organiser	2016 Dates	Other Events & Location	Contact
Practical Classics	Sat 5 <sup>th</sup> -6 <sup>th</sup> March	Restoration Show, NEC	www.necrestorationshow.com/
Austin	Sun 6th March	Austin Morris Day, Brooklands	www.brooklandsmuseum.com
Reading College	Thurs 17 <sup>th</sup> March	UTC Reading College Engineering Open Day, Kings Road, Reading	John H
NHAEG	Sun 24 <sup>th</sup> April	Drive it Day – route to be advised	Trevor E
Thorneycroft Society	Sunday 8 <sup>th</sup> May	Basingstoke Festival of Transport, War Memorial Park	Trevor M, Ken C
Brooklands Museum	Sat 14th May	1940s Relived at Brooklands	www.brooklandsmuseum.com
Merrist Wood College	Sun 15th May	Merrist Wood Summer Show, Worplesdon, Guildford	Pre-booking necessary. See ww.merristwood.ac.uk/NewsEvents/Events/ ClassicCarShow.aspx
Fawley Hill	Friday 20th-21st May	Fawley Hill Vintage Extravaganza, Henley	Pre-register essential at www.fawleyhill.co.uk
Beaulieu Museum	Saturday 21 <sup>st</sup> -22 <sup>nd</sup> May	Spring Autojumble	www.beaulieu.co.uk/events/spring- autojumble

Brooklands	Sunday	Brooklands Classic	www.brooklandsmuseum.com
Museum	22nd May	Breakfast	
Hartley	Saturday 11th June	Classic Car Show at the Village	Entry Form from David Preston
Wintney		Festival	classiccars.hwf016@btinternet.com
Festival			
Watercress	Saturday 11th-	War on The Line Event	www.watercressline.co.uk
Line	12th June		
Essex Austin	Sunday 12th-17th	The Only Tour is Essex (& Suffolk)	https://ea7c.wordpress.com/
7 Club	June		
Brooklands	Saturday 18th-	Brooklands Double Twelve	www.brooklandsmuseum.com
Museum	19th June	Motorsport Festival	
750 MC	Sunday 3rd July	National Austin 7 Rally at Beaulieu	Ian Nelson tel: 01932 863073; email:
			ian.s.nelson@bteinternet.com
			www.beaulieu.co.uk/events/austin-seven-
			rally/
Watercress	Sunday	Alton Bus	www.watercressline.co.uk
Line	17th July	Rally	
NHAEG	Sunday 31 <sup>st</sup> July	Picnic in the Paddock,	Peter K
		Finchhampstead	
Beaulieu	Saturday 3rd-4th	International Autojumble	www.beaulieu.co.uk/events/international-
Museum	September		autojumble
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Cobham	Saturday 10th Sept	Cobham Heritage Day classic car	Ian Nelson tel: 01932 863073; email:
Heritage		gathering	ian.s.nelson@btinternet.com
Camberley	Saturday 3 <sup>rd</sup>	Vintage, Classics, Customs, Hot	By invitation only: contact Ken Bonner
Car Show	September	Rods, Motorbikes, Entertainment	kenbonner@btinternet.com
Watercress	Friday 21st-	Autumn Steam Gala	www.watercressline.co.uk
Line	23rd Oct.	Tutulini Steani Gala	www.watereressinic.co.ux
NHAEG	Mon 5 <sup>th</sup> December	Christmas Dinner, The Mill House,	Elaine
		Nth Warnborough, Odiham	

Club	2016 Dates	Inter Register Event & Location	Contacts as below, or talk to Trevor, Colin or Tony W for information
MG Car	Sun 13th March	"Naviscat"	Paul Gray
Club	Sun 15th March	Scatter Rally Kent	p_gray@btinternet.com
Alvis	Sat 26th March	Scatter Rally	James Campbell
711113	Sat 20th March	+ tour West Sussex	jamesiscampbell@btconnect.com
Dilari	Sat 4th Juna	Batho Trophy Worcestershire	Tom Pellow
Riley	Sat 4th June		tom.pellow@zen.co.uk
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Humber	Sun 10th July	Dorset	thearmans@googlemail.com
STD	Sun 31st July	Gymkhana	tba
Riley	Sun 21 <sup>st</sup> August	Rally	Richard Scott
		Thames Valley	rscottok@btinternet.com
Crossley	Sun 18th Sept	Treasure Hunt	Stephen Weld
		North Yorks	Tel. 01765 658569
MGCC	Sun 9th Oct	Autumn "Naviscat"	Roger Thomas
		Surrey/Sussex	mmmfixit@hotmail.com
ATDC/	Sat 10th Nam	"Nightjar" Scatter/Orienteering	Trevor Edwards
NHAEG	Sat 19th Nov	Surrey/Hants/Berks	trevor_c.edwards@btinternet.com

# THE NHAEG MEMBER INTERVIEW - PHIL & JAN DUNFORD

When I chatted to Phil and Jan Dunford over dinner at The New Inn 'free night' last year, I realised that I had met a couple of petrol-heads with some interesting back history. They agreed to be interviewed...

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

Phil: When I was about 11 years old my older brother got a weekend job at Pete Adnam's garage in Camberley, from which he went on to have a career in engineering. By the age of 13, I was having unofficial driving lessons on RMA roads and was known for being able to park 3 cars in a double garage to make room on the driveway at home! When I was 16, I acquired the first of a number of motorbikes, including a Triumph, Norton and a BSA.

Jan: My sister is eight years older and when I was born, I became the 'token' boy and used to help my dad with all the car maintenance. He worked at RAE Farnborough and we often used to go to the Queen's Building at Heathrow armed with shortwave radios to watch the aircraft and listen to air traffic control.

Editor: What was the first car that you owned?

Phil: My first car was an Isetta bubblecar, manufactured by BMW in Germany. They had redesigned the powerplant around a BMW one-cylinder, four-stroke, 247 cc motorcycle engine which generated 10 kW (13 hp). Although the major elements of the Italian design remained intact, BMW re-engineered much of the car, so much so that none of the parts between a BMW Isetta Moto Coupe and an Iso Isetta were interchangeable.

Jan: I learned to drive in my boyfriend's MG Midget and then went on to own three old minis and five MGs. As a result, I have a real thing for convertibles.

Editor: What are the most interesting cars that you have driven?

Phil: When Jan and I were first married (over 35 years ago) we had a Triumph TR7, but it wasn't a great drive. Our old Austins are undoubtedly the most interesting – did you know that the Austin7 Box Saloon has 25 controls, whereas the Austin 10 Colwyn has 35, compared with the 120 or so of our modern car! During my Police career, I drove a Sierra 4x4 which was pretty good at the time and our Vauxhall Senator was modified to do 140/150mph on the motorway!



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

Phil: Leaving aside my incident driving my mother's Austin 1100 around Frencham Ponds when I was 17, my time in the police included one high speed emergency response to Ash Vale when the driver was so frightening that I wouldn't let him drive us back and sent him to be retrained. Later on, I drove a fully armoured Land Rover Discovery. This was 360 degrees armoured and the windscreen was so thick that the wiper blades were only held on by two threads on the spindles. It weighed over half a tonne more than the standard vehicle and the engine and brakes were uprated. Bizarrely, you couldn't hear anything going on outside the vehicle, so it had microphones fitted in the door mirrors!

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

Phil: I think I would class myself as a problem solver who enjoys finding and making simple fixes. Jan: When Phil was a police instructor, his nickname was 'The Professor'!

Editor: What was the automotive highlight of your career?

Phil: I have the distinction of having ordered the closure of both carriageways of the M25. This was to effect the rescue of a girl who had been reported to have been abducted at gunpoint in the Brighton area. We put rolling road blocks on both carriageways and were able to stop the vehicle and make arrests before the vehicle headed up to the midlands.

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but with the typical English wet summer weather it wasn't a lot of fun. So

we decided in 2007 that we need something with a roof. We had seen Austin 7s at the shows and actively sought one out from a restorer – and we bought 'Merrythought', so named because of its Ironbridge connection and my interest in handmade traditional teddy bears of that name (which were made there).

Editor: What did the family think of this?

Jan: By then the two children had grown up and were quite unexcited about it – but oddly enough the cars have featured at weddings! We took my daughter-in-law to church in 'Matilda' the Colwyn and as a Registrar, I performed part of the ceremony. This year we will be taking our daughter in Matilda to her wedding, but I won't be involved in the ceremony as it's in church.

Editor: What prompted you to buy a second Austin?

Phil: Five years ago it was our 30<sup>th</sup> 'Pearl' wedding anniversary and, maybe not to my surprise, Jan said that she would like an Austin Pearl rather than the jewelry variety! However, we decided that it was a bit like a Seven and then I found an advert for a Colwyn. The kids and I went to have a look at it and the deal was done. It has proved a great success with a totally different driving experience – it glides rather than bounces along – and has more elbow room inside!

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

Phil: I come from the Bristol area and driving over the Clifton suspension bridge in convoy with other Austins was particularly memorable - it brought back memories of my grandad's Mk1 Jaguar.

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

Phil: When we first bought the Colwyn, the vinyl roof leaked like a sieve. After an event at Mytchett where we sat in waterproofs with an umbrella up inside the car, we decided to remake the hood ourselves. The seams in the old hood didn't look right, so we couldn't use the old hood as a template. Having photographed other cars, I then bought some boat canvas that matched the interior and we

progressively cut, trial fitted and stitched it together, panel by panel, to match other cars' hoods. We also had a new clutch, but disaster struck before Christmas last year, on the A31 Hogsback, on our way to Polesden Lacy. Resplendent in our 1930s clothing, with Jan in a beaded long dress and me in white tie & tails, the differential gave up. Having eventually located the correct spares, we're on the way to getting back on the road for the 2016 season.

Editor: Looking back – what would you do differently?

Phil: We find that much more than 30 miles in 'Merrythought' hurts, so we bought a trailer to take it to Bristol regularly. But I'd buy a slightly bigger trailer – ours was designed as a double quad bike trailer and is only just big enough for the Seven and too small for 'Matilda'. Also, the trailer bed is a bit high, as it's above axle height, which means we need an electric winch to load the car.

Finally, I think that we were right to start with an Austin Seven, but if we had an endless supply of space and cash, then we'd like to own either an Austin taxi or a big Austin 12/4, like Don's 'Queenie'.

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

Phil: I suppose that it started when I acquired an old DKW 'Hobby' scooter in 2005 from a local tree surgeon. it differed from other scooters by having large 16-inch wheels and continuously variable automatic transmission. The single-cylinder two-stroke engine had been a new design, developed 3 horsepower and was located under the seat, ahead of the rear wheel. This bike had been part of a

collection in South Africa, which had then been sold. It had hardly been used, having about 3,000 miles on the clock. Jan: We used to take the DKW to shows on a trailer and ride it around,

> d ich bout it but oddly opough the







# THE EARLY HISTORY OF CAR AIR-CONDITIONING

As Summer approaches, Austin saloon owners think of fresh air motoring – and the joy of opening the windscreen, the sunroof, or the foot-well shutters, as well as the windows. Of course, many of us would choose to own a Chummy, or a Pearl, or a Colwyn. But on really hot days, we might long for the air-conditioning of our modern car. It may therefore come as a surprise to find that a company in New York first offered the installation of air conditioning for cars in 1933 – but most of their customers operated limousines and luxury cars.



#### **Evaporative cooling**

In common parlance, an air conditioner is a device that lowers the air temperature. The **cooling** is typically achieved through a **refrigeration cycle**, but sometimes evaporation or free cooling has been used. This basic concept is said to have been applied in ancient Egypt, where reeds were hung in windows and were moistened with trickling water. The evaporation of water cooled the air blowing through the



window. This process also made the air more humid, which can be beneficial in a dry desert climate. In **Ancient Rome**, water from **aqueducts** was circulated through the walls of certain houses to cool them. Other techniques in medieval **Persia** involved the use of **cisterns** and **wind towers** to cool buildings during the hot season.

Early attempts with cars used an automobile window-mounted evaporative air cooler, sometimes referred to as a 'swamp cooler'. It worked best in the dry desert air of the southwestern United

States, like California, Arizona, Texas, New Mexico, and Nevada. To cool the air, it used the enthalpy of vaporization, otherwise known as the latent heat of evaporation or vaporization (in other words, cooling by water evaporation). Water inside the cooler evaporates and in the process transfers heat from the surrounding air. The cool moisture-laden air is directed to the inside of the car. The lower the humidity, the better the system works. But it wasn't great, requiring a large water tank in the boot.

#### Air-conditioning

An air conditioner is a device that lowers the air temperature with the **cooling** achieved through a **refrigeration cycle**. (A complete system of air conditioning, **ventilation** and heating in cars is referred to as Climate Control.) The Packard Motor Car Company was the first automobile manufacturer to offer an air conditioning unit into its cars, beginning in 1939. These air conditioners were manufactured by Bishop and Babcock Co, of Cleveland Ohio. The "Bishop and Babcock Weather Conditioner" also incorporated a heater.



Packard fully warranted and supported this conversion, and marketed it well. However, it was not commercially successful for a number of reasons. Mainly the main evaporator and blower system took up half of the boot space (though this became less of a problem as boots became larger in the post-war period). The several feet of plumbing going back and forth between the engine compartment and boot



proved unreliable in service. The price, at US \$274 (\$4,692.12 in 2014 US dollars), was unaffordable to most people in postdepression/pre-war America and the option was discontinued after 1941

The 1953 Chrysler Imperial was one of the first production cars in twelve years to offer modern automobile air conditioning as an

option, following the tentative experiments by Packard in 1940 and Cadillac in 1941. Walter P. Chrysler had seen to the invention of Airtemp air conditioning in the 1930s for the Chrysler Building, and had ostensibly offered it on cars in 1941-42, and again in 1951-52.

The Airtemp was more advanced than the rival automobile air conditioners by 1953. It was operated by a single switch on the dashboard marked with low, medium, and high positions. As the highest capacity unit available at that time, the system was capable of quickly cooling the passenger compartment and also reduce humidity, dust, pollen, and tobacco smoke. The system drew in more outside air than

contemporary systems; thus, reducing the staleness associated with automotive air conditioning at the time. Instead of plastic tubes mounted on the rear window package shelf as on GM cars, small ducts directed cool air toward the ceiling of the car where it filtered down around the passengers instead of blowing directly on them. Cadillac, Buick, and Oldsmobile added air conditioning as an option on some of their models in the 1953 model year. All of these Frigidaire systems used separate engine and trunk mounted components.



In 1954, the Nash Ambassador was the first American automobile to have a front-end, fully integrated heating, ventilating, and air-conditioning system. The Nash-Kelvinator corporation used its experience in refrigeration to introduce the automobile industry's first compact and affordable, single-unit heating and air conditioning system optional for its Nash models. This was the first mass market system with controls on the dash and an electric clutch. This system was also compact and easily serviceable with all of its components installed under the bonnet or in the dash area. Nash's exclusive "remarkable advance" was not only the "sophisticated" unified system, but also its \$345 price that beat all other systems.

#### Growth in demand

Air-conditioning for cars came into wide use from the late twentieth century. Although air conditioners use significant power; the drag of a car with closed windows is less than if the windows are open to cool the occupants evaporatively. There has been much debate on the effect of air conditioning on the fuel efficiency of a vehicle. Factors such as wind resistance, aerodynamics, engine power and weight must be considered, to find the true difference between using it or not, added to which an overall engine heat increase can have an impact on the cooling system of the vehicle.



Contributed by the Editor

# **TECHNICAL MATTERS – WINTER SPECIAL**

### Part 3 – 'DynaWoes' written by Andy Seager, diagrams courtesy of 'The Austin Seven Manual' by Doug Woodrow

I've been approached a few times recently by people with charging systems that don't want to come out and play when the sun has got his hat on! For the most part we can start our investigations with the dynamo – while cut-out (or regulator box) and wiring issues are not unheard of, the chances are that a lazy dynamo is to blame, particularly after a winter layover. But before we begin, make sure that if it's a three brush dynamo that you've tested both ½ charge and full charge (sometimes 'summer' and 'winter') - if it works on one and not the other it's not the dynamo! See later on.

Contrary to what appears to be common practice, poking the cut-out armature with your finger is not likely to achieve anything other than drain the battery and cause excessive current to flow in the stalled dynamo – there's not much point in this tactic as a fault finding technique, it seldom produces a result and tells you nothing about what's actually wrong.

So let's turn our attention to the dynamo – it's moving component that depends on a fairly critical set of physical conditions before it will put out. Any degradation of those conditions will likely cause poor or non-existent performance. Just before we pile in with the spanners though - can you see any loose connections or frayed wires, or wires framing on the engine or body? ... No?... OK then in we go.



The CAV Type DEL Dynamo fitted to Austin 7s from 1928

Remove the dust cover – if you run with it (its sometimes better to leave them off for cooling and to allow dust to be ejected, depends where the dynamo is mounted) - if the dynamo is full of grease or oil, you must get rid. This might entail removing the machine from the car and taking it carefully apart. Assuming its dry inside - are there any obvious wiring issues, such as breaks, dry joints (broken solder) or frame-outs on the inside of the case? If so, sort these carefully; frame-outs are common as the space inside the dynamo is very tight and things shift with vibration, old style spade connectors are not insulated so if they touch the case they cause a short. Have a smell and a good look - has it burned? If there are signs of burn outs on the windings – then it's probably best to get it checked by a specialist repairer right away. You might see scorched insulation on one of the internal lead wires if it's been framing - it's a

good idea to sleeve such cases with new plastic or heat shrink tube.

Assuming nothing obvious has thus far been found let's move on to the commutator and brushes. Firstly, the commutator (marked G in the diagram above) is a sequence of copper segments that communicate the separate windings of the armature via the brushes to the outside connections. Each of these segments is insulated from its neighbour with a non-conductive material which is 'undercut'. The grooves between each segment collect dust from the brushes and eventually take on a copper coloured appearance as microscopic particles of the copper from the surface of the commutator segments mix with carbon dust. Eventually electrical leakage occurs resulting in the loss or partial impairment of individual winding

loops. Our first check then, is to clean the commutator with some white spirit (not a solvent) and carefully use a sharp (ish) implement to clear detritus from between each segment. Use compressed air to blow the rubbish out of the dynamo – an airline or a disposable air cylinder or a foot pump – or if you have a good pair of lungs, blow - but DON'T breathe the dust!

Tip: Don't be tempted to dump a gallon of WD 40 into the machine as its more likely that it will simply mix with carbon dust to produce a conductive paste that just exacerbates the problem.



Next let's make sure that each of the brushes (and you might have either two or three depending on the age of your car) are in good shape (marked F, G & D opposite). Check that they are free to slide in their guides, that they are actually in contact with the com' and can be effectively held in contact by the spring – if they are too short change them! Don't be afraid to carefully remove each one and make sure everything is as it should be – but put them back the same way round as they came out as the com' will have bedded

Brushgear assembly of the Type DEL Dynamo

the facing surface to the optimal shape. Third brushes might be fixed with a little screw on a sprung arm – make sure it's in contact with the com' and free to move with sufficient spring pressure to hold it in contact. (the third brush is often a little thinner than the 'D' and earth brushes)

Tip: Be careful with the internal leads, especially the third brush one as it's connected directly to one end of the field winding – move things carefully to avoid breakages.

Once you've been through these steps, put everything back as it should be and start the car, rev the engine and see if the cut-out operates and that the ammeter shows a positive charge when the revs are somewhere around that which would be the case at say 30MPH in top gear. The next newsletter will deal with what to do if this 'fails'...

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

#### Valve clearance.

Adjusting side valve tappet clearance can be a bit hit and miss if the surfaces are indented through wear. If the thread per inch of the tappet screw is known, say 26 tpi, one full turn of the adjusting screw moves it about 40 thou. (1 inch divided by 26) and thus turning one flat of the screw, a sixth of 40 thou, moves it about 6 thou. With the valve fully closed, the clearance can be adjusted to zero, then turned the correct number of flats downwards to give the correct clearance. I stress the tpi must be known and a bit of calculating done.

# **AUSTIN HISTORY**

# **Queries of The Month from Andy Ranson**

# The "Queries of the Month" 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 581 Slow Running – Austin Ten-Four and No 674 Bonnet Rattle – Austin Ten-Four. No 581 appeared in the May 1934 edition and No 674 appeared in the July 1935 edition.

#### No 581 Slow Running - Austin Ten-Four

**Q.** I find that the engine on my Ten-Four (1932 model) will not run slowly. Sometimes it stops in traffic necessitating frequent use of the starter. Perhaps you can suggest a cause. Also I am finding it somewhat more difficult to start now the weather is warmer, although starting has been quite easy during the winter months.

A. Satisfactory slow-running or idling depends on several factors. You should first see whether the carburettor is at fault. Adjustment of the slow-running screw, located just behind the strangler, may improve matters and give smooth slow-running without hunting. If the throttle is closing too far, slow-running will be prevented but by turning the throttle stop-screw half a turn in a clockwise direction the adjustment should be rectified. There may, of course, be an obstruction in the slow-running jet. This jet is accessible on dropping the float chamber, which can be done by unscrewing the large screw just to the right of the strangler cover.

The hexagonal slow-running jet is located outside the float chamber. Any obstruction should not be poked out. By blowing through the jet against the direction of the petrol flow the obstruction, if present, should be cleared. Slow-running is also adversely affected by air leaks past induction joints, so ensure that the five nuts securing the manifold to the monobloc, and the two nuts securing the carburettor to the manifold, are quite secure to make tight joints.

Starting will also be affected by the above conditions, and in rectifying the slow-running you may effect an improvement in this respect. There is a possibility, however, that with the advent of warmer weather you



are over-using the strangler to provide in the combustion chamber a mixture too rich to fire readily. The use of the strangler should be in accord with the temperature obtaining, and your practice for starting in the winter months will therefore need modifying as the weather grows warmer.

The question of both slow-running and starting are tied up with the condition of the ignition equipment and valves, it may pay you to direct your attention to these parts as well.

#### No 674 – Bonnet Rattle - Austin Ten-Four

**Q.** In a recent issue of your magazine you dealt with bonnet rattle of a 1933 Austin Ten-Four, I have a Ten-Four of the latest type which on the whole is commendably silent, but the bonnet shutters have developed a rattle which occurs at certain speeds. I shall be very grateful if you could advise me, through the columns of "The Austin Magazine," how to cure this noise.

**A.** If a bonnet shutter is at fault you should examine the spring which holds it in place, as this may be loose in its retaining holes to allow the shutter to rattle. In this event the spring can be set slightly by suitably bending each end so that it is always in tension to keep the shutter either positively open or closed.

You may also find that the rubber band which stretches over the "stop" on the shutter has worn through or broken, to allow metal-to-metal contact with the bonnet. In this event it is a simple matter to fit a new rubber band in place of the missing one.

# The sector A and the rubber stores the

#### **Past Press**

An advertisement from September 1968. Having spent some time recently bleeding the brakes on my old Rover P4, a set of these bleed valves would have been useful, I could have done it all on my own. I think you would still need the tube and jam jar, it would save making a bit of a mess and also you would be able to see when all the air has been cleared from the system.

Assuming the spring was manufactured from a rust resistant material they look like a good product. I have searched the internet but cannot find any reference to the product or company.



An advertisement from April 1940. Probably top prices, but with petrol rationing I wonder how much they finally sold for?



The company survived WWII and continued to sell marque cars well into the 1950s. Not sure when it closed but I think it is now a Christie's of Mayfair saleroom.



## "TREVOR'S TEASER" 'ALL THE WORLD'S A STAGE'

All answers are shows, operas, plays, films, books, etc. Where the official name starts with the definite article, ('THE'), this has been ignored. Correct spelling must be observed!

1. Purrfect pets!	4
2. All decorations should be removed by this time	7,5
3. A gander's partner	6,5
4. Employed by Fords at Dagenham	6
5. A messy lubricant	6
6. One of Boris's predecessors	4,11
7. 1.25p	4,1,8
8. Between Australia and Chile	5,7
9. This could tighten or loosen	4,2,3,5
10. Burn Miss FitzGerald?	10
11. Grouse dressed for bed?	6,4
12. A Vietnamese beauty queen?	4,6
13. Holy Orders?	3,12
14. Would probably melt in the heat of battle!	9,7
15. Singing in the ear?	5,2,5
16. The wife of a red admiral	5,9
17. The first person with male sovereign	4,3,1
18. Boss of many circuses	4,2,3,5
19. Wendy's friend's cooks with this	5,3
20. Garden of Eden's been mislaid	8,4
21. High hopes?	5,12
22. Supernatural woodwind member	5,5
23. Where to see the daylight fade	6,9
24. A description of a Lord's blonde wife?	2,4,4
25. Possibly works for KLM!	6,8
Name(s):	

Name(s): .....

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

# **READERS WRITE TO AUNT BRASSICA...**



Dear Aunt Brassica,

My husband won't come in from the garage. I have tried to lure him with your Rock Bun recipe, but he just takes one bun and carries on.

what can I do?

Yours sincerely,

Bothered of Bracknell'

#### Dear 'Bothered of Bracknell',

This is typical of some older Austin Owners. Clearly one of your Rock Buns is enough for this man and he doesn't appear to be hungry for more.

Assuming that someone else isn't feeding him too, you need to find something that can't be easily eaten 'under the bonnet'. My suggestion is that you make him

a nice Steak & Kidney Pie, using this recipe from my old Be-Ro book, and leave the back door open.

The smell of this cooking in the oven should be enough to lure him inside and it has to be eaten off a plate in the kitchen...

Good luck!

- 3 Simmer for 11/2 hours, stirring 8 occasionally, cool.
- Place in a 750 ml pie dish with a pie funnel in the centre. The dish should be about 2/3 full of gravy.
- 5 Roll out the pastry into an oval slightly larger than the pie dish.
- 6 Cut off a 1 cm strip right round.
- Damp the edge of the dish, place the strip around and damp again.

#### Decorative pie edges.

Cover with the pastry and seal the edge firmly.

- 4 Trim and decorate with pastry 'leaves,' make a small hole in the centre and brush with beaten egg or milk.
- 10 Bake in a hot oven, 230°C. 450°F, Gas mark 8 for 10 minutes, then reduce the heat to 190°C, 375°F, Gas mark 5 for a further 20 minutes until golden brown.



