



# *The Edwardian*



*Veteran and Vintage Car Club of the ACT*  
*December 2014*



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### MEETINGS HELD EVERY 3<sup>rd</sup> WEDNESDAY OF THE MONTH AT 7.30PM.

The Club meets in the meeting room of Shannons Insurance at Unit 20/2 Yallourn St, Fyshwick. The building can be accessed from either Yallourn St, or the Canberra Ave Service Rd. (access between Bristol Paints and Classic car Wash – next to United Petrol) Meetings are usually followed by a talk on some interesting theme, a film or other entertainment and then by supper. Visitors are always welcome at our meetings. Membership fees are \$50 per year.

The Veteran and Vintage Car Club of Australia ACT (Inc) was formed in 1963. Its Objectives are:-

- ❖ To sponsor and encourage the preservation, restoration and use of Veteran and Vintage vehicles
- ❖ To engage in rallies, exhibitions and other events suitable for Veteran and Vintage vehicles
- ❖ To encourage the retention of Veteran and Vintage vehicles in Australia
- ❖ To collect and disseminate technical and historical information as shall be of interest to the members
- ❖ To offer the services of the Club, its members and vehicles to such charitable organisations as may be decided upon from time to time
- ❖ To engage in such other activities associated or allied with all or any of these Objectives which are intended to promote a better and wider knowledge and understanding of Veteran and Vintage vehicles among club members and the public generally



## President's Report



Season's greetings, it's that time of year where we start to wind down and look forward to a break with our families after a busy year.

I would especially like to thank all for a great club year and I look forward to seeing you at our Christmas party on the 17 December at Emperor Court Chinese Restaurant, Yarralumla.

Please remember that the Club activities kick off in earnest in January 2015 with a Club Meeting at Shannon's in Fyshwick on 21 January at 7:30, as well as a host of other activities that Nick will have in hand and advertised within the magazine.

Don't forget that in 2015 we are hosting the National Veteran Rally in Goulburn. ALL Members are welcome. On behalf of Simone, the kids and I, we wish you and your family a happy and safe Christmas and very best for the New Year.

I hope that Santa remembers to stop past your garage.

Chris

## General Club Stuff

Recently many of us received a reminder call about overdue membership fees. The importance of being financial has been reinforced by the following recent advice from the Council to all ACT clubs.

Concessional Registration eligibility criteria - The owner of the car *must* be a financial member of a club affiliated with the Council.

The Council of ACT Car Clubs has recommended that;

- Clubs ensure their members pay their dues by 30 June each year
- That the vehicle should not be driven on the roads until they are paid.

The RTA has advised that if a CRS vehicle is involved in an accident and the fees have not been paid, the likelihood that insurance companies will void any CTP or private insurance claims on the vehicle is **very high**.

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## More from the Workplace Health & Safety archives.





### Editorial



The end of the year has come which means it's time to get a Christmas edition out. This year the front cover is a photo I took in my backyard. The centrepiece of Father Christmas in the old car is actually a piece I bought at the Motorlife Museum gift shop on our Club bus trip back in late October. And speaking of that trip what a great day it was. Thanks must go to Ian for organising the show. Both the car and train museums were very enjoyable, as was the steam train ride. A surprise on the latter was the sight of two veterans parked outside the Buxton station. I suspected they might be a pair of Hurtus, and as subsequent events have turned out, I was correct. The fact these cars were there, at the same time as a train full of old car enthusiasts, was sheer coincidence. Unfortunately none of us were allowed to cross the track to see the cars close up, but in an interesting twist, Ian Irwin has since been able to gather the story on why they were there and has written it up for us. On a sad note though Dave Manhart, who owned the yellow Hurtu, passed away just 4 weeks ago. Another sad note is that Ray Mudell, husband of Motorlife Museum stalwart, Wendy, passed away three weeks ago.

In restoring our vehicles we tend to use the same sorts of technology that the original builders of our cars used, eg. Lathes, Mills, wheeling machines, hammers and dollies etc. For those set in the old ways though you might have to reconsider and come kicking and screaming into the 21<sup>st</sup> century. There is a new technology available that will be a great boon to our hobby, and that technology is with us right now – 3D printing. Imagine just being able to print a part you need? No it's not Buck Rodgers stuff...it's here right now. I know of a bloke in NZ who printed a missing impellor and pump housing for his veteran Talbot! The printed parts were used as patterns to then have the items cast in brass. I've done a bit of research on the subject and have written an article. I hope you find it interesting.

The last month has seen a spate of swap meets. A few of our members were seen at the Canberra Swap. Once again we had a car on display to promote the club (thanks Bob McG.). I noticed that the CACMC have taken a leaf out of our book and also set up a stall to promote their club. (I will refrain from pouring scorn on the number of non-motoring sites that shouldn't have been allowed there). The Queanbeyan swap was held just two weeks later and, as per normal, left the Canberra swap for dead in terms of number of sites and range of stuff available. That's not just my opinion either, two fellow enthusiasts made the same comment to me on the day. I did my bit and supported a couple of our members who had large stalls at the latter swap. Shirley used to accompany me to swaps in our early life. I'd walk ahead and find a part I wanted, go back and let her know, and she'd go to the site and flutter her eyelashes at the old bloke who had the part. Result, one part at a very reasonable price, although it didn't always work. The cartoon below is an accurate account of what sometimes happened. I guess that's why they call them 'swap' meets!

As always my thanks to those who've contributed to this newsletter and indeed, throughout the year. Enjoy your Christmas season and we'll see you in 2015.

Rick



## ANNUAL CHEV 4 TOUR

Young was the venue for this year's tour. We arrived about lunch time on Sunday September 28 to find most of the entrants had already booked in. That night was the welcome BBQ at the motel where we were all staying.

Monday morning the vehicles were on display at the old Railway Station Tourist Centre and the local paper took some photos and they appeared in Wednesday's edition. Lunch was at the Lambing Flat Chinese Tribute Gardens and this was a lovely spot. The group photo was taken here with the lake as the backdrop. Kids, young and old, enjoyed feeding the ducks and swans. After lunch we stopped at the local museum and it was worth the visit.

Tuesday the Wombat Grog Shop was our first stop. It had orchards of cherries and sugar plums and wines made from these fruits as well as jams and pickles to buy. Next stop was Murrumburrah/ Harden for lunch and a look around the two towns. The return route to Young was via a quiet country road and was a very pleasant drive.

Wednesday we visited the Taubman and Webb Trading Post at Murringo. The owner is a whip maker and plaiter and had examples of his work for sale. Richard then hosted us at his 100-year old home for a delicious country lunch. Afterwards he gave a demonstration of whip cracking with a 64 foot long whip. Some of the men were game enough to have a go and most were successful.

Thursday the grand Iandra Castle near Greenethorpe was our destination. We drove past many canola fields in different shades of yellow among paddocks of green crops and when viewed from the top of the Castle it was impressive. After touring the Castle, stables and gardens, we had lunch in the shade of the massive trees. Another quiet country road took us back to Young.

Friday morning we visited the Bluestill Distillery Café and Gallery. We had morning tea whilst enjoying the lovely view over Young. Lunch was at the Chinese Tribute Gardens before heading back to the motel to load the vehicles on their trailers for an early start in the morning. The Farewell Dinner was in the motels restaurant and was a very informal and social evening.

There were 15 vehicles ranging in age from 1914-1928 including tourers, coaches, sedans, roadsters, and a utility. Entrants travelled from NSW, ACT, Queensland and Victoria. The longest driven vehicle was a 1928 tourer from Melbourne which was taken over 2 days.

As usual we had a great week away and are looking forward to next years. Simone, Chris, Nicholas, Madeline and Cameron were also with us, so it was great family time as well.

Bruce and Kathy Booby



## DATING – FROM THE ARCHIVES OF 50 YEARS AGO

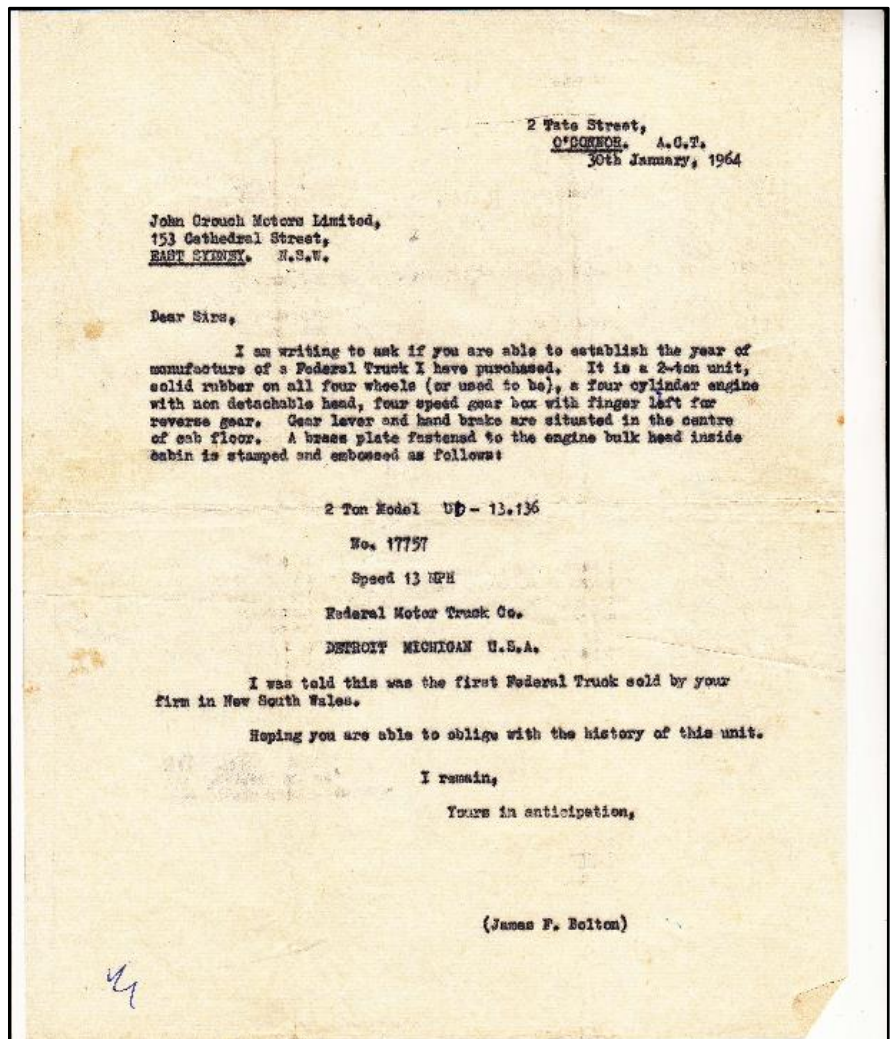
**James F. Bolton, of Tate Street, O'Connor**, or Jim or Jimmy as we knew him as early members of the Veteran Car Club in the ACT, was one of the founder members of our club. He was an active enthusiast, and I have written previously, in our 50th Anniversary publication last year, of the numerous occasions that I accompanied him in searches on properties in areas of New South Wales to the south and south-west of Canberra for veteran cars. Jimmy owned a 1912 Model T Ford Tourer (now the red car owned and restored by Wal and Jane Hick, with photographs of “as found” and today in that same publication), as well as the remains of a 1911 Chenard et Walcker, minus chassis frame and rear axle, which I ambitiously purchased, in the hope of finding a frame for it, and an early Federal truck. It is of this truck that I write.

He acquired the substantially complete and intact Federal truck that really took his fancy, but knew little of its age or history, but had been told that it was the first truck sold by the firm in New South Wales. So at the end of January 1964, (See facsimile of the original letter) now more than 50 years ago, he wrote to John Crouch Motors Limited the Federal Truck agents at 153 Cathedral Street, east Sydney, seeking any information they could provide on the truck.

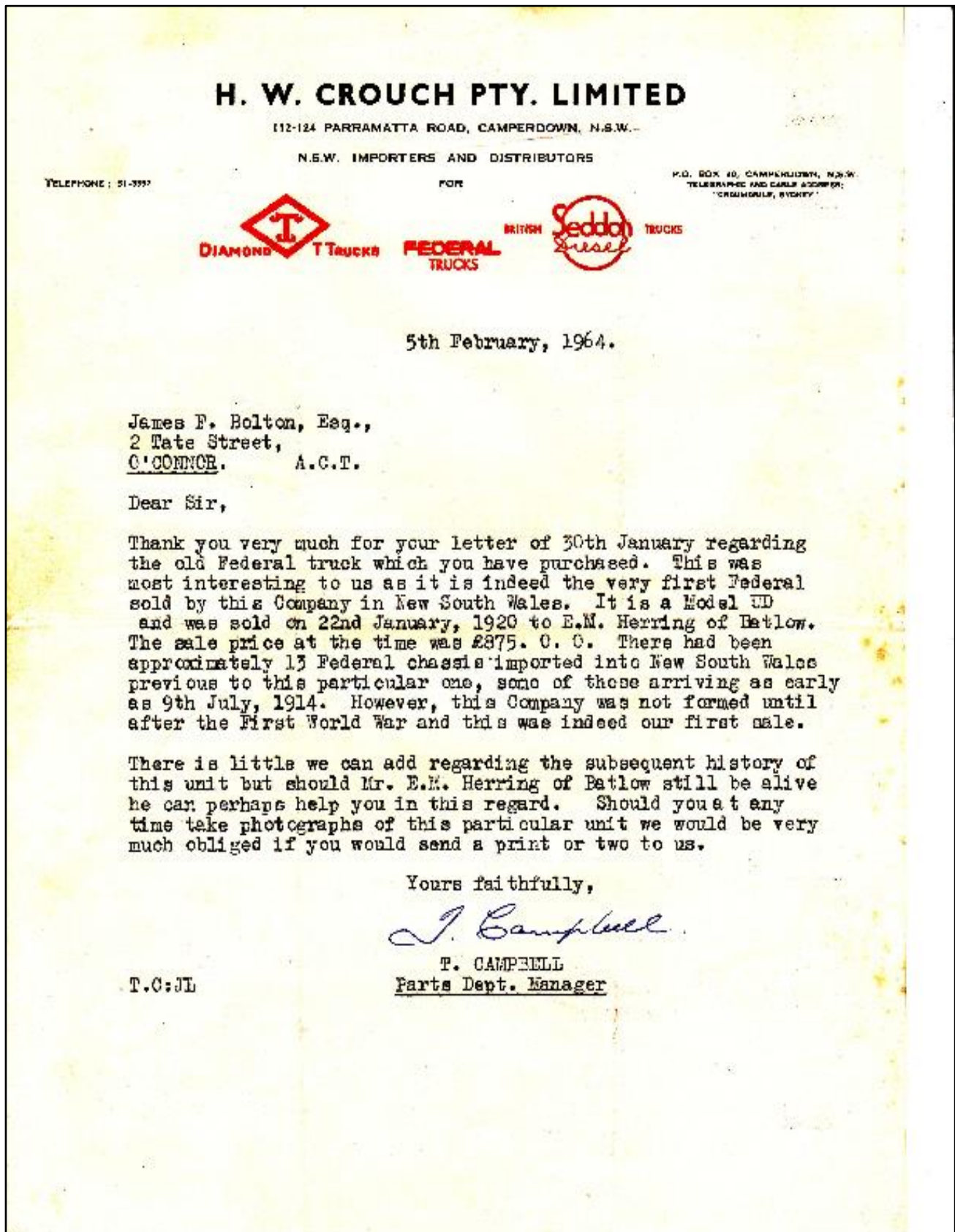
A reply was despatched from the a Mr T. Campbell, the Parts Department Manager of H.W. Crouch Motors of 112-114 Parramatta Rd, Camperdown. We are left to wonder how a letter directed to East Sydney reached the correct firm in a new location at Camperdown, to enable them to reply just six days after Jimmy had sent the letter.

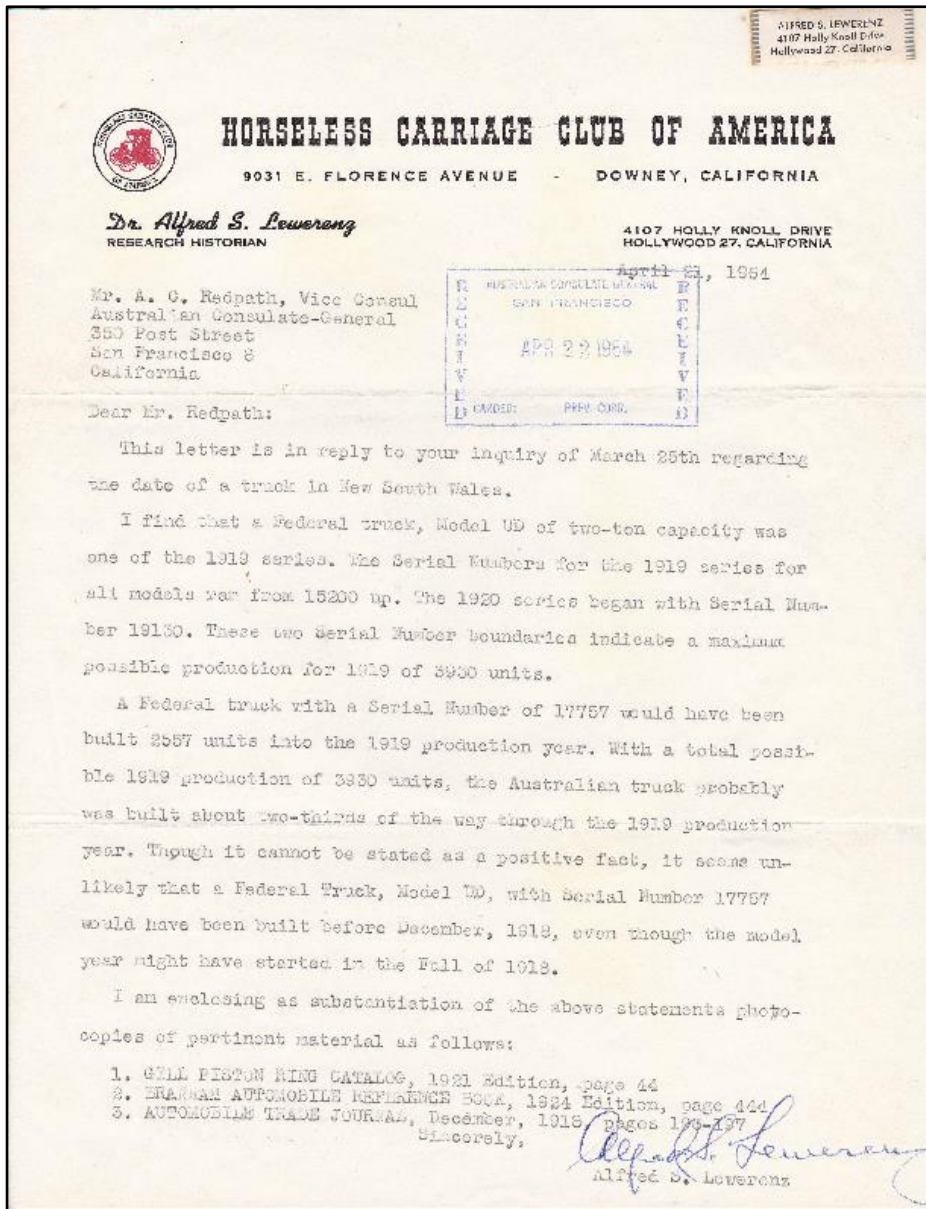
We are fortunate that both these items of correspondence survive, and I'm sure Jimmy would have been delighted with the response he received.

Sure enough, the Company confirmed that Jim's Federal was the first truck sold by the Company in New South Wales. He was provided with information that the 'old federal truck' was a Model UD, and that it was sold on 22 January 1920 to an E.M. Herring of Batlow. Secretly, Jim had hoped it might have been a veteran (pre-1919) truck, so initially was probably a little disappointed, but was sufficiently inspired to pursue the matter further.



Depicted below is copy of the yellowing, ageing response from H. W. Crouch Pty, Ltd. Clearly the firm was excited about Jim's purchase, but unfortunately we do not have any photos of the vehicle.





Not one to give up on his quest for the date of actual manufacture of the truck, Jim wrote to the Australian Consulate in the USA. We do not have copy of of Jim's letter, but Jim's reply came in the form of a detailed input from the Horseless Carriage Club of America via the Alfred Lewerenz, at the office of the Vice-Consul at the Australian Consulate-General in San Francisco.

Dated April 21 1964, by the H.C.C of America, it is date stamped received by the Australian Consulate the following day.

The typewriting is feint in the original, but hopefully legible enough.

In essence, it tells Jim that his truck was the 2557th of 3930 manufactured during the 1919 production year, so "it seems unlikely that a

federal truck with the serial number 17757 would have been built before December 1918 even though the model year might have started in the fall of 1918."

Probably not what Jim had hoped for. An accompanying hand written letter from Lewerenz, signed off "Alf", and dated 1 May 1964, outlines the trail that he set in place to help Jim to establish the dating of the truck, and goes on to say that he visited the William Harrah Collection in Nevada over the Easter break, enthusing over the cars, and mentioning that he had found a 1929 Federal-Knight truck with Willys engine and "loads of foreign appendages to it."

Yes, we were keen on dating our vehicles back 50 years ago, but perhaps not all went to the lengths that Jimmy Bolton did. One wonders where this truck may be now.

Ian Irwin

### Two Museums bus trip on 19/10/2014

Around half of the 52 participants were gathered at the Treasury car park for a 6.30 departure on a beautiful spring morning. Most of the remaining travellers were waiting at the Robinson's workshop gate, where the bus arrived and departed on time with club members and friends from our club, the Southern Tableland Automotive Restorers Club Q'bn Club, the Model A Restorers Club, the Rolls-Royce Owners Club ACT and the Canberra Antique and Classic Motor Club.

Our first stop was at the Big Merino in Goulburn where we met our last traveller from Cowra. After a quick comfort stop we headed to Pheasant's Nest where most of us, now more fully awake, took the opportunity to stretch our legs. Ian Irwin, who was the organizer of the tour had handed us a numbered booklet of car related songs, but due to the early start the majority was disinclined to break into song. The numbers were to serve as raffle ticket numbers for several prizes to be drawn on our return in the afternoon.

Our bus driver Don from Gerroa driving a Bungendore bus, safely negotiated the Bulli Pass and delivered us to the Australian Motorlife Museum at Kembla Grange, just South of Wollongong. We were surprised at the size of the building on our arrival. Volunteer members of the museum had morning tea ready, which was served in a beautiful large meeting room at one end of the museum. After morning tea Wendy Muddell gave us a brief explanation of the museum, and the adjoining library and workshops as well as the collection. We then spent an hour or so looking around. My interest was particularly drawn to the two Hupmobiles, an early Model 20 and a 1918 Model R. The latter car's owner was present and I had a long chat to him. Additionally some of us watched a demonstration of brass spinning, a dying art, but essential for making replica brass lamps. Unfortunately we had to reboard our bus only too soon to be at our next stop for a late lunch and for the last steam train ride of the day.

We now headed back up Bulli Pass and then via Appin and Picton to the Trainworks museum at Thirlmere. Many locomotives, wagons, carriages, railmotors and maintenance items were beautifully displayed over a large area in the exhibition building, the great train hall and the roundhouse with its turntable. After having our lunch, and having a quick look around, we headed for the adjacent Thirlmere station for our pre booked steam train ride to Buxton. While the locomotive was being shunted for our return trip, we noticed two veteran cars parked in the adjacent paddock. Ian found out later that these were a 1909/10 single cylinder Hurtt and a 1913 4cylinder of the same make. They appeared to have been recently restored. After returning to the Trainworks we spent about another hour looking over the exhibits, until it was time to depart on our homeward journey.

Our thanks go to Ian for filling the bus with participants, which made it affordable for all of us. At our stop in Goulburn we bade farewell to our fellow traveller from Cowra. Also while stopped there we witnessed an accident where a motorist in attempting to change a wheel on his trailer had his hand squashed when a scissor jack collapsed. A good reminder to all of us to use chocks whenever anything is hoisted.

For further interest and research the Motorlife website is [www.motorlifemuseum.com.au](http://www.motorlifemuseum.com.au) and the Trainworks website is [www.trainworks.com.au](http://www.trainworks.com.au) both are definitely worth extended visits.

Don

As a sad postscript I have just been informed that Wendy Muddell's husband Ray passed away. Our sincere condolences go to Wendy and her family.

Ed - Thanks to Bill Hopkins for a number of the photos accompanying this write up.



Ian and Wendy Muddell at left.

An appreciative audience listening to Wendy after morning tea at right.





Very top - A vintage Minerva and 40hp Napier.

Above – The ever-patient ladies out the front of the museum.

Above right – 1929 Triumph Super Seven.

Right – an original 20hp Rolls Royce. 'tis rumoured this car may be for sale soon.

Below – An unusual rail motor based on a 1937 Ford.



Above - Steam locomotive E18 -- built in 1866, this is the oldest loco in the collection and it had a working life of almost a century.

Below – Happy travellers, Lyn,  
Jane & Wal, Trevor & Joyce...but  
do I see Trevor nodding off?...I say  
old chap.....



## Run to John Cadona's on the 16<sup>th</sup> of November

After a morning cuppa we headed off to John and Vilay's property which is located on the Old Cooma Road. Wayne and Sylvia were the only two members who ventured out in an old car. They braved the weather in their Model A. John had also extended an invitation to the FJ Car Club and the Ferrari Car Club as well. John since we were there last year is now extending the garages' to accommodate more cars. The new car accommodation will be great when everything is finished. It was a BYO lunch/wine however John and Vilay had put on a great spread that any attendees could partake of. Roast meat, sausages, salad and dessert were very bountiful. It was all very tasty and enjoyed by all, many full stomachs gave their thanks.

Gerard

The Veteran and Vintage Car Club of the ACT, Inc.

## The Edwardian – December 2014

In mid November a handful of club members met up with an adventurous group of T Ford enthusiasts at the Ainslie footy club for tea. The intrepid T group consisted of Merv and Margaret Kroll and Lindsay Bell from Queensland, and USA T Ford 'nuts' Don and Donna Cameron from Apple Valley, California. They were driving 3 T Fords from the 1917-1926 range around Australia, towing small caravans, to raise money for Angel Flight Australia. They were in Canberra overnight and they were going to head to Cowra the next day on their journey home, expecting to be back in Brisbane eight days later. Post script : Their epic has now finished after 3 months and 16,000 kms on the road. Here are a few snaps from the journey. As you can see, it was not without its little dramas. Rick



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What do the British drink warm beer?  
Because Lucas Electronics make their refrigerators.

It's 1926 and a bloke walks into a parts store and says "I need a petrol cap for a T Ford." The salesman said, okay, sounds like a fair trade.



## The future for the car restorer is now upon us! (aka. 3D Printing for the car restorer)

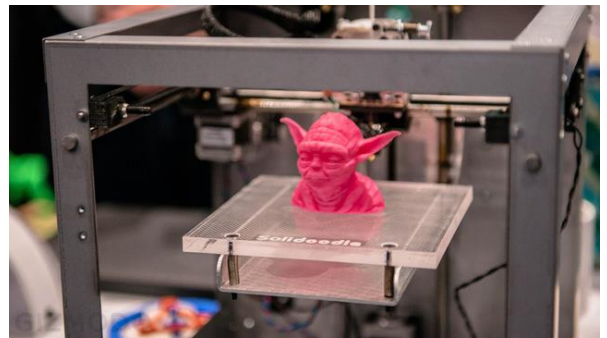
In late September this year Quестаcon hosted a talk and demonstrations on 3D printing of human body parts. All sounds a bit futuristic doesn't it, but apparently there have already been 3D printed body parts used for applications like the replacement of jawbones and wonky hips. So what is 3D printing and how can we apply this technology to our hobby?

3D printing technology has been around for more than three decades but it is now starting to take off as patents and copyrights expire, and prices of machines drop. 3D printing is a process of making three dimensional solid objects from a digital file. The creation of a 3D printed object is achieved by laying down successive layers of material until the entire object is created. Each of these layers can be seen as a thinly sliced horizontal cross-section of the eventual object.

### How 3D Printing works

It all starts with making a virtual design of the object you want to create. This virtual design is made in a CAD (Computer Aided Design) file using a 3D modeling program (for the creation of a totally new object) or with the use of a 3D scanner (to copy an existing object). This scanner makes a 3D digital copy of an object and puts it into a 3D modeling program.

To prepare the digital file created in a 3D modeling program for printing, the software slices the final model into hundreds or thousands of horizontal layers. When this prepared file is uploaded in the 3D printer, the printer creates the object layer by layer. The 3D printer reads every slice (or 2D image) and proceeds to create the object layer by layer, resulting in one three dimensional object.



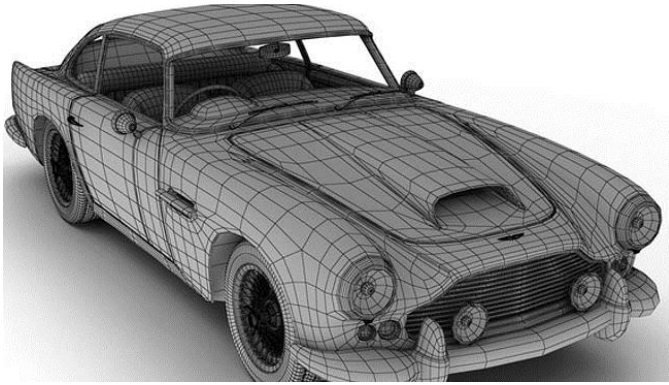
Printing a Star Wars character in 3D



Above and Below - examples of what can be printed. These are smaller than full size because they have been printed on a small printer. They could just as easily be printed full size on a larger machine.



3D printing is already being used by motor car companies. Audi has five 3-D printers producing prototype parts for models that run for 24 hours a day, seven days a week. Jaguar Land Rover used a 3-D printer to make the air vents in development versions of the Range Rover Sport. Each winter BMW takes its cars to the Arctic for cold weather testing. In recent years the vehicles have been accompanied by a 3-D printer so replacement or redesigned parts can quickly be produced and fitted. Many Formula One teams also have machines in pit lane. Some Lamborghini Gallardo customers had 3-D printed parts fitted after a production problem meant the flap covering the headlight washers was not fitting properly. Instead of holding up production, a new part was produced on a 3-D printer made by an Italian firm called CRP. One hundred cars had left the production line before the tools for the redesigned part were finished, after which the part could be produced normally using injection moulding. Even Rolls-Royce is using the technology, producing life-size models of bespoke fittings. "Buyers might want a drinks-carrying solution to hold a certain type of water bottle or champagne bottle," said James Warren, a Rolls-Royce spokesman. "We can present them with several options to ensure that the final version is right first time." Ford embraced 3-D printing after it printed an engine intake system in four days at a cost of \$US3000. The company said a prototype component would have cost \$US500,000 and taken four months to make. "We can go from art to part overnight," said Matt Zaluzec, Ford's global materials manager.



The scanned image of the DB4 used to manufacture the parts

A bloke over in Auckland, NZ, is taking 3D printing to the next level. He has always loved the Aston Martin DB4 and has realised, unless he wins the lottery, he'll never own one. (The last one, a 1960 series II, went for \$US550,000). He has a plan B though. He is printing the car, piece by piece, with the help of a \$US499 3D printer, in his garage, until he has a working replica. Working from a digital model downloaded from the internet, the Kiwi has split the car's panels into hundreds of 10cm x 10cm pieces so they can be replicated by his printer, which slowly builds up the shape, layer by layer, with molten plastic that is directed through a nozzle, taking about eight hours for each part.

The printed shapes are glued together to make molds for fibreglass panels. These are mounted on a metal frame, containing the engine, gearbox and suspension from a Nissan Skyline coupe, to make a working car looking identical to a DB4. It has taken a year to print the bodywork in full for a cost of \$2000 in plastic. Now he plans to start on the interior by making a replica dash and what not with the printer. Check out his website <http://replicadb4.com/> It has some excellent information on the subject.

The proud owner. You can see the individual pieces that have been glued together to make up the bonnet.



The rest of the body has taken shape in fibreglass, after using the printed pieces to form the mold.



As mentioned earlier, 3D scanning works hand in hand with 3D printing if you want to replicate an existing part. The DB4 bloke above was able to download a 3D digital image of his Aston, but most of the parts we require for our veteran and vintage cars won't have that. All is not lost though. Domestic 3D scanners are available or there are several companies that will scan your part for you and give you the necessary digital file to enable you to print the part you need. The beauty of this is that once the image is in CAD, you can manipulate it further, eg. change its dimensions. This is particularly handy when you are going to use your printed plastic part as a mold for casting the part in a metal. By simply adding a known percentage to every dimension, the part will be printed that much oversize, thus allowing for shrinkage of the metal you are having it cast in. The other benefit is that let's say the part you've had scanned is a die-cast item that had a chunk out of it. Once it's scanned and in the computer (complete with its missing section), you can touch up the computer image and 'fill-in' the missing piece on the screen, thus the printed version will be an undamaged part!

A 3D printed Diff.



Here in Canberra there are some big scale 3D printers capable of printing large parts. The ANU, UC, ADFA and CSIRO all have them. There could well be other ones in private hands here in town too. American talk show host, Jay Leno, is an avid car collector, with over 200 cars in his collection. He is a fan of 3D scanning and 3D printing. Here is an article he wrote on the subject in 2009.



One of the hardships of owning an old car is rebuilding rare parts when there are simply no replacements available. My 1907 White Steamer has a feedwater heater, a part that bolts onto the cylinders. It's made of aluminum, and over the 100-plus years it's been in use, the metal has become so porous you can see steam and oil seeping through. I thought we could just weld it up. But it's badly impregnated with oil and can't be repaired. If we tried, the metal would just come apart.

So, rather than have a machinist try to copy the heater and then build it, we decided to redesign the original using our 3D scanner and 3D printer. These incredible devices allow you to make the form you need to create almost any part. The scanner can measure about 50,000 points per second

at a density of 160,000 dots per inch (dpi) to create a highly detailed digital model. The 3D printer makes an exact copy of a part in plastic, which we then send out to create a mold. Some machines can even make a replacement part in cobalt-chrome with the direct laser sintering process. Just feed a plastic wire--for a steel part you use metal wire--into the appropriate laser cutter.

Inside the printer, the print head goes back and forth, back and forth, putting on layer after layer of plastic to form a 3D part. If there are any irregularities in the originals, you can remove them using software. Once the model is finished, any excess support material between moving parts is dissolved in a water-based solution. Complexity doesn't matter, but the size of the object does determine the length of the process. Making a little part might take 5 hours. The White's feedwater heater required 33 hours.

Any antique car part can be reproduced with these machines -- pieces of trim, elaborately etched and even scrolled door handles. If you have an original, you can copy it. Or you can design a replacement on the computer, and the 3D printer makes it for you.

People say, "Why not just give the part to your machinist to make?" Well, if the machinist makes it wrong, you still have to pay for it. The scanner allows you to make an exact copy in plastic, fit it and see that it's correct. Even when you take plans to a machinist, it can be tricky. Say the part must be 3 mm thick here and 5 mm there. You get it back and then, "Oh no, it doesn't fit; it's too thick," or "It's too thin." My setup lets you create the perfect part. And you could press the button again and again -- and keep making the part--twice the size, half-size, whatever you need. If you have a part that's worn away, or has lost a big chunk of metal, you can fill in that missing link on the computer. Then you make the part in plastic and have a machinist make a copy based on that example. Or you can do what we do -- input that program into a Fadal CNC machine; it reads the dimensions and replicates an exact metal copy.

If you had a one-off Ferrari engine, you could scan each part and then re-create the entire motor. Right now, we're scanning a Duesenberg body. It's a classic example of high tech melding with old tech. There are cars sitting in garages around the country, and they haven't moved in years for lack of some unobtainable part. Now they can hit the road once more, thanks to this technology.

My 1907 White engine would never have run again because its slide valve (or D-valve) was shot. We built that part, and now the car is back on the street.

Let's say you have an older Cadillac or a Packard, and you can't get one of those beautifully ornate door handles. You could go to the big swap meet in Hershey, Pa., every day for the rest of your life and never find it. Or you could take the one on the left side of your car, copy it, use the computer to reverse it, and put that new part on the other side.

It's an amazingly versatile technology. My EcoJet supercar needed air-conditioning ducts. We used plastic parts we designed, right out of the 3D copier. We didn't have to make these scoops out of aluminum -- plastic

is what they use in a real car. And the finished ones look like factory production pieces.

The scanner cost \$2995. The 3D printer is now under \$15,000. That's not cheap. But this technology used to cost 10 times that amount. And I think the price will come down even more.

These machines are not suited for mass production, but they work well for rapid prototyping. Just as eBay has made many swap meets go away, this machine could eliminate the need to go to eBay for parts. Think about it: What old part do you want to make?



Of course there are always two sides to a story. All the preceding sounds pretty good, but 3D printing does have its limitations. 3-D printers are unlikely to replace the stamping, pressing and molding that take place on a production line because they simply take too long. Some of the most precise shapes are built up in layers only 127 microns thick. It takes 100 of these layers to make a part 13mm thick.

People also expect the world from 3D printers. The axle assembly at left has been printed in one piece, which is in

itself phenomenal to anyone who knows anything about manufacturing. However, it is made purely from a plaster powder and some inkjet ink for colouration. Joe Public on the other hand may see this and think it's made from a combination of metals, plastics and rubbers. Sadly this is not the case. The thing is about as functional as your wife's figurine collection.

**Strength:** 3D printed parts are not as strong as traditionally-manufactured parts. Their layer-by-layer technique of manufacturing is both their biggest strength and their greatest weakness. In something like injection molding, you have a very even strength across the part, as the material is of a relatively consistent material structure. In 3D printing, you are building it in layers — this means that it has laminate weaknesses as the layers don't bond as well in the Z axis as they do in the X and Y plane. This is comparable to a Lego wall — you place all the bricks on top of each other, and press down: feels strong, but push the wall from the side and it breaks really easily. This of course is not a big deal though if you're only using the printed part as a pattern to get others cast off it.

**Cost:** Cost is based on material used, so big things are expensive, and small things are cheap. That's it. Nothing to do with complexity, and nothing to do with number of parts. The beauty of it is that there is no tooling — this opens up a world of opportunity to the designer and the creator, but does it really help people who just want a replacement tea cup? There is also no economy of scale, so if one item is \$X then a thousand items are 1000 x \$X. So, producing anything in bulk seems to be a waste of time.

**Speed:** Many people say that 3D printing is quick — this is another omission of a suffix — this time 'for manufacturing processes'. Items regularly take hours to print, even days. You can speed this up by making the layers thicker, but as soon as you do this, you lose your surface finish quality. People visualise a plastic item that is glossy and smooth. They don't visualise a matt finish with rough layer lines all over. Many companies offer a 'smooth' surface finish, but often neglect to add the suffix 'for 3D printing'. You can also post-process parts, but this generally involves labour and/or chemicals like acetone and loses detail and tolerance on parts. The notion of "but it'll get faster in the future" is not necessarily true, as we are limited by the chemical properties of materials such as ABS and PLY — these materials can only be extruded so fast and at such a rate before you start to destroy the properties of the part.

So you can see there are pros and cons, but for our purposes I think the pros far outweigh the cons. There is no doubt that if you cannot find that irreplaceable part, 3-D printing is a way to get that car on the road.

Rick McDonough

### The cars at Buxton Railway Station

I believe that elsewhere in this issue is a report on the Two Museums Tour, but just a follow-up on the surprise at Buxton Railway Station that awaited the arrival of the locomotive 2705. While we were unable to cross the tracks to inspect the two veteran cars that to our pleasure we found beside the station, we were able to get a few photographs of the rear of the cars. Steam trains and veteran cars are always a wonderful mix, but so rarely possible, and we were so near, and yet so far.

Members of our party gathered four or five deep at the open platforms on the ends of old carriages to get a glimpse of the cars, and to speculate as to what and why. I knew one to be a Hurtu, but Rick was heard to comment, "I think they might both be Hurtus." What a pity we were unable to get to take photos of the cars with the old locomotive.

The Picton-Buxton-Mittagong line has not been used as the main southern line since 1919, I am reliably advised. But despite the best will in the world, no other photograph or dialogue with the owners was possible, as crossing the line would have been a breach of regulations.

So upon return I began to track down the participants and try to establish the occasion. Surely they were not just there to welcome our party!

I rang ex-VCCA ACT member Martin McCarthy, now in NSW, to see if there was only one Hurtu in the VCCA NSW in the Buxton area. Dave Manhart owns the yellow car, a 4 cylinder 1913 model. So I contacted the Manhart home, and spoke with Dave's wife Enid Manhart. David was briefly in hospital and missed the event on that day. But I was advised by Enid that Dave had found the smaller car in Queensland many years ago. It had passed through several hands and nobody seemed game to begin the task. Dave too, was apparently not sure about beginning the task of restoring what was a trailer-load of assorted bits and pieces.

So, some 13 or 14 years ago, Dave gifted the components to Andrew Bishop, son of the Sydney VCCA NSW member Bill Bishop. (It was Bill's rare 40 HP vintage Napier that we saw at the Motor Museum at Dapto only an hour or so previously). Bill Bishop has restored several Veteran Napiers, from the time that Andy was a lad, and Dave was confident that Andy had the necessary skills in his genes to meet the daunting task. (Andy is Chief Engineer at the Temora Aircraft Museum.)

Dave's yellow 1913 Hurtu has been given to his son Phillip who for some years has lived in Christchurch New Zealand. It has become more difficult over the years for Dave to maintain the car. So sadly, this wonderful car was about to leave for New Zealand, but not before Andy and his dad Bill arranged with Dave and Phillip Manhart for the two cars to be photographed together before farewelling the later car.

It was purely coincidental that these cars were at Buxton when our tour party was there on the train. So unwittingly, we witnessed an historic occasion. I am not certain, but I think the small 1 cylinder car, or 1909/10 manufacture is the only one of its type in the world.

In deciding where best the cars could be photographed, the Trainworks Museum at Thirlmere was approached to establish when the locomotive would be in Buxton. And the date and place was set. Really wonderful coincidence, and an historic occasion.

Upon alighting from the train on our return, fellow RROCA member-Ken Baldwin called me over to meet our loco driver. None other than David Thurlow, another RROCA ACT member. I took a photo of Ken and David together, and David said it was a real pity he had not known I was on the train, for I could have been his guest on the loco footplate for the trip. David retires (once again) shortly after around 60 years of driving steam trains. His services to the Museum are totally without recompense.

## The Edwardian – December 2014

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And in case you did not hear on the day, it was this locomotive, 2705, that was leased by Cadbury's, with livery changed to Cadbury's mauve / purple, for it to feature in recent national TV advertisements. It was a part of the contract, that before it return to duties at the Rail Museum, it be repainted in its original black livery.

Finally, congratulations to Rick on his identification of both being Hurtus.

Ian Irwin

Photos below courtesy of Andy and Bill Bishop.



# The Edwardian – December 2014

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## MINUTES OF MEETING VETERAN AND VINTAGE CAR CLUB OF AUSTRALIA (ACT) 15 October 2014

**Meeting Opened:** 7.30pm

**Attendance:** 12 members, six apologies, one guest.

**Minutes of Last Meeting:**

Accepted - Moved: Geoff Nicholas: Seconded: Greg Spackman.

**SECRETARY'S REPORT**

**Correspondence In:**

- Council of ACT Motor Clubs – advice on new form for nomination of club registrars.
- OAMPS Insurance Brokers – public liability insurance certificate for 2014-15.
- Fuji Xerox – Statement and invoice for September 2014 - \$180.39.
- Horseless Carriage Club of America – renewal notice for the *Horseless Carriage Gazette* - \$US55.00.
- Various club magazines.

**Correspondence Out:**

- Peter McGregor – get well card.

Secretary's report accepted - Moved: Carol Nowak: Seconded: Barry Roberts.

**TREASURER'S REPORT**

**Balances**

Tabled and attached to records.

**Accounts for Payment**

- Fuji Xerox - \$180.39.
- Horseless Carriage Club of America - \$US55.00 ( Secretary to pay by credit card and seek reimbursement).

Treasurer's Report accepted - Moved,; Rick McDonough: Seconded: Geoff Nicholas.

**EDITOR'S REPORT**

Nil

**MEMBERSHIP SECRETARY'S REPORT**

Carol reported a total of 63 financial members.

**EVENTS REPORT**

Nick detailed coming events, including the November run to John Cadona's property, the December club dinner and Christmas breakfast. Ian spoke about arrangements the forthcoming bus trip to the Motorlife museum.

**LIBRARIANS' REPORT**

Wal agreed to retain the role of assistant librarian.

**DATING COMMITTEE REPORT**

The Committee has agreed on principles to be adopted for dating club vehicles. The next newsletter will canvass requests for dating.

**REGISTRARS' REPORT**

One new registration.

**RALLY REPORT**

Nick reported that entry forms for the 2015 rally will be included in rally packs provided to participants in the year's rally in Kalgoorlie. He also mentioned the availability of motel accommodation in Goulburn.

**GENERAL BUSINESS**

- Nick raised the need for a club rubber stamp. It was agreed that a stamp should be purchased at the cost of \$40.00. Moved Nick Nowak: Seconded: Don Doering.
- The meeting discussed advice from the Council of ACT Motor Clubs concerning compulsory third party insurance associated with concessional registration. This advice indicated that such insurance may be rendered void if the owner of the vehicle was not a financial member of a Council-affiliated club. The meeting agreed that notice of this fact should be provided when seeking out-standing membership subscriptions.
- Possibilities for the Club's annual weekend away were discussed.

# The Edwardian – December 2014

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- Nick mentioned the passing of Penn Bradley. He spoke of Penn's funeral held in Harden and contribution to the old car movement.

**Meeting Closed:** 8.28pm.

## MEETING ACTIVITY

Nil

## MINUTES OF MEETING VETERAN AND VINTAGE CAR CLUB OF AUSTRALIA (ACT) 19 November 2014

**Meeting Opened:** 7.30 pm

**Attendance:** 20 members, three apologies, one guest.

### Minutes of Last Meeting:

Accepted - Moved: Chris Hogan: Seconded: John Cadona.

### Correspondence In:

- Veteran Car Club of Australia (Vic) – advice that Andrew and Frances McDougall have been awarded the Lord Montague Trophy for 2014-15.
- Shannons – Cars and Coffee day to be held on Saturday 13 December 2014.
- Paul Sutton – invitation to the Terribly British Day 7 December 2014.
- Model T Ford Club of America – request for donations toward their museum.
- Fuji Xerox – October statement – nothing payable
- Various club magazines.

### Correspondence Out:

Nil

Secretary's report accepted - Moved: Nick Nowak: Seconded: David Robinson.

## TREASURER'S REPORT

### Balances

Tabled and attached to records.

### Accounts for Payment

Ian Irwin – expenses associated with bus trip \$78.00

Treasurers Report accepted - Moved, John Cadona: Seconded: John Ahern.

## EDITORS REPORT

Rick reported that the next newsletter is in preparation.

## EVENTS REPORT

Nick mentioned coming events, including Christmas dinner in lieu of the December meeting, Christmas breakfast on 14 December and something on the third Sunday in January 2015.

## RALLY REPORT

Rob reported that he and Nick were travelling to Goulburn to continue arrangements for the forthcoming rally.

## LIBRARIANS' REPORT

Nil.

## DATING COMMITTEE REPORT

The Dating Committee will meet next week.

## REGISTRARS' REPORT

The matter of the imposition of the lifetime insurance levy on concessional registrations will be taken up with the ACT Government by the Council of Motor Clubs.

## MEMBERSHIP SECRETARY'S REPORT

Carol reported a current club membership of 60. She also provided the numbers of club vehicles as:

- veteran restored; 28

# The Edwardian – December 2014

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- veteran unrestored; 12
- vintage restored; 42
- vintage unrestored; 22
- veteran motorcycle restored; 6
- veteran motorcycle unrestored; 1
- vintage motorcycle restored; 5
- vintage motorcycle unrestored; 1
- post vintage restored; 24
- post vintage unrestored 8

## GENERAL BUSINESS

- It was agreed that a January 2015 meeting should be held on the usual third Wednesday of the month.
- The meeting welcomed a new member – Mick Beltrame who has a 1925 Humber tourer.
- Nick reported that he now has the recently ordered club rubber stamps.

Recent event reports were from:

- John Ahearn on the Kalgoorlie veteran rally;
- Geoff on the Bathurst bike rally; and
- Nick on the Bendigo swap meet.

**Meeting Closed:** 8.03 pm.

## MEETING ACTIVITY

The meeting viewed a DVD of the Kalgoorlie rally provided by John Ahern.

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## The National Calendar

November 1- 6 2015	National Veteran Rally, Goulburn
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## The Club Calendar

Dec 14	Club Breakfast - Diddams Close Park – Lake Ginninderra
Dec 17	Weds - Club Christmas Dinner
Jan 18	BBQ at Woolleys

## RETREADS

‘Retyred’ members of many ACT Car Clubs meet informally for a light lunch at the Southern Cross Club Woden, at noon on the 1st Friday of each month. The group is known as “The Retreads”. Outings in their old cars are often arranged. The V&VCCA (ACT) recognises these outings as legitimate events for any of its members who wish to participate

## EVENTS DETAILS

### **Sunday 14<sup>th</sup> December 2014 – Club Breakfast** **Diddams Close Park – Lake Ginninderra**

It’s close to Christmas and that means it’s time to have our annual Club Breakfast. The Breakfast this year will be held at Diddams Close on the shores of Lake Ginninderra. Diddams Close is located off Ginninderra Drive, Belconnen some 500 metres after Aikman Drive and over a bridge. When you turn **Left** into Diddams Close you will shortly come to a “T” intersection. Turn **Right** and follow the road to the lovely park down by the lake. Breakfast will commence at 9am and the Club BBQ Trailer will be set

## The Edwardian – December 2014

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up so bring along your eggs, bacon, sausages etc. We will also have boiling water for tea and coffee. The area is nicely grassed but I suggest you throw in a chair or two as some of us, myself included, have a certain amount of trouble getting up off the ground. Toilets are nearby.  
Hope to see a lot of you there.

### **Wednesday 17<sup>th</sup> December 2014** **Club Christmas Dinner**

Christmas Dinner at the Emperor Court Chinese Restaurant in Yarralumla. The dinner is a banquet and will cost \$33 per head. We have a large number of members coming and it would be appreciated if you could arrive just before 7pm. The address is Bentham Street, Yarralumla (ie: Yarralumla Shops).  
BYO bottled wine only is permitted and corkage is \$5 per bottle. The restaurant is licensed and sells beer and wine. House wines can be purchased by the glass/carafe/half carafe.  
If you find you are able to make the evening and haven't let me know please do so immediately. I have to give management firm numbers a couple of days before the dinner.

### **Sunday 18<sup>th</sup> January 2015**

Our annual BBQ/get-together at Rob & Beth's place. BYO meat/grog and could you please bring along a salad to share. Also please throw in a chair. **The BBQ will commence at 5-30 to 6-00pm and Rob & Beth live at 51 Mileham Street, McGregor.** It's always a nice start to the New Year and I hope to see you there.

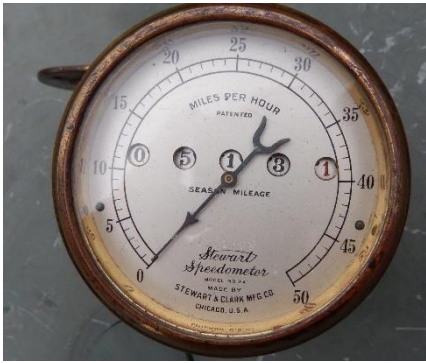
Wishing all members and their families a Merry Christmas and a great New Year.

Cheers Nick & Carol

### **And some upcoming events from the Council.....**

<b>Name of Event</b>	<b>Date</b>	<b>Location</b>	<b>Contact person</b>	<b>Contact details</b>
Mustang Gathering	22 Feb. 2015			
Capital All Ford Day	1 March 2015	East Lawns Old Parliament House	Dave Connolly 0437 500 757	FPV & XR Owners Club of ACT
Wheels 2015	8 March 2015	Kings Park	Richard Jackson 0429 140 746	Jackidi49@hotmail.com
Auto Italia	29 March 2015	Lawns at Old Parliament House	Peter Atkinson	www.autoitaliacanberra.com
Wheels of Wamboin	18 April 2015	Wamboin Community Hall on Bingley Way	Peter Evans	pe-ter.evans@wamboincommunity.asn.au

## For Sale/Wanted



Stewart Speedometer Model 24, c1911, complete with mounting bracket. In beautiful condition. Odometer shows 513 miles and wouldn't be surprised if this is all it's ever done. Needle moves smoothly when the drive end is spun manually. Face measures 85mm diam., and body is 75mm diam. \$450. Contact – Rick McDonough, 02 62931553 or [rick@netspeed.com.au](mailto:rick@netspeed.com.au)



Zenith 22mm carby. Has 22AC 2463 stamped into side of float bowl. Was fitted to an early De Dion. Note jet adjustment screws are bent. \$100. Contact – Rick McDonough, 02 62931553 or [rick@netspeed.com.au](mailto:rick@netspeed.com.au)

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1912 AUSTIN 10/12 FULLY RESTORED, fitted with 'Melbourne' two seater body and 'chaperone' seat. **\$35,000.00**

This quality four cylinder car was fully restored and completed in 2011 and has been dated 1912 by the Veteran Car Club of Australia (Queensland). An advanced car for its era the Austin has a 4 cylinder engine with five main bearings, water pump and fan and is fitted with a four speed gearbox. It has a footbrake on the transmission and an emergency brake on the rear wheels. The car is also fitted with a full matched set of Howe and Burley lights with kerosene tail and sidelights and acetylene headlights and a matching acetylene generator. It is upholstered in deep button studded black leather and has a tan cloth hood. A weather proof tonneau cover is also provided for travelling. A red cedar dashboard is complete with Austin speedometer, oil and air pressure gauges and a Smiths rim wind clock.



A large number of spare parts will be provided and the car comes with parts catalogue and other Austin literature of the day. Email me on [brumby1009@gmail.com](mailto:brumby1009@gmail.com) and I can forward an album of photos and other information. Mobile: 0418741036. Paul and Helen Blake, Pullenvale, Queensland, Australia



## The Edwardian – December 2014

For Sale - to sell the following unused new tyres. 1 only 4.50 x 19 Dunlop (Made in England) \$80, 1 only 5.00 x 23 Excelsior \$120. Murray McDonagh. Phone

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Queensland club member Neil Cox has relocated to New Zealand and is manufacturing Vasco tail lights. The present model is either kerosene or electric, ie either 6 or 12 volt stop and tail bulb. The lamp is made in brass with a cast machined mounting bracket on the rear. Side glasses are bevelled.

Dimensions are: Height to handle, 250mm; width 110mm; overall width incl. side windows 180mm; depth from front to spade bracket mounting 110mm; Diam. of red glass 75mm; side windows 45 x 90mm.

Key Factors: A white light on the numberplate; A red light to the rear; A tell-tale white light for the driver; Kerosene or electric 6-12volt tail stop; mounting either side of numberplate. Delivery within a few weeks of ordering. The price is \$NZ 450 plus freight. Contact: Neil Cox, Ph. (NZ) 03 578 3455

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**1928 WOLSELEY** 12/32 1200CC OHC Not running, needs some work and TLC. Car is located in Halls Head , Mandurah Asking price of \$7000:00 negotiable Contact: Terry Keillor Ph: 95812185 Mobile 0400193154

**1914 Trumbull** - restored with spares, some second hand, one and three quarter spare engines, recent new hood and side curtains, recent magneto rewind \$25,000 Ph: Carmel Gloyn 9458 2400 This Trumbull is one of only 2,000 ever made by the Trumbull Manufacturing Co, Ohio

USA during their brief 2 years of production. These were small cycle-cars powered by a water cooled 4 cylinder engine of 1.7 litres that offered 14/18HP. The wheel base measures 80inches by 44inches. This car being an early model, is RH drive and has a 3 speed gear box fitted directly in front of the differential.



In addition to its rarity, this car was owned by the late John Gloyn. John and his wife Carmel bought the Trumbull 30 years ago, from the eastern states, as a complete running car to use in club events when their Talbot broke a crankshaft. Eventually the Talbot was sold but the Gloyns kept the Trumbull because of its ability to comfortably run in combined section events; not only with the Veteran vehicles. It has been used regularly in various VCC events in the Gloyns ownership. There are 4 known Trumbulls in Australia. John described the Trumbull as "a lively performer in top gear" The Trumbull is fully restored and comes with many spare parts including two engines. The magneto has been recently rewound and the wet weather gear is new.



***May this Christmas end the present year  
on a cheerful note  
and make way for a fresh and Bright New  
Year.***



***Here's wishing all members of the Veteran  
and Vintage Car Club of the ACT a  
Merry Christmas and a Happy New Year!***

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